16 Voice Commands

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16.1 Voice Configuration Commands

16.1.1 Basic Voice Configuration Commands

16.1.1.1 debugging voice logserver

Function

Using the **debugging voice logserver** command, you can configure the IP address and port number of the log server, and the local IP address.

Format

debugging voice logserver ip *ip-address* **port** *port* **local-ip** *local-ip*

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Parameters

Parameter	Description	Value
ip *ip-address*	Specifies the IP address of the log server.	The value is a string of 1 to 64 characters.
port *port*	Specifies the port number of the log server.	The value is an integer that ranges from 0 to 65535.
local-ip *local-ip*	Specifies the local IP address.	The value is a string of 1 to 64 characters. The local IP address must be in the signaling IP address pool.

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

You can use this command to configure an IP address and a port number of the log server, and a local IP address, then use the Wireshark to capture logs.

Example

Configure the IP address and port number of the log server, and the local IP address.

```
<Huawei> system-view
[Huawei] diagnose
[Huawei-diagnose]debugging voice logserver ip 192.168.1.1 port 2000 local-ip 192.168.1.2
```

16.1.1.2 debugging voice module-name cmd

Function

The **debugging voice module-name cmd** command enables software debugging of each module.

Format

debugging voice module-name cmd *cmd-value* [**p1** *p1-value*] [**p2** *p2-value*] [**p3** p3-value] [**p4** p4-value] [**p5** *p5-value*] [**p6** *p6-value*]

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Parameters

Parameter	Description	Value
module-name	Specifies the voice module of the debugging messages.	Enumerated type. The values are as follows: • **at0** • **bill** • **billserver** • **bin** • **ccm** • **conference** • **db** • **dss1** • **error** • **h323** • **innertrace** • **lm** • **ms** • **nm** • **pbxmp** • **pbxomshl** • **r2** • **r2rs** • **rm** • **scm** • **sdb** • **sip** • **sipdlg** • **sipem** • **sipmsg** • **sippa** • **siptk** • **ssm** • **sys** • **tam** • **tbcm** • **tkh** • **tpa** • **trace** • **transfer** • **trc**

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Parameter	Description	Value
		• **uam** • **ucbincli** • **userlocation** • **vcm** • **vpm** • **vrm** • **vsppdt** • **ioee** • **vu**
cmd *cmd-value*	Specifies the command value.	The value is an integer that ranges from 0 to 65535.
p1 *p1-value*	Specifies the value of parameter 1.	The value is an integer that ranges from 0 to 4294967295.
p2 *p2-value*	Specifies the value of parameter 2.	The value is an integer that ranges from 0 to 4294967295.
p3 *p3-value*	Specifies the value of parameter 3.	The value is an integer that ranges from 0 to 4294967295.
p4 *p4-value*	Specifies the value of parameter 4.	The value is an integer that ranges from 0 to 4294967295.
p5 *p5-value*	Specifies the value of parameter 5.	The value is a string of 1 to 64 characters.
p6 *p6-value*	Specifies the value of parameter 6.	The value is a string of 1 to 64 characters.

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Enable software debugging for the CCM module.

```
<Huawei> system-view
[Huawei] diagnose
[Huawei-diagnose] debugging voice ccm cmd 0
```

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```
->CCM_DebugFunc: dwDebugCmd = 0, dwPara1 = 4294967295, dwPara2 = 4294967295, dwPara3 =
4294967295, dwPara4 = 4294967295
---------------------- CCM Debug Help ----------------------------------------
 0   : print debug help information .....command parmeters:[-]

---------------------- CCM Block Debug Help ---------------------------------
 1   : show All CCM control block In Used.....command parameters:[-]
 2   : show content of CCM control block .....command parameters:[p1:ccm no]

---------------------- CCM Timer Debug Help ---------------------------------
 11  : show timer switch of CCM .....command parameters:[-]
 12  : set timer switch of CCM .....command parameters:[-]
 13  : show timer length of CCM .....command parameters:[-]
 14  : set ccm timer length to default .....command parameters:[-]

---------------------- CCM Newservice Debug Help ----------------------------
 21   : show All ringsevice CB In Used.....command parameters:[-]
 22   : show info of ringsevice CB .....command parameters:[p1:ringservice no]
 23   : show PickupGroup Stack Info.....command parameters:[-]

---------------------- CCM Bill Debug Help ----------------------------------
 31   : generate bills.....command parameters:[P1:bills number(0-5000) P2-CCM No(0-132)]
 32   : show max number length the bill could display .....command parameters:[-]
 33   : modify max number length the bill could display ...command parameters:[p1:length]
 35   : show diameter info by ccm number.....command parameters:[p1:ccm no]
```

16.1.1.3 debugging voice module-name debug-level-value

Function

The **debugging voice module-name debug-level-value** command enables the debug log function for modules.

The **undo debugging voice module-name** command disables the debug log function for modules.

Format

debugging voice *module-name debug-level-value*

debugging voice msgtrace [**caller** *caller-telno*] *debug-level-value*

undo debugging voice *module-name*

undo debugging voice msgtrace

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Parameters

Parameter	Description	Value
module-name	Specifies the voice module of the debugging messages.	Enumerated type. The values are as follows: • **at0** • **bill** • **billserver** • **bin** • **cs** • **ccm** • **conference** • **db** • **dss1** • **error** • **h248dmm** • **h248sp** • **h248pa** • **h323** • **innertrace** • **l2ua** • **lm** • **ms** • **nm** • **pbxmp** • **pbxomshl** • **r2** • **r2rs** • **rm** • **scm** • **sdb** • **sip** • **sipbcm** • **sipcc** • **sipcom** • **sipcp** • **sipdlg** • **sipdmm** • **sipem** • **sipmp** • **sipmpc**

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Parameter	Description	Value
		• **sipmsg** • **sippa** • **sipsl** • **siptk** • **snm** • **ssm** • **sys** • **ioee** • **tam** • **tbcm** • **tkh** • **tpa** • **trace** • **transfer** • **trc** • **uam** • **ucbincli** • **userlocation** • **vcm** • **volc** • **vpm** • **vrm** • **vu**
debug-level-value	Specifies the debug log level.	The value can be **error**, **event**, **trace**, or **all**. • error: error level • event: event level • trace: trace level • all: all levels

Views

Diagnostic view

Default Level

3: Management level

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Usage Guidelines

None

Example

Enable the debug log function for the DSS1 module and set the debug log level to all.

```
<Huawei> system-view
[Huawei] diagnose
[Huawei-diagnose] debugging voice dss1 all
```

16.1.1.4 display voice configuration

Function

Using the **display voice configuration** command, you can view global voice parameters.

Format

display voice configuration

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

View global voice parameters.

```
<Huawei> display voice configuration
  Country                : China-mainland
  Stop initial ring      : Enable
  MWI mode               : FSK without ring
  Flash hook upper       : 1000 ms
  Flash hook lower       : 100 ms
  Park feed              : Disable
  PCM                    : a law
  Ring frequency         : 25HZ
  Ring ac amplitude      : 45Vrms
```

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Table 16-1 Description of the **display voice configuration** command output

Item	Description
Country	Region identifier. The following identifiers are supported: • brazil: Brazil version. • britain-msfuk: Britain MSFUK version. • britain-etsi: Britain ESTI version. • bulgaria: Bulgaria version. • china-hongkong: China Hongkong version. • china-mainland: China mainland version. • egypt: Egypt version. • france: France version. • singapore: Singapore version. • thailand: Thailand version.
Stop initial ring	Stop initial ring
MWI mode	MWI mode
Flash hook upper	Flash hook upper
Flash hook lower	Flash hook lower
Park feed	Park feed
PCM	PCM
Ring frequency	Ring frequency
Ring ac amplitude	Specifies a ringing voltage.

16.1.1.5 display voice debugging

Function

The **display voice debugging** command displays the voice debugging status.

Format

display voice debugging *module-name*

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Parameters

Parameter	Description	Value
module-name	Displays debugging messages of the specified voice module.	Enumerated type. The values are as follows: • at0 • bill • billserver • bin • ccm • conference • db • dss1 • h323 • innertrace • lm • ms • msgtrace • nm • pbxmp • pbxomshl • r2 • r2rs • rm • scm • sdb • sip • sipdlg • sipem • sipmsg • sippa • siptk • ssm • sys • tam • tbcm • tkh • tpa • trace • transfer • trc

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Parameter	Description	Value
		• uam • ucbincli • userlocation • vcm • vpm • vrm • vu • all

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

View debugging information about the DSS1 module.

```
<Huawei> display voice debugging dss1
 DSS1  current tracing is disabled.
```

16.1.1.6 display voice diagnostic-information

Function

The **display voice diagnostic-information** command displays the voice diagnostic information.

Format

display voice diagnostic-information

Parameters

None

Views

All view

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Default Level

3: Management level

Usage Guidelines

None

Example

Display the voice diagnostic information.

```
<Huawei> display voice diagnostic-information
 ============================================================
  ===============display voice service-mode===============
============================================================
 The voice service mode is PBX.
============================================================
  ===============display voice dsp statistic===============
============================================================
  Slotid/DSP-Index              11/2
  Total                        128
  Idle                         128
  G.711 busy                     0
  All busy                       0
  Wastage                        0
  Fault                          0
  Loop back                      0
  Prohibited                     0

  Sum of Sub-Board
  Total                        128
  Idle                         128
  G.711 busy                     0
  All busy                       0
  Wastage                        0
  Fault                          0
  Loop back                      0
  Prohibited                     0
============================================================
  ===============display voice dsp state 11/2===============
============================================================

  Symbol:
     0-idle $-G.711 busy A-All busy W-Wastage X-fault
     @-IP loopback *-PCM loopback #-prohibited

  Channel NO.  DSP channel state
  ------------------------------------------------------------------------
  0000-0049  00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
  0050-0099  00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
  0100-0127  00000 00000 00000 00000 00000 000

  Total:
     128 DSP channel
     128 idle, 0 G.711 Busy, 0 All Busy, 0 Wastage, 0 Fault,
     0   IP loopback, 0 PCM loopback, 0 prohibited
============================================================
```

16.1.1.7 display voice error

Function

The **display voice error** command displays error logs about latest call failures (including the current call).

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Format

display voice error

Parameters

None

Views

All view

Default Level

2: Configuration level

Usage Guidelines

When a call fails, run the **display voice error** command to view the error log to rapidly troubleshoot the call failures caused by incorrect configurations.

Example

Display error logs about latest call failures.

```
<Huawei> display voice error
<Huawei> 2016/03/30-14:08:23 AR[N@18][CCM:1]###### ERR: Callee number analysis failed,Please check the configuration of callprefix ######
<Huawei> 2016/03/30-14:08:30 AR[N@53][CCM:2]###### ERR: Callee number analysis failed,Please check the configuration of callprefix ######
```

16.1.1.8 display voice media-port

Function

The **display voice media-port** command displays the media port number range.

Format

display voice media-port

Parameters

None

Views

All views

Default Level

2: Configuration level

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Usage Guidelines

None

Example

Display the media port number range.

```
<Huawei> display voice media-port
 media-port start 59392 end 62724
```

Table 16-2 Description of the **display voice media-port** command output

Item	Description
media-port start 59392 end 62724	• Start port number • End port number

16.1.1.9 display voice mix-info

Function

The **display voice mix-info** command displays voice mixing information.

Format

display voice mix-info { **port** *slotid*|*dspindex*|*dspchannel* | **dsp** *slotid*|*subcardid*|*portid* }

Parameters

None

Views

All views

Default Level

2: Configuration level

Usage Guidelines

None

Example

Display voice mixing information.

```
<Huawei> display voice mix-info port 2/0/0
 media-port start 59392 end 62724
```

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Table 16-3 Description of the **display voice mix-info** command output

Item	Description
media-port start 59392 end 62724	• Start port number • End port number

16.1.1.10 display voice online-info

Function

The **display voice online-info** command displays current online user information on the device.

Format

display voice online-info [**callee** *callee-number* | **caller***caller-number*]

Parameters

Parameter	Description	Value
callee *callee-number*	Displays information about called parties.	The value is a string of 1 to 32 characters.
caller *caller-number*	Displays information about calling parties.	The value is a string of 1 to 32 characters.

Views

All views

Default Level

3: Management level

Usage Guidelines

None.

Example

Display the current online user information on the device.

```
<Huawei> display voice online-info
 Online User Number : 2
 Online Call Information:
 Call type          : INNER
 Caller Service      : NORMAL
 Caller type         : SIPUE
 Caller info         : 214
 Caller DSP          : 0/0/17
```

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```
Caller RTP           : 192.168.0.3:62565
Callee Service       : NORMAL
Callee type          : PSTN
Callee info          : 1/0/0
Callee DSP           : -
Callee RTP           : -
Callee CodecType     : G711U
Start time           : 2012-07-16 14:21:58
Call duration (s)    : 0:0:16

Codec                          : G711U
Packetization duration (ms)      : 20
Local IP address: port           : 192.168.0.3:62656
Remote IP address: port          : 192.168.0.1:10002
Total number of Rx RTP bytes     : 756
Total number of Tx RTP bytes     : 120000
Total number of Rx RTP packets   : 756
Total number of Tx RTP packets   : 750
Total number of lost RTP packets : 0
Maximum network jitter (ms)      : 29
Minimum network jitter (ms)      : 17
Maximum loop delay (ms)          : 0
Minimum loop delay (ms)          : 0
Maximum Drop packets Rate (%)    : 0
Minimum Drop packets Rate (%)    : 0
```

Table 16-4 Description of the display voice online-info command output

Item	Description
Online Users Number	Number of online users.
Call type	Call type. For details, see the parameter description in **16.5.1.5 call-type**.
Caller Service	Service type. For details, see the parameter description in **16.5.1.5 call-type**.
Caller type	Caller type.
Caller info	Caller terminal identifier.
Caller DSP	DSP used by the caller terminal.
Caller RTP	IP address and port number in RTP packets received and sent by the calling party.
Callee Service	Service type. For details, see the parameter description in **16.5.1.5 call-type**.
Callee type	Callee type.
Callee info	Callee terminal identifier.
Callee DSP	DSP used by the callee terminal.

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Item	Description
Callee RTP	IP address and port number in RTP packets received and sent by the called party.
Callee CodecType	Codec type: • G711U • G726 • G723 • G711A • G722 • G728 • G729 • G723Low • g726-16k • g726-24k • g726-32k • g726-40k • R2198 • R2833 • v150 • clearmode • T.38 • T.38+2
Start time	Start time of a call.
Call duration (s)	Duration in which a call lasts.
Codec	-
Packetization duration (ms)	-
Local IP address: port	Local IP address and port number.
Remote IP address: port	Remote IP address and port number.
Total number of Rx RTP bytes	Total number of bytes received by the local end.
Total number of Tx RTP bytes	Total number of bytes sent by the local end.
Total number of Rx RTP packets	Total number of packets received by the local end.
Total number of Tx RTP packets	Total number of packets sent by the local end.

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Item	Description
Total number of lost RTP packets	Total number of discarded RTP packets.
Maximum network jitter (ms)	-
Minimum network jitter (ms)	-
Maximum loop delay (ms)	-
Minimum loop delay (ms)	-
Maximum Drop packets Rate (%)	Maximum packet loss ratio.
Minimum Drop packets Rate (%)	Minimum packet loss ratio.

16.1.1.11 display voice run-stat

Function

display voice run-stat command displays running state information of voice module.

Format

display voice run-stat{ **call-info** | **dsp** | **port** | **proxy-rtp** | **rtp** | **user** }

Parameters

Parameter	Description	Value
call-info	Call-relevant port info	-
dsp	State of dsp channel	-
port	State of port	-
proxy-rtp	RTP port info of media proxy	-
rtp	RTP port info	-

Views

All views

Default Level

3: Management level

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Usage Guidelines

None.

Example

displays running state information of voice module

```
<Huawei> display voice run-stat call-info
 [DSP statistics]
  Total          DSP channel : 36
  Idle           DSP channel : 33
  Occupy         DSP channel : 1
  Fault          DSP channel : 0
  Waste          DSP channel : 2
  Prohibit       DSP channel : 0
  PCM loopback   DSP channel : 0
  IP loopback    DSP channel : 0

 [RTP port statistics]
  Total  RTP  port : 250
  Idle   RTP  port : 249
  Occupy RTP  port : 1
  Fault  RTP  port : 0

 [PORT statistics]
  Total  port      : 7
  Busy   port      : 0
  Idle   port      : 7
  Fault  port      : 0
  Locked port      : 0
  Other  port      : 0

 [Proxy RTP port statistics]
  Total  RTP  port : 250
  Idle   RTP  port : 250
  Occupy RTP  port : 0
```

Table 16-5 Description of the **display voice run-stat call-info** command output

Item	Description
[DSP statistics]	DSP statistics
Total DSP channel	Total DSP channel number
Idle DSP channel	Idle DSP channel number
Occupy DSP channel	Occupy DSP channel number
Fault DSP channel	Fault DSP channel number
Waste DSP channel	Waste DSP channel number
Prohibit DSP channel	Prohibit DSP channel number
PCM loopback DSP channel	PCM loopback DSP channel number
IP loopback DSP channel	IP loopback DSP channel number
[RTP port statistics]	RTP port statistics
Total RTP port	Total RTP port number

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Item	Description
Idle RTP port	Idle RTP port number
Occupy RTP port	Occupy RTP port number
Fault RTP port	Fault RTP port number
[PORT statistics]	PORT statistics
Total port	Total port number
Busy port	Busy port number
Idle port	Idle port number
Fault port	Fault port number
Locked port	Locked port number
Other port	Other port number
[Proxy RTP port statistics]	Proxy RTP port statistics
Total RTP port	Total RTP port number
Idle RTP port	Idle RTP port number
Occupy RTP port	Occupy RTP port number

16.1.1.12 display voice service-mode

Function

Using the **display voice service-mode** command, you can view the voice service mode.

Format

display voice service-mode

Parameters

None

Views

All views

Default Level

3: Management level

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Usage Guidelines

The default voice service mode is SIPAG. When configuring voice functions, you must specify the voice service mode.

Example

View the current voice service mode.

```
<Huawei> display voice service-mode
 The voice service mode is PBX.
```

Table 16-6 Description of the **display voice service-mode** command output

Item	Description
The voice service mode is PBX.	Voice service mode. The device supports the following service modes: • H248AG • SIP AG • PBX

16.1.1.13 display voice sip-reg-count-per-second

Function

The **display voice sip-reg-count-per-second** command displays the number of SIP register messages sent every second.

Format

display voice sip-reg-count-per-second

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

None.

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Example

Display the number of SIP register messages sent every second.

```
<Huawei> display voice sip-reg-count-per-second
 Sip register message count per second is 10!
```

16.1.1.14 display voice trace

Function

The **display voice trace** command displays the latest log information about call failures, including error and call logs.

Format

display voice trace

Parameters

None

Views

All views

Default Level

2: Configuration level

Usage Guidelines

When a call fails, run the **display voice trace** command to view the call log to rapidly troubleshoot call failures.

Example

Display call logs about latest call failures, including error and call logs.

```
<Huawei> display voice trace
<Huawei> 2016/03/30-14:08:23 AR[N@18][CCM:1]###### ERR: Callee number analysis failed,Please check
the configuration of callprefix ######
<Huawei> 2016/03/30-14:08:30 AR[N@53][CCM:2]###### ERR: Callee number analysis failed,Please check
the configuration of callprefix ######
<Huawei> 2016/03/30-14:08:30 AR[N@49]------[CCM     :    2]  <-- SETUP            --  [UAM     ]
<Huawei> 2016/03/30-14:08:30 AR[N@50]------[CCM     :    2]  -- SETUP_ACK         -->  [UAM     ]
<Huawei> 2016/03/30-14:08:30 AR[N@51]------[CCM     :    2]  <-- INFORMATION       --  [UAM     ]
<Huawei> 2016/03/30-14:08:30 AR[N@52]------[CCM     :    2]  caller(2003) called(69****412)
<Huawei> 2016/03/30-14:08:30 AR[N@53][CCM:2]###### ERR: Callee number analysis failed,Please check
the configuration of callprefix ######
<Huawei> 2016/03/30-14:08:30 AR[N@54]------[CCM     :    2]  -- RELEASE           -->  [UAM     ]
<Huawei> 2016/03/30-14:08:30 AR[N@55]------[UAM-SIP :    2]  <-- SETUP_ACK         --  [CCM     ]
<Huawei> 2016/03/30-14:08:30 AR[N@56]------[UAM-SIP :    2]  <-- RELEASE           --  [CCM     ]
<Huawei> 2016/03/30-14:08:30 AR[N@57]------[CCM     :    2]  <-- RELEASE_COMPLETE   --  [UAM     ]
```

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16.1.1.15 display voice upgrade-info

Function

The **display voice upgrade-info** command displays the configuration that fails to be upgraded after version upgrade.

Format

display voice upgrade-info

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

After version upgrade, you can run the **display voice upgrade-info** command to view the configuration that fails to be upgraded.

Example

Display upgrade information.

```
<Huawei> system-view
[Huawei]display voice upgrade-info
[Upgrade-info: Upgrade unsuccessful command]
telno country-code 86 area-code 571 telno-value 6005
[Upgrade-info: End]
```

16.1.1.16 display voice voip-address

Function

Using the **display voice voip-address** command, you can view the configuration of the signaling IP address pool and media IP address pool.

Format

display voice voip-address

Parameters

None

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Views

All views

Default Level

3: Management level

Usage Guidelines

The **display voice voip-address** command shows the configuration of the signaling IP address pool and media IP address pool.

Example

Display the configuration of the signaling IP address pool and media IP address pool.

```
<Huawei> display voice voip-address

 IP type         : Media IP
 Method           : Static
 Interface       : GigabitEthernet0/0/1
 IP address       : 192.168.1.1

 IP type         : Signal IP
 Method           : Static
 Interface       : GigabitEthernet0/0/1
 IP address       : 192.168.1.1
```

Table 16-7 Description of the display voice voip-address command output

Item	Description
IP type	IP address pool type: • Media IP: media IP address pool • Signal IP: signaling IP address pool
Method	Mode in which an IP address pool is configured: • Static: The IP address pool is configured statically. • dynamic: The IP address pool is allocated dynamically.
Interface	Interface where an IP address pool is configured.
IP address	IP addresses in an IP address pool.

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16.1.1.17 eid-para signalling (PBX user view)

Function

Using the **eid-para signalling** command, you can set the signaling type for a PBX user on a BRA port.

Using the **undo eid-para signalling** command, you can restore the default signaling type of a PBX user on a BRA port.

By default, the signaling type of a PBX user on a BRA port is Digital Subscriber Signalling System No. 1 (DSS1).

Format

eid-para signalling *sigtype*

undo eid-para signalling

Parameters

Parameter	Description	Value
sigtype	Specifies the signaling type.	The value can be: • dss1 • qsig

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

You need to configure the signaling type only for PBX users on a BRA port:

- When the device functions as a user-side device and uses DSS1 to connect to a network, set the signaling type to **dss1**.
- When the device functions as a user-side device and uses Q signaling (QSIG) to connect to a network, set the signaling type to **qsig**.

Example

Set the signaling type of a PBX user to QSIG.

```
<system-view> system-view
[Huawei] voice
[Huawei-voice] pbxuser jack
[Huawei-voice-pbxuser-jack] eid-para signalling qsig
```

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16.1.1.18 flash-hook lower

Function

Using the **flash-hook lower** command, you can set the lower threshold for hookflash pressing.

Using the **undo flash-hook lower** command, you can restore the default lower threshold for hookflash pressing.

By default, the lower threshold for hookflash pressing is 100 ms.

Format

flash-hook lower *lower-value*

undo flash-hook lower

Parameters

Parameter	Description	Value
lower-value	Specifies the lower hookflash threshold.	The value is an integer that ranges from 50 to 1400, in milliseconds. **NOTE** The value of *lower-value* plus 50 cannot be larger than the value of *upper-value*.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

The hookflash can be pressed by a calling party or a called party:

- Hookflash pressed by a called party: If the called party user A wants to transfer an incoming call to user B or another phone, user A can press the hookflash and dial the number of user C.
- Hookflash pressed by a calling party: User A calls user B. User B answers the call and talks with user A. User A can press the hookflash and dial the number of user C after hearing a special dial tone.

After user A presses the hookflash, if user C is busy or does not respond for a long period of time, user A can press the hookflash and talk with user B. If the phone of user C rings, user A hangs up and user B hears the ringback tone. User C picks

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up the phone and talks with user B. Whether a called party can be transferred to a toll call is restricted by the outgoing right of the called party.

The hookflash function can support the multi-party call service that users on a local network apply for, such as call waiting, call hold, three-party service, and call conference. Centrex users can call only users in the Centrex group.

Example

Set the lower threshold for hookflash pressing to 200 ms on the device.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] flash-hook lower 200
```

16.1.1.19 flash-hook upper

Function

Using the **flash-hook upper** command, you can set the upper threshold for hookflash pressing.

Using the **undo flash-hook upper**command, you can restore the default upper threshold for hookflash pressing.

By default, the upper threshold for hookflash pressing is 350 ms.

Format

flash-hook upper *upper-value*

undo flash-hook upper

Parameters

Parameter	Description	Value
upper-value	Specifies the upper threshold for hookflash pressing.	The value is an integer ranging from 50 to 1400, in milliseconds. **NOTE** The value that ranges from 100 to 1400 is supported by AR129CGVM-L.

Views

Voice view

Default Level

2: Configuration level

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Usage Guidelines

The hookflash can be pressed by a calling party or a called party:

- Hookflash pressed by a called party: If the called party user A wants to transfer an incoming call to user B or another phone, user A can press the hookflash and dial the number of user C.
- Hookflash pressed by a calling party: User A calls user B. User B answers the call and talks with user A. User A can press the hookflash and dial the number of user C after hearing a special dial tone.

After user A presses the hookflash, if user C is busy or does not respond for a long period of time, user A can press the hookflash and talk with user B. If the phone of user C rings, user A hangs up and user B hears the ringback tone. User C picks up the phone and talks with user B. Whether a called party can be transferred to a toll call is restricted by the outgoing right of the called party.

The hookflash function can support the multi-party call service that users on a local network apply for, such as call waiting, call hold, three-party service, and call conference. Centrex users can call only users in the Centrex group.

Example

Set the upper threshold for hookflash pressing to 1200 ms on the device.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] flash-hook upper 1200
```

16.1.1.20 load voice-package

Function

The **load voice-package** command loads the voice prompt file.

Format

load voice-package *filename*

Parameters

Parameter	Description	Value
filename	Specifies the voice prompt file to be loaded.	The value is a string of 1 to 64 case-insensitive characters. The file name extension is .res or .cc. The recommended format is drive name:/directory name/file name, for example, flash:/voicepacket.res.

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Views

User view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

A prompt tone is the voice prompt heard by the calling and called users when the calling user initiates a call. For example, when the calling user calls the called user, the calling user hears the prompt tone indicating that the called user is busy. A voice prompt file stores all voice prompt tones.

The system software has the default voice prompt file. Voice prompt tone rules and services (including three-way conversation, three-party service, teleconference, call transfer, and call waiting) have different usage scenarios in different countries. You can customize the voice prompt file according to service requirements. To make the voice prompt voice file take effect immediately, run the **load voice-package** command to load the files. After loading the voice prompt file, run the **display startup** command to check the loaded voice prompt file according to the Startup voice-files field.

Prerequisites

Before loading the voice prompt file, perform the following operations:

1. Make the voice prompt file and generate a file with file name extension .res or .cc.

   NOTE

   For details about generating the voice prompt file with file name extension .res or .cc, contact technical support personnel.

2. Upload or download the voice prompt file to the device's memory.

Precautions

- When you use the **load voice-package** command to load the voice prompt file, the file take effect immediately after being loaded and the voice prompt file for next startup is modified.
- To restore the default English language, run the **load voice-package** command to load the system software package (.cc file) used for the current startup.

Example

Load voice prompt file **voicepacket.res**.

```
<Huawei> load voice-package voicepacket.res
 Info: Succeeded in activating the file
<Huawei> display startup
 MainBoard:
  Startup system software:                flash:/ar_v2r2c00.cc
  Next startup system software:            flash:/ar_v2r2c00.cc
```

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```
Backup system software for next startup:   null
Startup saved-configuration file:          flash:/vrpcfg.zip
Next startup saved-configuration file:     flash:/vrpcfg.zip
Startup license file:                    null
Next startup license file:                 null
Startup patch package:                     null
Next startup patch package:                null
Startup voice-files:                     flash:/voicepacket.res
Next startup voice-files:                  flash:/voicepacket.res
```

16.1.1.21 media-port

Function

The **media-port** command configures a media port number range.

The **undo media-port** command restores the default values of media port number range.

By default, the system allocates a media port number range.

Format

media-port start *start-port-value* **end** *end-port-value*

undo media-port

Parameters

Parameter	Description	Value
start *start-port-value*	Specifies the start media port number.	The value is an integer that ranges from 1025 to 65535. Compatible with older versions whose range for this port value is from 1025 to 65535. **NOTE** Four media port numbers constitute a group, so the start media port number must be a multiple of 4.
end *end-port-value*	Specifies the end media port number.	The value is an integer that ranges from 1025 to 65532.Compatible with older versions whose range for this port value is from 1025 to 65535. **NOTE** Four media port numbers constitute a group, so the end media port number must be a multiple of 4.

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Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

M indicates the maximum number of online users and N indicates the start media port number (N + M*4 <= 65535).

Example

Set the media port number range to 54000-64000.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] media-port start 54000 end 64000
```

16.1.1.22 mwi-mode

Function

Using the **mwi-mode** command, you can set the message waiting indicator (MWI) mode.

Using the **undo mwi-mode** command, you can restore the default MWI mode.

By default, the MWI mode is **fsk-without-ring**, in which the FSK is sent but no ring message is sent.

Format

mwi-mode { **fsk-with-ring** | **fsk-without-ring** }

undo mwi-mode

Parameters

Parameter	Description	Value
fsk-with-ring	Indicates that the FSK and a ring message are sent.	-
fsk-without-ring	Indicates that the FSK is sent but no ring message is sent.	-

Views

Voice view

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Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the MWI mode to **fsk-with-ring**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] mwi-mode fsk-with-ring
```

16.1.1.23 pcm

Function

Using the **pcm** command, you can set the codec mode for voice services.

Using the **undo pcm** command, you can restore the default codec mode for voice services.

By default, the codec mode for voice services is A law.

Format

pcm { **a-law** | **u-law** }

undo pcm

Parameters

Parameter	Description	Value
a-law	Indicates the a-law algorithm.	-
u-law	Indicates the u-law algorithm.	-

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

G.711 defines two compression algorithms: A-law algorithm and u-law algorithm. G.711, also known as Pulse Code Modulation (PCM), is a commonly used

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waveform codec. G.711 uses a sampling rate of 8,000 samples per second. Non-uniform quantization (logarithmic) with 8 bits is used to represent each sample, resulting in a 64 kbit/s bit rate.

G.711 defines two main compression algorithms, the μ-law algorithm (used in North America and Japan) and A-law algorithm (used in Europe and the rest of the world). A-law encoding takes a 13-bit signed linear audio sample as input. μ-law encoding takes a 15-bit signed linear audio sample as input.

Example

Set the codec mode to u-law on the device.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pcm u-law
```

16.1.1.24 park-feed

Function

Using the **park-feed** command, you can enable the device to reduce the feed on locked ports or disable this function.

Using the **undo park-feed** command, you can cancel the configuration.

By default, the device reduces the feed on locked ports.

Format

park-feed { **enable** | **disable** }

undo park-feed

Parameters

None

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

The **park-feed enable** command configures the system to reduce the feed on a Foreign Exchange Station (FXS) port when the port is locked.

NOTE

This function takes effect only for FXS ports.

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Example

Disable the device from reducing the feed on locked FXS ports.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] park-feed disable
```

16.1.1.25 save tracelog

Function

The **save tracelog** command saves logs in the error log buffer and call log buffer to the **tracelog.zip** file in the flash memory of the device.

Format

save tracelog

Parameters

None

Views

All views

Default Level

2: Configuration level

Usage Guidelines

When a call fails, it is slow to generate error and call logs on the console interface. You can run the **save tracelog** command to save error and call logs in the log buffer to the **flash:/tracelog.zip** file. Technical personnel can export the logs from the device to rapidly troubleshoot the call failure.

Example

Save logs in the error log buffer and call log buffer to the **tracelog.zip** file in the flash memory of the device.

```
<Huawei> save tracelog
```

16.1.1.26 service-mode

Function

Using the **service-mode** command, you can set the voice operation mode.

By default, the voice operation mode is SIPAG mode.

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Format

service-mode { **h248ag** | **sipag** | **pbx**}

Parameters

Parameter	Description	Value
h248ag	Indicates the H248AG mode.	-
sipag	Indicates the SIP AG mode.	-
pbx	Indicates the PBX mode.	-

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

Before configuring voice functions, you must specify the voice operation mode on the device.

After running the **service-mode** command to switch the voice operation mode of the device, save the configuration and run the **reboot** command in the user view to restart the device.

Example

Set the service mode to PBX.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] service-mode PBX
 The modification takes effect only after you save the data and reboot the device.
[Huawei-voice] quit
[Huawei] quit
<Huawei> save
  The current configuration will be written to the device.
  Are you sure to continue? (y/n)[n]:y
  It will take several minutes to save configuration file, please wait.....
  Configuration file had been saved successfully
  Note: The configuration file will take effect after being activated
<Huawei> reboot
```

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16.1.1.27 sip-reg-count-per-second

Function

The **sip-reg-count-per-second** command sets the number of SIP register messages sent every second.

The **undo sip-reg-count-per-second** command restores the default number of SIP register messages sent every second.

By default, five SIP register messages are sent every second.

Format

sip-reg-count-per-second *reg-count-value*

undo sip-reg-count-per-second

Parameters

Parameter	Description	Value
reg-count-value	Specifies the number of SIP register messages sent every second.	The value is an integer that ranges from 1 to 1024.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Set the number of SIP register messages sent every second to 3.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip-reg-count-per-second 3
```

16.1.1.28 startup voice-package

Function

The **startup voice-package** command specifies the voice prompt file for next startup.

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Format

startup voice-package *filename*

Parameters

Parameter	Description	Value
filename	Specifies the voice prompt file for next startup.	The value is a string of 1 to 64 case-insensitive characters. The file name extension is .res or .cc. The recommended format is drive name:/directory name/file name, for example, flash:/voicepacket.res.

Views

User view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

A prompt tone is the voice prompt heard by the calling and called users when the calling user initiates a call. For example, when the calling user calls the called user, the calling user hears the prompt tone indicating that the called user is busy. A voice prompt file stores all voice prompt tones.

The system software has the default voice prompt file. Voice prompt tone rules and services (including three-way conversation, three-party service, teleconference, call transfer, and call waiting) have different usage scenarios in different countries. You can customize the voice prompt file according to service requirements. To make the current voice prompt file continue to take effect and the new voice prompt file file take effect during next startup, run the **startup voice-package** command to specify the voice prompt file for next startup. After loading the voice prompt file, run the **display startup** command to check the loaded voice prompt file according to the Next startup voice-files field.

Prerequisites

Before loading the voice prompt file, perform the following operations:

1. Make the voice prompt file and generate a file with file name extension .res or .cc.

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NOTE

For details about generating the voice prompt file with file name extension .res or .cc, contact technical support personnel.

2. Upload or download the voice prompt file to the device's memory.

Follow-up Procedure

To make the configuration take effect, run the **reboot** command in the user view to restart the device.

Example

Specify the voice prompt file **voicepacket.res** for next startup.

```
<Huawei> startup voice-package flash:/voicepacket.res
 This operation will take several minutes, please wait.....................
 ..
 Info: Succeeded in setting the file for booting system
<Huawei> display startup
 MainBoard:
  Startup system software:                 flash:/ar_v2r2c00.cc
  Next startup system software:             flash:/ar_v2r2c00.cc
  Backup system software for next startup:   null
  Startup saved-configuration file:         flash:/vrpcfg.zip
  Next startup saved-configuration file:     flash:/vrpcfg.zip
  Startup license file:                   null
  Next startup license file:                null
  Startup patch package:                    null
  Next startup patch package:               null
  Startup voice-files:                    null
  Next startup voice-files:                 flash:/voicepacket.res
```

16.1.1.29 voice

Function

Using the **voice** command, you can enter the voice view.

Format

voice

Parameters

None

Views

System view

Default Level

2: Configuration level

Usage Guidelines

Voice configurations can be performed only in the voice view.

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Example

Enter the voice view.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]
```

16.1.1.30 voip-address media

Function

Using the **voip-address media** command, you can assign a media IP address pool to an interface.

Using the **undo voip-address media** command, you can delete the media IP address pool of an interface.

Format

voip-address media interface *interface-type interface-number* { *ip-address* | **dynamic** }

undo voip-address media interface *interface-type interface-number* { *ip-address* | **dynamic** }

Parameters

Parameter	Description	Value
interface *interface-type interface-number*	Specifies the type and number of an interface.	-
ip-address	Specifies an IP address.	The value is in dotted decimal notation.
dynamic	Obtains IP addresses dynamically.	-

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

When configuring a media IP address pool:

- To specify the *ip-address* parameter, ensure that an IP address has been configured for the specified interface.

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- To specify the **dynamic** parameter, ensure that an IP address has been dynamically assigned to the specified interface.

Example

Assign the media IP address pool 192.168.1.1 to GigabitEthernet 0/0/0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] voip-address media interface GigabitEthernet 0/0/0 192.168.1.1
```

Related Topics

16.1.1.31 voip-address signalling

16.1.1.31 voip-address signalling

Function

Using the **voip-address signalling** command, you can assign a signaling IP address pool to an interface.

Using the **undo voip-address signalling** command, you can delete the signaling IP address pool of an interface.

Format

voip-address signalling interface *interface-type interface-number* { *ip-address* | **dynamic** }

undo voip-address signalling interface *interface-type interface-number* { *ip-address* | **dynamic** }

Parameters

Parameter	Description	Value
interface *interface-type interface-number*	Specifies the type and number of an interface.	-
ip-address	Specifies an IP address.	The value is in dotted decimal notation.
dynamic	Obtains IP addresses dynamically.	-

Views

Voice view

Default Level

2: Configuration level

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Usage Guidelines

When configuring a signaling IP address pool:

- To specify the *ip-address* parameter, ensure that an IP address has been configured for the specified interface.
- To specify the **dynamic** parameter, ensure that an IP address has been dynamically assigned to the specified interface.

Example

Assign the signaling IP address pool 192.168.1.1 to GigabitEthernet 0/0/0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] voip-address signalling interface GigabitEthernet 0/0/0 192.168.1.1
```

Related Topics

16.1.1.30 voip-address media

16.1.1.32 voip-vpn-instance

Function

The **voip-vpn-instance** command specifies a VPN instance used by voice services.

The **undo voip-vpn-instance** command deletes the VPN instance used by voice services.

By default, no VPN instance is specified to be used by voice services.

Format

voip-vpn-instance *vpn-instance-name*

undo voip-vpn-instance

Parameters

Parameter	Description	Value
vpn-instance-name	Specifies the name of a VPN instance.	The VPN instance must already exist.

Views

Voice view

Default Level

2: Configuration level

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Usage Guidelines

Usage Scenario

When the interfaces to which specified media IP addresses and signaling IP addresses belong are bound to a VPN instance, you can run the **voip-vpn-instance** command in the voice view to specify the VPN instance to be used by voice services.

Prerequisites

- The VPN instance used by voice services can be configured only when the router works in PBX mode. By default, a router works in PBX mode. If the router does not work in PBX mode, run the **service-mode** command in the voice view to change the work mode of the router to PBX.
- Before running the **voip-vpn-instance** command, run the **ip vpn-instance** command to create a VPN instance.

Precautions

- After a VPN instance is specified to be used by voice services, reset the SIP server and SIP trunk group.
- In the voice view, you can specify only one VPN instance to be used by voice services.

Example

Specify the VPN instance vpn1 to be used by voice services.

```
<Huawei> system-view
[Huawei] ip vpn-instance vpn1
[Huawei-vpn-instance-vpn1] ipv4-family
[Huawei-vpn-instance-vpn1-af-ipv4] route-distinguisher 22:1
[Huawei-vpn-instance-vpn1-af-ipv4] quit
[Huawei-vpn-instance-vpn1] quit
[Huawei] voice
[Huawei-voice] voip-vpn-instance vpn1
```

Related Topics

12.9.35 ip vpn-instance

16.1.1.30 voip-address media

16.1.1.31 voip-address signalling

16.1.1.33 undo logserver

Function

Using the **undo logserver** command, you can disable the port for communicating with the log server to stop sending logs to the log server.

Format

undo logserver

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Parameters

None

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Disable the port for communicating with the log server to stop sending logs to the log server.

```
<Huawei> system-view
[Huawei] diag
[Huawei-diagnose]undo logserver
```

16.1.2 Clip Configuration Commands

16.1.2.1 clip offhook ack-fsk-interval

Function

Using the **clip offhook ack-fsk-interval** command, you can set the interval between the time when the ACK message is received and the time when the frequency-shift keying (FSK) is transmitted in offhook state.

Using the **undo clip offhook ack-fsk-interval** command, you can restore the default interval.

By default, the interval between the time when the ACK message is received and the time when the FSK is transmitted in offhook state is 50 ms.

Format

clip offhook ack-fsk-interval *ack-fsk-interval*

undo clip offhook ack-fsk-interval

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Parameters

Parameter	Description	Value
ack-fsk-interval	Specifies the interval between the time when the ACK message is received and the time when the FSK is transmitted in offhook state.	The value is an integer that ranges from 0 to 1000, in milliseconds. The default value is 50.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the interval between the time when the ACK message is received and the time when the FSK is transmitted in offhook state to 200 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip offhook ack-fsk-interval 200
```

16.1.2.2 clip offhook dtas-ack-interval

Function

Using the **clip offhook dtas-ack-interval** command, you can set the maximum duration between the time when the dual tone-alerting signal (DT-AS) is transmitted and the time when the ACK message is received in offhook state.

Using the **undo clip offhook dtas-ack-interval** command, you can restore the default maximum duration.

By default, the maximum duration is 160 ms.

Format

clip offhook dtas-ack-interval *dtas-ack-interval*

undo clip offhook dtas-ack-interval

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Parameters

Parameter	Description	Value
dtas-ack-interval	Specifies the maximum duration between the time when the DT-AS is transmitted and the time when the ACK message is received in offhook state.	The value is an integer that ranges from 0 to 1000, in milliseconds. The default value is 160 ms.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the maximum duration between the time when the DT-AS is transmitted and the time when the ACK message is received in offhook state to 500 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip offhook dtas-ack-interval 500
```

16.1.2.3 clip offhook dtas-duration

Function

Using the **clip offhook dtas-duration** command, you can set the duration of the dual tone-alerting signal (DT-AS) in offhook state.

Using the **undo clip offhook dtas-duration** command, you can restore the default duration of the DT-AS in offhook state.

By default, the duration of the DT-AS in offhook state is 80 ms.

Format

clip offhook dtas-duration *dtas-dur-value*

undo clip offhook dtas-duration

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Parameters

Parameter	Description	Value
dtas-dur-value	Specifies the duration of the DT-AS in offhook state.	The value is an integer ranging from 0 to 1000, in milliseconds. The default value is 80.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the duration of the DT-AS in offhook state to 200 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip offhook dtas-duration 200
```

16.1.2.4 clip offhook dtas-level

Function

Using the **clip offhook dtas-level** command, you can configure the level of the dual tone-alerting signal (DT-AS) in offhook state.

Using the **undo clip offhook dtas-level** command, you can restore the default level of the DT-AS in offhook state.

By default, the level of the DT-AS in offhook state is 10, that is, -15.5 dBm0.

Format

clip offhook dtas-level *dtas-level*

undo clip offhook dtas-level

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Parameters

Parameter	Description	Value
dtas-level	Specifies the level of the DT-AS in offhook state.	The value is an integer that ranges from 0 to 15. The value 0 indicates -5.5 dBm0 and the value 15 indicates -20.5 dBm0. The step is 1 dBm0. The default value is 10.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the level of the DT-AS in offhook state to 15 (-20.5 dBm0).

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip offhook dtas-level 15
```

16.1.2.5 clip offhook fsk-level

Function

Using the **clip offhook fsk-level** command, you can configure the level of the frequency-shift keying (FSK) in offhook state.

Using the **undo clip offhook fsk-level** command, you can restore the default level of the FSK in offhook state.

By default, the level of the FSK in offhook state is 3, that is, -8.5 dBm0.

Format

clip offhook fsk-level *fsk-level*

undo clip offhook fsk-level

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Parameters

Parameter	Description	Value
fsk-level	Specifies the level of the FSK in offhook state.	The value is an integer that ranges from 0 to 15. The value 0 indicates -5.5 dBm0 and the value 15 indicates -20.5 dBm0. The step is 1 dBm0. The default value is 3.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the level of the FSK in offhook state to 15 (-20.5 dBm0).

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip offhook fsk-level 15
```

16.1.2.6 clip offhook mark-signal-bit

Function

Using the **clip offhook mark-signal-bit** command, you can set the number of bits of the FSK synchronization mask in offhook state.

Using the **undo clip offhook mark-signal-bit** command, you can restore the default number of bits of the FSK synchronization mask in offhook state.

By default, the number of bits of the FSK synchronization mask in offhook state is 80.

Format

clip offhook mark-signal-bit *mark-signal-bit*

undo clip offhook mark-signal-bit

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Parameters

Parameter	Description	Value
mark-signal-bit	Specifies the number of bits of the FSK synchronization mask in offhook state.	The value is an integer that ranges from 0 to 1000. The default value is 80.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the number of bits of the FSK synchronization mask in offhook state to 200 on the device.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip offhook mark-signal-bit 200
```

16.1.2.7 clip onhook channel-seize-bit

Function

Using the **clip onhook channel-seize-bit** command, you can set the number of bits seized by a channel in onhook state.

Using the **undo clip onhook channel-seize-bit** command, you can restore the default number of bits seized by a channel in onhook state.

By default, the number of bits seized by a channel in onhook state is 300.

Format

clip onhook channel-seize-bit *channel-seize-bit*

undo clip onhook channel-seize-bit

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Parameters

Parameter	Description	Value
channel-seize-bit	Specifies the number of bits seized by a channel in onhook state.	The value is an integer that ranges from 0 to 1000. The default value is 300.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the number of bits seized by a channel in onhook state to 500 on the device.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip onhook channel-seize-bit 500
```

16.1.2.8 clip onhook dtas-duration

Function

Using the **clip onhook dtas-duration** command, you can set the duration of the DT-AS in onhook state.

Using the **undo clip onhook dtas-duration** command, you can restore the default duration of the DT-AS in onhook state.

By default, the duration of the DT-AS in onhook state is 100 ms.

Format

clip onhook dtas-duration *dtas-dur-value*

undo clip onhook dtas-duration

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Parameters

Parameter	Description	Value
dtas-dur-value	Specifies the duration of the DT-AS in onhook state.	The value is an integer ranging from 0 to 1000, in milliseconds. The default value is 100.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the duration of the DT-AS in onhook state to 500 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip onhook dtas-duration 500
```

16.1.2.9 clip onhook dtas-fsk-interval

Function

Using the **clip onhook dtas-fsk-interval** command, you can set the interval between the time when the DT-AS is transmitted and the time when the FSK is transmitted in onhook state.

Using the **undo clip onhook dtas-fsk-interval** command, you can restore the default interval between the time when the DT-AS is transmitted and the time when the FSK is transmitted in onhook state.

By default, the interval between the time when the DT-AS is transmitted and the time when the FSK is transmitted in onhook state is 250 ms.

Format

clip onhook dtas-fsk-interval *dtas-fsk-interval*

undo clip onhook dtas-fsk-interval

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Parameters

Parameter	Description	Value
dtas-fsk-interval	Specifies the interval between the time when the DT-AS is transmitted and the time when the FSK is transmitted in onhook state.	The value is an integer ranging from 0 to 1000, in milliseconds. The default value is 250.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the interval between the time when the DT-AS is transmitted and the time when the FSK is transmitted in onhook state to 500 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip onhook dtas-fsk-interval 500
```

16.1.2.10 clip onhook dtas-level

Function

Using the **clip onhook dtas-level** command, you can configure the level of the DT-AS in onhook state.

Using the **undo clip onhook dtas-level** command, you can restore the default level of the DT-AS in onhook state.

By default, the level of the DT-AS in onhook state is 3, that is, -8.5 dBm0.

Format

clip onhook dtas-level *dtas-level*

undo clip onhook dtas-level

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Parameters

Parameter	Description	Value
dtas-level	Specifies the level of the DT-AS in onhook state.	The value is an integer that ranges from 0 to 15. The value 0 indicates -5.5 dBm0 and the value 15 indicates -20.5 dBm0. The step is 1 dBm0. The default value is 3.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the level of the DT-AS in onhook state to 15 (-20.5 dBm0).

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip onhook dtas-level 15
```

16.1.2.11 clip onhook fsk-level

Function

Using the **clip onhook fsk-level** command, you can configure the level of the FSK in onhook state.

Using the **undo clip onhook fsk-level** command, you can restore the default level of the FSK in onhook state.

By default, the level of the FSK in onhook state is 3, that is, -8.5 dBm0.

Format

clip onhook fsk-level *fsk-level*

undo clip onhook fsk-level

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Parameters

Parameter	Description	Value
fsk-level	Specifies the level of the FSK in onhook state.	The value is an integer that ranges from 0 to 15. The value 0 indicates -5.5 dBm0 and the value 15 indicates -20.5 dBm0. The step is 1 dBm0. The default value is 3.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the level of the FSK in onhook state to 15 (-20.5 dBm0).

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip onhook fsk-level 15
```

16.1.2.12 clip onhook mark-signal-bit

Function

Using the **clip onhook mark-signal-bit** command, you can set the number of bits of the FSK synchronization mask in onhook state.

Using the **undo clip onhook mark-signal-bit** command, you can restore the default number of bits of the FSK synchronization mask in onhook state.

By default, the number of bits of the FSK synchronization mask in onhook state is 180.

Format

clip onhook mark-signal-bit *marksignal-bit*

undo clip onhook mark-signal-bit

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Parameters

Parameter	Description	Value
marksignal-bit	Specifies the number of bits of the FSK synchronization mask in onhook state.	The value is an integer that ranges from 0 to 1000. The default value is 180.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the number of bits of the FSK synchronization mask in onhook state to 600.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip onhook mark-signal-bit 600
```

16.1.2.13 display voice clip

Function

Using the **display voice clip** command, you can view Calling Line Identification Presentation (CLIP) parameters.

Format

display voice clip

Parameters

None

Views

All views

Default Level

3: Management level

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Usage Guidelines

None

Example

Display CLIP parameters on the device.

```
<Huawei> display voice clip
 CLIP onhook parameters:
  DTAS level                 : -8.5dBm0
  FSK level                  : -8.5dBm0
  Channel seize bit          : 300
  Mark signal bit            : 180
  DTAS FSK interval(ms)      : 250
  DTAS duration(ms)          : 100

 CLIP offhook parameters:
  DTAS level                 : -15.5dBm0
  FSK level                  : -8.5dBm0
  Mark signal bit            : 80
  DTAS ack interval(ms)      : 160
  Ack FSK interval(ms)       : 50
  DTAS duration(ms)          : 80
```

Table 16-8 Description of the display voice clip command output

Item	Description
CLIP onhook parameters	CLIP parameters in onhook state.
DTAS level	Level of the DT-AS.
FSK level	Level of the FSK.
Channel seize bit	Number of bits seized by a channel.
Mark signal bit	Number of bits of the FSK synchronization mask.
DTAS FSK interval	Interval between the time when the DT-AS is transmitted and the time when the FSK is transmitted.
DTAS duration	Duration of the DT-AS.
CLIP offhook parameters	CLIP parameters in offhook state.
Ack FSK interval	Interval between the time when the ACK message is received and the time when the FSK is transmitted.
DTAS ack interval	Maximum duration between the time when the DT-AS is transmitted and the time when the ACK message is received.

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16.1.3 Ring Configuration Commands

16.1.3.1 display voice user-defined-ring

Function

Using the **display voice user-defined-ring** command, you can view the user-defined ring information.

Format

display voice user-defined-ring [*ring-index*]

Parameters

Parameter	Description	Value
ring-index	Specifies the index of a user-defined ring.	The value is an integer that ranges from 0 to 15.

Views

All views

Default Level

3: Management level

Usage Guidelines

If *ring-index* is not specified, information about all user-defined rings is displayed.

Example

Display information about user-defined ring 1.

```
<Huawei> display voice user-defined-ring 1
      First-ring(ms)  Second-ring(ms) Third-ring(ms)
 Index Ring   Interval  Ring  Interval  Ring  Interval
 1     0      0         0     0         0     0
```

Display information about user-defined rings.

```
<Huawei> display voice user-defined-ring
       First-ring(ms)  Second-ring(ms) Third-ring(ms)
 Index Ring   Interval  Ring  Interval  Ring  Interval
 0     0      0         0     0         0     0
 1     0      0         0     0         0     0
 2     0      0         0     0         0     0
 3     0      0         0     0         0     0
 4     0      0         0     0         0     0
 5     0      0         0     0         0     0
 6     0      0         0     0         0     0
 7     0      0         0     0         0     0
```

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```
8    0     0       0    0       0    0
9    0     0       0    0       0    0
10   0     0       0    0       0    0
11   0     0       0    0       0    0
12   0     0       0    0       0    0
13   0     0       0    0       0    0
14   0     0       0    0       0    0
15   0     0       0    0       0    0
```

Table 16-9 Description of the display voice user-defined-ring command output

Item	Description
Index	Index of the user-defined ring.
First-ring	Duration of the first ring tone.
Second-ring	Duration of the second ring tone.
Third-ring	Duration of the third ring tone.
Ring	Ringing duration.
Interval	Duration after ringing stops.

16.1.3.2 ring frequency

Function

Using the **ring frequency** command, you can set the frequency of the ringing current.

Using the **undo ring frequency** command, you can restore the default frequency of the ringing current.

By default, the frequency of the ringing current is 25 Hz.

Format

ring frequency { **16hz** | **25hz** | **50hz** }

undo ring frequency

Parameters

Parameter	Description	Value
16hz	Indicates that the frequency of the ringing current is 16 Hz.	-
25hz	Indicates that the frequency of the ringing current is 25 Hz.	-

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Parameter	Description	Value
50hz	Indicates that the frequency of the ringing current is 50 Hz.	-

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

A higher frequency of the ringing current indicates a sharper ring tone.

Example

Set the frequency of the ringing current on the device to 16 Hz.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] ring frequency 16hz
```

16.1.3.3 ring voltage

Function

The **ring voltage** command configures the ringing voltage.

The **undo ring voltage** command restores the default ringing voltage.

By default, the ringing voltage is 45 Vrms. On the AR169FVW-8S, the default ringing voltage is 50 Vrms.

Format

ring voltage *voltage-value*

undo ring voltage

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Parameters

Parameter	Description	Value
voltage-value	Specifies a ringing voltage.	Enumerated type. The value can be: • 65 Vrms • 53 Vrms • 50 Vrms • 45 Vrms **NOTE** Only 129CGVW-L, AR129CVW and AR129CV support 53 Vrms.

Views

Voice views

Default Level

2: Configuration level

Usage Guidelines

When the default ringing voltage cannot meet requirements, you can run the **ring voltage** command to change the ringing voltage as required. You can run the **display voice configuration** command to verify the current ringing voltage configured on a device.

Example

Set the ringing voltage to 50 Vrms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] ring voltage 50Vrms
```

Related Topics

16.1.1.4 display voice configuration

16.1.3.4 stop-initial-ring enable

Function

Using the **stop-initial-ring enable** command, you can disable the initial ringing function.

Using the **stop-initial-ring disable** command, you can enable the initial ringing function.

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Using the **undo stop-initial-ring** command, you can restore the default initial ringing function.

By default, the initial ringing function is disabled.

Format

stop-initial-ring { **enable** | **disable** }

undo stop-initial-ring

Parameters

None

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable the initial ringing function on the device.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] stop-initial-ring disable
```

16.1.3.5 user-defined-ring

Function

Using the **user-defined-ring** command, you can set the cadence ratio of the specified user-defined ring type.

Using the **undo user-defined-ring** command, you can delete the cadence ratio of the specified user-defined ring type.

Format

user-defined-ring *ring-index* { **first-ring** *first-ring-period* | **first-interval** *first-interval* | **second-ring** *second-ring-period* | **second-interval** *second-interval* | **third-ring** *third-ring-period* | **third-interval** *third-interval* }*

undo user-defined-ring *ring-index* { **first-ring** | **first-interval** | **second-ring** | **second-interval** | **third-ring** | **third-interval** }*

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Parameters

Parameter	Description	Value
ring-index	Specifies the index of the user-defined ring type.	The value is an integer that ranges from 0 to 15.
first-ring *first-ring-period*	Specifies the duration of the first ring tone.	The value can be 0 or an integer that ranges from 200 to 12750, in milliseconds. The value 0 indicates that the first ring tone is canceled.
first-interval *first-interval*	Specifies the duration after the first ring stops.	The value can be 0 or an integer that ranges from 200 to 12750, in milliseconds.
second-ring *second-ring-period*	Specifies the duration of the second ring tone.	The value can be 0 or an integer that ranges from 200 to 12750, in milliseconds.
second-interval *second-interval*	Specifies the duration after the second ring stops.	The value can be 0 or an integer that ranges from 200 to 12750, in milliseconds.
third-ring *third-ring-period*	Specifies the duration of the third ring tone.	The value can be 0 or an integer that ranges from 200 to 12750, in milliseconds.
third-interval *third-interval*	Specifies the duration after the third ring stops.	The value can be 0 or an integer that ranges from 200 to 12750, in milliseconds.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

You can set different ring types based on the ringing duration.

The **ring-mode** command can reference the cadence ratio configured by the **user-defined-ring** command. The *cadencering-value* values 128 to 143 in the **ring-mode** command correspond to *index* values 0 to 15 in the **user-defined-ring**.

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The *initialring-value* values 144 to 159 in the **ring-mode** command correspond to *index* values 0 to 15 in the **user-defined-ring** command.

The device supports the following combinations:

- 1-segment ringing: **first-ring**
- 2-segment ringing: **first-ring** + **first-interval**
- 4-segment ringing: **first-ring** + **first-interval** + **second-ring** + **second-interval**
- 6-segment ringing: **first-ring** + **first-interval** + **second-ring**+**second-interval** + **third-ring** + **third-interval**

Example

Configure user-defined ring 0 as 6-segment ringing and set the cadence ratio to 200:200:200:200:200:200.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] user-defined-ring 0 first-ring 200 first-interval 200 second-ring 200 second-interval 200 third-ring 200 third-interval 200
```

16.1.4 Upward-bandwidth Configuration Commands

16.1.4.1 display voice media-bandwidth-control

Function

Using the **display voice media-bandwidth-control** command, you can view the call restriction configuration when the uplink bandwidth is insufficient.

Format

display voice media-bandwidth-control

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

You can run the **display voice media-bandwidth-control** command only after the **media-bandwidth-control enable** command is executed to enable the call restriction function when the uplink bandwidth is insufficient.

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Example

Display the call restriction configuration when the uplink bandwidth is insufficient.

```
<Huawei> display voice media-bandwidth-control
 Upward bandwidth                        : disable
 The maximum upward bandwidth            : 100000 kbit/s
 The reserved bandwidth for emergency call : 1000 kbit/s
 The used normal bandwidth               : 0 kbit/s
 The used bandwidth for emergency call   : 0 kbit/s
```

Table 16-10 Description of the display voice upward-bandwidth command output

Item	Description
Upward bandwidth	Whether call restriction is enabled when the uplink bandwidth is insufficient. • enable: call restriction is enabled when the uplink bandwidth is insufficient. • disable: call restriction is disabled when the uplink bandwidth is insufficient.
The maximum upward bandwidth	Maximum uplink bandwidth.
The reserved bandwidth for emergency call	Reserved bandwidth for emergency calls.
The used normal bandwidth	Used bandwidth.
The used bandwidth for emergency call	Used bandwidth for emergency calls.

16.1.4.2 media-bandwidth-control enable

Function

Using the **media-bandwidth-control enable** command, you can enable the call restriction function when the uplink bandwidth is insufficient or disable this function.

Using the **media-bandwidth-control disable** command, you can cancel the configuration.

By default, the call restriction function is disabled when the uplink bandwidth is insufficient.

Format

media-bandwidth-control enable

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media-bandwidth-control disable

Parameters

None

Views

Trunk-group view or sipserver view

Default Level

2: Configuration level

Usage Guidelines

Before running the **16.1.4.3 media-bandwidth-control max-bandwidth** command to set the maximum uplink bandwidth, you must run the **media-bandwidth-control enable** command.

Example

Enable the call restriction function when the uplink bandwidth is insufficient.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] media-bandwidth-control enable
```

16.1.4.3 media-bandwidth-control max-bandwidth

Function

Using the **media-bandwidth-control max-bandwidth** command, you can set the maximum uplink bandwidth.

Using the **undo media-bandwidth-control max-bandwidth** command, you can restore the default maximum uplink bandwidth.

By default, the maximum uplink bandwidth is 100000 kbit/s.

Format

media-bandwidth-control max-bandwidth *max-bandwidth*

undo media-bandwidth-control max-bandwidth

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Parameters

Parameter	Description	Value
max-bandwidth	Specifies the maximum uplink bandwidth.	The value is an integer that ranges from 1 to 5000, in 100 kbit/s. The default value is 1000, that is, 100000 kbit/s.

Views

trunk-group view or sipserver view

Default Level

2: Configuration level

Usage Guidelines

Before running the **media-bandwidth-control max-bandwidth** command, you must run the **media-bandwidth-control enable** command to enable the call restriction function when the uplink bandwidth is insufficient.

When the common bandwidth is overloaded, calls of common users are rejected. Emergency calls can be resumed within the range of the reserved bandwidth. (Common bandwidth = Maximum uplink bandwidth - Reserved bandwidth for emergency calls)

NOTE

Even if the remaining bandwidth is insufficient, the system allows the last call to be connected.

Example

Set the maximum uplink bandwidth to 90000 kbit/s.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]sipserver
[Huawei-voice-sipserver]media-bandwidth-control enable
[Huawei-voice-sipserver]media-bandwidth-control max-bandwidth 900
```

16.1.5 Sip Stack Configuration Commands

16.1.5.1 display voice sip

Function

Using the **display voice sip** command, you can view the configuration of Session Initiation Protocol (SIP) parameters.

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Format

display voice sip

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display the configuration of SIP parameters on the device.

```
<Huawei> display voice sip
 SIP stack parameter & timers:
  Server header field                    :
  Organization header field              :
  User-agent header field                :
  Max-forwards header field              : 70
  Headline folding flag                  : Disable
  T1 timer(ms)                           : 500
  T2 timer(ms)                           : 4000
  T4 timer(ms)                           : 5000
  TD timer(ms)                           : 32000
  Min-SE timer(s)                        : 90
  Session progress timer(s)              : 180
  Session reliable progress timer(s)     : 60
  Entity based session timer flag        : Disable
  To header strict check flag            : Disable
```

Table 16-11 Description of the display voice sip command output

Item	Description
SIP stack parameter & timers	SIP stack parameter and values of timers.
Server header field	Value of the Server header field.
Organization header field	Value of the Organization header field.
User-agent header field	Value of the User-agent header field.
Max-forwards header field	Value of the Max-forwards header field.

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Item	Description
Headline folding flag	Header folding flag in the authentication header field.
Entity based session timer flag	Whether the session timer defined by RFC 4028 based on the user agent (UA) is started.
T1 timer(ms)	T1 timer, which defines the estimated round-trip timer (RTT) time. For details, see RFC 3261.
T2 timer(ms)	T2 timer, which defines the maximum interval at which non-INVITE request messages and INVITE response messages are retransmitted. For details, see RFC 3261.
T4 timer(ms)	T4 timer, which defines the maximum duration a message will remain on a network. For details, see RFC 3261.
TD timer(ms)	TD timer, which defines the waiting time for retransmitting response messages. For details, see RFC 3261.
Min-SE timer(s)	Minimum value for the session interval. For details, see RFC 4028.
Session progress timer(s)	Unreliable provisional response retransmission timer, which determines the frequency for retransmitting unreliable provisional responses. For details, see RFC 3261.
Session reliable progress timer(s)	Reliable provisional response retransmission timer, which determines the frequency for retransmitting reliable provisional responses. For details, see RFC 3261.
To header strict check flag	Whether the To header field of the SIP protocol is strictly checked.

16.1.5.2 entity-based-sessions-timer

Function

Using the **entity-based-sessions-timer** command, you can enable the session timer defined by RFC4028 based on the UA or disable this function.

undo entity-based-sessions-timer command, you can disable the session timer defined by RFC4028 based on the UA.

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By default, the session timer defined by RFC4028 based on the UA is disabled.

Format

entity-based-sessions-timer { **enable** | **disable** }

undo entity-based-sessions-timer

Parameters

None

Views

SIP view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable the session timer defined by RFC4028 based on the UA.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] entity-based-sessions-timer enable
```

16.1.5.3 field-header max-forwards

Function

Using the **field-header max-forwards** command, you can set the value of the Max-forwards header field.

Using the **undo field-header max-forwards** command, you can restore the default value of the Max-forwards header field.

By default, the value of the Max-forwards header field is 70.

Format

field-header max-forwards *max-forwards-value*

undo field-header max-forwards

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Parameters

Parameter	Description	Value
max-forwards-value	Specifies the value of the Max-forwards header field.	The value is an integer that ranges from 0 to 255.

Views

SIP view

Default Level

2: Configuration level

Usage Guidelines

The settings of header fields must comply with RFC3261.

Example

Set the value of the Max-forwards header field to 90.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] field-header max-forwards 90
```

16.1.5.4 field-header organization

Function

Using the **field-header organization** command, you can set the value of the Organization header field.

Using the **undo field-header organization** command, you can restore the default value of the Organization header field.

By default, the value of the Organization header field is empty.

Format

field-header organization *organization-head*

undo field-header organization

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Parameters

Parameter	Description	Value
organization-head	Specifies the value of the Organization header field.	The value is a string of 1 to 64 characters. **NOTE** If the hyphen (-) is entered, the value of the Organization header field is deleted.

Views

SIP view

Default Level

2: Configuration level

Usage Guidelines

The settings of header fields must comply with RFC3261.

Example

Set the value of the Organization header field in the SIP stack to OrganizationTemp.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] field-header organization OrganizationTemp
```

16.1.5.5 field-header server

Function

Using the **field-header server** command, you can set the value of the Server header field.

Using the **undo field-header server** command, you can restore the default value of the Server header field.

By default, the value of the Server header field is empty.

Format

field-header server *server-head*

undo field-header server

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Parameters

Parameter	Description	Value
server-head	Specifies the value of the Server header field.	The value is a string of 1 to 64 characters. **NOTE** If the hyphen (-) is entered, the value of the Server header field is deleted.

Views

SIP view

Default Level

2: Configuration level

Usage Guidelines

The settings of header fields must comply with RFC3261.

Example

Set the value of the Server header field in the SIP stack to HuaweiServerV2.0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] field-header server huaweiserverv2.0
```

16.1.5.6 field-header user-agent

Function

Using the **field-header user-agent** command, you can set the value of the User-agent header field.

Using the **undo field-header user-agent** command, you can restore the default value of the User-agent header field.

By default, the value of the User-agent header field is empty.

Format

field-header user-agent *user-agent-head*

undo field-header user-agent

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Parameters

Parameter	Description	Value
user-agent-head	Specifies the value of the User-agent header field.	The value is a string of 1 to 64 characters. **NOTE** If the hyphen (-) is entered, the value of the User-agent header field is deleted.

Views

SIP view

Default Level

2: Configuration level

Usage Guidelines

The settings of header fields must comply with RFC3261.

Example

Set the value of the User-agent header field in the SIP stack to SoftPhone V2.0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] field-header user-agent softphoneV2.0
```

16.1.5.7 header-folding

Function

Using the **header-folding** command, you can enable header folding in the authentication header field or disable this function.

Using the **undo header-folding** command, you can cancel the configuration.

By default, header folding in the authentication header field is disabled.

Format

header-folding { enable | disable }

undo header-folding

Parameters

None

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Views

SIP view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable header folding in the authentication header field.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] header-folding enable
```

16.1.5.8 min-se

Function

Using the **min-se** command, you can set the minimum value of the session timer.

Using the **undo min-se** command, you can restore the default minimum value of the session timer.

By default, the minimum value of the session timer is 90s.

Format

min-se *min-se-period*

undo min-se

Parameters

Parameter	Description	Value
min-se-period	Specifies the minimum value of the session timer.	The value is an integer that ranges from 90 to 86400, in seconds. The default value is 90.

Views

SIP view

Default Level

2: Configuration level

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Usage Guidelines

None

Example

Set the minimum value of the session timer to 90s.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] min-se 90
```

16.1.5.9 session-progress

Function

Using the **session-progress** command, you can set the value of the unreliable provisional response retransmission timer.

Using the **undo session-progress** command, you can restore the default value of the unreliable provisional response retransmission timer.

By default, the value of the unreliable provisional response retransmission timer is 180s.

Format

session-progress *session-progress-period*

undo session-progress

Parameters

Parameter	Description	Value
session-progress-period	Specifies the value of the unreliable provisional response retransmission timer.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 180.

Views

SIP view

Default Level

2: Configuration level

Usage Guidelines

None

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Example

Set the value of the unreliable provisional response retransmission timer to 90s.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] session-progress 90
```

16.1.5.10 session-rel-progress

Function

Using the **session-rel-progress** command, you can set the value of the reliable provisional response retransmission timer.

Using the **undo session-rel-progress** command, you can restore the default value of the reliable provisional response retransmission timer.

By default, the value of the reliable provisional response retransmission timer is 60s.

Format

session-rel-progress *session-rel-progress-period*

undo session-rel-progress

Parameters

Parameter	Description	Value
session-rel-progress-period	Specifies the value of the reliable provisional response retransmission timer.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 60.

Views

SIP view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the value of the reliable provisional response retransmission timer to 90s.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] sip
[Huawei-voice-sip] session-rel-progress 90
```

16.1.5.11 sip

Function

Using the **sip** command, you can enter the SIP view.

Format

sip

Parameters

None

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

SIP stack parameters are set in the SIP view.

Example

Enter the SIP view.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip]
```

16.1.5.12 to-header-check-flag

Function

The **to-header-check-flag** command enables or disables strict check on the To header in SIP.

Using the **undo to-header-check-flag** command, you can cancel the configuration.

By default, strict check on the To header in SIP is disabled.

Format

to-header-check-flag { **enable** | **disable** }

undo to-header-check-flag

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Parameters

None

Views

SIP view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable strict check on the To header in SIP.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] to-header-check-flag enable
```

16.1.5.13 t1

Function

Using the **t1** command, you can set the value of the T1 timer.

Using the **undo t1** command, you can restore the default value of the T1 timer.

By default, the value of the T1 timer is 500 ms.

Format

t1 *t1-period*

undo t1

Parameters

Parameter	Description	Value
t1-period	Specifies the value of the T1 timer.	The value is an integer that ranges from 200 to 10000, in milliseconds. The default value is 500 ms.

Views

SIP view

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Default Level

2: Configuration level

Usage Guidelines

The T1 timer defines the estimated round-trip timer (RTT) time.

Example

Set the value of the T1 timer to 1000 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] t1 1000
```

16.1.5.14 t2

Function

Using the **t2** command, you can set the value of the T2 timer.

Using the **undo t2** command, you can restore the default value of the T2 timer.

By default, the value of the T2 timer is 4000 ms.

Format

t2 *t2-period*

undo t2

Parameters

Parameter	Description	Value
t2-period	Specifies the value of the T2 timer.	The value is an integer that ranges from 200 to 10000, in milliseconds. The default value is 4000 ms.

Views

SIP view

Default Level

2: Configuration level

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Usage Guidelines

The T2 timer defines the maximum interval at which non-INVITE request messages and INVITE response messages are retransmitted.

Example

Set the value of the T2 timer to 1000 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] t2 1000
```

16.1.5.15 t4

Function

Using the **t4** command, you can set the value of the T4 timer.

Using the **undo t4** command, you can restore the default value of the T4 timer.

By default, the value of the T4 timer is 5000 ms.

Format

t4 *t4-period*

undo t4

Parameters

Parameter	Description	Value
t4-period	Specifies the value of the T4 timer.	The value is an integer that ranges from 200 to 10000, in milliseconds. The default value is 5000 ms.

Views

SIP view

Default Level

2: Configuration level

Usage Guidelines

The T4 timer defines the maximum duration a message will remain on a network.

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Example

Set the value of the T4 timer to 6000 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] t4 6000
```

16.1.5.16 td

Function

Using the **td** command, you can set the value of the TD timer.

Using the **undo td** command, you can restore the default value of the TD timer.

By default, the value of the TD timer is 32000 ms.

Format

td *td-period*

undo td

Parameters

Parameter	Description	Value
td-period	Specifies the value of the TD timer.	The value is an integer that ranges from 0 to 300000, in milliseconds. The default value is 32000 ms. **NOTE** If UDP is used, the value must be greater than or equal to 32000. If TCP/SCTP is used, the value is 0.

Views

SIP view

Default Level

2: Configuration level

Usage Guidelines

The TD timer defines the waiting time for retransmitting response messages.

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Example

Set the value of the TD timer to 60000 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] td 60000
```

16.1.6 Dsp Configuration Commands

16.1.6.1 display voice dsp state

Function

The **display voice dsp state** command displays the status of a digital signal processor (DSP) or DSP channel.

Format

display voice dsp state { *slot/dsp-index* | **channel***slot/dsp-index/channel* }

Parameters

Parameter	Description	Value
slot/dsp-index	Specifies the slot ID and index of a DSP.	The value is a string of 1 to 15 case-insensitive characters. For example, if the slot ID is 0 and the DSP index is 0, the value is 0/0.
channel*slot/dsp-index/channel*	Specifies the slot ID, DSP index, and DSP channel index.	The value is a string of 1 to 15 case-insensitive characters. For example, if the slot ID is 0, the DSP index is 0, and the DSP index is 5, the value is 0/0/5.

Views

All views

Default Level

3: Management level

Usage Guidelines

None

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Example

Display the status of DSP 0/0.

```
<Huawei> display voice dsp state 0/0

Symbol:
   0-idle $-G.711 busy A-All busy W-Wastage X-fault
   @-IP loopback *-PCM loopback #-prohibited

Channel NO.  DSP channel state
------------------------------------------------------------------------
0000-0035  00000 00000 00000 00000 00000 00000 00000 0

Total:
   36  DSP channel
   36  idle, 0 G.711 Busy, 0 All Busy, 0 Wastage, 0 Fault,
   0   IP loopback, 0 PCM loopback, 0 prohibited
```

Table 16-12 Description of the display voice dsp state command output

Item	Description
0-idle	0 indicates that the DSP channel is in idle state.
$-G.711	$ indicates that the DSP channel works in G.711 codec state.
A-All busy	A indicates that the DSP channel works in non-G.711 codec state, such as the G.729 and G.723 codec state.
W-Wastage	W indicates that the the DSP channel is in wastage state, for example, G.729 codec may consume extra DSP channels.
X-fault	X indicates that the DSP channel is in faulty state, and a call cannot be connected through the DSP channel.
@-IP loopback	@ indicates that the DSP channel works in IP loopback state.
*-PCM loopback	* indicates that the DSP channel works in PCM loopback state.
#-prohibited	# indicates that the DSP channel is in prohibited state.
Channel NO	Number of a channel.
DSP channel state	DSP channel status displayed in graphs.

The AR150/200 series has the DSP chip. The following figure lists the maximum number of calls supported by the DSP chip in each codec state and packetization duration.

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Table 16-13 Maximum number of calls supported by the AR150/200 series DSP chip in each codec state and packetization duration

Codec	5 ms	10 ms	20 ms	30 ms	40 ms	50 ms	60 ms
G.711	8	8	8	8	8	8	8
G723	-	-	-	8	-	-	8
G726	-	8	8	8	8	8	8
G729	-	8	8	8	8	8	8

The AR1200 series has the DSP chip. The following figure lists the maximum number of calls supported by the DSP chip in each codec state and packetization duration.

Table 16-14 Maximum number of calls supported by the AR1200 series DSP chip in each codec state and packetization duration

Codec	5 ms	10 ms	20 ms	30 ms	40 ms	50 ms	60 ms
G.711	32	32	32	32	32	32	32
G723	-	-	-	12	-	-	12
G726	-	12	12	12	12	12	12
G729	-	32	32	32	32	32	32

A DSP slot on the AR2200 and AR3200 series supports up to 128-channel DSP chip. The following figure lists the maximum number of calls supported by the DSP chip in each codec state and packetization duration.

Table 16-15 Maximum number of calls supported by the 128-channel DSP chip in each codec state and packetization duration

Codec	5 ms	10 ms	20 ms	30 ms	40 ms	50 ms	60 ms
G.711	32	72	128	128	128	72	128
G723	-	-	-	36	-	-	36
G726	-	36	48	48	48	48	48
G729	-	32	32	32	32	32	32

NOTE

AR2201 and AR2202 do not support the voice feature because they have no DSP slot.

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16.1.6.2 display voice dsp statistic

Function

Using the **display voice dsp statistic** command, you can view the DSP statistics.

Format

display voice dsp statistic [*slotid/dsp-index*]

Parameters

Parameter	Description	Value
slotid/dsp-index	Specifies the slot ID and index of a DSP.	The value is a string of 1 to 15 case-insensitive characters. For example, if the slot ID is 0 and the DSP index is 0, the value is 0/0.

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display the statistics about all DSPs.

```
<Huawei> display voice dsp statistic
 Slotid/DSP-Index              0/0
 Total                       108
 Idle                        108
 G.711 busy                    0
 All busy                      0
 Wastage                       0
 Fault                         0
 Loop back                     0
 Prohibited                    0
 Sum of Sub-Board
 Total                       108
 Idle                        108
 G.711 busy                    0
 All busy                      0
 Wastage                       0
 Fault                         0
 Loop back                     0
 Prohibited                    0
```

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16.1.6.3 display voice dsp-attribute

Function

Using the **display voice dsp-attribute** command, you can view the configuration of DSP parameters.

Format

display voice dsp-attribute

Parameters

None

Views

All views

Default Level

2: Configuration level

Usage Guidelines

None

Example

Display the configuration of DSP parameters.

```
<Huawei> display voice dsp-attribute
 DSP code type                          : G711A
 DSP RTP packet interval(ms)            : 20
 T30 redundancy parameter value of T38 fax     : 3
 T4 redundancy parameter value of T38 fax      : 3
 Fax ECM                                : Enable
 Fax train mode                         : E2E train
 Fax max train rate                     : V17
 Fax V8 negotiate                       : Disable
 DSP min adapted jitter buffer(ms)      : 2
 DSP max adapted jitter buffer(ms)      : 135
 DSP init adapted jitter buffer(ms)     : 2
 DSP adapted jitter buffer threshold(ms)       : 150
 DSP min fixed jitter buffer(ms)        : 2
 DSP max fixed jitter buffer(ms)        : 135
 DSP init fixed jitter buffer(ms)       : 60
 DSP redundancy payload value           : 96
 DSP NTE payload value                  : 97
 DSP clearmode payload value            : 100
 DSP G.726-16k payload value            : 103
 DSP G.726-24k payload value            : 104
 DSP G.726-32k payload value            : 101
 DSP G.726-40k payload value            : 105
 DSP VBD payload value                  : 102
 VQM                                    : Disable
 RTCP package send interval time(ms)    : 5000
 RTCPXR                                 : Enable
 Severe degrade second threshold        : 400
 DSP echo check                         : On
```

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```
DSP packet lose compensate                  : Off
DSP silence reduce                        : Off
DTMF negative twist value                   : 10, unit 0.1db
DTMF positive twist value                  : 40, unit 0.1db
DSP 2833 event volume adjustment mode       : disable
DSP 2833 event volume adjustment devia      :  0  dBm
 Workmode        Threshold1  Threshold2  Threshold3
 Normal
```

Table 16-16 Description of the display voice dsp-attribute command output

Item	Description
DSP code type	Default DSP channel code type: ● G711A ● G711u ● G723_1 ● G729 ● G726-16k ● G726-24k ● G726-32k ● G726-40k
DSP Rtp Packet interval (ms)	Interval for the DSP channel to packetize RTP packets, in milliseconds. ● 5 ms ● 10 ms ● 20 ms ● 30 ms
T30 redundancy parameter value of T38 fax	T.30 redundancy parameter value of the T.38 fax. The value ranges from 0 to 7.
T4 redundancy parameter value of T38 fax	T.4 redundancy parameter value of the T.38 fax. The value ranges from 0 to 3.
Fax ECM	Fax ECM mode: ● enable: ECM ● disable: NECM
Fax train Mode	Fax training mode: ● e2e: End-to-end training ● local: Local training This parameter takes effect only when the T.38 fax is used.

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Item	Description
Fax Max train Rate	Maximum fax training rate: • V17: negotiation using V.17 fax and a maximum fax training rate of 14.4 kbit/s. • V29: negotiation using V.29 fax and a maximum fax training rate of 9.6 kbit/s. • V27: negotiation using V.27 fax and a maximum fax training rate of 4.8 kbit/s.
Fax V8 Negotiate	Whether V.8 negotiation of the T.38 fax is enabled or disabled.
DSP min adapted jitter buffer (ms)	Minimum value of the dynamic jitter buffer of the DSP channel. The value ranges from 0 to 150, in milliseconds.
DSP max adapted jitter buffer (ms)	Maximum value of the dynamic jitter buffer of the DSP channel. The value ranges from 0 to 150, in milliseconds.
DSP init adapted jitter buffer (ms)	Initial value of the dynamic jitter buffer of the DSP channel. The value ranges from 0 to 150, in milliseconds.
DSP adapted jitter buffer threshold (ms)	Alarm threshold of the dynamic jitter buffer of the DSP channel. The value ranges from 0 to 150, in milliseconds.
DSP min fixed jitter buffer (ms)	Minimum value of the static jitter buffer of the DSP channel. The value ranges from 0 to 150, in milliseconds.
DSP max fixed jitter buffer (ms)	Maximum value of the static jitter buffer of the DSP channel. The value ranges from 0 to 150, in milliseconds.
DSP init fixed jitter buffer (ms)	Initial value of the static jitter buffer of the DSP channel. The value ranges from 0 to 150, in milliseconds.
DSP redundancy payload value	Redundancy payload value of the DSP channel. The value ranges from 96 to 127.
DSP NTE payload value	NTE payload value of the DSP channel. The value ranges from 96 to 127.
DSP clearmode payload value	RTP payload value of the DSP channel. The value ranges from 96 to 127.

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Item	Description
DSP G.726-16k payload value	G.726-16k payload value of the DSP channel. The value ranges from 96 to 127.
DSP G.726-24k payload value	G.726-24k payload value of the DSP channel. The value ranges from 96 to 127.
DSP G.726-32k payload value	G.726-32k payload value of the DSP channel. The value ranges from 96 to 127.
DSP G.726-40k payload value	G.726-40k payload value of the DSP channel. The value ranges from 96 to 127.
DSP VBD payload value	VBD payload value of the DSP channel. The value ranges from 96 to 127.
VQM	Whether voice quality monitor (VQM) is enabled. • disable: VQM is disabled. • enable: VQM is enabled.
RTCPXR	Whether RTP Control Protocol Extended Reports (RTCP XR) is enabled. • disable: RTCP XR is disabled. • enable: RTCP XR is enabled.
RTCP package send interval time (ms)	Interval for the DSP channel to send RTCP packets. The value can be 0 or in the range of 500 to 65535, in milliseconds.
Severe Degrade Second Threshold	Default threshold for the number of severe degrade seconds. The value ranges from 1 to 65535.
DSP echo check	Whether echo cancellation is enabled on the DSP channel. • disable: Echo cancellation is disabled on the DSP channel. • enable: Echo cancellation is enabled on the DSP channel.
DSP Packet Lose Compensate	Whether the Packet Loss Concealment (PLC) function is enabled on the DSP channel.

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Item	Description
DSP silence reduce	Whether silence compression is enabled on the DSP channel.
DTMF negative twist value	DTMF detection negative twist value, range 0~100, unit 0.1db
DTMF positive twist value	DTMF detection positive twist value, range 0~100, unit 0.1db
DSP 2833 event volume adjustment mode	The mode in which the DSP adjusts the volume of DTMF tones during RFC 2833 DTMF transmission. **NOTE** Only AR1200, AR2200, and AR3200 that support voice communication support this parameter.
DSP 2833 event volume adjustment devia	The value of the DSP adjusts the volume of DTMF tones in fixed mode during RFC 2833 DTMF transmission. **NOTE** Only AR1200, AR2200, and AR3200 that support voice communication support this parameter.

16.1.6.4 display voice tone

Function

The **display voice tone** command is used to verify the current configuration on a signal tone.

Format

display voice tone *tone-id*

Parameters

Parameter	Description	Value
tone-id	Display the configuration of the specified signal tone.	The value is an integer that ranges from 1 to 11.

Views

All views

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Default Level

2: Configuration level

Usage Guidelines

None

Example

```
<Huawei> display voice tone 3
------------------Parameter Tone ID: 3 ----------------
-------------------------------------------------------------
 Frequency(Unit:hz)  Ampletude(Unit:dbm)
        450                  0.3
          0                  0.0
          0                  0.0
          0                  0.0
 Cadences(count:1)   On-time  Off-time Frequency-Base-Flag
 Sequence[1]          65535         0       1

---------Attributes for detect Tone--------
            Frequency_Low[hz] Frequency_High[hz] Low-Ampletude[dbm] High-Ampletude[dbm]
1st Frequency       420                480               0.0              0.0
2nd Frequency       0                  0                 0.0              0.0
             Time_Onlow[ms]   Time_OnHigh[ms]  Time_OffLow[ms]  Time_OffHigh[ms]
1st Cadence:         2000              0                0                0
2nd Cadence:           0               0                0                0
```

16.1.6.5 dsp

Function

Using the **dsp** command, you can enter the DSP resource management view.

Format

dsp *slot/dsp-index*

Parameters

Parameter	Description	Value
slot/dsp-index	Specifies the slot ID and index of a DSP.	The value is a string of 1 to 15 characters. For example, if the slot ID is 0 and the DSP index is 0, the value is 0/0.

Views

Voice view

Default Level

2: Configuration level

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Usage Guidelines

To manage DSP resources, run the **dsp** command to enter the DSP resource management view.

Example

Enter the view of DSP 0/0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp 0/0
```

16.1.6.6 dsp-attribute

Function

Using the **dsp-attribute** command, you can enter the DSP attribute view.

Format

dsp-attribute

Parameters

None

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

DSP configurations can be performed only in the DSP attribute view.

Example

Enter the DSP attribute view.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute]
```

16.1.6.7 dtmf-twist-value(dsp-attribute view)

Function

command **dtmf-twist-value** is used to configure dtmf detection twist values

command **undo dtmf-twist-value** restores the default dtmf detection twist values

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Format

dtmf-twist-value negative-twist *negative-twist-value* **positive-twist** *positive-twist-value*

undo dtmf-twist-value

Parameters

parameter	description	value
negative-twist *negative-twist-value*	negative dtmf twist value	integer 0-100, unit 0.1db.
positive-twist *positive-twist-value*	positive dtmf twist value	integer 0-100, unit 0.1db.

Views

dsp-attribute view

Default Level

2: Configuration level

Usage Guidelines

To configure dtmf detection twist values, run **dtmf-twist-value** command.

Example

set the negative twist value of dtmf detection to 5 db, and positive twist value to 10db.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] dtmf-twist-value negative-twist 50 positive-twist 100
```

16.1.6.8 echo

Function

Using the **echo** command, you can enable echo cancelation on the DSP channel or disable this function.

Using the **undo echo** command, you can cancel the configuration.

By default, echo cancelation is disabled on the DSP channel.

Format

echo { **enable** | **disable** }

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undo echo

Parameters

None

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The **echo enable** command enables echo cancelation on an MGC.

Example

Disable echo cancelation.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] echo disable
```

16.1.6.9 fax ecm

Function

The **fax ecm** command enables T.38 Error Correction Mode (ECM) or disable this function.

The **undo fax ecm** command restores the default T.38 ECM setting.

By default, T.38 ECM is enabled.

Format

fax ecm { **enable** | **disable** }

undo fax ecm

Parameters

None

Views

DSP attribute view

Default Level

2: Configuration level

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Usage Guidelines

ECM takes effect only when T.38 is used. After ECM is enabled, fax quality is optimized but the rate of fax messages is reduced. To increase the rate of fax messages, disable ECM.

Example

Enable T.38 ECM.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] fax ecm enable
```

16.1.6.10 fax redundancy-t30

Function

Using the **fax redundancy-t30** command, you can set the T.30 redundancy parameter value of the T.38 fax.

Using the **undo fax redundancy-t30** command, you can restore the default T.30 redundancy parameter value of the T.38 fax.

By default, the T.30 redundancy parameter value of the T.38 fax is 3.

Format

fax redundancy-t30 *redundancy-t30-value*

undo fax redundancy-t30

Parameters

Parameter	Description	Value
redundancy-t30-value	Specifies the T.30 redundancy parameter value of the T.38 fax.	The value is an integer that ranges from 0 to 7. The default value is 3.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

None

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Example

Set the T.30 redundancy parameter value of the T.38 fax to 5.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] fax redundancy-t30 5
```

16.1.6.11 fax redundancy-t4

Function

Using the **fax redundancy-t4** command, you can set the T.4 redundancy parameter value of the T.38 fax.

Using the **undo fax redundancy-t4** command, you can restore the default T.4 redundancy parameter value of the T.38 fax.

By default, the T.4 redundancy parameter value of the T.38 fax is 3.

Format

fax redundancy-t4 *redundancy-t4-value*

undo fax redundancy-t4

Parameters

Parameter	Description	Value
redundancy-t4-value	Specifies the T.4 redundancy parameter value of the T.38 fax.	The value is an integer that ranges from 0 to 3. The default value is 3.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the T.4 redundancy parameter value of the T.38 fax to 2.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] fax redundancy-t4 2
```

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16.1.6.12 fax training-mode

Function

Using the **fax training-mode** command, you can set the fax training mode.

Using the **undo fax training-mode** command, you can restore the default fax training mode.

By default, end-to-end training is used.

Format

fax training-mode { **e2e** | **local** }

undo fax training-mode

Parameters

Parameter	Description	Value
e2e	Indicates the end-to-end training mode.	-
local	Indicates the local training mode.	-

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The fax training mode takes effect only when the T.38 fax is used. End-to-end training and local training modes are distinguished based on rate training signals sent from the transmit gateway to the receive gateway:

- If rate training signals need to be sent to the peer end, end-to-end training is used.
- If the gateway terminates and generates training signals, local training is used.

To use the local training mode, consider the maximum rate of the gateway, which is represented by the maximum fax rate supported on the DSP channel. The training mode is invalid for high-rate fax and low-rate transparent transmission.

Example

Set the fax training mode to local training.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] fax training-mode local
```

16.1.6.13 fax training-rate

Function

Using the **fax training-rate** command, you can set the maximum fax training rate.

Using the **undo fax training-rate** command, you can restore the default maximum fax training rate.

By default, the maximum fax training rate is V17.

Format

fax training-rate { **v17** | **v29** | **v27** }

undo fax training-rate

Parameters

Parameter	Description	Value
v17	Indicates the negotiation using V.17 and a maximum fax training rate of 14.4 kbit/s.	-
v29	Indicates the negotiation using V.29 and a maximum fax training rate of 9.6 kbit/s.	-
v27	Indicates the negotiation using V.27 and a maximum fax training rate of 4.8 kbit/s.	-

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The maximum fax training rate takes effect only when local training is used, and is invalid for fax in transparent transmission mode. When the rate of the fax

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machine can be reduced and the network is not running properly, reduce the fax training rate.

Example

Set the maximum fax training rate to V29.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] fax training-rate v29
```

16.1.6.14 fax v8negotiate

Function

Using the **fax v8negotiate** command, you can enable V8 negotiation or disable this function.

Using the **undo fax v8negotiate** command, you can restore the V8 negotiation parameter setting.

By default, V8 negotiation is disabled.

Format

fax v8negotiate { **enable** | **disable** }

undo fax v8negotiate

Parameters

None

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

During communication between two fax machines, one fax machine supports the V.34 fax (high-speed fax) and the other fax machine supports only the low-speed fax. To prevent the two fax machines from performing high-speed fax negotiation, disable V8 negotiation so that the two fax machines implement low-speed fax.

Example

Enable V8 negotiation.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] fax v8negotiate enable
```

16.1.6.15 jitter-buffer adapt-jb-threshold

Function

Using the **jitter-buffer adapt-jb-threshold** command, you can set the alarm threshold of the dynamic jitter buffer of the DSP channel.

Using the **undo jitter-buffer adapt-jb-threshold** command, you can restore the default alarm threshold of the dynamic jitter buffer of the DSP channel.

By default, the alarm threshold of the dynamic jitter buffer of the DSP channel is 150 ms.

Format

jitter-buffer adapt-jb-threshold *adapt-jb-threshold*

undo jitter-buffer adapt-jb-threshold

Parameters

Parameter	Description	Value
adapt-jb-threshold	Specifies the alarm threshold of the dynamic jitter buffer of the DSP channel.	The value is an integer that ranges from 0 to 150, in milliseconds. The default value is 150 ms.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The constraints of jitter buffer values are as follows:

MinFixedJitterBuffer <= NormalFixedJitterBuffer <= MaxFixedJitterBuffer

MinAdaptJitterBuffer < ThresholdJitterBuffer

Example

Set the alarm threshold of the dynamic jitter buffer of the DSP channel to 100 ms.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] jitter-buffer adapt-jb-threshold 100
```

16.1.6.16 jitter-buffer init-adapt-jb

Function

Using the **jitter-buffer init-adapt-jb** command, you can set the initial value of the dynamic jitter buffer of the DSP channel.

Using the **undo jitter-buffer init-adapt-jb** command, you can restore the default initial value of the dynamic jitter buffer of the DSP channel.

By default, the initial value of the dynamic jitter buffer of the DSP channel is 2 ms.

Format

jitter-buffer init-adapt-jb *init-adapt-jb-value*

undo jitter-buffer init-adapt-jb

Parameters

Parameter	Description	Value
init-adapt-jb-value	Specifies the initial value of the dynamic jitter buffer of the DSP channel.	The value is an integer that ranges from 0 to 150, in milliseconds. The default value is 2 ms.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The transmission delay, processing delay, and serial link delay on the VoIP network cause voice jitter and make the call quality deteriorated. The jitter buffer removes the delay and improves the voice quality using Packet Loss Concealment (PLC).

The jitter buffer is installed at the receive end of an IP phone. A received IP packet is first received by the buffer but not transmitted to the called end immediately. The jitter buffer forwards each packet at intervals only after a certain number of IP voice packets are received. By doing this, the jitter of the IP phone is removed to a certain degree.

The jitter buffer does not forward each voice packet immediately after receiving it, so the forwarding delay must be specified. If the delay is too long, the system delay is long. If the delay is too short, IP voice packets cannot arrive within the

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specified time range and the voice jitter still occurs. The proper delay of a jitter buffer is about 30 ms.

Example

Set the initial value of the dynamic jitter buffer of the DSP channel to 30 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] jitter-buffer init-adapt-jb 30
```

16.1.6.17 jitter-buffer init-fixed-jb

Function

Using the **jitter-buffer init-fixed-jb** command, you can set the initial value of the static jitter buffer of the DSP channel.

Using the **undo jitter-buffer init-fixed-jb** command, you can restore the default initial value of the static jitter buffer of the DSP channel.

By default, the initial value of the static jitter buffer of the DSP channel is 60 ms.

Format

jitter-buffer init-fixed-jb *init-fixed-jb-value*

undo jitter-buffer init-fixed-jb

Parameters

Parameter	Description	Value
init-fixed-jb-value	Specifies the initial value of the static jitter buffer of the DSP channel.	The value is an integer that ranges from 0 to 150, in milliseconds. The default value is 60 ms.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The transmission delay, processing delay, and serial link delay on the VoIP network cause voice jitter and make the call quality deteriorated. The jitter buffer removes the delay and improves the voice quality using Packet Loss Concealment (PLC).

The jitter buffer is installed at the receive end of an IP phone. A received IP packet is first received by the buffer but not transmitted to the called end immediately.

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The jitter buffer forwards each packet at intervals only after a certain number of IP voice packets are received. By doing this, the jitter of the IP phone is removed to a certain degree.

The jitter buffer does not forward each voice packet immediately after receiving it, so the forwarding delay must be specified. If the delay is too long, the system delay is long. If the delay is too short, IP voice packets cannot arrive within the specified time range and the voice jitter still occurs. The proper delay of a jitter buffer is about 30 ms.

The constraints of jitter buffer values are as follows:

MinFixedJitterBuffer <= IinitFixedJitterBuffer <= MaxFixedJitterBuffer and the MinAdaptJitterBuffer

Example

Set the initial value of the static jitter buffer of the DSP channel to 90 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] jitter-buffer init-fixed-jb 90
```

16.1.6.18 jitter-buffer max-adapt-jb

Function

Using the **jitter-buffer max-adapt-jb** command, you can set the maximum value of the dynamic jitter buffer of the DSP channel.

Using the **undo jitter-buffer max-adapt-jb** command, you can restore the default maximum value of the dynamic jitter buffer of the DSP channel.

By default, the maximum value of the dynamic jitter buffer of the DSP channel is 135 ms.

Format

jitter-buffer max-adapt-jb *max-adapt-jb-value*

undo jitter-buffer max-adapt-jb

Parameters

Parameter	Description	Value
max-adapt-jb-value	Specifies the maximum value of the dynamic jitter buffer of the DSP channel.	The value is an integer that ranges from 0 to 150, in milliseconds. The default value is 135 ms.

Views

DSP attribute view

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Default Level

2: Configuration level

Usage Guidelines

The transmission delay, processing delay, and serial link delay on the VoIP network cause voice jitter and make the call quality deteriorated. The jitter buffer removes the delay and improves the voice quality using Packet Loss Concealment (PLC).

The jitter buffer is installed at the receive end of an IP phone. A received IP packet is first received by the buffer but not transmitted to the called end immediately. The jitter buffer forwards each packet at intervals only after a certain number of IP voice packets are received. By doing this, the jitter of the IP phone is removed to a certain degree.

The jitter buffer does not forward each voice packet immediately after receiving it, so the forwarding delay must be specified. If the delay is too long, the system delay is long. If the delay is too short, IP voice packets cannot arrive within the specified time range and the voice jitter still occurs. The proper delay of a jitter buffer is about 30 ms.

Example

Set the maximum value of the dynamic jitter buffer of the DSP channel to 120 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] jitter-buffer max-adapt-jb 120
```

16.1.6.19 jitter-buffer max-fixed-jb

Function

Using the **jitter-buffer max-fixed-jb** command, you can set the maximum value of the static jitter buffer of the DSP channel.

Using the **undo jitter-buffer max-fixed-jb** command, you can restore the default maximum value of the static jitter buffer of the DSP channel.

By default, the maximum value of the static jitter buffer of the DSP channel is 135 ms.

Format

jitter-buffer max-fixed-jb *max-fixed-jb-value*

undo jitter-buffer max-fixed-jb

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Parameters

Parameter	Description	Value
max-fixed-jb-value	Specifies the maximum value of the static jitter buffer of the DSP channel.	The value is an integer that ranges from 0 to 150, in milliseconds. The default value is 135 ms.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The transmission delay, processing delay, and serial link delay on the VoIP network cause voice jitter and make the call quality deteriorated. The jitter buffer removes the delay and improves the voice quality using Packet Loss Concealment (PLC).

The jitter buffer is installed at the receive end of an IP phone. A received IP packet is first received by the buffer but not transmitted to the called end immediately. The jitter buffer forwards each packet at intervals only after a certain number of IP voice packets are received. By doing this, the jitter of the IP phone is removed to a certain degree.

The jitter buffer does not forward each voice packet immediately after receiving it, so the forwarding delay must be specified. If the delay is too long, the system delay is long. If the delay is too short, IP voice packets cannot arrive within the specified time range and the voice jitter still occurs. The proper delay of a jitter buffer is about 30 ms.

The constraints of jitter buffer values are as follows:

MinFixedJitterBuffer <= NormalFixedJitterBuffer <= MaxFixedJitterBuffer

MinAdaptJitterBuffer < ThresholdJitterBuffer

Example

Set the maximum value of the static jitter buffer of the DSP channel to 120 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] jitter-buffer max-fixed-jb 120
```

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16.1.6.20 jitter-buffer min-adapt-jb

Function

Using the **jitter-buffer min-adapt-jb** command, you can set the minimum value of the dynamic jitter buffer of the DSP channel.

Using the **undo jitter-buffer min-adapt-jb** command, you can restore the default minimum value of the dynamic jitter buffer of the DSP channel.

By default, the minimum value of the dynamic jitter buffer of the DSP channel is 2 ms.

Format

jitter-buffer min-adapt-jb *min-adapt-jb-value*

undo jitter-buffer min-adapt-jb

Parameters

Parameter	Description	Value
min-adapt-jb-value	Specifies the minimum value of the dynamic jitter buffer of the DSP channel.	The value is an integer that ranges from 0 to 150, in milliseconds. The default value is 2 ms.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The transmission delay, processing delay, and serial link delay on the VoIP network cause voice jitter and make the call quality deteriorated. The jitter buffer removes the delay and improves the voice quality using Packet Loss Concealment (PLC).

The jitter buffer is installed at the receive end of an IP phone. A received IP packet is first received by the buffer but not transmitted to the called end immediately. The jitter buffer forwards each packet at intervals only after a certain number of IP voice packets are received. By doing this, the jitter of the IP phone is removed to a certain degree.

The jitter buffer does not forward each voice packet immediately after receiving it, so the forwarding delay must be specified. If the delay is too long, the system delay is long. If the delay is too short, IP voice packets cannot arrive within the specified time range and the voice jitter still occurs. The proper delay of a jitter buffer is about 30 ms.

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The constraints of jitter buffer values are as follows:

MinFixedJitterBuffer <= NormalFixedJitterBuffer <= MaxFixedJitterBuffer

MinAdaptJitterBuffer < ThresholdJitterBuffer

Example

Set the minimum value of the dynamic jitter buffer of the DSP channel to 30 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] jitter-buffer min-adapt-jb 30
```

16.1.6.21 jitter-buffer min-fixed-jb

Function

Using the **jitter-buffer min-fixed-jb** command, you can set the minimum value of the static jitter buffer of the DSP channel.

Using the **undo jitter-buffer min-fixed-jb** command, you can restore the default minimum value of the static jitter buffer of the DSP channel.

By default, the minimum value of the static jitter buffer of the DSP channel is 2 ms.

Format

jitter-buffer min-fixed-jb *min-fixed-jb-value*

undo jitter-buffer min-fixed-jb

Parameters

Parameter	Description	Value
min-fixed-jb-value	Specifies the minimum value of the static jitter buffer of the DSP channel.	The value is an integer that ranges from 0 to 150, in milliseconds. The default value is 2 ms.

Views

DSP attribute view

Default Level

2: Configuration level

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Usage Guidelines

The transmission delay, processing delay, and serial link delay on the VoIP network cause voice jitter and make the call quality deteriorated. The jitter buffer removes the delay and improves the voice quality using Packet Loss Concealment (PLC).

The jitter buffer is installed at the receive end of an IP phone. A received IP packet is first received by the buffer but not transmitted to the called end immediately. The jitter buffer forwards each packet at intervals only after a certain number of IP voice packets are received. By doing this, the jitter of the IP phone is removed to a certain degree.

The jitter buffer does not forward each voice packet immediately after receiving it, so the forwarding delay must be specified. If the delay is too long, the system delay is long. If the delay is too short, IP voice packets cannot arrive within the specified time range and the voice jitter still occurs. The proper delay of a jitter buffer is about 30 ms.

The constraints of jitter buffer values are as follows:

MinFixedJitterBuffer <= NormalFixedJitterBuffer <= MaxFixedJitterBuffer and the MinAdaptJitterBuffer

Example

Set the minimum value of the static jitter buffer of the DSP channel to 5 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] jitter-buffer min-fixed-jb 5
```

16.1.6.22 loop-back (DSP resource management view)

Function

Using the **loop-back** command, you can configure the loopback function on a DSP channel.

Using the **undo loop-back** command, you can disable the loopback function.

Format

loop-back *loop-back-typechannel*

undo loop-back

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Parameters

Parameter	Description	Value
loop-back-type	Specifies the loopback type.	The value can be: • pcm-side: performs a loopback test at the pulse code modulation (PCM) channel side. • ip-side: performs a loopback test at the IP side.
channel	Specifies the index of the DSP channel where the loopback test is performed.	The value is an integer that ranges from 0 to the maximum DSP channel index.

Views

DSP resource management view

Default Level

2: Configuration level

Usage Guidelines

When using the **loop-back** command, pay attention to the following points:

- This command is invalid for DSP channels in Idle, Fault, Wastage, or Prohibited state.
- When the DSP channel between the calling party and called party cannot transmit signals or can transmit signals only in one direction, run this command to locate the fault. For example, if the calling party hears the echo in a PCM-side loopback test, the speech channel between the calling phone and the calling DSP channel is functioning properly. If the called party hears the echo in an IP-side loopback test, the speech channel between the called phone and the calling DSP channel is functioning properly.

When using the **undo loop-back** command, pay attention to the following points:

- This command is valid only on DSP channels with the loopback function configured.
- After disabling the loopback function, you can run the **display voice dsp state** command to check the status of the DSP channel.

Example

Perform a PCM-side loopback test on DSP channel 5 in DSP 0/0.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp 0/0
[Huawei-voice-dsp0/0] loop-back pcm-side 5
```

16.1.6.23 nte2833-volume deviation

Function

The **nte2833-volume deviation** command specifies how much the DSP adjusts the volume of DTMF tones in fixed mode.

The **undo nte2833-volume deviation** command restores the default setting of how much the DSP adjusts the volume of DTMF tones in fixed mode.

The default value is 20, indicating that the DSP adjusts the volume of DTMF tones by 0 dBm.

NOTE

Only AR1200, AR2200, and AR3200 that support voice communication support this command.

Format

nte2833-volume deviation *deviation-value*

undo nte2833-volume deviation

Parameters

Parameter	Description	Value
deviation-value	Indicates how much the DSP adjusts the volume of DTMF tones.	The value is an integer ranging from 0 to 40. For example, the value 0 indicates that the DSP adjusts the volume of DTMF tones by 20 dBm, the value 1 indicates adjusting by 19 dBm, and the value 40 indicates adjusting by –20 dBm.

Views

DSP attribute view

Default Level

2: Configuration level

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Usage Guidelines

Application Scenario

When the value of *deviation-value* is 0, it indicates that the volume of DTMF tones is increased by 20 dBm. The value 0 is called configured adjustment value, and 20 dBm the actual adjustment value. The conversion between the two values is as follows: Actual adjustment value = 20 – Configured adjustment value

The original volume of DTMF tones plus the actual adjustment value is the adjusted volume of DTMF tones. If the actual adjustment value is larger than 0 dBm, the DSP increases the volume of DTMF tones. If the actual adjustment value is smaller than 0 dBm, the DSP reduces the volume of DTMF tones. The actual adjustment value 0 indicates that the DSP does not change the volume of DTMF tones.

Precautions

The **nte2833-volume deviation** command takes effect only when the mode in which the DSP adjusts the volume of DTMF tones is fixed. You can run the **nte2833-volume mode** command to configure the DSP's DTMF tone adjustment mode.

Example

Configure the DSP to adjust the volume of DTMF tones by –5 dBm.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] nte2833-volume deviation 25
```

Related Topics

16.1.6.3 display voice dsp-attribute

16.1.6.24 nte2833-volume mode

16.1.6.24 nte2833-volume mode

Function

The **nte2833-volume mode** command configures the mode in which the DSP adjusts the volume of DTMF tones.

The **undo nte2833-volume** command restores the default mode in which the DSP adjusts the volume of DTMF tones.

By default, the adjustment mode is disabled.

NOTE

Only AR1200, AR2200, and AR3200 that support voice communication support this command.

Format

nte2833-volume mode *mode-value*

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undo nte2833-volume mode

Parameters

Parameter	Description	Value
mode-value	Indicates the mode in which the DSP adjusts the volume of DTMF tones.	Enumerated type. The value can be: • **auto_attenuation**: Automatic attenuation mode • **disable**: Disabled mode • **fixed_adjust**: Fixed mode

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

During RFC 2833 DTMF transmission, the volume of DTMF tones may be high or low and cannot be automatically adjusted by DSP gains. In this case, you can run the **nte2833-volume mode** command to configure the DSP's DTMF tone adjustment mode, and thereby enable the DSP to adjust the volume of DTMF tones to solve the problem.

Example

Set the mode in which the DSP adjusts the volume of DTMF tones to **auto_attenuation**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] nte2833-volume mode auto_attenuation
```

Related Topics

16.1.6.3 display voice dsp-attribute

16.1.6.23 nte2833-volume deviation

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16.1.6.25 payload-type clear-mode

Function

Using the **payload-type clear-mode** command, you can set the RTP payload type value of the DSP channel.

Using the **undo payload-type clear-mode** command, you can restore the default RTP payload type value of the DSP channel.

By default, the RTP payload type value of the DSP channel is 100.

Format

payload-type clear-mode *clear-mode-value*

undo payload-type clear-mode

Parameters

Parameter	Description	Value
clear-mode-value	Specifies the RTP payload type value of the DSP channel.	The value is an integer that ranges from 96 to 127. The default value is 100.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The RTP payload type values at both ends must be identical and unique.

Example

Set the RTP payload type value of the DSP channel to 120.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] payload-type clear-mode 120
```

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16.1.6.26 payload-type g726-16k

Function

Using the **payload-type g726-16k** command, you can set the G.726-16k payload type value of the DSP channel.

Using the **undo payload-type g726-16k** command, you can restore the default G.726-16k payload type value of the DSP channel.

By default, the G.726-16k payload type value of the DSP channel is 103.

Format

payload-type g726-16k *g726-16k-value*

undo payload-type g726-16k

Parameters

Parameter	Description	Value
g726-16k-value	Specifies the G.726-16k payload type value of the DSP channel.	The value is an integer that ranges from 96 to 127. The default value is 103.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The G.726-16k payload type values at both ends must be identical and unique.

Example

Set the G.726-16k payload type value of the DSP channel to 100.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] payload-type g726-16k 100
```

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16.1.6.27 payload-type g726-24k

Function

Using the **payload-type g726-24k** command, you can set the G.726-24k payload type value of the DSP channel.

Using the **undo payload-type g726-24k** command, you can restore the default G.726-24k payload type value of the DSP channel.

By default, the G.726-24k payload type value of the DSP channel is 104.

Format

payload-type g726-24k *g726-24k-value*

undo payload-type g726-24k

Parameters

Parameter	Description	Value
g726-24k-value	Specifies the G.726-24k payload type value of the DSP channel.	The value is an integer that ranges from 96 to 127. The default value is 104.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The G.726-24k payload type values at both ends must be identical and unique.

Example

Set the G.726-24k payload type value of the DSP channel to 101.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] payload-type g726-24k 101
```

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16.1.6.28 payload-type g726-32k

Function

Using the **payload-type g726-32k** command, you can set the G.726-32k payload type value of the DSP channel.

Using the **undo payload-type g726-32k** command, you can restore the default G.726-32k payload type value of the DSP channel.

By default, the G.726-32k payload type value of the DSP channel is 101.

Format

payload-type g726-32k *g726-32k-value*

undo payload-type g726-32k

Parameters

Parameter	Description	Value
g726-32k-value	Specifies the G.726-32k payload type value of the DSP channel.	The value is an integer that ranges from 96 to 127. The default value is 101.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The G.726-32k payload type values at both ends must be identical and unique.

Example

Set the G.726-32k payload type value of the DSP channel to 102.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] payload-type g726-32k 102
```

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16.1.6.29 payload-type g726-40k

Function

Using the **payload-type g726-40k** command, you can set the G.726-40k payload type value of the DSP channel.

Using the **undo payload-type g726-40k** command, you can restore the default G.726-40k payload type value of the DSP channel.

By default, the G.726-40k payload type value of the DSP channel is 105.

Format

payload-type g726-40k *g726-40k-value*

undo payload-type g726-40k

Parameters

Parameter	Description	Value
g726-40k-value	Specifies the G.726-40k payload type value of the DSP channel.	The value is an integer that ranges from 96 to 127. The default value is 105.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The G.726-40k payload type values at both ends must be identical and unique.

Example

Set the G.726-40k payload type value of the DSP channel to 103.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] payload-type g726-40k 103
```

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16.1.6.30 payload-type nte

Function

Using the **payload-type nte** command, you can set the NTE payload type value of the DSP channel.

Using the **undo payload-type nte** command, you can restore the default NTE payload type value of the DSP channel.

By default, the NTE payload type value of the DSP channel is 97.

Format

payload-type nte *nte-value*

undo payload-type nte

Parameters

Parameter	Description	Value
nte-value	Specifies the NTE payload type value of the DSP channel.	The value is an integer that ranges from 96 to 127. The default value is 97.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The NTE payload type values at both ends must be identical and unique.

Example

Set the NTE payload value of the DSP channel to 100.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] payload-type nte 100
```

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16.1.6.31 payload-type redundancy

Function

Using the **payload-type redundancy** command, you can set the redundancy payload type value of the DSP channel.

Using the **undo payload-type redundancy** command, you can restore the default redundancy payload type value of the DSP channel.

By default, the redundancy payload type value of the DSP channel is 96.

Format

payload-type redundancy *redundancy-value*

undo payload-type redundancy

Parameters

Parameter	Description	Value
redundancy-value	Specifies the redundancy payload type value of the DSP channel.	The value is an integer that ranges from 96 to 127. The default value is 96.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The redundancy payload type values at both ends must be identical and unique.

Example

Set the redundancy payload type value of the DSP channel to 100.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] payload-type redundancy 100
```

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16.1.6.32 payload-type vbd

Function

Using the **payload-type vbd** command, you can set the VBD payload type value of the DSP channel.

Using the **undo payload-type vbd** command, you can restore the default VBD payload type value of the DSP channel.

By default, the VBD payload type value of the DSP channel is 102.

Format

payload-type vbd *vbd-value*

undo payload-type vbd

Parameters

Parameter	Description	Value
vbd-value	Specifies the VBD payload value of the DSP channel.	The value is an integer that ranges from 96 to 127. The default value is 102.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The VBD payload type values at both ends must be identical and unique.

Example

Set the VBD payload value of the DSP channel to 100.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] payload-type vbd 100
```

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16.1.6.33 plc

Function

Using the **plc** command, you can enable the Packet Loss Concealment (PLC) function on the DSP channel or disable this function.

Using the **undo plc** command, you can cancel the configuration.

By default, the PLC function is disabled.

Format

plc { enable | disable }

undo plc

Parameters

Parameter	Description	Value
enable	Enable the Packet Loss Concealment (PLC) function on the DSP channel.	-
disable	Disable the Packet Loss Concealment (PLC) function on the DSP channel.	-

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

Packet loss makes the voice quality deteriorated. The PLC recovers the packet loss to minimize the effect of packet loss in digital communications.

Example

Enable the PLC function.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] plc enable
```

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16.1.6.34 prohibit

Function

Using the **prohibit** command, you can prohibit DSP channels.

Using the **undo prohibit** command, you can restore the prohibited DSP channels.

Format

prohibit *channel* [*count*]

undo prohibit *channel* [*count*]

Parameters

Parameter	Description	Value
channel	Specifies the index of a DSP channel.	The value is an integer that ranges from 0 to the maximum DSP channel index.
count	Specifies the number of DSP channels to be prohibited.	The value is an integer that ranges from 1 to the maximum number of DSP channels supported.

Views

DSP resource management view

Default Level

2: Configuration level

Usage Guidelines

DSP channels in Busy or Wastage state or unregistered DSP channels cannot be prohibited.

Example

Prohibit channel 5 in DSP 0/0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp 0/0
[Huawei-voice-dsp0/0] prohibit 5
```

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16.1.6.35 resource-threshold

Function

Using the **resource-threshold** command, you can set the resource threshold in hierarchical control mode.

Using the **undo resource-threshold mode** command, you can restore the default resource threshold in hierarchical control mode.

Format

resource-threshold { **threshold1** *threshold1* | **threshold2** *threshold2* | **threshold3** *threshold3* }

undo resource-threshold { **threshold1** | **threshold2** | **threshold3** }

Parameters

Parameter	Description	Value
threshold1 *threshold1*	Specifies the resource threshold of common users (cat1).	The value is an integer that ranges from 0 to 100. The default value is 100.
threshold2 *threshold2*	Specifies the resource threshold of category 2 users (cat2).	The value is an integer that ranges from 0 to 100. The default value is 100.
threshold3 *threshold3*	Specifies the resource threshold of category 3 users (cat3).	The value is an integer that ranges from 0 to 100. The default value is 100.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The thresholds in the **resource-threshold** command are as follows: *threshold1-val* <= *threshold2-val* <= *threshold3-val*

When the DSP resource control mode is hierarchical control, DSP resource allocation is determined based on user levels. The resources that can be used are configured by the **resource-threshold** command.

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Example

Set the resource threshold for an authorized user to 60.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] resource-threshold threshold 1 60
```

16.1.6.36 resource-threshold mode

Function

Using the **resource-threshold mode** command, you can set the DSP resource control mode.

Using the **undo resource-threshold mode** command, you can restore the default DSP resource control mode.

By default, the DSP resource control mode is normal.

Format

resource-threshold mode { **priority** | **normal** }

undo resource-threshold mode

Parameters

Parameter	Description	Value
priority	Indicates that the DSP resource control mode is hierarchical control.	-
normal	Indicates that the DSP resource control mode is normal.	-

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

When the DSP resource control mode is hierarchical control, DSP resource allocation is determined based on user levels. The resources that can be used are configured by the **resource-threshold** command.

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When the DSP resource control mode is normal, users at any level can occupy all DSP resources.

Example

Set the DSP resource control mode to hierarchical control.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] resource-threshold mode priority
```

16.1.6.37 rtcp rtcp-interval

Function

Using the **rtcp rtcp-interval** command, you can set the interval at which the DSP channel sends RTCP packets.

Using the **undo rtcp rtcp-interval** command, you can restore the default interval at which the DSP channel sends RTCP packets.

By default, the interval at which the DSP channel sends RTCP packets is 5000 ms.

Format

rtcp rtcp-interval *rtcp-interval*

undo rtcp rtcp-interval

Parameters

Parameter	Description	Value
rtcp-interval	Specifies the interval at which the DSP channel sends RTCP packets.	The value is an integer that ranges from 0 to 65535, in milliseconds. The default value is 5000 ms.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The **rtcp rtcp-interval** command sets the interval at which the DSP channel sends RTCP packets on an MGC.

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Example

Set the interval at which the DSP channel sends RTCP packets to 8000 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] rtcp rtcp-interval 8000
```

16.1.6.38 rtcp rtcpxr

Function

Using the **rtcp rtcpxr** command, you can enable the RTP Control Protocol Extended Reports (RTCP XR) function or disable this function.

Using the **undo rtcp rtcpxr** command, you can cancel the configuration.

By default, the RTCP XR function is disabled.

Format

rtcp rtcpxr { enable | disable }

undo rtcp rtcpxr

Parameters

Parameter	Description	Value
enable	Enable the RTP Control Protocol Extended Reports function.	-
disable	Disable the RTP Control Protocol Extended Reports function.	-

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable the RTCP XR function.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] rtcp rtcpxr enable
```

16.1.6.39 rtcp sev-degrade-threshold

Function

Using the **rtcp sev-degrade-threshold** command, you can set the threshold for the number of severe degrade seconds.

Using the **undo rtcp sev-degrade-threshold** command, you can restore the default threshold for the number of severe degrade seconds.

By default, the threshold for the number of severe degrade seconds is 400.

Format

rtcp sev-degrade-threshold *sev-degrade-thresholdval*

undo rtcp sev-degrade-threshold

Parameters

Parameter	Description	Value
sev-degrade-thresholdval	Specifies the threshold for the number of severe degrade seconds.	The value is an integer that ranges from 1 to 65535. The default value is 400.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the threshold for the number of severe degrade seconds to 1000.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] rtcp sev-degrade-threshold 1000
```

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16.1.6.40 rtcp vqm

Function

Using the **rtcp vqm** command, you can enable the Voice Quality Monitor (VQM) function or disable this function.

Using the **undo rtcp vqm** command, you can cancel the configuration.

By default, the VQM function is disabled.

Format

rtcp vqm { enable | disable }

undo rtcp vqm

Parameters

Parameter	Description	Value
enable	Enable the Voice Quality Monitor function.	-
disable	Disable the Voice Quality Monitor function.	-

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable the VQM function.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] rtcp vqm enable
```

16.1.6.41 silence

Function

Using the **silence** command, you can enable silence compression on the DSP channel.

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Using the **undo silence** command, you can cancel the configuration.

By default, silence compression is disabled on the DSP channel.

Format

silence { enable | disable }

undo silence

Parameters

Parameter	Description	Value
enable	Enable the silence compression on the DSP channel.	-
disable	Disable the silence compression on the DSP channel.	-

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The **silence enable** command enables silence compression on an MGC.

Example

Enable silence compression.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] silence enable
```

16.1.6.42 tone (Voice View)

Function

tone can be either used to enter a specific tone-id view or create a new tone-id view, and hence configure the parameters of that tone-id

undo tone deletes a tone id

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Format

tone *Tone-id*

undo tone *Tone-id*

Parameters

parameter	description	value
Tone-id	Tone id number	integer, ranging from 1 to 11

Views

voice view

Default Level

Configuration level

Usage Guidelines

In the past, tone parameters were customized by way of importing a particular tone file. The disadvantage of this approach is that once some parameters need to be modified, the tone file has to be remade and imported again. This tone command can alleviate the trouble of the above process by enabling users to make customizations on the commandline.

Example

#create a view for tone id 3

```
[Huawei-voice]tone 3
Welcome enter the tone configuration!
As a diagnose feature,you'd better make change with the guide of handbook and local standards! Be careful!
[Huawei-voice-tone-3]
```

16.1.6.43 tone-frequency

Function

The **tone-frequency** command configures the frequency and amplitude of a signal tone.

The **undo tone-frequency** command cancels any configuration on a signal tone's frequency and amplitude.

Format

tone-frequency { **frequency-1** *freq1-value amplitude1-value* [**frequency-2** *freq2-value amplitude2-value* [**frequency-3** *freq3-value amplitude3-value* [**frequency-4** *freq4-value amplitude4-value*]]] }

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undo tone-frequency

Parameters

Parameter	Description	Value
frequency-1 *freq1-value*	Specifies the frequency of the first frequency set.	Integer, range: 0-4000, unit: Hz
amplitude1-value	Specifies the first amplitude of the Nth frequency set.	Integer, range: 0-100, unit: 0.1 dBm
frequency-2 *freq2-value*	Specifies the frequency of the second frequency set.	Integer, range: 0-4000, unit: Hz
amplitude2-value	Specifies the amplitude of the second frequency set.	Integer, range: 0-100, unit: 0.1 dBm
frequency-3 *freq3-value*	Specifies the frequency of the third frequency set.	Integer, range: 0-4000, unit: Hz
amplitude3-value	Specifies the amplitude of third frequency set.	Integer, range: 0-100, unit: 0.1 dBm
frequency-4 *freq4-value*	Specifies the frequency of the fourth frequency set.	Integer, range: 0-4000, unit: Hz
amplitude4-value	Specifies the amplitude of the fourth frequency set.	Integer, range: 0-100, unit: 0.1 dBm

Views

Tone view

Default Level

Configuration level

Usage Guidelines

Usually users should only perform find-tune on the frequency and the amplitude. Radical changes on those parameters may have undesirable effect upon normal calls.

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Example

Configure tone 3, set the frequency to be 980 Hz and amplitude 0.3 dBm. After doing so, the dial-tone becomes sharper because of higher pitch and larger amplitude.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] tone 3
[Huawei-voice-tone-3] tone-frequency frequency-1 980 3
```

16.1.6.44 tone-cadence

Function

tone-cadence sets the cadence.

undo tone-cadence restores the default cadence.

Format

tone-cadence continus *base-frequency-flag*

tone-cadence sequence { *ontime1-value offtime1-value base-frequency-flag1* } [{ *ontime2-value offtime2-value base-frequency-flag2* } [{ *ontime3-value offtime3-value base-frequency-flag3* } [{ *ontime4-value offtime4-value base-frequency-flag4* }]]]

undo tone-cadence

Parameters

parameter	description	value
continus *base-frequency-flag*	Frequency flag. Convert this number into a 4-bit binary number, and each of the 4 bits corresponds to a frequency set (See the **tone-frequency** command).	Integer, range: 1-6, 8-10, 12.
sequence	Sequential flag.	-
ontimeN-value	Length of playing time for the Nth cadence.	Integer, range: 0-65535, unit: ms.
offtimeN-value	Length of silence time for the Nth cadence.	Integer, range: 0-65535, unit: ms.
base-frequency-flagN	Frequency flag of the Nth cadence.	Integer, range: 1-6, 8-10, 12.

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Views

Tone view

Default Level

Configuration level

Usage Guidelines

Usually users should only perform find-tune on the cadence. Radical changes on those parameters may have undesirable effect upon normal calls.

Example

Scenario 1:

Configure the cadence on tone 3, making it play continuously with frequency 1.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] tone 3
[Huawei-voice-tone-3] tone-cadence continus 1
```

Scenario 2:

```
[Huawei-voice-tone-3] tone-cadence sequence 400 200 1 500 200 2
```

Set up to 2 cadences. The first one plays 400 ms, then begins a silence period that lasts 200 ms; the second plays for 500 ms, and then begins a 200 ms' silence. The values '1' and '2' are base-frequency-flags, which should be converted to binary numbers as follows:

1 == 0001 frequency 1

2 == 0010 frequency 2

3 == 0011 frequency 1 and frequency 2

4 == 0100 frequency 3

5 == 0101 frequency 1 and frequency 3

.....

After the above configuration, the tone that comes out when one picks up the phone sounds almost the same as before, except that the cadence differs.

Restores the default cadence

```
[Huawei-voice-tone-3] undo tone-cadence
```

16.1.6.45 tone-detect-info

Function

tone-detect-info configure the detection on both the tone-id's frequency and cadence.

undo tone-detect-info cancels any tone-id detection that has been configured.

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Format

tone-detect-info { **frequency-1** *freq-low-throld-value1 freq-high-throld-value1* | **amplitude-1** *amp-low-throld-value1 amp-high-throld-value1* }* [{ **frequency-2** *freq-low-throld-value2 freq-high-throld-value2* | **amplitude-2** *amp-low-throld-value2 amp-high-throld-value2* }*

tone-detect-info { **cadence-1** *cadence-ontime-low-throld-value1 cadence-ontime-high-throld-value1 cadence-offtime-low-throld-value1 cadence-offtime-high-throld-value1* | **cadence-2** *cadence-ontime-low-throld-value2 cadence-ontime-high-throld-value2 cadence-offtime-low-throld-value2 cadence-offtime-high-throld-value2* }*

Parameters

Parameter	Description	Integer
frequency-1	frequency detection on frequency set N.	-
freq-low-throld-value1	the low threshold of frequency detection on frequency set N.	Integer, range: 0-4000, unit: Hz
freq-high-throld-value1	the high threshold of frequency detection on frequency set N.	Integer, range: 0-4000, unit: Hz
cadence-1	amplitude detection on frequency set 1.	-
amplitude-1 *amp-low-throld-value1*	the low threshold of amplitude detection on frequency set 1.	Integer, range: 0-100, unit: 0.1 dBm
amp-high-throld-value1	the high threshold of amplitude detection on frequency set 1.	integer, range: 0-100, unit: 0.1 dBm
cadence-2 *cadence-ontime-low-throld-value2*	when to start detecting the play of cadence 1.	Integer, range: 0-65535, unit: ms
cadence-ontime-high-throld-value1	when to stop detecting the play of cadence 1.	Integer, range: 0-65535, unit: ms
cadence-offtime-low-throld-value1	when to start detecting the cadence 1's silence period.	Integer, range: 0-65535, unit: ms
cadence-offtime-high-throld-value1	when to stop detecting the cadence 1's silence period.	Integer, range: 0-65535, unit: ms

Views

tone-id view

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Default Level

Configuration level

Usage Guidelines

Precautions

For now, tone detection only supports at most two cadences and two frequencies.

This command requires a device restart before it takes effect.

Example

Configure the detection on tone3 frequency.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] tone 3
[Huawei-voice-tone-3] tone-detect-info frequency-1 440 460 amplitude-1 2 4
```

Set frequency detection on frequency 1 to be [440, 460]Hz, and detection on amplitude to be [2,4]. The detection on frequency set 2 uses its original detection values when it is not set here.

Configure the detection on tone3 cadence.

```
[Huawei-voice-tone-3] tone-detect-info cadence-1 400 500 200 300 cadence-2 480 520 320 360
```

Set the play time detection on cadence 1 to be [400, 500]ms, and silence detection at time [200, 300]ms. Set the play time detection on cadence 2 to be [480, 520]ms, and silence detection at [320,360]ms.

16.1.6.46 traffic-policy (DSP attribute view)

Function

The **traffic-policy** command applies a traffic policy to a DSP channel.

The **undo traffic-policy** command deletes a traffic policy from a DSP channel.

By default, no traffic policy is applied to a DSP channel.

Format

traffic-policy *policy-name* **inbound**

undo traffic-policy inbound

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Parameters

Parameter	Description	Value
policy-name	Specifies the name of a traffic policy.	The value is a string of 1 to 31 case-sensitive characters without spaces and starts with a letter.
inbound	Applies a traffic policy to the inbound direction of a DSP channel.	-

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

The redirection function of the MQC is used for routing voice packets.

Prerequisites

A traffic policy has been created using the **traffic policy** command, and traffic classifiers and traffic behaviors have been bound to the traffic policy.

Precautions

A traffic policy supports only filtering and redirection.

NOTE

After a traffic policy is applied, you cannot directly delete the traffic policy or traffic classifiers or traffic behaviors in the traffic policy. If the traffic policy that you want to delete has been applied to a DSP channel, run the **undo traffic-policy** command to unbind the traffic policy. Then run the **undo traffic policy** command in the system view to delete the traffic policy.

Example

Create a traffic policy **p1**, bind the created traffic classifier **c1** and traffic behavior **b1** to the traffic policy, and apply the traffic policy to the inbound direction of a DSP channel.

```
<Huawei> system-view
[Huawei] traffic policy p1
[Huawei-trafficpolicy-p1] classifier c1 behavior b1
[Huawei-trafficpolicy-p1] quit
[Huawei] voice
```

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```
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] traffic-policy p1 inbound
```

16.1.7 Voice Diagnose Commands

NOTE

- The following product models support voice functions (such as the PBX, SIP AG, and H.248 AG):
  - AR120 series: AR129CV, AR129CVW, and AR129CGVW-L
  - AR150 series: AR157VW and AR158EVW
  - AR160 series: AR161, AR169FVW, AR169FVW-8S, AR169CVW, AR169JFVW-4B4S, AR169JFVW-2S, AR169CVW-4B4S, AR161FV-1P, and AR169FGVW-L
  - AR200 series: AR201VW-P, AR207V, AR207VW, and AR207V-P
  - AR1200 series: AR1220V, AR1220VW, AR1220EV, and AR1220EVW
  - AR2200 series: AR2204, AR2220, AR2220L, AR2220E.
  - AR2240: For the equipped with SRU40, SRU60, SRU80, and SRU100.
  - AR3200 series: For the AR3260 equipped with SRU40, SRU60, SRU80, or SRU100, the same voice mode is set for the active and standby SRUs.

  The AR129CV, AR129CVW, AR169CVW, AR169JFVW-4B4S, AR169JFVW-2S, and AR169CVW-4B4S only support the PBX and SIP AG, but not the H.248 AG.
- When an AR2204, AR2220L, or AR2220E router needs to provide voice services, install a DSP module and a voice subcard in the router. When an AR2220, AR2240, or AR3200 router needs to provide voice services, install a DSP module.
- To provide voice services to POTS users on the AR1200, AR2200, or AR3200, install the 4FXS1FXO, 16FXS, or 32FXS card. The AR1200 does not support the 32FXS card.
- To provide voice services to ISDN phone users on the AR1200, AR2200, or AR3200, install the 2BST card.
- To connect an AR1200, AR2200, or AR3200 router to a TDM PBX through the E1 interface, install the E1T1-M card.
- On the AR169FGVW-L, AR1220EV, and AR1220EVW, the AT0 trunk cannot be connected to the SIP server or SIP trunk.

16.1.7.1 clip port

Function

The **clip port** command is used to test the display of the POTS calling number.

Format

clip port *slot-id* { **transwhen** *transwhen-value* | **format** *format-value* | **reversepole-beforecid** *reversepole-before-cid-value* | **input-gain** *input-gain-value* | **output-gain** *output-gain-value* | **telno** *telno-value* | **telname** *telname-value* }*

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Parameters

Parameter	Description	Value
slot-id	Specifies the slot ID/subcard ID/port number.	The value is a string of 1 to 15 characters. The value ranges of the slot ID, subcard ID, and port number vary according to the device configuration.
transwhen *transwhen-value*	Displays the time.	Enumerated type. The values are as follows: • after-ring • before-ring
format *format-value*	Displays the format.	Enumerated type. The values are as follows: • SDMF • MDMF • DTMF • ETSI • R15
reversepole-beforecid *reversepole-before-cid-value*	Displays the polarity reversal tag before a number.	Enumerated type. The values are as follows: • disable • enable
input-gain *input-gain-value*	Indicates the input gain.	The value is an integer that ranges from 0 to 15.
output-gain *output-gain-value*	Indicates the output gain.	The value is an integer that ranges from 0 to 20.
telno *telno-value*	Displays the calling number.	The value is a string of 1 to 32 characters.
telname *telname-value*	Displays the calling name.	The value is a string of 1 to 32 characters.

Views

Voice Diagnostic view

Default Level

3: Management level

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Usage Guidelines

None

Example

Configure the tested POTS calling number to be displayed after ringing.

```
<Huawei> system-view
[Huawei] diagnose
[Huawei-diagnose] clip port 1/0/0 transwhen after-ring
```

16.1.7.2 debugging voice-adapt

Function

the **debugging voice-adapt** command is used to configure debugging print level for voice-adapt-related modules.

Format

debugging voice-adapt { **emtest** | **vproduct** | **vpm** | **vcm** | **vam** | **vom** | **volc** | **vnet** | **vrm** | **vsp** } *debug-level-value*

undo debugging voice-adapt { **emtest** | **vproduct** | **vpm** | **vcm** | **vam** | **vom** | **volc** | **vnet** | **vrm** | **vsp** }

display voice-adapt debugging { **emtest** | **vproduct** | **vpm** | **vcm** | **vam** | **vom** | **volc** | **vnet** | **vrm** | **vsp** }

Parameters

Parameter	Description	Value
{ **emtest** | **vproduct** | **vpm** | **vcm** | **vam** | **vom** | **volc** | **vnet** | **vrm** | **vsp** }	Module name.	-
debug-level-value	Debugging print level.	Enumerated value: • error • event • trace • all

Views

Diagnostic views

Default Level

2: Configuration level

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Usage Guidelines

Switch on debugging print for voice-adapt-related modules. Used for troubleshooting.

Example

Set debugging print level for vproduct module to be all.

```
[Huawei-diagnose] debugging voice-adapt vproduct all
```

undo all debugging print from vom module.

```
[Huawei-diagnose] undo debugging voice-adapt vom
```

16.1.7.3 diagnose

Function

The **diagnose** command displays the Diagnostic view.

Format

diagnose

Parameters

None

Views

Voice view

Default Level

3: Management level

Usage Guidelines

None

Example

Enter the Diagnostic view.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]diagnose
[Huawei-voice-vdiagnose]
```

16.1.7.4 digit-trace

Function

The **digit-trace** command is used to enable POTS number diagnosis.

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The **undo digit-trace** command is used to disable POTS number diagnosis.

Format

digit-trace *slotid/subcardid/portid*

undo digit-trace *slotid/subcardid/portid*

Parameters

Parameter	Description	Value
slotid/subcardid/portid	Specifies the slot ID/ subcard ID/port number.	The value is a string of 1 to 15 characters. The value ranges of the slot ID, subcard ID, and port number vary according to the device configuration.

Views

Voice Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Enable POTS number diagnosis

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]diagnose
[Huawei-voice-vdiagnose]digit-trace 1/0/0
```

16.1.7.5 display fe slot fe-id table port-map dsp-port base-port

Function

The **display fe slot fe-id table port-map dsp-port base-port** command displays voice portmap entries.

Format

display fe slot *slot-id* **fe-id** *fe-id* **table port-map dsp-port** *dsp-port-num* **base-port** *base-port-num*

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Parameters

Parameter	Description	Value
slot *slot-id*	Specifies the slot ID.	The value is the slot where the LPU is installed.
fe-id *fe-id*	Specifies the multicore forwarding engine number.	The value is an integer that ranges from 0 to 256.
dsp-port *dsp-port-num*	Specifies the DSP port number.	The value is an integer that ranges from 61440 to 65535.
base-port *base-port-num*	Specifies the BASE port number.	The value is an integer that ranges from 0 to 61440.

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Display voice portmap entries of BASE port 0 in DSP port 61440 of engine 0 in slot 0.

```
<Huawei>system-view
[Huawei]diagnose
[Huawei-diagnose] display fe slot 0 fe-id 0 table port-map dsp-port 61440 base-port 0
memory data:
0000 0000
```

16.1.7.6 display fe slot fe-id table voice-mr dest-ip port protocol

Function

The **display fe slot fe-id table voice-mr dest-ip port protocol** command displays the VoiceMr table.

Format

display fe slot *slot-id* **fe-id** *fe-id* **table voice-mr dest-ip** *ip-address* **port** *port-num* **protocol** *protocol-num*

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Parameters

Parameter	Description	Value
slot *slot-id*	Specifies the slot ID.	The value is the slot where the LPU is installed.
fe-id *fe-id*	Specifies the multicore forwarding engine number.	The value is an integer that ranges from 0 to 256.
dest-ip *ip-address*	Specifies the destination IP address.	The value is in dotted decimal notation.
port *port-num*	Specifies the port number.	The value is an integer that ranges from 0 to 65535.
protocol *protocol-num*	Specifies the protocol number.	The value is an integer that ranges from 0 to 255.

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Display the VoiceMr table of engine 0 in slot 0. Engine 0 has destination IP address 192.168.0.1, port number 10, and protocol number 0.

```
<Huawei>system-view
[Huawei]diagnose
[Huawei-diagnose] display fe slot 0 fe-id 0 table voice-mr dest-ip 192.168.0.1 port 10 protocol 0
memory data:
0000 0000
```

16.1.7.7 display fe slot fe-id table voice-signal

Function

The **display fe slot fe-id table voice-signal** command displays voice signaling entries.

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Format

display fe slot *slot-id* **fe-id** *fe-id* **table voice-signal** *ip-address port-num protocol-num*

Parameters

Parameter	Description	Value
slot *slot-id*	Specifies the slot ID.	The value is the slot where the LPU is installed.
fe-id *fe-id*	Specifies the multicore forwarding engine number.	The value is an integer that ranges from 0 to 256.
ip-address	Specifies the destination IP address.	The value is in dotted decimal notation.
port-num	Specifies the destination port number.	The value is an integer that ranges from 5000 to 5999.
protocol-num	Specifies the protocol number.	The value is an integer that ranges from 6 to 17.

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Display the voice signaling entry of engine 0 in slot 0. Engine 0 has destination IP address 192.168.0.1, port number 5000, and protocol number 7.

```
<Huawei>system-view
[Huawei]diagnose
[Huawei-diagnose] display fe slot 0 fe-id 0 table voice-signal 192.168.0.1 5000 7
memory data:
0000 0000
```

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16.1.7.8 display pots loop-line-threshold

Function

The **display pots loop-line-threshold** command is used to check the POTS loop line detection threshold.

Format

display pots loop-line-threshold

Parameters

None

Views

Voice Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Check the POTS loop line detection threshold.

```
<Huawei>system-view
[Huawei]voice
[Huawei-voice]diagnose
[Huawei-voice-vdiagnose]display pots loop-line-threshold
 ------------------------------------------------------------------------------
 Loop-line test threshold item                                  Value
------------------------------------------------------------------------------
 Touch the power line : AC voltage threshold(volt)                55
 Loop-line mixed with others:DC voltage threshold(volt)           40
 Loop-line grounding: ground resistance threshold(ohm)         20000
 Off-hook: A-B resistance min. threshold(ohm)                   100
 Off-hook: A-B resistance max. threshold(ohm)                100000
 Off-hook: loop resistance min. threshold(ohm)                2000
 Off-hook: loop resistance max. threshold(ohm)                2000
 Loop-line mixed with others: A-B resistance threshold(ohm)   2000
 A-B poor insulation:A-B resistance min. threshold(ohm)       2000
 A-B poor insulation:A-B resistance max. threshold(ohm)      20000
 Leakage: ground capacitance threshold(nF)                    700
 Normal: ground capacitance threshold 1(nF)                   200
 Normal: ground capacitance threshold 2(nF)                   350
 Normal: ground capacitance threshold 3(nF)                    50
 ------------------------------------------------------------------------------
```

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16.1.7.9 display pots subcard-loopline-adjust

Function

The **display pots subcard-loopline-adjust** command is used to check the calibration value in the scenario of POTS user port disconnection and self-mixing.

Format

display pots subcard-loopline-adjust [**from** *startframeid* [**to** *endframeid*] | *frameid*]

Parameters

Parameter	Description	Value
from *startframeid*	Specifies the start frame ID.	The value is fixed at 0.
to *endframeid*	Specifies the end frame ID.	The value is fixed at 0.
frameid	Specifies a frame ID.	The value is fixed at 0.

Views

Voice Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Check the calibration value in the scenario of POTS user port disconnection and self-mixing.

```
<Huawei>system-view
[Huawei]voice
[Huawei-voice]diagnose
[Huawei-voice-vdiagnose]display pots subcard-loopline-adjust
  ------------------------------------------------------------
  FrameID    Adjust flag    CAB(nF)  CAG(nF)  CBG(nF)  RAB(ohm)
  ------------------------------------------------------------
      0          Null         -        -        -         -
  ------------------------------------------------------------
  Total: All 0, Capacitance 0, Resistance 0, Null 1
```

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16.1.7.10 display voice device state

Function

The **display voice device state** command displays device voice status.

Format

display voice device state

Parameters

None

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

View device voice status.

```
<Huawei>system-view
[Huawei]diag
Now you enter a diagnostic command view for developer's testing, some commands
may affect operation by wrong use, please carefully use it with HUAWEI
engineer's direction.
[Huawei-diagnose]display voice device state
  pots user number         : 0
  bra user number          : 0
  sipue user number        : 252
  Sipat0 trunk number      : 250
  At0 trunk number         : 1
  Pra trunk circuit number : 32
  R2 trunk circuit number  : 0
  Sip trunk group number   : 2
  H323 trunk group number  : 0
  Active call number       : 0
  Max call number          : 80
```

16.1.7.11 display voice statistics module at0

Function

The **display voice statistics module at0** command displays statistical information about the AT0 module.

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Format

display voice statistics module at0 [**srv** | **line** | **rm**]

Parameters

Parameter	Description	Value
srv	Specifies SRV statistical information about the AT0 module.	-
line	Specifies LINE statistical information about the AT0 module.	-
rm	Specifies RM statistical information about the AT0 module.	-

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

View statistical information about the AT0 module.

```
<Huawei>system-view
[Huawei]diag
Now you enter a diagnostic command view for developer's testing, some commands
may affect operation by wrong use, please carefully use it with HUAWEI
engineer's direction.
[Huawei-diagnose]display voice statistics module at0
  Srv Messages:
  Send_Alerting       : 0
  Send_CallProceeding : 0
  Send_Progress       : 0
  Send_Setup          : 0
  Send_Connect        : 0
  Send_SetupAck       : 0
  Send_Disconnect     : 0
  Send_Release        : 0
  Send_RestartAck     : 0
  Send_Facility       : 0
  Send_Notify         : 0

  Recv_Alerting       : 0
  Recv_CallProceeding : 0
  Recv_Progress       : 0
  Recv_Setup          : 0
  Recv_Connect        : 0
  Recv_SetupAck       : 0
  Recv_Disconnect     : 0
  Recv_Release        : 0
  Recv_RestartAck     : 0
  Recv_Facility       : 0
  Recv_Notify         : 0
```

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```
Line Messages:
Send_OccupyTrunk      : 0
Send_ReleaseTrunk     : 0
Send_SendNumber       : 0
Send_SetActive        : 0
Send_SetA/MuLaw       : 0
Send_SetGain          : 0
Send_SetNumberType    : 0
Send_SetRecvDTMF      : 0
Send_SetDTMFPara      : 0
Send_SetPulsePara     : 0
Send_ResetChannel     : 0
Send_ResetBoard       : 0
Send_InquireVersion   : 0
Send_SetRingAttribute : 0
Send_SetFeedVoltage   : 0
Send_SetFeedCurrent   : 0
Send_SetImpedance     : 0
Send_TsLoop           : 0

Recv_OccupyConfirm      : 0
Recv_CallInCome         : 0
Recv_CallRelease        : 0
Recv_PolarityReverse    : 0
Recv_SecondDialNumber   : 0
Recv_CallerIdRecvEnd    : 0
Recv_SendNumberComplete : 0
Recv_UtdDetect          : 0
Recv_ChannelResetOk     : 1
Recv_ChannelResetFault  : 1

Rm Messages:
Send_Alloc            : 2
Send_Release          : 2
Send_Add              : 0
Send_Del              : 0
Send_HandleOpen       : 1
Send_HandleClose      : 0
Send_HandleSendTone   : 0
Send_HandleStopTone   : 0
Send_HandleSendFSK    : 0
Send_HandleInsertDTMF : 0

Recv_Alloc            : 2
Recv_Release          : 2
Recv_Add              : 0
Recv_Del              : 0
Recv_HandleOpen       : 1
Recv_HandleClose      : 0
Recv_HandleSendTone   : 0
Recv_HandleStopTone   : 0
Recv_HandleSendFSK    : 0
Recv_HandleInsertDTMF : 0
```

16.1.7.12 display voice statistics module h323

Function

The **display voice statistics module h323** command displays statistical information about the H323 module.

Format

display voice statistics module h323 [**srv** | **h225** | **h245** | **ras**]

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Parameters

Parameter	Description	Value
srv	Specifies SRV statistical information about the H323 module.	-
h225	Specifies H225 statistical information about the H323 module.	-
h245	Specifies H245 statistical information about the H323 module.	-
ras	Specifies RAS statistical information about the H323 module.	-

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

View statistical information about the H323 module.

```
<Huawei>system-view
[Huawei]diag
Now you enter a diagnostic command view for developer's testing, some commands
may affect operation by wrong use, please carefully use it with HUAWEI
engineer's direction.
[Huawei-diagnose]display voice statistics module h323
  Srv Sent Messages:
  Send_Setup           : 0
  Send_SetupAck        : 0
  Send_Callproceeding  : 0
  Send_Alerting        : 0
  Send_Connect         : 0
  Send_ConnectAck      : 0
  Send_ReleaseComplete : 0
  Send_Progress        : 0
  Send_ProgressRsp     : 0
  Send_ProgressAck     : 0
  Send_Information     : 0
  Send_Facility        : 0
  Send_Bearinfo        : 0
  Send_BearinfoRsp     : 0
  Send_BearinfoAck     : 0
  Send_GRQ             : 0
  Send_GCF             : 0
  Send_GRJ             : 0
  Send_RRQ             : 0
  Send_RCF             : 0
  Send_RRJ             : 0
  Send_LRQ             : 0
  Send_LCF             : 0
  Send_LRJ             : 0
  Send_ARQ             : 0
```

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```
Send_ACF             : 0
Send_ARJ             : 0
Send_URQ             : 0
Send_UCF             : 0
Send_URJ             : 0
Send_DRQ             : 0
Send_DCF             : 0
Send_DRJ             : 0

Srv received Messages:
Recv_Setup           : 0
Recv_SetupAck        : 0
Recv_Callproceeding  : 0
Recv_Alerting        : 0
Recv_Connect         : 0
Recv_ConnectAck      : 0
Recv_ReleaseComplete : 0
Recv_Progress        : 0
Recv_ProgressRsp     : 0
Recv_ProgressAck     : 0
Recv_Information     : 0
Recv_Facility        : 0
Recv_Bearinfo        : 0
Recv_BearinfoRsp     : 0
Recv_BearinfoAck     : 0
Recv_GRQ             : 0
Recv_GCF             : 0
Recv_GRJ             : 0
Recv_RRQ             : 0
Recv_RCF             : 0
Recv_RRJ             : 0
Recv_LRQ             : 0
Recv_LCF             : 0
Recv_LRJ             : 0
Recv_ARQ             : 0
Recv_ACF             : 0
Recv_ARJ             : 0
Recv_URQ             : 0
Recv_UCF             : 0
Recv_URJ             : 0
Recv_DRQ             : 0
Recv_DCF             : 0
Recv_DRJ             : 0

H225 Sent Messages:
Send_Setup                    : 0
Send_SetupAck                 : 0
Send_Callproceeding           : 0
Send_Alerting                 : 0
Send_Connect                  : 0
Send_ReleaseComplete          : 0
Send_FacilityTCSQequest       : 0
Send_FacilityTCSAck           : 0
Send_FacilityTCSReject        : 0
Send_FacilityOLCRequest       : 0
Send_FacilityOLCAck           : 0
Send_FacilityOLCReject        : 0
Send_FacilityMSDRequest       : 0
Send_FacilityMSDAck           : 0
Send_FacilityCLCRequest       : 0
Send_FacilityCLCAck           : 0
Send_FacilityRequestMode      : 0
Send_FacilityRequestModeAck   : 0
Send_FacilityRequestModeReject : 0
Send_Progress                 : 0

H225 received Messages:
Recv_Setup                    : 0
Recv_SetupAck                 : 0
```

```
Recv_Callproceeding            : 0
Recv_Alerting                  : 0
Recv_Connect                   : 0
Recv_ReleaseComplete           : 0
Recv_FacilityTCSQequest        : 0
Recv_FacilityTCSAck            : 0
Recv_FacilityTCSReject         : 0
Recv_FacilityOLCRequest        : 0
Recv_FacilityOLCAck            : 0
Recv_FacilityOLCReject         : 0
Recv_FacilityMSDRequest        : 0
Recv_FacilityMSDAck            : 0
Recv_FacilityCLCRequest        : 0
Recv_FacilityCLCAck            : 0
Recv_FacilityRequestMode       : 0
Recv_FacilityRequestModeAck    : 0
Recv_FacilityRequestModeReject : 0
Recv_Progress                  : 0

H245 sent Messages:
Send_TCSRequest        : 0
Send_TCSAck            : 0
Send_TCSReject         : 0
Send_OlcRequest        : 0
Send_OlcAck            : 0
Send_OlcReject         : 0
Send_MsdRequest        : 0
Send_MsdAck            : 0
Send_ClcRequest        : 0
Send_ClcAck            : 0
Send_StartH245         : 0
Send_RequestMode       : 0
Send_RequestModeAck    : 0
Send_RequestModeReject : 0

H245 received Messages:
Recv_TCSRequest        : 0
Recv_TCSAck            : 0
Recv_TCSReject         : 0
Recv_OlcRequest        : 0
Recv_OlcAck            : 0
Recv_OlcReject         : 0
Recv_MsdRequest        : 0
Recv_MsdAck            : 0
Recv_ClcRequest        : 0
Recv_ClcAck            : 0
Recv_StartH245         : 0
Recv_RequestMode       : 0
Recv_RequestModeAck    : 0
Recv_RequestModeReject : 0

Ras sent Messages:
Send_GRQ            : 0
Send_GCF            : 0
Send_GRJ            : 0
Send_RRQ            : 0
Send_RCF            : 0
Send_RRJ            : 0
Send_LRQ            : 0
Send_LCF            : 0
Send_LRJ            : 0
Send_ARQ            : 0
Send_ACF            : 0
Send_ARJ            : 0
Send_URQ            : 0
Send_UCF            : 0
Send_URJ            : 0
Send_DRQ            : 0
Send_DCF            : 0
```

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```
Send_DRJ            : 0
Send_CheckADMStatus : 0
Send_ADMStatus      : 0

Ras received Messages:
Recv_GRQ            : 0
Recv_GCF            : 0
Recv_GRJ            : 0
Recv_RRQ            : 0
Recv_RCF            : 0
Recv_RRJ            : 0
Recv_LRQ            : 0
Recv_LCF            : 0
Recv_LRJ            : 0
Recv_ARQ            : 0
Recv_ACF            : 0
Recv_ARJ            : 0
Recv_URQ            : 0
Recv_UCF            : 0
Recv_URJ            : 0
Recv_DRQ            : 0
Recv_DCF            : 0
Recv_DRJ            : 0
Recv_CheckADMStatus : 0
Recv_ADMStatus      : 0
```

16.1.7.13 display voice statistics module pots

Function

The **display voice statistics module pots** command displays statistical information about the POTS module.

Format

display voice statistics module pots [**srv** | **line**]

Parameters

Parameter	Description	Value
srv	Specifies SRV statistical information about the POT0 module.	-
line	Specifies LINE statistical information about the POT0 module.	-

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

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Example

View statistical information about the POTS module.

```
<Huawei>system-view
[Huawei]diag
Now you enter a diagnostic command view for developer's testing, some commands
may affect operation by wrong use, please carefully use it with HUAWEI
engineer's direction.
[Huawei-diagnose]display voice statistics module pots
  Srv Messages:
  Recv_StartRing          : 0
  Recv_Stop_Ring          : 1
  Recv_InitRing           : 1
  Recv_StartService       : 0
  Recv_EndService         : 0
  Recv_EndServiceByCa     : 0
  Recv_EndServiceAck      : 0
  Recv_RingSendTelnum     : 0
  Recv_SendTelnum         : 0
  Recv_SendAoce           : 0
  Recv_Light              : 0
  Recv_OverLight          : 0
  Recv_RingSplash         : 0
  Recv_Lock               : 2
  Recv_NomalLineFeed      : 0
  Recv_Reverse            : 0
  Recv_KC                 : 0
  Recv_EndOfCall          : 0
  Recv_DisconnectClear    : 0
  Recv_DisconnectClearFail : 0
  Recv_TempFlashhookTime  : 0
  Recv_NoBattery          : 0
  Recv_NormalPolarity     : 0
  Recv_Hold               : 0
  Recv_TransmitEnable     : 0
  Recv_TransmitDisenable  : 0

  Line Messages:
  Send_DialReport         : 2
  Send_OffHook            : 2
  Send_StopDialTone       : 0
  Send_OnHook             : 1
  Send_Hooking            : 0
  Send_CalledHook         : 0
  Send_StartFSK           : 1
  Send_RingFail           : 0
  Send_PortStatReport     : 0
  Send_TSLoopAck          : 0
  Send_CancelTSLoopAck    : 0
  Send_EarthConnect       : 0
  Send_EarthCancel        : 0
  Send_RecvGain           : 0
  Send_SendGain           : 0
  Send_DisconnectClearAck : 0
  Send_PortFail           : 1
  Send_PortResume         : 2
  Send_PortLoop           : 0
  Send_LoopCancel         : 0
  Send_LineTestStart      : 0
  Send_LineTestStop       : 0
  Send_GTCTestStart       : 0
  Send_GTCTestStop        : 0
  Send_LineFail           : 0
  Send_LineResume         : 0
  Send_PowerPermissible   : 0
  Send_PowerOverloadBuff  : 0
  Send_PowerOverloadLimit : 0
```

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16.1.7.14 display voice statistics module q931

Function

The **display voice statistics module q931** command displays statistical information about the Q931 module.

Format

display voice statistics module q931 { **srv** | **protocol** } [**net** | **te**]

Parameters

Parameter	Description	Value
srv	Specifies SRV statistical information about the Q931 module.	-
protocol	Specifies protocol statistical information about the Q931 module.	-
net	Specifies NET statistical information about the Q931 module.	-
te	Specifies TE statistical information about the Q931 module.	-

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

View statistical information about the Q931 module.

```
<Huawei>system-view
[Huawei]diag
Now you enter a diagnostic command view for developer's testing, some commands
may affect operation by wrong use, please carefully use it with HUAWEI
engineer's direction.
[Huawei-diagnose]display voice statistics module q931
  Srv Net Sent Messages:
  Send_Alerting          : 0
  Send_CallProceeding    : 0
  Send_Progress          : 0
  Send_Setup             : 0
  Send_Connect           : 0
  Send_SetupAck          : 0
  Send_ConnectAck        : 0
  Send_UserInformation   : 0
  Send_SuspendReject     : 0
  Send_ResumeReject      : 0
  Send_Hold              : 0
```

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```
Send_Suspend           : 0
Send_Resume            : 0
Send_HoldAck           : 0
Send_SuspendAck        : 0
Send_ResumeAcknowledge : 0
Send_HoldReject        : 0
Send_Retrieve          : 0
Send_RetrieveAck       : 0
Send_RetrieveReject    : 0
Send_Disconnect        : 0
Send_Restart           : 0
Send_Release           : 0
Send_RestartAck        : 0
Send_ReleaseComplete   : 0
Send_SegmDss1          : 0
Send_Facility          : 0
Send_Notify            : 0
Send_Statusdss1Query   : 0
Send_CongestionControl : 0
Send_Information       : 0
Send_Status            : 0

Srv Net Received Messages:
Recv_Alerting          : 0
Recv_CallProceeding    : 0
Recv_Progress          : 0
Recv_Setup             : 0
Recv_Connect           : 0
Recv_SetupAck          : 0
Recv_ConnectAck        : 0
Recv_UserInformation   : 0
Recv_SuspendReject     : 0
Recv_ResumeReject      : 0
Recv_Hold              : 0
Recv_Suspend           : 0
Recv_Resume            : 0
Recv_HoldAck           : 0
Recv_SuspendAck        : 0
Recv_ResumeAcknowledge : 0
Recv_HoldReject        : 0
Recv_Retrieve          : 0
Recv_RetrieveAck       : 0
Recv_RetrieveReject    : 0
Recv_Disconnect        : 0
Recv_Restart           : 0
Recv_Release           : 0
Recv_RestartAck        : 0
Recv_ReleaseComplete   : 0
Recv_SegmDss1          : 0
Recv_Facility          : 0
Recv_Notify            : 0
Recv_Statusdss1Query   : 0
Recv_CongestionControl : 0
Recv_Information       : 0
Recv_Status            : 0

Srv User Sent Messages:
Send_Alerting          : 0
Send_CallProceeding    : 0
Send_Progress          : 0
Send_Setup             : 0
Send_Connect           : 0
Send_SetupAck          : 0
Send_ConnectAck        : 0
Send_UserInformation   : 0
Send_SuspendReject     : 0
Send_ResumeReject      : 0
Send_Hold              : 0
Send_Suspend           : 0
```

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```
Send_Resume            : 0
Send_HoldAck           : 0
Send_SuspendAck        : 0
Send_ResumeAcknowledge : 0
Send_HoldReject        : 0
Send_Retrieve          : 0
Send_RetrieveAck       : 0
Send_RetrieveReject    : 0
Send_Disconnect        : 0
Send_Restart           : 0
Send_Release           : 0
Send_RestartAck        : 0
Send_ReleaseComplete   : 0
Send_SegmDss1          : 0
Send_Facility          : 0
Send_Notify            : 0
Send_Statusdss1Query   : 0
Send_CongestionControl : 0
Send_Information       : 0
Send_Status            : 0

Srv User Rreceived Messages:
Recv_Alerting          : 0
Recv_CallProceeding    : 0
Recv_Progress          : 0
Recv_Setup             : 0
Recv_Connect           : 0
Recv_SetupAck          : 0
Recv_ConnectAck        : 0
Recv_UserInformation   : 0
Recv_SuspendReject     : 0
Recv_ResumeReject      : 0
Recv_Hold              : 0
Recv_Suspend           : 0
Recv_Resume            : 0
Recv_HoldAck           : 0
Recv_SuspendAck        : 0
Recv_ResumeAcknowledge : 0
Recv_HoldReject        : 0
Recv_Retrieve          : 0
Recv_RetrieveAck       : 0
Recv_RetrieveReject    : 0
Recv_Disconnect        : 0
Recv_Restart           : 0
Recv_Release           : 0
Recv_RestartAck        : 0
Recv_ReleaseComplete   : 0
Recv_SegmDss1          : 0
Recv_Facility          : 0
Recv_Notify            : 0
Recv_Statusdss1Query   : 0
Recv_CongestionControl : 0
Recv_Information       : 0
Recv_Status            : 0

Protocol Net Sent Messages:
Send_Alerting          : 0
Send_CallProceeding    : 0
Send_Progress          : 0
Send_Setup             : 0
Send_Connect           : 0
Send_SetupAck          : 0
Send_ConnectAck        : 0
Send_UserInformation   : 0
Send_SuspendReject     : 0
Send_ResumeReject      : 0
Send_Hold              : 0
Send_Suspend           : 0
Send_Resume            : 0
```

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```
Send_HoldAck          : 0
Send_SuspendAck       : 0
Send_ResumeAcknowledge : 0
Send_HoldReject       : 0
Send_Retrieve         : 0
Send_RetrieveAck      : 0
Send_RetrieveReject   : 0
Send_Disconnect       : 0
Send_Restart          : 0
Send_Release          : 0
Send_RestartAck       : 0
Send_ReleaseComplete  : 0
Send_SegmDss1         : 0
Send_Facility         : 0
Send_Notify           : 0
Send_Statusdss1Query  : 0
Send_CongestionControl : 0
Send_Information      : 0
Send_Status           : 0

Protocol Net Received Messages:
Recv_Alerting         : 0
Recv_CallProceeding   : 0
Recv_Progress         : 0
Recv_Setup            : 0
Recv_Connect          : 0
Recv_SetupAck         : 0
Recv_ConnectAck       : 0
Recv_UserInformation  : 0
Recv_SuspendReject    : 0
Recv_ResumeReject     : 0
Recv_Hold             : 0
Recv_Suspend          : 0
Recv_Resume           : 0
Recv_HoldAck          : 0
Recv_SuspendAck       : 0
Recv_ResumeAcknowledge : 0
Recv_HoldReject       : 0
Recv_Retrieve         : 0
Recv_RetrieveAck      : 0
Recv_RetrieveReject   : 0
Recv_Disconnect       : 0
Recv_Restart          : 0
Recv_Release          : 0
Recv_RestartAck       : 0
Recv_ReleaseComplete  : 0
Recv_SegmDss1         : 0
Recv_Facility         : 0
Recv_Notify           : 0
Recv_Statusdss1Query  : 0
Recv_CongestionControl : 0
Recv_Information      : 0
Recv_Status           : 0

Protocol User Sent Messages:
Send_Alerting         : 0
Send_CallProceeding   : 0
Send_Progress         : 0
Send_Setup            : 0
Send_Connect          : 0
Send_SetupAck         : 0
Send_ConnectAck       : 0
Send_UserInformation  : 0
Send_SuspendReject    : 0
Send_ResumeReject     : 0
Send_Hold             : 0
Send_Suspend          : 0
Send_Resume           : 0
Send_HoldAck          : 0
```

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```
Send_SuspendAck        : 0
Send_ResumeAcknowledge : 0
Send_HoldReject        : 0
Send_Retrieve          : 0
Send_RetrieveAck       : 0
Send_RetrieveReject    : 0
Send_Disconnect        : 0
Send_Restart           : 0
Send_Release           : 0
Send_RestartAck        : 0
Send_ReleaseComplete   : 0
Send_SegmDss1          : 0
Send_Facility          : 0
Send_Notify            : 0
Send_Statusdss1Query   : 0
Send_CongestionControl : 0
Send_Information       : 0
Send_Status            : 0

Protocol User Received Messages:
Recv_Alerting          : 0
Recv_CallProceeding    : 0
Recv_Progress          : 0
Recv_Setup             : 0
Recv_Connect           : 0
Recv_SetupAck          : 0
Recv_ConnectAck        : 0
Recv_UserInformation   : 0
Recv_SuspendReject     : 0
Recv_ResumeReject      : 0
Recv_Hold              : 0
Recv_Suspend           : 0
Recv_Resume            : 0
Recv_HoldAck           : 0
Recv_SuspendAck        : 0
Recv_ResumeAcknowledge : 0
Recv_HoldReject        : 0
Recv_Retrieve          : 0
Recv_RetrieveAck       : 0
Recv_RetrieveReject    : 0
Recv_Disconnect        : 0
Recv_Restart           : 0
Recv_Release           : 0
Recv_RestartAck        : 0
Recv_ReleaseComplete   : 0
Recv_SegmDss1          : 0
Recv_Facility          : 0
Recv_Notify            : 0
Recv_Statusdss1Query   : 0
Recv_CongestionControl : 0
Recv_Information       : 0
Recv_Status            : 0
```

16.1.7.15 display voice statistics module r2

Function

The **display voice statistics module r2** command displays statistical information about the R2 module.

Format

display voice statistics module r2 [**srv** | **rs** | **line**]

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Parameters

Parameter	Description	Value
srv	Specifies SRV statistical information about the R2 module.	-
rs	Specifies RS statistical information about the R2 module.	-
line	Specifies LINE statistical information about the R2 module.	-

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

View statistical information about the R2 module.

```
<Huawei>system-view
[Huawei]diagnose
[Huawei-diagnose]display voice statistics module r2
  Srv Messages:
  Send_Alerting       : 0
  Send_CallProceeding : 0
  Send_Progress       : 0
  Send_Setup          : 0
  Send_Connect        : 0
  Send_ConnectAck     : 0
  Send_SetupAck       : 0
  Send_Disconnect     : 0
  Send_Release        : 0
  Send_RestartAck     : 0
  Send_Segment        : 0
  Send_Facility       : 0
  Send_Notify         : 0

  Recv_Alerting       : 0
  Recv_CallProceeding : 0
  Recv_Progress       : 0
  Recv_Setup          : 0
  Recv_Connect        : 0
  Recv_ConnectAck     : 0
  Recv_SetupAck       : 0
  Recv_Disconnect     : 0
  Recv_Release        : 0
  Recv_RestartAck     : 0
  Recv_Segment        : 0
  Recv_Facility       : 0
  Recv_Notify         : 0

  Line Messages:
  Send_Seize        : 0
  Send_SeizeAck     : 0
  Send_Answer       : 0
  Send_ClearForward : 0
```

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```
Send_ClearBack    : 0
Send_CASFailure   : 0
Send_Block        : 0
Send_UnBlock      : 0
Send_Idle         : 0
Send_Error        : 0
Send_InService    : 0
Send_OutService   : 0

Recv_Seize        : 0
Recv_SeizeAck     : 0
Recv_Answer       : 0
Recv_ClearForward : 0
Recv_ClearBack    : 0
Recv_CASFailure   : 0
Recv_Block        : 0
Recv_UnBlock      : 0
Recv_Idle         : 0
Recv_Error        : 0
Recv_InService    : 0
Recv_OutService   : 0

Rs Messages:
Send_PropertySrcNumLen  : 0
Send_PropertyCmpSeqTime : 0
Send_EventRequset       : 0
Send_SignalR2addr       : 0
Send_SignalCongestion   : 0
Send_SignalCPRS         : 0
Send_SignalStop         : 0
Send_DmmMatchResult     : 0

Recv_R2addr      : 0
Recv_CPRS        : 0
Recv_R2F         : 0
Recv_DI          : 0
Recv_SI          : 0
Recv_SC          : 0
Recv_ES          : 0
Recv_CC          : 0
Recv_DISC        : 0
Recv_NAC         : 0
Recv_CNG         : 0
Recv_SubPrio     : 0
Recv_CasFail     : 0
Recv_SignalCOMPL : 0
Recv_RecvNum     : 0
Recv_BGRPAck     : 0
Recv_ChargeType  : 0
```

16.1.7.16 display voice statistics module sip

Function

The **display voice statistics module sip** command displays statistical information about the SIP module.

Format

display voice statistics module sip { **srv** | **protocol** }

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Parameters

Parameter	Description	Value
srv	Specifies SRV statistical information about the RIP module.	-
protocol	Specifies protocol statistical information about the RIP module.	-

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

View statistical information about the SIP module.

```
<Huawei>system-view
[Huawei]diagnose
[Huawei-diagnose]display voice statistics module sip
  Protocol Sent Request Messages:
  Send_Invite    : 0
  Send_Ack       : 0
  Send_Bye       : 0
  Send_Cancel    : 0
  Send_Register  : 0
  Send_Info      : 0
  Send_Update    : 0
  Send_Subscribe : 0
  Send_Notify    : 0
  Send_Message   : 0
  Send_Refer     : 0
  Send_Options   : 2298
  Send_Prack     : 0

  Protocol Received Request Messages:
  Recv_Invite    : 0
  Recv_Ack       : 0
  Recv_Bye       : 0
  Recv_Cancel    : 0
  Recv_Register  : 24
  Recv_Info      : 0
  Recv_Update    : 0
  Recv_Subscribe : 0
  Recv_Notify    : 0
  Recv_Message   : 0
  Recv_Refer     : 0
  Recv_Options   : 1529
  Recv_Prack     : 0

  Protocol Sent Response Messages:
  Send_1XX : 0
  Send_2XX : 1529
  Send_3XX : 0
```

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```
Send_4XX : 0
Send_5XX : 0
Send_6XX : 0

Protocol Received Response Messages:
Recv_1XX : 0
Recv_2XX : 1530
Recv_3XX : 0
Recv_4XX : 0
Recv_5XX : 0
Recv_6XX : 0

Srv Sent Messages:
Send_Alerting          : 0
......
```

16.1.7.17 pots circuit-test

Function

The **pots circuit-test** command triggers a POTS internal line test.

Format

pots circuit-test { *slot-id* | **telno** *telno-value* | **mgid** *mgid-value* | **terminalid** *terminalid-value* } [**busy** { **cancel** | **force** | **defer** [**deferred-time** *deferred-time-value* | **timeout-proc** *timeout-proc-value*] }]

Parameters

Parameter	Description	Value
slot-id	Specifies a slot ID/subcard ID/port ID. This parameter is mandatory and specifies the physical location of the user to be tested. The slash (/) must be retained.	The value is a string of 1 to 15 characters.
telno *telno-value*	Specifies a test number.	The value is a string of 1 to 16 characters.
mgid *mgid-value*	Specifies a gateway ID.	The value is an integer that ranges from 0 to 16777215.
terminalid *terminalid-value*	Specifies a terminal ID.	The value is an integer that ranges from 0 to 16777215.
deferred-time *deferred-time-value*	Specifies the delay.	The value is an integer that ranges from 1 to 1440.

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Parameter	Description	Value
timeout-proc *timeout-proc-value*	Specifies the timeout period.	Enumerated value. • 0: It does not POTS internal line test when timeout. • 1: It will be tested mandatorily upon timeout.

Views

Voice Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Trigger a POTS internal line test.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]diag
[Huawei-voice-vdiagnose]pots circuit-test 5/0/0
  slot 5 subcard 0 port 0 ( telno 5000 mgid - terminalid - )
  under testing, Please wait.....
[Huawei-voice-vdiagnose]
  Testing port:  5/0/0
  Telno      :  5000
  MGid       :  -
  Terminalid  :  -
  ------------------------------------------------------------
  Test item                          Result
  ------------------------------------------------------------
  Digital Voltage:                    Normal
  Low Battery:                        Normal
  High Battery:                       Normal
  Positive Battery:                   Normal
  Feeder voltage:                     Normal
  Loop current:                       Normal
  Ringing current voltage:            Normal
  Ringing current frequency:          Normal
  VAG:                               Normal
  VBG:                               Normal
  ------------------------------------------------------------
  Feeder voltage(V):                 47.830
  Ringing current voltage(V):         0.000
  Loop current(mA):                  0.000
  ------------------------------------------------------------
```

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16.1.7.18 pots loop-line-test

Function

The **pots loop-line-test** command triggers a POTS external line test.

Format

pots loop-line-test { *slot-id* | **telno** *telno-value* | **mgid** *mgid-value* **terminalid** *terminalid-value* } [**busy** { **cancel** | **force** | **defer** [**deferred-time** *deferred-time-value* | **timeout-proc** *timeout-proc-value*] }]

Parameters

Parameter	Description	Value
slot-id	Specifies a slot ID/subcard ID/port ID. This parameter is mandatory and specifies the physical location of the user to be tested. The slash (/) must be retained.	The value is a string of 1 to 15 characters. • *slotid*: based on product specifications • *subcardid*: based on product specifications • *portid*: based on product specifications
telno *telno-value*	Specifies a test number.	The value is a string of 1 to 16 characters.
mgid *mgid-value*	Specifies a gateway ID.	The value is an integer that ranges from 0 to 16777215.
terminalid *terminalid-value*	Specifies a terminal ID.	The value is an integer that ranges from 0 to 16777215.
deferred-time *deferred-time-value*	Specifies the delay.	The value is an integer that ranges from 1 to 1440.
timeout-proc *timeout-proc-value*	Specifies the timeout period.	Enumerated value. • 0: It does not POTS internal line test when timeout. • 1: It will be tested mandatorily upon timeout.

Views

Voice Diagnostic view

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Default Level

3: Management level

Usage Guidelines

None

Example

Trigger a POTS external line test.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]diag
[Huawei-voice-vdiagnose]pots loop-line-test 5/0/0
  slot 5 subcard 0 port 0 ( telno 5000 mgid - terminalid - )
  under testing, Please wait.....
[Huawei-voice-vdiagnose]
  Testing port:  5/0/0
  Telno       :  5000
  MGid        :  -
  Terminalid  :  -
  ------------------------------------------------------------------------
  Test item                              Result
  ------------------------------------------------------------------------
  A->ground AC voltage              (V)       0.000
  B->ground AC voltage              (V)       0.000
  A->B      AC voltage              (V)       0.000
  A->ground DC voltage              (V)      -1.474
  B->ground DC voltage              (V)      -1.438
  A->B      DC voltage              (V)      -0.036
  A->ground insulation resistance   (ohm)    >10M
  B->ground insulation resistance   (ohm)    >10M
  A->B insulation resistance        (ohm)     1.333M
  A->B loop resistance              (ohm)     0
  A->B polarity reversal resistance(ohm)      1.333M
  A->ground capacitance             (uF)      0.050
  B->ground capacitance             (uF)      0.050
  A->B capacitance                  (uF)      0.000
  Conclusion                              Phone not connected
  ------------------------------------------------------------------------
```

16.1.7.19 pots loop-line-threshold

Function

The **pots loop-line-threshold** command configures detection thresholds for POTS external line tests.

Format

pots loop-line-threshold { **restore** | **set** *threshold-type threshold-value* }

Parameters

Parameter	Description	Value
restore	Restore thresholds for POTS external line tests.	-

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Parameter	Description	Value
threshold-type	Specifies an external line test standard.	The value is an integer. The options are as follows: • 0: A/B wire touching the power line: AC voltage • 1: external line mixing: DC voltage • 2: external line grounding: resistance to ground • 3: off-hook: resistance lower limit between A and B wires • 4: off-hook: resistance upper limit between A and B wires • 5: off-hook: loop resistance lower limit • 6: off-hook: loop resistance upper limit • 7: external line mixing: resistance between A and B wires • 8: poor insulation between A and B wires: resistance lower limit between A and B wires • 9: poor insulation between A and B wires: resistance upper limit between A and B wires • 10: electric leakage: grounding capacitance • 11: normal: minimum grounding capacitance • 12: normal: capacity between A and B wires • 13: normal: minimum grounding capacitance

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Parameter	Description	Value
threshold-value	Specifies the value of an external test standard.	The value is a hexadecimal integer that ranges from 0x0 to 0x7fffffff.

Views

Voice Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Set the POTS external line test standard "external line grounding: resistance to ground" to 5.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]diag
[Huawei-voice-vdiagnose]pots loop-line-threshold set 2 0x5
```

16.1.7.20 pots path-test

Function

The **pots path-test** command triggers a POTS hardware or service test.

Format

pots path-test *slotid/subcard* **port all type** { **hardware** | **business** }

pots path-test *slotid/subcard* **port** *port-id* **type** { **hardware** | **business** } [**assist-port** *port-id*]

undo pots path-test *slotid/subcard*

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Parameters

Parameter	Description	Value
slotid/subcard	Specifies a slot ID/ subcard ID. This parameter is mandatory and specifies the physical location of the user to be tested. The slash (/) must be retained.	The value is a string of 1 to 15 characters. • *slotid*: based on product specifications • *subcardid*: based on product specifications
port-id	Specifies a port number.	The value is an integer that ranges from 0 to 63.
type	Specifies the test type.	Enumerated type. The value can be hardware or business.

Views

Voice Diagnostic view

Default Level

3: Management level

Usage Guidelines

To trigger a POTS hardware or service test, run **pots path-test** command.

Example

Trigger a POTS hardware test.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] diagnose
[Huawei-voice-vdiagnose] pots path-test 6/0 port all type hardware
  This operation will take several minutes, please wait...
[Huawei-voice-vdiagnose]
  Dest port   : 6/0/0       Assist port :  6/0/2
  Test result :  Normal
[Huawei-voice-vdiagnose]
  Dest port   : 6/0/1       Assist port :  6/0/3
  Test result :  Normal
[Huawei-voice-vdiagnose]
  Dest port   : 6/0/2       Assist port :  6/0/0
  Test result :  Normal
[Huawei-voice-vdiagnose]
  Dest port   : 6/0/3       Assist port :  6/0/1
  Test result :  Normal
```

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16.1.7.21 pots subcard-loopline-adjust get

Function

The **pots subcard-loopline-adjust get** command displays calibration values for frame analog user ports in external line disconnection and self-mixed situations.

Format

pots subcard-loopline-adjust get *frameid* { **cutline-port***slotid1/portid1* | **selfmixed-port** *slotid2/portid2* } *

Parameters

Parameter	Description	Value
frameid	Specifies a frame ID.	The value is fixed at 0.
cutline-port *slotid1/portid1*	Specifies a slot ID/port ID. This parameter is mandatory and specifies the physical location of the user to be tested. The slash (/) must be retained.	The value is a string of 1 to 15 characters. • *slotid1*: based on product specifications • *portid1*: based on product specifications
selfmixed-port *slotid2/portid2*	Specifies a slot ID/port ID. This parameter is mandatory and specifies the physical location of the user to be tested. The slash (/) must be retained.	The value is a string of 1 to 15 characters. • *slotid2*: based on product specifications • *portid2*: based on product specifications

Views

Voice Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Display calibration values for frame analog user ports in external line disconnection and self-mixed situations.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice]diag
[Huawei-voice-vdiagnose]pots subcard-loopline-adjust get 0 cutline-port 5/0 selfmixed-port 5/1
  slot 5 subcard 0 port 0
  under geting adjust, Please wait.....
[Huawei-voice-vdiagnose]
  ------------------------------------------
  slot 5 subcard 0 port 0 cutline adjust:
  ------------------------------------------
  CAB(nF)                  0
  CAG(nF)                  50
  CBG(nF)                  50
  ------------------------------------------
```

16.1.7.22 pots subcard-loopline-adjust restore

Function

The **pots subcard-loopline-adjust restore** command restores the default calibration values for frame analog user ports in external line disconnection and self-mixed situations.

Format

pots subcard-loopline-adjust restore { **from** *startframeid* [**to** *endframeid*] | *frameid* }

Parameters

Parameter	Description	Value
startframeid	Specifies the start frame ID.	The value is fixed at 0.
endframeid	Specifies the end frame ID.	The value is fixed at 0.
frameid	Specifies a frame ID.	The value is fixed at 0.

Views

Voice Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Restore the default calibration values for frame analog user ports in external line disconnection and self-mixed situations.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]diag
[Huawei-voice-vdiagnose]pots subcard-loopline-adjust restore 0
  Are you sure to restore the default value? (y/n)[n]:y
  Success: adjust of frame  0 restore successfully
```

16.1.7.23 pots subcard-loopline-adjust set

Function

The **pots subcard-loopline-adjust set** command sets or modifies calibration values for frame analog user ports in external line disconnection and self-mixed situations.

Format

pots subcard-loopline-adjust set { **from** *startframeid* [**to** *endframeid*] | *frameid* } { **cab** *cab-value* | **cag** *cag-value* | **cbg***cbg-value* | **rab** *rab-value* } *

Parameters

Parameter	Description	Value
startframeid	Specifies the start frame ID.	The value is fixed at 0.
endframeid	Specifies the end frame ID.	The value is fixed at 0.
frameid	Specifies a frame ID.	The value is fixed at 0.
cab-value	Specifies the capacity between A and B wires.	The value is an integer that ranges from 0 to 10000000.
cag-value	Specifies the grounding capacity of A wire.	The value is an integer that ranges from 0 to 10000000.
cbg-value	Specifies the grounding capacity of B wire.	The value is an integer that ranges from 0 to 10000000.
rab-value	Specifies the resistance between A and B wires.	The value is an integer that ranges from 0 to 10000000.

Views

Voice Diagnostic view

Default Level

3: Management level

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Usage Guidelines

To set or modifies calibration values for frame analog user ports in external line disconnection and self-mixed situations, run **pots subcard-loopline-adjust set** command.

Example

Modify calibration values for frame analog user ports in external line disconnection and self-mixed situations.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]diag
[Huawei-voice-vdiagnose]pots subcard-loopline-adjust set 0 rab 5 cag 5
  Success: adjust of frame  0 set successfully
```

16.1.7.24 reset voice statistics module

Function

The **reset voice statistics module** command clears statistics on each module.

Format

reset voice statistics module { **at0** | **h323** | **pots** | **q931** | **r2** | **sip** }

Parameters

Parameter	Description	Value
at0	Clears statistics on AT0 messages.	-
h323	Clears statistics on H323 messages.	-
pots	Clears statistics on POTS messages.	-
q931	Clears statistics on Q931 messages.	-
r2	Clears statistics on R2 messages.	-
sip	Clears statistics on SIP messages.	-

Views

Diagnostic view

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Default Level

3: Management level

Usage Guidelines

You can run the **reset voice statistics module** command to clear statistics on each module.

Example

Clear statistics on the AT0 module.

```
<Huawei>system-view
[Huawei]diagnose
[Huawei-diagnose] reset voice statistics module at0
```

16.1.7.25 ts6em

Function

The **ts6em** command triggers the voice time slot test for dsp.

Format

ts6em slot-in *slot-in-id* **slot-out** *slot-out-id*

Parameters

Parameter	Description	Value
slot-in *slot-in-id*	Input slot ID. This parameter is mandatory and specifies the input of opening channel. It is also used for time slot switch.	The value is an integer of 0 to 12 characters.
slot-out *slot-out-id*	Output slot ID. This parameter is used for time slot switch.	The value is an integer of 0 to 12 characters.

Views

Voice Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

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Example

The **ts6em** command triggers the voice time slot test for dsp.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]diagnose
[Huawei-voice-vdiagnose]ts6em slot-in 1 slot-out 2
 The Test Statics:
 Time Slot:0 --- Failed Errno: 6 Total Success Times: 0 Failed Times: 1
 Time Slot:1 --- Failed Errno: 6 Total Success Times: 0 Failed Times: 1
 Time Slot:2 --- Failed Errno: 6 Total Success Times: 0 Failed Times: 1
 Time Slot:3 --- Failed Errno: 6 Total Success Times: 0 Failed Times: 1
 Time Slot:4 --- Failed Errno: 6 Total Success Times: 0 Failed Times: 1
 Time Slot:5 --- Failed Errno: 6 Total Success Times: 0 Failed Times: 1
```

16.2 Voice interface Commands

16.2.1 Voice interface Configuration Commands

16.2.1.1 access-mode

Function

Using the **access-mode** command, you can set the access mode for a VE1 interface.

Using the **undo access-mode** command, you can restore the default access mode of a VE1 interface.

By default, the access mode of a VE1 interface is digital.

Format

access-mode { **digital** | **direct** }

undo access-mode

Parameters

Parameter	Description	Value
digital	Indicates the digital section access mode.	-
direct	Indicates the direct access mode.	-

Views

VE1 interface view

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Default Level

2: Configuration level

Usage Guidelines

When the access mode is set to direct, all the SA bits of an E1 frame must be always set to 1s, and the loopback2 operation is not allowed. When the access mode is set to digital, an E1 interface must comply with ETS 300.233.

Example

Set the access mode of a VE1 interface to digital.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] access-mode digital
```

16.2.1.2 access-mode (BRA Interface View)

Function

The **access-mode** command configures the working mode of a basic rate access (BRA) interface.

The **undo access-mode** command restores the default working mode of a BRA interface.

By default, a BRA interface works in NT mode.

NOTE

Only AR169CVW-4B4S supports this command.

Format

access-mode *access-mode-value*

undo access-mode

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Parameters

Parameter	Description	Value
access-mode-value	Specifies the working mode of a BRA interface.	Enumerated value. The options are as follows: • te: The BRA interface works in Terminal Equipment (TE) mode. • nt: The BRA interface work in Network Termination (NT) mode.

Views

BRA interface view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

When a device uses a BRA interface to connect to an ISDN phone, the BRA interface should work in NT mode. When a device uses a BRA interface to connect to an ISDN network, the BRA interface should work in TE mode.

Precautions

This command can only be used to configure the working mode of the BRA0/0/0 and BRA0/0/1 interfaces on the AR169CVW-4B4S.

Example

Configure a BRA interface to work in TE mode.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port bra 0/0/0
[Huawei-voice-bra0/0/0] access-mode te
```

16.2.1.3 alarm

Function

Using the **alarm** command, you can enable or disable the UNI alarm function on a BRA interface.

Using the **undo alarm** command, you can restore the default configuration.

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By default, the UNI alarm function is disabled on a BRA interface.

Format

alarm { **enable** | **disable** }

undo alarm

Parameters

Parameter	Description	Value
enable	Enables the UNI alarm function.	-
disable	Disables the UNI alarm function.	-

Views

BRA interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable the UNI alarm function on a BRA interface.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port bra 1/0/0
[Huawei-voice-bra1/0/0] alarm enable
```

16.2.1.4 crc4

Function

Using the **crc4** command, you can enable or disable cyclic redundancy check 4 (CRC4) on a VE1 interface.

Using the **undo crc4** command, you can restore the default configuration.

By default, CRC4 check is disabled on a VE1 interface.

Format

crc4 { **enable** | **disable** }

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undo crc4

Parameters

Parameter	Description	Value
enable	Enables CRC4 check on a VE1 interface.	_
disable	Disables CRC4 check on a VE1 interface.	_

Views

VE1 interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable CRC4 check on a VE1 interface.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] crc4 enable
```

16.2.1.5 crc (VE1 interface view)

Function

The **crc** command sets the CRC mode on a VE1 interface.

The **undo crc** command restores the default setting.

By default, 16-bit CRC is used.

Format

crc { 16 | 32 | none }

undo crc

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Parameters

Parameter	Description	Value
16	Configures 16-bit CRC on the interface.	-
32	Configures 32-bit CRC on the interface.	-
none	Configures no CRC on the interface.	-

Views

VE1 interface view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

Cyclic Redundancy Check (CRC) is often used to detect transmission errors in a communication system. CRC checks data consistency and provides high algorithm accuracy. A 32-bit field can achieve higher accuracy than a 16-bit field but uses more resources.

Precautions

If you run the **crc** command multiple times in the same VE1 interface view, only the latest configuration takes effect.

Example

Enable 32-bit CRC on the VE1 interface.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] crc 32
  Set crc successfully
```

16.2.1.6 crc-alarm-threshold

Function

Using the **crc-alarm-threshold** command, you can set the errored seconds threshold, consecutively severely errored seconds threshold, and degraded minute threshold.

Using the **undo crc-alarm-threshold** command, you can restore the default errored seconds threshold, consecutively severely errored seconds threshold, and degraded minute threshold.

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By default:

- The errored seconds threshold is 432 errored seconds per hour.
- The consecutively severely errored seconds threshold is 4 severely errored seconds per hour.
- The degraded minute threshold is 8 degraded minutes per hour.

Format

crc-alarm-threshold { **es** *es-threshold* | **cses** *cses-threshold* | **dm** *dm-threshold* }

undo crc-alarm-threshold { **es** | **cses** | **dm** }

Parameters

Parameter	Description	Value
es*es-threshold*	Specifies the errored seconds threshold.	The value is an integer that ranges from 1 to 3600. The unit is error seconds per hour. The default value is 432.
cses*cses-threshold*	Specifies the consecutively severely errored seconds threshold.	The value is an integer that ranges from 1 to 60. The unit is consecutively severely errored seconds per hour. The default value is 4.
dm*dm-threshold*	Specifies the degraded minute threshold.	The value is an integer that ranges from 1 to 60. The unit is degraded minutes per hour. The default value is 8.

Views

VE1 interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the errored seconds threshold to 60, consecutively severely errored seconds threshold to 30, and degraded minute threshold to 30 on a VE1 interface.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] crc-alarm-threshold cses 30
[Huawei-voice-ve1-2/0/0] crc-alarm-threshold es 60
[Huawei-voice-ve1-2/0/0] crc-alarm-threshold dm 30
```

16.2.1.7 display voice port bra

Function

The **display voice port bra** command displays the configuration and status of a BRA interface.

Format

display voice port bra [**state** *slotid/subcardid/portid* | *slotid/subcardid/portid*]

Parameters

Parameter	Description	Value
slotid/subcardid/portid	Specifies the slot ID/ subcard ID/port number.	The value is a string of 1 to 15 characters. The values of the slot ID, subcard ID, and port number depend on the product model.
state	Indicates the interface status.	-

Views

All views

Default Level

2: Configuration level

Usage Guidelines

When **state** and *slotid/subcardid/portid* are not specified, the **display voice port bra** command displays existing BRA interfaces.

Example

Display the configuration of a BRA interface.

```
<Huawei> display voice port bra 1/0/0
 Port BRA(Slot/Subcard/Port) 1/0/0
 L2 monitor          : Enable
 Work mode           : P2MP
```

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```
Remote power        : Disable
Alarm               : Disable
```

Table 16-17 Description of the display voice port bra command output

Item	Description
L2 monitor	Whether Layer 2 monitoring is enabled on a BRA interface: • Enable • Disable
Work mode	Working mode of a BRA interface: • P2MP • P2P
Remote power	Whether remote power supply is enabled on a BRA interface: • Enable • Disable
Alarm	Whether the UNI alarm function is enabled on a BRA interface: • Enable • Disable

16.2.1.8 display voice port fxo

Function

The **display voice port fxo** command displays the configuration and status of an FXO interface.

Format

display voice port fxo [**state** *slotid*/*subcardid*/*portid* | *slotid*/*subcardid*/*portid*]

Parameters

Parameter	Description	Value
slotid/subcardid/portid	Specifies the slot ID/ subcardid ID/port number.	The value is a string of 1 to 15 characters. The values of the slot ID, subcardid ID, and port number depend on the product model.
state	Indicates the interface status.	-

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Views

All views

Default Level

2: Configuration level

Usage Guidelines

When **state** and *slotid/subcardid/portid* are not specified, the **display voice port fxo** command displays existing FXO interfaces.

Example

Display the configuration of an FXO interface.

```
<Huawei> display voice port fxo 2/0/4
 Port FXO config: 2/0/4
 Send gain            : 0dB
 Recv gain            : -3.5dB
 DC impedance         : 50Ω
 AC impedance         : 600
 Ring min duration    : 200ms
 Ring max interval    : Not use
 Ring frequence       : 25Hz
 Ring AC amplitude    : 50V
 Ring offset          : 20V
 Feed max voltage     : -20V
 Feed min voltage     : -80V
 Feed max current     : 35mA
 Feed min current     : 16mA
```

Table 16-18 Description of the display voice port fxo command output

Item	Description
Send gain	Output gain of an FXO interface.
Recv gain	Input gain of an FXO interface.
DC impedance	DC impedance of an FXO interface.
AC impedance	AC impedance of an FXO interface.
Ring min duration	Shortest length of ring currents on an FXO interface.
Ring max interval	Maximum interval between ring currents on an FXO interface.
Ring frequence	Ring current frequency on an FXO interface.
Ring AC amplitude	AC amplitude of the ring current on an FXO interface.

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Item	Description
Ring offset	AC offset of the ring current on an FXO interface.
Feed max voltage	Maximum feed voltage of an FXO interface.
Feed min voltage	Minimum feed voltage of an FXO interface.
Feed max current	Maximum feed current of an FXO interface.
Feed min current	Minimum feed current of an FXO interface.

16.2.1.9 display voice port fxs

Function

The **display voice port fxs** command displays the configuration and status of an FXS interface.

Format

display voice port fxs [**state** *slotid*/*subcardid*/*portid* | *slotid*/*subcardid*/*portid*]

Parameters

Parameter	Description	Value
slotid/subcardid/portid	Specifies the slot ID/subcardid ID/port number.	The value is a string of 1 to 15 characters. The values of the slot ID, subcardid ID, and port number depend on the product model.
state	Indicates the interface status.	-

Views

All views

Default Level

2: Configuration level

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Usage Guidelines

When **state** and *slotid/subcardid/portid* are not specified, the **display voice port fxs** command displays existing FXS interfaces.

Example

Display the configuration of an FXS interface.

```
<Huawei> display voice port fxs 0/0/0
 Port FXS config: 0/0/0
 Reverse pole pulse level(ms)  : 100
 Line lock                   : Enable
 NLP mode                      : NLP normal mode
 Current(mA)                   : 20mA steady current
 Impedance                     : 600 Ohm interface
 Send gain                   : 0dB
 Receive gain                : -7dB
 Actual send gain              :
 Actual receive gain           :
```

Table 16-19 Description of the display voice port fxs command output

Item	Description
Reverse pole pulse level(ms)	Polarity reversal pulse level width of an FXS interface.
Line lock	Whether port locking is enabled on an FXS interface: • Enable • Disable
NLP mode	Non-linear processing (NLP) mode supported by an FXS interface. • disable: indicates that NLP is enabled. • normal: indicates that the DSP processes echoes normally. • ec-gain-adjust: indicates that the DSP uses a special processing mechanism to perform digit collecting on intelligent public phones. • enhance: indicates that the DSP enhances NLP. • reduce: indicates that the DSP reduces NLP.
Current(mA)	Current on an FXS interface.
Impedance	Impedance on an FXS interface.
Send gain	Output gain configured on an FXS interface.

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Item	Description
Receive gain	Input gain configured on an FXS interface.
Actual send gain	Actual output gain of an FXS interface.
Actual receive gain	Actual input gain of an FXS interface.

16.2.1.10 display voice port ve1

Function

The **display voice port ve1** command displays the configuration and status of a VE1 interface.

Format

display voice port ve1 [**state** *slotid/subcardid/portid* | *slotid/subcardid/portid*]

Parameters

Parameter	Description	Value
slotid/subcardid/portid	Specifies the slot ID/ subcard ID/port number.	The value is a string of 1 to 15 characters. The values of the slot ID, subcard ID, and port number depend on the product model.
state	Indicates the interface status.	-

Views

All views

Default Level

2: Configuration level

Usage Guidelines

When **state** and *slotid/subcardid/portid* are not specified, the **display voice port ve1** command displays existing VE1 interfaces.

Example

Display the configuration of a VE1 interface.

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```
<Huawei> display voice port ve1 2/0/0
 Port VE1(Slot/Subcard/Port) 2/0/0
 Access mode              : Digital
 CRC4                   : Disable
 Impedance                :
75 Ohm
 L2 monitor               : Enable
 Signal type              : CCS
 Idle type              : 7e
 Idle number              : 4
 SA                     : 0 0 0 0 0 0 0 0 0 0
 Invert Tx              : Disable
 Invert Rx              : Disable
 CRC                    : 16
 PCM alarm
 Line fault             : Enable
 Ulf                    : Enable
 Olf                    : Enable
 Ldt                    : Disable
 Frmslip                : Disable
 Transient event          : Disable

 CRC alarm threshold Es    : 432s
 CRC alarm threshold Cses  : 4s
 CRC alarm threshold Dm    : 8s
```

Table 16-20 Description of the display voice port ve1 command output

Item	Description
Access mode	Access mode of a VE1 interface. • Digital: indicates the digital section access mode. • Direct: indicates the direct access mode.
CRC4	Whether CRC4 check is enabled on a VE1 interface. • Enable • Disable
Impedance	Impedance on a VE1 interface.
Itf number	Specifies the number of interframe filling tags on the E1-F interface.
Itf type	Specifies the interframe filling tag type on the E1-F interface.
SA	Specifies the content of the five outgoing SA bits in the CRC4 multiframe. (The first five SA bits are incoming bits, which can be queried but cannot be configured. The latter five SA bis are outgoing bits).

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Item	Description
Invert	Specifies whether to invert timeslot data of sent or received signaling. ● Tx: Invert timeslot data of sent signaling. ● Rx: Invert timeslot data of received signaling.
CRC	Specifies the CRC mode on the VE1 interface. ● 16: 16-bit CRC is used. ● 32: 32-bit CRC is used. ● none: No CRC is used.
L2 monitor	Whether Layer 2 monitoring is enabled on a VE1 interface: ● Enable ● Disable
Signal type	Signaling mode of a VE1 interface. ● CCS: common channel signaling ● CAS: channel associated signaling
Line fault	Whether calling line identification presentation (CLIP) polarity reversal is enabled: ● Enable ● Disable
Ulf	Whether the alarm on the unconditional line fault bit error rate is enabled: ● Enable ● Disable
Olf	Whether the alarm on the conditional line fault bit error rate is enabled: ● Enable ● Disable
Ldt	Whether the alarm on temporary line interference bit error rate is enabled: ● Enable ● Disable

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Item	Description
Frmslip	Whether the alarm on loss of PCM frames: • Enable • Disable
Transient event	Whether the alarm on transient line events is enabled: • Enable • Disable
CRC alarm threshold Es	Errored seconds threshold.
CRC alarm threshold Cses	Consecutively severely errored seconds threshold.
CRC alarm threshold Dm	Degraded minute threshold.

16.2.1.11 electric current

Function

Using the **electric current** command, you can set the current for an FXS interface.

Using the **undo electric current** command, you can restore the default current of an FXS interface.

By default, the current of an FXS interface is 20 mA.

Format

electric current *current-value*

undo electric current

Parameters

Parameter	Description	Value
current-value	Specifies the current of an FXS interface.	Enumerated type. The values are 16 mA, 20 mA, 25 mA, 30 mA, 35 mA.

Views

FXS interface view

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Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the current of an FXS interface to 16 mA.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxs 2/0/0
[Huawei-voice-fxs2/0/0] electric current 16mA
```

16.2.1.12 electric impedance

Function

Using the **electric impedance** command, you can set the impedance for an FXS interface.

Using the **undo electric impedance** command, you can restore the default impedance of an FXS interface.

By default, the impedance of an FXS interface is 600 ohm.

Format

electric impedance *impedance-value*

undo electric impedance

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Parameters

Parameter	Description	Value
impedance-value	Specifies the impedance of an FXS interface.	The value is an integer that ranges from 0 to 15: • 0: CNOF (200+680|| 100 nF) • 1: CNUSER (200+560|| 100 nF) • 2: 600 ohm • 3: RUSSIA (150+510|| 47 nF) • 4: (220+820|| 115 nF) • 5: (220+820|| 120 nF) • 6: 900 ohm • 7: BRAZIL (800|| 50 nF) • 8: BT0 (Zin=87+1052|| 228nF+229||28.4nF, Zload=93+615||\ 471nF+179||495nF +244||32 nF) • 9: HK_BT3 (Zin=370+620|| 310nf,Zload=600) • 10: HK_BT5 (Zin=270+264|| 357nf +1434|| 265nf,Zload=600) • 11: BT1 (BT0 without AGC) • 12: BT2 (Zin=87+1052||228 nF + 229||28.4nF, Zload=270+264||\ 357 nF + 1434||265 nF) • 13: BT3(Zin=87+1052|| 228 nF + 229||28.4nF, Zload=164+162||\ 363 nF + 1227||350 nF) • 14: EUROPE GLOBAL (Zin= 270+750|| 150 nF) • 15: NEW ZEALAND (Zin=370+620|| 310 nF)

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Parameter	Description	Value
		NOTE The AR129CV, AR129CVW, and AR129CGVW-L do not support the 1, 8 to 13 parameter value.

Views

FXS interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the impedance of an FXS interface to 3.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxs 2/0/0
[Huawei-voice-fxs2/0/0] electric impedance 3
```

16.2.1.13 electric receive-gain

Function

The **electric receive-gain** command configures the receive gain of an FXS interface.

The **undo electric receive-gain** command restores the default receive gain of an FXS interface.

By default, the receive gain of an FXS interface is –7 dB.

Format

electric receive-gain *recvgain-value*

undo electric receive-gain

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Parameters

Parameter	Description	Value
recvgain-value	Specifies the receive gain of an FXS interface.	The value is an integer that ranges from 0 to 40: • 0: 0 dB • 1: –0.5 dB • 2: –1 dB • 3: –1.5 dB • 4: –2 dB • 5: –2.5 dB • 6: –3 dB • 7: –3.5 dB • 8: –4 dB • 9: –4.5 dB • 10: –5 dB • 11: –5.5 dB • 12: –6 dB • 13: –6.5 dB • 14: –7 dB • 15: –7.5 dB • 16: –8 dB • 17: –8.5 dB • 18: –9 dB • 19: –9.5 dB • 20: –10 dB • 21: –10.5 dB • 22: –11 dB • 23: –11.5 dB • 24: –12 dB • 25: –12.5 dB • 26: –13 dB • 27: –13.5 dB • 28: –14 dB • 29: –14.5 dB • 30: –15 dB • 31: –15.5 dB • 32: –16 dB • 33: –16.5 dB • 34: –17 dB • 35: –17.5 dB

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Parameter	Description	Value
		• 36: –18 dB • 37: –18.5 dB • 38: –19 dB • 39: –19.5 dB • 40: –20 dB **NOTE** The receive gain of an FXS interface on an AR129CV, AR129CVW, AR129CGVW-L, 16-port FXS interface card, or 32-port FXS interface card ranges from –12 dB to 0 dB.

Views

FXS interface view

Default Level

2: Configuration level

Usage Guidelines

The receive gain of an FXS interface affects the volume of the voice a local user receives. A smaller value of *recvgain-value* indicates a lower voice.

Example

Set the receive gain of an FXS interface to 0 dB (value 0).

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxs 2/0/0
[Huawei-voice-fxs2/0/0] electric receive-gain 0
```

16.2.1.14 electric send-gain

Function

The **electric send-gain** command configures the send gain of an FXS interface.

The **undo electric send-gain** command restores the default send gain of an FXS interface.

By default, the send gain of an FXS interface is 0 dB.

Format

electric send-gain *sendgain-value*

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undo electric send-gain

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Parameters

Parameter	Description	Value
sendgain-value	Specifies the send gain of an FXS interface.	The value is an integer that ranges from 0 to 50. • 0: 5 dB • 1: 4.5 dB • 2: 4 dB • 3: 3.5 dB • 4: 3 dB • 5: 2.5 dB • 6: 2 dB • 7: 1.5 dB • 8: 1 dB • 9: 0.5 dB • 10: 0 dB • 11: –0.5 dB • 12: –1 dB • 13: –1.5 dB • 14: –2 dB • 15: –2.5 dB • 16: –3 dB • 17: –3.5 dB • 18: –4 dB • 19: –4.5 dB • 20: –5 dB • 21: –5.5 dB • 22: –6 dB • 23: –6.5 dB • 24: –7 dB • 25: –7.5 dB • 26: –8 dB • 27: –8.5 dB • 28: –9 dB • 29: –9.5 dB • 30: –10 dB • 31: –10.5 dB • 32: –11 dB • 33: –11.5 dB • 34: –12 dB • 35: –12.5 dB

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Parameter	Description	Value
		• 36: –13 dB • 37: –13.5 dB • 38: –14 dB • 39: –14.5 dB • 40: –15 dB • 41: –15.5 dB • 42: –16 dB • 43: –16.5 dB • 44: –17 dB • 45: –17.5 dB • 46: –18 dB • 47: –18.5 dB • 48: –19 dB • 49: –19.5 dB • 50: –20 dB **NOTE** The send gain of an FXS interface on an AR129CVW, AR129CGVW-L, 16-port FXS interface card, or 32-port FXS interface card ranges from –6 dB to 5 dB.

Views

FXS interface view

Default Level

2: Configuration level

Usage Guidelines

The send gain of an FXS interface affects the volume of the voice a remote user receives. A smaller value of *sendgain-value* indicates a lower voice.

Example

Set the send gain of an FXS interface to 0 dB (value 10).

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxs 2/0/0
[Huawei-voice-fxs2/0/0] electric send-gain 10
```

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16.2.1.15 feed

Function

Using the **feed** command, you can set feed parameters for an FXO interface.

Using the **undo feed** command, you can restore the default feed parameter settings of an FXO interface.

Format

feed { **maximum-voltage** *max-vol-value* | **minimum-voltage** *min-vol-value* | **minimum-current** *min-current-value* }

undo feed { **maximum-voltage** | **minimum-voltage** | **minimum-current** }

Parameters

Parameter	Description	Value
maximum-voltage *max-vol-value*	Specifies the maximum feed voltage.	The value is an integer that ranges from -100 to 0, in volt. The default value is -20.
minimum-voltage *min-vol-value*	Specifies the minimum feed voltage.	The value is an integer that ranges from -100 to 0, in volt. The default value is -80.
minimum-current *min-current-value*	Specifies the minimum feed current.	The value is an integer that ranges from 6 to 20, in mA. The default value is 10.

Views

FXO interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the minimum feed voltage of an FXO interface to -50 V.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] port fxo 1/0/4
[Huawei-voice-fxo1/0/4] feed minimum-voltage -50
```

16.2.1.16 gain

Function

Using the **gain** command, you can set the send gain and receive gain for an FXO interface.

Using the **undo gain** command, you can restore the default send gain and receive gain of an FXO interface.

By default, the send gain and receive gain of an FXO interface are both 0 dB.

Format

gain { **send** *send-value* | **receive** *recvgain-value* }

undo gain { **send** | **receive** }

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Parameters

Parameter	Description	Value
send *send-value*	Specifies the send gain of an FXO interface.	The value is an integer that ranges from 0 to 60: ● 0: +13.5 dB ● 1: +13.0 dB ● 2: +12.5 dB ● 3: +12.0 dB ● 4: +11.5 dB ● 5: +11.0 dB ● 6:+10.5 dB ● 7:+10.0 dB ● 8: +9.5 dB ● 9: +9.0 dB ● 10: +8.5 dB ● 11: +8.0 dB ● 12: +7.5 dB ● 13: +7.0 dB ● 14: +6.5 dB ● 15: +6.0 dB ● 16: +5.5 dB ● 17: +5.0 dB ● 18: +4.5 dB ● 19: +4.0 dB ● 20: +3.5 dB ● 21: +3.0 dB ● 22: +2.5 dB ● 23: +2.0 dB ● 24: +1.5 dB ● 25: +1.0 dB ● 26: +0.5 dB ● 27: 0 dB ● 28: -0.5 dB ● 29: -1.0 dB ● 30: -1.5 dB ● 31: -2.0 dB ● 32: -2.5 dB ● 33: -3.0 dB ● 34: -3.5 dB ● 35: -4.0 dB

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Parameter	Description	Value
		• 36: -4.5 dB • 37: -5.0 dB • 38: -5.5 dB • 39: -6.0 dB • 40: -6.5 dB • 41: -7.0 dB • 42: -7.5 dB • 43: -8.0 dB • 44: -8.5 dB • 45: -9.0 dB • 46: -9.5 dB • 47: -10.0 dB • 48: -10.5 dB • 49: -11.0 dB • 50: -11.5 dB • 51: -12.0 dB • 52: -12.5 dB • 53: -13.0 dB • 54: -13.5 dB • 55: -14.0 dB • 56: -14.5 dB • 57: -15.0 dB • 58: -15.5 dB • 59: -16.0 dB • 60: -16.5 dB The default value is 27.

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Parameter	Description	Value
receive *recvgain-value*	Specifies the receive gain of an FXO interface.	The value is an integer that ranges from 0 to 60: ● 0: +13.5 dB ● 1: +13.0 dB ● 2: +12.5 dB ● 3: +12.0 dB ● 4: +11.5 dB ● 5: +11.0 dB ● 6:+10.5 dB ● 7:+10.0 dB ● 8: +9.5 dB ● 9: +9.0 dB ● 10: +8.5 dB ● 11: +8.0 dB ● 12: +7.5 dB ● 13: +7.0 dB ● 14: +6.5 dB ● 15: +6.0 dB ● 16: +5.5 dB ● 17: +5.0 dB ● 18: +4.5 dB ● 19: +4.0 dB ● 20: +3.5 dB ● 21: +3.0 dB ● 22: +2.5 dB ● 23: +2.0 dB ● 24: +1.5 dB ● 25: +1.0 dB ● 26: +0.5 dB ● 27: 0 dB ● 28: -0.5 dB ● 29: -1.0 dB ● 30: -1.5 dB ● 31: -2.0 dB ● 32: -2.5 dB ● 33: -3.0 dB ● 34: -3.5 dB ● 35: -4.0 dB ● 36: -4.5 dB

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Parameter	Description	Value
		• 37: -5.0 dB • 38: -5.5 dB • 39: -6.0 dB • 40: -6.5 dB • 41: -7.0 dB • 42: -7.5 dB • 43: -8.0 dB • 44: -8.5 dB • 45: -9.0 dB • 46: -9.5 dB • 47: -10.0 dB • 48: -10.5 dB • 49: -11.0 dB • 50: -11.5 dB • 51: -12.0 dB • 52: -12.5 dB • 53: -13.0 dB • 54: -13.5 dB • 55: -14.0 dB • 56: -14.5 dB • 57: -15.0 dB • 58: -15.5 dB • 59: -16.0 dB • 60: -16.5 dB The default value is 27.

Views

FXO interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the send gain and receive gain of an FXO interface to 12 dB (value 3).

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxo 1/0/4
[Huawei-voice-fxo1/0/4] gain receive 3
[Huawei-voice-fxo1/0/4] gain send 3
```

16.2.1.17 impedance (FXO interface view)

Function

Using the **impedance** command, you can set the DC impedance and AC impedance for an FXO interface.

Using the **undo impedance** command, you can restore the default DC impedance and AC impedance of an FXO interface.

By default, the DC impedance of an FXO interface is 50 nF, and the AC impedance is 600 nF.

Format

impedance { **dc** *value* | **ac** *value* }

undo impedance { **dc** | **ac** }

Parameters

Parameter	Description	Value
dc *value*	Specifies the DC impedance.	The value is 0 or 1: • 0: 50 nF • 1: 800 nF The default value is 0.

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Parameter	Description	Value
ac *value*	Specifies the AC impedance.	The value is an integer that ranges from 0 to 15: • 0: 600 • 1: 900 • 2: 270 + (750 || 150 nF) and 275 + (780 || 150 nF) • 3: 220 + (820 || 120 nF) and 220 + (820 || 115 nF) • 4: 370 + (620 || 310 nF) • 5: 320 + (1050 || 230 nF) • 6: 370 + (820 || 110 nF) • 7: 275 + (780 || 115 nF) • 8: 20 + (820 || 110 nF) • 9: 350 + (1000 || 210 nF) • 10: 200 + (680 || 100 nF) • 11: 600 + 2.16 uF • 12: 900 + 1 uF • 13: 900 + 2.16 uF • 14: 600 + 1 uF • 15: Global impedance The default value is 0.

Views

FXO interface view

Default Level

2: Configuration level

Usage Guidelines

None

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Example

Set the DC impedance of an FXO interface to 50 nF (value 0).

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxo 1/0/4
[Huawei-voice-fxo1/0/4] impedance DC 0
```

16.2.1.18 impedance (VE1 interface view)

Function

Using the **impedance** command, you can set the impedance for a VE1 interface.

Using the **undo impedance** command, you can restore the default impedance of a VE1 interface.

By default, the impedance of a VE1 interface is 75 ohm.

Format

impedance *impedance-value*

undo impedance

Parameters

Parameter	Description	Value
impedance-value	Specifies the impedance on a VE1 interface.	The value is 75 or 120, in ohm. The default value is 75.

Views

VE1 interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the impedance of a VE1 interface to 75 ohm.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] impedance 75
 Set impendance successfully
```

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16.2.1.19 invert

Function

The **invert** command sets whether to revert signaling timeslots that are sent and received.

The **undo invert** command restores the default setting.

By default, signaling timeslots that are sent and received are not inverted.

Format

invert { **tx** | **rx** }

undo invert { **tx** | **rx** }

Parameters

Parameter	Description	Value
tx	Configures the AR to invert signaling timeslots that are sent.	-
rx	Configures the AR to invert signaling timeslots that are received.	-

Views

VE1 interface view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

When a VE1 interface is connected in PRI mode, you need to configure whether to invert signaling timeslot data as needed, ensuring signaling timeslot interconnecting without bit error or packet loss.

Precautions

Configure whether to invert timeslot data of sent or received signaling on a VE1 interface as needed. By default, signaling timeslot data is not inverted.

Example

#Configure to invert signaling timeslots that are sent and received on the VE1 interface.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] invert tx
  Set invert successfully
[Huawei-voice-ve1-2/0/0] invert rx
  Set invert successfully
```

16.2.1.20 itf(VE1 interface view)

Function

The **itf** command sets the interframe filling tag type and the number of interframe filling tags on the VE1 interface.

Format

itf { **number** *number* | **type** { **7e** | **ff** } }

undo itf { **number** | **type** }

Parameters

Parameter	Description	Value
number *number*	Specifies the number of interframe filling tags.	The value is an integer that ranges from 0 to 7.
type	Specifies the interframe filling tag type.	-
7e	Sets the interframe filling tag to 0x7e.	-
ff	Sets the interframe filling tag to 0xff.	-

Views

VE1 interface view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

The interframe filling tag on a VE1 interface is the code that is sent when no service data is sent through the timeslot bundled to a logical channel.

A VE1 interface supports two types of interframe filling tags: 0x7e and 0xff. The default interframe filling tag 0x7e is recommended.

Precautions

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- The same interframe filling tag type and number of interframe filling tags must set for interfaces on both ends; otherwise, communication exceptions may occur.
- Because interframe filling tags occupy bandwidth, the actual data transmission rate on a VE1 interface cannot reach the maximum bandwidth. To improve the actual data transmission rate on a VE1 interface, run the **itf number** command to set the number of interframe filling tags to 0.

Example

Set the interframe filling tag to 0x7e on the VE1 interface and set six interframe filling tags.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] itf type ff
  Set itf successfully
[Huawei-voice-ve1-2/0/0] itf number 6
  Set itf successfully
```

16.2.1.21 l2-monitor

Function

Using the **l2-monitor** command, you can enable or disable Layer 2 monitoring on a BRA interface.

Using the **undo l2-monitor** command, you can restore the default status of Layer 2 monitoring on a BRA interface.

By default, Layer 2 monitoring is enabled on a BRA interface.

Format

l2-monitor { **enable** | **disable** }

undo l2-monitor

Parameters

Parameter	Description	Value
enable	Enables Layer 2 monitoring on a BRA interface.	_
disable	Disables Layer 2 monitoring on a BRA interface.	_

Views

BRA interface view

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Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable Layer 2 monitoring on a BRA interface.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port bra 1/0/0
[Huawei-voice-bra1/0/0] l2-monitor enable
```

16.2.1.22 l2-monitor (VE1 interface view)

Function

Using the **l2-monitor** command, you can enable or disable Layer 2 monitoring on a VE1 interface.

Using the **undo l2-monitor** command, you can restore the default status of Layer 2 monitoring on a VE1 interface.

By default, Layer 2 monitoring is enabled on a VE1 interface.

Format

l2-monitor { **enable** | **disable** }

undo l2-monitor

Parameters

Parameter	Description	Value
enable	Enables Layer 2 monitoring on a VE1 interface.	_
disable	Disables Layer 2 monitoring on a VE1 interface.	_

Views

VE1 interface view

Default Level

2: Configuration level

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Usage Guidelines

None

Example

Enable Layer 2 monitoring on a VE1 interface.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] l2-monitor enable
```

16.2.1.23 line-lock

Function

Using the **line-lock** command, you can enable or disable port locking on an FXS interface.

Using the **undo line-lock** command, you can restore the default port locking status on an FXS interface.

By default, port locking is enabled on an FXS interface.

Format

line-lock { **enable** | **disable** }

undo line-lock

Parameters

Parameter	Description	Value
enable	Enables port locking.	_
disable	Disables port locking.	_

Views

FXS interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable port locking on an FXS interface.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxs 2/0/0
[Huawei-voice-fxs2/0/0] line-lock enable
```

16.2.1.24 loop

Function

The **loop** command sets a port loopback flag.

The **undo loop** command deletes a port loopback flag.

By default, the system does not have any loopback flags.

Format

loop { **remote** | **local** }

undo loop

Parameters

Parameter	Description	Value
remote	Specifies a remote loopback flag.	-
local	Specifies a local loopback flag.	-

Views

BRA, FXS or FXO port view

Default Level

2: Configuration level

Usage Guidelines

You do not need to use this command in normal configurations. This command is mainly used in progressive debugging of call fault points.

Example

Configure remote loopback for an ISDN BRA port.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port bra 1/0/0
[Huawei-voice-bra1/0/0] loop remote
```

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16.2.1.25 nlp-mode

Function

Using the **nlp-mode** command, you can specify the non-linear echo processing (NLP) mode supported by an FXS interface.

Using the **undo nlp-mode** command, you can restore the default NLP mode supported by an FXS interface.

By default, an FXS supports the normal NLP mode.

Format

nlp-mode { **disable** | **normal** | **ec-gain-adjust** | **enhance** | **reduce** }

undo nlp-mode

Parameters

Parameter	Description	Value
disable	Disables the NLP function on an FXS interface so that the digital signal processor (DSP) on the interface does not process non-liner echoes.	_
normal	Indicates the normal NLP mode. In this mode, the DSP processes echoes normally.	_
ec-gain-adjust	Indicates the EC gain adjustment mode. In this mode, the DSP uses a special processing mechanism to perform digit collecting on intelligent public phones.	_
enhance	Indicates the enhanced mode. In this mode, the DSP enhances non-liner echoes.	_
reduce	Indicates the reduction mode. In this mode, the DSP reduces non-liner echoes.	_

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Views

FXS interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the NLP mode to normal on an FXS interface.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxs 2/0/0
[Huawei-voice-fxs2/0/0] nlp-mode normal
```

16.2.1.26 pcm-alarm

Function

Using the **pcm-alarm** command, you can enable or disable the pulse code modulation (PCM) alarm function on a VE1 interface.

Using the **undo pcm-alarm** command, you can restore the default status of the PCM alarm function on a VE1 interface.

Format

pcm-alarm [**line-fault** *line-fault-value* | **ulf** *ulf-value* | **olf** *olf-value* | **ldt** *ldt-value* | **frmslip** *frmslip-value* | **transient-event** *transient-event-value*]

undo pcm-alarm [**line-fault** | **ulf** | **olf** | **ldt** | **frmslip** | **transient-event**]

Parameters

Parameter	Description	Value
line-fault *line-fault-value*	Enables or disables alarms on line faults.	Enumerated type. The values are as follows: • disable: disables alarms on line faults. • enable: enables alarms on line faults. The default value is **enable**.

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Parameter	Description	Value
ulf *ulf-value*	Enables or disables alarms on the unconditional line fault bit error rate.	Enumerated type. The values are as follows: • disable: disables alarms on the unconditional line fault bit error rate. • enable: enables alarms on the unconditional line fault bit error rate. The default value is **enable**.
olf *olf-value*	Enables or disables alarms on the conditional line fault bit error rate.	Enumerated type. The values are as follows: • disable: disables alarms on the conditional line fault bit error rate. • enable: enables alarms on the conditional line fault bit error rate. The default value is **enable**.
ldt *ldt-value*	Enables or disables alarms on the temporary line interference bit error rate.	Enumerated type. The values are as follows: • disable: disables alarms on the temporary line interference bit error rate. • enable: enables alarms on the temporary line interference bit error rate. The default value is **disable**.

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Parameter	Description	Value
frmslip *frmslip-value*	Enables or disables alarms on loss of PCM frames.	Enumerated type. The values are as follows: • disable: disables alarms on loss of PCM frames. • enable: enables alarms on loss of PCM frames. The default value is **disable**.
transient-event *transient-event-value*	Enables or disables alarms on transient line events.	Enumerated type. The values are as follows: • disable: disables alarms on transient line events. • enable: enables alarms on transient line events. The default value is **disable**.

Views

VE1 interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable line fault alarms on a VE1 interface.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] pcm-alarm line-fault enable
```

16.2.1.27 port bra

Function

Using the **port bra** command, you can enter the BRA interface view.

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Format

port bra *slotid/subcardid/portid*

Parameters

Parameter	Description	Value
slotid/subcardid/portid	Specifies the slot ID/ subcard ID/port number.	The value is a string of 1 to 15 characters. The value ranges of the slot ID, subcard ID, and port number vary according to the device configuration.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

You can run the **display voice port bra** command to view existing BRA interfaces.

Example

Enter the view of BRA interface 2/0/0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port bra 2/0/0
[Huawei-voice-bra-2/0/0]
```

16.2.1.28 port fxo

Function

Using the **port fxo** command, you can enter the FXO interface view.

Format

port fxo*slotid/subcardid/portid*

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Parameters

Parameter	Description	Value
slotid/subcardid/portid	Specifies the slot ID/subcardid ID/port number.	The value is a string of 1 to 15 characters. The value ranges of the slot ID, subcardid ID, and port number vary according to the device configuration.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

You can run the **display voice port fxo** command to view existing FXO interfaces.

Example

Enter the view of FXO interface 2/0/4.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxo 2/0/4
[Huawei-voice-fxo-2/0/4]
```

16.2.1.29 port fxs

Function

Using the **port fxs** command, you can enter the FXS interface view.

By default, the region identifier is China mainland.

Format

port fxs *slotid/subcardid/portid*

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Parameters

Parameter	Description	Value
slotid/subcardid/portid	Specifies the slot ID/ subcardid ID/port number.	The value is a string of 1 to 15 characters. The value ranges of the slot ID, subcardid ID, and port number vary according to the device configuration.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

You can run the **display voice port fxs** command to view existing FXS interfaces.

Example

Enter the view of FXS interface 2/0/0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxs 2/0/0
[Huawei-voice-fxs2/0/0]
```

16.2.1.30 port ve1

Function

Using the **port ve1** command, you can enter the VE1 interface view.

Format

port ve1 *slotid/subcardid/portid*

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Parameters

Parameter	Description	Value
slotid/subcardid/portid	Specifies the slot ID/ subcard ID/port number.	The value is a string of 1 to 15 characters. The value ranges of the slot ID, subcard ID, and port number vary according to the device configuration.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

You can run the **display voice port ve1** command to view existing VE1 interfaces.

Example

Enter the view of VE1 interface 2/0/0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0]
```

16.2.1.31 remote-power

Function

Using the **remote-power** command, you can enable the remote power supply function.

Using the **undo remote-power** command, you can restore the default configuration.

By default, the remote power supply function is disabled.

Format

remote-power { **enable** | **disable** }

undo remote-power

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Parameters

Parameter	Description	Value
enable	Enables the remote power supply function.	-
disable	Disables the remote power supply function.	-

Views

BRA interface view

Default Level

2: Configuration level

Usage Guidelines

A BRA phone must be powered by a dedicated transformer. If no dedicated transformer is available, run the **remote-power** command to enable the remote power supply function on the BRA interface so that the BRA interface can supply power for BRA phones.

Example

Enable the remote power supply function on a BRA interface.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port bra 1/0/0
[Huawei-voice-bra1/0/0] remote-power enable
```

16.2.1.32 reset line-fault

Function

Using the **reset line-fault** command, you can reset line fault alarms.

Format

reset line-fault

Parameters

None

Views

FXS interface view

Default Level

3: Management level

Usage Guidelines

The **reset line-fault** command resets line fault alarms on an FXS interface.

Example

Reset line fault alarms on an FXS interface.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxs 2/0/0
[Huawei-voice-fxs2/0/0] reset line-fault
```

16.2.1.33 reverse-pole-pulse level

Function

Using the **reverse-pole-pulse level** command, you can set the polarity reversal pulse level width for an FXS interface.

Using the **undo reverse-pole-pulse level** command, you can restore the default polarity reversal pulse level width of an FXS interface.

By default, the polarity reversal pulse level width of an FXS interface is 100 ms.

Format

reverse-pole-pulse level *level-value*

undo reverse-pole-pulse level

Parameters

Parameter	Description	Value
level *level-value*	Specifies the polarity reversal pulse level width.	The value is an integer that ranges from 20 to 1270, with increments of 10. The unit is ms.

Views

FXS interface view

Default Level

2: Configuration level

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Usage Guidelines

This command sets the polarity reversal pulse level width for an FXS interface.

Example

Set the polarity reversal pulse level width of an FXS interface to 30 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxs 2/0/0
[Huawei-voice-fxs2/0/0] reverse-pole-pulse level 30
```

16.2.1.34 ring

Function

Using the **ring** command, you can set ring current parameters on an FXS interface.

Using the **undo ring** command, you can restore the default values of ring current parameters on an FXS interface.

By default, the shortest length of a ring current is 200 ms; the maximum ring current interval is not set; the ring current frequency is 25 Hz; the AC amplitude is 50 V; the AC offset is 70.

Format

ring { **minimum-duration** *min-duration-value* | **maximum-interval** *max-interval-value* | **frequence** *frequence-value* | **ac-amplitude** *ac-amplitude-value* | **offset** *offset-value* }

undo ring { **minimum-duration** | **maximum-interval** | **frequence** | **ac-amplitude** | **offset** }

Parameters

Parameter	Description	Value
minimum-duration *min-duration-value*	Specifies the shortest length of a ring current.	The value is an integer that ranges from 0 to 7: • 0: 100 ms • 1: 150 ms • 2: 200 ms • 3: 256 ms • 4: 384 ms • 5: 512 ms • 6: 640 ms • 7: 1024 ms The default value is 2.

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Parameter	Description	Value
maximum-interval *max-interval-value*	Specifies the maximum interval between ring currents.	The value is an integer that ranges from 0 to 28: • 0: not use • 1: 128 ms • 2: 256 ms • 3: 284 ms • 4: 512 ms • 5: 640 ms • 6: 768 ms • 7: 896 ms • 8: 1024 ms • 9: 1152 ms • 10: 1280 ms • 11: 1408 ms • 12: 1536 ms • 13: 1664 ms • 14: 1792 ms • 15: 1920 ms • 16: 2000 ms • 17: 2500 ms • 18: 3000 ms • 19: 3500 ms • 20: 4000 ms • 21: 4500 ms • 22: 5000 ms • 23: 6000 ms • 24: 7000 ms • 25: 8000 ms • 26: 9000 ms • 27: 10000 ms • 28: 15000 ms The default value is 0.
frequence *frequence-value*	Specifies the ring current frequency.	The value is an integer that ranges from 0 to 2: • 0: 16 Hz • 1: 25 Hz • 2: 50 Hz The default value is 1.

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Parameter	Description	Value
ac-amplitude *ac-amplitude-value*	Specifies the AC Amplitude of a ring current.	The value is an integer that ranges from 0 to 2: • 0: 74 V • 1: 65 V • 2: 50 V The default value is 2.
offset *offset-value*	Specifies the AC offset of a ring current.	The value is an integer that ranges from 0 to 100. The default value is 70.

Views

FXO interface view

Default Level

2: Configuration level

Usage Guidelines

You can use this command to set the shortest length of a ring current, maximum interval between ring currents, ring current frequency, AC Amplitude of a ring current, and AC offset of a ring current.

Example

Set the shortest length of a ring current on an FXO interface to 100 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxo 1/0/4
[Huawei-voice-fxo1/0/4] ring minimum-duration 0
```

16.2.1.35 sa

Function

The **sa** command sets the content of the five outgoing sa bits.

The **undo sa** command restores the default setting.

By default, the content of the five outgoing sa bits is 0.

Format

sa *sa4 sa5 sa6 sa7 sa8*

undo sa

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Parameters

Parameter	Description	Value
sa4	Sets the content of the outgoing sa4 bit.	The value is a decimal integer that ranges from 0 to 255.
sa5	Sets the content of the outgoing sa5 bit.	The value is a decimal integer that ranges from 0 to 255.
sa6	Sets the content of the outgoing sa6 bit.	The value is a decimal integer that ranges from 0 to 255.
sa7	Sets the content of the outgoing sa7 bit.	The value is a decimal integer that ranges from 0 to 255.
sa8	Sets the content of the outgoing sa8 bit.	The value is a decimal integer that ranges from 0 to 255.

Views

VE1 interface view

Default Level

2: Configuration level

Usage Guidelines

When a VE1 interface is connected in PRI mode, if the E1 frame is a CRC4 multiframe, SA4 to SA8 in the E1 multiframe can be used for transmitting low-speed data. By default, the values of SA4 to SA8 are 0. In some scenarios, the remote device will check received SA fields. Therefore, SA fields must be configurable on an AR to ensure normal connection of the VE1 interface.

Precautions

By default, the SA field value is 0. Before configuring the SA field, collect configuration information on the remote device.

Example

Set the content of five outgoing sa bits to 1, 2, 3, 4, and 5 respectively.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] sa 1 2 3 4 5
  Set sa successfully
```

16.2.1.36 shutdown

Function

The **shutdown** command shuts down a BRA port.

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The **undo shutdown** command restores a BRA port.

Format

shutdown

undo shutdown

Parameters

None

Views

BRA port view

Default Level

2: Configuration level

Usage Guidelines

You can run this command to disable an ISDN BRA port.

Example

Shuts down an ISDN BRA port.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port bra 1/0/0
[Huawei-voice-bra1/0/0] shutdown
```

16.2.1.37 signal(VE1 interface view)

Function

Using the **signal** command, you can set the signaling mode of a VE1 interface.

Using the **undo signal** command, you can restore the default signaling mode of a VE1 interface.

By default, a VE1 interface uses the common channel signaling (CCS) mode.

Format

signal { **ccs** | **cas** }

undo signal

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Parameters

Parameter	Description	Value
ccs	Indicates the common channel signaling mode.	-
cas	Indicates the channel associated signaling mode.	-

Views

VE1 interface view

Default Level

2: Configuration level

Usage Guidelines

A VE1 interface can work in CCS or CAS mode. To change the signaling mode, run the **signal** command.

Example

Configure a VE1 interface to work in CCS mode.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] signal ccs
  Set signal type successfully
```

16.2.1.38 work-mode

Function

Using the **work-mode** command, you can set the working mode for a BRA interface.

Using the **undo work-mode** command, you can restore the default working mode of a BRA interface.

By default, a BRA interface works in point-to-multipoint (P2MP) mode.

Format

work-mode { **p2p** | **p2mp** }

undo work-mode

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Parameters

Parameter	Description	Value
p2mp	Indicates the point-to-multipoint (P2MP) mode.	-
p2p	Indicates the point-to-point (P2P) mode.	-

Views

BRA interface view

Default Level

2: Configuration level

Usage Guidelines

This command sets the working mode for a BRA interface.

A BRA interface works in either of the following modes:

- P2MP: Multiple terminals can connect to the BRA interface.
- P2P: Only one terminal can connect to the BRA interface.

Example

Configure a BRA interface to work in P2P mode.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port bra 1/0/0
[Huawei-voice-bra1/0/0] work-mode p2p
```

16.3 Voice Configuration Commands

16.3.1 Basic Voice Configuration Commands

16.3.1.1 debugging voice logserver

Function

Using the **debugging voice logserver** command, you can configure the IP address and port number of the log server, and the local IP address.

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Format

debugging voice logserver ip *ip-address* **port** *port* **local-ip** *local-ip*

Parameters

Parameter	Description	Value
ip *ip-address*	Specifies the IP address of the log server.	The value is a string of 1 to 64 characters.
port *port*	Specifies the port number of the log server.	The value is an integer that ranges from 0 to 65535.
local-ip *local-ip*	Specifies the local IP address.	The value is a string of 1 to 64 characters. The local IP address must be in the signaling IP address pool.

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

You can use this command to configure an IP address and a port number of the log server, and a local IP address, then use the Wireshark to capture logs.

Example

Configure the IP address and port number of the log server, and the local IP address.

```
<Huawei> system-view
[Huawei] diagnose
[Huawei-diagnose]debugging voice logserver ip 192.168.1.1 port 2000 local-ip 192.168.1.2
```

16.3.1.2 debugging voice module-name cmd

Function

The **debugging voice module-name cmd** command enables software debugging of each module.

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Format

debugging voice module-name cmd *cmd-value* [**p1** *p1-value*] [**p2** *p2-value*] [**p3** p3-value] [**p4** p4-value] [**p5** *p5-value*] [**p6** *p6-value*]

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Parameters

Parameter	Description	Value
module-name	Specifies the voice module of the debugging messages.	Enumerated type. The values are as follows: • **at0** • **bill** • **billserver** • **bin** • **ccm** • **conference** • **db** • **dss1** • **error** • **h323** • **innertrace** • **lm** • **ms** • **nm** • **pbxmp** • **pbxomshl** • **r2** • **r2rs** • **rm** • **scm** • **sdb** • **sip** • **sipdlg** • **sipem** • **sipmsg** • **sippa** • **siptk** • **ssm** • **sys** • **tam** • **tbcm** • **tkh** • **tpa** • **trace** • **transfer** • **trc**

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Parameter	Description	Value
		• **uam** • **ucbincli** • **userlocation** • **vcm** • **vpm** • **vrm** • **vsppdt** • **ioee** • **vu**
cmd *cmd-value*	Specifies the command value.	The value is an integer that ranges from 0 to 65535.
p1 *p1-value*	Specifies the value of parameter 1.	The value is an integer that ranges from 0 to 4294967295.
p2 *p2-value*	Specifies the value of parameter 2.	The value is an integer that ranges from 0 to 4294967295.
p3 *p3-value*	Specifies the value of parameter 3.	The value is an integer that ranges from 0 to 4294967295.
p4 *p4-value*	Specifies the value of parameter 4.	The value is an integer that ranges from 0 to 4294967295.
p5 *p5-value*	Specifies the value of parameter 5.	The value is a string of 1 to 64 characters.
p6 *p6-value*	Specifies the value of parameter 6.	The value is a string of 1 to 64 characters.

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Enable software debugging for the CCM module.

```
<Huawei> system-view
[Huawei] diagnose
[Huawei-diagnose] debugging voice ccm cmd 0
```

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```
->CCM_DebugFunc: dwDebugCmd = 0, dwPara1 = 4294967295, dwPara2 = 4294967295, dwPara3 =
4294967295, dwPara4 = 4294967295
---------- CCM Debug Help ----------
 0   : print debug help information .....command parmeters:[-]

---------- CCM Block Debug Help ----------
 1   : show All CCM control block In Used.....command parameters:[-]
 2   : show content of CCM control block .....command parameters:[p1:ccm no]

---------- CCM Timer Debug Help ----------
 11  : show timer switch of CCM .....command parameters:[-]
 12  : set timer switch of CCM .....command parameters:[-]
 13  : show timer length of CCM .....command parameters:[-]
 14  : set ccm timer length to default .....command parameters:[-]

---------- CCM Newservice Debug Help ----------
 21   : show All ringsevice CB In Used.....command parameters:[-]
 22   : show info of ringsevice CB .....command parameters:[p1:ringservice no]
 23   : show PickupGroup Stack Info.....command parameters:[-]

---------- CCM Bill Debug Help ----------
 31   : generate bills.....command parameters:[P1:bills number(0-5000) P2-CCM No(0-132)]
 32   : show max number length the bill could display .....command parameters:[-]
 33   : modify max number length the bill could display ...command parameters:[p1:length]
 35   : show diameter info by ccm number.....command parameters:[p1:ccm no]
```

16.3.1.3 debugging voice module-name debug-level-value

Function

The **debugging voice module-name debug-level-value** command enables the debug log function for modules.

The **undo debugging voice module-name** command disables the debug log function for modules.

Format

debugging voice *module-name debug-level-value*

debugging voice msgtrace [**caller** *caller-telno*] *debug-level-value*

undo debugging voice *module-name*

undo debugging voice msgtrace

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Parameters

Parameter	Description	Value
module-name	Specifies the voice module of the debugging messages.	Enumerated type. The values are as follows: • **at0** • **bill** • **billserver** • **bin** • **cs** • **ccm** • **conference** • **db** • **dss1** • **error** • **h248dmm** • **h248sp** • **h248pa** • **h323** • **innertrace** • **l2ua** • **lm** • **ms** • **nm** • **pbxmp** • **pbxomshl** • **r2** • **r2rs** • **rm** • **scm** • **sdb** • **sip** • **sipbcm** • **sipcc** • **sipcom** • **sipcp** • **sipdlg** • **sipdmm** • **sipem** • **sipmp** • **sipmpc**

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Parameter	Description	Value
		• **sipmsg** • **sippa** • **sipsl** • **siptk** • **snm** • **ssm** • **sys** • **ioee** • **tam** • **tbcm** • **tkh** • **tpa** • **trace** • **transfer** • **trc** • **uam** • **ucbincli** • **userlocation** • **vcm** • **volc** • **vpm** • **vrm** • **vu**
debug-level-value	Specifies the debug log level.	The value can be **error**, **event**, **trace**, or **all**. • error: error level • event: event level • trace: trace level • all: all levels

Views

Diagnostic view

Default Level

3: Management level

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Usage Guidelines

None

Example

Enable the debug log function for the DSS1 module and set the debug log level to all.

```
<Huawei> system-view
[Huawei] diagnose
[Huawei-diagnose] debugging voice dss1 all
```

16.3.1.4 display voice configuration

Function

Using the **display voice configuration** command, you can view global voice parameters.

Format

display voice configuration

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

View global voice parameters.

```
<Huawei> display voice configuration
  Country                : China-mainland
  Stop initial ring      : Enable
  MWI mode               : FSK without ring
  Flash hook upper       : 1000 ms
  Flash hook lower       : 100 ms
  Park feed              : Disable
  PCM                    : a law
  Ring frequency         : 25HZ
  Ring ac amplitude      : 45Vrms
```

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Table 16-21 Description of the **display voice configuration** command output

Item	Description
Country	Region identifier. The following identifiers are supported: • brazil: Brazil version. • britain-msfuk: Britain MSFUK version. • britain-etsi: Britain ESTI version. • bulgaria: Bulgaria version. • china-hongkong: China Hongkong version. • china-mainland: China mainland version. • egypt: Egypt version. • france: France version. • singapore: Singapore version. • thailand: Thailand version.
Stop initial ring	Stop initial ring
MWI mode	MWI mode
Flash hook upper	Flash hook upper
Flash hook lower	Flash hook lower
Park feed	Park feed
PCM	PCM
Ring frequency	Ring frequency
Ring ac amplitude	Specifies a ringing voltage.

16.3.1.5 display voice debugging

Function

The **display voice debugging** command displays the voice debugging status.

Format

display voice debugging *module-name*

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Parameters

Parameter	Description	Value
module-name	Displays debugging messages of the specified voice module.	Enumerated type. The values are as follows: • at0 • bill • billserver • bin • ccm • conference • db • dss1 • h323 • innertrace • lm • ms • msgtrace • nm • pbxmp • pbxomshl • r2 • r2rs • rm • scm • sdb • sip • sipdlg • sipem • sipmsg • sippa • siptk • ssm • sys • tam • tbcm • tkh • tpa • trace • transfer • trc

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Parameter	Description	Value
		• uam • ucbincli • userlocation • vcm • vpm • vrm • vu • all

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

View debugging information about the DSS1 module.

```
<Huawei> display voice debugging dss1
 DSS1  current tracing is disabled.
```

16.3.1.6 display voice diagnostic-information

Function

The **display voice diagnostic-information** command displays the voice diagnostic information.

Format

display voice diagnostic-information

Parameters

None

Views

All view

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Default Level

3: Management level

Usage Guidelines

None

Example

Display the voice diagnostic information.

```
<Huawei> display voice diagnostic-information
 ============================================================
  ===============display voice service-mode===============
============================================================
 The voice service mode is PBX.
============================================================
  ===============display voice dsp statistic===============
============================================================
  Slotid/DSP-Index              11/2
  Total                        128
  Idle                         128
  G.711 busy                     0
  All busy                       0
  Wastage                        0
  Fault                          0
  Loop back                      0
  Prohibited                     0

  Sum of Sub-Board
  Total                        128
  Idle                         128
  G.711 busy                     0
  All busy                       0
  Wastage                        0
  Fault                          0
  Loop back                      0
  Prohibited                     0
============================================================
  ===============display voice dsp state 11/2===============
============================================================

  Symbol:
     0-idle $-G.711 busy A-All busy W-Wastage X-fault
     @-IP loopback *-PCM loopback #-prohibited

  Channel NO.  DSP channel state
  ------------------------------------------------------------------------
  0000-0049  00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
  0050-0099  00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
  0100-0127  00000 00000 00000 00000 00000 000

  Total:
     128 DSP channel
     128 idle, 0 G.711 Busy, 0 All Busy, 0 Wastage, 0 Fault,
     0   IP loopback, 0 PCM loopback, 0 prohibited
============================================================
```

16.3.1.7 display voice error

Function

The **display voice error** command displays error logs about latest call failures (including the current call).

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Format

display voice error

Parameters

None

Views

All view

Default Level

2: Configuration level

Usage Guidelines

When a call fails, run the **display voice error** command to view the error log to rapidly troubleshoot the call failures caused by incorrect configurations.

Example

Display error logs about latest call failures.

```
<Huawei> display voice error
<Huawei> 2016/03/30-14:08:23 AR[N@18][CCM:1]###### ERR: Callee number analysis failed,Please check the configuration of callprefix ######
<Huawei> 2016/03/30-14:08:30 AR[N@53][CCM:2]###### ERR: Callee number analysis failed,Please check the configuration of callprefix ######
```

16.3.1.8 display voice media-port

Function

The **display voice media-port** command displays the media port number range.

Format

display voice media-port

Parameters

None

Views

All views

Default Level

2: Configuration level

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Usage Guidelines

None

Example

Display the media port number range.

```
<Huawei> display voice media-port
 media-port start 59392 end 62724
```

Table 16-22 Description of the **display voice media-port** command output

Item	Description
media-port start 59392 end 62724	• Start port number • End port number

16.3.1.9 display voice mix-info

Function

The **display voice mix-info** command displays voice mixing information.

Format

display voice mix-info { **port** *slotid*|*dspindex*|*dspchannel* | **dsp** *slotid*|*subcardid*|*portid* }

Parameters

None

Views

All views

Default Level

2: Configuration level

Usage Guidelines

None

Example

Display voice mixing information.

```
<Huawei> display voice mix-info port 2/0/0
 media-port start 59392 end 62724
```

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Table 16-23 Description of the **display voice mix-info** command output

Item	Description
media-port start 59392 end 62724	• Start port number • End port number

16.3.1.10 display voice online-info

Function

The **display voice online-info** command displays current online user information on the device.

Format

display voice online-info [**callee** *callee-number* | **caller***caller-number*]

Parameters

Parameter	Description	Value
callee *callee-number*	Displays information about called parties.	The value is a string of 1 to 32 characters.
caller *caller-number*	Displays information about calling parties.	The value is a string of 1 to 32 characters.

Views

All views

Default Level

3: Management level

Usage Guidelines

None.

Example

Display the current online user information on the device.

```
<Huawei> display voice online-info
 Online User Number : 2
 Online Call Information:
 Call type          : INNER
 Caller Service      : NORMAL
 Caller type         : SIPUE
 Caller info         : 214
 Caller DSP          : 0/0/17
```

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```
Caller RTP          : 192.168.0.3:62565
Callee Service      : NORMAL
Callee type         : PSTN
Callee info         : 1/0/0
Callee DSP          : -
Callee RTP          : -
Callee CodecType    : G711U
Start time          : 2012-07-16 14:21:58
Call duration (s)   : 0:0:16

Codec                          : G711U
Packetization duration (ms)    : 20
Local IP address: port         : 192.168.0.3:62656
Remote IP address: port        : 192.168.0.1:10002
Total number of Rx RTP bytes   : 756
Total number of Tx RTP bytes   : 120000
Total number of Rx RTP packets : 756
Total number of Tx RTP packets : 750
Total number of lost RTP packets : 0
Maximum network jitter (ms)    : 29
Minimum network jitter (ms)    : 17
Maximum loop delay (ms)        : 0
Minimum loop delay (ms)        : 0
Maximum Drop packets Rate (%)  : 0
Minimum Drop packets Rate (%)  : 0
```

Table 16-24 Description of the display voice online-info command output

Item	Description
Online Users Number	Number of online users.
Call type	Call type. For details, see the parameter description in **16.5.1.5 call-type**.
Caller Service	Service type. For details, see the parameter description in **16.5.1.5 call-type**.
Caller type	Caller type.
Caller info	Caller terminal identifier.
Caller DSP	DSP used by the caller terminal.
Caller RTP	IP address and port number in RTP packets received and sent by the calling party.
Callee Service	Service type. For details, see the parameter description in **16.5.1.5 call-type**.
Callee type	Callee type.
Callee info	Callee terminal identifier.
Callee DSP	DSP used by the callee terminal.

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Item	Description
Callee RTP	IP address and port number in RTP packets received and sent by the called party.
Callee CodecType	Codec type: • G711U • G726 • G723 • G711A • G722 • G728 • G729 • G723Low • g726-16k • g726-24k • g726-32k • g726-40k • R2198 • R2833 • v150 • clearmode • T.38 • T.38+2
Start time	Start time of a call.
Call duration (s)	Duration in which a call lasts.
Codec	-
Packetization duration (ms)	-
Local IP address: port	Local IP address and port number.
Remote IP address: port	Remote IP address and port number.
Total number of Rx RTP bytes	Total number of bytes received by the local end.
Total number of Tx RTP bytes	Total number of bytes sent by the local end.
Total number of Rx RTP packets	Total number of packets received by the local end.
Total number of Tx RTP packets	Total number of packets sent by the local end.

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Item	Description
Total number of lost RTP packets	Total number of discarded RTP packets.
Maximum network jitter (ms)	-
Minimum network jitter (ms)	-
Maximum loop delay (ms)	-
Minimum loop delay (ms)	-
Maximum Drop packets Rate (%)	Maximum packet loss ratio.
Minimum Drop packets Rate (%)	Minimum packet loss ratio.

16.3.1.11 display voice run-stat

Function

display voice run-stat command displays running state information of voice module.

Format

display voice run-stat{ **call-info** | **dsp** | **port** | **proxy-rtp** | **rtp** | **user** }

Parameters

Parameter	Description	Value
call-info	Call-relevant port info	-
dsp	State of dsp channel	-
port	State of port	-
proxy-rtp	RTP port info of media proxy	-
rtp	RTP port info	-

Views

All views

Default Level

3: Management level

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Usage Guidelines

None.

Example

displays running state information of voice module

```
<Huawei> display voice run-stat call-info
 [DSP statistics]
  Total         DSP channel : 36
  Idle          DSP channel : 33
  Occupy        DSP channel : 1
  Fault         DSP channel : 0
  Waste         DSP channel : 2
  Prohibit      DSP channel : 0
  PCM loopback  DSP channel : 0
  IP loopback   DSP channel : 0

 [RTP port statistics]
  Total  RTP  port : 250
  Idle   RTP  port : 249
  Occupy RTP  port : 1
  Fault  RTP  port : 0

 [PORT statistics]
  Total  port      : 7
  Busy   port      : 0
  Idle   port      : 7
  Fault  port      : 0
  Locked port      : 0
  Other  port      : 0

 [Proxy RTP port statistics]
  Total  RTP  port : 250
  Idle   RTP  port : 250
  Occupy RTP  port : 0
```

Table 16-25 Description of the **display voice run-stat call-info** command output

Item	Description
[DSP statistics]	DSP statistics
Total DSP channel	Total DSP channel number
Idle DSP channel	Idle DSP channel number
Occupy DSP channel	Occupy DSP channel number
Fault DSP channel	Fault DSP channel number
Waste DSP channel	Waste DSP channel number
Prohibit DSP channel	Prohibit DSP channel number
PCM loopback DSP channel	PCM loopback DSP channel number
IP loopback DSP channel	IP loopback DSP channel number
[RTP port statistics]	RTP port statistics
Total RTP port	Total RTP port number

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Item	Description
Idle RTP port	Idle RTP port number
Occupy RTP port	Occupy RTP port number
Fault RTP port	Fault RTP port number
[PORT statistics]	PORT statistics
Total port	Total port number
Busy port	Busy port number
Idle port	Idle port number
Fault port	Fault port number
Locked port	Locked port number
Other port	Other port number
[Proxy RTP port statistics]	Proxy RTP port statistics
Total RTP port	Total RTP port number
Idle RTP port	Idle RTP port number
Occupy RTP port	Occupy RTP port number

16.3.1.12 display voice service-mode

Function

Using the **display voice service-mode** command, you can view the voice service mode.

Format

display voice service-mode

Parameters

None

Views

All views

Default Level

3: Management level

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Usage Guidelines

The default voice service mode is SIPAG. When configuring voice functions, you must specify the voice service mode.

Example

View the current voice service mode.

```
<Huawei> display voice service-mode
 The voice service mode is PBX.
```

Table 16-26 Description of the **display voice service-mode** command output

Item	Description
The voice service mode is PBX.	Voice service mode. The device supports the following service modes: • H248AG • SIP AG • PBX

16.3.1.13 display voice sip-reg-count-per-second

Function

The **display voice sip-reg-count-per-second** command displays the number of SIP register messages sent every second.

Format

display voice sip-reg-count-per-second

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

None.

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Example

Display the number of SIP register messages sent every second.

```
<Huawei> display voice sip-reg-count-per-second
 Sip register message count per second is 10!
```

16.3.1.14 display voice trace

Function

The **display voice trace** command displays the latest log information about call failures, including error and call logs.

Format

display voice trace

Parameters

None

Views

All views

Default Level

2: Configuration level

Usage Guidelines

When a call fails, run the **display voice trace** command to view the call log to rapidly troubleshoot call failures.

Example

Display call logs about latest call failures, including error and call logs.

```
<Huawei> display voice trace
<Huawei> 2016/03/30-14:08:23 AR[N@18][CCM:1]###### ERR: Callee number analysis failed,Please check
the configuration of callprefix ######
<Huawei> 2016/03/30-14:08:30 AR[N@53][CCM:2]###### ERR: Callee number analysis failed,Please check
the configuration of callprefix ######
<Huawei> 2016/03/30-14:08:30 AR[N@49]------[CCM     :    2]  <-- SETUP            --  [UAM     ]
<Huawei> 2016/03/30-14:08:30 AR[N@50]------[CCM     :    2]  -- SETUP_ACK         -->  [UAM     ]
<Huawei> 2016/03/30-14:08:30 AR[N@51]------[CCM     :    2]  <-- INFORMATION       --  [UAM     ]
<Huawei> 2016/03/30-14:08:30 AR[N@52]------[CCM     :    2]  caller(2003) called(69****412)
<Huawei> 2016/03/30-14:08:30 AR[N@53][CCM:2]###### ERR: Callee number analysis failed,Please check
the configuration of callprefix ######
<Huawei> 2016/03/30-14:08:30 AR[N@54]------[CCM     :    2]  -- RELEASE           -->  [UAM     ]
<Huawei> 2016/03/30-14:08:30 AR[N@55]------[UAM-SIP :    2]  <-- SETUP_ACK         --  [CCM     ]
<Huawei> 2016/03/30-14:08:30 AR[N@56]------[UAM-SIP :    2]  <-- RELEASE           --  [CCM     ]
<Huawei> 2016/03/30-14:08:30 AR[N@57]------[CCM     :    2]  <-- RELEASE_COMPLETE   --  [UAM     ]
```

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16.3.1.15 display voice upgrade-info

Function

The **display voice upgrade-info** command displays the configuration that fails to be upgraded after version upgrade.

Format

display voice upgrade-info

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

After version upgrade, you can run the **display voice upgrade-info** command to view the configuration that fails to be upgraded.

Example

Display upgrade information.

```
<Huawei> system-view
[Huawei]display voice upgrade-info
[Upgrade-info: Upgrade unsuccessful command]
telno country-code 86 area-code 571 telno-value 6005
[Upgrade-info: End]
```

16.3.1.16 display voice voip-address

Function

Using the **display voice voip-address** command, you can view the configuration of the signaling IP address pool and media IP address pool.

Format

display voice voip-address

Parameters

None

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Views

All views

Default Level

3: Management level

Usage Guidelines

The **display voice voip-address** command shows the configuration of the signaling IP address pool and media IP address pool.

Example

Display the configuration of the signaling IP address pool and media IP address pool.

```
<Huawei> display voice voip-address

 IP type         : Media IP
 Method           : Static
 Interface       : GigabitEthernet0/0/1
 IP address       : 192.168.1.1

 IP type         : Signal IP
 Method           : Static
 Interface       : GigabitEthernet0/0/1
 IP address       : 192.168.1.1
```

Table 16-27 Description of the display voice voip-address command output

Item	Description
IP type	IP address pool type: • Media IP: media IP address pool • Signal IP: signaling IP address pool
Method	Mode in which an IP address pool is configured: • Static: The IP address pool is configured statically. • dynamic: The IP address pool is allocated dynamically.
Interface	Interface where an IP address pool is configured.
IP address	IP addresses in an IP address pool.

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16.3.1.17 eid-para signalling (PBX user view)

Function

Using the **eid-para signalling** command, you can set the signaling type for a PBX user on a BRA port.

Using the **undo eid-para signalling** command, you can restore the default signaling type of a PBX user on a BRA port.

By default, the signaling type of a PBX user on a BRA port is Digital Subscriber Signalling System No. 1 (DSS1).

Format

eid-para signalling *sigtype*

undo eid-para signalling

Parameters

Parameter	Description	Value
sigtype	Specifies the signaling type.	The value can be: • dss1 • qsig

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

You need to configure the signaling type only for PBX users on a BRA port:

- When the device functions as a user-side device and uses DSS1 to connect to a network, set the signaling type to **dss1**.
- When the device functions as a user-side device and uses Q signaling (QSIG) to connect to a network, set the signaling type to **qsig**.

Example

Set the signaling type of a PBX user to QSIG.

```
<system-view> system-view
[Huawei] voice
[Huawei-voice] pbxuser jack
[Huawei-voice-pbxuser-jack] eid-para signalling qsig
```

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16.3.1.18 flash-hook lower

Function

Using the **flash-hook lower** command, you can set the lower threshold for hookflash pressing.

Using the **undo flash-hook lower** command, you can restore the default lower threshold for hookflash pressing.

By default, the lower threshold for hookflash pressing is 100 ms.

Format

flash-hook lower *lower-value*

undo flash-hook lower

Parameters

Parameter	Description	Value
lower-value	Specifies the lower hookflash threshold.	The value is an integer that ranges from 50 to 1400, in milliseconds. **NOTE** The value of *lower-value* plus 50 cannot be larger than the value of *upper-value*.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

The hookflash can be pressed by a calling party or a called party:

- Hookflash pressed by a called party: If the called party user A wants to transfer an incoming call to user B or another phone, user A can press the hookflash and dial the number of user C.
- Hookflash pressed by a calling party: User A calls user B. User B answers the call and talks with user A. User A can press the hookflash and dial the number of user C after hearing a special dial tone.

After user A presses the hookflash, if user C is busy or does not respond for a long period of time, user A can press the hookflash and talk with user B. If the phone of user C rings, user A hangs up and user B hears the ringback tone. User C picks

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up the phone and talks with user B. Whether a called party can be transferred to a toll call is restricted by the outgoing right of the called party.

The hookflash function can support the multi-party call service that users on a local network apply for, such as call waiting, call hold, three-party service, and call conference. Centrex users can call only users in the Centrex group.

Example

Set the lower threshold for hookflash pressing to 200 ms on the device.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] flash-hook lower 200
```

16.3.1.19 flash-hook upper

Function

Using the **flash-hook upper** command, you can set the upper threshold for hookflash pressing.

Using the **undo flash-hook upper**command, you can restore the default upper threshold for hookflash pressing.

By default, the upper threshold for hookflash pressing is 350 ms.

Format

flash-hook upper *upper-value*

undo flash-hook upper

Parameters

Parameter	Description	Value
upper-value	Specifies the upper threshold for hookflash pressing.	The value is an integer ranging from 50 to 1400, in milliseconds. **NOTE** The value that ranges from 100 to 1400 is supported by AR129CGVM-L.

Views

Voice view

Default Level

2: Configuration level

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Usage Guidelines

The hookflash can be pressed by a calling party or a called party:

- Hookflash pressed by a called party: If the called party user A wants to transfer an incoming call to user B or another phone, user A can press the hookflash and dial the number of user C.
- Hookflash pressed by a calling party: User A calls user B. User B answers the call and talks with user A. User A can press the hookflash and dial the number of user C after hearing a special dial tone.

After user A presses the hookflash, if user C is busy or does not respond for a long period of time, user A can press the hookflash and talk with user B. If the phone of user C rings, user A hangs up and user B hears the ringback tone. User C picks up the phone and talks with user B. Whether a called party can be transferred to a toll call is restricted by the outgoing right of the called party.

The hookflash function can support the multi-party call service that users on a local network apply for, such as call waiting, call hold, three-party service, and call conference. Centrex users can call only users in the Centrex group.

Example

Set the upper threshold for hookflash pressing to 1200 ms on the device.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] flash-hook upper 1200
```

16.3.1.20 load voice-package

Function

The **load voice-package** command loads the voice prompt file.

Format

load voice-package *filename*

Parameters

Parameter	Description	Value
filename	Specifies the voice prompt file to be loaded.	The value is a string of 1 to 64 case-insensitive characters. The file name extension is .res or .cc. The recommended format is drive name:/directory name/file name, for example, flash:/voicepacket.res.

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Views

User view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

A prompt tone is the voice prompt heard by the calling and called users when the calling user initiates a call. For example, when the calling user calls the called user, the calling user hears the prompt tone indicating that the called user is busy. A voice prompt file stores all voice prompt tones.

The system software has the default voice prompt file. Voice prompt tone rules and services (including three-way conversation, three-party service, teleconference, call transfer, and call waiting) have different usage scenarios in different countries. You can customize the voice prompt file according to service requirements. To make the voice prompt voice file take effect immediately, run the **load voice-package** command to load the files. After loading the voice prompt file, run the **display startup** command to check the loaded voice prompt file according to the Startup voice-files field.

Prerequisites

Before loading the voice prompt file, perform the following operations:

1. Make the voice prompt file and generate a file with file name extension .res or .cc.

   NOTE

   For details about generating the voice prompt file with file name extension .res or .cc, contact technical support personnel.

2. Upload or download the voice prompt file to the device's memory.

Precautions

- When you use the **load voice-package** command to load the voice prompt file, the file take effect immediately after being loaded and the voice prompt file for next startup is modified.
- To restore the default English language, run the **load voice-package** command to load the system software package (.cc file) used for the current startup.

Example

Load voice prompt file **voicepacket.res**.

```
<Huawei> load voice-package voicepacket.res
 Info: Succeeded in activating the file
<Huawei> display startup
 MainBoard:
  Startup system software:                flash:/ar_v2r2c00.cc
  Next startup system software:            flash:/ar_v2r2c00.cc
```

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```
Backup system software for next startup:   null
Startup saved-configuration file:          flash:/vrpcfg.zip
Next startup saved-configuration file:     flash:/vrpcfg.zip
Startup license file:                    null
Next startup license file:                 null
Startup patch package:                     null
Next startup patch package:                null
Startup voice-files:                     flash:/voicepacket.res
Next startup voice-files:                  flash:/voicepacket.res
```

16.3.1.21 media-port

Function

The **media-port** command configures a media port number range.

The **undo media-port** command restores the default values of media port number range.

By default, the system allocates a media port number range.

Format

media-port start *start-port-value* **end** *end-port-value*

undo media-port

Parameters

Parameter	Description	Value
start *start-port-value*	Specifies the start media port number.	The value is an integer that ranges from 1025 to 65535. Compatible with older versions whose range for this port value is from 1025 to 65535. **NOTE** Four media port numbers constitute a group, so the start media port number must be a multiple of 4.
end *end-port-value*	Specifies the end media port number.	The value is an integer that ranges from 1025 to 65532.Compatible with older versions whose range for this port value is from 1025 to 65535. **NOTE** Four media port numbers constitute a group, so the end media port number must be a multiple of 4.

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Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

M indicates the maximum number of online users and N indicates the start media port number (N + M*4 <= 65535).

Example

Set the media port number range to 54000-64000.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] media-port start 54000 end 64000
```

16.3.1.22 mwi-mode

Function

Using the **mwi-mode** command, you can set the message waiting indicator (MWI) mode.

Using the **undo mwi-mode** command, you can restore the default MWI mode.

By default, the MWI mode is **fsk-without-ring**, in which the FSK is sent but no ring message is sent.

Format

mwi-mode { **fsk-with-ring** | **fsk-without-ring** }

undo mwi-mode

Parameters

Parameter	Description	Value
fsk-with-ring	Indicates that the FSK and a ring message are sent.	-
fsk-without-ring	Indicates that the FSK is sent but no ring message is sent.	-

Views

Voice view

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Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the MWI mode to **fsk-with-ring**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] mwi-mode fsk-with-ring
```

16.3.1.23 pcm

Function

Using the **pcm** command, you can set the codec mode for voice services.

Using the **undo pcm** command, you can restore the default codec mode for voice services.

By default, the codec mode for voice services is A law.

Format

pcm { **a-law** | **u-law** }

undo pcm

Parameters

Parameter	Description	Value
a-law	Indicates the a-law algorithm.	-
u-law	Indicates the u-law algorithm.	-

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

G.711 defines two compression algorithms: A-law algorithm and u-law algorithm. G.711, also known as Pulse Code Modulation (PCM), is a commonly used

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waveform codec. G.711 uses a sampling rate of 8,000 samples per second. Non-uniform quantization (logarithmic) with 8 bits is used to represent each sample, resulting in a 64 kbit/s bit rate.

G.711 defines two main compression algorithms, the μ-law algorithm (used in North America and Japan) and A-law algorithm (used in Europe and the rest of the world). A-law encoding takes a 13-bit signed linear audio sample as input. μ-law encoding takes a 15-bit signed linear audio sample as input.

Example

Set the codec mode to u-law on the device.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pcm u-law
```

16.3.1.24 park-feed

Function

Using the **park-feed** command, you can enable the device to reduce the feed on locked ports or disable this function.

Using the **undo park-feed** command, you can cancel the configuration.

By default, the device reduces the feed on locked ports.

Format

park-feed { **enable** | **disable** }

undo park-feed

Parameters

None

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

The **park-feed enable** command configures the system to reduce the feed on a Foreign Exchange Station (FXS) port when the port is locked.

NOTE

This function takes effect only for FXS ports.

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Example

Disable the device from reducing the feed on locked FXS ports.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] park-feed disable
```

16.3.1.25 save tracelog

Function

The **save tracelog** command saves logs in the error log buffer and call log buffer to the **tracelog.zip** file in the flash memory of the device.

Format

save tracelog

Parameters

None

Views

All views

Default Level

2: Configuration level

Usage Guidelines

When a call fails, it is slow to generate error and call logs on the console interface. You can run the **save tracelog** command to save error and call logs in the log buffer to the **flash:/tracelog.zip** file. Technical personnel can export the logs from the device to rapidly troubleshoot the call failure.

Example

Save logs in the error log buffer and call log buffer to the **tracelog.zip** file in the flash memory of the device.

```
<Huawei> save tracelog
```

16.3.1.26 service-mode

Function

Using the **service-mode** command, you can set the voice operation mode.

By default, the voice operation mode is SIPAG mode.

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Format

service-mode { **h248ag** | **sipag** | **pbx**}

Parameters

Parameter	Description	Value
h248ag	Indicates the H248AG mode.	-
sipag	Indicates the SIP AG mode.	-
pbx	Indicates the PBX mode.	-

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

Before configuring voice functions, you must specify the voice operation mode on the device.

After running the **service-mode** command to switch the voice operation mode of the device, save the configuration and run the **reboot** command in the user view to restart the device.

Example

Set the service mode to PBX.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] service-mode PBX
 The modification takes effect only after you save the data and reboot the device.
[Huawei-voice] quit
[Huawei] quit
<Huawei> save
  The current configuration will be written to the device.
  Are you sure to continue? (y/n)[n]:y
  It will take several minutes to save configuration file, please wait.....
  Configuration file had been saved successfully
  Note: The configuration file will take effect after being activated
<Huawei> reboot
```

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16.3.1.27 sip-reg-count-per-second

Function

The **sip-reg-count-per-second** command sets the number of SIP register messages sent every second.

The **undo sip-reg-count-per-second** command restores the default number of SIP register messages sent every second.

By default, five SIP register messages are sent every second.

Format

sip-reg-count-per-second *reg-count-value*

undo sip-reg-count-per-second

Parameters

Parameter	Description	Value
reg-count-value	Specifies the number of SIP register messages sent every second.	The value is an integer that ranges from 1 to 1024.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Set the number of SIP register messages sent every second to 3.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip-reg-count-per-second 3
```

16.3.1.28 startup voice-package

Function

The **startup voice-package** command specifies the voice prompt file for next startup.

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Format

startup voice-package *filename*

Parameters

Parameter	Description	Value
filename	Specifies the voice prompt file for next startup.	The value is a string of 1 to 64 case-insensitive characters. The file name extension is .res or .cc. The recommended format is drive name:/directory name/file name, for example, flash:/voicepacket.res.

Views

User view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

A prompt tone is the voice prompt heard by the calling and called users when the calling user initiates a call. For example, when the calling user calls the called user, the calling user hears the prompt tone indicating that the called user is busy. A voice prompt file stores all voice prompt tones.

The system software has the default voice prompt file. Voice prompt tone rules and services (including three-way conversation, three-party service, teleconference, call transfer, and call waiting) have different usage scenarios in different countries. You can customize the voice prompt file according to service requirements. To make the current voice prompt file continue to take effect and the new voice prompt file file take effect during next startup, run the **startup voice-package** command to specify the voice prompt file for next startup. After loading the voice prompt file, run the **display startup** command to check the loaded voice prompt file according to the Next startup voice-files field.

Prerequisites

Before loading the voice prompt file, perform the following operations:

1. Make the voice prompt file and generate a file with file name extension .res or .cc.

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NOTE

For details about generating the voice prompt file with file name extension .res or .cc, contact technical support personnel.

2. Upload or download the voice prompt file to the device's memory.

Follow-up Procedure

To make the configuration take effect, run the **reboot** command in the user view to restart the device.

Example

Specify the voice prompt file **voicepacket.res** for next startup.

```
<Huawei> startup voice-package flash:/voicepacket.res
 This operation will take several minutes, please wait.....................
 ..
 Info: Succeeded in setting the file for booting system
<Huawei> display startup
 MainBoard:
  Startup system software:                flash:/ar_v2r2c00.cc
  Next startup system software:            flash:/ar_v2r2c00.cc
  Backup system software for next startup:   null
  Startup saved-configuration file:        flash:/vrpcfg.zip
  Next startup saved-configuration file:     flash:/vrpcfg.zip
  Startup license file:                  null
  Next startup license file:               null
  Startup patch package:                   null
  Next startup patch package:              null
  Startup voice-files:                   null
  Next startup voice-files:                flash:/voicepacket.res
```

16.3.1.29 voice

Function

Using the **voice** command, you can enter the voice view.

Format

voice

Parameters

None

Views

System view

Default Level

2: Configuration level

Usage Guidelines

Voice configurations can be performed only in the voice view.

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Example

Enter the voice view.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]
```

16.3.1.30 voip-address media

Function

Using the **voip-address media** command, you can assign a media IP address pool to an interface.

Using the **undo voip-address media** command, you can delete the media IP address pool of an interface.

Format

voip-address media interface *interface-type interface-number* { *ip-address* | **dynamic** }

undo voip-address media interface *interface-type interface-number* { *ip-address* | **dynamic** }

Parameters

Parameter	Description	Value
interface *interface-type interface-number*	Specifies the type and number of an interface.	-
ip-address	Specifies an IP address.	The value is in dotted decimal notation.
dynamic	Obtains IP addresses dynamically.	-

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

When configuring a media IP address pool:

- To specify the *ip-address* parameter, ensure that an IP address has been configured for the specified interface.

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- To specify the **dynamic** parameter, ensure that an IP address has been dynamically assigned to the specified interface.

Example

Assign the media IP address pool 192.168.1.1 to GigabitEthernet 0/0/0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] voip-address media interface GigabitEthernet 0/0/0 192.168.1.1
```

Related Topics

16.3.1.31 voip-address signalling

16.3.1.31 voip-address signalling

Function

Using the **voip-address signalling** command, you can assign a signaling IP address pool to an interface.

Using the **undo voip-address signalling** command, you can delete the signaling IP address pool of an interface.

Format

voip-address signalling interface *interface-type interface-number* { *ip-address* | **dynamic** }

undo voip-address signalling interface *interface-type interface-number* { *ip-address* | **dynamic** }

Parameters

Parameter	Description	Value
interface *interface-type interface-number*	Specifies the type and number of an interface.	-
ip-address	Specifies an IP address.	The value is in dotted decimal notation.
dynamic	Obtains IP addresses dynamically.	-

Views

Voice view

Default Level

2: Configuration level

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Usage Guidelines

When configuring a signaling IP address pool:

- To specify the *ip-address* parameter, ensure that an IP address has been configured for the specified interface.
- To specify the **dynamic** parameter, ensure that an IP address has been dynamically assigned to the specified interface.

Example

Assign the signaling IP address pool 192.168.1.1 to GigabitEthernet 0/0/0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] voip-address signalling interface GigabitEthernet 0/0/0 192.168.1.1
```

Related Topics

16.3.1.30 voip-address media

16.3.1.32 voip-vpn-instance

Function

The **voip-vpn-instance** command specifies a VPN instance used by voice services.

The **undo voip-vpn-instance** command deletes the VPN instance used by voice services.

By default, no VPN instance is specified to be used by voice services.

Format

voip-vpn-instance *vpn-instance-name*

undo voip-vpn-instance

Parameters

Parameter	Description	Value
vpn-instance-name	Specifies the name of a VPN instance.	The VPN instance must already exist.

Views

Voice view

Default Level

2: Configuration level

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Usage Guidelines

Usage Scenario

When the interfaces to which specified media IP addresses and signaling IP addresses belong are bound to a VPN instance, you can run the **voip-vpn-instance** command in the voice view to specify the VPN instance to be used by voice services.

Prerequisites

- The VPN instance used by voice services can be configured only when the router works in PBX mode. By default, a router works in PBX mode. If the router does not work in PBX mode, run the **service-mode** command in the voice view to change the work mode of the router to PBX.
- Before running the **voip-vpn-instance** command, run the **ip vpn-instance** command to create a VPN instance.

Precautions

- After a VPN instance is specified to be used by voice services, reset the SIP server and SIP trunk group.
- In the voice view, you can specify only one VPN instance to be used by voice services.

Example

Specify the VPN instance vpn1 to be used by voice services.

```
<Huawei> system-view
[Huawei] ip vpn-instance vpn1
[Huawei-vpn-instance-vpn1] ipv4-family
[Huawei-vpn-instance-vpn1-af-ipv4] route-distinguisher 22:1
[Huawei-vpn-instance-vpn1-af-ipv4] quit
[Huawei-vpn-instance-vpn1] quit
[Huawei] voice
[Huawei-voice] voip-vpn-instance vpn1
```

Related Topics

12.9.35 ip vpn-instance

16.3.1.30 voip-address media

16.3.1.31 voip-address signalling

16.3.1.33 undo logserver

Function

Using the **undo logserver** command, you can disable the port for communicating with the log server to stop sending logs to the log server.

Format

undo logserver

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Parameters

None

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Disable the port for communicating with the log server to stop sending logs to the log server.

```
<Huawei> system-view
[Huawei] diag
[Huawei-diagnose]undo logserver
```

16.3.2 Clip Configuration Commands

16.3.2.1 clip offhook ack-fsk-interval

Function

Using the **clip offhook ack-fsk-interval** command, you can set the interval between the time when the ACK message is received and the time when the frequency-shift keying (FSK) is transmitted in offhook state.

Using the **undo clip offhook ack-fsk-interval** command, you can restore the default interval.

By default, the interval between the time when the ACK message is received and the time when the FSK is transmitted in offhook state is 50 ms.

Format

clip offhook ack-fsk-interval *ack-fsk-interval*

undo clip offhook ack-fsk-interval

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Parameters

Parameter	Description	Value
ack-fsk-interval	Specifies the interval between the time when the ACK message is received and the time when the FSK is transmitted in offhook state.	The value is an integer that ranges from 0 to 1000, in milliseconds. The default value is 50.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the interval between the time when the ACK message is received and the time when the FSK is transmitted in offhook state to 200 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip offhook ack-fsk-interval 200
```

16.3.2.2 clip offhook dtas-ack-interval

Function

Using the **clip offhook dtas-ack-interval** command, you can set the maximum duration between the time when the dual tone-alerting signal (DT-AS) is transmitted and the time when the ACK message is received in offhook state.

Using the **undo clip offhook dtas-ack-interval** command, you can restore the default maximum duration.

By default, the maximum duration is 160 ms.

Format

clip offhook dtas-ack-interval *dtas-ack-interval*

undo clip offhook dtas-ack-interval

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Parameters

Parameter	Description	Value
dtas-ack-interval	Specifies the maximum duration between the time when the DT-AS is transmitted and the time when the ACK message is received in offhook state.	The value is an integer that ranges from 0 to 1000, in milliseconds. The default value is 160 ms.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the maximum duration between the time when the DT-AS is transmitted and the time when the ACK message is received in offhook state to 500 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip offhook dtas-ack-interval 500
```

16.3.2.3 clip offhook dtas-duration

Function

Using the **clip offhook dtas-duration** command, you can set the duration of the dual tone-alerting signal (DT-AS) in offhook state.

Using the **undo clip offhook dtas-duration** command, you can restore the default duration of the DT-AS in offhook state.

By default, the duration of the DT-AS in offhook state is 80 ms.

Format

clip offhook dtas-duration *dtas-dur-value*

undo clip offhook dtas-duration

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Parameters

Parameter	Description	Value
dtas-dur-value	Specifies the duration of the DT-AS in offhook state.	The value is an integer ranging from 0 to 1000, in milliseconds. The default value is 80.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the duration of the DT-AS in offhook state to 200 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip offhook dtas-duration 200
```

16.3.2.4 clip offhook dtas-level

Function

Using the **clip offhook dtas-level** command, you can configure the level of the dual tone-alerting signal (DT-AS) in offhook state.

Using the **undo clip offhook dtas-level** command, you can restore the default level of the DT-AS in offhook state.

By default, the level of the DT-AS in offhook state is 10, that is, -15.5 dBm0.

Format

clip offhook dtas-level *dtas-level*

undo clip offhook dtas-level

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Parameters

Parameter	Description	Value
dtas-level	Specifies the level of the DT-AS in offhook state.	The value is an integer that ranges from 0 to 15. The value 0 indicates -5.5 dBm0 and the value 15 indicates -20.5 dBm0. The step is 1 dBm0. The default value is 10.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the level of the DT-AS in offhook state to 15 (-20.5 dBm0).

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip offhook dtas-level 15
```

16.3.2.5 clip offhook fsk-level

Function

Using the **clip offhook fsk-level** command, you can configure the level of the frequency-shift keying (FSK) in offhook state.

Using the **undo clip offhook fsk-level** command, you can restore the default level of the FSK in offhook state.

By default, the level of the FSK in offhook state is 3, that is, -8.5 dBm0.

Format

clip offhook fsk-level *fsk-level*

undo clip offhook fsk-level

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Parameters

Parameter	Description	Value
fsk-level	Specifies the level of the FSK in offhook state.	The value is an integer that ranges from 0 to 15. The value 0 indicates -5.5 dBm0 and the value 15 indicates -20.5 dBm0. The step is 1 dBm0. The default value is 3.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the level of the FSK in offhook state to 15 (-20.5 dBm0).

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip offhook fsk-level 15
```

16.3.2.6 clip offhook mark-signal-bit

Function

Using the **clip offhook mark-signal-bit** command, you can set the number of bits of the FSK synchronization mask in offhook state.

Using the **undo clip offhook mark-signal-bit** command, you can restore the default number of bits of the FSK synchronization mask in offhook state.

By default, the number of bits of the FSK synchronization mask in offhook state is 80.

Format

clip offhook mark-signal-bit *mark-signal-bit*

undo clip offhook mark-signal-bit

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Parameters

Parameter	Description	Value
mark-signal-bit	Specifies the number of bits of the FSK synchronization mask in offhook state.	The value is an integer that ranges from 0 to 1000. The default value is 80.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the number of bits of the FSK synchronization mask in offhook state to 200 on the device.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip offhook mark-signal-bit 200
```

16.3.2.7 clip onhook channel-seize-bit

Function

Using the **clip onhook channel-seize-bit** command, you can set the number of bits seized by a channel in onhook state.

Using the **undo clip onhook channel-seize-bit** command, you can restore the default number of bits seized by a channel in onhook state.

By default, the number of bits seized by a channel in onhook state is 300.

Format

clip onhook channel-seize-bit *channel-seize-bit*

undo clip onhook channel-seize-bit

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Parameters

Parameter	Description	Value
channel-seize-bit	Specifies the number of bits seized by a channel in onhook state.	The value is an integer that ranges from 0 to 1000. The default value is 300.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the number of bits seized by a channel in onhook state to 500 on the device.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip onhook channel-seize-bit 500
```

16.3.2.8 clip onhook dtas-duration

Function

Using the **clip onhook dtas-duration** command, you can set the duration of the DT-AS in onhook state.

Using the **undo clip onhook dtas-duration** command, you can restore the default duration of the DT-AS in onhook state.

By default, the duration of the DT-AS in onhook state is 100 ms.

Format

clip onhook dtas-duration *dtas-dur-value*

undo clip onhook dtas-duration

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Parameters

Parameter	Description	Value
dtas-dur-value	Specifies the duration of the DT-AS in onhook state.	The value is an integer ranging from 0 to 1000, in milliseconds. The default value is 100.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the duration of the DT-AS in onhook state to 500 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip onhook dtas-duration 500
```

16.3.2.9 clip onhook dtas-fsk-interval

Function

Using the **clip onhook dtas-fsk-interval** command, you can set the interval between the time when the DT-AS is transmitted and the time when the FSK is transmitted in onhook state.

Using the **undo clip onhook dtas-fsk-interval** command, you can restore the default interval between the time when the DT-AS is transmitted and the time when the FSK is transmitted in onhook state.

By default, the interval between the time when the DT-AS is transmitted and the time when the FSK is transmitted in onhook state is 250 ms.

Format

clip onhook dtas-fsk-interval *dtas-fsk-interval*

undo clip onhook dtas-fsk-interval

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Parameters

Parameter	Description	Value
dtas-fsk-interval	Specifies the interval between the time when the DT-AS is transmitted and the time when the FSK is transmitted in onhook state.	The value is an integer ranging from 0 to 1000, in milliseconds. The default value is 250.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the interval between the time when the DT-AS is transmitted and the time when the FSK is transmitted in onhook state to 500 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip onhook dtas-fsk-interval 500
```

16.3.2.10 clip onhook dtas-level

Function

Using the **clip onhook dtas-level** command, you can configure the level of the DT-AS in onhook state.

Using the **undo clip onhook dtas-level** command, you can restore the default level of the DT-AS in onhook state.

By default, the level of the DT-AS in onhook state is 3, that is, -8.5 dBm0.

Format

clip onhook dtas-level *dtas-level*

undo clip onhook dtas-level

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Parameters

Parameter	Description	Value
dtas-level	Specifies the level of the DT-AS in onhook state.	The value is an integer that ranges from 0 to 15. The value 0 indicates -5.5 dBm0 and the value 15 indicates -20.5 dBm0. The step is 1 dBm0. The default value is 3.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the level of the DT-AS in onhook state to 15 (-20.5 dBm0).

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip onhook dtas-level 15
```

16.3.2.11 clip onhook fsk-level

Function

Using the **clip onhook fsk-level** command, you can configure the level of the FSK in onhook state.

Using the **undo clip onhook fsk-level** command, you can restore the default level of the FSK in onhook state.

By default, the level of the FSK in onhook state is 3, that is, -8.5 dBm0.

Format

clip onhook fsk-level *fsk-level*

undo clip onhook fsk-level

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Parameters

Parameter	Description	Value
fsk-level	Specifies the level of the FSK in onhook state.	The value is an integer that ranges from 0 to 15. The value 0 indicates -5.5 dBm0 and the value 15 indicates -20.5 dBm0. The step is 1 dBm0. The default value is 3.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the level of the FSK in onhook state to 15 (-20.5 dBm0).

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip onhook fsk-level 15
```

16.3.2.12 clip onhook mark-signal-bit

Function

Using the **clip onhook mark-signal-bit** command, you can set the number of bits of the FSK synchronization mask in onhook state.

Using the **undo clip onhook mark-signal-bit** command, you can restore the default number of bits of the FSK synchronization mask in onhook state.

By default, the number of bits of the FSK synchronization mask in onhook state is 180.

Format

clip onhook mark-signal-bit *marksignal-bit*

undo clip onhook mark-signal-bit

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Parameters

Parameter	Description	Value
marksignal-bit	Specifies the number of bits of the FSK synchronization mask in onhook state.	The value is an integer that ranges from 0 to 1000. The default value is 180.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the number of bits of the FSK synchronization mask in onhook state to 600.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] clip onhook mark-signal-bit 600
```

16.3.2.13 display voice clip

Function

Using the **display voice clip** command, you can view Calling Line Identification Presentation (CLIP) parameters.

Format

display voice clip

Parameters

None

Views

All views

Default Level

3: Management level

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Usage Guidelines

None

Example

Display CLIP parameters on the device.

```
<Huawei> display voice clip
 CLIP onhook parameters:
  DTAS level                 : -8.5dBm0
  FSK level                  : -8.5dBm0
  Channel seize bit          : 300
  Mark signal bit            : 180
  DTAS FSK interval(ms)      : 250
  DTAS duration(ms)          : 100

 CLIP offhook parameters:
  DTAS level                 : -15.5dBm0
  FSK level                  : -8.5dBm0
  Mark signal bit            : 80
  DTAS ack interval(ms)      : 160
  Ack FSK interval(ms)       : 50
  DTAS duration(ms)          : 80
```

Table 16-28 Description of the display voice clip command output

Item	Description
CLIP onhook parameters	CLIP parameters in onhook state.
DTAS level	Level of the DT-AS.
FSK level	Level of the FSK.
Channel seize bit	Number of bits seized by a channel.
Mark signal bit	Number of bits of the FSK synchronization mask.
DTAS FSK interval	Interval between the time when the DT-AS is transmitted and the time when the FSK is transmitted.
DTAS duration	Duration of the DT-AS.
CLIP offhook parameters	CLIP parameters in offhook state.
Ack FSK interval	Interval between the time when the ACK message is received and the time when the FSK is transmitted.
DTAS ack interval	Maximum duration between the time when the DT-AS is transmitted and the time when the ACK message is received.

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16.3.3 Ring Configuration Commands

16.3.3.1 display voice user-defined-ring

Function

Using the **display voice user-defined-ring** command, you can view the user-defined ring information.

Format

display voice user-defined-ring [*ring-index*]

Parameters

Parameter	Description	Value
ring-index	Specifies the index of a user-defined ring.	The value is an integer that ranges from 0 to 15.

Views

All views

Default Level

3: Management level

Usage Guidelines

If *ring-index* is not specified, information about all user-defined rings is displayed.

Example

Display information about user-defined ring 1.

```
<Huawei> display voice user-defined-ring 1
      First-ring(ms)  Second-ring(ms) Third-ring(ms)
 Index Ring   Interval  Ring  Interval  Ring  Interval
 1     0      0         0     0         0     0
```

Display information about user-defined rings.

```
<Huawei> display voice user-defined-ring
       First-ring(ms)  Second-ring(ms) Third-ring(ms)
 Index Ring   Interval  Ring  Interval  Ring  Interval
 0     0      0         0     0         0     0
 1     0      0         0     0         0     0
 2     0      0         0     0         0     0
 3     0      0         0     0         0     0
 4     0      0         0     0         0     0
 5     0      0         0     0         0     0
 6     0      0         0     0         0     0
 7     0      0         0     0         0     0
```

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```
8    0     0       0    0       0    0
9    0     0       0    0       0    0
10   0     0       0    0       0    0
11   0     0       0    0       0    0
12   0     0       0    0       0    0
13   0     0       0    0       0    0
14   0     0       0    0       0    0
15   0     0       0    0       0    0
```

Table 16-29 Description of the display voice user-defined-ring command output

Item	Description
Index	Index of the user-defined ring.
First-ring	Duration of the first ring tone.
Second-ring	Duration of the second ring tone.
Third-ring	Duration of the third ring tone.
Ring	Ringing duration.
Interval	Duration after ringing stops.

16.3.3.2 ring frequency

Function

Using the **ring frequency** command, you can set the frequency of the ringing current.

Using the **undo ring frequency** command, you can restore the default frequency of the ringing current.

By default, the frequency of the ringing current is 25 Hz.

Format

ring frequency { **16hz** | **25hz** | **50hz** }

undo ring frequency

Parameters

Parameter	Description	Value
16hz	Indicates that the frequency of the ringing current is 16 Hz.	-
25hz	Indicates that the frequency of the ringing current is 25 Hz.	-

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Parameter	Description	Value
50hz	Indicates that the frequency of the ringing current is 50 Hz.	-

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

A higher frequency of the ringing current indicates a sharper ring tone.

Example

Set the frequency of the ringing current on the device to 16 Hz.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] ring frequency 16hz
```

16.3.3.3 ring voltage

Function

The **ring voltage** command configures the ringing voltage.

The **undo ring voltage** command restores the default ringing voltage.

By default, the ringing voltage is 45 Vrms. On the AR169FVW-8S, the default ringing voltage is 50 Vrms.

Format

ring voltage *voltage-value*

undo ring voltage

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Parameters

Parameter	Description	Value
voltage-value	Specifies a ringing voltage.	Enumerated type. The value can be: • 65 Vrms • 53 Vrms • 50 Vrms • 45 Vrms **NOTE** Only 129CGVW-L, AR129CVW and AR129CV support 53 Vrms.

Views

Voice views

Default Level

2: Configuration level

Usage Guidelines

When the default ringing voltage cannot meet requirements, you can run the **ring voltage** command to change the ringing voltage as required. You can run the **display voice configuration** command to verify the current ringing voltage configured on a device.

Example

Set the ringing voltage to 50 Vrms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] ring voltage 50Vrms
```

Related Topics

16.3.1.4 display voice configuration

16.3.3.4 stop-initial-ring enable

Function

Using the **stop-initial-ring enable** command, you can disable the initial ringing function.

Using the **stop-initial-ring disable** command, you can enable the initial ringing function.

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Using the **undo stop-initial-ring** command, you can restore the default initial ringing function.

By default, the initial ringing function is disabled.

Format

stop-initial-ring { **enable** | **disable** }

undo stop-initial-ring

Parameters

None

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable the initial ringing function on the device.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] stop-initial-ring disable
```

16.3.3.5 user-defined-ring

Function

Using the **user-defined-ring** command, you can set the cadence ratio of the specified user-defined ring type.

Using the **undo user-defined-ring** command, you can delete the cadence ratio of the specified user-defined ring type.

Format

user-defined-ring *ring-index* { **first-ring** *first-ring-period* | **first-interval** *first-interval* | **second-ring** *second-ring-period* | **second-interval** *second-interval* | **third-ring** *third-ring-period* | **third-interval** *third-interval* }*

undo user-defined-ring *ring-index* { **first-ring** | **first-interval** | **second-ring** | **second-interval** | **third-ring** | **third-interval** }*

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Parameters

Parameter	Description	Value
ring-index	Specifies the index of the user-defined ring type.	The value is an integer that ranges from 0 to 15.
first-ring *first-ring-period*	Specifies the duration of the first ring tone.	The value can be 0 or an integer that ranges from 200 to 12750, in milliseconds. The value 0 indicates that the first ring tone is canceled.
first-interval *first-interval*	Specifies the duration after the first ring stops.	The value can be 0 or an integer that ranges from 200 to 12750, in milliseconds.
second-ring *second-ring-period*	Specifies the duration of the second ring tone.	The value can be 0 or an integer that ranges from 200 to 12750, in milliseconds.
second-interval *second-interval*	Specifies the duration after the second ring stops.	The value can be 0 or an integer that ranges from 200 to 12750, in milliseconds.
third-ring *third-ring-period*	Specifies the duration of the third ring tone.	The value can be 0 or an integer that ranges from 200 to 12750, in milliseconds.
third-interval *third-interval*	Specifies the duration after the third ring stops.	The value can be 0 or an integer that ranges from 200 to 12750, in milliseconds.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

You can set different ring types based on the ringing duration.

The **ring-mode** command can reference the cadence ratio configured by the **user-defined-ring** command. The *cadencering-value* values 128 to 143 in the **ring-mode** command correspond to *index* values 0 to 15 in the **user-defined-ring**.

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The *initialring-value* values 144 to 159 in the **ring-mode** command correspond to *index* values 0 to 15 in the **user-defined-ring** command.

The device supports the following combinations:

- 1-segment ringing: **first-ring**
- 2-segment ringing: **first-ring** + **first-interval**
- 4-segment ringing: **first-ring** + **first-interval** + **second-ring** + **second-interval**
- 6-segment ringing: **first-ring** + **first-interval** + **second-ring**+**second-interval** + **third-ring** + **third-interval**

Example

Configure user-defined ring 0 as 6-segment ringing and set the cadence ratio to 200:200:200:200:200:200.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] user-defined-ring 0 first-ring 200 first-interval 200 second-ring 200 second-interval 200 third-ring 200 third-interval 200
```

16.3.4 Upward-bandwidth Configuration Commands

16.3.4.1 display voice media-bandwidth-control

Function

Using the **display voice media-bandwidth-control** command, you can view the call restriction configuration when the uplink bandwidth is insufficient.

Format

display voice media-bandwidth-control

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

You can run the **display voice media-bandwidth-control** command only after the **media-bandwidth-control enable** command is executed to enable the call restriction function when the uplink bandwidth is insufficient.

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Example

Display the call restriction configuration when the uplink bandwidth is insufficient.

```
<Huawei> display voice media-bandwidth-control
 Upward bandwidth                        : disable
 The maximum upward bandwidth            : 100000 kbit/s
 The reserved bandwidth for emergency call : 1000 kbit/s
 The used normal bandwidth               : 0 kbit/s
 The used bandwidth for emergency call   : 0 kbit/s
```

Table 16-30 Description of the display voice upward-bandwidth command output

Item	Description
Upward bandwidth	Whether call restriction is enabled when the uplink bandwidth is insufficient. • enable: call restriction is enabled when the uplink bandwidth is insufficient. • disable: call restriction is disabled when the uplink bandwidth is insufficient.
The maximum upward bandwidth	Maximum uplink bandwidth.
The reserved bandwidth for emergency call	Reserved bandwidth for emergency calls.
The used normal bandwidth	Used bandwidth.
The used bandwidth for emergency call	Used bandwidth for emergency calls.

16.3.4.2 media-bandwidth-control enable

Function

Using the **media-bandwidth-control enable** command, you can enable the call restriction function when the uplink bandwidth is insufficient or disable this function.

Using the **media-bandwidth-control disable** command, you can cancel the configuration.

By default, the call restriction function is disabled when the uplink bandwidth is insufficient.

Format

media-bandwidth-control enable

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media-bandwidth-control disable

Parameters

None

Views

Trunk-group view or sipserver view

Default Level

2: Configuration level

Usage Guidelines

Before running the **16.3.4.3 media-bandwidth-control max-bandwidth** command to set the maximum uplink bandwidth, you must run the **media-bandwidth-control enable** command.

Example

Enable the call restriction function when the uplink bandwidth is insufficient.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] media-bandwidth-control enable
```

16.3.4.3 media-bandwidth-control max-bandwidth

Function

Using the **media-bandwidth-control max-bandwidth** command, you can set the maximum uplink bandwidth.

Using the **undo media-bandwidth-control max-bandwidth** command, you can restore the default maximum uplink bandwidth.

By default, the maximum uplink bandwidth is 100000 kbit/s.

Format

media-bandwidth-control max-bandwidth *max-bandwidth*

undo media-bandwidth-control max-bandwidth

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Parameters

Parameter	Description	Value
max-bandwidth	Specifies the maximum uplink bandwidth.	The value is an integer that ranges from 1 to 5000, in 100 kbit/s. The default value is 1000, that is, 100000 kbit/s.

Views

trunk-group view or sipserver view

Default Level

2: Configuration level

Usage Guidelines

Before running the **media-bandwidth-control max-bandwidth** command, you must run the **media-bandwidth-control enable** command to enable the call restriction function when the uplink bandwidth is insufficient.

When the common bandwidth is overloaded, calls of common users are rejected. Emergency calls can be resumed within the range of the reserved bandwidth. (Common bandwidth = Maximum uplink bandwidth - Reserved bandwidth for emergency calls)

NOTE

Even if the remaining bandwidth is insufficient, the system allows the last call to be connected.

Example

Set the maximum uplink bandwidth to 90000 kbit/s.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]sipserver
[Huawei-voice-sipserver]media-bandwidth-control enable
[Huawei-voice-sipserver]media-bandwidth-control max-bandwidth 900
```

16.3.5 Sip Stack Configuration Commands

16.3.5.1 display voice sip

Function

Using the **display voice sip** command, you can view the configuration of Session Initiation Protocol (SIP) parameters.

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Format

display voice sip

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display the configuration of SIP parameters on the device.

```
<Huawei> display voice sip
 SIP stack parameter & timers:
  Server header field                  :
  Organization header field            :
  User-agent header field              :
  Max-forwards header field            : 70
  Headline folding flag                : Disable
  T1 timer(ms)                         : 500
  T2 timer(ms)                         : 4000
  T4 timer(ms)                         : 5000
  TD timer(ms)                         : 32000
  Min-SE timer(s)                      : 90
  Session progress timer(s)            : 180
  Session reliable progress timer(s)   : 60
  Entity based session timer flag      : Disable
  To header strict check flag          : Disable
```

Table 16-31 Description of the display voice sip command output

Item	Description
SIP stack parameter & timers	SIP stack parameter and values of timers.
Server header field	Value of the Server header field.
Organization header field	Value of the Organization header field.
User-agent header field	Value of the User-agent header field.
Max-forwards header field	Value of the Max-forwards header field.

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Item	Description
Headline folding flag	Header folding flag in the authentication header field.
Entity based session timer flag	Whether the session timer defined by RFC 4028 based on the user agent (UA) is started.
T1 timer(ms)	T1 timer, which defines the estimated round-trip timer (RTT) time. For details, see RFC 3261.
T2 timer(ms)	T2 timer, which defines the maximum interval at which non-INVITE request messages and INVITE response messages are retransmitted. For details, see RFC 3261.
T4 timer(ms)	T4 timer, which defines the maximum duration a message will remain on a network. For details, see RFC 3261.
TD timer(ms)	TD timer, which defines the waiting time for retransmitting response messages. For details, see RFC 3261.
Min-SE timer(s)	Minimum value for the session interval. For details, see RFC 4028.
Session progress timer(s)	Unreliable provisional response retransmission timer, which determines the frequency for retransmitting unreliable provisional responses. For details, see RFC 3261.
Session reliable progress timer(s)	Reliable provisional response retransmission timer, which determines the frequency for retransmitting reliable provisional responses. For details, see RFC 3261.
To header strict check flag	Whether the To header field of the SIP protocol is strictly checked.

16.3.5.2 entity-based-sessions-timer

Function

Using the **entity-based-sessions-timer** command, you can enable the session timer defined by RFC4028 based on the UA or disable this function.

undo entity-based-sessions-timer command, you can disable the session timer defined by RFC4028 based on the UA.

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By default, the session timer defined by RFC4028 based on the UA is disabled.

Format

entity-based-sessions-timer { **enable** | **disable** }

undo entity-based-sessions-timer

Parameters

None

Views

SIP view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable the session timer defined by RFC4028 based on the UA.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] entity-based-sessions-timer enable
```

16.3.5.3 field-header max-forwards

Function

Using the **field-header max-forwards** command, you can set the value of the Max-forwards header field.

Using the **undo field-header max-forwards** command, you can restore the default value of the Max-forwards header field.

By default, the value of the Max-forwards header field is 70.

Format

field-header max-forwards *max-forwards-value*

undo field-header max-forwards

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Parameters

Parameter	Description	Value
max-forwards-value	Specifies the value of the Max-forwards header field.	The value is an integer that ranges from 0 to 255.

Views

SIP view

Default Level

2: Configuration level

Usage Guidelines

The settings of header fields must comply with RFC3261.

Example

Set the value of the Max-forwards header field to 90.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] field-header max-forwards 90
```

16.3.5.4 field-header organization

Function

Using the **field-header organization** command, you can set the value of the Organization header field.

Using the **undo field-header organization** command, you can restore the default value of the Organization header field.

By default, the value of the Organization header field is empty.

Format

field-header organization *organization-head*

undo field-header organization

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Parameters

Parameter	Description	Value
organization-head	Specifies the value of the Organization header field.	The value is a string of 1 to 64 characters. **NOTE** If the hyphen (-) is entered, the value of the Organization header field is deleted.

Views

SIP view

Default Level

2: Configuration level

Usage Guidelines

The settings of header fields must comply with RFC3261.

Example

Set the value of the Organization header field in the SIP stack to OrganizationTemp.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] field-header organization OrganizationTemp
```

16.3.5.5 field-header server

Function

Using the **field-header server** command, you can set the value of the Server header field.

Using the **undo field-header server** command, you can restore the default value of the Server header field.

By default, the value of the Server header field is empty.

Format

field-header server *server-head*

undo field-header server

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Parameters

Parameter	Description	Value
server-head	Specifies the value of the Server header field.	The value is a string of 1 to 64 characters. **NOTE** If the hyphen (-) is entered, the value of the Server header field is deleted.

Views

SIP view

Default Level

2: Configuration level

Usage Guidelines

The settings of header fields must comply with RFC3261.

Example

Set the value of the Server header field in the SIP stack to HuaweiServerV2.0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] field-header server huaweiserverv2.0
```

16.3.5.6 field-header user-agent

Function

Using the **field-header user-agent** command, you can set the value of the User-agent header field.

Using the **undo field-header user-agent** command, you can restore the default value of the User-agent header field.

By default, the value of the User-agent header field is empty.

Format

field-header user-agent *user-agent-head*

undo field-header user-agent

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Parameters

Parameter	Description	Value
user-agent-head	Specifies the value of the User-agent header field.	The value is a string of 1 to 64 characters. **NOTE** If the hyphen (-) is entered, the value of the User-agent header field is deleted.

Views

SIP view

Default Level

2: Configuration level

Usage Guidelines

The settings of header fields must comply with RFC3261.

Example

Set the value of the User-agent header field in the SIP stack to SoftPhone V2.0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] field-header user-agent softphoneV2.0
```

16.3.5.7 header-folding

Function

Using the **header-folding** command, you can enable header folding in the authentication header field or disable this function.

Using the **undo header-folding** command, you can cancel the configuration.

By default, header folding in the authentication header field is disabled.

Format

header-folding { enable | disable }

undo header-folding

Parameters

None

Views

SIP view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable header folding in the authentication header field.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] header-folding enable
```

16.3.5.8 min-se

Function

Using the **min-se** command, you can set the minimum value of the session timer.

Using the **undo min-se** command, you can restore the default minimum value of the session timer.

By default, the minimum value of the session timer is 90s.

Format

min-se *min-se-period*

undo min-se

Parameters

Parameter	Description	Value
min-se-period	Specifies the minimum value of the session timer.	The value is an integer that ranges from 90 to 86400, in seconds. The default value is 90.

Views

SIP view

Default Level

2: Configuration level

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Usage Guidelines

None

Example

Set the minimum value of the session timer to 90s.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] min-se 90
```

16.3.5.9 session-progress

Function

Using the **session-progress** command, you can set the value of the unreliable provisional response retransmission timer.

Using the **undo session-progress** command, you can restore the default value of the unreliable provisional response retransmission timer.

By default, the value of the unreliable provisional response retransmission timer is 180s.

Format

session-progress *session-progress-period*

undo session-progress

Parameters

Parameter	Description	Value
session-progress-period	Specifies the value of the unreliable provisional response retransmission timer.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 180.

Views

SIP view

Default Level

2: Configuration level

Usage Guidelines

None

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Example

Set the value of the unreliable provisional response retransmission timer to 90s.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] session-progress 90
```

16.3.5.10 session-rel-progress

Function

Using the **session-rel-progress** command, you can set the value of the reliable provisional response retransmission timer.

Using the **undo session-rel-progress** command, you can restore the default value of the reliable provisional response retransmission timer.

By default, the value of the reliable provisional response retransmission timer is 60s.

Format

session-rel-progress *session-rel-progress-period*

undo session-rel-progress

Parameters

Parameter	Description	Value
session-rel-progress-period	Specifies the value of the reliable provisional response retransmission timer.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 60.

Views

SIP view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the value of the reliable provisional response retransmission timer to 90s.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] sip
[Huawei-voice-sip] session-rel-progress 90
```

16.3.5.11 sip

Function

Using the **sip** command, you can enter the SIP view.

Format

sip

Parameters

None

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

SIP stack parameters are set in the SIP view.

Example

Enter the SIP view.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip]
```

16.3.5.12 to-header-check-flag

Function

The **to-header-check-flag** command enables or disables strict check on the To header in SIP.

Using the **undo to-header-check-flag** command, you can cancel the configuration.

By default, strict check on the To header in SIP is disabled.

Format

to-header-check-flag { **enable** | **disable** }

undo to-header-check-flag

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Parameters

None

Views

SIP view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable strict check on the To header in SIP.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] to-header-check-flag enable
```

16.3.5.13 t1

Function

Using the **t1** command, you can set the value of the T1 timer.

Using the **undo t1** command, you can restore the default value of the T1 timer.

By default, the value of the T1 timer is 500 ms.

Format

t1 *t1-period*

undo t1

Parameters

Parameter	Description	Value
t1-period	Specifies the value of the T1 timer.	The value is an integer that ranges from 200 to 10000, in milliseconds. The default value is 500 ms.

Views

SIP view

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Default Level

2: Configuration level

Usage Guidelines

The T1 timer defines the estimated round-trip timer (RTT) time.

Example

Set the value of the T1 timer to 1000 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] t1 1000
```

16.3.5.14 t2

Function

Using the **t2** command, you can set the value of the T2 timer.

Using the **undo t2** command, you can restore the default value of the T2 timer.

By default, the value of the T2 timer is 4000 ms.

Format

t2 *t2-period*

undo t2

Parameters

Parameter	Description	Value
t2-period	Specifies the value of the T2 timer.	The value is an integer that ranges from 200 to 10000, in milliseconds. The default value is 4000 ms.

Views

SIP view

Default Level

2: Configuration level

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Usage Guidelines

The T2 timer defines the maximum interval at which non-INVITE request messages and INVITE response messages are retransmitted.

Example

Set the value of the T2 timer to 1000 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] t2 1000
```

16.3.5.15 t4

Function

Using the **t4** command, you can set the value of the T4 timer.

Using the **undo t4** command, you can restore the default value of the T4 timer.

By default, the value of the T4 timer is 5000 ms.

Format

t4 *t4-period*

undo t4

Parameters

Parameter	Description	Value
t4-period	Specifies the value of the T4 timer.	The value is an integer that ranges from 200 to 10000, in milliseconds. The default value is 5000 ms.

Views

SIP view

Default Level

2: Configuration level

Usage Guidelines

The T4 timer defines the maximum duration a message will remain on a network.

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Example

Set the value of the T4 timer to 6000 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] t4 6000
```

16.3.5.16 td

Function

Using the **td** command, you can set the value of the TD timer.

Using the **undo td** command, you can restore the default value of the TD timer.

By default, the value of the TD timer is 32000 ms.

Format

td *td-period*

undo td

Parameters

Parameter	Description	Value
td-period	Specifies the value of the TD timer.	The value is an integer that ranges from 0 to 300000, in milliseconds. The default value is 32000 ms. **NOTE** If UDP is used, the value must be greater than or equal to 32000. If TCP/SCTP is used, the value is 0.

Views

SIP view

Default Level

2: Configuration level

Usage Guidelines

The TD timer defines the waiting time for retransmitting response messages.

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Example

Set the value of the TD timer to 60000 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip
[Huawei-voice-sip] td 60000
```

16.3.6 Dsp Configuration Commands

16.3.6.1 display voice dsp state

Function

The **display voice dsp state** command displays the status of a digital signal processor (DSP) or DSP channel.

Format

display voice dsp state { *slot/dsp-index* | **channel***slot/dsp-index/channel* }

Parameters

Parameter	Description	Value
slot/dsp-index	Specifies the slot ID and index of a DSP.	The value is a string of 1 to 15 case-insensitive characters. For example, if the slot ID is 0 and the DSP index is 0, the value is 0/0.
channel*slot/dsp-index/channel*	Specifies the slot ID, DSP index, and DSP channel index.	The value is a string of 1 to 15 case-insensitive characters. For example, if the slot ID is 0, the DSP index is 0, and the DSP index is 5, the value is 0/0/5.

Views

All views

Default Level

3: Management level

Usage Guidelines

None

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Example

Display the status of DSP 0/0.

```
<Huawei> display voice dsp state 0/0

Symbol:
    0-idle $-G.711 busy A-All busy W-Wastage X-fault
    @-IP loopback *-PCM loopback #-prohibited

Channel NO.  DSP channel state
------------------------------------------------------------------------
0000-0035  00000 00000 00000 00000 00000 00000 00000 0

Total:
    36  DSP channel
    36  idle, 0 G.711 Busy, 0 All Busy, 0 Wastage, 0 Fault,
    0   IP loopback, 0 PCM loopback, 0 prohibited
```

Table 16-32 Description of the display voice dsp state command output

Item	Description
0-idle	0 indicates that the DSP channel is in idle state.
$-G.711	$ indicates that the DSP channel works in G.711 codec state.
A-All busy	A indicates that the DSP channel works in non-G.711 codec state, such as the G.729 and G.723 codec state.
W-Wastage	W indicates that the the DSP channel is in wastage state, for example, G.729 codec may consume extra DSP channels.
X-fault	X indicates that the DSP channel is in faulty state, and a call cannot be connected through the DSP channel.
@-IP loopback	@ indicates that the DSP channel works in IP loopback state.
*-PCM loopback	* indicates that the DSP channel works in PCM loopback state.
#-prohibited	# indicates that the DSP channel is in prohibited state.
Channel NO	Number of a channel.
DSP channel state	DSP channel status displayed in graphs.

The AR150/200 series has the DSP chip. The following figure lists the maximum number of calls supported by the DSP chip in each codec state and packetization duration.

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Table 16-33 Maximum number of calls supported by the AR150/200 series DSP chip in each codec state and packetization duration

Codec	5 ms	10 ms	20 ms	30 ms	40 ms	50 ms	60 ms
G.711	8	8	8	8	8	8	8
G723	-	-	-	8	-	-	8
G726	-	8	8	8	8	8	8
G729	-	8	8	8	8	8	8

The AR1200 series has the DSP chip. The following figure lists the maximum number of calls supported by the DSP chip in each codec state and packetization duration.

Table 16-34 Maximum number of calls supported by the AR1200 series DSP chip in each codec state and packetization duration

Codec	5 ms	10 ms	20 ms	30 ms	40 ms	50 ms	60 ms
G.711	32	32	32	32	32	32	32
G723	-	-	-	12	-	-	12
G726	-	12	12	12	12	12	12
G729	-	32	32	32	32	32	32

A DSP slot on the AR2200 and AR3200 series supports up to 128-channel DSP chip. The following figure lists the maximum number of calls supported by the DSP chip in each codec state and packetization duration.

Table 16-35 Maximum number of calls supported by the 128-channel DSP chip in each codec state and packetization duration

Codec	5 ms	10 ms	20 ms	30 ms	40 ms	50 ms	60 ms
G.711	32	72	128	128	128	72	128
G723	-	-	-	36	-	-	36
G726	-	36	48	48	48	48	48
G729	-	32	32	32	32	32	32

NOTE

AR2201 and AR2202 do not support the voice feature because they have no DSP slot.

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16.3.6.2 display voice dsp statistic

Function

Using the **display voice dsp statistic** command, you can view the DSP statistics.

Format

display voice dsp statistic [*slotid/dsp-index*]

Parameters

Parameter	Description	Value
slotid/dsp-index	Specifies the slot ID and index of a DSP.	The value is a string of 1 to 15 case-insensitive characters. For example, if the slot ID is 0 and the DSP index is 0, the value is 0/0.

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display the statistics about all DSPs.

```
<Huawei> display voice dsp statistic
 Slotid/DSP-Index              0/0
 Total                       108
 Idle                        108
 G.711 busy                    0
 All busy                      0
 Wastage                       0
 Fault                         0
 Loop back                     0
 Prohibited                    0
 Sum of Sub-Board
 Total                       108
 Idle                        108
 G.711 busy                    0
 All busy                      0
 Wastage                       0
 Fault                         0
 Loop back                     0
 Prohibited                    0
```

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16.3.6.3 display voice dsp-attribute

Function

Using the **display voice dsp-attribute** command, you can view the configuration of DSP parameters.

Format

display voice dsp-attribute

Parameters

None

Views

All views

Default Level

2: Configuration level

Usage Guidelines

None

Example

Display the configuration of DSP parameters.

```
<Huawei> display voice dsp-attribute
 DSP code type                          : G711A
 DSP RTP packet interval(ms)                : 20
 T30 redundancy parameter value of T38 fax     : 3
 T4 redundancy parameter value of T38 fax      : 3
 Fax ECM                                : Enable
 Fax train mode                         : E2E train
 Fax max train rate                     : V17
 Fax V8 negotiate                       : Disable
 DSP min adapted jitter buffer(ms)          : 2
 DSP max adapted jitter buffer(ms)          : 135
 DSP init adapted jitter buffer(ms)         : 2
 DSP adapted jitter buffer threshold(ms)       : 150
 DSP min fixed jitter buffer(ms)            : 2
 DSP max fixed jitter buffer(ms)            : 135
 DSP init fixed jitter buffer(ms)           : 60
 DSP redundancy payload value               : 96
 DSP NTE payload value                      : 97
 DSP clearmode payload value                : 100
 DSP G.726-16k payload value                : 103
 DSP G.726-24k payload value                : 104
 DSP G.726-32k payload value                : 101
 DSP G.726-40k payload value                : 105
 DSP VBD payload value                      : 102
 VQM                                    : Disable
 RTCP package send interval time(ms)        : 5000
 RTCPXR                                 : Enable
 Severe degrade second threshold            : 400
 DSP echo check                         : On
```

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```
DSP packet lose compensate                  : Off
DSP silence reduce                        : Off
DTMF negative twist value                   : 10, unit 0.1db
DTMF positive twist value                  : 40, unit 0.1db
DSP 2833 event volume adjustment mode       : disable
DSP 2833 event volume adjustment devia      :  0  dBm
 Workmode        Threshold1  Threshold2  Threshold3
 Normal
```

Table 16-36 Description of the display voice dsp-attribute command output

Item	Description
DSP code type	Default DSP channel code type: • G711A • G711u • G723_1 • G729 • G726-16k • G726-24k • G726-32k • G726-40k
DSP Rtp Packet interval (ms)	Interval for the DSP channel to packetize RTP packets, in milliseconds. • 5 ms • 10 ms • 20 ms • 30 ms
T30 redundancy parameter value of T38 fax	T.30 redundancy parameter value of the T.38 fax. The value ranges from 0 to 7.
T4 redundancy parameter value of T38 fax	T.4 redundancy parameter value of the T.38 fax. The value ranges from 0 to 3.
Fax ECM	Fax ECM mode: • enable: ECM • disable: NECM
Fax train Mode	Fax training mode: • e2e: End-to-end training • local: Local training This parameter takes effect only when the T.38 fax is used.

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Item	Description
Fax Max train Rate	Maximum fax training rate: • V17: negotiation using V.17 fax and a maximum fax training rate of 14.4 kbit/s. • V29: negotiation using V.29 fax and a maximum fax training rate of 9.6 kbit/s. • V27: negotiation using V.27 fax and a maximum fax training rate of 4.8 kbit/s.
Fax V8 Negotiate	Whether V.8 negotiation of the T.38 fax is enabled or disabled.
DSP min adapted jitter buffer (ms)	Minimum value of the dynamic jitter buffer of the DSP channel. The value ranges from 0 to 150, in milliseconds.
DSP max adapted jitter buffer (ms)	Maximum value of the dynamic jitter buffer of the DSP channel. The value ranges from 0 to 150, in milliseconds.
DSP init adapted jitter buffer (ms)	Initial value of the dynamic jitter buffer of the DSP channel. The value ranges from 0 to 150, in milliseconds.
DSP adapted jitter buffer threshold (ms)	Alarm threshold of the dynamic jitter buffer of the DSP channel. The value ranges from 0 to 150, in milliseconds.
DSP min fixed jitter buffer (ms)	Minimum value of the static jitter buffer of the DSP channel. The value ranges from 0 to 150, in milliseconds.
DSP max fixed jitter buffer (ms)	Maximum value of the static jitter buffer of the DSP channel. The value ranges from 0 to 150, in milliseconds.
DSP init fixed jitter buffer (ms)	Initial value of the static jitter buffer of the DSP channel. The value ranges from 0 to 150, in milliseconds.
DSP redundancy payload value	Redundancy payload value of the DSP channel. The value ranges from 96 to 127.
DSP NTE payload value	NTE payload value of the DSP channel. The value ranges from 96 to 127.
DSP clearmode payload value	RTP payload value of the DSP channel. The value ranges from 96 to 127.

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Item	Description
DSP G.726-16k payload value	G.726-16k payload value of the DSP channel. The value ranges from 96 to 127.
DSP G.726-24k payload value	G.726-24k payload value of the DSP channel. The value ranges from 96 to 127.
DSP G.726-32k payload value	G.726-32k payload value of the DSP channel. The value ranges from 96 to 127.
DSP G.726-40k payload value	G.726-40k payload value of the DSP channel. The value ranges from 96 to 127.
DSP VBD payload value	VBD payload value of the DSP channel. The value ranges from 96 to 127.
VQM	Whether voice quality monitor (VQM) is enabled. • disable: VQM is disabled. • enable: VQM is enabled.
RTCPXR	Whether RTP Control Protocol Extended Reports (RTCP XR) is enabled. • disable: RTCP XR is disabled. • enable: RTCP XR is enabled.
RTCP package send interval time (ms)	Interval for the DSP channel to send RTCP packets. The value can be 0 or in the range of 500 to 65535, in milliseconds.
Severe Degrade Second Threshold	Default threshold for the number of severe degrade seconds. The value ranges from 1 to 65535.
DSP echo check	Whether echo cancellation is enabled on the DSP channel. • disable: Echo cancellation is disabled on the DSP channel. • enable: Echo cancellation is enabled on the DSP channel.
DSP Packet Lose Compensate	Whether the Packet Loss Concealment (PLC) function is enabled on the DSP channel.

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Item	Description
DSP silence reduce	Whether silence compression is enabled on the DSP channel.
DTMF negative twist value	DTMF detection negative twist value, range 0~100, unit 0.1db
DTMF positive twist value	DTMF detection positive twist value, range 0~100, unit 0.1db
DSP 2833 event volume adjustment mode	The mode in which the DSP adjusts the volume of DTMF tones during RFC 2833 DTMF transmission. **NOTE** Only AR1200, AR2200, and AR3200 that support voice communication support this parameter.
DSP 2833 event volume adjustment devia	The value of the DSP adjusts the volume of DTMF tones in fixed mode during RFC 2833 DTMF transmission. **NOTE** Only AR1200, AR2200, and AR3200 that support voice communication support this parameter.

16.3.6.4 display voice tone

Function

The **display voice tone** command is used to verify the current configuration on a signal tone.

Format

display voice tone *tone-id*

Parameters

Parameter	Description	Value
tone-id	Display the configuration of the specified signal tone.	The value is an integer that ranges from 1 to 11.

Views

All views

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Default Level

2: Configuration level

Usage Guidelines

None

Example

```
<Huawei> display voice tone 3
------------------Parameter Tone ID: 3 ----------------
-------------------------------------------------------------
 Frequency(Unit:hz)  Ampletude(Unit:dbm)
        450                  0.3
          0                  0.0
          0                  0.0
          0                  0.0
 Cadences(count:1)   On-time  Off-time Frequency-Base-Flag
 Sequence[1]          65535         0       1

---------Attributes for detect Tone--------
            Frequency_Low[hz] Frequency_High[hz] Low-Ampletude[dbm] High-Ampletude[dbm]
1st Frequency      420                480               0.0              0.0
2nd Frequency       0                  0                0.0              0.0
             Time_Onlow[ms]   Time_OnHigh[ms]  Time_OffLow[ms]  Time_OffHigh[ms]
1st Cadence:         2000              0                0                0
2nd Cadence:            0              0                0                0
```

16.3.6.5 dsp

Function

Using the **dsp** command, you can enter the DSP resource management view.

Format

dsp *slot/dsp-index*

Parameters

Parameter	Description	Value
slot/dsp-index	Specifies the slot ID and index of a DSP.	The value is a string of 1 to 15 characters. For example, if the slot ID is 0 and the DSP index is 0, the value is 0/0.

Views

Voice view

Default Level

2: Configuration level

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Usage Guidelines

To manage DSP resources, run the **dsp** command to enter the DSP resource management view.

Example

Enter the view of DSP 0/0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp 0/0
```

16.3.6.6 dsp-attribute

Function

Using the **dsp-attribute** command, you can enter the DSP attribute view.

Format

dsp-attribute

Parameters

None

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

DSP configurations can be performed only in the DSP attribute view.

Example

Enter the DSP attribute view.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute]
```

16.3.6.7 dtmf-twist-value(dsp-attribute view)

Function

command **dtmf-twist-value** is used to configure dtmf detection twist values

command **undo dtmf-twist-value** restores the default dtmf detection twist values

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Format

dtmf-twist-value negative-twist *negative-twist-value* **positive-twist** *positive-twist-value*

undo dtmf-twist-value

Parameters

parameter	description	value
negative-twist *negative-twist-value*	negative dtmf twist value	integer 0-100, unit 0.1db.
positive-twist *positive-twist-value*	positive dtmf twist value	integer 0-100, unit 0.1db.

Views

dsp-attribute view

Default Level

2: Configuration level

Usage Guidelines

To configure dtmf detection twist values, run **dtmf-twist-value** command.

Example

set the negative twist value of dtmf detection to 5 db, and positive twist value to 10db.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] dtmf-twist-value negative-twist 50 positive-twist 100
```

16.3.6.8 echo

Function

Using the **echo** command, you can enable echo cancelation on the DSP channel or disable this function.

Using the **undo echo** command, you can cancel the configuration.

By default, echo cancelation is disabled on the DSP channel.

Format

echo { **enable** | **disable** }

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undo echo

Parameters

None

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The **echo enable** command enables echo cancelation on an MGC.

Example

Disable echo cancelation.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] echo disable
```

16.3.6.9 fax ecm

Function

The **fax ecm** command enables T.38 Error Correction Mode (ECM) or disable this function.

The **undo fax ecm** command restores the default T.38 ECM setting.

By default, T.38 ECM is enabled.

Format

fax ecm { **enable** | **disable** }

undo fax ecm

Parameters

None

Views

DSP attribute view

Default Level

2: Configuration level

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Usage Guidelines

ECM takes effect only when T.38 is used. After ECM is enabled, fax quality is optimized but the rate of fax messages is reduced. To increase the rate of fax messages, disable ECM.

Example

Enable T.38 ECM.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] fax ecm enable
```

16.3.6.10 fax redundancy-t30

Function

Using the **fax redundancy-t30** command, you can set the T.30 redundancy parameter value of the T.38 fax.

Using the **undo fax redundancy-t30** command, you can restore the default T.30 redundancy parameter value of the T.38 fax.

By default, the T.30 redundancy parameter value of the T.38 fax is 3.

Format

fax redundancy-t30 *redundancy-t30-value*

undo fax redundancy-t30

Parameters

Parameter	Description	Value
redundancy-t30-value	Specifies the T.30 redundancy parameter value of the T.38 fax.	The value is an integer that ranges from 0 to 7. The default value is 3.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

None

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Example

Set the T.30 redundancy parameter value of the T.38 fax to 5.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] fax redundancy-t30 5
```

16.3.6.11 fax redundancy-t4

Function

Using the **fax redundancy-t4** command, you can set the T.4 redundancy parameter value of the T.38 fax.

Using the **undo fax redundancy-t4** command, you can restore the default T.4 redundancy parameter value of the T.38 fax.

By default, the T.4 redundancy parameter value of the T.38 fax is 3.

Format

fax redundancy-t4 *redundancy-t4-value*

undo fax redundancy-t4

Parameters

Parameter	Description	Value
redundancy-t4-value	Specifies the T.4 redundancy parameter value of the T.38 fax.	The value is an integer that ranges from 0 to 3. The default value is 3.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the T.4 redundancy parameter value of the T.38 fax to 2.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] fax redundancy-t4 2
```

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16.3.6.12 fax training-mode

Function

Using the **fax training-mode** command, you can set the fax training mode.

Using the **undo fax training-mode** command, you can restore the default fax training mode.

By default, end-to-end training is used.

Format

fax training-mode { **e2e** | **local** }

undo fax training-mode

Parameters

Parameter	Description	Value
e2e	Indicates the end-to-end training mode.	-
local	Indicates the local training mode.	-

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The fax training mode takes effect only when the T.38 fax is used. End-to-end training and local training modes are distinguished based on rate training signals sent from the transmit gateway to the receive gateway:

- If rate training signals need to be sent to the peer end, end-to-end training is used.
- If the gateway terminates and generates training signals, local training is used.

To use the local training mode, consider the maximum rate of the gateway, which is represented by the maximum fax rate supported on the DSP channel. The training mode is invalid for high-rate fax and low-rate transparent transmission.

Example

Set the fax training mode to local training.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] fax training-mode local
```

16.3.6.13 fax training-rate

Function

Using the **fax training-rate** command, you can set the maximum fax training rate.

Using the **undo fax training-rate** command, you can restore the default maximum fax training rate.

By default, the maximum fax training rate is V17.

Format

fax training-rate { **v17** | **v29** | **v27** }

undo fax training-rate

Parameters

Parameter	Description	Value
v17	Indicates the negotiation using V.17 and a maximum fax training rate of 14.4 kbit/s.	-
v29	Indicates the negotiation using V.29 and a maximum fax training rate of 9.6 kbit/s.	-
v27	Indicates the negotiation using V.27 and a maximum fax training rate of 4.8 kbit/s.	-

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The maximum fax training rate takes effect only when local training is used, and is invalid for fax in transparent transmission mode. When the rate of the fax

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machine can be reduced and the network is not running properly, reduce the fax training rate.

Example

Set the maximum fax training rate to V29.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] fax training-rate v29
```

16.3.6.14 fax v8negotiate

Function

Using the **fax v8negotiate** command, you can enable V8 negotiation or disable this function.

Using the **undo fax v8negotiate** command, you can restore the V8 negotiation parameter setting.

By default, V8 negotiation is disabled.

Format

fax v8negotiate { **enable** | **disable** }

undo fax v8negotiate

Parameters

None

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

During communication between two fax machines, one fax machine supports the V.34 fax (high-speed fax) and the other fax machine supports only the low-speed fax. To prevent the two fax machines from performing high-speed fax negotiation, disable V8 negotiation so that the two fax machines implement low-speed fax.

Example

Enable V8 negotiation.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] fax v8negotiate enable
```

16.3.6.15 jitter-buffer adapt-jb-threshold

Function

Using the **jitter-buffer adapt-jb-threshold** command, you can set the alarm threshold of the dynamic jitter buffer of the DSP channel.

Using the **undo jitter-buffer adapt-jb-threshold** command, you can restore the default alarm threshold of the dynamic jitter buffer of the DSP channel.

By default, the alarm threshold of the dynamic jitter buffer of the DSP channel is 150 ms.

Format

jitter-buffer adapt-jb-threshold *adapt-jb-threshold*

undo jitter-buffer adapt-jb-threshold

Parameters

Parameter	Description	Value
adapt-jb-threshold	Specifies the alarm threshold of the dynamic jitter buffer of the DSP channel.	The value is an integer that ranges from 0 to 150, in milliseconds. The default value is 150 ms.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The constraints of jitter buffer values are as follows:

MinFixedJitterBuffer <= NormalFixedJitterBuffer <= MaxFixedJitterBuffer

MinAdaptJitterBuffer < ThresholdJitterBuffer

Example

Set the alarm threshold of the dynamic jitter buffer of the DSP channel to 100 ms.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] jitter-buffer adapt-jb-threshold 100
```

16.3.6.16 jitter-buffer init-adapt-jb

Function

Using the **jitter-buffer init-adapt-jb** command, you can set the initial value of the dynamic jitter buffer of the DSP channel.

Using the **undo jitter-buffer init-adapt-jb** command, you can restore the default initial value of the dynamic jitter buffer of the DSP channel.

By default, the initial value of the dynamic jitter buffer of the DSP channel is 2 ms.

Format

jitter-buffer init-adapt-jb *init-adapt-jb-value*

undo jitter-buffer init-adapt-jb

Parameters

Parameter	Description	Value
init-adapt-jb-value	Specifies the initial value of the dynamic jitter buffer of the DSP channel.	The value is an integer that ranges from 0 to 150, in milliseconds. The default value is 2 ms.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The transmission delay, processing delay, and serial link delay on the VoIP network cause voice jitter and make the call quality deteriorated. The jitter buffer removes the delay and improves the voice quality using Packet Loss Concealment (PLC).

The jitter buffer is installed at the receive end of an IP phone. A received IP packet is first received by the buffer but not transmitted to the called end immediately. The jitter buffer forwards each packet at intervals only after a certain number of IP voice packets are received. By doing this, the jitter of the IP phone is removed to a certain degree.

The jitter buffer does not forward each voice packet immediately after receiving it, so the forwarding delay must be specified. If the delay is too long, the system delay is long. If the delay is too short, IP voice packets cannot arrive within the

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specified time range and the voice jitter still occurs. The proper delay of a jitter buffer is about 30 ms.

Example

Set the initial value of the dynamic jitter buffer of the DSP channel to 30 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] jitter-buffer init-adapt-jb 30
```

16.3.6.17 jitter-buffer init-fixed-jb

Function

Using the **jitter-buffer init-fixed-jb** command, you can set the initial value of the static jitter buffer of the DSP channel.

Using the **undo jitter-buffer init-fixed-jb** command, you can restore the default initial value of the static jitter buffer of the DSP channel.

By default, the initial value of the static jitter buffer of the DSP channel is 60 ms.

Format

jitter-buffer init-fixed-jb *init-fixed-jb-value*

undo jitter-buffer init-fixed-jb

Parameters

Parameter	Description	Value
init-fixed-jb-value	Specifies the initial value of the static jitter buffer of the DSP channel.	The value is an integer that ranges from 0 to 150, in milliseconds. The default value is 60 ms.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The transmission delay, processing delay, and serial link delay on the VoIP network cause voice jitter and make the call quality deteriorated. The jitter buffer removes the delay and improves the voice quality using Packet Loss Concealment (PLC).

The jitter buffer is installed at the receive end of an IP phone. A received IP packet is first received by the buffer but not transmitted to the called end immediately.

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The jitter buffer forwards each packet at intervals only after a certain number of IP voice packets are received. By doing this, the jitter of the IP phone is removed to a certain degree.

The jitter buffer does not forward each voice packet immediately after receiving it, so the forwarding delay must be specified. If the delay is too long, the system delay is long. If the delay is too short, IP voice packets cannot arrive within the specified time range and the voice jitter still occurs. The proper delay of a jitter buffer is about 30 ms.

The constraints of jitter buffer values are as follows:

MinFixedJitterBuffer <= IinitFixedJitterBuffer <= MaxFixedJitterBuffer and the MinAdaptJitterBuffer

Example

Set the initial value of the static jitter buffer of the DSP channel to 90 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] jitter-buffer init-fixed-jb 90
```

16.3.6.18 jitter-buffer max-adapt-jb

Function

Using the **jitter-buffer max-adapt-jb** command, you can set the maximum value of the dynamic jitter buffer of the DSP channel.

Using the **undo jitter-buffer max-adapt-jb** command, you can restore the default maximum value of the dynamic jitter buffer of the DSP channel.

By default, the maximum value of the dynamic jitter buffer of the DSP channel is 135 ms.

Format

jitter-buffer max-adapt-jb *max-adapt-jb-value*

undo jitter-buffer max-adapt-jb

Parameters

Parameter	Description	Value
max-adapt-jb-value	Specifies the maximum value of the dynamic jitter buffer of the DSP channel.	The value is an integer that ranges from 0 to 150, in milliseconds. The default value is 135 ms.

Views

DSP attribute view

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Default Level

2: Configuration level

Usage Guidelines

The transmission delay, processing delay, and serial link delay on the VoIP network cause voice jitter and make the call quality deteriorated. The jitter buffer removes the delay and improves the voice quality using Packet Loss Concealment (PLC).

The jitter buffer is installed at the receive end of an IP phone. A received IP packet is first received by the buffer but not transmitted to the called end immediately. The jitter buffer forwards each packet at intervals only after a certain number of IP voice packets are received. By doing this, the jitter of the IP phone is removed to a certain degree.

The jitter buffer does not forward each voice packet immediately after receiving it, so the forwarding delay must be specified. If the delay is too long, the system delay is long. If the delay is too short, IP voice packets cannot arrive within the specified time range and the voice jitter still occurs. The proper delay of a jitter buffer is about 30 ms.

Example

Set the maximum value of the dynamic jitter buffer of the DSP channel to 120 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] jitter-buffer max-adapt-jb 120
```

16.3.6.19 jitter-buffer max-fixed-jb

Function

Using the **jitter-buffer max-fixed-jb** command, you can set the maximum value of the static jitter buffer of the DSP channel.

Using the **undo jitter-buffer max-fixed-jb** command, you can restore the default maximum value of the static jitter buffer of the DSP channel.

By default, the maximum value of the static jitter buffer of the DSP channel is 135 ms.

Format

jitter-buffer max-fixed-jb *max-fixed-jb-value*

undo jitter-buffer max-fixed-jb

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Parameters

Parameter	Description	Value
max-fixed-jb-value	Specifies the maximum value of the static jitter buffer of the DSP channel.	The value is an integer that ranges from 0 to 150, in milliseconds. The default value is 135 ms.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The transmission delay, processing delay, and serial link delay on the VoIP network cause voice jitter and make the call quality deteriorated. The jitter buffer removes the delay and improves the voice quality using Packet Loss Concealment (PLC).

The jitter buffer is installed at the receive end of an IP phone. A received IP packet is first received by the buffer but not transmitted to the called end immediately. The jitter buffer forwards each packet at intervals only after a certain number of IP voice packets are received. By doing this, the jitter of the IP phone is removed to a certain degree.

The jitter buffer does not forward each voice packet immediately after receiving it, so the forwarding delay must be specified. If the delay is too long, the system delay is long. If the delay is too short, IP voice packets cannot arrive within the specified time range and the voice jitter still occurs. The proper delay of a jitter buffer is about 30 ms.

The constraints of jitter buffer values are as follows:

MinFixedJitterBuffer <= NormalFixedJitterBuffer <= MaxFixedJitterBuffer

MinAdaptJitterBuffer < ThresholdJitterBuffer

Example

Set the maximum value of the static jitter buffer of the DSP channel to 120 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] jitter-buffer max-fixed-jb 120
```

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16.3.6.20 jitter-buffer min-adapt-jb

Function

Using the **jitter-buffer min-adapt-jb** command, you can set the minimum value of the dynamic jitter buffer of the DSP channel.

Using the **undo jitter-buffer min-adapt-jb** command, you can restore the default minimum value of the dynamic jitter buffer of the DSP channel.

By default, the minimum value of the dynamic jitter buffer of the DSP channel is 2 ms.

Format

jitter-buffer min-adapt-jb *min-adapt-jb-value*

undo jitter-buffer min-adapt-jb

Parameters

Parameter	Description	Value
min-adapt-jb-value	Specifies the minimum value of the dynamic jitter buffer of the DSP channel.	The value is an integer that ranges from 0 to 150, in milliseconds. The default value is 2 ms.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The transmission delay, processing delay, and serial link delay on the VoIP network cause voice jitter and make the call quality deteriorated. The jitter buffer removes the delay and improves the voice quality using Packet Loss Concealment (PLC).

The jitter buffer is installed at the receive end of an IP phone. A received IP packet is first received by the buffer but not transmitted to the called end immediately. The jitter buffer forwards each packet at intervals only after a certain number of IP voice packets are received. By doing this, the jitter of the IP phone is removed to a certain degree.

The jitter buffer does not forward each voice packet immediately after receiving it, so the forwarding delay must be specified. If the delay is too long, the system delay is long. If the delay is too short, IP voice packets cannot arrive within the specified time range and the voice jitter still occurs. The proper delay of a jitter buffer is about 30 ms.

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The constraints of jitter buffer values are as follows:

MinFixedJitterBuffer <= NormalFixedJitterBuffer <= MaxFixedJitterBuffer

MinAdaptJitterBuffer < ThresholdJitterBuffer

Example

Set the minimum value of the dynamic jitter buffer of the DSP channel to 30 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] jitter-buffer min-adapt-jb 30
```

16.3.6.21 jitter-buffer min-fixed-jb

Function

Using the **jitter-buffer min-fixed-jb** command, you can set the minimum value of the static jitter buffer of the DSP channel.

Using the **undo jitter-buffer min-fixed-jb** command, you can restore the default minimum value of the static jitter buffer of the DSP channel.

By default, the minimum value of the static jitter buffer of the DSP channel is 2 ms.

Format

jitter-buffer min-fixed-jb *min-fixed-jb-value*

undo jitter-buffer min-fixed-jb

Parameters

Parameter	Description	Value
min-fixed-jb-value	Specifies the minimum value of the static jitter buffer of the DSP channel.	The value is an integer that ranges from 0 to 150, in milliseconds. The default value is 2 ms.

Views

DSP attribute view

Default Level

2: Configuration level

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Usage Guidelines

The transmission delay, processing delay, and serial link delay on the VoIP network cause voice jitter and make the call quality deteriorated. The jitter buffer removes the delay and improves the voice quality using Packet Loss Concealment (PLC).

The jitter buffer is installed at the receive end of an IP phone. A received IP packet is first received by the buffer but not transmitted to the called end immediately. The jitter buffer forwards each packet at intervals only after a certain number of IP voice packets are received. By doing this, the jitter of the IP phone is removed to a certain degree.

The jitter buffer does not forward each voice packet immediately after receiving it, so the forwarding delay must be specified. If the delay is too long, the system delay is long. If the delay is too short, IP voice packets cannot arrive within the specified time range and the voice jitter still occurs. The proper delay of a jitter buffer is about 30 ms.

The constraints of jitter buffer values are as follows:

MinFixedJitterBuffer <= NormalFixedJitterBuffer <= MaxFixedJitterBuffer and the MinAdaptJitterBuffer

Example

Set the minimum value of the static jitter buffer of the DSP channel to 5 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] jitter-buffer min-fixed-jb 5
```

16.3.6.22 loop-back (DSP resource management view)

Function

Using the **loop-back** command, you can configure the loopback function on a DSP channel.

Using the **undo loop-back** command, you can disable the loopback function.

Format

loop-back *loop-back-typechannel*

undo loop-back

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Parameters

Parameter	Description	Value
loop-back-type	Specifies the loopback type.	The value can be: • pcm-side: performs a loopback test at the pulse code modulation (PCM) channel side. • ip-side: performs a loopback test at the IP side.
channel	Specifies the index of the DSP channel where the loopback test is performed.	The value is an integer that ranges from 0 to the maximum DSP channel index.

Views

DSP resource management view

Default Level

2: Configuration level

Usage Guidelines

When using the **loop-back** command, pay attention to the following points:

- This command is invalid for DSP channels in Idle, Fault, Wastage, or Prohibited state.
- When the DSP channel between the calling party and called party cannot transmit signals or can transmit signals only in one direction, run this command to locate the fault. For example, if the calling party hears the echo in a PCM-side loopback test, the speech channel between the calling phone and the calling DSP channel is functioning properly. If the called party hears the echo in an IP-side loopback test, the speech channel between the called phone and the calling DSP channel is functioning properly.

When using the **undo loop-back** command, pay attention to the following points:

- This command is valid only on DSP channels with the loopback function configured.
- After disabling the loopback function, you can run the **display voice dsp state** command to check the status of the DSP channel.

Example

Perform a PCM-side loopback test on DSP channel 5 in DSP 0/0.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp 0/0
[Huawei-voice-dsp0/0] loop-back pcm-side 5
```

16.3.6.23 nte2833-volume deviation

Function

The **nte2833-volume deviation** command specifies how much the DSP adjusts the volume of DTMF tones in fixed mode.

The **undo nte2833-volume deviation** command restores the default setting of how much the DSP adjusts the volume of DTMF tones in fixed mode.

The default value is 20, indicating that the DSP adjusts the volume of DTMF tones by 0 dBm.

NOTE

Only AR1200, AR2200, and AR3200 that support voice communication support this command.

Format

nte2833-volume deviation *deviation-value*

undo nte2833-volume deviation

Parameters

Parameter	Description	Value
deviation-value	Indicates how much the DSP adjusts the volume of DTMF tones.	The value is an integer ranging from 0 to 40. For example, the value 0 indicates that the DSP adjusts the volume of DTMF tones by 20 dBm, the value 1 indicates adjusting by 19 dBm, and the value 40 indicates adjusting by –20 dBm.

Views

DSP attribute view

Default Level

2: Configuration level

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Usage Guidelines

Application Scenario

When the value of *deviation-value* is 0, it indicates that the volume of DTMF tones is increased by 20 dBm. The value 0 is called configured adjustment value, and 20 dBm the actual adjustment value. The conversion between the two values is as follows: Actual adjustment value = 20 – Configured adjustment value

The original volume of DTMF tones plus the actual adjustment value is the adjusted volume of DTMF tones. If the actual adjustment value is larger than 0 dBm, the DSP increases the volume of DTMF tones. If the actual adjustment value is smaller than 0 dBm, the DSP reduces the volume of DTMF tones. The actual adjustment value 0 indicates that the DSP does not change the volume of DTMF tones.

Precautions

The **nte2833-volume deviation** command takes effect only when the mode in which the DSP adjusts the volume of DTMF tones is fixed. You can run the **nte2833-volume mode** command to configure the DSP's DTMF tone adjustment mode.

Example

Configure the DSP to adjust the volume of DTMF tones by –5 dBm.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] nte2833-volume deviation 25
```

Related Topics

16.3.6.3 display voice dsp-attribute

16.3.6.24 nte2833-volume mode

16.3.6.24 nte2833-volume mode

Function

The **nte2833-volume mode** command configures the mode in which the DSP adjusts the volume of DTMF tones.

The **undo nte2833-volume** command restores the default mode in which the DSP adjusts the volume of DTMF tones.

By default, the adjustment mode is disabled.

NOTE

Only AR1200, AR2200, and AR3200 that support voice communication support this command.

Format

nte2833-volume mode *mode-value*

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undo nte2833-volume mode

Parameters

Parameter	Description	Value
mode-value	Indicates the mode in which the DSP adjusts the volume of DTMF tones.	Enumerated type. The value can be: • **auto_attenuation**: Automatic attenuation mode • **disable**: Disabled mode • **fixed_adjust**: Fixed mode

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

During RFC 2833 DTMF transmission, the volume of DTMF tones may be high or low and cannot be automatically adjusted by DSP gains. In this case, you can run the **nte2833-volume mode** command to configure the DSP's DTMF tone adjustment mode, and thereby enable the DSP to adjust the volume of DTMF tones to solve the problem.

Example

Set the mode in which the DSP adjusts the volume of DTMF tones to **auto_attenuation**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] nte2833-volume mode auto_attenuation
```

Related Topics

16.3.6.3 display voice dsp-attribute

16.3.6.23 nte2833-volume deviation

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16.3.6.25 payload-type clear-mode

Function

Using the **payload-type clear-mode** command, you can set the RTP payload type value of the DSP channel.

Using the **undo payload-type clear-mode** command, you can restore the default RTP payload type value of the DSP channel.

By default, the RTP payload type value of the DSP channel is 100.

Format

payload-type clear-mode *clear-mode-value*

undo payload-type clear-mode

Parameters

Parameter	Description	Value
clear-mode-value	Specifies the RTP payload type value of the DSP channel.	The value is an integer that ranges from 96 to 127. The default value is 100.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The RTP payload type values at both ends must be identical and unique.

Example

Set the RTP payload type value of the DSP channel to 120.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] payload-type clear-mode 120
```

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16.3.6.26 payload-type g726-16k

Function

Using the **payload-type g726-16k** command, you can set the G.726-16k payload type value of the DSP channel.

Using the **undo payload-type g726-16k** command, you can restore the default G.726-16k payload type value of the DSP channel.

By default, the G.726-16k payload type value of the DSP channel is 103.

Format

payload-type g726-16k *g726-16k-value*

undo payload-type g726-16k

Parameters

Parameter	Description	Value
g726-16k-value	Specifies the G.726-16k payload type value of the DSP channel.	The value is an integer that ranges from 96 to 127. The default value is 103.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The G.726-16k payload type values at both ends must be identical and unique.

Example

Set the G.726-16k payload type value of the DSP channel to 100.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] payload-type g726-16k 100
```

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16.3.6.27 payload-type g726-24k

Function

Using the **payload-type g726-24k** command, you can set the G.726-24k payload type value of the DSP channel.

Using the **undo payload-type g726-24k** command, you can restore the default G.726-24k payload type value of the DSP channel.

By default, the G.726-24k payload type value of the DSP channel is 104.

Format

payload-type g726-24k *g726-24k-value*

undo payload-type g726-24k

Parameters

Parameter	Description	Value
g726-24k-value	Specifies the G.726-24k payload type value of the DSP channel.	The value is an integer that ranges from 96 to 127. The default value is 104.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The G.726-24k payload type values at both ends must be identical and unique.

Example

Set the G.726-24k payload type value of the DSP channel to 101.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] payload-type g726-24k 101
```

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16.3.6.28 payload-type g726-32k

Function

Using the **payload-type g726-32k** command, you can set the G.726-32k payload type value of the DSP channel.

Using the **undo payload-type g726-32k** command, you can restore the default G.726-32k payload type value of the DSP channel.

By default, the G.726-32k payload type value of the DSP channel is 101.

Format

payload-type g726-32k *g726-32k-value*

undo payload-type g726-32k

Parameters

Parameter	Description	Value
g726-32k-value	Specifies the G.726-32k payload type value of the DSP channel.	The value is an integer that ranges from 96 to 127. The default value is 101.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The G.726-32k payload type values at both ends must be identical and unique.

Example

Set the G.726-32k payload type value of the DSP channel to 102.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] payload-type g726-32k 102
```

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16.3.6.29 payload-type g726-40k

Function

Using the **payload-type g726-40k** command, you can set the G.726-40k payload type value of the DSP channel.

Using the **undo payload-type g726-40k** command, you can restore the default G.726-40k payload type value of the DSP channel.

By default, the G.726-40k payload type value of the DSP channel is 105.

Format

payload-type g726-40k *g726-40k-value*

undo payload-type g726-40k

Parameters

Parameter	Description	Value
g726-40k-value	Specifies the G.726-40k payload type value of the DSP channel.	The value is an integer that ranges from 96 to 127. The default value is 105.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The G.726-40k payload type values at both ends must be identical and unique.

Example

Set the G.726-40k payload type value of the DSP channel to 103.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] payload-type g726-40k 103
```

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16.3.6.30 payload-type nte

Function

Using the **payload-type nte** command, you can set the NTE payload type value of the DSP channel.

Using the **undo payload-type nte** command, you can restore the default NTE payload type value of the DSP channel.

By default, the NTE payload type value of the DSP channel is 97.

Format

payload-type nte *nte-value*

undo payload-type nte

Parameters

Parameter	Description	Value
nte-value	Specifies the NTE payload type value of the DSP channel.	The value is an integer that ranges from 96 to 127. The default value is 97.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The NTE payload type values at both ends must be identical and unique.

Example

Set the NTE payload value of the DSP channel to 100.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] payload-type nte 100
```

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16.3.6.31 payload-type redundancy

Function

Using the **payload-type redundancy** command, you can set the redundancy payload type value of the DSP channel.

Using the **undo payload-type redundancy** command, you can restore the default redundancy payload type value of the DSP channel.

By default, the redundancy payload type value of the DSP channel is 96.

Format

payload-type redundancy *redundancy-value*

undo payload-type redundancy

Parameters

Parameter	Description	Value
redundancy-value	Specifies the redundancy payload type value of the DSP channel.	The value is an integer that ranges from 96 to 127. The default value is 96.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The redundancy payload type values at both ends must be identical and unique.

Example

Set the redundancy payload type value of the DSP channel to 100.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] payload-type redundancy 100
```

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16.3.6.32 payload-type vbd

Function

Using the **payload-type vbd** command, you can set the VBD payload type value of the DSP channel.

Using the **undo payload-type vbd** command, you can restore the default VBD payload type value of the DSP channel.

By default, the VBD payload type value of the DSP channel is 102.

Format

payload-type vbd *vbd-value*

undo payload-type vbd

Parameters

Parameter	Description	Value
vbd-value	Specifies the VBD payload value of the DSP channel.	The value is an integer that ranges from 96 to 127. The default value is 102.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The VBD payload type values at both ends must be identical and unique.

Example

Set the VBD payload value of the DSP channel to 100.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] payload-type vbd 100
```

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16.3.6.33 plc

Function

Using the **plc** command, you can enable the Packet Loss Concealment (PLC) function on the DSP channel or disable this function.

Using the **undo plc** command, you can cancel the configuration.

By default, the PLC function is disabled.

Format

plc { enable | disable }

undo plc

Parameters

Parameter	Description	Value
enable	Enable the Packet Loss Concealment (PLC) function on the DSP channel.	-
disable	Disable the Packet Loss Concealment (PLC) function on the DSP channel.	-

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

Packet loss makes the voice quality deteriorated. The PLC recovers the packet loss to minimize the effect of packet loss in digital communications.

Example

Enable the PLC function.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] plc enable
```

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16.3.6.34 prohibit

Function

Using the **prohibit** command, you can prohibit DSP channels.

Using the **undo prohibit** command, you can restore the prohibited DSP channels.

Format

prohibit *channel* [*count*]

undo prohibit *channel* [*count*]

Parameters

Parameter	Description	Value
channel	Specifies the index of a DSP channel.	The value is an integer that ranges from 0 to the maximum DSP channel index.
count	Specifies the number of DSP channels to be prohibited.	The value is an integer that ranges from 1 to the maximum number of DSP channels supported.

Views

DSP resource management view

Default Level

2: Configuration level

Usage Guidelines

DSP channels in Busy or Wastage state or unregistered DSP channels cannot be prohibited.

Example

Prohibit channel 5 in DSP 0/0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp 0/0
[Huawei-voice-dsp0/0] prohibit 5
```

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16.3.6.35 resource-threshold

Function

Using the **resource-threshold** command, you can set the resource threshold in hierarchical control mode.

Using the **undo resource-threshold mode** command, you can restore the default resource threshold in hierarchical control mode.

Format

resource-threshold { **threshold1** *threshold1* | **threshold2** *threshold2* | **threshold3** *threshold3* }

undo resource-threshold { **threshold1** | **threshold2** | **threshold3** }

Parameters

Parameter	Description	Value
threshold1 *threshold1*	Specifies the resource threshold of common users (cat1).	The value is an integer that ranges from 0 to 100. The default value is 100.
threshold2 *threshold2*	Specifies the resource threshold of category 2 users (cat2).	The value is an integer that ranges from 0 to 100. The default value is 100.
threshold3 *threshold3*	Specifies the resource threshold of category 3 users (cat3).	The value is an integer that ranges from 0 to 100. The default value is 100.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The thresholds in the **resource-threshold** command are as follows: *threshold1-val* <= *threshold2-val* <= *threshold3-val*

When the DSP resource control mode is hierarchical control, DSP resource allocation is determined based on user levels. The resources that can be used are configured by the **resource-threshold** command.

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Example

Set the resource threshold for an authorized user to 60.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] resource-threshold threshold 1 60
```

16.3.6.36 resource-threshold mode

Function

Using the **resource-threshold mode** command, you can set the DSP resource control mode.

Using the **undo resource-threshold mode** command, you can restore the default DSP resource control mode.

By default, the DSP resource control mode is normal.

Format

resource-threshold mode { **priority** | **normal** }

undo resource-threshold mode

Parameters

Parameter	Description	Value
priority	Indicates that the DSP resource control mode is hierarchical control.	-
normal	Indicates that the DSP resource control mode is normal.	-

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

When the DSP resource control mode is hierarchical control, DSP resource allocation is determined based on user levels. The resources that can be used are configured by the **resource-threshold** command.

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When the DSP resource control mode is normal, users at any level can occupy all DSP resources.

Example

Set the DSP resource control mode to hierarchical control.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] resource-threshold mode priority
```

16.3.6.37 rtcp rtcp-interval

Function

Using the **rtcp rtcp-interval** command, you can set the interval at which the DSP channel sends RTCP packets.

Using the **undo rtcp rtcp-interval** command, you can restore the default interval at which the DSP channel sends RTCP packets.

By default, the interval at which the DSP channel sends RTCP packets is 5000 ms.

Format

rtcp rtcp-interval *rtcp-interval*

undo rtcp rtcp-interval

Parameters

Parameter	Description	Value
rtcp-interval	Specifies the interval at which the DSP channel sends RTCP packets.	The value is an integer that ranges from 0 to 65535, in milliseconds. The default value is 5000 ms.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The **rtcp rtcp-interval** command sets the interval at which the DSP channel sends RTCP packets on an MGC.

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Example

Set the interval at which the DSP channel sends RTCP packets to 8000 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] rtcp rtcp-interval 8000
```

16.3.6.38 rtcp rtcpxr

Function

Using the **rtcp rtcpxr** command, you can enable the RTP Control Protocol Extended Reports (RTCP XR) function or disable this function.

Using the **undo rtcp rtcpxr** command, you can cancel the configuration.

By default, the RTCP XR function is disabled.

Format

rtcp rtcpxr { enable | disable }

undo rtcp rtcpxr

Parameters

Parameter	Description	Value
enable	Enable the RTP Control Protocol Extended Reports function.	-
disable	Disable the RTP Control Protocol Extended Reports function.	-

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable the RTCP XR function.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] rtcp rtcpxr enable
```

16.3.6.39 rtcp sev-degrade-threshold

Function

Using the **rtcp sev-degrade-threshold** command, you can set the threshold for the number of severe degrade seconds.

Using the **undo rtcp sev-degrade-threshold** command, you can restore the default threshold for the number of severe degrade seconds.

By default, the threshold for the number of severe degrade seconds is 400.

Format

rtcp sev-degrade-threshold *sev-degrade-thresholdval*

undo rtcp sev-degrade-threshold

Parameters

Parameter	Description	Value
sev-degrade-thresholdval	Specifies the threshold for the number of severe degrade seconds.	The value is an integer that ranges from 1 to 65535. The default value is 400.

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the threshold for the number of severe degrade seconds to 1000.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] rtcp sev-degrade-threshold 1000
```

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16.3.6.40 rtcp vqm

Function

Using the **rtcp vqm** command, you can enable the Voice Quality Monitor (VQM) function or disable this function.

Using the **undo rtcp vqm** command, you can cancel the configuration.

By default, the VQM function is disabled.

Format

rtcp vqm { enable | disable }

undo rtcp vqm

Parameters

Parameter	Description	Value
enable	Enable the Voice Quality Monitor function.	-
disable	Disable the Voice Quality Monitor function.	-

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable the VQM function.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] rtcp vqm enable
```

16.3.6.41 silence

Function

Using the **silence** command, you can enable silence compression on the DSP channel.

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Using the **undo silence** command, you can cancel the configuration.

By default, silence compression is disabled on the DSP channel.

Format

silence { enable | disable }

undo silence

Parameters

Parameter	Description	Value
enable	Enable the silence compression on the DSP channel.	-
disable	Disable the silence compression on the DSP channel.	-

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

The **silence enable** command enables silence compression on an MGC.

Example

Enable silence compression.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] silence enable
```

16.3.6.42 tone (Voice View)

Function

tone can be either used to enter a specific tone-id view or create a new tone-id view, and hence configure the parameters of that tone-id

undo tone deletes a tone id

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Format

tone *Tone-id*

undo tone *Tone-id*

Parameters

parameter	description	value
Tone-id	Tone id number	integer, ranging from 1 to 11

Views

voice view

Default Level

Configuration level

Usage Guidelines

In the past, tone parameters were customized by way of importing a particular tone file. The disadvantage of this approach is that once some parameters need to be modified, the tone file has to be remade and imported again. This tone command can alleviate the trouble of the above process by enabling users to make customizations on the commandline.

Example

#create a view for tone id 3

```
[Huawei-voice]tone 3
Welcome enter the tone configuration!
As a diagnose feature,you'd better make change with the guide of handbook and local standards! Be careful!
[Huawei-voice-tone-3]
```

16.3.6.43 tone-frequency

Function

The **tone-frequency** command configures the frequency and amplitude of a signal tone.

The **undo tone-frequency** command cancels any configuration on a signal tone's frequency and amplitude.

Format

tone-frequency { **frequency-1** *freq1-value amplitude1-value* [**frequency-2** *freq2-value amplitude2-value* [**frequency-3** *freq3-value amplitude3-value* [**frequency-4** *freq4-value amplitude4-value*]]] }

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undo tone-frequency

Parameters

Parameter	Description	Value
frequency-1 *freq1-value*	Specifies the frequency of the first frequency set.	Integer, range: 0-4000, unit: Hz
amplitude1-value	Specifies the first amplitude of the Nth frequency set.	Integer, range: 0-100, unit: 0.1 dBm
frequency-2 *freq2-value*	Specifies the frequency of the second frequency set.	Integer, range: 0-4000, unit: Hz
amplitude2-value	Specifies the amplitude of the second frequency set.	Integer, range: 0-100, unit: 0.1 dBm
frequency-3 *freq3-value*	Specifies the frequency of the third frequency set.	Integer, range: 0-4000, unit: Hz
amplitude3-value	Specifies the amplitude of third frequency set.	Integer, range: 0-100, unit: 0.1 dBm
frequency-4 *freq4-value*	Specifies the frequency of the fourth frequency set.	Integer, range: 0-4000, unit: Hz
amplitude4-value	Specifies the amplitude of the fourth frequency set.	Integer, range: 0-100, unit: 0.1 dBm

Views

Tone view

Default Level

Configuration level

Usage Guidelines

Usually users should only perform find-tune on the frequency and the amplitude. Radical changes on those parameters may have undesirable effect upon normal calls.

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Example

Configure tone 3, set the frequency to be 980 Hz and amplitude 0.3 dBm. After doing so, the dial-tone becomes sharper because of higher pitch and larger amplitude.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] tone 3
[Huawei-voice-tone-3] tone-frequency frequency-1 980 3
```

16.3.6.44 tone-cadence

Function

tone-cadence sets the cadence.

undo tone-cadence restores the default cadence.

Format

tone-cadence continus *base-frequency-flag*

tone-cadence sequence { *ontime1-value offtime1-value base-frequency-flag1* } [{ *ontime2-value offtime2-value base-frequency-flag2* } [{ *ontime3-value offtime3-value base-frequency-flag3* } [{ *ontime4-value offtime4-value base-frequency-flag4* }]]]

undo tone-cadence

Parameters

parameter	description	value
continus *base-frequency-flag*	Frequency flag. Convert this number into a 4-bit binary number, and each of the 4 bits corresponds to a frequency set (See the **tone-frequency** command).	Integer, range: 1-6, 8-10, 12.
sequence	Sequential flag.	-
ontimeN-value	Length of playing time for the Nth cadence.	Integer, range: 0-65535, unit: ms.
offtimeN-value	Length of silence time for the Nth cadence.	Integer, range: 0-65535, unit: ms.
base-frequency-flagN	Frequency flag of the Nth cadence.	Integer, range: 1-6, 8-10, 12.

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Views

Tone view

Default Level

Configuration level

Usage Guidelines

Usually users should only perform find-tune on the cadence. Radical changes on those parameters may have undesirable effect upon normal calls.

Example

Scenario 1:

Configure the cadence on tone 3, making it play continuously with frequency 1.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] tone 3
[Huawei-voice-tone-3] tone-cadence continus 1
```

Scenario 2:

```
[Huawei-voice-tone-3] tone-cadence sequence 400 200 1 500 200 2
```

Set up to 2 cadences. The first one plays 400 ms, then begins a silence period that lasts 200 ms; the second plays for 500 ms, and then begins a 200 ms' silence. The values '1' and '2' are base-frequency-flags, which should be converted to binary numbers as follows:

1 == 0001 frequency 1

2 == 0010 frequency 2

3 == 0011 frequency 1 and frequency 2

4 == 0100 frequency 3

5 == 0101 frequency 1 and frequency 3

.....

After the above configuration, the tone that comes out when one picks up the phone sounds almost the same as before, except that the cadence differs.

Restores the default cadence

```
[Huawei-voice-tone-3] undo tone-cadence
```

16.3.6.45 tone-detect-info

Function

tone-detect-info configure the detection on both the tone-id's frequency and cadence.

undo tone-detect-info cancels any tone-id detection that has been configured.

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Format

tone-detect-info { **frequency-1** *freq-low-throld-value1 freq-high-throld-value1* | **amplitude-1** *amp-low-throld-value1 amp-high-throld-value1* }* [{ **frequency-2** *freq-low-throld-value2 freq-high-throld-value2* | **amplitude-2** *amp-low-throld-value2 amp-high-throld-value2* }*

tone-detect-info { **cadence-1** *cadence-ontime-low-throld-value1 cadence-ontime-high-throld-value1 cadence-offtime-low-throld-value1 cadence-offtime-high-throld-value1* | **cadence-2** *cadence-ontime-low-throld-value2 cadence-ontime-high-throld-value2 cadence-offtime-low-throld-value2 cadence-offtime-high-throld-value2* }*

Parameters

Parameter	Description	Integer
frequency-1	frequency detection on frequency set N.	-
freq-low-throld-value1	the low threshold of frequency detection on frequency set N.	Integer, range: 0-4000, unit: Hz
freq-high-throld-value1	the high threshold of frequency detection on frequency set N.	Integer, range: 0-4000, unit: Hz
cadence-1	amplitude detection on frequency set 1.	-
amplitude-1 *amp-low-throld-value1*	the low threshold of amplitude detection on frequency set 1.	Integer, range: 0-100, unit: 0.1 dBm
amp-high-throld-value1	the high threshold of amplitude detection on frequency set 1.	integer, range: 0-100, unit: 0.1 dBm
cadence-2 *cadence-ontime-low-throld-value2*	when to start detecting the play of cadence 1.	Integer, range: 0-65535, unit: ms
cadence-ontime-high-throld-value1	when to stop detecting the play of cadence 1.	Integer, range: 0-65535, unit: ms
cadence-offtime-low-throld-value1	when to start detecting the cadence 1's silence period.	Integer, range: 0-65535, unit: ms
cadence-offtime-high-throld-value1	when to stop detecting the cadence 1's silence period.	Integer, range: 0-65535, unit: ms

Views

tone-id view

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Default Level

Configuration level

Usage Guidelines

Precautions

For now, tone detection only supports at most two cadences and two frequencies.

This command requires a device restart before it takes effect.

Example

Configure the detection on tone3 frequency.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] tone 3
[Huawei-voice-tone-3] tone-detect-info frequency-1 440 460 amplitude-1 2 4
```

Set frequency detection on frequency 1 to be [440, 460]Hz, and detection on amplitude to be [2,4]. The detection on frequency set 2 uses its original detection values when it is not set here.

Configure the detection on tone3 cadence.

```
[Huawei-voice-tone-3] tone-detect-info cadence-1 400 500 200 300 cadence-2 480 520 320 360
```

Set the play time detection on cadence 1 to be [400, 500]ms, and silence detection at time [200, 300]ms. Set the play time detection on cadence 2 to be [480, 520]ms, and silence detection at [320,360]ms.

16.3.6.46 traffic-policy (DSP attribute view)

Function

The **traffic-policy** command applies a traffic policy to a DSP channel.

The **undo traffic-policy** command deletes a traffic policy from a DSP channel.

By default, no traffic policy is applied to a DSP channel.

Format

traffic-policy *policy-name* **inbound**

undo traffic-policy inbound

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Parameters

Parameter	Description	Value
policy-name	Specifies the name of a traffic policy.	The value is a string of 1 to 31 case-sensitive characters without spaces and starts with a letter.
inbound	Applies a traffic policy to the inbound direction of a DSP channel.	-

Views

DSP attribute view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

The redirection function of the MQC is used for routing voice packets.

Prerequisites

A traffic policy has been created using the **traffic policy** command, and traffic classifiers and traffic behaviors have been bound to the traffic policy.

Precautions

A traffic policy supports only filtering and redirection.

NOTE

After a traffic policy is applied, you cannot directly delete the traffic policy or traffic classifiers or traffic behaviors in the traffic policy. If the traffic policy that you want to delete has been applied to a DSP channel, run the **undo traffic-policy** command to unbind the traffic policy. Then run the **undo traffic policy** command in the system view to delete the traffic policy.

Example

Create a traffic policy **p1**, bind the created traffic classifier **c1** and traffic behavior **b1** to the traffic policy, and apply the traffic policy to the inbound direction of a DSP channel.

```
<Huawei> system-view
[Huawei] traffic policy p1
[Huawei-trafficpolicy-p1] classifier c1 behavior b1
[Huawei-trafficpolicy-p1] quit
[Huawei] voice
```

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```
[Huawei-voice] dsp-attribute
[Huawei-voice-dsp-attribute] traffic-policy p1 inbound
```

16.3.7 Voice Diagnose Commands

NOTE

- The following product models support voice functions (such as the PBX, SIP AG, and H.248 AG):
  - AR120 series: AR129CV, AR129CVW, and AR129CGVW-L
  - AR150 series: AR157VW and AR158EVW
  - AR160 series: AR161, AR169FVW, AR169FVW-8S, AR169CVW, AR169JFVW-4B4S, AR169JFVW-2S, AR169CVW-4B4S, AR161FV-1P, and AR169FGVW-L
  - AR200 series: AR201VW-P, AR207V, AR207VW, and AR207V-P
  - AR1200 series: AR1220V, AR1220VW, AR1220EV, and AR1220EVW
  - AR2200 series: AR2204, AR2220, AR2220L, AR2220E.
  - AR2240: For the equipped with SRU40, SRU60, SRU80, and SRU100.
  - AR3200 series: For the AR3260 equipped with SRU40, SRU60, SRU80, or SRU100, the same voice mode is set for the active and standby SRUs.

  The AR129CV, AR129CVW, AR169CVW, AR169JFVW-4B4S, AR169JFVW-2S, and AR169CVW-4B4S only support the PBX and SIP AG, but not the H.248 AG.
- When an AR2204, AR2220L, or AR2220E router needs to provide voice services, install a DSP module and a voice subcard in the router. When an AR2220, AR2240, or AR3200 router needs to provide voice services, install a DSP module.
- To provide voice services to POTS users on the AR1200, AR2200, or AR3200, install the 4FXS1FXO, 16FXS, or 32FXS card. The AR1200 does not support the 32FXS card.
- To provide voice services to ISDN phone users on the AR1200, AR2200, or AR3200, install the 2BST card.
- To connect an AR1200, AR2200, or AR3200 router to a TDM PBX through the E1 interface, install the E1T1-M card.
- On the AR169FGVW-L, AR1220EV, and AR1220EVW, the AT0 trunk cannot be connected to the SIP server or SIP trunk.

16.3.7.1 clip port

Function

The **clip port** command is used to test the display of the POTS calling number.

Format

clip port *slot-id* { **transwhen** *transwhen-value* | **format** *format-value* | **reversepole-beforecid** *reversepole-before-cid-value* | **input-gain** *input-gain-value* | **output-gain** *output-gain-value* | **telno** *telno-value* | **telname** *telname-value* }*

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Parameters

Parameter	Description	Value
slot-id	Specifies the slot ID/subcard ID/port number.	The value is a string of 1 to 15 characters. The value ranges of the slot ID, subcard ID, and port number vary according to the device configuration.
transwhen *transwhen-value*	Displays the time.	Enumerated type. The values are as follows: • after-ring • before-ring
format *format-value*	Displays the format.	Enumerated type. The values are as follows: • SDMF • MDMF • DTMF • ETSI • R15
reversepole-beforecid *reversepole-before-cid-value*	Displays the polarity reversal tag before a number.	Enumerated type. The values are as follows: • disable • enable
input-gain *input-gain-value*	Indicates the input gain.	The value is an integer that ranges from 0 to 15.
output-gain *output-gain-value*	Indicates the output gain.	The value is an integer that ranges from 0 to 20.
telno *telno-value*	Displays the calling number.	The value is a string of 1 to 32 characters.
telname *telname-value*	Displays the calling name.	The value is a string of 1 to 32 characters.

Views

Voice Diagnostic view

Default Level

3: Management level

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Usage Guidelines

None

Example

Configure the tested POTS calling number to be displayed after ringing.

```
<Huawei> system-view
[Huawei] diagnose
[Huawei-diagnose] clip port 1/0/0 transwhen after-ring
```

16.3.7.2 debugging voice-adapt

Function

the **debugging voice-adapt** command is used to configure debugging print level for voice-adapt-related modules.

Format

debugging voice-adapt { **emtest** | **vproduct** | **vpm** | **vcm** | **vam** | **vom** | **volc** | **vnet** | **vrm** | **vsp** } *debug-level-value*

undo debugging voice-adapt { **emtest** | **vproduct** | **vpm** | **vcm** | **vam** | **vom** | **volc** | **vnet** | **vrm** | **vsp** }

display voice-adapt debugging { **emtest** | **vproduct** | **vpm** | **vcm** | **vam** | **vom** | **volc** | **vnet** | **vrm** | **vsp** }

Parameters

Parameter	Description	Value
{ **emtest** | **vproduct** | **vpm** | **vcm** | **vam** | **vom** | **volc** | **vnet** | **vrm** | **vsp** }	Module name.	-
debug-level-value	Debugging print level.	Enumerated value: • error • event • trace • all

Views

Diagnostic views

Default Level

2: Configuration level

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Usage Guidelines

Switch on debugging print for voice-adapt-related modules. Used for troubleshooting.

Example

Set debugging print level for vproduct module to be all.

```
[Huawei-diagnose] debugging voice-adapt vproduct all
```

undo all debugging print from vom module.

```
[Huawei-diagnose] undo debugging voice-adapt vom
```

16.3.7.3 diagnose

Function

The **diagnose** command displays the Diagnostic view.

Format

diagnose

Parameters

None

Views

Voice view

Default Level

3: Management level

Usage Guidelines

None

Example

Enter the Diagnostic view.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]diagnose
[Huawei-voice-vdiagnose]
```

16.3.7.4 digit-trace

Function

The **digit-trace** command is used to enable POTS number diagnosis.

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The **undo digit-trace** command is used to disable POTS number diagnosis.

Format

digit-trace *slotid/subcardid/portid*

undo digit-trace *slotid/subcardid/portid*

Parameters

Parameter	Description	Value
slotid/subcardid/portid	Specifies the slot ID/ subcard ID/port number.	The value is a string of 1 to 15 characters. The value ranges of the slot ID, subcard ID, and port number vary according to the device configuration.

Views

Voice Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Enable POTS number diagnosis

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]diagnose
[Huawei-voice-vdiagnose]digit-trace 1/0/0
```

16.3.7.5 display fe slot fe-id table port-map dsp-port base-port

Function

The **display fe slot fe-id table port-map dsp-port base-port** command displays voice portmap entries.

Format

display fe slot *slot-id* **fe-id** *fe-id* **table port-map dsp-port** *dsp-port-num* **base-port** *base-port-num*

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Parameters

Parameter	Description	Value
slot *slot-id*	Specifies the slot ID.	The value is the slot where the LPU is installed.
fe-id *fe-id*	Specifies the multicore forwarding engine number.	The value is an integer that ranges from 0 to 256.
dsp-port *dsp-port-num*	Specifies the DSP port number.	The value is an integer that ranges from 61440 to 65535.
base-port *base-port-num*	Specifies the BASE port number.	The value is an integer that ranges from 0 to 61440.

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Display voice portmap entries of BASE port 0 in DSP port 61440 of engine 0 in slot 0.

```
<Huawei>system-view
[Huawei]diagnose
[Huawei-diagnose] display fe slot 0 fe-id 0 table port-map dsp-port 61440 base-port 0
memory data:
0000 0000
```

16.3.7.6 display fe slot fe-id table voice-mr dest-ip port protocol

Function

The **display fe slot fe-id table voice-mr dest-ip port protocol** command displays the VoiceMr table.

Format

display fe slot *slot-id* **fe-id** *fe-id* **table voice-mr dest-ip** *ip-address* **port** *port-num* **protocol** *protocol-num*

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Parameters

Parameter	Description	Value
slot *slot-id*	Specifies the slot ID.	The value is the slot where the LPU is installed.
fe-id *fe-id*	Specifies the multicore forwarding engine number.	The value is an integer that ranges from 0 to 256.
dest-ip *ip-address*	Specifies the destination IP address.	The value is in dotted decimal notation.
port *port-num*	Specifies the port number.	The value is an integer that ranges from 0 to 65535.
protocol *protocol-num*	Specifies the protocol number.	The value is an integer that ranges from 0 to 255.

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Display the VoiceMr table of engine 0 in slot 0. Engine 0 has destination IP address 192.168.0.1, port number 10, and protocol number 0.

```
<Huawei>system-view
[Huawei]diagnose
[Huawei-diagnose] display fe slot 0 fe-id 0 table voice-mr dest-ip 192.168.0.1 port 10 protocol 0
memory data:
0000 0000
```

16.3.7.7 display fe slot fe-id table voice-signal

Function

The **display fe slot fe-id table voice-signal** command displays voice signaling entries.

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Format

display fe slot *slot-id* **fe-id** *fe-id* **table voice-signal** *ip-address port-num protocol-num*

Parameters

Parameter	Description	Value
slot *slot-id*	Specifies the slot ID.	The value is the slot where the LPU is installed.
fe-id *fe-id*	Specifies the multicore forwarding engine number.	The value is an integer that ranges from 0 to 256.
ip-address	Specifies the destination IP address.	The value is in dotted decimal notation.
port-num	Specifies the destination port number.	The value is an integer that ranges from 5000 to 5999.
protocol-num	Specifies the protocol number.	The value is an integer that ranges from 6 to 17.

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Display the voice signaling entry of engine 0 in slot 0. Engine 0 has destination IP address 192.168.0.1, port number 5000, and protocol number 7.

```
<Huawei>system-view
[Huawei]diagnose
[Huawei-diagnose] display fe slot 0 fe-id 0 table voice-signal 192.168.0.1 5000 7
memory data:
0000 0000
```

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16.3.7.8 display pots loop-line-threshold

Function

The **display pots loop-line-threshold** command is used to check the POTS loop line detection threshold.

Format

display pots loop-line-threshold

Parameters

None

Views

Voice Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Check the POTS loop line detection threshold.

```
<Huawei>system-view
[Huawei]voice
[Huawei-voice]diagnose
[Huawei-voice-vdiagnose]display pots loop-line-threshold
 ------------------------------------------------------------------------------
 Loop-line test threshold item                                  Value
------------------------------------------------------------------------------
 Touch the power line : AC voltage threshold(volt)                55
 Loop-line mixed with others:DC voltage threshold(volt)           40
 Loop-line grounding: ground resistance threshold(ohm)         20000
 Off-hook: A-B resistance min. threshold(ohm)                   100
 Off-hook: A-B resistance max. threshold(ohm)                100000
 Off-hook: loop resistance min. threshold(ohm)                2000
 Off-hook: loop resistance max. threshold(ohm)                2000
 Loop-line mixed with others: A-B resistance threshold(ohm)       2000
 A-B poor insulation:A-B resistance min. threshold(ohm)        2000
 A-B poor insulation:A-B resistance max. threshold(ohm)       20000
 Leakage: ground capacitance threshold(nF)                     700
 Normal: ground capacitance threshold 1(nF)                    200
 Normal: ground capacitance threshold 2(nF)                    350
 Normal: ground capacitance threshold 3(nF)                     50
 ------------------------------------------------------------------------------
```

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16.3.7.9 display pots subcard-loopline-adjust

Function

The **display pots subcard-loopline-adjust** command is used to check the calibration value in the scenario of POTS user port disconnection and self-mixing.

Format

display pots subcard-loopline-adjust [**from** *startframeid* [**to** *endframeid*] | *frameid*]

Parameters

Parameter	Description	Value
from *startframeid*	Specifies the start frame ID.	The value is fixed at 0.
to *endframeid*	Specifies the end frame ID.	The value is fixed at 0.
frameid	Specifies a frame ID.	The value is fixed at 0.

Views

Voice Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Check the calibration value in the scenario of POTS user port disconnection and self-mixing.

```
<Huawei>system-view
[Huawei]voice
[Huawei-voice]diagnose
[Huawei-voice-vdiagnose]display pots subcard-loopline-adjust
 ------------------------------------------------------------
 FrameID    Adjust flag    CAB(nF)  CAG(nF)  CBG(nF)  RAB(ohm)
 ------------------------------------------------------------
     0          Null         -        -        -         -
 ------------------------------------------------------------
 Total: All 0, Capacitance 0, Resistance 0, Null 1
```

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16.3.7.10 display voice device state

Function

The **display voice device state** command displays device voice status.

Format

display voice device state

Parameters

None

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

View device voice status.

```
<Huawei>system-view
[Huawei]diag
Now you enter a diagnostic command view for developer's testing, some commands
may affect operation by wrong use, please carefully use it with HUAWEI
engineer's direction.
[Huawei-diagnose]display voice device state
  pots user number          : 0
  bra user number           : 0
  sipue user number         : 252
  Sipat0 trunk number       : 250
  At0 trunk number          : 1
  Pra trunk circuit number : 32
  R2 trunk circuit number   : 0
  Sip trunk group number    : 2
  H323 trunk group number   : 0
  Active call number        : 0
  Max call number           : 80
```

16.3.7.11 display voice statistics module at0

Function

The **display voice statistics module at0** command displays statistical information about the AT0 module.

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Format

display voice statistics module at0 [**srv** | **line** | **rm**]

Parameters

Parameter	Description	Value
srv	Specifies SRV statistical information about the AT0 module.	-
line	Specifies LINE statistical information about the AT0 module.	-
rm	Specifies RM statistical information about the AT0 module.	-

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

View statistical information about the AT0 module.

```
<Huawei>system-view
[Huawei]diag
Now you enter a diagnostic command view for developer's testing, some commands
may affect operation by wrong use, please carefully use it with HUAWEI
engineer's direction.
[Huawei-diagnose]display voice statistics module at0
  Srv Messages:
  Send_Alerting       : 0
  Send_CallProceeding : 0
  Send_Progress       : 0
  Send_Setup          : 0
  Send_Connect        : 0
  Send_SetupAck       : 0
  Send_Disconnect     : 0
  Send_Release        : 0
  Send_RestartAck     : 0
  Send_Facility       : 0
  Send_Notify         : 0

  Recv_Alerting       : 0
  Recv_CallProceeding : 0
  Recv_Progress       : 0
  Recv_Setup          : 0
  Recv_Connect        : 0
  Recv_SetupAck       : 0
  Recv_Disconnect     : 0
  Recv_Release        : 0
  Recv_RestartAck     : 0
  Recv_Facility       : 0
  Recv_Notify         : 0
```

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```
Line Messages:
Send_OccupyTrunk      : 0
Send_ReleaseTrunk     : 0
Send_SendNumber       : 0
Send_SetActive        : 0
Send_SetA/MuLaw       : 0
Send_SetGain          : 0
Send_SetNumberType    : 0
Send_SetRecvDTMF      : 0
Send_SetDTMFPara      : 0
Send_SetPulsePara     : 0
Send_ResetChannel     : 0
Send_ResetBoard       : 0
Send_InquireVersion   : 0
Send_SetRingAttribute : 0
Send_SetFeedVoltage   : 0
Send_SetFeedCurrent   : 0
Send_SetImpedance     : 0
Send_TsLoop           : 0

Recv_OccupyConfirm      : 0
Recv_CallInCome         : 0
Recv_CallRelease        : 0
Recv_PolarityReverse    : 0
Recv_SecondDialNumber   : 0
Recv_CallerIdRecvEnd    : 0
Recv_SendNumberComplete : 0
Recv_UtdDetect          : 0
Recv_ChannelResetOk     : 1
Recv_ChannelResetFault  : 1

Rm Messages:
Send_Alloc            : 2
Send_Release          : 2
Send_Add              : 0
Send_Del              : 0
Send_HandleOpen       : 1
Send_HandleClose      : 0
Send_HandleSendTone   : 0
Send_HandleStopTone   : 0
Send_HandleSendFSK    : 0
Send_HandleInsertDTMF : 0

Recv_Alloc            : 2
Recv_Release          : 2
Recv_Add              : 0
Recv_Del              : 0
Recv_HandleOpen       : 1
Recv_HandleClose      : 0
Recv_HandleSendTone   : 0
Recv_HandleStopTone   : 0
Recv_HandleSendFSK    : 0
Recv_HandleInsertDTMF : 0
```

16.3.7.12 display voice statistics module h323

Function

The **display voice statistics module h323** command displays statistical information about the H323 module.

Format

display voice statistics module h323 [**srv** | **h225** | **h245** | **ras**]

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Parameters

Parameter	Description	Value
srv	Specifies SRV statistical information about the H323 module.	-
h225	Specifies H225 statistical information about the H323 module.	-
h245	Specifies H245 statistical information about the H323 module.	-
ras	Specifies RAS statistical information about the H323 module.	-

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

View statistical information about the H323 module.

```
<Huawei>system-view
[Huawei]diag
Now you enter a diagnostic command view for developer's testing, some commands
may affect operation by wrong use, please carefully use it with HUAWEI
engineer's direction.
[Huawei-diagnose]display voice statistics module h323
  Srv Sent Messages:
  Send_Setup           : 0
  Send_SetupAck        : 0
  Send_Callproceeding  : 0
  Send_Alerting        : 0
  Send_Connect         : 0
  Send_ConnectAck      : 0
  Send_ReleaseComplete : 0
  Send_Progress        : 0
  Send_ProgressRsp     : 0
  Send_ProgressAck     : 0
  Send_Information     : 0
  Send_Facility        : 0
  Send_Bearinfo        : 0
  Send_BearinfoRsp     : 0
  Send_BearinfoAck     : 0
  Send_GRQ             : 0
  Send_GCF             : 0
  Send_GRJ             : 0
  Send_RRQ             : 0
  Send_RCF             : 0
  Send_RRJ             : 0
  Send_LRQ             : 0
  Send_LCF             : 0
  Send_LRJ             : 0
  Send_ARQ             : 0
```

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```
Send_ACF             : 0
Send_ARJ             : 0
Send_URQ             : 0
Send_UCF             : 0
Send_URJ             : 0
Send_DRQ             : 0
Send_DCF             : 0
Send_DRJ             : 0

Srv received Messages:
Recv_Setup           : 0
Recv_SetupAck        : 0
Recv_Callproceeding  : 0
Recv_Alerting        : 0
Recv_Connect         : 0
Recv_ConnectAck      : 0
Recv_ReleaseComplete : 0
Recv_Progress        : 0
Recv_ProgressRsp     : 0
Recv_ProgressAck     : 0
Recv_Information     : 0
Recv_Facility        : 0
Recv_Bearinfo        : 0
Recv_BearinfoRsp     : 0
Recv_BearinfoAck     : 0
Recv_GRQ             : 0
Recv_GCF             : 0
Recv_GRJ             : 0
Recv_RRQ             : 0
Recv_RCF             : 0
Recv_RRJ             : 0
Recv_LRQ             : 0
Recv_LCF             : 0
Recv_LRJ             : 0
Recv_ARQ             : 0
Recv_ACF             : 0
Recv_ARJ             : 0
Recv_URQ             : 0
Recv_UCF             : 0
Recv_URJ             : 0
Recv_DRQ             : 0
Recv_DCF             : 0
Recv_DRJ             : 0

H225 Sent Messages:
Send_Setup                    : 0
Send_SetupAck                 : 0
Send_Callproceeding           : 0
Send_Alerting                 : 0
Send_Connect                  : 0
Send_ReleaseComplete          : 0
Send_FacilityTCSQequest       : 0
Send_FacilityTCSAck           : 0
Send_FacilityTCSReject        : 0
Send_FacilityOLCRequest       : 0
Send_FacilityOLCAck           : 0
Send_FacilityOLCReject        : 0
Send_FacilityMSDRequest       : 0
Send_FacilityMSDAck           : 0
Send_FacilityCLCRequest       : 0
Send_FacilityCLCAck           : 0
Send_FacilityRequestMode      : 0
Send_FacilityRequestModeAck   : 0
Send_FacilityRequestModeReject : 0
Send_Progress                 : 0

H225 received Messages:
Recv_Setup                    : 0
Recv_SetupAck                 : 0
```

```
Recv_Callproceeding            : 0
Recv_Alerting                  : 0
Recv_Connect                   : 0
Recv_ReleaseComplete           : 0
Recv_FacilityTCSQequest        : 0
Recv_FacilityTCSAck            : 0
Recv_FacilityTCSReject         : 0
Recv_FacilityOLCRequest        : 0
Recv_FacilityOLCAck            : 0
Recv_FacilityOLCReject         : 0
Recv_FacilityMSDRequest        : 0
Recv_FacilityMSDAck            : 0
Recv_FacilityCLCRequest        : 0
Recv_FacilityCLCAck            : 0
Recv_FacilityRequestMode       : 0
Recv_FacilityRequestModeAck    : 0
Recv_FacilityRequestModeReject : 0
Recv_Progress                  : 0

H245 sent Messages:
Send_TCSRequest        : 0
Send_TCSAck            : 0
Send_TCSReject         : 0
Send_OlcRequest        : 0
Send_OlcAck            : 0
Send_OlcReject         : 0
Send_MsdRequest        : 0
Send_MsdAck            : 0
Send_ClcRequest        : 0
Send_ClcAck            : 0
Send_StartH245         : 0
Send_RequestMode       : 0
Send_RequestModeAck    : 0
Send_RequestModeReject : 0

H245 received Messages:
Recv_TCSRequest        : 0
Recv_TCSAck            : 0
Recv_TCSReject         : 0
Recv_OlcRequest        : 0
Recv_OlcAck            : 0
Recv_OlcReject         : 0
Recv_MsdRequest        : 0
Recv_MsdAck            : 0
Recv_ClcRequest        : 0
Recv_ClcAck            : 0
Recv_StartH245         : 0
Recv_RequestMode       : 0
Recv_RequestModeAck    : 0
Recv_RequestModeReject : 0

Ras sent Messages:
Send_GRQ            : 0
Send_GCF            : 0
Send_GRJ            : 0
Send_RRQ            : 0
Send_RCF            : 0
Send_RRJ            : 0
Send_LRQ            : 0
Send_LCF            : 0
Send_LRJ            : 0
Send_ARQ            : 0
Send_ACF            : 0
Send_ARJ            : 0
Send_URQ            : 0
Send_UCF            : 0
Send_URJ            : 0
Send_DRQ            : 0
Send_DCF            : 0
```

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```
Send_DRJ            : 0
Send_CheckADMStatus : 0
Send_ADMStatus      : 0

Ras received Messages:
Recv_GRQ            : 0
Recv_GCF            : 0
Recv_GRJ            : 0
Recv_RRQ            : 0
Recv_RCF            : 0
Recv_RRJ            : 0
Recv_LRQ            : 0
Recv_LCF            : 0
Recv_LRJ            : 0
Recv_ARQ            : 0
Recv_ACF            : 0
Recv_ARJ            : 0
Recv_URQ            : 0
Recv_UCF            : 0
Recv_URJ            : 0
Recv_DRQ            : 0
Recv_DCF            : 0
Recv_DRJ            : 0
Recv_CheckADMStatus : 0
Recv_ADMStatus      : 0
```

16.3.7.13 display voice statistics module pots

Function

The **display voice statistics module pots** command displays statistical information about the POTS module.

Format

display voice statistics module pots [**srv** | **line**]

Parameters

Parameter	Description	Value
srv	Specifies SRV statistical information about the POT0 module.	-
line	Specifies LINE statistical information about the POT0 module.	-

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

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Example

View statistical information about the POTS module.

```
<Huawei>system-view
[Huawei]diag
Now you enter a diagnostic command view for developer's testing, some commands
may affect operation by wrong use, please carefully use it with HUAWEI
engineer's direction.
[Huawei-diagnose]display voice statistics module pots
  Srv Messages:
  Recv_StartRing          : 0
  Recv_Stop_Ring          : 1
  Recv_InitRing           : 1
  Recv_StartService       : 0
  Recv_EndService         : 0
  Recv_EndServiceByCa     : 0
  Recv_EndServiceAck      : 0
  Recv_RingSendTelnum     : 0
  Recv_SendTelnum         : 0
  Recv_SendAoce           : 0
  Recv_Light              : 0
  Recv_OverLight          : 0
  Recv_RingSplash         : 0
  Recv_Lock               : 2
  Recv_NomalLineFeed      : 0
  Recv_Reverse            : 0
  Recv_KC                 : 0
  Recv_EndOfCall          : 0
  Recv_DisconnectClear    : 0
  Recv_DisconnectClearFail : 0
  Recv_TempFlashhookTime  : 0
  Recv_NoBattery          : 0
  Recv_NormalPolarity     : 0
  Recv_Hold               : 0
  Recv_TransmitEnable     : 0
  Recv_TransmitDisenable  : 0

  Line Messages:
  Send_DialReport         : 2
  Send_OffHook            : 2
  Send_StopDialTone       : 0
  Send_OnHook             : 1
  Send_Hooking            : 0
  Send_CalledHook         : 0
  Send_StartFSK           : 1
  Send_RingFail           : 0
  Send_PortStatReport     : 0
  Send_TSLoopAck          : 0
  Send_CancelTSLoopAck    : 0
  Send_EarthConnect       : 0
  Send_EarthCancel        : 0
  Send_RecvGain           : 0
  Send_SendGain           : 0
  Send_DisconnectClearAck : 0
  Send_PortFail           : 1
  Send_PortResume         : 2
  Send_PortLoop           : 0
  Send_LoopCancel         : 0
  Send_LineTestStart      : 0
  Send_LineTestStop       : 0
  Send_GTCTestStart       : 0
  Send_GTCTestStop        : 0
  Send_LineFail           : 0
  Send_LineResume         : 0
  Send_PowerPermissible   : 0
  Send_PowerOverloadBuff  : 0
  Send_PowerOverloadLimit : 0
```

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16.3.7.14 display voice statistics module q931

Function

The **display voice statistics module q931** command displays statistical information about the Q931 module.

Format

display voice statistics module q931 { **srv** | **protocol** } [**net** | **te**]

Parameters

Parameter	Description	Value
srv	Specifies SRV statistical information about the Q931 module.	-
protocol	Specifies protocol statistical information about the Q931 module.	-
net	Specifies NET statistical information about the Q931 module.	-
te	Specifies TE statistical information about the Q931 module.	-

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

View statistical information about the Q931 module.

```
<Huawei>system-view
[Huawei]diag
Now you enter a diagnostic command view for developer's testing, some commands
may affect operation by wrong use, please carefully use it with HUAWEI
engineer's direction.
[Huawei-diagnose]display voice statistics module q931
  Srv Net Sent Messages:
  Send_Alerting          : 0
  Send_CallProceeding    : 0
  Send_Progress          : 0
  Send_Setup             : 0
  Send_Connect           : 0
  Send_SetupAck          : 0
  Send_ConnectAck        : 0
  Send_UserInformation   : 0
  Send_SuspendReject     : 0
  Send_ResumeReject      : 0
  Send_Hold              : 0
```

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```
Send_Suspend           : 0
Send_Resume            : 0
Send_HoldAck           : 0
Send_SuspendAck        : 0
Send_ResumeAcknowledge : 0
Send_HoldReject        : 0
Send_Retrieve          : 0
Send_RetrieveAck       : 0
Send_RetrieveReject    : 0
Send_Disconnect        : 0
Send_Restart           : 0
Send_Release           : 0
Send_RestartAck        : 0
Send_ReleaseComplete   : 0
Send_SegmDss1          : 0
Send_Facility          : 0
Send_Notify            : 0
Send_Statusdss1Query   : 0
Send_CongestionControl : 0
Send_Information       : 0
Send_Status            : 0

Srv Net Received Messages:
Recv_Alerting          : 0
Recv_CallProceeding    : 0
Recv_Progress          : 0
Recv_Setup             : 0
Recv_Connect           : 0
Recv_SetupAck          : 0
Recv_ConnectAck        : 0
Recv_UserInformation   : 0
Recv_SuspendReject     : 0
Recv_ResumeReject      : 0
Recv_Hold              : 0
Recv_Suspend           : 0
Recv_Resume            : 0
Recv_HoldAck           : 0
Recv_SuspendAck        : 0
Recv_ResumeAcknowledge : 0
Recv_HoldReject        : 0
Recv_Retrieve          : 0
Recv_RetrieveAck       : 0
Recv_RetrieveReject    : 0
Recv_Disconnect        : 0
Recv_Restart           : 0
Recv_Release           : 0
Recv_RestartAck        : 0
Recv_ReleaseComplete   : 0
Recv_SegmDss1          : 0
Recv_Facility          : 0
Recv_Notify            : 0
Recv_Statusdss1Query   : 0
Recv_CongestionControl : 0
Recv_Information       : 0
Recv_Status            : 0

Srv User Sent Messages:
Send_Alerting          : 0
Send_CallProceeding    : 0
Send_Progress          : 0
Send_Setup             : 0
Send_Connect           : 0
Send_SetupAck          : 0
Send_ConnectAck        : 0
Send_UserInformation   : 0
Send_SuspendReject     : 0
Send_ResumeReject      : 0
Send_Hold              : 0
Send_Suspend           : 0
```

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```
Send_Resume            : 0
Send_HoldAck           : 0
Send_SuspendAck        : 0
Send_ResumeAcknowledge : 0
Send_HoldReject        : 0
Send_Retrieve          : 0
Send_RetrieveAck       : 0
Send_RetrieveReject    : 0
Send_Disconnect        : 0
Send_Restart           : 0
Send_Release           : 0
Send_RestartAck        : 0
Send_ReleaseComplete   : 0
Send_SegmDss1          : 0
Send_Facility          : 0
Send_Notify            : 0
Send_Statusdss1Query   : 0
Send_CongestionControl : 0
Send_Information       : 0
Send_Status            : 0

Srv User Rreceived Messages:
Recv_Alerting          : 0
Recv_CallProceeding    : 0
Recv_Progress          : 0
Recv_Setup             : 0
Recv_Connect           : 0
Recv_SetupAck          : 0
Recv_ConnectAck        : 0
Recv_UserInformation   : 0
Recv_SuspendReject     : 0
Recv_ResumeReject      : 0
Recv_Hold              : 0
Recv_Suspend           : 0
Recv_Resume            : 0
Recv_HoldAck           : 0
Recv_SuspendAck        : 0
Recv_ResumeAcknowledge : 0
Recv_HoldReject        : 0
Recv_Retrieve          : 0
Recv_RetrieveAck       : 0
Recv_RetrieveReject    : 0
Recv_Disconnect        : 0
Recv_Restart           : 0
Recv_Release           : 0
Recv_RestartAck        : 0
Recv_ReleaseComplete   : 0
Recv_SegmDss1          : 0
Recv_Facility          : 0
Recv_Notify            : 0
Recv_Statusdss1Query   : 0
Recv_CongestionControl : 0
Recv_Information       : 0
Recv_Status            : 0

Protocol Net Sent Messages:
Send_Alerting          : 0
Send_CallProceeding    : 0
Send_Progress          : 0
Send_Setup             : 0
Send_Connect           : 0
Send_SetupAck          : 0
Send_ConnectAck        : 0
Send_UserInformation   : 0
Send_SuspendReject     : 0
Send_ResumeReject      : 0
Send_Hold              : 0
Send_Suspend           : 0
Send_Resume            : 0
```

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```
Send_HoldAck          : 0
Send_SuspendAck       : 0
Send_ResumeAcknowledge : 0
Send_HoldReject       : 0
Send_Retrieve         : 0
Send_RetrieveAck      : 0
Send_RetrieveReject   : 0
Send_Disconnect       : 0
Send_Restart          : 0
Send_Release          : 0
Send_RestartAck       : 0
Send_ReleaseComplete  : 0
Send_SegmDss1         : 0
Send_Facility         : 0
Send_Notify           : 0
Send_Statusdss1Query  : 0
Send_CongestionControl : 0
Send_Information      : 0
Send_Status           : 0

Protocol Net Received Messages:
Recv_Alerting         : 0
Recv_CallProceeding   : 0
Recv_Progress         : 0
Recv_Setup            : 0
Recv_Connect          : 0
Recv_SetupAck         : 0
Recv_ConnectAck       : 0
Recv_UserInformation  : 0
Recv_SuspendReject    : 0
Recv_ResumeReject     : 0
Recv_Hold             : 0
Recv_Suspend          : 0
Recv_Resume           : 0
Recv_HoldAck          : 0
Recv_SuspendAck       : 0
Recv_ResumeAcknowledge : 0
Recv_HoldReject       : 0
Recv_Retrieve         : 0
Recv_RetrieveAck      : 0
Recv_RetrieveReject   : 0
Recv_Disconnect       : 0
Recv_Restart          : 0
Recv_Release          : 0
Recv_RestartAck       : 0
Recv_ReleaseComplete  : 0
Recv_SegmDss1         : 0
Recv_Facility         : 0
Recv_Notify           : 0
Recv_Statusdss1Query  : 0
Recv_CongestionControl : 0
Recv_Information      : 0
Recv_Status           : 0

Protocol User Sent Messages:
Send_Alerting         : 0
Send_CallProceeding   : 0
Send_Progress         : 0
Send_Setup            : 0
Send_Connect          : 0
Send_SetupAck         : 0
Send_ConnectAck       : 0
Send_UserInformation  : 0
Send_SuspendReject    : 0
Send_ResumeReject     : 0
Send_Hold             : 0
Send_Suspend          : 0
Send_Resume           : 0
Send_HoldAck          : 0
```

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```
Send_SuspendAck        : 0
Send_ResumeAcknowledge : 0
Send_HoldReject        : 0
Send_Retrieve          : 0
Send_RetrieveAck       : 0
Send_RetrieveReject    : 0
Send_Disconnect        : 0
Send_Restart           : 0
Send_Release           : 0
Send_RestartAck        : 0
Send_ReleaseComplete   : 0
Send_SegmDss1          : 0
Send_Facility          : 0
Send_Notify            : 0
Send_Statusdss1Query   : 0
Send_CongestionControl : 0
Send_Information       : 0
Send_Status            : 0

Protocol User Received Messages:
Recv_Alerting          : 0
Recv_CallProceeding    : 0
Recv_Progress          : 0
Recv_Setup             : 0
Recv_Connect           : 0
Recv_SetupAck          : 0
Recv_ConnectAck        : 0
Recv_UserInformation   : 0
Recv_SuspendReject     : 0
Recv_ResumeReject      : 0
Recv_Hold              : 0
Recv_Suspend           : 0
Recv_Resume            : 0
Recv_HoldAck           : 0
Recv_SuspendAck        : 0
Recv_ResumeAcknowledge : 0
Recv_HoldReject        : 0
Recv_Retrieve          : 0
Recv_RetrieveAck       : 0
Recv_RetrieveReject    : 0
Recv_Disconnect        : 0
Recv_Restart           : 0
Recv_Release           : 0
Recv_RestartAck        : 0
Recv_ReleaseComplete   : 0
Recv_SegmDss1          : 0
Recv_Facility          : 0
Recv_Notify            : 0
Recv_Statusdss1Query   : 0
Recv_CongestionControl : 0
Recv_Information       : 0
Recv_Status            : 0
```

16.3.7.15 display voice statistics module r2

Function

The **display voice statistics module r2** command displays statistical information about the R2 module.

Format

display voice statistics module r2 [**srv** | **rs** | **line**]

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Parameters

Parameter	Description	Value
srv	Specifies SRV statistical information about the R2 module.	-
rs	Specifies RS statistical information about the R2 module.	-
line	Specifies LINE statistical information about the R2 module.	-

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

View statistical information about the R2 module.

```
<Huawei>system-view
[Huawei]diagnose
[Huawei-diagnose]display voice statistics module r2
  Srv Messages:
  Send_Alerting       : 0
  Send_CallProceeding : 0
  Send_Progress       : 0
  Send_Setup          : 0
  Send_Connect        : 0
  Send_ConnectAck     : 0
  Send_SetupAck       : 0
  Send_Disconnect     : 0
  Send_Release        : 0
  Send_RestartAck     : 0
  Send_Segment        : 0
  Send_Facility       : 0
  Send_Notify         : 0

  Recv_Alerting       : 0
  Recv_CallProceeding : 0
  Recv_Progress       : 0
  Recv_Setup          : 0
  Recv_Connect        : 0
  Recv_ConnectAck     : 0
  Recv_SetupAck       : 0
  Recv_Disconnect     : 0
  Recv_Release        : 0
  Recv_RestartAck     : 0
  Recv_Segment        : 0
  Recv_Facility       : 0
  Recv_Notify         : 0

  Line Messages:
  Send_Seize        : 0
  Send_SeizeAck     : 0
  Send_Answer       : 0
  Send_ClearForward : 0
```

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```
Send_ClearBack    : 0
Send_CASFailure   : 0
Send_Block        : 0
Send_UnBlock      : 0
Send_Idle         : 0
Send_Error        : 0
Send_InService    : 0
Send_OutService   : 0

Recv_Seize        : 0
Recv_SeizeAck     : 0
Recv_Answer       : 0
Recv_ClearForward : 0
Recv_ClearBack    : 0
Recv_CASFailure   : 0
Recv_Block        : 0
Recv_UnBlock      : 0
Recv_Idle         : 0
Recv_Error        : 0
Recv_InService    : 0
Recv_OutService   : 0

Rs Messages:
Send_PropertySrcNumLen  : 0
Send_PropertyCmpSeqTime : 0
Send_EventRequset       : 0
Send_SignalR2addr       : 0
Send_SignalCongestion   : 0
Send_SignalCPRS         : 0
Send_SignalStop         : 0
Send_DmmMatchResult     : 0

Recv_R2addr      : 0
Recv_CPRS        : 0
Recv_R2F         : 0
Recv_DI          : 0
Recv_SI          : 0
Recv_SC          : 0
Recv_ES          : 0
Recv_CC          : 0
Recv_DISC        : 0
Recv_NAC         : 0
Recv_CNG         : 0
Recv_SubPrio     : 0
Recv_CasFail     : 0
Recv_SignalCOMPL : 0
Recv_RecvNum     : 0
Recv_BGRPAck     : 0
Recv_ChargeType  : 0
```

16.3.7.16 display voice statistics module sip

Function

The **display voice statistics module sip** command displays statistical information about the SIP module.

Format

display voice statistics module sip { **srv** | **protocol** }

Parameters

Parameter	Description	Value
srv	Specifies SRV statistical information about the RIP module.	-
protocol	Specifies protocol statistical information about the RIP module.	-

Views

Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

View statistical information about the SIP module.

```
<Huawei>system-view
[Huawei]diagnose
[Huawei-diagnose]display voice statistics module sip
  Protocol Sent Request Messages:
  Send_Invite    : 0
  Send_Ack       : 0
  Send_Bye       : 0
  Send_Cancel    : 0
  Send_Register  : 0
  Send_Info      : 0
  Send_Update    : 0
  Send_Subscribe : 0
  Send_Notify    : 0
  Send_Message   : 0
  Send_Refer     : 0
  Send_Options   : 2298
  Send_Prack     : 0

  Protocol Received Request Messages:
  Recv_Invite    : 0
  Recv_Ack       : 0
  Recv_Bye       : 0
  Recv_Cancel    : 0
  Recv_Register  : 24
  Recv_Info      : 0
  Recv_Update    : 0
  Recv_Subscribe : 0
  Recv_Notify    : 0
  Recv_Message   : 0
  Recv_Refer     : 0
  Recv_Options   : 1529
  Recv_Prack     : 0

  Protocol Sent Response Messages:
  Send_1XX : 0
  Send_2XX : 1529
  Send_3XX : 0
```

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```
Send_4XX : 0
Send_5XX : 0
Send_6XX : 0

Protocol Received Response Messages:
Recv_1XX : 0
Recv_2XX : 1530
Recv_3XX : 0
Recv_4XX : 0
Recv_5XX : 0
Recv_6XX : 0

Srv Sent Messages:
Send_Alerting          : 0
......
```

16.3.7.17 pots circuit-test

Function

The **pots circuit-test** command triggers a POTS internal line test.

Format

pots circuit-test { *slot-id* | **telno** *telno-value* | **mgid** *mgid-value* | **terminalid** *terminalid-value* } [**busy** { **cancel** | **force** | **defer** [**deferred-time** *deferred-time-value* | **timeout-proc** *timeout-proc-value*] }]

Parameters

Parameter	Description	Value
slot-id	Specifies a slot ID/subcard ID/port ID. This parameter is mandatory and specifies the physical location of the user to be tested. The slash (/) must be retained.	The value is a string of 1 to 15 characters.
telno *telno-value*	Specifies a test number.	The value is a string of 1 to 16 characters.
mgid *mgid-value*	Specifies a gateway ID.	The value is an integer that ranges from 0 to 16777215.
terminalid *terminalid-value*	Specifies a terminal ID.	The value is an integer that ranges from 0 to 16777215.
deferred-time *deferred-time-value*	Specifies the delay.	The value is an integer that ranges from 1 to 1440.

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Parameter	Description	Value
timeout-proc *timeout-proc-value*	Specifies the timeout period.	Enumerated value. • 0: It does not POTS internal line test when timeout. • 1: It will be tested mandatorily upon timeout.

Views

Voice Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Trigger a POTS internal line test.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]diag
[Huawei-voice-vdiagnose]pots circuit-test 5/0/0
  slot 5 subcard 0 port 0 ( telno 5000 mgid - terminalid - )
  under testing, Please wait.....
[Huawei-voice-vdiagnose]
  Testing port:  5/0/0
  Telno      :  5000
  MGid       :  -
  Terminalid  :  -
  ------------------------------------------------------------
  Test item                          Result
  ------------------------------------------------------------
  Digital Voltage:                    Normal
  Low Battery:                        Normal
  High Battery:                       Normal
  Positive Battery:                   Normal
  Feeder voltage:                     Normal
  Loop current:                       Normal
  Ringing current voltage:            Normal
  Ringing current frequency:          Normal
  VAG:                               Normal
  VBG:                               Normal
  ------------------------------------------------------------
  Feeder voltage(V):                 47.830
  Ringing current voltage(V):         0.000
  Loop current(mA):                  0.000
  ------------------------------------------------------------
```

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16.3.7.18 pots loop-line-test

Function

The **pots loop-line-test** command triggers a POTS external line test.

Format

pots loop-line-test { *slot-id* | **telno** *telno-value* | **mgid** *mgid-value* **terminalid** *terminalid-value* } [**busy** { **cancel** | **force** | **defer** [**deferred-time** *deferred-time-value* | **timeout-proc** *timeout-proc-value*] }]

Parameters

Parameter	Description	Value
slot-id	Specifies a slot ID/subcard ID/port ID. This parameter is mandatory and specifies the physical location of the user to be tested. The slash (/) must be retained.	The value is a string of 1 to 15 characters. • *slotid*: based on product specifications • *subcardid*: based on product specifications • *portid*: based on product specifications
telno *telno-value*	Specifies a test number.	The value is a string of 1 to 16 characters.
mgid *mgid-value*	Specifies a gateway ID.	The value is an integer that ranges from 0 to 16777215.
terminalid *terminalid-value*	Specifies a terminal ID.	The value is an integer that ranges from 0 to 16777215.
deferred-time *deferred-time-value*	Specifies the delay.	The value is an integer that ranges from 1 to 1440.
timeout-proc *timeout-proc-value*	Specifies the timeout period.	Enumerated value. • 0: It does not POTS internal line test when timeout. • 1: It will be tested mandatorily upon timeout.

Views

Voice Diagnostic view

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Default Level

3: Management level

Usage Guidelines

None

Example

Trigger a POTS external line test.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]diag
[Huawei-voice-vdiagnose]pots loop-line-test 5/0/0
  slot 5 subcard 0 port 0 ( telno 5000 mgid - terminalid - )
  under testing, Please wait.....
[Huawei-voice-vdiagnose]
  Testing port:  5/0/0
  Telno       :  5000
  MGid        :  -
  Terminalid  :  -
  ------------------------------------------------------------------------
  Test item                              Result
  ------------------------------------------------------------------------
  A->ground AC voltage              (V)       0.000
  B->ground AC voltage              (V)       0.000
  A->B      AC voltage              (V)       0.000
  A->ground DC voltage              (V)      -1.474
  B->ground DC voltage              (V)      -1.438
  A->B      DC voltage              (V)      -0.036
  A->ground insulation resistance   (ohm)    >10M
  B->ground insulation resistance   (ohm)    >10M
  A->B insulation resistance        (ohm)     1.333M
  A->B loop resistance              (ohm)     0
  A->B polarity reversal resistance(ohm)      1.333M
  A->ground capacitance             (uF)      0.050
  B->ground capacitance             (uF)      0.050
  A->B capacitance                  (uF)      0.000
  Conclusion                              Phone not connected
  ------------------------------------------------------------------------
```

16.3.7.19 pots loop-line-threshold

Function

The **pots loop-line-threshold** command configures detection thresholds for POTS external line tests.

Format

pots loop-line-threshold { **restore** | **set** *threshold-type threshold-value* }

Parameters

Parameter	Description	Value
restore	Restore thresholds for POTS external line tests.	-

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Parameter	Description	Value
threshold-type	Specifies an external line test standard.	The value is an integer. The options are as follows: • 0: A/B wire touching the power line: AC voltage • 1: external line mixing: DC voltage • 2: external line grounding: resistance to ground • 3: off-hook: resistance lower limit between A and B wires • 4: off-hook: resistance upper limit between A and B wires • 5: off-hook: loop resistance lower limit • 6: off-hook: loop resistance upper limit • 7: external line mixing: resistance between A and B wires • 8: poor insulation between A and B wires: resistance lower limit between A and B wires • 9: poor insulation between A and B wires: resistance upper limit between A and B wires • 10: electric leakage: grounding capacitance • 11: normal: minimum grounding capacitance • 12: normal: capacity between A and B wires • 13: normal: minimum grounding capacitance

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Parameter	Description	Value
threshold-value	Specifies the value of an external test standard.	The value is a hexadecimal integer that ranges from 0x0 to 0x7fffffff.

Views

Voice Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Set the POTS external line test standard "external line grounding: resistance to ground" to 5.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]diag
[Huawei-voice-vdiagnose]pots loop-line-threshold set 2 0x5
```

16.3.7.20 pots path-test

Function

The **pots path-test** command triggers a POTS hardware or service test.

Format

pots path-test *slotid/subcard* **port all type** { **hardware** | **business** }

pots path-test *slotid/subcard* **port** *port-id* **type** { **hardware** | **business** } [**assist-port** *port-id*]

undo pots path-test *slotid/subcard*

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Parameters

Parameter	Description	Value
slotid/subcard	Specifies a slot ID/ subcard ID. This parameter is mandatory and specifies the physical location of the user to be tested. The slash (/) must be retained.	The value is a string of 1 to 15 characters. • *slotid*: based on product specifications • *subcardid*: based on product specifications
port-id	Specifies a port number.	The value is an integer that ranges from 0 to 63.
type	Specifies the test type.	Enumerated type. The value can be hardware or business.

Views

Voice Diagnostic view

Default Level

3: Management level

Usage Guidelines

To trigger a POTS hardware or service test, run **pots path-test** command.

Example

Trigger a POTS hardware test.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] diagnose
[Huawei-voice-vdiagnose] pots path-test 6/0 port all type hardware
  This operation will take several minutes, please wait...
[Huawei-voice-vdiagnose]
  Dest port   : 6/0/0       Assist port :  6/0/2
  Test result :  Normal
[Huawei-voice-vdiagnose]
  Dest port   : 6/0/1       Assist port :  6/0/3
  Test result :  Normal
[Huawei-voice-vdiagnose]
  Dest port   : 6/0/2       Assist port :  6/0/0
  Test result :  Normal
[Huawei-voice-vdiagnose]
  Dest port   : 6/0/3       Assist port :  6/0/1
  Test result :  Normal
```

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16.3.7.21 pots subcard-loopline-adjust get

Function

The **pots subcard-loopline-adjust get** command displays calibration values for frame analog user ports in external line disconnection and self-mixed situations.

Format

pots subcard-loopline-adjust get *frameid* { **cutline-port***slotid1/portid1* | **selfmixed-port** *slotid2/portid2* } *

Parameters

Parameter	Description	Value
frameid	Specifies a frame ID.	The value is fixed at 0.
cutline-port *slotid1/portid1*	Specifies a slot ID/port ID. This parameter is mandatory and specifies the physical location of the user to be tested. The slash (/) must be retained.	The value is a string of 1 to 15 characters. • *slotid1*: based on product specifications • *portid1*: based on product specifications
selfmixed-port *slotid2/portid2*	Specifies a slot ID/port ID. This parameter is mandatory and specifies the physical location of the user to be tested. The slash (/) must be retained.	The value is a string of 1 to 15 characters. • *slotid2*: based on product specifications • *portid2*: based on product specifications

Views

Voice Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Display calibration values for frame analog user ports in external line disconnection and self-mixed situations.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice]diag
[Huawei-voice-vdiagnose]pots subcard-loopline-adjust get 0 cutline-port 5/0 selfmixed-port 5/1
  slot 5 subcard 0 port 0
  under geting adjust, Please wait.....
[Huawei-voice-vdiagnose]
  ------------------------------------------
  slot 5 subcard 0 port 0 cutline adjust:
  ------------------------------------------
  CAB(nF)                  0
  CAG(nF)                  50
  CBG(nF)                  50
  ------------------------------------------
```

16.3.7.22 pots subcard-loopline-adjust restore

Function

The **pots subcard-loopline-adjust restore** command restores the default calibration values for frame analog user ports in external line disconnection and self-mixed situations.

Format

pots subcard-loopline-adjust restore { **from** *startframeid* [**to** *endframeid*] | *frameid* }

Parameters

Parameter	Description	Value
startframeid	Specifies the start frame ID.	The value is fixed at 0.
endframeid	Specifies the end frame ID.	The value is fixed at 0.
frameid	Specifies a frame ID.	The value is fixed at 0.

Views

Voice Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

Example

Restore the default calibration values for frame analog user ports in external line disconnection and self-mixed situations.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]diag
[Huawei-voice-vdiagnose]pots subcard-loopline-adjust restore 0
  Are you sure to restore the default value? (y/n)[n]:y
  Success: adjust of frame  0 restore successfully
```

16.3.7.23 pots subcard-loopline-adjust set

Function

The **pots subcard-loopline-adjust set** command sets or modifies calibration values for frame analog user ports in external line disconnection and self-mixed situations.

Format

pots subcard-loopline-adjust set { **from** *startframeid* [**to** *endframeid*] | *frameid* } { **cab** *cab-value* | **cag** *cag-value* | **cbg***cbg-value* | **rab** *rab-value* } *

Parameters

Parameter	Description	Value
startframeid	Specifies the start frame ID.	The value is fixed at 0.
endframeid	Specifies the end frame ID.	The value is fixed at 0.
frameid	Specifies a frame ID.	The value is fixed at 0.
cab-value	Specifies the capacity between A and B wires.	The value is an integer that ranges from 0 to 10000000.
cag-value	Specifies the grounding capacity of A wire.	The value is an integer that ranges from 0 to 10000000.
cbg-value	Specifies the grounding capacity of B wire.	The value is an integer that ranges from 0 to 10000000.
rab-value	Specifies the resistance between A and B wires.	The value is an integer that ranges from 0 to 10000000.

Views

Voice Diagnostic view

Default Level

3: Management level

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Usage Guidelines

To set or modifies calibration values for frame analog user ports in external line disconnection and self-mixed situations, run **pots subcard-loopline-adjust set** command.

Example

Modify calibration values for frame analog user ports in external line disconnection and self-mixed situations.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]diag
[Huawei-voice-vdiagnose]pots subcard-loopline-adjust set 0 rab 5 cag 5
  Success: adjust of frame  0 set successfully
```

16.3.7.24 reset voice statistics module

Function

The **reset voice statistics module** command clears statistics on each module.

Format

reset voice statistics module { **at0** | **h323** | **pots** | **q931** | **r2** | **sip** }

Parameters

Parameter	Description	Value
at0	Clears statistics on AT0 messages.	-
h323	Clears statistics on H323 messages.	-
pots	Clears statistics on POTS messages.	-
q931	Clears statistics on Q931 messages.	-
r2	Clears statistics on R2 messages.	-
sip	Clears statistics on SIP messages.	-

Views

Diagnostic view

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Default Level

3: Management level

Usage Guidelines

You can run the **reset voice statistics module** command to clear statistics on each module.

Example

Clear statistics on the AT0 module.

```
<Huawei>system-view
[Huawei]diagnose
[Huawei-diagnose] reset voice statistics module at0
```

16.3.7.25 ts6em

Function

The **ts6em** command triggers the voice time slot test for dsp.

Format

ts6em slot-in *slot-in-id* **slot-out** *slot-out-id*

Parameters

Parameter	Description	Value
slot-in *slot-in-id*	Input slot ID. This parameter is mandatory and specifies the input of opening channel. It is also used for time slot switch.	The value is an integer of 0 to 12 characters.
slot-out *slot-out-id*	Output slot ID. This parameter is used for time slot switch.	The value is an integer of 0 to 12 characters.

Views

Voice Diagnostic view

Default Level

3: Management level

Usage Guidelines

None

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Example

The **ts6em** command triggers the voice time slot test for dsp.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]diagnose
[Huawei-voice-vdiagnose]ts6em slot-in 1 slot-out 2
 The Test Statics:
 Time Slot:0 --- Failed Errno: 6 Total Success Times: 0 Failed Times: 1
 Time Slot:1 --- Failed Errno: 6 Total Success Times: 0 Failed Times: 1
 Time Slot:2 --- Failed Errno: 6 Total Success Times: 0 Failed Times: 1
 Time Slot:3 --- Failed Errno: 6 Total Success Times: 0 Failed Times: 1
 Time Slot:4 --- Failed Errno: 6 Total Success Times: 0 Failed Times: 1
 Time Slot:5 --- Failed Errno: 6 Total Success Times: 0 Failed Times: 1
```

16.4 Voice interface Commands

16.4.1 Voice interface Configuration Commands

16.4.1.1 access-mode

Function

Using the **access-mode** command, you can set the access mode for a VE1 interface.

Using the **undo access-mode** command, you can restore the default access mode of a VE1 interface.

By default, the access mode of a VE1 interface is digital.

Format

access-mode { **digital** | **direct** }

undo access-mode

Parameters

Parameter	Description	Value
digital	Indicates the digital section access mode.	-
direct	Indicates the direct access mode.	-

Views

VE1 interface view

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Default Level

2: Configuration level

Usage Guidelines

When the access mode is set to direct, all the SA bits of an E1 frame must be always set to 1s, and the loopback2 operation is not allowed. When the access mode is set to digital, an E1 interface must comply with ETS 300.233.

Example

Set the access mode of a VE1 interface to digital.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] access-mode digital
```

16.4.1.2 access-mode (BRA Interface View)

Function

The **access-mode** command configures the working mode of a basic rate access (BRA) interface.

The **undo access-mode** command restores the default working mode of a BRA interface.

By default, a BRA interface works in NT mode.

NOTE

Only AR169CVW-4B4S supports this command.

Format

access-mode *access-mode-value*

undo access-mode

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Parameters

Parameter	Description	Value
access-mode-value	Specifies the working mode of a BRA interface.	Enumerated value. The options are as follows: • te: The BRA interface works in Terminal Equipment (TE) mode. • nt: The BRA interface work in Network Termination (NT) mode.

Views

BRA interface view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

When a device uses a BRA interface to connect to an ISDN phone, the BRA interface should work in NT mode. When a device uses a BRA interface to connect to an ISDN network, the BRA interface should work in TE mode.

Precautions

This command can only be used to configure the working mode of the BRA0/0/0 and BRA0/0/1 interfaces on the AR169CVW-4B4S.

Example

Configure a BRA interface to work in TE mode.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port bra 0/0/0
[Huawei-voice-bra0/0/0] access-mode te
```

16.4.1.3 alarm

Function

Using the **alarm** command, you can enable or disable the UNI alarm function on a BRA interface.

Using the **undo alarm** command, you can restore the default configuration.

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By default, the UNI alarm function is disabled on a BRA interface.

Format

alarm { **enable** | **disable** }

undo alarm

Parameters

Parameter	Description	Value
enable	Enables the UNI alarm function.	-
disable	Disables the UNI alarm function.	-

Views

BRA interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable the UNI alarm function on a BRA interface.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port bra 1/0/0
[Huawei-voice-bra1/0/0] alarm enable
```

16.4.1.4 crc4

Function

Using the **crc4** command, you can enable or disable cyclic redundancy check 4 (CRC4) on a VE1 interface.

Using the **undo crc4** command, you can restore the default configuration.

By default, CRC4 check is disabled on a VE1 interface.

Format

crc4 { **enable** | **disable** }

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undo crc4

Parameters

Parameter	Description	Value
enable	Enables CRC4 check on a VE1 interface.	_
disable	Disables CRC4 check on a VE1 interface.	_

Views

VE1 interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable CRC4 check on a VE1 interface.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] crc4 enable
```

16.4.1.5 crc (VE1 interface view)

Function

The **crc** command sets the CRC mode on a VE1 interface.

The **undo crc** command restores the default setting.

By default, 16-bit CRC is used.

Format

crc { 16 | 32 | none }

undo crc

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Parameters

Parameter	Description	Value
16	Configures 16-bit CRC on the interface.	-
32	Configures 32-bit CRC on the interface.	-
none	Configures no CRC on the interface.	-

Views

VE1 interface view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

Cyclic Redundancy Check (CRC) is often used to detect transmission errors in a communication system. CRC checks data consistency and provides high algorithm accuracy. A 32-bit field can achieve higher accuracy than a 16-bit field but uses more resources.

Precautions

If you run the **crc** command multiple times in the same VE1 interface view, only the latest configuration takes effect.

Example

Enable 32-bit CRC on the VE1 interface.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] crc 32
  Set crc successfully
```

16.4.1.6 crc-alarm-threshold

Function

Using the **crc-alarm-threshold** command, you can set the errored seconds threshold, consecutively severely errored seconds threshold, and degraded minute threshold.

Using the **undo crc-alarm-threshold** command, you can restore the default errored seconds threshold, consecutively severely errored seconds threshold, and degraded minute threshold.

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By default:

- The errored seconds threshold is 432 errored seconds per hour.
- The consecutively severely errored seconds threshold is 4 severely errored seconds per hour.
- The degraded minute threshold is 8 degraded minutes per hour.

Format

crc-alarm-threshold { **es** *es-threshold* | **cses** *cses-threshold* | **dm** *dm-threshold* }

undo crc-alarm-threshold { **es** | **cses** | **dm** }

Parameters

Parameter	Description	Value
es*es-threshold*	Specifies the errored seconds threshold.	The value is an integer that ranges from 1 to 3600. The unit is error seconds per hour. The default value is 432.
cses*cses-threshold*	Specifies the consecutively severely errored seconds threshold.	The value is an integer that ranges from 1 to 60. The unit is consecutively severely errored seconds per hour. The default value is 4.
dm*dm-threshold*	Specifies the degraded minute threshold.	The value is an integer that ranges from 1 to 60. The unit is degraded minutes per hour. The default value is 8.

Views

VE1 interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the errored seconds threshold to 60, consecutively severely errored seconds threshold to 30, and degraded minute threshold to 30 on a VE1 interface.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] crc-alarm-threshold cses 30
[Huawei-voice-ve1-2/0/0] crc-alarm-threshold es 60
[Huawei-voice-ve1-2/0/0] crc-alarm-threshold dm 30
```

16.4.1.7 display voice port bra

Function

The **display voice port bra** command displays the configuration and status of a BRA interface.

Format

display voice port bra [**state** *slotid/subcardid/portid* | *slotid/subcardid/portid*]

Parameters

Parameter	Description	Value
slotid/subcardid/portid	Specifies the slot ID/ subcard ID/port number.	The value is a string of 1 to 15 characters. The values of the slot ID, subcard ID, and port number depend on the product model.
state	Indicates the interface status.	-

Views

All views

Default Level

2: Configuration level

Usage Guidelines

When **state** and *slotid/subcardid/portid* are not specified, the **display voice port bra** command displays existing BRA interfaces.

Example

Display the configuration of a BRA interface.

```
<Huawei> display voice port bra 1/0/0
 Port BRA(Slot/Subcard/Port) 1/0/0
 L2 monitor          : Enable
 Work mode           : P2MP
```

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```
Remote power        : Disable
Alarm               : Disable
```

Table 16-37 Description of the display voice port bra command output

Item	Description
L2 monitor	Whether Layer 2 monitoring is enabled on a BRA interface: • Enable • Disable
Work mode	Working mode of a BRA interface: • P2MP • P2P
Remote power	Whether remote power supply is enabled on a BRA interface: • Enable • Disable
Alarm	Whether the UNI alarm function is enabled on a BRA interface: • Enable • Disable

16.4.1.8 display voice port fxo

Function

The **display voice port fxo** command displays the configuration and status of an FXO interface.

Format

display voice port fxo [**state** *slotid*/*subcardid*/*portid* | *slotid*/*subcardid*/*portid*]

Parameters

Parameter	Description	Value
slotid/subcardid/portid	Specifies the slot ID/ subcardid ID/port number.	The value is a string of 1 to 15 characters. The values of the slot ID, subcardid ID, and port number depend on the product model.
state	Indicates the interface status.	-

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Views

All views

Default Level

2: Configuration level

Usage Guidelines

When **state** and *slotid/subcardid/portid* are not specified, the **display voice port fxo** command displays existing FXO interfaces.

Example

Display the configuration of an FXO interface.

```
<Huawei> display voice port fxo 2/0/4
 Port FXO config: 2/0/4
 Send gain            : 0dB
 Recv gain            : -3.5dB
 DC impedance         : 50Ω
 AC impedance         : 600
 Ring min duration    : 200ms
 Ring max interval    : Not use
 Ring frequence       : 25Hz
 Ring AC amplitude    : 50V
 Ring offset          : 20V
 Feed max voltage     : -20V
 Feed min voltage     : -80V
 Feed max current     : 35mA
 Feed min current     : 16mA
```

Table 16-38 Description of the display voice port fxo command output

Item	Description
Send gain	Output gain of an FXO interface.
Recv gain	Input gain of an FXO interface.
DC impedance	DC impedance of an FXO interface.
AC impedance	AC impedance of an FXO interface.
Ring min duration	Shortest length of ring currents on an FXO interface.
Ring max interval	Maximum interval between ring currents on an FXO interface.
Ring frequence	Ring current frequency on an FXO interface.
Ring AC amplitude	AC amplitude of the ring current on an FXO interface.

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Item	Description
Ring offset	AC offset of the ring current on an FXO interface.
Feed max voltage	Maximum feed voltage of an FXO interface.
Feed min voltage	Minimum feed voltage of an FXO interface.
Feed max current	Maximum feed current of an FXO interface.
Feed min current	Minimum feed current of an FXO interface.

16.4.1.9 display voice port fxs

Function

The **display voice port fxs** command displays the configuration and status of an FXS interface.

Format

display voice port fxs [**state** *slotid/subcardid/portid* | *slotid/subcardid/portid*]

Parameters

Parameter	Description	Value
slotid/subcardid/portid	Specifies the slot ID/subcardid ID/port number.	The value is a string of 1 to 15 characters. The values of the slot ID, subcardid ID, and port number depend on the product model.
state	Indicates the interface status.	-

Views

All views

Default Level

2: Configuration level

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Usage Guidelines

When **state** and *slotid/subcardid/portid* are not specified, the **display voice port fxs** command displays existing FXS interfaces.

Example

Display the configuration of an FXS interface.

```
<Huawei> display voice port fxs 0/0/0
 Port FXS config: 0/0/0
 Reverse pole pulse level(ms)  : 100
 Line lock                   : Enable
 NLP mode                      : NLP normal mode
 Current(mA)                   : 20mA steady current
 Impedance                     : 600 Ohm interface
 Send gain                   : 0dB
 Receive gain                : -7dB
 Actual send gain              :
 Actual receive gain           :
```

Table 16-39 Description of the display voice port fxs command output

Item	Description
Reverse pole pulse level(ms)	Polarity reversal pulse level width of an FXS interface.
Line lock	Whether port locking is enabled on an FXS interface: • Enable • Disable
NLP mode	Non-linear processing (NLP) mode supported by an FXS interface. • disable: indicates that NLP is enabled. • normal: indicates that the DSP processes echoes normally. • ec-gain-adjust: indicates that the DSP uses a special processing mechanism to perform digit collecting on intelligent public phones. • enhance: indicates that the DSP enhances NLP. • reduce: indicates that the DSP reduces NLP.
Current(mA)	Current on an FXS interface.
Impedance	Impedance on an FXS interface.
Send gain	Output gain configured on an FXS interface.

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Item	Description
Receive gain	Input gain configured on an FXS interface.
Actual send gain	Actual output gain of an FXS interface.
Actual receive gain	Actual input gain of an FXS interface.

16.4.1.10 display voice port ve1

Function

The **display voice port ve1** command displays the configuration and status of a VE1 interface.

Format

display voice port ve1 [**state** *slotid/subcardid/portid* | *slotid/subcardid/portid*]

Parameters

Parameter	Description	Value
slotid/subcardid/portid	Specifies the slot ID/subcard ID/port number.	The value is a string of 1 to 15 characters. The values of the slot ID, subcard ID, and port number depend on the product model.
state	Indicates the interface status.	-

Views

All views

Default Level

2: Configuration level

Usage Guidelines

When **state** and *slotid/subcardid/portid* are not specified, the **display voice port ve1** command displays existing VE1 interfaces.

Example

Display the configuration of a VE1 interface.

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```
<Huawei> display voice port ve1 2/0/0
 Port VE1(Slot/Subcard/Port) 2/0/0
 Access mode              : Digital
 CRC4                   : Disable
 Impedance                :
75 Ohm
 L2 monitor               : Enable
 Signal type              : CCS
 Idle type              : 7e
 Idle number              : 4
 SA                     : 0 0 0 0 0 0 0 0 0 0
 Invert Tx                : Disable
 Invert Rx                : Disable
 CRC                    : 16
 PCM alarm
 Line fault               : Enable
 Ulf                    : Enable
 Olf                    : Enable
 Ldt                    : Disable
 Frmslip                  : Disable
 Transient event          : Disable

 CRC alarm threshold Es    : 432s
 CRC alarm threshold Cses  : 4s
 CRC alarm threshold Dm    : 8s
```

Table 16-40 Description of the display voice port ve1 command output

Item	Description
Access mode	Access mode of a VE1 interface. • Digital: indicates the digital section access mode. • Direct: indicates the direct access mode.
CRC4	Whether CRC4 check is enabled on a VE1 interface. • Enable • Disable
Impedance	Impedance on a VE1 interface.
Itf number	Specifies the number of interframe filling tags on the E1-F interface.
Itf type	Specifies the interframe filling tag type on the E1-F interface.
SA	Specifies the content of the five outgoing SA bits in the CRC4 multiframe. (The first five SA bits are incoming bits, which can be queried but cannot be configured. The latter five SA bis are outgoing bits).

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Item	Description
Invert	Specifies whether to invert timeslot data of sent or received signaling. ● Tx: Invert timeslot data of sent signaling. ● Rx: Invert timeslot data of received signaling.
CRC	Specifies the CRC mode on the VE1 interface. ● 16: 16-bit CRC is used. ● 32: 32-bit CRC is used. ● none: No CRC is used.
L2 monitor	Whether Layer 2 monitoring is enabled on a VE1 interface: ● Enable ● Disable
Signal type	Signaling mode of a VE1 interface. ● CCS: common channel signaling ● CAS: channel associated signaling
Line fault	Whether calling line identification presentation (CLIP) polarity reversal is enabled: ● Enable ● Disable
Ulf	Whether the alarm on the unconditional line fault bit error rate is enabled: ● Enable ● Disable
Olf	Whether the alarm on the conditional line fault bit error rate is enabled: ● Enable ● Disable
Ldt	Whether the alarm on temporary line interference bit error rate is enabled: ● Enable ● Disable

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Item	Description
Frmslip	Whether the alarm on loss of PCM frames: • Enable • Disable
Transient event	Whether the alarm on transient line events is enabled: • Enable • Disable
CRC alarm threshold Es	Errored seconds threshold.
CRC alarm threshold Cses	Consecutively severely errored seconds threshold.
CRC alarm threshold Dm	Degraded minute threshold.

16.4.1.11 electric current

Function

Using the **electric current** command, you can set the current for an FXS interface.

Using the **undo electric current** command, you can restore the default current of an FXS interface.

By default, the current of an FXS interface is 20 mA.

Format

electric current *current-value*

undo electric current

Parameters

Parameter	Description	Value
current-value	Specifies the current of an FXS interface.	Enumerated type. The values are 16 mA, 20 mA, 25 mA, 30 mA, 35 mA.

Views

FXS interface view

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Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the current of an FXS interface to 16 mA.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxs 2/0/0
[Huawei-voice-fxs2/0/0] electric current 16mA
```

16.4.1.12 electric impedance

Function

Using the **electric impedance** command, you can set the impedance for an FXS interface.

Using the **undo electric impedance** command, you can restore the default impedance of an FXS interface.

By default, the impedance of an FXS interface is 600 ohm.

Format

electric impedance *impedance-value*

undo electric impedance

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Parameters

Parameter	Description	Value
impedance-value	Specifies the impedance of an FXS interface.	The value is an integer that ranges from 0 to 15: • 0: CNOF (200+680|| 100 nF) • 1: CNUSER (200+560|| 100 nF) • 2: 600 ohm • 3: RUSSIA (150+510|| 47 nF) • 4: (220+820|| 115 nF) • 5: (220+820|| 120 nF) • 6: 900 ohm • 7: BRAZIL (800|| 50 nF) • 8: BT0 (Zin=87+1052|| 228nF+229||28.4nF, Zload=93+615||\ 471nF+179||495nF +244||32 nF) • 9: HK_BT3 (Zin=370+620|| 310nf,Zload=600) • 10: HK_BT5 (Zin=270+264|| 357nf +1434|| 265nf,Zload=600) • 11: BT1 (BT0 without AGC) • 12: BT2 (Zin=87+1052||228 nF + 229||28.4nF, Zload=270+264||\ 357 nF + 1434||265 nF) • 13: BT3(Zin=87+1052|| 228 nF + 229||28.4nF, Zload=164+162||\ 363 nF + 1227||350 nF) • 14: EUROPE GLOBAL (Zin= 270+750|| 150 nF) • 15: NEW ZEALAND (Zin=370+620|| 310 nF)

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Parameter	Description	Value
		NOTE The AR129CV, AR129CVW, and AR129CGVW-L do not support the 1, 8 to 13 parameter value.

Views

FXS interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the impedance of an FXS interface to 3.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxs 2/0/0
[Huawei-voice-fxs2/0/0] electric impedance 3
```

16.4.1.13 electric receive-gain

Function

The **electric receive-gain** command configures the receive gain of an FXS interface.

The **undo electric receive-gain** command restores the default receive gain of an FXS interface.

By default, the receive gain of an FXS interface is –7 dB.

Format

electric receive-gain *recvgain-value*

undo electric receive-gain

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Parameters

Parameter	Description	Value
recvgain-value	Specifies the receive gain of an FXS interface.	The value is an integer that ranges from 0 to 40: • 0: 0 dB • 1: –0.5 dB • 2: –1 dB • 3: –1.5 dB • 4: –2 dB • 5: –2.5 dB • 6: –3 dB • 7: –3.5 dB • 8: –4 dB • 9: –4.5 dB • 10: –5 dB • 11: –5.5 dB • 12: –6 dB • 13: –6.5 dB • 14: –7 dB • 15: –7.5 dB • 16: –8 dB • 17: –8.5 dB • 18: –9 dB • 19: –9.5 dB • 20: –10 dB • 21: –10.5 dB • 22: –11 dB • 23: –11.5 dB • 24: –12 dB • 25: –12.5 dB • 26: –13 dB • 27: –13.5 dB • 28: –14 dB • 29: –14.5 dB • 30: –15 dB • 31: –15.5 dB • 32: –16 dB • 33: –16.5 dB • 34: –17 dB • 35: –17.5 dB

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Parameter	Description	Value
		• 36: –18 dB • 37: –18.5 dB • 38: –19 dB • 39: –19.5 dB • 40: –20 dB **NOTE** The receive gain of an FXS interface on an AR129CV, AR129CVW, AR129CGVW-L, 16-port FXS interface card, or 32-port FXS interface card ranges from –12 dB to 0 dB.

Views

FXS interface view

Default Level

2: Configuration level

Usage Guidelines

The receive gain of an FXS interface affects the volume of the voice a local user receives. A smaller value of *recvgain-value* indicates a lower voice.

Example

Set the receive gain of an FXS interface to 0 dB (value 0).

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxs 2/0/0
[Huawei-voice-fxs2/0/0] electric receive-gain 0
```

16.4.1.14 electric send-gain

Function

The **electric send-gain** command configures the send gain of an FXS interface.

The **undo electric send-gain** command restores the default send gain of an FXS interface.

By default, the send gain of an FXS interface is 0 dB.

Format

electric send-gain *sendgain-value*

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undo electric send-gain

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Parameters

Parameter	Description	Value
sendgain-value	Specifies the send gain of an FXS interface.	The value is an integer that ranges from 0 to 50. • 0: 5 dB • 1: 4.5 dB • 2: 4 dB • 3: 3.5 dB • 4: 3 dB • 5: 2.5 dB • 6: 2 dB • 7: 1.5 dB • 8: 1 dB • 9: 0.5 dB • 10: 0 dB • 11: –0.5 dB • 12: –1 dB • 13: –1.5 dB • 14: –2 dB • 15: –2.5 dB • 16: –3 dB • 17: –3.5 dB • 18: –4 dB • 19: –4.5 dB • 20: –5 dB • 21: –5.5 dB • 22: –6 dB • 23: –6.5 dB • 24: –7 dB • 25: –7.5 dB • 26: –8 dB • 27: –8.5 dB • 28: –9 dB • 29: –9.5 dB • 30: –10 dB • 31: –10.5 dB • 32: –11 dB • 33: –11.5 dB • 34: –12 dB • 35: –12.5 dB

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Parameter	Description	Value
		• 36: –13 dB • 37: –13.5 dB • 38: –14 dB • 39: –14.5 dB • 40: –15 dB • 41: –15.5 dB • 42: –16 dB • 43: –16.5 dB • 44: –17 dB • 45: –17.5 dB • 46: –18 dB • 47: –18.5 dB • 48: –19 dB • 49: –19.5 dB • 50: –20 dB **NOTE** The send gain of an FXS interface on an AR129CVW, AR129CGVW-L, 16-port FXS interface card, or 32-port FXS interface card ranges from –6 dB to 5 dB.

Views

FXS interface view

Default Level

2: Configuration level

Usage Guidelines

The send gain of an FXS interface affects the volume of the voice a remote user receives. A smaller value of *sendgain-value* indicates a lower voice.

Example

Set the send gain of an FXS interface to 0 dB (value 10).

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxs 2/0/0
[Huawei-voice-fxs2/0/0] electric send-gain 10
```

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16.4.1.15 feed

Function

Using the **feed** command, you can set feed parameters for an FXO interface.

Using the **undo feed** command, you can restore the default feed parameter settings of an FXO interface.

Format

feed { **maximum-voltage** *max-vol-value* | **minimum-voltage** *min-vol-value* | **minimum-current** *min-current-value* }

undo feed { **maximum-voltage** | **minimum-voltage** | **minimum-current** }

Parameters

Parameter	Description	Value
maximum-voltage *max-vol-value*	Specifies the maximum feed voltage.	The value is an integer that ranges from -100 to 0, in volt. The default value is -20.
minimum-voltage *min-vol-value*	Specifies the minimum feed voltage.	The value is an integer that ranges from -100 to 0, in volt. The default value is -80.
minimum-current *min-current-value*	Specifies the minimum feed current.	The value is an integer that ranges from 6 to 20, in mA. The default value is 10.

Views

FXO interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the minimum feed voltage of an FXO interface to -50 V.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] port fxo 1/0/4
[Huawei-voice-fxo1/0/4] feed minimum-voltage -50
```

16.4.1.16 gain

Function

Using the **gain** command, you can set the send gain and receive gain for an FXO interface.

Using the **undo gain** command, you can restore the default send gain and receive gain of an FXO interface.

By default, the send gain and receive gain of an FXO interface are both 0 dB.

Format

gain { **send** *send-value* | **receive** *recvgain-value* }

undo gain { **send** | **receive** }

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Parameters

Parameter	Description	Value
send *send-value*	Specifies the send gain of an FXO interface.	The value is an integer that ranges from 0 to 60: • 0: +13.5 dB • 1: +13.0 dB • 2: +12.5 dB • 3: +12.0 dB • 4: +11.5 dB • 5: +11.0 dB • 6:+10.5 dB • 7:+10.0 dB • 8: +9.5 dB • 9: +9.0 dB • 10: +8.5 dB • 11: +8.0 dB • 12: +7.5 dB • 13: +7.0 dB • 14: +6.5 dB • 15: +6.0 dB • 16: +5.5 dB • 17: +5.0 dB • 18: +4.5 dB • 19: +4.0 dB • 20: +3.5 dB • 21: +3.0 dB • 22: +2.5 dB • 23: +2.0 dB • 24: +1.5 dB • 25: +1.0 dB • 26: +0.5 dB • 27: 0 dB • 28: -0.5 dB • 29: -1.0 dB • 30: -1.5 dB • 31: -2.0 dB • 32: -2.5 dB • 33: -3.0 dB • 34: -3.5 dB • 35: -4.0 dB

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Parameter	Description	Value
		• 36: -4.5 dB • 37: -5.0 dB • 38: -5.5 dB • 39: -6.0 dB • 40: -6.5 dB • 41: -7.0 dB • 42: -7.5 dB • 43: -8.0 dB • 44: -8.5 dB • 45: -9.0 dB • 46: -9.5 dB • 47: -10.0 dB • 48: -10.5 dB • 49: -11.0 dB • 50: -11.5 dB • 51: -12.0 dB • 52: -12.5 dB • 53: -13.0 dB • 54: -13.5 dB • 55: -14.0 dB • 56: -14.5 dB • 57: -15.0 dB • 58: -15.5 dB • 59: -16.0 dB • 60: -16.5 dB The default value is 27.

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Parameter	Description	Value
receive *recvgain-value*	Specifies the receive gain of an FXO interface.	The value is an integer that ranges from 0 to 60: • 0: +13.5 dB • 1: +13.0 dB • 2: +12.5 dB • 3: +12.0 dB • 4: +11.5 dB • 5: +11.0 dB • 6:+10.5 dB • 7:+10.0 dB • 8: +9.5 dB • 9: +9.0 dB • 10: +8.5 dB • 11: +8.0 dB • 12: +7.5 dB • 13: +7.0 dB • 14: +6.5 dB • 15: +6.0 dB • 16: +5.5 dB • 17: +5.0 dB • 18: +4.5 dB • 19: +4.0 dB • 20: +3.5 dB • 21: +3.0 dB • 22: +2.5 dB • 23: +2.0 dB • 24: +1.5 dB • 25: +1.0 dB • 26: +0.5 dB • 27: 0 dB • 28: -0.5 dB • 29: -1.0 dB • 30: -1.5 dB • 31: -2.0 dB • 32: -2.5 dB • 33: -3.0 dB • 34: -3.5 dB • 35: -4.0 dB • 36: -4.5 dB

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Parameter	Description	Value
		• 37: -5.0 dB • 38: -5.5 dB • 39: -6.0 dB • 40: -6.5 dB • 41: -7.0 dB • 42: -7.5 dB • 43: -8.0 dB • 44: -8.5 dB • 45: -9.0 dB • 46: -9.5 dB • 47: -10.0 dB • 48: -10.5 dB • 49: -11.0 dB • 50: -11.5 dB • 51: -12.0 dB • 52: -12.5 dB • 53: -13.0 dB • 54: -13.5 dB • 55: -14.0 dB • 56: -14.5 dB • 57: -15.0 dB • 58: -15.5 dB • 59: -16.0 dB • 60: -16.5 dB The default value is 27.

Views

FXO interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the send gain and receive gain of an FXO interface to 12 dB (value 3).

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxo 1/0/4
[Huawei-voice-fxo1/0/4] gain receive 3
[Huawei-voice-fxo1/0/4] gain send 3
```

16.4.1.17 impedance (FXO interface view)

Function

Using the **impedance** command, you can set the DC impedance and AC impedance for an FXO interface.

Using the **undo impedance** command, you can restore the default DC impedance and AC impedance of an FXO interface.

By default, the DC impedance of an FXO interface is 50 nF, and the AC impedance is 600 nF.

Format

impedance { **dc** *value* | **ac** *value* }

undo impedance { **dc** | **ac** }

Parameters

Parameter	Description	Value
dc *value*	Specifies the DC impedance.	The value is 0 or 1: • 0: 50 nF • 1: 800 nF The default value is 0.

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Parameter	Description	Value
ac *value*	Specifies the AC impedance.	The value is an integer that ranges from 0 to 15: • 0: 600 • 1: 900 • 2: 270 + (750 || 150 nF) and 275 + (780 || 150 nF) • 3: 220 + (820 || 120 nF) and 220 + (820 || 115 nF) • 4: 370 + (620 || 310 nF) • 5: 320 + (1050 || 230 nF) • 6: 370 + (820 || 110 nF) • 7: 275 + (780 || 115 nF) • 8: 20 + (820 || 110 nF) • 9: 350 + (1000 || 210 nF) • 10: 200 + (680 || 100 nF) • 11: 600 + 2.16 uF • 12: 900 + 1 uF • 13: 900 + 2.16 uF • 14: 600 + 1 uF • 15: Global impedance The default value is 0.

Views

FXO interface view

Default Level

2: Configuration level

Usage Guidelines

None

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Example

Set the DC impedance of an FXO interface to 50 nF (value 0).

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxo 1/0/4
[Huawei-voice-fxo1/0/4] impedance DC 0
```

16.4.1.18 impedance (VE1 interface view)

Function

Using the **impedance** command, you can set the impedance for a VE1 interface.

Using the **undo impedance** command, you can restore the default impedance of a VE1 interface.

By default, the impedance of a VE1 interface is 75 ohm.

Format

impedance *impedance-value*

undo impedance

Parameters

Parameter	Description	Value
impedance-value	Specifies the impedance on a VE1 interface.	The value is 75 or 120, in ohm. The default value is 75.

Views

VE1 interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the impedance of a VE1 interface to 75 ohm.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] impedance 75
 Set impendance successfully
```

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16.4.1.19 invert

Function

The **invert** command sets whether to revert signaling timeslots that are sent and received.

The **undo invert** command restores the default setting.

By default, signaling timeslots that are sent and received are not inverted.

Format

invert { **tx** | **rx** }

undo invert { **tx** | **rx** }

Parameters

Parameter	Description	Value
tx	Configures the AR to invert signaling timeslots that are sent.	-
rx	Configures the AR to invert signaling timeslots that are received.	-

Views

VE1 interface view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

When a VE1 interface is connected in PRI mode, you need to configure whether to invert signaling timeslot data as needed, ensuring signaling timeslot interconnecting without bit error or packet loss.

Precautions

Configure whether to invert timeslot data of sent or received signaling on a VE1 interface as needed. By default, signaling timeslot data is not inverted.

Example

#Configure to invert signaling timeslots that are sent and received on the VE1 interface.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] invert tx
  Set invert successfully
[Huawei-voice-ve1-2/0/0] invert rx
  Set invert successfully
```

16.4.1.20 itf(VE1 interface view)

Function

The **itf** command sets the interframe filling tag type and the number of interframe filling tags on the VE1 interface.

Format

itf { **number** *number* | **type** { **7e** | **ff** } }

undo itf { **number** | **type** }

Parameters

Parameter	Description	Value
number *number*	Specifies the number of interframe filling tags.	The value is an integer that ranges from 0 to 7.
type	Specifies the interframe filling tag type.	-
7e	Sets the interframe filling tag to 0x7e.	-
ff	Sets the interframe filling tag to 0xff.	-

Views

VE1 interface view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

The interframe filling tag on a VE1 interface is the code that is sent when no service data is sent through the timeslot bundled to a logical channel.

A VE1 interface supports two types of interframe filling tags: 0x7e and 0xff. The default interframe filling tag 0x7e is recommended.

Precautions

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- The same interframe filling tag type and number of interframe filling tags must set for interfaces on both ends; otherwise, communication exceptions may occur.
- Because interframe filling tags occupy bandwidth, the actual data transmission rate on a VE1 interface cannot reach the maximum bandwidth. To improve the actual data transmission rate on a VE1 interface, run the **itf number** command to set the number of interframe filling tags to 0.

Example

Set the interframe filling tag to 0x7e on the VE1 interface and set six interframe filling tags.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] itf type ff
  Set itf successfully
[Huawei-voice-ve1-2/0/0] itf number 6
  Set itf successfully
```

16.4.1.21 l2-monitor

Function

Using the **l2-monitor** command, you can enable or disable Layer 2 monitoring on a BRA interface.

Using the **undo l2-monitor** command, you can restore the default status of Layer 2 monitoring on a BRA interface.

By default, Layer 2 monitoring is enabled on a BRA interface.

Format

l2-monitor { **enable** | **disable** }

undo l2-monitor

Parameters

Parameter	Description	Value
enable	Enables Layer 2 monitoring on a BRA interface.	_
disable	Disables Layer 2 monitoring on a BRA interface.	_

Views

BRA interface view

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Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable Layer 2 monitoring on a BRA interface.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port bra 1/0/0
[Huawei-voice-bra1/0/0] l2-monitor enable
```

16.4.1.22 l2-monitor (VE1 interface view)

Function

Using the **l2-monitor** command, you can enable or disable Layer 2 monitoring on a VE1 interface.

Using the **undo l2-monitor** command, you can restore the default status of Layer 2 monitoring on a VE1 interface.

By default, Layer 2 monitoring is enabled on a VE1 interface.

Format

l2-monitor { **enable** | **disable** }

undo l2-monitor

Parameters

Parameter	Description	Value
enable	Enables Layer 2 monitoring on a VE1 interface.	_
disable	Disables Layer 2 monitoring on a VE1 interface.	_

Views

VE1 interface view

Default Level

2: Configuration level

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Usage Guidelines

None

Example

Enable Layer 2 monitoring on a VE1 interface.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] l2-monitor enable
```

16.4.1.23 line-lock

Function

Using the **line-lock** command, you can enable or disable port locking on an FXS interface.

Using the **undo line-lock** command, you can restore the default port locking status on an FXS interface.

By default, port locking is enabled on an FXS interface.

Format

line-lock { **enable** | **disable** }

undo line-lock

Parameters

Parameter	Description	Value
enable	Enables port locking.	_
disable	Disables port locking.	_

Views

FXS interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable port locking on an FXS interface.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxs 2/0/0
[Huawei-voice-fxs2/0/0] line-lock enable
```

16.4.1.24 loop

Function

The **loop** command sets a port loopback flag.

The **undo loop** command deletes a port loopback flag.

By default, the system does not have any loopback flags.

Format

loop { **remote** | **local** }

undo loop

Parameters

Parameter	Description	Value
remote	Specifies a remote loopback flag.	-
local	Specifies a local loopback flag.	-

Views

BRA, FXS or FXO port view

Default Level

2: Configuration level

Usage Guidelines

You do not need to use this command in normal configurations. This command is mainly used in progressive debugging of call fault points.

Example

Configure remote loopback for an ISDN BRA port.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port bra 1/0/0
[Huawei-voice-bra1/0/0] loop remote
```

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16.4.1.25 nlp-mode

Function

Using the **nlp-mode** command, you can specify the non-linear echo processing (NLP) mode supported by an FXS interface.

Using the **undo nlp-mode** command, you can restore the default NLP mode supported by an FXS interface.

By default, an FXS supports the normal NLP mode.

Format

nlp-mode { **disable** | **normal** | **ec-gain-adjust** | **enhance** | **reduce** }

undo nlp-mode

Parameters

Parameter	Description	Value
disable	Disables the NLP function on an FXS interface so that the digital signal processor (DSP) on the interface does not process non-liner echoes.	_
normal	Indicates the normal NLP mode. In this mode, the DSP processes echoes normally.	_
ec-gain-adjust	Indicates the EC gain adjustment mode. In this mode, the DSP uses a special processing mechanism to perform digit collecting on intelligent public phones.	_
enhance	Indicates the enhanced mode. In this mode, the DSP enhances non-liner echoes.	_
reduce	Indicates the reduction mode. In this mode, the DSP reduces non-liner echoes.	_

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Views

FXS interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the NLP mode to normal on an FXS interface.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxs 2/0/0
[Huawei-voice-fxs2/0/0] nlp-mode normal
```

16.4.1.26 pcm-alarm

Function

Using the **pcm-alarm** command, you can enable or disable the pulse code modulation (PCM) alarm function on a VE1 interface.

Using the **undo pcm-alarm** command, you can restore the default status of the PCM alarm function on a VE1 interface.

Format

pcm-alarm [**line-fault** *line-fault-value* | **ulf** *ulf-value* | **olf** *olf-value* | **ldt** *ldt-value* | **frmslip** *frmslip-value* | **transient-event** *transient-event-value*]

undo pcm-alarm [**line-fault** | **ulf** | **olf** | **ldt** | **frmslip** | **transient-event**]

Parameters

Parameter	Description	Value
line-fault *line-fault-value*	Enables or disables alarms on line faults.	Enumerated type. The values are as follows: • disable: disables alarms on line faults. • enable: enables alarms on line faults. The default value is **enable**.

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Parameter	Description	Value
ulf *ulf-value*	Enables or disables alarms on the unconditional line fault bit error rate.	Enumerated type. The values are as follows: • disable: disables alarms on the unconditional line fault bit error rate. • enable: enables alarms on the unconditional line fault bit error rate. The default value is **enable**.
olf *olf-value*	Enables or disables alarms on the conditional line fault bit error rate.	Enumerated type. The values are as follows: • disable: disables alarms on the conditional line fault bit error rate. • enable: enables alarms on the conditional line fault bit error rate. The default value is **enable**.
ldt *ldt-value*	Enables or disables alarms on the temporary line interference bit error rate.	Enumerated type. The values are as follows: • disable: disables alarms on the temporary line interference bit error rate. • enable: enables alarms on the temporary line interference bit error rate. The default value is **disable**.

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Parameter	Description	Value
frmslip *frmslip-value*	Enables or disables alarms on loss of PCM frames.	Enumerated type. The values are as follows: • disable: disables alarms on loss of PCM frames. • enable: enables alarms on loss of PCM frames. The default value is **disable**.
transient-event *transient-event-value*	Enables or disables alarms on transient line events.	Enumerated type. The values are as follows: • disable: disables alarms on transient line events. • enable: enables alarms on transient line events. The default value is **disable**.

Views

VE1 interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable line fault alarms on a VE1 interface.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] pcm-alarm line-fault enable
```

16.4.1.27 port bra

Function

Using the **port bra** command, you can enter the BRA interface view.

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Format

port bra *slotid/subcardid/portid*

Parameters

Parameter	Description	Value
slotid/subcardid/portid	Specifies the slot ID/subcard ID/port number.	The value is a string of 1 to 15 characters. The value ranges of the slot ID, subcard ID, and port number vary according to the device configuration.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

You can run the **display voice port bra** command to view existing BRA interfaces.

Example

Enter the view of BRA interface 2/0/0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port bra 2/0/0
[Huawei-voice-bra-2/0/0]
```

16.4.1.28 port fxo

Function

Using the **port fxo** command, you can enter the FXO interface view.

Format

port fxo*slotid/subcardid/portid*

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Parameters

Parameter	Description	Value
slotid/subcardid/portid	Specifies the slot ID/subcardid ID/port number.	The value is a string of 1 to 15 characters. The value ranges of the slot ID, subcardid ID, and port number vary according to the device configuration.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

You can run the **display voice port fxo** command to view existing FXO interfaces.

Example

Enter the view of FXO interface 2/0/4.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxo 2/0/4
[Huawei-voice-fxo-2/0/4]
```

16.4.1.29 port fxs

Function

Using the **port fxs** command, you can enter the FXS interface view.

By default, the region identifier is China mainland.

Format

port fxs *slotid/subcardid/portid*

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Parameters

Parameter	Description	Value
slotid/subcardid/portid	Specifies the slot ID/ subcardid ID/port number.	The value is a string of 1 to 15 characters. The value ranges of the slot ID, subcardid ID, and port number vary according to the device configuration.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

You can run the **display voice port fxs** command to view existing FXS interfaces.

Example

Enter the view of FXS interface 2/0/0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxs 2/0/0
[Huawei-voice-fxs2/0/0]
```

16.4.1.30 port ve1

Function

Using the **port ve1** command, you can enter the VE1 interface view.

Format

port ve1 *slotid/subcardid/portid*

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Parameters

Parameter	Description	Value
slotid/subcardid/portid	Specifies the slot ID/ subcard ID/port number.	The value is a string of 1 to 15 characters. The value ranges of the slot ID, subcard ID, and port number vary according to the device configuration.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

You can run the **display voice port ve1** command to view existing VE1 interfaces.

Example

Enter the view of VE1 interface 2/0/0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0]
```

16.4.1.31 remote-power

Function

Using the **remote-power** command, you can enable the remote power supply function.

Using the **undo remote-power** command, you can restore the default configuration.

By default, the remote power supply function is disabled.

Format

remote-power { **enable** | **disable** }

undo remote-power

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Parameters

Parameter	Description	Value
enable	Enables the remote power supply function.	-
disable	Disables the remote power supply function.	-

Views

BRA interface view

Default Level

2: Configuration level

Usage Guidelines

A BRA phone must be powered by a dedicated transformer. If no dedicated transformer is available, run the **remote-power** command to enable the remote power supply function on the BRA interface so that the BRA interface can supply power for BRA phones.

Example

Enable the remote power supply function on a BRA interface.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port bra 1/0/0
[Huawei-voice-bra1/0/0] remote-power enable
```

16.4.1.32 reset line-fault

Function

Using the **reset line-fault** command, you can reset line fault alarms.

Format

reset line-fault

Parameters

None

Views

FXS interface view

Default Level

3: Management level

Usage Guidelines

The **reset line-fault** command resets line fault alarms on an FXS interface.

Example

Reset line fault alarms on an FXS interface.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxs 2/0/0
[Huawei-voice-fxs2/0/0] reset line-fault
```

16.4.1.33 reverse-pole-pulse level

Function

Using the **reverse-pole-pulse level** command, you can set the polarity reversal pulse level width for an FXS interface.

Using the **undo reverse-pole-pulse level** command, you can restore the default polarity reversal pulse level width of an FXS interface.

By default, the polarity reversal pulse level width of an FXS interface is 100 ms.

Format

reverse-pole-pulse level *level-value*

undo reverse-pole-pulse level

Parameters

Parameter	Description	Value
level *level-value*	Specifies the polarity reversal pulse level width.	The value is an integer that ranges from 20 to 1270, with increments of 10. The unit is ms.

Views

FXS interface view

Default Level

2: Configuration level

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Usage Guidelines

This command sets the polarity reversal pulse level width for an FXS interface.

Example

Set the polarity reversal pulse level width of an FXS interface to 30 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxs 2/0/0
[Huawei-voice-fxs2/0/0] reverse-pole-pulse level 30
```

16.4.1.34 ring

Function

Using the **ring** command, you can set ring current parameters on an FXS interface.

Using the **undo ring** command, you can restore the default values of ring current parameters on an FXS interface.

By default, the shortest length of a ring current is 200 ms; the maximum ring current interval is not set; the ring current frequency is 25 Hz; the AC amplitude is 50 V; the AC offset is 70.

Format

ring { **minimum-duration** *min-duration-value* | **maximum-interval** *max-interval-value* | **frequence** *frequence-value* | **ac-amplitude** *ac-amplitude-value* | **offset** *offset-value* }

undo ring { **minimum-duration** | **maximum-interval** | **frequence** | **ac-amplitude** | **offset** }

Parameters

Parameter	Description	Value
minimum-duration *min-duration-value*	Specifies the shortest length of a ring current.	The value is an integer that ranges from 0 to 7: • 0: 100 ms • 1: 150 ms • 2: 200 ms • 3: 256 ms • 4: 384 ms • 5: 512 ms • 6: 640 ms • 7: 1024 ms The default value is 2.

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Parameter	Description	Value
maximum-interval *max-interval-value*	Specifies the maximum interval between ring currents.	The value is an integer that ranges from 0 to 28: • 0: not use • 1: 128 ms • 2: 256 ms • 3: 284 ms • 4: 512 ms • 5: 640 ms • 6: 768 ms • 7: 896 ms • 8: 1024 ms • 9: 1152 ms • 10: 1280 ms • 11: 1408 ms • 12: 1536 ms • 13: 1664 ms • 14: 1792 ms • 15: 1920 ms • 16: 2000 ms • 17: 2500 ms • 18: 3000 ms • 19: 3500 ms • 20: 4000 ms • 21: 4500 ms • 22: 5000 ms • 23: 6000 ms • 24: 7000 ms • 25: 8000 ms • 26: 9000 ms • 27: 10000 ms • 28: 15000 ms The default value is 0.
frequence *frequence-value*	Specifies the ring current frequency.	The value is an integer that ranges from 0 to 2: • 0: 16 Hz • 1: 25 Hz • 2: 50 Hz The default value is 1.

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Parameter	Description	Value
ac-amplitude *ac-amplitude-value*	Specifies the AC Amplitude of a ring current.	The value is an integer that ranges from 0 to 2: • 0: 74 V • 1: 65 V • 2: 50 V The default value is 2.
offset *offset-value*	Specifies the AC offset of a ring current.	The value is an integer that ranges from 0 to 100. The default value is 70.

Views

FXO interface view

Default Level

2: Configuration level

Usage Guidelines

You can use this command to set the shortest length of a ring current, maximum interval between ring currents, ring current frequency, AC Amplitude of a ring current, and AC offset of a ring current.

Example

Set the shortest length of a ring current on an FXO interface to 100 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxo 1/0/4
[Huawei-voice-fxo1/0/4] ring minimum-duration 0
```

16.4.1.35 sa

Function

The **sa** command sets the content of the five outgoing sa bits.

The **undo sa** command restores the default setting.

By default, the content of the five outgoing sa bits is 0.

Format

sa *sa4 sa5 sa6 sa7 sa8*

undo sa

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Parameters

Parameter	Description	Value
sa4	Sets the content of the outgoing sa4 bit.	The value is a decimal integer that ranges from 0 to 255.
sa5	Sets the content of the outgoing sa5 bit.	The value is a decimal integer that ranges from 0 to 255.
sa6	Sets the content of the outgoing sa6 bit.	The value is a decimal integer that ranges from 0 to 255.
sa7	Sets the content of the outgoing sa7 bit.	The value is a decimal integer that ranges from 0 to 255.
sa8	Sets the content of the outgoing sa8 bit.	The value is a decimal integer that ranges from 0 to 255.

Views

VE1 interface view

Default Level

2: Configuration level

Usage Guidelines

When a VE1 interface is connected in PRI mode, if the E1 frame is a CRC4 multiframe, SA4 to SA8 in the E1 multiframe can be used for transmitting low-speed data. By default, the values of SA4 to SA8 are 0. In some scenarios, the remote device will check received SA fields. Therefore, SA fields must be configurable on an AR to ensure normal connection of the VE1 interface.

Precautions

By default, the SA field value is 0. Before configuring the SA field, collect configuration information on the remote device.

Example

Set the content of five outgoing sa bits to 1, 2, 3, 4, and 5 respectively.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] sa 1 2 3 4 5
  Set sa successfully
```

16.4.1.36 shutdown

Function

The **shutdown** command shuts down a BRA port.

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The **undo shutdown** command restores a BRA port.

Format

shutdown

undo shutdown

Parameters

None

Views

BRA port view

Default Level

2: Configuration level

Usage Guidelines

You can run this command to disable an ISDN BRA port.

Example

Shuts down an ISDN BRA port.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port bra 1/0/0
[Huawei-voice-bra1/0/0] shutdown
```

16.4.1.37 signal(VE1 interface view)

Function

Using the **signal** command, you can set the signaling mode of a VE1 interface.

Using the **undo signal** command, you can restore the default signaling mode of a VE1 interface.

By default, a VE1 interface uses the common channel signaling (CCS) mode.

Format

signal { **ccs** | **cas** }

undo signal

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Parameters

Parameter	Description	Value
ccs	Indicates the common channel signaling mode.	-
cas	Indicates the channel associated signaling mode.	-

Views

VE1 interface view

Default Level

2: Configuration level

Usage Guidelines

A VE1 interface can work in CCS or CAS mode. To change the signaling mode, run the **signal** command.

Example

Configure a VE1 interface to work in CCS mode.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] signal ccs
  Set signal type successfully
```

16.4.1.38 work-mode

Function

Using the **work-mode** command, you can set the working mode for a BRA interface.

Using the **undo work-mode** command, you can restore the default working mode of a BRA interface.

By default, a BRA interface works in point-to-multipoint (P2MP) mode.

Format

work-mode { **p2p** | **p2mp** }

undo work-mode

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Parameters

Parameter	Description	Value
p2mp	Indicates the point-to-multipoint (P2MP) mode.	-
p2p	Indicates the point-to-point (P2P) mode.	-

Views

BRA interface view

Default Level

2: Configuration level

Usage Guidelines

This command sets the working mode for a BRA interface.

A BRA interface works in either of the following modes:

- P2MP: Multiple terminals can connect to the BRA interface.
- P2P: Only one terminal can connect to the BRA interface.

Example

Configure a BRA interface to work in P2P mode.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port bra 1/0/0
[Huawei-voice-bra1/0/0] work-mode p2p
```

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16.5 PBX Configuration Commands

NOTE

- The following product models support voice functions (such as the PBX, SIP AG, and H.248 AG):
  - AR120 series: AR129CV, AR129CVW, and AR129CGVW-L
  - AR150 series: AR157VW and AR158EVW
  - AR160 series: AR161, AR169FVW, AR169FVW-8S, AR169CVW, AR169JFVW-4B4S, AR169JFVW-2S, AR169CVW-4B4S, AR161FV-1P, and AR169FGVW-L
  - AR200 series: AR201VW-P, AR207V, AR207VW, and AR207V-P
  - AR1200 series: AR1220V, AR1220VW, AR1220EV, and AR1220EVW
  - AR2200 series: AR2204, AR2220, AR2220L, AR2220E.
  - AR2240: For the equipped with SRU40, SRU60, SRU80, and SRU100.
  - AR3200 series: For the AR3260 equipped with SRU40, SRU60, SRU80, or SRU100, the same voice mode is set for the active and standby SRUs.

  The AR129CV, AR129CVW, AR169CVW, AR169JFVW-4B4S, AR169JFVW-2S, and AR169CVW-4B4S only support the PBX and SIP AG, but not the H.248 AG.
- When an AR2204, AR2220L, or AR2220E router needs to provide voice services, install a DSP module and a voice subcard in the router. When an AR2220, AR2240, or AR3200 router needs to provide voice services, install a DSP module.
- To provide voice services to POTS users on the AR1200, AR2200, or AR3200, install the 4FXS1FXO, 16FXS, or 32FXS card. The AR1200 does not support the 32FXS card.
- To provide voice services to ISDN phone users on the AR1200, AR2200, or AR3200, install the 2BST card.
- To connect an AR1200, AR2200, or AR3200 router to a TDM PBX through the E1 interface, install the E1T1-M card.
- On the AR169FGVW-L, AR1220EV, and AR1220EVW, the AT0 trunk cannot be connected to the SIP server or SIP trunk.

16.5.1 PBX Basic Configuration Commands

16.5.1.1 access-telno (disa view)

Function

The **access-telno** command configures an accessible telno for disa.

Format

access-telno *telno*

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Parameters

Parameter	Description	Value
telno	Specifies the telno.	The value is a string of 1 to 16 characters without spaces.

Views

Disa view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Configures an accessible telno 83786000 for disa d1.

```
<Huawei> system-view
 [Huawei] voice
 [Huawei-voice] disa d1
 [Huawei-voice-disa-d1] access-telno 83786000
```

16.5.1.2 account-set

Function

Using the **account-set** command, you can configure an **account-set** and enter the **account-set** profile view.

Using the **undo account-set** command, you can delete the **account-set** profile.

By default, no **account-set** profile is configured.

Format

account-set *account-set-name* [**password** | **account**]

undo account-set *account-set-name*

Parameters

Parameter	Description	Value
account-set-name	Specifies the name of account-set profile.	The value is a string of 1 to 32 characters.

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Parameter	Description	Value
[**password** | **account**]	Specifies the mode of account-set: account mode and password mode. The default value is the password mode.	The value is a string of 1 to 32 characters.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Create an account-set profile q.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] account-set 1
[Huawei-voice-account-1]
```

16.5.1.3 b2brouteadd

Function

The **b2brouteadd** command configures a backtoback route.

The **undo b2brouteadd** command deletes a configured backtoback route.

Format

b2brouteadd src-trunkgroup *src-trunkgroupname* **dst-trunkgroup** *dst-trunkgroupname*

undo b2brouteadd src-trunkgroup *src-trunkgroupname* **dst-trunkgroup** *dst-trunkgroupname*

Parameters

Parameter	Description	Value
src-trunkgroup *src-trunkgroupname*	Specifies the source trunk group name.	The value is a string of 1 to 32 characters without spaces.

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Parameter	Description	Value
dst-trunkgroup *dst-trunkgroupname*	Specifies the destination trunk group name.	The value is a string of 1 to 32 characters without spaces.

Views

Call prefix view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the backtoback route in the view of the call prefix **prefix-user1**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] callprefix prefix-user1
[Huawei-voice-callprefix-prefix-user1]b2brouteadd src-trunkgroup bra dst-trunkgroup sipip
```

16.5.1.4 cac

Function

The **cac** command enables call limiting over one or more SIP trunks for the same peer IP address and configures the maximum number of online calls.

The **undo cac** command cancels call limiting for a specific IP address.

By default, call limiting rules are not configured.

Format

cac destination-ip *ip-address* **max-call-number** *max-call-number-value*

undo cac destination-ip *ip-address*

Parameters

Parameter	Description	Value
destination-ip *ip-address*	Specifies the peer IP address from which calls are limited.	The value is in dotted decimal notation.

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Parameter	Description	Value
max-call-number *max-call-number-value*	Specifies the maximum number of online calls.	The value is an integer that ranges from 1 to 2000.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

This command is used to limit calls if multiple SIP trunks (including SIP IP, SIP PRA, and SIP AT0 trunks) have the same remote IP address. When call limiting is enabled for a remote IP address, if the number of online incoming and outgoing calls on the trunk with the IP address from which calls are limited reaches the configured maximum number of online calls, calls can no longer be made.

Example

Set the maximum number of online calls over the SIP trunk for the IP address of 192.168.0.1 to 2000.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]cac destination-ip 192.168.0.1 max-call-number 2000
```

16.5.1.5 call-type

Function

The **call-type** command configures the call category and call attribute of a call prefix.

By default, the call category and call attribute of a call prefix are not configured.

Format

call-type category { *callcategory* **attribute** *attribute* [**cdr-alais** *cdr-alais*] **| vu-service vu-service-name** *vuservicename* }

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Parameters

Parameter	Description	Value
category *callcategory*	Specifies the call category.	Enumerated type. The value can be **basic-service**, **new-supplementary-management**, or **supplementary-service**. • basic-service: basic service for call attributes 0 to 20 • new-supplementary-management: supplementary service for call attributes 21 to 170 • supplementary-service: supplementary service for call attributes 171 to 240

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Parameter	Description	Value
attribute *attribute*	Specifies the call attribute.	The value is an integer. • 0: Internal dialing • 1: Local dialing • 2: Domestic direct dialing • 3: International direct dialing • 4: local call first, if fail then inter-office call • 5: inter-office call first, if fail then local call • 6-20: basic service prefix reservation • 21: call forwarding unconditional (CFU) service registration • 22: CFU service deregistration • 23: call forwarding busy (CFB) service registration • 24: CFB service deregistration • 25: call forwarding no reply (CFNR) service registration • 26: CFNR service deregistration • 27: call forwarding offline (CFO) service registration • 28: CFO service deregistration • 29: reserved • 30: reserved • 31: call waiting (CW) service registration • 32: CW service deregistration • 33: reserved • 34: reserved

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Parameter	Description	Value
		• 35: do-not-disturb (DND) service registration • 36: DND service deregistration • 37: abbreviated dialing service registration • 38: abbreviated dialing service deregistration • 39: RAC service registration • 40: RAC service deregistration • 41: wake-up service registration • 42: wakeup service deregistration • 43: reserved • 44: reserved • 45: reserved • 46: reserved • 47: reserved • 48: reserved • 49: Selective Call Rejection (SCR) number registration • 50: SCR number deregistration • 51: SCR time registration • 52: SCR time deregistration • 53: SCR weekday registration • 54: SCR weekday deregistration • 55: SCR service activation • 56: SCR service deactivation • 57: SCR service verification

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Parameter	Description	Value
		• 58: SCR service deletion • 59: Selective Call Acceptance (SCA) number registration • 60: SCA number deregistration • 61: SCA time registration • 62: SCA time deregistration • 63: SCA weekday registration • 64: SCA weekday deregistration • 65: SCA service activation • 66: SCA service deactivation • 67: SCA service verification • 68: SCA service deletion • 69: reserved • 70: reserved • 71: reserved • 72: SCR service registration • 73: SCR servicedergistration • 74: reserved • 75: SCC service deregistration • 76: reserved • 77: reserved • 78: reserved • 79: reserved • 80: reserved • 81: reserved • 82: reserved • 83: reserved • 84: reserved

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Parameter	Description	Value
		• 85: reserved • 86: reserved • 87: password call barring service verification • 88: password call barring service registration • 89: call limiting cancellation • 90: number barring service activation • 91: number barring service deactivation • 92: number barring service deregistration • 93: reserved • 94: reserved • 95: active pwcb service • 96: deactive pwcb service • 97: reserved • 98: password barring service registration • 99: call barring service password change • 100: call barring service password verification • 101: call barring service password deactivation • 102: reserved • 103: reserved • 104: bust callback service deregistration • 105: reserved • 106: reserved • 107: no answer callback service deregistration • 108: reserved

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Parameter	Description	Value
		• 109: immediate hotline service registration • 110: immediate hotline service deregistration • 111: delayed hotline service registration • 112: delayed hotline service deregistration • 113: CFU-voice mail (VM) service activation • 114: CFU-VM service deregistration • 115: CFB-VM service activation • 116: CFB-VM service deregistration • 117: CFNR-VM service activation • 118: CFNR-VM service deregistration • 119: CFO-VM service activation • 120: CFO-VM service deregistration • 121: user service password change • 122-170: reserved • 171: co-group pickup service • 172: designated pickup service • 173: self-number query • 174: abbreviated dialing • 175:Temporarily-active-CLIR • 176:Temporarily-deactive-CLIR • 177: reserved • 178: reserved

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Parameter	Description	Value
		• 179: reserved • 180: reserved • 181: reserved • 182: reserved • 183: reserved • 191: reserved • 192: actual self-number query • 193: set the MWI service mode on • 194: set the MWI service mode off • 195-240: reserved
vu-service	Specifies the IVR service.	-
vu-service-name vuservicename	Specifies a VU service name.	The value is a string of 1 to 32 characters without spaces. Default: • vuvmswelcometone (record welcome tone service) • vuvmsleavemsg (leave voice mail message service) • vuvmsgetmsg (get voice mail message service) • vuconference (conference service) • vudefault (switchboard service) • vupwdcalllimit (pwd calllimit service for vu)

Views

Call prefix view

Default Level

2: Configuration level

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Usage Guidelines

If you run the **call-type** command multiple times, only the latest configuration takes effect.

Example

Set the call type to local basic service in the view of the call prefix **prefix1**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] callprefix prefix1
[Huawei-voice-callprefix-prefix1] call-type category basic-service attribute 1
```

16.5.1.6 callprefix

Function

Using the **callprefix** command, you can configure a call prefix profile and enter the call prefix profile view.

Using the **undo callprefix** command, you can delete the call prefix profile.

By default, no call prefix profile is configured.

Format

callprefix *callprefix-name*

undo callprefix *callprefix-name*

Parameters

Parameter	Description	Value
callprefix-name	Specifies the name of a call prefix profile.	The value is a string of 1 to 32 characters.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Create a call prefix profile 20000.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] callprefix 20000
[Huawei-voice-callprefix-20000]
```

16.5.1.7 callroute (call prefix view)

Function

The **callroute** command configures a call route.

The **undo callroute** command deletes a configured call route.

Format

callroute *callroute-name*

undo callroute *callroute-name*

Parameters

Parameter	Description	Value
callroute-name	Specifies the call route name.	The value is a string of 1 to 32 characters without spaces.

Views

Call prefix view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Configure a call route named **router1** for call prefix 2.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] callprefix 2
[Huawei-voice-callprefix-2] callroute route1
```

16.5.1.8 cause-mapping

Function

Using the **cause-mapping** command, you can configure the mappings between ISDN cause values and SIP error codes.

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Using the **undo cause-mapping** command, you can restore the mappings to defaults.

Format

cause-mapping { **isdn-cause** *isdn-cause-value* | **sip-response** *sip-response-value* } *

undo cause-mapping { **isdn-cause** [*isdn-cause-value*] | **sip-response** [*sip-response-value*] }

Parameters

Parameter	Description	Value
isdn-cause *isdn-cause-value*	Indicates the ISDN cause value.	The value is an integer that ranges from 1 to 127.
sip-response *sip-response-value*	Indicates the SIP error code.	The value is an integer that ranges from 100 to 699.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

You can run the **cause-mapping** command to customize the mappings between ISDN cause values and SIP error codes. The default mappings are used if you do not configure them.

Example

Map ISDN cause value 1 to SIP error code 404.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] cause-mapping isdn-cause 1 sip-response 404
```

16.5.1.9 collectcall (call prefix view)

Function

The **collectcall** command enables or disables the called party payment function.

The **undo collectcall** command disables the called party payment function.

By default, the called party payment function is disabled.

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Format

collectcall *collectcall-value*

undo collectcall

Parameters

Parameter	Description	Value
collectcall-value	Indicates whether the called party payment function is enabled.	Enumerated value: • disable: The called party payment function is disabled. • enable: The called party payment function is enabled.

Views

Call prefix view

Default Level

2: Configuration level

Usage Guidelines

When you deploy a called party payment service on a network, you need to enable the called party payment function for a prefix. During call setup, the payment flag is delivered to the remote device by signaling, and then the called party payment service is implemented in the charging system.

NOTE

The called party payment function is used only for E1R2 trunk connection and PRA trunk connection scenarios.

Example

Enable the called party payment function for a prefix.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] callprefix prefix1
[Huawei-voice-prefix1] collectcall enable
```

16.5.1.10 country-code

Function

Using the **country-code** command, you can configure a country/region code.

Using the **undo country-code** command, you can cancel the configuration.

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By default, some country/region codes are pre-configured on the device. You can run the **display voice country-code** command to view the country/region codes.

Format

country-code *country-code-value* [**country-name***country-name* | **international-prefix** *international-prefix-value* | **national-prefix** *national-prefix-value*]*

undo country-code *country-code-value* [**country-name** | **international-prefix** | **national-prefix**]

Parameters

Parameter	Description	Value
country-code-value	Specifies the country/region code.	The value is a numeral string of 1 to 4 digits.
country-name *country-name*	Specifies the country/region name.	The value is a string of 1 to 32 characters without spaces.
international-prefix *international-prefix-value*	Specifies the prefix of an international toll call.	The value is a numeral string of 1 to 5 digits.
national-prefix *national-prefix-value*	Specifies the prefix of a national toll call.	The value is a numeral string of 1 to 5 digits.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

The **undo country-code** command cannot delete the pre-configured country/region codes.

NOTE

The device does not support the user-defined country code and region code. If the user-defined country code and region code are used, communication may fail.

Example

Set country/region code to 86, country name to **china**, and national toll call prefix to 025.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] country-code 86 country-name china national-prefix 0
```

16.5.1.11 crbt (enterprise view)

Function

Using the **crbt** command, you can enable the RBT function for an enterprise or disable this function.

Using the **undo crbt** command, you can cancel the configuration.

By default, the RBT function is disabled for an enterprise.

Format

crbt { enable | disable }

undo crbt

Parameters

Parameter	Description	Value
enable	Enable the RBT function for an enterprise.	-
disable	Disable the RBT function for an enterprise.	-

Views

Enterprise view

Default Level

2: Configuration level

Usage Guidelines

The **crbt disable** command disables the RBT function for an enterprise.

Example

Enable the RBT function for the enterprise **user1**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] enterprise user1
[Huawei-voice-enterprise-user1] crbt enable
```

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16.5.1.12 custom-right (call prefix view)

Function

The **custom-right** command binds a customized 32-level right to a call prefix.

By default, no 32-level right is bound to a call prefix.

Format

custom-right *custom-right-choice*.

undo custom-right.

Parameters

Parameter	Description	Value
custom-right-choice	Specifies a 32-level right to be bound to a call prefix.	The value can be only one of **c1** to **c32**.

Views

Call prefix view

Default Level

2: Configuration level

Usage Guidelines

32-level rights can be bound to any prefixes. (For a VU prefix, the VU's 32-level right can be bound to the VU prefix additionally.)

Example

Bind 32-level right **c1** to **prefix1** in the call prefix view.

```
<Huawei> system-view
 [Huawei] voice
 [Huawei-voice] callprefix prefix1
 [Huawei-voice-prefix1] custom-right c1
```

16.5.1.13 description (enterprise view)

Function

Using the **description** command, you can configure the description of an enterprise.

Using the **undo description** command, you can delete the description of an enterprise.

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By default, no description is configured for an enterprise.

Format

description *description*

undo description

Parameters

Parameter	Description	Value
description	Specifies the description of an enterprise.	The name is a string of 1 to 64 case-sensitive characters without spaces.

Views

Enterprise view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Configure the description of the enterprise **user1** as **bank**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] enterprise user1
[Huawei-voice-enterprise-user1] description bank
```

16.5.1.14 digit-length

Function

The **digit-length** command sets the length of a number that can be parsed.

By default, the length of a number that can be parsed is not set.

Format

digit-length *minimum-length-value maximum-length-value*

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Parameters

Parameter	Description	Value
maximum-length-value	Specifies the maximum length of a number that can be parsed.	The value is an integer that ranges from 1 to 32.
minimum-length-value	Specifies the minimum length of a number that can be parsed.	The value is an integer that ranges from 1 to 32.

Views

Call prefix view

Default Level

2: Configuration level

Usage Guidelines

The maximum length of a number that can be parsed (*maximum-length-value*) must be greater than or equal to the minimum length of a number that can be parsed (*minimum-length-value*).

If the **digit-length** command runs for multiple times, the latest configuration overrides the previous one.

Example

Set the maximum length of a number that can be parsed to 20 and the minimum length to 5 in the view of the call prefix **prefix-user1**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] callprefix prefix-user1
[Huawei-voice-callprefix-prefix-user1] digit-length 5 20
```

16.5.1.15 disa

Function

Using the **disa** command, you can configure a **disa** profile and enter the **disa** profile view.

Using the **undo disa** command, you can delete the **disa** profile.

By default, no **disa** profile is configured.

Format

disa *disa-name* [**enterprise** *enterprise-name*]

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undo disa*disa-name*

Parameters

Parameter	Description	Value
disa-name	Specifies the name of a disa profile.	The value is a string of 1 to 32 characters.
enterprise-name	Specifies the name of an enterprise profile.	The value is a string of 1 to 32 characters.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Create a disa profile d1.

```
<Huawei> system-view
 [Huawei] voice
 [Huawei-voice] disa d1
 [Huawei-voice-disa-d1]
```

16.5.1.16 display voice account-set

Function

The **display voice account-set** command displays the configuration of account-set.

Format

display voice account-set [*account-set-name*]

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Parameters

Parameter	Description	Value
account-set-name	Displays the configuration of a specified account-set. If the name of an account-set is not specified, the configuration of all account-sets is displayed.	The value is a string of 1 to 32 characters without spaces.

Views

All views

Default Level

3: Management level

Usage Guidelines

The **display voice account-set** command displays the configuration of account-sets.

Example

Display the configuration of account-set.

```
[Huawei-voice]display voice account-set
  Spec:  10, Records: 1
  ------------------------
  Account-set              : 1
  Type                   : password
  Enterprise               : default
```

Table 16-41 Description of the **display voice account-set** command output

Item	Description
Account-set	Name of an account-set profile. To configure an account-set profile, run the **account-set** command.
Type	Type of account-set. There are account and password. By default, the type is password.
Enterprise	Enterprise name. To configure an enterprise name, run the **enterprise** command.

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16.5.1.17 display voice cac

Function

The **display voice cac** command queries the maximum number of online calls and current online calls for an IP address from which calls are limited.

Format

display voice cac destination-ip *ip-address*

Parameters

Parameter	Description	Value
ip-address	Specifies the peer IP address from which calls are limited.	The value is in dotted decimal notation.

Views

All views

Default Level

3: Management level

Usage Guidelines

Run this command to check whether call limiting has been configured for an IP address and check the number of online calls based the IP address.

Example

Query the maximum number of online calls and current online calls for the peer IP address of 192.168.0.1.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] display voice cac destination-ip 192.168.0.1
The maximum calls                : 2000
The current calls                : 2
```

Table 16-42 Description of the **display voice cac destination-ip** command output

Item	Description
Maximum calls	Specifies the maximum number of online calls on the trunk with the IP address from which calls are limited. Run the **16.5.1.4 cac**command to set this item.

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Item	Description
Current calls	Specifies the current number of online calls on the trunk with the IP address from which calls are limited.

16.5.1.18 display voice callprefix

Function

The **display voice callprefix** command displays the configuration of call prefixes.

Format

display voice callprefix [*callprefix-name*]

Parameters

Parameter	Description	Value
callprefix-name	Displays the configuration of a specified call prefix. If the name of a call prefix is specified, the configuration of all call prefixes is displayed.	The value is a string of 1 to 32 characters without spaces.

Views

All views

Default Level

3: Management level

Usage Guidelines

The **display voice callprefix** command displays the configuration of call prefixes.

During call prefix query, in the result, **#*****, ********, **#99***, and ***99*** are reserved prefixes, **#***** and ******** are used for the conference call service, and **#99*** and ***99*** are used for the MWI service**.**

Example

Display the configuration of call prefix.

```
<Huawei> display voice callprefix 01
 Callprefix       : 01
 Enterprise       : default
```

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```
 Dn-set           : DefaultDialPlan
 Prefix           : 01
 Call category    : Basic service
 Call attribute   : 1(Local)
 Pwd Call Limit   : enable
 Minimum length   : 2
 Maximum length   : 10
 Long cli switch  : disable
 Caller map switch : disable
 Called map switch : disable
 Call route name  : sipbb
<Huawei> display voice callprefix 10089
 Callprefix       : 10089
 Enterprise       : default
 Dn-set           : DefaultDialPlan
 Prefix           : 10089
 Call category    : Vu service
 Vu Service Name  : IVR1
 VU Loop Count    : 0
 VU outgoing right : inter
 Pwd Call Limit   : enable
 Minimum length   : 5
 Maximum length   : 32
 Long cli switch  : disable
 Caller map switch : disable
 Called map switch : disable
```

Table 16-43 Description of the display voice callprefix command output

Item	Description
Callprefix	Name of a call prefix profile. To configure a call prefix profile, run the **callprefix** command.
Enterprise	Enterprise name. To configure an enterprise name, run the **16.5.1.34 enterprise (call prefix view)** command.
Dn-set	DN set name. To configure a DN set, run the **16.5.1.34 enterprise (call prefix view)** command.
Prefix	Call prefix name. To configure a call prefix, run the **16.5.1.41 prefix (call prefix view)** command.
Call category	Category of the call. To configure a call category, run the **16.5.1.5 call-type** command.
Call attribute	Attribute of a call. To configure a call attribute, run the **16.5.1.5 call-type** command.

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Item	Description
VU Loop Count	Number of times the IVR voice file for the call prefix can be played. To configure a vu Loop Count, run the **vuloopcount** command.
VU outgoing right	Call out rights of the VU switchboard. To configure a vu outgoing right, run the **vuoutgoingright** command.
Minimum length	Minimum length of a number that can be parsed. To set the minimum length of a number that can be parsed, run the **digit-length** command.
Maximum length	Maximum length of a number that can be parsed. To set the maximum length of a number that can be parsed, run the **digit-length** command.
Long cli switch	Long number conversion switch. To configure a long cli switch, run the **special-deal** command.
Call route name	Call route name.
Caller map switch	Calling number mapping flag.
Called map switch	Called number mapping flag.
Pwd Call Limit	Password call barring flag.

16.5.1.19 display voice cause-mapping

Function

Using the **display voice cause-mapping** command, you can view the current mappings.

Format

display voice cause-mapping { **isdn-cause** | **sip-response** }

Parameters

None

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Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display the mappings of ISDN cause values.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] display voice cause-mapping isdn-cause
  ISDN cause : 1      SIP response : 404
```

16.5.1.20 display voice country-code

Function

The **display voice country-code** command displays the configuration of country/region codes.

Format

display voice country-code [*country-code-value*]

Parameters

Parameter	Description	Value
country-code-value	Displays the configuration of a specified country/region code. If this parameter is not specified, the configuration of all country/region codes is displayed.	The value is a string of 1 to 4 digits.

Views

All views

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Default Level

3: Management level

Usage Guidelines

The **display voice country-code** command displays the configuration of country/region codes.

Example

Display the configuration of country code 221.

```
<Huawei> display voice country-code 221
  Country code          : 221
  Country name          : Senegal
  International prefix  : 00
  National prefix       : 0
```

Table 16-44 Description of the **display voice country-code** command output

Item	Description
Country code	Country/Region code. To configure a country/region code, run the **country-code** command.
Country name	Country/Region name. To configure a country/region name, run the **country-code** command.
International prefix	Prefix of the international toll call. To configure the prefix of the international toll call, run the **country-code** command.
National prefix	Prefix of the national toll call. To configure the prefix of the national toll call, run the **country-code** command.

16.5.1.21 display voice disa

Function

The **display voice disa** command displays the configuration of disa.

Format

display voice disa [*disa-name*]

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Parameters

Parameter	Description	Value
disa-name	Displays the configuration of a specified disa. If the name of a disa is not specified, the configuration of all disas is displayed.	The value is a string of 1 to 32 characters without spaces.

Views

All views

Default Level

3: Management level

Usage Guidelines

The **display voice disa** command displays the configuration of disas.

Example

Display the configuration of disa.

```
[Huawei-voice-disa-d1]display voice disa d1
  Disa                  : d1
  Enterprise            : default
  Dn-set                : DefaultDialPlan
  Access telno          : 89286000
  Account set           : 1
  Dst Enterprise        : hw
  Dst dn-set            : DefaultDialPlan
```

Table 16-45 Description of the **display voice disa** command output

Item	Description
Disa	Name of a disa profile. To configure a disa profile, run the **16.5.1.15 disa** command.
Enterprise	Enterprise name. To configure an enterprise name, run the **16.5.1.35 enterprise (voice view)** command.

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Item	Description
Dn-set	DN set name. To configure a DN set, run the **dn-set** command.
Access telno	access telno.
Account set	account-set name. To configure a call attribute, run the **account-set** command.
Dst Enterprise	Destination enterprise name. To configure an enterprise name, run the **16.5.1.35 enterprise (voice view)** command.
Dst dn-set	Destination dn-set name. To configure a DN set, run the **dn-set** command.

16.5.1.22 display voice dss1 timer

Function

The **display voice dss1 timer** command queries default durations and current values of all DSS1 timers.

Format

display voice dss1 timer

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

Run this command to check the default duration and configured duration of a DSS1 timer.

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Example

Query the default durations and current values of all DSS1 timers.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] display voice dss1 timer
Dss1-Timer     Default-Value     Current_Value
  T301          180               300
  T302          10                15
  T303          4                 4
  T304          20                20
  T305          30                65535
  T306          30                30
  T307          180               0
  T308          4                 6
  T309          90                65535
  T310          30                30
  T312          6                 9000
  T313          4                 4
  T314          4                 4
  T316          120               8000
  T317          100               100
  T318          4                 4
  T319          4                 4
  T320          30                30
  T321          30                30
  T322          4                 65535
```

Table 16-46 Description of the **display voice dss1 timer** command output

Item	Description
Dss1-Timer	Specifies the name of a DSS1 timer
Default-Value	Specifies the default duration of a DSS1 timer.
Current_Value	Specifies the configured duration of a DSS1 timer. Run the **dss1 timer** command to set this item.

16.5.1.23 display voice enterprise

Function

The **display voice enterprise** command displays the configuration of enterprises.

Format

display voice enterprise [**service crbt**] [*enterprise-name*]

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Parameters

Parameter	Description	Value
enterprise-name	Displays the configuration of a specified enterprise. If this parameter is not specified, the configuration of all enterprises is displayed.	The value is a string of 1 to 32 characters without spaces.

Views

All views

Default Level

3: Management level

Usage Guidelines

The **display voice enterprise** command displays the configuration of enterprises.

Example

Display the configuration of the enterprise **user1**.

```
<Huawei> display voice enterprise user1
  Enterprise             : hw
  Max dn-set number      : 5
  Dn-set                 : hwdnset
  Dn-set description     :
  Dn-set                 : DefaultDialPlan
  Dn-set description     : DefaultDialPlan
```

Table 16-47 Description of the display voice enterprise command output

Item	Description
Enterprise	Enterprise name. To configure an enterprise name, run the **16.5.1.34 enterprise (call prefix view)** command.
Enterprise description	Enterprise description.
Max dn-set number	Max dn-set number.
Dn-set	Dn-set name. To configure a dn-set name, run the **16.5.1.34 enterprise (call prefix view)** command.

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Item	Description
Dn-set description	Dn-set description.

16.5.1.24 display voice media-bandwidth-control (PBX)

Function

The **display voice media-bandwidth-control** command displays CAC configurations and media bandwidth occupied by voice data on a PBX.

Format

display voice media-bandwidth-control [**sipserver** | **trunk-group** *groupname*]

Parameters

Parameter	Description	Value
sipserver	Displays CAC configurations and media bandwidth occupied by voice data on the SIP server and SBC proxy.	-
trunk-group *groupname*	Displays CAC configurations and media bandwidth occupied by voice data in a specified truck group.	The group name is a string of 1 to 32 characters without spaces.

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display CAC configurations and media bandwidth occupied by voice data on the SIP server and SBC proxy.

```
<Huawei> display voice media-bandwidth-control sipserver
 Upward bandwidth                    : enable
```

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```
The maximum upward bandwidth             : 500000 kbit/s
The used normal bandwidth                : 0 kbit/s

Media proxy upward bandwidth                       : enable
The maximum upward bandwidth of media proxy        : 500000 kbit/s
The used normal bandwidth of media proxy           : 0 kbit/s
```

Table 16-48 Description of the display voice media-bandwidth-control command output

Item	Description
Upward bandwidth	Whether CAC is enabled on the SIP server: • Enable • Disable To enable CAC on the SIP server, run the **16.5.6.57 media-bandwidth-control enable (trunk-group)** command.
The maximum upward bandwidth	Maximum media bandwidth on the SIP server. To set the maximum media bandwidth on the SIP server, run the **16.5.6.58 media-bandwidth-control max-bandwidth (trunk-group)** command.
The used normal bandwidth	Media bandwidth occupied by voice data on the SIP server.
Media proxy upward bandwidth	Whether CAC is enabled on the SBC proxy: • Enable • Disable To enable CAC on the SBC proxy, run the **16.5.5.2 media-bandwidth-control media-proxy enable** command.
The maximum upward bandwidth of media proxy	Maximum media bandwidth on the SBC proxy. To set the maximum media bandwidth on the SBC proxy, run the **16.5.5.3 media-bandwidth-control media-proxy max-bandwidth** command.
The used normal bandwidth of media proxy	Media bandwidth occupied by voice data on the SBC proxy.

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16.5.1.25 display voice pbx country-area-transform

Function

The **display voice pbx country-area-transform** command displays the country code, area code, and enable/disable status of PBX number normalization.

Format

display voice pbx country-area-transform

Parameters

None.

Views

All views

Default Level

3: Management level

Usage Guidelines

None.

Example

Display the country code, area code, and enable/disable status of PBX number normalization.

```
<Huawei> display voice pbx country-area-transform
    Default country code:                86
    Default area code:                   755
    Enable Country Area Transform Flag:      enable
```

Table 16-49 Description of the **display voice pbx country-area-transform** command output

Item	Description
Default country code	Default country code.
Default area code	Default area code.
Enable Country Area Transform Flag	Enable/Disable status of number normalization.

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16.5.1.26 display voice pbx parameter

Function

The **display voice pbx parameter** command displays PBX control points and service priorities.

Format

display voice pbx parameter

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display PBX control points and service priorities.

```
<Huawei> display voice pbx parameter
  Number parameter No.     Value

     0                     0
     1                     1
     2                     1
     3                     30
     4                     0
     5                     5000
     6                     1
     7                     3
     8                     1
     9                     1
     10                    30000
     11                    3000
     12                    1
     13                    5000
     14                    30
     15                    0
     16                    0
     17                    8
     18                    2
     19                    0
     20                    2
     21                    18
     22                    1
     23                    4
     24                    3
     25                    8
```

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26	1
27	8
28	3
29	0
30	1
31	250
32	2
33	1
34	1000
35	4000
36	28000
37	0
38	0
39	5
40	0
41	30000
42	25000
43	8000
44	15000
45	30000
46	60000
47	90000
48	120000
49	60000
50	1
51	3
52	2
53	0
54	4000
55	300000
56	0
57	0
58	1
59	1
60	1
61	4
62	50
63	1
64	0
65	40000
66	60000
67	5
68	1800
69	3
70	180
71	0
72	0
73	1
74	100
75	0
76	0
77	0
78	0
79	0
80	0
81	0
82	0
83	0
84	2400
85	0
86	2
87	15
88	2
89	32
90	7
91	10
92	10
93	15
94	0

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95	4294967295
96	16
97	10
98	60
99	2
100	500
101	0
102	0
103	0
104	1
105	1
106	16560000
107	0
108	0
109	5
110	0
111	0
112	1
113	10
114	0
115	0
116	0
117	4294967295
118	4294967295
119	4294967295
120	4294967295
121	4294967295
122	4294967295
123	4294967295
124	4294967295
125	4294967295
126	4294967295
127	4294967295
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130	4294967295
131	4294967295
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150	4294967295
151	4294967295
152	4294967295
153	4294967295
154	4294967295
155	4294967295
156	4294967295
157	4294967295
158	4294967295
159	4294967295
160	4294967295
161	4294967295
162	4294967295
163	4294967295

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```
    164             4294967295
    165             4294967295
    166             4294967295
    167             4294967295
    168             4294967295
    169             4294967295
    170             4294967295
    171             4294967295
    172             4294967295
    173             4294967295
    174             4294967295
    175             4294967295
    176             4294967295
    177             4294967295
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    191             4294967295
    192             4294967295
    193             4294967295
    194             4294967295
    195             4294967295
    196             4294967295
    197             4294967295
    198             4294967295
    199             4294967295
    200             0
    201             0
    202             1
    203             0
    204             0
    205             10
    206             0
    207             1
    208             1
    209             1
    210             1
    211             0
    212             2
    213             0
    214             1

String parameter No.    Value

    Default country code:                 86
    Default area code:                    755
    Enable Country Area Transform Flag:       enable
```

Table 16-50 Description of the display voice pbx-parameter command output

Item	Description
Number parameter No.	Number of a control point. For the meaning of each parameter number, see the Usage Guidelines of the **pbx number-parameter** command.

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Item	Description
Value	Value of a control point. For the default value of each parameter, see the Usage Guidelines of the **pbx number-parameter** command.
Default country code	Default country code.
Default area code	Default area code.
Enable Country Area Transform Flag	Number normalization flag.

16.5.1.27 display voice ring-mode

Function

The **display voice ring-mode** command displays PBX ring mapping parameters.

Format

display voice ring-mode [*index*]

Parameters

Parameter	Description	Value
index	Specifies the index of a ring mapping. If no ring mapping index is specified, all ring mapping parameters are displayed.	The value is an integer that ranges from 0 to 15.

Views

All views

Default Level

2: Configuration level

Usage Guidelines

If no PBX ring mapping parameter is set by using the **ring-mode** command, the **display voice ring-mode** command does not display any information.

Example

Display information about ring mapping 1.

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```
<Huawei> display voice ring-mode 1
  PBX ring type         : 1
  PSTN init ring type    : 17
  PSTN cadence ring type : 6
  SIPUE ring type name   : AlertInfo1
```

Table 16-51 Description of the display voice ring-mode command output

Item	Description
PBX ring type	Index of a ring. To set the index of a ring, run the **16.5.1.44 ring-mode** command.
PSTN init ring type	Type of the initial ringing. To set the type of the initial ringing, run the **16.5.1.44 ring-mode** command.
PSTN cadence ring type	Type of the cadence ringing. To set the type of the cadence ringing, run the **16.5.1.44 ring-mode** command.
SIPUE ring type name	Name of the differentiated ringing type of a SIP UE user. To set the name of the differentiated ringing type of a SIP UE user, run the **16.5.1.44 ring-mode** command.

16.5.1.28 display voice tone-set

Function

The **display voice tone-set** command displays the mapping between cause codes and tones.

Format

display voice tone-set

Parameters

None

Views

All views

Default Level

3: Management level

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Usage Guidelines

You can run this command to view the mapping between cause codes and tones after the mapping is configured.

Example

View the mapping between cause codes and tones.

```
<Huawei> display voice tone-set
 Type : dnerror
 Tone Id : 177
```

16.5.1.29 dn-set (disa view)

Function

Using the **dn-set** command, you can configure a dialed number (DN) set.

By default, the disa has a name for **defaultdialplan** DN set.

Format

dn-set *dn-set-name*

Parameters

Parameter	Description	Value
dn-set-name	Specifies the name of a DN set.	The value is a string of 1 to 32 characters without spaces.

Views

Disa view

Default Level

2: Configuration level

Usage Guidelines

A DN set is a collection of prefixes that all users on the PSTN can dial. The device supports a maximum of four DN sets except the default DN set.

Example

Create a DN set **dialplan1**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] disa d1
[Huawei-voice-disa-d1] dn-set dialplan1
```

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16.5.1.30 dn-set (enterprise view)

Function

Using the **dn-set** command, you can configure a dialed number (DN) set.

Using the **undo dn-set** command, you can delete a DN set.

By default, the enterprise have a name for **defaultdialplan** DN set.

Format

dn-set *dn-set-name* [**description** *description*]

undo dn-set *dn-set-name* [**description**]

Parameters

Parameter	Description	Value
dn-set-name	Specifies the name of a DN set.	The value is a string of 1 to 32 characters without spaces.
description	Specifies the description of a DN set.	The value is a string of 1 to 64 characters without spaces.

Views

Enterprise view

Default Level

2: Configuration level

Usage Guidelines

A DN set is a collection of prefixes that all users on the PSTN can dial. The device supports a maximum of four DN sets except the default DN set.

Example

Create a DN set **dialplan1**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] enterprise user1
[Huawei-voice-enterprise-user1] dn-set dialplan1
```

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16.5.1.31 dss1 timer

Function

The **dss1 timer** command sets the duration of a DSS1 timer.

The **undo dss1 timer** command restores the default settings of all DSS1 timers.

By default, each timer uses the default value.

Format

dss1 timer { **T301** | **T302** | **T303** | **T304** | **T305** | **T306** | **T307** | **T308** | **T310** | **T312** | **T313** | **T314** | **T316** | **T317** | **T318** | **T319** | **T320** | **T321** | **T322** } **timer-length** *timer-length-value*

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Parameters

Parameter	Description	Value
timer-length-value	Specifies the timer duration, in seconds.	• T301 timer: The value is an integer that ranges from 180 to 65535. The default value is 180. • T302 timer: The value is an integer that ranges from 5 to 65535. The default value is 10. • T303 timer: The value is an integer that ranges from 0 to 65535. The default value is 4. • T304 timer: The value is an integer that ranges from 0 to 65535. The default value is 20. • T305 timer: The value is an integer that ranges from 0 to 65535. The default value is 30. • T306 timer: The value is an integer that ranges from 0 to 65535. The default value is 30. • T307 timer: The value is an integer that ranges from 0 to 65535. The default value is 180. • T308 timer: The value is an integer that ranges from 0 to 65535. The default value is 4. • T309 timer: The value is an integer that ranges from 0 to 65535. The default value is 90. • T310 timer: The value is an integer that ranges from 0 to 40. The default value is 30. • T312 timer: The value is an integer that ranges from 0 to 65535. The default value is 6.

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Parameter	Description	Value
		• T313 timer: The value is an integer that ranges from 0 to 65535. The default value is 4. • T314 timer: The value is an integer that ranges from 0 to 65535. The default value is 4. • T316 timer: The value is an integer that ranges from 0 to 65535. The default value is 120. • T317 timer: The value is an integer that ranges from 0 to 65535. The default value is 100. • T318 timer: The value is an integer that ranges from 0 to 65535. The default value is 4. • T319 timer: The value is an integer that ranges from 0 to 65535. The default value is 4. • T320 timer: The value is an integer that ranges from 0 to 65535. The default value is 30. • T321 timer: The value is an integer that ranges from 0 to 65535. The default value is 30. • T322 timer: The value is an integer that ranges from 0 to 65535. The default value is 4.

Views

Voice view

Default Level

2: Configuration level

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Usage Guidelines

Usage Scenario

Run this command to independently configure durations of DSS1 timers on a BRA/PRA trunk and during calling of BRA users.

Precautions

This command takes effect globally. After the value of a time is set, the value is valid for all BRA/PRA trunks and the calling process of BRA users.

Example

Set the duration of the T301 timer to 200s.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] dss1 timer T301 timer-length 200
```

16.5.1.32 dst-enterprise (disa view)

Function

The **dst-enterprise** command configures the destination enterprise and the destination dn-set of disa.

Format

dst-enterprise *enterprise-name* [**dst-dnset** *dn-set-name*]

Parameters

Parameter	Description	Value
enterprise-name	Specifies the destination enterprise name.	The value is a string of 1 to 32 characters without spaces.
dst-dnset *dn-set-name*	Specifies the destination dn-set name.	The value is a string of 1 to 32 characters without spaces.

Views

Disa view

Default Level

2: Configuration level

Usage Guidelines

None

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Example

Configure a dst-enterprise named ab for disa d1.

```
<Huawei> system-view
 [Huawei] voice
 [Huawei-voice] disa d1
 [Huawei-voice-disa-d1]dst-enterprise ab
```

16.5.1.33 enterprise (account-set view)

Function

The **enterprise** command binds an enterprise to an account-set.

The **undo enterprise** command unbinds an enterprise from an account-set.

By default, no enterprise is bound to an account-set.

Format

enterprise *enterprise-name*

undo enterprise

Parameters

Parameter	Description	Value
enterprise-name	Specifies the name of an enterprise. An enterprise is created by using the **enterprise** command in the PBX view.	The value is a string of 1 to 32 characters without spaces.

Views

Account-set view

Default Level

2: Configuration level

Usage Guidelines

An account-set can be bound to only one enterprise, but an enterprise can be bound to multiple account-sets.

Example

Bind the account-set **1** to the enterprise **ab**.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] account-set 1
[Huawei-voice-account-set-1] enterprise ab
```

16.5.1.34 enterprise (call prefix view)

Function

The **enterprise** command binds an enterprise, and DN set to a call prefix.

The **undo enterprise** command unbinds an enterprise, and DN set from a call prefix.

By default, no enterprise, or DN set is bound to a call prefix.

Format

enterprise *enterprise-name* [**dn-set** *dn-set-name*]

undo enterprise

Parameters

Parameter	Description	Value
enterprise-name	Specifies the name of an enterprise. An enterprise is created by using the **enterprise** command in the PBX view.	The value is a string of 1 to 32 characters without spaces.
dn-set *dn-set-name*	Specifies the name of a DN set.	The value is a string of 1 to 32 characters without spaces.

Views

Call prefix view

Default Level

2: Configuration level

Usage Guidelines

A call prefix can be bound to only one enterprise, but an enterprise can be bound to multiple call prefixes.

Example

Bind the call prefix **prefix-user1** to the enterprise **user1**.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] callprefix prefix-user1
[Huawei-voice-callprefix-prefix-user1] enterprise user1
```

16.5.1.35 enterprise (voice view)

Function

The **enterprise** command creates an enterprise and enters the enterprise view.

The **undo enterprise** command deletes an enterprise.

By default, an enterprise named **default** exists on the device.

Format

enterprise *enterprise-name*

undo enterprise *enterprise-name*

Parameters

Parameter	Description	Value
enterprise-name	Specifies the name of an enterprise.	The value is a string of 1 to 32 characters without spaces.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

When the device is connected to multiple enterprises, you can create enterprises and configure these enterprises.

Example

Create an enterprise **user1**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] enterprise user1
```

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16.5.1.36 inter-only-call-source

Function

Using the **inter-only-call-source** command, you can configure inter only call source of a call prefix.

Using the **undo inter-only-call-source** command, you can cancel inter only call source of a call prefix.

By default, no inter only call source is configured.

Format

inter-only-call-source *callsource-name*

undo inter-only-call-source

Parameters

Parameter	Description	Value
callsource-name	The name of a call source.	The value is a string of 1 to 32 characters.

Views

Call prefix view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Create a inter only call source 30000.

```
<Huawei> system-view
 [Huawei] voice
 [Huawei-voice] callprefix 20000
 [Huawei-voice-callprefix-20000] inter-only-call-source 30000
```

16.5.1.37 password cipher (account-set view)

Function

The **password cipher** command configures the password of the account-set.

The **undo password** command deletes the password of the account-set.

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Format

password cipher *password-value*

undo password *password-value*

Parameters

Parameter	Description	Value
password-value	Specifies the password value.	The value is a string of 6 to 8 digits without spaces.

Views

account-set view

Default Level

2: Configuration level

Usage Guidelines

None

Example

configure the password 12345678 for account-set 1.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]account-set 1
[Huawei-voice-account-set-1]password cipher
Please input user password(6-8 chars):********
```

16.5.1.38 pbx default-country-code default-area-code

Function

The **pbx default-country-code default-area-code** command configures the system default country code and area code.

The **undo pbx default-country-code default-area-code** command restores the default settings.

By default, the country code is 86 and area code is 755.

Format

pbx { **default-country-code** *dcc-value* | **default-area-code** *dac-value* | **default-area-code** *dac-value* }

undo pbx { **default-country-code** | **default-area-code** }

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Parameters

Parameter	Description	Value
default-country-code *dcc-value*	Indicates the country code parameters.	The value is a numeral string of 1 to 4 digits.
default-area-code *dac-value*	Indicates the area code parameters.	The value is a numeral string of 1 to 8 digits.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the default region code to **25**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbx default-area-code 25
```

16.5.1.39 pbx enable-country-area-transform

Function

The **pbx enable-country-area-transform** command configures whether to enable number regulation.

By default, number regulation is disabled.

Format

pbx enable-country-area-transform *enable-country-area-transform-value*

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Parameters

Parameter	Description	Value
enable-country-area-transform-value	Indicates whether number regulation is enabled.	Enumerated type. The options are as follows: • enable • disable default:disable

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable number regulation.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbx enable-country-area-transform enable
```

16.5.1.40 pbx number-parameter

Function

The **pbx number-parameter** command sets control points for a PBX.

The **undo pbx number-parameter** command restores the default control point settings of a PBX.

Format

pbx number-parameter *name value*

undo pbx number-parameter *value*

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Parameters

Parameter	Description	Value
name	Specifies the name of a control point.	The value is an integer that ranges from 0 to 250.
value	Specifies the value of a control point.	The value is an integer that ranges from 0 to 4294967295. The value of *value* varies according to *name*. For details, see the usage guideline.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

The following table describes the meanings and values of control points.

Control Point Name	Description	Value
0	Configures whether to support SDP RTCP.	Enumerated value. The options are as follows: ● 0: SDP RTCP is not supported. ● 1: SDP RTCP is supported. The default value is 0.
1 to 3	Reserved.	-
4	Indicates whether the PBX processes CNG signals.	Enumerated value. The options are as follows: ● 0: The PBX does not process CNG signals. ● 1: The PBX processes CNG signals. The default value is 0.

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Control Point Name	Description	Value
5	Sets the delay in processing modem events.	The value is an integer that ranges from 0 to 50000, in milliseconds. The default value is 5000. The value 0 indicates that model events are processed immediately.
6	Reserved.	-
7	Configures whether to initiate re-negotiation when the H.323 was in early media condition.	Enumerated value. The options are as follows: ● 0: Re-negotiation is not initiated. ● 1: Re-negotiation is initiated. The default value is 0.
8	Configures whether to use the local or remote priority mode for SDP negotiation.	Enumerated value. The options are as follows: ● 0: The local priority mode is used for SDP negotiation. ● 1: The remote priority mode is used for SDP negotiation. The default value is 1.
9	Sets the SDP packetization time format.	Enumerated value. The options are as follows: ● 0: maxmptime ● 1: ptime The default value is 1.
10 to 14	Reserved.	-
15	Configures whether to use VBD when G.711 is used.	Enumerated value. The options are as follows: ● 0: VBD is not used when the codec is G.711. ● 1: VBD is used when the codec is G.711. The default value is 0.

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Control Point Name	Description	Value
16	Sets the service triggering mode.	Enumerated value. The options are as follows: ● 0: Loose coupling mode. ● 1: Semi-tight coupling in inband mode ● 2: Semi-tight coupling in outband mode ● 3: Full coupling mode The default value is 0.
17	Sets the codec mode when the codec priority is 0.	Enumerated value. The options are as follows: ● 0: G711U ● 2: G726-32 ● 4: G723 ● 8: G711A ● 9: G722 ● 15: G728 ● 18: G729 ● 20: G723Low ● 21: G726-16 ● 22: G726-24 ● 23: G726-40 ● 96: R2198 ● 97: R2833 ● 98: v150 ● 99: clear mode ● 250: T.38 ● 251: T.38+2 The default value is 8.

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Control Point Name	Description	Value
18	Sets the packetization time when the codec priority is 0.	Enumerated value. The options are as follows: ● 0: 5 ms ● 1: 10 ms ● 2: 20 ms ● 3: 30 ms ● 4: 40 ms ● 5: 50 ms ● 6: 60 ms The default value is 2.
19	Sets the codec mode when the codec priority is 1.	Enumerated value. The options are as follows: ● 0: G711U ● 2: G726 ● 4: G723 ● 8: G711A ● 9: G722 ● 15: G728 ● 18: G729 ● 20: G723Low ● 96: R2198 ● 97: R2833 ● 98: v150 ● 99: clear mode ● 250: T.38 ● 251: T.38+2 The default value is 0.
20	Sets the packetization time when the codec priority is 1.	Enumerated value. The options are as follows: ● 0: 5 ms ● 1: 10 ms ● 2: 20 ms ● 3: 30 ms ● 4: 40 ms ● 5: 50 ms ● 6: 60 ms The default value is 2.

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Control Point Name	Description	Value
21	Sets the codec mode when the codec priority is 2.	Enumerated value. The options are as follows: ● 0: G711U ● 2: G726 ● 4: G723 ● 8: G711A ● 9: G722 ● 15: G728 ● 18: G729 ● 20: G723Low ● 96: R2198 ● 97: R2833 ● 98: v150 ● 99: clear mode ● 250: T.38 ● 251: T.38+2 The default value is 18.
22	Sets the packetization time when the codec priority is 2.	Enumerated value. The options are as follows: ● 0: 5 ms ● 1: 10 ms ● 2: 20 ms ● 3: 30 ms ● 4: 40 ms ● 5: 50 ms ● 6: 60 ms The default value is 1.

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Control Point Name	Description	Value
23	Sets the codec mode when the codec priority is 3.	Enumerated value. The options are as follows: ● 0: G711U ● 2: G726 ● 4: G723 ● 8: G711A ● 9: G722 ● 15: G728 ● 18: G729 ● 20: G723Low ● 96: R2198 ● 97: R2833 ● 98: v150 ● 99: clear mode ● 250: T.38 ● 251: T.38+2 The default value is 4.
24	Sets the packetization time when the codec priority is 3.	Enumerated value. The options are as follows: ● 0: 5 ms ● 1: 10 ms ● 2: 20 ms ● 3: 30 ms ● 4: 40 ms ● 5: 50 ms ● 6: 60 ms The default value is 3.

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Control Point Name	Description	Value
25	Sets the codec mode when the codec priority is 4.	Enumerated value. The options are as follows: ● 0: G711U ● 2: G726 ● 4: G723 ● 8: G711A ● 9: G722 ● 15: G728 ● 18: G729 ● 20: G723Low ● 96: R2198 ● 97: R2833 ● 98: v150 ● 99: clear mode ● 250: T.38 ● 251: T.38+2 The default value is 8.
26	Sets the packetization time when the codec priority is 4.	Enumerated value. The options are as follows: ● 0: 5 ms ● 1: 10 ms ● 2: 20 ms ● 3: 30 ms ● 4: 40 ms ● 5: 50 ms ● 6: 60 ms The default value is 1.

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Control Point Name	Description	Value
27	Sets the codec mode when the codec priority is 5.	Enumerated value. The options are as follows: ● 0: G711U ● 2: G726 ● 4: G723 ● 8: G711A ● 9: G722 ● 15: G728 ● 18: G729 ● 20: G723Low ● 96: R2198 ● 97: R2833 ● 98: v150 ● 99: clear mode ● 250: T.38 ● 251: T.38+2 The default value is 8.
28	Sets the packetization time when the codec priority is 5.	Enumerated value. The options are as follows: ● 0: 5 ms ● 1: 10 ms ● 2: 20 ms ● 3: 30 ms ● 4: 40 ms ● 5: 50 ms ● 6: 60 ms The default value is 3.

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Control Point Name	Description	Value
29	Sets the codec mode when the codec priority is 6.	Enumerated value. The options are as follows: ● 0: G711U ● 2: G726 ● 4: G723 ● 8: G711A ● 9: G722 ● 15: G728 ● 18: G729 ● 20: G723Low ● 96: R2198 ● 97: R2833 ● 98: v150 ● 99: clear mode ● 250: T.38 ● 251: T.38+2 The default value is 0.
30	Sets the packetization time when the codec priority is 6.	Enumerated value. The options are as follows: ● 0: 5 ms ● 1: 10 ms ● 2: 20 ms ● 3: 30 ms ● 4: 40 ms ● 5: 50 ms ● 6: 60 ms The default value is 1.

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Control Point Name	Description	Value
31	Sets the codec mode when the codec priority is 7.	Enumerated value. The options are as follows: ● 0: G711U ● 2: G726 ● 4: G723 ● 8: G711A ● 9: G722 ● 15: G728 ● 18: G729 ● 20: G723Low ● 96: R2198 ● 97: R2833 ● 98: v150 ● 99: clear mode ● 250: T.38 ● 251: T.38+2 The default value is 250.
32	Sets the packetization time when the codec priority is 7.	Enumerated value. The options are as follows: ● 0: 5 ms ● 1: 10 ms ● 2: 20 ms ● 3: 30 ms ● 4: 40 ms ● 5: 50 ms ● 6: 60 ms The default value is 2.
33	Configures whether to support early media.	Enumerated value. The options are as follows: ● 0: Early media is not supported. ● 1: Early media is supported. The default value is 1.
34 to 36	Reserved.	-

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Control Point Name	Description	Value
37	Configures whether to use CLIP polarity reversal.	Enumerated value. The options are as follows: ● 0: CLIP polarity reversal is not required. ● 1: CLIP polarity reversal is required. The default value is 0.
38	Sets the sequence in which B channels will be selected.	Enumerated value. The options are as follows: ● 0: Preferred ● 1: Designated The default value is 0.
39	Sets the duration during which the AG0 port detects the calling number.	The value is an integer that ranges from 0 to 15, in seconds. The default value is 5.
40	Sets the interval between two digits on the AG0 port.	The value is an integer that ranges from 0 to 15, in seconds. The default value is 0.
41	Sets the period during which a user does not dial any number after picking up the phone.	The value is an integer that ranges from 10000 to 30000, in milliseconds. The default value is 10000.
42	Sets the interval between two digits for common calls.	The value is an integer that ranges from 5000 to 60000, in milliseconds. The default value is 20000.
43	Sets Trunk PRI out call Transfer Capability field filled with 3.1 kHz audio or SPEECH.	Enumerated value. The options are as follows: ● 0: 3.1 kHz audio ● 1: SPEECH The default value is 1.
44	Sets the duration of waiting for called response	The value is an integer that ranges from 1500 to 300000, in milliseconds. The default value is 1500.
45	Reserved.	-

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Control Point Name	Description	Value
46	Indicates the waiting time threshold, crossing which an intra-office or local call is regarded as no response.	The value is an integer that ranges from 10000 to 300000, in milliseconds. The default value is 60000.
47	Indicates the waiting time threshold, crossing which a national toll call is regarded as no response.	The value is an integer that ranges from 10000 to 300000, in milliseconds. The default value is 90000.
48	Indicates the waiting time threshold, crossing which an international toll call is regarded as no response.	The value is an integer that ranges from 10000 to 300000, in milliseconds. The default value is 120000.
49	Reserved.	-
50	Configures whether to display the default calling number of the trunk group.	Enumerated value. The options are as follows: ● 0: The default calling number is not displayed. ● 1: The default calling number is displayed. The default value is 1.
51 and 52	Reserved.	-
53	Sets the CDR format.	Enumerated value. The options are as follows: ● 0: CDR ● 1: SOFTX ● 2: MINI ● 3: UCBILL The default value is 0.
54 to 61	Reserved.	-
62	Whether use 91 as clearmode payload.	Enumerated value. The options are as follows: ● 0: No ● 1: Yes The default value is 0.
63	Reserved.	-

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Control Point Name	Description	Value
64	Specifies whether to check the remote IP address when the H.323 receives an incoming call.	Enumerated value. The options are as follows: ● 0: No ● 1: Yes The default value is 1.
65	Specifies the duration of the busy tone.	The value is an integer that ranges from 1000 to 300000, in milliseconds. The default value is 40000.
66-67	Reserved.	-
68	Sets the lifecycle of the CCBS/CCNR service.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 1800. 0: The CCBS/CCNR service is always effective.
69	Sets the number of CCBS/CCNR service attempts.	The value is an integer that ranges from 0 to 20. The default value is 3. 0: The CCBS/CCNR service is always effective.
70	Sets the interval for CCBS/CCNR service attempts.	The value is an integer that ranges from 1 to 1800, in seconds. The default value is 180.
71	Whether to delete the pound sign (#) when users call external users.	Enumerated value. The options are as follows: ● 0: No ● 1: Yes The default value is 0.
72	Configures whether the AT0 trunk that does not provide calling number detection releases calls.	Enumerated value. The options are as follows: ● 0: The AT0 trunk that does not provide calling number detection does not release calls. ● 1: The AT0 trunk that does not provide calling number detection releases calls. The default value is 1.

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Control Point Name	Description	Value
73	Sets the stream mode for playing the announcement.	Enumerated value. The options are as follows: ● 0: Sendonly ● 1: SendRecv The default value is 0.
74	Sets the delay in collecting digits.	The value is an integer that ranges from 0 to 1000, in 10 ms. The default value is 100.
75	Configures whether to allow user register at local device.	Enumerated value. The options are as follows: ● 0: No ● 1: Yes The default value is 0.
76	Set the dsp ignore event.	The value is an integer that ranges from 0 to 62. The default value is 0.
77-83	Reserved.	-
84	Sets the FTP server size in the CDR.	The value is an integer that ranges from 1 to 30000. The default value is 2400.
85	Configures whether to store CDRs locally.	Enumerated value. The options are as follows: ● 0: CDRs cannot be stored locally. ● 1: CDRs can be stored locally. The default value is 0.
86	Sets the number of stored CDRs.	The value is an integer that ranges from 1 to 1024. The default value is 2.
87	Sets the interval at which CDRs are saved.	The value is an integer that ranges from 1 to 1440, in minutes. The default value is 15.

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Control Point Name	Description	Value
88	Sets the processing policy after the hard disk or memory is full.	Enumerated value. The options are as follows: ● 0: Calls are rejected. ● 1: CDRs are not generated. ● 2: Old CDRs are overwritten. The default value is 2.
89 to 93	Reserved.	-
94	Sets the MWI mode of the ISDN port.	Enumerated value. The options are as follows: ● 0: DEFERRED ● 1: IMMEDIATE ● 2: COMBINE The default value is 0.
95 to 97	Reserved.	-
98	Sets the value of the protection timer.	The value is an integer that ranges from 1 to 0xFFFF, in seconds. The default value is 60.
99	Reserved.	-
100	Sets the duration for the MWI completes FSK transmission.	The value is an integer that ranges from 10 to 0xFFFF, in milliseconds. The default value is 500.
101	Sets the MWI format.	Enumerated value. The options are as follows: ● 0: The MWI is on or off. ● 1: Defined by the ETSI standards. The default value is 0.
102	Configures whether the trunk group sends the number of the minimum length.	Enumerated value. The options are as follows: ● 0: The trunk group does not send the number of the minimum length. ● 1: The trunk group sends the number of the minimum length. The default value is 0.

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Control Point Name	Description	Value
103	Configures whether to enable media proxy when the media proxy policy is auto and IP addresses of both communicating parties are the same.	Enumerated value. The options are as follows: ● 0: Media proxy is not enabled. ● 1: Media proxy is enabled. The default value is 0.
104	Configures whether to enable media proxy when SIP trunks are connected.	Enumerated value. The options are as follows: ● 0: Media proxy is enabled when SIP trunks are connected. ● 1: Media proxy is not enabled when SIP trunks are connected. The default value is 1.
105	Configures media proxy address selection after IP-side media proxy is enabled.	Enumerated value. The options are as follows: ● 0: The configured media IP address is used. ● 1: The IP address between the media IP address and media mapping IP address is used, which is on the same network segment as the remote end. The default value is 1.
106 and 107	Reserved.	-
108	Configures whether to use the calling number for the call forwarding service.	Enumerated value. The options are as follows: ● 0: The calling number for the call forwarding service is not used. ● 1: The calling number for the call forwarding service is used. The default value is 0.
109 and 110	Reserved.	-

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Control Point Name	Description	Value
111	Configures whether to initiate re-negotiation when the invite200 message sent by the peer end contains multiple codec values.	Enumerated value. The options are as follows: ● 0: Re-negotiation is not initiated. ● 1: Re-negotiation is initiated. The default value is 0.
112 and 113	Reserved.	-
114	Sets the attributes of the calling or called number over the BRA or PRA trunk.	Enumerated value. The options are as follows: ● 0: The call number attribute remains unchanged. ● 1: The international call number attributes are unknown. ● 2: The national call number attributes are unknown. ● 3: The international and national call number attributes are unknown. ● 4: The local call number attributes are unknown. ● 5: The local and international call number attributes are unknown. ● 6: The local and national call number attributes are unknown. ● 7: The local, national, and international call number attributes are unknown. The default value is 0.
115 to 119	Reserved.	-
120	Indicates the duration of the T301 timer on the DSS1 side.	The value is an integer that ranges from 180 to 65535, in seconds. The default value is 180.
121	Indicates the duration of the T302 timer on the DSS1 side.	The value is an integer that ranges from 5 to 65535, in seconds. The default value is 10.

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Control Point Name	Description	Value
122	Indicates the duration of the T303 timer on the DSS1 side.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 4.
123	Indicates the duration of the T304 timer on the DSS1 side.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 20.
124	Indicates the duration of the T305 timer on the DSS1 side.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 30.
125	Indicates the duration of the T306 timer on the DSS1 side.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 30.
126	Indicates the duration of the T307 timer on the DSS1 side.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 180.
127	Indicates the duration of the T308 timer on the DSS1 side.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 4.
128	Indicates the duration of the T309 timer on the DSS1 side.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 90.
129	Indicates the duration of the T310 timer on the DSS1 side.	The value is an integer that ranges from 0 to 40, in seconds. The default value is 30.
130	Indicates the duration of the T312 timer on the DSS1 side.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 6.
131	Indicates the duration of the T314 timer on the DSS1 side.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 4.

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Control Point Name	Description	Value
132	Indicates the duration of the T316 timer on the DSS1 side.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 120.
133	Indicates the duration of the T317 timer on the DSS1 side.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 100.
134	Indicates the duration of the T320 timer on the DSS1 side.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 30.
135	Indicates the duration of the T321 timer on the DSS1 side.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 30.
136	Indicates the duration of the T322 timer on the DSS1 side.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 4.
137	Specifies whether to respond to the session update without reporting the service.	Enumerated value. The options are as follows: ● 0: Yes ● 1: No The default value is 0.
138	Set the IP trunk wait dial number timer length.	The value is an integer that ranges from 1 to 15, in seconds. The default value is 5.
139	Indicates whether the AR sends subsequent requests to the new address when the peer address or port number is changed in the contact field of the response that the AR receives.	Enumerated value. The options are as follows: ● 0: Yes ● 1: No The default value is 0.

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Control Point Name	Description	Value
140	Specifies whether to delete the reason header field when calls of FXS or unknown local users are made over the SIP trunk and released.	Enumerated value. The options are as follows: ● 0: No ● 1: Yes The default value is 0.
141	Indicates the timer duration, exceeding which an outgoing local call routed through the SIP trunk is regarded as no response.	The value is an integer that ranges from 10000 to 600000, in milliseconds. The default value is 60000.
142	Indicates the timer duration, exceeding which an outgoing national toll call routed through the SIP trunk is regarded as no response.	The value is an integer that ranges from 10000 to 600000, in milliseconds. The default value is 90000.
143	Indicates the timer duration, exceeding which an outgoing international toll call routed through the SIP trunk is regarded as no response.	The value is an integer that ranges from 10000 to 600000, in milliseconds. The default value is 120000.
144	Set the ISDN trunk wait dial number timer length.	The value is an integer that ranges from 1 to 15, in seconds. The default value is 10.
145	Reserved.	-
146	Whether to play a congestion tone by DISCONNECT message in the net-to-user direction.	Enumerated value. The options are as follows: ● 0: No ● 1: Yes The default value is 0.
147	Configures whether print the log on the screen.	Enumerated value. The options are as follows: ● 0: Yes ● 1: No The default value is 0.
148	Specifies whether to change the Min-SE value to a valid one if it is 0.	Enumerated value. The options are as follows: ● 0: No ● 1: Yes (Change the value to 90) The default value is 0.

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Control Point Name	Description	Value
149	Specifies the aging time of the SIP Flood and DDoS attack prevention whitelist.	The value is an integer that ranges from 30 to 1800, in seconds. The default value is 90.
150	Specifies whether to send progress to dss1 after alerting	Enumerated value. The options are as follows: ● 0: Not send ● 1: Send The default value is 1.
151	Specifies whether to enable limiting after registration fails.	Enumerated value. The options are as follows: ● 0: No ● 1: Yes The default value is 0. **NOTE** This control point determines whether to start limiting on registration packets only. This control point needs to be used with control point 152 to determine whether to enable limiting on registration packets. The status of this control point does not affect generated entries in the flow limiting table.
152	Specifies the failure count before limiting is enabled.	The value is an integer that ranges from 1 to 10. The default value is 3.
153	Specifies the aging time of entries in the flow limiting table.	The value is an integer that ranges from 60 to 1800, in seconds. The default value is 300. **NOTE** If the aging time is too short, you can run the **debugging voice nm cmd 800** and **debugging voice nm cmd 801 p1 0** command on the nm module to perform software commissioning and delete corresponding entries in the flow limiting table.

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Control Point Name	Description	Value
154	Specifies whether to delete the audio line when the media and audio or t38 and audio exist in one media line.	Enumerated value. The options are as follows: ● 0: No ● 1: Yes The default value is 0.
155	Specifies whether the AR plays the ringback tone for the downlink device.	Enumerated value. The options are as follows: ● 0: No ● 1: Yes The default value is 0.
156	Indicates whether a call is released when no sequential ringing group member answers the call.	Enumerated value. The options are as follows: ● 0: Calls are not released. ● 1: Calls are released. The default value is 0.
157	Indicates whether the SDP-answer that is sent after a media negotiation is performed contains all common codecs shared by the system and SDP-offer.	Enumerated value. The options are as follows: ● 0: No ● 1: Yes The default value is 0.
158	Specifies whether a device immediately sends a Cancel message to release the session with a remote device when it does not receive an Invite response from the remote device after sending an Invite message to the remote external device using a SIP AT0 trunk.	Enumerated value. The options are as follows: ● 0: No ● 1: Yes The default value is 0.
159	Specifies a call waiting service mode.	The value is an integer. The options are as follows: ● 0: IVR prompt mode. ● 1: Simplified mode. A user can press the hookflash directly without hearing a prompt tone and switch the call. The default value is 0.

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Control Point Name	Description	Value
160	Specifies whether to convert the Progress messages of a BRA trunk to the Alerting messages.	The value is an integer. The options are as follows: ● 0: No ● 1: Yes The default value is 0.
161	Specifies whether the IMS core can use UA profiles in SIP to set the service attributes of a PBX user through an SIP AT0 trunk.	Enumerated value. The options are as follows: ● 0: No ● 1: Yes The default value is 0.
162	Indicates whether authentication information is carried in the registration refresh messages sent by AR routers in SIP AT0 and SIP PRA connection scenarios.	Enumerated value. The options are as follows: ● 0: No ● 1: Yes The default value is 0.
163	Indicates whether to forcibly add SDP to 180 Ringing messages that are mapped to the SIP side after an AR receives Alerting messages sent from the PRA side in the scenario where SIP trunk incoming calls are transferred to a PRA trunk.	The value is an integer. The options are as follows: ● 0: No ● 1: Yes The default value is 0.
164	Indicates whether an AR proactively releases a call upon the receiving of an ACK message carrying media information after media negotiation is completed using an INVITE message and a 200 OK message on a SIP trunk.	The value is an integer. The options are as follows: ● 0: Yes ● 1: No The default value is 0.
165	IVR two dial connected to the U1981 on the IP phone, U1981 to the same group after the answer whether the end sent Re-invite message.	The value is an integer. The options are as follows: ● 0: Yes ● 1: No The default value is 0.
166 to 199	Reserved.	-

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Control Point Name	Description	Value
200	Switch for generating failure-specific CDRs.	Enumerated value. The options are as follows: ● 0: No CDRs are generated for any failures. ● 1: CDRs for all failures are generated. ● 2: CDR for trunk failures are generated. The default value is 0.
201	Switch for changing a called number in the CDR.	Enumerated value. The options are as follows: ● 0: Before change ● 1: After change The default value is 0.
202	Indicates whether the narrowband trunk plays tones on the narrowband trunk.	Enumerated value: ● 0: No ● 1: Yes The default value is 0.
203	Switch for direct-dialing through Virtual User (VU) numbers.	Enumerated value. The options are as follows: ● 0: Disable ● 1: Enable The default value is 0.
204	Switch for displaying the original caller number.	Enumerated value. The options are as follows: ● 0: Not display the original caller number ● 1: Display the original caller number The default value is 0.
205	Specifies an interval for processing a new registration request upon a SIPUE authentication failure.	The value is an integer that ranges from 0 to 300, in seconds. The default value is 10.

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Control Point Name	Description	Value
206	Switch for generating local-survival bill when deactivate.	Enumerated value. The options are as follows: ● 0: Not generate. ● 1: Generate. The default value is 0.
207	Switch for generating system bill.	Enumerated value. The options are as follows: ● 0: Not generate. ● 1: Generate. The default value is 1.
208	Switch for checking voice password.	Enumerated value. The options are as follows: ● 0: Not check ● 1: Check The default value is 1. **NOTE** To secure devices, the password complexity verification function must be enabled.
209	Specifies whether to send the number when ISDN trunk group reaches the minimum number length.	Enumerated value. The options are as follows: ● 0: Not send ● 1: Send The default value is 1.
210	Switch for enabling preempted registration.	Enumerated value. The options are as follows: ● 0: Allowed ● 1: Allowed when not busy ● 2: All forbidden The default value is 1.
211	Whether to transparently transfer the number sign (#) in the called number for a trunk-based outgoing call.	Enumerated value. The options are as follows: ● 0: The number sign (#) is not transparently transferred. ● 1: The number sign (#) is transparently transferred. The default value is 0.

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Control Point Name	Description	Value
212	Path refresh timer length.	The value is an integer that ranges from 0 to 5, in seconds. The default value is 2.
213	Change sdp port when re-invite negotiation.	Enumerated value. The options are as follows: ● 0: Yes ● 1: No The default value is 0.
214	Whether restrict outgoing right by caller.	Enumerated value. The options are as follows: ● 0: No ● 1: Yes The default value is 1.
215	Caller release call duration of not offhook under called control mode.	The value is an integer that ranges from 60 to 65535, in seconds. The default value is 180.
216	Caller detects dtmf send high frequency tone duration of offhook under called control mode.	The value is an integer that ranges from 10 to 65535, in seconds. The default value is 30.
217	Send high frequency tone length under called control mode.	The value is an integer that ranges from 1 to 65535, in seconds. The default value is 2.
218	Whether to set single Pre-dial number that can trigger outgoing dial-tone.	The value is an integer that ranges from 0 to 0xFFFF. The default value is 0xFFFF (not provided).
219	Whether UAC responds to 200OK when the refresh is initiated by UAC and UAS sends the update message.	Enumerated value. The options are as follows: ● 0: No ● 1: Yes The default value is 0.

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Control Point Name	Description	Value
220	Specifies whether to add cdsc in sdp when support t38 fax.	Enumerated value. The options are as follows: ● 0: No ● 1: Yes The default value is 0.
221	Specifies whether pra trunk play ringback tone to peer.	Enumerated value. The options are as follows: ● 0: No ● 1: Yes The default value is 0.
222	Specifies whether to check country and area code when a trunk calls out.	Enumerated value. The options are as follows: ● 0: No ● 1: Yes The default value is 1.
223	Specifies whether to play the voice tone when abnormal call.	Enumerated value. The options are as follows: ● 0: Yes ● 1: No The default value is 0.
224	Specifies whether through payload of voice when call from IP to IP	Enumerated value. The options are as follows: ● 0: No ● 1: Yes The default value is 1.
225	Specifies whether to send 403 or 486 message when no circuit/channel available.	Enumerated value. The options are as follows: ● 0: 403 ● 1: 486 The default value is 0.
226	Specifies whether to enable DDoS attack prevention.	Enumerated value. The options are as follows: ● 0: No ● 1: Yes The default value is 0.

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Control Point Name	Description	Value
227	Indicates the threshold of DDoS attack prevention.	The value is an integer that ranges from 0 to 1000, in packets per second. The default value is 20.
228	Specifies whether to refresh timer when recv alerting again.	Enumerated value. The options are as follows: ● 0: Not refresh ● 1: Refresh The default value is 1.
229	Determines whether the called party payment service is supported.	Enumerated type. The options are as follows: ● 0: The called party payment service is not supported. ● 1: The called party payment service is supported. The default value is 1.
230	Determines whether the callingnumber field is hidden in the Setup message of Dss1.	Enumerated type. The options are as follows: ● 0: The callingnumber field is not hidden in the Setup message of Dss1. ● 1: The callingnumber field is hidden in the Setup message of Dss1. The default value is 0.
231	Determines whether the R2 trunk sends the A4 message if the interim dialing timer times out on the called party side.	Enumerated type. The options are as follows: ● 0: The R2 trunk does not send the A4 message if the interim dialing timer times out on the called party side. ● 1: The R2 trunk sends the A4 message if the interim dialing timer times out on the called party side. The default value is 0.

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Control Point Name	Description	Value
232	Determines whether the DSS1 trunk listens to the ringback tones of the remote device.	Enumerated type. The options are as follows: ● 0: The DSS1 trunk does not listen to the ringback tones of the remote device. ● 1: The DSS1 trunk listens to the ringback tones of the remote device. The default value is 0.
233	Determines whether the eri-location field is in the cause field of the SIP message.	Enumerated type. The values range from 0 to 1. ● 0: The eri-location field is not in the cause field of the SIP message. ● 1: The eri-location field is in the cause field of the SIP message. The default value is 1.
234	Determines the negotiation mode of the fax in a multi-M-line scenario.	Enumerated type. The options are as follows: ● 0: T38 is used. ● 1: The transparent transmission is used. ● 2: The order is used. The default value is 2.
235	Specifies whether to convert the G.729 to G.729B when an H323 trunk is used.	Enumerated type. The options are as follows: ● 0: No ● 1: Yes The default value is 0.
236	Indicates whether the AR or the IMS registered with the AR controls the three-party call service.	Enumerated type. The options are as follows: ● 0: AR ● 1: IMS The default value is 0.

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Control Point Name	Description	Value
237	Indicates whether the AR or the IMS registered with the AR controls the call forwarding service.	Enumerated type. The options are as follows: ● 0: AR ● 1: IMS The default value is 0.
238	Indicates whether the AR plays call hold tones to the remote end when a user presses the hookflash.	Enumerated type. The options are as follows: ● 0: No ● 1: Yes The default value is 1.
239	Indicates the SIP message caching timeout.	The value is an integer that ranges from 0 to 2000, in milliseconds. The default value is 1000.
240	Reserved.	-
241	Reserved.	-
242	Specifies whether to enable the simplified three-party call service and call wait flow.	The value can be 0 or 1. ● 0: Disable ● 1: Enable The default value is 0. **NOTE** By default, the AR129CV, AR129CGVW-L or AR129CVW allows a maximum of one intra-office POTS user to participate in a three-party call. After the control point 242 is enabled, multiple intra-office POTS users can participate in a three-party call.
243	Specifies whether to enable an FXO interface to work in auto-answer mode.	Enumerated value. The options are as follows: ● 0: Disable ● 1: Enable The default value is 1.

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Control Point Name	Description	Value
244	Specifies a no answering timer for an FXO interface when the FXO interface works in non-auto answering mode.	The value is an integer that ranges from 5 to 10, in seconds. The default value is 5. **NOTE** This configuration takes effect only after **pbx number-parameter 243 0** is configured.
245 **NOTE** Only the V200R010C10 and later version supports this control point.	Reserved. Configures whether to associate the status of FXS port users with the status of the bound SIP AT0 trunk.	- The default value is 0. The value is an integer. The options are as follows: ● 0: No ● 1: Yes
246	Specifies whether to enable polarity reversal on an FXS interface.	Enumerated value. The options are as follows: ● 0: Disable ● 1: Enable reversal on seizure (ROS) ● 2: Enable reversal on answer (ROA) **NOTE** ROS and ROA cannot be enabled simultaneously. The default value is 0.
247	Indicates whether the R2 trunk supports accounting pulse in the Argentina and Brazil templates.	Enumerated value. The options are as follows: ● 0: No ● 1: Yes The default value is 0.

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Control Point Name	Description	Value
248	Specifies whether to enable automatic IVR two-stage dialing.	Enumerated value. The options are as follows: ● 0: Disable ● 1: Enable The default value is 0. **NOTE** ● Automatic IVR two-stage dialing requires short codes with 0 as the dialing index. If automatic IVR two-stage dialing is enabled, the system automatically forwards a call to a number with 0 as the dialing index after playing greetings. ● When automatic IVR two-stage dialing is enabled, do not dial a number while the system is playing greetings. Otherwise, the dialing takes no effect. ● Automatic IVR two-stage dialing does not support the time section index.
249	Indicates whether to replace the display header left empty in the H323 Q.931 message on the local device with the display header in the Q.931 message sent for H323 incoming calls.	The value is an integer. The options are as follows: ● 0: No ● 1: Yes The default value is 1.
250	Indicates whether to directly send an LRQ message to the called Gatekeeper after the calling Gatekeeper receives an ARQ request from the calling Gateway in the scenario where the calling Gatekeeper queries the called gateway address across regions.	The value is an integer. The options are as follows: ● 0: No ● 1: Yes The default value is 0.

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Control Point Name	Description	Value
252 **NOTE** Only the V200R010C10 and later version supports this control point.	Configures whether to associate the status of the SIP AT0 trunk bound to FXS port users with the status of the LED indicator corresponding to the FXS port.	The value is an integer. The options are as follows: ● 0: No ● 1: Yes The default value is 0.
251 **NOTE** Only the V200R010C10 and later version supports this control point.	Indicates whether to use Australian standards to implement semi-consult transfer by pressing the hookflash and then 4.	The value is an integer. The options are as follows: ● 0: No ● 1: Yes The default value is 0.

Example

Enable the PBX to save CDRs.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbx number-parameter 85 1
```

16.5.1.41 prefix (call prefix view)

Function

Using the **prefix** command, you can configure a call prefix.

By default, no call prefix is configured.

Format

prefix *prefix*

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Parameters

Parameter	Description	Value
prefix	Specifies the name of a call prefix.	The value is a string of 1 to 24 characters, including digits 0 to 9, asterisk (*), and number sign (#).

Views

Call prefix view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set a call prefix 20000 in the view of call prefix **prefix1**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] callprefix prefix1
[Huawei-voice-prefix1] prefix 20000
```

16.5.1.42 pwdcalllimit

Function

The **pwdcalllimit** command enables or disables password call for a prefix.

By default, password call is enabled for a prefix.

Format

pwdcalllimit pwdcalllimit-*value*

Parameters

Parameter	Description	Value
pwdcalllimit-*value*	Indicates whether to enable password call.	Enumerated value. The options are as follows: • disable • enable

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Views

Call prefix view

Default Level

2: Configuration level

Usage Guidelines

The **pwdcalllimit**-*value* command specifies whether the password is required when a user who has the password call service enabled dials a prefix.

Example

Disable password call for prefix-user1.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] callprefix prefix-user1
[Huawei-voice-callprefix-prefix-user1] pwdcalllimit disable
```

16.5.1.43 re-route (call prefix view)

Function

Using the **re-route** command, you can configure the function of rerouting upon a call failure.

Using the **undo re-route** command, you can cancel the function of rerouting upon a call failure.

Format

re-route *re-route-value*

undo re-route

Parameters

Parameter	Description	Value
re-route-value	Indicates whether to enable rerouting upon a call failure.	Enumerated value. The options are as follows: • disable: disables rerouting upon a call failure. • enable: enables rerouting upon a call failure. The default value is disable.

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Views

Call prefix view

Default Level

2: Configuration level

Usage Guidelines

1. By default, rerouting upon failures of calls routed through the AT0 trunk is not supported. To support such type of rerouting, you need to change the value of global control point 40 to a non-0 value, for example, 2s or another appropriate value.

2. The number of line selection attempts upon a call failure is 6 (excluding the normal line selection).

3. Rerouting upon a call failure in the prefix view conflicts with that in the voice view. If rerouting upon a call failure in the prefix view is configured, rerouting upon a call failure in the voice view, if any, does not take effect.

4. With regard to rerouting upon a call failure in the prefix view, when a call fails, the trunk group will be reselected to make the call. Therefore, the intelligent routing function is affected to some extent.

5. A call is considered as a failed one when there is no non-release message from the peer after the setup message is sent or after the setup-ack is received. However, if the peer end plays announcements, the local device will consider the call as a successful one and rerouting will not be triggered. Therefore, to trigger rerouting, the peer end cannot play announcements.

Example

Configure rerouting upon a call failure in the prefix1 view.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] callprefix prefix1
[Huawei-voice-prefix1] re-route enable
```

16.5.1.44 ring-mode

Function

Using the **ring-mode** command, you can set the ring type for a PBX user.

Using the **undo ring-mode** command, you can restore the default ring type of a PBX user.

By default, the initial ring type is 4, the cadence ring type is 0, and the distinctive ring type of a SIP UE user is empty.

Format

ring-mode *index* [**init-ring** *init-ring-value* | **cadence-ring** *cadence-ring-value* | **sipue-ring-name** *sipue-ring-name-value*] *

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undo ring-mode *index*

Parameters

Parameter	Description	Value
index	Specifies the index of a ring.	The value is an integer that ranges from 0 to 15.
init-ring *init-ring-value*	Specifies the initial ring type.	The value is an integer, which can be 4, 17, 18, 22, 24-26, 29-31, 144-159, or 255. The default value is 4. The options are as follows: • 4: normal ringing (FSK) 1:4 • 17: special ringing (FSK) 1:2 • 18: special ringing (FSK) 0.4:0.2:0.4:4 • 22: special ringing (FSK) 1.2:2 • 24: HK Ring (FSK) 1:3 • 25: HK CNTRX (FSK) 0.4:0.2:0.4:0.2:0.4:3.0 • 26: HK DN-A (FSK) 0.4:0.2:0.4:3.0 • 29: HK DN-B (FSK) 1.2:3 • 30: CNTRX_IN (FSK) 0.4:0.2:0.4:0.2:0.4:2.6 • 31: Egypt toll ringing (FSK) 2:1 • 144-159: user-defined ringing mode (FSK) 0-15 • 255: NULL, indicating the default ringing mode

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Parameter	Description	Value
cadence-ring *cadence-ring-value*	Specifies the cadence ring type.	The value is an integer, which can be 0-3, 6, 8-15, 128-143, or 255. The default value is 0. The options are as follows: • 0: normal ringing 1:4 • 1: special ringing 1:2 • 2: special ringing 0.4:0.2:0.4:4 • 3: long ringing • 6: special ringing 1.2:2 • 8: HK Ring 1:3 • 9: HK CNTRX 0.4:0.2:0.4:0.2:0.4:3.0 • 10: HK DN-A 0.4:0.2:0.4:3.0 • 11: HK ACB 0.4:0.2 • 12: HK reminder ringing (one tone every 0.4 second; only one tone is generated.) • 13: HK DN-B 1.2:3 • 14: CNTRX_IN 0.4:0.2:0.4:0.2:0.4:2.6 • 15: Egypt toll ringing 2:1 • 128-143: user-defined ringing mode 0-15 • 255: NULL, indicating the default ringing mode
sipue-ring-name s*ipue-ring-name-value*	Specifies the name of the differentiated ringing type of a SIP UE user. To add the Alert-info header field in an INVITE message, use this parameter. The default parameter is empty.	The value is a string of 1 to 32 characters.

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Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the initial ring type to 17, the cadence ring type to 6, and the SIP UE name to AlertInfo1 for the ringing type with the index of 1.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] ring-mode 1 init-ring 17 cadence-ring 6 sipue-ring-name AlertInfo1
```

16.5.1.45 ssl-client-policy (SIP server view)

Function

The **ssl-client-policy** command configures an SSL policy of client type when the SIP server uses TLS.

The **undo ssl-client-policy** command cancels an SSL policy of client type when the SIP server uses TLS.

By default, no SSL policy of client type is configured when the SIP server uses TLS.

Format

ssl-client-policy *server-policy-name*

undo ssl-client-policy

Parameters

Parameter	Description	Value
server-policy-name	Specifies the name of the bound SSL policy of client type when the SIP server uses TLS.	The value is a string of 1 to 31 case-insensitive characters without question marks (?) or spaces.

Views

SIP server view

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Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

When the AR functions as the SIP server and the security of voice signal transmission needs to be enhanced, you can run this command to configure an SSL policy of client type on the AR and configure an SSL policy of server type on the remote device. Data encryption, identity authentication, and integrity authentication mechanisms of SSL ensure data transmission security.

Prerequisites

The **ssl policy** command has been executed to create an SSL policy and specify the type of the SSL policy as client.

The **cs-mode** command has been executed in the SIP server view to configure the transmission mode of reliable connections of a SIP trunk group as client or client_server.

The **transfer** command has been executed in the SIP server view to configure the transmission mode of a trunk group as TLS.

Precautions

When the SIP server uses TLS and is bound to an SSL policy of client type, the remote device needs to be configured with an SSL policy of server type.

If you run the **ssl-client-policy** command multiple times, only the latest configuration takes effect.

The SSL policy of client type for the voice service must be exclusive. If the SSL policy of client type is used by other services such as HTTPS, the SSL policy of client type for the voice service cannot be bound.

Example

Configure an SSL policy of client type as **user1** when the SIP server uses TLS.

```
<Huawei> system-view
[Huawei] ssl policy user1 type client
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] transfer TLS
[Huawei-voice-sipserver] cs-mode client
[Huawei-voice-sipserver] ssl-client-policy user1
```

16.5.1.46 ssl-client-policy (trunk group view)

Function

The **ssl-client-policy** command configures an SSL policy of client type when a trunk group uses TLS.

The **undo ssl-client-policy** command cancels an SSL policy of client type when a trunk group uses TLS.

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By default, no SSL policy of client type is configured when a trunk group uses TLS.

Format

ssl-client-policy *server-policy-name*

undo ssl-client-policy

Parameters

Parameter	Description	Value
server-policy-name	Specifies the name of the bound SSL policy of client type when a trunk group uses TLS.	The value is a string of 1 to 31 case-insensitive characters without question marks (?) or spaces.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

When the AR functions as the client and the security of voice signal transmission needs to be enhanced, you can run this command to configure an SSL policy of client type on the AR and configure an SSL policy of server type on the remote device. Data encryption, identity authentication, and integrity authentication mechanisms of SSL ensure data transmission security.

Prerequisites

The **ssl policy** command has been executed to create an SSL policy and specify the type of the SSL policy as client.

The **cs-mode** command has been executed in the trunk group view to configure the transmission mode of reliable connections of a SIP trunk group as client or client_server.

The **transfer** command has been executed in the trunk group view to configure the transmission mode of a trunk group as TLS.

Precautions

When a trunk group uses TLS and is bound to an SSL policy of client type, the remote device needs to be configured with an SSL policy of server type.

If you run the **ssl-client-policy** command multiple times, only the latest configuration takes effect.

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The SSL policy of client type for the voice service must be exclusive. If the SSL policy of client type is used by other services such as HTTPS, the SSL policy of client type for the voice service cannot be bound.

Example

Configure an SSL policy of client type as **user1** when a trunk group uses TLS.

```
<Huawei> system-view
[Huawei] ssl policy user1 type client
[Huawei] voice
[Huawei-voice] trunk-group test sip trunk-circuit
[Huawei-voice-trunkgroup-test] transfer TLS
[Huawei-voice-trunkgroup-test] cs-mode client
[Huawei-voice-trunkgroup-test] ssl-client-policy user1
```

16.5.1.47 ssl-server-policy (SIP server view)

Function

The **ssl-server-policy** command configures an SSL policy of server type when the SIP server uses TLS.

The **undo ssl-server-policy** command cancels an SSL policy of server type when the SIP server uses TLS.

By default, no SSL policy of server type is configured when the SIP server uses TLS.

Format

ssl-server-policy *server-policy-name*

undo ssl-server-policy

Parameters

Parameter	Description	Value
server-policy-name	Specifies the name of the bound SSL policy of server type when the SIP server uses TLS.	The value is a string of 1 to 31 case-insensitive characters without question marks (?) or spaces.

Views

SIP server view

Default Level

2: Configuration level

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Usage Guidelines

Usage Scenario

When the AR functions as the SIP server and the security of voice signal transmission needs to be enhanced, you can run this command to configure an SSL policy of server type on the AR and configure an SSL policy of client type on the remote device. Data encryption, identity authentication, and integrity authentication mechanisms of SSL ensure data transmission security.

Prerequisites

The **ssl policy** command has been executed to create an SSL policy and specify the type of the SSL policy as server.

The **cs-mode** command has been executed in the SIP server view to configure the transmission mode of reliable connections of a SIP trunk group as server or client_server.

The **transfer** command has been executed in the SIP server view to configure the transmission mode of a trunk group as TLS.

Precautions

When the SIP server uses TLS and is bound to an SSL policy of server type, the remote device needs to be configured with an SSL policy of client type.

If you run the **ssl-server-policy** command multiple times, only the latest configuration takes effect.

The SSL policy of server type for the voice service must be exclusive. If the SSL policy of server type is used by other services such as HTTPS, the SSL policy of server type for the voice service cannot be bound.

Example

Configure an SSL policy of server type as **user1** when the SIP server uses TLS.

```
<Huawei> system-view
[Huawei] ssl policy user1 type server
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] transfer TLS
[Huawei-voice-sipserver] cs-mode server
[Huawei-voice-sipserver] ssl-server-policy user1
```

16.5.1.48 ssl-server-policy (trunk group view)

Function

The **ssl-server-policy** command configures an SSL policy of server type when a trunk group uses TLS.

The **undo ssl-server-policy** command cancels an SSL policy of server type when a trunk group uses TLS.

By default, no SSL policy of server type is configured when a trunk group uses TLS.

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Format

ssl-server-policy *server-policy-name*

undo ssl-server-policy

Parameters

Parameter	Description	Value
server-policy-name	Specifies the name of the bound SSL policy of server type when a trunk group uses TLS.	The value is a string of 1 to 31 case-insensitive characters without question marks (?) or spaces.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

When the AR functions as the server and the security of voice signal transmission needs to be enhanced, you can run this command to configure an SSL policy of server type on the AR and configure an SSL policy of client type on the remote device. Data encryption, identity authentication, and integrity authentication mechanisms of SSL ensure data transmission security.

Prerequisites

The **ssl policy** command has been executed to create an SSL policy and specify the type of the SSL policy as server.

The **cs-mode** command has been executed in the trunk group view to configure the transmission mode of reliable connections of a SIP trunk group as server or client_server.

The **transfer** command has been executed in the trunk group view to configure the transmission mode of a SIP trunk group as TLS.

Precautions

When a trunk group uses TLS and is bound to an SSL policy of server type, the remote device needs to be configured with an SSL policy of client type.

If you run the **ssl-server-policy** command multiple times, only the latest configuration takes effect.

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The SSL policy of server type for the voice service must be exclusive. If the SSL policy of server type is used by other services such as HTTPS, the SSL policy of server type for the voice service cannot be bound.

Example

Configure an SSL policy of server type as **user1** when a trunk group uses TLS.

```
<Huawei> system-view
[Huawei] ssl policy user1 type server
[Huawei] voice
[Huawei-voice] trunk-group test sip trunk-circuit
[Huawei-voice-trunkgroup-test] transfer TLS
[Huawei-voice-trunkgroup-test] cs-mode server
[Huawei-voice-trunkgroup-test] ssl-server-policy user1
```

16.5.1.49 special-deal

Function

The **special-deal** command configure number conversion for a prefix.

The **undo special-deal** command is used to delete number conversion for a prefix.

By default, number conversion is disabled for a prefix.

Format

special-deal { **long-caller** *long-cli-flag* | **caller-map** *cli-map-flag* | **called-map** *cld-map-flag* }*

undo special-deal { **long-caller** | **caller-map** | **called-map** }

Parameters

Parameter	Description	Value
long-cli-flag	long number conversion flag.	Enumerated type. The options are as follows: • enable • disable default:disable
cli-map-flag	caller map conversion flag.	Enumerated type. The options are as follows: • enable • disable default:disable

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Parameter	Description	Value
cld-map-flag	called map conversion flag.	Enumerated type. The options are as follows: • enable • disable default:disable

Views

Call prefix view

Default Level

2: Configuration level

Usage Guidelines

If a telephone number and a long number are both configured for a user, long number conversion can be enabled for a prefix.

If you run the command several times, the latest configuration takes effect.

Example

Enable long number conversion in call prefix view **prefix-user1**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] callprefix prefix-user1
[Huawei-voice-callprefix-prefix-user1] special-deal long-caller enable
```

16.5.1.50 time

Function

The **time** command configures a time template.

The **undo time** command deletes a time template.

Format

time *time-name* { **time-period** { **from** *from-date* [*from-time*] | **to** *to-date* [*to-time*] } | **time-repeat** { { **yearly** | **monthly** } *begin-date* [*begin-time*] [*end-date* [*end-time*]] | **weekly** *begin-weekday* [*begin-time*] [*end-weekday* [*end-time*]] | **daily** *begin-time* [*end-time*] } }

undo time *time-name*

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Parameters

Parameter	Description	Value
time-name	Specifies the time name.	The value is a string of 1 to 32 characters.
time-period	Specifies the validity period.	-
from *from-date*	Specifies the validity date.	The value is in yyyy-mm-dd format.
from-time	Specifies the validity time.	The value is in hh:mm:ss format.
to *to-date*	Specifies the expiration date.	The value is in yyyy-mm-dd format.
to-time	Specifies the expiration time.	The value is in hh:mm:ss format.
time-repeat	Indicates the repeat mode.	-
yearly	Indicates the configuration takes effect every year.	-
monthly	Indicates the configuration takes effect every month.	-
begin-date	Specifies the start date of the validity period.	The value is in mm-dd or dd format.
begin-time	Specifies the start time of the validity period.	The value is in hh:mm:ss format.
end-date	Specifies the end date of the validity period.	The value is in mm-dd or dd format.
end-time	Specifies the end time of the validity period.	The value is in hh:mm:ss format.
weekly	Indicates the configuration takes effect every week.	-
begin-weekday	Specifies the start weekday.	Enumerated value. The value can be Mon, Tue, Wed, Thu, Fri, Sat, or Sun .

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Parameter	Description	Value
end-weekday	Specifies the end weekday.	Enumerated value. The value can be Mon, Tue, Wed, Thu, Fri, Sat, or Sun.
begin-time	Specifies the start time.	The value is in hh:mm:ss format.
end-time	Specifies the end time.	The value is in hh:mm:ss format.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Configure a time template that specifies a time range from 10:00:00 to 11:00:00 every day.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] time test time-repeat daily 10:00:00 11:00:00
```

16.5.1.51 tone-set

Function

The **tone-set** command configures the call block tone mapping.

The **undo tone-set** command deletes the mapping relationship.

By default, call block uses a tone based on the failure cause. After the **tone-set** command is executed, call block uses the tone specified by the command.

Format

tone-set type *type-value* **toneid** *toneid-value*

undo tone-set type [*type-value*]

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Parameters

Parameter	Description	Value
type *type-value*	Specifies the status.	Enumerated type. Options: busy, no_answer, offline, dnerror, no_right, and unreachable
toneid *toneid-value*	Specifies the tone ID.	Integer type. Value range: 1-566

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

When a call is unexpectedly released upon a call setup failure, the system plays a tone corresponding to the release cause according to the configured mapping relationship.

Example

Configure mapping between the busy state and tone ID 2.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] tone-set type busy toneid 2
```

16.5.1.52 user-account(account-set view)

Function

The **user-account** command configures an **account** and password of the account-set in account mode.

The **undo user-account** command deletes the account and password of the account-set.

By default, no **account** is configured.

Format

user-account *user-account-name* **password cipher** *password-value*

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Parameters

Parameter	Description	Value
user-account-name	Specifies the account name.	The value is a string of 1 to 12 digits without spaces.
password-value	Specifies the password for account.	The value is a string of 6 to 8 digits without spaces.

Views

account-set view

Default Level

2: Configuration level

Usage Guidelines

To configures an account and password of the account-set in account mode, run **user-account** command.

Example

Configure an account named 1001 and password 12345678 for account-set 1.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]account-set 1 account     [Huawei-voice-account-set-1]user-account 1001 password cipher
Please input user password(6-8 chars):********
```

16.5.1.53 use-account-set (disa view)

Function

The **use-account-set** command binds an account-set for disa.

Format

use-account-set *account-set-name*

Parameters

Parameter	Description	Value
account-set-name	Specifies the account-set name.	The value is a string of 1 to 32 characters without spaces.

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Views

Disa view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Bind an account-set named 1 for disa d1.

```
<Huawei> system-view
 [Huawei] voice
 [Huawei-voice] disa d1
 [Huawei-voice-disa-d1] use-account-set 1
```

16.5.1.54 vu-custom-right (call prefix view)

Function

The **vu-custom-right** command configures the customized 32 levels of call rights to be bound to call prefixes.

By default, a call prefix is not bound to any of the 32 levels of call rights.

Format

vu-custom-right { *c1* | *c2* | *c3* | ... | *c32* } *

undo vu-custom-right [*c1* | *c2* | *c3* | ... | *c32*] *

Parameters

Parameter	Description	Value
c1 | *c2* | *c3* | ... | *c32*	Specifies the customized 32 levels of call rights to be bound to VU prefixes.	The value can be one or more options in c1-c32.

Views

Call prefix view

Default Level

2: Configuration level

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Usage Guidelines

The 32 levels of call rights for VU prefixes limit the call rights for external users to perform two-stage dialing (automatic switchboard number+internal user's short number).

This command takes effect only on VU prefixes. 32 levels of call rights can be configured for the VU prefix and also for the VU service. The configurations do not conflict with each other.

Example

Bind c1 and c2 call rights to VU prefix 1 in the prefix1 view.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] callprefix prefix1
[Huawei-voice-prefix1] call-type category vu-service vu-service-name vudefault
[Huawei-voice-prefix1] vu-custom-right c1 c2
```

16.5.1.55 vuloopcount

Function

The **vuloopcount** command configures the loop count of the VU switchboard.

By default, the loop count of the VU switchboard is 0.

Format

vuloopcount *vuloopcount-value*

Parameters

Parameter	Description	Value
vuloopcount-value	Specifies the loop count of the VU switchboard.	The value is an integer that ranges from 0 to 6.

Views

Call prefix view

Default Level

2: Configuration level

Usage Guidelines

If you run the **vuloopcount** command multiple times in the same view, only the latest configuration takes effect.

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Example

Set the attribute of the call prefix to VU and the loop count to 5 in the call prefix view **prefix-user1**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] callprefix prefix-user1
[Huawei-voice-callprefix-prefix-user1] vuloopcount 5
```

16.5.1.56 vuoutgoingright

Function

The **vuoutgoingright** command configures the call out rights of the VU switchboard.

By default, the call out rights of the VU switchboard is **inter**.

Format

vuoutgoingright { { **inter** *value* | **local** *value* | **idd** *value* | **ddd** *value* } * | **all** *value* }

Parameters

Parameter	Description	Value
value	Specifies the call out rights.	Enumerated type. The values are as follows: • Enable: The call out rights are added. • Disable: The call out rights are deleted.

Views

Call prefix view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the call out rights of the VU call prefix to **ddd**.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] callprefix user1
[Huawei-voice-callprefix-prefix-user1] vuoutgoingright ddd enable
```

16.5.2 SIP Server Configuration Commands

16.5.2.1 codec-priority

Function

Using the **codec-priority** command, you can configure the codec priority, codec value, and packetization time for a SIP server.

Using the **undo codec-priority** command, you can restore the default settings of the codec priority, codec value, and packetization time of a SIP server.

The default values of the codec priority, codec value, and packetization time is shown in **Table 16-52**.

Format

codec-priority *pri-value codec-value pt-value*

undo codec-priority

Parameters

Parameter	Description	Value
pri-value	Indicates the codec priority.	The value is an integer that ranges from 0 to 7. A smaller value indicates a higher priority.

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Parameter	Description	Value
codec-value	Indicates the codec value.	Enumerated value. The value ranges from 0 to 255. The options are as follows: • 0: G711U • 2: G726 • 4: G723 • 8: G711A • 9: G722 • 15: G728 • 18: G729 • 20: G723Low • 21: G726-16 • 22: G726-24 • 23: G726-40 • 96: R2198 • 97: R2833 • 98: v150 • 99: clearmode • 250: T.38 • 251: T.38+2 • 252: wildcard ($) • 253: wildcard (*) • 254: H.246
pt-value	Indicates the packetization time.	The value is an integer that ranges from 0 to 255, in milliseconds. The valid values are 5,10, 20, 30, 40, 50, and 60.

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

The default values are shown in **Table 16-52**.

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Table 16-52 The default values

Codec Priority	Codec Value	Packetization Time
0	8	20
1	0	20
2	18	10
3	4	30
4	8	10
5	8	30
6	0	10
7	250	20

Example

Set the codec value to 1, codec priority to 0, and packetization time to 20 for a SIP server.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] codec-priority 0 1 20
```

16.5.2.2 cs-mode (SIP server view)

Function

Using the **cs-mode** command, you can configure the reliable transmission mode for a SIP server.

By default, no reliable transmission mode is configured for a SIP server.

undo cs-mode restores the default sipserver transmission mode

Format

cs-mode *cs-mode-value*

undo cs-mode

Parameters

Parameter	Description	Value
cs-mode-value	Specifies the reliable transmission mode.	The values are as follows: • server • client_server

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Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

The reliable transmission mode is valid only when the transmission mode of the SIP server is **tcp**.

Example

Set the reliable transmission mode for the SIP server to client_server.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] transfer tcp
[Huawei-voice-sipserver] cs-mode client_server
```

restore the default transmission mode for the SIP server

```
[Huawei-voice-sipserver]undo cs-mode
[Huawei-voice-sipserver]
```

16.5.2.3 ddns-client

Function

Using the **ddns-client** command, you can configure a dynamic domain name system (DDNS) name for a SIP server that uses a dynamic signaling IP address.

By default, no DDNS client name is configured for a SIP server using a dynamic signaling IP address.

Format

ddns-client *ddns-client-name*

Parameters

Parameter	Description	Value
ddns-client-name	Specifies the DDNS client name for a SIP server.	The value is a string of 1 to 64 case-insensitive characters.

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Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

When a SIP server uses a dynamic signaling IP address, configure a DDNS client name for the SIP server so that the DDNS server can update the mapping between the signaling domain name and IP address.

Example

Set the DDNS client name to **myddns** for a SIP server.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] ddns-client myddns
```

16.5.2.4 display voice sipserver

Function

The **display voice sipserver** command displays the configuration of a SIP server.

Format

display voice sipserver [*mode-name*]

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Parameters

Parameter	Description	Value
mode-name	Indicates the configuration item name.	The options are as follows: • number-parameter: parameter index. • fax-modem: fax/ modem configuration of a SIP server. • redundancy-nte: whether a SIP server is enabled to transmit the RFC 2833 audio data using RFC 2198 redundancy transmission. • codec-priority: codec priority, codec value, and packetization time. • dtmf: DTMF transmission mode over RTP.

Views

All views

Default Level

3: Management level

Usage Guidelines

The **display voice sipserver** command displays the configuration of a SIP server.

NOTE

In the command output, if the SIP server configuration is inconsistent with the SIP server running information, the current configuration does not take effect.

Example

Display the configuration of a SIP server.

```
<Huawei> display voice sipserver
  Config
  Signalling IP                : 192.168.0.1
  Signalling IP address name   :
  Signalling domain            : abcd.com
```

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```
DDNS client name              :
Signalling port               : 5060
Media IP                      : 192.168.0.1
Media IP address name         :
Register URI                  : abcd.com
Home domain                   : abcd.com
Transfer mode                 : UDP
Signalling Proxy              : Disable
Media Proxy                   : Disable
Mapped Signalling IP          :
Mapped Signalling port        :
Mapped Media IP               :
Mapped Media Port Start       :
Mapped Media Proxy Port Start :
Register Count Per Second     : 20

Running
Status                        : Normal
Signalling IP                 : 192.168.0.1
Signalling IP address name    :
Signalling domain             :
DDNS client name              :
Signalling port               : 5060
Media IP                      : 192.168.0.1
Media IP address name         :
Register URI                  : abcd.com
Home domain                   : abcd.com
Transfer mode                 : UDP
Signalling Proxy              : Disable
Media Proxy                   : Disable
Mapped Signalling IP          :
Mapped Signalling port        :
Mapped Media IP               :
Mapped Media Port Start       :
Mapped Media Proxy Port Start :
Register Count Per Second     : 20
```

Table 16-53 Description of the display voice sipserver command output

Item	Description
Signalling IP	Signaling IP address of a SIP server. To configure the signaling IP address of a SIP server, run the **16.5.2.30 signalling-address** command.
Signalling IP address name	Name of the dynamic signaling IP address of a SIP server. To configure the name of the dynamic signaling IP address of the SIP server, run the **16.5.2.30 signalling-address** command.
Signalling domain	Signaling domain name of the dynamic DNS. To configure the signaling domain name of the dynamic DNS, run the **16.5.2.31 signalling-domain** command.
DDNS client name	DDNS client name.

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Item	Description
Signalling port	Signaling port number of a SIP server. To configure the signaling port number of a SIP server, run the **16.5.2.30 signalling-address** command.
Media IP	Media IP address of a SIP server. To configure the media IP address of a SIP server, run the **16.5.2.17 media-ip** command.
Media IP address name	Name of the dynamic media IP address of a SIP server. To configure the name of the dynamic media IP address of a SIP server, run the **16.5.2.17 media-ip** command.
Register URI	Uniform resource identifier (URI) of a SIP server. To configure the URI of a SIP server, run the **16.5.2.27 register-uri** command.
Home domain	Home domain of a SIP server. To configure the home domain of a SIP server, run the **16.5.2.14 home-domain (SIP server view)** command.
Transfer mode	Transfer mode of a SIP server.
Signalling Proxy	Signaling proxy.
Media Proxy	Media proxy.
Mapped Signalling IP	Mapped signaling IP address.
Mapped Signalling port	Mapped signaling port.
Mapped Media IP	Mapped media IP address.
Mapped Media Port Start	Mapped media start port.
Mapped Media Proxy Port Start	Mapped media proxy start port.
Register Count Per Second	Number of registration times per second.
Status	Status of a SIP server.

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16.5.2.5 display voice sipserver dtmf

Function

The **display voice sipserver dtmf** command displays the Dual-Tone Multifrequency (DTMF) transmission mode over RTP.

Format

display voice sipserver dtmf

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display the DTMF transmission mode over RTP.

```
<Huawei> display voice sipserver dtmf
    DTMF                : throughly
```

Table 16-54 Description of the display voice sipserver dtmf command output

Item	Description
DTMF	DTMF transmission mode over RTP. • erase: erase mode • throughly: transparent transmission mode To watch the DTMF transmission mode over RTP, run the **display voice sipserver dtmf** command.

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16.5.2.6 display voice sipserver fax-modem

Function

The **display voice sipserver fax-modem** command displays fax/modem parameters of a SIP server.

Format

display voice sipserver fax-modem

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

The **display voice sipserver fax-modem** command displays fax/modem parameters of a SIP server, including:

- Fax/modem transmission mode
- Fax/modem codec negotiation mode
- Packetization interval in transparent transmission mode
- VBD attribute type
- VBD codec mode
- VBD payload type

Example

Display fax/modem parameters of a SIP server.

```
<Huawei> display voice sipserver fax-modem
    Fax modem fax         : T.38
    Fax modem modem       : throughly
    Fax modem negomode    : Negotiation
    RTP interval          : 10ms
    VBD attribute         : V152
    VBD codec             : G711a
    VBD payload type      : Static
```

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Table 16-55 Description of the display voice sipserver fax-modem command output

Item	Description
Fax modem fax	Fax transmission mode. ● T.38: T.38 mode ● Throughly: transparent transmission mode ● To configure the fax transmission mode, run the **fax-modem fax transmission-mode** command.
Fax modem modem	Modem transmission mode. ● Relay: relay mode ● Throughly: transparent transmission mode To configure the modem transmission mode, run the **fax-modem modem transmission-mode** command.
Fax modem negomode	Fax/modem codec negotiation mode. ● Negotiate: negotiation mode ● Self-switch: self-switching mode To configure the fax/modem codec negotiation mode, run the **fax-modem common negotiation-mode** command.
RTP interval	Packetization interval in transparent transmission mode. To configure the packetization interval in transparent transmission mode, run the **fax-modem common rtp-interval** command.
VBD attribute	VBD attribute type. ● Chinatelecom: China Telecom mode ● Extchinatelecom: extended China Telecom mode ● Ietf: IETF mode ● V.152: V.152 mode To configure the VBD attribute type, run the **fax-modem common vbd-attribute-type** command.

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Item	Description
VBD codec	VBD codec mode. • G711a: G.711 A • G711u: G.711 μ To configure the VBD codec mode, run the **fax-modem common vbd-codec** command.
VBD VBD payload type	VBD payload type. • Dynamic: dynamic payload type • Static: static payload type To configure the VBD payload type, run the **fax-modem common vbd-payload-type** command.

16.5.2.7 dtmf-transmission-mode

Function

Using the **dtmf-transmission-mode** command, you can configure the Dual-Tone Multifrequency (DTMF) transmission mode of RTP.

Using the **undo dtmf-transmission-mode** command, you can restore the default DTMF transmission mode of RTP.

By default, the DTMF transmission mode of RTP is transparent transmission.

Format

dtmf-transmission-mode { **erase** | **throughly** }

undo dtmf-transmission-mode

Parameters

Parameter	Description	Value
erase	Removes DTMF tones from RTP packets. This mode is used when DTMF signals are transmitted in accordance with RFC2833 and DTMF signals do not need to be transmitted.	-

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Parameter	Description	Value
throughly	Specifies DTMF transparent transmission. This mode is used when DTMF signals are transmitted in accordance with RFC2833 and DTMF signals need to be transmitted.	-

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the DTMF transmission mode to transparent transmission.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] dtmf-transmission-mode throughly
```

16.5.2.8 fax-modem common negotiation-mode

Function

Using the **fax-modem common negotiation-mode** command, you can set the codec negotiation mode of a fax machine or modem.

Using the **undo fax-modem common negotiation-mode** command, you can restore the default codec negotiation mode of a fax machine or modem.

By default, the codec negotiation mode of a fax machine or modem is negotiation.

Format

fax-modem common negotiation-mode { **negotiate** | **self-switch** }

undo fax-modem common negotiation-mode

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Parameters

Parameter	Description	Value
negotiate	Indicates that the codec negotiation mode of a fax machine or modem is negotiation. In this mode, the MG needs to negotiate with the MGC through signaling for the codec negotiation mode.	-
self-switch	Indicates that the codec negotiation mode of a fax machine or modem is self-switch.	-

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the codec negotiation mode of a fax machine or modem to negotiation.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] fax-modem common negotiation-mode negotiate
```

16.5.2.9 fax-modem common rtp-interval

Function

Using the **fax-modem common rtp-interval** command, you can set the packetization interval in transparent transmission mode.

Using the **undo fax-modem common rtp-interval** command, you can restore the default packetization interval in transparent transmission mode.

By default, the packetization interval in transparent transmission mode is 10 ms.

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Format

fax-modem common rtp-interval { **5ms** | **10ms** | **20ms** | **30ms** |**40ms** }

undo fax-modem common rtp-interval

Parameters

None

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

After the **fax-modem modem transmission-mode** command sets the modem transparent transmission mode or the **fax-modem fax transmission-mode** command sets the fax transparent transmission mode, run the **fax-modem common rtp-interval** command to change the packetization interval.

Example

Set the packetization interval in transparent transmission mode to 5 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] fax-modem common rtp-interval 5ms
```

16.5.2.10 fax-modem common vbd-attribute-type

Function

Using the **fax-modem common vbd-attribute-type** command, you can set the attribute type of the voice-band data (VBD).

Using the **undo fax-modem common vbd-attribute-type** command, you can restore the default attribute type of the VBD.

By default, the attribute type of the VBD is v152.

Format

fax-modem common vbd-attribute-type { **chinatelecom** | **extchinatelecom** | **ietf** | **v152** }

undo fax-modem common vbd-attribute-type

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Parameters

Parameter	Description	Value
chinatelecom	Indicates the China Telecom mode.	-
extchinatelecom	Indicates the extended China Telecom mode.	-
ietf	Indicates the IETF mode.	-
v152	Indicates the v.152 mode.	-

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the VBD attribute type to IETF.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] fax-modem common vbd-attribute-type ietf
```

16.5.2.11 fax-modem common vbd-codec

Function

Using the **fax-modem common vbd-codec** command, you can set the codec mode of the VBD.

Using the **undo fax-modem common vbd-codec** command, you can restore the default codec mode of the VBD.

By default, the codec mode of the VBD is A-law algorithm in G.711.

Format

fax-modem common vbd-codec {**g711a** | **g711u** | **g711a_u** | **g711u_a**}

undo fax-modem common vbd-codec

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Parameters

Parameter	Description	Value
g711a	Indicates the A-law algorithm in G.711.	-
g711u	Indicates the u-law algorithm in G.711.	-

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the codec mode of the VBD to u-law algorithm in G.711.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] fax-modem common vbd-codec g711u
```

16.5.2.12 fax-modem common vbd-payload-type

Function

Using the **fax-modem common vbd-payload-type** command, you can configure the payload type of the VBD.

Using the **undo fax-modem common vbd-payload-type** command, you can restore the default payload type of the VBD.

By default, the payload type of the VBD is static.

Format

fax-modem common vbd-payload-type { **dynamic** | **static** }

undo fax-modem common vbd-payload-type

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Parameters

Parameter	Description	Value
dynamic	Indicates dynamic payload.	-
static	Indicates static payload.	-

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Configure dynamic payload.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] fax-modem common vbd-payload-type dynamic
```

16.5.2.13 fax-modem fax transmission-mode

Function

Using the **fax-modem fax transmission-mode** command, you can configure the fax transmission mode.

Using the **undo fax-modem fax transmission-mode** command, you can restore the default fax transmission mode.

By default, the fax transmission mode is transparent transmission.

Format

fax-modem fax transmission-mode { **T38** | **throughly** | **T38_throughly** | **throughly_T38** }

undo fax-modem fax transmission-mode

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Parameters

Parameter	Description	Value
T38	Indicates the T.38 mode. The T.38 mode is the fax-dedicated coding mode.	-
throughly	Indicates the transparent transmission mode. The transparent transmission mode uses the coding mode of G.711.	-

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the fax transmission mode to transparent transmission.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] fax-modem fax transmission-mode throughly
```

16.5.2.14 home-domain (SIP server view)

Function

Using the **home-domain** command, you can configure a home domain that a SIP server belongs to.

By default, no home domain is configured.

Format

home-domain *domain*

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Parameters

Parameter	Description	Value
domain	Specifies a home domain.	The value is a string of 1 to 64 characters that start with a letter or a numeral and consist of letters, numerals, and decimal points (.).

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Configure a home domain **ippbx** that a SIP server belongs to.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] home-domain ippbx
```

16.5.2.15 media-bandwidth-control (SIP server view)

Function

The **media-bandwidth-control** command enables CAC on the SIP server.

The **undo media-bandwidth-control {** max-bandwidth **|** media-proxy **}** command disables CAC on the SIP server.

By default, CAC is disabled on the SIP server.

Format

media-bandwidth-control { *enable* | *disable* | *max-bandwidth* | *media-proxy* }

undo media-bandwidth-control { *max-bandwidth* | *media-proxy* }

Parameters

None

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Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

When a SIP UE user calls a local POTS user, the media bandwidth of the SIP server is occupied. However, the media bandwidth of the SIP server is limited. To improve the voice communication quality, run the **media-bandwidth-control enable** command to enable CAC on the SIP server.

NOTE

- When a SIP UE user registered to the SIP server through the SBC proxy calls a locally-registered SIP UE user, the media bandwidth of both the SBC proxy and the SIP server is occupied.
- When two locally-registered SIP UE users communicate with each other, the media bandwidth on the SIP server is not occupied. When a locally-registered SIP UE user communicates with a POTS user, the media bandwidth on the SIP server is occupied.

Follow-up Procedure

Run the **16.5.2.15 media-bandwidth-control (SIP server view)** command to set the maximum uplink media bandwidth of voice data on the SIP server.

Example

Enable CAC on the SIP server.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] media-bandwidth-control enable
```

16.5.2.16 media-bandwidth-control max-bandwidth (SIP server view)

Function

The **media-bandwidth-control max-bandwidth** command sets the maximum uplink media bandwidth of voice data on a SIP server.

The **undo media-bandwidth-control max-bandwidth** command restores the maximum uplink media bandwidth of voice data on a SIP server to the default value.

By default, the maximum uplink media bandwidth of voice data on a SIP server is 500000 kbit/s.

Format

media-bandwidth-control max-bandwidth *max-bandwidth-value*

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undo media-bandwidth-control max-bandwidth

Parameters

Parameter	Description	Value
max-bandwidth-value	Specifies the maximum media bandwidth on a SIP server.	The value is an integer that ranges from 1 to 5000, in 100 kbit/s. The default value is 5000, that is, 500000 kbit/s.

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

After CAC is enabled on the SIP server by running the media-bandwidth-control enable (SIP server view) command, run the **media-bandwidth-control max-bandwidth** command to specify the maximum media bandwidth of voice data on the SIP server. If the **media-bandwidth-control max-bandwidth** command is not run and CAC is enabled on the SIP server, the maximum uplink bandwidth is 500000 kbit/s. When the bandwidth is used up on the SIP server, new calls that occupy bandwidth on the SIP server are restricted.

NOTE

- When a SIP UE user registered to the SIP server through the SBC proxy calls a locally-registered SIP UE user, the media bandwidth of both the SBC proxy and the SIP server is occupied.
- When two locally-registered SIP UE users communicate with each other, the media bandwidth on the SIP server is not occupied. When a locally-registered SIP UE user communicates with a POTS user, the media bandwidth on the SIP server is occupied.

Prerequisites

CAC has been enabled on the SIP server using the media-bandwidth-control enable (SIP server view) command.

Example

Set the maximum media bandwidth on the SIP server to 400000 kbit/s.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] media-bandwidth-control enable
[Huawei-voice-sipserver] media-bandwidth-control max-bandwidth 4000
```

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16.5.2.17 media-ip

Function

Using the **media-ip** command, you can configure a media IP address or a dynamic media IP address name for a SIP server.

By default, no media IP address or dynamic media IP address name is configured for a SIP server.

Format

media-ip { *ip-address* | **addr-name** *addr-name-value* }

Parameters

Parameter	Description	Value
ip-address	Specifies a media IP address.	The value is in dotted decimal notation.
addr-name *addr-name-value*	Specifies a dynamic media IP address name.	The value is a string of 1 to 64 case-insensitive characters.

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

Before specifying the media IP address for a SIP server, create a media IP address or a dynamic media IP address name.

Example

Configure a media IP address 192.168.0.2 for a SIP server.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] media-ip 192.168.0.2
```

16.5.2.18 nte-fax-modem

Function

Using the **nte-fax-modem** command, you can enable fax and modem event transmission in accordance with RFC 2833 or disable this function.

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Using the **undo nte-fax-modem** command, you can cancel the configuration.

By default, fax and modem event transmission in accordance with RFC 2833 is enabled.

Format

nte-fax-modem { enable | disable }

undo nte-fax-modem

Parameters

None

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable fax and modem event transmission in accordance with RFC 2833.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] nte-fax-modem enable
```

16.5.2.19 nte-negotiation-mode

Function

Using the **nte-negotiation-mode** command, you can configure the mode in which RFC 2833 redundancy transmission is started based on negotiation.

Using the **undo nte-negotiation-mode** command, you can restore the default mode in which RFC 2833 redundancy transmission is started based on negotiation.

By default, RFC 2833 redundancy transmission is started based on negotiation in **no-initiative-start** mode.

Format

nte-negotiation-mode { **fixed-start** | **negotiation** | **no-initiative-start** }

undo nte-negotiation-mode

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Parameters

Parameter	Description	Value
fixed-start	Indicates the fixed startup mode. In fixed startup mode, the local end does not initiate any negotiation but accepts the initiated negotiation. If the negotiation fails, RFC 2833 redundancy transmission is started based on the local configuration.	-
negotiation	Indicates the initiative startup mode. In initiative startup mode, RFC 2833 redundancy transmission starts only after the negotiation between the local end and remote end succeeds. The negotiation may be initiated by the local end or remote end.	-
no-initiative-start	Indicates the no-initiative startup mode. In no-initiative startup mode, RFC 2833 transmission starts only after the local end receives the negotiation invitation from the remote end. If the negotiation fails, RFC 2833 redundancy transmission is not started.	-

Views

SIP server view

Default Level

2: Configuration level

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Usage Guidelines

None

Example

Set the mode in which RFC 2833 redundancy transmission is started based on negotiation to **fixedstart**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] nte-negotiation-mode fixed-start
```

16.5.2.20 number-parameter (SIP server view)

Function

The **number-parameter** command configures control points for a SIP server.

The **undo number-parameter** command restores the default control point settings of a SIP server.

Format

number-parameter *name value*

undo number-parameter *name*

Parameters

Parameter	Description	Value
name	Specifies the name of a control point.	The value is an integer that ranges from 0 to 56.
value	Specifies the value of a control point.	The value is an integer, the value of *value* varies according to *name*. For details, see the **Table 16-56**.

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

You can run the **number-parameter** command to change values of control points to configure functions of a SIP server as required. For example, you can specify the

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registration lifecycle, modify the minimum message waiting indicator (MWI) subscription timeout duration, and specify whether the registration subscription function is enabled. **Table 16-56** describes the control point names and values.

Table 16-56 Description of control point names and values

Control Point Name	Description	Value
0	Sets the registration lifecycle.	The value is an integer that ranges from 60 to 65534, in seconds. The default value is 600.
1	Specifies the header field from which the calling number is obtained for the SIP Server.	Integer type. The options are as follows: • 0: The calling number is obtained from the P-asserted-Identity header field. • 1: The calling number is obtained from the From header field. The default value is 0.
2	Sets event values added to the AllowEvent header field.	The value is an integer that ranges from 0 to 22. The default value is 18.
3	Configures whether SIP messages contain the Date header field.	Integer type. The options are as follows: • 0: SIP messages do not contain the Data header field. • 1: SIP messages contain the Date header field. The default value is 0.
4	Configures whether to support event values.	The value is an integer that ranges from 0 to 4294967295. The default value is 1039.
5	Sets the format of the From header field.	Integer type. The options are as follows: • 1: SIP URI. • 2: Phone number. • 3: Private ID. The default value is 1.

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Control Point Name	Description	Value
6	Configures whether SDP-Answer field value in a received 18X message can be overwritten by the SDP-Answer field value in next received 18X message.	Integer type. The options are as follows: ● 0: No. ● 1: Yes. The default value is 0.
7	Configures whether SDP-Answer field value in a received 200 message can be overwritten by the SDP-Answer field value in next received 200 message.	Integer type. The options are as follows: ● 0: No. ● 1: Yes. The default value is 0.
8	Configures whether to convert the pound key (#) to %23.	Integer type. The options are as follows: ● 0: Does not convert the pound key (#) to %23 if the received SIP message contains the userphone field. ● 1: Converts the pound key (#) to %23 if the received SIP message contains the userphone field. ● 2: Does not convert the pound key (#) to %23 regardless of whether the received SIP message contains the userphone field. The default value is 0.
9	Configures whether to send a Cancel message when canceling a session.	Integer type. The options are as follows: ● 0: No. ● 1: Yes. The default value is 0.
10	Configures whether to enable the serial message sending function.	Integer type. The options are as follows: ● 0: No. ● 1: Yes. The default value is 0.
11	Reserved.	Reserved.

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Control Point Name	Description	Value
12	Specifies the SIP overlap sending mode.	Integer type. The options are as follows: ● 0: A phone number is sent as a whole. ● 1: A phone number is sent digit by digit. The default value is 1.
13	Sets the format of the To header field.	Integer type. The options are as follows: ● 1: The To header field is in user name@domain name format. ● 2: The To header field is in phone number format. ● 3: The To header field is in URI format. The default value is 1.
14	Sets the session timer value.	The value is an integer that ranges from 90 to 86400, in seconds. The default value is 1800.
15	Configures whether the PBX stops playing the early media and starts to play the local ring back tone when receiving a SIP 180 message if the PBX has received a SIP 183 message with an SDP field before.	Integer type. The options are as follows: ● 0: Continues playing the early media. ● 1: Stops playing the early media and starts to play the local ring back tone. The default value is 0.

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Control Point Name	Description	Value
16	Configures a temporary response policy used when the PBX is the called party.	Integer type. The options are as follows: ● 0: The ring back tone SDP information is contained in 180 messages. ● 1: The ring back tone SDP information is contained in 183 messages. ● 2: The PBX sends a SIP 180 message after a SIP 183 message. The default value is 0.
17	Sets the SDP field value in a message that the PBX sends to trigger a flash-hooking action.	Integer type. The options are as follows: ● 0: SendOnly. ● 1: SendRecv. ● 2: Inactive. The default value is 1.
18	Sets the header field that indicates a call forwarding event of a SIPUE user.	Integer type. The options are as follows: ● 0: History-info header field. ● 1: Diversion header field. The default value is 0.
19	Configures whether to create a new socket when a PBX IP trunk (or trunk group) receives a 302 message.	Integer type. The options are as follows: ● 0: Does not create a new socket when a PBX IP trunk (or trunk group) receives a 302 message. ● 1: Creates a new socket when a PBX IP trunk (or trunk group) receives a 302 message. The default value is 1.

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Control Point Name	Description	Value
20	Sets the maximum number of dynamic TLS connections.	The value is an integer that ranges from 0 to 0xFFFFFFFE. The default value is 0xFFFFFFFF, indicating that the number of dynamic TLS connections is not limited.
21	Sets the return code for call attempts.	Integer type. The options are as follows: • 0: Returns 486 when the called user is busy. • 1: Returns 200 when the called user is busy. The default value is 0.
22	Configures whether to use the global codec priority or SIP server codec priority.	Integer type. The options are as follows: • 0: Uses the global codec priority. • 1: Uses the codec priority configured on the SIP server. The default value is 0.
23	Reserved.	Reserved.
24	Configures whether to initiate G729B negotiation.	Integer type. The options are as follows: • 0: The local PBX does not initiate a G729B negotiation. • 1: The local PBX can initiate a G729B negotiation. The default value is 0.
25	Configures whether to send the P-EARLY-MEDIA header field.	Integer type. The options are as follows: • 0: Does not send the P-EARLY-MEDIA header field. • 1: Sends the P-EARLY-MEDIA header field. The default value is 0.
26	Reserved.	Reserved.

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Control Point Name	Description	Value
27	Configures whether to wait for the 200 message with SDP in unreliable 180 negotiation.	Integer type. The options are as follows: • 0: No. • 1: Yes. The default value is 1.
28	Sets the flag for the device to update the session.	Integer type. The options are as follows: • 0: The flag is not included. • 1: UAC. • 2: UAS. The default value is 0.
29	Configures whether to initiate VBD negotiation when there a delay in processing modem events. **NOTE** To set the delay in processing modem events, run the **16.5.1.40 pbx number-parameter 5 1** command.	Integer type. The options are as follows: • 0: VBD negotiation is not initiated. • 1: VBD negotiation is initiated. The default value is 1.
30	Reserved.	Reserved.
31	Specifies whether clear 100rel of 18X.	Integer type. The options are as follows: • 0: Not clear. • 1: Clear. The default value is 0.
32	Specifies whether the From, To, and Request-Uri header fields in the INVITE message carry the registration IP address or domain name.	Integer type. The options are as follows: • 0: Domain name. • 1: Registration IP address. The default value is 0. **NOTE** For the 'To' field, groupreg's domain has precedence over sip server's.

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Control Point Name	Description	Value
33	Specifies whether to check **home-domain** and **register-uri** values for user registration.	Integer type. The options are as follows: ● 0: No. ● 1: Yes. The default value is 1.
34	Specifies the threshold of INVITE message–based call barring.	The value is an integer that ranges from 0 to 1000, in packets per second. The default value is 30.
35 to 49	Reserved.	Reserved.
50	Specifies to listen tone or send status code.	Integer type. The options are as follows: ● 0: Listen tone. ● 1: Send status code. The default value is 0.
51	Subscriber min-expire for callinfo (In Advanced Secretary Service) and message summary (Leavemsg lights operation) events.	The value is an integer that ranges from 0 to 3600, in seconds. The default value is 60.
52	Specifies whether to enable the SIPUE overlap dialnum.	Integer type. The options are as follows: ● 0: Disable. ● 1: Enable. The default value is 0.
53	Specifies whether to perform user-agent authentication.	Integer type. The options are as follows: ● 0: Do not perform the authentication. ● 1: Perform the authentication. The default value is 0.

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Control Point Name	Description	Value
54	Specifies whether the destination port in a registration response is obtained from the Contact header field.	Integer type. The options are as follows: • 0: The destination port in a registration response is obtained through UDP. • 1: The destination port in a registration response is obtained from the Contact header field. The default value is 0.
55	Specifies whether the destination address in a call message is obtained from the Contact header field.	Integer type. The options are as follows: • 0: No. • 1: Yes. The default value is 1.
56	Specifies whether registration status subscription is supported.	Integer type. The options are as follows: • 0: indicates that this function is not supported. • 1: indicates that this function is supported. The default value is 0.

Example

Set the SIP registration lifecycle to 60s in the SIP server view.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] number-parameter 0 60
```

16.5.2.21 qos stream (SIP server view)

Function

Using the **qos stream** command, you can set the priority of voice packets during transmission.

Using the **undo qos stream** command, you can delete the DSCP parameter in media and signaling packets.

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Format

qos stream { **media** | **signaling** } **dscp** *dscp-value*

undo qos stream [**media | signaling**]

Parameters

Parameter	Description	Value
media	Specifies the priority of the media packets to be transmitted.	-
signaling	Specifies the priority of the signaling packets to be transmitted.	-
dscp-value	Specifies the priority of the voice packets to be transmitted.	The value is an integer that ranges from 0 to 63. A larger value indicates a higher priority.

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

When the network quality is poor, this command can be used to specify a higher priority for voice packets to ensure the voice quality.

Example

Set the priority of media packets to 0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] qos stream media dscp 0
```

16.5.2.22 redundancy-negotiation-mode

Function

Using the **redundancy-negotiation-mode** command, you can configure the mode in which RFC 2198 redundancy transmission is started based on negotiation.

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Using the **undo redundancy-negotiation-mode** command, you can restore the default mode in which RFC 2198 redundancy transmission is started based on negotiation.

By default, RFC 2198 redundancy transmission is started based on negotiation in **no-initiative-start** mode.

Format

redundancy-negotiation-mode { **fixed-start** | **negotiation** | **no-initiative-start** }

undo redundancy-negotiation-mode

Parameters

Parameter	Description	Value
fixed-start	Indicates the fixed startup mode. In fixed startup mode, the local end does not initiate any negotiation but accepts the initiated negotiation. If the negotiation fails, RFC 2198 redundancy transmission is started based on the local configuration.	-
negotiation	Indicates the initiative startup mode. In initiative startup mode, RFC 2198 redundancy transmission starts only after the negotiation between the local end and remote end succeeds. The negotiation may be initiated by the local end or remote end.	-

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Parameter	Description	Value
no-initiative-start	Indicates the no-initiative startup mode. In no-initiative startup mode, RFC 2198 transmission starts only after the local end receives the negotiation invitation from the remote end. If the negotiation fails, RFC 2198 redundancy transmission is not started.	-

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the mode in which RFC 2198 redundancy transmission is started based on negotiation to **fixedstart**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] redundancy-negotiation-mode fixed-start
```

16.5.2.23 redundancy-nte

Function

Using the **redundancy-nte** command, you can enable a SIP server to use RFC 2198 redundancy transmission to transmit the RFC 2833 audio data or disable this function.

Using the **undo redundancy-nte** command, you can cancel the configuration.

By default, a SIP server is disabled from using RFC 2198 redundancy transmission to transmit the RFC 2833 audio data.

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Format

redundancy-nte { **enable** | **disable** }

undo redundancy-nte

Parameters

Parameter	Description	Value
enable	Enable a SIP server to use RFC 2198 redundancy transmission to transmit the RFC 2833 audio data.	-
disable	Disable a SIP server to use RFC 2198 redundancy transmission to transmit the RFC 2833 audio data.	-

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable a SIP server to use RFC 2198 redundancy transmission to transmit the RFC 2833 audio data.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] redundancy-nte enable
```

16.5.2.24 redundancy-start-mode

Function

Using the **redundancy-start-mode** command, you can configure the mode in which RFC 2198 redundancy transmission is started.

Using the **undo redundancy-start-mode** command, you can restore the default mode in which RFC 2198 redundancy transmission is started.

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By default, RFC 2198 redundancy transmission is started in ordinary startup mode.

Format

redundancy-start-mode { **ordinary2198** | **smart2198** }

undo redundancy-start-mode

Parameters

Parameter	Description	Value
ordinary2198	Indicates the ordinary startup mode.	-
smart2198	Indicates the smart startup mode. In smart startup mode, RFC 2198 redundancy transmission is started automatically when packet loss occurs.	-

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the mode in which RFC 2198 redundancy transmission is started to the smart startup mode.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] redundancy-start-mode smart2198
```

16.5.2.25 redundancy-vbd

Function

Using the **redundancy-vbd** command, you can enable a SIP server to use RFC 2198 redundancy transmission to transmit VBD or disable this function.

Using the **undo redundancy-vbd** command, you can cancel the configuration.

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By default, a SIP server is enabled to use RFC 2198 redundancy transmission to transmit VBD.

Format

redundancy-vbd enable

undo redundancy-vbd

Parameters

None

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable a SIP server to use RFC 2198 redundancy transmission to transmit VBD.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] redundancy-vbd enable
```

16.5.2.26 reg-count-per-second

Function

The **reg-count-per-second** command configures the number of registration times per second allowed by a SIP server.

The **undo reg-count-per-second** command restores the default number of registration times per second allowed by a SIP server.

By default, the number of registration times per second is 2.5 times of the CAPS.

Format

reg-count-per-second *count*

undo reg-count-per-second

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Parameters

Parameter	Description	Value
count	Specifies the number of registration times per second allowed by a SIP server.	The value is an unsigned integer that ranges from 1 to 1024.

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the number of registration times per second allowed by a SIP server to 100.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] reg-count-per-second 100
```

16.5.2.27 register-uri

Function

Using the **register-uri** command, you can set the uniform resource identifier (URI) of a SIP server.

By default, no URI of the SIP server is configured.

Format

register-uri *uri*

Parameters

Parameter	Description	Value
uri	Specifies the URI of a SIP server.	The value is a string of 1 to 64 characters.

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Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the URI of the SIP server to **abcd.com**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] register-uri abcd.com
```

16.5.2.28 reset (SIP server view)

Function

Using the **reset** command, you can reset a SIP server.

Format

reset

Parameters

None

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

The SIP server will be reset after you run the **reset** command. Exercise caution when you run this command.

Example

Reset the SIP server.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] sipserver
[Huawei-voice-sipserver] reset
```

16.5.2.29 shutdown (SIP server view)

Function

Using the **shutdown** command, you can shut down a SIP server.

Format

shutdown

Parameters

None

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Shut down a SIP server.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] shutdown
```

16.5.2.30 signalling-address

Function

The **signalling-address** command configures a signaling IP address and a signaling port number for a SIP server.

By default, no signaling IP address or signaling port number is configured.

Format

signalling-address { **ip** *ip-address* | **addr-name** *addr-name-value* } **port** *port-value*

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Parameters

Parameter	Description	Value
ip *ip-address*	Specifies a signaling IP address.	The value is in dotted decimal notation.
addr-name *addr-name-value*	Specifies a dynamic signaling IP address name.	The value is a string of 1 to 64 case-insensitive characters.
port *port-value*	Indicates the signaling port number of a SIP server.	The value is an integer that ranges from 5000 to 5999.

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

Before specifying the signaling IP address for a SIP server, create a signaling IP address or a dynamic signaling IP address name.

Example

Configure a signaling IP address 192.168.0.2 and a signaling port number 5000 for a SIP server.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] signalling-address  ip 192.168.0.2 port 5000
```

16.5.2.31 signalling-domain

Function

Using the **signalling-domain** command, you can configure a signaling domain name for a SIP server that uses a dynamic signaling IP address.

By default, no signaling domain name is configured for a SIP server using a dynamic signaling IP address.

Format

signalling-domain *signalling-domain-value*

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Parameters

Parameter	Description	Value
signalling-domain-value	Specifies a signaling domain name.	The value is a string of 1 to 64 characters.

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

When a SIP server uses a dynamic signaling IP address, configure a signaling domain name for the SIP server.

Example

Set the signaling domain name to **abcd.com** for a SIP server.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] signalling-domain abcd.com
```

16.5.2.32 sipserver

Function

Using the **sipserver** command, you can enter the SIP server view.

Using the **undo sipserver** command, you can delete the SIP server.

Format

sipserver

undo sipserver

Parameters

None

Views

Voice view

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Default Level

2: Configuration level

Usage Guidelines

When the device functions as a SIP server, run the **sipserver** command to enter the SIP server view and configure this SIP server.

Example

Enter the SIP server view.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver]signalling-domain abcd.com
```

16.5.2.33 transfer(SIP server view)

Function

Using the **transfer** command, you can configure the transfer mode for a SIP server.

Using the **undo transfer** command, you can restore the default transfer mode of a SIP server.

The default transfer mode of a SIP server is UDP.

Format

transfer *transfer-value*

undo transfer

Parameters

Parameter	Description	Value
transfer-value	Specifies the transfer mode for a SIP server.	Enumerated type. The values are as follows: • TCP • UDP • TLS

Views

SIP server view

Default Level

2: Configuration level

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Usage Guidelines

None

Example

Set the transfer mode of a SIP server to TCP.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] transfer TCP
```

16.5.3 CDR Server Configuration Commands

16.5.3.1 bill format

Function

The **bill format** command specifies the format of CDRs output by the AR.

The **undo bill format** command restores the default format of CDRs output by the AR.

By default, the output format is CDR.

Format

bill format *format-value*

undo bill format

Parameters

Parameter	Description	Value
format-value	Specifies the format of CDRs.	Enumerated value. The options are as follows: • CDR: CDR binary format • SOFTX: SOFT X3000 binary format • MINI: MINI text format • UCBILL: U1900 CDR

Views

CDR server view

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Default Level

2: Configuration level

Usage Guidelines

The **bill format** command specifies the format of CDRs output by the AR.

Example

Set the CDR format to UCBILL.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] cdr-server
[Huawei-voice-cdr-server] bill format UCBILL
```

16.5.3.2 bill textfield

Function

The **bill textfield** command specifies the output item of MINI CDRs.

The **undo bill textfield** command restores the default output item of MINI CDRs.

By default, the output item of MINI CDRs is ALL.

Format

bill textfield *index*

undo bill textfield

Parameters

Parameter	Description	Value
index	Specifies the output item.	The value ranges from 0 to 43.

Views

CDR server view

Default Level

2: Configuration level

Usage Guidelines

The **bill textfield** command specifies the output item of MINI CDRs.

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Example

Configure the device not to output the IP address.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]cdr-server
[Huawei-voice-cdr-server]bill textfield 0 disable
```

16.5.3.3 bill transfertype

Function

The **bill transfertype** command specifies CDR transfer mode.

The **undo bill transfertype** command restores the default CDR transfer mode.

The default transfer mode is SFTP.

Format

bill transfertype { FTP | SFTP }

undo bill transfertype

Parameters

Parameter	Description	Value
transfertype	Specifies the CDR transfer mode.	The value can be **FTP** or **SFTP**. • FTP: Transfer CDRs to an FTP server using FTP. • SFTP: Transfer CDRs to an SFTP server using SFTP.

Views

CDR server view

Default Level

2: Configuration level

Usage Guidelines

You can run this command to configure the CDR transfer mode.

Example

Set the CDR transfer mode to SFTP.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]cdr-server
[Huawei-voice-cdr-server]bill transfertype SFTP
```

16.5.3.4 billpoolfull

Function

The **billpoolfull** command configures a policy when the CDR pool is full.

The **undo billpoolfull** command restores the default policy when the CDR pool is full.

By default, the values of **billdiscard** and **calleelimit** are **disable**.

Format

billpoolfull { **billdiscard** *billdiscard* | **calleelimit** *calleelimit* | **callerlimit** *callerlimit* }

undo billpoolfull { **billdiscard** | **calleelimit** | **callerlimit** }

Parameters

Parameter	Description	Value
billdiscard	Specifies a policy for new CDRs when the CDR pool is full.	Enumerated value. The options are as follows: • disable: New CDRs overwrite old CDRs. • enable: New CDRs are discarded.
calleelimit	Specifies a called limiting policy when the CDR pool is full.	Enumerated value. The options are as follows: • disable: Calls are not limited. • enable: Calls are limited: – VU: IVR call limiting. – ddd: Domestic direct dialing call limiting. – idd: International direct dialing call limiting. – inter: Internal dialing call limiting. – local: Local dialing call limiting.

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Parameter	Description	Value
callerlimit	Specifies a caller limiting policy when the CDR pool is full	Enumerated value. The options are as follows: • disable: Calls are not limited. • enable: Calls are limited: – ddd: Domestic direct dialing call limiting. – idd: International direct dialing call limiting. – inter: Internal dialing call limiting. – local: Local dialing call limiting.

Views

CDR server view

Default Level

2: Configuration level

Usage Guidelines

The **billpoolfull** command configures a policy when the CDR pool is full.

Example

Configure local call limiting.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] cdr-server
[Huawei-voice-cdr-server] billpoolfull calleelimit enable local enable
```

16.5.3.5 cdr-server

Function

Using the **cdr-server** command, you can enter the Call Detail Record (CDR) server view.

Using the **undo cdr-server** command, you can delete the Call Detail Record (CDR) server.

Format

cdr-server

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undo cdr-server

Parameters

None

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enter the CDR server view.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] cdr-server
[Huawei-voice-cdr-server]
```

16.5.3.6 display voice cdr-server

Function

The **display voice cdr-server** command displays the configuration of a CDR server.

Format

display voice cdr-server

Parameters

None

Views

All views

Default Level

2: Configuration level

Usage Guidelines

The **display voice cdr-server** command displays the configuration of a CDR server.

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Example

Display the configuration of a CDR server.

```
<Huawei> display voice cdr-server
  Protocol type        : FTP
  Server IP address    : 192.168.0.1
  Server port          : 2020
  User name            :
  Password             :
  Connection status    : Released
  Bill Format          : CDR
  Billpoolfull discard : disable
  Bill pool state      :
      Used             : 12
      Max              : 34952
      Alarm            : 31456
      Alarm state      : NOT FULL
  Caller limit         : disable
  Callee limit         : disable
  Textfield include    : ALL
```

Table 16-57 Description of the display voice cdr-server command output

Item	Description
Protocol type	Protocol type.
Server IP address	IP address of a CDR server. To configure the IP address of a CDR server, run the **16.5.3.7 server ip port** command.
Server UDP port	Port number of a CDR server. To configure the port number of a CDR server, run the **16.5.3.7 server ip port** command.
User name	User name of a CDR server. To configure the user name of a CDR server, run the **16.5.3.8 username password** command.
Password	Password of a CDR server. To configure the password of a CDR server, run the **16.5.3.8 username password** command.
Connection status	Connection status.
Bill Format	CDR type. This parameter can be set using the **bill format** command.
Billpoolfull discard	New CDR policy when the CDR pool is full. This parameter can be set using the **billpoolfull** command.

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Item	Description
Bill pool state	CDR pool status.
Caller limit	Calling party barring policy when the CDR pool is full. This parameter can be set using the **billpoolfull callerlimit** command.
Called limit	Called party barring policy when the CDR pool is full. This parameter can be set using the **billpoolfull calledlimit** command.
Textfield include	CDR text fields. This parameter can be set using the **bill textfield** command.

16.5.3.7 server ip port

Function

Using the **server ip port** command, you can specify the IP address and port number of a CDR server.

By default, no IP address or port number of the CDR server is specified.

Format

server ip *ip-address* **port** *port-number*

Parameters

Parameter	Description	Value
ip-address	Specifies the IP address of a CDR server.	The value is in dotted decimal notation.
port-number	Specifies the port number of a CDR server.	The value is an integer that ranges from 1 to 65535.

Views

CDR server view

Default Level

2: Configuration level

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Usage Guidelines

None

Example

Set the IP address and port number of a CDR server.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] cdr-server
[Huawei-voice-cdr-server] server ip 192.168.0.2 port 21
```

16.5.3.8 username password

Function

The **username password** command configures user names and passwords.

The **undo username** command deletes user names.

Format

username *username* **password cipher** *cipher-password*

undo username

Parameters

Parameter	Description	Value
username	Specifies the user name.	The value is a string of 1 to 15 characters.
cipher *cipher-password*	Specifies the password sent in cipher text. **NOTE** You can configure *cipher-password* after inputting **cipher** and pressing **Enter**.	The value is a string of case-sensitive characters without spaces. A cipher password may contain 1 to 15 encrypted characters.

Views

CDR server view

Default Level

2: Configuration level

Usage Guidelines

N/A

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Example

Set the user name to **user1** and the password to **admin**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] cdr-server
[Huawei-voice-cdr-server] username user1 password cipher
 Please input user password(1-15 chars):*****
```

16.5.4 PBX User Configuration Commands

16.5.4.1 bind trunk-group (PBX user view)

Function

Using the **bind trunk-group** command, you can associate a specified PBX user with a specified SIP AT0 trunk group so that registration status is kept consistent between the PBX user and SIP AT0 trunk group. By default, this function is not configured for users.

Format

bind trunk-group *trunk-group-name* **trunk-sipat0** *register-privateid*

undo bind trunk-group trunk-sipat0

Parameters

Parameter	Description	Value
trunk-group-name	Specifies the SIP AT0 trunk group name.	The value is a string of 1 to 32 characters.
register-privateid	Specifies the registration ID of the SIP AT0 trunk.	The value is a string of 1 to 32 characters.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

This command is generally used in the eSBC scenario for conversion between public and private networks. This command ensures that the registration status of the IP PBX with the AR is consistent with that of the AR with the IMS.

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Example

Keep registration status of SIP user 28980000 to be consistent with that of the SIP AT0 trunk (28980000) from the AR to IMS.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser 28980000 sipue
[Huawei-voice-pbxuser-28980000] sipue 28980000
[Huawei-voice-pbxuser-28980000] telno 28980000
[Huawei-voice-pbxuser-28980000] bind trunk-group sipat0 trunk-sipat0 28980000
```

16.5.4.2 call-right

Function

The **call-right** command configures incoming and outgoing call rights for trunk groups.

The **undo call-right** command restores the default settings.

By default, inter office calls are allowed.

Format

call-right { **in** | **out** } { { **inter** *inter-value* | **local** *local-value* | **ddd** *ddd-value* | **idd** *idd-value* } * | **all** }

undo call-right [**in** | **out**]

Parameters

Parameter	Description	Value
inter-value	Internal dialing call right.	Enumerated type. The values are as follows: • disable • enable
local-value	Local dialing call right	Enumerated type. The values are as follows: • disable • enable
ddd-value	Domestic direct dialing call right	Enumerated type. The values are as follows: • disable • enable
idd-value	International direct dialing call right	Enumerated type. The values are as follows: • disable • enable

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Parameter	Description	Value
all	all call right	all: All (inter&local&ddd&idd) right

Views

Pbxuser view

Default Level

2: Configuration level

Usage Guidelines

N/A

Example

Configure the incoming and outgoing call rights for national toll calls.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser huawei
[Huawei-voice-pbxuser-huawei] call-right in all
[Huawei-voice-pbxuser-huawei] call-right out idd enable
```

16.5.4.3 custom-right (PBX user view)

Function

The **custom-right** command binds customized 32-level rights to a PBX user.

By default, no 32-level right is bound to a PBX user.

Format

custom-right { *c1* | *c2* | *c3* | *c4* | *c5* | ...| *c32* }*

undo custom-right [*c1* | *c2* | *c3* | *c4* | *c5* | ...| *c32*] *****

Parameters

Parameter	Description	Value
c1 | *c2* | *c3* | *c4* | *c5* | .../ *c32*	Specifies 32-level rights to be bound to a PBX user.	The value can be one or more of **c1** to **c32**.

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Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

By default, no 32-level right is bound to a PBX user. You can configure 1 to 32 customized rights.

Adding or deleting a right does not affect existing 32-level rights.

To clear all 32-level rights bound to a user, run the **undo custom-right** command.

Example

Bind 32-level rights **c4** and **c8** to PBX user 28980000.

```
<Huawei> system-view
 [Huawei] voice
 [Huawei-voice] pbxuser 28980000 pots
 [Huawei-voice-pbxuser-28980000] custom-right c4 c8
```

Unbind 32-level right **c4** from PBX user 28980000.

```
<Huawei> system-view
 [Huawei] voice
 [Huawei-voice] pbxuser 28980000
 [Huawei-voice-pbxuser-28980000] undo custom-right c4
```

Clear all 32-level rights bound to PBX user 28980000.

```
<Huawei> system-view
 [Huawei] voice
 [Huawei-voice] pbxuser 28980000
 [Huawei-voice-pbxuser-28980000] undo custom-right
```

16.5.4.4 display voice pbxuser

Function

The **display voice pbxuser** command displays the configuration of a PBX user.

Format

display voice pbxuser [*pbxuser-name* | *user-category*] [**enterprise** *enterprise*]

Parameters

Parameter	Description	Value
pbxuser-name	Displays the configuration of a specified PBX user.	The value is a string of 1 to 32 characters without spaces.

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Parameter	Description	Value
user-category	Displays the configuration of PBX users by user types.	Enumerated type. Categories are as follows: **pots** **bra** **sipue**

Views

All views

Default Level

3: Management level

Usage Guidelines

If no PBX user name is specified, the configuration of all PBX users is displayed.

Example

Display the configuration of the PBX user 2000.

```
<Huawei> display voice pbxuser 2000
  PBX user               : 2000
  Enterprise             : default
  Port                  : 2/0/0
  Sipue Type             :
  Dn-set                : DefaultDialPlan
  Telephone number       : 2000
  Long telno             :
  Callin right          : inter&local&ddd&idd
  Callout right          : inter&local
  User type             : Normal
  Priority of user       : Default
  PickupGroup name       :
  Newmsgs number         : 0
  Oldmsgs number        : 0
  User name             : join
  Service status         : Idle
```

Table 16-58 Description of the **display voice pbxuser** command output

Item	Description
PBX user	Name of a PBX user. To set the name of a PBX user, run the **16.5.4.33 pbxuser (voice view)** command.

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Item	Description
Enterprise	Enterprise to which a PBX user belongs. To configure the enterprise to which a PBX user belongs, run the **16.5.4.33 pbxuser (voice view)** command.
Port	Physical interface to which a POTS user is bound. To configure the physical interface to which a POTS user is bound, run the **16.5.4.33 pbxuser (voice view)** command.
Sipue Type	Type of a SIP user.
Dn-set	DN set of a PBX user. To set the DN set of a PBX user, run the **16.5.4.13 dn-set (PBX user view)**command.
Telephone number	Phone number of a PBX user. To set the phone number of a PBX user, run the **telno** command.
Long telno	Long telno of a PBX user. To set the phone number of a PBX user, run the **telno** command.
Callin right	Call-in right.
Callout right	Call-out right.
User type	User type.
Priority of user	Priority of a PBX user.
PickupGroup name	Pickup group name.
Newmsgs number	Number of new voicemail messages.
Oldmsgs number	Number of old voicemail messages.
Service status	Service status.
Priority group name	Call priority group with which a PBX user is associated.

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16.5.4.5 display voice pbxuser brief

Function

The **display voice pbxuser brief** command displays the basic configuration of PBX users.

Format

display voice pbxuser brief [*pbxuser-name*]

Parameters

Parameter	Description	Value
pbxuser-name	Displays the configuration of a specified PBX user.	The value is a string of 1 to 32 characters without spaces.

Views

All views

Default Level

3: Management level

Usage Guidelines

You can view the basic configuration of PBX users.

Example

Display the basic configuration of all PBX users.

```
<Huawei>display voice pbxuser brief
 Spec: 250, Records: 250
 ------------------------------------------------------------------
 Pbxuser              PTP Status          CTP Status
 2000                 Normal              Idle
 2001                 Normal              Idle
 2002                 Normal              Idle
 2003                 Normal              Idle
 2010                 Out of service      Block
 2011                 Out of service      Block
 2012                 Out of service      Block
 2013                 Out of service      Block
 2014                 Out of service      Block
 2015                 Out of service      Block
 2016                 In service          Idle
 2018                 Out of service      Block
```

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Table 16-59 Description of the display voice pbxuser command output

Item	Description
PBX user	Name of the PBX user. You can configure the PBX user name by running the **pbxuser (voice view)** command.
PTP status	PBX user registration status.
CTP status	PBX user call status.

16.5.4.6 display voice pbxuser eid-para

Function

The **display voice pbxuser eid-para** command displays EID parameters configured for a PBX user.

Format

display voice pbxuser *name* **eid-para**

Parameters

Parameter	Description	Value
name	Specifies a PBX user name.	The value is a string of 1 to 32 characters without spaces.

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

View EID parameters configured for a PBX user.

```
<Huawei> display voice pbxuser pots1 eid-para
  Description                :
  Priority                   : cat3
```

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```
Pots line type                  : DEL
CLIP transmission sequence      : after-ring
CLIP format                     : SDMF(FSK)
DC time(ms)                     : 100
FSK time(ms)                    : 800
VQE auto gain active flag       : Disable
VQE auto gain target level      : -22
VQE noise suppression active flag : Disable
VQE noise suppression level     : 12
DSP input gain(db)              : 0
DSP output gain(db)             : 0
Detect ANS BRA by single tone flag: Disable
Bell ANS flag                   : Disable
FSK mode                        : BELL_202
TAS mode                        : NO-TAS
```

Table 16-60 Description of the display voice pbxuser eid-para command output

Item	Description
Description	Description. This parameter can be set using the **eid-para description** command.
Priority	User priority. This parameter can be set using the **eid-para Priority** command.
Pots line type	User type. This parameter can be set using the **eid-para line-type** command.
CLIP transmission sequence	CLIP transmission sequence
CLIP format	Calling number format. This parameter can be set using the **eid-para clip-format** command.
DC time	Power-off interval. This parameter can be set using the **eid-para dc-time** command.
FSK time	FSK delay. This parameter can be set using the **eid-para fsk-time** command.
VQE auto gain active flag	Automatic voice gain flag. This parameter can be set using the **eid-para vqe-agc** command.
VQE auto gain target level	Automatic voice gain value. This parameter can be set using the **eid-para vqe-agc** command.
VQE noise suppression active flag	Noise suppression flag. This parameter can be set using the **eid-para vqe-sns** command.

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Item	Description
VQE noise suppression level	Noise suppression level. This parameter can be set using the **eid-para vqe-sns-level** command.
DSP input gain	DSP input gain. This parameter can be set using the **eid-para dsp-input-gain** command.
DSP output gain	DSP output gain. This parameter can be set using the **eid-para dsp-output-gain** command.
Detect ANS BRA by single tone flag	ANSbar signal detection using single tones flag. This parameter can be set using the **eid-para detect-ansbra-by-single-tone** command.
Bell ANS flag	Bell ANS signal flag. This parameter can be set using the **eid-para bell-ans-flag** command.
FSK mode	FSK mode. This parameter can be set using the **eid-para fsk-mode** command.
TAS mode	TAS mode. This parameter can be set using the **eid-para tas-pattern** command.

16.5.4.7 display voice pbxuser port

Function

The **display voice pbxuser port** command displays the PBX user configuration on an interface.

Format

display voice pbxuser port *port-type* [*interface-number*]

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Parameters

Parameter	Description	Value
port-type	Specifies the type of the interface to be checked.	Enumerated value. The options are as follows: • pots: Foreign exchange station (FXS) interface. • bra: Basic rate access (BRA) interface.
interface-number	Specifies the number of the interface on which the PBX user configuration is checked.	The value is a string of 1 to 15 characters without spaces. The value of *interface-number* is based on the device specifications.

Views

All views

Default Level

3: Management level

Usage Guidelines

You can run the **display voice pbxuser port** command to check information about users that are bound to an interface.

Example

Display the PBX user configuration on the POTS interface 0/0/0.

```
<Huawei> display voice pbxuser port pots 0/0/0
  PBX user               : 20000
  Enterprise             : default
  Port                  : 0/0/0
  Port type              : pots
  Sipue Type             :
  Dn-set                : DefaultDialPlan
  Telephone number       : 20000
  Long telno             :
  Service status         : Idle
```

Table 16-61 Description of the **display voice pbxuser port** command output

Item	Description
PBX user	Name of the PBX user.
Enterprise	Enterprise of the PBX user.

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Item	Description
Port	Physical port bound to the PBX user.
Port type	Type of the port bound to the PBX user. **NOTE** Only AR169CVW-4B4S supports this parameter.
Sipue Type	SIP user type.
Dn-set	DN set of the PBX user.
Telephone number	Phone number of the PBX user.
Long telno	Long number of the PBX user.
Service status	Service status.

Related Topics

16.5.4.33 pbxuser (voice view)
16.5.4.36 port (PBX user view)
16.5.4.13 dn-set (PBX user view)

16.5.4.8 display voice pbxuser sipue

Function

The display voice pbxuser sipue command displays the configuration of PBX SIP users.

Format

display voice pbxuser sipue [*sipue-eid* | *enterprise*]

Parameters

Parameter	Description	Value
sipue-eid	Specifies the EID.	Character string type. The value is a string of 1-64 characters, and space is not supported.

Views

All views

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Default Level

3: Management level

Usage Guidelines

If the EID is not specified, the configuration of all SIP users is displayed.

Example

Display the configuration of a PBX SIP user.

```
<Huawei> display voice pbxuser sipue
  PBX user                : 2010
  Enterprise              : default
  Eid                     : 2010
  Sipue Type              : SIPUE
  Dn-set                  : DefaultDialPlan
  Telephone number        : 2010
  Long telno              :
  Register status         : Out of service
  Service status          : Block
```

Table 16-62 Description of the **display voice pbxuser sipue** command

Item	Description
PBX user	Name of the PBX user. You can configure the PBX user name by running the **pbxuser (voice view)** command.
Enterprise	Enterprise of the PBX user. You can configure the enterprise of the PBX user by running the **pbxuser (voice view)** command.
Eid	Device identifier of the SIP user.
Sipue Type	Type of the SIP user.
Dn-set	DN set of the PBX user. You can configure the DN set by running the **dn-set (PBX user view)** command.
Telephone number	Phone number of the PBX user. You can configure the phone number by running the **telno** command.
Long telno	Long number of the PBX user. You can configure the long number by running the **telno** command.
Register status	User registration status.

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Item	Description
Service status	User status.

16.5.4.9 display voice pbxuser sipue-register-state

Function

The **display voice pbxuser sipue-register-state** command displays registration information about a PBX user.

Format

display voice pbxuser sipue-register-state [*pbxuser-name*]

Parameters

Parameter	Description	Value
pbxuser-name	Displays the configuration of a specified PBX user.	The value is a string of 1 to 32 characters without spaces.

Views

All views

Default Level

3: Management level

Usage Guidelines

If the PBX user name is not specified, registration information about all PBX users is displayed.

Example

View registration information about PBX user 2016.

```
<Huawei>display voice pbxuser sipue-register-state 2016
 Pbxuser        : 2016
 SIPUE          : 192.168.0.1:5060
 Expires(s)     : 2197
 Interval(s)    : 3600
 Status         : In service
```

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Table 16-63 Description of the display voice pbxuser command output

Item	Description
PBX user	Name of a PBX user. To set the name of a PBX user, run the **16.5.4.33 pbxuser (voice view)** command.
SIPUE	Registration source.
Expires	Registration timeout interval.
Intervals	Registration interval.
Status	Registration status.

16.5.4.10 display voice pbxuser start-telno

Function

The **display voice pbxuser start-telno** command displays the configuration information about PBX users.

Format

display voice pbxuser start-telno *start-telno* [**end-telno** *end-telno*]

Parameters

Parameter	Description	Value
start-telno	Specifies the start number of the PBX users to query.	The value is a string of 1 to 24 characters excluding space.
end-telno *end-telno*	Specifies the end number of the PBX users to query.	The value is a string of 1 to 24 characters excluding space.

Views

All views

Default Level

3: Management level

Usage Guidelines

None

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Example

Display the configuration information about PBX user those number start with **20000**.

```
<Huawei> display voice pbxuser start-telno 20000
  PBX user              : 200000
  Enterprise            : default
  Eid                   : 200000
  Sipue Type            : SIPUE
  Dn-set                : DefaultDialPlan
  Telephone number      : 200000
  Long telno            :
  Register status       : Out of service
  Service status        : Block

  PBX user              : 200001
  Enterprise            : default
  Eid                   : 200001
  Sipue Type            : SIPUE
  Dn-set                : DefaultDialPlan
  Telephone number      : 200001
  Long telno            :
  Register status       : Out of service
  Service status        : Block
```

Table 16-64 display voice pbxuser command output

Parameter	Description
PBX user	PBX user name. This parameter can be set using the **16.5.4.33 pbxuser (voice view)** command.
Enterprise	Enterprise to which the PBX user belongs. This parameter can be set using the **16.5.4.33 pbxuser (voice view)** command.
Port	Physical port bound to the PBX user. This parameter can be set using the **16.5.4.36 port (PBX user view)** command.
Dn-set	DN set of the PBX user. This parameter can be set using the **16.5.4.13 dn-set (PBX user view)** command.
Telephone number	Telephone number of the PBX user. This parameter can be set using the **16.5.4.42 telno (PBX user view)** command.

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Parameter	Description
Long telno	Long number of the PBX user. This parameter can be set using the **16.5.4.42 telno (PBX user view)** command.
Register status	User registration status.
Service status	User status.

16.5.4.11 display voice pbxuser state

Function

The **display voice pbxuser** command displays the PBX user configuration according to the user status.

Format

display voice pbxuser *state*

Parameters

Parameter	Description	Value
state	Displays the PBX user status.	Enumerated type. The values are as follows: • **idle**: The PBX user is idle. • **busy**: The PBX user is busy. • **blocked**: The PBX user is blocked.

Views

All views

Default Level

3: Management level

Usage Guidelines

None.

Example

Display the configuration of PBX users in busy state.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] display voice pbxuser busy
 PBX user               : 1387
 Enterprise             : default
 Eid                  : 1387
 Sipue Type             : SIPUE
 Dn-set               : DefaultDialPlan
 Telephone number       : 1387
 Long telno             :
 Register status        : In service
 Service status         : Busy
```

Table 16-65 display voice pbxuser command output

Item	Description
PBX user	Name of the PBX user. You can configure the PBX user name by running the **pbxuser (voice view)** command.
Enterprise	Enterprise of the PBX user. You can configure the enterprise of the PBX user by running the **pbxuser (voice view)** command.
Eid	Device identifier of the SIP user.
Sipue Type	Type of the SIP user.
Dn-set	DN set of the PBX user. You can configure the DN set by running the **dn-set (PBX user view)** command.
Telephone number	Phone number of the PBX user.
Long telno	Long number of the PBX user.
Register status	User registration status.
Service status	User status.

16.5.4.12 display voice priority-group

Function

The **display voice priority-group** command displays call priority group configurations.

Format

display voice priority-group [*priority-group-name*]

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Parameters

Parameter	Description	Value
priority-group-name	Indicates the name of the call priority group to be checked.	The value is a string of 1 to 32 case-insensitive characters without spaces.

Views

All views

Default Level

2: Configuration level

Usage Guidelines

You can run the **display voice priority-group** command to check numbers and priorities of users in a call priority group.

Example

Check configurations of all call priority groups.

```
<Huawei> display voice priority-group
  Priority group name    : Group1
  Priority telno         : 1002
  Priority level         : 2
```

Table 16-66 Description of the **display voice priority-group** command output

Item	Description
Priority group name	Name of the call priority group.
Priority telno	Phone number of a calling user.
Priority level	Priority of a calling user.

16.5.4.13 dn-set (PBX user view)

Function

Using the **dn-set** command, you can configure a DN set for PBX users.

Using the **undo dn-set** command, you can delete a DN set for PBX users.

By default, PBX uses use the default DN set **DefaultDialPlan**.

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Format

dn-set *dn-set-name*

undo dn-set

Parameters

Parameter	Description	Value
dn-set-name	Specifies the name of a DN set.	The value is a string of 1 to 32 characters without spaces.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

A DN set is a collection of prefixes that all users on the PSTN can dial. Before configuring a DN set to which users belong, run the **dn-set (enterprise view)** command to create a DN set.

Example

Set the DN set to **user001** for PBX users.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser aaa pots enterprise huawei
[Huawei-voice-pbxuser-aaa] dn-set user001
```

16.5.4.14 eid-para bell-ans-flag

Function

Using the **eid-para bell-ans-flag** command, you can configure the device to support Bell ANS signals or disable this function.

The **undo eid-para bell-ans-flag** command restores the default setting of Bell ANS signals.

By default, the device does not support Bell ANS signals.

Format

eid-para bell-ans-flag { **enable** | **disable** }

undo eid-para bell-ans-flag

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Parameters

None

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Configure the device to support Bell ANS signals.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser aaa pots
[Huawei-voice-pbxuser-aaa] port 1/0/1
[Huawei-voice-pbxuser-aaa] eid-para bell-ans-flag enable
```

16.5.4.15 eid-para clip-format

Function

Using the **eid-para clip-format** command, you can configure the calling number format.

Using the **undo eid-para clip-format** command, you can restore the default calling number format.

By default, the calling number format is frequency-shift keying (FSK) simple data format.

ps: Valid only for pots users

Format

eid-para clip-format { **sdmf-fsk** | **mdmf-fsk** | **dtmf** | **etsi** | **r1_5** }

undo eid-para clip-format

Parameters

Parameter	Description	Value
sdmf-fsk	Specifies the frequency-shift keying (FSK) simple data format.	-

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Parameter	Description	Value
mdmf-fsk	Specifies the FSK compound data format.	-
dtmf	Specifies the Dual Tone Multifrequency (DTMF) format.	-
etsi	Specifies the BT calling number format.	-
r1_5	Specifies the Russia calling number format.	-

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the calling number format to SDMF.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser aaa pots
[Huawei-voice-pbxuser-aaa] port 1/0/1
[Huawei-voice-pbxuser-aaa] eid-para clip-format sdmf
```

16.5.4.16 eid-para dc-time

Function

Using the **eid-para dc-time** command, you can set the power-off interval.

Using the **undo eid-para dc-time** command, you can restore the default power-off interval.

By default, the power-off interval is 100 milliseconds.

Format

eid-para dc-time *dc-time*

undo eid-para dc-time

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Parameters

Parameter	Description	Value
dc-time	Specifies the power-off interval.	The value is an integer that ranges from 10 to 100, in 10 milliseconds.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the power-off interval to 100 milliseconds.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser aaa pots
[Huawei-voice-pbxuser-aaa] port 1/0/1
[Huawei-voice-pbxuser-aaa] eid-para dc-time 10
```

16.5.4.17 eid-para default-cli

Function

The **eid-para default-cli** command configures the default calling number for a BRA user.

The **undo eid-para default-cli** command deletes the default calling number of a BRA user.

By default, no calling number is configured for a BRA user.

Format

eid-para default-cli *default-cli-value*

undo eid-para default-cli

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Parameters

Parameter	Description	Value
default-cli *default-cli-value*	Specifies the default calling number. **NOTE** *When an ISDN user makes outgoing calls over the SIP PRA trunk without calling number information, the default calling number can be used.*	The value is a string of 1 to 64 characters without spaces.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

When an ISDN user makes an outgoing call over the SIP PRA trunk without calling number information (for example, the user enables the restriction on the calling number), run this command to configure the default calling number.

Example

Configure the default calling number of the BRA user named **user001** to 1100.

```
<Huawei> system-view
 [Huawei] voice
 [Huawei-voice] pbxuser user001 bra
 [Huawei-voice-pbxuser-user001] eid-para default-cli 1100
```

16.5.4.18 eid-para description (PBX user view)

Function

Using the **eid-para description** command, you can configure the description of a PBX user.

Using the **undo eid-para description** command, you can delete the description of a PBX user.

By default, no description is configured for a PBX user.

Format

eid-para description *description*

undo eid-para description

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Parameters

Parameter	Description	Value
description	Specifies the description of a PBX user.	The name is a string of 1 to 64 case-sensitive characters without spaces.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Configure the description of the PBX user **user001** as **pots**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser user001 pots
[Huawei-voice-pbxuser-user001] port 1/0/1
[Huawei-voice-pbxuser-user001] eid-para description pots
```

16.5.4.19 eid-para detect-ansbar-by-single-tone

Function

Using the **eid-para detect-ansbar-by-single-tone** command, you can enable ANSbar signal detection using single tones or disable this function.

The **undo eid-para detect-ansbar-by-single-tone** command restores the default setting of ANSbar signal detection using single tones.

By default, ANSbar signal detection using single tones is disabled.

Format

eid-para detect-ansbar-by-single-tone { enable | disable }

undo eid-para detect-ansbar-by-single-tone disable

Parameters

None

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Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable ANSbar signal detection using single tones.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser user001 pots
[Huawei-voice-pbxuser-user001] port 1/0/1
[Huawei-voice-pbxuser-user001] eid-para detect-ansbar-by-single-tone enable
```

16.5.4.20 eid-para dsp-input-gain

Function

Using the **eid-para dsp-input-gain** command, you can configure the DSP chip input gain.

Using the **undo eid-para dsp-input-gain** command, you can restore the default DSP chip input gain.

By default, the DSP chip input gain is 10, that is, 0 dB.

Format

eid-para dsp-input-gain *dsp-input-gain*

undo eid-para dsp-input-gain

Parameters

Parameter	Description	Value
dsp-input-gain	Specifies the input gain of the DSP module. **NOTE** The input gain refers to the gain from the PCM side to the IP side.	The value is an integer that ranges from 0 to 15. The values 0 to 15 correspond to -10 dB to 5 dB. The default value is 0 dB.

Views

PBX user view

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Default Level

2: Configuration level

Usage Guidelines

You can run the **eid-para dsp-input-gain** command to improve the voice quality.

Example

Set the input gain of the DSP module to 5 dB.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser user001 pots
[Huawei-voice-pbxuser-user001] port 1/0/1
[Huawei-voice-pbxuser-user001] eid-para dsp-input-gain 15
```

16.5.4.21 eid-para dsp-output-gain

Function

Using the **eid-para dsp-output-gain** command, you can configure the output gain of the DSP module.

Using the **undo eid-para dsp-output-gain** command, you can restore the default output gain of the DSP module.

By default, the output gain of the DSP module is 10, that is, 0 dB.

Format

eid-para dsp-output-gain *dsp-output-gain*

undo eid-para dsp-output-gain

Parameters

Parameter	Description	Value
dsp-output-gain	Specifies the output gain of the DSP module. **NOTE** The output gain refers to the gain from the IP side to the PCM side.	The value is an integer that ranges from 0 to 20. The values 0 to 20 correspond to -10 dB to 10 dB. The default value is 0 dB.

Views

PBX user view

Default Level

2: Configuration level

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Usage Guidelines

You can run the **eid-para dsp-output-gain** command to adjust the voice quality.

Example

Set the output gain of the DSP module to 10 dB.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser user001 pots
[Huawei-voice-pbxuser-user001] port 1/0/1
[Huawei-voice-pbxuser-user001] dsp-output-gain 20
```

16.5.4.22 eid-para endservice

Function

Using the **eid-para endservice** command, you can terminate services of PSTN users.

Using the **undo eid-para endservice** command, you can restore services of PSTN users.

Format

eid-para endservice

undo eid-para endservice

Parameters

None

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

The **eid-para endservice** command terminates services of PSTN users. Exercise caution when you run this command.

Example

Terminate services of PSTN users.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser user001 pots
[Huawei-voice-pbxuser-user001] port 1/0/1
[Huawei-voice-pbxuser-user001] eid-para endservice
 Note: Stop service successful.
```

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16.5.4.23 eid-para fsk-mode

Function

Using the **eid-para fsk-mode** command, you can configure the FSK call display mode.

Using the **undo eid-para fsk-mode** command, you can restore the default FSK call display mode.

By default, the FSK call display mode is BELL_202.

Format

eid-para fsk-mode { **bell_202** | **ccitt_v23** | **ntt** }

undo eid-para fsk-mode

Parameters

Parameter	Description	Value
bell_202	Sets the FSK call display mode to BELL_202.	-
ccitt_v23	Sets the FSK call display mode to CCITT_V23.	-
ntt	Sets the FSK call display mode to NTT.	-

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the FSK call display mode to NTT.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser user001
[Huawei-voice-pbxuser-user001] port 1/0/1
[Huawei-voice-pbxuser-user001] eid-para fsk-mode ntt
```

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16.5.4.24 eid-para fsk-time

Function

Using the **eid-para fsk-time** command, you can set the FSK delay.

Using the **undo eid-para fsk-time** command, you can restore the default FSK delay.

By default, the FSK delay is 800 milliseconds.

Format

eid-para fsk-time *fsk-time*

undo eid-para fsk-time

Parameters

Parameter	Description	Value
fsk-time	Specifies the FSK delay.	The value is an integer that ranges from 0 to 100, in 10 milliseconds.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the FSK delay to 100 milliseconds.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser user001
[Huawei-voice-pbxuser-user001] port 1/0/1
[Huawei-voice-pbxuser-user001] eid-para fsk-time 10
```

16.5.4.25 eid-para line-type

Function

Using the **eid-para line-type** command, you can configure the PSTN user type.

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Using the **undo eid-para line-type** command, you can restore the default PSTN user type.

By default, the PSTN user type is DEL.

Format

eid-para line-type { **del** | **ecpbx** | **lcpbx** | **payphone** }

undo eid-para line-type

Parameters

Parameter	Description	Value
del	Specifies the PSTN user type as Direct Exchange Lines (DEL). DEL users' lines are directly connected to device ports.	-
ecpbx	Specifies the PSTN user type as Earth Calling PBX (ECPBX). PBX users' lines are connected to device ports through the PBX.	-
lcpbx	Specifies the PSTN user type as Loop Calling PBX (LCPBX). LCPBX users' lines are connected to device ports through the PBX.	-
payphone	Specifies the user type as pay phone. Pay phone users' lines are connected to the accounting terminal through the device ports.	-

Views

PBX user view

Default Level

2: Configuration level

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Usage Guidelines

None

Example

Configure the type of the PBX user **user001** as payphone.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser user001 pots
[Huawei-voice-pbxuser-user001] port 1/0/1
[Huawei-voice-pbxuser-user001] eid-para line-type payphone
```

16.5.4.26 eid-para password (PBX user view)

Function

The **eid-para password** command configures the authentication password for a SIP UE user.

The **undo eid-para password** command deletes the authentication password of a SIP UE user.

By default, no authentication password is configured for a SIP UE user.

Format

eid-para passwordcipher *password-value*

undo eid-para password

Parameters

Parameter	Description	Value
cipher*password-value*	Specifies the string of the cipher text password. **NOTE** You can configure *password-value* after inputting **cipher** and pressing **Enter**.	The value is a string of 6 to 64 characters without space. It must contain numbers, letters, and special characters.

Views

PBX user view

Default Level

2: Configuration level

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Usage Guidelines

N/A

Example

Configure the authentication password **abcde123@** for a SIP UE user.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser user001 sipue
[Huawei-voice-pbxuser-user001] sipue 001
[Huawei-voice-pbxuser-user001] eid-para password cipher
 Please input user password(6-64 chars):********
```

16.5.4.27 eid-para priority (PBX user view)

Function

The **eid-para priority** command configures the priority for a PBX user.

The **undo eid-para priority** command restores the default priority of a PBX user.

By default, the priority of a PBX user is **cat3** after the PBX user is created.

Format

eid-para priority { **cat1** | **cat2** | **cat3** }

undo eid-para priority

Parameters

Parameter	Description	Value
cat1	Sets the priority to category-1 user priority.	-
cat2	Sets the priority to category-2 user priority.	-
cat3	Sets the priority to normal.	-

Views

PBX user view

Default Level

2: Configuration level

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Usage Guidelines

The eid-para priority command is supported only when the user type is pots and bra.

Example

Set the priority of PBX user **user001** to **cat1**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser user001 pots
[Huawei-voice-pbxuser-user001] port 1/0/1
[Huawei-voice-pbxuser-user001] eid-para priority cat1
```

16.5.4.28 eid-para tas-pattern

Function

Using the **eid-para tas-pattern** command, you can configure the TAS mode of Calling Line Identification Presentation (CLIP).

Using the **undo eid-para tas-pattern** command, you can restore the default TAS mode of CLIP.

By default, the TAS mode of CLIP is NO-TAS.

Format

eid-para tas-pattern { **dt-as** | **no-tas** }

undo eid-para tas-pattern

Parameters

None

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the TAS mode of CLIP to DT-AS.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser user001 pots
```

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```
[Huawei-voice-pbxuser-user001] port 1/0/1
[Huawei-voice-pbxuser-user001] eid-para tas-pattern dt-as
```

16.5.4.29 eid-para vqe-agc

Function

Using the **eid-para vqe-agc** command, you can enable voice quality enhancement (VQE) or disable this function.

The **undo eid-para vqe-agc** command restores the default VQE setting.

Format

eid-para vqe-agc { enable | disable }

undo eid-para vqe-agc

Parameters

None

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable VQE.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser user001 pots
[Huawei-voice-pbxuser-user001] port 1/0/1
[Huawei-voice-pbxuser-user001] eid-para vqe-agc enable
```

16.5.4.30 eid-para vqe-agc-level

Function

Using the **eid-para vqe-agc-level** command, you can configure the target voice quality enhancement (VQE) level.

Using the **undo eid-para vqe-agc-level** command, you can restore the default target VQE level.

By default, the target VQE level is 13, that is -22 dB.

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Format

eid-para vqe-agc-level *vqe-agc-level*

undo eid-para vqe-agc-level

Parameters

Parameter	Description	Value
vqe-agc-level	Specifies the target VQE level.	The value is an integer that ranges from 0 to 15, that is, -9 dB to -24 dB.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

Before running this command, run the **eid-para vqe-agc** command to enable the VQE.

Example

Set the target VQE level to -24 dB.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser user001 pots
[Huawei-voice-pbxuser-user001] port 1/0/1
[Huawei-voice-pbxuser-user001] eid-para vqe-agc-level 15
```

16.5.4.31 eid-para vqe-sns

Function

Using the **eid-para vqe-sns** command, you can enable noise suppression or disable this function.

The **undo eid-para vqe-sns** command restores the default setting of noise suppression.

By default, noise suppression is disabled.

Format

eid-para vqe-sns { enable | disable }

undo eid-para vqe-sns

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Parameters

None

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable noise suppression.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser user001 pots
[Huawei-voice-pbxuser-user001] port 1/0/1
[Huawei-voice-pbxuser-user001] eid-para vqe-sns enable
```

16.5.4.32 eid-para vqe-sns-level

Function

Using the **eid-para vqe-sns-level** command, you can set the noise suppression level.

Using the **undo eid-para vqe-sns-level** command, you can restore the default noise suppression level.

By default, the noise suppression level is 12, that is, 12 dB.

Format

eid-para vqe-sns-level *vqe-sns-level*

undo eid-para vqe-sns-level

Parameters

Parameter	Description	Value
vqe-sns-level	Specifies a noise suppression level.	The value is an integer that ranges from 6 to 20, in dB. The default value is 12.

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Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

Before running this command, run the **eid-para vqe-sns enable** command to enable noise suppression.

Example

Set the noise suppression level to 20 dB.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser user001
[Huawei-voice-pbxuser-user001] port 1/0/1
[Huawei-voice-pbxuser-user001] eid-para vqe-sns-level 20
```

16.5.4.33 pbxuser (voice view)

Function

The **pbxuser** command adds a PBX user and enters the PBX user view.

The **undo pbxuser** command deletes a PBX user.

By default, no PBX user is configured.

Format

pbxuser *name* [{ **pots** | **bra** | **sipue**} [**enterprise** *enterprise-name*]]

undo pbxuser *name*

Parameters

Parameter	Description	Value
name	Specifies the PBX user name.	The value is a string of 1 to 32 case-insensitive characters without spaces.
pots	Indicates that the PBX user type is POTS.	-
sipue	Indicates that the PBX user type is SIP UE.	-
bra	Indicates that the PBX user type is BRA	-

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Parameter	Description	Value
enterprise *enterprise-name*	Specifies the enterprise to which a PBX user belongs.	The value is a string of 1 to 32 characters without spaces. **NOTE** By default, the PBX user belongs enterprise name for the **default**.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

When creating a PBX user, specify the PBX user type. After the PBX user is created, you do not need to enter the PBX user type in the user view.

Example

Create a PBX user **user001** and enter the PBX user view.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser user001 pots
```

16.5.4.34 pbxuser-batch

Function

The **pbxuser-batch** command creates PBX users in a batch.

The **undo pbxuser-batch** command deletes PBX users in a batch.

By default, no PBX user is created.

Format

pbxuser-batch pots pbxuser *name* **port** *slotid/subcardid/portid* **number** *num-value*

pbxuser-batch sipue pbxuser *name* **sipue** *eid-value* **number** *num-value*

undo pbxuser-batch pbxuser *name* **number** *num-value*

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Parameters

Parameter	Description	Value
pots	Indicates that the PBX user type is POTS.	-
pbxuser *name*	Specifies the initial PBX user name.	The value is a string of 1 to 16 digits without spaces.
port *slotid/subcardid/portid*	Indicates the slot ID/sub-card number/port number of the physical interface bound to the POTS user.	The value is a string of 1 to 15 characters. Enter a slash (/) between the slot ID, sub-card number, and port number. • *slotid*: depends on product specifications. • *subcardid*: depends on product specifications. • *portid*: depends on product specifications.
number *num-value*	Specifies the number of users that are processed in a batch.	The value is an integer that ranges from 1 to 100.
sipue	Indicates that the PBX user type is SIP.	-
sipue *eid-value*	Specifies the initial device ID of a SIP user.	The value is a string of 1 to 32 digits without spaces.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

In the scenario where multiple users are created in a batch, after the first user is created, the system starts to automatically generates user names of PBX users, port numbers of the physical interfaces bound to POTS users, and device IDs of SIP users. The values of *name*, *portid*, and *eid-value* are increased by 1 each time a user is created.

Prerequisites

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- The SIP server has been configured on the AR when SIP users are created in a batch.
- The physical interface bound to POTS users has been created when POTS users are created in a batch.

Precautions

- When users are created in a batch, the user name of a PBX user will be the number allocated to the PBX user. The number of a PBX user needs to be used as the PBX user name.
- When multiple users as deleted in a batch, user names must contain only digits and strings have an increment of 1.
- Creating or deleting multiple users in a batch will fail if the initial user name is valid but the end user name is invalid.

Example

Create eight SIP users in a batch. If the device ID of the initial SIP user is 9000, the user names of the eight SIP users are 9000 to 9007.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] signalling-address ip 192.168.1.3 port 5060
[Huawei-voice-sipserver] media-ip 192.168.1.3
[Huawei-voice-sipserver] register-uri abcd.com
[Huawei-voice-sipserver] home-domain abcd.com
[Huawei-voice-sipserver] quit
[Huawei-voice] pbxuser-batch sipue pbxuser 9000 sipue 9000 number 8
```

Create four POTS users in a batch. If the initial user name is 9000, the user names of the four POTS users that are bound to 1/0/0 interfaces are 9000, 9001, 9002, and 9003.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser-batch pots pbxuser 9000 port 1/0/0 number 4
```

Delete four PBX users in a batch. If the initial use name is 9000, the user names of the four PBX users are 9000, 9001, 9002, and 9003.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] undo pbxuser-batch pbxuser 9000 number 4
```

16.5.4.35 pickupgroup-name

Function

The **pickupgroup-name** command specifies the name of a pickup group that PBX users belong to.

The **undo pickupgroup-name** command cancels the configuration.

By default, PBX users do not belong to any pickup group

Format

pickupgroup-name *pickupgroupname*

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undo pickupgroup-name

Parameters

Parameter	Description	Value
pickupgroupname	Specifies the name of a pickup group that PBX users belong to.	The value is a string of 1 to 32 characters.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Specify the pickup group **abc** for PBX users.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser aaa pots
[Huawei-voice-pbxuser-aaa] pickupgroup-name abcd
```

16.5.4.36 port (PBX user view)

Function

The **port** command configures the port number for a POTS/BRA user.

By default, no port number is specified for the new POTS /BRA user.

Format

port *slotid/subcard/portid*

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Parameters

Parameter	Description	Value
slotid/subcard/portid	Specifies the slot ID/ subcard ID/port number. This parameter identifies the location of the POTS user to be deleted. You must enter the slash (/).	The value is a string of 1 to 15 characters. The values of *slotid*, *subcardid*, and *portid* depend on the product model.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

N/A

Example

Configure a port number for the POTS user **user001**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser user001 pots
[Huawei-voice-pbxuser-user001] port 2/0/1
```

16.5.4.37 priority (PBX user view)

Function

The **priority** command configures a user level.

The **undo priority** command restores the default user level.

By default, the user level is **default**.

Format

priority *priority-value*

undo priority

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Parameters

Parameter	Description	Value
priority-value	Specifies a user level, High-level users can use the reserved resources or preemption relay occupied by low-level users to make outgoing calls relay.	Enumerated value. The options are as follows: • default: default level • normal: normal level • advanced: advanced level • super: highest level The default value is **default**.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the PBX user level to **normal**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser aaa pots
[Huawei-voice-pbxuser-aaa] priority normal
```

16.5.4.38 priority-group (voice view)

Function

The **priority-group** command creates call priority groups and enters the priority-group view.

The **undo priority-group** command deletes call priority groups.

By default, no call priority group is created.

Format

priority-group *priority-group-name*

undo priority-group *priority-group-name*

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Parameters

Parameter	Description	Value
priority-group-name	Specifies the name of a call priority group.	The value is a string of 1 to 32 case-insensitive characters without spaces.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

Important calls to a PBX user cannot be connected when the PBX user is engaged in a call. In this case, a call priority group can be configured for the PBX user. User numbers are added to the group and the priority of each user is specified. If a high-priority user calls the PBX user during a conversation between the PBX user and another user, the current conversation is immediately interrupted and a call with the high-priority user is established.

Follow-up Procedure

Run the **telno** command to configure user numbers and the priority of each user, and associate the call priority group with a PBX user.

Example

Create a call priority group named **group1**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] priority-group group1
```

Related Topics

16.5.4.12 display voice priority-group

16.5.4.39 priority-group (PBX user view)

16.5.4.43 telno (priority-group view)

16.5.4.39 priority-group (PBX user view)

Function

The **priority-group** command associates a PBX user with a call priority group.

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The **undo priority-group** command deletes the call priority group associated with a PBX user.

By default, a PBX user is not associated with a call priority group.

Format

priority-group *priority-group-name*

undo priority-group

Parameters

Parameter	Description	Value
priority-group-name	Specifies the name of a call priority group.	The value is a string of 1 to 32 case-insensitive characters without spaces.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

Important calls to a PBX user cannot be connected when the PBX user is engaged in a call. In this case, a call priority group can be configured for the PBX user. User numbers are added to the group and the priority of each user is specified. If a high-priority user calls the PBX user during a conversation between the PBX user and another user, the current conversation is immediately interrupted and a call with the high-priority user is established.

Prerequisite

- A call priority group has been created.
- A PBX user has been created, and the mandatory parameters have been completed.

Precautions

Only SIP and POTS users can be associated with call priority groups using the **priority-group** command. A PBX user can be associated with one call priority group, but one call priority group can be associated with multiple PBX users.

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Example

Set the name of the call priority group associated with the PBX user 7001 to **group1**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] priority-group group1
[Huawei-voice-priority-group-group1] telno 56628888 priority 0
[Huawei-voice-priority-group-group1] quit
[Huawei-voice] pbxuser 7001 sipue
[Huawei-voice-pbxuser-7001] sipue 7001
[Huawei-voice-pbxuser-7001] telno 7001
[Huawei-voice-pbxuser-7001] priority-group group1
```

Related Topics

16.5.4.12 display voice priority-group

16.5.4.33 pbxuser (voice view)

16.5.4.38 priority-group (voice view)

16.5.4.43 telno (priority-group view)

16.5.4.40 proxyreg-id (PBX user view)

Function

proxyreg-id command is used to configure a proxy register id for current user.

proxyreg-password command is used to configure a password for proxy register.

Format

proxyreg-id *id-value*

proxyreg-password cipher *password-value*

undo proxyreg-id

undo proxyreg-password

Parameters

Parameter	Description	Value
id-value	proxy register-id value	a string consisting of 1-32 characters
password-value	password for proxy register	a string consisting of 1-32 characters

Views

pbxuser view

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Default Level

2: Configuration level:

Usage Guidelines

By default, user is not configured with proxy register function.

As a local gateway, you want to use ports, we suggest you configure proxyreg-id and proxyreg-password (configure following local-survival view).

undo proxyreg-id command can cancel proxy register function.

Example

configure proxy register id *90000* and proxy register password *huawei123* for pbxuser 28980000.

```
<Huawei> system-view
 [Huawei] voice
 [Huawei-voice] pbxuser 28980000 pots
 [Huawei-voice-pbxuser-28980000] proxyreg-id 90000
 [Huawei-voice-pbxuser-28980000] proxyreg-password cipher
 Please input user password(1-32 chars): *********
```

16.5.4.41 sipue (PBX user view)

Function

The **sipue** command configures the ID for a SIP UE user.

Format

sipue *eid-value*

Parameters

Parameter	Description	Value
eid-value	Specifies the ID of a SIP UE user.	The value is a string of 1 to 32 characters.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

N/A

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Example

Configure the ID for the SIP UE user named **user001**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser user001 sipue
[Huawei-voice-pbxuser-user001] sipue 800
```

16.5.4.42 telno (PBX user view)

Function

The **telno** command configures numbers for a PBX user.

By default, numbers are configured for PBX users.

Format

telno *telno-value* [**long-telno** *longno-value*]

Parameters

Parameter	Description	Value
telno-value	Specifies a user number.	The value is a string of 1 to 16 characters.
long-telno *longno-value*	Specifies a long number.	The value is a string of 1 to 24 characters.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the long number of PBX user 1388 to 28291388.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser 1388
[Huawei-voice-pbxuser-1388]telno 1388 long-telno 28291388
```

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16.5.4.43 telno (priority-group view)

Function

The **telno** command configures numbers of calling users and the priority of each user.

The **undo telno** command deletes calling numbers and priorities.

By default, no calling number and priority are configured.

Format

telno *telno-value* **priority** *priority-level*

undo telno *telno-value*

Parameters

Parameter	Description	Value
telno-value	Specifies a calling number.	The value is a string of 1 to 32 digits and symbols (including + and *) without spaces. The symbols + and * can be used only once, and the symbol + can be used only at the start of the string.
priority *priority-level*	Specifies the priority of a calling user.	The value is an integer that ranges from 0 to 7. A smaller value indicates a higher priority.

Views

Priority-group view

Default Level

2: Configuration level

Usage Guidelines

Important calls to a PBX user cannot be connected when the PBX user is engaged in a call. In this case, a call priority group can be configured for the PBX user. User numbers are added to the group and the priority of each user is specified. If a high-priority user calls the PBX user during a conversation between the PBX user and another user, the current conversation is immediately interrupted and a call with the high-priority user is established.

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Numbers in a call priority group have higher priorities than those not configured in the call priority group.

Example

Set the priority of the number 56628888 in the call priority group group1 to **0**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] priority-group group1
[Huawei-voice-priority-group-group1] telno 56628888 priority 0
```

Related Topics

16.5.4.12 display voice priority-group

16.5.4.38 priority-group (voice view)

16.5.4.44 telno service-password cipher (PBX user view)

Function

The **telno service-password cipher** command configures the service password for a user.

The **undo telno service-password** command restores the default service password for a user.

The default username and password are available in *AR Router Default Usernames and Passwords* (**Enterprise Network** or **Carrier**). If you have not obtained the access permission of the document, see **Help** on the website to find out how to obtain it.

Format

telno service-password cipher

undo telno service-password

Parameters

Parameter	Description	Value
cipher *password-value*	Specifies cipher text of a password. **NOTE** You can set *password-value* only after entering **cipher** and pressing **Enter**.	The value is a string of 6 characters without spaces.

Views

PBX user view

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Default Level

2: Configuration level

Usage Guidelines

To configure the service password for a user, run **telno service-password cipher** command.

Example

Set the service password of a SIP UE user to **987654**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser 1388
[Huawei-voice-pbxuser-1388] telno service-password cipher
 Please input user password(6-6 chars):******
```

16.5.4.45 user-type (PBX user view)

Function

The **user-type** command specifies the user type.

The **undo user-type** command restores the default user type.

By default, users are common users.

Format

user-type *type*

undo user-type

Parameters

Parameter	Description	Value
type	Specifies the user type.	Enumerated type. The values are as follows: • normal: indicates common users. • priority-user: indicates users with priority. • operator: indicates operators. • card: indicates card users.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

N/A

Example

Configure PBX users as operators.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser aaa pots
[Huawei-voice-pbxuser-aaa] user-type operator
```

16.5.4.46 user-name

Function

The **user-name** command configures the name of a PBX user.

The **undo user-name** command deletes the name of a PBX user.

By default, no name is configured for a PBX user.

Format

user-name *user-name-value*

undo user-name

Parameters

Parameter	Description	Value
user-name-value	Specifies the name of a PBX user.	The value is a string of 1 to 32 case-sensitive characters without spaces.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

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You can run the **user-name** command to configure the name of a PBX user for the name identification presentation service. For example, set the name of User B to **Jone**. Assume that the name identification presentation service is enabled for User A. When a call connection is established between User A and User B, the name of User B **Jone** is displayed to User A.

Prerequisite

A PBX user has been created and mandatory configurations have been performed. For details, see **Configuring a PBX User**.

Example

Set the name of the PBX user 7001 to **Jone**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser 7001 sipue
[Huawei-voice-pbxuser-7001] sipue 7001
[Huawei-voice-pbxuser-7001] telno 7001
[Huawei-voice-pbxuser-7001] user-name Jone
```

16.5.4.47 web-password (PBX user view)

Function

The **web-password** command is used to set the password for the PBX user to access the web self-help service system.

The default username and password are available in *AR Router Default Usernames and Passwords* (**Enterprise Network** or **Carrier**). If you have not obtained the access permission of the document, see **Help** on the website to find out how to obtain it.

Format

web-password cipher

undo web-password

Parameters

None

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

The password is in ciphertext during password setting.

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After the **undo web-password** command is executed, the password is restored to the default one.

Example

Set the password of PBX user **2001** to **12345678**.

```
<Huawei>system-view
[Huawei]voice
[Huawei-voice] pbxuser 2001 sipue
[Huawei-voice-pbxuser-2001] sipue 2001
[Huawei-voice-pbxuser-2001] telno 2001
[Huawei-voice-pbxuser-2001] web-password cipher
 please input user password(6-32 chars):********
```

16.5.5 SBC Proxy configuration commands

16.5.5.1 display voice sbc media-relay

Function

Using the **display voice sbc media-relay** command, you can view the configured media relay interface and relay type.

Format

display voice sbc media-relay

Parameters

None

Views

All views

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Display the media relay interface and relay type.

```
<Huawei> display voice sbc media-relay
 sbc media-relay interface Vlanif 100 internal
```

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Table 16-67 Description of the display voice sbc media-relay command output

Item	Description
sbc media-relay interface Vlanif 100 internal	The media relay interface is VLANIF 100 and the relay type is internal. Enumerated type. The values are as follows: • external: an external network • internal: an internal network By default, the media relay type is internal.

16.5.5.2 media-bandwidth-control media-proxy enable

Function

The **media-bandwidth-control media-proxy enable** command enables CAC on an SBC proxy.

The **undo media-bandwidth-control media-proxy enable** command disables CAC on an SBC proxy.

By default, CAC is disabled on an SBC proxy.

Format

media-bandwidth-control media-proxy enable

undo media-bandwidth-control media-proxy enable

Parameters

None

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

When a SIP UE user registered through the SBC proxy makes a call, the SBC proxy media bandwidth is occupied. More voice calls occupy more SBC proxy media bandwidth. To improve the voice communication quality, run the **media-bandwidth-control media-proxy enable** command to enable CAC on the SBC proxy.

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Follow-up Procedure

Run the **media-bandwidth-control media-proxy max-bandwidth** command to set the maximum SBC proxy media bandwidth.

Example

Enable CAC on the SBC proxy.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] media-bandwidth-control media-proxy enable
```

16.5.5.3 media-bandwidth-control media-proxy max-bandwidth

Function

The **media-bandwidth-control media-proxy max-bandwidth** command sets the maximum media bandwidth on an SBC proxy.

The **undo media-bandwidth-control media-proxy max-bandwidth** command restores the default maximum media bandwidth on an SBC proxy.

By default, the maximum media bandwidth on an SBC proxy is 500000 kbit/s.

Format

media-bandwidth-control media-proxy max-bandwidth *max-bandwidth-value*

undo media-bandwidth-control media-proxy max-bandwidth

Parameters

Parameter	Description	Value
max-bandwidth-value	Specifies the maximum media bandwidth on an SBC proxy.	The value is an integer that ranges from 1 to 5000, in 100 kbit/s. The default value is 5000, that is, 500000 kbit/s.

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

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The **media-bandwidth-control media-proxy max-bandwidth** command sets the maximum media bandwidth on an SBC proxy after CAC is enabled on the SBC proxy by using the **media-bandwidth-control media-proxy enable** command. If the **media-bandwidth-control media-proxy max-bandwidth** command is not run, and CAC is enabled on the SBC proxy, the default maximum media bandwidth is 500000 kbit/s. When the media bandwidth on the SBC proxy is used up, the system limits new calls that occupy the media bandwidth on the SBC proxy.

Prerequisites

- CAC has been enabled on the SBC proxy using the **media-bandwidth-control media-proxy enable** command.

Example

Set the maximum bandwidth on the SBC proxy to 400000 kbit/s.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] media-bandwidth-control media-proxy enable
[Huawei-voice-sipserver] media-bandwidth-control media-proxy max-bandwidth 4000
```

16.5.5.4 sbc mapped-media-ip

Function

Using the **sbc mapped-media-ip** command, you can configure a media IP address for a SIP server or a SIP trunk group.

Using the **undo sbc mapped-media-ip** command, you can delete the media IP address of a SIP server or a SIP trunk group.

By default, no media IP address is configured for a SIP server or a SIP trunk group.

Format

sbc mapped-media-ip *ip-address*

undo sbc mapped-media-ip

Parameters

Parameter	Description	Value
ip-address	Specifies the media IP address of a SIP server or a SIP trunk group.	The value is in dotted decimal notation.

Views

SIP server view, trunk group view

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Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the media IP address of a SIP server to 192.168.2.12.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] sbc mapped-media-ip 192.168.2.12
```

16.5.5.5 sbc mapped-media-port-start

Function

Using the **sbc mapped-media-port-start** command, you can configure a start media port number for a SIP server or a SIP trunk group.

Using the **undo sbc mapped-media-port-start** command, you can delete the start media port number of a SIP server or a SIP trunk group.

By default, no start media port number is configured for a SIP server or a SIP trunk group.

Format

sbc mapped-media-port-start *port-value*

undo sbc mapped-media-port-start

Parameters

Parameter	Description	Value
port-value	Specifies the start media port number of a SIP server or a SIP trunk group.	The value is an integer that ranges from 1 to 65535.

Views

SIP server view, trunk group view

Default Level

2: Configuration level

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Usage Guidelines

Media ports 61728 to 65535 are supported. M indicates the maximum number of online users and N indicates the start port number (N + Mx4 <= 65535). The device specifications are as follows:

- The AR150 supports a maximum of 20 concurrent users.
- The AR200 supports a maximum of 30 concurrent users.
- The AR1240 support a maximum of 64 concurrent users.
- The AR1220 supports a maximum of 125 concurrent users.
- The AR2204 support a maximum of 125 concurrent users.
- The AR2220 support a maximum of 250 concurrent users.
- The AR2240 support a maximum of 1000 concurrent users.
- The AR3260 supports a maximum of 2000 concurrent users.

Example

Set the start media port number of a SIP server to 64000.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] sbc mapped-media-port-start 64000
```

16.5.5.6 sbc mapped-media-proxy-port-start

Function

Using the **sbc mapped-media-proxy-port-start** command, you can configure a start media port number for a SIP server or a SIP trunk group.

Using the **undo sbc mapped-media-proxy-port-start** command, you can delete the start media port number of a SIP server or a SIP trunk group.

By default, no start media port number is configured for a SIP server or a SIP trunk group.

Format

sbc mapped-media-proxy-port-start *port-value*

undo sbc mapped-media-proxy-port-start

Parameters

Parameter	Description	Value
port-value	Specifies the start media port number of a SIP server or a SIP trunk group.	The value is an integer that ranges from 1 to 65535.

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Views

SIP server view, trunk group view

Default Level

2: Configuration level

Usage Guidelines

The device supports media port numbers 59392 to 61439. When media proxy is used, four port numbers 61436 to 61439 are required. The start media port number and must be smaller than or equal to 61436.

Example

Set the start media port number of a SIP server to 59392.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] sbc mapped-media-proxy-port-start 59392
```

16.5.5.7 sbc mapped-signalling-address

Function

The **sbc mapped-signalling-address** command configures a public IP address and port number for the signaling mapping of the SIP server or SIP trunk group.

The **undo sbc mapped-signalling-address** command deletes the configured public IP address and port number for the signaling mapping for the SIP server or SIP trunk group.

By default, the public IP address and port number are not configured for a SIP server or a SIP trunk group.

Format

sbc mapped-signalling-address ip *ip-address* **port** *port-value*

undo sbc mapped-signalling-address

Parameters

Parameter	Description	Value
ip *ip-address*	Specifies the signaling IP address of a SIP server or a SIP trunk group.	The value is in dotted decimal notation.
port*port-value*	Specifies the signaling port number of a SIP server or a SIP trunk group.	The value is an integer that ranges from 1 to 65535.

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Views

SIP server view, trunk group view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the public IP address to **192.168.2.12** and port number to **5062** for the signaling mapping of the SIP server.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] sbc mapped-signalling-address ip 192.168.2.12 port 5062
```

16.5.5.8 sbc media-proxy

Function

Using the **sbc media-proxy** command, you can configure a media proxy policy for a SIP server or a SIP trunk group.

Using the **undo sbc media-proxy** command, you can restore the default media proxy policy of a SIP server or a SIP trunk group.

By default, no media proxy policy is configured for a SIP server or a SIP trunk group.

Format

sbc media-proxy { **enable** | **disable** | **auto** }

undo sbc media-proxy

Parameters

Parameter	Description	Value
enable	A media proxy is enabled.	-
disable	A media proxy is disabled.	-
auto	A media proxy is enabled automatically.	-

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Views

SIP server view, trunk group view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Enable media proxy for a SIP server.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] sbc media-proxy enable
```

16.5.5.9 sbc media-relay

Function

Using the **sbc media-relay** command, you can configure the media relay interface and relay type.

Using the **undo sbc media-relay** command, you can delete the configured media relay interface and relay type.

By default, the media relay interface and relay type are not configured.

Format

sbc media-relay interface *interface-type interface-numberrelay-type*

undo sbc media-relay interface *interface-type interface-numberrelay-type*

Parameters

Parameter	Description	Value
interface *interface-type interface-number*	Specifies the type and number of an interface.	-

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Parameter	Description	Value
relay-type	Specifies the media relay type.	Enumerated type. The values are as follows: • external: an external network • internal: an internal network By default, the media relay type is internal.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Set the media relay type to **internal**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sbc media-relay interface GigabitEthernet 0/0/0 internal
```

16.5.5.10 sbc signalling-proxy

Function

Using the **sbc signalling-proxy** command, you can configure a signaling proxy policy for a SIP server.

Using the **undo sbc signalling-proxy** command, you can restore the default signaling proxy policy of a SIP server.

By default, signaling proxy is disabled for a SIP server.

Format

sbc signalling-proxy { **enable** | **disable** | **auto** }

undo sbc signalling-proxy

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Parameters

Parameter	Description	Value
enable	A media proxy is enabled.	-
disable	A media proxy is disabled.	-
auto	A media proxy is enabled automatically.	-

Views

SIP server view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Enable signaling proxy for a SIP server.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] sbc signalling-proxy enable
```

16.5.6 Trunk Group configuration commands

16.5.6.1 auto-connect-controlchannel

Function

The **auto-connect-controlchannel** command configures whether the H323 protocol supports automatic establishment of H245 channels.

The **undo auto-connect-controlchannel** command restores the default configuration.

By default, H245 channels cannot be automatically established.

Format

auto-connect-controlchannel { **enable** | **disable** }

undo auto-connect-controlchannel

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Parameters

Parameter	Description	Value
enable	Enables automatic establishment of H245 channels.	-
disable	Disables automatic establishment of H245 channels.	-

Views

H323 attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable the H323 protocol to automatically set up H245 channels.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] auto-connect-controlchannel enable
```

16.5.6.2 callproc-wait-response-timeout

Function

The **callproc-wait-response-timeout** command sets the timeout interval for the Alerting or Connect message from the called party.

The **undo callproc-wait-response-timeout** command restores the default timeout.

The default timeout is 500000 ms.

Format

callproc-wait-response-timeout *callproc-wait-response-timeout-value*

undo callproc-wait-response-timeout

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Parameters

Parameter	Description	Value
callproc-wait-response-timeout-value	Specifies the timeout interval for the Alerting or Connect message from the called party.	The value is an integer that ranges from 10000 to 4294967295, in milliseconds.

Views

H323 attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the timeout to 50000 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] callproc-wait-response-timeout 50000
```

16.5.6.3 callroute (trunk group view)

Function

The **callroute** *callroute-name* command binds a call route to a trunk group.

The **undo callroute** *callroute-name* command unbinds a call route from a trunk group.

Format

callroute *callroute-name* [[[**time** *time-name* | **callertelno** *callertelno-value*] * | **charge** *charge-value* | **percent** *percent-value* | **userpriorlevel** *userpriorilevel-value*] | [**select-level** *select-level-value*]] *

undo callroute *callroute-name* [**select-level**]

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Parameters

Parameter	Description	Value
callroute-name	Specifies the name of a call route.	The value is a string of 1 to 32 characters.
time-name	Specifies the name of a time index.	The value is a string of 1 to 32 characters.
charge-value	Specifies the charge rate.	The value is an integer that ranges from 0 to 65535. The default value is 65535.
percent-value	Specifies a percentage.	The value is an integer that ranges from 0 to 100. The default value is 100.
userpriorlevel-value	Specifies a user level.	Enumerated value. The value can be **default**, **normal**, **advanced**, or **super**. The default value is **default**.
callertelno-value	Specifies a calling number.	The value is a string of 1 to 32 characters.
select-level-value	Line selection level of a trunk under a route.	The value is an integer that ranges from 0 to 254. The default value is 254.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Bind the call route **test** to a trunk group and set the route selection policy to **perloadshare**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] callroute test
[Huawei-voice-callroute-test] selecttype perloadshare
[Huawei-voice-callroute-test] quit
[Huawei-voice] trunk-group huawei sip trunk-circuit
[Huawei-voice-trunkgroup-huawei] callroute test percent 20
```

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16.5.6.4 callsource (trunk group view)

Function

The **callsource** command configures the call source for trunk groups.

The **undo callsource** command restores the default call source for trunk groups.

Format

callsource *callsource-name*

undo callsource

Parameters

Parameter	Description	Value
callsource-name	Specifies a call source.	The value is a string of 1 to 32 characters.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the call source for trunk groups to **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group sipip
[Huawei-voice-trunkgroup-sipip] callsource test
```

16.5.6.5 channels-timeout

Function

The **channels-timeout** command sets the channel establishment timeout.

The **undo channels-timeout** command restores the default channel establishment timeout.

By default, the channel establishment timeout is 15000 ms.

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Format

channels-timeout *channels-timeout-value*

undo channels-timeout

Parameters

Parameter	Description	Value
channels-timeout-value	Specifies the channel establishment timeout.	The value is an integer that ranges from 0 to 4294967295, in seconds.

Views

H323 attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the channel establishment timeout to 50000 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] channels-timeout 50000
```

16.5.6.6 circuit-state-relate (trunk group view)

Function

The **circuit-state-relate** command associates a trunk group with trunk groups.

The **undo circuit-state-relate** command configures trunk groups associated with a trunk group.

By default, a trunk group is not associated with any trunk group.

Format

circuit-state-relate *trunk-group-name*

undo circuit-state-relate *trunk-group-name*

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Parameters

Parameter	Description	Value
trunk-group-name	Indicates names of trunk groups associated with a trunk group.	The value is a string of 1 to 32 case-insensitive characters without spaces.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

In the trunk tandem scenario, a router accesses to an IMS network through SIP trunks, and connects to the PBX through PRA or BRA trunks. When the SIP trunks are faulty, the PBX cannot detect the fault. Inter-office calls are sent to the router through the PRA or BRA trunks, and services are affected.

In the SIP trunk group view, run the **circuit-state-relate** command to associate the SIP trunk group with the PRA or BRA trunk group. If the SIP trunk group is faulty, the status of the trunk group associated with the SIP trunk group synchronously changes to Disconnected. When detecting the fault, the PBX or IMS immediately switches services to the backup link or processes services in other ways. After the fault is rectified, the status of the trunk group associated with the SIP trunk group automatically changes to Normal.

Prerequisites

The trunk groups to be associated have been created.

Precautions

- A SIP trunk group can be associated with BRA trunk groups and PRA trunk groups.
- A PRA trunk group can be associated with SIP trunk groups.
- Trunk groups of other types cannot be associated with any trunk group.

Example

Associate a SIP trunk group named **huawei** with a BRA trunk group named **bra**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group bra bra-dss1
[Huawei-voice-trunkgroup-bra] quit
[Huawei-voice] trunk-group test sip trunk-group
[Huawei-voice-trunkgroup-test] circuit-state-relate bra
```

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16.5.6.7 codec-priority(trunk group view)

Function

Using the **codec-priority** command, you can configure the codec priority, codec value, and packetization time for a SIP trunk group.

Using the **undo codec-priority** command, you can restore the default settings of the codec priority, codec value, and packetization time of a SIP trunk group.

The default values of the codec priority, codec value, and packetization time is shown in **Table 16-68**.

Format

codec-priority *pri-value codec-value pt-value*

undo codec-priority *pri-value*

Parameters

Parameter	Description	Value
pri-value	Indicates the codec priority.	The value is an integer that ranges from 0 to 7. A smaller value indicates a higher priority.
codec-value	Indicates the codec value.	Enumerated value. The value ranges from 0 to 252. The options are as follows: • 0: G711U • 2: G726 • 4: G723 • 8: G711A • 9: G722 • 15: G728 • 18: G729 • 20: G723Low • 21: G726-16 • 22: G726-24 • 23: G726-40 • 96: R2198 • 97: R2833 • 98: v150 • 99: clearmode • 250: T.38 • 251: T.38+2

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Parameter	Description	Value
pt-value	Indicates the packetization time.	The value is an integer that ranges from 0 to 6, in milliseconds. • 0: 5 ms • 1: 10 ms • 2: 20 ms • 3: 30 ms • 4: 40 ms • 5: 50 ms • 6: 60 ms

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

The default values are shown in **Table 16-68**.

Table 16-68 The default values

Codec Priority	Codec Value	Packetization Time
0	8	20
1	0	20
2	18	10
3	4	30
4	8	10
5	8	30
6	0	10
7	250	20

Example

Set the codec priority to 2, codec value to 2, and packetization time to 80 for the SIP trunk group **test**.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] trunk-group test sip trunk-circuit
[Huawei-voice-trunkgroup-test] codec-priority 2 2 80
```

16.5.6.8 cs-mode (trunk group view)

Function

Using the **cs-mode** command, you can configure the reliable transmission mode for a SIP trunk group.

By default, no reliable transmission mode is configured for a SIP trunk group.

Format

cs-mode *mode-value*

Parameters

Parameter	Description	Value
mode-value	Indicates the reliable transmission mode.	Enumerated type. The value is client, server, or client_server.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

The reliable transmission mode is valid only when the transmission mode of the SIP trunk (**16.5.6.118 transfer (trunk group view)**) group is **tcp** or **tls**.

Example

Set the reliable transmission mode for the SIP trunk group **001** to client_server.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group 001
[Huawei-voice-trunkgroup-001] cs-mode client_server
```

16.5.6.9 custom-right (trunk group view)

Function

The **custom-right** command binds customized 32-level rights to a trunk group.

By default, no 32-level right is bound to a trunk group.

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Format

custom-right {*c1* | *c2* | *c3* | *c4* | *c5* | ...| *c32*}

undo custom-right [*c1* | *c2* | *c3* | *c4* | *c5* | ...| *c32*]

Parameters

Parameter	Description	Value
c1 | *c2* | *c3* | *c4* | *c5* | ...| *c32*	Specifies 32-level rights to be bound to a trunk group.	The value can be one or more of **c1** to **c32**.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Rights of a trunk group are restricted in voice call scenarios where a trunk group is the calling party, that is, scenarios of trunk-based incoming calls.

By default, no 32-level right is bound to a trunk group. You can configure 1 to 32 customized rights.

Adding or deleting a right does not affect existing 32-level rights.

To clear all 32-level rights bound to a trunk group, run the **undo custom-right** command.

Example

Bind 32-level rights **c4**, **c8**, and **c12** to trunk group **at0**.

```
<Huawei> system-view
 [Huawei] voice
 [Huawei-voice] trunk-group at0 fxo
 [Huawei-voice-trunkgroup-at0] custom-right c4 c8 c12
```

Unbind 32-level right **c4** from trunk group **at0**.

```
<Huawei> system-view
 [Huawei] voice
 [Huawei-voice] trunk-group at0
 [Huawei-voice-trunkgroup-at0] undo custom-right c4
```

Clear all 32-level rights bound to trunk group **at0**.

```
<Huawei> system-view
 [Huawei] voice
 [Huawei-voice] trunk-group at0
 [Huawei-voice-trunkgroup-at0] undo custom-right
```

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16.5.6.10 default-caller-telno (trunk view)

Function

The **default-caller-telno** command configures the default number displayed for a trunk group.

The **undo default-caller-telno** command deletes the default number displayed for a trunk group.

Format

default-caller-telno *telno-value*

undo default-caller-telno

Parameters

Parameter	Description	Value
telno-value	Indicates the default number displayed.	The value is a string of 1 to 24 characters.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

The **default-caller-telno** command will be effective when at0 trunk-group, bra trunk-group, or pra trunk-group cannot obtain the calling number.

Example

Set the default phone number of a trunk group to 123456.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group at0 fxo
[Huawei-voice-trunkgroup-at0] default-caller-telno 123456
```

16.5.6.11 del-techprefix

Function

The **del-techprefix** command configures whether to delete a technical prefix.

The **undo del-techprefix** command restores the default configuration.

By default, the technical prefix is not deleted.

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Format

del-techprefix *h323-send-techprefix-value*

undo del-techprefix

Parameters

Parameter	Description	Value
h323-send-techprefix-value	Indicates whether to delete the technical prefix.	The value is enable or disable: • enable: deletes the technical prefix. • disable: keeps the technical prefix.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

The received numbers contain technical prefixes. If call routing is based on numbers, the technical prefixes must be deleted.

Example

Retain the technical prefix.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test h323 register-gateway
[Huawei-voice-trunkgroup-test] del-techprefix disable
```

16.5.6.12 description (trunk group view)

Function

Using the **description** command, you can configure the description of a trunk group.

Using the **undo description** command, you can cancel the description of a trunk group.

Format

description *desc-value*

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undo description

Parameters

Parameter	Description	Value
desc-value	Indicates the description of a trunk group.	The value is a string of 1 to 64 characters.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Configure the description **huawei** for the trunk group **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test sip trunk-circuit
[Huawei-voice-trunkgroup-test] description huawei
```

16.5.6.13 digest-username

Function

The **digest-username** command configures the authentication digest user name when the SIP trunk registration mode is trunk group registration.

The **undo digest-username** command deletes the authentication digest user name when the SIP trunk registration mode is trunk group registration.

No authentication digest user name is configured when the SIP trunk registration mode is trunk group registration.

Format

digest-username *digest-username-value*

undo digest-username

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Parameters

Parameter	Description	Value
digest-username-value	Specifies the authentication digest user name.	The value is a string of 1 to 32 case-sensitive characters without spaces and question mark (?).

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

When a SIP trunk group that has the authentication digest user name configured and uses trunk group registration registers with the peer device, the SIP trunk group encrypts the authentication digest user name and sends it to the peer device for authentication. If the authentication digest user name is not configured, the trunk group encrypts the registration ID and sends it to the peer end for authentication.

NOTE

The authentication digest user name is used only when the SIP trunk registration mode is trunk group registration.

Example

Set the authentication digest user name to abcd for the trunk group **sippra**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group sippra sip trunk-group
[Huawei-voice-trunkgroup-sippra] digest-username abcd
```

16.5.6.14 display voice gatekeeper callprefix

Function

The **display voice gatekeeper callprefix** command displays information about the prefix used by the H.323 trunk registered with a gatekeeper.

Format

display voice gatekeeper callprefix

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Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

After a gateway successfully registers with a gatekeeper through an H.323 trunk, dynamic prefix information is generated on the gatekeeper. You can run the **display voice gatekeeper callprefix** command to check the dynamic prefix information, including the call prefixes registered on the gateway and generated by the gatekeeper for planning call policies.

Example

Display information about the prefix used by the H.323 trunk registered with a gatekeeper.

```
<Huawei> display voice gatekeeper callprefix
 Spec:  500, Records: 4
 ------------------------------------------------------------------------
 Callprefix       Type        H323ID         IP             Port
 60000            register    gateway1       192.168.1.1    1720
 60001            register    gateway2       192.168.1.2    1720
 *99*             config      -              -              -
 #99*             config      -              -              -
```

Table 16-69 Description of the **display voice gatekeeper callprefix** command output

Item	Description
Spec	Total space of prefix information.
Records	Number of records.
Callprefix	Call prefix.
Type	Prefix type.
H323ID	Gateway ID.
IP	Signaling address of a call.
Port	Signaling port of a call.

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16.5.6.15 display voice gatekeeper endpoints

Function

The **display voice gatekeeper endpoints** command displays the dynamic information of a gateway registered with the H.323 trunk of a gatekeeper.

Format

display voice gatekeeper endpoints

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

After the H.323 trunk group is deployed on a gatekeeper and a gateway registers with the gatekeeper, the gatekeeper records the registration information of the gateway. You can run the **display voice gatekeeper endpoints** to check information about all gateways registered with the gatekeeper.

Example

Display the dynamic information of a gateway registered with the H.323 trunk of a gatekeeper.

```
<Huawei> display voice gatekeeper endpoints
 Spec: 150, Records: 1
 ------------------------
 GatekeeperID       : gatekeeper
 H323ID             : gateway
 CallSignalIP       : 192.168.1.1
 CallSignalPort     : 1720
 RASSignalIP        : 192.168.1.1
 RASSignalPort      : 1719
 State              : Idle
```

Table 16-70 Description of the **display voice gatekeeper endpoints** command output

Item	Description
Spec	Total space of the gateways that allow registrations.

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Item	Description
Records	Number of records.
GatekeeperID	Gatekeeper ID.
H323ID	Gateway ID.
CallSignalIP	Signaling address of a call.
CallSignalPort	Signaling port of a call.
RASSignalIP	Address of the RAS message.
RASSignalPort	Port of the RAS message.
State	Registration status of a gateway.

16.5.6.16 display voice h323 app-time

Function

The **display voice h323 app-time** command displays the H323 trunk group timers.

Format

display voice h323 app-time

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display the H323 trunk group timers.

```
<Huawei> display voice h323 app-time
    Timer index : 0       Timer value : 15000ms
    Timer index : 1       Timer value : 120000ms
    Timer index : 2       Timer value : 180000ms
    Timer index : 3       Timer value : 15000ms
```

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```
Timer index : 4      Timer value : 30000ms
Timer index : 5      Timer value : 1000ms
Timer index : 6      Timer value : 5000ms
Timer index : 7      Timer value : 10000ms
Timer index : 8      Timer value : 60000ms
Timer index : 9      Timer value : 5000ms
Timer index : 10     Timer value : 60000ms
Timer index : 11     Timer value : 17000ms
Timer index : 12     Timer value : 3000ms
Timer index : 13     Timer value : 5000ms
Timer index : 14     Timer value : 5000ms
Timer index : 15     Timer value : 180000ms
Timer index : 16     Timer value : 300000ms
Timer index : 17     Timer value : 222222ms
Timer index : 18     Timer value : 12000ms
Timer index : 19     Timer value : 0ms
Timer index : 20     Timer value : 4294967295ms
Timer index : 21     Timer value : 4294967295ms
Timer index : 22     Timer value : 4294967295ms
Timer index : 23     Timer value : 4294967295ms
Timer index : 24     Timer value : 4294967295ms
Timer index : 25     Timer value : 4294967295ms
Timer index : 26     Timer value : 15000ms
Timer index : 27     Timer value : 15000ms
Timer index : 28     Timer value : 15000ms
Timer index : 29     Timer value : 60000ms
Timer index : 30     Timer value : 60000ms
Timer index : 31     Timer value : 15000ms
Timer index : 32     Timer value : 15000ms
Timer index : 33     Timer value : 15000ms
Timer index : 34     Timer value : 15000ms
Timer index : 35     Timer value : 5000ms
Timer index : 36     Timer value : 50000ms
Timer index : 37     Timer value : 60000ms
Timer index : 38     Timer value : 3000ms
Timer index : 39     Timer value : 10000ms
Timer index : 40     Timer value : 3600000ms
Timer index : 41     Timer value : 4294967295ms
Timer index : 42     Timer value : 4294967295ms
Timer index : 43     Timer value : 4294967295ms
Timer index : 44     Timer value : 4294967295ms
Timer index : 45     Timer value : 4294967295ms
Timer index : 46     Timer value : 4294967295ms
Timer index : 47     Timer value : 4294967295ms
Timer index : 48     Timer value : 4294967295ms
Timer index : 49     Timer value : 4294967295ms
Timer index : 50     Timer value : 4294967295ms
Timer index : 51     Timer value : 4294967295ms
```

Table 16-71 Description of the display voice h323 app-time command output

Item	Description
Timer index :	Indicates the timer index. Each timer has a unique index. For description about the timer indexes, see **h323-app-timer**.
Timer value :	Indicates the timer value. For the default timer values, see **h323-app-timer**.

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16.5.6.17 display voice h323 config

Function

The **display voice h323 config** command displays H323 parameters.

Format

display voice h323 config

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display the H323 parameters.

```
<Huawei>display voice h323 config
  System name                    : HUAWEI
  Product name                   : HUAWEI-AR
  H323 version                   : V4
  H245 version                   : V4
  Display name                   : HUAWEI
  LocalIP                        : 192.168.2.22
  RAS port                       : 1719
  Q931 listen port               : 1720
  Workmode                       : international
  Tcp keep alive time out        : 3600ms
  Support h245 tunnel            : Enable
  Faststart flag                 : Enable
  Auto connect control channel   : Disable
  Earlyh245                      : Disable
  Tcp connection time out        : 15000ms
  Setup wait response time out   : 500000ms
  Callproc wait response time out  : 500000ms
  Recvalert wait response time out : 500000ms
  Channels time out              : 15000ms
  Roundtrip delay time out       : 15000ms
  Request channel close time out  : 15000ms
  Requestmode time out           : 15000ms
  Medialoop time out             : 15000ms
  Endsession time out            : 3000ms
<Huawei>
```

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Table 16-72 Description of the display voice h323 config command output

Item	Description
System name	H323 system name.
Product name	H323 product name.
H323 version	H323 protocol version, including V2, V3, V4, and V5. The default version is V4.
H245 version	H245 protocol version, including V2, V3, V4, and V5. The default version is V4.
Display name	display header field in the Q931 message.
LocalIP	Local IP address.
RAS port	UDP port number of RAS signals.
Q931 listen port	Q931 listening port.
Workmode	Operation mode of the H323 stack, including international, national, and VT. The default mode is international.
Tcp keep alive time out	TCP keepalive timer value.
Support h245 tunnel	Whether the H245 control signaling channel is supported.
Faststart flag	Whether the fast start function is enabled.
Auto connect control channel	Whether the H245 channel can be automatically established.
Earlyh245	Whether the Setup message contains the H245 address.
Tcp connection time out	TCP connection timeout interval.
Setup wait response time out	Timeout interval for the Callproceeding, Alerting, or Connect response.
Callproc wait response time out	Timeout interval for the Alerting or Connect response.
Recvalert wait response time out	Timeout interval for the Connect response.
Channels time out	Channel establishment timeout interval.
Roundtrip delay time out	Roundtrip timeout interval.

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Item	Description
Request channel close time out	Timeout interval for the logical channel close response.
Requestmode time out	Timeout interval for mode switching request response.
Medialoop time out	Media loopback timeout interval.
Endsession time out	EndSessionCommand timeout interval.

16.5.6.18 display voice h323 running

Function

The **display voice h323 running** command displays H323 running parameters.

Format

display voice h323 running

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display H323 running parameters.

```
<Huawei> display voice h323 running
  System name                    : HUAWEI
  Product name                   : HUAWEI
  H323 version                   : V4
  H245 version                   : V4
  Display name                   : HUAWEI
  LocalIP                        : 192.168.0.1
  RAS port                       : 1720
  Q931 listen port               : 1280
  Workmode                       : international
  Tcp keep alive time out        : 3600ms
  Support h245 tunnel            : Disable
  Faststart flag                 : Enable
```

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```
Auto connect control channel     : Disable
Earlyh245                        : Disable
Tcp connection time out          : 15000ms
Setup wait response time out     : 500000ms
Callproc wait response time out  : 500000ms
Recvalert wait response time out : 500000ms
Channels time out                : 15000ms
Request channel close time out   : 15000ms
Requestmode time out             : 15000ms
Endsession time out              : 3000ms
Init status                      : Initsucceed
```

Table 16-73 Description of the display voice h323 running command output

Item	Description
System name	H323 system name.
Product name	H323 product name.
H323 version	H323 protocol version, including V2, V3, V4, and V5. The default version is V4.
H245 version	H245 protocol version, including V2, V3, V4, and V5. The default version is V4.
Display name	display header field in the Q931 message.
LocalIP	Local IP address.
RAS port	UDP port number of RAS signals.
Q931 listen port	Q931 listening port.
Workmode	Operation mode of the H323 stack, including international, national, and VT. The default mode is international.
Tcp keep alive time out	TCP keepalive timer value.
Support h245 tunnel	Whether the H245 control signaling channel is supported.
Faststart flag	Whether the fast start function is enabled.
Auto connect control channel	Whether the H245 channel can be automatically established.
Earlyh245	Whether the Setup message contains the H245 address.
Tcp connection time out	TCP connection timeout interval.
Setup wait response time out	Timeout interval for the Callproceeding, Alerting, or Connect response.

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Item	Description
Callproc wait response time out	Timeout interval for the Alerting or Connect response.
Recvalert wait response time out	Timeout interval for the Connect response.
Channels time out	Channel establishment timeout interval.
Request channel close time out	Timeout interval for the logical channel close response.
Requestmode time out	Timeout interval for mode switching request response.
Endsession time out	EndSessionCommand timeout interval.
Init status	Initialization status of the H323 stack, including: • Initsucceed: initialization is successful. • Initfailed: initialization is failed. • Meminitsucceed: memory initialization is successful. • Meminitfailed: memory initialization is failed. • Cfgsucceed: H323 stack configuration is successful. • Cfgfailed: H323 stack configuration is failed.

16.5.6.19 display voice r2 profile

Function

Using the **display voice r2 profile** command, you can view the E1R2 profile configuration.

Format

display voice r2 profile [*profile-name*]

Parameters

Parameter	Description	Value
profile-name	Specifies the name of an E1R2 profile.	The value is a string of 1 to 32 characters.

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Views

All views

Default Level

2: Configuration level

Usage Guidelines

If *profile-name* is not specified, the **display voice r2 profile** command displays the configuration of all E1R2 profiles.

Example

Display the configuration of the E1R2 profile **test**.

```
<Huawei> display voice r2 profile test
-------------------------------------------------------------
              R2 signalling profile
-------------------------------------------------------------
name:                    test
signalling-type-name:    standard
-------------------------------------------------------------
              R2 register signalling attribute
-------------------------------------------------------------
InType                : 0
OutType               : 0
BackPulseTime         : 150ms
SendVoltage           : 13dBm
DtmfSendIntervalTime  : 68ms
CompSeqKeepTime       : 40000ms
DtmfSendTime          : 68ms
NumberMaxInterval     : 50s
RecNumMaxInterval     : 50s
SignalStopPerTime     : 15s
WaitCallCategoryTime  : 50s
WaitBSigTime          : 50s
NumberSendMode        : delay
CallNumberSendLen     : 12
IsSendPulseSignal     : disable
-------------------------------------------------------------
              R2 register address send
-------------------------------------------------------------
ProfileName           : test
CallingNumber         : enable
CalledNumber          : enable
CallingUserType       : enable
EchoCancellation      : disable
CountryCode           : disable
DistinctiveIndication : disable
CircuitCharacter      : disable
CallingUserPriority   : disable
-------------------------------------------------------------
              R2 register address receive
-------------------------------------------------------------
ProfileName           : test
CallingNumber         : enable
CalledNumber          : enable
CallingUserType       : enable
EchoCancellation      : disable
CountryCode           : disable
DistinctiveIndication : disable
CircuitCharacter      : disable
CallingUserPriority   : disable
```

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```
CidPostion           : 1
CalltypePostion      : 1
-------------------------------------------------------------
              R2 line signal
-------------------------------------------------------------
Profile-name:                    test
seize ack time:                  5000ms
wait answering signal time:       300s
wait front line-releasing duration:  200ms
wait protecting duration:         200ms
line signal type:                1
```

Table 16-74 Description of the display voice r2 profile command output

Item	Description
R2 register signalling attribute	R2 signaling attribute.
InType	Incoming signaling type.
OutType	Outgoing signaling type.
BackPulseTime	Backward pulse duration.
SendVoltage	Transmitting voltage.
DtmfSendIntervalTime	Interval at which DTMF signals are sent.
CompSeqKeepTime	Keepalive time of the register signaling compelling sequence.
DtmfSendTime	Period during which DTMF signals are sent.
NumberMaxInterval	Interval at which the calling number is sent.
RecNumMaxInterval	Interval at which digits are collected.
WaitCallCategoryTime	Period from the time to request the caller category to the time to receive the caller category.
WaitBSigTime	Period from the time to request group B signals to the time to receive group B signals.
NumberSendMode	Digit collection mode.
CallNumberSendLen	Maximum length of the calling number.
IsSendPulseSignal	Whether the end-of-pulsing signal is sent.
R2 register address send	Output register address format.
ProfileName	R2 profile name.
CallingNumber	Whether the calling number is sent.

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Item	Description
CalledNumber	Whether the called number is sent.
CallingUserType	Whether the calling user type is sent.
EchoCancellation	Whether echo cancellation information is sent.
CountryCode	Whether the country code is sent.
DistinctiveIndication	Whether the distinctive indication is sent.
CircuitCharacter	Whether the circuit character is sent.
CallingUserPriority	Whether the calling user priority is sent.
R2 register address receive	Input register address format.
Profilename	R2 profile name.
CallingNumber	Whether the calling number is received.
CalledNumber	Whether the called number is received.
CallingUserType	Whether the calling user type is received.
EchoCancellation	Whether echo cancellation information is received.
CountryCode	Whether the country code is received.
DistinctiveIndication	Whether the distinctive indication is received.
CircuitCharacter	Whether the circuit character is received.
CallingUserPriority	Whether the calling user priority is received.
CidPostion	Calling number location.
CalltypePostion	Calling user type location.
R2 line signal	Line signaling attribute.
Profile-name	R2 profile name.
seize ack time	Waiting time for signal seizing acknowledgement.
wait answering signal time	Time at which answer signals are identified.

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Item	Description
wait front line-releasing duration	Time at which clear-forward (CLF) signals are identified.
wait protecting duration	Protection duration.
line signal type	R2 line signaling type.

16.5.6.20 display voice r2 signalling-type

Function

Using the **display voice r2 signalling-type** command, you can view the configuration of an E1R2 signaling type.

Format

display voice r2 signalling-type [*signalling-type-name* [**register-signal-send** | **register-signal-receive** | **line-signal-send** | **line-signal-receive**]]

Parameters

Parameter	Description	Value
signalling-type-name	Specifies the name of a signaling type.	The value is a string of 1 to 32 characters.

Views

All views

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Display the configuration of the E1R2 signaling type brazil.

```
<Huawei> display voice r2 signalling-type brazil
  R2 Signalling-type :test
  Register-signal-send[7]:0,0,10
  Register-signal-send[7]:0,1,1
  Register-signal-send[7]:0,2,2
  Register-signal-send[7]:0,3,3
  Register-signal-send[7]:0,4,4
```

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```
Register-signal-send[7]:0,5,5
Register-signal-send[7]:0,6,6
Register-signal-send[7]:0,7,7
Register-signal-send[7]:0,8,8
Register-signal-send[7]:0,9,9
Register-signal-send[7]:1,0,10
Register-signal-send[7]:1,1,1
Register-signal-send[7]:1,2,2
Register-signal-send[7]:1,3,3
Register-signal-send[7]:1,4,4
Register-signal-send[7]:1,5,5
Register-signal-send[7]:1,6,6
Register-signal-send[7]:1,7,7
Register-signal-send[7]:1,8,8
Register-signal-send[7]:1,9,9
Register-signal-send[7]:2,0,11
Register-signal-send[7]:2,1,12
Register-signal-send[7]:2,2,14
Register-signal-send[7]:3,0,14
Register-signal-send[7]:3,1,13
Register-signal-send[7]:4,0,14
Register-signal-send[7]:5,0,1
Register-signal-send[7]:5,1,2
Register-signal-send[7]:5,2,3
Register-signal-send[7]:5,3,4
Register-signal-send[7]:5,4,5
Register-signal-send[7]:5,5,10
Register-signal-send[7]:8,0,12
Register-signal-send[7]:9,0,15
Register-signal-send[7]:9,1,15
Register-signal-send[7]:10,1,1
Register-signal-send[7]:10,2,2
Register-signal-send[7]:10,3,3
Register-signal-send[7]:10,4,5
Register-signal-send[7]:10,5,6
Register-signal-send[7]:10,6,7
Register-signal-send[7]:10,7,10
Register-signal-send[7]:10,8,8
Register-signal-send[7]:10,9,9
Register-signal-send[7]:11,0,9
Register-signal-send[7]:11,1,1
Register-signal-send[7]:11,2,2
Register-signal-send[7]:11,3,7
Register-signal-send[7]:11,4,8
Register-signal-send[7]:11,5,5
Register-signal-send[7]:11,6,11
Register-signal-send[7]:11,8,12
Register-signal-send[7]:11,9,13
Register-signal-send[7]:11,10,14
Register-signal-send[7]:11,11,5
Register-signal-send[7]:11,12,10
Register-signal-send[7]:12,0,3
Register-signal-send[7]:13,0,6
Register-signal-send[7]:14,0,4
Register-signal-send[7]:15,0,2
Register-signal-send[7]:16,0,3
Register-signal-send[7]:17,0,5
Register-signal-send[7]:18,0,6
Register-signal-send[7]:19,0,7
Register-signal-send[7]:20,0,8
Register-signal-send[7]:25,0,4
Register-signal-recv[7]:1,1,11,1
Register-signal-recv[7]:1,2,11,1
Register-signal-recv[7]:1,4,0,1
Register-signal-recv[7]:1,5,1,1
Register-signal-recv[7]:1,6,10,1
Register-signal-recv[7]:1,7,10,1
Register-signal-recv[7]:1,8,5,0
Register-signal-recv[7]:1,9,0,1
```

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```
Register-signal-recv[7]:2,1,11,2
Register-signal-recv[7]:2,3,15,0
Register-signal-recv[7]:2,4,0,2
Register-signal-recv[7]:2,5,1,2
Register-signal-recv[7]:2,6,10,2
Register-signal-recv[7]:2,7,10,2
Register-signal-recv[7]:2,8,5,1
Register-signal-recv[7]:2,9,0,2
Register-signal-recv[7]:3,1,12,0
Register-signal-recv[7]:3,3,16,0
Register-signal-recv[7]:3,4,0,3
Register-signal-recv[7]:3,5,1,3
Register-signal-recv[7]:3,6,10,3
Register-signal-recv[7]:3,7,10,3
Register-signal-recv[7]:3,8,5,2
Register-signal-recv[7]:3,9,0,3
Register-signal-recv[7]:4,1,14,0
Register-signal-recv[7]:4,2,14,0
Register-signal-recv[7]:4,3,25,0
Register-signal-recv[7]:4,4,0,4
Register-signal-recv[7]:4,5,1,4
Register-signal-recv[7]:4,8,5,3
Register-signal-recv[7]:4,9,0,4
Register-signal-recv[7]:5,1,11,5
Register-signal-recv[7]:5,2,11,11
Register-signal-recv[7]:5,3,17,0
Register-signal-recv[7]:5,4,0,5
Register-signal-recv[7]:5,5,1,5
Register-signal-recv[7]:5,6,10,4
Register-signal-recv[7]:5,7,10,4
Register-signal-recv[7]:5,8,5,4
Register-signal-recv[7]:5,9,0,5
Register-signal-recv[7]:6,1,13,0
Register-signal-recv[7]:6,3,18,0
Register-signal-recv[7]:6,4,0,6
Register-signal-recv[7]:6,5,1,6
Register-signal-recv[7]:6,6,10,5
Register-signal-recv[7]:6,7,10,5
Register-signal-recv[7]:6,9,0,6
Register-signal-recv[7]:7,1,11,3
Register-signal-recv[7]:7,3,19,0
Register-signal-recv[7]:7,4,0,7
Register-signal-recv[7]:7,5,1,7
Register-signal-recv[7]:7,6,10,6
Register-signal-recv[7]:7,7,10,6
Register-signal-recv[7]:7,9,0,7
Register-signal-recv[7]:8,1,11,4
Register-signal-recv[7]:8,3,20,0
Register-signal-recv[7]:8,4,0,8
Register-signal-recv[7]:8,5,1,8
Register-signal-recv[7]:8,6,10,8
Register-signal-recv[7]:8,7,10,8
Register-signal-recv[7]:8,9,0,8
Register-signal-recv[7]:9,1,11,0
Register-signal-recv[7]:9,4,0,9
Register-signal-recv[7]:9,5,1,9
Register-signal-recv[7]:9,6,10,9
Register-signal-recv[7]:9,7,10,9
Register-signal-recv[7]:9,9,0,9
Register-signal-recv[7]:10,1,11,12
Register-signal-recv[7]:10,2,11,12
Register-signal-recv[7]:10,4,0,0
Register-signal-recv[7]:10,5,1,0
Register-signal-recv[7]:10,6,10,7
Register-signal-recv[7]:10,7,10,7
Register-signal-recv[7]:10,8,5,5
Register-signal-recv[7]:10,9,0,0
Register-signal-recv[7]:11,1,11,6
Register-signal-recv[7]:11,8,2,0
```

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```
Register-signal-recv[7]:12,1,11,8
Register-signal-recv[7]:12,5,8,0
Register-signal-recv[7]:12,8,2,1
Register-signal-recv[7]:12,10,8,0
Register-signal-recv[7]:13,1,11,9
Register-signal-recv[7]:13,2,11,9
Register-signal-recv[7]:13,10,3,1
Register-signal-recv[7]:14,1,11,10
Register-signal-recv[7]:14,8,2,2
Register-signal-recv[7]:14,9,4,0
Register-signal-recv[7]:14,10,3,0
Register-signal-recv[7]:15,1,14,0
Register-signal-recv[7]:15,2,14,0
Register-signal-recv[7]:15,4,9,1
Register-signal-recv[7]:15,5,9,0
Line-signal-send[7]:0,0,1,0,10
Line-signal-send[7]:2,0,9,0,10
Line-signal-send[7]:3,0,9,0,10
Line-signal-send[7]:4,0,9,0,10
Line-signal-send[7]:5,0,13,0,10
Line-signal-send[7]:6,0,5,0,10
Line-signal-send[7]:7,0,5,0,10
Line-signal-send[7]:8,0,13,0,10
Line-signal-send[7]:9,0,1,0,10
Line-signal-send[7]:10,0,9,0,10
Line-signal-send[7]:11,0,13,0,10
Line-signal-send[7]:12,0,9,0,10
Line-signal-recv[7]:0,0,0,0,0
Line-signal-recv[7]:0,0,0,3,0
Line-signal-recv[7]:0,0,0,7,0
Line-signal-recv[7]:0,0,0,8,9
Line-signal-recv[7]:0,0,0,11,9
Line-signal-recv[7]:0,2,0,8,6
Line-signal-recv[7]:0,2,0,10,7
Line-signal-recv[7]:0,4,0,0,3
Line-signal-recv[7]:0,4,0,1,2
Line-signal-recv[7]:0,4,0,2,2
Line-signal-recv[7]:0,4,0,3,2
Line-signal-recv[7]:0,4,0,4,2
Line-signal-recv[7]:0,4,0,5,2
Line-signal-recv[7]:0,4,0,6,2
Line-signal-recv[7]:0,4,0,7,10
Line-signal-recv[7]:0,4,0,8,10
Line-signal-recv[7]:0,4,0,9,10
Line-signal-recv[7]:0,4,0,10,10
Line-signal-recv[7]:0,4,0,11,10
Line-signal-recv[7]:0,4,0,12,10
Line-signal-recv[7]:0,4,0,13,10
Line-signal-recv[7]:0,4,0,14,10
Line-signal-recv[7]:0,6,0,0,11
Line-signal-recv[7]:0,6,0,7,5
Line-signal-recv[7]:0,6,0,8,8
Line-signal-recv[7]:0,6,0,9,8
Line-signal-recv[7]:0,6,0,11,8
Line-signal-recv[7]:0,6,0,13,8
Line-signal-recv[7]:3,4,0,0,3
Line-signal-recv[7]:3,4,0,3,3
Line-signal-recv[7]:3,6,0,0,11
```

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Table 16-75 Description of the display voice r2 signalling-type command output

Item	Description
Register-signal-send[7]:0,0,10	Register signaling output parameters of the R2 signaling type. The value 7 indicates the index value, and the values 0, 0, 10 represent the logical command, parameter in the logical command, and physical command respectively.
Register-signal-recv[7]:1,1,11,1	Register signaling input parameters of the R2 signaling type. The value 7 indicates the index value, and the values 1, 1, 11, 1 represent the physical command, line call parameter, logical command, and parameter in the logical command respectively.
Line-signal-send[7]:0,0,1,0,10	Line signaling output parameters of the R2 signaling type. The value 7 indicates the index value, and the values 0, 0, 1, 0, 10 represent the parameter in a logical command, logical signaling type, physical command, call status, and signaling transmitting duration respectively.
Line-signal-recv[7]:0,0,0,0,0	Line signaling input parameters of the R2 signaling type. The value 7 indicates the index value, and the values 0, 0, 0, 0, 0 represent the logical signaling type, physical command, parameter in the physical command, call status, and logical command respectively.

16.5.6.21 display voice trunk-at0

Function

The **display voice trunk-at0** command displays the configuration of an AT0 trunk.

Format

display voice trunk-at0

Parameters

None

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Views

All views

Default Level

2: Configuration level

Usage Guidelines

None

Example

Display the configuration of an AT0 trunk.

```
<Huawei> display voice trunk-at0
  Spec: 16, Records: 1
  --------------------------
  Trunkgroup name         : at0
  Slot/Subcard/Port       : 1/0/4
  Cid transtype           : Bell202
  Dial delay(ms)          : 2000
  Dial mode               : DTMF
  Insert prefix delay(ms) : 2000
  Insert prefix           :
  Default called number   : 28980000
  Circuit config status   : Normal
```

Table 16-76 Description of the **display voice trunk-at0** command output

Item	Description
Spec	Total space.
Records	Number of records.
Trunkgroup name	Name of a trunk group.
Slot/Subcard/Port	Slot ID/Subcard ID/Port number.
Cid transtype	Signal transmission type for the CLIP service.
Dial delay	Dialing delay.
Dial mode	Dialing mode.
Insert prefix delay	Dial delay after a call prefix is inserted into numbers.
Insert prefix	Inserted call prefix.
Default called number	Bound IVR number.
Circuit config status	Line status.

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16.5.6.22 display voice trunk-e1r2

Function

The **display voice trunk-e1r2** command displays information about trunks in an R2 trunk group.

Format

display voice trunk-e1r2

Parameters

None

Views

All views

Default Level

2: Configuration level

Usage Guidelines

You can use the **display voice trunk-e1r2** command to verify the configuration and current status of each trunk in an R2 trunk group for real-time monitoring of the trunk status and fault location and rectification.

Example

Verify the configuration of an R2 trunk group.

```
<Huawei> display voice trunk-e1r2
  Spec: 64, Records: 32
  ------------------
  Trunkgroup name   : r201
  Slot/Subcard/Port : 2/0/0
  B-Channel config status[0]    : Reserved
  B-Channel line admin state[0] : Reserved

  B-Channel config status[1]    : Normal
  B-Channel line admin state[1] : LBlock

  B-Channel config status[2]    : Normal
  B-Channel line admin state[2] : LBlock

  B-Channel config status[3]    : Normal
  B-Channel line admin state[3] : LBlock

  B-Channel config status[4]    : Normal
  B-Channel line admin state[4] : LBlock
  ......
  B-Channel config status[15]    : Normal
  B-Channel line admin state[15] : LBlock

  B-Channel config status[16]    : Reserved
  B-Channel line admin state[16] : Reserved
  ......
```

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```
B-Channel config status[31]    : Normal
B-Channel line admin state[31] : LBlock
```

Table 16-77

Parameter	Description
Spec	Total space.
Records	Actual records.
Trunkgroup name	Name of the trunk group.
Slot/Subcard/Port	E1 interface number.
B-Channel config status	Configuration status of a B channel. The values are as follows: • Normal • Reserved • Block
B-Channel line admin state	Line administrator status of a B channel. The values are as follows: • Normal • Reserved • LBlock • RBlock • LRBlock

16.5.6.23 display voice trunk-group

Function

The **display voice trunk-group** command displays the information about PBX trunk groups.

Format

display voice trunk-group [*trunk-group-name* [*para-value*]]

Parameters

Parameter	Description	Value
trunk-group-name	Specifies the name of a trunk group.	The value is a string of 1 to 32 case-sensitive characters.

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Parameter	Description	Value
para-value	Specifies the parameter to display.	Options: • callroute: call route bound to the trunk group. • gnr-number: gnr-number bound to the trunk group. • codec-priority: codec priority, codec value, and packetization time. • dtmf: DTMF transmission mode of the trunk group. • fax-modem: Fax/Modem configuration information about the SIP trunk. • number-parameter: parameter index • redundancy-nte: whether to enable RFC2198 redundancy transmission of RFC2833. • statuscode-toneid-mapping: mapping relationships between error codes and tones played. • trunk-at0: AT0 trunk. • trunk-bra: BRA trunk. • trunk-e1r2: E1R2 trunk. • trunk-pra: PRA trunk. • trunk-sipat0: SIPAT0 trunk.

Views

All views

Default Level

2: Configuration level

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Usage Guidelines

If the trunk group name is not specified, the information about all trunk groups is displayed.

Example

Display the information about trunk group sipbb.

```
<Huawei> display voice trunk-group sipbb
  Config
  Trunkgroup name               : sipbb
  Trunkgroup ID                 : 10
  Description                   :
  Sigtype                       : sip
  Dn-set                        : DefaultDialPlan
  Enterprise                    : default
  Select mode                   : Loop
  Priority of trunk group       : Default
  Reserved circuit number       : 0
  Reserved circuit priority     : Super
  Outgoing right                : inter&local&ddd&idd
  Custom right                  :
  Relate call route name        : sipbb
  Relate call source name       : -
  Support cli change            : enable
  Country/Region code           : 86
  Area Code                     : 755
  Default caller number         :
  Register mode                 : No register
  Local signalling IP           : 192.168.0.1
  Local signalling IP address name:
  Local signalling port         : 5071
  Local media IP                : 192.168.0.1
  Local media IP address name   :
  Primary server IP             : 3.3.1.18
  Primary server port           : 1719
  Secondary server IP           : 3.3.1.47
  Secondary server port         : 1719
  Proxy address mode            : Static IP
  Primary server IP             : 192.168.0.2
  Primary server port           : 5071
  Secondary server IP           :
  Secondary server port         : 65535
  Register server URI           :
  Home domain                   : abcd.com
  Transfer mode                 : UDP
  Transfer CS mode              :
  Register ID                   :
  Register password             :
  Maximum number of calls       : 10
  IP trunk adapter type         : MG
  Media Proxy                   : Disable
  Mapped Signalling IP          :
  Mapped Signalling port        :
  Mapped Media IP               :
  Mapped Media Port Start       :
  Mapped Media Proxy Port Start :
  Use rule set                  :

  Running
  Trunkgroup name               : sipbb
  Trunkgroup ID                 : 10
  Description                   :
  Sigtype                       : sip
  Dn-set                        : DefaultDialPlan
  Enterprise                    : default
  Select mode                   : Loop
```

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```
Priority of trunk group         : Default
Reserved circuit number         : 0
Reserved circuit priority       : Super
Outgoing right                  : inter&local&ddd&idd
Custom right                    :
Relate call route name          : sipbb
Relate call source name         : -
Support cli change              : enable
Country/Region code             : 86
Area Code                       : 755
Default caller number           :
Register mode                   : No register
SIP trunk group state           : Normal
Local signalling IP             : 192.168.0.1
Local signalling IP address name:
Local signalling port           : 5071
Local media IP                  : 192.168.0.1
Local media IP address name     :
Peer IP                         : 192.168.0.2
Peer port                       : 5071
Proxy address mode              : Static IP
Primary server IP               : 192.168.0.2
Primary server port             : 5071
Secondary server IP             :
Secondary server port           : 65535
Primary server state            : Up
Secondary server state          : Unknown
Current server                  : Primary server
Register server URI             :
Home domain                     : abcd.com
Transfer mode                   : UDP
Transfer CS mode                :
Register ID                     :
Register password               :
Maximum number of calls         : 10
IP trunk adapter type           : MG
Media Proxy                     : Disable
Mapped Signalling IP            :
Mapped Signalling port          :
Mapped Media IP                 :
Mapped Media Port Start         :
Mapped Media Proxy Port Start   :
Use rule set                    :
```

Table 16-78 Description of the **display voice trunk-group command** output

Item	Description
Trunkgroup name	Name of the trunk group. You can configure the trunk group name by running the **trunk-group** command.
Trunkgroup ID	Trunkgroup ID.
Description	Description of the trunk group. You can configure the trunk group description by running the **description (trunk group view)** command.

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Item	Description
Sigtype	Trunk signaling type. You can configure the trunk signaling type by running the **trunk-group** command.
Dn-set	DN set. You can configure the DN set by running the **enterprise dn-set (trunk group view)** command.
Enterprise	Enterprise name. You can configure the enterprise name by running the **enterprise dn-set (trunk group view)** command.
Select mode	The trunk group circuit selection mode.
Reserved circuit number	Reserved circuit number.
Reserved circuit priority	Reserved circuit priority.
Outgoing right	Outgoing right.
Custom right	Trunk group right.
Relate call route name	Relate call route name.
Relate call source name	Relate call source name.
Support cli change	Whether support calling number change.
Country/Region code	Country code.
Area Code	Area Code.
Default caller number	Default caller number.
Register mode	Registration mode.
Local signalling IP	Local signaling IP address.
Local signalling IP address name	Interface name of the local signaling IP address.
Local signalling port	Local signaling port.
Local media IP	Local media IP address.
Local media IP address name	Interface name of the local media IP address.
Peer IP	Remote IP address.
Peer port	Remote port number.

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Item	Description
Proxy address mode	Peer address mode, either dynamic or static.
Primary server IP	IP address of the primary server.
Primary server port	Port of the primary server.
Secondary server IP	IP address of the Secondary server.
Secondary server port	Port of the Secondary server.
Register server URI	URI carried in the registration header field.
Home domain	Domain name carried in the registration header field.
Transfer mode	Transfer mode.
Transfer CS mode	Reliable connection mode.
Register ID	Register ID.
Register password	Register password.
Maximum number of calls	Maximum number of call connections.
IP trunk adapter type	SIP IP Relay Group adapter type.
Media Proxy	Media Proxy.
Mapped Signalling IP	Mapped signaling IP address.
Mapped Signalling port	Mapped signaling port.
Mapped Media IP	Mapped media IP address.
Mapped Media Port Start	Mapped media start port.
Mapped Media Proxy Port Start	Mapped media proxy start port.
Use rule set	Used rule set.

16.5.6.24 display voice trunk-bra

Function

The **display voice trunk-bra** command displays the configuration of a BRA trunk.

Format

display voice trunk-bra

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Parameters

None

Views

All views

Default Level

2: Configuration level

Usage Guidelines

None

Example

Display the configuration of a BRA trunk.

```
<Huawei> display voice trunk-bra
  Spec: 4, Records: 1
  --------------------
 Trunkgroup name             : bra
 Slot/Subcard/Port           : 2/0/0
 Default called number       :
 Caller enterprise           : default
 Caller no country code      :
 Caller no area code         :
 Caller no                   :
 B-Channel config status[0]  : Normal
 B-Channel config status[1]  : Normal
```

Table 16-79 Description of the **display voice trunk-bra** command output

Item	Description
Spec	Total space.
Records	Number of records.
Trunkgroup name	Trunk group name.
Slot/Subcard/Port	Slot ID/Subcard ID/Port ID.
Default called number	Default called number.
Caller enterprise	Caller enterprise.
Caller no country code	Caller no country code.
Caller no area code	Caller no area code.
Caller no	Caller number.
B-Channel config status	Port configuration status.

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16.5.6.25 display voice trunk-pra

Function

The **display voice trunk-pra** command displays the configuration of a PRA trunk.

Format

display voice trunk-pra

Parameters

None

Views

All views

Default Level

2: Configuration level

Usage Guidelines

None

Example

Display the configuration of a PRA trunk.

```
<Huawei> display voice trunk-pra
  Spec: 256, Records: 64
  ------------------
  Trunkgroup name             : NA
  Slot/Subcard/Port           : 1/0/0
  Default Cli                 : 28980808
  Time-slot config status[ 0]  : Reserved

  Trunkgroup name             : pra-net
  Slot/Subcard/Port           : 1/0/0
  Default Cli                 : 28980808
  Time-slot config status[ 1]  : Normal
```

Table 16-80 Description of the **display voice trunk-pra** command output

Item	Description
Spec	Total space.
Records	Number of records.
Time-slot config status[1]	Port configuration status.
Trunkgroup name	Trunk group name.
Slot/Subcard/Port	Slot ID/Subcard ID/Port ID.

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Item	Description
Default Cli	Default calling number

16.5.6.26 display voice trunk-sipat0

Function

The **display voice trunk-sipat0** command displays the configuration of the SIP AT0 trunk.

Format

display voice trunk-sipat0 [*register-id* | **brief**]

Parameters

Parameter	Description	Value
register-id	Specifies the registered ID of the SIP AT0 trunk.	The value is a string of 1 to 32 case-sensitive characters without spaces.
brief	Display brief information about all SIP AT0 trunk groups.	-

Views

All views

Default Level

2: Configuration level

Usage Guidelines

The **display voice trunk-sipat0** command displays configurations and status of trunks in the SIP AT0 trunk group, helping to monitor the status of trunks in real time and troubleshoot faults.

Example

Display the configuration of a SIP AT0 trunk.

```
<Huawei> display voice trunk-sipat0
Spec: 400, Records: 1, registered count: 1, unregisterd count: 0
 ------------------------------------------------------------------------------
 Trunkgroup name       : sipat0
```

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```
Register id           : 90001
Password              :
Default called number : 10086
Max calls             : 1
Caller telno          :
Register status       : In service
Refresh time          : 286
Reason                : -
Service status        : Idle
```

Table 16-81 Description of the **display voice trunk-sipat0** command output

Item	Description
Spec	Space of trunk groups.
Records	Number of records.
registered count	Number of registered trunk groups.
unregisterd count	Number of unregistered trunk groups.
Trunkgroup name	Name of the trunk group.
Register id	Registered ID for the SIP AT0 trunk.
Password	Registration password of the SIP AT0 trunk.
Default called number	Called number for incoming calls.
Max calls	Maximum number of calls.
Caller telno	Calling number for outgoing calls routed through the SIP AT0 trunk.
Register status	Registration status of the SIP AT0 trunk.
Refresh time	Remaining time for the SIP AT0 trunk to refresh the registration status in seconds.
Reason	Cause of the SIP AT0 registration failure.
Service status	SIP AT0 service status.

16.5.6.27 displayname

Function

The **displayname** command configures the display header value in Q.931 messages.

The **undo displayname** command restores the default display header value in Q.931 messages.

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By default, the display header in Q.931 messages is HUAWEI.

Format

displayname *displayname-value*

undo displayname

Parameters

Parameter	Description	Value
displayname-value	Indicates the display header in the Q.931 message.	The value is a string of 1 to 32 case-sensitive characters without spaces. **NOTE** The value '-' indicates that the value of the display header in a Q.931 message is empty.

Views

H323 attribute view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

To change the name of a calling party or called party that is displayed on a terminal, you can run the **displayname** command and change the value of the display header in Q.931 messages.

Based on scenarios, the value of the display header in a Q.931 message is described as follows:

- When an outgoing call is made over an H.323 trunk, the value of the display header in the Q.931 message sent by the AR is the value configured by the **displayname** command.
- An incoming call is received over an H.323 trunk:
  - If the parameter is set to -, the value of the display header in the Q.931 message sent by the AR is empty.
  - If the parameter is set to another value, the value of the display header in the Q.931 message sent by the AR is the same as that in the Q.931 message received by the AR, but not the value configured by the **displayname** command.

Precautions

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After running the **displayname** command, you need to run the **reset** command to reset the H.323 system to enable the configuration to take effect.

Example

Set the display header in the Q931 message to user.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] displayname user
[Huawei-voice-h323-attribute] reset
```

16.5.6.28 dtmf-transmission-mode (trunk group view)

Function

Using the **dtmf-transmission-mode** command, you can configure the Dual-Tone Multi-frequency (DTMF) transmission mode for a PBX.

Using the **undo dtmf-transmission-mode** command, you can restore the default DTMF transmission mode of a PBX.

By default, the DTMF transmission mode is transparent transmission.

Format

dtmf-transmission-mode { **throughly** | **erase** }

undo dtmf-transmission-mode

Parameters

Parameter	Description	Value
throughly	Indicates DTMF transparent transmission.	-
erase	Indicates DTMF signal removing.	-

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

SIP or H.323 trunk group support the **dtmf-transmode** command. Before using the **dtmf-transmode** command, run the **trunk-group** command to create a SIP or H.323 trunk group.

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The **dtmf-transmode** command configures the DTMF transmission mode for a PBX.

- DTMF transparent transmission: the default DTMF transmission mode.
- DTMF signal removing: used when DTMF signaling is transmitted in accordance with RFC 2833 and DTMF signals do not need to be transmitted.

Example

Set the DTMF transmission mode to transparent transmission for a PBX.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group abcd sip trunk-group
[Huawei-voice-trunkgroup-abcd] dtmf-transmission-mode throughly
```

16.5.6.29 earlyh245

Function

The **earlyh245** command configures whether the Setup message contains the H245 address.

The **undo earlyh245** command restores the default configuration.

By default, the Setup message does not contain the H245 address.

Format

earlyh245 { **enable** | **disable** }

undo earlyh245

Parameters

Parameter	Description	Value
enable	Indicates that the Setup message contains the H245 address.	-
disable	Indicates that the Setup message does not contain the H245 address.	-

Views

H323 attribute view

Default Level

2: Configuration level

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Usage Guidelines

When the Setup message contains the H245 address, the H245 address is sent to the called party, and media negotiation can be performed based on this address.

Example

Specify that the Setup message contains the H245 address.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] earlyh245 enable
```

16.5.6.30 endservice trunk-sipat0(SIP AT0 trunk view)

Function

The **endservice trunk-sipat0** command stops the SIP AT0 service.

The **undo endservice trunk-sipat0** command starts the SIP AT0 service.

Format

endservice trunk-sipat0 *register-private-id*

undo endservice trunk-sipat0 *register-private-id*

Parameters

Parameter	Description	Value
register-private-id	Specifies the registration ID.	The value is a string of 1 to 32 characters.

Views

SIP AT0 trunk view

Default Level

2: Configuration level

Usage Guidelines

N/A

Example

Stop the SIP AT0 service.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] trunk-group test sip trunk-circuit
[Huawei-voice-trunkgroup-test] endservice trunk-sipat0 2
```

16.5.6.31 endsession-timeout

Function

The **endsession-timeout** command sets the EndSessionCommand timeout. The EndSessionCommand message is used to end the H245 channel.

The **undo endsession-timeout** command restores the default EndSessionCommand timeout.

By default, the EndSessionCommand timeout is 3000 ms.

Format

endsession-timeout *endsession-timeout-value*

undo endsession-timeout

Parameters

Parameter	Description	Value
endsession-timeout-value	Indicates the EndSessionCommand timeout.	The value is an integer that ranges from 0 to 4294967295, in milliseconds.

Views

H323 attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the EndSessionCommand timeout to 50000 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] endsession-timeout 50000
```

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16.5.6.32 enterprise dn-set (trunk group view)

Function

The **enterprise dn-set** command binds an enterprise and a DN set to a trunk group.

The **undo enterprise** command unbinds an enterprise and a DN set from a trunk group.

Format

enterprise *enterprise-name* [**dn-set** *dn-set-name*]

undo enterprise

Parameters

Parameter	Description	Value
enterprise-name	Specifies the enterprise to which the trunk group belongs.	The value is a string of 1 to 32 characters.
dn-set *dn-set-name*	Specifies the DN set name.	The value is a string of 1 to 32 characters. The default value is defaultdialplan.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

When an enterprise has multiple DN sets, run this command to specify a DN set for a trunk group.

Example

Bind the enterprise **abcd** to the trunk group **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test
[Huawei-voice-trunkgroup-test] enterprise abcd
```

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16.5.6.33 faststart-flag

Function

The **faststart-flag** command enables or disables the fast start function.

The **undo faststart-flag** command restores the default configuration.

By default, the fast start function is enabled.

Format

faststart-flag { **enable** | **disable** }

undo faststart-flag

Parameters

Parameter	Description	Value
enable	Enables fast start.	-
disable	Disables fast start.	-

Views

H323 attribute view

Default Level

2: Configuration level

Usage Guidelines

After the fast start function is enabled, sessions can be set up quickly.

Example

Disable the fast start function.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] faststart-flag disable
```

16.5.6.34 fax-modem common negotiation-mode

Function

Using the **fax-modem common negotiation-mode** command, you can set the fax/modem codec negotiation mode of a PBX.

Using the **undo fax-modem common negotiation-mode** command, you can restore the default fax/modem codec negotiation mode of a PBX.

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By default, the fax/modem codec negotiation mode is negotiation.

Format

fax-modem common negotiation-mode { **negotiate** | **self-switch** }

undo fax-modem common negotiation-mode

Parameters

Parameter	Description	Value
negotiate	Sets the fax/modem codec negotiation mode to negotiation. In negotiation mode, the MG needs to negotiate with the MGC for the codec negotiation mode using signaling.	-
self-switch	Sets the fax/modem codec negotiation mode to self-switch.	-

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

SIP or H.323 trunk groups support the **fax-modem common negotiation-mode** command. Before using the **fax-modem common negotiation-mode** command, run the **trunk-group** command to create a SIP or H.323 trunk group.

Example

Set the fax/modem codec negotiation mode of the PBX to self-switch.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group 1
[Huawei-voice-trunkgroup-1] fax-modem common negotiation-mode self-switch
```

16.5.6.35 fax-modem common rtp-interval

Function

Using the **fax-modem common rtp-interval** command, you can set the packetization interval in transparent transmission mode.

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Using the **undo fax-modem common rtp-interval** command, you can restore the default packetization interval in transparent transmission mode.

By default, the packetization interval in transparent transmission mode is 10 ms.

Format

fax-modem common rtp-interval { **5ms** | **10ms** | **20ms** | **30ms** }

undo fax-modem common rtp-interval

Parameters

None

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

SIP or H.323 trunk group support the **fax-modem common rtp-interval** command. Before using the **fax-modem common rtp-interval** command, run the **trunk-group** command to create a SIP or H.323 trunk group.

Example

Set the packetization interval in transparent transmission mode to 20 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group 1
[Huawei-voice-trunkgroup-1] fax-modem common rtp-interval 20ms
```

16.5.6.36 fax-modem common vbd-attribute-type

Function

Using the **fax-modem common vbd-attribute-type** command, you can set the VBD attribute type of a PBX.

Using the **undo fax-modem common vbd-attribute-type** command, you can restore the default VBD attribute type of a PBX.

By default, the VBD attribute type is V.152.

Format

fax-modem common vbd-attribute-type { **chinatelecom** | **extchinatelecom** | **ietf** | **v152** }

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undo fax-modem common vbd-attribute-type

Parameters

Parameter	Description	Value
chinatelecom	Indicates the China Telecom mode.	-
extchinatelecom	Indicates the extended China Telecom mode.	-
ietf	Indicates the IETF mode.	-
v152	Indicates the V.152 mode.	-

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

SIP or H.323 trunk group support the **fax-modem common vbd-attribute-type** command. Before using the **fax-modem common vbd-attribute-type** command, run the **trunk-group** command to create a SIP or H.323 trunk group.

Example

Set the VBD attribute type to IETF.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group 1
[Huawei-voice-trunkgroup-1] fax-modem common vbd-attribute-type ietf
```

16.5.6.37 fax-modem common vbd-codec

Function

Using the **fax-modem common vbd-codec** command, you can set the VBD codec mode of a PBX.

Using the **undo fax-modem common vbd-codec** command, you can restore the default VBD codec mode of a PBX.

By default, the VBD codec mode is A-law algorithm in G.711.

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Format

fax-modem common vbd-codec { **g711a** | **g711u** | **g711a_u** | **g711u_a**}

undo fax-modem common vbd-codec

Parameters

Parameter	Description	Value
g711a	Indicates the A-law algorithm in G.711.	-
g711u	Indicates the u-law algorithm in G.711.	-

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

SIP or H.323 trunk group support the **fax-modem common vbd-codec** command. Before using the **fax-modem common vbd-codec** command, run the **16.5.1.24 display voice media-bandwidth-control (PBX)** command to create a SIP or H.323 trunk group.

Example

Set the VBD codec mode of the PBX to u-law algorithm in G.711.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group 1
[Huawei-voice-trunkgroup-1] fax-modem common vbd-codec g711u
```

16.5.6.38 fax-modem common vbd-payload-type

Function

Using the **fax-modem common vbd-payload-type** command, you can configure the VBD payload type of a PBX.

Using the **undo fax-modem common vbd-payload-type** command, you can restore the default VBD payload type of a PBX.

By default, the VBD payload type is static.

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Format

fax-modem common vbd-payload-type { **dynamic** | **static** }

undo fax-modem common vbd-payload-type

Parameters

Parameter	Description	Value
dynamic	Indicates dynamic payload.	-
static	Indicates static payload.	-

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

SIP or H.323 trunk group support the **fax-modem common vbd-payload-type** command. Before using the **fax-modem common vbd-payload-type** command, run the **16.5.1.24 display voice media-bandwidth-control (PBX)** command to create a SIP or H.323 trunk group.

Example

Set the VBD payload type to dynamic payload.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group 1
[Huawei-voice-trunkgroup-1] fax-modem common vbd-payload-type dynamic
```

16.5.6.39 fax-modem fax transmission-mode

Function

Using the **fax-modem fax transmission-mode** command, you can configure the fax transmission mode for a PBX.

Using the **undo fax-modem fax transmission-mode** command, you can restore the default fax transmission mode of a PBX.

By default, the fax transmission mode of a PBX is transparent transmission.

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Format

fax-modem fax transmission-mode { **throughly** | **T38** | **T38_throughly** | **throughly_T38** }

undo fax-modem fax transmission-mode

Parameters

Parameter	Description	Value
throughly	Indicates the transparent transmission mode.	-
T38	Indicates the T.38 mode.	-

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

The trunk group of the SIP or H.323 type supports the **fax-modem fax transmission-mode** command. Before using the **fax-modem fax transmission-mode** command, run the **trunk-group** command to create a trunk group of the SIP or H.323 type.

The **fax-modem fax parameters transmission-mode** command configures the fax transmission mode for a PBX:

- Transparent transmission mode: uses the coding mode defined in G.711.
- T.38 mode: uses the fax-dedicated coding mode.
- T38_throughly: primary T.38 mode, secondary Transparent transmission mode.
- throughly_T38: primary Transparent transmission mode, secondary T.38 mode.

Example

Set the fax transmission mode of a PBX to transparent transmission.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group 1
[Huawei-voice-trunkgroup-1] fax-modem fax transmission-mode throughly
```

16.5.6.40 gatekeeper-techprefix

Function

The **gatekeeper-techprefix** command configures the gateway technical prefix.

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The **undo gatekeeper-techprefix** command deletes the gateway technical prefix.

By default, no gateway technical prefix is configured in the system.

Format

gatekeeper-techprefix *gatekeeper-techprefix-value*

undo gatekeeper-techprefix *gatekeeper-techprefix-value*

Parameters

Parameter	Description	Value
gatekeeper-techprefix-value	Specifies the gateway technical prefix.	The value is a string of 1 to 16 characters. The value can only contain digits, the number sign (#), and asterisk (*).

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

In a gw-gk type H.323 trunk group, a gateway sends an RRQ message to the gatekeeper for registration. If the RRQ message carries a gateway technical prefix, the gatekeeper associates the gateway technical prefix with the gateway source address and records the association. The association information can be used to locate the called party during a call. If multiple gateways exist, the same gateway technical prefix can be configured for the gateways that provide the same type of services (for example, voice or video). The gatekeeper organizes gateways with the same technical prefix into one group to facilitate information search. For example, when a calling party requests a voice service, the gatekeeper searches the voice service group for the corresponding gateway information without traversing all gateways and then forwards the call to the calling party.

Precautions

This command is applicable only to gw-gk type H.323 trunk groups.

Example

Set the gateway technical prefix to **1#**.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] trunk-group test h323 gw-gk
[Huawei-voice-trunkgroup-test] gatekeeper-techprefix 1#
```

16.5.6.41 gkid

Function

The **gkid** command configures IDs of the active and standby gatekeepers with which a gateway registers.

The **undo gkid** command deletes IDs of the active and standby gatekeepers with which a gateway registers.

By default, a gateway is not configured with IDs of the active and standby gatekeepers with which the gateway registers.

Format

gkid *id* [**secondary** *secondary-id*]

undo gkid

Parameters

Parameter	Description	Value
id	The ID of the gatekeeper with which a gateway registers.	The name is a string of 1 to 32 case-insensitive characters without spaces.
secondary *secondary-id*	The ID of the standby gatekeeper with which a gateway registers.	The name is a string of 1 to 32 case-insensitive characters without spaces.

Views

H323 trunk group view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

When an AR router functions as a gateway registering with gatekeepers in an H.323 trunk, IDs of the active and standby gatekeepers to be registered with must be specified on the gateway.

Precautions

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The configuration takes effect only after the trunk group is restarted.

Example

Set **gkid** to **Aa123** and **secondary** to **Bb123**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test h323 gw-gk
[Huawei-voice-trunkgroup-test] gkid Aa123 secondary Bb123
```

16.5.6.42 gnr-number (trunk group view)

Function

gnr-number gnr-number-value command binds gnr-number to a trunk group.

undo gnr-number gnr-number-value command deletes gnr-number under a trunk group.

Format

gnr-number *gnr-number-value* [**num** *count* **step-lenth** *step-lenth-value*]

undo gnr-number *gnr-number-value* | *all*

Parameters

Parameter	Description	Value
gnr-numebr-value	Specifies gnr-number binds to trunk group	The value must already exist in system.
count	The gnr-number count add to trunk group in batch.	1~30
step-lenth-value	The step-lenth between gnr-numbers add to trunk group in batch,Optional.	1~99

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

To bind gnr-number to a trunk group, run **gnr-number** gnr-number-value command.

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Example

Configure gnr-number 123456, and bind it to trunk-group pra.

```
[Huawei-voice]gnr-number 123456
[Huawei-voice-gnrnumber-123456]q
[Huawei-voice]trunk-group pra [Huawei-voice-trunkgroup-pra]gnr-number 123456 [Huawei-voice-
trunkgroup-pra]display this
[V200R005C20SPC212T]
#
 trunk-group pra dss1-user
 callroute 89
 trunk-pra 1/0/0
 gnr-number 123456
#
return
```

16.5.6.43 gwid

Function

The **gwid** command configures the gateway ID of the H323 trunk.

The **undo gwid** command deletes the gateway ID of the H323 trunk.

By default, no gateway ID is configured.

Format

gwid *gwid-value*

undo gwid

Parameters

Parameter	Description	Value
gwid-value	Indicates the gateway ID.	The value is a string of 1 to 32 characters.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

In the registration mode, the gateway ID must be configured and must be the same as that configured on the peer.

Example

Set the gateway ID to client.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test h323 register-gateway
[Huawei-voice-trunkgroup-test] gwid client
```

16.5.6.44 h245version

Function

The **h245version** command sets the H.245 protocol version.

The **undo h245version** command restores the default H.245 protocol version.

By default, the H.245 protocol version is V4.

Format

h245version *h245version-value*

undo h245version

Parameters

Parameter	Description	Value
h245version-value	Specifies the H245 protocol version.	The values are as follows: • V2 • V3 • V4 • V5 The default value is V4.

Views

H323 attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the H.245 protocol version to V2.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] h245version v2
```

16.5.6.45 h323-app-timer

Function

The **h323-app-timer** command sets H323 timers.

The **undo h323-app-timer** command restores the default H323 timer values.

Format

h323-app-timer *timerindex timerlen*

undo h323-app-timer *timerindex*

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Parameters

Parameter	Description	Value
timerindex timerlen	Specifies the H323 timer values: • *timerindex* indicates the timer index. • *timerlen* specifies the timer value.	The value of *timerindex* is an integer ranging from 0 to 51. The value of *timerlen* is an integer, in ms. • When the *timerindex* value is 0, it indicates the CR SetupAck timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 15000. • When the *timerindex* value is 1, it indicates the CR CallProceeding/ Alerting timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 120000. • When the *timerindex* value is 2, it indicates the CR Connect timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 180000. • When the *timerindex* value is 3, it indicates the RAS PS Admission Confirm timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 15000. • When the *timerindex* value is 4, it indicates the

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Parameter	Description	Value
		H.245 setup timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 30000. • When the *timerindex* value is 5, it indicates the check mechanism timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 1000. • When the *timerindex* value is 6, it indicates the OLC setup timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 5000. • When the *timerindex* value is 7, it indicates the TCS message sending timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 10000. • When the *timerindex* value is 8, it indicates the timeout during which the peer EP disables the logical channel. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 60000. • When the *timerindex* value is 9, it indicates the

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Parameter	Description	Value
		CLC setup timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 5000. • When the *timerindex* value is 10, it indicates call self-check timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 60000. • When the *timerindex* value is 11, it indicates the call self-check waiting timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 17000. • When the *timerindex* value is 12, it indicates the call self-check waiting release timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 3000. • When the *timerindex* value is 13, it indicates the AIP notification timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 5000. • When the *timerindex* value is 14, it indicates the SDP modification

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Parameter	Description	Value
		timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 5000. • When the *timerindex* value is 15, it indicates the connect waiting timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 180000. • When the *timerindex* value is 16, it indicates the call setup timer. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 300000. • When the *timerindex* value is 17, it indicates the call release waiting timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 200. • When the *timerindex* value is 18, it indicates the media redirection timer. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 12000. • When the *timerindex* value ranges from 19 to 24,

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Parameter	Description	Value
		it indicates a reserved timer. ● When the *timerindex* value is 25, it indicates the CR Admission waiting timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 15000. ● When the *timerindex* value is 26, it indicates the EP ARQ waiting timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 15000. ● When the *timerindex* value is 27, it indicates the EP DRQ waiting timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 15000. ● When the *timerindex* value is 28, it indicates the CR Disengage waiting timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 15000. ● When the *timerindex* value is 29, it indicates the EP IRR waiting timeout. The *timerlen* value ranges from 0 to

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Parameter	Description	Value
		4294967295, in ms. The default value is 60000. • When the *timerindex* value is 30, it indicates the IRR message sending timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 60000. • When the *timerindex* value is 31, it indicates the EDM Disengage waiting timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 15000. • When the *timerindex* value is 32, it indicates the EDM Register waiting timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 15000. • When the *timerindex* value is 33, it indicates the EDM Unregister waiting timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 15000. • When the *timerindex* value is 34, it indicates the CDB Dispatch waiting timeout. The *timerlen* value

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Parameter	Description	Value
		ranges from 0 to 4294967295, in ms. The default value is 15000. • When the *timerindex* value is 35, it indicates the CR Location waiting timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 5000. • When the *timerindex* value is 36, it indicates the EP URQ waiting timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 50000. • When the *timerindex* value is 37, it indicates the RAS self-check timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 60000. • When the *timerindex* value is 38, it indicates the RAS self-check IRR waiting timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 3000. • When the *timerindex* value is 39, it indicates the EP DCF timeout. The *timerlen* value

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Parameter	Description	Value
		ranges from 0 to 4294967295, in ms. The default value is 10000. • When the *timerindex* value is 40, it indicates status check timeout. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 3600000. • When the *timerindex* value is 41, it indicates the duration when the local gateway waits for a registration response from the active gatekeeper and then sends a registration request to the standby gatekeeper. The *timerlen* value ranges from 0 to 4294967295, in ms. The default value is 15000. **NOTE** If *timerlen* is set to a value ranging from 0 to 10000, only the value 10000 takes effect. • When the *timerindex* value ranges from 42 to 51, it indicates a reserved timer.

Views

H323 attribute view

Default Level

2: Configuration level

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Usage Guidelines

None

Example

Set the call release waiting timeout to 222222 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] h323-app-timer 17 222222
```

16.5.6.46 h323-attribute

Function

The **h323-attribute** command displays the H323 attribute view.

Format

h323-attribute

Parameters

None

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enter the H323 configuration view.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute]
```

16.5.6.47 h323-number-parameter

Function

The **h323-number-parameter** command sets H323 trunk group parameters.

The **undo h323-number-parameter** command restores the default parameter settings.

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Format

h323-number-parameter *numpara-nonumpara-value*

undo h323-number-parameter *numpara-no*

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Parameters

Parameter	Description	Value
numpara-nonumpara-value	Indicates the H323 trunk group parameter. *numpara-no* indicates the parameter index and *numpara-value* indicates the parameter value.	The value of *numpara-no* is an integer that ranges from 0 to 17. The *numpara-value* value varies according to the *numpara-no* value. • When the *numpara-no* value is 0, it indicates whether the Setup message contains the display field. The *numpara-no* value is 0 or 1: 1. 0: The Setup message does not contain the display field. 2. 1: The Setup message contains the display field. The default value is 1. • When the *numpara-no* value is 1, it indicates which of sourceAddress and Calling Party Number IE is selected as the calling number when their values are different. The *numpara-no* value is 0 or 1: 1. 0: The sourceAddress is used as the calling number. 2. 1: The Calling Party Number IE is used as the calling number. The default value is 0. • When the *numpara-no* value is 2, it indicates the

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Parameter	Description	Value
		transport mode. The *numpara-no* value is 0 or 1: 1. 0: packet switching mode 2. 1: circuit mode The default value is 0. ● When the *numpara-no* value is 3, it indicates whether the current media is added to the media list when the TCS message is received. The *numpara-no* value is 0 or 1: 1. 0: no 2. 1: yes The default value is 0. ● When the *numpara-no* value is 4, it indicates the fax mode. The *numpara-no* value is 0 or 1: 1. 0: private mode 2. 1: Cisco mode The default value is 1. ● When the *numpara-no* value is 5, it indicates whether the slow start tone is played using the Connect message if the protocol contains the H245 address. The *numpara-no* value is 0 or 1: 1. 0: The Connect message is not used to play the slow start tone. 2. 1: The Connect message is used to

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Parameter	Description	Value
		play the slow start tone. The default value is 1. ● When the *numpara-no* value is 6, Reserved. ● When the *numpara-no* value is 7, it indicates whether to stop playing early media and play the local ringback tone instead. The *numpara-no* value is 0 or 1: 1. 0: no 2. 1: yes The default value is 0. ● When the *numpara-no* value is 8, it indicates that whether the number is sent in the Information message when the H323 trunk is stable. The *numpara-no* value is 0 or 1: 1. 0: The number in the Information message is sent. 2. 1: The number in the Information message is not sent. The default value is 0. ● When the *numpara-no* value is 9, it indicates that whether the decoding priority is marked using the global setting or trunk setting. The *numpara-no* value is 0 or 1:

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Parameter	Description	Value
		1. 0: Global setting is used. 2. 1: Trunk setting is used. The default value is 0. • When the *numpara-no* value is 10, Reserved. • When the *numpara-no* value is 11, it indicates how H245 sends the Information message. The *numpara-no* value is 0 or 1: 1. 0: signal 2. 1: Alphanumeric The default value is 0. • When the *numpara-no* value is 12, it indicates the value of the Information transfer capability field in Bearer Capability of Q.931 messages. The *numpara-no* value is 0 to 5. The default value is 0. • When the *numpara-no* value is 13, it indicates the value of the user information layer 1 protocol field in Bearer Capability of Q.931 messages. The *numpara-no* value is 0 to 8. The default value is 4. • When the *numpara-no* value is 14, it indicates whether the Information message with SendComplete is sent if the called number to be sent by

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Parameter	Description	Value
		the H.323 trunk group does not reach the maximum prefix length and does not end with the number sign (#). The *numpara-no* value is 0 or 1: 1. 0: The Information message with SendComplete is not sent. 2. 1: The Information message with SendComplete is sent. The default value is 0. ● When the *numpara-no* value is 15, it indicates whether to play announcements to the peer end. The *numpara-no* value is 0 or 1: 1. 0: Announcements are not played to the peer end. 2. 1: Announcements are played to the peer end. The default value is 0. ● When the *numpara-no* value is 16, it indicates media control address carried in connect olc message for reverse channel comes from peer or local. The *numpara-no* value is 0 or 1: 1. 0: peer 2. 1: local The default value is 0. ● When the *numpara-no* value is 17, it

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Parameter	Description	Value
		indicates whether to send connect message with bearer capability. The *numpara-no* value is 0 or 1: 1. 0: without bearer capability 2. 1: with bearer capability The default value is 1.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

After running the **h323-number-parameter** command to configure a control point, run the **reset** command to reset the trunk group to make the configuration take effect.

Example

Set H323 trunk group parameters.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test h323 register-gateway
[Huawei-voice-trunkgroup-test] h323-number-parameter 0 0
```

16.5.6.48 h323-systemname

Function

The **h323-systemname** command configures the H323 stack system name.

The **undo h323-systemname** command deletes the H323 stack system name.

By default, the H323 stack system name is HUAWEI.

Format

h323-systemname *h323systemname-value*

undo h323-systemname

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Parameters

Parameter	Description	Value
h323systemname-value	Specifies the H323 stack system name.	The value is a string of 1 to 32 characters.

Views

H323 attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the H323 stack system name to **user**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] h323-systemname user
```

16.5.6.49 h323version

Function

The **h323version** command configures the H.323 protocol version.

The **undo h323version** command restores the default H.323 protocol version.

By default, the H.323 protocol version is V4.

Format

h323version *h323version-value*

undo h323version

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Parameters

Parameter	Description	Value
h323version-value	Specifies the H.323 protocol version.	Enumerated type. The values are as follows: • V2 • V3 • V4 • V5 The default H.323 protocol version is V4.

Views

H323 attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the H.323 protocol version to V2.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] h323version v2
```

16.5.6.50 heartbeat

Function

The **heartbeat** command configures the heartbeat detection timeout period and retry count for a gatekeeper.

The **undo heartbeat** command restores the default heartbeat detection timeout period and retry count.

By default, the timeout period is ten seconds, and the retry count is three.

Format

heartbeat { **timeout** *time* | **retrycount** *count* } *

undo heartbeat [**timeout** | **retrycount**]

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Parameters

Parameter	Description	Value
timeout*time*	Specifies the heartbeat detection timeout period.	The value an integer that ranges from 5 to 3600, in seconds. The default value is 10s.
retrycount*count*	Specifies the heartbeat detection retry count.	The value is an integer that ranges from 1 to 10. The default value is 3.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

A local gatekeeper sends heartbeat messages to check whether there is a peer gatekeeper. If the peer gatekeeper responds to the heartbeat message, the status of the trunk group is in the normal state. If the heartbeat detection retry count exceeds the threshold, the status of the trunk is in the failed state.

NOTE

Heartbeat detection parameters must be configured only when the H323 trunk works in gk-gk mode.

Example

Set the heartbeat detection timeout period of the H323 trunk **test** to 30 seconds and the heartbeat detection retry count to 6.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test h323 gk-gk
[Huawei-voice-trunkgroup-test] heartbeat timeout 30 retrycount 6
```

16.5.6.51 home-domain (trunk group view)

Function

Using the **home-domain** command, you can specify the domain to which the peer SIP trunk group belongs.

Format

home-domain *value*

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Parameters

Parameter	Description	Value
value	Specifies the name of the domain to which the peer IP trunk group belongs.	The value is a string of 1 to 32 characters.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Only the trunk group of the SIP type supports the **home-domain** command. Before using the **home-domain** command, run the **trunk-group** command to create a trunk group of the SIP type.

The domain names configured at both ends must be the same.

Example

Set the name of the domain to which the peer IP trunk group belongs to abcd.com.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test sip trunk-group
[Huawei-voice-trunkgroup-test] home-domain abcd.com
```

16.5.6.52 line-signal-receive

Function

Using the **line-signal-receive** command, you can set line signaling input parameters for an R2 signaling type.

Using the **undo line-signal-receive** command, you can restore the default line signaling input parameters for an R2 signaling type.

Format

line-signal-receive *line-phy-signal-type line-phy-cmd line-phy-cmd-para line-call-state* { *line-logic-cmd* | **no-process** }

undo line-signal-receive *line-phy-signal-type line-phy-cmd line-phy-cmd-para line-call-state*

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Parameters

Parameter	Description	Value
line-phy-signal-type	Specifies the logical signaling type on an E1 line.	The value is an integer that ranges from 0 to 3. A value corresponds to a signaling type.
line-phy-cmd	Specifies a physical command on an E1 line.	The value is an integer that ranges from 0 to 15. A value corresponds to a physical command.
line-phy-cmd-para	Specifies a parameter in a physical command on an E1 line.	The value is an integer that ranges from 0 to 7. A value corresponds to a parameter.
line-call-state	Specifies the call status on an E1 line.	The value is an integer that ranges from 0 to 31. A value corresponds to one call status.
line-logic-cmd	Specifies a logical command on an E1 line.	The value is an integer that ranges from 0 to 255. A value corresponds to a logical command.
no-process	Specifies an invalid command.	-

Views

R2 signaling type view

Default Level

2: Configuration level

Usage Guidelines

To enable the device to communicate with a non-Huawei device supporting R2 signaling, run the **line-signal-receive** command to adjust line signaling input parameters if the two devices define different line signaling input parameters.

Example

Set the logical signaling type to 1, physical command to 1, physical command parameter to 1, call status to 1, and logical command to 1 for the R2 signaling type **test**.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] r2 signalling-type test
[Huawei-voice-r2-signalling-type-test] line-signal-receive 1 1 1 1 1
```

16.5.6.53 line-signal-send

Function

Using the **line-signal-send** command, you can set line signaling output parameters for an R2 signaling type.

Using the **undo line-signal-send** command, you can restore the default line signaling output parameters for an R2 signaling type.

Format

line-signal-send *line-logic-cmd* { *line-logic-signal-type line-phy-cmd-para line-call-state line-phy-send-time* | **no-process** }

undo line-signal-send *line-logic-cmd*

Parameters

Parameter	Description	Value
line-logic-cmd	Specifies a parameter in a logical command.	The value is an integer that ranges from 0 to 63. A value corresponds to a parameter.
line-logic-signal-type	Specifies a logical signaling type.	The value is an integer that ranges from 0 to 3. A value corresponds to a signaling type.
line-phy-cmd-para	Specifies a physical command on an E1 line.	The value is an integer that ranges from 0 to 255. A value corresponds to a physical command.
line-call-state	Specifies the call status on an E1 line.	The value is an integer that ranges from 0 to 255. A value corresponds to one call status.
line-phy-send-time	Specifies the period during which line signaling is sent.	The value is an integer that ranges from 0 to 255.
no-process	Specifies an invalid command.	-

Views

R2 signaling type view

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Default Level

2: Configuration level

Usage Guidelines

To enable the device to communicate with a non-Huawei device supporting R2 signaling, run the **line-signal-send** command to adjust line signaling output parameters if the two devices define different line signaling output parameters.

Example

Set the logical command parameter to 1, logical signaling type to 1, physical command to 1, call status to 1, and line signaling transmitting duration to 1 for the R2 signaling type **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] r2 signalling-type test
[Huawei-voice-r2-signalling-type-test] line-signal-send 1 1 1 1 1
```

16.5.6.54 line-signalling

Function

Using the **line-signalling** command, you can configure line signaling attributes in an R2 profile.

Using the **undo line-signalling** command, you can restore the default line signaling attributes in an R2 profile.

Format

line-signalling { **line-signalling-type** *line-signalling-type-value* | **wait-answer-time** *wait-answer-time-value* | **wait-clear-forward-time** *wait-clear-forward-time-value* | **wait-protect-time** *wait-protect-time-value* | **wait-seize-ack-time** *wait-seize-ack-time-value* }

undo line-signalling { **line-signalling-type** | **wait-answer-time** | **wait-clear-forward-time** | **wait-protect-time** | **wait-seize-ack-time** }

Parameters

Parameter	Description	Value
line-signalling-type *line-signalling-type-value*	Specifies the line signaling type.	Enumerated type. The values are as follows: L1B, L2B, L3B and PULSE. The default value is L2B.
wait-answer-time *wait-answer-time-value*	Specifies the time at which answer signals are identified.	The value is an integer that ranges from 0 to 511, in seconds. The default interval is 300.

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Parameter	Description	Value
wait-clear-forward-time *wait-clear-forward-time-value*	Specifies the time at which clear-forward (CLF) signals are identified.	The value is an integer that ranges from 0 to 2000, in milliseconds. The default interval is 200.
wait-protect-time *wait-protect-time-value*	Specifies the protection duration.	The value is an integer that ranges from 0 to 2000, in milliseconds. The default interval is 200.
wait-seize-ack-time *wait-seize-ack-time-value*	Specifies the waiting time for signal seizing acknowledgement.	The value is an integer that ranges from 0 to 7000, in milliseconds. The default interval is 5000.

Views

R2 profile view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Set the value of **wait-seize-ack-time** to 400 ms in the R2 profile **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] r2 profile test
[Huawei-voice-r2-profile-test] line-signalling wait-answer-time 400
```

16.5.6.55 localip

Function

The **localip** command configures the default local IP address.

The **undo localip** command restores the default local IP address.

By default, the default local IP address is 255.255.255.255.

Format

localip *ip-address*

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undo localip

Parameters

Parameter	Description	Value
ip-address	Specifies the default local IP address.	The value is in dotted decimal notation.

Views

H323 attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the default local IP address of the H323 stack to 192.168.0.1.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] localip 192.168.0.1
```

16.5.6.56 maxcr (trunk group view)

Function

Using the **maxcr** command, you can set the maximum number of concurrent calls in a SIP trunk group.

Using the **undo maxcr** command, you can restore the default maximum number of concurrent calls in a SIP trunk group.

By default, a maximum of 65535 concurrent calls are allowed.

Format

maxcr *maxcr-value*

undo maxcr

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Parameters

Parameter	Description	Value
maxcr-value	Specifies the maximum number of concurrent calls in a trunk group.	The value is an integer that ranges from 1 to *N*. **NOTE** *N* indicates the maximum number of users supported by the device minus the number of configured users.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Only the trunk group of the SIP or H.323 type supports the **maxcr** command. Before using the **maxcr** command, run the **trunk-group** command to create a trunk group of the SIP or H.323 type.

Example

Set the maximum number of concurrent calls in the trunk group **test** to 256.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test sip trunk-group
[Huawei-voice-trunkgroup-test] maxcr 256
```

16.5.6.57 media-bandwidth-control enable (trunk-group)

Function

The **media-bandwidth-control enable** command enables CAC on a trunk group.

The **undo media-bandwidth-control** command disables CAC on a trunk group.

By default, CAC is disabled on a trunk group.

Format

media-bandwidth-control enable

undo media-bandwidth-control

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Parameters

None

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

The bandwidth is limited on the IP bearer network. If voice data is transmitted through the IP bearer network, the voice communication may be restricted by the bandwidth of the IP bearer network. When POTS users make incoming and outgoing calls through a SIP trunk group, the media bandwidth in the trunk group is occupied. More voice calls occupy more bandwidth on the network. To improve the voice communication quality, run the **media-bandwidth-control enable** command to enable CAC on the trunk group.

NOTE

- When SIP UE users in a SIP trunk group make incoming and outgoing calls, the bandwidth of common IP packets on the IP network, instead of the media bandwidth on the trunk group, is occupied.
- The **media-bandwidth-control enable** command only applies to SIP trunk groups.

Prerequisites

A trunk group has been created using the **trunk-group** command.

Follow-up Procedure

Run the **media-bandwidth-control max-bandwidth (trunk-group)** command to set the maximum media bandwidth of a trunk group.

Example

Enable CAC on the SIP trunk group.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group sipip sip
[Huawei-voice-trunkgroup-sipip] media-bandwidth-control enable
```

16.5.6.58 media-bandwidth-control max-bandwidth (trunk-group)

Function

The **media-bandwidth-control max-bandwidth** command sets the maximum media bandwidth in a trunk group.

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The **undo media-bandwidth-control max-bandwidth** command restores the default maximum media bandwidth in a trunk group.

By default, the maximum media bandwidth in a trunk group is 500000 kbit/s.

Format

media-bandwidth-control max-bandwidth *max-bandwidth-value*

undo media-bandwidth-control max-bandwidth

Parameters

Parameter	Description	Value
max-bandwidth-value	Specifies the maximum media bandwidth in a trunk group.	The value is an integer that ranges from 1 to 5000, in 100 kbit/s. The default value is 5000, that is, 500000 kbit/s.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

The **media-bandwidth-control max-bandwidth** command sets the maximum media bandwidth in a trunk group after CAC is enabled on the trunk group by using the **media-bandwidth-control enable (trunk-group)** command. If the **media-bandwidth-control max-bandwidth** command is not run, and CAC is enabled on the trunk group, the default maximum media bandwidth is 500000 kbit/s. When the media bandwidth in the trunk group is used up, the system limits incoming and outgoing calls made by POTS users through SIP trunk groups.

NOTE

- When SIP UE users in a SIP trunk group make incoming and outgoing calls, the bandwidth of common IP packets on the IP network, instead of the media bandwidth on the trunk group, is occupied.
- The **media-bandwidth-control max-bandwidth** command only applies to SIP trunk groups.

Prerequisites

CAC has been enabled on the trunk group using the **media-bandwidth-control enable (trunk-group)** command.

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Example

Set the maximum media bandwidth in the SIPIP trunk group to 400000 kbit/s.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group sipip
[Huawei-voice-trunkgroup-sipip] media-bandwidth-control enable
[Huawei-voice-trunkgroup-sipip] media-bandwidth-control max-bandwidth 4000
```

16.5.6.59 media-ip (H323 Trunk group view)

Function

The **media-ip** command configures a media IP address or a dynamic media IP address name for an H323 trunk group.

By default, no media IP address or dynamic media IP address name is configured for an H323 trunk group.

Format

media-ip { *ip-address* | **addr-name** *addr-name-value* }

Parameters

Parameter	Description	Value
ip-address	Specifies a media IP address for an H323 trunk group.	The value is in dotted decimal notation.
addr-name *addr-name-value*	Specifies a dynamic media IP address name for an H323 trunk group.	The value is a string of 1 to 64 case-insensitive characters.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Before configuring a media IP address for an H323 trunk group, create a media IP address or a dynamic media IP address name.

Example

Configure a media IP address 192.168.0.2 for an H323 trunk group.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] trunk-group test h323 register-gateway
[Huawei-voice-trunkgroup-test] media-ip 192.168.0.2
```

16.5.6.60 media-ip (SIP Trunk group view)

Function

Using the **media-ip** command, you can configure a media IP address or a dynamic media IP address name for a SIP trunk group.

By default, no media IP address or dynamic media IP address name is configured for a SIP trunk group.

Format

media-ip { *ip-address* | **addr-name** *addr-name-value* }

Parameters

Parameter	Description	Value
ip-address	Specifies a media IP address for a SIP trunk group.	The value is in dotted decimal notation.
addr-name *addr-name-value*	Specifies a dynamic media IP address name for a SIP trunk group.	The value is a string of 1 to 64 case-insensitive characters.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

The following operations must have been performed before this command is used:

- Run the **16.5.1.24 display voice media-bandwidth-control (PBX)** command to create a trunk group of the SIP type. This is because only the trunk group of the SIP type supports the **media-ip** command.
- Create a media IP address or dynamic media IP address name.

Example

Configure a media IP address 192.168.0.2 for a SIP trunk group.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] trunk-group siptrkgrp sip trunk-group
[Huawei-voice-trunkgroup-siptrkgrp] media-ip 192.168.0.2
```

16.5.6.61 medialoop-timeout

Function

The **medialoop-timeout** command sets the timeout interval of the media loop process.

The **undo medialoop-timeout** command restores the default timeout interval of the media loop process.

By default, the timeout interval of the media loop process is 15000 ms.

Format

medialoop-timeout *medialoop-timeout-value*

undo medialoop-timeout

Parameters

Parameter	Description	Value
medialoop-timeout-value	Specifies the timeout interval of the media loop process.	The value is an integer that ranges from 0 to 4294967295, in milliseconds.

Views

H323 attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the timeout interval of the media loop process to 50000 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] medialoop-timeout 50000
```

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16.5.6.62 nte-fax-modem

Function

Using the **nte-fax-modem** command, you can enable or disable RFC 2833 fax and modem transmission on a PBX.

Using the **undo nte-fax-modem** command, you can restore the default configuration on a PBX.

By default, RFC 2833 fax and modem transmission is enabled.

Format

nte-fax-modem { **enable** | **disable** }

undo nte-fax-modem

Parameters

Parameter	Description	Value
enable	Enables RFC 2833 fax and modem transmission.	-
disable	Disables RFC 2833 fax and modem transmission.	-

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Only SIP or H323 trunk groups support the **nte-fax-modem** command. Before using the **nte-fax-modem** command, run the **trunk-group** command to create a SIP trunk group.

Example

Enable RFC 2833 fax and modem transmission on a PBX.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group 1
[Huawei-voice-trunkgroup-1] nte-fax-modem enable
```

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16.5.6.63 nte-negotiation-mode

Function

Using the **nte-negotiation-mode** command, you can configure the mode in which RFC 2833 transmission is started.

Using the **undo nte-negotiation-mode** command, you can restore the default mode in which RFC 2833 transmission is started.

By default, the mode in which RFC 2833 transmission is started is **no-initiative-start**.

Format

nte-negotiation-mode { **negotiation** | **fixed-start** | **no-initiative-start** }

undo nte-negotiation-mode

Parameters

Parameter	Description	Value
negotiation	Indicates the initiative startup mode.	-
fixed-start	Indicates the fixed startup mode.	-
no-initiative-start	Indicates the no-initiative startup mode.	-

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Only SIP or H323 trunk group support the **nte-negotiation-mode** command. Before using the **nte-negotiation-mode** command, run the **trunk-group** command to create a SIP trunk group.

The **nte-negotiation-mode** command configures the mode in which RFC 2833 transmission is started:

- Initiative startup: RFC 2833 transmission is started after negotiation between the local end and remote end succeeds. The negotiation may be initiated by the local end or remote end.

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- Fixed startup: The local end does not initiate any negotiation but accepts negotiation requests. If negotiation fails, RFC 2833 transmission is started based on the local configuration.
- No-initiative startup: RFC 2833 transmission starts only after the local end receives the negotiation request from the remote end.

Example

Set the mode in which RFC 2833 transmission is started to fixed startup.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group 1
[Huawei-voice-trunkgroup-1] nte-negotiation-mode fixed-start
```

16.5.6.64 num-plan-identify called

Function

The **num-plan-identify called** command configures a numbering plan for called numbers of a PRA or BRA trunk.

The **undo num-plan-identify called** command cancels the configuration.

By default, a numbering plan for called numbers of a PRA or BRA trunk is not configured.

Format

num-plan-identify called *numplanidentify-value*

undo num-plan-identify called

Parameters

Parameter	Description	Value
numplanidentify-value	Specifies a numbering plan for called numbers.	Enumerated value: • unknown: unknown. • isdn: ISDN/telephony numbering plan. • data: data numbering plan. • telex: telex numbering plan. • national: national standard numbering plan. • private: private numbering plan.

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Views

PRA or BRA trunk group view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

On a communication network, a numbering plan refers to the structure and allocation rules of numbers. You need to configure a numbering plan based on requirements of the remote device during interconnection between devices.

Precautions

Before configuring a numbering plan, run the **trunk-group** command to create a trunk group.

Example

Set the data numbering plan for called numbers of a PRA trunk.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group pra
[Huawei-voice-trunk-group-pra] num-plan-identify called data
```

16.5.6.65 num-plan-identify caller

Function

The **num-plan-identify caller** command configures a numbering plan for calling numbers of a PRA or BRA trunk.

The **undo num-plan-identify caller** command cancels the configuration.

By default, a numbering plan for calling numbers of a PRA or BRA trunk is not configured.

Format

num-plan-identify caller *numplanidentify-value*

undo num-plan-identify caller

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Parameters

Parameter	Description	Value
numplanidentify-value	Specifies a numbering plan for calling numbers.	Enumerated value: • unknown: unknown. • isdn: ISDN/telephony numbering plan. • data: data numbering plan. • telex: telex numbering plan. • national: national standard numbering plan. • private: private numbering plan.

Views

PRA or BRA trunk group view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

On a communication network, a numbering plan refers to the structure and allocation rules of numbers. You need to configure a numbering plan based on requirements of the remote device during interconnection between devices.

Precautions

Before configuring a numbering plan, run the **trunk-group** command to create a trunk group.

Example

Set the data numbering plan for calling numbers of a PRA trunk.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group pra
[Huawei-voice-trunk-group-pra] num-plan-identify caller data
```

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16.5.6.66 number-parameter (trunk group view)

Function

The **number-parameter** command configures the numeral control point and its index.

The **undo number-parameter** command deletes the configured numeral control point and its index.

Format

number-parameter *numpara-no numpara-value*

undo number-parameter *numpara-no*

Parameters

Parameter	Description	Value
numpara-no	Specifies the index of a numeral control point.	The value is an integer that ranges from 0 to 136.
numpara-value	Specifies the value of a numeral control point.	The value is an integer that ranges from 0 to 4294967295. The value of *numpara-value* varies according to *numpara-no*. For details, see the usage guideline.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

Only SIP trunk groups support the **number-parameter** command. Before using the **number-parameter** command, run the **trunk-group** command to create a SIP trunk group.

The following table describes the meanings and values of control points.

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Parameter	Description	Value
0	Indicates whether a SUBSCRIBE message is sent after a SIP trunk is registered successfully.	Enumerated value: • 0: The SUBSCRIBE message is not sent. • 1: The SUBSCRIBE message is sent. The default value is 0.
1	Specifies the registration lifecycle of a SIP trunk group.	The value is an integer that ranges from 60 to 65534, in seconds. The default value is 600.
2	Specifies the special events supported by the SIP trunk group.	Besides basic events, the SIP trunk supports the following special events: • TAC_NULL = 0x00 • TAC_100REL = 0x01 • TAC_REPLACES = 0x02 • TAC_TIMER = 0x04 • TAC_PRIVACY = 0x08 • TAC_PRECONDITION = 0x10 • TAC_HISTINFO = 0x20 • TAC_JOIN = 0x40 • TAC_ANSWERMODE = 0x80 • TAC_DTMFINFO = 0x100 • TAC_FROMCHANGE = 0x200 • TAC_INDIALOG = 0x400 • PREF = 0x800 • URI_LIST = 0x1000 • NOREFERSUB = 0x2000 • SUBSCRIPTION = 0x8000 • DIV_INFO = 0x10000 • DND_INFO = 0x20000 • OVERLAP = 0x80000 The device supports the following events: REGISTER, INVITE, SUBSCRIBE, BYE, PRACK, REFER, UPDATE, ACK, OPTIONS, CANCEL, INFO. The default value is 1039.

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Parameter	Description	Value
3	Specifies the header field from which the calling number is obtained for the SIP trunk group.	Enumerated value: ● 0: The calling number is obtained from the P-Asserted-Identity header field. ● 1: The calling number is obtained from the From header field. The default value is 0.
4	Reserved.	-
5	Specifies the content of the Invite From header field for the trunk group.	Enumerated value: ● 1: Tel+PublicID. ● 2: Tel PublicID. ● 3: User-defined format. The default value is 1.
6	Indicates whether the plus sign (+) is added to the register from header field for the trunk group.	Enumerated value: ● 0: Plus sign (+) is not added. ● 1: Plus sign (+) is added. The default value is 0.
7	Indicates user=phone is added to the register from header field in SIP mode for the trunk group.	Enumerated value: ● 0: user=phone is not added. ● 1: user=phone is added. The default value is 0.
8	Specifies the delay in sending a SUBSCRIBE message after a SIP trunk is registered successfully.	The value is an integer that ranges from 0 to 60, in seconds. The default value is 0. 0 indicates that the SUBSCRIBE message is sent immediately after a SIP trunk is registered successfully.
9	Indicates whether SDP-Answer in a received 18X message overwrites SDP-Answer in the original 18X message.	Enumerated values: ● 0: SDP-Answer in a received 18X message does not overwrite SDP-Answer in the original 18X message. ● 1: SDP-Answer in a received 18X message overwrites SDP-Answer in the original 18X message. The default value is 0.

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Parameter	Description	Value
10	Indicates whether SDP-Answer in a received 200 message overwrites SDP-Answer in the original 200 message.	Enumerated value: ● 0: SDP-Answer in a received 200 message does not overwrite SDP-Answer in the original 200 message. ● 1: SDP-Answer in a received 200 message overwrites SDP-Answer in the original 200 message. The default value is 0.
11	Indicates whether the trunk group carries extended Centrex group number.	Enumerated value: ● 0: Not supported. ● 1: Supported. If the relay group registers the default value is 0, the other case the default value is 1.
12	Indicates whether INVITE and REGISTER messages carry routes for the trunk group.	Enumerated value: ● 0: The INVITE and REGISTER messages do not carry routes. ● 1: The INVITE and REGISTER messages carry routes. The default value is 1.
13	Specifies the REGISTER authentication mode for the trunk group.	Enumerated value: ● 1: Users who call over the trunk group share one user name and password for authentication. ● 2: Each user has a user name and password for authentication. The default value is 2.
14	Specifies the format of the REGISTER From header field.	Enumerated value: ● 1: S/S/P format. ● 2: SIP format. ● 3: TEL format. The default value is 2.

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Parameter	Description	Value
15	Specifies the format of the register contact header field.	Enumerated value: ● 1: S/S/P format. ● 2: SIP format. ● 3: TEL format. The default value is 2.
16	Specifies the format of the subscribe RequestURI, From, and To header fields.	Enumerated value: ● 1: Public ID in SIP format. ● 2: Public ID in TEL format. ● 3: Temporary public ID. The default value is 1.
17	Specifies the subscribe Contact format for the trunk group.	Enumerated value: ● 1: Reserved. ● 2: SIP format. ● 3: TEL format. The default value is 2.
18	Specifies the Invite Contact format for the trunk group.	Enumerated value: ● 1: Reserved. ● 2: SIP format. ● 3: TEL format. The default value is 2.
19	Specifies the user name format for user authentication for the trunk group.	Enumerated value: ● 0: Userinfo. ● 1: Userinfo@domain. ● 2: User-defined. The default value is 0.
20	Indicates whether authentication is enabled during the call.	Enumerated value: ● 0: Authentication is not enabled during the call. ● 1: Authentication is enabled during the call. The default value is 0.

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Parameter	Description	Value
21	Indicates whether the number sign (#) in the called number is converted into 23.	Enumerated value: ● 0: The number sign (#) is not converted into 23 when parameter User=Phone is contained. ● 1: All number signs (#) are converted into 23. ● 2: None of number signs (#) is converted into 23. The default value is 0.
22	Reserved.	-
23	Indicates whether a CANCEL message is sent to peer end when the trunk group receives the REINVITE message.	Enumerated value: ● 0: The CANCEL message is not sent. ● 1: The CANCEL message is sent. The default value is 0.
24	Indicates whether the serial sending function is enabled for trunk group messages.	Enumerated value: ● 0: The serial sending function is not enabled. ● 1: The serial sending function is enabled. The default value is 0.
25	Specifies the maximum retransmission count of Invite messages after the trunk group receives the 301 or 302 message.	The value is an integer that ranges from 0 to 16. The default value is 1.
26	Specifies the format of the To header field for the trunk group.	Enumerated value: ● 1: TelNum@homedomain (number @ local domain name). ● 2: TelNum@proxydomain (number @ Proxy Server domain name). ● 3: telURI (number + URI). The default value is 1.

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Parameter	Description	Value
27	Indicates whether number regulation is enabled for the trunk group.	Enumerated value: ● 0: Number regulation is not enabled. ● 1: Number regulation is enabled. The default value is 1.
28	Specifies the prefix conversion type when URI is of international toll number type during number regulation of the trunk group.	Enumerated value: ● 1: The prefix is plus sign (+). ● 2: No prefix is used. ● 3: With international toll call prefix. The default value is 1.
29	Specifies the duration in which the session in Invite messages is updated for the trunk group.	The value is an integer that ranges from 90 to 86400, in seconds. The default value is 1800.
30	Indicates whether authentication information is added to a session request.	Enumerated value: ● 0: No authentication information is added. ● 1: Authentication information is added. The default value is 0.
31	Specifies the value of the realm in authentication messages for the trunk group.	Enumerated value: ● 0: The value of the realm in authentication messages from the peer end is used. ● 1: The home domain configured on the interface is used. The default value is 0.
32	Specifies the returned value of OPTION in a call when the peer end status is tested.	Enumerated value: ● 0: 486 is returned when the called user is busy. ● 1: 200 is returned when the called user is busy. The default value is 0.

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Parameter	Description	Value
33	Specifies the mode of checking the proxy server for the trunk group.	Enumerated value: • 0: OPTIONS. • 1: Heartbeat detection in probe mode. • 2: REGISTER. The default value is 2. The probe mode takes effect only when the IMS Core dual-homing function is not supported. If the server is configured to support the IMS Core dual-homing function, the OPTIONS and REGISTER modes are used. The REGISTER is the default mode in a common process. The REGISTER mode is the default mode in the DT process.
34	Specifies the average roundtrip time **T1** for MSAN and the IMS Core messages.	The value is an integer that ranges from 50 to 5000, in milliseconds. The default value is 500.
35	Specifies the interval (unit time: T1) for sending OPTIONS message in normal state.	The value is an integer that ranges from 1 to 65535, in T1. The default value is 10.
36	Specifies the interval (unit time: T1) for sending OPTIONS message in faulty state.	The value is an integer that ranges from 1 to 100, in T1. The default value is 20.
37	Specifies the duration (unit time: T1) of the timer for detecting transactions.	The value is an integer that ranges from 1 to 30, in T1. The default value is 3.
38	Specifies the fault identification threshold. When the threshold is reached, the status of the detected object changes from **Normal** to **Failed**.	The value is an integer that ranges from 1 to 30. The default value is 3.
39	Specifies the threshold for identifying fault rectification. When the threshold is reached, the status of the detected object changes from **Failed** to **Normal**.	The value is an integer that ranges from 1 to 60. The default value is 6.

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Parameter	Description	Value
40	Specifies the duration of the timer for detecting the proxy server status.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 30.
41	Specifies the duration during which the standby proxy server switches to the active proxy server.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 21600. It is the duration during which the standby proxy server switches to the active proxy server when the active proxy server fails and the proxy server status is detected in register mode.
42	Indicates whether the trunk group supports the dual-homing function.	Enumerated value: • 0: The dual-homing function is not supported. • 1: The dual-homing function is supported. The default value is 0.
43	Indicates whether re-registration is initiated immediately when the trunk group is switched to the proxy server.	Enumerated value: • 0: Re-registration is initiated after the refresh timer times out. • 1: Re-registration is immediately initiated. The default value is 0.
44	Indicates whether the ongoing call is released during proxy server switching.	Enumerated value: • 0: All calls are released. • 1: All calls are held. • 2: Releasing calls depends on whether the Session Timer is supported. The default value is 0.
45	Specifies the period for domain name resolution during URI registration for the trunk group.	The value is an integer ranging from 0 to 65535, in seconds. The default value is 90.

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Parameter	Description	Value
46	Specifies the refresh mode for domain name resolution during the URI registration for the trunk group.	Enumerated value: ● 0: The refresh duration that is configured in the profile is used. The refresh duration is static. ● 1: The refresh duration that is returned from the DNS server is used. The refresh duration is dynamic. The default value is 0.
47	Reserved.	-
48	Indicates whether the trunk group switches back to the active proxy server when the active proxy server recovers.	Enumerated value: ● 0: Automatic switchback is not performed. ● 1: Automatic switchback is performed.
49	Indicates whether the trunk group stops playing the early media and starts to play the local ringback tone when the trunk group receives a 180 or 183 message right now and has received a 180 or 183 message with an SDP field.	Enumerated value: ● 0: The early media is played continuously. ● 1: The early media is stopped and the local ringback tone starts to be played when receive 180. ● 2: The early media is stopped and the local ringback tone starts to be played when receive 183. ● 3: The early media is stopped and the local ringback tone starts to be played when receive 180 or 183. The default value is 0.

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Parameter	Description	Value
50	Specifies the temporary response policy when the PBX is used as the called party.	Enumerated value: • 0: The ringback tone SDP information is contained in SIP 180 messages. • 1: The ringback tone SDP information is contained in SIP 183 messages. • 2: The PBX sends a SIP 180 message after sending a SIP 183 message. The default value is 0.
51	Specifies the SDP stream mode when the PBX initiates a hookflash action.	Enumerated value: • 0: SendOnly. • 1: SendRecv. • 2: Inactive. The default value is 1.
52	Indicates whether a new socket is created when a PBX IP trunk group receives a 302 message.	Enumerated value: • 0: A new socket is not created when a PBX IP trunk group receives a 302 message. • 1: A new socket is created when a PBX IP trunk group receives a 302 message. The default value is 1.
53	Indicates whether the connection can be bound to the proxy IP address of the peer end, port number of the peer end, local IP address, and local port number.	Enumerated value: • 0: The connection cannot be bound with the proxy IP address of the peer end, the port ID of the peer end, the local IP address, and the local port ID. • 1: The connection can be bound with the proxy IP address of the peer end, the port ID of the peer end, the local IP address, and the local port ID. The default value is 1.

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Parameter	Description	Value
54	Specifies a header field in the INVITE message, which is generated when a local user call is forwarded to a SIP trunk, to indicate forwarding.	Enumerated value: • 0: History-info header field • 1: Diversion header field The default value is 0.
55	Indicates whether INFO signaling is allowed to send digits during a call.	Enumerated value: • 0: INFO signaling is not allowed to send digits during a call. • 1: INFO signaling is allowed to send digits during a call. The default value is 0.
56	Specifies the maximum number of dynamic connections that TCP or TLS can request in the trunk group.	The value is an integer that ranges from 0 to 4294967295. The default value is 4294967295. When the maximum number is set to 4294967295, the number of dynamic connections is not limited.
57	Specifies the codec priority for the trunk group.	Enumerated value: • 0: The global parameter is used. • 1: The priority is defined on an interface. The default value is 0.
58	Reserved.	-
59	Specifies the format of **user=** for RequestURI and To URI fields in INVITE messages when the number to be parsed is not of international toll number type and no matter whether number regulation is initiated.	Enumerated value: • 0: The parameters are not contained. • 1: user=phone • 2: user=dialstring • 3: user=ip (not supported) The default value is 0.

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Parameter	Description	Value
60	Specifies the switchback mode of the active proxy server when the trunk group is in **register** mode.	Enumerated value: ● 0: The switchback is performed when the timer times out. ● 1: An immediate switchback is performed. The default value is 0.
61	Reserved.	-
62	Indicates whether the ongoing call is released when 408 message is sent to respond to the request message.	Enumerated value: ● 0: The ongoing call is not released. ● 1: The ongoing call is released. The default value is 0.
63	Specifies the VAD negotiation mode for the trunk group.	Enumerated value: ● 0: The annexa or annexb parameter is not sent. Whether the G.723/G.729 VAD function is enabled depends on the local setting. ● 1: The annexa or annexb parameter is sent. Whether the G.723/G.729 VAD function is enabled depends on the SDP message from the peer. The default value is 0.
64	Indicates whether the early media is carried for the trunk group.	Enumerated value: ● 0: The early media is not carried. ● 1: The early media is carried. The default value is 0.
65	Indicates whether **HostUri** is used as the home domain name.	Enumerated value: ● 0: **HostUri** is not used as the home domain name. ● 1: **HostUri** is used as the home domain name. The default value is 0.
66	Reserved.	-

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Parameter	Description	Value
67	Indicates whether the SDP is carried in returned invite 200 message when negotiation of SIP 180 message is unreliable.	Enumerated value: • 0: SDP is not carried in returned invite 200 message. • 1: SDP is carried in returned invite 200 message. The default value is 1.
68	Indicates whether the trunk group receives packets from the proxy server when the trunk group receives the SIP 3xx message.	Enumerated value: • 0: The trunk group does not receive packets from the proxy server. • 1: The trunk group receives packets from the proxy server. The default value is 0.
69	Sets a mark for the device that updates the session.	Enumerated value: • 0: The mark is not included. • 1: UAC. • 2: UAS. The default value is 0.
70	Configures whether to initiate VBD negotiation when there a delay in processing modem events. **NOTE** To set the delay in processing modem events, run the **pbx number-parameter 5** command.	Enumerated value: • 0: VBD negotiation is not initiated. • 1: VBD negotiation is initiated. The default value is 1.
71	Specifies the percentage value for calculating the registration refresh interval of the timer. Refresh interval = Registration timeout period – Registration timeout period*Percentage of the configured value	The value is an integer that ranges from 0 to 50, in percentage. The default value is 50.
72	Specifies the re-registration interval of the SIP trunk.	The value is an integer that ranges from 1 to 65535, in seconds. The default value is 30.
73	Specifies the re-registration count of the SIP trunk.	The value is an integer that ranges from 1 to 65535. The default value is 6.

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Parameter	Description	Value
74	Specifies the re-registration algorithm.	Enumerated value: ● 0: re-registration count*interval. ● 1: exponential type, 2^ (re-registration count)*interval. ● 2: exponential type, 2^ (re-registration count/retry count)*interval. ● 3: NICC. ● 4: random algorithm. The default value is 0.
75	Specifies the minimum duration of the re-registration random algorithm.	The value is an integer that ranges from 10 to 65535, in seconds. The default value is 600.
76	Specifies the maximum duration of the re-registration random algorithm.	The value is an integer that ranges from 10 to 65535, in seconds. The default value is 900.
77	Specifies whether to play the call hold tone when the media stream is inactive.	Enumerated value: ● 0: No. ● 1: Yes. The default value is 0.
78	Configures whether the SIP trunk group converts SIP 183 messages into ISDN PROGRESS messages.	Enumerated value: ● 0: The SIP trunk group does not convert SIP 183 messages into ISDN PROGRESS messages. ● 1: The SIP trunk group converts SIP 183 messages into ISDN PROGRESS messages. The default value is 0.

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Parameter	Description	Value
79	Configures whether the SIP trunk group converts ISDN PROGRESS messages into SIP 183 messages.	Enumerated value: • 0: The SIP trunk group does not convert ISDN PROGRESS messages into SIP 183 messages. • 1: The SIP trunk group converts ISDN PROGRESS messages into SIP 183 messages. The default value is 0.
80	Reserved.	-
81	Specifies whether to encapsulate require100rel into the 18X message.	Enumerated value: • 0: No. • 1: Yes. The default value is 0.
82	Configures whether the SDP is repeated in the 200 OK message.	Enumerated value: • 0: No. • 1: Yes. The default value is 0.
83	Indicates whether to release the fork control block and send Cancel after the 200 OK response of the INVITE message is received.	Enumerated value: • 0: No. • 1: Yes. The default value is 1.
84	Reserved.	-
85	Specifies whether to reply with the inactive message after the AR receives the sendonly message.	Enumerated value: • 0: No. • 1: Yes. The default value is 0.
86-113	Reserved.	-
114	Indicates whether the device plays the early media forcibly when receiving a 181 message without the SDP.	Enumerated value: • 0: No. • 1: Yes. The default value is 0.

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Parameter	Description	Value
115	Indicates whether the device encapsulates the DisplayName field in the From file and PAI or PPI header field of an Invite message.	Enumerated value: ● 0: Number. ● 1: Name. ● 2: None. The default value is 0.
116	Indicates whether to initiate re-negotiation after the RBT is played.	Enumerated value: ● 0: No. ● 1: Yes. The default value is 1.
117	Specifies the threshold of INVITE message–based call barring.	The value is an integer that ranges from 0 to 1000, in packets per second. The default value is 30.
118-119	Reserved.	-
120	Indicates whether to play announcements to the peer end.	Enumerated value: ● 0: Announcements are not played to the peer end. ● 1: Announcements are played to the peer end. The default value is 0.
121	The delay time to send re-invite after early dialog end.	The value is an integer that ranges from 0 to 5, in seconds. The default value is 0.
122	Select the called number from which the message field	Enumerated value: ● 0: Select from P-Called-Num first, then RequestUri, last from To header field. ● 1: Select from RequestUri. ● 2: Select from To header field. The default value is 0.

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Parameter	Description	Value
123	Which events are allowed	Hex value. The options are as follows: • ALO_NULL = 0x00 • ALO_INVITE = 0x01 • ALO_ACK = 0x02 • ALO_OPTIONS = 0x04 • ALO_BYE = 0x08 • ALO_CANCEL = 0x10 • ALO_REGISTER = 0x20 • ALO_INFO = 0x40 • ALO_PRACK = 0x80 • ALO_SUBSCRIBE = 0x100 • ALO_NOTIFY = 0x200 • ALO_UPDATE = 0x400 • ALO_MESSAGE = 0x800 • ALO_REFER = 0x1000 • ALO_PUBLISH = 0x2000 • ALO_CONFSUB = 0X4000 The default value is 0x5FFF.
124	SIP trunk session refresh method	Enumerated value: • 0: Negotiate. • 1: Re-invite. The default value is 0.
125	From format for anonymous call of sip trunk	Enumerated value: • 0: caller number@domain name • 1: anonymous@domain name • 2: anonymous@anonymous.invalid The default value is 1.
126	Whether a SIP AT0 trunk group's INVITE message fills caller number in from field with the registered number	Enumerated value: • 0: No. • 1: Yes. The default value is 1.

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Parameter	Description	Value
127	Indicates that SIP AT0/SIP PRA trunk group invite message contains the PPI field or PAI field.	Enumerated value: • 0: PAI field. • 1: PPI field. • 2: No. • 3: If a Downs Link user has the right of the CLIR service, the message contains the PAI field or PPI field. Otherwise, the message does not contain the PAI or PPI field. The default value is 1.
128	Whether to get request-line information from proxy.	Enumerated value: • 0: No. • 1: Yes. The default value is 0.
129	Specifies whether to enable the load balancing function when the remote device works in DNS-SRV mode.	Enumerated value: • 0: No. • 1: Yes. The default value is 0.
130	Specifies whether to play the ringback tone when the AR receives the message with the progress indicator of 1.	Enumerated value: • 0: No. • 1: Yes. The default value is 0.
131	Specifies whether SIP AT0 trunk supports the anonymous call.	Enumerated value: • 0: No. • 1: Yes. The default value is 0.
132	Specifies whether to switch the proxy server after the SIP registration trunk receives the 4xx5xx6xx message.	Enumerated value: • 0: No. • 1: Yes. The default value is 0.
133	Specifies whether to send the CNG message when T38 is used.	Enumerated value: • 0: No. • 1: Yes. The default value is 0.

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Parameter	Description	Value
134	Specifies whether SIP PRA gets PAI/PPI from register-id.	Enumerated value: • 0: No. • 1: Yes. The default value is 0.
135	Specifies whether start sbc transcoding	Enumerated value: • 0: Not start. • 1: Start. The default value is 0.
136	Specifies whether subsequent requests are sent to the address in the Contact header field when the Contact address in the received INVITE message is different from the remote address of the trunk group.	Enumerated value. The values are as follows: • 0: No. • 1: Yes. The default value is 0.

Precautions

After running the **number-parameter** command to configure a control point, run the **reset** command to reset the trunk group to make the configuration take effect.

Example

Configure the trunk group to initiate number regulation.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test
[Huawei-voice-trunkgroup-test] number-parameter 27 1
```

16.5.6.67 outgoing-right(trunk group view)

Function

The **outgoing-right** command configures the call-out right.

The **undo outgoing-right** command deletes the call-out right.

By default, the call-out rights are inter and local.

Format

outgoing-right { { **inter** *inter-value* | **local** *local-value* | **ddd** *ddd-value* | **idd** *idd-value* }* | **all** }

undo outgoing-right [**inter** | **local** | **ddd** | **idd**]

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Parameters

Parameter	Description	Value
inter-value	Specifies the internal dialing call right.	Enumerated value. The value can be enable or disable. The default value is enable.
local-value	Specifies the local dialing call right.	Enumerated value. The value can be enable or disable. The default value is enable.
ddd-value	Specifies the domestic direct dialing call right.	Enumerated value. The value can be enable or disable. The default value is disable.
idd-value	Specifies the international direct dialing call right.	Enumerated value. The value can be enable or disable. The default value is disable.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Configure the national toll call right.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test sip trunk-group
[Huawei-voice-trunkgroup-test] outgoing-right ddd enable
```

16.5.6.68 peer-address

Function

The **peer-address** command configures the remote domain name for an SIP trunk group.

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Format

peer-address { **dns-a** *primary-domain-value primary-port-value* [**secondary** *secondary-domain-value secondary-port-value*] | **dns-srv** *domain-value* | **dns-naptr** *domain-value* }

Parameters

Parameter	Description	Value
dns-a	Indicates Class-A query, which is used to obtain the IP address corresponding to a specified domain name.	-
dns-srv	Indicates Service Record (SRV) query, which is used to obtain information about a server based on the protocol running on the server, including the server's domain name and port number.	-
dns-naptr	Indicates Naming Authority Pointer (NAPTR) query, which is used to obtain information about a server based on the server's domain name, including the IP address, port number, and the transmission protocol.	-
primary-domain-value	Specifies the domain name of the primary remote server for an SIP trunk group.	The value is a string of 1 to 64 characters.
primary-port-value	Specifies the port number of the primary remote server for an SIP trunk group.	The value is an integer ranging from 1 to 65535.
secondary-domain-value	Specifies the domain name of the secondary remote server for an SIP trunk group.	The value is a string of 1 to 64 characters.

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Parameter	Description	Value
secondary-port-value	Specifies the port number of the secondary remote server for an SIP trunk group.	The value is an integer ranging from 1 to 65535.
domain-value	Specifies the domain name of the remote server for an SIP trunk group.	The value is a string of 1 to 64 characters.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

When the DNS server query mode is Class-A query, you can configure the domain names of primary remote servers for an SIP trunk group. Domain names and port numbers must be configured simultaneously.

When the DNS server query mode is SRV or NAPTR query, you only need to configure the remote domain name. The port number can be automatically obtained using the domain name. You can configure only one domain name when the DNS server query mode is SRV or NAPTR query.

Example

Configure the remote domain name as **aaa** for the SIP trunk group **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test no-register
[Huawei-voice-trunkgroup-test] peer-address dns-srv aaa
```

16.5.6.69 peer-address static (H323 trunk group view)

Function

The **peer-address static** command configures a remote IP address and port for an H.323 trunk group.

Format

peer-address static *primary-ip-value primary-port-value* [**secondary** *secondary-ip-valuese condary-port-value*]

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Parameters

Parameter	Description	Value
primary-ip-value	Specifies the remote primary IP address of an H.323 trunk group.	The value is in dotted decimal notation.
primary-port-value	Specifies the remote primary port of an H.323 trunk group.	The value is an integer that ranges from 1 to 65535.
secondary	Specifies the remote secondary IP address and port of an H.323 trunk group.	-
secondary-ip-value	Specifies the remote secondary IP address of an H.323 trunk group.	The value is in dotted decimal notation.
secondary-port-value	Specifies the remote secondary port of an H.323 trunk group.	The value is an integer that ranges from 1 to 65535.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

You must set the remote IP address and port for an H.323 trunk group in peer mode.

Example

Set the remote IP address and port for an H.323 trunk group to 192.168.2.2 and 2000 respectively.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test h323 gw-gk
[Huawei-voice-trunkgroup-test] peer-address static 192.168.2.2 2000
```

16.5.6.70 peer-address static (trunk group view)

Function

Using the **peer-address static** command, you can configure a remote IP address and port for a SIP or H323 trunk group.

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Using the **undo peer-address secondary** command, you can remove second remote IP address and port for a SIP trunk group

Format

peer-address static *primary-ip-value primary-port-value* **[secondary** *secondary-ip-value secondary-port-value* **]**

undo peer-address secondary

Parameters

Parameter	Description	Value
primary-ip-value	Specifies the remote IP address of a SIP trunk group.	The value is in dotted decimal notation.
primary-port-value	Specifies the remote primary port of a SIP trunk group.	The value is an integer that ranges from 1 to 65535.
secondary	secondary remote IP and remote port of a SIP trunk group.	-
secondary-ip-value	Specifies the secondary remote IP address of a SIP trunk group.	The value is in dotted decimal notation.
secondary-port-value	Specifies the secondary remote port of a SIP trunk group.	The value is an integer that ranges from 1 to 65535.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the remote IP address and port for a SIP trunk group to 192.168.2.2 and 2000 respectively.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] trunk-group test sip trunk-circuit
[Huawei-voice-trunkgroup-test] peer-address static 192.168.2.2 2000
```

16.5.6.71 peer-address switchover

Function

Using the **peer-address switchover** command, you can switch services on a SIP trunk group to the primary or secondary trunk on the peer device.

Format

peer-address switchover *switchover-value*

Parameters

Parameter	Description	Value
switchover-value	Switches services on a SIP trunk group to the primary or secondary trunk on the peer device.	Enumerated type. The values are as follows: • primary: switches services on a SIP trunk group to the primary trunk on the peer device. • secondary: switches services on a SIP trunk group to the secondary trunk on the peer device.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Switch services on a SIP trunk group to the secondary trunk on the peer device.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test
[Huawei-voice-trunkgroup-test] peer-address switchover secondary
 Are you sure to switchover the trunkgroup?(y/n)[n]y
[Huawei-voice-trunkgroup-test]
```

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16.5.6.72 pra-restart

Function

The **pra-restart** command configures the pra trunk send restart message or not.

By default, that is disable.

Format

pra-restart { **enable** | **disable**}

Parameters

None

Views

PRA trunk group view

Default Level

2: Configuration level

Usage Guidelines

After the PRA trunk send sabme, if received ua with link establish indication or confirm, if **pra-restart enable**, pra trunk will send restart message to peer-side, if **pra-restart disable**, pra trunk will not send restart message to peer-side.

Example

Configure **pra-restart enable** for the PRA trunk group pra01.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group pra01
[Huawei-voice-trunkgroup-pra01] pra-restart enable
```

16.5.6.73 priority(trunk group view)

Function

The **priority** *priority-value* command configures the priority of a trunk group.

The **undo priority** command restores the default priority of a trunk group.

Format

priority *priority-value*

undo priority

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Parameters

Parameter	Description	Value
priority-value	Specifies the priority of a trunk group.	Enumerated value. The value can be **default**, **normal**, **advanced**, or **super**. The default value is **default**.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the priority of a trunk group to **normal**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test sip trunk-group
[Huawei-voice-trunkgroup-test] priority normal
```

16.5.6.74 productname

Function

The **productname** command configures the H323 stack product name.

The **undo productname** command restores the default H323 product name.

By default, the H323 stack product name is HUAWEI-AR.

Format

productname *productname-value*

undo productname

Parameters

Parameter	Description	Value
productname-value	Specifies the H323 stack product name.	The value is a string of 1 to 32 characters.

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Views

H323 attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the H323 stack product name to **user**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] productname user
```

16.5.6.75 q931-listenport

Function

The **q931-listenport** command configures a Q931 signaling port.

The **undo q931-listenport** command restores the default Q931 signaling port.

By default, the Q931 signaling port is 1720.

Format

q931-listenport *q931listenport-value*

undo q931-listenport

Parameters

Parameter	Description	Value
q931listenport-value	Specifies the Q931 signaling port.	The value is an integer that ranges from 1 to 51200.

Views

H323 attribute view

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Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the Q931 signaling port to 1780.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] q931-listenport 1780
```

16.5.6.76 qos stream (trunk group view)

Function

Using the **qos stream** command, you can set the priority of voice packets during transmission.

Using the **undo qos stream** command, you can delete the DSCP parameter in media and signaling packets.

Format

qos stream { **media** | **signaling** } **dscp** *dscp-value*

undo qos stream [**media** | **signaling**]

Parameters

Parameter	Description	Value
dscp-value	Specifies the priority of the voice packets to be transmitted.	The value is an integer that ranges from 0 to 63. A larger value indicates a higher priority.

Views

Trunk group view

Default Level

2: Configuration level

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Usage Guidelines

When the network quality is poor, this command can be used to specify a higher priority for voice packets to ensure the voice quality.

Example

Set the priority of media packets to 0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group sip
[Huawei-voice-trunkgroup-sip] qos stream media dscp 0
```

16.5.6.77 r2 profile

Function

Using the **r2 profile** command, you can create an R2 profile and enter the R2 profile view.

Using the **undo r2 profile** command, you can delete an R2 profile.

Format

r2 profile *profile-name*

undo r2 profile *profile-name*

Parameters

Parameter	Description	Value
profile-name	Specifies the name of an R2 profile.	The value is a string of 1 to 32 characters.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

When configuring an E1R2 trunk group, bind an R2 profile to the E1R2 trunk group.

Example

Create an R2 profile named **test**.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] r2 profile test
[Huawei-voice-r2-profile-test]
```

16.5.6.78 r2 signalling-type

Function

Using the **r2 signalling-type** command, you can create an R2 signaling type and enter the R2 signaling type view or the existing R2 signaling type view.

Using the **undo r2 signalling-type** command, you can delete an R2 signaling type.

Format

r2 signalling-type *signalling-type-name*

undo r2 signalling-type *signalling-type-name*

Parameters

Parameter	Description	Value
signalling-type-name	Specifies the name of a signaling type.	The value is a string of 1 to 32 characters.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

Different countries define different R2 signaling standards. The **r2 signalling-type** command identifies the R2 signaling standard. By default, the R2 signaling types of argentina, brazil, mexico, and standard are defined, which cannot be deleted.

Example

Create an R2 signaling type **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] r2 signalling-type test
[Huawei-voice-r2-signalling-type-test]
```

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16.5.6.79 r2-play-ringback

Function

Using the **r2-play-ringback** command, you can enable an E1R2 trunk group to play ringback tones to the remote end.

Using the **undo r2-play-ringback** command, you can disable an E1R2 trunk group from playing ringback tones to the remote end.

By default, an E1R2 trunk group plays ringback tones to the remote end.

Format

r2-play-ringback *r2-play-ringback-value*

undo r2-play-ringback

Parameters

Parameter	Description	Value
r2-play-ringback-value	Specifies whether to play ringback tones to the remote end.	Enumerated type. The values are as follows: • disable: indicates that the E1R2 trunk group does not play ringback tones to the remote end. • enable: indicates that the E1R2 trunk group plays ringback tones to the remote end.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Enable an E1R2 trunk group to play ringback tones to the remote end.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] trunk-group test e1-r2
[Huawei-voice-trunkgroup-test] r2-play-ringback enable
```

16.5.6.80 r2-profile (trunk group view)

Function

Using the **r2-profile** command, you can bind an R2 profile to an E1R2 trunk group.

Format

r2-profile *profile-name*

Parameters

Parameter	Description	Value
profile-name	Specifies the name of an R2 profile.	The value is a string of 1 to 32 characters.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Bind the R2 profile **test** to the E1R2 trunk group **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] r2 profile test
[Huawei-voicer-2-profile-test] quit
[Huawei-voice] trunk-group test e1-r2
[Huawei-voice-trunkgroup-test] r2-profile test
```

16.5.6.81 r2-receive-earlymedia

Function

Using the **r2-receive-earlymedia** command, you can determine whether an E1R2 trunk group uses early media.

Using the **undo r2-receive-earlymedia** command, you can disable an E1R2 trunk group from using early media.

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By default, an E1R2 trunk group does not use early media.

Format

r2-receive-earlymedia *r2-receive-earlymedia-value*

undo r2-receive-earlymedia

Parameters

Parameter	Description	Value
r2-receive-earlymedia-value	Specifies whether an E1R2 trunk group uses early media.	Enumerated type. The values are as follows: • disable: indicates that an E1R2 trunk group does not use early media. • enable: indicates that an E1R2 trunk group uses early media.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Configure the E1R2 trunk group **test** to use early media.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test e1-r2
[Huawei-voice-trunkgroup-test] r2-receive-earlymedia enable
```

16.5.6.82 rasport

Function

The **rasport** command configures the UDP port number of RAS signals.

The **undo rasport** command restores the default UDP port number of RAS signals.

By default, the UDP port number of RAS signals is 1719.

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Format

rasport *rasport-value*

undo rasport

Parameters

Parameter	Description	Value
rasport-value	Specifies the UDP port number of RAS signals.	The value is an integer that ranges from 1025 to 51200.

Views

H323 attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the UDP port number of RAS signals to 1720.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] rasport 1720
```

16.5.6.83 reanswer

Function

The **reanswer** command enables or disables the calling party control function for an E1R2 trunk group.

The **undo reanswer** command disables the calling party control function for an E1R2 trunk group.

By default, the calling party control function is disabled for an E1R2 trunk group.

Format

reanswer *reanswer-value*

undo reanswer

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Parameters

Parameter	Description	Value
reanswer-value	Determines whether the calling party control function is enabled.	Enumerated value: • disable: The calling party control function is disabled. • enable: The calling party control function is enabled.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

In an E1R2 trunk scenario, calls on the local device (calling party side) are made through an R2 trunk. If the calling party control function is enabled, when the local device receives a **clear back** message from the remote device, the local device waits for 90s and keeps online but not immediately releases the call. During the 90s, if the local device receives an **answer** message sent by the remote device, the call continues; otherwise, the local device releases the call.

Example

Enable the calling party control function for an E1R2 trunk group.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test e1-r2
[Huawei-voice-trunkgroup-test] reanswer enable
```

16.5.6.84 recvalert-wait-response-timeout

Function

The **recvalert-wait-response-timeout** command sets the timeout interval for Connect messages.

The **undo recvalert-wait-response-timeout** command restores the default timeout interval for Connect messages.

By default, the timeout interval for Connect messages is 500000 ms.

Format

recvalert-wait-response-timeout *recvalert-wait-response-timeout-value*

undo recvalert-wait-response-timeout

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Parameters

Parameter	Description	Value
recvalert-wait-response-timeout-value	Specifies the timeout interval for Connect messages.	The value is an integer that ranges from 180000 to 4294967295, in milliseconds.

Views

H323 attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the timeout interval for Connect messages to 500000 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] recvalert-wait-response-timeout 500000
```

16.5.6.85 redundancy-negotiation-mode

Function

Using the **redundancy-negotiation-mode** command, you can configure the mode in which RFC 2198 redundancy transmission is started based on negotiation.

Using the **undo redundancy-negotiation-mode** command, you can restore the default mode in which RFC 2198 redundancy transmission is started based on negotiation.

By default, the mode in which RFC 2198 redundancy transmission is started based on negotiation is **no-initiative-start**.

Format

redundancy-negotiation-mode { **negotiation** | **fixed-start** | **no-initiative-start** }

undo redundancy-negotiation-mode

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Parameters

Parameter	Description	Value
negotiation	Indicates the initiative startup mode.	-
fixed-start	Indicates the fixed startup mode.	-
no-initiative-start	Indicates the no-initiative startup mode.	-

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Only SIP trunk groups support the **redundancy-negotiation-mode** command. Before using the **redundancy-negotiation-mode** command, run the **trunk-group** command to create a SIP trunk group.

You can run the **redundancy-negotiation-mode** command to configure the mode in which RFC 2198 redundancy transmission is started based on negotiation:

- Initiative startup: RFC 2198 redundancy transmission is started only after negotiation between the local end and remote end succeeds. The negotiation may be initiated by the local end or remote end.
- Fixed startup: The local end does not initiate any negotiation but accepts initiated negotiation. If negotiation fails, RFC 2198 redundancy transmission is started based on the local configuration.
- No-initiative startup: RFC 2198 redundancy transmission starts only after the local end receives a negotiation request from the remote end. If negotiation fails, RFC 2198 redundancy transmission is not started.

Example

Configure the fixed startup mode for RFC 2198 redundancy transmission based on negotiation.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group 1
[Huawei-voice-trunkgroup-1] redundancy-negotiation-mode fixed-start
```

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16.5.6.86 redundancy-nte (trunk group view)

Function

Using the **redundancy-nte** command, you can enable a PBX trunk group to transmit RFC 2833 audio data using RFC 2198 redundancy transmission or disable this function.

Using the **undo redundancy-nte** command, you can cancel the configuration.

By default, a PBX trunk group is disabled from transmitting RFC 2833 audio data using RFC 2198 redundancy transmission.

Format

redundancy-nte { **enable** | **disable** }

undo redundancy-nte

Parameters

Parameter	Description	Value
enable	Enables a PBX trunk group to transmit RFC 2833 audio data using RFC 2198 redundancy transmission.	-
disable	Disables a PBX trunk group from transmitting RFC 2833 audio data using RFC 2198 redundancy transmission.	-

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Only the trunk group of the SIP type supports the **redundancy-nte** command. Before using the **redundancy-nte** command, run the **trunk-group** command to create a trunk group of the SIP type.

Example

Enable a PBX trunk group to transmit RFC 2833 audio data using RFC 2198 redundancy transmission.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group 1
[Huawei-voice-trunkgroup-1] redundancy-nte enable
```

16.5.6.87 redundancy-start-mode (trunk group view)

Function

Using the **redundancy-start-mode** command, you can configure the mode used by a PBX trunk group to start RFC 2198 redundancy transmission.

Using the **undo redundancy-start-mode** command, you can restore the default mode used by a PBX trunk group to start RFC 2198 redundancy transmission.

By default, RFC 2198 redundancy transmission is started in ordinary mode.

Format

redundancy-start-mode { **ordinary2198** | **smart2198** }

undo redundancy-start-mode

Parameters

Parameter	Description	Value
ordinary2198	Starts RFC 2198 redundancy transmission in ordinary mode.	-
smart2198	Starts RFC 2198 redundancy transmission in smart mode.	-

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Only SIP trunk groups support the **redundancy-start-mode** command. Before using the **redundancy-start-mode** command, run the **trunk-group** command to create a SIP trunk group.

In smart startup mode, RFC 2198 redundancy transmission is started automatically when packet loss occurs.

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Example

Configure the smart start mode for RFC 2198 redundancy transmission.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group 1
[Huawei-voice-trunkgroup-1] redundancy-start-mode smart2198
```

16.5.6.88 redundancy-vbd (trunk group view)

Function

Using the **redundancy-vbd** command, you can enable a PBX trunk group to transmit voice-band data (VBD) using RFC 2198 redundancy transmission or disable this function.

Using the **undo redundancy-vbd** command, you can disable a PBX trunk group from transmitting VBD using RFC 2198 redundancy transmission.

By default, a PBX trunk group is enabled to transmit VBD using RFC 2198 redundancy transmission.

Format

redundancy-vbd { **enable** | **disable** }

undo redundancy-vbd

Parameters

Parameter	Description	Value
enable	Enables a PBX trunk group to transmit VBD using RFC 2198 redundancy transmission.	-
disable	Disables a PBX trunk group from transmitting VBD using RFC 2198 redundancy transmission.	-

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Only SIP trunk groups support the **redundancy-vbd** command. Before using the **redundancy-vbd** command, run the **trunk-group** command to create a SIP trunk group.

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Example

Enable a PBX trunk group to transmit VBD using RFC 2198 redundancy transmission.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group 1
[Huawei-voice-trunkgroup-1] redundancy-vbd enable
```

16.5.6.89 register-E164-number (H323 trunk group view)

Function

The **register-E164-number** command configures a registration E.164 number on an H323 trunk group.

The **undo register-E164-number** command deletes a registration E.164 number on an H323 trunk group.

Format

register-E164-number *E164-telno-value*

undo register-E164-number *E164-telno-value*

Parameters

Parameter	Description	Value
register-E164-number *E164-telno-value*	Specifies a registration E.164 number on an H323 trunk group.	The value is a numeral string of 1 to 22 digits.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

When the trunk type is gw-gk, to register E.164 numbers with a gatekeeper, configure a registration E.164 number. After a registration E.164 number is configured, H323 registration messages sent by the device carry the registration E.164 number.

A maximum of 32 registration E.164 numbers can be configured.

Example

Set the registration E.164 number to 2000.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test h323 gw-gk
[Huawei-voice-trunkgroup-test] register-E164-number 2000
```

16.5.6.90 register-address-receive

Function

Using the **register-address-receive** command, you can set the register address format in an R2 profile.

Using the **undo register-address-receive** command, you can restore the default format of the register address in an R2 profile.

Format

register-address-receive { **country-code** *value* | **distinctive-indication** *value* | **echo-cancellation** *value* | **circuit-character** *value* | **calling-number** *value* | **calling-user-type** *value* | **calling-user-priority** *value* | **calling-number-location** *calling-number-location-value* | **user-type-location** *user-type-location-value* }

undo register-address-receive { **country-code** | **distinctive-indication** | **echo-cancellation** | **circuit-character** | **calling-number** | **calling-user-type** | **calling-user-priority** | **calling-number-location** | **user-type-location** }

Parameters

Parameter	Description	Value
country-code *value*	Indicates whether the device receives the country code.	Enumerated type. The values are as follows: • enable: indicates that the device receives the country code. • disable: indicates that the device does not receive the country code. By default, the country code is not received.

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Parameter	Description	Value
distinctive-indication *value*	Indicates whether the device receives the distinctive indication.	Enumerated type. The values are as follows: • enable: indicates that the device receives the distinctive indication. • disable: indicates that the device does not receive the distinctive indication. By default, the device does not receive the distinctive indication.
echo-cancellation *value*	Indicates whether the device receives echo cancellation information.	Enumerated type. The values are as follows: • enable: indicates that the device receives echo cancellation information. • disable: indicates that the device does not receive echo cancellation information. By default, the device does not receive echo cancellation information.
circuit-character *value*	Indicates whether the device receives the circuit character.	Enumerated type. The values are as follows: • enable: indicates that the device receives the circuit character. • disable: indicates that the device does not receive the circuit character. By default, the device does not receive the circuit character.

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Parameter	Description	Value
calling-number *value*	Indicates whether the device receives the calling number.	Enumerated type. The values are as follows: • enable: indicates that the device receives the calling number. • disable: indicates that the device does not receive the calling number. By default, the device does not receive the calling number.
calling-user-type *value*	Indicates whether the device receives the calling user type.	Enumerated type. The values are as follows: • enable: indicates that the device receives the calling user type. • disable: indicates that the device does not receive the calling user type. By default, the device does not receive the calling user type.
calling-user-priority *value*	Indicates whether the device receives the calling user priority.	Enumerated type. The values are as follows: • enable: indicates that the device receives the calling user priority. • disable: indicates that the device does not receive the calling user priority. By default, the device does not receive the calling user priority.
calling-number-location *calling-number-location-value*	Specifies the calling number location in the register address.	The value is an integer ranging from 1 to 12. The default value is 1.
user-type-location *user-type-location-value*	Specifies the user type location in the register address.	The value is an integer ranging from 1 to 12. The default value is 1.

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Views

R2 profile view

Default Level

2: Configuration level

Usage Guidelines

R2 standards in different countries define different register address attributes. To enable different devices to interwork with each other, run the **register-address-receive** command to adjust register address attributes.

Example

Enable the device to receive the country code in the R2 profile **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] r2 profile test
[Huawei-voice-r2-profile-test] register-address-receive country-code enable
```

16.5.6.91 register-address-send

Function

Using the **register-address-send** command, you can set the output register address format in an R2 profile.

Using the **undo register-address-send** command, you can restore the default format of the output register address in an R2 profile.

Format

register-address-send { **country-code** *value* | **distinctive-indication** *value* | **echo-cancellation** *value* | **circuit-character** *value* | **calling-number** *value* | **calling-user-priority** *value* }

undo register-address-send { **country-code** | **distinctive-indication** | **echo-cancellation** | **circuit-character** | **calling-number** | **calling-user-priority** }

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Parameters

Parameter	Description	Value
country-code *value*	Indicates whether the device sends the country code.	Enumerated type. The values are as follows: • enable: indicates that the device sends the country code. • disable: indicates that the device does not send the country code. By default, the device does not send the country code.
distinctive-indication *value*	Indicates whether the device sends the distinctive indication.	Enumerated type. The values are as follows: • enable: indicates that the device sends the distinctive indication. • disable: indicates that the device does not send the distinctive indication. By default, the device does not send the distinctive indication.
echo-cancellation *value*	Indicates whether the device sends echo cancellation information.	Enumerated type. The values are as follows: • enable: indicates that the device sends echo cancellation information. • disable: indicates that the device does not send echo cancellation information. By default, the device does not send echo cancellation information.

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Parameter	Description	Value
circuit-character *value*	Indicates whether the device sends the circuit character.	Enumerated type. The values are as follows: • enable: indicates that the device sends the circuit character. • disable: indicates that the device does not send the circuit character. By default, the device does not send the circuit character.
calling-number *value*	Indicates whether the device sends the calling number.	Enumerated type. The values are as follows: • enable: indicates that the device sends the calling number. • disable: indicates that the device does not send the calling number. By default, the device does not send the calling number.
calling-user-priority *value*	Indicates whether the device sends the calling user priority.	Enumerated type. The values are as follows: • enable: indicates that the device sends the calling user priority. • disable: indicates that the device does not send the calling user priority. By default, the device does not send the calling user priority.

Views

R2 profile view

Default Level

2: Configuration level

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Usage Guidelines

None

Example

Enable the device to send the country code in the R2 profile **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] r2 profile test
[Huawei-voice-r2-profile-test] register-address-send country-code enable
```

16.5.6.92 register-id (trunk group view)

Function

The **register-id** command configures the ID and authentication password for a SIP trunk group.

The **undo register-id password** command clears the authentication password.

Format

register-id *register-uri-value* [**password cipher** *password-value*]

undo register-id password

Parameters

Parameter	Description	Value
register-uri-value	Specifies the URI of a registrar.	The value is a string of 1 to 32 characters.
password cipher *password-value*	Specifies the string of the cipher text password. **NOTE** You can configure *password-value* after and inputting **cipher** and pressing **Enter**.	The value is a string of 1 to 32 characters without spaces.

Views

Trunk group view

Default Level

2: Configuration level

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Usage Guidelines

Only the trunk group of the SIP type supports the **register-id** command. Before using the **register-id** command, run the **16.5.1.24 display voice media-bandwidth-control (PBX)** command to create a trunk group of the SIP type.

If the **register-id** command runs for multiple times, the latest configuration overrides the previous one.

Example

Set the identifier of a trunk group to 123456 and the password to **abcdef**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test
[Huawei-voice-trunkgroup-test] register-id 123456 password cipher
 Please input user password(1-32 chars):******
```

16.5.6.93 register-signal-receive

Function

Using the **register-signal-receive** command, you can set register signaling input parameters for an R2 signaling type.

Using the **undo register-signal-receive** command, you can restore the default register signaling input parameters for an R2 signaling type.

Format

register-signal-receive *Register-phy-cmdRegister-call-state* { *Register-logic-cmdRegister-logic-cmd-para* | **no-process** }

undo register-signal-receive *register-phy-cmdregister-call-state*

Parameters

Parameter	Description	Value
register-phy-cmd	Specifies a physical command.	The value is an integer that ranges from 1 to 15. A value corresponds to a physical command.
register-call-state	Specifies a line call parameter.	The value is an integer that ranges from 1 to 10. A value corresponds to a line call parameter.
register-logic-cmd	Specifies a logical command.	The value is an integer that ranges from 0 to 31. A value corresponds to a logical command.

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Parameter	Description	Value
register-logic-cmd-para	Specifies a parameter in a logical command.	The value is an integer that ranges from 0 to 15. A value corresponds to a parameter.
no-process	Specifies an invalid command.	-

Views

R2 signaling type view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Set register signaling input parameters for the R2 signaling type **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] r2 signalling-type test
[Huawei-voice-r2-signalling-type-test] register-signal-receive 1 1 1 1
```

16.5.6.94 register-signal-send

Function

The **register-signal-send** command sets register signaling output parameters for an R2 signaling type.

The **undo register-signal-send** command restores the default register signaling output parameters for an R2 signaling type.

Format

register-signal-send *register-logic-cmdregister-logic-cmd-para* { *register-phy-cmd* | **no-process** }

undo register-signal-send *register-logic-cmdregister-logic-cmd-para*

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Parameters

Parameter	Description	Value
register-logic-cmd	Specifies a logical command.	The value is an integer that ranges from 0 to 31. A value corresponds to a logical command.
register-logic-cmd-para	Specifies a parameter in a logical command.	The value is an integer that ranges from 0 to 15. A value corresponds to a parameter.
register-phy-cmd	Specifies a physical command.	The value is an integer that ranges from 1 to 15. A value corresponds to a physical command.
no-process	Specifies an invalid command.	-

Views

R2 signaling type view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the logical command to 2, logical command parameter to 1, and physical command to 1 for the R2 signaling **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] r2 signalling-type test
[Huawei-voice-r2-signalling-type-test] register-signal-send 1 1 1
```

16.5.6.95 register-signalling

Function

Using the **register-signalling** command, you can configure register signaling attributes in an R2 profile.

Using the **undo register-signalling** command, you can restore the default register signaling attributes in an R2 profile.

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Format

register-signalling { **back-pulse-time** *back-pulse-time-value* | **calling-number-max-length** *calling-number-max-length-value* | **compelling-sequence-keepalive-time** *compelling-sequence-keepalive-time-value* | **dtmf-send-interval** *dtmf-send-interval-time* | **dtmf-send-time** *dtmf-send-time-value* | **incoming-type** *incoming-type-value* | **number-max-interval** *number-max-interval-time* | **number-send-mode** *number-send-mode-value* | **outgoing-type** *outgoing-type-value* | **receive-number-max-interval** *receive-number-max-interval-time* | **send-pulse-signal** *signal-value* | **signal-send-voltage** *signal-send-voltage-value* | **signal-stop-permit-time** *signal-stop-permit-time-value* | **wait-Bsignal-time** *wait-Bsignal-time-value* | **wait-caller-category-time** *wait-caller-category-time-value* }

undo register-signalling { **back-pulse-time** | **calling-number-max-length** | **compelling-sequence-keepalive-time** | **dtmf-send-interval** | **dtmf-send-time** | **incoming-type** | **number-max-interval** | **number-send-mode** | **outgoing-type** | **receive-number-max-interval** | **send-pulse-signal** | **signal-send-voltage** | **signal-stop-permit-time** | **wait-Bsignal-time** | **wait-caller-category-time** }

Parameters

Parameter	Description	Value
back-pulse-time *back-pulse-time-value*	Specifies the backward pulse duration.	The value is an integer that ranges from 100 to 200, in milliseconds. The default interval is 150.
calling-number-max-length *calling-number-max-length-value*	Specifies the maximum length of a calling number.	The value is an integer that ranges from 0 to 24, in digits. By default, the maximum length of a calling number is 12.
compelling-sequence-keepalive-time *compelling-sequence-keepalive-time-value*	Specifies the Keepalive time of the register signaling compelling sequence.	The value is an integer that ranges from 0 to 60000, in milliseconds. The default value is 40000.
dtmf-send-interval *dtmf-send-interval-time*	Specifies the interval at which DTMF signals are sent.	The value is an integer that ranges from 50 to 500, in milliseconds. The default value is 68.
dtmf-send-time *dtmf-send-time-value*	Specifies the period during which DTMF signals are sent.	The value is an integer that ranges from 50 to 200, in milliseconds. The default value is 68.
incoming-type *incoming-type-value*	Specifies the incoming register signaling type.	Enumerated type. The values are as follows: MFC, DTMF. The default value is MFC.

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Parameter	Description	Value
number-max-interval *number-max-interval-time*	Specifies the interval at which the calling number is sent.	The value is an integer that ranges from 1 to 60, in seconds. The default value is 50.
number-send-mode *number-send-mode-value*	Specifies the digit collection mode.	Enumerated type. The values are as follows: immediately and delay. The default value is delay.
outgoing-type *outgoing-type-value*	Specifies the register signaling type.	Enumerated type. The values are as follows: MFC, DTMF. The default value is MFC.
receive-number-max-interval *receive-number-max-interval-time*	Specifies the interval at which digits are collected.	The value is an integer that ranges from 1 to 60, in seconds. The default value is 50.
send-pulse-signal *signal-value*	Indicates whether the end-of-pulsing signal is sent.	The values are as follows: • enable: indicates that the end-of-pulsing signal is sent. • disable: indicates that the end-of-pulsing signal is not sent. By default, the end-of-pulsing signal is not sent.
signal-send-voltage *signal-send-voltage-value*	Specifies the voltage of the signal to be sent.	The value is an integer that ranges from 0 to 22. The value 0 indicates -25 dBM and the value 22 indicates -3 dBM. The step is 1 dBM. The default value is 13.
signal-stop-permit-time *signal-stop-permit-time-value*	Specifies the period during which the device is allowed to stop transmitting signals.	The value is an integer ranging from 1 to 30, in seconds. The default value is 15.
wait-Bsignal-time *wait-Bsignal-time-value*	Specifies the period from the time to request group B signals to the time to receive group B signals.	The value is an integer that ranges from 1 to 60, in seconds. The default value is 50.

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Parameter	Description	Value
wait-caller-category-time *wait-caller-category-time-value*	Specifies the period from the time to request the caller category to the time to receive the caller category.	The value is an integer that ranges from 1 to 60, in seconds. The default value is 50.

Views

R2 profile view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Set the voltage for transmitting signals to 10 in the R2 profile **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] r2 profile test
[Huawei-voice-r2-profile-test] register-signalling signal-send-voltage 10
```

16.5.6.96 register-uri (trunk group view)

Function

Using the **register-uri** command, you can configure a URI for a registrar.

Format

register-uri *register-uri-value*

Parameters

Parameter	Description	Value
register-uri-value	Specifies the URI of a registrar.	The value is a string of 1 to 64 characters.

Views

Trunk group view

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Default Level

2: Configuration level

Usage Guidelines

Only the trunk group of the SIP type supports the **register-uri** command. Before using the **register-uri** command, run the **16.5.1.24 display voice media-bandwidth-control (PBX)** command to create a trunk group of the SIP type.

Example

Set the URI of a registrar to abcd.com.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test sip trunk-group
[Huawei-voice-trunkgroup-test] register-uri abcd.com
```

16.5.6.97 request-channelclose-timeout

Function

The **request-channelclose-timeout** command sets the timeout interval for a request for closing a logical channel.

The **undo request-channelclose-timeout** command restores the default timeout interval for a request for closing a logical channel.

By default, the timeout interval is 15000 ms.

Format

request-channelclose-timeout *request-channelclose-timeout-value*

undo request-channelclose-timeout

Parameters

Parameter	Description	Value
request-channelclose-timeout-value	Specifies the timeout interval for a request for closing a logical channel.	The value is an integer that ranges from 0 to 4294967295, in milliseconds.

Views

H323 attribute view

Default Level

2: Configuration level

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Usage Guidelines

None

Example

Set the timeout interval for a request for closing a logical channel to 50000 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] request-channelclose-timeout 50000
```

16.5.6.98 requestmode-timeout

Function

The **requestmode-timeout** command sets the timeout interval for mode switching.

The **undo requestmode-timeout** command restores the default timeout interval for mode switching.

By default, the timeout interval is 15000 ms.

Format

requestmode-timeout *requestmode-timeout-value*

undo requestmode-timeout

Parameters

Parameter	Description	Value
requestmode-timeout-value	Specifies the timeout interval for mode switching.	The value is an integer that ranges from 0 to 4294967295, in milliseconds.

Views

H323 attribute view

Default Level

2: Configuration level

Usage Guidelines

None

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Example

Set the timeout interval for mode switching to 50000 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] requestmode-timeout 50000
```

16.5.6.99 reserved-circuit (trunk group view)

Function

The **reserved-circuit** command configures a reserved circuit.

The **undo reserved-circuit** command cancels a reserved circuit.

Format

reserved-circuit number *number-value* [**priority** *priority-value*]

undo reserved-circuit

Parameters

Parameter	Description	Value
number-value	Specifies the number of reserved circuits.	The value is an integer that ranges from 0 to 254.
priority-value	Specifies the lowest level for using reserved circuits.	Enumerated value. The value can be **default**, **normal**, **advanced**, or **super**. The default value is **super**.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

When the number of reserved circuits is not smaller than maxcr, circuits are reserved for users with a specified level.

Example

Reserve two circuits for users with normal or higher levels.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test sip trunk-group
[Huawei-voice-trunkgroup-test] reserved-circuit number 2 priority normal
```

16.5.6.100 reset (H323 attribute view)

Function

The **reset** command resets the H323 system.

Format

reset

Parameters

None

Views

H323 attribute view

Default Level

3: Management level

Usage Guidelines

You must reset the H323 system to make the H323 configuration take effect.

Example

Reset the H323 system.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] reset
H323 system parameters reset successfully!
```

16.5.6.101 reset (trunk group view)

Function

Using the **reset** command, you can reset a trunk group.

Format

reset

Parameters

None

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Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Only SIP or H323 trunk group support the **reset** command. Before using the **reset** command, run the **16.5.1.24 display voice media-bandwidth-control (PBX)** command to create a SIP trunk group.

Example

Reset the trunk group **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test
[Huawei-voice-trunkgroup-test] reset
```

16.5.6.102 roundtrip-delay-timeout

Function

The **roundtrip-delay-timeout** command sets the timeout interval of the roundtrip delay process.

The **undo roundtrip-delay-timeout** command restores the default timeout interval of the roundtrip delay process.

By default, the timeout interval is 15000 ms.

Format

roundtrip-delay-timeout *roundtrip-delay-timeout-value*

undo roundtrip-delay-timeout

Parameters

Parameter	Description	Value
roundtrip-delay-timeout-value	Specifies the timeout interval of the roundtrip delay process.	The value is an integer that ranges from 0 to 4294967295, in milliseconds.

Views

H323 attribute view

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Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the timeout interval of the roundtrip delay process to 50000 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] roundtrip-delay-timeout 50000
```

16.5.6.103 select-mode (trunk group view)

Function

Using the **select-mode** command, you can configure a circuit selection mode for a trunk group.

Using the **undo select-mode** command, you can restore the default circuit selection mode for a trunk group.

By default, the polling mode is used to select a circuit for a trunk group.

Format

select-mode *selectmode-value*

undo select-mode

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Parameters

Parameter	Description	Value
selectmode-value	Specifies the value of a circuit selection mode.	Enumerated type. The values are as follows: • loop: indicates the polling mode. • increase: indicates the ascending mode. • decrease: indicates the descending mode. • port-loop: indicates the ascending mode. (In the case of call failure, re-select a time slot on the same port in ascending order.) • port-increase:indicates the ascending mode. (In the case of call failure, re-select a port in ascending order.) default: loop

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Before configuring a circuit selection mode, run the **16.5.1.24 display voice media-bandwidth-control (PBX)** command to create a trunk group.

Example

Set the circuit selection mode for a trunk group to ascending mode.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test
[Huawei-voice-trunkgroup-test] select-mode increase
```

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16.5.6.104 send-heartbeat

Function

The **send-heartbeat** command enables a gatekeeper to send heartbeat messages.

The **undo send-heartbeat** command disables a gatekeeper from sending heartbeat messages.

By default, a gatekeeper does not send heartbeat messages.

Format

send-heartbeat { **disable** | **enable** }

undo send-heartbeat

Parameters

Parameter	Description	Value
disable	Disables a gatekeeper from sending heartbeat messages.	-
enable	Enables a gatekeeper to send heartbeat messages.	-

Views

trunk group view

Default Level

2: Configuration level

Usage Guidelines

A local gatekeeper sends heartbeat messages to check whether there is a peer gatekeeper.

NOTE

The heartbeat message sending must be configured only when the H323 trunk works in gk-gk mode.

Example

Enable the H323 trunk **test** to send heartbeat messages.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] trunk-group test h323 gk-gk
[Huawei-voice-trunkgroup-test] send-heartbeat enable
```

16.5.6.105 send-techprefix

Function

The **send-techprefix** command configures the device whether to send the technical prefix.

The **undo send-techprefix** command cancels the configuration.

By default, the device does not send the technical prefix.

Format

send-techprefix *h323-send-techprefix-value*

undo send-techprefix

Parameters

Parameter	Description	Value
h323-send-techprefix-value	Indicates whether the device sends the technical prefix.	Enumerated type. The values are as follows: • enable: The technical prefix is sent. • disable: The technical prefix is not sent.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Configure the device not to send the technical prefix.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test h323 register-gateway
[Huawei-voice-trunkgroup-test] send-techprefix disable
```

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16.5.6.106 setup-wait-response-timeout

Function

The **setup-wait-response-timeout** command sets the timeout interval for Setup messages.

The **undo setup-wait-response-timeout** command restores the default timeout interval for Setup messages.

By default, the timeout interval for Setup messages is 500000 ms.

Format

setup-wait-response-timeout *setup-wait-response-timeout-value*

undo setup-wait-response-timeout

Parameters

Parameter	Description	Value
setup-wait-response-timeout-value	Specifies the timeout interval for Setup messages.	The value is an integer that ranges from 4000 to 4294967295, in milliseconds.

Views

H323 attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the timeout interval for Setup messages to 5000 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] setup-wait-response-timeout 5000
```

16.5.6.107 shutdown (H323 attribute view)

Function

The **shutdown** command shuts down the H323 system.

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Format

shutdown

Parameters

None

Views

H323 attribute view

Default Level

2: Configuration level

Usage Guidelines

To disable H323 on the device, run this command.

To enable H323 on the device, run the **reset (H323 attribute view)** command.

Example

Shut down the H323 system.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] shutdown
 H323 system parameters shutdown successfully!
```

16.5.6.108 shutdown (trunk group view)

Function

Using the **shutdown** command, you can shut down a SIP or a H323 trunk group.

Format

shutdown

Parameters

None

Views

Trunk group view

Default Level

2: Configuration level

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Usage Guidelines

Before shutting down a SIP or a H323 trunk group, complete mandatory configurations of the group and enable the trunk group to take effect by running the **reset (trunk group view)** command to reset the trunk group.

Example

Shut down a trunk group.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test sip trunk-circuit
[Huawei-voice-trunkgroup-test] shutdown
```

16.5.6.109 signalling-address

Function

The **signalling-address** command configures a signaling IP address and a local signaling port number for a SIP trunk group.

By default, no signaling IP address or local signaling port number is configured.

Format

signalling-address { **ip** *ip-address* | **addr-name** *signal-addr-name-value* } **port** *port-value*

Parameters

Parameter	Description	Value
ip-address	Specifies a signaling IP address for a trunk group.	The value is in dotted decimal notation.
addr-name *ip-address*	Specifies a dynamic IP address name for a trunk group.	The value is a string of 1 to 64 case-insensitive characters.
port *port-value*	Specifies the local signaling port number for a SIP trunk group.	The value is an integer that ranges from 5000 to 5999.

Views

Trunk group view

Default Level

2: Configuration level

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Usage Guidelines

Before configuring a signaling IP address for a SIP trunk group, create a signaling IP address or a dynamic signaling IP address name by running the **voip-address signalling** command.

Example

Configure a signaling IP address 192.168.1.1 for a SIP trunk group.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group siptrkgrp sip trunk-group
[Huawei-trunkgroup-siptrkgrp] signalling-address ip 192.168.1.1 port 5005
```

16.5.6.110 signalling-type

Function

Using the **signalling-type** command, you can set the adaptation signaling type in an R2 profile.

Using the **undo signalling-type** command, you can restore the default adaptation signaling type in an R2 profile.

Format

signalling-type *signalling-type-name*

undo signalling-type

Parameters

Parameter	Description	Value
signalling-type-name	Specifies the name of a signaling type.	The value is a string of 1 to 32 characters.

Views

R2 profile view

Default Level

2: Configuration level

Usage Guidelines

The system provides adaptation signaling types of standard, brazil, argentina, and mexico, and supports user-defined mexico adaptation signaling type.

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Example

Set the signaling type to **test** in the R2 profile **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] r2 profile test
[Huawei-voice-r2-profile-test] signalling-type test
```

16.5.6.111 stable delay-time

Function

The **stable delay-time** command configures the status synchronization delay for trunk groups associated with a trunk group.

The **undo stable delay-time** command restores the default configuration.

By default, the status synchronization delay of trunk groups associated with a trunk group is 30s.

Format

stable delay-time *time-value*

undo stable delay-time

Parameters

Parameter	Description	Value
time-value	Specifies the status synchronization delay of trunk groups associated with a trunk group.	The value is an integer that ranges from 0 to 120, in seconds.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

When a trunk group link is disconnected or restored, the associated trunk group synchronizes status after a period of time. This period of time is status synchronization delay. A status synchronization delay can suppress frequent switching of the status of trunk groups associated with a trunk group due to unstable trunk group links.

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Precautions

The **stable delay-time** command can be run only in the PRA trunk group view and in the scenario where a PRA trunk group is associated with SIP trunk groups. This command configures the status synchronization delay for a SIP trunk group associated with the PRA trunk group when a PRA trunk group link is disconnected or restored.

Example

Set the status synchronization delay of an associated trunk group to **15s**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test dss1-net
[Huawei-voice-trunkgroup-test] stable delay-time 15
```

16.5.6.112 statuscode-toneid-mapping (trunk group view)

Function

The **statuscode-toneid-mapping** command configures mapping between SIP response codes and tone IDs.

The **undo statuscode-toneid-mapping** command restore the default mapping between SIP response codes and tone IDs.

Format

statuscode-toneid-mapping *StatusCode ToneId*

undo statuscode-toneid-mapping *StatusCode*

Parameters

Parameter	Description	Value
StatusCode	Specifies the SIP response code.	The value is an integer that ranges from 400 to 699.
ToneId	Specifies a tone ID.	The value is an integer that ranges from 1 to 255.

Views

Trunk group view

Default Level

2: Configuration level

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Usage Guidelines

Usage Scenario

The trunk group type is SIP IP trunk or SIP AT0 trunk.

When outgoing calls are made through the SIP IP trunk or SIP AT0 trunk, run the **statuscode-toneid-mapping** command so that the device plays the prompt tone based on the SIP response code. This command applies to the following scenarios:

- The calling party is a POTS user and the device plays the prompt tone based on the mapping.
- The calling party is a BRA user or incoming calls are made through the BRA or PRA trunk. The pbx **number-parameter 202 1** command must have been executed in the voice view.

Prerequisites

The **display voice tone type** command has been executed to view the prompt tones supported by the PBX.

Example

In the SIP IP trunk group sip, map sip-response 410 to tone 2.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group sip sip no-register
[Huawei-voice-trunkgroup-sip] statuscode-toneid-mapping 410 2
```

16.5.6.113 support-cli-change

Function

Using the **support-cli-change** command, you can configure whether to support caller change.

By default, support caller change.

Format

support-cli-change { **enable** | **disable** }

Parameters

None

Views

Trunk group view

Default Level

2: Configuration level

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Usage Guidelines

It is used in trunk group relay scenario to change the caller number of down-link trunk, and the **support-cli-change** command should be configured at the up-link trunk.

Example

Set the sipat0 trunk group not to support caller change.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group sipat0
[huawei-voice-trunkgroup-sipat0] support-cli-change disable
```

16.5.6.114 support-h245tul

Function

The **support-h245tul** command configures the device whether to support the H245 control signaling channel.

The **undo support-h245tul** command cancels the configuration.

By default, the device does not support the H245 control signaling channel.

Format

support-h245tul { **enable** | **disable** }

undo support-h245tul

Parameters

Parameter	Description	Value
enable	Indicates that the device supports the H245 control signaling channel.	-
disable	Indicates that the device does not support the H245 control signaling channel.	-

Views

H323 attribute view

Default Level

2: Configuration level

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Usage Guidelines

None

Example

Configure the H323 stack to support the H245 control signaling channel.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] support-h245tul enable
```

16.5.6.115 tcp-connection-timeout

Function

The **tcp-connection-timeout** command sets the timeout interval for TCP connections.

The **undo tcp-connection-timeout** command restores the default timeout interval for TCP connections.

By default, the timeout interval for TCP connections is 15000 ms.

Format

tcp-connection-timeout *tcp-connection-timeout-value*

undo tcp-connection-timeout

Parameters

Parameter	Description	Value
tcp-connection-timeout-value	Specifies the timeout interval for TCP connections.	The value is an integer that ranges from 0 to 4294967295, in milliseconds.

Views

H323 attribute view

Default Level

2: Configuration level

Usage Guidelines

None

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Example

Set the timeout interval for TCP connections to 150000 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] tcp-connection-timeout 150000
```

16.5.6.116 tcp-keepalive-timerlen

Function

The **tcp-keepalive-timerlen** command sets the value of the TCP keepalive timer.

The **undo tcp-keepalive-timerlen** command restores the default value of the TCP keepalive timer.

By default, the value of the TCP keepalive timer is 3600 ms.

Format

tcp-keepalive-timerlen *tcp-keepalive-timerLen-value*

undo tcp-keepalive-timerlen

Parameters

Parameter	Description	Value
tcp-keepalive-timerLen-value	Specifies the value of the TCP keepalive timer.	The value is an integer that ranges from 0 to 65535, in milliseconds.

Views

H323 attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the value of the TCP keepalive timer to 1280 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] tcp-keepalive-timerlen 1280
```

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16.5.6.117 techprefix

Function

The **techprefix** command configures the technical prefix.

The **undo techprefix** command deletes the technical prefix.

By default, no technical prefix is configured.

Format

techprefix *techprefix-value*

undo techprefix

Parameters

Parameter	Description	Value
techprefix-value	Specifies the technical prefix.	The value is a string of 1 to 16 characters.

Views

H323 Trunk group view

Default Level

2: Configuration level

Usage Guidelines

When there are trunk groups of various H323 types, run the **techprefix** command to configure the technical prefix to differentiate trunk groups.

Example

Set the technical prefix to 2222.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test h323 register-gateway
[Huawei-voice-trunkgroup-test] techprefix 2222
```

16.5.6.118 transfer (trunk group view)

Function

Using the **transfer** command, you can configure the transfer mode for a SIP trunk group.

Using the **undo transfer** command, you can restore the default transfer mode of a SIP trunk group.

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The default transfer mode of a SIP trunk group is UDP.

Format

transfer *transfer-value*

undo transfer

Parameters

Parameter	Description	Value
transfer-value	Specifies the transfer mode of a SIP trunk group.	Enumerated type. The values are as follows: • TCP • UDP

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

You can run the **transfer** command to configure the transfer mode for a SIP trunk group as required.

Prerequisites

Only the trunk group of the SIP type supports the **transfer** command. Before using the **transfer** command, run the **16.5.1.24 display voice media-bandwidth-control (PBX)** command to create a trunk group of the SIP type.

Precautions

When the transfer mode of a SIP trunk group is TCP, the signaling port number ranges from 5000 to 5099. When the transfer mode of a SIP trunk group is UDP, the signaling port number ranges from 5000 to 5999.

Example

Set the transfer mode of a SIP trunk group to TCP.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test sip trunk-circuit
[Huawei-voice-trunkgroup-test] transfer TCP
```

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16.5.6.119 trunk-at0

Function

The **trunk-at0** command binds trunks to an AT0 trunk group.

The **undo trunk-at0** command unbinds trunks from an AT0 trunk group.

By default, no trunk is bound to an AT0 trunk group.

Format

trunk-at0 *slotid/subcardid/portid* [**default-called-telno** *default-called-telno-value* | **caller-telno** [**enterprise** *enterprise-name*] *caller-telno-value* | **cid-transmit-type** *cid-transmit-type-value* | **config-status** *config-status-value* | **dial-delay** *dial-delay-value* | **dial-mode** *dial-mode-value* | **insert-prefix** *insert-prefix-value* | **insert-prefix-delay** *insert-prefix-delay-value*] *

undo trunk-at0 *slotid/subcardid/portid*

Parameters

Parameter	Description	Value
slotid/subcardid/portid	Specifies the slot ID, subcard ID, and port number. This parameter identifies the location of the user to be configured. Enter forward slashes (/) between the slot ID, subcard ID, and port number.	The value is a string of 1 to 15 characters. The values of *slotid*, *subcardid*, and *portid* depend on the product model.
default-called-telno *default-called-telno-value*	Indicates the called number configured for incoming calls. It can be an IVR number.	The value is a string of 1 to 32 digits without spaces.
caller-telno *caller-telno-value*	Indicates the phone number of a calling user to be bound to a trunk.	The value is a string of 1 to 24 digits without spaces.
enterprise *enterprise-name*	Indicates the name of the enterprise to which a calling number belongs.	The value is a string of 1 to 32 case-insensitive characters without spaces.

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Parameter	Description	Value
cid-transmit-type *cid-transmit-type-value*	Indicates the signal transmission type for the CLIP service.	Integer type. The values are as follows: • 0: Bell 202 • 1: V.23 • 2: NTT • 3: DTMF • 4: R1.5 • 5: Bell 202, V.23, and DTMF • 6: None The default value is 0.
config-status *config-status-value*	Indicates the AT0 trunk status.	Enumerated type. The values are as follows: • block • normal The default value is normal.
dial-delay *dial-delay-value*	Indicates the dial delay.	The value is an integer that ranges from 0 to 10,000, in milliseconds. The default value is 2000 ms.
dial-mode *dial-mode-value*	Indicates the dialing mode.	Enumerated type. The values are as follows: • dtmf: DTMF dialing • pulse: pulse dialing The default value is dtmf.
insert-prefix *insert-prefix-value*	Indicates the inserted call prefix.	The value is a string of 1 to 4 case-insensitive characters without spaces.
insert-prefix-delay *insert-prefix-delay-value*	Indicates the dial delay after a call prefix is inserted into numbers.	The value is an integer that ranges from 0 to 10000, in milliseconds. The default value is 2000 ms.

Views

Trunk group view

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Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

You can run the **default-called-telno** command to specify whether the calls routed through an AT0 trunk is connected to an intra-office user (dedicated access) or to the automatic main number (switchboard access).

By configuring **caller-telno**, you can specify a number for outgoing calls through the AT0 trunk. Only the outgoing calls that are made using the number can be routed through the AT0 trunk. When the AT0 trunk is unavailable, the outgoing calls that are made using the number specified by **caller-telno** can be routed through other trunks, and incoming calls through the AT0 trunk are routed to the number specified by **default-called-telno**. To route incoming calls through the AT0 trunk to the number specified by **caller-telno**, you can set **default-called-telno** and **caller-telno** to the same value.

Precaution

When you bind a trunk to an AT0 trunk group, the **default-called-telno** parameter is mandatory.

Example

Bind a trunk to an AT0 trunk group. Set **default-called-telno** to **10086** and *slotid/subcardid/portid* to **2/0/4**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test fxo
[Huawei-voice-trunkgroup-test] trunk-at0 2/0/4 default-called-telno 10086
```

16.5.6.120 trunk-bra

Function

The **trunk-bra** command binds a trunk to a BRA trunk group.

The **undo trunk-bra** command unbinds a trunk from a BRA trunk group.

Format

trunk-bra *slotid/subcardid/portid* [**default-called-telno** *default-called-telno-value* | **caller-telno** [**enterprise** *enterprise-name*] *telno-value* | **default-cli** *default-cli-value* | [**b-channels** *b-channels-value* [**num** *num-value*]] **config-status** *config-status-value*] *

undo trunk-bra *slotid/subcardid/portid*

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Parameters

Parameter	Description	Value
slotid/subcardid/portid	Specifies the slot ID/ subcard ID/port number. This parameter identifies the location of the user to be deleted.	The value is a string of 1 to 15 characters. The value of *slotid*, *subcardid*, and *portid* depend on product specifications.
default-called-telno *default-called-telno-value*	Specifies the default called number.	The value is a string of 1 to 24 characters.
caller-telno	Specifies the called number.	-
enterprise *enterprise-name*	Specifies the name of an enterprise.	The value is a string of 1 to 32 characters without spaces.
country-code *country-code-value*	Specifies a country code.	The value is a string of 1 to 4 characters.
area-code *area-code-value*	Specifies an area code.	The value is a string of 1 to 8 characters.
telno-value	Specifies the calling number.	The value is a string of 1 to 24 characters.
default-cli *default-cli-value*	Specifies the default calling number. **NOTE** When BRA trunk make outgoing calls over the SIP PRA trunk without calling number information, the default calling number is used.	The value is a string of 1 to 64 characters without spaces.
b-channels *b-channels-value*	Specifies the ID of B channel.	Numeral type. The value ranges from 0 to 1.
num *num-value*	Specifies the number of B channels.	Numeral type. The value ranges from 1 to 2.
config-status *config-status-value*	Specifies the trunk status.	Enumerated type. The value is block or normal. • block • normal The default value is normal.

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Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Before binding a trunk to a BRA trunk group, ensure that the trunk group has been created.

Example

Set the number of the physical interface bound to the trunk that is bound to the BRA trunk to 2/0/0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test bra-qsig
[Huawei-voice-trunkgroup-test] trunk-bra 2/0/0
```

16.5.6.121 trunk-bra typeofnumber

Function

The **trunk-bra typeofnumber** command configures the call type on the port bound to a BRA trunk group.

The **undo trunk-bra typeofnumber** command cancels the configuration of the call type on the port bound to a BRA trunk group.

Format

trunk-bra slotid/subcardid/portid [**typeofnumber** { **caller** | **called** } <typeofnumber-value>]

undo trunk-bra slotid/subcardid/portid [**typeofnumber** { **caller** | **called** }]

Parameters

Parameter	Description	Value
slotid/subcardid/portid	Specifies the slot ID/subcard ID/port number. This parameter must be set to identify the physical location of the user to be deleted. The slash (/) must be entered.	The value is a string of 1 to 15 characters. The options are as follows: • *slotid*: depends on the product model. • *subcardid*: depends on the product model. • *portid*: depends on the product model.

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Parameter	Description	Value
typeofnumber { **caller** | **called** } <typeofnumber-value>	Specifies the calling or called number type.	Enumerated value: • Unknown: unknown type • International: international number • National: national number • NewworkSpecific: network specific number • Subscriber: user number • Abbreviated: abbreviated number • ReservedForExtension: reserved By default, the calling or called number type is not configured.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Before binding a trunk to a trunk group, ensure that the trunk group has been created.

Example

Set the physical interface associated with a trunk bound to a BRA trunk group to 2/0/0, and the calling number type to an international number.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test bra-qsig
[Huawei-voice-trunkgroup-test] trunk-bra 2/0/0 typeofnumber caller International
```

16.5.6.122 trunk-group

Function

The **trunk-group** command creates a trunk group and displays the trunk group view, or directly displays the view of an existing trunk group.

The **undo trunk-group** command deletes the trunk group.

By default, no trunk group is created.

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Format

trunk-group *trunk-group-name* [**bra-dss1** | **bra-qsig** | **dss1-net** | **dss1-user** | **e1-r2** | **fxo** | **h323** *h323-type* | **qsig-net** | **qsig-user** | **sip** *register-mode* | **cs**]

undo trunk-group *trunk-group-name*

Parameters

Parameter	Description	Value
trunk-group-name	Specifies the name of a trunk group.	The value is a string of 1 to 32 case-insensitive characters without spaces.
bra-dss1	Indicates that the trunk type is BRA and protocol is Q.931.	-
bra-qsig	Indicates that the trunk type is BRA and protocol is QSIG.	-
dss1-net	Indicates that the PRA network-side trunk and Q.931 are used.	-
dss1-user	Indicates that the PRA user-side trunk and Q.931 are used.	-
e1-r2	Indicates that the trunk type is R2.	-
fxo	Indicates that the trunk type is AT0.	-

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Parameter	Description	Value
h323 *h323-type*	Specifies the trunk type of the H.323 trunk group.	Enumerated value. The values are as follows: • symmetrical: the trunk type in peer gateway mode. • register-gateway: the trunk type on the gatekeeper that allows registration of one gateway. • gw-gk: the trunk type on the gateway that registers to the gatekeeper. • gk-gk: the trunk type in peer gatekeeper mode. • gatekeeper: the trunk type on the gatekeeper that allows registration of multiple gateways.
qsig-net	Indicates that the PRA network-side trunk and QSIG are used.	-
qsig-user	Indicates that the PRA user-side trunk and QSIG are used.	-
sip *register-mode*	Configures the registration mode for the SIP trunk group.	Enumerated type. The values are as follows: • trunk-circuit: trunk circuit registration (SIP AT0 trunk). • trunk-group: SIP PRA trunk. • no-register: SIP IP trunk.

Views

Voice view

Default Level

2: Configuration level

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Usage Guidelines

An H.323 trunk is used in the following scenarios:

- In peer gateway mode, the H.323 trunk type of gateways on both ends is **symmetrical**.
- In peer gatekeeper mode, the H.323 trunk type of gatekeepers on both ends is **gk-gk**.
- In one-to-one registration mode, the H.323 trunk types on the gateway and gatekeeper are **gw-gk** and **register-gateway**, respectively. The H.323 trunk group on the gatekeeper allows registration of one gateway.
- In one-to-many registration mode, the H.323 trunk types on the gateway and gatekeeper are **gw-gk** and **gatekeeper**, respectively. The H.323 trunk group on the gatekeeper allows registration of multiple gateways.

Example

Create a trunk group named **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test SIP trunk-circuit
[Huawei-voice-trunkgroup-test]
```

16.5.6.123 trunk-pra

Function

The **trunk-pra** command binds a trunk to a PRA trunk group.

The **undo trunk-pra** command unbinds a trunk from a PRA trunk group.

Format

trunk-pra *Slotid/Subcardid/Portid* [[**b-channels** *b-channels-value* [**num** *num-value*]] [**config-status** *config-status-value*] [**default-cli** *default-cli-value*]]

undo trunk-pra *Slotid/Subcardid/Portid* [**b-channels** *b-channels-value* [**num** *num-value*]]

Parameters

Parameter	Description	Value
Slotid/Subcardid/Portid	Specifies the slot ID/ subcard ID/port number of the port connected to the PRA trunk.	The value is a string of 1 to 15 characters. The values of *slotid*, *subcardid*, and *portid* depend on the product model.
b-channels *b-channels-value*	Specifies the ID of B channel.	Numeral type. The value ranges from 0 to 31.

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Parameter	Description	Value
num *num-value*	Specifies the number of B channels.	Numeral type. The value ranges from 1 to 32.
config-status *config-status-value*	Specifies the trunk status.	Enumerated type. The value is block or normal. • block • normal The default value is normal.
default-cli *default-cli-value*	Specifies the default calling number. **NOTE** When PRA trunk make outgoing calls over the SIP PRA trunk without calling number information, the default calling number is used.	The value is a string of 1 to 64 characters without spaces.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Bind trunks to the PRA trunk group, and set the trunk port number to 1/0/1.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test dss1-net
[Huawei-voice-trunkgroup-test] trunk-pra 1/0/1
```

16.5.6.124 trunk-pra typeofnumber

Function

The **trunk-pra typeofnumber** command configures the call type on the port bound to a PRA trunk group.

The **undo trunk-pra typeofnumber** command cancels the configuration of the call type on the port bound to a PRA trunk group.

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Format

trunk-pra slotid/subcardid/portid [**typeofnumber** { **caller** | **called** } <typeofnumber-value>]

undo trunk-pra slotid/subcardid/portid [**typeofnumber** { **caller** | **called** }]

Parameters

Parameter	Description	Value
slotid/subcardid/portid	Specifies the slot ID/subcard ID/port number. This parameter must be set to identify the physical location of the user to be deleted. The slash (/) must be entered.	The value is a string of 1 to 15 characters. The options are as follows: ● *slotid*: depends on the product model. ● *subcardid*: depends on the product model. ● *portid*: depends on the product model.
typeofnumber { **caller** | **called** } <typeofnumber-value>	Specifies the calling or called number type.	Enumerated value: ● Unknown: unknown type ● International: international number ● National: national number ● NewworkSpecific: network specific number ● Subscriber: user number ● Abbreviated: abbreviated number ● ReservedForExtension: reserved By default, the calling or called number type is not configured.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Before binding a trunk to a trunk group, ensure that the trunk group has been created.

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Example

Set the physical interface associated with a trunk bound to a PRA trunk group to 1/0/0, and the calling number type to an international number.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test dss1-net
[Huawei-voice-trunkgroup-test] trunk-pra 1/0/0 typeofnumber caller International
```

16.5.6.125 trunk-r2

Function

The **trunk-r2** command binds trunks to an E1R2 trunk group.

The **undo trunk-r2** command unbinds trunks from an E1R2 trunk group.

Format

trunk-r2 *Slotid/Subcardid/Portid* [[**b-channels** *b-channels-value* [**num** *num-value*]] **config-status** *config-status-value*]

undo trunk-r2 *Slotid/Subcardid/Portid*

Parameters

Parameter	Description	Value
Slotid/Subcardid/Portid	Specifies the slot ID/ subcard ID/port number of the FXO port connected to the E1R2 trunk.	The value is a string of 1 to 15 characters. The values of *slotid*, *subcardid*, and *portid* depend on the product model.
b-channels *b-channels-value*	Specifies the ID of B channel.	Numeral type. The value ranges from 0 to 31.
num *num-value*	Specifies the number of B channels.	Numeral type. The value ranges from 1 to 32.
config-status *config-status-value*	Specifies the trunk status.	Enumerated type. The value is block or normal. • block • normal The default value is normal.

Views

Trunk group view

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Default Level

2: Configuration level

Usage Guidelines

N/A

Example

Bind trunks to the E1R2 trunk group, and set the trunk port number to 1/0/1.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test e1-r2
[Huawei-voice-trunkgroup-test] trunk-r2 1/0/1
```

16.5.6.126 trunk-sipat0

Function

The **trunk-sipat0** command binds a trunk to a SIP AT0 trunk group.

The **undo trunk-sipat0** command unbinds a trunk from a SIP AT0 trunk group.

Format

trunk-sipat0 *register-id* { **password cipher** *cipher-password* | **caller-telno** [**enterprise** *enterprise-name*] *telno-value* | **default-called-telno** *default-called-telno-value* | **max-calls** *max-calls-value* | **digest-username** *digest-username-value* } *

undo trunk-sipat0 *register-id*

Parameters

Parameter	Description	Value
register-id	Specifies the ID used by a SIP AT0 trunk for registration.	The value is a string of 1 to 32 characters.
password cipher *cipher-password*	Specifies a password in cipher text. **NOTE** You can configure *cipher-password* after inputting **cipher** and pressing **Enter**.	The value is a string of 1 to 32 characters without spaces.
caller-telno	Specifies the calling number special for the current circuit.	-

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Parameter	Description	Value
enterprise *enterprise-name*	Specifies the enterprise that the SIP AT0 trunk belongs to.	The value is a string of 1 to 32 characters without spaces.
telno-value	Specifies the calling number for the SIP AT0 trunk.	The value is a string of 1 to 24 characters, which must be digits 0 through 9.
default-called-telno *default-called-telno-value*	Specifies the called number configured for incoming calls.	The value is a string of 1 to 24 characters, which must be digits 0 through 9.
max-calls *max-call-value*	Specifies the maximum number of calls.	The value is an integer that ranges from 1 to 150.
digest-username *digest-username-value*	Indicates an authentication digest user name.	The value is a string of 1 to 128 characters without spaces. If the string is enclosed in double quotation marks (" "), the string can contain spaces.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

The PBX supports multiple trunks of the same type to be added to the same trunk group and invoked by call routes. If there is only one trunk, a trunk group must be configured for the trunk, facilitating the trunk management.

When a trunk is bound to a SIP AT0 trunk group, the **default-called-telno** specifies whether calls routed through the trunk are connected to a specific user or to the automatic main number.

After **number-parameter 19 2** is configured on the system, you need to specify a value for **digest-username** *digest-username-value* to define an authentication digest user name.

Precautions

The **default-called-telno** parameter of SIP AT0 configuration is mandatory.

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Example

Set the ID used by a SIP AT0 trunk for registration to 58981000 and the called number configured for incoming calls to 28981000.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test sip trunk-circuit
[Huawei-voice-trunkgroup-test] trunk-sipat0 58981000 default-called-telno 28981000
```

16.5.6.127 ttlrrq

Function

The **ttlrrq** command configures the registration lifetime of a gateway.

The **undo ttlrrq** command restores the default registration lifetime of a gateway.

By default, the registration lifetime of a gateway is 360 seconds.

Format

ttlrrq *time*

undo ttlrrq

Parameters

Parameter	Description	Value
time	Specifies the registration lifetime of a gateway.	The value is an integer that ranges from 30 to 6000, in seconds. The default value is 360s.

Views

H323 trunk group view

Default Level

2: Configuration level

Usage Guidelines

The registration lifetime of a gateway is limited. After the gateway sends a registration request (RRQ) message including the time to live (TTL) field to a gatekeeper, the gatekeeper responds with a registration confirmation (RCF) message including a same or shorter TTL. When the registration lifetime reaches the limit, the registration is terminated. At the half of the registration lifetime, the gateway sends a new RRQ message to the gatekeeper and the gatekeeper responds with an RCF message, and the new registration lifetime starts.

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NOTE

This command takes effect only when the H323 trunk works in gw-gk mode.

Example

Set the registration lifetime of the H323 trunk group to 3600 seconds.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test h323 gw-gk
[Huawei-voice-trunkgroup-test] ttlrrq 3600
```

16.5.6.128 typeofnumber called

Function

The **typeofnumber called** command configures the called number type for PRA, BRA, or QSIG trunk groups.

The **undo typeofnumber called** command deletes the called number type configured for PRA, BRA, or QSIG trunk groups.

By default, the called number type is not configured for PRA, BRA, or QSIG trunk groups.

Format

typeofnumber called *calllednumber-value*

undo typeofnumber called

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Parameters

Parameter	Description	Value
callednumber-value	Specifies the called number type.	Called number type. Enumerated value. The options are as follows: • Unknown: unknown type • International: internal number • National: national number • NewworkSpecific: network specific number • Subscriber: user number • Smart: smart number • Abbreviated: abbreviated number • ReservedForExtension: reserved By default, the called number type is not configured.

Views

PRA, BRA, or QSIG trunk group view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the called number type for PRA trunk groups to international.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]trunk-group pra
[Huawei-voice-trunk-group pra]typeofnumber called International
```

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16.5.6.129 typeofnumber caller

Function

The **typeofnumber caller** command configures the calling number type for PRA, BRA, or QSIG trunk groups.

The **undo typeofnumber caller** command deletes the calling number type configured for PRA, BRA, or QSIG trunk groups.

By default, the calling number type is not configured for PRA, BRA, or QSIG trunk groups.

Format

typeofnumber caller *callernumber-value*

undo typeofnumber caller

Parameters

Parameters	Parameter	Description Value
callernumber-value	Specifies the calling number type.	Calling number type. Enumerated value. The options are as follows: • Unknown: unknown type • International: internal number • National: national number • NewworkSpecific: network specific number • Subscriber: user number • Smart: smart number • Abbreviated: abbreviated number • ReservedForExtension: reserved By default, the calling number type is not configured.

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Views

PRA, BRA, or QSIG trunk group view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the calling number type for PRA trunk groups to international.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]trunk-group pra
[Huawei-voice-trunk-group pra]typeofnumber caller International
```

16.5.6.130 use-rule-set

Function

The use-rule-set command configures the blacklist and whitelist rule for the trunk group of the SIP or H.323 type.

The undo use-rule-set command restores the blacklist and whitelist rule configured for the trunk group.

By default, no blacklist or whitelist is configured.

Format

use-rule-set *rulename*

undo use-rule-set

Parameters

Parameter	Description	Value
rulename	Specifies the name of the blacklist and whitelist rule.	Character string type. The value is a string of 1-32 characters.

Views

Trunk group view

Default Level

2: Configuration level

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Usage Guidelines

Before configuring the blacklist and whitelist rule for trunk group, add the rule in the voice view.

Example

Configure the blacklist and whitelist named **rulenametest** for the H.323 trunk group.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]rule-set rulenametest
[Huawei-voice-rule-set-rulenametest]quit
[Huawei-voice] trunk-group h323sy h323 symmetrical
[Huawei-voice-trunkgroup-h323sy]use-rule-set rulenametest
```

16.5.6.131 workmode (H323 attribute view)

Function

The **workmode** command sets the operation mode for the H323 stack.

The **undo workmode** command restores the default operation mode of the H323 stack.

By default, the H323 stack uses the international mode.

Format

workmode *workmode-value*

undo workmode

Parameters

Parameter	Description	Value
workmode-value	Specifies the operation mode of the H323 stack.	Enumerated type. The values are as follows: • international • national • VT **NOTE** When the device connects to a Cisco device, the VT mode is recommended. By default, the operation mode is international.

Views

H323 attribute view

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Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the operation mode of the H323 stack to national.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h323-attribute
[Huawei-voice-h323-attribute] workmode national
```

16.5.7 Call Route configuration command

16.5.7.1 callroute

Function

The **callroute** command configures a call route.

The **undo callroute** command deletes a configured call route.

Format

callroute *callroute-name*

undo callroute *callroute-name*

Parameters

Parameter	Description	Value
callroute-name	Specifies the call route name.	The value is a string of 1 to 32 characters without spaces.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

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Example

Configure a call route named **router1**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] callroute route1
```

16.5.7.2 callroute (reroute view)

Function

The **callroute** command is used to configure the calling route for rerouting.

Format

callroute *callroute-name*

Parameters

Parameter	Description	Value
callroute-name	Specifies the call route name.	The value is a string of 1 to 32 characters without spaces.

Views

Reroute-deal view

Default Level

2: Configuration level

Usage Guidelines

The **callroute** command is used to configure the calling route for rerouting.

Example

Configure calling route for rerouting as test.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] reroute-deal reroute-test
[Huawei-voice-reroute-deal-reroute-test] callroute test
```

16.5.7.3 callroute (route-analysis view)

Function

The **callroute** command configures a call route that references route-analysis.

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Format

callroute *callroute-name*

Parameters

Parameter	Description	Value
callroute-name	Specifies the name of a call route.	The value is a string of 1 to 32 characters without spaces.

Views

route-analysis

Default Level

2: Configuration level

Usage Guidelines

The **callroute** command configures a call route that references route-analysis.

Example

Configure the call route **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] route-analysis test
[Huawei-voice-route-analysis-test] callroute test
```

16.5.7.4 callsource

Function

The **callsource command** configures a call source.

The **undo callsource command** deletes a configured call source.

Format

callsource *callsource-name*

undo callsource *callsource-name*

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Parameters

Parameter	Description	Value
callsource-name	Specifies the name of a call source.	The value is a string of 1 to 32 characters without spaces.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Configure the call source **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] callsource test
```

16.5.7.5 callsource (route-analysis view)

Function

The **callsource** command configures a call route that references route-analysis.

Format

callsource *callsource-name*

Parameters

Parameter	Description	Value
callsource-name	Specifies the name of a call source.	The value is a string of 1 to 32 characters without spaces.

Views

route-analysis

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Default Level

2: Configuration level

Usage Guidelines

The **callsource** command configures a call source that references route-analysis.

Example

Configure the call source **a**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] route-analysis ra
[Huawei-voice-route-analysis-test] callsource a
```

16.5.7.6 display voice callroute

Function

The **display voice callroute** command displays the configuration of a call route.

The **display voice callroute** *callroute-name* **trunk-group brief** command displays the order for selecting trunk groups under a call route.

Format

display voice callroute [*callroute-name*] **detail**

display voice callroute *callroute-name* **trunk-group brief**

Parameters

Parameter	Description	Value
callroute *callroute-name*	Call route	The value is a string of 1 to 32 characters.
detail	Detail information	-

Views

All views

Default Level

2: Configuration level

Usage Guidelines

This command is used to display the call route.

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Example

Display the configuration of a call route.

```
<Huawei>system-view
[Huawei]voice
[Huawei-voice] display voice callroute route detail
 Call route name        : route
 Reroute-deal name      : reroute-test
```

Display the order for selecting trunk groups under a call route.

```
<Huawei>system-view
[Huawei]voice
[Huawei-voice]display voice callroute sipip trunk-group brief
 Spec: 255, Records: 3
 ------------------------------------------------------------------------
 Index    Trunk group name     N/A    Select level   Trunk group id
 0        test                 ---    128            2
 1        pra                  ---    253            0
 2        sipip                ---    254            1
```

16.5.7.7 display voice callsource

Function

The **display voice callsource** command displays the configuration of a call source.

Format

display voice callsource [*callsource-name*]

Parameters

Parameter	Description	Value
callsource-name	Call source	The value is a string of 1 to 32 characters.

Views

All views

Default Level

2: Configuration level

Usage Guidelines

This command is used to display the call source.

Example

Display the configuration of a call route.

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```
<Huawei>system-view
[Huawei]voice
[Huawei-voice]display voice callsource
 Spec: 256, Records: 2
 ----------------------
 Call source name : default

 Call source name : test
```

16.5.7.8 display voice reroute-deal

Function

The **display voice reroute-deal** command displays reroute information.

Format

display voice reroute-deal [*reroute-deal-name*]

Parameters

Parameter	Description	Value
reroute-deal-name	Specifies the reroute name.	The value is a string of 1 to 32 characters without spaces.

Views

ALL

Default Level

2: Configuration level

Usage Guidelines

reroute-deal-name is optional. If *reroute-deal-name* is not supplied, all the reroute-deal configurations will be listed.

Example

Display the information about the reroute named **reroute-test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] display voice reroute-deal reroute-test
Reroute-deal name : reroute-test
Recall route name : sipat0
Call route name   : route
Failed type value : route-failed
```

While no reroute-deal configuration is found, information is as follows.

```
[Huawei-voice]display voice reroute-deal
 Info: The reroute-deal record does not exist
```

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Table 16-82 Description of the display voice reroute-deal command output

Item	Description
Reroute-deal name	Reroute name.
Recall route name	Name of the call route referenced by the reroute.
Call route name	Name of the call route that references the reroute.
Failed type value	Type of the reroute.

16.5.7.9 display voice route-analysis

Function

The **display voice route-analysis** command displays route analysis information.

Format

display voice route-analysis [*route-analysis-name*]

Parameters

Parameter	Description	Value
route-analysis-name	Specifies the route analysis name.	The value is a string of 1 to 32 characters without spaces.

Views

ALL

Default Level

2: Configuration level

Usage Guidelines

route-analysis-name is optional. If *route-analysis-name* is not supplied, all the route-analysis configurations will be listed.

Example

Display the information about the route analysis named **ra**.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice]display voice route-analysis ra
 Route-analysis name : ra
 Call source name    : a
 Call route name     : 29
 Trunk group name    : sipip29
```

While no route-analysis configuration is found, information is as follows.

```
[Huawei-voice]display voice route-analysis
 Info: The route-analysis record does not exist
```

Table 16-83 Description of the display voice reroute-deal command output

Item	Description
Route-analysis name	Route analysis name.
Call source name	Name of the call source referenced by the route analysis.
Call route name	Name of the call route that references the route analysis.
Trunk group name	Name of the trunk group that references the route analysis.

16.5.7.10 failed-type (reroute view)

Function

The **failed-type** command configures a failure type of re-routing.

Format

failed-type *type-value*

Parameters

Parameter	Description	Value
type-value	Specifies the failure type of re-routing.	The value is <route-failed,call-failed>. route-failed: routing fails. call-failed: Calls fail. The default value is **route-failed**.

Views

reroute-deal

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Default Level

2: Configuration level

Usage Guidelines

The **failed-type** command configures a failure type of re-routing.

Example

Set the failure type of re-routing to **call-failed**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] reroute-deal reroute-test
[Huawei-voice-reroute-deal-reroute-test] callroute test
[Huawei-voice-reroute-deal-reroute-test] re-callroute test2
[Huawei-voice-reroute-deal-reroute-test] failed-type call-failed
```

16.5.7.11 re-callroute (reroute view)

Function

The **re-callroute** command configures a call route referenced by a reroute.

Format

re-callroute *callroute-name*

Parameters

Parameter	Description	Value
callroute-name	Specifies the call route name.	The value is a string of 1 to 32 characters without spaces.

Views

Reroute-deal view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Configure a call route **test2** referenced by route **test** for rerouting.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] reroute-deal reroute-test
[Huawei-voice-reroute-deal-reroute-test] callroute test
[Huawei-voice-reroute-deal-reroute-test] re-callroute test2
```

16.5.7.12 reroute-deal

Function

The **reroute-deal** command establish a new reroute configuration or enter a configured reroute-deal view.

The **undo reroute-deal** *reroute-deal-name* command deletes a configured reroute configuration.

Format

reroute-deal *reroute-deal-name*

undo reroute-deal *reroute-deal-name*

Parameters

Parameter	Description	Value
reroute-deal-name	Specifies the reroute name.	The value is a string of 1 to 32 characters without spaces.

Views

voice

Default Level

2: Configuration level

Usage Guidelines

The **reroute-deal** command is the entrance of reroute-deal configuration. A reroute can be configured only in the reroute view.

Example

Configure a reroute named **reroute-test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] reroute-deal reroute-test
[Huawei-voice-reroute-deal-reroute-test]
```

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16.5.7.13 route-analysis

Function

The **route-analysis** command establish route analysis record or enter a configured route-analysis view.

The **undo route-analysis** *route-analysis-name* command deletes a configured route-analysis configuration.

Format

route-analysis *route-analysis-name*

undo route-analysis *route-analysis-name*

Parameters

Parameter	Description	Value
route-analysis-name	Specifies the route analysis name.	The value is a string of 1 to 32 characters without spaces.

Views

voice

Default Level

2: Configuration level

Usage Guidelines

The **route-analysis** command is the entrance of route-analysis configuration.

Example

Configure a route-analysis named **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] route-analysis test
[Huawei-voice-route-analysis-test]
```

16.5.7.14 selecttype

Function

The **selecttype** command configures a call route policy.

The **undo selecttype** command restores the default call route policy.

By default, a call route policy is a non-intelligent route policy.

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Format

selecttype *selecttype-value*

undo selecttype

Parameters

Parameter	Description	Value
selecttype-value	Specifies a call route policy.	Enumerated value. The options are as follows: • chargebase: charge rate-based • loadshare: load balancing • perloadshare: percentage-based • userpriorlevel: user level-based • loadbalance: based on the number of idle circuits • callertimebase: based on the time and calling number • none: non-intelligent-route

Views

Call route view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the call route policy to **loadshare**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] callroute route
[Huawei-voice-calloute-route]  selecttype loadshare
```

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16.5.7.15 trunk-group (route-analysis view)

Function

The **trunk-group** command configures a trunk group that references route-analysis.

Format

trunk-group *trunk-group-name*

Parameters

Parameter	Description	Value
trunk-group-name	Specifies the name of a trunk group.	The value is a string of 1 to 32 characters.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

A trunk group has been created.

Example

Configure the trunk-group **29** in route-analysis record.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] route-analysis ra
[Huawei-voice-route-analysis-ra] trunk-group 29
```

16.5.8 PBX Service Configuration Commands

16.5.8.1 access-telno

Function

The **access-telno** command configures an access number for group services.

Format

access-telno *telno-value*

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Parameters

Parameter	Description	Value
telno-value	Indicates the access number for user group services.	The value is a number containing 1 to 16 digits.

Views

User group view

Default Level

2: Configuration level

Usage Guidelines

Currently, the following access numbers are available:

PBX line selection (hunt)

Example

Set the country code to 86, the area code to 755, and the telephone number to 28980000 for the sequential ringing group test.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxusergroup test hunt
[Huawei-voice-pbxusergroup-test] access-telno 28980000
```

16.5.8.2 afterroute-change

Function

Using the **afterroute-change** command, you can create a post-routing number change plan and enter its view.

Using the **undo afterroute-change** command, you can delete a post-routing number change plan.

Format

afterroute-change *name*

undo afterroute-change *name*

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Parameters

Parameter	Description	Value
name	Specifies the name of the post-routing number change plan.	The value is a string of 1 to 32 characters.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Create post-routing number change plan **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] afterroute-change test
[Huawei-voice-afterroute-change-test]
```

16.5.8.3 beforeroute-change

Function

Using the **beforeroute-change** command, you can create a pre-routing number change plan and enter its view.

Using the **undo beforeroute-change** command, you can delete a pre-routing number change plan.

Format

beforeroute-change *name*

undo beforeroute-change *name*

Parameters

Parameter	Description	Value
name	Specifies the name of the pre-routing number change plan.	The value is a string of 1 to 32 characters.

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Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

This command creates a pre-routing number change plan.

Example

Create pre-routing number change plan **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] beforeroute-change test
[Huawei-voice-beforeroute-change-test]
```

16.5.8.4 bind (service user group view)

Function

The **bind** command configures the other members except the primary number bound to the unicall service.

The **undo bind** command cancels the other members except the primary number bound to the unicall service.

Format

bind *bind-type bind-value* [**priority** *priority-value*] [**time-templet** *time-templet-name*]

undo bind *bind-type bind-value*

Parameters

Parameter	Description	Value
bind-type	Specifies the attribute of the bound terminal.	Enumerated type. The options are as follows: • internal-telno: An intra-office user number is bound to the unicall service. • external-telno: An inter-office user number is bound to the unicall service. • SIPUE: A SIP UE is bound to the unicall service.

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Parameter	Description	Value
bind-value	Specifies the number or ID of the bound terminal.	The value is a string of 1 to 32 characters.
priority *priority-value*	Specifies the priority of the bound terminal.	The value is an integer that ranges from 0 to 3.
time-templet *time-templet-name*	Valid time template name.	The value is a string of 1 to 32 characters. The time template must exist.

Views

service user group view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Bind the intra-office user number **28780005** to the unicall service user group **28780004**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] unicall-group pbxuser 28980004
[Huawei-voice-unicall-group-28980004] bind internal-telno 28980005
```

16.5.8.5 bind main-eid (service view for the senior manager's secretary)

Function

The **bind main-eid** command binds the shared lines of the manager and secretary.

The **undo bind main-eid** command unbinds the shared lines of the manager and secretary.

Format

bind main-eid *main-eid-value* **shared-eid** *shared-eid-value*

undo bind main-eid *main-eid-value* **shared-eid** *shared-eid-value*

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Parameters

Parameter	Description	Value
main-eid-value	Specifies the manager's shared line to be bound.	The value is a string of 1 to 32 characters.
shared-eid-value	Specifies the secretary's shared line to be bound.	The value is a string of 1 to 32 characters.

Views

Service view for the senior manager's secretary view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Bind shared lines of the manager and secretary for PBX user 1001.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] ssca-group pbxuser 1001
[Huawei-ssca-group-1001] bind main-eid 1001 shared-eid 1002
```

16.5.8.6 busyselectmode (service user group view)

Function

The **busyselectmode** command configures the selection mode during busy hours for the ONLY service.

The **undo busyselectmode** command restores the default selection mode during busy hours for the ONLY service.

Format

busyselectmode *busyselect-value*

undo busyselectmode

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Parameters

Parameter	Description	Value
busyselect-value	Specifies the selection mode during busy hours for the ONLY service.	Enumerated type. The values are as follows: • null: Do not call any terminal. • all: Call all the terminals. • active: Call the terminal that is in conversation. • inactive: Call an idle terminal. • By default, the value is all

Views

service user group view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the selection mode during busy hours of the ONLY service user group **28780004** to **active**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] unicall-group pbxuser 28780004
[Huawei-voice-unicall-group-28780004] busyselectmode active
```

16.5.8.7 call dual-dial-tone-flag (pre-routing number change plan view)

Function

Using the **call dual-dial-tone-flag** command, you can configure whether to play second dial tone.

Using the **undo call dual-dial-tone-flag** command, you can restore the default setting. By default, second dial tone is not played.

Format

call dual-dial-tone-flag *dual-dial-tone-flag-value*

undo call dual-dial-tone-flag

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Parameters

Parameter	Description	Value
dual-dial-tone-flag-value	Indicates whether to play second dial tone.	Enumerated type. The value is disable or enable: • disable: Second dial tone is not played. • enable: Second dial tone is played. • the default value is disable

Views

Pre-routing number change plan view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable second dial tone playing.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] beforeroute-change 1
[Huawei-voice-beforeroute-change-1] call dual-dial-tone-flag enable
```

16.5.8.8 call new-attribute (pre-routing number change plan view)

Function

The **call new-attribute** command configures the pre-routing number change plan for enterprises and DN sets.

The **undo call new-attribute** command cancels the pre-routing number change plan.

Format

call new-attribute { **enterprise** *enterprise-name* | **dn-set** *dn-set-name* } *

undo call new-attribute

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Parameters

Parameter	Description	Value
enterprise *enterprise-name*	Specifies the name of an enterprise.	The value is a string of 1 to 32 characters.
dn-set *dn-set-name*	Specifies a DN set.	The value is a string of 1 to 32 characters.

Views

Pre-routing number change plan view

Default Level

2: Configuration level

Usage Guidelines

This command configures the pre-routing number change plan.

Example

Configure enterprise named ab for the pre-routing number change plan.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] enterprise ab
[Huawei-voice-enterprise-hw] quit
[Huawei-voice] beforeroute-change 1
[Huawei-voice-beforeroute-change-1] call new-attribute enterprise ab
```

16.5.8.9 call re-analyse (pre-routing number change plan view)

Function

Using the **call re-analyse** command, you can configure whether to reanalyze the changed numbers.

Using the **undo call re-analyse** command, you can restore the default setting.

By default, the device does not reanalyze the changed numbers.

Format

call re-analyse *reanalyze-value*

undo call re-analyse

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Parameters

Parameter	Description	Value
reanalyze-value	Indicates whether to reanalyze the changed numbers.	Enumerated type. The value is enable or disable: • disable: not reanalyze the changed numbers. • enable: reanalyze the changed numbers. The default value is disable.

Views

Pre-routing number change plan view

Default Level

2: Configuration level

Usage Guidelines

This command configures the pre-routing number change plan.

Example

Configure the device to reanalyze the changed numbers.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] beforeroute-change 1
[Huawei-voice-beforeroute-change-1] call re-analyse enable
```

16.5.8.10 call-right (user group view)

Function

The **call-right** command configures call-in and call-out rights for users in a user group.

The **undo call-right** command restores the default setting.

By default, users of a user group have all call-in rights and call-out rights of intra-office and local calls.

Format

call-right { **in** | **out** } { { **inter** *inter-value* | **local** *local-value* | **ddd** *ddd-value* | **idd** *idd-value* } * | **all** }

undo call-right [**in** | **out**]

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Parameters

Parameter	Description	Value
in	Indicates call-in rights of users in a user group.	-
out	Indicates call-out rights of users in a user group.	-
inter *inter-value*	Indicates whether the intra-office call right is enabled.	Enumerated value. The options are as follows: • disable • enable
local *local-value*	Indicates whether the local call right is enabled.	Enumerated value. The options are as follows: • disable • enable
ddd *ddd-value*	Indicates whether the right of national toll calls is enabled.	Enumerated value. The options are as follows: • disable • enable
idd *idd-value*	Indicates the right of international toll calls is enabled.	Enumerated value. The options are as follows: • disable • enable
all	Indicates that all rights are enabled.	The rights include **inter** (intra-office calls), **local** (local calls), **ddd** (national toll calls), and **idd** (international toll calls).

Views

User group view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

Calls are classified into intra-office calls, local calls, national toll calls, and international toll calls. The system determines whether an outgoing call is allowed

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based on the call-out rights configured for the calling user group and requirements of the called prefix on call rights. The system determines whether an incoming call is allowed based on the call-in rights configured for the called user group and requirement of the calling prefix on call rights.

Prerequisite

A user group has been created and the access code has been configured.

Example

Disable the **idd** call-in right and enable the **ddd** call-out right for the user group **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxusergroup test hunt
[Huawei-voice-pbxusergroup-test] access-telno 1001
[Huawei-voice-pbxusergroup-test] call-right in idd disable
[Huawei-voice-pbxusergroup-test] call-right out ddd enable
```

16.5.8.11 called (calling number change view)

Function

The **called** command configures a called number change rule for a calling number change plan.

Format

called { **del-then-insert** *del-offset del-len insert-telnum* | **del** *del-offset del-len* | **insert** *insert-offset insert-telnum* | **no-change** }

Parameters

Parameter	Description	Value
del-then-insert	Changes some digits of the called number.	–
del-offset	Indicates the start digit to be deleted from the long called number.	The value is an integer that ranges from 1 to 32.
del-len	Indicates the number of digits to be deleted.	The value is an integer that ranges from 1 to 32.
insert-telnum	Indicates the number inserted into the called number.	The value is a string of 1 to 24 characters.
del	Deletes some digits from the called number.	–
insert	Inserts a number.	–

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Parameter	Description	Value
insert-offset	Indicates the location to insert a number.	The value is an integer that ranges from 1 to 24.
no-change	Indicates that the called number is not changed.	–

Views

Calling number change view

Default Level

2: Configuration level

Usage Guidelines

The **called** command configures a called number change rule for a calling number change plan.

Example

Configure the called number not to change

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] caller-change test
[Huawei-voice-caller-change-test] called no-change
```

16.5.8.12 called (post-routing number change plan view)

Function

The **called** command configures a called number change rule for a post-routing number change plan.

Format

called{ **del-then-insert** *del-offset del-len insert-telnum* | **del** *del-offset del-len* | **insert** *insert-offset insert-telnum* | **no-change** }

Parameters

Parameter	Description	Value
del-then-insert	Changes some digits of the called number.	–
del-offset	Indicates the start digit to be deleted from the long called number.	The value is an integer that ranges from 1 to 32.

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Parameter	Description	Value
del-len	Indicates the number of digits to be deleted.	The value is an integer that ranges from 1 to 32.
insert-telnum	Indicates the number inserted into the called number.	The value is a string of 1 to 24 characters.
del	Deletes some digits from the called number.	–
insert	Inserts a number.	–
insert-offset	Indicates the location to insert a number.	The value is an integer that ranges from 1 to 24.
no-change	Indicates that the called number is not changed.	–

Views

Post-routing number change plan view

Default Level

2: Configuration level

Usage Guidelines

The **called** command configures a called number change rule for a post-routing number change plan.

Example

Configure the called number not to change.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] afterroute-change test
[Huawei-voice-afterroute-change-test] called no-change
```

16.5.8.13 called (pre-routing number change plan view)

Function

Using the **called** command, you can configure the called number change rule for a pre-routing number change plan.

Format

called { **del-then-insert** *del-offset del-len insert-telnum* | **del** *del-offset del-len* | **insert** *insert-offset insert-telnum* | **no-change** }

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Parameters

Parameter	Description	Value
del-then-insert	Changes some digits of the called number.	-
del-offset	Indicates the start digit to be deleted from the long called number.	The value is an integer that ranges from 1 to 32.
del-len	Indicates the number of digits to be deleted.	The value is an integer that ranges from 1 to 32.
insert-telnum	Indicates the number inserted into the called number.	The value is a string of 1 to 24 characters.
del	Deletes some digits from the called number.	-
insert	Inserts a number.	-
insert-offset	Indicates the location to insert the number.	The value is an integer that ranges from 1 to 24.
no-change	Indicates that the called number is not changed.	-

Views

Pre-routing number change plan view

Default Level

2: Configuration level

Usage Guidelines

This command configures the pre-routing number change plan.

Example

Configure the called number not to change.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] beforeroute-change 1
[Huawei-voice-beforeroute-change-1] called no-change
```

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16.5.8.14 caller (calling number change view)

Function

The **caller** command configures a calling number change rule for a calling number change plan.

Format

caller { **del-then-insert** *del-offset del-len insert-telnum* | **del** *del-offset del-len* | **insert** *insert-offset insert-telnum* | **no-change** }

Parameters

Parameter	Description	Value
del-then-insert	Changes some digits of the calling number.	–
del-offset	Indicates the start digit to be deleted from the long calling number.	The value is an integer that ranges from 1 to 32.
del-len	Indicates the number of digits to be deleted.	The value is an integer that ranges from 1 to 32.
insert-telnum	Indicates the number inserted into the calling number.	The value is a string of 1 to 24 characters.
del	Deletes some digits from the calling number.	–
insert	Inserts a number.	–
insert-offset	Indicates the location to insert a number.	The value is an integer that ranges from 1 to 24.
no-change	Indicates that the calling number is not changed.	–

Views

Calling number change view

Default Level

2: Configuration level

Usage Guidelines

The **caller** command configures a calling number change rule for a calling number change plan.

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Example

Configure a rule to change the calling number: delete the first three digits, and then insert 888.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] caller-change test
[Huawei-voice-caller-change-test] caller del-then-insert 1 3 888
```

16.5.8.15 caller (post-routing number change plan view)

Function

Using the **caller** command, you can configure the calling number change rule for a post-routing number change plan.

Format

caller { **del-then-insert** *del-offset del-len insert-telnum* | **del** *del-offset del-len* | **insert** *insert-offset insert-telnum* | **no-change** }

Parameters

Parameter	Description	Value
del-then-insert	Changes some digits of the calling number.	-
del-offset	Indicates the start digit to be deleted from the long calling number.	The value is an integer that ranges from 1 to 32.
del-len	Indicates the number of digits to be deleted.	The value is an integer that ranges from 1 to 32.
insert-telnum	Indicates the number inserted into the calling number.	The value is a string of 1 to 24 characters.
del	Deletes some digits from the calling number.	-
insert	Inserts a number.	-
insert-offset	Indicates the location to insert the number.	The value is an integer that ranges from 1 to 24.
no-change	Indicates that the calling number is not changed.	-

Views

Post-routing number change plan view

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Default Level

2: Configuration level

Usage Guidelines

This command configures the post-routing number change plan.

Example

Configure a rule to change the calling number: delete the first three digits, and then insert 245.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] afterroute-change test
[Huawei-voice-afterroute-change-test] caller del-then-Insert 1 3 245
```

16.5.8.16 caller (pre-routing number change plan view)

Function

The **caller** command configures a calling number change rule for a pre-routing number change plan.

Format

caller { **del-then-insert** *del-offset del-leninsert-telnum* | **del** *del-offset del-len* | **insert** *insert-offset insert-telnum* | **no-change**}

Parameters

Parameter	Description	Value
del-then-insert	Changes some digits of the calling number.	–
del-offset	Indicates the start digit to be deleted from the long calling number.	The value is an integer that ranges from 1 to 32.
del-len	Indicates the number of digits to be deleted.	The value is an integer that ranges from 1 to 32.
insert-telnum	Indicates the number inserted into the calling number.	The value is a string of 1 to 24 characters.
del	Deletes some digits from the calling number.	–
insert	Inserts a number.	–
insert-offset	Indicates the location to insert a number.	The value is an integer that ranges from 1 to 24.

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Parameter	Description	Value
no-change	Indicates that the calling number is not changed.	-

Views

Pre-routing number change plan view

Default Level

2: Configuration level

Usage Guidelines

The **caller** command configures a calling number change rule for a pre-routing number change plan.

Example

Configure the calling number not to change.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] beforeroute-change 1
[Huawei-voice-beforeroute-change-1] caller no-change
```

16.5.8.17 caller-change (voice view)

Function

The **caller-change** command configures the calling number change service.

The **undo caller-change** command deletes the calling number change service.

By default, the calling number change service is not configured.

Format

caller-change *caller-change-name*

undo caller-change *caller-change-name*

Parameters

Parameter	Description	Value
caller-change-name	Specifies the name of the calling number change view.	The value is a string of 1 to 32 characters.

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Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

To hide calling numbers or display the same calling number for all outgoing calls, configure the calling number change service. When a user initiates calls, the calling number changes to the new number.

NOTE

Calling number change is also called calling number discrimination.

Example

Configure the calling number change view **caller**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] caller-change caller
```

16.5.8.18 callerprefix (calling number change view)

Function

The **callerprefix** command configures a calling number to be changed.

Format

callerprefix [**non-match**] *callerprefix-value*

Parameters

Parameter	Description	Value
non-match	Specifies performing the NOT operation on the matching result when the calling number is matched.	-
callerprefix-value	Specifies a calling number to be changed.	The value is a numeral string of 1 to 24 digits.

Views

Calling number change view

Default Level

2: Configuration level

Usage Guidelines

The **callerprefix** command configures a calling number to be changed.

When the **non-match** field is configured, the AR performs the NOT operation on the matching result when the calling number is matched. For example, when **callerprefix non-match 800** is configured, all numbers in character strings except 800 can be matched.

Example

Specify calling number 800 to be changed

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] caller-change test
[Huawei-voice-caller-change-test] callerprefix 800
```

16.5.8.19 callprefix (post-routing number change plan view)

Function

Using the **callprefix** command, you can configure a call prefix for a post-routing number change plan.

Format

callprefix *callprefix-value*

Parameters

Parameter	Description	Value
callprefix-value	Indicates the call prefix.	The value is a string of 1 to 32 characters.

Views

Post-routing number change plan view

Default Level

2: Configuration level

Usage Guidelines

Before using the **callprefix (post-routing number change plan view)** command, run the callprefix command to create a call prefix.

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Example

Set the call prefix for the post-routing number change plan to 2898.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] afterroute-change test
[Huawei-voice-afterroute-change-test] callprefix 2898
```

16.5.8.20 callprefix (pre-routing number change plan view)

Function

Using the **callprefix** command, you can configure a call prefix for a pre-routing number change plan.

Format

callprefix *callprefix-value*

Parameters

Parameter	Description	Value
callprefix-value	Indicates the call prefix.	The value is a string of 1 to 32 characters.

Views

Pre-routing number change plan view

Default Level

2: Configuration level

Usage Guidelines

Before using the **callprefix (pre-routing number change plan view)** command, run the callprefix command to create a call prefix.

Example

Set the call prefix for the pre-routing number change plan to 2898.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] beforeroute-change 1
[Huawei-voice-beforeroute-change-1] callprefix 2898
```

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16.5.8.21 condition called-telno (pre-routing number change plan view)

Function

The **condition called-telno** command configures a called number for a pre-routing number change plan.

The **undo condition called-telno** command deletes the called number for a pre-routing number change plan.

By default, no called number is configured for a pre-routing change plan.

Format

condition called-telno *telno-value*

undo condition called-telno

Parameters

Parameter	Description	Value
telno-value	Specifies a called number that needs to be changed before route selection.	The value is a string of 1 to 16 characters, which can be digits, the lowercase character "x", and asterisk (*). The "x" represents any digit. The asterisk (*) represents 1 to 16 digits and can appear only once in a number.

Views

Pre-routing number change plan view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

When a called number received by the system is the same as the called number configured by using the **condition called-telno** command, the pre-routing number change plan takes effect.

Precautions

When running the **condition called-telno** command to configure a called number for a pre-routing number change plan, the prefix of the configured called number

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must be the same as the prefix bound to the pre-routing number change plan. Otherwise, the pre-routing number change plan does not take effect.

Example

Set the called number of the pre-routing number change plan to 123456.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] beforeroute-change 1
[Huawei-voice-beforeroute-change-1] condition called-telno 123456
```

16.5.8.22 condition caller-telno (post-routing number change plan view)

Function

The **condition caller-telno** command configures the calling number for a post-routing number change plan.

The **undo condition caller-telno** command deletes the calling number for a post-routing number change plan.

Format

condition caller-telno *telno-value*

undo condition caller-telno

Parameters

Parameter	Description	Value
caller-telno *telno-value*	Specifies the calling number that requires post-routing change.	The value is a string of 1 to 16 characters.

Views

Post-routing number change plan view

Default Level

2: Configuration level

Usage Guidelines

This command configures the post-routing number change plan.

Example

Set the calling number of the post-routing number change plan **test** to **123456**.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] afterroute-change test
[Huawei-voice-afterroute-change-test] condition caller-telno 123456
```

16.5.8.23 condition caller-telno (pre-routing number change plan view)

Function

The **condition caller-telno** command configures the calling number for a pre-routing number change plan.

The **undo condition caller-telno** command deletes the calling number of a pre-routing number change plan.

Format

condition caller-telno *telno-value*

undo condition caller-telno

Parameters

Parameter	Description	Value
caller-telno *telno-value*	Specifies the calling number that requires pre-routing change.	The value is a string of 1 to 16 characters, which can be digits, the lowercase character "x", and asterisk (*). The "x" represents any digit. The asterisk (*) represents 1 to 16 digits and can appear only once in a number.

Views

Pre-routing number change plan view

Default Level

2: Configuration level

Usage Guidelines

This command configures the pre-routing number change plan.

Example

Set the calling number of the pre-routing number change plan to **123456**.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] beforeroute-change 1
[Huawei-voice-beforeroute-change-1] condition caller-telno 123456
```

16.5.8.24 config-dn (service view for the senior manager's secretary)

Function

The **config-dn** command modifies parameters for the manager or secretary.

The **undo config-dn** command cancels parameters for the manager or secretary.

Format

config-dn *user-dn-value* {**alerting-silence** *alerting-silence-value* | **auto-answer** *auto-answer-value* | **private-dn** *private-dn-value*}

undo config-dn *user-dn-value* { **alerting-silence** | **auto-answer** | **private-dn** }

Parameters

Parameter	Description	Value
user-dn-value	Specifies a user number.	The value is a string of 1 to 32 characters.
alerting-silence-value	Specifies a silent mode.	Enumerated type. The options are as follows: • enable • disable default:disable
auto-answer-value	Specifies an automatic answering mode.	Enumerated type. The options are as follows: • enable • disable default:disable
private-dn-value	Specifies a private line number.	The value is a string of 1 to 32 characters.

Views

Service view for the senior manager's secretary view

Default Level

2: Configuration level

Usage Guidelines

None

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Example

Set a private line number for manager number 1001.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]ssca-group pbxuser 1001
[Huawei-ssca-group-1001]config-dn 1001 private-dn 1002
```

16.5.8.25 country-code (trunk group view)

Function

The **country-code** command configures the country code and region code for a trunk group.

The **undo country-code** command restores the configuration.

By default, the country code is the same as the system country code.

Format

country-code *country-code-value* [**area-code** *area-code-value*]

undo country-code

Parameters

Parameter	Description	Value
country-code-value	Specifies a country code.	The value is a numeric string of 1 to 4 digits.
area-code *area-code-value*	Specifies an area code.	The value is a numeric string of 1 to 8 digits.

Views

Trunk group view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the country code to 86 and region code to 25 for the trunk group **test**.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] trunk-group test fxo
[Huawei-voice-trunkgroup-test] country-code 86 area-code 25
```

16.5.8.26 cpu-flowcontrol

Function

The **cpu-flowcontrol** command sets upper and lower thresholds for CPU overload flow control.

The **undo cpu-flowcontrol** command cancels upper and lower thresholds for CPU overload flow control.

By default, the lower threshold for CPU overload flow control is 95, the upper threshold for CPU overload flow control is 99.

Format

cpu-flowcontrol low-level { *low-level-value* | **high-level** *high-level-value* }*

undo cpu-flowcontrol

Parameters

Parameter	Description	Value
low-level *low-level-value*	Specifies the lower threshold for CPU overload flow control.	The value is an integer that ranges from 1 to 99.
high-level *high-level-value*	Specifies the upper threshold for CPU overload flow control.	The value is an integer that ranges from 1 to 99.

NOTE

The lower threshold must be smaller than the upper threshold.

Views

Voice view

Default Level

3: Management level

Usage Guidelines

The user can run **cpu-flowcontrol** command sets upper and lower thresholds for CPU overload flow control.

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Example

Set upper and lower thresholds for CPU overload flow control.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] cpu-flowcontrol low-level 95 high-level 99
```

16.5.8.27 crbt (user group view)

Function

The **crbt** command enables or disables the RBT service for a user group.

The **undo crbt** command restores the default setting.

By default, the RBT service is disabled for a user group.

Format

crbt *crbt-right-value*

undo crbt

Parameters

Parameter	Description	Value
crbt-right-value	Indicates whether to enable or disable the RBT function for a user group.	Enumerated value. The options are as follows: • disable • enable

Views

User group view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

When there are users that take effect currently in a user group and the RBT function is enabled for the user group, a calling user can hear the configured RBT announcements when calling the user group.

Prerequisite

A user group has been created and the access code has been configured.

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Example

Enable the RBT function for the user group **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxusergroup test hunt
[Huawei-voice-pbxusergroup-test] access-telno 1001
[Huawei-voice-pbxusergroup-test] crbt enable
```

16.5.8.28 crbt-file (user group view)

Function

The **crbt-file** command specifies an RBT file for a user group.

The **undo crbt-file** command restores the default setting.

By default, no RBT file is specified for a user group.

Format

crbt-file *crbt-file-name* **status** *status-value* [**description** *description*]

undo crbt-file *crbt-file-name* [**description**]

Parameters

Parameter	Description	Value
crbt-file-name	Indicates the name of an RBT file.	The value is a string of 1 to 64 case-insensitive characters without spaces, in the format of *path:/file-name*, for example, **flash:/test.wav**.
status *status-value*	Specifies the approval status of an RBT file.	Enumerated value. The options are as follows: • no_check: The RBT file is not approved. • pass: The RBT file is approved. • no_pass: The RBT file fails to be approved.
description *description*	Specifies the description of an RBT file.	The value is a string of 1 to 64 case-sensitive characters without spaces.

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Views

User group view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

You can run the **crbt-file** command to configure multiple RBT files for a user group in the user group view, and then run the **service crbt** command to activate one of the RBT files. When a user calls the user group, the music or sound effect but not the common ringback tone will be played to the calling user.

Prerequisite

A user group has been created and the access code has been configured.

Precautions

RBT files must be in .wav format.

Example

Specify the RBT file **sss.wav** with the approval status **pass** for the user group **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxusergroup test hunt
[Huawei-voice-pbxusergroup-test] access-telno 1001
[Huawei-voice-pbxusergroup-test] crbt-file flash:/sss.wav status pass
```

16.5.8.29 crbt-file (enterprise view)

Function

Using the **crbt-file** command, you can specify the RBT file for the enterprise.

Using the **undo crbt-file** command, you can restore the default setting.

Format

crbt-file *crbt-file-name* **status** *status-value* [**description** *description*]

undo crbt-file *crbt-file-name* [**description**]

Parameters

Parameter	Description	Value
crbt-file-name	Specifies the RBT file name.	The value is a string of 1 to 64 characters.

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Parameter	Description	Value
status *status-value*	Specifies the approval status of an RBT file.	The value is **no_check**, **pass** or **no_pass**. • **no_check**: unapproved • **pass**: approved • **no_pass**: rejected The default value is **no_check**.
description *description*	Indicates the description of an RBT file.	The value is a string of 1 to 64 characters.

Views

Enterprise view

Default Level

2: Configuration level

Usage Guidelines

RBT files must be in the wav format.

Example

Specify the RBT file **sss.wav** with the approval status **pass** for the enterprise **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] enterprise test
[Huawei-voice-enterprise-test] crbt-file flash:/sss.wav status pass
```

16.5.8.30 custom-right (calling number change view)

Function

The **custom-right** command configures 32-level rights for calling number change.

By default, no 32-level right is bound to a calling number after change.

Format

custom-right { *c1* | *c2* | *c3* | *c4* | *c5* | ...| *c32* } *

undo custom-right [*c1* | *c2* | *c3* | *c4* | *c5* | ...| *c32*] *

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Parameters

Parameter	Description	Value
c1 | *c2* | *c3* | *c4* | *c5* | ...| *c32*	Specifies 32-level rights to be configured for calling number change.	The value can be one or more of **c1** to **c32**.

Views

Calling number change view

Default Level

2: Configuration level

Usage Guidelines

32-level rights for calling number change refer to 32-level rights of calling numbers after change. Currently, these rights are applicable only to calling number change for a trunk group, and are not involved in other scenarios.

By default, if no 32-level right is configured for calling number change, a calling number after change loses all 32-level rights.

You can configure 1 to 32 customized rights.

Adding or deleting a right does not affect existing 32-level rights.

To clear all 32-level rights configured for calling number change, run the **undo custom-right** command.

Example

Configure 32-level rights **c2**, **c4**, and **c8** for calling number change **callerchg1**.

```
<Huawei> system-view
[Huawei-voice] caller-change callerchg1
[Huawei-voice-caller-change-callerchg1] callerprefix 2898*
[Huawei-voice-caller-change-callerchg1] caller no-change
[Huawei-voice-caller-change-callerchg1]called no-change
[Huawei-voice-caller-change-callerchg1]custom-right c2 c4 c8
```

Delete 32-level right **c4** for calling number change **callerchg1**.

```
<Huawei> system-view
[Huawei-voice] caller-change callerchg1
[Huawei-voice-caller-change-callerchg1] undo custom-right c4
```

Clear all 32-level rights configured for calling number change **callerchg1**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] caller-change callerchg1
[Huawei-voice-caller-change-callerchg1] undo custom-right
```

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16.5.8.31 display voice afterroute-change

Function

The **display voice afterroute-change** command displays the configuration of the post-routing number change service.

Format

display voice afterroute-change [*name*]

Parameters

Parameter	Description	Value
name	Specifies the name of the post-routing number change service.	The value is a string of 1 to 32 characters.

Views

All views

Default Level

2: Configuration level

Usage Guidelines

When *name* is not specified, the configurations of the post-routing number change services are displayed.

Example

Display the configuration of the post-routing number change service **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] display voice afterroute-change test
  After route change name  : test
  callprefix               : 01
  Prefix                   : 01
  Trunk group              : sipbb
  Caller telephone number  :
  Caller change type       : No change
  Called change type       : No change
```

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Table 16-84 Description of the **display voice afterroute-change** command output

Item	Description
After route change name	Name of the post-routing number change service.
callprefix	Call prefix view bound to the post-routing number change service. You can set this parameter using the **16.5.8.19 callprefix (post-routing number change plan view)** command.
Prefix	Prefix bound to the post-routing number change service.
Trunk group	Trunk group bound to the post-routing number change service. You can set this parameter using the **16.5.8.120 trunk-group (post-routing number change plan view)**command.
Caller telephone number	Calling number for a post-routing number change service. You can set this parameter using the **16.5.8.22 condition caller-telno (post-routing number change plan view)** command.
Caller change type	Caller number change type. You can set this parameter using the **16.5.8.15 caller (post-routing number change plan view)** command
Called change type	Called number change type. You can set this parameter using the **16.5.8.12 called (post-routing number change plan view)** command.

16.5.8.32 display voice beforeroute-change

Function

The **display voice beforeroute-change** command displays the configuration of the pre-routing number change service.

Format

display voice beforeroute-change [*name*]

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Parameters

Parameter	Description	Value
name	Specifies the name of the pre-routing number change service.	The value is a string of 1 to 32 characters.

Views

All views

Default Level

2: Configuration level

Usage Guidelines

When *name* is not specified, the configurations of the pre-routing number change services are displayed.

Example

Display the configuration of the pre-routing number change service.

```
<Huawei> display voice beforeroute-change test
  Before route change name : test
  callprefix               : abcd
  Prefix                   : 123
  Caller telephone number  : 500
  Caller change type       : Insert
  Caller change position   : 1
  Caller change new number : 0571
  Called change type       : Delete
  Called change position   : 1
  Called change length     : 2
  Re-analyze               : Disable
  Dual dialtone flag       : Disable
  New enterprise           : ab
  New dn-set               : local
```

Table 16-85 Description of the display voice beforeroute-change command output

Item	Description
Before route change name	Name of the pre-routing number change service.
Callprefix	Call prefix bound to the pre-routing number change service. You can set this parameter using the **16.5.8.20 callprefix (pre-routing number change plan view)** command.

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Item	Description
Prefix	Prefix bound to pre-routing number change.
Caller telephone number	Calling number for a pre-routing number change service. You can set this parameter using the **16.5.8.23 condition caller-telno (pre-routing number change plan view)** command.
Caller change type	Caller number change type.
Caller change position	Calling number change position.
Caller change length	Calling number change length.
Called change type	Called number change type.
Called change position	Called number change position.
Called change length	Called number change length.
Re-analyze	Whether to reanalyze the changed numbers. You can set this parameter using the **16.5.8.9 call re-analyse (pre-routing number change plan view)** command.
Dual dialtone flag	Whether to play second dial tone. You can set this parameter using the **16.5.8.7 call dual-dial-tone-flag (pre-routing number change plan view)** command.
New enterprise	New enterprise. You can set this parameter using the **16.5.8.8 call new-attribute (pre-routing number change plan view)** command.
New dn-set	New DN set. You can set this parameter using the **16.5.8.8 call new-attribute (pre-routing number change plan view)** command.

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16.5.8.33 display voice caller-change

Function

The **display voice caller-change** command displays the configuration of the number change service.

Format

display voice caller-change [*caller-change-name*]

Parameters

Parameter	Description	Value
caller-change-name	Specifies the calling number change view name.	The value is a string of 1 to 32 characters.

Views

All views

Default Level

2: Configuration level

Usage Guidelines

None

Example

View information about calling number change view test.

```
<Huawei> display voice caller-change test
  Spec:  128, Records count: 2
  --------------------------
  Caller change name       : 0
  Caller Prefix Value      : 7*
  Enterprise               : default
  Dn-set                   : DefaultDialPlan
  New Callsource Name      :
  Caller change type       : Delete Then Insert
  Caller change position   : 1
  Caller change length     : 32
  Caller change new number : 28987000
  Called change type       : Delete Then Insert
  Called change position   : 1
  Called change length     : 3
  Called change new number : 888
  Outgoing right           : inter&local
  Custom right             : No custom right
```

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Table 16-86 Description of the **display voice caller-change** command output

Item	Description
Spec	Total space of prefix information.
Records count	Number of records.
Caller change name	Calling number change view name.
Caller Prefix Value	Calling number to change.
Enterprise	Enterprise of the calling number to change.
Dn-set	DN set of the calling number to change.
New Callsource Name	New call source.
Caller change type	Calling number change type.
Caller change position	Calling number change position.
Caller change length	Calling number change length.
Caller change new number	The number inserted into the caller number.
Called change type	Called number change type.
Called change position	Called number change position.
Called change length	Called number change length.
Called change new number	The number inserted into the called number.
Outgoing right	Outgoing right of the calling number to change.
Custom right	32-level rights.

16.5.8.34 display voice cpu-flowcontrol

Function

The **display voice cpu-flowcontrol** command displays the upper and lower thresholds for CPU overload control.

Format

display voice cpu-flowcontrol

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Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

By default, the upper and lower thresholds for CPU overload control are 99 and 95 respectively.

Example

#Display the upper and lower thresholds for CPU overload control

```
<Huawei> display voice cpu-flowcontrol
 CPU-FlowControl Lowlevel-value: [95%]
 CPU-FlowControl Highlevel-value: [99%]
[Huawei-voice]
```

16.5.8.35 display voice gnr-number

Function

The **display voice gnr-number** command displays information of GNR numbers and full-numbers under the GNR number in the system.

Format

display voice gnr-number [*gnr-number-value*]

Parameters

Parameter	Description	Value
gnr-number-value	show the full-numbers of the GNR-number	The value is a string of 1 to 32 characters.

Views

All view

Default Level

3: Management level

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Usage Guidelines

None.

Example

Display information of all gnr-numbers configs in the system.

```
<Huawei> display voice gnr-number
 Spec:  30, Records: 4
 ----------------------
 gnr-number    : 23374
 full-number   : 1223833
 full-number   : 122383833

 gnr-number    : 068741
 full-number   : 0687411000
 full-number   : 0687411001
 full-number   : 0687411002
 full-number   : +0687411003

 gnr-number    : 123444001
 full-number   : 23478237
 full-number   : 1182772

 gnr-number    : 123456001
 full-number   : 12334444
 full-number   : 12334338348
 full-number   : 1233433834349
 full-number   : 123343383434234
 full-number   : 12334338
```

Display information about GNR number 068741.

```
<Huawei> display voice gnr-number 068741
 gnr-number    : 068741
 Spec:  50, Records: 4
 ----------------------
 full-number   : 0687411000
 full-number   : 0687411001
 full-number   : 0687411002
 full-number   : +0687411003
```

16.5.8.36 display voice group-member

Function

The **display voice groupmember** command displays information about all hunt-group members or one hunt-group member in the system.

Format

display voice group-member [**pbxusergroup** *user-group-name* | **pbxuser** *pbxuser-name*]

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Parameters

Parameter	Description	Value
pbxusergroup *user-group-name*	Displays information about members of a specified user group. *user-group-name* specifies the name of the user group.	The value is a string of 1 to 32 characters.
pbxuser *pbxuser-name*	Displays detailed information about members of a user group.	The value is a string of 1 to 32 characters.

Views

All view

Default Level

3: Management level

Usage Guidelines

None.

Example

Display information about members of user group 28980000.

```
<Huawei> display voice group-member pbxuser 28980000
 Group name            : hunt1
 Enterprise            : default
 Telno                 : 28980000
 Time period from date  : -
 Time period to date    : -
 Time period from time  : -
 Time period to time    : -
 Time repeat begin date : -
 Time repeat end date   : -
 Time repeat begin time : -
 Time repeat end time   : -
 Time repeat begin week : -
 Time repeat end week   : -
 Member index          : 0
 Admin state           : On Line
```

Display information about the hunt member of pbxuser hunt1.

```
<Huawei> display voice group-member pbxusergroup hunt1
 Group name            : hunt1
 Enterprise            : default
 Telno                 : 28980000
 Time period from date  : -
 Time period to date    : -
 Time period from time  : -
 Time period to time    : -
```

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```
Time repeat begin date : -
Time repeat end date   : -
Time repeat begin time : -
Time repeat end time   : -
Time repeat begin week : -
Time repeat end week   : -
Member index           : 0
Admin state            : On Line

Group name             : hunt1
Enterprise             : default
Telno                  : 28980002
Time period from date  : -
Time period to date    : -
Time period from time  : -
Time period to time    : -
Time repeat begin date : -
Time repeat end date   : -
Time repeat begin time : -
Time repeat end time   : -
Time repeat begin week : -
Time repeat end week   : -
Member index           : 1
Admin state            : On Line
```

Table 16-87 Description of the **display voice group-member** command output

Item	Description
Group name	User group name.
Enterprise	Enterprise that members belong to.
Telno	Phone number of the user group member.
Time period from date	Start date in a period.
Time period to date	End date in a period.
Time period from time	Start time in a period.
Time period to time	End time in a period.
Time repeat begin date	Start date.
Time repeat end date	End date.
Time repeat begin time	Start time.
Time repeat end time	End time.
Time repeat begin week	Start weekday.
Time repeat end week	End weekday.
Member index	-
Admin state	Administrator status.

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16.5.8.37 display voice ivr-voice-file

Function

The **display voice ivr-voice-file** command displays information about all IVR files.

Format

display voice ivr-voice-file

Parameters

None

Views

All views

Default Level

2: Configuration level

Usage Guidelines

None

Example

Display information about all IVR files

```
<Huawei> display voice ivr-voice-file
 Voice filename: sd1:/menu.wav
 Voice type: menu
 Voice filename: sd1:/welcome.wav
 Voice type: welcome
```

Table 16-88 Description of the **display voice ivr-voice-file** command output

Item	Description
Voice filename	Name of the IVR file.
Voice type	Type of the IVR file.

16.5.8.38 display voice number-map

Function

The **display voice number-map** command displays number mapping records.

Format

display voice number-map [*number-map-name*]

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Parameters

Parameter	Description	Value
number-map-name	Specifies the name of a number mapping record.	The value is a string of 1 to 32 characters without spaces.

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display all number mapping records.

```
<Huawei> display voice number-map
 Spec: 250, Records:1
 ------------------------
 Internal-num value: 1000
 External-num value: 05711000
 Enterprise name   : default
```

16.5.8.39 display voice pbxuser callback-info

Function

The **display voice pbxuser callback-info** command displays callback info of a PBX user.

Format

display voice pbxuser *name* **callback-info**

Parameters

Parameter	Description	Value
name	Indicates the PBX user name.	The value is a string of 1 to 32 characters without spaces.

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Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display the callback info of the PBX user **abcd**.

```
<Huawei> display voice pbxuser abcd callback-info
  Busy callback registed called number         :
  No answer callback registed called number    :
```

Table 16-89 Description of the **display voice pbxuser callback-info** command output

Item	Description
Busy callback registed called number	Registered ccbs called number of the PBX user.
No answer callback registed called number	Registered ccnr called number of the PBX user.

16.5.8.40 display voice pbxuser service-active

Function

The **display voice pbxuser service-active** command displays service rights of a PBX user.

Format

display voice pbxuser *name* **service-active**

Parameters

Parameter	Description	Value
name	Indicates the PBX user name.	The value is a string of 1 to 32 characters without spaces.

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Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display the user rights of the PBX user **pots1**.

```
<Huawei> display voice pbxuser pots1 service-active
 Password call barring         : Disable
  Call waiting                 : Disable
  Digital number limit call    : Disable
```

Table 16-90 Description of the **display voice pbxuser service-right** command output

Item	Description
Password call barring	Password-based call barring.
Call waiting	Call waiting.
Digital number limit call	Call barring by number

.

16.5.8.41 display voice pbxuser service-right

Function

The **display voice pbxuser service-right** command displays service rights of a PBX user.

Format

display voice pbxuser *name* **service-right**

Parameters

Parameter	Description	Value
name	Indicates the PBX user name.	The value is a string of 1 to 32 characters without spaces.

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Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display the user rights of the PBX user **abcd**.

```
<Huawei> display voice pbxuser abcd service-right
  Abbreviated dialing                              : Enable
  Call barring                                     : Enable
  Call forwarding busy                             : Enable
  Call forwarding condition                        : Enable
  Call forwarding no reply                         : Enable
  Call forwarding offline                          : Enable
  Call forwarding unconditional                    : Enable
  Call waiting                                     : Enable
  Calling line identification presentation         : Enable
  Calling line identification restriction override : Disable
  Calling line identification restriction          : Disable
  Completion of calls to busy subscriber           : Disable
  Completion of calls to no reply subscriber       : Disable
  Digital number limit call                        : Disable
  Do not disturb                                   : Enable
  Password call barring                            : Disable
  Pickup in group                                  : Disable
  Pickup in special                                : Disable
  Query dial number                                : Enable
  Reject anonymous call                            : Disable
  Reject call selective                            : Disable
  Ring service                                     : Disable
  SCC cancel register service                      : Disable
  Secretary                                        : Disable
  Selective call acceptance                        : Disable
  Three party                                      : Disable
  Wake call                                        : Enable
  Instant conference                               : Disable
  Hotline                                          : Disable
Message waiting indication                         : Disable
  forwarding call to voice mail unconditional      : Disable
  forwarding call to voice mail on busy            : Disable
  forwarding call to voice mail on no reply        : Disable
  forwarding call to voice mail on offline         : Disable
  Call of multiple lines                           : Disable
Caller line name presentation                      : Enable
Caller line name presentation                      : Disable
```

Table 16-91 Description of the display voice pbxuser service-right command output

Item	Description
Abbreviated dialing	Abbreviated dialing.

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Item	Description
Call barring	Call barring.
Call forwarding busy	Call forwarding busy.
Call forwarding condition	Call forwarding condition.
Call forwarding no reply	Call forwarding no reply.
Call forwarding offline	Call forwarding offline.
Call forwarding unconditional	Call forwarding unconditional.
Call waiting	Call waiting.
Calling line identification presentation	Calling line identification presentation.
Calling line identification restriction override	Calling line identification restriction override.
Calling line identification restriction	Calling line identification restriction.
Completion of calls to busy subscriber	Completion of calls to busy subscriber.
Completion of calls to no reply subscriber	Completion of calls to no reply subscriber.
Digital number limit call	Digital number call limit.
Do not disturb	Do not disturb.
Password call barring	Password call barring.
Pickup in group	Pickup in group.
Pickup in special	Pickup in special.
Query dial number	Query dial number.
Reject anonymous call	Reject anonymous call.
Reject call selective	Reject call selective.
Ring service	Ring service.
SCC cancel register service	SCC cancel register service.
Secretary	Secretary.
Selective call acceptance	Selective call acceptance.
Three party	Three party.
Wake call	Wake call.
Instant conference	Instant conference.
Hotline	Hotline.

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Item	Description
forwarding call to voice mail unconditional	Forwarding call to voice mail unconditional.
forwarding call to voice mail on busy	Forwarding call to voice mail on busy.
forwarding call to voice mail on no reply	Forwarding call to voice mail on no reply.
forwarding call to voice mail on offline	Forwarding call to voice mail on offline.
Call of multiple lines	Call of multiple lines.
Caller line name presentation	Calling Name Identification Presentation.
Called line name presentation	Connected Name Identification Presentation.

.

16.5.8.42 display voice pbxusergroup

Function

The **display voice pbxusergroup** command displays configuration information about a PBX user group.

Format

display voice pbxusergroup [*pbxusergroup-name*]

Parameters

Parameter	Description	Value
pbxusergroup-name	Specifies a PBX user group.	The value is a string of 1 to 32 characters without spaces.

Views

All views

Default Level

3: Management level

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Usage Guidelines

If the PBX user group name is not specified, the summary of all PBX user groups is displayed. If the PBX user group name is specified, detailed configuration information about the PBX user group is displayed.

Example

View detailed configuration information about PBX user group **hunt**.

```
<Huawei> display voice pbxusergroup hunt
 PBX select group name    : hunt
 Enterprise               : default
 Dn-set                   : DefaultDialPlan
 Access telno             : 1111
 Ring mode                : Ring serial
 Ring time(s)             : 12
 Select mode              : Loop
 Master first             : Enable
 CRBT                     : Disable
 Group name               : hunt
```

Table 16-92 Description of **the display voice pbxusergroup** command output

Item	Description
PBX select group name	User group name.
Enterprise	Enterprise bound to a user group.
Dn-set	DN set bound to a user group.
Access telno	User group access code.
Ring mode	Ringing mode.
Ring time(s)	Ringing duration.
Select mode	Selective ringing mode.
Master first	Primary number preference.
CRBT	Crbt.
Group name	Group name.

View the summary of all PBX user groups.

```
<Huawei> display voice pbxusergroup
  Spec: 64, Records: 3
  --------------------------
  User group name          : hunt
  Enterprise               : default
  User group type          : hunt group

  User group name          : master
  Enterprise               : default
  User group type          : hunt group

  User group name          : selfsame
```

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```
Enterprise              : default
User group type         : hunt group
```

Table 16-93 Description of the **display voice pbxusergroup** command output

Item	Description
Spec	Maximum number of users supported by the device.
Records	Current number of users on the device.
User group name	User group name.
Enterprise	Enterprise bound to a user group.
User group type	Service type of a user group. Currently, the PBX only supports the following group service: • PBX line selection service (hunt)

16.5.8.43 display voice pickup-group

Function

The **display voice pickup-group** command displays configuration information about the current pickup group.

Format

display voice pickup-group [**pickupgroup-name** *pickupgroup-name-value*]

Parameters

Parameter	Description	Value
pickupgroup-name *pickupgroup-name-value*	Specifies a pickup group name.	The value is a string of 1 to 32 characters without spaces.

Views

Voice views

Default Level

3: Management level

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Usage Guidelines

If the pickup group name is not specified, configuration information about all pickup groups is displayed.

Example

Display configuration information about the current pickup group.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] display voice pickup-group
 Pickup group name   : aaa
 Group member pbxuser: 1400
 Group member pbxuser: 1503
```

16.5.8.44 display voice ring-parallel-group

Function

The **display voice ring-parallel-group** command displays the configuration of a simultaneous ringing group of a PBX user.

Format

display voice ring-parallel-group [**pbxuser** *pbxuser-name*]

Parameters

Parameter	Description	Value
pbxuser *pbxuser-name*	Displays the configuration of a simultaneous ringing group of a specified PBX user.	The value is a string of 1 to 32 characters without spaces.

Views

All views

Default Level

3: Management level

Usage Guidelines

If the PBX user name is not specified, the summary of simultaneous ringing groups of all PBX users is displayed. If the PBX user name is specified, detailed information of the simultaneous ringing group of the PBX user is displayed.

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Example

Display the detailed configuration of a simultaneous ringing group of a PBX user.

```
<Huawei> display voice ring-parallel-group pbxuser 28980001
 Ring parallel pbxuser       : 28980001
 Ring parallel access number : 28980001
 Trigger type                : unspecified
 Group member telno          : 28980002
 Member index                : 0
```

Table 16-94 Description of the **display voice ring-parallel-group** command output

Item	Description
Ring parallel pbxuser	Name of the simultaneous ringing group.
Ring parallel access number	Number of the primary user in a user group.
Trigger type	Triggering type of a user group.
Group member pbxuser	User group member.
Member index	Index of a user group member.

16.5.8.45 display voice ring-serial-group

Function

The **display voice ring-serial-group** command displays the configuration of a sequential ringing group of a PBX user.

Format

display voice ring-serial-group [**pbxuser** *pbxuser-name*]

Parameters

Parameter	Description	Value
pbxuser *pbxuser-name*	Displays the configuration of a sequential ringing group of a specified PBX user.	The value is a string of 1 to 32 characters without spaces.

Views

All views

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Default Level

3: Management level

Usage Guidelines

If the PBX user name is not specified, the summary of sequential ringing groups of all PBX users is displayed. If the PBX user name is specified, detailed information of the sequential ringing group of the PBX user is displayed.

Example

Display the detailed configuration of a sequential ringing group of a PBX user.

```
<Huawei> display voice ring-serial-group pbxuser 28980004
 Ring serial pbxuser         : 28980004
 Ring serial access number   : 28980004
 Trigger type                : unspecified
 Select interval             : 20(s)
 Group member telno          : 28980003
 Member index: 0
```

Table 16-95 Description of the **display voice ring-serial-group** command output

Item	Description
Ring serial pbxuser	Name of the sequential ringing group.
Ring serial access number	Number of the primary user in a user group.
Trigger type	Triggering type of a user group.
Select interval	Ringing interval of a sequential ringing group.
Group member telno	User group member.
Member index	Index of a user group member.

16.5.8.46 display voice rule-set

Function

The **display voice rule-set** command displays the blacklist/whitelist configuration in a specified rule set or all rule sets.

Format

display voice rule-set [*rule-set-name*]

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Parameters

Parameter	Description	Value
rule-set-name	Displays blacklist/whitelist configuration in a specified rule set. If this parameter is not specified, blacklist/whitelist configuration in all rule sets is displayed.	The value is a string of 1 to 32 characters.

Views

All views

Default Level

3: Management level

Usage Guidelines

None.

Example

Display blacklist/whitelist configuration in rule set 001.

```
<Huawei> display voice rule-set 001

 Rule-set              : 001
 Enterprise            : huawei

  Type                 : deny
  Direction            : incoming
  Call-num             : 1234
```

Table 16-96 Description of the **display voice rule-set** command output

Item	Description
Rule-set	Name of a rule set.
Enterprise	Enterprise to which the blacklist/whitelist is applied.
Type	Whether the telephone numbers are in the blacklist or whitelist. • deny: The telephone numbers are in the blacklist. • permit: The telephone numbers are in the whitelist.

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Item	Description
Direction	Call type restricted by the blacklist/whitelist. • incoming: The blacklist/whitelist restricts incoming calls. • outgoing: The blacklist/whitelist restricts outgoing calls.
Call-num	Number restricted by the blacklist/whitelist.

16.5.8.47 display voice service alert-ring

Function

The **display voice service alert-ring** command displays the configuration of a specified distinctive ringing service or all distinctive ringing services.

Format

display voice service alert-ring [*alert-ring-name*]

Parameters

Parameter	Description	Value
alert-ring-name	Specifies the name of a distinctive ringing service.	The value is a string of 1 to 32 characters.

Views

All views

Default Level

2: Configuration level

Usage Guidelines

None

Example

Display the configuration of the distinctive ringing service **test**.

```
<Huawei> display voice service alert-ring test
 Service alert ring name: test
```

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```
Enterprise            : huawei
Local ring ID         : 1
Domestic ring ID      : 1
International ring ID :
```

Table 16-97 Description of the **display voice service-alert-ring** command output

Item	Description
Service alert ring name	Dialing plan of a user.
Enterprise	Enterprise that a user belongs to.
Local ring ID	Local call ring ID.
Domestic ring ID	National toll call ring ID.
International ring ID	International call ring ID.

16.5.8.48 display voice ssca-group

Function

The **display voice ssca-group** command displays information about the advanced secretary service configured on the PBX.

Format

display voice ssca-group [**pbxuser** *pbxuser-name*]

Parameters

Parameter	Description	Value
pbxuser *pbxuser-name*	Displays detailed information about members of a user group.	The value is a string of 1 to 32 characters without spaces.

Views

All views

Default Level

3: Management level

Usage Guidelines

None

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Example

Display information about the advanced secretary service configured on the PBX.

```
<Huawei> display voice ssca-group pbxuser 1001
boss dn: 1001
  line share mode: single
  alerting silence: disable
  auto answer mode: disable
secretary dn: 1003
  bind boss eid: 1001
  bind secretary eid: 1003
  alerting silence: disable
  auto answer mode: disable
secretary dn: 1004
  bind boss eid: 1002
  bind secretary eid: 1004
  alerting silence: disable
  auto answer mode: disable
```

16.5.8.49 display voice tone type

Function

The **display voice tone type** command displays the prompt tones on the PBX.

Format

display voice tone type

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display the prompt tones on the device.

```
<Huawei> display voice tone type
------------------------------------------------------------------
 Tone type                Description
------------------------------------------------------------------
  1                       Busy tone
  2                       Howl tone
  3                       Dial tone
  4                       Ring back tone
```

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5	Dual dial tone
6	Special dial tone
7	Short busy tone
8	Call waiting tone
9	Mute tone
10	CAS tone
11	SAS tone
12	Voice-MWI-on tone
13	Voice-MWI-off tone
14	Confirmation tone
15	Congestion tone
16	Negative acknowledge tone
17	User-defined tone 1
18	User-defined tone 2
19	User-defined tone 3
20	User-defined tone 4
21	User-defined tone 5
22	Reserved
23	Reserved
24	Message waiting tone
25	Call waiting tone 2
26	Number unobtainable tone
27	Equipment engaged tone
28	AN: Unrecognized number
29	AN: Fault
30	AN: Number temporarily out of order
31	AN: No reply
32	AN: All lines busy
33	AN: Number unavailable
34	AN: Other party cleared
35	AN: Call cannot be connected
36	AN: Call gapping
37	AN: Incoming calls barred
38	AN: No digits
39	AN: Service termination
40	Reorder tone 1
41	Reorder tone 2
42	Call waiting tone 3
43	Call waiting tone 4
44	Call waiting tone 5
45	Stutter dial tone (PCCW)
46	Congestion tone (PCCW)
47	Number unobtainable tone (PCCW)
48	Service acceptance tone (PCCW)
49	AN: MGC overload
50	Bulgarian line lock tone
51	Argentina leave tone
52	Bulgarian SRVTN hold tone
53	Confirmation tone
54	All trunks busy tone
55	Warning tone
56	Special information tone
57	Locating tone
58	AN: Call waiting
59	Power overload tone
60	VMS: GetleaveMsg Welcome tone
61	VMS: LeaveMsg is getting
62	VMS: SPACELESS
63	VMS: You have
64	VMS: NewMsgNum
65	VMS: OldMsgNum
66	VMS: Listen old msg or new msg
67	VMS: Get msg fail
68	VMS: Listen msg type
69	VMS: Delete success
70	VMS: Delete fail
71	VMS: No welcome tone
72	VMS: Forward Msg Tone
73	VMS: Welcome Msg Operation tone

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74	VMS: Forward Msg fail
75	VMS: Forward Msg success
76	VMS: Record Msg coming
77	VMS: LeaveMsg full
78	VMS: LeaveMsg Operation
79	VMS: Save success
80	VMS: Save fail
81	VMS: Cancel success
82	VMS: Cancel fail
83	VMS: Record end coming
84	VMS: Di
85	VMS: Record fail tone
86	VMS: Welcome record start
87	VMS: Welcome coming
88	VMS: No vms right
89	VMS: Listen new msg
90	VMS: Listen old msg
91	VMS: Get welcome number
95	Music
101	Leave msg tone
102	Voip call restriction tone
103	Register CFU OK tone
104	Register CFB OK tone
105	Register CFNR OK tone
106	Register CFU fail tone
107	Register CFB fail tone
108	Register CFNR fail tone
110	Join conf ahead fail tone
111	Join conf as chairman fail tone
112	No response tone
113	Trunk all busy tone
114	Conf operation success tone
115	Conf operation fail tone
116	Called offline tone
117	Conf operation tone
118	CFNR redirect tone
119	CFB redirect tone
120	CFU redirect tone
121	CFO redirect tone
122	CFUMS redirect tone
133	Called billing tone
134	Callin restrict tone
135	Called not active tone
136	WakeUp tone
137	Conf calling tone
138	Call back tone
139	New service cancel tone
140	Called busy tone
141	Error Num tone
142	No disturb tone
143	Absent tone
145	New service register tone
146	New service fail tone
148	Call restriction tone
149	Malicious call success tone
151	Number changed tone
152	Leave msg notification tone
153	Leave msg cancel notification tone
154	Wrong password tone
155	Called unreachable tone
156	Called out of service tone
157	Voipmain called restriction tone
158	Call fowarding restriction tone
159	Waiting tone
160	Service not provided tone
161	Service not applied tone
162	Owned fail tone
163	Owned warning tone
165	Conf: Dial roomno tone

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166	Conf: Dial password tone
167	Conf: Convoke tone
168	Conf: Welcome tone
169	Conf: Chairman hooking prompt tone
170	Conf: Attendee hooking dial tone
171	Conf: Chairman hooking confirm tone
172	Conf: Attendee full tone
173	Number changed waiting tone
174	Number changed dial tone
175	3PTY hooking prompt tone
176	Callwaiting hooking prompt tone
177	NULL number tone
178	Conf: Chairman exist tone
179	Conf: Someone incoming tone
180	Conf: Someone outgoing tone
181	Busy callback egister tone
182	Input password tone
183	Input error and try again tone
184	Input error exceed and limit tone
185	Busy and No answer callback start tone
186	No answer callback register tone
187	Card service success tone
188	Card service fail tone
189	Phone binded input password tone
190	Input charge card tone
191	Input charge password tone
192	Card balance tone
193	Input new password tone
194	Card balance not enough tone
195	Card account fail tone
197	Time not enough tone
198	User suppended tone
199	System busy and dial later
200	Conf center service tone
201	No right creat instant conf
202	Conf end awoke tone
203	User is used by others tone
204	Bill full prompt tone
205	No conf resource
206	Callwaiting one release tone
208	One minute left tone
209	Transfer restrict tone
210	ThreeParty restrict tone
211	PwdLimit accout tone
212	PwdLimit password tone
213	PwdLimit callednum tone
214	PwdLimit password again tone
215	PwdLimit password set ok tone
216	Connect meeting error tone
217	Conf mute set tone
218	Conf mute cancel tone
219	Join conf welcome tone
220	Input number setted tone
221	Input forward number tone
222	Select forward type tone
223	Advsca service operate tone
224	No response callback tone
225	Chairman tone
226	Guest tone
227	Prompt annouce name tone
228	Enter conf tone
229	Leave conf tone
230	Conf record beep
231	Change CFUMS tone
232	Collect call tone
233	Joint espace busy tone
234	Invert incomming tone
235	Invert outgoing tone
236	Record start tone

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237	Record end tone
238	Console queue busy tone
241	128 service indicating tone
242	125 service indicating tone
250	Dial extension tone
251	Input incorrect and dial opertator tone
512	Number 0
513	Number 1
514	Number 2
515	Number 3
516	Number 4
517	Number 5
518	Number 6
519	Number 7
520	Number 8
521	Number 9
522	Number 10
523	Hour
524	Minute
525	Second
526	yuan
527	jiao
528	fen
529	Number 11
530	Number 12
531	Number 13
532	Number 14
533	Number 15
534	Number 16
535	Number 17
536	Number 18
537	Number 19
538	Number 20
539	Anonymous reject tone
541	Thanks and bye
558	New password wrong and input again
559	Password is changed success
560	Disaivr portal greeting
561	Disaivr input id
562	Disaivr input password
563	Disaivr id invalid
564	Disaivr password invalid
565	Disaivr input timeout
566	Disaivr input telephone no

Table 16-98 Description of the display voice tone type command output

Parameter	Description
1	Busy tone.
2	Howler tone.
3	Dial tone.
4	Ringback tone.
5	Two-stage dial tone.
6	Special dial tone.
7	Short busy tone.
8	Call waiting tone.
9	Mute tone.

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Parameter	Description
10	CAS tone.
11	SAS tone.
12	The MWI is on.
13	The MWI is off.
14	Confirmation tone.
15	Congestion tone.
16	Rejection tone.
17	User-defined tone 1.
18	User-defined tone 2.
19	User-defined tone 3.
20	User-defined tone 4.
21	User-defined tone 5.
22	Reserved.
23	Reserved.
24	Message leaving tone.
25	Call waiting tone 2.
26	Number unobtainable tone.
27	Equipment engaged tone.
28	The number cannot be recognized.
29	Fault.
30	The number is out of order.
31	No reply.
32	All lines are busy.
33	The number is unavailable.
34	The peer party does not exist.
35	The call cannot be connected.
36	Call gap.
37	Incoming calls are barred.
38	Non-digit.
39	The service is terminated.

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Parameter	Description
40	Part one of the RO tone.
41	Part two of the RO tone.
42	PCCW call waiting tone 3.
43	PCCW call waiting tone 4.
44	PCCW call waiting tone 5.
45	PCCW signal tone (STT).
46	PCCW signal tone (CT).
47	PCCW signal tone (NUT).
48	PCCW signal tone (SAT).
49	MGC overload tone.
50	Bulgarian line lock tone.
51	Argentina message leaving tone.
52	Call hold tone.
53	Confirmation tone.
54	All trunks are busy.
55	Warning tone.
56	Special information tone.
57	Locating tone.
58	Call waiting tone.
59	Power overload tone.
60	Greeting for retrieving messages.
61	Sorry, the messages for the user are being retrieved. Goodbye.
62	Your message space is insufficient. Please delete unnecessary messages.
63	You have.
64	Messages.
65	Old messages.
66	To listen to new messages, please press 1. To listen to old messages, please press 2.
67	Sorry, failed to retrieve the message.

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Parameter	Description
68	To listen to the next message, please press 1. To listen to the previous message, please press 2. To listen to the message again, please press 3. To forward the message, please press 4. To delete the message, please press 5. To delete all read messages, please press 6. To return, please press the star key.
69	The message is deleted.
70	Failed to delete the message.
71	Sorry, the user does not have any greetings. Goodbye.
72	Enter the user number to which you want to forward the message, and end it with the pound key.
73	To record greetings, please press 1. To delete greetings, please press 2.
74	Sorry, failed to forward the message.
75	The message is forwarded successfully.
76	Welcome to the voice message system. Leave a message when you hear the beep. To stop the recording, press any key.
77	Sorry, the message space for the user is full. Goodbye.
78	To replay the message, please press 1. To save and exit, please press 2. To leave a new message, please press 3. To cancel the message, please press 4.
79	The message is saved. Goodbye.
80	Failed to save the message. Goodbye.
81	The message is canceled. Goodbye.
82	Failed to delete or cancel the message. Goodbye.
83	Sorry, your message leaving duration is up.
84	Beep.
85	Sorry, failed to leave the message. Goodbye.
86	To set greetings for this number, please press the pound key. To set greetings for another number, please enter the number and end it with the pound key.
87	Leave a message when you hear the beep. To stop the recording, press any key.
88	Sorry, the user does not enable the message leaving right.

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Parameter	Description
89	To listen to new messages, please press 1.
90	To listen to old messages, please press 2.
91	Obtain the greeting index.
95	Music.
101	Message waiting tone.
102	VoIP call barring tone.
110	Failed to join a conference in advance.
111	Failed to join a conference as the moderator.
112	The called party does not answer the call.
113	The trunk is busy, and the call cannot be made.
114	The conference operation succeeds.
115	The conference operation fails.
116	The called party is offline.
117	Conference command operation prompt tone.
118	Sorry, the number you dialed is not answered. Your call is being transferred.
119	Sorry, the number you dialed is busy. Your call is being transferred.
120	Your call is being transferred.
121	Sorry, the number you dialed cannot be reached at this time. Your call is being transferred.
122	Your call is being transferred to the voice message system.
133	The called party pays.
134	Incoming calls are barred.
135	The called party is not activated.
136	Wake-up tone.
137	Conference calling tone.
138	Completion of calls to busy subscriber tone.
139	The new service is disabled successfully.
140	The called party is busy.
141	Wrong number tone.

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Parameter	Description
142	Do not disturb tone.
143	The called party is absent.
145	The new service is enabled successfully.
146	The new service fails.
148	The call is barred.
149	Malicious calls are identified successfully.
151	Number change tone.
152	Message leaving tone.
153	The message is canceled.
154	The password is invalid.
155	The called party is unreachable.
156	The called party encounters a fault.
157	VoIP called domain call barring tone.
158	Call forwarding is restricted.
159	Call waiting tone.
160	The service is not provided.
161	The service is not applied.
162	The called party is in arrears.
163	The calling party is in arrears.
165	Dial the conference ID.
166	Dial the conference password.
167	The conference is being set up.
168	Conference greeting.
169	Moderator hookflash prompt tone.
170	Moderator hookflash dial tone.
171	Moderator convening confirmation tone.
172	The conference is full.
173	Number change waiting tone.
174	Number change dial tone.
175	Three-party call hookflash prompt tone.

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Parameter	Description
176	Call waiting hookflash prompt tone.
177	Sorry, the number you dialed does not exist. Please dial again.
178	The moderator has joined the conference.
179	A participant joins the conference.
180	A participant leaves the conference.
181	Enter the card number.
182	Enter the card password.
183	Incorrect input. Enter a correct value.
184	Input errors exceed the maximum limit.
185	The authentication is successful. Enter the called number.
186	Prompt tone about whether authentication is required for card binding.
187	The card service operation succeeds.
188	The card service operation fails.
189	The phone is bound. Enter the card password.
190	Enter the charge card number.
191	Enter the charge card password.
192	Card balance tone.
193	Enter the new card password.
194	The card balance is insufficient.
195	The card charging fails.
197	The balance is about to be used up.
198	The user is suspended.
199	The system is busy. Please dial later.
200	Conference center service prompt tone.
201	Failed to create an instant conference.
202	The conference is about to end.
203	The phone involved in the number portability service has been used.
204	The CDR pool is full.

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Parameter	Description
205	No conference resource is available.
206	Call waiting release tone.
208	The call will be disconnected in 1 minute.
209	Call barring prompt tone in call transfer.
210	Call barring prompt tone in a three-party call.
211	The password is changed successfully.
212	Call barring password.
213	Selection prompt tone.
214	Enter the confirm password.
215	The password is changed. Press the pound key to return to the upper-level menu.
216	Failed to create a conference.
217	You are muted.
218	You are unmuted.
219	The conference is being set up. (No music, ITUC scenario)
220	Enter the number to set.
221	Enter the forwarded-to number.
222	Select the call forwarding type.
223	Select to activate or deactivate the advanced secretary service.
224	Call completion no reply.
225	Moderator.
226	Guest.
227	Participant name broadcasting tone.
228	Join a conference.
229	Leave a conference.
230	Beep tone for conference recording.
231	Forwarding call to voice mail unconditional tone.
232	The called party pays.
233	Busy connecting to eSpace.

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Parameter	Description
234	A user enters in the break-in service.
235	A user exits from the break-in service.
236	Recording starts.
237	Records ends.
238	All agents are busy.
241	128 service prompt tone.
242	125 service prompt tone.
250	Expanded dial tone.
251	Incorrect input dial tone.
512	Number 0.
513	Number 1.
514	Number 2.
515	Number 3.
516	Number 4.
517	Number 5.
518	Number 6.
519	Number 7.
520	Number 8.
521	Number 9.
522	Number 10.
523	Hour.
524	Minute.
525	Second.
526	Yuan.
527	Jiao.
528	Fen.
529	Number 11.
530	Number 12.
531	Number 13.
532	Number 14.

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Parameter	Description
533	Number 15.
534	Number 16.
535	Number 17.
536	Number 18.
537	Number 19.
538	Number 20.
539	Reject anonymous call.
541	Thank you for use. Goodbye.
558	The new password that you input is incorrect. Please input the correct one.
559	Your service password has been changed. Thank you.
560	Prompt tone when a user dials the conference access code: Welcome to the DISA system.
561	Prompt tone for entering the conference ID: Enter the account and end it with the pound key. Press the star key to reenter the conference ID.
562	Prompt tone for entering the conference password: Enter the password and end it with the pound key. Press the star key to reenter the password.
563	Prompt tone when the conference ID is incorrect: The account does not exist.
564	Prompt tone when the conference password is incorrect: The password is invalid.
565	Input timeout prompt tone: Your input times out.
566	Prompt tone for entering the telephone number: Enter the telephone number and end it with the pound key. Directly press the pound key to complete input.

16.5.8.50 display voice trunk-group trunk-circuit state brief

Function

The **display voice trunk-group trunk-circuit state brief** command displays the trunk circuit number and status in a trunk group.

Format

display voice trunk-group *trunk-group-name* **trunk-circuit state brief**

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Parameters

Parameter	Description	Value
trunk-group-name	Specifies a trunk group name.	The value is a string of 1 to 32 characters without spaces.

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display the trunk circuit information of the trunk group **sipip.**

```
<Huawei> display voice trunk-group sipip trunk-circuit status brief
 TKC under trunk group state: sipip
 ------------------------------
 TKC No  State
 2441    Fault
 2442    Fault
 2443    Fault
 2444    Fault
 2445    Fault
```

Table 16-99 Description of the display voice trunk-group sipip trunk-circuit status brief

Item	Description
TKC No	Number of TKC.
State	Status of TKC. • Fault: Link error. • Idle: Link Idle. • Busy: Link busy.

16.5.8.51 display voice unicall-group

Function

The **display voice unicall-group**command displays information about the One Number Link to You (ONLY) service configured on the PBX.

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Format

display voice unicall-group [**pbxuser** *pbxuser-name*]

Parameters

Parameter	Description	Value
pbxuser *pbxuser-name*	Displays detailed information about members of a user group.	The value is a string of 1 to 32 characters without spaces.

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display information about the ONLY service configured on the PBX.

```
<Huawei> display voice unicall-group
Unicall group name: 855001
Unicall access telno : 855001
BusySelect mode: all
Priority mode: static
Ring mode: append
Select interval: 12(s)
Bind value: 855002
Bind type: internal-no
Bind priority: 0
```

Table 16-100 Description of the display voice unicall-group command output

Item	Description
Unicall group name	Specifies the name of the ONLY service user group.
Unicall access telno	Indicates the access number for user group services.
BusySelect mode	Specifies the selection mode during busy hours for the ONLY service.
Priority mode	Priority mode.
Ring mode	Specifies the ring type for a PBX user.

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Item	Description
Select interval	Ringing interval of a sequential ringing group.
Bind value	Specifies the number or ID of the bound terminal.
Bind type	Specifies the attribute of the bound terminal.
Bind priority	Specifies the priority of the bound terminal.

16.5.8.52 display voice vms

Function

The **display voice vms** command displays the VMS parameter configuration.

Format

display voice vms

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display the VMS parameter configuration

```
<Huawei> display voice vms
 VMS parameter:
 FilePath value            :sd1:
 Max record Time           :20
 Max record Number         :10
 Space Warning number-left :1
 If entrypt                :enable
 vmsno          : 0
 callprefix value: 30
```

```
vmsno          : 1
callprefix value: 40
```

Table 16-101 Description of the **display voice vms** command output

Item	Description
FilePath value	Path of the file.
Max record Time	-
Max record Number	-
Space Warning number-left	-
If entrypt	Whether to support encryption. By default, encryption is not supported.
vmsno	VMS email number.
callprefix value	Call prefix.

16.5.8.53 dn-set (PBX user group view)

Function

Using the **dn-set** command, you can configure a DN set for PBX user group.

Using the **undo dn-set** command, you can delete a DN set for PBX user group.

By default, PBX use group use the default DN set **defaultdiaplan**.

Format

dn-set *dn-set-name*

undo dn-set

Parameters

Parameter	Description	Value
dn-set-name	Specifies the name of a DN set.	The value is a string of 1 to 32 characters without spaces.

Views

PBX user group view

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Default Level

2: Configuration level

Usage Guidelines

A DN set is a collection of prefixes that all users on the PSTN can dial. Before configuring a DN set to which user group belongs, run the **dn-set (enterprise view)** command to create a DN set.

Example

Set the DN set to **user001** for PBX users.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxusergroup test hunt
[Huawei-voice-pbxusergroup-test] dn-set user001
```

16.5.8.54 enterprise (calling number change view)

Function

The **enterprise** command specifies the enterprise and DN set in a calling number change plan.

The **undo enterprise** command restores the default enterprise and DN set in a calling number change plan.

Format

enterprise *enterprise-name* [**dn-set** *dn-set-name*]

Parameters

Parameter	Description	Value
enterprise-name	Specifies the name of an enterprise.	The value is a string of 1 to 32 characters.
dn-set *dn-set-name*	Specifies the name of a DN set.	The value is a string of 1 to 32 characters.

Views

Calling number change view

Default Level

2: Configuration level

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Usage Guidelines

The **enterprise** command specifies the enterprise and DN set in a calling number change plan.

Example

In the calling number change plan, set the enterprise and DN set to abcd.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] caller-change test
[Huawei-voice-caller-change-test] enterprise huawei dn-set abcd
```

16.5.8.55 enterprise (distinctive ringing service view)

Function

The **enterprise** command binds an enterprise to the distinctive ringing service.

The **undo enterprise** command unbinds an enterprise from the distinctive ringing service.

Format

enterprise *enterprise-name*

undo enterprise

Parameters

Parameter	Description	Value
enterprise-name	Specifies the enterprise name.	The value is a string of 1 to 32 characters.

Views

Distinctive ringing service view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Bind the enterprise **abcd** to the distinctive ringing service **test**.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] service alert-ring test
[Huawei-voice-service-alert-ring-test] enterprise abcd
```

16.5.8.56 enterprise (number map view)

Function

The **enterprise** command configures an enterprise for number mapping.

The **undo enterprise** command restores the default enterprise for number mapping.

Format

enterprise *enterprise-name*

undo enterprise

Parameters

Parameter	Description	Value
enterprise-name	Specifies an enterprise name.	The value is a string of 1 to 32 characters without spaces.

Views

Number Map view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Configure enterprise **ab** for number mapping.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] number-map test
[Huawei-voice-number-map-test] internal-num 1000
[Huawei-voice-number-map-test] external-num 05711000
[Huawei-voice-number-map-test] enterprise ab
```

16.5.8.57 enterprise (rule-set view)

Function

The **enterprise** command binds an enterprise to a rule set (blacklist or whitelist).

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The **undo enterprise** command restores the default enterprise bound to the rule set.

By default, enterprise **default** is bound to a rule set.

Format

enterprise *enterprise-name*

undo enterprise

Parameters

Parameter	Description	Value
enterprise-name	Specifies the name of an enterprise.	The value is a string of 1 to 32 characters.

Views

Rule-set view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Bind enterprise **abcd** to rule set 100.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] rule-set 100
[Huawei-voice-rule-set-100] enterprise abcd
```

16.5.8.58 external-num

Function

The **external-num** command configures an external number for number mapping.

Format

external-num *external-num*

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Parameters

Parameter	Description	Value
external-num	Specifies an external number.	The value is a string of 1 to 32 characters without spaces.

Views

Number Map view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Configure an external number for number mapping.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] number-map test
[Huawei-voice-number-map-test] internal-num 1000
[Huawei-voice-number-map-test] external-num 05711000
```

16.5.8.59 forward-condition

Function

The **forward-condition** command configures the conditions for conditional forwarding.

undo forward-condition delete conditions for conditional forwarding.

Format

forward-condition id *id-value* **forwardnum** *forwardnum-value* [**umsno** *umsno-value*] **state** *state-value* [**caller-telno** *caller-telno-value*] [**call-attribute** *call-attribute-value*] [**weekly** *weekly-walue*] [*begin-time*] [*end-time*]

undo forward-condition id *id-value*

Parameters

Parameter	Description	Value
id *id-value*	Indicates the index value.	The value is an integer that ranges from 0 to 9.

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Parameter	Description	Value
forwardnum *forwardnum-value*	Indicates the forward-to number	The value is a string of 1 to 24 characters.
umsno *umsno-value*	ums no	The value is an integer that ranges from 0 to 254.
state *state-value*	Indicates the user status.	Enumerated type. The values can be any, busy, noanswer, offline, or donotdisturb.
caller-telno *caller-telno-value*	Indicates the calling number.	The value is an integer that ranges from 1 to 32.
call-attribute *call-attribute-value*	Indicates the call attribute. Enumerated type.	The values can be **internal** or **external**.
weekly *weekly-walue*	Enumerated type.	The values can be **Mon**, **Tue**, **Wed**, **Thu**, **Fri**, **Sat**, or **Sun**.
begin-time	Indicates the start time.	The value is a time.
end-time	Indicates the end time.	The value is a time.

Views

User view

Default Level

2: Configuration level

Usage Guidelines

You need to run this command to configure the conditions before you run the **service cfc condition** command to configure conditional forwarding.

Example

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser test
[Huawei-voice-pbxuser-test] forward-condition id 1 forwardnum 55001122 state any weekly Mon 11:00:00 12:00:00
```

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16.5.8.60 full-number (GNR view)

Function

The **full-number** command configures full number under GNR number.

The **undo full-number** command deletes full number under GNR number.

Format

full-number *full-number-value* [**number** *number-value* **steplen** *steplen-value*]

undo full-number *full-number-value*

Parameters

Parameter	Description	Value
full-number-value	Indicates the full number.	The value is a string of 1 to 32 characters without spaces.
number *number-value*	Indicates the number of full numbers when multiple full numbers are configured.	The value ranges from 1 to 50.
steplen *steplen-value*	Indicates the step between two full number which is multiple configured.	The value ranges from 1 to 65535.

Views

GNR view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Configure full number 0687411000 under GNR 068741.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]gnr-number 068741
[Huawei-voice-gnrnumber-068741]full-number 0687411000
```

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Batch config full number under GNR 068741, the full number is start with 0687411001, configure number 5, step length 2.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]gnr-number 068741
[Huawei-voice-gnrnumber-068741] full-number 0687411000 number 5 steplen 2
```

16.5.8.61 gnr-number (voice view)

Function

Command **gnr-number** is used to config GNR number.

Command **undo gnr-number** is used to delete GNR number.

Format

gnr-number *gnr-number-value*

undo gnr-number *gnr-number-value*

Parameters

Parameter	Description	Value
gnr-number-value	GNR number.	The value is a number string of 1 to 32 characters without spaces.

Views

voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Config GNR number 068741.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]gnr-number 068741
```

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16.5.8.62 group-member

Function

The **group-member** command configures members for a group.

The **undo group-member** command deletes members from a group.

By default, no group member is configured.

Format

group-member { **pbxuser** *pbxuser-name* | **external-telno** *external-telno-value* } [**condition** { **time-period** { **from** *from-date* [*from-time*] | **to** *to-date* [*to-time*] } * | **time-repeat** { { **yearly** | **monthly** } *begin-date* [*begin-time*] [*end-date* [*end-time*]] | **weekly** *begin-weekday* [*begin-time*] [*end-weekday* [*end-time*]] | **daily** *begin-time* [*end-time*] } } *] [**admin-state** *admin-state-value*] [**member-index** *member-index-value*]

undo group-member { **pbxuser** *pbxuser-name* | **external-telno** *external-telno-value* } [**condition** { **time-period** { **from** *from-date* [*from-time*] | **to** *to-date* [*to-time*] } * | **time-repeat** { { **yearly** | **monthly** } *begin-date* [*begin-time*] [**end-date** [*end-time*]] | **weekly** *begin-weekday* [*begin-time*] [*end-weekday* [*end-time*]] | **daily** *begin-time* [*end-time*] } } *]

Parameters

Parameter	Description	Value
pbxuser *pbxuser-name*	Indicates the name of a group member specified as an intra-office user.	The value is a string of 1 to 32 case-insensitive characters without spaces.
external-telno *external-telno-value*	Indicates the name of a group member specified as an outer-office number.	The value is a string of 1 to 32 digits without spaces.
condition	Specifies the time period condition.	-
time-period	Specifies the validity period.	-
from *from-date*	Specifies the validity date.	The format is year-month-day. The default value is 1970-01-01.
from-time	Specifies the validity time.	The format is hour:minute:second. The default value is 00:00:00.

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Parameter	Description	Value
to *to-date*	Specifies the expiration date.	The format is year-month-day. The default value is 2100-12-31.
to-time	Specifies the expiration time.	The format is hour:minute:second. The default value is 23:59:59.
time-repeat	Indicates the repeat mode.	-
yearly	Indicates that a group member takes effect every year.	-
monthly	Indicates that a group member takes effect every month.	-
begin-date	Specifies the start date of the validity period.	The format is year-month-day. The default value is the same as the value of *from-date*.
end-date	Specifies the end date of the validity period.	The format is year-month-day. The default value is the same as the value of *to-date*.
begin-time	Specifies the start time of the validity period.	The format is hour:minute:second. The default value is 00:00:00.
end-time	Specifies the end time of the validity period.	The format is hour:minute:second. The default value is 23:59:59.
weekly	Indicates that a group member takes effect every week.	-
begin-weekday	Specifies the start day of the validity period.	Enumerated type. The value can be **mon**, **tue**, **wed**, **thu**, **fri**, **sat**, or **sun**.

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Parameter	Description	Value
end-weekday	Specifies the end day of the validity period.	Enumerated type. The value can be **mon**, **tue**, **wed**, **thu**, **fri**, **sat**, or **sun**.
daily	Indicates that a group member takes effect every day.	-
admin-state admin-state-value	Specifies the administrative status.	Enumerated type. The value can be **off-line**, **on-line**.
member-index member-index-value	Specifies the member index.	The value is an integer, and the value range depends on the device specification.

Views

User group view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

In some services, the system connects calls to different group members at different time. For example, the system needs to connect calls to different telephone operators at different time because the telephone operators have different on-duty and off-duty time. You can configure a time period condition for each group member by configuring the **condition** parameter to meet the requirement.

The following are two time period conditions.

time-period: A group member takes effect within the time range specified by **from** and **to**.

time-repeat: A group member takes effect within a specified time period every year, month, week, or day as configured. You can configure the **time-period** parameter to specify a time range in which the repeat mode takes effect.

Precautions

Run the **external-telno** *external-telno-value* command to specify members of a group as outer-office numbers. The specified numbers must be different from intra-office numbers and access codes.

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Example

Configure the group member **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxusergroup test hunt
[Huawei-voice-pbxusergroup-test] group-member pbxuser test
```

16.5.8.63 group-member (simultaneous ringing user group view and sequential ringing user group view)

Function

The **group-member** command configures a member number in a group.

Format

group-member telno *telno-value* [**member-index** *member-index-value*]

undo group-member telno *telno-value*

Parameters

Parameter	Description	Value
telno *telno-value*	Specifies the number of a member.	The value is a string of 1 to 32 characters.
member-index *member-index-value*	Specifies the index of a member.	The value is an integer that ranges from 0 to 9.

Views

Simultaneous ringing user group view and sequential ringing user group view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the number to 28980002 and index to 1 for a member in simultaneous ringing group 28980001.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] ring-parallel-group telno 28980001
[Huawei-voice-ring-parallel-group-28980001] group-member telno 28980002 member-index 1
```

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16.5.8.64 group-name

Function

The **group-name** command configures the name of a user group.

The **undo group-name** command deletes the name of a user group.

By default, the name of a user group name is not configured.

Format

group-name *group-name-value*

undo group-name

Parameters

Parameter	Description	Value
group-name-value	Specifies the name of a user group.	The value is a string of 1 to 32 case-sensitive characters without spaces.

Views

User group view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

You can run the **group-name** command in the user group view to configure the name of a user group for the CNOP service. When a user calls the intra-office user group, the configured name of the user group is displayed to the calling user.

Prerequisite

A user group has been created and the access code has been configured.

Example

Set the name of a user group to **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxusergroup test hunt
[Huawei-voice-pbxusergroup-test] access-telno 1001
[Huawei-voice-pbxusergroup-test] group-name test
```

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16.5.8.65 If-encrypt

Function

The **If-encrypt** command configures whether to encrypt recording files.

The **undo If-encrypt** command restores the default configuration.

Format

If-encrypt *if-encrypt-value*

undo If-encrypt

Parameters

Parameter	Description	Value
if-encrypt-value	Indicates whether to encrypt recording files.	Enumerated type. The options are as follows: • disable: Recording files are not encrypted. • enable: Recording files are encrypted. default value: disable

Views

VMS view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Configure the device not to encrypt recording files.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] vms
[Huawei-voice-vms] If-encrypt disable
```

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16.5.8.66 internal-num

Function

internal-num configures an internal number for number mapping.

Format

internal-num *internal-num*

Parameters

Parameter	Description	Value
internal-num	Specifies an internal number.	The value is a string of 1 to 32 characters without spaces.

Views

Number Map view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Configure an internal number for number mapping.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] number-map test
[Huawei-voice-number-map-test] internal-num 1000
```

16.5.8.67 ivr-voice-file

Function

The **ivr-voice-file** command specifies an IVR file for the IVR service.

The **undo ivr-voice-file** command deletes an IVR file of the IVR service

Format

ivr-voice-file voice-type *type* **file-name** *file-name-value*

undo ivr-voice-file file-name *file-name-value*

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Parameters

Parameter	Description	Value
voice-type *type*	Specifies the type of an IVR file.	Enumerated type. The value is **welcome**, **menu**.
file-name *file-name-value*	Specifies the name of an IVR file.	The value is a string of 1 to 64 characters, in the format of path:/file-name, for example, flash:/test.wav.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Configure the IVR file **test.wav** for the IVR service.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] ivr-voice-file voice-type welcome file-name flash:/test.wav
```

16.5.8.68 line-share-mode (service view for the senior manager's secretary)

Function

The **line-share-mode** command changes the line sharing mode for the service for the senior manager's secretary.

Format

line-share-mode *line-share-mode-value*

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Parameters

Parameter	Description	Value
line-share-mode-value	Specifies a line sharing mode.	Enumerated type. The value is: • all • single By default, the value is single.

Views

Service view for the senior manager's secretary view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the line sharing mode to **all** for user 1001's secretary.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] ssca-group pbxuser 1001
[Huawei-ssca-group-1001] line-share-mode all
```

16.5.8.69 master-first

Function

The **master-first** command enables or disables the primary number preference rule.

The **undo master-first** command restores the default setting of the primary number preference rule.

Format

master-first *master-first-value*

undo master-first

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Parameters

Parameter	Description	Value
master-first-value	Indicates whether to enable the primary number preference rule.	The value can be **disable** or **enable**. • enable: Enable the primary number preference rule. • disable: Disable the primary number preference rule. The default value is enable.

Views

User group view

Default Level

2: Configuration level

Usage Guidelines

The access code must be the same as a member number.

Example

Enables the primary number preference rule.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxusergroup test hunt
[Huawei-voice-pbxusergroup-test] master-first enable
```

16.5.8.70 max-record-num

Function

The **max-record-num** command sets the maximum number of leave messages for each user.

The **undo max-record-nums** command restores the default maximum number of leave messages for each user.

Format

max-record-num *max-record-num-value*

undo max-record-num

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Parameters

Parameter	Description	Value
max-record-num-value	Specifies the maximum number of leave messages for each user.	The value is an integer that ranges from 0 to 20. The default value is 20.

Views

VMS view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Set a maximum number of five leave messages for each user.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] vms
[Huawei-voice-vms] max-record-num 10
```

16.5.8.71 max-record-time

Function

The **max-record-time** command sets the maximum duration of each leave message.

The **undo max-record-time** command restores the default maximum duration of each leave message.

Format

max-record-time *max-record-time-value*

undo max-record-time

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Parameters

Parameter	Description	Value
max-record-time-value	Specifies the maximum duration of each leave message.	The value is an integer that ranges from 1 to 120, in seconds. The default value is 120.

Views

VMS view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Set the maximum duration of each leave message to 100s

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] vms
[Huawei-voice-vms] max-record-time 100
```

16.5.8.72 new-callsource (calling number change view)

Function

The **new-callsource** command configures a call source in a calling number change plan.

Format

new-callsource *new-callsource-name*

Parameters

Parameter	Description	Value
new-callsource-name	Specifies a call source.	The value is a string of 1 to 32 characters.

Views

Calling number change view

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Default Level

2: Configuration level

Usage Guidelines

The **new-callsource** command configures a call source in a calling number change plan.

Example

Set the call source to **new-test** for calling number 800

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] caller-change test
[Huawei-voice-caller-change-test] callerprefix 800
[Huawei-voice-caller-change-test] new-callsource new-test
```

16.5.8.73 number-map

Function

The **number-map** command configures a number mapping view.

The **undo number-map** command deletes a configured number mapping view.

Format

number-map *number-map-name*

undo number-map *number-map-name*

Parameters

Parameter	Description	Value
number-map-name	Specifies the name of a number mapping view.	The value is a string of 1 to 32 characters without spaces.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

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Example

Configure a number mapping

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] number-map test
```

16.5.8.74 out-ddd-ring-id

Function

Using the **out-idd-ring-id** command, you can configure the national toll call ring tone ID for the distinctive ringing service.

Format

out-ddd-ring-id *out-ddd-ring-id-value*

Parameters

Parameter	Description	Value
out-ddd-ring-id-value	Specifies the national toll call ring ID.	The value is an integer that ranges from 0 to 15.

Views

Distinctive ringing service view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the national toll call ring tone ID to 3 for the distinctive ringing service **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] service alert-ring test
[Huawei-voice-service-alert-ring-test] out-ddd-ring-id 3
```

16.5.8.75 out-idd-ring-id

Function

Using the **out-idd-ring-id** command, you can configure the international call ring tone ID for the distinctive ringing service.

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Format

out-idd-ring-id *out-idd-ring-id-value*

Parameters

Parameter	Description	Value
out-idd-ring-id-value	Specifies the international call ring ID.	The value is an integer that ranges from 0 to 15.

Views

Distinctive ringing service view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the international call ring tone ID to 4 for the distinctive ringing service **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] service alert-ring test
[Huawei-voice-service-alert-ring-test] out-idd-ring-id 4
```

16.5.8.76 out-inter-ring-id

Function

Using the **out-inter-ring-id** command, you can configure the internal call ring tone ID for the distinctive ringing service.

Format

out-inter-ring-id *out-inter-ring-id-value*

Parameters

Parameter	Description	Value
out-inter-ring-id-value	Specifies the internal call ring ID.	The value is an integer that ranges from 0 to 15.

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Views

Distinctive ringing service view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the internal call ring tone ID to 4 for the distinctive ringing service **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] service alert-ring test
[Huawei-voice-service-alert-ring-test] out-inter-ring-id 4
```

16.5.8.77 out-local-ring-id

Function

Using the **out-local-ring-id** command, you can configure the local call ring tone ID for the distinctive ringing service.

Format

out-local-ring-id *out-local-ring-id-value*

Parameters

Parameter	Description	Value
out-local-ring-id-value	Specifies the local call ring ID.	The value is an integer that ranges from 0 to 15.

Views

Distinctive ringing service view

Default Level

2: Configuration level

Usage Guidelines

None

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Example

Set the local call ring tone ID to 2 for the distinctive ringing service **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] service alert-ring test
[Huawei-voice-service-alert-ring-test] out-local-ring-id 2
```

16.5.8.78 outgoing-right (calling number change view)

Function

The **outgoing-right** command configures the call-out right matching a prefix of a calling party.

The **outgoing-right** command cancels the call-out right matching a prefix of a calling party.

Format

outgoing-right { { **inter** *inter-value* | **local** *local-value* | **ddd** *ddd-value* | **idd** *idd-value*} * | **all** }

undo outgoing-right [**inter** | **local** | **ddd** | **idd**]

Parameters

Parameter	Description	Value
inter *inter-value*	Specifies the intra-office right.	Enumerated value. The value can be enable or disable. The default value is enable.
local *local-value*	Specifies the local call right.	Enumerated value. The value can be enable or disable. The default value is enable.
ddd *ddd-value*	Specifies the national toll call right.	Enumerated value. The value can be enable or disable. The default value is disable.
idd *idd-value*	Specifies the international toll call right.	Enumerated value. The value can be enable or disable. The default value is disable.

Views

Calling number change view

Default Level

2: Configuration level

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Usage Guidelines

None

Example

Configure the international toll call right matching prefix 200*.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] caller-change test
[Huawei-voice-caller-change-test] callerprefix 200*
[Huawei-voice-caller-change-test] outgoing-right idd enable
```

16.5.8.79 pbxusergroup

Function

The **pbxusergroup** command creates a user group view, enters the user group view, and specifies a group service type.

The **undo pbxusergroup** command deletes a created user group.

Format

pbxusergroup *user-group-name* [**hunt** [**enterprise** *enterprise-name*]]

undo pbxusergroup *user-group-name*

Parameters

Parameter	Description	Value
user-group-name	Specifies the name of a user group.	The value is a string of 1 to 32 characters.
hunt	Indicates a PBX line selection group.	-
enterprise *enterprise-name*	Specifies the name of an enterprise to which the user group belongs.	The value is a string of 1 to 32 characters.

Views

Voice view

Default Level

2: Configuration level

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Usage Guidelines

You must specify a service type when creating a group service. Currently, PBX users support the following services:

PBX line selection (hunt)

Example

Create a sequential ringing group test and set its service type to ring-serial

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxusergroup test hunt
```

16.5.8.80 prioritymode (service user group view)

Function

The **prioritymode** command configures the terminal priority mode for the ONLY service.

The **undo prioritymode** command restores the default terminal priority mode for the ONLY service.

Format

prioritymode prioritymode-*value*

undo prioritymode

Parameters

Parameter	Description	Value
prioritymode-*value*	Specifies the terminal priority mode of the ONLY service.	Enumerated type. The options are as follows: • dynamic: Terminal priorities are dynamically adjusted. The priority of the user who picks up the last time becomes the highest. • static: Terminal priorities remain unchanged. the default value is static

Views

service user group view

Default Level

2: Configuration level

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Usage Guidelines

None

Example

Set the terminal priority mode of the ONLY service user group **28980004** to **dynamic**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]unicall-group pbxuser 28980004
[Huawei-voice-unicall-group-28980004]prioritymode dynamic
```

16.5.8.81 ring (user group view)

Function

The **ring** command configures the ringing duration, ringing mode, and line selection mode of a PBX group.

The **undo ring** command restores default values of the ringing duration, ringing mode, and line selection mode of a PBX group.

By default, the ringing duration is 12s, ringing mode is **ring-serial**, and line selection mode is **loop**.

Format

ring { **mode** *ring-mode-value* | **time** *ring-time-value* | **select** *select-mode-value* }

undo ring [**mode** | **time** | **select**]

Parameters

Parameter	Description	Value
mode *ring-mode-value*	Specifies the ringing mode of a PBX group.	The values are as follows: • ring-parallel: indicates simultaneous ringing. • ring-serial: indicates sequential ringing. • ring-one: indicates that only one phone rings. • ring-circline: indicates cyclic ringing.
time *ring-time-value*	Specifies the ringing duration of a PBX group.	The value is an integer that ranges from 1 to 255, in seconds.

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Parameter	Description	Value
select *select-mode-value*	Specifies the line selection mode of a PBX group.	Enumerated value. The options are as follows: • loop: Lines are selected in polling mode. • increase: Lines are selected in ascending order of line IDs. • decrease: Lines are selected in descending order of line IDs.

Views

User group view

Default Level

2: Configuration level

Usage Guidelines

Run the **ring** command to configure the ringing duration, ringing mode, and line selection mode of a PBX group.

Example

Configure the ringing mode of the PBX group named test as **ring-one**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxusergroup test hunt
[Huawei-voice-pbxusergroup-test] ring mode ring-one
```

16.5.8.82 ring-parallel-group

Function

The **ring-parallel-group** command creates a simultaneous ringing group and displays the simultaneous ringing group view.

Format

ring-parallel-group pbxuser *ring-service-pbxuser-name*

undo ring-parallel-group pbxuser *ring-service-pbxuser-name*

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Parameters

Parameter	Description	Value
ring-service-pbxuser-name	Specifies the name of a simultaneous ringing group.	The value is a string of 1 to 32 characters.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

To configure a simultaneous ringing group for a PBX user, the PBX user must have the ringing service right.

Example

Create simultaneous ringing group 28980001.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] ring-parallel-group pbxuser 28980001
[Huawei-voice-ring-parallel-group-28980001]
```

16.5.8.83 ring-serial-group

Function

The **ring-serial-group** command creates a sequential ringing group and displays the sequential ringing group view.

The **undo ring-serial-group** command deletes a sequential ringing group.

Format

ring-serial-group pbxuser *ring-service-pbxuser-name*

undo ring-serial-group pbxuser *ring-service-pbxuser-name*

Parameters

Parameter	Description	Value
ring-service-pbxuser-name	Specifies the name of a sequential ringing group.	The value is a string of 1 to 32 characters.

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Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

To configure a sequential ringing group for a PBX user, the PBX user must have the ringing service right.

Example

Create sequential ringing group 28980001.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] ring-serial-group pbxuser 28980001
[Huawei-voice-ring-serial-group-28980001]
```

16.5.8.84 ringmode (service user group view)

Function

The **ringmode** command configures the terminal ringing mode for the ONLY service.

The **undo ringmode** command restores the default terminal ringing mode for the ONLY service.

Format

ringmode ringmode-*value*

undo ringmode

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Parameters

Parameter	Description	Value
ringmode-value	Specifies the terminal ringing mode of the ONLY service.	Enumerated type. The values are as follows: • alter: When the terminal with a lower priority begins to ring, the terminal with a higher priority stops ringing. • append: When the terminal with a lower priority begins to ring, the terminal with a higher priority keeps on ringing. • the default value is append

Views

service user group view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the terminal ringing mode of the ONLY service user group **28980004** to **alter**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]unicall-group pbxuser 28980004
[Huawei-voice-unicall-group-28980004]ringmode alter
```

16.5.8.85 rule caller-telno called-telno

Function

The **rule caller-telno called-telno** command adds specified phone numbers to the blacklist or whitelist and sets the type of calls restricted by the blacklist or whitelist.

The **undo rule caller-telno called-telno** command cancels the whitelist/blacklist configuration.

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Format

rule { **deny** | **permit** } { **incoming** | **outgoing** } { **caller-telno** *caller-telno-value* | **called-telno** *called-telno-value* }

undo rule { **deny** | **permit** } { **incoming** | **outgoing** } { **caller-telno** *caller-telno-value* | **called-telno** *called-telno-value* }

Parameters

Parameter	Description	Value
deny	Adds specified numbers to the blacklist.	-
permit	Adds specified numbers to the whitelist.	-
incoming	Restricts incoming calls made from the specified numbers.	-
outgoing	Restricts outgoing calls made from the specified numbers.	-
caller-telno-value	Specifies the calling number to be restricted. Wildcards of asterisk (*), X, and x are supported. An asterisk (*) indicates a number segment, and x or X indicates a digit.	The value is a string of 1 to 32 characters.
called-telno-value	Specifies the called number to be restricted. Wildcards of asterisk (*), X, and x are supported. An asterisk (*) indicates a number segment, and x or X indicates a digit.	The value is a string of 1 to 32 characters.

Views

Rule-set view

Default Level

2: Configuration level

Usage Guidelines

When an enterprise allows only some users to make calls through trunks, configure a rule set on the PBX to implement the blacklist or whitelist function.

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Example

Add number 8888 to the blacklist to restrict incoming calls from this number.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] rule-set 001
[Huawei-voice-rule-set-001] rule deny incoming caller-telno 8888
```

16.5.8.86 rule disconnect-cause incoming

Function

The **rule disconnect-cause incoming** command is used to configure the cause code that is returned when an incoming call is blocked by the blacklist.

The **undo rule disconnect-cause incoming** command is used to restore the default cause code returned when an incoming call is blocked by the blacklist.

By default, the error **code call reject** is returned when an incoming call is blocked by the blacklist.

Format

rule disconnect-cause incoming *disconnect-cause-value*

undo disconnect-cause incoming

Parameters

Parameter	Description	Value
disconnect-cause-value	Specifies the cause code that is returned when an incoming call is blocked by the blacklist.	Enumerated type. The options are **call-reject**, **invalid-number**, **unassigned-number**, and **user-busy**.

Views

Rule-set view

Default Level

2: Configuration level

Usage Guidelines

If the enterprise wants to return a specific cause value to the peer end rather than the default call-reject, you can run the **rule disconnect-cause incoming** command to configure the cause value.

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Example

Set the cause code to **user-busy** when the incoming call is blocked by the blacklist.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] rule-set 001
[Huawei-voice-rule-set-001] rule disconnect-cause incoming user-busy
```

16.5.8.87 rule-set

Function

The **rule-set** command configures a rule set to implement the blacklist or whitelist function.

The **undo rule-set** command deletes a rule set.

Format

rule-set *rule-set-name*

undo rule-set *rule-set-name*

Parameters

Parameter	Description	Value
rule-set-name	Specifies the name of a rule set.	The value is a string of 1 to 32 characters.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

When an enterprise allows only some users to make calls through trunks, configure a rule set on the PBX to implement the blacklist or whitelist function.

Example

Create a rule set 001.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] rule-set 001
[Huawei-voice-rule-set-001]
```

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16.5.8.88 selectinterval (ONLY group view)

Function

The **selectinterval** command configures the interval for two neighboring terminals to ring.

Format

selectinterval *selectinterval-value*

Parameters

Parameter	Description	Value
selectinterval-value	Specifies **the interval for two neighboring terminals to ring.**	The value is an integer that ranges from 5 to 30. The default value is 12.

Views

ONLY group view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Set the interval for two neighboring terminals to ring to 15.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]unicall-group pbxuser 28980004
[Huawei-voice-unicall-group-28980004]selectinterval 15
```

16.5.8.89 selectinterval (service group view)

Function

The **selectinterval** command configures the interval at which two terminals with continuous priorities begin to ring.

The **undo selectinterval** command restores the default interval at which two terminals with continuous priorities begin to ring.

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Format

selectinterval selectinterval-*value*

undo selectinterval

Parameters

Parameter	Description	Value
selectinterval-*value*	Specifies the interval at which two terminals with continuous priorities begin to ring.	• The value is an integer that ranges from 5 to 30. The default value is 12.

Views

service user group view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the ringing interval of the sequential ringing group **28980004** to 15 seconds.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]unicall-group pbxuser 28980004
[Huawei-voice-unicall-group-28980004]selectinterval 15
```

16.5.8.90 service abbdial

Function

Using the **service abbdial** command, you can create an abbreviated dialing service.

Using the **undo service abbdial** command, you can delete an abbreviated dialing service.

By default, no abbreviated dialing service is configured.

Format

service abbdial *abb-telno called-telno*

undo service abbdial [*abb-telno*]

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Parameters

Parameter	Description	Value
abb-telno	Specifies the abbreviated code.	The value is an integer that ranges from 00 to 99.
called-telno	Specifies the original number corresponding to the abbreviated code.	The value is a string of 1 to 24 numeral characters.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

Before using the **service abbdial** command, run the **service-right abbdial enable** command in the PBX user view to enable the abbreviated dialing service.

The abbreviated dialing service allows a user to initiate a call by dialing the 2-digit abbreviated code instead of the original called number.

Example

Set the abbreviated code corresponding to 55001122 to 01.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser test
[Huawei-voice-pbxuser-test] service abbdial 01 55001122
```

16.5.8.91 service alert-ring

Function

Using the **service alert-ring** command, you can create a distinctive ringing service plan and enter the distinctive ringing service plan view.

Using the **undo service alert-ring** command, you can delete the configured distinctive ringing service plan.

By default, no distinctive ringing service plan is configured.

Format

service alert-ring *alert-ring-name*

undo service alert-ring *alert-ring-name*

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Parameters

Parameter	Description	Value
alert-ring-name	Specifies the name of a distinctive ringing service plan.	The value is a string of 1 to 32 characters.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Create a distinctive ringing service plan named **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] service alert-ring test
[Huawei-voice-service-alert-ring-test]
```

16.5.8.92 service cba

Function

Using the **service cba** command, you can create a call-out restriction service scheme.

Using the **undo service cba** command, you can delete a call-out restriction service scheme.

By default, no call-out restriction service scheme is configured.

Format

service cba *cba-value*

undo service cba

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Parameters

Parameter	Description	Value
cba-value	Restricts type.	Enumerated type. The options are as follows: • all: Restricts the outgoing calls • IDD_DDD: Restricts outgoing international and national toll calls. • IDD: Restricts outgoing international toll calls.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

You can restrict some outgoing calls of a phone, for example, toll calls.

Before using the **service cba** command, run the **service-right cba enable** command in the PBX user view to enable the call-out restriction service.

Example

Create a call-out restriction service scheme **cba-center**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser test
[Huawei-voice-pbxuser-test] service cba IDD
```

16.5.8.93 service cfb

Function

The **service cfb** command configures a CFB forward-to number.

The **undo service cfb** command deletes the configured CFB forward-to number.

By default, the CFB forward-to number is not configured.

Format

service cfb *fwd-telno*

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undo service cfb

Parameters

Parameter	Description	Value
fwd-telno	Specifies a forwarded-to number.	The value is an integer that ranges from 1 to 24.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

Incoming calls of a CFB user are forwarded to a preset number when the user line is busy.

Before using the **service cfb** command, run the **service-right cfb enable** command in the PBX user view to enable the CFB service.

Example

Set the forward-to number to 55001133 when the user line is busy.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser test
[Huawei-voice-pbxuser-test] service cfb 55001133
```

16.5.8.94 service cfc

Function

The **service cfc condition** command configures call forwarding conditional (CFC) conditions.

The **undo service cfc condition** command cancels CFC conditions.

By default, CFC conditions are not configured.

Format

service cfc condition *id1/id2*

undo service cfc condition

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Parameters

Parameter	Description	Value
id1/id2..	Specifies CFC conditions, which must be preconfigured.	The value is a string of 1 to 19 characters.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

The CFC service allows the AR to forward all incoming calls to another phone number according to CFC conditions.

Before using the **service cfc condition** command, run the **service-right cfcf enable** command in the PBX user view to enable the CFC service.

Example

Configure the CFC conditions.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser test
[Huawei-voice-pbxuser-test] forward-condition id 1 forwardnum 55001122 state any
[Huawei-voice-pbxuser-test] forward-condition id 2 forwardnum 55001123 state any
[Huawei-voice-pbxuser-test] service cfc condition 1/2
```

16.5.8.95 service cfnr

Function

The **service cfnr** command configures a CFNR forward-to number.

The **undo service cfnr** command deletes the configured CFNR forward-to number.

By default, the CFNR forward-to number is not configured.

Format

service cfnr { **telno** *fwd-telno* | *time* **telno** *fwd-telno* }

undo service cfnr

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Parameters

Parameter	Description	Value
fwd-telno	Specifies a forward-to number.	The value is an integer that ranges from 1 to 24.
time	Specifies the CFNR delay.	The value is an integer that ranges from 5 to 55, in seconds. The default value is 30.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

Incoming calls of a CFNR user are forwarded to a preset number when the user does not answer the call.

Before using the **service cfnr** command, run the **service-right cfnr enable** command in the PBX user view to enable the CFNR service.

Example

Set the forward-to number to 55001155 and the CFNR delay to 30s.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser test
[Huawei-voice-pbxuser-test] service cfnr 30 55001155
```

16.5.8.96 service cfnr (user group view)

Function

The **service cfnr** command specifies a CFNR forwarded-to number for all users in a user group.

The **undo service cfnr** command cancels the CFNR forwarded-to number for all users in a user group.

By default, no CFNR forwarded-to number is specified.

Format

service cfnr [*time*] **telno** *fwd-telno*

undo service cfnr

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Parameters

Parameter	Description	Value
time	Specifies the waiting time when no response is receive.	The value is an integer that ranges from 5 to 55, in seconds. By default, the value is 30s.
telno *fwd-telno*	Specifies a CFNR forwarded-to number.	The value is a string of 1 to 24 digits without spaces.

Views

User group view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

The Call Forwarding No Reply(CFNR) service: indicates that incoming calls of a CFNR user are forwarded to a preset number when all users of the user group do not answer the call.

Prerequisite

A user group has been created and the access code has been configured.

Precautions

The configuration takes effect only when simultaneous ringing is configured for a user group. You can run the **ring mode** *ring-mode-value* command to configure the ringing mode, and set the *ring-mode-value* parameter to **ring-parallel**.

Example

Set the forwarded-to number to 55001155 and the waiting time to 40s.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxusergroup test hunt
[Huawei-voice-pbxusergroup-test] access-telno 1001
[Huawei-voice-pbxusergroup-test] service cfnr 40 telno 55001155
```

16.5.8.97 service cfo

Function

The **service cfo** command configures a CFO forward-to number.

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The **undo service cfo** command deletes the CFO forward-to number.

By default, the CFO forward-to number is not configured.

Format

service cfo *fwd-telno*

undo service cfo

Parameters

Parameter	Description	Value
fwd-telno	Specifies a forward-to number.	The value is an integer that ranges from 1 to 24.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

Incoming calls of a CFO user are forwarded to a preset number when the user is offline.

NOTE

If a user does not initiate registration update after registration expires, the device sets the user status to offline.

Before using the **service cfo** command, run the **service-right cfo enable** command in the PBX user view to enable the CFO service.

Example

Set the forward-to number to 55001144 when the user line is offline.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser test
[Huawei-voice-pbxuser-test] service cfo 55001144
```

16.5.8.98 service cfo (user group view)

Function

The **service cfo** command specifies a CFO forwarded-to number for users in a user group.

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The **undo service cfo** command cancels the CFO forwarded-to number for users in a user group.

By default, no CFO forwarded-to number is specified.

Format

service cfo *fwd-telno*

undo service cfo

Parameters

Parameter	Description	Value
fwd-telno	Specifies a CFO forwarded-to number.	The value is a string of 1 to 24 digits without spaces.

Views

User group view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

The Call Forwarding Offline (CFO) service: indicates that incoming calls of a CFO user are forwarded to a preset number when all members of the user group are invalid.

All user group members are invalid in the following situations:

- All the group members are offline or busy.
- No group member takes effect currently.
- There is no member configured for the user group.

Prerequisite

A user group has been created and the access code has been configured.

Example

Set the CFO forwarded-to number to 55001144.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxusergroup test hunt
[Huawei-voice-pbxusergroup-test] access-telno 1001
[Huawei-voice-pbxusergroup-test] service cfo 55001144
```

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16.5.8.99 service cfu

Function

The **service cfu** command configures a CFU forward-to number.

The **undo service cfu** command deletes the CFU forward-to number.

By default, the CFU forward-to number is not configured.

Format

service cfu *fwd-telno*

undo service cfu

Parameters

Parameter	Description	Value
fwd-telno	Specifies a forwarded-to number.	The value is an integer of 1 to 24 digits.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

All incoming calls of a service cfu user are forwarded to a preset number.

Before using the **service cfu** command, run the **service-right service cfu enable** command in the PBX user view to enable the CFU service.

Example

Set the forward-to number to 55001122.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser test
[Huawei-voice-pbxuser-test] service cfu 55001122
```

16.5.8.100 service crbt (enterprise view)

Function

The **service crbt** command configures the ring back tone (RBT) service for an enterprise.

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The **undo service crbt** command deletes the RBT service of an enterprise.

By default, no RBT service is configured.

Format

service crbt [**condition**{ **caller-telno***caller-telno-value* | **caller-trunkgroup** *trunkgroup-name* | **time-period** { **from***from-date* [*from-time*] | **to** *to-date* [*to-time*] } * | **time-repeat** { **yearly** *begin-date* [*begin-time*] [*end-date* [*end-time*]] | **monthly** *begin-date* [*begin-time*] [*end-date* [*end-time*]] | **weekly** *begin-weekday* [*begin-time*] [*end-weekday* [*end-time*]] | **daily** *begin-time* [*end-time*] } } *] **file-name** *file-name-value*

undo service crbt [**condition** { **caller-telno** *caller-telno-value* | **caller-trunkgroup** *trunkgroup-name* | **time-period** { **from** *from-date* [*from-time*] | **to** *to-date* [*to-time*] } * | **time-repeat** { **yearly** *begin-date* [*begin-time*] [*end-date* [*end-time*]] | **monthly** *begin-date* [*begin-time*] [*end-date* [*end-time*]] | **weekly** *begin-weekday* [*begin-time*] [*end-weekday* [*end-time*]] | **daily** *begin-time* [*end-time*] } } *]

Parameters

Parameter	Description	Value
condition	Indicates the RBT service.	N/A
caller-telno *caller-telno-value*	Specifies the calling number. **NOTE** Ensure that the specified phone number exists.	The value is a string of 1 to 44 characters.
caller-trunkgroup *trunkgroup-name*	Specifies the name of a calling trunk group. **NOTE** Ensure that the specified trunk group exists.	The value is a string of 1 to 32 characters.

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Parameter	Description	Value
time-period { **from***from-date* [*from-time*] | **to***to-date* [*to-time*] }	Specifies the validity period of the RBT service.	*from-date* and *to-date* specify the start date and end date. The date format is yyyy-mm-dd. yyyy (year) is an integer that ranges from 2000 to 2099. mm (month) is an integer that ranges form 1 to 12. dd (date) is an integer that ranges from 1 to 31. The end date must be later than the start date. *from-time* and *to-time* specify the start time and end time. The time format is hh:mm:ss. hh (hour) is an integer that ranges from 0 to 23. mm (minute) is an integer that ranges from 0 to 59. ss (second) is an integer that ranges from 0 to 59.
time-repeat { **yearly** *begin-date* [*begin-time*] [*end-date* [*end-time*]] | **monthly** *begin-date* [*begin-time*] [*end-date* [*end-time*]] | **weekly** *begin-weekday* [*begin-time*] [*end-weekday* [*end-time*]] | **daily** *begin-time* [*end-time*] }	Specifies the validity period of the RBT service.	**yearly** indicates that the RBT service takes effect every year. **monthly** indicates that the RBT service takes effect every month. **weekly** indicates that the RBT service takes effect every week. **daily** indicates that the RBT service takes effect every day.
file-name *file-name-value*	Specifies the RBT file name.	The value is a string of 1 to 64 characters. The format is path/:file-name, for example, flash:/qqqg.wav.

Views

Enterprise view

Default Level

2: Configuration level

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Usage Guidelines

Enterprise ring-back-tone (RBT) is a piece of music or sound customized by an enterprise. After an enterprise registers the RBT service, the user can set different RBTs for a calling party or a group of calling parties in different periods.

Example

Configure the RBT service for the enterprise **abcd**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] enterprise abcd
[Huawei-voice-enterprise-abcd] service crbt condition caller-telno 12345678 time-period from 2012-12-30 08:00:00 to 2050-12-30 12:00:00 caller-trunkgroup abcd time-repeat daily 08:00:00 file-name flash:/qqqg.wav
```

16.5.8.101 service crbt (user group view)

Function

The **service crbt** command configures an attribute of the user group RBT service.

The **undo service crbt** command deletes an attribute of the user group RBT service.

By default, an attribute of the user group RBT service is not configured.

Format

service crbt file-name *file-name-value*

undo service crbt

Parameters

Parameter	Description	Value
file-name *file-name-value*	Specifies the name of an RBT file.	The value is a string of 1 to 64 case-insensitive characters without spaces, in the format of *path*:/*file-name*, for example, **flash:/test.wav**.

Views

User group view

Default Level

2: Configuration level

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Usage Guidelines

Usage Scenario

You can run the **service crbt** command to configure attributes for the user group RBT service and then activate an RBT file. When a user calls the user group, the music or sound effect but not the common ringback tone will be played to the calling user.

Prerequisite

A user group has been created and the access code has been configured.

Precautions

RBT files must be in .wav format.

Example

Configure service attributes for the RBT of the user group **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxusergroup test hunt
[Huawei-voice-pbxusergroup-test] access-telno 1001
[Huawei-voice-pbxusergroup-test] service crbt file-name flash:/test.wav
```

16.5.8.102 service dlc

Function

Using the **service dlc** command, you can configure a number to be rejected.

Using the **undo service dlc** command, you can delete a number to be rejected.

By default, no number is rejected.

Format

service dlc *dlc-telno*

undo service dlc [*dlc-telno*]

Parameters

Parameter	Description	Value
dlc-telno	Specifies a number to be rejected.	The value is a string of 1 to 24 characters, which can be digits, the lowercase character "x", and asterisk (*). The "x" represents any digit. The asterisk (*) represents 1 to 16 digits and can appear only once in a number.

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Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Reject calling numbers 55661122.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser test
[Huawei-voice-pbxuser-test] service dlc 55661122
```

16.5.8.103 service dnd

Function

Using the **service dnd** command, you can configure a DND service.

Using the **undo service dnd** command, you can delete a DND service.

By default, no DND service is configured.

Format

service dnd [**tone-id** *tone-id*]

undo service dnd [**tone-id**]

Parameters

Parameter	Description	Value
tone-id *tone-id*	Specifies the ID of a DND tone.	The value is an integer that ranges from 1 to 566. By default, the value is 155. **NOTE** For details about voice tones, see the **display voice tone type** command.

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Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

The DND service allows a user to reject all incoming calls during a certain period. When a user calls the DND user, the user will hear the DND tone or busy tone.

NOTE

The DND service does not affect outgoing calls.

Before using the **service dnd** command, run the **service-right dnd enable** command in the user identifier view to enable the DND service.

Example

configure a DND service.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser test
[Huawei-voice-pbxuser-test] service dnd
```

16.5.8.104 service hotline

Function

The **service hotline** command configures a hotline number.

The **undo service hotline** command deletes the hotline number.

By default, no hotline number is configured.

Format

service hotline { **immediate** | **delay** } **hotline-telno** *hotline-telno-value*

undo service hotline { **immediate** | **delay** }

Parameters

Parameter	Description	Value
immediate	Indicates that a call is initiated immediately after a user picks up the phone.	-

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Parameter	Description	Value
delay	Indicates that a call is initiates 5 minutes after a user picks up the phone and does not dial any number. **NOTE** This parameter is not supported.	-
hotline-telno *hotline-telno-value*	Specifies a hotline number. **NOTE** The hotline number cannot be an IVR number.	The value is an integer that ranges from 1 to 24.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

Hotline service: After a user picks up the phone and does not dial any number, the device dials the hotline number for the user.

The PBX user type is POTS.

Prerequisites

The hotline number can be dialed and the call is reachable.

The hotline service has been enabled using the **service-right hotline enable** command in the PBX user view.

Example

Configure hotline number 55001155.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser test
[Huawei-voice-pbxuser-test] service-right hotline enable
[Huawei-voice-pbxuser-test] service hotline immediate hotline-telno 55001155
```

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16.5.8.105 service rac

Function

Using the **service rac** command, you can configure a RAC service.

Using the **undo service rac** command, you can delete a RAC service.

By default, no RAC service is configured.

Format

service rac [**tone-id** *tone-id*]

undo service rac [**tone-id**]

Parameters

Parameter	Description	Value
tone-id *tone-id*	Specifies the ID of a RAC tone.	The value is an integer that ranges from 1 to 566. **NOTE** For details about voice tones, see the **display voice tone type** command.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

The RAC service allows a user to reject anonymous calls during a certain period. When a user calls the RAC user, the user will hear the RAC tone or busy tone.

NOTE

The RAC service does not affect outgoing calls.

Before using the **service rac** command, run the **service-right rac enable** command in the user identifier view to enable the RAC service.

Example

configure a RAC service.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] pbxuser test
[Huawei-voice-pbxuser-test] service rac
```

16.5.8.106 service rcs

Function

The **service rcs** command configures the selective call rejection (SCR) service.

The **undo service rcs** command deletes the configured SCR service.

By default, no SCR service is configured.

Format

service rcs judgegrp *judgegrp-value* [**condition** { **caller-telno** *caller-telno-value* | **time-period** { **from** *from-date* [*from-time*] | **to***to-date* [*to-time*] } * | **time-repeat** { { **yearly** | **monthly** } *begin-date* [*begin-time*] [*end-date* [*end-time*]] | **weekly** *begin-weekday* [*begin-time*] [*end-weekday* [*end-time*]] | **daily** *begin-time* [*end-time*] } }*] [**active** *active-value*]

undo service rcs judgegrp *judgegrp-value*

Parameters

Parameter	Description	Value
judgegrp *judgegrp-value*	Specifies a judge group.	The value is an integer that ranges from 0 to 99.
caller-telno *caller-telno-value*	Specifies an SCR number.	The value is a string of 1 to 44 characters.
time-period	Indicates the lifecycle.	None
from	Indicates the start date.	None
from-date	Specifies the start date.	The format is year-month-day. The default value is 1970-01-01.
from-time	Specifies the start time.	The format is hour:minute:second. The default value is 00:00:00.
to	Indicates the end time.	None
to-date	Specifies the end time.	The format is year-month-day. The default value is 2100-12-31.
to-time	Specifies the end time.	The format is hour:minute:second. The default value is 23:59:59.

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Parameter	Description	Value
time-repeat	Indicates the repeat mode.	None
yearly	Indicates that the SCR service takes effect every year.	None
monthly	Indicates that the SCR service takes effect every month.	None
begin-date	Specifies the start date of the validity period.	The format is year-month-day.The default value is 1970-01-01.
end-date	Specifies the end date of the validity period.	The format is year-month-day. The default value is the same as the end date.
begin-time	Specifies the start time of the validity period.	The format is hour:minute:second. The default value is 00:00:00.
end-time	Specifies the end time of the validity period.	The format is hour:minute:second. The default value is 23:59:59.
weekly	Indicates that the SCR service takes effect every week.	None
begin-weekday	Specifies the start day of the validity period.	Enumerated type. The value can be **mon**, **tue**, **wed**, **thu**, **fri**, **sat**, or **sun**.
end-weekday	Specifies the end day of the validity period.	Enumerated type. The value can be **mon**, **tue**, **wed**, **thu**, **fri**, **sat**, or **sun**.
daily	Indicates that the SCR service takes effect every day.	None
begin-time	Specifies the start time of the validity period.	The format is hour:minute:second. The default value is 00:00:00.
end-time	Specifies the end time of the validity period.	The format is hour:minute:second. The default value is 00:00:00.

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Parameter	Description	Value
active *active-value*	Activates the configuration.	Enumerated type. The value can be **disable** or **enable**. • disable: The configuration is disabled. • enable: The configuration is enabled.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the SCR judge group number to 2.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser test
[Huawei-voice-pbxuser-test] service rcs judgegrp 2
```

16.5.8.107 service sca

Function

The **service sca** command configures the SCA service.

The **undo service sca** command deletes the SCA service.

By default, no SCA service is configured.

Format

service sca judgegrp *judgegrp-value* [**condition** { **caller-telno** *caller-telno-value* | **time-period** { **from** *from-date* [*from-time*] | **to***to-date* [*to-time*] }* | **time-repeat** { { **yearly** | **monthly** } *begin-date* [*begin-time*] [*end-date* [*end-time*]] | **weekly** *begin-weekday* [*begin-time*] [*end-weekday* [*end-time*]] | **daily** *begin-time* [*end-time*] } }*] [**active** *active-value*]

undo service sca judgegrp *judgegrp-value*

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Parameters

Parameter	Description	Value
judgegrp *judgegrp-value*	Specifies a judge group.	The value is an integer that ranges from 0 to 99.
caller-telno *caller-telno-value*	Specifies an SCA number.	The value is a string of 1 to 44 characters.
time-period	Indicates the lifecycle.	None
from	Indicates the start date.	None
from-date	Specifies the start date.	The format is year-month-day. The default value is 1970-01-01.
from-time	Specifies the start time.	The format is hour:minute:second. The default value is 00:00:00.
to	Specifies the end date.	None
to-date	Specifies the end date.	The format is year-month-day. The default value is 2100-12-31.
to-time	Specifies the end time.	The format is hour:minute:second. The default value is 23:59:59.
time-repeat	Indicates the repeat mode.	None
yearly	Indicates that the SCA service takes effect every year.	None
monthly	Indicates that the SCA service takes effect every month.	None
begin-date	Specifies the start date of the validity period.	The format is year-month-day.The default value is 1970-01-01.
end-date	Specifies the end date of the validity period.	The format is year-month-day. The default value is 2100-12-31.
begin-time	Specifies the start time of the validity period.	The format is hour:minute:second. The default value is 00:00:00.

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Parameter	Description	Value
end-time	Specifies the end time of the validity period.	The format is hour:minute:second. The default value is 23:59:59.
weekly	Indicates that the SCA service takes effect every week.	None
begin-weekday	Specifies the start day of the validity period.	Enumerated type. The value can be **mon**, **tue**, **wed**, **thu**, **fri**, **sat**, or **sun**.
end-weekday	Specifies the end day of the validity period.	Enumerated type. The value can be **mon**, **tue**, **wed**, **thu**, **fri**, **sat**, or **sun**.
daily	Indicates that the SCA service takes effect every day.	None
begin-time	Specifies the start time of the validity period.	The format is hour:minute:second. The default value is 00:00:00.
end-time	Specifies the end time of the validity period.	The format is hour:minute:second. The default value is 00:00:00.
active *active-value*	Activates the configuration.	Enumerated type. The value can be **disable** or **enable**. • disable: The configuration is disabled. • enable: The configuration is enabled.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

None

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Example

Set the SCA judge group number to 2.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser test
[Huawei-voice-pbxuser-test] service sca judgegrp 2
```

16.5.8.108 service scr

Function

The **service scr** command configures a secretary number.

The **undo service scr** command deletes a secretary number.

By default, no secretary number is configured.

Format

service scr telno *scr-telno*

undo service scr

Parameters

Parameter	Description	Value
telno *scr-telno*	Specifies a secretary number.	The value is a string of 1 to 24 digits without spaces.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the secretary number to 55661122 for user **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser test
[Huawei-voice-pbxuser-test] service scr telno 55661122
```

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16.5.8.109 service voicemailcfb

Function

The **service voicemailcfb** command configures the call forwarding busy (CFB)-voice mail (VM) service.

The **undo service voicemailcfb** command cancels the CFB-VM service.

By default, the CFB-VM service is not configured.

Format

service voicemailcfb { **vmsno** *vmsno-value* | **active** *active-value* } *

undo service voicemailcfb

Parameters

Parameter	Description	Value
vmsno-value	Specifies the voice mail number.	The value is an integer that ranges from 0 to 254.
active-value	Indicates whether the CFB-VM service is activated.	Enumerated type. The values are as follows: • disable: The CFB-VM service is deactivated. • enable: The CFB-VM service is activated.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

The CFB-VM service allows the device to forward all incoming calls to a voice mail when the PBX user is busy.

Before using this command, run the **service-right voicemailcfb enable** command in the PBX user view to enable the CFB-VM service.

Example

Configure the CFB-VM service

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] pbxuser test
[Huawei-voice-pbxuser-test] service voicemailcfb vmsno 0 active enable
```

16.5.8.110 service voicemailcfnr

Function

The **service voicemailcfnr** command configures the call forwarding no reply (CFNR)-voice mail (VM) service.

The **undo service voicemailcfnr** command cancels the CFNR-VM service.

By default, the CFNR-VM service is not configured.

Format

service voicemailcfnr [*time*] { **vmsno** *vmsno-value* | **active** *active-value* } *

undo service voicemailcfnr

Parameters

Parameter	Description	Value
vmsno-value	Specifies the voice mail number.	The value is an integer that ranges from 0 to 254.
active-value	Indicates whether the CFNR-VM service is activated.	Enumerated type. The options are as follows: • disable: The CFNR-VM service is deactivated. • enable: The CFNR-VM service is activated.
time	the time length of no answer	The value is an integer that ranges from 5 to 55. The default value is 20.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

The CFNR-VM service allows the device to forward all incoming calls to a voice mail when the PBX user does not respond.

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Before using this command, run the **service-right voicemailcfnr enable** command in the PBX user view to enable the CFNR-VM service.

Example

Configure the CFNR-VM service.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser test
[Huawei-voice-pbxuser-test] service voicemailcfnr 30 vmsno 0 active enable
```

16.5.8.111 service voicemailcfo

Function

The **service voicemailcfo** command configures the call forwarding offline (CFO)-voice mail (VM) service.

The **undo service voicemailcfo** command cancels the CFO-VM service.

By default, the CFO-VM service is not configured.

Format

service voicemailcfo { **vmsno** *vmsno-value* | **active** *active-value* } *

undo service voicemailcfo

Parameters

Parameter	Description	Value
vmsno-value	Specifies the voice mail number.	The value is an integer that ranges from 0 to 254.
active-value	Indicates whether the CFO-VM service is activated.	Enumerated type. The values are as follows: • disable: The CFO-VM service is deactivated. • enable: The CFO-VM service is activated.

Views

PBX user view

Default Level

2: Configuration level

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Usage Guidelines

The CFO-VM service allows the device to forward all incoming calls to a voice mail when the PBX user is offline.

Before using this command, run the **service-right voicemailcfo enable** command in the PBX user view to enable the CFO-VM service

Example

Configure the CFO-VM service

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser test
[Huawei-voice-pbxuser-test] service voicemailcfo vmsno 0 active enable
```

16.5.8.112 service voicemailcfu

Function

The **service voicemailcfu** command configures the call forwarding unconditional (CFU)-voice mail (VM) service.

The **undo service voicemailcfu** command cancels the CFU-VM service.

By default, the CFU-VM service is not configured.

Format

service voicemailcfu { **vmsno** *vmsno-value* | **active** *active-value* } *

undo service voicemailcfu

Parameters

Parameter	Description	Value
vmsno-value	Specifies the voice mail number.	The value is an integer that ranges from 0 to 254.
active-value	Indicates whether the CFU-VM service is activated.	Enumerated type. The values are as follows: • disable: The CFU-VM service is deactivated. • enable: The CFU-VM service is activated.

Views

PBX user view

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Default Level

2: Configuration level

Usage Guidelines

The CFU-VM service allows the device to forward all incoming calls to a voice mail unconditionally.

Before using this command, run the **service-right voicemailcfu enable** command in the PBX user view to enable the CFU-VM service.

Example

Configure the CFU-VM service.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser test
[Huawei-voice-pbxuser-test] service voicemailcfu vmsno 0 active enable
```

16.5.8.113 service wake-call

Function

The **service wake-call** command creates a wake-up service.

The **undo service wake-call** command deletes a wake-up service.

By default, no wake-up service is configured.

Format

service wake-call wake-time *wake-time-value* [**begin-date** *begin-date-value* | **wake-days** *wake-days-value* | **tone-id** *tone-id-value*] *

undo service wake-call

Parameters

Parameter	Description	Value
wake-time *wake-time-value*	Specifies the start time of the wake-up service.	hh (hour) ranges from 0 to 23. mm (minute) ranges from 0 to 59. ss (second) ranges from 0 to 59.
begin-date *begin-date-value*	Specifies the start date of the wake-up service.	N/A
wake-days *wake-days-value*	Specifies the number of days during which the wake-up service takes effect.	The value is an integer that ranges from 0 to 99, in days.

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Parameter	Description	Value
tone-id *tone-id-value*	Specifies the ID of a wake-up tone.	The value is an integer that ranges from 1 to 566. **NOTE** For details about voice tones, see the **display voice tone type** command.

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

The wake-up service allows a phone to ring automatically at the preset time.

Before using the **service wake-call** command, run the **service-right wake-call enable** command in the PBX user view to enable the wake-up service.

Example

Set the start time of the wake-up service to 22:00:00.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser test pots
[Huawei-voice-pbxuser-test] service wake-call wake-time 22:00:00
```

16.5.8.114 service-active

Function

The **service-active** command activates the call waiting, digital number limit call, or password call service.

The **undo service-active** command deactivates the call waiting, number barring, or password call service.

By default, the call waiting, digital number limit call, and password call services are disabled.

Format

service-active *service-name*

undo service-active *service-name*

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Parameters

service-name could be one of the parameters as follows

Parameter	Description	Value
cw	Specifies the call waiting service.	-
dlc	Specifies the digit number limit call service.	-
pwcb	Specifies the password call service.	-

Views

PBX User view

Default Level

2: Configuration level

Usage Guidelines

After the call waiting, number barring, or password call service is enabled, run the **service-active** command to activate the service to make it take effect.

Example

Activate the call waiting service.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser user001
[Huawei-voice-pbxuser-user001] service-active cw enable
[Huawei-voice-pbxuser-user001] service-active cw
```

16.5.8.115 service-right

Function

The **service-right** command enables or disables a specified service right.

The **undo service-right** command restores the default setting.

By default, the following service rights are granted to users: **abbdial**, **cba**, **cfb**, **cfc**, **cfnr**, **cfo**, **cfu**, **clip**, **cnip**, **cw**, **dnd**, **query-dialno**, and **wake-call**.

Format

service-right *service-name right-value*

undo service-right *service-name*

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Parameters

Parameter	Description	Value
service-name	Specifies a service name.	The services include: • **abbdial**: Abbreviated dialing • **called-control**: Called control • **cba**: Call barring • **ccbs**: busy callback • **ccnr**: no answer callback • **cfb**: Call forwarding on busy • **cfc**: Call forwarding conditionally • **cfnr**: Call forwarding on no reply • **cfo**: Call forwarding on offline • **cfu**: Call forwarding unconditionally • **clip**: Calling line identification presentation • **clir**: Calling line identification restriction • **cnip**: Calling name identification presentation • **conp**: Connected name identification presentation • **cw**: Call waiting • **dlc**: Digital number limit call • **dnd**: Do not disturb • **hotline**: Hotline service • **instant-conference**: Instant conference • **multiplecallright**: Call of multiple lines • **overstepclir**: Calling line identification restriction override • **pickup-in-group**: Pickup in group • **pickupspecial**: Pickup in special • **pwcb**: Password call • **query-dialno**: Query telephone number • **rac**: Rejecting anonymous call • **rcs**: Selective call rejection • **ring-service**: Ring service • **sca**: Selective call acceptance • **scc-cancel**: Deregistering all services • **scr**: Secretary service • **three-party**: Three-party service

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Parameter	Description	Value
		• **voicemailcfb**: Forwarding call to voice mail on busy • **voicemailcfnr**: Forwarding call to voice mail on no reply • **voicemailcfo**: Forwarding call to voice mail on offline • **voicemailcfu**: Forwarding call to voice mail unconditional • **wake-call**: Wake-up call
right-value	Specifies whether a service right is enabled or disabled.	Enumerated value. The options are as follows: • disable • enable

Views

PBX user view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

You can configure different service rights for users of different types.

- BRA users have only the **clip** and **query-dialno** service rights.
- The **hotline** service is only for POTS users.
- The **cnip** and **conp** services are only for SIP users.

Prerequisite

A PBX user has been created and mandatory configurations have been performed. For details, see **Configuring a PBX User**.

Example

Enable the call waiting service for the user abcd.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] pbxuser abcd sipue
[Huawei-voice-pbxuser-abcd] sipue 1002
[Huawei-voice-pbxuser-abcd] telno 1002
[Huawei-voice-pbxuser-abcd] service-right cw enable
```

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16.5.8.116 space-waring-num-left

Function

The **space-waring-num-left** command specifies the number of remaining leave messages in an alarm notification.

The **undo space-waring-num-left** command restores the default number of remaining leave messages in an alarm notification.

Format

space-waring-num-left *space-waring-num-left-value*

undo space-waring-num-left

Parameters

Parameter	Description	Value
space-waring-num-left-value	Specifies the number of remaining leave messages in an alarm notification.	The value is an integer that ranges from 0 to 20. The default value is 5.

Views

VMS view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Set the number of remaining leave messages in an alarm notification to 3

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] vms
[Huawei-voice-vms] space-waring-num-left 3
```

16.5.8.117 ssca-group

Function

The **ssca-group** command creates and enters the service view for the senior manager's secretary and specifies the PBX user with the right of the service for the senior manager's secretary.

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The **undo ssca-group** group deletes the created service view for the senior manager's secretary.

Format

ssca-group pbxuser *pbxusername*

undo ssca-group pbxuser *pbxusername*

Parameters

Parameter	Description	Value
pbxuser *pbxusername*	Specifies a PBX user with the right of the service for the senior manager's secretary.	The value is a string of 1 to 32 characters.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Create and enter the service view for the senior manager's secretary and specify PBX user 1001 with the right of the service for the senior manager's secretary.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]ssca-group pbxuser 1001
[Huawei-voice-ssca-group-1001]
```

16.5.8.118 track vrrp

Function

The **track vrrp interface** command associates a VRRP group with SIP server.

The **undo track vrrp interface** command cancels the configuration.

By default, no VRRP group is associated with a trunk group or SIP server.

Format

track vrrp interface *interface-type interface-number* **vrid** *virtual-router-id*

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undo track vrrp

Parameters

Parameter	Description	Value
interface-type interface-number	Specifies the type and number of the interface associated with a VRRP group.	-
vrid *virtual-router-id*	Specifies the ID of a VRRP group.	The value is an integer that ranges from 0 to 255.

Views

SIP server view, trunk group view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

The **track vrrp interface** command implements SIP AG backup in the following scenarios:

- Two ARSRGUSR routers function as SIP AGs at the egress of an enterprise network. Their downlink interfaces connect to an IP PBX that does not register with the session border controller (SBC), and their uplink interfaces connect to an IP multimedia subsystem (IMS) network. Downlink interfaces of the routers form a VRRP group to implement SIP AG backup. When an active/standby switchover occurs in the VRRP group, the IP PBX and IMS network cannot detect the switchover. You can associate the VRRP group with a trunk group or SIP server on the IP PBX. When a switchover occurs in the VRRP group, traffic of the trunk group or SIP server is switched to the new master device. Only the VRRP master registers with the SBC and forwards signaling streams and media streams of voice services.
- Two ARSRGUSR routers function as SIP AGs at the egress of an enterprise network. Their downlink interfaces connect to an IP PBX that has registered with the SBC, and their uplink interfaces connect to an IMS network. Downlink interfaces of the routers form a VRRP group to implement SIP AG backup. When an active/standby switchover occurs in the VRRP group, the IMS network cannot detect the switchover. The IP PBX needs to register with the SBC again to restore services.

Prerequisites

- VRRP has been configured on downlink interfaces of the routers.

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- (Optional) VRRP association has been configured so that an uplink or downlink failure can trigger a VRRP switchover.
- A PBX trunk group has been configured.

Example

Associate a VRRP group with a trunk group.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group sipip
[Huawei-voice-trunkgroup-sipip] track vrrp interface GigabitEthernet 0/0/0 vrid 2
```

Associate a VRRP group with a SIP server.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipserver
[Huawei-voice-sipserver] track vrrp interface GigabitEthernet 0/0/0 vrid 2
```

16.5.8.119 triggertype (simultaneous or sequential ringing group view)

Function

The **triggertype** command configures the triggering type of a simultaneous or sequential ringing group.

Format

triggertype *triggertype-value*

undo triggertype

Parameters

Parameter	Description	Value
triggertype-value	Specifies the triggering type of a simultaneous or sequential ringing group.	Enumerated type. The options are as follows: • internal: intra-office • external: intra-office • unspecified • The default value is **unspecified**.

Views

Simultaneous or sequential ringing group view

Default Level

2: Configuration level

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Usage Guidelines

None

Example

Set the triggering type of sequential ringing group 28980004 to **internal**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] ring-serial-group pbxuser 28980004
[Huawei-voice-ring-serial-group-28980004]triggertype internal
```

16.5.8.120 trunk-group (post-routing number change plan view)

Function

Using the **trunk-group** command, you can configure the system to change numbers from which calls pass through a specified trunk group.

Format

trunk-group *trunk-group-name*

Parameters

Parameter	Description	Value
trunk-group-name	Specifies the name of a trunk group.	The value is a string of 1 to 32 characters.

Views

Post-routing number change plan view

Default Level

2: Configuration level

Usage Guidelines

The **trunk-group** command configures the system to change numbers from which calls pass through a specified trunk group.

Example

Configure the system to change numbers from which calls pass through a SIP trunk group.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] afterroute-change test
[Huawei-voice-afterroute-change-test] trunk-kgroup SIP
```

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16.5.8.121 unicall-group

Function

The **unicall-group** command creates an ONLY service user group and enters the ONLY service user group view.

The **undo unicall-group** command deletes the ONLY service user group.

.

Format

unicall-group pbxuser *pbxuser-name*

undo unicall-group pbxuser *pbxuser-name*

Parameters

Parameter	Description	Value
pbxuser *pbxuser-name*	Specifies the name of a user group.	The value is a string of 1 to 32 characters.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

After you create an ONLY service user group and specify a PBX user in the group, the specified PBX user becomes the primary user in the group.

Example

Create an ONLY service user group **28980001**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] unicall-group pbxuser 28980001
```

16.5.8.122 use-rule-set

Function

The **use-rule-set** command applies a rule set (blacklist or whitelist) to a trunk group.

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The **undo use-rule-set** command deletes a rule set (blacklist or whitelist) from a trunk group.

Format

use-rule-set *rule-set-name*

undo use-rule-set

Parameters

Parameter	Description	Value
rule-set-name	Specifies the name of a rule set.	The value is a string of 1 to 32 case-insensitive characters without spaces.

Views

Trunk group view

Default Level

2: Configuration level

Example

Apply the rule set **rule** to the trunk group **test**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] trunk-group test
[Huawei-voice-trunkgroup-test] use-rule-set rule
```

16.5.8.123 vms

Function

The **vms** command enters the voice mail service (VMS) view.

Format

vms

Parameters

None

Views

Voice view

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Default Level

2: Configuration level

Usage Guidelines

None

Example

Enter the VMS view

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]vms
```

16.5.8.124 vmsdata-storage-path

Function

The **vmsdata-storage-path** command specifies the path for storing leave messages.

The **undo vmsdata-storage-path** command deletes the path for storing leave messages.

Format

vmsdata-storage-path *vmsdata-storage-filepath-value*

undo vmsdata-storage-path

Parameters

Parameter	Description	Value
vmsdata-storage-filepath-value	Specifies the path for storing leave messages.	The value is a string of 1 to 15 characters.

Views

VMS view

Default Level

2: Configuration level

Usage Guidelines

None

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Example

Configure the path for storing leave messages.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] vms
[Huawei-voice-vms] vmsdata-storage-path sd1:
```

16.5.8.125 vmsno

Function

The **vmsno** command configures VMS mailbox information.

The **undo vmsno** command deletes a VMS mailbox information.

Format

vmsno *vmsno* **callprefix** *callprefix-value*

undo vmsno *vmsno*

Parameters

Parameter	Description	Value
vmsno	Specifies the voice mail number.	The value is an integer that ranges from 0 to 254.
callprefix *callprefix-value*	Specifies the name of the call prefix view.	The value is a string of 1 to 32 characters without spaces.

Views

VMS view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Configure VMS mail information

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] vms
[Huawei-voice-vms] vmsno 0 callprefix 10000
```

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16.5.9 Local Survival Configuration Commands

16.5.9.1 dataserver

Function

The **dataserver** command configures an IP address and port number for the data server.

Format

dataserver ip *ip-address* [**port** *port-number*]

undo dataserver

Parameters

Parameter	Description	Value
ip-address	Specifies the data server's IP address.	The value is in dotted decimal notation.
port-number	Specifies the data server's port number.	The value is an integer that ranges from 1 to 65535.

Views

Local survival view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Configure the IP address and port number for the data server.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] local-survival
[Huawei-voice-local-survival]dataserver ip 192.168.0.2 port 21
```

16.5.9.2 dataservertype

Function

The **dataservertype** command configures the data server type.

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Format

dataservertype *type-value*

Parameters

Parameter	Description	Value
type-value	Specifies the data server type.	Enumerated type. The value is <BMP, U1900>. The default value is BMP.

Views

Local survival view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Configure the data server type.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] local-survival
[Huawei-voice-local-survival]dataservertype u1900
```

16.5.9.3 display voice local-survival lefttime

Function

The **display voice local-survival lefttime** command displays the remaining available time of the license for the **best** item.

Format

display voice local-survival lefttime

Parameters

None

Views

All view

Default Level

3: Management level

Usage Guidelines

The **best** resource item in the license is for local survival. When the local node properly connects to the central node, the license controls the call resources. When the local node disconnects from the central node or when the **best** resource item is used but local survival is not configured, a 720-hour period is provided for the call services on the local node. When the time expires, call services are unavailable until the local node reconnects to the central node. When the local node reconnects to the central node, the remaining time restores to 720 hours and the time does not elapse. If the best source item is available but is not used, calls are not restricted.

Example

Display the remaining available time of the license for the **best** item for local survival.

```
<Huawei>display voice local-survival lefttime
 Best License Time Left:   708(Hours)
```

16.5.9.4 display voice local-survival status

Function

The **display voice local-survival status** command displays the local survival configuration.

Format

display voice local-survival status

Parameters

None

Views

All view

Default Level

3: Management level

Usage Guidelines

After local survival data is configured, you can run this command to verify the configuration.

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NOTE

In the command output, if the local survival configuration is inconsistent with the running information, the current configuration does not take effect.

Example

Display the local survival configuration.

```
<Huawei> display voice local-survival status
Local Survival Config Infomation:
Station Type:            localgw
Bmp Server IP:           192.168.10.29
Bmp Server Port:         8889
Primaryserver IP:
Transfer mode:           TCP
SSL server policy:
Primary Trunk Group:     primary
Secondary Trunk Group:
ProxyReg Trunk Group:
Bill Switch:             OFF

Local Survival Running Infomation:   WorkStatus:             ACTIVATE
Station Type:            localgw
Bmp Server IP:           192.168.10.29
Bmp Server Port:         8889
Primaryserver IP:
Transfer mode:           TCP
SSL server policy:
Primary Trunk Group:     primary
Secondary Trunk Group:
ProxyReg Trunk Group:
Bill Switch:             OFF
```

Table 16-102 Description of the **display voice sipserver** command output

Item	Description
WorkStatus	Working status. In local survival mode, the value is Active. In non-local-survival mode, the value is DEACTIVE.
Station Type	Type of the station.
Bmp Server IP	BMP server's IP address.
Bmp Server Port	BMP server's port number.
Primaryserver IP	Data server's IP address.
Transfer mode	Transfer mode of the BIN channel.
SSL server policy	Serer SSL policy bound to the BIN channel.
Primary Trunk Group	Name of the trunk group associated with the primary central node.
Secondary Trunk Group	Name of the trunk group associated with the secondary central node.

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Item	Description
ProxyReg Trunk Group	Name of trunk group is used for AR proxy register
Bill Switch	The bill switch when status is deactive

16.5.9.5 local-address

Function

The **local-address ip** command configures the IP address and port for the BIN channel.

The **undo local-address ip** command deletes the IP address and port of the BIN channel.

Format

local-address ip *ip-value* [**port** *port-value*]

undo local-address

Parameters

Parameter	Description	Value
ip-value	Specifies an IP address for the BIN channel.	The value is in dotted decimal notation.
port-value	Specifies a port for the BIN channel.	The value is an integer that ranges from 8000 to 65534. The default value is 8000.

Views

Local survival view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Specify IP address 192.168.1.1 and port 8001 for the BIN channel.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] local-survival
[Huawei-voice-local-survival] local-address 192.168.1.1 port 8001
```

16.5.9.6 local-bill

Function

The **local-bill** command configures the local bill.

The **undo local-bill** command restores the default local bill.

Format

local-bill *bill-switch-value*

undo local-bill

Parameters

Parameter	Description	Value
bill-switch-value	Indicates whether the CDR is enabled when the local node is in deactive state.	Enumerated value. The value is OFF, ON. The default value is OFF.

Views

Local survival view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Configure the data server type.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] local-survival
[Huawei-voice-local-survival] local-bill ON
```

16.5.9.7 local-survival

Function

The **local-survival** command enters the local survival view.

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The **undo local-survival** command deletes the local survival configuration.

Format

local-survival

undo local-survival

Parameters

None

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

When the device functions as the local node in UC scenarios, run this command to enter the local survival view.

Example

Enter the local survival view.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]local-survival
[Huawei-voice-local-survival]
```

16.5.9.8 password cipher

Function

The **password cipher** command configures an authentication password for the BIN channel.

Format

password cipher *password-value*

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Parameters

Parameter	Description	Value
password-value	Specifies a cipher text password. **NOTE** You can set this parameter only after entering **cipher** and pressing **Enter**.	The value is a string of 16 to 32 characters without spaces.

Views

Local survival view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Set the authentication password to **abcdefgh12345678** for the BIN channel.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] local-survival
[Huawei-voice-local-survival]password cipher  Please input user password(16-32 chars):****************
```

16.5.9.9 primary-trunk-group

Function

The **primary-trunk-group** command binds a trunk group to the primary central node. The heartbeat of the trunk group represents the connection status between the local node and central node.

The **secondary-trunk-group** command binds a trunk group to the secondary central node. The heartbeat of the trunk group represents the connection status between the local node and central node.

The **proxyreg-trunk-group** command binds a trunk group to the central node for proxy-register. The heartbeat of the trunk group represents the connection status between the local node and central node.

The **undo primary-trunk-group** command unbinds the trunk group from the central node.

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Format

primary-trunk-group *trunk-group-name* [**secondary-trunk-group** *trunk-group-name*] [**proxyreg-trunk-group** *trunk-group-name*]

undo primary-trunk-group

Parameters

Parameter	Description	Value
trunk-group-name	Specifies the name of a trunk group.	The value is a string of 1 to 32 characters.

Views

Local survival view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

#Configure primary and secondary trunk groups.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] local-survival
[Huawei-voice-local-survival]primary-trunk-group tkg1 secondary-trunk-group tkg2 proxyreg-trunk-group tkg3
```

16.5.9.10 reset

Function

The **reset** command resets local survival data.

Format

reset

Parameters

None

Views

Local survival view

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Default Level

2: Configuration level

Usage Guidelines

After this command is used, local survival data is reset. Exercise caution when you run this command.

Example

Reset local survival data.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] local-survival
[Huawei-voice-local-survival]reset
```

16.5.9.11 ssl-server-policy

Function

The **ssl-server-policy** command binds a server SSL policy to the BIN channel.

The **undo ssl-server-policy** command unbinds a server SSL policy from the BIN channel.

By default, no server SSL policy is bound to the BIN channel.

Format

ssl-server-policy*server-policy-name*

undo ssl-server-policy

Parameters

Parameter	Description	Value
server-policy-name	Specifies the name of a server SSL policy.	The value is a string of 1 to 31 case-insensitive characters without question marks (?) or spaces.

Views

Local survival view, SIP server view

Default Level

2: Configuration level

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Usage Guidelines

Usage Scenario

To enhance data transmission security on the BIN channel, run the **ssl-server-policy** command to bind a server SSL policy to the BIN channel. Data encryption, identity authentication, and message integrity check mechanisms of the SSL protocol protect security of data transmitted on the BIN channel.

Prerequisites

A server **SSL policy** has been configured.

The transfer mode on the BIN channel has been set to TLS.

Configuration Impact

If you run the **ssl-server-policy** command multiple times, only the latest configuration takes effect.

The server SSL policy bound to the BIN channel cannot be used by other services such as HTTPS; otherwise, the BIN channel cannot transmit data.

Example

Bind the server SSL policy **server** to the BIN channel.

```
Huawei> system-view
[Huawei] voice
[Huawei-voice]local-survival
[Huawei-voice-local-survival] transfer TLS
[Huawei-voice-local-survival] ssl-server-policy server
```

16.5.9.12 sync-interval

Function

The **sync-interval** command enables timing synchronization and sets the synchronization interval for the BIN channel.

The **undo sync-interval** command disables timing synchronization and deletes the synchronization interval for the BIN channel.

Format

sync-interval *sync-interval-value*

undo sync-interval

Parameters

Parameter	Description	Value
sync-interval-value	Specifies the synchronization interval for the BIN channel.	The value is an integer that ranges from 2 to 240, in seconds.

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Views

Local survival view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Set the synchronization interval to 5s for the BIN channel.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] local-survival
[Huawei-voice-local-survival]sync-interval 5
```

16.5.9.13 transfer

Function

The **transfer** command configures a transfer mode for the BIN channel.

The **undo transfer** command restores the default transfer mode for the BIN channel.

By default, the transfer mode for the BIN channel is TLS.

Format

transfer *transfer-value*

undo transfer

Parameters

Parameter	Description	Value
transfer-value	Specifies a transfer mode for the BIN channel.	Enumerated type. The options are as follows: • TLS • TCP The default value is TLS.

Views

Local survival view

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Default Level

2: Configuration level

Usage Guidelines

None.

Example

Set the transfer mode to TCP for the BIN channel.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] local-survival
[Huawei-voice-local-survival] transfer TCP
```

16.5.10 Conference Configuration Commands

16.5.10.1 attendee-password

Function

The **attendee-password** command configures an attendee password.

Format

attendee-password cipher

Parameters

Parameter	Description	Value
cipher	After user confirmed by ENTER button, can input the password with masked character of '*' printed on screen	The value is a string of 6 to 16 digits.

Views

Conference view

Default Level

2: Configuration level

Usage Guidelines

- This command is optional. If no attendee password is configured when you create a new user, the system automatically assigns a random password to the user.

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- The password must be a string of 6-16 digits.
- The password for the participants cannot be the same as or the reverse of the password for the moderator.
- The conference password cannot be the same as or the reverse of the account of the user who schedules the conference.
- When the conference subject is a string of digits only, the conference password cannot be the same as the conference subject.

Example

Create a conference named **myconference** and set the attendee password to **132456**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]conference myconference
[Huawei-voice-conference-myconference]attendee-password cipher
 Please input user password(6-16 chars):******
[Huawei-voice-conference-myconference]
```

16.5.10.2 attendee-telno

Function

The **attendee-telno** command connects an attendee to a specific conference or controls attendees of a conference.

Format

attendee-telno *attendeedn-string* [**mode** *mode-type*]

undo attendee-telno *attendeedn-string*

Parameters

Parameter	Description	Value
attendeedn-string	Specifies the telephone number of the user to be connected to a conference.	The value is a string of 1 to 32 characters.
mode *mode-type*	Specifies the mode in which the user is connected to the conference.	Enumerated type. The values are as follows: • listenspeak • listenonly • chairman • isolate the default value is listenspeak.

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Views

Conference view

Default Level

2: Configuration level

Usage Guidelines

- This is the core configuration. If a telephone number is not registered on the device, the device connects the telephone number to the conference in default mode. You can run this command to change the connection mode of registered users.
- If *mode-type* is not specified, the **listenspeak** mode is used by default.
- Do not specify *isolate* before a scheduled conference begins. After a conference begins, you can specify *isolate* to isolate specified users attending the conference.

Example

Create a conference named **myconference** and connect telephone numbers 3001, 3002, and 3003 to the conference. 3001 is the chairman; 3002 is a common attendee; and 3003 is an attendee with listenonly rights.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] conference myconference
[Huawei-voice-conference-myconference] attendee-telno 3001 mode chairman
[Huawei-voice-conference-myconference] attendee-telno 3002
[Huawei-voice-conference-myconference] attendee-telno 3003 mode listenonly
```

Delete the attendee 3002.

```
[Huawei-voice-conference-myconference] undo attendee-telno 3002
```

16.5.10.3 chairman-password

Function

The **chairman-password** command configures a chairman password.

Format

chairman-password cipher

Parameters

Parameter	Description	Value
cipher	After user confirmed by ENTER button, he can input the password with masked character of '*' printed on screen.	The value is a string of 6 to 16 digits.

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Views

Conference view

Default Level

2: Configuration level

Usage Guidelines

- This command is optional. If no chairman password is configured when you create a new user, the system automatically assigns a random password to the user.
- The password must be a string of 6-16 digits.
- The password for the participants cannot be the same as or the reverse of the password for the moderator.
- The conference password cannot be the same as or the reverse of the account of the user who schedules the conference.
- When the conference subject is a string of digits only, the conference password cannot be the same as the conference subject.

Example

Create a conference named **myconference** and set the chairman password to **142356**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] conference myconference
[Huawei-voice-conference-myconference] chairman-password cipher
 Please input user password(6-16 chars):******
[Huawei-voice-conference-myconference]
```

16.5.10.4 conference

Function

The **conference** command initializes a scheduled conference or enter a specific conference view, and generate a random attendee password and chairman password. Both chairman and attendees can see their password through self-services http web page.

Format

conference *conference-name* [**enterprise** *enterprise-name*]

undo conference *conference-name*

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Parameters

Parameter	Description	Value
conference-name	Specifies a conference name.	The value is a string of 1 to 32 characters.
enterprise *enterprise-name*	Specifies an enterprise name.	The value is a string of 1 to 32 characters.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

- After you run this command to initialize a conference, you cannot modify the enterprise.
- If the *enterprise* parameter is not specified when you create a conference, the conference belongs to the default enterprise.

Example

Create a conference named **myconference**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]conference myconference
[Huawei-voice-conference-myconference]
```

Delete the conference **myconference**.

```
[Huawei-voice] undo conference myconference
```

16.5.10.5 conference-attribute

Function

The **conference-attribute** command configures conference attributes and enters the global conference attribute view.

Format

conference-attribute

undo conference-attribute

Parameters

None

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Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enter the conference attribute view.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]conference-attribute
[Huawei-voice-conference-attribute]conference-id-length two
```

Display all the global conference parameters.

```
[Huawei-voice]display voice conference-attribute
 The length of conference ID is 2
 Conference convoker telnumber: 10010
 The reconvoke attempts for conference is 4
 Conference callright out (ddd)  :  Enable
 Conference callright out (idd)  :  Enable
 Conference callright out (inter):  Enable
 Conference callright out (local):  Enable
```

Restore all the global conference parameters to the default values.

```
[Huawei-voice]undo conference-attribute
```

Display all the global conference parameters after parameters restored.

```
[Huawei-voice]display voice conference-attribute
 The length of conference ID is 8
 Conference convoker is not set!
 The reconvoke attempts for conference is 0
 Conference callright out (ddd)  :  Disable
 Conference callright out (idd)  :  Disable
 Conference callright out (inter):  Enable
 Conference callright out (local):  Enable
[Huawei-voice]
```

16.5.10.6 conference-convoker

Function

The **conference-convoker** command configures the default convener number globally when the conference has no chairman.

Format

conference-convoker *convoker-telno*

undo conference-convoker

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Parameters

Parameter	Description	Value
convoker-telno	Specifies the telephone number of the convener.	The value is a string of 1 to 32 digits without spaces.

Views

Conference attribute view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the telephone number of the convener to 10010.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] conference-attribute
[Huawei-voice-conference-attribute] conference-convoker 10010
```

Delete the telephone number of the convener globally.

```
[Huawei-voice-conference-attribute] undo conference-convoker
```

16.5.10.7 conference-id-length

Function

The **conference-id-length** command configures the length of a conference ID globally.

Format

conference-id-length *length-choice*

undo conference-id-length

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Parameters

Parameter	Description	Value
length-choice	Specifies the length of a conference ID.	Enumerated type. The values are as follows: • two: The length of the conference ID is 2. • eight: The length of the conference ID is 8. The default value is eight.

Views

Conference attribute view

Default Level

2: Configuration level

Usage Guidelines

Delete all the conferences on the current device before you can change the length of a conference ID.

Example

Set the length of a conference ID to 2.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] conference-attribute
[Huawei-voice-conference-attribute] conference-id-length two
```

Restore the length of a conference ID to 8.

```
[Huawei-voice-conference-attribute] undo conference-id-length
```

16.5.10.8 conference-reconvoke-attempts

Function

The conference-reconvoke-attempts command configures the re-convoke attempts of a scheduled conference globally.

Format

conference-reconvoke-attempts *reconvoke-times*

undo conference-reconvoke-attempts

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Parameters

Parameter	Description	Value
reconvoke-times	Specifies the re-convoke attempts.	The value is an integer that ranges from 0 to 16. value 0 is set as default.

Views

Conference attribute view

Default Level

2: Configuration level

Usage Guidelines

This command is optional. The device does not re-convoke a scheduled conference, that is, *reconvoke-times* is set to 0.

This command takes effect in only a few scenarios listed as follows:

- Do-not-disturb
- Called user is busy
- Called user is absent
- Called user is restricted
- Called user didn't respond
- Called user rejected

Example

Set the re-convoke attempts of a scheduled conference to 4.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] conference-attribute
[Huawei-voice-conference-attribute] conference-reconvoke-attempts 4
```

Restore the re-convoke attempts of a scheduled conference to 0.

```
[Huawei-voice-conference-attribute] undo conference-reconvoke-attempts
```

16.5.10.9 custom-right (conference-attribute view)

Function

The **custom-right** command configures default 32-level rights for conferences globally.

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Format

custom-right {*c1* | *c2* | *c3* | *c4* | *c5* | ...| *c32*}.

undo custom-right [*c1* | *c2* | *c3* | *c4* | *c5* | ...| *c32*].

Parameters

Parameter	Description	Value
c1 | *c2* | *c3* | *c4* | *c5* | .../ *c32*	Specifies 32-level rights to be configured for conferences globally.	The value can be one or more of **c1** to **c32**.

Views

conference-attribute view

Default Level

2: Configuration level

Usage Guidelines

(1) This configuration is mainly used to perform call barring based on the 32-level rights for conferences through system convening where no moderator exists, and further enhances **out-right** for global conferences.

(2) This configuration is optional. By default, a conference does not have any 32-level rights.

(3) This configuration is mainly used to control 32-level rights of conference calls and prevent users from making fraud calls beyond their rights through conferences.

Example

Configure 32-level rights **c4**, **c8**, and **c12** for conferences globally.

```
<Huawei> system-view
[Huawei]voice
[Huawei]conference-attribute
[Huawei-voice-conference-attribute]custom-right c4 c8 c12
```

Delete 32-level right **c8** for conferences.

```
[Huawei-voice-conference-attribute]undo custom-right c8
```

Clear all 32-level rights configured for conferences.

```
[Huawei-voice-conference-attribute]undo custom-right
```

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16.5.10.10 description

Function

The **description** command configures brief description about a conference.

Format

description *conference-description;*

undo description

Parameters

Parameter	Description	Value
conference-description	Indicates conference description.	The value is a string of 1 to 64 characters.

Views

Conference view

Default Level

2: Configuration level

Usage Guidelines

This command is optional.

Example

Create a conference named **myconference** and configure the conference description as **workmeeting**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]conference myconference
[Huawei-voice-conference-myconference]description workmeeting
```

Delete description of a conference.

```
[Huawei-voice-conference-myconference]undo description
```

16.5.10.11 display voice conference

Function

The **display voice conference** command displays specified or call conferences.

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Format

display voice conference [*conference-name*]

Parameters

Parameter	Description	Value
conference-name	Specifies the conference name.	The value is a string of 1–32 characters.

Views

All views

Default Level

3: Management level

Usage Guidelines

To display specified or call conferences, run **display voice conference** command.

Example

Display the conference named **myconference**.

```
<Huawei> display voice conference myconference
 ********Conference name: myconference*********
 Conference ID: 00082794
 Start Type: reserved
 Is Started: no
 Enterprise: default
 Dnset     : DefaultDialPlan
 Register Number: 6
 Status: idle

 Attendee list of the conference:


 Total attendee number listed  : 0
 Total attendee number present : 0
```

16.5.10.12 display voice conference-attribute

Function

The **display voice conference-attribute** command displays the global conference attributes configured in the current system.

Format

display voice conference-attribute

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Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

To display the global conference attributes configured in the current system, run the **display voice conference-attribute** command.

Example

Display the global conference attributes.

```
<Huawei> display voice conference-attribute
 The length of conference ID is 2
 Conference convoker telnumber: 10010
 The reconvoke attempts for conference is 4
 Conference callright out (ddd)  :  Enable
 Conference callright out (idd)  :  Enable
 Conference callright out (inter):  Enable
 Conference callright out (local):  Enable
```

16.5.10.13 display voice conference-convoker

Function

The **display voice conference-convoker** command displays the default number for convening a conference without a moderator.

Format

display voice conference-convoker

Parameters

None

Views

All views

Default Level

3: Management level

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Usage Guidelines

None

Example

Display the number of the conference convener.

```
<Huawei> display voice conference-convoker
 Conference convoker telnumber: 10010
```

16.5.10.14 display voice conference-custom-right

Function

The **display voice conference-custom-right** command displays default 32-level rights configured for conferences globally.

Format

display voice conference-custom-right

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display default 32-level rights configured for conferences.

```
<Huawei> display voice conference-custom-right
 Conference callright out (custom):  c2&c4
```

16.5.10.15 display voice conference-id-length

Function

The **display voice conference-id-length** command displays the conference ID length that is set globally.

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Format

display voice conference-id-length

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display the conference ID length.

```
<Huawei> display voice conference-id-length
 The length of conference ID is 2
```

16.5.10.16 display voice conference-out-right

Function

The **display voice conference-out-right** command displays the default conference call-out rights that is set globally.

Format

display voice conference-out-right

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

To display the default conference call-out rights that is set globally, run the **display voice conference-out-right** command.

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Example

Display the conference call-out rights.

```
<Huawei> display voice conference-out-right
 Conference callright out (ddd)  :  Enable
 Conference callright out (idd)  :  Disable
 Conference callright out (inter):  Enable
 Conference callright out (local):  Enable
```

16.5.10.17 display voice conference-reconvoke-attempts

Function

The **display voice conference-reconvoke-attempts** command displays the number of attempts to reconvene a scheduled conference upon a convening failure.

Format

display voice conference-reconvoke-attempts

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display the attempts to reconvene a scheduled conference.

```
<Huawei>display voice conference-reconvoke-attempts
 The reconvoke attempts for conference is 6
```

16.5.10.18 dn-set

Function

The **dn-set** command configures the dialing plan set information about a conference.

Format

dn-set *dn-set-name*

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undo dn-set

Parameters

Parameter	Description	Value
dn-set-name	Specifies the dialing plan name.	The value is a string of 1 to 32 characters.

Views

Conference view

Default Level

2: Configuration level

Usage Guidelines

This command is optional.

When you configure this command, ensure that a DN set is configured for the enterprise to which the conference belongs.

Example

#Create a conference named **myconference** and set the conference DN set to **abcd-dnset**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] conference myconference
[Huawei-voice-conference-myconference] dn-set abcd-dnset
```

Restore the default DN set of a conference.

```
[Huawei-voice-conference-myconference] undo dn-set
```

16.5.10.19 out-right

Function

The **out-right** command configures the outgoing right of conference globally.

The **undo out-right** command restores the outgoing right of conference globally to the default value.

By default, the outgoing right is inter and local.

Format

out-right { { **inter** *inter-value* | **local** *local-value* | **ddd** *ddd-value* | **idd** *idd-value* } * | **all** *all-value* }

undo out-right { **inter** | **local** | **ddd** | **idd** | **all** }

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Parameters

Parameter	Description	Value
inter *inter-value*	Specifies the internal dialing outgoing right.	Enumerated type. The options are as follows: • disable • enable
local *local-value*	Specifies the local dialing outgoing right.	Enumerated type. The options are as follows: • disable • enable
ddd *ddd-value*	Specifies the domestic direct dialing outgoing right.	Enumerated type. The options are as follows: • disable • enable
idd *idd-value*	Specifies the international direct dialing outgoing right.	Enumerated type. The options are as follows: • disable • enable
all *all-value*	Specifies all (inter&local&ddd&idd) outgoing rights.	Enumerated type. The options are as follows: • disable • enable

Views

Conference attribute view

Default Level

2: Configuration level

Usage Guidelines

The conference outgoing rights are controlled to avoid toll fraud using conference calls.

Example

Enable all the conference outgoing rights, and then disable idd outgoing right.

```
<Huawei> system-view
[Huawei] voice
[Huawei] conference-attribute
[Huawei-voice-conference-attribute] out-right all enable
```

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16.5.10.20 regnum

Function

The **regnum** command configures the maximum number of registered users of a conference.

The **undo regnum** command restores the maximum number of registered users of a conference to the default value.

By default, the maximum number of registered users of a conference is 3.

Format

regnum *regnum-value*

undo regnum

Parameters

Parameter	Description	Value
regnum-value	Specifies the maximum number of registered users of a conference.	The value is a string of 3 to x characters. x depends on the product model. AR150: 3 AR200: 6 AR1200: 12 AR2204: 6 AR2220, AR2220L: 12 AR2240: 30 AR3260: 30

Views

Conference view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Create a conference named **myconference** and set the maximum number of registered users of the conference to 10.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] conference myconference
[Huawei-voice-conference-myconference] regnum 10
```

Restore the maximum number of registered users of the conference to its default value.

```
[Huawei-voice-conference-myconference] undo regnum
```

16.5.10.21 schedule

Function

The **schedule** command configures the start time and end time of a conference.

Format

schedule from [*from-date*] *from-time* **to** [*to-date*] *to-time*

Parameters

Parameter	Description	Value
from	Configures the start time.	-
from-date	Specifies the start date.	Date type, in the format of YYYY-MM-DD.
from-time	Specifies the start time.	Time type, in the format of HH:MM:SS.
to	Configures the end time.	-
to-date	Specifies the end date.	Date type, in the format of YYYY-MM-DD.
to-time	Specifies the end time.	Time type, in the format of HH:MM:SS.

Views

Conference view

Default Level

2: Configuration level

Usage Guidelines

This is the core configuration.

- The start time and end time are mandatory. If the start date and end date are not specified, the conference starts and ends in the current day.

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- You can schedule a conference only seven days in advance.
- The conference cannot last for more than 24 hours.
- If the start time is earlier than the current system time, the system time is used as the start time by default.

Example

Create a conference named **myconference** and set the conference duration to 10 a.m. to 12 p.m. on 2013-10-14.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] conference myconference
[Huawei-voice-conference-myconference] schedule from 2013-10-14 10:00:00 to 2013-10-14 12:00:00
```

16.5.11 Self Service Http Server Commands

16.5.11.1 display voice self-service-http-server

Function

The **display voice self-service-http-server** command displays the self-service HTTP server configuration.

Format

display voice self-service-http-server

Parameters

None

Views

Self-service HTTP server configuration view

Default Level

3: Management level

Usage Guidelines

None

Example

Display the self-service HTTP server configuration.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]self-service-http-server
[Huawei-voice-self-service-http-server]display voice self-service-http-server
  Self service HTTP server status    : Disable       (default: disable)
  Self service HTTP server port      : 1080          (default: 1080)
```

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```
Self service HTTPS server status   : Disable       (default: disable)
Self service HTTPS server port     : 1443          (default: 1443)
```

16.5.11.2 self-service-http-server

Function

The **self-service-http-server** command displays the self-service HTTP server configuration view.

The **undo self-service-http-server** command deletes the self-service HTTP server configuration view.

Format

self-service-http-server

undo self-service-http-server

Parameters

None

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

Run this command when using the voice self-service to enter the self-service HTTP server configuration view.

Example

Enter the voice HTTP server configuration view.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]self-service-http-server
[Huawei-voice-self-service-http-server]
```

16.5.11.3 self-service http server enable

Function

The **self-service http server enable** command starts the self-service HTTP server.

The **undo self-service http server enable** command stops the self-service HTTP server.

By default, the self-service HTTP server is disabled.

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Format

self-service http server enable

undo self-service http server enable

Parameters

None

Views

Self-service HTTP server configuration view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Start the self-service HTTP server.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]self-service-http-server
[Huawei-voice-self-service-http-server]self-service http server enable
 This operation will take several minutes, please wait...
 Info: Succeeded in starting the self service HTTP server
```

16.5.11.4 self-service http server port

Function

The **self-service http server port** command configures the self-service HTTP server port.

The **undo self-service http server port** command deletes the self-service HTTP server port.

Format

self-service http server port *port-value*

undo self-service http server port

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Parameters

Parameter	Description	Value
port-value	Specifies the self-service HTTP server port.	The value is an integer that ranges from 1025 to 51200. The default value is 1080.

Views

Self-service HTTP server configuration view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Change the self-service HTTP server port to 1500.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]self-service-http-server
[Huawei-voice-self-service-http-server]self-service http server port 1500
```

16.5.11.5 self-service http secure-server enable

Function

The **self-service http secure-server enable** command enables the self-service HTTPS server.

The **undo self-service http secure-server enable** command disables the self-service HTTPS server.

By default, the self-service HTTPS server is disabled.

Format

self-service http secure-server enable

undo self-service http secure-server enable

Parameters

None

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Views

Self-service HTTP server configuration view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable the self-service HTTPS server.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]self-service-http-server
[Huawei-voice-self-service-http-server]self-service http secure-server enable
 This operation will take several minutes, please wait...
 Info: Succeeded in starting the self service HTTPS server
```

16.5.11.6 self-service http secure-server port

Function

The **self-service http secure-server port** command configures the self-service HTTPS server port.

The **undo self-service http secure-server port** command deletes the self-service HTTPS server port.

Format

self-service http secure-server port *port-value*

undo self-service http secure-server port

Parameters

Parameter	Description	Value
port-value	Specifies the self-service HTTPS server port.	The value is an integer that ranges from 1025 to 51200. The default value is 1443.

Views

Self-service HTTP server configuration view

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Default Level

2: Configuration level

Usage Guidelines

None

Example

Change the self-service HTTPS server port to 1600.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] self-service-http-server
[Huawei-voice-self-service-http-server] self-service http secure-server port 1600
```

16.5.12 Group Registrar Configuration Commands

16.5.12.1 bind trunk-group (group resistrar view)

Function

Using the **bind trunk-group** command, you can associate a group registrar with a specified SIP PRA trunk group so that registration status is kept consistent between users under the group registrar and the SIP PRA trunk group. By default, this function is not configured for users.

Using the **undo bind trunk-group** command, you can remove the association between a group registrar and a SIP PRA trunk group.

Format

bind trunk-group *trunk-group-name*

undo bind trunk-group

Parameters

Parameter	Description	Value
trunk-group-name	Specifies the SIP PRA trunk group name.	The value is a string of 1 to 32 characters.

Views

Group registrar view

Default Level

2: Configuration level

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Usage Guidelines

This command is generally used in the eSBC scenario for conversion between public and private networks. This command ensures that the registration status of the IP PBX with the AR is consistent with that of the AR with the IMS.

Example

Keep registration status of users under group registrar **example** to be consistent with that of a SIP PRA trunk.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] groupreg example
[Huawei-voice-groupreg-example] bind trunk-group sippra
```

16.5.12.2 display voice groupreg

Function

Using the **display voice groupreg** command, you can view configurations of a group registrar.

Format

display voice groupreg [*groupreg-name*]

Parameters

Parameter	Description	Value
groupreg-name	Specifies the group registrar name.	The value is a string of 1 to 32 characters without spaces.

Views

All views

Default Level

3: Management level

Usage Guidelines

If no group registrar name is specified, configurations of all group registrars are displayed.

Example

View configurations of group registrar **example**.

```
<Huawei> display voice groupreg example
 Group reg name          : example
```

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```
IMPI                  : 28988000
IMPU                  : 2898800!.*!
Register password     : ******
Pbx user              : 28988000
Pbx user              : 28988001
Pbx user              : 28988002
Pbx user              : 28988003
Pbx user              : 28988004
Pbx user              : 28988005
Pbx user              : 28988006
Pbx user              : 28988007
Pbx user              : 28988008
Pbx user              : 28988009
Trunk group           : sippra
```

Table 16-103 Description of the display voice groupreg command output

Item	Description
Group reg name	Group registrar name.
IMPI	IMPI of the group registrar.
IMPU	IMPU of the group registrar.
Register password	Authentication password of the group registrar.
Pbx user	User under the group registrar.
Trunk group	Trunk group associated with the group registrar.

16.5.12.3 display voice groupreg pbxuser brief

Function

Using the **display voice groupreg pbxuser brief** command, you can view registration information about users under a group registrar.

Format

display voice groupreg *groupreg-name* **pbxuser brief**

Parameters

Parameter	Description	Value
groupreg-name	Specifies the group registrar name.	The value is a string of 1 to 32 characters without spaces.

Views

All views

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Default Level

3: Management level

Usage Guidelines

This command displays registration information about users under a group registrar.

Example

View registration information about users under group registrar **example**.

```
<Huawei> display voice groupreg example pbxuser brief
 Spec: 256, Records: 10
 --------------------------------------------------------------------------------
 Index Telno    Service-status SIPUE           Expires(s) Interval(s) Reg-status
 0     28988000 Idle           192.168.0.1:5080 428       600         In service
 1     28988001 Idle           192.168.0.1:5080 428       600         In service
 2     28988002 Idle           192.168.0.1:5080 428       600         In service
 3     28988003 Idle           192.168.0.1:5080 428       600         In service
 4     28988004 Idle           192.168.0.1:5080 428       600         In service
 5     28988005 Idle           192.168.0.1:5080 428       600         In service
 6     28988006 Idle           192.168.0.1:5080 428       600         In service
 7     28988007 Idle           192.168.0.1:5080 428       600         In service
 8     28988008 Idle           192.168.0.1:5080 428       600         In service
 9     28988009 Idle           192.168.0.1:5080 428       600         In service
```

Table 16-104 Description of the display voice groupreg pbxuser brief command output

Item	Description
Index	Index number.
Telno	User number.
Service-status	Service status.
SIPUE	Registration source.
Expires(s)	Remaining time before registration times out, in seconds.
Interval(s)	Registration interval, in seconds.
Reg-status	Registration status.

16.5.12.4 groupreg

Function

Using the **groupreg** command, you can configure a group registrar and enter the group registrar view.

Using the **undo groupreg** command, you can delete group registrar configurations.

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By default, no group registrar data is configured.

Format

groupreg *groupreg-name*

undo groupreg *groupreg-name*

Parameters

Parameter	Description	Value
groupreg-name	Specifies the group registrar name.	The value is a string of 1 to 32 characters without spaces.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

A group registrar is used for connecting to the SIP PRA trunk in a simple way, that is, allocating numbers to the downlink SIP PRA trunk.

Example

Configure a group registrar named **example** and enter the group registrar view.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] groupreg example
[Huawei-voice-groupreg-example]
```

16.5.12.5 home-domain (group resistrar view)

Function

Using the **home-domain** command, you can configure the domain name in group registration.

Using the **undo home-domain** command, you can delete the domain name configured in group registration.

Format

home-domain *home-domain-value*

undo home-domain

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Parameters

Parameter	Description	Value
home-domain-value	Indicates the domain name.	The value is a string of 1 to 32 characters.

Views

Group registrar view

Default Level

2: Configuration level

Usage Guidelines

The **home-domain** command is generally used in the scenario of SIP PRA registration under eSBC. When multiple IP PBXs register with the AR in SIP PRA mode, you can run this command to specify the domain name of the IP PBX to which calls are sent.

Example

Set the domain name for group registration **example** to **example.com**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] groupreg example
[Huawei-voice-groupreg-example] home-domain example.com
```

16.5.12.6 impi

Function

Using the **impi** command, you can configure the IMPI of a group registrar.

Using the **undo impi** command, you can delete the IMPI of a group registrar.

Format

impi *impi-value* **impu** *impu-value* [**password cipher** *cipher-password-value*]

undo impi [**password**]

Parameters

Parameter	Description	Value
impi-value	Specifies the IMPI of the group registrar.	The value is a string of 1 to 32 characters.

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Parameter	Description	Value
impu-value	Specifies the IMPU of the group registrar.	The value is a string of 1 to 32 characters.
cipher-password-value	Specifies the authentication password of the group registrar. **NOTE** You can configure *password-value* after and inputting **cipher** and pressing **Enter**.	The value is a string of 6 to 32 characters.

Views

Group registrar view

Default Level

2: Configuration level

Usage Guidelines

You must configure the IMPU for a group registrar with the IMPI configured. A group registrar with the IMPU configured is considered as a wildcard registrar. A group registrar with no IMPU configured is considered as an implicit registrar.

The maximum number of users supported by an implicit registrar is less than that supported by a wildcard registrar. If the number of configured users under a group registrar exceeds that supported by an implicit registrar, you cannot directly delete the IMPI. To delete the IMPI, you must first delete excess users under the group registrar.

NOTE

- If the **password** parameter is not specified, the **undo impi** [**password**] command deletes the IMPI of the group registrar; if the **password** parameter is specified, the command deletes only the authentication password configured for the group registrar.

Example

Set the IMPI of group registrar **example** to **28988000** and the corresponding IMPU to **2898800!.*!**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] groupreg example
[Huawei-voice-groupreg-example] impi 28988000 impu 2898800!.*!
```

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16.5.12.7 pbxuser

Function

Using the **pbxuser** command, you can configure users under a group registrar.

Using the **undo pbxuser** command, you can delete users from a group registrar.

Format

pbxuser *user-name* [**step** *step-value*] [**number** *number-value*]

undo pbxuser *user-name* [**step** *step-value*] [**number** *number-value*]

Parameters

Parameter	Description	Value
user-name	Specifies the user name.	The value is a string of 1 to 32 characters. **NOTE** If the user has not been configured, the user name must be set to a value consisting of only digits or a value starting with the plus sign (+) followed by all digits. (Only the 1220EV, 1220EVW, and 161FGV-L support the user who has not been configured.)
step-value	Specifies the step for adding users in a batch.	The value is an integer that ranges from 1 to 1000.
number-value	Specifies the number of users added in a batch.	The value is an integer that ranges from 1 to *N*. **NOTE** *N* indicates the maximum number of users supported by the device minus the number of configured users.

Views

Group registrar view

Default Level

2: Configuration level

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Usage Guidelines

None

Example

Add users 28988000 to 28988009 to a group registrar.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] groupreg example
[Huawei-voice-groupreg-example] pbxuser 28988000 number 10
```

16.6 SIP AG Commands

Function Description

SIP AG commands are used to configure SIP AG parameters and SIP AG users.

NOTE

- The following product models support voice functions (such as the PBX, SIP AG, and H.248 AG):
  - AR120 series: AR129CV, AR129CVW, and AR129CGVW-L
  - AR150 series: AR157VW and AR158EVW
  - AR160 series: AR161, AR169FVW, AR169FVW-8S, AR169CVW, AR169JFVW-4B4S, AR169JFVW-2S, AR169CVW-4B4S, AR161FV-1P, and AR169FGVW-L
  - AR200 series: AR201VW-P, AR207V, AR207VW, and AR207V-P
  - AR1200 series: AR1220V, AR1220VW, AR1220EV, and AR1220EVW
  - AR2200 series: AR2204, AR2220, AR2220L, AR2220E.
  - AR2240: For the equipped with SRU40, SRU60, SRU80, and SRU100.
  - AR3200 series: For the AR3260 equipped with SRU40, SRU60, SRU80, or SRU100, the same voice mode is set for the active and standby SRUs.

  The AR129CV, AR129CVW, AR169CVW, AR169JFVW-4B4S, AR169JFVW-2S, and AR169CVW-4B4S only support the PBX and SIP AG, but not the H.248 AG.
- When an AR2204, AR2220L, or AR2220E router needs to provide voice services, install a DSP module and a voice subcard in the router. When an AR2220, AR2240, or AR3200 router needs to provide voice services, install a DSP module.
- To provide voice services to POTS users on the AR1200, AR2200, or AR3200, install the 4FXS1FXO, 16FXS, or 32FXS card. The AR1200 does not support the 32FXS card.
- To provide voice services to ISDN phone users on the AR1200, AR2200, or AR3200, install the 2BST card.
- To connect an AR1200, AR2200, or AR3200 router to a TDM PBX through the E1 interface, install the E1T1-M card.
- On the AR169FGVW-L, AR1220EV, and AR1220EVW, the AT0 trunk cannot be connected to the SIP server or SIP trunk.

16.6.1 SIP AG Parameter Configuration Commands

Function Description

This section describes the commands used to configure SIP AG parameters.

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16.6.1.1 ag number-parameter

Function

Using the **ag number-parameter** command, you can set control points for a SIP AG.

Using the **undo ag number-parameter** command, you can restore the default control points of a SIP AG.

Format

ag number-parameter *name value*

undo ag number-parameter *name*

Parameters

Parameter	Description	Value
name	Specifies the name of a control point.	The value is an integer that ranges from 0 to 27.
value	Specifies the value of a control point.	The value is an integer. Values vary according to control points.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

The following table describes the meanings and values of control points.

Parameter	Description	Value
0	Tone type for local blocking.	The value is an integer that ranges from 0 to 4: • 0: busy tone • 1: device congestion tone • 2: silence • 3: user-defined tone 1 • 4: user-defined tone 2 The default value is 0.

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Parameter	Description	Value
1	Tone type for remote blocking.	The value is an integer that ranges from 0 to 4: ● 0: busy tone ● 1: device congestion tone ● 2: silence ● 3: user-defined tone 1 ● 4: user-defined tone 2 The default value is 0.
2	Whether auto-switching is supported.	The value can be 0 or 1: ● 0: indicates that auto-sensing is not supported. ● 1: indicates that auto-sensing is supported. The default value is 0.
3	Ordinary call control mode.	The value is an integer that ranges from 0 to 2: ● 0: indicates that calls are not controlled. ● 1: indicates that outgoing calls are controlled. ● 2: indicates that incoming calls are controlled. The default value is 0.
4	Emergency call control mode.	The value is an integer that ranges from 0 to 2: ● 0: indicates that calls are not controlled. ● 1: indicates that outgoing calls are controlled. ● 2: indicates that incoming calls are controlled. The default value is 0.

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Parameter	Description	Value
5	Emergency call silence compression.	The value can be 0 or 1: ● 0: indicates that emergency call silence compression is disabled forcibly. ● 1: indicates that emergency call silence compression is not controlled. The default value is 0.
6	It is reserved.	-
7	It is reserved.	-
8	It is reserved.	-
9	It is reserved.	-
10	It is reserved.	-
11	It is reserved.	-
12	It is reserved.	-
13	Digitmap matching mode.	The value can be 0 or 1: ● 0: indicates minimum matching. ● 1: indicates maximum matching. The default value is 0.
14	It is reserved.	-
15	Whether RTP filtering is supported. Specify this parameter when RTP filtering needs to be configured on a SIP AG. After RTP filtering is used, only the media streams from a specified interface are accepted.	The value can be 0 or 1: ● 0: indicates that RTP filtering is not supported. ● 1: indicates that RTP filtering is supported. The default value is 0.
16	It is reserved.	-
17	It is reserved.	-
18	It is reserved.	-
19	It is reserved.	-

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Parameter	Description	Value
20	It is reserved.	-
21	It is reserved.	-
22	It is reserved.	-
23	Registration lifecycle.	The value is an integer ranging from 1 to 65534, in seconds. The default value is 600.
24	Mode in which QoS statistics are reported.	The value can be 0 or 1: • 0: indicates the T1 mode. • 1: indicates that QoS statistics are not reported. The default value is 1.
25	Whether to convert pulse signals into DTMF signals.	The value can be 0 or 1: • 0: disable • 1: enable The default value is 0.
26	Register retry interval.	The value is an integer ranging from 1 to 65535, in seconds. The default value is 30.
27	Hotline time length.	The value is an integer ranging from 1 to 255, in seconds. The default value is 5.

Example

Enable a SIP AG to convert pulse signals into DTMF signals.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] ag number-parameter 25 1
```

Related Topics

16.6.1.15 display voice sipag

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16.6.1.2 ag string-parameter

Function

Using the **ag string-parameter** command, you can set string parameters for a SIP AG.

Using the **undo ag string-parameter** command, you can restore the default string parameters of a SIP AG.

Format

ag string-parameter *strpara-name strpara-value*

undo ag string-parameter *strpara-name*

Parameters

Parameter	Description	Value
strpara-name	Specifies the sequence number of a string parameter.	The value is an integer ranging from 1 to 38.
strpara-value	Specifies the value of a string parameter.	The value is a string of 1 to 64 characters.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

The following table describes the meanings and values of string parameters.

Parameter	Description	Value
1	Visited network ID.	The value is a string of 1 to 64 characters. The default value is an empty string.
2	Prefix of the national toll call.	The value is a string of 1 to 64 characters. The default value is an empty string.

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Parameter	Description	Value
3	Prefix of the international toll call.	The value is a string of 1 to 64 characters. The default value is an empty string.
4	CC number string.	The value is a string of 1 to 64 characters. The default value is an empty string.
5	NDC number string.	The value is a string of 1 to 64 characters. The default value is an empty string.
6	SCC domain name.	The value is a string of 1 to 64 characters. The default value is an empty string.
7	It is reserved.	-
8	It is reserved.	-
9	It is reserved.	-
10	It is reserved.	-
11	String indicating that the Calling Line Identification Presentation (CLIP) function is unavailable.	The value is a string of 1 to 64 characters. The default value is an empty string.
12	It is reserved.	-
13	String indicating that the CLIP function is restricted.	The value is a string of 1 to 64 characters. The default value is an empty string.

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Parameter	Description	Value
14	SCC number of the MCID service. When the MCID service is triggered in SCC mode, check this parameter to determine whether the MCID service is triggered: • If this parameter is set and the SCC number is the same as the parameter value, the MCID service is triggered. If the SCC number is different from the parameter value, the MCID service is not triggered. • If this parameter is not set, the MCID service cannot be triggered.	The value is a string of 1 to 64 characters. The default value is an empty string.
15	SCC number indicating that Call Forwarding Unconditional (CFU) is activated. According to the SCC number, a SIP AG analyzes the CFU operation and records its status to determine whether to play the special dial tone.	The value is a string of 1 to 64 characters. The default value is an empty string.
16	SCC number indicating that CFU is deactivated. According to the SCC number, a SIP AG analyzes the CFU operation and records its status to determine whether to play the special dial tone.	The value is a string of 1 to 64 characters. The default value is an empty string.
17	SDP owner name.	The value is a string of 1 to 64 characters. The default value is an empty string.
18	SDP session name string.	The value is a string of 1 to 64 characters. The default value is an empty string.

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Parameter	Description	Value
19	It is reserved.	-
20	Contents of a hookflash pressing event.	The value is a string of 1 to 64 characters. The default value is an empty string.
21	CAT1 ordinary call Resource-Priority header field.	The value is a string of 1 to 64 characters. The default value is an empty string.
22	CAT2 ordinary call Resource-Priority header field.	The value is a string of 1 to 64 characters. The default value is an empty string.
23	CAT3 ordinary call Resource-Priority header field.	The value is a string of 1 to 64 characters. The default value is an empty string.
24	CAT1 emergency call Resource-Priority header field.	The value is a string of 1 to 64 characters. The default value is an empty string.
25	CAT2 emergency call Resource-Priority header field.	The value is a string of 1 to 64 characters. The default value is an empty string.
26	CAT3 emergency call Resource-Priority header field.	The value is a string of 1 to 64 characters. The default value is an empty string.
27	Service domain in the URI of the Route header field.	The value is a string of 1 to 64 characters. The default value is an empty string.
28	Service activation SCC code 1. If multiple services need to be activated, they are separated by a semicolon. The first service is CW.	The value is a string of 1 to 64 characters. The default value is an empty string.

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Parameter	Description	Value
29	Service deactivation SCC code 2. If multiple services need to be activated, they are separated by a semicolon. The first service is CW.	The value is a string of 1 to 64 characters. The default value is an empty string.
30	It is reserved.	-
31	Activation code of user-defined event SCC1 code. If this parameter is matched, SIP_SEVENT_CUSTOM_SCC 1 occurs. This string can contain parameters. For example, the value *12*(*.)# indicates that SIP_SEVENT_CUSTOM_SCC 1 occurs and parameters matching *. are contained.	The value is a string of 1 to 64 characters. The default value is an empty string.
32	Activation code of user-defined event SCC2 code. If this parameter is matched, SIP_SEVENT_CUSTOM_SCC 2 occurs. This string can contain parameters. For example, the value *12*(*.)# indicates that SIP_SEVENT_CUSTOM_SCC 2 occurs and parameters matching *. are contained.	The value is a string of 1 to 64 characters. The default value is an empty string.
33	Activation code of user-defined event SCC3 code. This parameter is reserved.	The value is a string of 1 to 64 characters. The default value is an empty string.
34	P-Access-Network-Info header field of POTS.	The value is a string of 1 to 64 characters. The default value is an empty string.
35	P-Access-Network-Info header field of BRI.	The value is a string of 1 to 64 characters. The default value is an empty string.

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Parameter	Description	Value
36	P-Access-Network-Info header field of PRI.	The value is a string of 1 to 64 characters. The default value is an empty string.
37	Default hotline address.	The value is a string of 1 to 64 characters. The default value is an empty string.
38	It is reserved.	-

Precautions

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Set the CAT2 Resource-Priority header field to **huawei.em2** for a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] ag string-parameter 25 huawei.em2
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.3 ag-domain

Function

Using the **ag-domain** command, you can configure a domain name for a SIP AG.

Using the **undo ag-domain** command, you can delete a domain name of a SIP AG.

By default, no domain name is configured for a SIP AG.

Format

ag-domain *ag-domain-name*

undo ag-domain

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Parameters

Parameter	Description	Value
ag-domain-name	Specifies the domain name of a SIP AG.	The value is a string of 1 to 64 case-sensitive characters.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Configure a domain name **abcd.com** for a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] ag-domain abcd.com
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.4 auth mode

Function

The **auth mode** command configures the authentication mode for a SIP AG.

The **undo auth mode** command restores the default authentication mode of a SIP AG.

By default, the authentication mode of a SIP AG is **user**.

Format

auth mode *mode-value*

undo auth mode

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Parameters

Parameter	Description	Value
mode-value	Specifies the authentication mode for a SIP AG.	Enumerated type. The values are as follows: • interface: configures all the users connected to a SIP AG to share the same authentication user name. • user: specifies an IP Multimedia Subsystem Private Identity (IMPI) for a user.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

None.

Example

Configure all the users connected to a SIP AG to share the same authentication user name.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] auth mode interface
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.5 auth (SIP AG view)

Function

The **auth** command configures the authentication user name and password for a SIP AG.

The **undo auth** command deletes the authentication user name and password of a SIP AG.

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By default, no authentication user name or password is configured for a SIP AG.

Format

auth username *auth-username* **password** { **cipher** *cipher-password* | **ha1 cipher** *cipher-password* }

undo auth

Parameters

Parameter	Description	Value
auth-username	Specifies the authentication user name.	The value is a string of 1 to 64 characters without question mark and spaces.
password	Specifies the authentication password.	-
cipher *cipher-password*	Indicates the password in cipher text. **NOTE** You can configure *cipher-password* after inputting **cipher** and pressing **Enter**.	The *cipher-password* value is a string of case-sensitive characters without spaces. A cipher password may contain 1 to 64 encrypted characters. The input character string - indicates that the password is empty.
ha1 cipher *cipher-password*	Indicates the password in HA1 mode.	The *cipher-password* value is a string of case-sensitive characters without spaces. A cipher password may contain 1 to 32 encrypted characters. The input character string - indicates that the password is empty.

Views

SIP AG view

Default Level

2: Configuration level

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Usage Guidelines

To authenticate a SIP AG user, configure the user name and password for the SIP AG.

If you run the **auth** command multiple times in the same SIP AG view, only the latest configuration takes effect.

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Configure the authentication user name **huawei**, and password to 1234 for a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] auth username huawei password cipher
Please input user password(1-64 chars):****
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.4 auth mode

16.6.1.6 conference-factory-uri

Function

Using the **conference-factory-uri** command, you can configure the conference factory URI for a SIP AG.

Using the **undo conference-factory-uri** command, you can delete the conference factory URI of a SIP AG.

By default, no conference factory URI is configured for a SIP AG.

Format

conference-factory-uri *uri*

undo conference-factory-uri

Parameters

Parameter	Description	Value
uri	Specifies the conference factory URI for a SIP AG.	The value is a string of 1 to 64 case-sensitive characters.

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Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

When a SIP AG subscribes to the conference service, you must configure a conference factory URI for the SIP AG; otherwise, the SIP AG cannot use the conference service.

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Configure the conference factory URI **confac** for a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] conference-factory-uri confac
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.7 description (SIP AG view)

Function

Using the **description** command, you can configure the description for a SIP AG.

Using the **undo description** command, you can delete the description of a SIP AG.

By default, a SIP AG has no description.

Format

description *description*

undo description

Parameters

Parameter	Description	Value
description	Specifies the description for a SIP AG.	The name is a string of 1 to 32 case-sensitive characters without spaces.

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Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

The **description** command configures the description for a SIP AG and helps to manage the SIP AG.

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Configure the description **hotel105** for a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] description hotel105
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.8 digitmap-timer

Function

Using the **digitmap-timer** command, you can set the timers for a SIP AG.

Using the **undo digitmap-timer** command, you can restore the default timer values of a SIP AG.

For the default timer values, see the parameter description.

Format

digitmap-timer { **long** *long-timer-value* | **short** *short-timer-value* | **start** *start-timer-value* }

undo digitmap { **long** | **short** | **start** }

Parameters

Parameter	Description	Value
long *long-timer-value*	Specifies the value for a digitmap long timer.	The value is an integer that ranges from 1 to 99, in seconds. The default value is 20.

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Parameter	Description	Value
short *short-timer-value*	Specifies the value for a digitmap short timer.	The value is an integer that ranges from 1 to 99, in seconds. The default value is 4.
start *start-timer-value*	Specifies the value for a digitmap start timer.	The value is an integer that ranges from 0 to 99, in seconds. The default value is 20.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

Timers configured using the **digitmap** command are used in the following situations:

- The digitmap start timer is used when a user has picked up the phone but has not dialed any number.
- The digitmap short timer is used when the collected number has matched at least one dialing scheme but more numbers may be received and match other dialing schemes.
- The digitmap long timer is used when the dialed number does not match any dialing scheme.

Example

Set the value for a digitmap short timer of a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] digitmap-timer short 5
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.9 display voice media-bandwidth-control (SIP AG)

Function

The **display voice media-bandwidth-control** command displays CAC configurations and uplink bandwidth occupied by voice data on a SIP AG.

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Format

display voice media-bandwidth-control

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display CAC configurations and uplink bandwidth occupied by voice data on the SIP AG.

```
<Huawei> display voice media-bandwidth-control
 Upward bandwidth                    : enable
 The maximum upward bandwidth        : 500000 kbit/s
 The used normal bandwidth           : 0 kbit/s
```

Table 16-105 Description of the display voice media-bandwidth-control command output

Item	Description
Upward bandwidth	Whether CAC is enabled on the SIP AG: • Enable • Disable To enable CAC on the SIP AG, run the **16.6.1.44 media-bandwidth-control enable (SIPAG)** command.
The maximum upward bandwidth	Maximum uplink media bandwidth occupied by voice data. To set the maximum uplink media bandwidth, run the **16.6.1.45 media-bandwidth-control max-bandwidth (SIPAG)** command.
The used normal bandwidth	Uplink media bandwidth occupied by voice data.

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Related Topics

16.6.1.44 media-bandwidth-control enable (SIPAG)
16.6.1.45 media-bandwidth-control max-bandwidth (SIPAG)

16.6.1.10 display voice local-digitmap

Function

Using the **display voice local-digitmap** command, you can view information about a local digitmap configured on a SIP AG.

Format

display voice local-digitmap [*local-digitmap-name*]

Parameters

Parameter	Description	Value
local-digitmap-name	Specifies the name of a digitmap.	The value is a string of 1 to 32 characters.

Views

All views

Default Level

3: Management level

Usage Guidelines

When a calling user fails to be connected to the called user or waits for a long period of time after dialing the called number, run the **display voice local-digitmap** command to view the configurations of local digitmaps on the SIP AG. You can rectify the fault according to the command output.

If *local-digitmap-name* is not specified, all local digitmaps are displayed.

Example

Display information about a local digitmap on a SIP AG.

```
<Huawei> display voice local-digitmap huawei
  Name : huawei
  Type : Normal
  Body : 8888xxxx
```

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Table 16-106 Description of the display voice local-digitmap command output

Item	Description
Name	Indicates the name of a SIP AG digitmap.
Type	Indicates the digitmap type.
Body	Indicates the body of a SIP AG digitmap.

Related Topics

16.6.1.15 display voice sipag

16.6.1.11 display voice sctp-global-statistics

Function

The **display voice sctp-global-statistics** command displays global Stream Control Transport Protocol (SCTP) statistics.

Format

display voice sctp-global-statistics

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

To view global SCTP statistics, run the **display voice sctp-global-statistics** command.

Example

Display global SCTP statistics.

```
<Huawei> display voice sctp-global-statistics
 Current established associations      : 0
 Active established associations       : 0
 Passive established associations      : 0
 Active associations fails             : 0
 Passive associations fails            : 0
 Associations aborted                  : 0
 Associations shut down                : 0
```


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```
Received out of blue chunks          : 0
Sent control chunks                  : 0
Sent ordered data chunks             : 0
Sent unordered data chunks           : 0
Received control chunks              : 0
Received ordered data chunks         : 0
Received unordered data chunks       : 0
Retrains data chunks                 : 0
Fragmented user messages             : 0
Reassembled user messages            : 0
Received checksum error packets      : 0
Sent SCTP packets                    : 0
Received SCTP packets                : 0
```

Table 16-107 Description of the display voice sctp-global-statistics command output

Item	Description
Current established associations	Number of current connections.
Active established associations	Number of connections initiated by the local end.
Passive established associations	Number of connections initiated by the remote end.
Active associations fails	Number of failed connections initiated by the local end.
Passive associations fails	Number of failed connections initiated by the remote end.
Associations aborted	Number of aborted connections.
Associations shut down	Number of connections normally shut down.
Received out of blue chunks	Number of abnormal data blocks received by the local end.
Sent control chunks	Number of sent control data blocks.
Sent ordered data chunks	Number of sent ordered data blocks.
Sent unordered data chunks	Number of sent out-of-order data blocks.
Received control chunks	Number of received control data blocks.
Received ordered data chunks	Number of received ordered data blocks.
Received unordered data chunks	Number of received unordered data blocks.
Retrains data chunks	Number of retransmitted data blocks.
Fragmented user messages	Number of fragmented user messages.

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Item	Description
Reassembled user messages	Number of reassembled user messages.
Received checksum error packets	Number of received checksum error packets.
Sent SCTP packets	Number of sent SCTP packets.
Received SCTP packets	Number of received SCTP packets.

Related Topics

16.6.1.81 sipag

16.6.1.12 display voice sip-profile

Function

The **display voice sip-profile** command displays the configuration of a SIP profile.

Format

display voice sip-profile [*index* [**sip-profile-detail**]]

Parameters

Parameter	Description	Value
index	Specifies the index of a SIP profile.	The value is an integer that ranges from 0 to 9.
sip-profile-detail	Displays detailed information about a SIP profile.	-

Views

All views

Default Level

3: Management level

Usage Guidelines

To view parameter settings of configured and predefined SIP profiles in the system, run the **display voice sip-profile** command.

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Example

Display the configurations of SIP profiles.

```
<Huawei> display voice sip-profile 0 sip-profile-detail

 Profile name : Customizing ProfileTemplet
 Profile index: 0

 SysPara:
 SP2  : 1

 Codec Pri:
 Pri: 0    Codec: 8    Pt: 20

 Srv Pri:
 Pri: 0    Srvid: 4

 Reason tone:
 Sameness

 Status tone:
 Sameness
```

Table 16-108 Description of the display voice sip-profile command output

Item	Description
Profile name	Profile name.
Profile index	Profile index.
SysPara	System parameter. System parameters, including system parameter indexes and corresponding values. For example, the index and value of number 2 system parameter are respectively SP2 and 1.
Codec Pri	Codec priority.
Pri	Codec/service priority. The value is an integer that ranges from 0 to 255. A smaller value indicates a higher priority.
Codec	Codec value. The value is an integer that ranges from 0 to 255. Common codecs are G711U (0), G723 (4), G711A (8), and G729 (18).
Pt	Packetization duration. The value is an integer that ranges from 0 to 4294967295. Generally, the value is a multiple of 5. Common packetization durations are 10, 20, and 30 milliseconds.
Srv Pri	Service priority.
Srvid	Service type. The value is an integer that ranges from 0 to 4294967295.
Reason tone	Mapping between status codes carried in the Reason header field and local tones.
Status tone	Mapping between the status code and the local tone.

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Related Topics

16.6.1.15 display voice sipag

16.6.1.13 display voice sip-reg-count-per-second

Function

The **display voice sip-reg-count-per-second** command displays the number of SIP register messages sent every second.

Format

display voice sip-reg-count-per-second

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

None.

Example

Display the number of SIP register messages sent every second.

```
<Huawei> display voice sip-reg-count-per-second
 Sip register message count per second is 10!
```

16.6.1.14 display voice sip-service-logic

Function

The **display voice sip-service-logic** command displays information about a SIP service logic.

Format

display voice sip-service-logic [*service-logic-index* [*srvid*]]

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Parameters

Parameter	Description	Value
service-logic-index	Specifies the index of a SIP service logic.	The value is an integer that ranges from 0 to 9.
srvid	Specifies the ID of a service type.	The value is an integer that ranges from 0 to 255.

Views

All views

Default Level

3: Management level

Usage Guidelines

To view information about configured and predefined SIP service logics, run the **display voice sip-service-logic** command.

Example

Display information about SIP service logics.

```
<Huawei> display voice sip-service-logic 0
 Srv SrvLogic-Description(SS,LS,EVT,OSS,OEVT:...OEVT,ACT:...ACT)
 SN=0,SS=0,LS=1,EVT=16,OSS=8,OEVT=18:21:22:26,ACT=9,TIMERLEN=0;
 SN=0,SS=1,LS=3,EVT=16,OSS=8,OEVT=18:21:22:26:25,ACT=9,TIMERLEN=0;
 SN=0,SS=1,LS=3,EVT=18,OSS=11,OEVT=19:26:28,ACT=4:45:37:20,TIMERLEN=0;
 SN=0,SS=1,LS=3,EVT=25,OSS=9,OEVT=18:16:23:26,ACT=4:45:37:22,TIMERLEN=0;
 SN=0,SS=1,LS=3,EVT=26,OSS=0,OEVT=16:17,ACT=5,TIMERLEN=0;
 SN=0,SS=1,LS=8,EVT=16,OSS=8,OEVT=18:21:22:24,ACT=57,TIMERLEN=0;
 SN=0,SS=1,LS=8,EVT=18,OSS=0,OEVT=16:17,ACT=19,TIMERLEN=0;
 SN=0,SS=1,LS=8,EVT=24,OSS=0,OEVT=16:17,ACT=25:19,TIMERLEN=0;
 SN=0,SS=2,LS=2,EVT=15,OSS=10,OEVT=18:16:29:27:26,ACT=13:41:46:38,TIMERLEN=0;
 SN=0,SS=2,LS=2,EVT=16,OSS=0,OEVT=16:17,ACT=23:28:11,TIMERLEN=0;
 SN=0,SS=2,LS=2,EVT=18,OSS=11,OEVT=19:26:28,ACT=23:28:20,TIMERLEN=0;
 SN=0,SS=2,LS=2,EVT=20,OSS=9,OEVT=18:16:23:26,ACT=22,TIMERLEN=0;
 SN=0,SS=2,LS=2,EVT=26,OSS=0,OEVT=16:17,ACT=23:28:5,TIMERLEN=0;
 SN=0,SS=3,LS=3,EVT=0,OSS=0,OEVT=16:17,ACT=12:5,TIMERLEN=0;
 SN=0,SS=3,LS=3,EVT=1,OSS=0,OEVT=16:17,ACT=4:45:37:11,TIMERLEN=0;
 SN=0,SS=3,LS=3,EVT=2,OSS=1,OEVT=18:16:25:26,ACT=40:37:45:12,TIMERLEN=0;
 SN=0,SS=3,LS=3,EVT=3,OSS=13,OEVT=18:29:25:26:24,ACT=40:17:35,TIMERLEN=0;
 SN=0,SS=3,LS=3,EVT=16,OSS=1,OEVT=18:16:25:26,ACT=23:28:12,TIMERLEN=0;
 SN=0,SS=3,LS=3,EVT=18,OSS=11,OEVT=19:26:28,ACT=23:28:4:45:37:20,TIMERLEN=0;
 SN=0,SS=3,LS=3,EVT=20,OSS=9,OEVT=18:16:23:26:25,ACT=22,TIMERLEN=0;
 SN=0,SS=3,LS=3,EVT=25,OSS=9,OEVT=18:16:23:26,ACT=23:28:4:45:37:22,TIMERLEN=0;
 SN=0,SS=3,LS=3,EVT=26,OSS=0,OEVT=16:17,ACT=23:28:12:5,TIMERLEN=0;
 SN=0,SS=4,LS=8,EVT=6,OSS=7,OEVT=18:16:15:20:24,ACT=3,TIMERLEN=0;
 SN=0,SS=4,LS=8,EVT=14,OSS=1,OEVT=18:24,ACT=58:13,TIMERLEN=0;
 SN=0,SS=4,LS=8,EVT=16,OSS=1,OEVT=18:16:24,ACT=23:28:58,TIMERLEN=0;
 SN=0,SS=4,LS=8,EVT=18,OSS=0,OEVT=16:17,ACT=19,TIMERLEN=0;
 SN=0,SS=4,LS=8,EVT=20,OSS=1,OEVT=18:16:24,ACT=58,TIMERLEN=0;
 SN=0,SS=4,LS=8,EVT=24,OSS=0,OEVT=16:17,ACT=25:19,TIMERLEN=0;
 SN=0,SS=7,LS=8,EVT=15,OSS=14,OEVT=18:24:30:31,ACT=58:18,TIMERLEN=0;
 SN=0,SS=7,LS=8,EVT=16,OSS=1,OEVT=18:16:24,ACT=23:28:58,TIMERLEN=0;
```

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```
SN=0,SS=7,LS=8,EVT=18,OSS=0,OEVT=16:17,ACT=19,TIMERLEN=0;
SN=0,SS=7,LS=8,EVT=20,OSS=9,OEVT=18:16:24:23,ACT=22,TIMERLEN=0;
SN=0,SS=7,LS=8,EVT=24,OSS=0,OEVT=16:17,ACT=25:19,TIMERLEN=0;
SN=0,SS=8,LS=2,EVT=18,OSS=0,OEVT=16:17,ACT=19,TIMERLEN=0;
SN=0,SS=8,LS=2,EVT=21,OSS=2,OEVT=18:16:15:20:26,ACT=3,TIMERLEN=0;
SN=0,SS=8,LS=2,EVT=22,OSS=0,OEVT=16:17,ACT=11,TIMERLEN=0;
SN=0,SS=8,LS=2,EVT=26,OSS=0,OEVT=16:17,ACT=5,TIMERLEN=0;
SN=0,SS=8,LS=3,EVT=18,OSS=11,OEVT=19:26:28,ACT=4:45:37:20,TIMERLEN=0;
SN=0,SS=8,LS=3,EVT=21,OSS=3,OEVT=18:16:0:1:2:3:4:20:25:26,ACT=0,TIMERLEN=0;
SN=0,SS=8,LS=3,EVT=22,OSS=1,OEVT=18:16:26:25,ACT=12,TIMERLEN=0;
SN=0,SS=8,LS=3,EVT=25,OSS=9,OEVT=18:16:23:26,ACT=4:45:37:22,TIMERLEN=0;
SN=0,SS=8,LS=3,EVT=26,OSS=0,OEVT=16:17,ACT=12:5,TIMERLEN=0;
SN=0,SS=8,LS=8,EVT=18,OSS=0,OEVT=16:17,ACT=19,TIMERLEN=0;
SN=0,SS=8,LS=8,EVT=21,OSS=4,OEVT=18:14:6:16:20:24,ACT=2,TIMERLEN=0;
SN=0,SS=8,LS=8,EVT=22,OSS=1,OEVT=18:16:24,ACT=58,TIMERLEN=0;
SN=0,SS=8,LS=8,EVT=24,OSS=0,OEVT=16:17,ACT=25:19,TIMERLEN=0;
```

Table 16-109 Description of the display voice sip-service-logic command output

Item	Description
Srv	Service type.
SrvLogic-Description	Service logic description in the format of SS,LS,EVT,OSS,OEVT:...OEVT,ACT:...ACT. • SS indicates the service status. • LS indicates the comprehensive status. • EVT indicates the input event. • OSS indicates the status of service switching. • OEVT:...OEVT indicates the observation event list. Each **OEVT** indicates an observation event, and two observation events are separates separated by a colon (:). • ACT:...ACT indicates the action list. Each **ACT** indicates an action, and two actions are separated by a colon (:).

Related Topics

16.6.1.15 display voice sipag

16.6.1.15 display voice sipag

Function

The **display voice sipag** command displays control points of a SIP AG.

Format

display voice sipag [*sipag-interface-id* { **running** | **config** }]

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Parameters

Parameter	Description	Value
sipag-interface-id	Specifies the SIP AG ID.	The value is an integer that ranges from 0 to 16777215.
running	Displays running control points of a SIP AG.	-
config	Displays configured control points of a SIP AG.	-

Views

All views

Default Level

3: Management level

Usage Guidelines

To view control points of a specified SIP AG, run the **display voice sipag** command.

Example

Display the configured control points of SIP AG 1.

```
<Huawei> display voice sipag 1 config
  AGID                              : 1
  Dynamic signalling IP address name   :
  Signalling IP                     : 192.168.1.1
  Signalling port                   : 5060
  Dynamic media IP address name        :
  Media IP                          : 192.168.1.1
  Transfer mode                     : TCP
  Primary proxy IP 1                : 192.168.1.1
  Primary proxy IP 2                :
  Secondary proxy IP 1              :
  Secondary proxy IP 2              :
  Primary proxy port                : 5060
  Secondary proxy port              : 65535
  Primary proxy domain name            :
  Secondary proxy domain name          :
  Proxy address mode                : IP
  Home domain name                  : abcd.com
  SIP profile index                 : 1: Default
  Service logic index               : 0: Default
  Server Address DHCP option           : 0: None
  Description                       :
  AG domain name                    :
  Phone context                     :
  Register URI                      :
  Conference factory URI               :
  Subscribe to UA profile           : Enable
```

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```
Subscribe to reg state              : Disable
Subscribe to MWI                    : Disable
SDP negotiation mode                  : Remote
Mode of supporting proxy dual-homing : Manual switch over
Proxy detection mode                : Probe
Proxy refresh mode                  :
```

Table 16-110 Description of the display voice sipag command output

Item	Description
AGID	SIP AG ID.
Dynamic signalling IP address name	Dynamic signaling IP address.
Signalling IP	Signaling IP address.
Signalling port	Signaling port number.
Dynamic media IP address name	Dynamic media IP address.
Media IP	Media IP address.
Transfer mode	Transmission protocol.
Primary proxy IP 1	IP address 1 of the primary proxy server.
Primary proxy IP 2	IP address 2 of the primary proxy server.
Secondary proxy IP 1	IP address 1 of the secondary proxy server.
Secondary proxy IP 2	IP address 2 of the secondary proxy server.
Primary proxy port	Port number of the primary proxy server.
Secondary proxy port	Port number of the secondary proxy server.
Primary proxy domain name	Domain name of the primary proxy server.
Secondary proxy domain name	Domain name of the secondary proxy server.
Proxy address mode	Mode in which the IP address of a proxy server is obtained.
Home domain name	Home domain name.
SIP profile index	Profile index of the SIP AG.
Service logic Index	Service logic index used by the SIP AG.

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Item	Description
Server Address DHCP option	Mode in which DHCP Request packets are sent.
Description	Description of the SIP AG.
AG domain name	Domain name of the SIP AG.
Phone context	Phone context of the SIP AG.
Register URI	URI of a registrar.
Conference factory URI	Conference factory URI of the SIP AG.
Subscribe to UA profile	UA profile subscription function.
Subscribe to reg state	Register status subscription function.
Subscribe to MWI	MWI subscription function.
SDP negotiation mode	Whether the local or remote priority mode is used for SDP negotiation.
Mode of supporting proxy dual-homing	The proxy dual-homing mode is supported.
Proxy detection mode	Proxy detection mode.
Proxy refresh mode	Mode in which the proxy server is switched when the address of the running proxy server is changed.

Related Topics

16.6.1.81 sipag

16.6.1.7 description (SIP AG view)

16.6.1.16 display voice sipag auth

Function

Using the **display voice sipag auth** command, you can view authentication information about a SIP AG.

Format

display voice sipag *sipag-interface-id* **auth** { **config** | **running** }

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Parameters

Parameter	Description	Value
sipag-interface-id	Specifies the SIP AG ID.	The value is an integer that ranges from 0 to 16777215.
config	Displays the configured SIP AG attributes.	-
running	Displays the used SIP AG attributes.	-

Views

All views

Default Level

3: Management level

Usage Guidelines

To view authentication information about a SIP AG, run the **display voice sipag auth** command.

Example

Display the configured authentication attributes of SIP AG 1.

```
<Huawei> display voice sipag 1 auth config
  SIP auth para
  AGID                    : 1
  Auth mode               : Single-user
  Auth username           : 1
  Auth mode               : password
  Auth password           : ******
```

Table 16-111 Description of the **display voice sipag auth** command output

Item	Description
SIP auth para	Authentication parameters of the SIP AG.
AGID	SIP AG ID.
Auth mode	Authentication mode: ● Password: original password authentication ● Ha1: Message Digest 5 (MD5) authentication
Auth username	Authentication user name.
Auth password	Authentication password.

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Related Topics

16.6.1.5 auth (SIP AG view)

16.6.1.17 display voice sipag dtmf

Function

Using the **display voice sipag dtmf** command, you can view the Dual-Tone Multifrequency (DTMF) parameters of a SIP AG.

Format

display voice sipag *sipag-interface-id* **dtmf**

Parameters

Parameter	Description	Value
sipag-interface-id	Specifies the SIP AG ID.	The value is an integer that ranges from 0 to 16777215.

Views

All views

Default Level

3: Management level

Usage Guidelines

To view the DTMF parameters of a specified SIP AG, run the **display voice sipag dtmf** command.

Example

Display the DTMF parameters of SIP AG 1.

```
<Huawei> display voice sipag 1 dtmf
 AGID                 : 1
 DTMF/MF transfer mode  : throughly
```

Table 16-112 Description of the **display voice sipag dtmf** command output

Item	Description
AGID	SIP AG ID.

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Item	Description
DTMF/MF transfer mode	DMF transmission mode: • throughly: DMF transparent transmission • erase: DTMF signal removing

Related Topics

16.6.1.30 dtmf-transmission-mode

16.6.1.18 display voice sipag fax-modem

Function

Using the **display voice sipag fax-modem** command, you can view the fax and modem parameters of a SIP AG.

Format

display voice sipag *sipag-interface-id* **fax-modem**

Parameters

Parameter	Description	Value
sipag-interface-id	Specifies the SIP AG ID.	The value is an integer that ranges from 0 to 16777215.

Views

All views

Default Level

3: Management level

Usage Guidelines

To view the fax and modem parameters of a specified SIP AG, run the **display voice sipag fax-modem** command.

Example

Display the fax and modem parameters of SIP AG 1.

```
<Huawei> display voice sipag 1 fax-modem
  AGID                : 1
  Nego mode             : Negotiate
  RTP interval        : 10ms
```

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```
VBD codec            : G.711A
VBD pt type          : Static
VBD attribute type    : V.152
Fax transmode        : throughly
Modem transmode       : throughly
```

Table 16-113 Description of the display voice sipag fax-modem command output

Item	Description
AGID	SIP AG ID.
Nego mode	Fax/modem codec negotiation mode: • negotiate: negotiation mode • self-switch: self-switching mode
RTP interval	Packetization interval in transparent transmission mode.
VBD codec	VBD codec mode: • G.711a: A-law algorithm in G.711 • G.711u: μ-law algorithm in G.711
VBD pt type	VBD payload type: • dynamic • static
VBD attribute type	VBD attribute type: • chinatelecom: China Telecom mode • extchinatelecom: extended China Telecom mode • ietf: IETF mode • V.152: V.152 mode
Fax transmode	Fax transmission mode: • throughly: transparent transmission • T.38: T.38 mode
Modem transmode	Modem transmission mode: • relay: relay mode • throughly: transparent transmission mode

Related Topics

16.6.1.37 fax-modem modem transmission-mode
16.6.1.32 fax-modem common rtp-interval
16.6.1.31 fax-modem common negotiation-mode
16.6.1.36 fax-modem fax transmission-mode
16.6.1.34 fax-modem common vbd-codec
16.6.1.35 fax-modem common vbd-pt-type

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16.6.1.19 display voice sipag nte

Function

Using the **display voice sipag nte** command, you can view RFC 2833 redundancy transmission information about a SIP AG.

Format

display voice sipag *sipag-interface-id* **nte**

Parameters

Parameter	Description	Value
sipag-interface-id	Specifies the SIP AG ID.	The value is an integer that ranges from 0 to 16777215.

Views

All views

Default Level

3: Management level

Usage Guidelines

To view RFC 2833 redundancy transmission information about a specified SIP AG, run the **display voice sipag nte** command.

Example

Display RFC 2833 redundancy transmission information about SIP AG 1.

```
<Huawei> display voice sipag 1 nte
 AGID                : 1
 NTE negomode          : No initiative start
 NTE fax modem         : Enable
 NTE flashhook         : Disable
 NTE DTMF              : Enable
```

Table 16-114 Description of the **display voice sipag nte** command output

Item	Description
AGID	SIP AG ID.

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Item	Description
NTE negomode	Mode in which RFC 2833 transmission is started based on negotiation: • Fixed start: fixed startup mode • Nego start: initiative startup mode • No initiative start: no-initiative startup mode
NTE fax modem	Status of RFC 2833 fax and modem transmission: • Enable: RFC 2833 fax and modem transmission is enabled. • Disable: RFC 2833 fax and modem transmission is disabled.
NTE DTMF	Status of RFC 2833 DTMF transmission: • Enable: RFC 2833 DTMF transmission is enabled. • Disable: RFC 2833 DTMF transmission is disabled.

Related Topics

16.6.1.46 nte-dtmf

16.6.1.47 nte-fax-modem

16.6.1.49 nte-negotiation-mode

16.6.1.20 display voice sipag number-parameter

Function

The **display voice sipag number-parameter** command displays the parameter indexes and values of a SIP AG.

Format

display voice sipag *sipag-interface-id* **number-parameter**

Parameters

Parameter	Description	Value
sipag-interface-id	Specifies the SIP AG ID.	The value is an integer that ranges from 0 to 16777215.

Views

All views

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Default Level

3: Management level

Usage Guidelines

To view the parameter indexes and values of a specified SIP AG, run the **display voice sipag number-parameter** command.

Example

Display the parameter indexes and values of SIP AG 1.

```
<Huawei> display voice sipag 1 number-parameter
 Para index: 0                Value: 0
 Para index: 1                Value: 0
 Para index: 2                Value: 0
 Para index: 3                Value: 0
 Para index: 4                Value: 0
 Para index: 5                Value: 1
 Para index: 6                Value: 0
 Para index: 8                Value: 0
 Para index: 13               Value: 0
 Para index: 15               Value: 0
 Para index: 23               Value: 600
 Para index: 24               Value: 1
 Para index: 25               Value: 0
 Para index: 26               Value: 30
 Para index: 27               Value: 5
```

Table 16-115 Description of the display voice sipag number-parameter command output

Item	Description
Para index	SIP interface parameter index.
Value	SIP interface parameter value.

Related Topics

16.6.1.81 sipag

16.6.1.21 display voice sipag ring-mode

Function

The **display voice sipag ring-mode** command displays the SIP AG ring mode.

Format

display voice sipag *sipag-interface-id* **ring-mode**

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Parameters

Parameter	Description	Value
sipag-interface-id	Specifies the SIP AG ID.	The value is an integer that ranges from 0 to 16777215.

Views

All views

Default Level

3: Management level

Usage Guidelines

To view the ring mode of a SIP AG, run the **display voice sipag ring-mode** command.

Example

Display the ring mode of SIP AG 1.

```
<Huawei> display voice sipag 1 ring-mode
  AGID           : 1
  Index          : 1
  Ring mode name  : huawei
  Cadence ring    : 0: Normal ring 1:4
  Initial ring    : 4: Normal ring (FSK) 1:4
```

Table 16-116 Description of the display voice sipag ring-mode command output

Item	Description
AGID	Interface ID of a SIP AG.
Index	Index of a ring mapping.
Ring mode name	Name of a ringing mapping.
Cadence ring	Type of the cadence ringing.
Initial ring	Type of the initial ringing.

Related Topics

16.6.1.70 ring-mode

16.6.1.81 sipag

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16.6.1.22 display voice sipag string-parameter

Function

Using the **display voice sipag string-parameter** command, you can view the string parameter indexes and values of a SIP AG.

Format

display voice sipag *sipag-interface-id* **string-parameter** { **config** | **running** }

Parameters

Parameter	Description	Value
sipag-interface-id	Specifies the SIP AG ID.	The value is an integer that ranges from 0 to 16777215.
config	Displays the configured parameters.	-
running	Displays the used parameters.	-

Views

All views

Default Level

3: Management level

Usage Guidelines

To view the string parameter indexes and values of a specified SIP AG, run the **display voice sipag string-parameter** command.

Example

Display the configured string parameter indexes and values of SIP AG 1.

```
<Huawei> display voice sipag 1 string-parameter config
 String index: 1
 String:
 String index: 2
 String:
 String index: 3
 String:
 String index: 4
 String:
 String index: 5
 String:
 String index: 6
 String:
```

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```
String index: 11
String:
String index: 13
String:
String index: 14
String:
String index: 15
String:
String index: 16
String:
String index: 17
String:
String index: 18
String:
String index: 19
String:
String index: 20
String:
String index: 21
String:
String index: 22
String:
String index: 23
String:
String index: 24
String:
String index: 25
String:
String index: 26
String:
String index: 27
String:
String index: 28
String:
String index: 29
String:
String index: 30
String:
String index: 31
String:
String index: 32
String:
String index: 33
String:
String index: 34
String:
String index: 35
String:
String index: 36
String:
String index: 37
String:
String index: 38
String:
```

Table 16-117 Description of the display voice sipag string-parameter command output

Item	Description
String Index	Index of a string parameter.
String	Value of a string parameter.

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Related Topics

16.6.1.2 ag string-parameter

16.6.1.23 display voice sipag redundancy

Function

Using the **display voice sipag redundancy** command, you can view the redundancy parameters of a SIP AG.

Format

display voice sipag *sipag-interface-id* **redundancy**

Parameters

Parameter	Description	Value
sipag-interface-id	Specifies the SIP AG ID.	The value is an integer that ranges from 0 to 16777215.

Views

All views

Default Level

3: Management level

Usage Guidelines

To view the redundancy parameters of a specified SIP AG, run the **display voice sipag redundancy** command.

Example

Display the redundancy parameters of SIP AG 1.

```
<Huawei> display voice sipag 1 redundancy
 AGID                  : 1
 Redundancy negomode    : Fixed start
 Redundancy start mode  : Ordinary redundancy
 Redundancy red NTE     : Disable
 Redundancy red VBD     : Enable
 Redundancy red voice   : Disable
```

Table 16-118 Description of the display voice sipag redundancy command output

Item	Description
AGID	SIP AG ID.

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Item	Description
Redundancy negomode	Mode in which RFC 2198 redundancy transmission is started based on negotiation: • Fixed start: fixed startup mode • Nego start: initiative startup mode • No initiative start: no-initiative startup mode
Redundancy start mode	Mode in which RFC 2198 transmission is started: • Ordinary redundancy: ordinary mode • Smart redundancy: smart mode
Redundancy red NTE	Function that uses RFC 2198 redundancy transmission to transmit RFC 2833 audio data: • Enable: This function is enabled. • Disable: This function is disabled.
Redundancy red VBD	Function that uses RFC 2198 redundancy transmission to transmit VBD: • enable: This function is enabled. • disable: This function is disabled.
Redundancy red voice	Function that uses RFC 2198 redundancy transmission to transmit voice services: • Enable: This function is enabled. • Disable: This function is disabled.

Related Topics

16.6.1.63 redundancy-start-mode
16.6.1.62 redundancy-nte
16.6.1.61 redundancy-negotiation-mode
16.6.1.64 redundancy-vbd
16.6.1.65 redundancy-voice

16.6.1.24 display voice sipag sctp-association-info

Function

The **display voice sipag sctp-association-info** command displays Stream Control Transport Protocol (SCTP) association information about a SIP AG.

Format

display voice sipag *sipag-interface-id* **sctp-association-info**

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Parameters

Parameter	Description	Value
sipag-interface-id	Specifies the SIP AG ID.	The value is an integer that ranges from 0 to 16777215.

Views

All views

Default Level

3: Management level

Usage Guidelines

An association is a logical channel for data transmission, which is established by two SCTP endpoints through the 4-way handshake mechanism of SCTP. To view SCTP association information about a specified SIP AG, run the **display voice sipag sctp-association-info** command.

This command takes effect only when the transport protocol of the SIP AG is SCTP and an association is available.

Example

Display SCTP association information about SIP AG 1.

```
<Huawei> display voice sipag 1 sctp-association-info
  Association ID                : 12
  Association state             : established
  Association type              : client
  Application ID                : 1
  Local port                    : 5012
  Remote port                   : 5068
  Local IP address              : 192.168.1.213
  Remote active IP address      : 192.168.1.43
  Whether allow HB              : yes
  Local Received window         : 14000
  Remote Received window        : 206348
  Total unconfirmed data chunks : 0
  Remote IP address 1           : 192.168.1.43
  Remote IP 1 state             : active
  Waiting ack data chunks       : 0
  Congestion window             : 4380
  Outstanding data chunks       : 0
  Retransmission time-out       : 1000
  Smoothed round-trip time      : 139ms
  Round-trip time variation     : 83ms
```

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Table 16-119 Description of the display voice sipag sctp-association-info command output

Item	Description
Association ID	SCTP association ID.
Association state	SCTP association status.
Association type	SCTP association type. The value can be client or server.
Application ID	Upper-layer user ID.
Local port	ID of the local port in an SCTP association.
Remote port	ID of the remote port in an SCTP association.
Local IP address	IP address of the local port in an SCTP association.
Remote active IP address	Primary IP address of the remote port in an SCTP association.
Whether allow HB	Whether the local end in an SCTP association is allowed to send heartbeat packets.
Local Received window	Receiving window size of the local end in an SCTP association.
Remote Received window	Receiving window size of the remote end in an SCTP association.
Total unconfirmed data chunks	Number of unconfirmed sent data blocks.
Remote IP address 1	IP address 1 of the remote port in an SCTP association.
Remote IP 1 state	Status of IP address 1 of the remote port in an SCTP association.
Waiting ack data chunks	Number of data blocks to be confirmed by the remote end.
Congestion window	Congestion window size.
Outstanding data chunks	Number of unconfirmed data blocks sent through the SCTP association path.
Retransmission time-out	Retransmission timeout.
Smoothed round-trip time	Average round trip time of the SCTP association path.
Round-trip time variation	Average round trip time variables of the SCTP association path.

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Related Topics

16.6.1.81 sipag

16.6.1.25 display voice sipag sctp-association-statistics

Function

The **display voice sipag sctp-association-statistics** command displays SCTP association statistics about a SIP AG.

Format

display voice sipag *sipag-interface-id* **sctp-association-statistics**

Parameters

Parameter	Description	Value
sipag-interface-id	Specifies the SIP AG ID.	-

Views

All views

Default Level

3: Management level

Usage Guidelines

This command takes effect only when the transport protocol of the SIP AG is SCTP and an association is available.

Example

Display SCTP association statistics about SIP AG 1.

```
<Huawei> display voice sipag 1 sctp-association-statistics
  Association ID                : 12
  Times of T1 timer expires     : 0
  Times of T2 timer expires     : 0
  Retrans data chunks           : 0
  Sent data chunks              : 1241
  Received data chunks          : 42
  Sent sctp packets             : 0
  Received sctp packets         : 1804
  Received error sctp packets   : 0
```

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Table 16-120 Description of the display voice sipag sctp-association-statistics command output

Item	Description
Association ID	SCTP association ID.
Times of T1 timer expires	Number of T1 timer timeouts.
Times of T2 timer expires	Number of T2 timer timeouts.
Retrans data chunks	Number of association data block retransmissions.
Sent data chunks	Number of sent data blocks.
Received data chunks	Number of received data blocks.
Sent sctp packets	Number of sent SCTP packets.
Received sctp packets	Number of received SCTP packets.
Received error sctp packets	Number of received error SCTP packets.

Related Topics

16.6.1.81 sipag

16.6.1.26 display voice sipag sctp-protocol

Function

The **display voice sipag sctp-protocol** command displays SCTP stack parameters of a SIP AG.

Format

display voice sipag *sipag-interface-id* **sctp-protocol** { **config** | **running** }

Parameters

Parameter	Description	Value
sipag-interface-id	Specifies the SIP AG ID.	The value is an integer that ranges from 0 to 16777215.
config	Displays the configured SCTP stack parameters.	-
running	Displays the running SCTP stack parameters.	-

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Views

All views

Default Level

3: Management level

Usage Guidelines

To view SCTP stack parameters of a specified SIP AG, run the **display voice sipag sctp-protocol** command.

Example

Display the configured SCTP stack parameters of SIP AG 1.

```
<Huawei> display voice sipag 1 sctp-protocol config
  In streams                : 33
  Out streams               : 33
  Maximum RTO value(ms)     : 3000
  Initial RTO value(ms)     : 1000
  RTO alpha parameter(%)    : 12
  RTO beta parameter(%)     : 25
  Heartbeat interval(ms)    : 10000
  Valid cookie lifetime(ms) : 60000
  Maximum init retrans      : 8
  Association maxretrans    : 10
  Path maximum retrans      : 5
  No congestion level(%)    : 40
  Low congestion level(%)   : 60
  High congestion level(%)  : 80
  Checksum arithmetic       : crc32
```

Table 16-121 Description of the display voice sipag sctp-protocol command output

Item	Description
In streams	Number of input SCTP streams.
Out streams	Number of output SCTP streams.
Maximum RTO value(ms)	Maximum timeout period of retransmissions.
Initial RTO value(ms)	Initial timeout period of retransmissions.
RTO alpha parameter(%)	Alpha factor in the timeout period of retransmissions.
RTO beta parameter(%)	Beta factor in the timeout period of retransmissions.
Heartbeat interval(ms)	Heartbeat interval.

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Item	Description
Valid cookie lifetime(ms)	Life cycle of a valid cookie.
Maximum init retrans	Maximum number of times an init message is retransmitted.
Association maxretrans	Maximum number of times an association request is retransmitted.
Path maximum retrans	Maximum number of times a path is retransmitted.
No congestion level(%)	Level of no traffic congestion.
Low congestion level(%)	Level of low traffic congestion.
High congestion level(%)	Level of high traffic congestion.
Checksum arithmetic	Checksum algorithm.

Related Topics

16.6.1.81 sipag

16.6.1.27 display voice sipag signal

Function

The **display voice sipag signal** command displays the signal mapping lists of a SIP AG.

Format

display voice sipag signal *sipag-interface-id*

Parameters

Parameter	Description	Value
sipag-interface-id	Specifies the SIP AG ID.	The value is an integer that ranges from 0 to 16777215.

Views

All views

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Default Level

3: Management level

Usage Guidelines

To view the signal mapping lists of a SIP AG, run the **display voice sipag signal** command.

Example

Display the signal mapping lists of a SIP AG.

```
<Huawei> display voice sipag signal 1
  Signal name                 : test
  AGID                      : 1
  Signal unit                : 8

  Seq                       : 0
  Type                      : -
  Duration(ms)                : 4294967295
  Repeat                    : 1
  Start-cond(delay-time)(ms)  : ss
  End-cond(delay-time)(ms)    : -

  Seq                       : 1
  Type                      : -
  Duration(ms)                : 4294967295
  Repeat                    : 1
  Start-cond(delay-time)(ms)  : 0e
  End-cond(delay-time)(ms)    : -

  Seq                       : 2
  Type                      : -
  Duration(ms)                : 4294967295
  Repeat                    : 1
  Start-cond(delay-time)(ms)  : 1e
  End-cond(delay-time)(ms)    : -

  Seq                       : 3
  Type                      : -
  Duration(ms)                : 4294967295
  Repeat                    : 1
  Start-cond(delay-time)(ms)  : 2e
  End-cond(delay-time)(ms)    : -

  Seq                       : 4
  Type                      : -
  Duration(ms)                : 4294967295
  Repeat                    : 1
  Start-cond(delay-time)(ms)  : 3e
  End-cond(delay-time)(ms)    : -

  Seq                       : 5
  Type                      : -
  Duration(ms)                : 4294967295
  Repeat                    : 1
  Start-cond(delay-time)(ms)  : 4e
  End-cond(delay-time)(ms)    : -

  Seq                       : 6
  Type                      : -
  Duration(ms)                : 4294967295
  Repeat                    : 1
  Start-cond(delay-time)(ms)  : 5e
  End-cond(delay-time)(ms)    : -
```

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```
Seq                          : 7
Type                         : -
Duration(ms)                 : 4294967295
Repeat                       : 1
Start-cond(delay-time)(ms)   : 6e
End-cond(delay-time)(ms)     : -

Mapping scene name           : local:dial
```

Table 16-122 Description of the display voice sipag signal command output

Item	Description
Signal name	Signal name.
AGID	ID of the SIP AG interface that the user belongs to.
Signal unit	Signal unit.
Seq	Sequence number of a signal unit.
Type	Signal unit type.
Duration(ms)	Duration of a signal unit.
Repeat	Number of times a signal unit can be repeated.
Start-cond(delay-time)(ms)	Condition that will trigger end of a signal unit.
End-cond(delay-time)(ms)	Condition that will trigger start of a signal unit.
Mapping scene name	Scenario name.

Related Topics

16.6.1.15 display voice sipag

16.6.1.28 display voice sipag status-code-mapping

Function

The **display voice sipag status-code-mapping** command displays the mapping between scenarios and status codes of a SIP AG.

Format

display voice sipag *sipag-interface-id* **status-code-mapping**

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Parameters

Parameter	Description	Value
sipag-interface-id	Specifies the SIP AG ID.	The value is an integer that ranges from 0 to 16777215.

Views

All views

Default Level

3: Management level

Usage Guidelines

To view mapping between scenarios and status codes of a SIP AG, run the **display voice sipag status-code-mapping** command. The status code of a scenario is contained in the response message when this scenario occurs during a call.

Example

Display the mapping between scenarios and status codes of SIP AG 1.

```
<Huawei> display voice sipag 1 status-code-mapping

 Running:  Scene       Status-code

           0           503
           1           503
           2           404
           3           486
           4           480
           5           480
           6           480
           7           486
           8           486
           9           480
           10          488
           11          500
           12          606
           13          486
           14          486
           15          487
           16          486
           17          486
           18          410
           19          481

 Config:   Scene       Status-code
```

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Table 16-123 Description of the display voice sipag status-code-mapping command output

Parameter	Description	Value
0	The CPU is overloaded.	The value is an integer that ranges from 400 to 699. The default value is 503.
1	The power consumption exceeds the threshold.	The value is an integer that ranges from 400 to 699. The default value is 503.
2	The called party does not exist.	The value is an integer that ranges from 400 to 699. The default value is 404.
3	The specified port is occupied by another user account.	The value is an integer that ranges from 400 to 699. The default value is 486.
4	A port does not have a license.	The value is an integer that ranges from 400 to 699. The default value is 480.
5	A port is quitting the service after a delay.	The value is an integer that ranges from 400 to 699. The default value is 480.
6	A port is blocked.	The value is an integer that ranges from 400 to 699. The default value is 480.
7	The port is being locked.	The value is an integer that ranges from 400 to 699. The default value is 486.
8	A port is being tested.	The value is an integer that ranges from 400 to 699. The default value is 486.

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Parameter	Description	Value
9	A user has not quit the service.	The value is an integer that ranges from 400 to 699. The default value is 480.
10	Digital signal processing (DSP) resources are insufficient.	The value is an integer that ranges from 400 to 699. The default value is 488.
11	System resources are insufficient.	The value is an integer that ranges from 400 to 699. The default value is 500.
12	The call is controlled by the calling party or called party.	The value is an integer that ranges from 400 to 699. The default value is 606.
13	The call is being connected to the called user.	The value is an integer that ranges from 400 to 699. The default value is 486.
14	The called user is talking.	The value is an integer that ranges from 400 to 699. The default value is 486.
15	The ringing time exceeds the timeout period.	The value is an integer that ranges from 400 to 699. The default value is 487.
16	The call is rejected in call waiting mode.	The value is an integer that ranges from 400 to 699. The default value is 486.
17	The call times out in call waiting mode.	The value is an integer that ranges from 400 to 699. The default value is 486.
18	The user hangs up to release the waiting call in semi-tight coupling mode.	The value is an integer that ranges from 400 to 699. The default value is 410.

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Parameter	Description	Value
19	A conversation or an event does not exist.	The value is an integer that ranges from 400 to 699. The default value is 481.

Related Topics

16.6.1.81 sipag

16.6.1.29 display voice sipag user-defined-profile

Function

The **display voice sipag user-defined-profile** command displays the user-defined parameters of a SIP AG.

Format

display voice sipag *sipag-interface-id* **user-defined-profile** { **running** | **config** }

Parameters

Parameter	Description	Value
sipag-interface-id	Specifies the SIP AG ID.	The value is an integer that ranges from 0 to 16777215.
running	Displays the running user-defined parameters.	-
config	Displays the configured user-defined parameters.	-

Views

All views

Default Level

3: Management level

Usage Guidelines

To view the user-defined parameters of a specified SIP AG, run the **display voice sipag user-defined-profile** command.

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Example

Display the user-defined parameters of SIP AG 1.

```
<Huawei> display voice sipag 1 user-defined-profile config
 SIPAG AGID : 1

 Codec-Pri:

 Pri : 0         Codec : 8         Pt : 20
 Pri : 1         Codec : 0         Pt : 20
 Pri : 2         Codec : 18         Pt : 10
 Pri : 3         Codec : 4         Pt : 30

 Srv-Pri:

 Pri : 0         Srvid : 4
 Pri : 1         Srvid : 5
 Pri : 2         Srvid : 3
 Pri : 3         Srvid : 2
 Pri : 4         Srvid : 0
 Pri : 5         Srvid : 1
 Pri : 6         Srvid : 6
 Pri : 7         Srvid : 7
 Pri : 8         Srvid : 8
 Pri : 9         Srvid : 9
 Pri : 10         Srvid : 10
 Pri : 11         Srvid : 11
 Pri : 12         Srvid : 12
 Pri : 13         Srvid : 13
 Pri : 14         Srvid : 14
 Pri : 15         Srvid : 15
 Pri : 16         Srvid : 16
 Pri : 17         Srvid : 17
 Pri : 18         Srvid : 18
 Pri : 19         Srvid : 19
 Pri : 20         Srvid : 20
 Pri : 21         Srvid : 21
 Pri : 22         Srvid : 22

 SysPara:

 SP2  : 1
 SP3  : 1
 SP7  : 1
 SP9  : 1
 SP11 : 0
 SP12 : 0
 SP13 : 1
 SP14 : 1
 SP15 : 0
 SP16 : 0
 SP17 : 0
 SP18 : 0
 SP19 : 0
 SP20 : 1
 SP21 : 1
 SP22 : 0
 SP23 : 64
 SP24 : 15
 SP25 : 180
 SP26 : 32
 SP27 : 120
 SP28 : 120
 SP29 : 30
 SP30 : 60
 SP31 : 20
 SP32 : 20
 SP33 : 500
```

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```
SP34 : 45
SP35 : 0
SP36 : 33007
SP37 : 24575
SP38 : 532615
SP39 : 1039
SP40 : 33007
SP41 : 1
SP42 : 1
SP43 : 2
SP47 : 0
SP50 : 1
SP51 : 1
SP52 : 2
SP53 : 0
SP55 : 0
SP56 : 0
SP58 : 0
SP59 : 0
SP62 : 500
SP63 : 10
SP64 : 20
SP65 : 3
SP66 : 3
SP67 : 6
SP69 : 0
SP70 : 0
SP72 : 0
SP80 : 0
SP82 : 0
SP85 : 1
SP86 : 3
SP87 : 1
SP88 : 180
SP89 : 10
SP90 : 4
SP91 : 20
SP92 : 30
SP93 : 30
SP94 : 180
SP95 : 4
SP96 : 90
SP97 : 30
SP98 : 6
SP99 : 4
SP100: 120
SP101: 100
SP102: 30
SP103: 30
SP104: 4
SP105: 10
SP106: 10
SP107: 16
SP108: 8
SP109: 2
SP110: 0
SP111: 1
SP112: 2
SP113: 2
SP114: 1
SP115: 2
SP116: 1
SP117: 0
SP118: 0
SP119: 1
SP120: 0
SP121: 1
SP122: 2
SP123: 0
```

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```
SP124: 0
SP125: 0
SP126: 0
SP127: 0
SP128: 0
SP129: 0
SP130: 0
SP131: 0
SP132: 0
SP133: 1
SP134: 0
SP135: 0
SP136: 0
SP137: 1
SP138: 0
SP139: 0
SP140: 0
SP141: 1
SP142: 0
SP143: 0
SP144: 0
SP145: 1
SP146: 1
SP148: 1
SP150: 36000
SP151: 500
SP152: 0
SP154: 8194
SP155: 0
SP156: 0
SP157: 50
SP158: 0
SP159: 0
SP160: 0
SP161: 1
SP162: 1
SP163: 0
SP164: 0
SP165: 0
SP166: 1
SP167: 0
SP168: 0
SP169: 0
SP170: 0
SP171: 0
SP172: 180
SP173: 90
SP174: 0
SP175: 0
SP176: 0
SP177: 30
SP179: 0
SP180: 0
SP181: 1
SP182: 0
SP183: 0
SP184: 1
SP185: 1
SP186: 2
SP187: 70000
SP188: 1
SP189: 0
SP190: 0
SP191: 0
SP192: 0
SP193: 30
SP194: 21600
SP195: 0
SP196: 0
```

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```
SP197: 0
SP198: 0
SP199: 0
SP200: 0
SP201: 0
SP202: 0
SP203: 0
SP204: 480
SP205: 486
SP206: 486
SP207: 0
SP208: 30
SP210: 0
SP211: 0
SP212: 1
SP213: 0
SP214: 0
SP215: 0
SP216: 0
SP217: 0
SP218: 0
SP219: 0
SP220: 0
SP221: 15
SP222: 0
SP223: 1
SP224: 0
SP225: 20
SP226: 20
SP227: 4
SP228: 0
SP229: 0
SP230: 0
SP231: 0
SP232: 0
SP233: 1
SP234: 0
SP235: 0
SP236: 0
SP237: 0
SP238: 1800
SP239: 0
SP240: 0
SP241: 0
SP242: 1200
SP243: 1
SP244: 0
SP245: 0
SP246: 6
SP247: 0
SP248: 0
SP249: 1
SP251: 1000
SP252: 0
SP253: 1
SP254: 0
SP255: 0
SP256: 1
SP257: 1
SP258: 0
SP259: 0
SP261: 0
SP262: 0
SP263: 1
SP264: 0
SP265: 1
SP266: 100
SP267: 1
SP268: 0
```

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```
SP269: 0
SP270: 1
SP271: 0
SP272: 0
SP273: 0
SP274: 0
SP275: 0
SP276: 0
SP277: 1
SP278: 1
SP279: 0
SP280: 2147434495
SP281: 0
SP282: 1
SP283: 0
SP284: 0
SP285: 0
SP286: 0
SP287: 0
SP301: 0
SP302: 0
SP303: 0
SP304: 1
SP305: 1
SP306: 0
SP307: 0
SP308: 2147483639
SP309: 2147483647
SP310: 0
SP311: 2
SP312: 2147483647
SP313: 2147483647
SP314: 2147483647
SP315: 2147483647
SP316: 2147483647
SP317: 2147483647
SP318: 2147483647
SP319: 2147483647
SP320: 2147483647
SP321: 2147483647
SP322: 2147483647
SP323: 2147483647
SP324: 0
SP325: 0
SP326: 0
SP327: 8
SP328: 1
```

Table 16-124 Description of the display voice sipag user-defined-profile command output

Item	Description
SIPAG AGID	ID of the SIP AG interface that the user belongs to.
Codec-Pri	Codec priority.
Pri	Codec/service priority. The value is an integer that ranges from 0 to 255. A smaller value indicates a higher priority.
Codec	Codec value. The value is an integer that ranges from 0 to 255. Common codecs are G711U (0), G723 (4), G711A (8), and G729 (18).

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Item	Description
Pt	Packetization duration. The value is an integer that ranges from 0 to 4294967295. Generally, the value is a multiple of 5. Common packetization durations are 10, 20, and 30 milliseconds.
Srv-Pri	Service priority.
Srvid	Service type. The value is an integer that ranges from 0 to 4294967295.
SysPara	System parameters, including system parameter indexes and corresponding values. For example, the index and value of number 7 system parameter are respectively SP7 and 1.

Related Topics

16.6.1.81 sipag

16.6.1.30 dtmf-transmission-mode

Function

Using the **dtmf-transmission-mode** command, you can configure the Dual-Tone Multifrequency (DTMF) transmission mode for a SIP AG.

Using the **undo dtmf-transmission-mode** command, you can restore the default DTMF transmission mode of a SIP AG.

By default, the DTMF transmission mode is transparent transmission.

Format

dtmf-transmission-mode { **throughly** | **erase** }

undo dtmf-transmission-mode

Parameters

Parameter	Description	Value
throughly	Indicates DTMF transparent transmission.	-
erase	Indicates DTMF signal removing.	-

Views

SIP AG view

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Default Level

2: Configuration level

Usage Guidelines

The **dtmf-transmission-mode** command configures the DTMF transmission mode for a SIP AG:

- DTMF transparent transmission: is the default DTMF transmission mode.
- DTMF signal removing: is used when DTMF signaling is transmitted in accordance with RFC 2833 and DTMF signals do not need to be transmitted.

Example

Set the DTMF transmission mode to transparent transmission for a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] dtmf-transmission-mode throughly
```

Related Topics

16.6.1.17 display voice sipag dtmf

16.6.1.31 fax-modem common negotiation-mode

Function

Using the **fax-modem common negotiation-mode** command, you can set the fax/modem codec negotiation mode of a SIP AG.

Using the **undo fax-modem common negotiation-mode** command, you can restore the default fax/modem codec negotiation mode of a SIP AG.

By default, the fax/modem codec negotiation mode is negotiation.

Format

fax-modem common negotiation-mode { **negotiate** | **self-switch** }

undo fax-modem common negotiation-mode

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Parameters

Parameter	Description	Value
negotiate	Sets the fax/modem codec negotiation mode to negotiation. In negotiation mode, the MG needs to negotiate with the MGC for the codec negotiation mode using signaling.	-
self-switch	Sets the fax/modem codec negotiation mode to self-switch.	-

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

To set the fax/modem codec negotiation mode of a SIP AG, run the **fax-modem common negotiation-mode** command.

Example

Set the fax/modem codec negotiation mode of SIP AG 1 to self-switch.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] fax-modem common negotiation-mode self-switch
```

Related Topics

16.6.1.18 display voice sipag fax-modem

16.6.1.32 fax-modem common rtp-interval

Function

Using the **fax-modem common rtp-interval** command, you can set the packetization interval in transparent transmission mode.

Using the **undo fax-modem common rtp-interval** command, you can restore the default packetization interval in transparent transmission mode.

By default, the packetization interval in transparent transmission mode is 10 ms.

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Format

fax-modem common rtp-interval { **5ms** | **10ms** | **20ms** | **30ms** }

undo fax-modem common rtp-interval

Parameters

None

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

Before setting the packetization interval, perform either of the following operations:

- Run the **fax-modem modem transmission-mode** command to set the modem transmission mode to transparent transmission.
- Run the **fax-modem fax transmission-mode** command to set the fax transmission mode to transparent transmission.

Example

Set the packetization interval in transparent transmission mode to 20 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] fax-modem common rtp-interval 20ms
```

Related Topics

16.6.1.36 fax-modem fax transmission-mode

16.6.1.37 fax-modem modem transmission-mode

16.6.1.18 display voice sipag fax-modem

16.6.1.33 fax-modem common vbd-attribute-type

Function

Using the **fax-modem common vbd-attribute-type** command, you can set the VBD attribute type of a SIP AG.

Using the **undo fax-modem common vbd-attribute-type** command, you can restore the default VBD attribute type of a SIP AG.

By default, the VBD attribute type is V.152.

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Format

fax-modem common vbd-attribute-type { **chinatelecom** | **chinatelecomext** | **ietf** | **v152** }

undo fax-modem common vbd-attribute-type

Parameters

Parameter	Description	Value
chinatelecom	Indicates the China Telecom mode.	-
chinatelecomext	Indicates the extended China Telecom mode.	-
ietf	Indicates the IETF mode.	-
v152	Indicates the V.152 mode.	-

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

To set the VBD attribute type of a SIP AG, run the **fax-modem common vbd-attribute-type** command.

Example

Set the VBD attribute type to IETF.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] fax-modem common vbd-attribute-type ietf
```

Related Topics

16.6.1.18 display voice sipag fax-modem

16.6.1.34 fax-modem common vbd-codec

Function

Using the **fax-modem common vbd-codec** command, you can set the VBD codec mode of a SIP AG.

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Using the **undo fax-modem common vbd-codec** command, you can restore the default VBD codec mode of a SIP AG.

By default, the VBD codec mode is A-law algorithm in G.711.

Format

fax-modem common vbd-codec { **g711a** | **g711u** }

undo fax-modem common vbd-codec

Parameters

Parameter	Description	Value
g711a	Indicates the A-law algorithm in G.711.	-
g711u	Indicates the μ-law algorithm in G.711.	-

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

To set the VBD codec mode of a SIP AG, run the **fax-modem common vbd-codec** command.

Example

Set the VBD codec mode of SIP AG 1 to μ-law algorithm in G.711.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] fax-modem common vbd-codec g711u
```

Related Topics

16.6.1.18 display voice sipag fax-modem

16.6.1.35 fax-modem common vbd-pt-type

Function

Using the **fax-modem common vbd-pt-type** command, you can configure the VBD payload type of a SIP AG.

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Using the **undo fax-modem common vbd-pt-type** command, you can restore the default VBD payload type of a SIP AG.

By default, the VBD payload type is static.

Format

fax-modem common vbd-pt-type { **dynamic** | **static** }

undo fax-modem common vbd-pt-type

Parameters

Parameter	Description	Value
dynamic	Indicates dynamic payload.	-
static	Indicates static payload.	-

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

To configure the VBD payload type of a SIP AG, run the **fax-modem common vbd-pt-type** command.

Example

Set the VBD payload type to dynamic payload.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] fax-modem common vbd-pt-type dynamic
```

Related Topics

16.6.1.18 display voice sipag fax-modem

16.6.1.36 fax-modem fax transmission-mode

Function

Using the **fax-modem fax transmission-mode** command, you can configure the fax transmission mode for a SIP AG.

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Using the **undo fax-modem fax transmission-mode** command, you can restore the default fax transmission mode of a SIP AG.

By default, the fax transmission mode of a SIP AG is transparent transmission.

Format

fax-modem fax transmission-mode { **throughly** | **t38** }

undo fax-modem fax transmission-mode

Parameters

Parameter	Description	Value
throughly	Indicates the transparent transmission mode.	-
t38	Indicates the T.38 mode.	-

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

The **fax-modem fax transmission-mode** command configures the fax transmission mode for a SIP AG:

- Transparent transmission mode: uses the coding mode defined in G.711.
- T.38 mode: uses the fax-dedicated coding mode.

Example

Set the fax transmission mode to transparent transmission for a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] fax-modem fax transmission-mode throughly
```

Related Topics

16.6.1.18 display voice sipag fax-modem

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16.6.1.37 fax-modem modem transmission-mode

Function

Using the **fax-modem modem transmission-mode** command, you can configure the modem transmission mode for a SIP AG.

Using the **undo fax-modem modem transmission-mode** command, you can restore the default modem transmission mode of a SIP AG.

By default, the modem transmission mode of a SIP AG is transparent transmission.

Format

fax-modem modem transmission-mode { **throughly** | **relay** }

undo fax-modem modem transmission-mode

Parameters

Parameter	Description	Value
throughly	Indicates the transparent transmission mode.	-
relay	Indicates the relay mode.	-

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

The **fax-modem modem transmission-mode** command configures the modem transmission mode for a SIP AG:

- Transparent transmission mode: The G.711 codec is used, and modem signals are processed as ordinary RTP data. This mode depends on the bearer network. If users are disconnected from the network, the access rate is low, or the network is unstable, check the packet loss ratio and jitter on the bearer network.
- Relay mode: is also called the redundancy mode. The gateway modulates modem signals. Generally, the gateway also performs local error check and transmits the modulated data to the peer gateway by using a reliable protocol.

Example

Set the modem transmission mode to the relay mode.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] fax-modem modem transmission-mode relay
```

Related Topics

16.6.1.18 display voice sipag fax-modem

16.6.1.38 home-domain

Function

Using the **home-domain** command, you can configure a home domain name for a SIP AG.

Using the **undo home-domain** command, you can delete the home domain name of a SIP AG.

By default, no home domain name is configured for a SIP AG.

Format

home-domain *home-domain-value*

undo home-domain

Parameters

Parameter	Description	Value
home-domain-value	Specifies a home domain name.	The name is a string of 1 to 64 case-sensitive characters without spaces and underscores.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

The home domain name is a mandatory parameter.

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Configure a home domain name **abcd.com** for a SIP AG.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] home-domain abcd.com
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.39 local-digitmap

Function

Using the **local-digitmap** command, you can configure a SIP AG digitmap.

Using the **undo local-digitmap** command, you can delete a SIP AG digitmap.

By default, no SIP AG digitmap is configured.

Format

local-digitmap *name-value* { **append** | **type** { **normal** | **emergency** | **scc** | **direct-centrex** | **second-centrex** } } *body-value*

undo local-digitmap *name-value* [*body-value*]

Parameters

Parameter	Description	Value
name-value	Specifies the name of a SIP AG digitmap.	The value is a string of 1 to 32 characters.
append	Adds a body to a SIP AG digitmap.	-
type { **normal** | **emergency** | **scc** | **direct-centrex** | **second-centrex** }	Specifies the digitmap type.	Enumerated type. The values are as follows: • **normal**: configures a normal digitmap. • **emergency**: configures an emergency digitmap. • **scc**: configures a service digitmap. • **direct-centrex**: configures a direct dialing Centrex digitmap. • **second-centrex**: configures a two-stage dialing Centrex digitmap.

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Parameter	Description	Value
body-value	Specifies the body of a SIP AG digitmap.	The value is a string of 1 to 180 characters.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

A SIP AG digitmap contains one or more bodies. Each body contains no more than 256 bytes.

A digitmap defines dialup rules. Calls can be initiated only when numbers match the rules. By default, all calling numbers are allowed.

A body can contain the following characters: digits 0 to 9, dot (.), vertical bar (|), square brackets [ ], hyphen (-), parentheses ( ), letters A to K and X, and letters T, S, L, Z (case-sensitive). A body complies with the following rules:

- Parentheses ( ) and square brackets [ ] must be used in pairs, and ( ) cannot be placed in the middle of the body.
- X, |, or . cannot be included in square brackets.
- A hyphen (-) is placed between two numbers, indicating a value range. The number behind the hyphen must be greater than the number before the hyphen. The value range must be included in square brackets.
- L, S, T, or Z cannot be followed by a dot.
- A body cannot start with L, S, T, Z, or a dot.

Default digitmap are as follows, when new digitmap is being configured, default digitmap will be cleared.

- Default service digitmap: (ExxFx.E|ExxFx.L|ExFx.E|ExFx.L|Exx.F|EFxx.F|Fxx.F)
- Default emergency hotline digitmap: (11X|91X|0E)
- Default dial digitmap: ([2-8]xxxxxxx|[2-8]xxSxxxxxxx|13xxxxxxxxx|0xxxxxxxxx|9xxxx|1[0124-9]x|F|x.F|[0-9].S)

Example

Configure a digitmap for a SIP AG, which allows only 8-digit numbers starting with 8888.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] local-digitmap huawei type normal 8888xxxx
```

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Related Topics

16.6.1.15 display voice sipag

16.6.1.40 loop (VE1 interface view)

Function

The **loop** command enables the loopback attribute on a VE1 interface.

The **undo loop** command disables the loopback attribute on a VE1 interface.

By default, the loopback attribute is disabled on a VE1 interface.

Format

loop *loop-value*

undo loop

Parameters

Parameter	Description	Value
loop *loop-value*	Indicates the loopback attribute on the interface.	Enumerated type. The values are as follows: • remote: indicates remote loopback. • local: indicates local loopback.

Views

VE1 interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable the local loopback attribute on the VE1 interface.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port ve1 2/0/0
[Huawei-voice-ve1-2/0/0] loop local
```

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16.6.1.41 loop (bra interface view)

Function

The **loop** command enables the loopback attribute on a bra interface.

The **undo loop** command disables the loopback attribute on a bra interface.

By default, the loopback attribute is disabled on a bra interface.

Format

loop *loop-value*

undo loop

Parameters

Parameter	Description	Value
loop *loop-value*	Indicates the loopback attribute on the interface.	Enumerated type. The values are as follows: • remote: indicates remote loopback. • local: indicates local loopback.

Views

bra interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable the local loopback attribute on the bra interface.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port bra 2/0/0
[Huawei-voice-bra-2/0/0] loop local
```

16.6.1.42 loop (fxs interface view)

Function

The **loop** command enables the loopback attribute on a fxs interface.

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The **undo loop** command disables the loopback attribute on a fxs interface.

By default, the loopback attribute is disabled on a fxs interface.

NOTE

The AR129CV, AR129CVW, and AR129CGVW-L do not support this command.

Format

loop *loop-value*

undo loop

Parameters

Parameter	Description	Value
loop *loop-value*	Indicates the loopback attribute on the interface.	Enumerated type. The values are as follows: • remote: indicates remote loopback. • local: indicates local loopback.

Views

fxs interface view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Enable the local loopback attribute on the fxs interface.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] port fxs 2/0/0
[Huawei-voice-fxs-2/0/0] loop local
```

16.6.1.43 media-addr

Function

Using the **media-addr** command, you can configure a media IP address for a SIP AG and configure a name for the media IP address.

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Using the **undo media-addr** command, you can delete the media IP address and media IP address name of a SIP AG.

By default, no media IP address or media IP address name is configured for a SIP AG.

Format

media-addr { *media-ip* | **addr-name** *media-addr-name* }

undo media-ip

undo media-addr-name

Parameters

Parameter	Description	Value
media-ip	Specifies the media IP address of a SIP AG.	The value is in dotted decimal notation.
media-addr-name	Specifies the media IP address name of a SIP AG.	The value is a string of 1 to 64 characters.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

To provide the media exchange function, a SIP AG must have a media IP address or a media IP address name. To view the mode in which the IP address of a proxy server is obtained, run the **display voice sipag** command:

- If the static mode is set, the configured IP address takes effect.
- If another mode is set, the configured IP address name takes effect.

Precautions

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Configure an existing media IP address 192.168.1.1 for a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] media-addr 192.168.1.1
```

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Related Topics

16.6.1.15 display voice sipag

16.6.1.44 media-bandwidth-control enable (SIPAG)

Function

The **media-bandwidth-control enable** command enables CAC on a SIP AG.

The **undo media-bandwidth-control enable** command disables CAC on a SIP AG.

By default, CAC is disabled on a SIP AG.

Format

media-bandwidth-control enable

undo media-bandwidth-control enable

Parameters

None

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

The uplink bandwidth is limited on the IP bearer network. For example, some users may access the IP bearer network using ADSL. If voice data is transmitted through the IP bearer network, the voice communication may be restricted by the bandwidth. More voice calls occupy more bandwidth on the network. To improve the voice communication quality, run the **media-bandwidth-control enable** command to enable CAC on the SIP AG.

Follow-up Procedure

Run the **media-bandwidth-control_max-bandwidth_sipag** command to set the maximum uplink media bandwidth of voice data.

Example

Enable CAC on the SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] media-bandwidth-control enable
```

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16.6.1.45 media-bandwidth-control max-bandwidth (SIPAG)

Function

The **media-bandwidth-control max-bandwidth** command sets the maximum uplink media bandwidth of voice data.

The **undo media-bandwidth-control max-bandwidth** command restores the default maximum uplink media bandwidth of voice data.

By default, the maximum uplink media bandwidth of voice data is 500000 kbit/s.

Format

media-bandwidth-control max-bandwidth *max-bandwidth-value*

undo media-bandwidth-control max-bandwidth

Parameters

Parameter	Description	Value
max-bandwidth-value	Specifies the maximum uplink media bandwidth occupied by voice data.	The value is an integer that ranges from 1 to 5000, in 100 kbit/s. The default value is 5000, that is, 500000 kbit/s.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

After CAC is enabled on the SIP AG by running the **16.6.1.44 media-bandwidth-control enable (SIPAG)** command, run the **media-bandwidth-control max-bandwidth** command to specify the maximum uplink media bandwidth of voice data. If call restriction is enabled when the uplink bandwidth is insufficient and the **media-bandwidth-control max-bandwidth** command is not run, the default maximum uplink media bandwidth is 500000 kbit/s. When the bandwidth occupied by voice calls reaches the maximum value, new voice calls are restricted.

CAC calculates the bandwidth occupied by voice communication based on the number of voice calls. Each voice call occupies 95 kbit/s in G.711. When the uplink media bandwidth of voice data is 0, new voice calls are rejected. When the uplink media bandwidth of voice data is lower than 95 kbit/s, only one call is allowed. Then the uplink bandwidth is used up.

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CAC can only detect the uplink media bandwidth of voice data, but not that of non-voice data packets. If the reserved maximum uplink media bandwidth of voice data is improper, the voice communication quality may be affected.

For example, the reserved uplink media bandwidth supports a maximum of 100 calls. When the 80th call is connected, the uplink bandwidth of the IP network has been used up by voice data packets and other IP data packets. However, CAC cannot detect that the uplink bandwidth is used up. The 81st call is not rejected because the uplink media bandwidth supports 100 calls. When the 81st call is connected, packets may be lost and the network may be blocked, affecting the voice communication quality.

Prerequisites

CAC has been enabled on the SIP AG using the **16.6.1.44 media-bandwidth-control enable (SIPAG)** command.

Example

Set the maximum uplink bandwidth to 400000 kbit/s.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] media-bandwidth-control enable
[Huawei-voice] media-bandwidth-control max-bandwidth 4000
```

16.6.1.46 nte-dtmf

Function

Using the **nte-dtmf** command, you can enable or disable RFC 2833 DTMF transmission.

Using the **undo nte-dtmf** command, you can restore the default configuration.

By default, RFC 2833 DTMF transmission is enabled.

Format

nte-dtmf { **enable** | **disable** }

undo nte-dtmf

Parameters

Parameter	Description	Value
enable	Enables RFC 2833 DTMF transmission.	-
disable	Disables RFC 2833 DTMF transmission.	-

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Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

You can run the **nte-dtmf** command to enable or disable RFC 2833 DTMF transmission.

Example

Enable RFC 2833 DTMF transmission on a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] nte-dtmf enable
```

Related Topics

16.6.1.19 display voice sipag nte

16.6.1.47 nte-fax-modem

Function

Using the **nte-fax-modem** command, you can enable or disable RFC 2833 fax and modem transmission.

Using the **undo nte-fax-modem** command, you can restore the default configuration.

By default, RFC 2833 fax and modem transmission is enabled.

Format

nte-fax-modem { **enable** | **disable** }

undo nte-fax-modem

Parameters

Parameter	Description	Value
enable	Enables RFC 2833 fax and modem transmission.	-
disable	Disables RFC 2833 fax and modem transmission.	-

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Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

You can run the **nte-fax-modem** command to enable or disable RFC 2833 fax and modem transmission.

Example

Enable RFC 2833 fax and modem transmission on a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] nte-fax-modem enable
```

Related Topics

16.6.1.19 display voice sipag nte

16.6.1.48 nte-flash-hook

Function

Using the **nte-flash-hook** command, you can enable or disable RFC 2833 hookflash transmission.

Using the **undo nte-flash-hook** command, you can restore the default configuration.

By default, RFC 2833 hookflash transmission is disabled.

Format

nte-flash-hook { **enable** | **disable** }

undo nte-flash-hook

Parameters

Parameter	Description	Value
enable	Enables RFC 2833 hookflash transmission.	-

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Parameter	Description	Value
disable	Disables RFC 2833 hookflash transmission.	-

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

You can run the **nte-flash-hook** command to enable or disable RFC 2833 hookflash transmission.

Example

Enable RFC 2833 hookflash transmission on a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] nte-flash-hook enable
```

Related Topics

16.6.1.19 display voice sipag nte

16.6.1.49 nte-negotiation-mode

Function

The **nte-negotiation-mode** command configures the mode in which RFC 2833 transmission is started based on negotiation.

The **undo nte-negotiation-mode** command restores the default mode in which RFC 2833 transmission is started based on negotiation.

By default, the mode in which RFC 2833 transmission is started based on negotiation is **no-initiative-start**.

Format

nte-negotiation-mode *mode-value*

undo nte-negotiation-mode

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Parameters

Parameter	Description	Value
mode-value	Specifies the mode in which RFC 2833 transmission is started based on negotiation.	Enumerated type. The values are as follows: • **negotiation**: configures the initiative startup mode. • **fixed-start**: configures the fixed startup mode. • **no-initiative-start**: configures the no-initiative startup mode.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

The **nte-negotiation-mode** command configures the mode in which RFC 2833 transmission is started based on negotiation:

- Initiative startup: RFC 2833 transmission is started only after the negotiation between the local end and remote end succeeds. The negotiation may be initiated by the local end or remote end.
- Fixed startup: The local end does not initiate any negotiation but accepts the initiated negotiation. In fixed startup mode, RFC 2833 transmission is started based on the local configuration regardless of the negotiation result.
- No-initiative startup: RFC 2833 transmission starts only after the local end receives the negotiation invitation from the remote end.

Example

Set the mode in which RFC 2833 transmission is started based on negotiation to **fixed-start**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] nte-negotiation-mode fixed-start
```

Related Topics

16.6.1.19 display voice sipag nte

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16.6.1.50 phone-context

Function

Using the **phone-context** command, you can configure the phone context for a SIP AG.

Using the **phone-context** command, you can delete the phone context of a SIP AG.

By default, no phone context is configured for a SIP AG.

Format

phone-context *phone-context-value*

undo phone-context

Parameters

Parameter	Description	Value
phone-context-value	Specifies the phone context for a SIP AG.	The value is a string of 1 to 32 case-sensitive characters.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

The **phone-context** command configures the phone context for a SIP AG. The phone context identifies the context of a local number, that is, the number range. The phone context and local number identify a unique resource.

The phone context can be expressed using a global number or domain name.

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Set the phone context of a SIP AG to **+8625**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] phone-context +8625
```

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Related Topics

16.6.1.15 display voice sipag

16.6.1.51 primary-proxy-addr dns-a

Function

The **primary-proxy-addr dns-a** command configures the DNS-A domain name and port number for the primary proxy server.

The **undo primary-proxy-addr** command deletes the DNS-A domain name and port number of the primary proxy server.

By default, no DNS-A domain name or port number is configured for the primary proxy server.

Format

primary-proxy-addr dns-a *dns-a-domain-name dns-a-port-number*

undo primary-proxy-addr

Parameters

Parameter	Description	Value
dns-a-domain-name	Specifies the DNS-A domain name of the primary proxy server.	The value is a string of 1 to 64 characters.
dns-a-port-number	Specifies the port number of the DNS-A domain name.	The value is an integer that ranges from 1 to 65535.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Set the DNS-A domain name and port number of the primary proxy server on a SIP AG to www.abcd.com and 5060.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] primary-proxy-addr dns-a www.abcd.com 5060
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.52 primary-proxy-addr dns-naptr

Function

The **primary-proxy-addr dns-naptr** command configures the DNS-NAPTR domain name of the primary proxy server.

The **undo primary-proxy-addr** command deletes the DNS-NAPTR domain name of the primary proxy server.

By default, no DNS-NAPTR domain name is configured for the primary proxy server.

Format

primary-proxy-addr dns-naptr *dns-naptr-domain-name*

undo primary-proxy-addr

Parameters

Parameter	Description	Value
dns-naptr-domain-name	Specifies the DNS-NAPTR domain name of the primary proxy server.	The value is a string of 1 to 64 characters.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Configure the DNS-NAPTR domain name of the primary proxy server on a SIP AG.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] primary-proxy-addr dns-naptr www.abcd.com
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.53 primary-proxy-addr dns-srv

Function

The **primary-proxy-addr dns-srv** command configures the DNS-SRV domain name of the primary proxy server.

The **undo primary-proxy-addr** command deletes the DNS-SRV domain name of the primary proxy server.

By default, no DNS-SRV domain name is configured for the primary proxy server.

Format

primary-proxy-addr dns-srv *dns-srv-domain-name*

undo primary-proxy-addr

Parameters

Parameter	Description	Value
dns-srv-domain-name	Specifies the DNS-SRV domain name of the primary proxy server.	The value is a string of 1 to 64 characters.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Configure the DNS-SRV domain name of the primary proxy server on a SIP AG.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] primary-proxy-addr dns-srv www.abcd.com
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.54 primary-proxy-addr static

Function

The **primary-proxy-addr static** command configures a static IP address for the primary proxy server.

The **undo primary-proxy-addr** command deletes the static IP address of the primary proxy server.

By default, no static IP address is configured for the primary proxy server.

Format

primary-proxy-addr static *static-ip-address static-ip-address-port* [**secondary** *static-ip-address2*]

undo primary-proxy-addr

Parameters

Parameter	Description	Value
static-ip-address	Specifies a static IP address for the primary proxy server.	The value is in dotted decimal notation.
static-ip-address-port	Specifies a port number of the static IP address.	The value is an integer that ranges from 1 to 65534.
secondary *static-ip-address2*	Specifies a static IP address 2 for the primary proxy server.	The value is in dotted decimal notation.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

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Example

Set the IP address of the primary proxy server for a SIP AG to 192.168.1.1 and port number to 5061.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] primary-proxy-addr 192.168.1.1 5061
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.55 profile

Function

The **profile** command configures the profile index of a SIP AG.

The **undo profile** command restores the default profile index of a SIP AG.

By default, the profile index of a SIP AG is 1.

Format

profile *profile-index*

undo profile

Parameters

Parameter	Description	Value
profile-index	Specifies the profile index.	The value is an integer that ranges from 0 to 3: • 0: user-defined profile • 1: default profile • 2: pre-configured profile

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

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Example

Set the profile index of a SIP AG to 1.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] profile 1
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.56 proxy-detect-mode

Function

Using the **proxy-detect-mode** command, you can configure the mode used by a SIP AG to detect a proxy server.

Using the **undo proxy-detect-mode** command, you can restore the default mode used by a SIP AG to detect a proxy server.

By default, a SIP AG uses the probe mode to detect a proxy server.

Format

proxy-detect-mode { **option** | **probe** | **register** }

undo proxy-detect-mode

Parameters

Parameter	Description	Value
option	Specifies the option message mode.	-
probe	Specifies the probe mode.	-
register	Specifies the register mode.	-

Views

SIP AG view

Default Level

2: Configuration level

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Usage Guidelines

You can run this command to configure the mode used by a SIP AG to detect a proxy server, including the option message mode, probe mode, and register mode.

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Set the mode used for detecting a proxy server to **register**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] proxy-detect-mode register
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.57 proxy-dhcp-option

Function

The **proxy-dhcp-option** command configures the mode used for sending DHCP requests.

The **undo proxy-dhcp-option** command restores the default mode used for sending DHCP requests.

By default, the mode used for sending DHCP request is none.

Format

proxy-dhcp-option *option-value*

undo proxy-dhcp-option

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Parameters

Parameter	Description	Value
option-value	Sets the mode used for sending DHCP requests.	Enumerated type. The values are as follows: • None: sets the mode used for sending DHCP requests to none. • Option120: sets the mode used for sending DHCP requests to Option120. • Option21: sets the mode used for sending DHCP requests to Option21.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Set the mode used for sending DHCP requests to **Option120**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] proxy-dhcp-option Option120
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.58 proxy-dual-home

Function

Using the **proxy-dual-home** command, you can configure the mode in which a SIP AG is dual homed to proxy servers.

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Using the **undo proxy-dual-home** command, you can restore the default mode in which a SIP AG is dual homed to proxy servers.

By default, a SIP AG supports dual homing but does not support automatic switchover.

Format

proxy-dual-home { **disable** | **manual-switchover** | **auto-switchover** }

undo proxy-dual-home

Parameters

Parameter	Description	Value
disable	Disables dual-homing.	-
manual-switchover	Enables dual-homing and disables automatic switchover.	-
auto-switchover	Enables dual-homing and automatic switchover.	-

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

You can run this command to configure the mode in which a SIP AG is dual homed to proxy servers. The mode can be disabled dual-homing, enabled dual-homing and disabled automatic switchover, or enabled dual-homing and automatic switchover.

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Set the mode in which a SIP AG is dual homed to proxy servers to **auto-switchover**

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] proxy-dual-home auto-switchover
```

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Related Topics

16.6.1.15 display voice sipag

16.6.1.59 proxy-refresh-mode

Function

Using the **proxy-refresh-mode** command, you can configure the mode used by a SIP AG to update the proxy server address.

Using the **undo proxy-refresh-mode** command, you can restore the default mode used by a SIP AG to update the proxy server address.

By default, a SIP AG updates the proxy server IP address after a delay (defer mode).

Format

proxy-refresh-mode { **no-switch** | **defer** | **immediate** }

undo proxy-refresh-mode

Parameters

Parameter	Description	Value
no-switch	Indicates that the proxy server address is not updated.	-
defer	Indicates that the proxy server address is updated after a delay.	-
immediate	Indicates that the proxy server address is updated immediately.	-

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

You can run this command to configure the mode used by a SIP AG to update the proxy server address, including no update, deferred update, and immediate update.

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This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Configure a SIP AG to update the proxy server address immediately.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] proxy-refresh-mode immediate
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.60 proxy-switchover

Function

Using the **proxy-switchover** command, you can register a SIP AG with the specified proxy server.

Format

proxy-switchover { **primary** | **secondary** }

Parameters

Parameter	Description	Value
primary	Indicates the primary proxy server.	-
secondary	Indicates the secondary proxy server.	-

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

When you need to maintain or troubleshoot the current proxy server, run this command. After this command is executed successfully, the SIP AG registers with the specified proxy server.

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Example

Register a SIP AG with the specified secondary server.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] proxy-switchover secondary
  Are you sure to switch proxy?(y/n)[n]:
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.61 redundancy-negotiation-mode

Function

The **redundancy-negotiation-mode** command configures the mode used to start the RFC 2198 redundancy transmission based on the negotiation.

The **undo redundancy-negotiation-mode** command restores the default mode used to start the RFC 2198 redundancy transmission based on the negotiation.

The default mode is **no-initiative-start**.

Format

redundancy-negotiation-mode *negotiation-mode*

undo redundancy-negotiation-mode

Parameters

Parameter	Description	Value
negotiation-mode	Sets the mode used to start the RFC 2198 redundancy transmission based on the negotiation.	Enumerated type. The values are as follows: • **negotiation**: configures the initiative startup mode. • **fixed-start**: configures the fixed startup mode. • **no-initiative-start**: configures the no-initiative startup mode.

Views

SIP AG view

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Default Level

2: Configuration level

Usage Guidelines

You can run this command to configure the mode used to start the RFC 2198 redundancy transmission based on the negotiation. You can use the following modes:

- Initiative startup: You can start the RFC 2198 redundancy transmission only after the negotiation between the local end and the remote end succeeds. The negotiation may be initiated by the local end or remote end.
- Fixed startup: The local end does not initiate negotiations but receives initiated negotiations. In fixed startup mode, RFC 2198 redundancy transmission is started based on the local configuration regardless of the negotiation result.
- No-initiative startup: You can start the RFC 2198 redundancy transmission based on the negotiation only after the local end receives negotiation invitations from the remote end. If the negotiation fails, the RFC 2198 redundancy transmission is not started.

Example

Set the mode used for starting the RFC 2198 redundancy transmission to **fixed-start**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] redundancy-negotiation-mode fixed-start
```

Related Topics

16.6.1.23 display voice sipag redundancy

16.6.1.62 redundancy-nte

Function

Using the **redundancy-nte** command, you can enable a SIP AG to use RFC 2198 redundancy transmission to transmit the RFC 2833 audio data.

Using the **undo redundancy-nte** command, you can disable a SIP AG from using RFC 2198 redundancy transmission to transmit the RFC 2833 audio data.

By default, a SIP AG is disabled from using RFC 2198 redundancy transmission to transmit the RFC 2833 audio data.

Format

redundancy-nte { **enable** | **disable** }

undo redundancy-nte

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Parameters

Parameter	Description	Value
enable	Enables a SIP AG to use RFC 2198 redundancy transmission to transmit the RFC 2833 audio data.	-
disable	Disables a SIP AG from using RFC 2198 redundancy transmission to transmit the RFC 2833 audio data.	-

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

You can run this command to enable a SIP AG to use RFC 2198 redundancy transmission to transmit the RFC 2833 audio data or disable this function.

Example

Enable a SIP AG to use RFC 2198 to transmit the RFC 2833 audio data.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] redundancy-nte enable
```

Related Topics

16.6.1.23 display voice sipag redundancy

16.6.1.63 redundancy-start-mode

Function

The **redundancy-start-mode** command configures the mode used by a SIP AG to start RFC 2198 redundancy transmission.

The **undo redundancy-start-mode** command restores the default mode used by a SIP AG to start RFC 2198 redundancy transmission.

By default, **ordinary** is used to start RFC 2198 redundancy transmission.

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Format

redundancy-start-mode *mode-value*

undo redundancy-start-mode

Parameters

Parameter	Description	Value
mode-value	Specifies the mode used by a SIP AG to start RFC 2198 redundancy transmission.	Enumerated type. The values are as follows: • **ordinary**: indicates the ordinary mode used to start RFC 2198 redundancy transmission. • **smart**: indicates the smart mode used to start RFC 2198 redundancy transmission.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

In smart mode, RFC 2198 redundancy transmission is started automatically when packet loss occurs.

Example

Set the mode used for starting RFC 2198 redundancy transmission to **smart**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] redundancy-start-mode smart
```

Related Topics

16.6.1.23 display voice sipag redundancy

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16.6.1.64 redundancy-vbd

Function

Using the **redundancy-vbd** command, you can enable a SIP AG to use RFC 2198 redundancy transmission to transmit voice-band data (VBD).

Using the **undo redundancy-vbd** command, you can disable a SIP AG from using RFC 2198 redundancy transmission to transmit VBD.

By default, a SIP AG is enabled to use RFC 2198 redundancy transmission to transmit VBD.

Format

redundancy-vbd { **enable** | **disable** }

undo redundancy-vbd

Parameters

Parameter	Description	Value
enable	Enables a SIP AG to use RFC 2198 redundancy transmission to transmit VBD.	-
disable	Disables a SIP AG from using RFC 2198 redundancy transmission to transmit VBD.	-

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

You can run this command to enable a SIP AG to use RFC 2198 redundancy transmission to transmit VBD or disable this function.

Example

Enable a SIP AG to use RFC 2198 redundancy transmission to transmit VBD.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] redundancy-vbd enable
```

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Related Topics

16.6.1.23 display voice sipag redundancy

16.6.1.65 redundancy-voice

Function

Using the **redundancy-voice** command, you can enable a SIP AG to use RFC 2198 redundancy transmission to transmit voice.

Using the **undo redundancy-voice** command, you can disable a SIP AG from using RFC 2198 redundancy transmission to transmit voice.

By default, a SIP AG does not use RFC 2198 redundancy transmission to transmit voice.

Format

redundancy-voice { **enable** | **disable** }

undo redundancy-voice

Parameters

Parameter	Description	Value
enable	enable a SIP AG to use RFC 2198 redundancy transmission to transmit voice.	-
disable	disable a SIP AG to use RFC 2198 redundancy transmission to transmit voice.	-

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

You can run this command to enable a SIP AG to use RFC 2198 redundancy transmission to transmit voice or disable this function.

Example

Enable a SIP AG to use RFC 2198 redundancy transmission to transmit voice.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] redundancy-voice enable
```

Related Topics

16.6.1.23 display voice sipag redundancy

16.6.1.66 register-server-uri (SIP AG view)

Function

The **register-server-uri** command configures a registrar uniform resource identifier (URI) for a SIP AG.

The **undo register-server-uri** command deletes the registrar URI of a SIP AG.

By default, no registrar URI is configured for a SIP AG.

Format

register-server-uri *uri*

undo register-server-uri

Parameters

Parameter	Description	Value
uri	Specifies the registrar URI of a SIP AG.	The value is a string of 1 to 64 case-sensitive characters.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

If no registrar URI is configured, the domain name, as a mandatory attribute, is used for registration.

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Set the registrar URI of a SIP AG to **register**.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] register-server-uri register
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.67 reset sctp-association-statistics

Function

Using the **reset sctp-association-statistics** command, you can delete the statistics about the SCTP associations on a SIP AG.

Format

reset sctp-association-statistics

Parameters

None.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

An association is a logical relation (channel) used for data transmission, which is established by two SCTP endpoints using the 4-way handshake mechanism of SCTP. You can run this command to delete the statistics about the SCTP associations on a SIP AG. If the operation succeeds, the statistics about the association between SCTP ends are initialized.

Example

Delete the statistics about SCTP associations on a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] reset sctp-association-statistics
```

Related Topics

16.6.1.15 display voice sipag

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16.6.1.68 reset sctp-global-statistics

Function

Using the **reset sctp-global-statistics** command, you can delete global Stream Control Transmission Protocol (SCTP) statistics.

Format

reset sctp-global-statistics

Parameters

None

Views

Voice view

Default Level

3: Management level

Usage Guidelines

The **reset sctp-global-statistics** command deletes all the global SCTP statistics. After this command is executed, global SCTP statistics are initialized.

Example

Delete global SCTP statistics.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] reset sctp-global-statistics
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.69 reset (SIP AG view)

Function

The **reset** command resets a SIP AG.

Format

reset

Parameters

None.

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Views

SIP AG view

Default Level

3: Management level

Usage Guidelines

You can run this command to enable the modified attributes of a SIP AG and start the new SIP AG. If the operation succeeds, the SIP AG is reset. After the reset is complete, the SIP AG can work properly and configured attributes take effect immediately.

NOTE

Use this command with caution because resetting a SIP AG affects current services.

Example

Reset a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] reset
Are you sure to reset MG interface?(y/n)[n]:y
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.70 ring-mode

Function

Using the **ring-mode** command, you can configure the ringing parameters of a SIP AG.

Using the **undo ring-mode** command, you can restore the default ringing parameters of a SIP AG.

By default, no ringing parameter is configured.

Format

ring-mode *index ringmode-name* [**cadence-ring** *cadencering-value* | **initial-ring** *initialring-value*] *

undo ring-mode [*index*]

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Parameters

Parameter	Description	Value
index	Specifies the index of a ring mapping.	The value is an integer that ranges from 0 to 15.
ringmode-name	Specifies the name of a ringing mapping.	The value is a string of 1 to 32 characters.
cadence-ring *cadencering-value*	Specifies the type of the cadence ringing.	The value range is 0 to 3, 6, 8 to 15, 128 to 143, and 255. The value is an integer.
initial-ring *initialring-value*	Specifies the type of the initial ringing.	The value range is 4, 17, 18, 22, 24 to 26, 29 to 31, 144 to 159, and 255. The value is an integer.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

The meanings of *ringmode-name* value is that the sipaguser will ring as the ringing mode specified by ringmode-name, when the *ringmode-name* string matches the Alert-Info header field in the INVITE message.

The meanings of **cadence-ring** values are as follows:

- 0: normal ring 1:4 (1:4 is the cadence ratio, in the sequence of ring, stop, ring...)
- 1: special ringing 1:2
- 2: special ringing 0.4:0.2:0.4:4
- 3: long ringing
- 6: special ringing 1.2:2
- 8: HK ringing 1:3
- 9: HK CNTRX 0.4:0.2:0.4:0.2:0.4:3.0
- 10: HK DN-A 0.4:0.2:0.4:3.0
- 11: HK ACB 0.4:0.2
- 12: HK reminder ringing (one tone every 0.4 second; only one tone is generated at a time.)
- 13: HK DN-B 1.2:3

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- 14: CNTRX_IN 0.4:0.2:0.4:0.2:0.4:2.6
- 15: Egypt long-distance ringing 2:1
- 128-143: user-defined ringing mode 0-15
- 255: NULL, indicating the default ringing mode.

The meanings of **initial-ring** values are as follows:

- 4: normal ringing (FSK) 1:4
- 17: special ringing (FSK) 1:2
- 18: special ringing (FSK) 0.4:0.2:0.4:4
- 22: special ringing (FSK) 1.2:2
- 24: HK Ring (FSK) 1:3
- 25: HK CNTRX (FSK) 0.4:0.2:0.4:0.2:0.4:3.0
- 26: HK DN-A (FSK) 0.4:0.2:0.4:3.0
- 29: HK DN-B (FSK) 1.2:3
- 30: CNTRX_IN (FSK) 0.4:0.2:0.4:0.2:0.4:2.6
- 31: Egypt long-distance ringing (FSK) 2:1
- 144-159: user-defined ringing mode (FSK) 0-15
- 255: NULL, indicating the default ringing mode.

Example

Configure the ringing parameters on a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] ring-mode 1 huawei cadence-ring 2
[Huawei-voice-sipag-1] ring-mode 1 huawei initial-ring 4
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.71 scene

Function

Using the **scene** command, you can configure the mapping between a call scenarios and a signal.

Using the **undo scene** command, you can delete the mapping between a scenario and a signal.

Format

scene *scene-value*

undo scene *scene-value*

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Parameters

Parameter	Description	Value
scene-value	Specifies the name of a scenario that maps a signal.	The value is a string of 1 to 25 characters.

Views

Signal view

Default Level

2: Configuration level

Usage Guidelines

The scenario name must comply with the following rules:

- The local scenario name beginning with local can only be system-defined.
- **status:xxx** indicates the SIP response code scenario, and **xxx** indicates the response code. The value ranges from 300 to 703. The values ranging from 700 to 703 indicate the universal status code, among which 700 indicates 3xx, 701 indicates 4xx, 702 indicates 5xx, and 703 indicates 6xx.
- **reason:xxx** indicates the Q850 scenario, and **xxx** indicates the Q850 value. The value ranges from 0 to 127.
- **map:xxx** indicates the name mapping scenario, and **xxx** indicates the sub-scenario name. The value is a string of 1 to 21 characters. The sub-scenario name and **map:** form a scenario name.

Example

Configure the mapping between the scenario and signal.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] signal 1 test
[Huawei-voice-signal-test] scene status:500
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.72 sctp

Function

Using the **sctp** command, you can configure Stream Control Transport Protocol (SCTP) stack parameters for a SIP AG.

Using the **undo sctp** command, you can restore the default SCTP stack parameters of a SIP AG.

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Format

sctp { **assoc-maximum-retransmission** *assoc-max-retrans* | **checksum-arithmetic** *checksum-arith* | **heartbeat-interval** *hb-interval* | **high-congestion-level** *high-congestion-level-value* | **in-stream-number** *in-stream-num* | **low-congestion-level** *low-congestion-level-value* | **maximum-init-retransmission** *max-init-retrans* | **no-congestion-level** *no-congestion-level-value* | **out-stream-number** *out-stream-num* | **path-maximum-retransmission** *path-max-retrans* | **rto-alpha** *rto-alpha-value* | **rto-beta** *rto-beta-value* | **rto-init** *rto-init-value* | **rto-maximum** *rto-max* | **valid-cookie-life** *valid-cookie-life-value* }

undo sctp { **assoc-maximum-retransmission** | **checksum-arithmetic** | **heartbeat-interval** | **high-congestion-level** | **in-stream-number** | **low-congestion-level** | **maximum-init-retransmission** | **no-congestion-level** | **out-stream-number** | **path-maximum-retransmission** | **rto-alpha** | **rto-beta** | **rto-init** | **rto-maximum** | **valid-cookie-life** }

Parameters

Parameter	Description	Value
assoc-maximum-retransmission *assoc-max-retrans*	Specifies the maximum number of times an association request is retransmitted. This parameter is optional.	The value is an integer that ranges from 8 to 16. The default value is 10.
checksum-arithmetic *checksum-arith*	Specifies the checksum algorithm. This parameter is optional.	The value can be adler 32 or crc 32, in enumerated type. The default value is crc32.
heartbeat-interval *hb-interval*	Specifies the heartbeat interval. This parameter is optional.	The value is an integer that ranges from 10000 to 120000, in milliseconds. The default value is 10000 ms.
high-congestion-level *high-congestion-level-value*	Specifies the level of high traffic congestion. This parameter is optional. *high-congestion-level-value* must be larger than *low-congestion-level-value*.	The value is an integer that ranges from 70 to 100. The default value is 80.

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Parameter	Description	Value
in-stream-number *in-stream-num*	Specifies the number of input SCTP streams. This parameter is optional. You can use this parameter to configure the number of input SCTP streams added to the link on the ISDN Q.921-User Adaptation (IUA) layer. You can set a value for this parameter or use the default value.	The value is an integer and varies according to models. • AR150&160&200, AR1200, and AR2204: 2 - 33 • AR2220: 2 - 56 • AR2240: 2 - 86 • AR3200: 2 - 152 The default value is 33
low-congestion-level *low-congestion-level-value*	Specifies the level of low traffic congestion. This parameter is optional. This parameter is used to configure the level of low traffic congestion. *low-congestion-level-value* must be smaller than *high-congestion-level-value*.	The value is an integer that ranges from 50 to 80. The default value is 60.
maximum-init-retransmission *max-init-retrans*	Specifies the maximum number of times an init message is retransmitted. An init message is transmitted when a 4-way handshake is performed to establish an SCTP association. This parameter is optional.	The value is an integer that ranges from 3 to 10. The default value is 8.

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Parameter	Description	Value
no-congestion-level *no-congestion-level-value*	Specifies the level of no traffic congestion. This parameter is optional. This parameter is used to configure the level of no traffic congestion. *no-congestion-level-value* must be smaller than *low-congestion-level-value* and *high-congestion-level-value*.	The value is an integer that ranges from 1 to 60. The default value is 40.
out-stream-number *out-stream-num*	Specifies the number of output SCTP streams. This parameter is optional. You can set a value for this parameter or use the default value.	The value is an integer and varies according to models. ● AR150&160&200, AR1200, and AR2204: 2 - 33 ● AR2220: 2 - 56 ● AR2240: 2 - 86 ● AR3200: 2 - 152 The default value is 33
path-maximum-retransmission *path-max-retrans*	Specifies the maximum number of times a path is retransmitted. This parameter is optional.	The value is an integer that ranges from 3 to 8. The default value is 5.
rto-alpha *rto-alpha-value*	Specifies the alpha factor in the timeout period of retransmissions. This parameter is optional. *rto-alpha-value* cannot be greater than *rto-beta-value*.	The value is an integer that ranges from 1 to 100. The default value is 12.
rto-beta *rto-beta-value*	Specifies the beta factor in the timeout period of retransmissions. This parameter is optional. *rto-beta-value* is not smaller than *rto-alpha-value*.	The value is an integer that ranges from 1 to 100. The default value is 25.

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Parameter	Description	Value
rto-init *rto-init-value*	Specifies the initial timeout period of retransmissions. This parameter is optional.	The value is an integer that ranges from 1000 to 90000, in milliseconds. The default value is 1000 ms.
rto-maximum *rto-max*	Specifies the maximum timeout period of retransmissions. This parameter is optional. *rto-max* must be larger than *rto-init-value* so that the configuration takes effect.	The value is an integer that ranges from 3000 to 90000, in milliseconds. The default value is 3000 ms.
valid-cookie-life *valid-cookie-life-value*	Specifies the life cycle of a valid cookie. This parameter is optional.	The value is an integer that ranges from 3000 to 120000, in milliseconds. The default value is 60000 ms.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

You can run this command to modify the SCTP stack parameters of a SIP AG.

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Configure the SCTP stack parameters of a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] sctp rto-maximum 30000
[Huawei-voice-sipag-1] sctp rto-init 4000
[Huawei-voice-sipag-1] sctp valid-cookie-life 40000
[Huawei-voice-sipag-1] sctp heartbeat-interval 50000
[Huawei-voice-sipag-1] sctp rto-alpha 4
[Huawei-voice-sipag-1] sctp rto-beta 60
[Huawei-voice-sipag-1] sctp assoc-maximum-retransmission 12
[Huawei-voice-sipag-1] sctp path-maximum-retransmission 5
```

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```
[Huawei-voice-sipag-1] sctp no-congestion-level 40
[Huawei-voice-sipag-1] sctp low-congestion-level 50
[Huawei-voice-sipag-1] sctp high-congestion-level 88
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.73 sdp-negotiation-mode

Function

Using the **sdp-negotiation-mode** command, you can configure the mode used for Session Description Protocol (SDP) negotiation.

Using the **undo sdp-negotiation-mode** command, you can restore the default SDP negotiation mode of a SIP AG.

By default, the remote priority mode is used for SDP negotiation.

Format

sdp-negotiation-mode { **local** | **remote** }

undo sdp-negotiation-mode

Parameters

Parameter	Description	Value
local	Indicates the local priority mode.	-
remote	Indicates the remote priority mode.	-

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

You can run this command to configure the SDP negotiation mode for a SIP AG, including the local priority mode and remote priority mode.

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

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Example

Set the SDP negotiation mode of a SIP AG to **local**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] sdp-negotiation-mode local
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.74 secondary-proxy-addr dns-a

Function

The **secondary-proxy-addr dns-a** command configures the DNS-A domain name and port number of the secondary proxy server.

The **undo secondary-proxy-addr** command deletes the DNS-A domain name and port number of the secondary proxy server.

By default, no DNS-A domain name or port number is configured for the secondary proxy server.

Format

secondary-proxy-addr dns-a *dns-a-domain-name dns-a-port-number*

undo secondary-proxy-addr

Parameters

Parameter	Description	Value
dns-a-domain-name	Specifies the DNS-A domain name of the secondary proxy server.	The value is a string of 1 to 64 characters.
dns-a-port-number	Specifies the port number of the DNS-A domain name.	The value is an integer that ranges from 1 to 65535.

Views

SIP AG view

Default Level

2: Configuration level

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Usage Guidelines

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Set the DNS-A domain name and port number of the secondary proxy server on a SIP AG to www.abcd.com and 5060.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] secondary-proxy-addr dns-a www.abcd.com 5060
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.75 secondary-proxy-addr dns-naptr

Function

The **secondary-proxy-addr dns-naptr** command configures the DNS-NAPTR domain name of the secondary proxy server.

The **undo secondary-proxy-addr** command deletes the DNS-NAPTR domain name of the secondary proxy server.

By default, no DNS-NAPTR domain name is configured for the secondary proxy server.

Format

secondary-proxy-addr dns-naptr *dns-naptr-domain-name*

undo secondary-proxy-addr

Parameters

Parameter	Description	Value
dns-naptr-domain-name	Specifies the DNS-NAPTR domain name of the secondary proxy server.	The value is a string of 1 to 64 characters.

Views

SIP AG view

Default Level

2: Configuration level

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Usage Guidelines

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Configure the DNS-NAPTR domain name of the secondary proxy server on a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] secondary-proxy-addr dns-naptr www.abcd.com
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.76 secondary-proxy-addr dns-srv

Function

The **secondary-proxy-addr dns-srv** command configures the DNS-SRV domain name of the secondary proxy server.

The **undo secondary-proxy-addr** command deletes the DNS-SRV domain name of the secondary proxy server.

By default, no DNS-SRV domain name is configured for the secondary proxy server.

Format

secondary-proxy-addr dns-srv *dns-srv-domain-name*

undo secondary-proxy-addr

Parameters

Parameter	Description	Value
dns-srv-domain-name	Specifies the DNS-SRV domain name of the secondary proxy server.	The value is a string of 1 to 64 characters.

Views

SIP AG view

Default Level

2: Configuration level

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Usage Guidelines

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Configure the DNS-SRV domain name of the secondary proxy server on a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] secondary-proxy-addr dns-srv www.abcd.com
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.77 secondary-proxy-addr static

Function

The **secondary-proxy-addr static** command configures the static IP address and port number of the secondary proxy server.

The **undo secondary-proxy-addr** command deletes the static IP address and port number of the secondary proxy server.

By default, no static IP address or port number is configured for the secondary proxy server.

Format

secondary-proxy-addr static *static-ip-address static-ip-address-port* [**secondary** *static-ip-address2*]

undo secondary-proxy-addr

Parameters

Parameter	Description	Value
static-ip-address	Specifies a static IP address for the secondary proxy server.	The value is in dotted decimal notation.
static-ip-address-port	Specifies the port number of the static IP address.	The value is an integer that ranges from 1 to 65535.
secondary *static-ip-address2*	Specifies a static IP address 2 for the secondary proxy server.	The value is in dotted decimal notation.

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Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

Before configuring the secondary proxy server, configure the primary proxy server.

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Set the static IP address and port number of the secondary proxy server on a SIP AG to 192.168.1.1 and 5060.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] secondary-proxy-addr static 192.168.1.1 5060
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.78 service-logic

Function

The **service-logic** command configures the index of the service logic used by a SIP AG.

The **undo service-logic** command restores the default index of the service logic used by a SIP AG.

By default, the service logic index of a SIP AG is 0.

Format

service-logic *service-logic-index*

undo service-logic

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Parameters

Parameter	Description	Value
service-logic-index	Specifies the index of the service logic used by a SIP AG.	The value is an integer that ranges from 0 to 9: • 0: default service logic • 1: pre-configured service logic with the index DT-AGW/1 • 2: pre-configured service logic with the index CHINA-MOBILE/1 • 3: pre-configured service logic with the index NWT-WTT/1 • 4: pre-configured service logic with the index BT/1

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Set the index of the service logic used by a SIP AG to 1.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] service-logic 1
```

Related Topics

16.6.1.15 display voice sipag

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16.6.1.79 signal

Function

The **signal** command configures a signal name for a SIP AG.

The **undo signal** command deletes a signal name.

Format

signal *sipag-interface-id signal-name*

undo signal *sipag-interface-id signal-name*

Parameters

Parameter	Description	Value
sipag-interface-id	Specifies the interface ID of a SIP AG.	The value is an integer that ranges from 0 to 16777215.
signal-name	Specifies a signal name for a SIP AG.	The value is a string of 1 to 20 characters.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

This command configures a signal name for a SIP AG and displays the signal view.

Example

Set the interface ID to 1 and signal name to **test** on a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] signal 1 test
[Huawei-voice-signal-test]
```

Related Topics

16.6.1.15 display voice sipag

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16.6.1.80 signalling-addr

Function

The **signalling-addr** command configures a signaling IP address for a SIP AG or specifies the name of a signaling IP address and port number.

The **undo signalling-addr** command deletes the signaling IP address, its name and port number.

By default, no signaling IP address or port number is configured for a SIP AG.

Format

signalling-addr { *signal-ip* | **addr-name** *signal-addr-name* } *signal-port*

undo signalling-addr

Parameters

Parameter	Description	Value
signal-ip	Specifies the signaling IP address of a SIP AG.	The value is in dotted decimal notation.
addr-name *signal-addr-name*	Specifies the name of the signaling IP address.	The value is a string of 1 to 64 characters.
signal-port	Specifies the port number used in signaling exchange.	The value is an integer that ranges from 5000 to 5999.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

To exchange signaling messages with other devices, a SIP AG must have a signaling IP address and port number configured. When configuring the signaling IP address or IP address name, ensure that:

- The specified IP address must be in the signaling IP address pool.
- The specified IP address name must exist.

Precautions

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

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Example

Configure an existing signaling IP address 192.168.1.1 for a SIP AG and set the port number to 5060.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] signalling-addr 192.168.1.1 5060
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.81 sipag

Function

The **sipag** command creates a SIP AG interface and displays the SIP AG interface view.

The **undo sipag** command deletes a SIP AG interface.

By default, no SIP AG interface is created.

Format

sipag *sipag-interface-id*

undo sipag *sipag-interface-id*

Parameters

Parameter	Description	Value
sipag-interface-id	Specifies the interface ID of a SIP AG.	The value is an integer that ranges from 0 to 16777215.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

When a SIP AG is required to communicate with the remote device, use the **sipag** command to create a SIP AG interface. If the specified SIP AG interface exists, the SIP AG interface view is displayed. After creating a SIP AG interface, you can configure attributes, control points, and protocol stack parameters for the SIP AG interface. When deleting a SIP AG interface, pay attention to the following points:

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- Before deleting a SIP AG interface, delete all the user number configured on the SIP AG interface.
- Before deleting a SIP AG interface, disable SIP AG interface.
- When a SIP AG interface is deleted, configurations of the SIP AG interface including ring mappings and control points are deleted.

Example

Create SIP AG 1.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1]
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.82 sip-reg-count-per-second

Function

The **sip-reg-count-per-second** command sets the number of SIP register messages sent every second.

The **undo sip-reg-count-per-second** command restores the default number of SIP register messages sent every second.

By default, five SIP register messages are sent every second.

Format

sip-reg-count-per-second *reg-count-value*

undo sip-reg-count-per-second

Parameters

Parameter	Description	Value
reg-count-value	Specifies the number of SIP register messages sent every second.	The value is an integer that ranges from 1 to 1024.

Views

Voice view

Default Level

2: Configuration level

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Usage Guidelines

None.

Example

Set the number of SIP register messages sent every second to 3.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sip-reg-count-per-second 3
```

16.6.1.83 status-code-mapping

Function

Using the **status-code-mapping** command, you can configure the mapping between a call scenario and a status code on a SIP AG.

Using the **undo status-code-mapping** command, you can delete a mapping between a call scenario and a status code.

Format

status-code-mapping *scene status-code*

undo status-code-mapping *scene*

Parameters

Parameter	Description	Value
scene	Specifies a call scenario.	The value is an integer that ranges from 0 to 18.
status-code	Specifies a status code.	The value is an integer that ranges from 400 to 699.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

When using the **status-code-mapping** command, note the following:

- If default status codes defined in the system cannot meet requirements, you can define status codes for different call scenarios.

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- After configuring the status code of a call scenario, reset the SIP AG so that the configuration can take effect.
- The status code of a scenario is contained in the response message when this scenario occurs during a call.

The following table lists mappings between scenarios and status codes on a SIP AG.

Scenario	Description	Status Code
0	The CPU is overloaded.	The value is an integer that ranges from 400 to 699. The default value is 503.
1	The power consumption exceeds the threshold.	The value is an integer that ranges from 400 to 699. The default value is 503.
2	The called party does not exist.	The value is an integer that ranges from 400 to 699. The default value is 404.
3	The specified port is occupied by another user account.	The value is an integer that ranges from 400 to 699. The default value is 486.
4	A port does not have a license.	The value is an integer that ranges from 400 to 699. The default value is 480.
5	A port is quitting the service after a delay.	The value is an integer that ranges from 400 to 699. The default value is 480.
6	A port is blocked.	The value is an integer that ranges from 400 to 699. The default value is 480.
7	The port is being blocked.	The value is an integer that ranges from 400 to 699. The default value is 486.

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Scenario	Description	Status Code
8	A port is being tested.	The value is an integer that ranges from 400 to 699. The default value is 486.
9	A user has not quit the service.	The value is an integer that ranges from 400 to 699. The default value is 480.
10	Digital signal processing (DSP) resources are insufficient.	The value is an integer that ranges from 400 to 699. The default value is 488.
11	System resources are insufficient.	The value is an integer that ranges from 400 to 699. The default value is 500.
12	The call is controlled by the calling party or called party.	The value is an integer that ranges from 400 to 699. The default value is 606.
13	The call is being connected to the called user.	The value is an integer that ranges from 400 to 699. The default value is 486.
14	The called user is talking.	The value is an integer that ranges from 400 to 699. The default value is 486.
15	The ringing time exceeds the timeout period.	The value is an integer that ranges from 400 to 699. The default value is 487.
16	The call is rejected in call waiting mode.	The value is an integer that ranges from 400 to 699. The default value is 486.
17	The call times out in call waiting mode.	The value is an integer that ranges from 400 to 699. The default value is 486.

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Scenario	Description	Status Code
18	The user hangs up to release the waiting call in semi-tight coupling mode.	The value is an integer that ranges from 400 to 699. The default value is 410.

Precautions

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Configure the mapping between a call scenario and a status code.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] status-code-mapping 8 405
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.84 subscribe mwi

Function

Using the **subscribe mwi** command, you can enable or disable the message waiting indicator (MWI) subscription function on a SIP AG.

Using the **undo subscribe mwi** command, you can restore the default status of the MWI subscription function.

By default, the MWI subscription function is disabled on a SIP AG.

Format

subscribe mwi { **enable** | **disable** }

undo subscribe mwi

Parameters

Parameter	Description	Value
enable	Enables the MWI subscription function.	-
disable	Disables the MWI subscription function.	-

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Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

The **subscribe mwi** command enables or disables the MWI subscription function.

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Enable the MWI subscription function on a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] subscribe mwi enable
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.85 subscribe reg

Function

Using the **subscribe reg** command, you can enable or disable the register status subscription function on a SIP AG.

Using the **undo subscribe reg** command, you can restore the default status of the register status subscription function.

By default, the status subscription function is disabled on a SIP AG.

Format

subscribe reg { **enable** | **disable** }

undo subscribe reg

Parameters

Parameter	Description	Value
enable	Enables the register status subscription function.	-

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Parameter	Description	Value
disable	Disables the register status subscription function.	-

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

The **subscribe reg** command enables or disables the register status subscription function.

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Enable the register status subscription function on a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] subscribe reg enable
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.86 subscribe ua-profile

Function

Using the **subscribe ua-profile** command, you can enable or disable the user authority (UA) profile subscription function on a SIP AG.

Using the **undo subscribe ua-profile** command, you can restore the default status of the UA profile subscription function.

By default, the UA profile subscription function is enabled on a SIP AG.

Format

subscribe ua-profile { **enable** | **disable** }

undo subscribe ua-profile

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Parameters

Parameter	Description	Value
enable	Enables the UA profile subscription function.	-
disable	Disables the UA profile subscription function.	-

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

The **subscribe ua-profile** command enables or disables the UA profile subscription function.

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Enable the UA profile subscription function on a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] subscribe ua-profile enable
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.87 transfer (SIP AG view)

Function

The **transfer** command specifies the transmission protocol used by a SIP AG.

The **undo transfer** command restores the default transmission protocol used by a SIP AG.

By default, a SIP uses the User Datagram Protocol (UDP) protocol as the transmission protocol.

Format

transfer *transfer-protocol*

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undo transfer

Parameters

Parameter	Description	Value
transfer-protocol	Specifies the transmission protocol type.	Enumerated type. The values are as follows: • TCP: specifies the Transmission Control Protocol (TCP) as the transmission protocol. • UDP: specifies UDP as the transmission protocol. • SCTP: specifies SCTP as the transmission protocol.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Configure a SIP AG to use UDP as the transmission protocol.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] transfer udp
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.88 unit

Function

Using the **unit** command, you can configure attributes of a signal unit.

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Using the **undo unit** command, you can delete the configured attribute values of a signal unit.

Format

unit *unit-seq* { **duration** *duration-value* | **end-condition** *end-condition-value* | **repeat** *repeat-value* | **start-condition** *start-condition-value* | **type** *type-value* }

undo unit *unit-seq* [**repeat** | **duration**]

Parameters

Parameter	Description	Value
unit-seq	Specifies the sequence number of a signal unit.	The value is an integer that ranges from 0 to 7.
duration *duration-value*	Specifies the duration of a signal unit.	The value is an integer that ranges from 0 to 4294967295, in milliseconds.
end-condition *end-condition-value*	Specifies the condition that will trigger start of a signal unit.	The value is a string of 1 to 35 characters.
repeat *repeat-value*	Specifies the number of times a signal unit can be repeated.	The value is an integer that ranges from 0 to 255.
start-condition *start-condition-value*	Specifies the condition that will trigger end of a signal unit.	The value is a string of 1 to 35 characters.
type *type-value*	Specifies a signal unit type.	The value is a string of 1 to 15 characters.

Views

Signal view

Default Level

2: Configuration level

Usage Guidelines

The signal unit type string complies with the following rules:

- The signal unit type string must be in *main type*:*sub-type* format.
- The values of the main type and sub-type are:
  - If the main type is tone, the sub-type is the tone ID, for example, tone:1.

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- If the main type is data, the sub-type is fixed at 0. The signal unit type string is data:0.
- If the main type is init (indicating initial ring), the sub-type is a ring mapping ID. You can view the configured ring mapping IDs by using the **display ringmode** command. If the ring mapping ID is 100, the default ringing mode is used. For example, the signal unit type string can be init:100.
- If the main type is cade (indicating cadence ring), the sub-type is a ring mapping ID. You can view the configured ring mapping IDs by using the **display ringmode** command. If the ring mapping ID is 100, the default ringing mode is used. For example, the signal unit type string can be cade:100.
- If the main type is pole (indicating polarity reversal), the sub-type 0 or 1, for example, pole:1. The value 0 indicates non-polarity reversal, the value indicates polarity reversal.
- If the main type is trans (indicating transmission enabled), the sub-type is fixed at 0. The signal unit type string is trans:0.
- If the main type is pulse, the sub-type is fixed at 0. The signal unit type string is pulse:0.
- If the main type is mwi, the sub-type is fixed at 0. The signal unit type string is mwi:0.

The condition that will trigger start of a signal unit contains a maximum of two sub-conditions. Each sub-condition defines an event or an event with a delay. The event and delay are separated by a colon (:). If a condition contains two sub-conditions, the sub-conditions are separated by the & or | sign. The & sign indicates that both sub-conditions must be met, and the | sign indicates that one of the sub-conditions must be met. The condition string complies with the following rules:

- An event must be one of the following: ss (signal starts), 0s (the first signal unit starts), 1s (the second signal unit starts), 2s (the third signal unit starts), 3s (the fourth signal unit starts), 0e (the first signal unit ends), 1e (the second signal unit ends), 2e (the third signal unit ends), 3e (the fourth signal unit ends), fs (fsk_start is reported), fe (fsk_end is reported), or te (tone_end is reported).
- If a sub-condition defines a delay, the sub-condition is met only when the delay expires after the specified event happens.
- If a sub-condition defines no delay, the sub-condition is met immediately when the specified event happens.

The condition that will trigger end of a signal unit contains a maximum of two sub-conditions. Each sub-condition defines an event or an event with a delay. The event and delay are separated by a colon (:). If a condition contains two sub-conditions, the sub-conditions are separated by the & or | sign. The & sign indicates that both sub-conditions must be met, and the | sign indicates that one of the sub-conditions must be met. The condition string complies with the following rules:

- An event must be one of the following: ss (signal starts), 0s (the first signal unit starts), 1s (the second signal unit starts), 2s (the third signal unit starts), 3s (the fourth signal unit starts), 0e (the first signal unit ends), 1e (the second signal unit ends), 2e (the third signal unit ends), 3e (the fourth signal unit

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ends), fs (fsk_start is reported), fe (fsk_end is reported), or te (tone_end is reported).

- If a sub-condition defines a delay, the sub-condition is met only when the delay expires after the specified event happens.
- If a sub-condition defines no delay, the sub-condition is met immediately when the specified event happens.

Example

Configure signal unit attributes on a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] signal 1 test
[Huawei-voice-signal-test] unit 2 duration 1
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.89 user-defined-profile codec-priority

Function

Using the **user-defined-profile codec-priority** command, you can configure the codec priority, codec value, and packetization interval for a SIP AG.

Using the **undo user-defined-profile codec-priority** command, you can delete the codec priority, codec value, and packetization interval.

Format

user-defined-profile codec-priority *pri-value codec-value pt-value*

undo user-defined-profile codec-priority [*pri-value*]

Parameters

Parameter	Description	Value
pri-value	Specifies a codec priority.	The value is an integer that ranges from 0 to 255.
codec-value	Specifies a codec value.	The value is an integer that ranges from 0 to 255.
pt-value	Specifies the packetization interval.	The value is an integer that ranges from 0 to 4294967295, in milliseconds.

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Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

The **user-defined-profile codec-priority** command configures the codec priority, codec value, and packetization interval for a SIP AG.

If you change the priority of a codec value, priorities of other codec values are also changed. For example, if you change the priority of a codec value from 4 to 2, the priorities of codec values with priorities of 2 and 3 are changed to 3 and 4. If you change the priority of a codec value from 4 to 6, the priorities of codec values with priorities of 5 and 6 are changed to 4 and 5.

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Set the codec priority to 4, codec value to 8, and packetization interval to 20 milliseconds.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] user-defined-profile codec-priority 4 8 20
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.90 user-defined-profile number-parameter

Function

The **user-defined-profile number-parameter** command sets the control point with a specified sequence number for a SIP AG.

The **undo user-defined-profile number-parameter** command restores the default settings of all control points for a SIP AG.

Format

user-defined-profile number-parameter *strpara-no strpara-value*

undo user-defined-profile number-parameter *strpara-no*

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Parameters

Parameter	Description	Value
strpara-no	Specifies the sequence number of a control point.	The value is an integer that ranges from 1 to 331.
strpara-value	Specifies the value of a control point.	The value is an integer that ranges from 0 to 4294967295. The value of *strpara-value* varies according to *strpara-no*. For details, see the usage guideline.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

The following table describes the meanings and values of control points.

Parameter	Description	Value
1	- **NOTE** This control object is discarded.	-

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Parameter	Description	Value
2	Sets the call priority for SIP AG users.	Enumerated type. The options are as follows: ● 1: The calling party is preferred. When a user receives an INVITE message from the network side after picking up the phone, a 486 message is returned to reject the invitation. ● 2: The called party is preferred. When a user receives an INVITE message from the network side after picking up the phone, a 200 message is returned and the call is established. The default value is 1.
3	Sets the uniform resource identifier (URI) format for SIP AG users.	Enumerated type. The options are as follows: ● 1: TelNum@homedomain ● 2: TelNum@proxydomain ● 3: telURI The default value is 1.
4 to 6	- **NOTE** These objects are discarded.	-
7	Sets the maximum number of subscription attempts for SIP AG users.	The value is an integer that ranges from 1 to 10. The default value is 1.
8	- **NOTE** This control object is discarded.	-

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Parameter	Description	Value
9	Sets the AOCE notification to ringing for SIP AG users. **NOTE** This control object is read-only.	The value is 1.
10	- **NOTE** This control object is discarded.	-
11	Indicates whether offhook of SIP AG users is immediately reported.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
12	Sets the reporting mode of the initial number for SIP AG users.	Enumerated type. The options are as follows: ● 0: digital map ● 1: Ta4+maximum number mode The default value is 0.
13	Sets whether to continue to make a call when distributed message manager (DMM) match fails for SIP AG users.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 1.
14	Sets whether digits are reported one by one when a SIP AG user in In-Dialog state dials a number.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 1.
15	Indicates whether to set the Prefer header field in SIP messages sent by SIP AG users.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.

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Parameter	Description	Value
16	Indicates whether to set the Priority header field in SIP messages sent by SIP AG users.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
17	Indicates whether to set the VisitedNet header field in SIP messages sent by SIP AG users.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
18	Indicates whether to set the AccessNet header field in SIP messages sent by SIP AG users.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
19	Sets whether to send normal polarity when SIP AG users hang up.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
20	Sets whether to send normal polarity when SIP AG users pick up the phone.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 1.
21	Sets whether to support the initial route setting for SIP AG users. When the initial route setting is supported, the ROUTE field is added to the INVITE and REGISTER messages.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 1.

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Parameter	Description	Value
22	Sets the remote ringback tone mode for SIP AG users.	Enumerated type. The options are as follows: ● 0: No remote ringback tone is sent. ● 1: IETF mode (not supported) ● 2: TISPAN mode ● 3: common mode The default value is 0.
23	Sets the T303 timer for SIP AG users in OVERLAP state.	The value is an integer that ranges from 1 to 4294967294, in seconds. The default value is 64.
24	Sets the Ta2 timer of overlap sending for SIP AG users.	The value is an integer that ranges from 0 to 4294967294, in seconds. The default value is 15. The value 0 indicates that the Ta2 timer of overlap sending is disabled.
25	Sets the T301 timer for SIP AG users in ALERTING state.	The value is an integer that ranges from 1 to 4294967294, in seconds. The default value is 180.
26	Sets the T313 timer for SIP AG users in CONNECTREQ state.	The value is an integer that ranges from 1 to 4294967294, in seconds. The default value is 32.
27	Sets the timer for SIP AG users in ACTIVE state.	The value is an integer that ranges from 1 to 4294967294, in seconds. The default value is 120.
28	Sets the call waiting (CW) timer in the service logic process for SIP AG users.	The value is an integer that ranges from 1 to 4294967294, in seconds. The default value is 120.
29	Sets the short busy tone timer in the service logic process for SIP AG users.	The value is an integer that ranges from 1 to 4294967294, in seconds. The default value is 30.

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Parameter	Description	Value
30	Sets the offhook timer in the service logic process for SIP AG users.	The value is an integer that ranges from 1 to 4294967294, in seconds. The default value is 60.
31	Sets the waiting time before the busy tone stops in the WAITHOOK subprocess to 20 seconds for SIP AG users. **NOTE** This control object is read-only.	The value is read-only, in seconds. The default value is 20.
32	Sets the waiting time before the howler tone stops in the WAITHOOK subprocess to 20 seconds for SIP AG users. **NOTE** This control object is read-only.	The value is read-only, in seconds. The default value is 20.
33	Sets the ringing tone delay to 500 ms for SIP AG users. **NOTE** This control object is read-only.	The value is read-only, in milliseconds. The default value is 500.
34	Sets the CID2 number sending timer for SIP AG users.	The value is an integer that ranges from 1 to 4294967294, in milliseconds. The default value is 45.
35	Sets whether to add the Date header field for SIP AG users.	Enumerated type. The options are as follows: • 0: no • 1: yes The default value is 0.

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Parameter	Description	Value
36	Sets the type of SIP messages sent by SIP AG users where the Allow header field is inserted.	The value is an integer ranging from 0 to 4294967295. • 0: The Allow header field is inserted to no SIP messages. • 1: REGISTER message • 2: INVITE message • 4: SUBSCRIBE message • 8: BYE message • 16: OPTIONS message • 32: PRACK message • 64: REFER message • 128: UPDATE message • 256: NOTIFY message • 512: INFO message • 1024: MESSAGE message • 2048: REGISTER-2XX message • 4096: SUBSCRIBE-2XX message • 8192: INVITE-2XX message • 16384: BYE-2XX message • 32768: OPTIONS-2XX-AND-486 message • 65536: PRACK-2XX message • 131072: REFER-2XX message • 262144: UPDATE-2XX message • 524288: NOTIFY-2XX message • 1048576: INFO-2XX message • 2097152: MESSAGE-2XX message

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Parameter	Description	Value
		• 4194304: INVITE-18X message The default value is 33007, indicating that the Allow header field is inserted to the REGISTER, INVITE, SUBSCRIBE, BYE, PRACK, REFER, UPDATE, and OPTIONS-2XX-AND-486 messages. **NOTE** When the Allow header field is inserted to multiple types of messages, set the value to the sum value of these types of messages. For example, when the Allow header field is inserted to the OPTIONS and PRACK messages, set the value to 48 (16+32).

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Parameter	Description	Value
37	Sets the methods supported by the Allow header field in SIP messages.	The value is an integer ranging from 0 to 4294967295. • 0: No method is supported. • 1: INVITE method • 2: ACK method • 4: OPTIONS method • 8: BYE method • 16: CANCEL method • 32: REGISTER method • 64: INFO method • 128: PRACK method • 256: SUBSCRIBE method • 512: NOTIFY method • 1024: UPDATE method • 2048: MESSAGE method • 4096: REFER method • 8192: PUBLISH method • 16384: CONFSUB method The default value is 24575, indicating that INVITE, ACK, OPTIONS, BYE, CANCEL, REGISTER, INFO, PRACK, SUBSCRIBE, NOTIFY, UPDATE, MESSAGE, REFER, and CONFSUB methods are supported. **NOTE** When the Allow header field supports multiple methods, set the value to the sum value of these methods. For example, when the Allow header field supports the OPTIONS and PRACK methods, set the value to 132 (4+128).

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Parameter	Description	Value
38	Sets the type of SIP messages sent by SIP AG users where the Support header field is inserted.	The value is an integer ranging from 0 to 4294967295. • 0: The Support header field is inserted to no SIP messages. • 1: REGISTER message • 2: INVITE message • 4: SUBSCRIBE message • 8: BYE message • 16: OPTIONS message • 32: PRACK message • 64: REFER message • 128: UPDATE message • 256: NOTIFY message • 512: INFO message • 1024: MESSAGE message • 2048: CANCEL message • 4096: REGISTER-2XX message • 8192: INVITE-2XX message • 16384: SUBSCRIBE-2XX message • 32768: BYE-2XX message • 65536: OPTIONS-2XX message • 131072: PRACK-2XX message • 262144: REFER-2XX message • 524288: UPDATE-2XX message • 1048576: NOTIFY-2XX message • 2097152: INFO-2XX message

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Parameter	Description	Value
		• 4194304: MESSAGE-2XX message • 8388608: CANCEL-2XX message The default value is 532615, indicating that the Support header field is inserted to the REGISTER, INVITE, SUBSCRIBE, UPDATE, INVITE-2XX, and UPDATE-2XX messages. **NOTE** When the Support header field is inserted to multiple types of messages, set the value to the sum value of these types of messages. For example, when the Support header field is inserted to the OPTIONS and PRACK messages, set the value to 48 (16+32).

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Parameter	Description	Value
39	Sets the methods supported by the Support header field in SIP messages.	The value is an integer ranging from 0 to 4294967295. • 0: No method is supported. • 1: TAC_100REL method • 2: TAC_REPLACES method • 4: TAC_TIMER method • 8: TAC_PRIVACY method • 16: TAC_PRECONDITION method • 32: TAC_HISTINFO method • 64: TAC_JOIN method • 128: TAC_ANSWERMODE method • 256: TAC_DTMFINFO method • 512: TAC_FROMCHANGE method • 1024: TAC_INDIALOG method • 2048: PREF method • 4096: URI_LIST method • 8192: TAC_NOREFERSUB method • 16384: TAS_SUBSCRIPTION method • 65536: DIV_INFO method • 131072: DND_INFO method • 262144: TAC_PATH method

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Parameter	Description	Value
		• 524288: OVERLAP method The default value is 1039, indicating that TAC_100REL, TAC_REPLACES, TAC_TIMER, TAC_PRIVACY, and TAC_INDIALOG methods are supported. **NOTE** When the Support header field supports multiple methods, set the value to the sum value of these methods. For example, when the Support header field supports the TAC_HISTINFO and TAC_JOIN methods, set the value to 96 (32+64).

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Parameter	Description	Value
40	Sets the type of SIP messages sent by SIP AG users where the Accept header field is inserted.	The value is an integer ranging from 0 to 4294967295. • 0: The Accept header field is inserted to no SIP messages. • 1: REGISTER message • 2: INVITE message • 4: SUBSCRIBE message • 8: BYE message • 16: OPTIONS message • 32: PRACK message • 64: REFER message • 128: UPDATE message • 256: NOTIFY message • 512: INFO message • 1024: MESSAGE message • 2048: REGISTER-2XX message • 4096: SUBSCRIBE-2XX message • 8192: INVITE-2XX message • 16384: BYE-2XX message • 32768: OPTIONS-2XX message • 65536: PRACK-2XX message • 131072: REFER-2XX message • 262144: UPDATE-2XX message • 524288: NOTIFY-2XX message • 1048576: INFO-2XX message • 2097152: MESSAGE-2XX message

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Parameter	Description	Value
		The default value is 33007, indicating that the Accept header field is inserted to the REGISTER, INVITE, SUBSCRIBE, BYE, PRACK, REFER, UPDATE, and OPTIONS-2XX messages. **NOTE** When the Accept header field is inserted to multiple types of messages, set the value to the sum value of these types of messages. For example, when the Accept header field is inserted to the OPTIONS and PRACK messages, set the value to 48 (16+32).

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Parameter	Description	Value
41	Sets the message body supported by the Accept header field in SIP messages.	The value is an integer ranging from 0 to 4294967295. • 0: No message body is supported. • 1: SDP message body • 2: IMAGE message body • 4: AUDIO message body • 8: VIDEO message body • 16: MESSAGE message body • 32: MULTMIXED message body • 64: MWI message body • 128: REGINFO message body • 256: DIALOG message body • 512: CONF message body • 1024: UAPROFILE message body • 2048: PULSECHARGE message body • 4096: CHARGEINFO message body • 8192: PIDF message body • 16384: WATCH message body • 8388608: MCIDREQ message body • 33554432: VNDETSIAOC message body • 67108864: CUG message body • 134217728: BODY_MIX message body

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Parameter	Description	Value
		• 268435456: DTMFINFO message body • 536870912: BROADSOFT message body • 1073741824: TCSINFO message body • 2147483648: TEXT message body The default value is 1, indicating that the SDP message body is supported. **NOTE** When the Accept header field supports multiple types of message bodies, set the value to the sum value of these types of message bodies. For example, the Accept header field supports the MULTMIXED and MWI message bodies, set the value to 96 (32+64).
42	Sets the encoding/decoding mode supported by the Accept header field in SIP messages.	The value ranges from 0 to 255. • 0: No encoding/decoding mode is supported. • 1: ACCENC_IDENTITY encoding/decoding • 2: ACCENC_GZIP encoding/decoding • 4: ACCENC_COMPRESS encoding/decoding • 8: ACCENC_TAR encoding/decoding • 16: ACCENC_DEFLATE encoding/decoding The default value is 1, indicating the ACCENC_IDENTITY encoding/decoding mode.

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Parameter	Description	Value
43	Sets the language supported by the Accept header field in SIP messages.	The value ranges from 0 to 255. ● 0: No language is supported. ● 1: default language ● 2: English ● 4: Chinese The default value is 2, indicating English.
44-46	- **NOTE** These objects are discarded.	-
47	Sets the content of the C line in the SDP message body.	Enumerated type. The options are as follows: ● 0: session description ● 1: media description ● 2: session description and media description The default value is 0.
48	- **NOTE** This control object is discarded.	-
49	- **NOTE** This control object is discarded.	-
50	Sets the type of CW tones. **NOTE** This control object is read-only.	Enumerated type. The options are as follows: ● 0: DT ● 1: China ● 2: Ihug ● 3: Hungary ● 4: Hungary eliminating GAP The default value is 1.

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Parameter	Description	Value
51	Sets whether the SIP AG reports the digital map match error to the upper-level device.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 1.
52	Sets whether to report hookflash events to upper-level devices.	Enumerated type. The options are as follows: ● 0: The original and new calls are not reported. ● 1: The new call is reported, but the original call is not reported after being switched to an agent. ● 2: reports the new call and the original call that is switched to an agent. ● 3: reports the new call and end the original call that is switched to an agent by sending BYE messages. The default value is 2.
53	Sets the special process control.	Enumerated type. The options are as follows: ● 0: standard process ● 1: special Ihug process ● 2: special Polish process ● 3: special Hungarian process The default value is 0.
54	- **NOTE** This control object is discarded.	-

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Parameter	Description	Value
55	Sets whether to save leave messages to the buffer when the SIP AG has services to process or the SIP AG power consumption is low.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
56	Plays the howler tone after the busy tone times out for SIP AG users. **NOTE** This control object is read-only.	The value is 0.
57	- **NOTE** This control object is discarded.	-
58	Sets whether to initiate registration again when proxy switchover is performed.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
59	Sets whether the SIP AG releases the ongoing call when services are switched between the active and standby proxy servers.	Enumerated type. The options are as follows: ● 0: releases all calls immediately. ● 1: holds all calls. ● 2: If both the two parties support the Session Timer, the call is held; otherwise, the call is released. The default value is 0.
60 and 61	- **NOTE** These control objects are discarded.	-
62	Sets the average round trip time (RTT) T1 of messages between the MSAN and IMS Core.	The value is an integer that ranges from 50 to 5000, in milliseconds. The default value is 500.

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Parameter	Description	Value
63	Sets the interval for sending OPTIONS messages when the SIP AG is working properly.	The value is an integer that ranges from 1 to 65535. The unit of time is T1. The default value is 10.
64	Sets the interval for sending OPTIONS messages when the SIP AG is faulty.	The value is an integer that ranges from 1 to 100. The unit of time is T1. The default value is 20.
65	Sets the timer for the SIP AG to detect events.	The value is an integer that ranges from 1 to 30. The unit of time is T1. The default value is 3.
66	Sets the fault threshold for the object detected by the SIP AG. When the threshold is reached, the object status changes from Normal to Failed.	The value is an integer that ranges from 1 to 30. The default value is 3.
67	Sets the fault recovery threshold for the object detected by the SIP AG. When the threshold is reached, the object status changes from Failed to Normal.	The value is an integer that ranges from 1 to 60. The default value is 6.
68	- **NOTE** This control object is discarded.	-
69	Sets the priority of the header field from which the calling number is obtained.	Enumerated type. The options are as follows: • 0: obtains the calling number from the P-Asserted-Identity header field. • 1: obtains the calling number from the From header field. The default value is 0.

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Parameter	Description	Value
70	Sets whether the SIP AG plays the local ringback tone when an early media negotiation result exists and the SIP AG receives a 180 message that does not contain the P-Early-Media or Alert-Info header field.	Enumerated type. The options are as follows: ● 0: The SIP AG does not play the local ringback tone. ● 1: The SIP AG plays the local ringback tone. The default value is 0.
71	- **NOTE** This control object is discarded.	-
72	Sets whether the SIP AG converts the number sign (#) to %23.	Enumerated type. The options are as follows: ● 0: The number sign (#) is not converted to %23 when User=Phone exists in the SIP message. ● 1: All number signs (#) are converted to %23. ● 2: No number sign (#) is converted to "%23". The default value is 0.
73 to 79	- **NOTE** These control objects are discarded.	-
80	Sets the number regulation mode in which SIP AG calling number or called number is displayed.	Enumerated type. The options are as follows: ● 0: non-number-regulation ● 1: global format ● 2: national format ● 3: local format The default value is 0.
81	- **NOTE** This control object is discarded.	-

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Parameter	Description	Value
82	Sets the priority of the green call service and the hookflash service.	Enumerated type. The options are as follows: ● 0: The hookflash service is preferred. ● 1: The green call service is preferred. The default value is 0.
83 and 84	- **NOTE** This control object is discarded.	-
85	Indicates whether the 3.1 KHz voice bearing capability can be converted into speech.	Enumerated type. The options are as follows: ● 0: No ● 1: Yes The default value is 1.
86	Sets the maximum CW counts of BRA users.	The value is an integer that ranges from 1 to 16. The default value is 3.
87	Sets the occupation mode of the B channel for ISDN users.	Enumerated type. The options are as follows: ● 0: PREFER ● 1: EXCLUSIVE The default value is 1.
88	Sets the DSS1-side T301 timer of the ISDN users.	The value is an integer that ranges from 180 to 65535, in seconds. The default value is 180.
89	Sets the DSS1-side T302 timer of the ISDN users.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 10.
90	Sets the DSS1-side T303 timer of the ISDN users.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 4.
91	Sets the DSS1-side T304 timer of the ISDN users.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 20.

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Parameter	Description	Value
92	Sets the DSS1-side T305 timer of the ISDN users.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 30.
93	Sets the DSS1-side T306 timer of the ISDN users.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 30.
94	Sets the DSS1-side T307 timer of the ISDN users.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 180.
95	Sets the DSS1-side T308 timer of the ISDN users.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 4.
96	Sets the DSS1-side T309 timer of the ISDN users.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 90.
97	Sets the DSS1-side T310 timer of the ISDN users.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 30.
98	Sets the DSS1-side T312 timer of the ISDN users.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 6.
99	Sets the DSS1-side T314 timer of the ISDN users.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 4.
100	Sets the DSS1-side T316 timer of the ISDN users.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 120.
101	Sets the DSS1-side T317 timer of the ISDN users.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 100.

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Parameter	Description	Value
102	Sets the DSS1-side T320 timer of the ISDN users.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 30.
103	Sets the DSS1-side T321 timer of the ISDN users.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 30.
104	Sets the DSS1-side T322 timer of the ISDN users.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 4.
105	Sets the DSS1-side UUS3 timer 1 of the ISDN users.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 10.
106	Sets the DSS1-side UUS3 timer 2 of the ISDN users.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 10.
107	Sets the UUS3 flow control X parameter of DSS1-side for ISDN users.	The value is an integer that ranges from 0 to 65535. The default value is 16.
108	Sets the UUS3 flow control Y parameter of DSS1-side for ISDN users.	The value is an integer that ranges from 0 to 65535. The default value is 8.
109	Sets the number of information fields in the UUS2 service message of DSS1-side for ISDN users.	The value is an integer that ranges from 0 to 65535. The default value is 2.

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Parameter	Description	Value
110	Sets the 18X messages returned by PSTN users in the CW service.	Enumerated type. The options are as follows: ● 0: returns a 182 message and then a 180 message. ● 1: returns a 183 message and then a 180 message. ● 2: returns only a 180 message. ● 3: returns only a 182 message. ● 4: returns only a 183 message. The default value is 0.
111	Specifies the header field in the 18X messages sent by the SIP AG in the CW service.	Enumerated type. The options are as follows: ● 0: P-Service-Notification ● 1: P-Notification ● 2: P-Alert-Info The default value is 1.
112	Sets the format of the register from header field in the SIP messages sent by the SIP AG.	Enumerated type. The options are as follows: ● 1: S/S/P format ● 2: SIP format of the phone number ● 3: TEL format of the phone number The default value is 2.
113	Sets the format of the register contact header field in the SIP messages sent by the SIP AG.	Enumerated type. The options are as follows: ● 1: S/S/P ● 2: SIP format of the phone number ● 3: plus sign (+) followed by the phone number The default value is 2.

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Parameter	Description	Value
114	Sets the format of the RequestURI/From/To fields in the subscribe message sent by the SIP AG.	Enumerated type. The options are as follows: ● 1: public ID in the SIP format ● 2: public ID in the TEL format ● 3: temporary public ID The default value is 1.
115	Sets the format of Contact in the subscribe messages sent by the SIP AG.	Enumerated type. The options are as follows: ● 1: S/S/P format ● 2: SIP format of the phone number ● 3: plus sign (+) followed by the phone number The default value is 2.
116	Sets the format of P-Preferred in the SIP messages sent by the SIP AG.	Enumerated type. The options are as follows: ● 1: public ID in the SIP format ● 2: public ID in the TEL format ● 3: temporary public ID The default value is 1.
117	Sets the mode in which the SIP AG plays announcements.	Enumerated type. The options are as follows: ● 0: Q850 reason code ● 1: status code The default value is 0.
118	Sets whether the SIP AG plays announcement based on the status code and Q850 reason code in the WAITHOOK subprocess.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
119	Sets whether PSTN users support the IBMTEST call scenario (in which NDUB is not used and users determine the busy state).	Enumerated type. The options are as follows: ● 0: not supported ● 1: supported The default value is 1.

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Parameter	Description	Value
120	Sets the SIP AG service triggering mode.	Enumerated type. The options are as follows: • 0: loosely coupled mode • 1: semi-tight coupling in inband mode • 2: semi-tight coupling in outband mode • 3: all-tight coupling mode (Info reporting) The default value is 0.
121	Sets whether to release the fork control block and send a Bye message after the SIP AG user sends an INVITE message and receives a 200 OK message.	Enumerated type. The options are as follows: • 0: no • 1: yes The default value is 1.
122	Sets the receiving policy of the SIP AG fork early media.	Enumerated type. The options are as follows: • 0: receives the first. • 1: receives the latest. • 2: process the latest 18X messages. The default value is 2.
123	Sets whether the SDP-Answer field value in a received 18X message can be overwritten by the SDP-Answer field value in next received 18X message.	Enumerated type. The options are as follows: • 0: yes • 1: no The default value is 0.
124	Sets whether the SDP-Answer field value in a received 200 message can be overwritten by the SDP-Answer field value in next received 200 message.	Enumerated type. The options are as follows: • 0: yes • 1: no The default value is 0.

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Parameter	Description	Value
125	Sets whether to release the call of a SIP AG user after the user receives a 408 message.	Enumerated type. The options are as follows: • 0: yes • 1: no The default value is 0.
126	Sets the 18X message (local early media is not used and ringback tone is played) processing policy for SIP AG users when the implicit early media indication is used (that is, the P-Early and CompositionType header fields are not used).	Enumerated type. The options are as follows: • 0: does not stop the local ringback tone. • 1: stops the local ringback tone. The default value is 0.
127	Sets whether the 200 message contains the SDP-Answer field when the early media is applied and the SIP AG user is the called party.	Enumerated type. The options are as follows: • 0: no • 1: yes The default value is 0.
128	Sets whether the subsequent 18X message contains the SDP-Answer field when the early media is applied and the SIP AG user is the called party.	Enumerated type. The options are as follows: • 0: no • 1: yes The default value is 0.
129	Sets whether SIP AG users actively send the P-EARLY-MEDIA:SUPPORT application.	Enumerated type. The options are as follows: • 0: yes • 1: no The default value is 0.
130	Sets whether SIP AG users enable in-conversation authentication.	Enumerated type. The options are as follows: • 0: yes • 1: no The default value is 0.

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Parameter	Description	Value
131	Sets whether to add the authentication information unit to the first in-dialog and out-dialog requests (including only the OPTIONS and REGISTER requests) sent by SIP AG users.	Enumerated type. The options are as follows: ● 0: yes ● 1: no The default value is 0.
132	Sets whether SIP AG processes CNG signals.	Enumerated type. The options are as follows: ● 0: yes ● 1: no The default value is 0.
133	Sets the format of the Invite From header field in the SIP messages sent by the SIP AG.	Enumerated type. The options are as follows: ● 1: SIP: SIP PublicID ● 2: Tel: Tel PublicID ● 3: Private The default value is 1.
134	Sets the **user=** parameter in the RequestURI and To URI fields in INVITE messages sent by the SIP AG users when the number regulation is disabled or the number regulation is enabled but not the global format.	Enumerated type. The options are as follows: ● 0: The RequestURI and To URI fields do not contain the **user=** parameter. ● 1: The parameter format is user=phone. ● 2: The parameter format is user=dialstring. ● 3: The parameter format is user=IP. The default value is 0.

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Parameter	Description	Value
135	Sets the **user=** parameter in the RequestURI and To URI fields in INVITE messages sent by the SIP AG users when the number regulation is enabled and the global format is used.	Enumerated type. The options are as follows: ● 0: The RequestURI and To URI fields do not contain the **user=** parameter. ● 1: The parameter format is user=phone. ● 2: The parameter format is user=dialstring. ● 3: The parameter format is user=IP. The default value is 0.
136	Sets the **user=** parameter in the To URI field in INFO messages when the SIP AG user dials a number during overlap sending, phone ringing, or call connection.	Enumerated type. The options are as follows: ● 0: The parameter format is user=phone. ● 1: The To URI field does not contain the **user=** parameter. ● 2: The parameter format is user=dialstring. ● 3: The parameter format is user=IP. The default value is 0.
137	Sets whether to convert the international prefix to the plus sign (+) for the international URI during SIP AG number regulation.	Enumerated type. The options are as follows: ● 1: yes ● 2: no The default value is 1.
138	Sets whether to enable SIP AG number regulation.	Enumerated type. The options are as follows: ● 0: yes ● 1: no The default value is 0.

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Parameter	Description	Value
139	Sets the preference mode of multiple M lines when SIP AG users update the INVITE messages.	Enumerated type. The options are as follows: ● 0: The audio service is preferred. ● 1: The image service is preferred. ● 2: First comes, first served. The default value is 0.
140	Sets the **user=** parameter in the From and Prefer URI fields in INVITE messages sent by the SIP AG users when the number regulation is enabled and the global format is used.	Enumerated type. The options are as follows: ● 0: The parameter is not contained. ● 1: The parameter format is user = phone. ● 2: The parameter format is user=dialstring. ● 3: The parameter format is user=IP. (Currently, user=IP is not supported.) The default value is 0.
141	Sets the calling number mapping mode during SIP AG number regulation.	Enumerated type. The options are as follows: ● 1: a string of characters ● 2: CC+NDC mode The default value is 1.
142	Sets whether the SIP AG deletes the end "#" during common or emergent digital map matching.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
143	Sets whether to enable messages to be sent in serial mode for SIP AG users.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.

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Parameter	Description	Value
144	Sets all-tight coupling hookflash reporting mode	Enumerated type. The options are as follows: ● 0: APP/Broadsoft ● 1: XML/TCS-info ● 2: SSCC The default value is 0.
145	Sets the A line of packing duration in the SDP message body of SIP messages sent by the SIP AG.	Enumerated type. The options are as follows: ● 0: maxmptime ● 1: ptime The default value is 1.
146	Sets whether the protocol stack sends a CANCEL message when SIP AG users release the call while ringing. By default, the protocol stack sends a BYE message.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 1.
147	- **NOTE** This control object is discarded.	-
148	Sets whether SIP AG users need to send the outgoing prefix.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 1.
149	- **NOTE** This control object is discarded.	-
150	Sets the CC status machine timer for the SIP AG to release a call.	The value is an integer that ranges from 1000 to 50000, in milliseconds. The default value is 36000.
151	Sets the CC status machine timer for RTP statistics reporting to the SIP AG.	The value is an integer that ranges from 50 to 5000, in milliseconds. The default value is 500.

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Parameter	Description	Value
152	Sets the authentication user name format of a single SIP AG user.	Enumerated type. The options are as follows: ● 0: Userinfo ● 1: Userinfo@domain ● 2: user-defined format The default value is 0.
153	- **NOTE** This control object is discarded.	-

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Parameter	Description	Value
154	Sets the type of messages sent by SIP AG users where the Allow_Event header field is inserted.	The value is an integer ranging from 0 to 4294967295. • 0: The Allow_Event header field is inserted to no SIP messages. • 1: REGISTER message • 2: INVITE message • 4: SUBSCRIBE message • 8: BYE message • 16: OPTIONS message • 32: PRACK message • 64: REFER message • 128: UPDATE message • 256: NOTIFY message • 512: INFO message • 1024: MESSAGE message • 2048: CANCEL message • 4096: REGISTER-2XX message • 8192: INVITE-2XX message • 16384: SUBSCRIBE-2XX message • 32768: BYE-2XX message • 65536: OPTIONS-2XX message • 131072: PRACK-2XX message • 262144: REFER-2XX message • 524288: UPDATE-2XX message • 1048576: NOTIFY-2XX message

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Parameter	Description	Value
		• 2097152: INFO-2XX message • 4194304: MESSAGE-2XX message • 8388608: CANCEL-2XX message The default value is 8194, indicating that the Allow_Event header field is inserted to the INVITE and INVITE-2XX messages. **NOTE** When the Allow_Event header field is inserted to multiple types of messages, set the value to the sum value of these types of messages. For example, when the Allow_Event header field is inserted to the OPTIONS and PRACK messages, set the value to 48 (16+32).

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Parameter	Description	Value
155	Sets the events inserted to the Allow_Event header field in messages sent by the SIP AG users.	The value is an integer ranging from 0 to 4294967295. • 0: No event is inserted to the Allow_Event header field. • 2: REFER event • 4: PRESENCE event • 8: WINFO event • 16: MESSAGE_SUMMARY event • 32: REG event • 32768: PROFILE event • 65536: CONFERENCESTATE event • 131072: DIALOGSTATE event • 262144: DIVINFO event • 524288: DNDINFO event The default value is 0, indicating that no event is inserted to the Allow_Event header field. **NOTE** When multiple events are inserted to the Allow_Event header field, set the value to the sum value of these event values. For example, when the REFER and WINFO events are inserted to the Allow_Event header field, set the value to 10 (2+8).
156	Sets whether SIP AG users start the TI-CLIR special process.	Enumerated type. The options are as follows: • 0: no • 1: yes The default value is 0.

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Parameter	Description	Value
157	Sets the percentage for calculating the SIP AG user update timer. The calculation formula is as follows: Refresh = Expires - Expires x (Configured value)%	The value is an integer that ranges from 0 to 50. The default value is 50.
158	Sets whether to delete the last # when the SCC digital map matching succeeds.	Enumerated type. The options are as follows: • 0: no • 1: yes The default value is 0.
159	Sets whether to add a plus sign (+) in front of the register from header field (not in S/S/P format) in SIP messages sent by the SIP AG users.	Enumerated type. The options are as follows: • 0: no • 1: yes The default value is 0.
160	Specifies whether to add user = phone to the register from header field in the SIP message sent from the SIP AG when the register from header field is not in the slotid/subcard/portid format.	Enumerated type. The options are as follows: • 0: no • 1: yes The default value is 0.
161	Sets the maximum retransmission count of Invite messages after the SIP AG user receives a 301 or 302 message.	The value is an integer that ranges from 0 to 16. The default value is 1.
162	Sets the URL format in the contact header field in 302 messages of the CFX service.	Enumerated type. The options are as follows: • 0: TEL format • 1: SIP+proxy format • 2: SIP+home format The default value is 1.
163	Sets the delay in initiating subscription by SIP AG users.	The value is an integer that ranges from 0 to 60, in seconds. The default value is 0.

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Parameter	Description	Value
164	Sets the delay in processing modem events for SIP AG users.	The value is an integer that ranges from 0 to 10000, in milliseconds. The default value is 0.
165	Sets the playing mode of the remote ringback tone for SIP AG users in the CW service.	Enumerated type. The options are as follows: ● 0: No remote ringback tone is sent. ● 1: IETF mode (not supported) ● 2: TISPAN mode ● 3: common mode The default value is 0.
166	Sets the channel switching mode when the SIP AG ends the CW early media.	Enumerated type. The options are as follows: ● 0: A 200 response message replaces the negotiation parameters. ● 1: A Re-INVITE message is sent for renegotiation. The default value is 1.
167	Sets the encoding/decoding policy when the SIP AG users automatically switch data services.	Enumerated type. The options are as follows: ● 0: The audio encoding/decoding is preferred. ● 1: The locally configured VBD encoding/decoding is used. The default value is 0.
168	Sets the signal tone mapping mode for SIP AG users when the response message contains the Reason header field.	Enumerated type. The options are as follows: ● 0: The status code is preferred. ● 1: The Reason header field is preferred. The default value is 0.

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Parameter	Description	Value
169	Indicates whether the SDP protocol stack supports the extended RFC3605 for RTCP information transmission.	Enumerated type. The options are as follows: • 0: no • 1: yes The default value is 0.
170	Sets the NAT binding entry update mode for media IP addresses when the SIP AG supports the Simple Traversal of UDP through NAT (STUN) function.	Enumerated type. The options are as follows: • 0: using RTP flows • 1: using STUN packets The default value is 0.
171	Sets the NAT binding entry update mode for signaling IP addresses when the SIP AG supports the STUN function.	Enumerated type. The options are as follows: • 0: using OPTIONS messages • 1: using STUN packets The default value is 0.
172	Sets the protection timer for calling party and called party control.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 180.
173	Sets the DNS update interval for SIP AG users.	The value is an integer that ranges from 0 to 65535, in seconds. If interval is set to 0, the DNS update is not performed. The default value is 90.

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Parameter	Description	Value
174	Sets the **user=** parameter in the RequestURI and To URI fields in INVITE messages when the SIP AG users use the SCC service.	Enumerated type. The options are as follows: ● 0: The RequestURI and To URI fields do not contain the **user=** parameter. ● 1: The parameter format is user=phone. ● 2: The parameter format is user=dialstring. ● 3: The parameter format is user=IP. The default value is 0.
175	Sets the **phone-context** parameter when user=dialstring is set and number regulation is disabled.	Enumerated type. The options are as follows: ● 0: The **phone-context** parameter is not set. ● 1: The **phone-context** parameter is set to a domain. The default value is 0.
176	Sets whether to allow the SIP AG to send the private XML of the SIP ISDN.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
177	Sets the T310 timer for SIP AG users in OVERLAP state.	The value is an integer that ranges from 1 to 4294967294, in seconds. The default value is 30.
178	- **NOTE** This control object is discarded.	-
179	Sets whether the matched ongoing prefix needs to be matched during digital map matching.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.

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Parameter	Description	Value
180	Selects the format of the calling number and called number from multiple URIs in the P-Asserted-Identity header field.	Enumerated type. The options are as follows: ● 0: SIP or SIPS format ● 1: TEL format The default value is 0.
181	Sets the format of host information in the CONTACT and VIA header fields for SIP AG users.	Enumerated type. The options are as follows: ● 0: IP ● 1: IP+port ● 2: domain ● 3: domain+port The default value is 1.
182	Sets whether to send a Cancel message after the SIP AG user sends a REINVITE message.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
183	Sets whether the SIP AG plays the local ringback tone when the 180 message contains the SDP message body but not the early media indication.	Enumerated type. The options are as follows: ● 0: The SIP AG does not play the local ringback tone. ● 1: The SIP AG plays the local ringback tone. The default value is 0.
184	Sets whether the Route header field contains port information. Whether the Router header field contains the IP address and domain is determined by the command line.	Enumerated type. The options are as follows: ● 0: The Route header field does not contain port information. ● 1: The Route header field contains port information. The default value is 1.

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Parameter	Description	Value
185	Sets the returned error code when the SIP AG that does not support Refer messages receives Refer messages.	Enumerated type. The options are as follows: ● 0: returns the 403 error code. ● 1: returns the 405 error code. ● 2: returns the 501 error code. The default value is 1.
186	Sets the format of Contact in the Invite SIP messages sent by the SIP AG.	Enumerated type. The options are as follows: ● 1: S/S/P format ● 2: SIP format of the phone number ● 3: plus sign (+) followed by the phone number The default value is 2.
187	Sets the maximum value of the timer for preventing a large of concurrent registration counts.	The value is an integer that ranges from 1000 to 4294967294, in milliseconds. The default value is 70000.
188	Sets the conference service establishment mode for SIP AG users.	Enumerated type. The options are as follows: ● 0: URI List mode ● 1: Refer mode The default value is 1 in common process and 0 in DT process.
189	Sets whether to support IMS playing error tones.	Enumerated type. The options are as follows: ● 0: not supported ● 1: supported The default value is 0.
190	Sets the response code when the SIP AG user in CW state rejects a third-party call.	Enumerated type. The options are as follows: ● 0: response code 486 ● 1: response code 603 The default value is 0.

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Parameter	Description	Value
191	Sets the response code when the call of the SIP AG user in CW state is released.	Enumerated type. The options are as follows: ● 0: response code 486 ● 1: response code 480 The default value is 0.
192	Sets the port base value for SIP AG users.	The value is an integer that ranges from 0 to 255. The default value is 30.
193	Sets the timer for the SIP AG detects the proxy server status.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 30.
194	Sets the timer for the standby proxy server to switch back to the active proxy server.	The value is an integer that ranges from 0 to 65535, in seconds. The default value is 21600.
195	Sets the URI format of chassis, slot, and port numbers.	Enumerated type. The options are as follows: ● 0: channel/port/slot/shelf/rack/AN_ID@<Domain> ● 1: port/slot/shelf/rack/AN_ID@<Domain>. When the length of AN_ID is 0, the format is port/slot/shelf/rack@<Domain>. ● 2: port/slot/shelf/rack/AN_ID@<Domain>. When the length of AN_ID is 0, the format is port/slot/shelf/rack/@<Domain>. The default value is 0.
196	Sets the slot base value for SIP AG users.	The value is an integer that ranges from 0 to 255. The default value is 0.

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Parameter	Description	Value
197	Sets the subcard base value for SIP AG users.	The value is an integer that ranges from 0 to 255. The default value is 0.
198	Sets where the phone number that the SIP AG user dials during overlap sending or call connection to the To header field.	Enumerated type. The options are as follows: • 0: The To header field contains the phone number. • 1: The x-session-info message body contains the phone number. The default value is 0.
199	Sets whether the SIP AG users support the voice band data (VBD) multi-mode.	Enumerated type. The options are as follows: • 0: not supported • 1: supported The default value is 0.
200	Plays the common dialing tone when the SIP AG user presses the hookflash. **NOTE** This control object is read-only.	The value is 1.
201	Plays the busy tone when the SIP AG receives a Bye message from the IMS. **NOTE** This control object is read-only.	The value is 0.

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Parameter	Description	Value
202	Sets whether pressing 1 means hookflash when the phone is in pulse dialing mode and in non-digit-collecting mode.	Enumerated type. The options are as follows: • 0: Pressing 1 does not mean hookflash. • 1: advanced mode. The old-fashioned phones are not supported. • 2: basic mode. The old-fashioned phones are supported. The default value is 0.
203	Sets whether the SIP AG supports the init parameter in the initial registration messages and registration message.	Enumerated type. The options are as follows: • 0: no • 1: yes The default value is 0.
204	Sets the response error code when user registration fails.	The value is an integer that ranges from 0 to 65535. The default value is 480.
205	Sets the response error code when the SIP AG port is locked.	The value is an integer that ranges from 0 to 65535. The default value is 486.
206	Sets the response error code when the SIP AG port is being tested.	The value is an integer that ranges from 0 to 65535. The default value is 486.
207	Sets whether the SIP AG switches to the proxy when 4xx (excluding the 401 Unauthorized, 407, and 423 Interval Too Brief messages), 5xx, and 6xx messages are received during registration.	Enumerated type. The options are as follows: • 0: no • 1: yes The default value is 0.

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Parameter	Description	Value
208	Sets the duration that the SIP AG initiates resubscription requests for users. For example, the SIP AG resubscribes the voice message service for users.	The value is an integer that ranges from 0 to 600, in seconds. The default value is 30. **NOTE** The value 0 indicates that the SIP AG initiates resubscription requests for users immediately.
209	- **NOTE** This control object is discarded.	-
210	Sets whether the userinfo value is processed as the phone number (filtering out the visible separators) when the PublicID field contains SIP URI but not user=phone and userinfo is in TEL format This function applies to the scenarios that the SIP AG locates the called party for the incoming call, matches the calling number for outgoing calls of ISDN/R2 users, and reads the user account in the HASH table.	Enumerated type. The options are as follows: • 0: The original userinfo is extracted and not processed as the phone number. • 1: Visible separators such as + - ( ) , and . in the original userinfo are filtered out. Only the digits are extracted. The default value is 0.
211	Sets the method in which the SIP AG obtains the alert ID of the AlertInfo field.	Enumerated type. The options are as follows: • 0: obtains the alert ID from GenericPara. • 1: obtains the alert ID from the URI. The default value is 0.
212	Sets whether the connection can be bound to the proxy remote IP address, remote port number, local IP address, and local port number.	Enumerated type. The options are as follows: • 0: not supported • 1: supported The default value is 1.

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Parameter	Description	Value
213	Sets whether to control the format defined by the time division multiplexing (TDM) private branch exchange (PBX) when the Calling Line Identification Presentation (CLIP) is configured.	Enumerated type. The options are as follows: ● 0: not controlled ● 1: controlled The default value is 0.
214	Sets whether to clear the calling number, called number, and name when the messages of incoming and outgoing calls do not contain the calling number and called number.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
215	Sets whether to display the name when the CLIP is configured.	Enumerated type. The options are as follows: ● 0: displays the name. ● 1: does not display the name. The default value is 0.
216	Enables the SIP AG to select the SIP format or TEL format of a configured hotline phone number.	Enumerated type. The options are as follows: ● 0: SIP format ● 1: TEL format The default value is 0.
217	Sets whether the SIP AG supports the CPC parameter.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
218	Sets whether the SIP AG supports single digital map.	Enumerated type. The options are as follows: ● 0: not supported ● 1: supported The default value is 0.

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Parameter	Description	Value
219	Sets whether the SIP AG sends EOC signals to the SIP AG user's phone when the other party hangs up.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
220	Sets whether the SIP AG sends DisconnectClear signals to terminals when the SIP AG receives the event that the SIP AG user or remote user releases the call.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
221	Sets the Ta3 timer for SIP AG overlap sending.	The value is an integer that ranges from 0 to 4294967294, in seconds. The default value is 15. **NOTE** The value 0 indicates that the timer is not started.
222	Sets the update duration that the SIP AG uses.	Enumerated type. The options are as follows: ● 0: The (static) update duration configured in a control object is used. ● 1: The (dynamic) update duration returned by the DNS server is used. The default value is 0.
223	Sets whether the P-Preferred-Identity header field contains the CentrexNo field for SIP AG outgoing calls.	Enumerated type. The options are as follows: ● 0: The P-Preferred-Identity header field does not contain the CentrexNo field. ● 1: The P-Preferred-Identity header field contains the CentrexNo field. The default value is 1.

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Parameter	Description	Value
224	Sets whether pressing the hookflash and then dialing 5 trigger the CCBS process when users in successive state.	Enumerated type. The options are as follows: • 0: Pressing the hookflash and then dialing 5 do not trigger the CCBS process. • 1: Pressing the hookflash and then dialing 5 trigger the CCBS process. The default value is 0.
225	Sets the timer for dialing the initial number during SIP AG overlap sending.	The value is an integer that ranges from 0 to 4294967294, in seconds. The default value is 20. **NOTE** The value 0 indicates that the timer is not started.
226	Sets the timer for dialing the next number during SIP AG overlap sending.	The value is an integer that ranges from 0 to 4294967294, in seconds. The default value is 20. **NOTE** The value 0 indicates that the timer is not started.
227	Sets the Ta1 timer for SIP AG overlap sending.	The value is an integer that ranges from 0 to 4294967294, in seconds. The default value is 4. **NOTE** The value 0 indicates that the timer is not started.
228	Sets the QOP authentication mode.	Enumerated type. The options are as follows: • 0: Auth • 1: Auth-int The default value is 0.
229	Sets whether to trigger the Refer success event when a 2xx message is returned for a Refer message.	Enumerated type. The options are as follows: • 0: no • 1: yes The default value is 0.

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Parameter	Description	Value
230	Sets the SIP AG to use the proxy sub-domain name or main domain name.	Enumerated type. The options are as follows: ● 0: uses the proxy main domain name. ● 1: uses the proxy sub-domain name. The default value is 0.
231	Sets the information carried in the Accept header field.	The mappings between the values and information carried in the Accept header field are as follows: ● 0: No information is carried in the Accept header field. ● 1: SSCC ● 2: DIV ● 4: DND ● 8: MCID ● 16: ETSI_SIMSERVS ● 32: SIMSERV ● 64: PSTN The default value is 0, indicating that the Accept header field contains no information. **NOTE** When the Accept header field contains multiple types of information, set the value to the sum value of these types of information. For example, when the Accept header field contains SSCC and MCID, set the value to 9 (1+8).
232	Sets the realm parameter in the authentication message.	Enumerated type. The options are as follows: ● 0: uses the realm value in the IMS response message. ● 1: uses the home domain configured on the interface. The default value is 0.

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Parameter	Description	Value
233	Sets whether the SIP AG supports multiple enterprises.	Enumerated type. The options are as follows: ● 0: not supported ● 1: supported The default value is 1.
234	Sets the Reinvite media direction for the user who is holding a call. Sets the stream mode for the user who is holding a call. In ONT mode, the stream mode is inactive when the user is holding a call and becomes sendrecv when the call is resumed.	Enumerated type. The options are as follows: ● 0: sendonly ● 1: ONT mode The default value is 0.
235	Sets the sending mode of the annexa/annexb parameter when the SIP AG uses G.723/G.729.	Enumerated type. The options are as follows: ● 0: The annexa or annexb parameter is not sent. Whether the G.723/G.729 voice activity detection (VAD) function is enabled depends on the local setting. ● 1: The annexa or annexb parameter is sent. Whether the G.723/G.729 VAD function is enabled depends on the SDP message from the peer. ● 2: The annexa or annexb parameter is sent. Whether the G.723/G.729 VAD function is enabled depends on the local setting. The default value is 0.

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Parameter	Description	Value
236	Sets the mode in which the SIP AG adds a type of media stream.	Enumerated type. The options are as follows: ● 0: modifies the parameter of the original media stream. ● 1: adds parameters to the M line in the SDP message. The default value is 0.
237	Sets whether to activate the connection when the SIP AG is sending data. **NOTE** This control object is read-only.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
238	Sets the SIP AG session timer.	The value is an integer that ranges from 90 to 65535, in seconds. The default value is 1800.
239	Sets the method to identify the called party.	Enumerated type. The options are as follows: ● 0: uses userinfo (only user domain information is identified). ● 1: uses URI (the entire URI is matched to identify the user). The default value is 0.
240	Sets whether to release the ongoing call when the SIP AG receives a new call during a SIP call for the emergency standalone service.	Enumerated type. The options are as follows: ● 0: The ongoing call is not released. ● 1: The ongoing call is released. The default value is 0.

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Parameter	Description	Value
241	Sets the special dialing tone as the dial tone type when the message waiting indicator (MWI) service is configured. **NOTE** This control object is read-only.	The value is 0.
242	Sets the heartbeat interval of the active DSS1 on a SIP AG.	The value is an integer that ranges from 0 to 65534, in seconds. The default value is 1200. **NOTE** The value 0 indicates that the heartbeat detection is not performed.
243	Specifies the rule for filling in the Contact header field.	Enumerated type. The options are as follows: • 0: The Contact header field of each user is generated independently. • 1: The format of the Contact header field is the same as that of the major user. • 2: The Contact header field is in SIP URI format without userinfo. The default value is 1.
244	Specifies the mode used by a SIP AG to update sessions.	Enumerated type. The options are as follows: • 0: not defined • 1: UAC • 2: UAS The default value is 0.
245	Specifies the default mode to control tunes during call waiting. **NOTE** This control object is read-only.	The value is 0.

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Parameter	Description	Value
246	Sets the maximum SIP AG re-registration counts.	The value is an integer that ranges from 1 to 65535. The default value is 6.

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Parameter	Description	Value
247	Specifies the algorithm for SIP AG re-registrations.	Enumerated type. The options are as follows: ● 0: indicates that the algorithm is the re-registration counts multiply the interval. If the re-registration counts exceed the maximum counts, re-registration is initiated at the maximum interval. ● 1: indicates that the algorithm is $2^{(\text{number of re-registrations} - 1) * \text{interval}}$. If the re-registration counts exceed the maximum number, re-registration is initiated at the maximum interval. ● 2: indicates that the algorithm $2^{((\text{number of re-registrations} - 1) \% (\text{maximum number of re-registrations}))* \text{interval}}$. If the re-registration counts exceed the maximum number, re-registration is initiated at the maximum interval. ● 3: indicates the NICC algorithm. If the SIP AG consecutively receives error codes in the first registration, the interval is 5 minutes. If the SIP AG consecutively receives error codes in updating registration, the interval is 30 minutes. The default value is 0.

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Parameter	Description	Value
248	Indicates that a busy tone is played if the user does not dial numbers after offhook. **NOTE** This control object is read-only.	The value is 0.
249	Specifies the delivery mode for the SIP AG MWI.	Enumerated type. The options are as follows: ● 0: Only information about MWI is delivered. ● 1: Information is delivered based on ETSI. The default value is 1.
250	-	- **NOTE** This control object is reserved.
251	Specifies the value of the protection timer when services are switched due to the changes in the payload of the media stream to prevent repeated switching between data services and voice services.	The value is an integer that ranges from 0 to 65534, in milliseconds. The default value is 1000.
252	Indicates whether to switch back to voice services after the SIP AG finishes transparent data transmission.	Enumerated type. The options are as follows: ● 0: actively switches back to voice services. ● 1: inactively switches back to voice services. The default value is 0.
253	Specifies the matching number of symbols in the digital map.	Enumerated type. The options are as follows: ● 0: 0 to multiple times ● 1: 1 to multiple times The default value is 1.

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Parameter	Description	Value
254	Sets whether the SIP AG stops playing the early media and starts to play the local ringback tone when receiving a SIP 180 message if the SIP AG has received a SIP 183 message with an SDP field before.	Enumerated type. The options are as follows: • 0: The SIP AG continues playing the early media. • 1: The SIP AG stops playing the early media and starts to play the local ring back tone. The default value is 0.
255	Specifies temporary response policy used when the PBX is the called party.	Enumerated type. The options are as follows: • 0: The ring back tone SDP information is contained in SIP 180 messages. • 1: The ring back tone SDP information is contained in SIP 183 messages. • 2: The PBX sends a SIP 180 message after a SIP 183 message. The default value is 0.
256	Specifies the SDP field value in a message that the PBX sends to trigger a hookflash action.	Enumerated type. The options are as follows: • 0: SendOnly • 1: SendRecv • 2: Inactive The default value is 1.
257	Indicates whether to re-establish a connection if the destination address or port and the remote address or port are different when the SIP interface receives an INVITE message in TCP mode.	Enumerated type. The options are as follows: • 0: No socket is re-established. • 1: A socket is re-established. The default value is 0.

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Parameter	Description	Value
258	Specifies the header field in the signal behavior when the SIP UE or SIP trunk connected to an IP PBX sends an INVITE request and call forwarding occurs.	Enumerated type. The options are as follows: ● 0: History-Info ● 1: Diversion The default value is 0.
259	Indicates whether to use INFO signals to send numbers during a call connection.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
260	- **NOTE** This control object is discarded.	-
261	Specifies users who can switch the proxy server.	Enumerated type. The options are as follows: ● 0: all the users belonging to the proxy server. ● 1: an individual user. The default value is 0.
262	Specifies the recovery mode after the primary proxy server fails when dual-homing and automatic switchover are enabled in Register mode.	Enumerated type. The options are as follows: ● 0: Services are recovered after the revertive switching timer times out. ● 1: Register message detection. The default value is 0.
263	Specifies the number of incorrect responses received by the register that is considered as a proxy fault.	The value is an integer that ranges from 1 to 5. The default value is 1.

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Parameter	Description	Value
264	Specifies how to use the call hold and dual-communications.	Enumerated type. The options are as follows: ● 0: The call hold and dual-communications are used together. ● 1: The call hold and dual-communications are used independently. The default value is 0.
265	- **NOTE** This control object is discarded.	-
266	- **NOTE** This control object is discarded.	-
267	- **NOTE** This control object is discarded.	-
268	- **NOTE** This control object is discarded.	-
269	Reserved	-
270	Indicates whether the SIP AG detects the registration timeout period returned from the network side.	Enumerated type. The options are as follows: ● 0: Always use the Expire message returned from the network side as the registration timeout period. ● 1: Check the registration timeout period returned from the network side. If the value is larger than the default value, the locally configured value takes effect. The default value is 1.

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Parameter	Description	Value
271	Indicates whether to carry the authentication header field in the Register message.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
272	Indicates whether to authenticate the 200 response message.	Enumerated type. The options are as follows: ● 0: The 200 response message is not authenticated regardless the authentication header field is contained. ● 1: The 200 response message is authenticated no matter whether the authentication header field is contained. ● 2: The 200 response message is authenticated when the authentication header field is contained and is not authenticated when the authentication header field is contained. The default value is 0.
273	Indicates how to display **name** when **userinfo** of the called and calling numbers is invalid.	Enumerated type. The options are as follows: ● 0: **name** is displayed as "O". ● 1: **name** is displayed if **display name** exists and is not displayed if **display name** does not exist. ● 2: **name** is not displayed regardless **display name** exists. The default value is 0.

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Parameter	Description	Value
274	Indicates how to display **name** when **userinfo** of the called and calling numbers is displayed with restrictions.	Enumerated type. The options are as follows: ● 0: **name** is displayed as "P". ● 1: **name** is displayed if **display name** exists and is not displayed if **display name** does not exist. ● 2: **name** is not displayed regardless **display name** exists. The default value is 0.
275	Indicates whether the IP address on the C line in the SDP message can be changed to 0.0.0.0 by the Re-Invite message.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
276	Indicates whether the Contact header field contains **expires** when the user logs out.	Enumerated type. The options are as follows: ● 0: The Contact header field does not contain **expires**. ● 1: The Contact header field contains **expires**. The default value is 0.
277	Indicates whether the reliable provisional response is needed.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 1.
278	Indicates whether to release calls if Prack messages do not contain SDP in 18x/Prack negotiation.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 1.

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Parameter	Description	Value
279	Indicates the default value of service authority.	The options are as follows: • 1: CONF • 2: 3PTY • 4: ECT • 8: MCID • 16: DC • 32: CW • 64: HOTLINE • 128: MWI • 256: HOLD • 512: TP • 1024: CD • 2048: UUS1 • 4096: UUS2 • 8192: UUS3 • 16384: AUTOREVERSEPOLARITY • 32768: ANONYMOUS_CALL • 65536: PERMANENT_HOLD • 131072: CUTOFF_DISSCONNECT • 262144: SCC_CLASS • 524288: FAST_DISCONNECT The default value is 0, indicating that no authority is specified on any services. **NOTE** If you need to configure service authorities, the value must be accumulated. For example, if you need to configure authorities of CONF, DC, and CW services, the value is 49 (1+16+32).

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Parameter	Description	Value
280	Specifies the sending mode of the SIP AG number.	Enumerated type. The options are as follows: ● 0: sends all the numbers. ● 1: In-Dialog mode. ● 2: Multiple INVITE mode. The default value is 1.
281	Indicates whether to release calls and cancel services after the user fails to log in to all the proxy servers.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.

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Parameter	Description	Value
282	Specifies the range of service authorities.	The options are as follows: • 1: CONF • 2: 3PTY • 4: ECT • 8: MCID • 16: DC • 32: CW • 64: HOTLINE • 128: MWI • 256: HOLD • 512: TP • 1024: CD • 2048: UUS1 • 4096: UUS2 • 8192: UUS3 • 16384: AUTOREVERSEPOLARITY • 32768: ANONYMOUS_CALL • 65536: PERMANENT_HOLD • 131072: CUTOFF_DISSCONNECT • 262144: SCC_CLASS • 524288: FAST_DISCONNECT The default value is 2147434495, indicating authorities on all the services. **NOTE** If you need to configure service authorities, the value must be accumulated. For example, if you need to configure authorities of CONF, DC, and CW services, the value is 49 (1+16+32).

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Parameter	Description	Value
283	Indicates whether to change the call ID in the Register message when the proxy server is switched.	Enumerated type. The options are as follows: ● 0: change. ● 1: not change. The default value is 0.
284	Indicates whether to change the call ID in the Register message when the life cycle expires.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
285	Indicates whether to change the call ID in the Register message when a 403 message is returned after a non-Register message is sent.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
286	Indicates whether to change the call ID in re-registration when the user logs out due to registration failure on all the proxy servers.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
287	Indicates whether the SIP AG sends the received data of media protocols not supported by the SIP AG.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
288 - 300	Indicates reserved control objects.	-
301	Indicates whether the user deregisters after the user receives a 403 Invite message.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.
302	Indicates whether the Invite event timer is out of service.	Enumerated type. The options are as follows: ● 0: no ● 1: yes The default value is 0.

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Parameter	Description	Value
303	Sets the value of the Ta4 timers in overlap sending mode.	The value is an integer that ranges from 0 to 4294967294, in milliseconds. The default value is 0.
304	Sets the length of the minimum number in overlap sending mode.	The value is an integer that ranges from 0 to 64. The default value is 1. The value 0 indicates that no limit is set on the length of the minimum number.
305	Sets the value of ptime when ptime is not contained in the SDP Answer message.	Enumerated type. The options are as follows: ● 0: Obtains the negotiated ptime. If no ptime is negotiated, set the value based on the DSP attributes. ● 1: Sets the value based on the DSP attributes. ● 2: Obtains the value corresponding to the codec in the Offer message based on the codec in the Answer message. The default value is 1.

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Parameter	Description	Value
306	Sets the value of **ptime** when **ptime** is not contained in the SDP Offer message.	Enumerated type. The options are as follows: ● 0: Obtains the negotiated ptime. If no ptime is negotiated, set the value based on the DSP attributes. ● 1: Sets the value based on the DSP attributes. ● 2: Obtains the value corresponding to the codec based on the codec in the priority list configured on the interface or single user. The default value is 0.
307	Sets the value of **ptime** when **ptime** corresponding to the first code in the Offer message is not empty but the **ptime** is invalid.	Enumerated type. The options are as follows: ● 0: The negotiation fails if the system does not support the DSP codec in the Offer message. ● 1: Sets the value based on the DSP attributes. ● 2: Obtains the value corresponding to the codec based on the codec in the priority list configured on the interface or single user. The default value is 0.

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Parameter	Description	Value
308	Specifies new services supported by the calling service.	The value is an integer that ranges from 0 to 2147483647. The options are as follows: • 1: SIP_PROFILE_RIGHT_CONF • 2: SIP_PROFILE_RIGHT_3PTY • 4: SIP_PROFILE_RIGHT_ECT • 8: SIP_PROFILE_RIGHT_MCID • 16: SIP_PROFILE_RIGHT_DC • 32: SIP_PROFILE_RIGHT_CW • 64: SIP_PROFILE_RIGHT_HOTLINE • 128: SIP_PROFILE_RIGHT_MWI • 256: SIP_PROFILE_RIGHT_HOLD • 512: SIP_PROFILE_RIGHT_TP • 1024: SIP_PROFILE_RIGHT_CD • 2048: SIP_PROFILE_RIGHT_UUS1 • 4096: SIP_PROFILE_RIGHT_UUS2 • 8192: SIP_PROFILE_RIGHT_UUS3

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Parameter	Description	Value
		• 16384: SIP_PROFILE_RIGHT_AUTOREVERSEPOLARITY • 32768: SIP_PROFILE_ANONYMOUS_CALL • 65536: SIP_PROFILE_PERMANENT_HOLD • 131072: SIP_PROFILE_CUTOFF_DISSCONNECT • 262144: SIP_PROFILE_SCC_CLASS • 524288: SIP_PROFILE_FAST_DISCONNECT • 1048576: SIP_PROFILE_CCW The default value is 2147483639, indicating that all the services except the SIP_PROFILE_RIGHT_MCID are supported. **NOTE** If you need to configure the calling service to support multiple services, the value must be accumulated. For example, if you configure the called service to support SIP_PROFILE_RIGHT_CW and SIP_PROFILE_RIGHT_HOTLINE, the value is 96 (32+64).

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Parameter	Description	Value
309	Specifies new services supported by the called service.	The value is an integer that ranges from 0 to 2147483647. The options are as follows: • 1: SIP_PROFILE_RIGHT_CONF • 2: SIP_PROFILE_RIGHT_3PTY • 4: SIP_PROFILE_RIGHT_ECT • 8: SIP_PROFILE_RIGHT_MCID • 16: SIP_PROFILE_RIGHT_DC • 32: SIP_PROFILE_RIGHT_CW • 64: SIP_PROFILE_RIGHT_HOTLINE • 128: SIP_PROFILE_RIGHT_MWI • 256: SIP_PROFILE_RIGHT_HOLD • 512: SIP_PROFILE_RIGHT_TP • 1024: SIP_PROFILE_RIGHT_CD • 2048: SIP_PROFILE_RIGHT_UUS1 • 4096: SIP_PROFILE_RIGHT_UUS2 • 8192: SIP_PROFILE_RIGHT_UUS3

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Parameter	Description	Value
		• 16384: SIP_PROFILE_RIGHT_AUTOREVERSEPOLARITY • 32768: SIP_PROFILE_ANONYMOUS_CALL • 65536: SIP_PROFILE_PERMANENT_HOLD • 131072: SIP_PROFILE_CUTOFF_DISSCONNECT • 262144: SIP_PROFILE_SCC_CLASS • 524288: SIP_PROFILE_FAST_DISCONNECT • 1073741824: SIP_PROFILE_CCW The default value is 2147483647, indicating that all the services are supported. **NOTE** If you need to configure the called service to support multiple services, the value must be accumulated. For example, if you configure the called service to support SIP_PROFILE_RIGHT_CW and SIP_PROFILE_RIGHT_HOTLINE, the value is 96 (32+64).

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Parameter	Description	Value
310	Sets the value of **ptime** when **ptime** corresponding to the first code in the Answer message is not empty but the **ptime** is invalid.	Enumerated type. The options are as follows: ● 0: Sets the value based on the DSP attributes. ● 1: Obtains the value corresponding to the codec in the Offer message based on the codec in the Answer message. The default value is 0.
311	Specifies how to release forking on the user side before receiving the INVITE-200 message.	Enumerated type. The options are as follows: ● 1: The SIP AG sends a CANCEL message. ● 2: Each forking sends a BYE message. ● 3: Each forking sends a BYE message. ● 4: Each forking sends a BYE message. **NOTE** The values 3 and 4 are reserved and have the same processing as the value 2. The default value is 2.
312 - 328	Reserved	-
329	Indicates whether to receive packets from the proxy server when the SIP AG sends SIP 3xx messages.	Enumerated value. The options are as follows: ● 0: Packets from the proxy server are not received. ● 1: Packets from the proxy server are received. The default value is 0.

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Parameter	Description	Value
330	Sets a mark for the device that updates the session.	Enumerated value. The options are as follows: • 0: The mark is not included. • 1: UAC • 2: UAS The default value is 0.
331	Configures whether to initiate VBD negotiation when there a delay in processing modem events. **NOTE** This control point takes effect after parameter 164 is used to set the delay in processing modem events for SIP AG users. It is recommended that the delay in processing modem events for SIP AG users be set to 5s.	Enumerated value. The options are as follows: • 0: VBD negotiation is not initiated. • 1: VBD negotiation is initiated. The default value is 1.

Example

Set the parameter with the sequence number 18 to 1 for a SIP AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] user-defined-profile number-parameter 18 1
```

Related Topics

16.6.1.15 display voice sipag

16.6.1.91 user-defined-profile service-priority

Function

Using the **user-defined-profile service-priority** command, you can configure the priority of a service type on a SIP AG.

Using the **undo user-defined-profile service-priority** command, you can delete the configured priority of a service type on a SIP AG.

Format

user-defined-profile service-priority *pri-value srvid-value*

undo user-defined-profile service-priority *pri-value*

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Parameters

Parameter	Description	Value
pri-value	Specifies a service priority.	The value is an integer that ranges from 1 to 255.
srvid-value	Specifies a service type.	The value is an integer that ranges from 0 to 4294967295.

Views

SIP AG view

Default Level

2: Configuration level

Usage Guidelines

The **user-defined-profile service-priority** command configures the priority of a specified service type.

If you change the priority of a service type, priorities of other service types are also changed. For example, if you change the priority of a service type from 4 to 2, priorities of the service types with priorities 2 and 3 are changed to 3 and 4. If you change the priority of a service type from 4 to 6, priorities of the service types with priorities 5 and 6 are changed to 4 and 5.

This configuration takes effect after the SIP AG interface is reset using the **16.6.1.69 reset (SIP AG view)** command.

Example

Set the priority of service type 12 to 4.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipag 1
[Huawei-voice-sipag-1] user-defined-profile service-priority 4 12
```

Related Topics

16.6.1.15 display voice sipag

16.6.2 SIP AG User Configuration Commands

Function Description

This section describes the commands used to configure SIP AG users.

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16.6.2.1 active-mask time-slot config-status

Function

The **active-mask time-slot config-status** command specifies the timeslot status.

Format

active-mask time-slot *time-slot-value* **config-status** *config-status-value*

Parameters

Parameter	Description	Value
time-slot-value	Specifies the timeslot number.	The value is an integer that ranges from 0 to 31.
config-status *config-status-value*	Specifies the timeslot status.	Enumerated type. The values are as follows: • **block**: Timeslots are disabled. • **normal**: Timeslots are enabled.

Views

SIP AG user view

Default Level

2: Configuration level

Usage Guidelines

When the 1E1T1-M/2E1T1-M card is installed on the device and works in e1-voice/t1-voice mode, run the **active-mask time-slot config-status** command to specify the timeslot status.

Example

Set the status of timeslot 1 to **normal**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] active-mask time-slot 1 config-status normal
```

Related Topics

16.6.1.15 display voice sipag

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16.6.2.2 agid (SIP AG user view)

Function

Using the **agid** command, you can configure the SIP AG interface ID for a SIP AG user.

By default, no SIP AG interface ID is configured for a SIP AG user.

Format

agid *sipag-interface-id*

Parameters

Parameter	Description	Value
sipag-interface-id	Specifies the ID of a SIP AG interface.	The value is an integer that ranges from 0 to 16777215.

Views

SIP AG user view

Default Level

2: Configuration level

Usage Guidelines

The **agid** command configures the SIP AG interface ID for a SIP AG user. Only one SIP AG interface ID can be configured for a SIP AG user.

Example

Configure the SIP AG interface ID for a SIP AG user.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] agid 1
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.3 auth (SIP service data profile view)

Function

The **auth** command configures an authentication user name and a password in a SIP service data profile.

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The **undo auth** command deletes the authentication user name and the password from a SIP service data profile.

Format

auth username *auth-username* **password** { **cipher** *cipher-password* | **ha1 cipher** *cipher-password* }

undo auth

Parameters

Parameter	Description	Value
username *auth-username*	Specifies the authentication user name.	The value is a string of 1 to 64 characters without spaces or question marks (?).
password	Specifies the authentication password.	-
cipher *cipher-password*	Indicates the password in cipher text. **NOTE** You can configure *cipher-password* after inputting **cipher** and pressing **Enter**.	The *cipher-password* value is a string of case-sensitive characters without spaces. A cipher password may contain 1 to 64 encrypted characters. The input character string - indicates that the password is empty.
ha1 cipher *cipher-password*	Sets the password format to HA1.	The *cipher-password* value is a string of case-sensitive characters without spaces. A cipher password may contain 1 to 32 encrypted characters. The input character string - indicates that the password is empty.

Views

SIP service data profile view

Default Level

2: Configuration level

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Usage Guidelines

To ensure security, configure a user name and a password for authentication.

Before using the **auth** command, run the **16.6.2.39 sipaguser (Voice View)** command to create a SIP AG user.

Example

Set the authentication user name to **huawei**, password format to cipher, and password to 1234567 in SIP service data profile.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipservicedata user 12345678
[Huawei-voice-sipservicedata-user-12345678] auth username huawei password cipher
 Please input user password(1-64 chars):*******
```

16.6.2.4 auth (user group view)

Function

The **auth** command configures the authentication user name and password for a user group.

The **undo auth** command deletes the authentication user name and password of a user group.

By default, no authentication user name or password is configured for a user group.

Format

auth username *auth-username* **password** { **cipher** *cipher-password* | **ha1 cipher** *cipher-password* }

undo auth

Parameters

Parameter	Description	Value
username *auth-username*	Specifies the authentication user name for a user group.	The value is a string of 1 to 64 characters without question mark and spaces.
password	Specifies the authentication password for a user group.	-

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Parameter	Description	Value
cipher *cipher-password*	Indicates the password in cipher text. **NOTE** You can configure *cipher-password* after inputting **cipher** and pressing **Enter**.	The *cipher-password* value is a string of case-sensitive characters without spaces. A cipher password may contain 1 to 64 encrypted characters. The input character string - indicates that the password is empty.
ha1 cipher *cipher-password*	Sets the password format to HA1.	The *cipher-password* value is a string of case-sensitive characters without spaces. A cipher password may contain 1 to 32 encrypted characters. The input character string - indicates that the password is empty.

Views

SIP AG user group view

Default Level

2: Configuration level

Usage Guidelines

To perform authentication on a user group, configure the user name and password for the user group.

Example

Set the authentication user name to **h12345**, password format to cipher, and password to 12345678 for a user group.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipagusergroup 1 1
[Huawei-voice-sipagusergroup-1-1] auth username h12345 password cipher
 Please input user password(1-64 chars):********
```

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16.6.2.5 auto-resume-limit

Function

Using the **auto-resume-limit** command, you can set the maximum number of automatic recoveries from deterioration.

Using the **undo auto-resume-limit** command, you can restore the default maximum number of automatic recoveries from deterioration.

By default, the maximum number of automatic recoveries from deterioration is 20.

Format

auto-resume-limit *auto-resume-limit*

undo auto-resume-limit

Parameters

Parameter	Description	Value
auto-resume-limit	Specifies the maximum number of automatic recoveries from deterioration.	The value is an integer that ranges from 0 to 255.

Views

SIP AG user view

Default Level

2: Configuration level

Usage Guidelines

None

Example

Set the maximum number of automatic recoveries from deterioration to 50.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] auto-resume-limit 50
```

Related Topics

16.6.1.15 display voice sipag

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16.6.2.6 base-telno

Function

The **base-telno** command configures a basic telephone number for a SIP AG user.

The **undo base-telno** command deletes the basic telephone number of a SIP AG user.

By default, no basic telephone number is configured for a SIP AG user.

Format

base-telno *telno-value* [**sipagusergroup** *usergroup-id*]

undo base-telno [**sipagusergroup**]

Parameters

Parameter	Description	Value
telno-value	Specifies a basic telephone number for a SIP AG user.	The value is a string of 1 to 32 characters.
sipagusergroup *usergroup-id*	Specifies the user group of the basic telephone number.	The value is an integer that ranges from 0 to 65535.

Views

SIP AG user view

Default Level

2: Configuration level

Usage Guidelines

The **base-telno** command configures a basic telephone number for a SIP AG user. Only one basic telephone number can be configured for a SIP AG user.

Example

Configure a basic telephone number for a SIP AG user.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] base-telno 12345678
```

Related Topics

16.6.1.15 display voice sipag

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16.6.2.7 bell-ans-flag

Function

Using the **bell-ans-flag** command, you can enable or disable the SIP AG's capability to support the BELL ANS flag.

Using the **undo bell-ans-flag** command, you can restore the default configuration.

By default, the BELL ANS flag is not supported.

Format

bell-ans-flag { **enable** | **disable** }

undo bell-ans-flag

Parameters

Parameter	Description	Value
enable	Indicates that the BELL ANS flag is supported.	-
disable	Indicates that the BELL ANS flag is not supported.	-

Views

SIP AG user view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

The **bell-ans-flag** command enables or disables the SIP AG's capability to support the BELL ANS flag. This command is valid only on FXS interfaces.

Precautions

Before using the **bell-ans-flag** command, run the **16.6.2.39 sipaguser (Voice View)** command to configure the SIP AG user and run the **16.6.2.2 agid (SIP AG user view)** command to configure the SIP AG ID for the SIP AG user.

Example

Configure the SIP AG to support the BELL ANS flag.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] bell-ans-flag enable
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.8 centrex-dial

Function

Using the **centrex-dial** command, you can configure the dial-out mode for Centrex users in a SIP service data profile. The dial-out mode determines how users in a Centrex group call users out of the Centrex group.

Using the **undo centrex-dial** command, you can restore the default call-out mode in a SIP service data profile.

By default, the dial-out mode for Centrex users is direct dialing.

Format

centrex-dial { **directly** | **secondary** }

undo centrex-dial

Parameters

Parameter	Description	Value
directly	Indicates the direct dialing mode.	-
secondary	Indicates the two-stage dialing mode.	-

Views

SIP service data profile view

Default Level

2: Configuration level

Usage Guidelines

The **centrex-dial** determines how users in a Centrex group call users out of the Centrex group. The direct dialing mode is recommended.

Example

Configure the dial-out mode for Centrex users in SIP service data profile 1.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipservicedata 1 12345678
[Huawei-voice-sipservicedata-1-12345678] centrex-dial directly
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.9 centrex-number

Function

Using the **centrex-number** command, you can configure a Centrex number in a SIP service data profile.

Using the **undo centrex-number** command, you can delete the Centrex number in a SIP service data profile.

Format

centrex-number *centrex-number*

undo centrex-number

Parameters

Parameter	Description	Value
centrex-number	Specifies a Centrex number.	The value is an integer that ranges from 0 to 4294967295.

Views

SIP service data profile view

Default Level

2: Configuration level

Usage Guidelines

Users in a Centrex group can enjoy preferential services. For example, users in the Centrex group can call each other free of charge.

Example

Configure a Centrex number in SIP service data profile 1.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipservicedata 1 12345678
[Huawei-voice-sipservicedata-1-12345678] centrex-number 1
```

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Related Topics

16.6.1.15 display voice sipag

16.6.2.10 centrex-prefix

Function

Using the **centrex-prefix** command, you can configure a Centrex prefix in a SIP service data profile.

Using the **undo centrex-prefix** command, you can delete the Centrex prefix from a SIP service data profile.

Format

centrex-prefix *centrex-prefix*

undo centrex-prefix

Parameters

Parameter	Description	Value
centrex-prefix	Specifies a Centrex prefix.	The value is an integer that ranges from 1 to 7.

Views

SIP service data profile view

Default Level

2: Configuration level

Usage Guidelines

When a user in a Centrex group needs to call a user out of the Centrex group, the user must dial the Centrex prefix before dialing the number of the called user.

Example

Configure a Centrex prefix in SIP service data profile 1.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipservicedata 1 12345678
[Huawei-voice-sipservicedata-1-12345678] centrex-prefix 6
```

Related Topics

16.6.1.15 display voice sipag

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16.6.2.11 clip-format

Function

The **clip-format** command configures the calling number format for a SIP AG user.

The **undo clip-format** command restores the default calling number format of a SIP AG user.

By default, the calling number format of a SIP AG user is **SDMF-FSK**.

Format

clip-format *format-value*

undo clip-format

Parameters

Parameter	Description	Value
format-value	Specifies the calling number format for a SIP AG user.	Enumerated type. The values are as follows: • **SDMF-FSK**: specifies the frequency-shift keying (FSK) simple data format. • **MDMF-FSK**: specifies the FSK compound data format. • **DTMF**: specifies the Dual Tone Multifrequency (DTMF) format. • **r15**: specifies the Russia calling number format. • **ETSI**: specifies the BT calling number format.

Views

SIP AG user view

Default Level

2: Configuration level

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Usage Guidelines

Before using the **clip-format** command, run the **16.6.2.39 sipaguser (Voice View)** command to configure the SIP AG user and run the **16.6.2.2 agid (SIP AG user view)** command to configure the SIP AG ID for the SIP AG user.

Example

Configure the FSK simple data format as the calling number format.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] clip-format sdmf-fsk
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.12 clip-transmission-sequence

Function

Using the **clip-transmission-sequence** command, you can configure the sequence in which the calling number of a SIP AG user is displayed.

Using the **undo clip-transmission-sequence** command, you can restore the default sequence in which the calling number of a SIP AG user is displayed.

By default, the calling number of a SIP AG user is displayed after ringing.

Format

clip-transmission-sequence { **after-ring** | **before-ring** }

undo clip-transmission-sequence

Parameters

Parameter	Description	Value
after-ring	Configures the calling number to be displayed after ringing.	-
before-ring	Configures the calling number to be displayed before ringing.	-

Views

SIP AG user view

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Default Level

2: Configuration level

Usage Guidelines

The **clip-transmission-sequence** command configures the sequence in which the calling number of a SIP AG user is displayed. You can set the sequence to **after-ring** or **before-ring**.

Before using the **clip-transmission-sequence** command, run the **16.6.2.39 sipaguser (Voice View)** command to configure the SIP AG user and run the **16.6.2.2 agid (SIP AG user view)** command to configure the SIP AG ID for the SIP AG user.

Example

Set the sequence in which the calling number of a SIP AG user is displayed to **before-ring**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] clip-transmission-sequence before-ring
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.13 dc-time

Function

Using the **dc-time** command, you can set the power-off interval for a SIP AG user.

Using the **undo dc-time** command, you can restore the default power-off interval of a SIP AG user.

By default, the power-off interval of a SIP AG user is 100 ms.

Format

dc-time *dc-time*

undo dc-time

Parameters

Parameter	Description	Value
dc-time	Specifies the power-off interval.	The value is an integer that ranges from 0 to 100, in 10 milliseconds.

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Views

SIP AG user view

Default Level

2: Configuration level

Usage Guidelines

The **dc-time** command sets the power-off interval for a SIP AG user. The *dc-time* parameter is optional.

Before using the **dc-time** command, run the **16.6.2.39 sipaguser (Voice View)** command to configure the interface number for the SIP AG user and run the **16.6.2.2 agid (SIP AG user view)** command to configure the SIP AG ID for the SIP AG user.

Example

Set the power-off interval of a SIP AG user to 50 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] dc-time 5
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.14 detect-ansbar-by-single-tone

Function

Using the **detect-ansbar-by-single-tone** command, you can enable or disable ANSbar signal detection using single tones.

Using the **undo detect-ansbar-by-single-tone** command, you can restore the default configuration.

By default, ANSbar signal detection using single tones is disabled.

Format

detect-ansbar-by-single-tone { **enable** | **disable** }

undo detect-ansbar-by-single-tone

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Parameters

Parameter	Description	Value
enable	Enables ANSbar signal detection using single tones.	-
disable	Disables ANSbar signal detection using single tones.	-

Views

SIP AG user view

Default Level

2: Configuration level

Usage Guidelines

The **detect-ansbar-by-single-tone** command enables or disables ANSbar signal detection using single tones.

Before using the **detect-ansbar-by-single-tone** command, run the **16.6.2.39 sipaguser (Voice View)** command to configure the interface number for the SIP AG user and run the **16.6.2.2 agid (SIP AG user view)** command to configure the SIP AG ID for the SIP AG user.

Example

Enable ANSbar signal detection using single tones.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] detect-ansbar-by-single-tone enable
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.15 dial-tone

Function

Using the **dial-tone** command, you can configure the dial tone type in a SIP service data profile.

Using the **undo dial-tone** command, you can restore the default dial tone type in a SIP service data profile.

By default, the normal dial tone type is used in a SIP service data profile.

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Format

dial-tone { **normal** | **special** | **mwi** }

undo dial-tone

Parameters

Parameter	Description	Value
normal	Indicates the normal dial tone type.	-
special	Indicates the special dial tone type.	-
mwi	Indicates the message waiting tone.	-

Views

SIP service data profile view

Default Level

2: Configuration level

Usage Guidelines

The **dial-tone** command configures the dial tone type, including the normal dial tone, special dial tone, and message waiting tone.

Example

Set the dial tone type to **mwi** in SIP service data profile.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipservicedata user 12345678
[Huawei-voice-sipservicedata-user-12345678] dial-tone mwi
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.16 display voice sipagusergroup

Function

The **display voice sipagusergroup** command displays information about the configured user group.

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Format

display voice sipagusergroup [*sipag-interface-id* [*usergroup-id*]]

Parameters

Parameter	Description	Value
sipag-interface-id	Displays user group information on a specified SIP AG interface.	The value is an integer that ranges from 0 to 16777215.
usergroup-id	Displays information about a specified user group.	The value is an integer that ranges from 0 to 65535.

Views

All views

Default Level

3: Management level

Usage Guidelines

To view information about the configured user group, run the **display voice sipag usergroup** command.

Example

Display user group information on SIP AG interface 1.

```
<Huawei> display voice sipagusergroup 1
  Spec: 16, Records: 1
  -------------------------
  AGID                    : 1
  Groupid                 : 1
```

Display information about user group 1 on SIP AG interface 1.

```
<Huawei> display voice sipagusergroup 1 1
  Running state           : RBlock
  AGID                    : 1
  Groupid                 : 1
  Register URI mode       : inneruser
  Precinct mode           : local
  Subscribe               : enable
  Group name              : huawei
  Uri                     : 28780!*!
  Auth username           :
  Auth password mode      : password
  Auth password           :
```

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Table 16-125 Description of the display voice sipagusergroup command output

Item	Description
Running state	Registration status of a user group, including: • RBlock: The remote interface is blocked. • LBlock: The local interface is blocked. • StartSvc: The service starts.
AGID	ID of the SIP AG interface that the user group belongs to.
Groupid	User group ID.
Register URI mode	Registration URI mode. The values are as follows: • inneruser: indicates that the user group uses the registrar URI of a member user. • alone: indicates that the user group uses an independent registrar URI.
Precinct mode	Mode in which a user group manages users. The values are as follows: • local • remote
Subscribe	User authority (UA) profile subscription request. The values are as follows: • enable: indicates that a UA profile subscription request is initiated by a user group. • disable: indicates that a UA profile subscription request is initiated by a single user.
Group name	User group name.
Uri	User group URI.
Auth username	Authentication user name for a user group.
Auth password mode	Authentication password mode for a user group, including password and HA1. The values are as follows: • password • ha1
Auth password	Authentication password for a user group.

Related Topics

16.6.1.15 display voice sipag

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16.6.2.17 display voice sipaguser

Function

The **display voice sipaguser** command displays the configuration of a SIP AG user.

Format

display voice sipaguser [*sipaguser-name*]

Parameters

Parameter	Description	Value
sipaguser-name	Specifies a SIP AG user name.	The value is a string of 1 to 32 characters.

Views

All view

Default Level

3: Management level

Usage Guidelines

To view the configuration of a SIP AG user, run the **display voice sipaguser** command.

Example

Display configurations of all SIP AG users.

```
<Huawei> display voice sipaguser
  Spec: 96, Records: 2
  --------------------------
  Sipaguser name             : 1100
  Slotid/Subcard/Portid      : 1/0/0
  AGID                    : 1
  Base telno               : 1100

  Sipaguser name             : 1101
  Slotid/Subcard/Portid      : 1/0/1
  AGID                    : 1
  Base telno               : 1101
```

Table 16-126 Description of the display voice sipagusergroup command output

Item	Description
Sipaguser name	User name.

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Item	Description
Slotid/Subcard/Portid	Slot number/subcard number/interface number of the user.
AGID	ID of the SIP AG interface that the user belongs to.
Base telno	Phone number of the SIP AG user.

Display the configuration of SIP AG user 1100.

```
<Huawei> display voice sipaguser 1100
  Slotid/Subcard/Portid      : 1/0/0
  AGID                       : 1
  Base telno                 : 1100
  GroupID                    :
  Priority                   : cat3
  Line type                  : DEL
  CLIP transmission sequence : After ring
  CLIP format                : SDMF FSK
  DC time(ms)                : 100
  FSK time(ms)               : 800
  VQE agc                    : Off
  VQE agc level(dbm0)        : -22
  VQE sns                    : Off
  VQE sns level(dB)          : 12
  DSP input gain(dB)         : 0
  DSP output gain(dB)        : 0
  DSP template               :
  Ans bar by single tone     : Off
  Bell ans flag              : Off
  FSK mode                   : BELL202
  Fsk tas pattern            : NO TAS
```

Table 16-127 Description of the display voice sipagusergroup command output

Item	Description
Slotid/Subcard/Portid	Slot number/subcard number/interface number of the user.
AGID	ID of the SIP AG interface that the user belongs to.
Base telno	Phone number of the SIP AG user.
GroupID	Group ID that a user belongs to.
Priority	User terminal priority.
Line type	User type.
CLIP transmission sequence	Calling number delivery sequence.
CLIP format	Calling number format.
DC time(ms)	Duration for releasing call signals.
FSK time(ms)	FSK delay.

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Item	Description
VQE agc	VQE function flag.
VQE agc level(dbm0)	Target VQE level.
VQE sns	VQE noise suppression flag.
VQE sns level(dB)	VQE noise suppression level, in dB.
DSP input gain(dB)	DSP chip input gain.
DSP output gain(dB)	DSP chip output gain.
DSP template	DSP template name.
Ans bar by single tone	Whether single-tone ANSbar signal detection is supported.
Bell ans flag	Whether the BELL ANS flag is supported.
FSK mode	FSK mode of CLIP.
Fsk tas pattern	TAS mode of CLIP.

Related Topics

16.6.1.15 display voice sipag

16.6.2.18 display voice sipservicedata

Function

The **display voice sipservicedata** command displays the user service data of a SIP AG.

Format

display voice sipservicedata *sipag-user-name telephone-number*

Parameters

Parameter	Description	Value
sipag-user-name	Specifies the user name of a SIP AG.	The value is a string of 1 to 32 characters.
telephone-number	Specifies the telephone number of a SIP AG.	The value is a string of 1 to 32 characters.

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Views

All views

Default Level

3: Management level

Usage Guidelines

To view the user service data of a SIP AG, run the **display voice sipservicedata** command.

Example

Display the service data of a service data profile **user**.

```
<Huawei> display voice sipservicedata user 12345678
  Auth name                    : huawei
  Auth password mode           : Password
  Auth password                : ****
  Call hold                    : Enable
  Three party                  : Enable
  Conference                   : Enable
  Call transfer                : Enable
  Call waiting                 : Disable
  Malicious call identification : Disable
  Mwi                          : Disable
  Terminal portability         : Disable
  Call diversion               : Disable
  Anonymous call               : Disable
  Hotline                      : Disable
  Uus1                         : Disable
  Uus2                         : Disable
  Uus3                         : Disable
  Centrex number               :
  Centrex prefix               :
  Centrex dial                 : Dial directly
  Dial tone                    : Mw
  Mwi mode                     : Deferred
  Hotline number               :
  CFB number                   :
  CFU number                   :
  CFNR number                  :
```

Table 16-128 Description of the display voice sipservicedata command output

Item	Description
Auth name	Authentication user name for a user group.
Auth password mode	Authentication password mode for a user group, including password and HA1. The values are as follows: ● password ● ha1
Auth password	Authentication password for a user group.
Call hold	Whether the call holding service is supported.

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Item	Description
Three party	Whether the three-party service is supported.
Conference	Whether the conference call service is supported.
Call transfer	Whether the call transfer service is supported.
Call waiting	Whether the call waiting service is supported.
Malicious call identification	Whether the malicious call identification service is supported.
Mwi	Whether the message waiting indicator (MWI) service is supported.
Terminal portability	Whether the terminal mobility service is supported.
Call diversion	Whether the call forwarding service is supported.
Anonymous call	Whether the anonymous call service is supported.
Hotline	Whether the hotline service is supported.
Uus1	Whether the user-to-user signalling1 service is supported.
Uus2	Whether the user-to-user signalling2 service is supported.
Uus3	Whether the user-to-user signalling3 service is supported.
Centrex number	Centrex group number.
Centrex prefix	Outgoing prefix.
Centrex dial	Centrex group attribute. ● directly: indicates direct dialing ● secondary: indicates two-stage dialing
Dial tone	Dial tone type. ● normal: indicates normal tone ● special: indicates special tone ● mwi: indicates message waiting tone
Mwi mode	MWI service mode. ● deferred: indicates deferred MWI mode ● immediate: indicates immediate MWI mode ● combine: indicates combined MWI mode
Hotline number	Hotline number.
CFB number	Call forwarding busy (CFB) number.
CFU number	Call forwarding unconditional (CFU) number.
CFNR number	Call forwarding on no reply (CFNR) number.

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Related Topics

16.6.2.41 sipservicedata

16.6.2.19 dsp-input-gain

Function

Using the **dsp-input-gain** command, you can configure the DSP chip input gain for a SIP AG user.

Using the **undo dsp-input-gain** command, you can restore the default DSP chip input gain of a SIP AG user.

By default, the DSP chip input gain of a SIP AG user is 0 dB.

Format

dsp-input-gain *dsp-input-gain*

undo dsp-input-gain

Parameters

Parameter	Description	Value
dsp-input-gain	Specifies the DSP chip input gain.	The value is an integer that ranges from 0 to 15, in dB.

Views

SIP AG user view

Default Level

2: Configuration level

Usage Guidelines

The **dsp-input-gain** command configures the DSP chip input gain for a SIP AG user. You can improve the voice quality by configuring the DSP chip input gain.

Before using the **dsp-input-gain** command, run the **16.6.2.39 sipaguser (Voice View)** command to configure the SIP AG user and run the **16.6.2.2 agid (SIP AG user view)** command to configure the SIP AG ID for the SIP AG user.

Example

Set the DSP chip input gain to 5 for a SIP AG user.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] dsp-input-gain 5
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.20 dsp-output-gain

Function

Using the **dsp-output-gain** command, you can configure the DSP chip output gain for a SIP AG user.

Using the **undo dsp-output-gain** command, you can restore the default DSP chip output gain of a SIP AG user.

By default, the DSP chip output gain of a SIP AG user is 0 dB.

Format

dsp-output-gain *dsp-output-gain*

undo dsp-output-gain

Parameters

Parameter	Description	Value
dsp-output-gain	Specifies the DSP chip output gain.	The value is an integer that ranges from 0 to 20, in dB.

Views

SIP AG user view

Default Level

2: Configuration level

Usage Guidelines

The **dsp-output-gain** command configures the DSP chip output gain for a SIP AG user. You can improve the voice quality by configuring the DSP chip output gain.

Before using the **dsp-output-gain** command, run the **16.6.2.39 sipaguser (Voice View)** command to configure the SIP AG user and run the **16.6.2.2 agid (SIP AG user view)** command to configure the SIP AG ID for the SIP AG user.

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Example

Set the DSP chip output gain to 5 for a SIP AG user.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] dsp-output-gain 5
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.21 dsp-template

Function

Using the **dsp-template** command, you can configure a DSP template name for a SIP AG user.

Using the **undo dsp-template** command, you can delete a DSP template name of a SIP AG user.

By default, no DSP template name is configured for a SIP AG user.

Format

dsp-template *dsp-template*

undo dsp-template

Parameters

Parameter	Description	Value
dsp-template	Specifies the name of a DSP template.	The value is a string of 1 to 31 characters.

Views

SIP AG user view

Default Level

2: Configuration level

Usage Guidelines

Before using the **dsp-template** command, run the **16.6.2.39 sipaguser (Voice View)** command to configure the SIP AG user and run the **16.6.2.2 agid (SIP AG user view)** command to configure the SIP AG ID for the SIP AG user.

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Example

Configure a DSP template name **highspeed-modem** for a SIP AG user.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] dsp-template highspeed-modem
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.22 endservice (SIP AG user view)

Function

Using the **endservice** command, you can terminate services of a specified SIP AG user.

Using the **undo endservice** command, you can restart services of a SIP AG user.

By default, services of a SIP AG user are not terminated.

Format

endservice { **defer** [**maxcobtime** *maxcobtime-value*] | **immediate** }

undo endservice

Parameters

Parameter	Description	Value
defer	Indicates the delay mode used for terminating services of a SIP AG user.	-
maxcobtime *maxcobtime-value*	Specifies the maximum delay duration for terminating services of a SIP AG user.	It is an integer that ranges from 1 to 1440, in minutes. The default value is 240.
immediate	Indicates the mode used for immediately terminating services of a SIP AG user.	-

Views

SIP AG user view

Default Level

2: Configuration level

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Usage Guidelines

This command can terminate services of a SIP AG user. When using this command, pay attention to the following:

- When **defer** is specified, services on a port are terminated properly within the delay range; if services are not terminated within the delay range, the system handles services according to the mode when the delay expires.
- **maxcobtime** *maxcobtime-value* specifies the maximum duration for which the system allows services on a port to be terminated. If services on the port are not terminated within the maximum duration, the system handles services according to the mode when the delay expires.

NOTE

Services of users are terminated after this command is executed. Confirm the action before you run this command.

Example

Terminate services of the SIP AG user **huawei** immediately.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] endservice immediate
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.23 endservice (User group view)

Function

Using the **endservice** command, you can terminate services of a user group.

Using the **undo endservice** command, you can restart services of a user group.

Format

endservice

undo endservice

Parameters

None

Views

User group view

Default Level

2: Configuration level

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Usage Guidelines

To terminate services of a user group, run the **endservice** command. Services of users are terminated after this command is used; therefore, exercise caution when you run this command.

Example

Terminate services of a specified user group.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipagusergroup 1 1
[Huawei-voice-sipagusergroup-1-1] endservice
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.24 extend-telno

Function

The **extend-telno** command configures an extended telephone number for a SIP AG user.

The **undo extend-telno** command deletes the extended telephone number of a SIP AG user.

By default, no extended telephone number is configured for a SIP AG user.

Format

extend-telno *telno-value* [**sipagusergroup** *usergroup-id*]

undo extend-telno *telno-value* [**sipagusergroup**]

Parameters

Parameter	Description	Value
telno-value	Specifies an extended telephone number for a SIP AG user.	The value is a string of 1 to 32 characters.
sipagusergroup *usergroup-id*	Specifies the user group of the extended telephone number.	The value is an integer that ranges from 0 to 65535.

Views

SIP AG user view

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Default Level

2: Configuration level

Usage Guidelines

The **extend-telno** command configures an extended telephone number for a SIP AG user so that the SIP has multiple telephone numbers.

Example

Configure an extended telephone number for a SIP AG user.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] extend-telno 12341234
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.25 fsk-mode

Function

Using the **fsk-mode** command, you can configure the FSK call display mode.

Using the **undo fsk-mode** command, you can restore the default FSK call display mode.

By default, the FSK call display mode is BELL_202.

Format

fsk-mode { **BELL_202** | **CCITT_V23** | **NTT** }

undo fsk-mode

Parameters

Parameter	Description	Value
BELL_202	Sets the FSK call display mode to BELL_202.	-
CCITT_V23	Sets the FSK call display mode to CCITT_V23.	-
NTT	Sets the FSK call display mode to NTT.	-

Views

SIP AG user view

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Default Level

2: Configuration level

Usage Guidelines

The **fsk-mode** command configures the FSK call display mode. The **fsk-mode** parameter is optional.

Before using the **fsk-mode** command, run the **16.6.2.39 sipaguser (Voice View)** command to configure the SIP AG user and run the **16.6.2.2 agid (SIP AG user view)** command to configure the SIP AG ID for the SIP AG user.

Example

Set the FSK call display mode to CCITT_V23.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] fsk-mode CCITT_V23
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.26 fsk-time

Function

Using the **fsk-time** command, you can set the FSK delay for a SIP AG user.

Using the **undo fsk-time** command, you can restore the default FSK delay of a SIP AG user.

By default, the FSK delay of a SIP AG user is 800 ms.

Format

fsk-time *fsk-time*

undo fsk-time

Parameters

Parameter	Description	Value
fsk-time	Specifies the FSK delay.	The value is an integer that ranges from 0 to 100 The unit is 10 milliseconds.

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Views

SIP AG user view

Default Level

2: Configuration level

Usage Guidelines

The **fsk-time** command sets the FSK delay for a SIP AG user. The *fsk-time* parameter is optional.

Before using the **fsk-time** command, run the **16.6.2.39 sipaguser (Voice View)** command to configure the SIP AG user and run the **16.6.2.2 agid (SIP AG user view)** command to configure the SIP AG ID for the SIP AG user.

Example

Set the FSK delay of a SIP AG user to 50 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] fsk-time 5
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.27 group-name

Function

The **group-name** command configures a name for a user group.

The **undo group-name** command deletes the name for the user group.

Format

group-name *usergroup-name*

undo group-name

Parameters

Parameter	Description	Value
usergroup-name	Specifies the user group name.	The value is a string of 1 to 64 characters.

Views

SIP AG user group view

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Default Level

2: Configuration level

Usage Guidelines

To facilitate user group management and maintenance, run the **group-name** command to configure a name for a user group.

Example

Configure a user group name **ip123**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipagusergroup 1 1
[Huawei-voice-sipagusergroup-1-1] group-name ip123
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.28 line-type

Function

Using the **line-type** command, you can set the user type for a SIP AG user.

Using the **undo line-type** command, you can restore the default user type of a SIP AG user.

By default, the user type of a SIG AG user is **DEL**.

Format

line-type { **DEL** | **ECPBX** | **LCPBX** | **PayPhone** }

undo line-type

Parameters

Parameter	Description	Value
DEL	Specifies the user type as Direct Exchange Lines (DEL).	-
ECPBX	Specifies the user type as Earth Calling PBX (ECPBX).	-
LCPBX	Specifies the user type as Loop Calling PBX (LCPBX).	-

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Parameter	Description	Value
PayPhone	Specifies the user type as pay phone.	-

Views

SIP AG user view

Default Level

2: Configuration level

Usage Guidelines

The **line-type** command sets the user type for a SIP AG user.

Before using the **line-type** command, run the **16.6.2.39 sipaguser (Voice View)** command to configure the interface number for the SIP AG user and run the **16.6.2.2 agid (SIP AG user view)** command to configure the SIP AG ID for the SIP AG user.

Example

Set the user type to **PayPhone** for the SIP AG user.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] line-type PayPhone
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.29 mwi-mode

Function

Using the **mwi-mode** command, you can configure the message waiting indicator (MWI) service mode in a SIP service data profile.

Using the **undo mwi-mode** command, you can restore the default MWI service mode in a SIP service data profile.

By default, the deferred MWI service mode is used.

Format

mwi-mode { **deferred** | **immediate** | **combine** }

undo mwi-mode

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Parameters

Parameter	Description	Value
deferred	Indicates that the MWI is sent after a delay.	-
immediate	Indicates that the MWI is sent immediately.	-
combine	Indicates the combined WMI mode.	-

Views

SIP service data profile view

Default Level

2: Configuration level

Usage Guidelines

The **mwi-mode** command configures the MWI service mode in a SIP service data profile. The deferred mode is recommended.

Example

Set the MWI service mode in SIP service data profile 1.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipservicedata 1 12345678
[Huawei-voice-sipservicedata-1-12345678] mwi-mode deferred
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.30 precinct-mode

Function

The **precinct-mode** command configures the mode in which a user group manages users.

The **undo precinct-mode** command restores the default mode in which a user group manages users.

By default, the mode in which a user group manages users is **local**.

Format

precinct-mode { **local** | **remote** }

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undo precinct-mode

Parameters

Parameter	Description	Value
local	Indicates that users are managed locally.	-
remote	Indicates that users are managed by the remote IMS.	-

Views

SIP AG user group view

Default Level

2: Configuration level

Usage Guidelines

The **precinct-mode** command configures the mode in which a user group manages users.

Example

Set the mode in which a user group manages users to **local**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipagusergroup 1 1
[Huawei-voice-sipagusergroup-1-1] precinct-mode local
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.31 priority

Function

Using the **priority** command, you can configure the priority for a SIP AG user.

Using the **undo priority** command, you can restore the default priority of a SIP AG user.

By default, the priority of a SIG AG user is **cat3**.

Format

priority { **cat1** | **cat2** | **cat3** }

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undo priority

Parameters

Parameter	Description	Value
cat1	Specifies the category-1 user priority.	-
cat2	Specifies the category-2 user priority.	-
cat3	Specifies the category-3 user priority.	-

Views

SIP AG user view

Default Level

2: Configuration level

Usage Guidelines

You can run this command to configure the SIP AG user priority. Priorities are **cat1**, **cat2**, **cat3** in a descending order.

Example

Set the SIP AG user priority to **cat1**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] priority cat1
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.32 register-uri-mode

Function

The **register-uri-mode** command configures the registrar URI mode for a user group.

Format

register-uri-mode { **inneruser** | **alone** }

undo register-uri-mode

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Parameters

Parameter	Description	Value
inneruser	Indicates that the user group uses the registrar URI of a member user.	-
alone	Indicates that the user group uses an independent registrar URI. Different users are configured with different URIs.	-

Views

SIP AG user group view

Default Level

2: Configuration level

Usage Guidelines

This command is mandatory and used to configure the registrar URI mode for a user group.

If you run the **register-uri-mode** command multiple times in the same user group view, only the latest configuration takes effect.

Example

Set the registrar URI mode of a user group to **alone**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipagusergroup 1 1
[Huawei-voice-sipagusergroup-1-1] register-uri-mode alone
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.33 service cfb

Function

Using the **service cfb** command, you can configure a forward-to number for the call forwarding busy (CFB) service in a SIP service data profile.

Using the **undo service cfb** command, you can delete the CFB forward-to number from a SIP service data profile.

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By default, no CFB forward-to number is configured in a SIP service data profile.

Format

service cfb *cfbnum-value*

undo service cfb

Parameters

Parameter	Description	Value
cfbnum-value	Specifies a CFB forward-to number.	The value is a string of 1 to 32 characters.

Views

SIP service data profile view

Default Level

2: Configuration level

Usage Guidelines

When the called user is busy, the call is forwarded to the specified number.

Example

Set the CFB forward-to number to 12345678.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipservicedata user 12345678
[Huawei-voice-sipservicedata-user-12345678] service cfb 12345678
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.34 service cfnr

Function

The **service cfnr** command configures a forward-to number for the call forwarding no reply (CFNR) service in a SIP service data profile.

The **undo service cfnr** command deletes a CFNR forward-to number from a SIP service data profile.

By default, no CFNR forward-to number is configured in a SIP service data profile.

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Format

service cfnr *cfnrnumtime-value cfnrnum-value*

undo service cfnr

Parameters

Parameter	Description	Value
cfnrnumtime-value	Specifies the CFNR timeout period.	The value is an integer that ranges from 0 to 65535, in seconds.
cfnrnum-value	Specifies a CFNR forward-to number.	The value is a string of 1 to 32 characters.

Views

SIP service data profile view

Default Level

2: Configuration level

Usage Guidelines

The **service cfnr** command sets a CFNR forward-to number and CFNR timeout period. When a called party does not answer a call after the CFNR timeout period expires, CFNR is activated.

Example

Set the CFNR forward-to number to 12345679 and timeout period to 30 seconds.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipservicedata user 12345678
[Huawei-voice-sipservicedata-user-12345678] service cfnr 30 12345679
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.35 service cfo

Function

The **service cfo** command configures a forward-to number for the call forwarding offline (CFO) service in a SIP service data profile.

The **undo service cfo** command deletes the CFO forward-to number from a SIP service data profile.

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By default, no CFO forward-to number is configured.

Format

service cfo *cfonum-value*

undo service cfo

Parameters

Parameter	Description	Value
cfonum-value	Specifies a CFO forward-to number.	The value is a string of 1 to 32 characters.

Views

SIP service data profile view

Default Level

2: Configuration level

Usage Guidelines

The **service cfo** command configures a CFO forward-to number. When a user is offline, incoming calls of the user are forwarded to the CFO forward-to number.

Example

Set the CFO forward-to number to 12345679.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipservicedata user 12345678
[Huawei-voice-sipservicedata-user-12345678] service cfo 12345679
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.36 service cfu

Function

Using the **service cfu** command, you can configure a forward-to number for the call forwarding unconditional (CFU) service in a SIP service data profile.

Using the **undo service cfu** command, you can delete CFU forward-to number from a SIP service data profile.

By default, no CFU forward-to number is configured in a SIP service data profile.

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Format

service cfu *cfunum-value*

undo service cfu

Parameters

Parameter	Description	Value
cfunum-value	Specifies a CFU forward-to number.	The value is a string of 1 to 32 characters.

Views

SIP service data profile view

Default Level

2: Configuration level

Usage Guidelines

When the CFU service is configured for a user, calls to this user are always forwarded to the specified number.

Example

Set the CFU forward-to number to 12345679.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipservicedata user 12345678
[Huawei-voice-sipservicedata-user-12345678] service cfu 12345679
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.37 service hotline

Function

The **service hotline** command configures a hotline number in a SIP service data profile.

The **undo service hotline** command deletes the hotline number from a SIP service data profile.

By default, no hotline number is configured.

Format

service hotline *hotline-time hotline-number*

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undo service hotline

Parameters

Parameter	Description	Value
hotline-time	Specifies the time to wait before dialing a hotline number.	The value is an integer that ranges from 0 to 255, in seconds.
hotline-number	Specifies a hotline number.	The value is a string of 1 to 24 characters.

Views

SIP service data profile view

Default Level

2: Configuration level

Usage Guidelines

If a user that has subscribed to the hotline service does not dial any number within the specified period after picking up the phone, the system dials the hotline number for the user. The default time (100 seconds) is recommended.

Example

Set the hotline number to 123456 and the time to wait before dialing the hotline number to 80 seconds in a SIP service data profile.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipservicedata user 12345678
[Huawei-voice-sipservicedata-user-12345678] service hotline 80 123456
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.38 service-right (SIP service data profile view)

Function

The **service-right enable** command enables the service right.

The **service-right dsable** command disables the service right.

Format

service-right *service-name* **enable**

service-right *service-name* **disable**

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Parameters

Parameter	Description	Value
service-name	Specifies a service name.	The services include: • anonymous-call: anonymous call • call-diversion: call forwarding • call-hold: call hold • call-transfer: call transfer • conf: conference • cw: call waiting • hotline: hotline • malicious-call-identification: malicious call identification • mwi: message waiting indicator • terminal-portability: terminal portability • three-party: three-party service • uus1: UUS1 • uus2: UUS2 • uus3: UUS3
enable	Specifies enabling the service right.	-
disable	Specifies disabling the service right.	-

Views

SIP service data profile view

Default Level

2: Configuration level

Usage Guidelines

None.

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Example

Enable the RBT service.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipservicedata user 12345678
[Huawei-voice-sipservicedata-user-12345678] service-right anonymous-call enable
```

16.6.2.39 sipaguser (Voice View)

Function

The **sipaguser** command creates a SIP AG user and displays the SIP AG user view.

The **undo sipaguser** command deletes a SIP AG user.

By default, no SIP AG user is created.

Format

sipaguser *sipaguser-name* [**port** [**pots** | **bra**] *interface-number*]

undo sipaguser *sipaguser-name*

Parameters

Parameter	Description	Value
sipaguser-name	Specifies a SIP AG user name.	The value is a string of 1 to 32 case-insensitive characters without spaces. If the string is enclosed in double quotation marks (" "), the string can contain spaces.
port	Indicates the interface of a SIP AG user.	-
pots	Indicates an FXS interface.	-
bra	Indicates a BRA interface.	-
interface-number	Specifies an interface number for a SIP AG user.	The value is a string of 1 to 15 characters without spaces. The value of *interface-number* is based on the device specifications.

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Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

Usage Scenario

When a terminal user connects to the IMS through the SIP AG. You need to create a SIP AG user for the terminal user and run the **agid** command to add the SIP AG user to a specified SIP AG interface. When creating a SIP AG user, you must specify the interface number by specifying the **port** [**pots** | **bra**] *interface-number* parameter. After entering the view of an existing SIP AG user, you do not need to input the interface number.

Precautions

If the router does not work in SIP AG mode, you need to run the **service-mode** command to configure the router to work in SIP AG mode.

Example

Create a SIP AG user.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei port 1/0/0
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.40 sipagusergroup

Function

The **sipagusergroup** command creates a SIP AG user group.

The **undo sipagusergroup** command deletes a SIP AG user group.

Format

sipagusergroup *sipag-interface-id usergroup-id*

undo sipagusergroup *sipag-interface-id usergroup-id*

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Parameters

Parameter	Description	Value
sipag-interface-id	Specifies the interface ID of a SIP AG.	The value is an integer that ranges from 0 to 16777215.
usergroup-id	Specifies the user group ID of a SIP AG.	The value is an integer that ranges from 0 to 65535.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

When you need to configure a user group for a SIP AG, use the **usergroup** command. After creating a SIP AG user group, add it to the specified SIP AG. The user group must also be added to the IP Multimedia Subsystem (IMS), and the parameters of the user group must be the same on the SIP AG and IMS.

Example

Create a SIP AG user group.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipagusergroup 2 1
[Huawei-voice-sipagusergroup-2-1]
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.41 sipservicedata

Function

Using the **sipservicedata** command, you can create a SIP service data profile and enter its view.

Using the **undo sipservicedata** command, you can delete a SIP service data profile.

By default, no SIP service data profile is configured.

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Format

sipservicedata *sipaguser-name telephone-number*

undo sipservicedata *sipaguser-name telephone-number*

Parameters

Parameter	Description	Value
sipaguser-name	Specifies a SIP AG user.	The value is a string of 1 to 32 characters.
telephone-number	Specifies the phone number of the SIP AG user.	The value is a string of 1 to 32 characters.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

A SIP service data profile controls services of a SIP AG user. The **sipservicedata** command creates a SIP service data profile.

The configured phone number must be the same as the phone number configured for the SIP AG user.

Example

Create a SIP service data profile.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipservicedata huawei 12345678
[Huawei-voice-sipservicedata-huawei-12345678]
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.42 subscribe ua-profile

Function

Using the **subscribe ua-profile** command, you can determine whether the request to subscribe to a user authority (UA) profile is initiated by a user group or a single user.

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Using the **undo subscribe ua-profile** command, you can restore the default configuration.

By default, a UA profile subscription request is initiated by a user group.

Format

subscribe ua-profile { **enable** | **disable** }

undo subscribe ua-profile

Parameters

Parameter	Description	Value
enable	Initiates a UA profile subscription request by a user group.	-
disable	Initiates a UA profile subscription request by a single user.	-

Views

User group view

Default Level

2: Configuration level

Usage Guidelines

The **subscribe ua-profile** command determines whether a UA profile subscription request is initiated by a user group for a single user.

Example

Specify that a UA profile subscription request is initiated by a user group.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipagusergroup 1 1
[Huawei-voice-sipagusergroup-1-1] subscribe ua-profile enable
```

Related Topics

16.6.1.15 display voice sipag

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16.6.2.43 tas-pattern

Function

Using the **tas-pattern** command, you can configure the TAS mode of Calling Line Identification Presentation (CLIP).

Using the **undo tas-pattern** command, you can restore the default TAS mode of CLIP.

By default, the TAS mode of CLIP is NO-TAS.

Format

tas-pattern { **NO-TAS** | **DT-AS** }

undo tas-pattern

Parameters

Parameter	Description	Value
NO-TAS	Sets the TAS mode of CLIP to NO-TAS.	-
DT-AS	Sets the TAS mode of CLIP to DT-AS.	-

Views

SIP AG user view

Default Level

2: Configuration level

Usage Guidelines

The **tas-pattern** command sets the TAS mode of CLIP for a SIP AG user.

Before using the **tas-pattern** command, run the **16.6.2.39 sipaguser (Voice View)** command to configure the interface number for the SIP AG user and run the **16.6.2.2 agid (SIP AG user view)** command to configure the SIP AG ID for the SIP AG user.

Example

Set the TAS mode of CLIP to NO-TAS.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] tas-pattern NO-TAS
```


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Related Topics

16.6.1.15 display voice sipag

16.6.2.44 uni-report

Function

Using the **uni-report** command, you can enable or disable the function that reports user network interface (UNI) faults.

Using the **undo uni-report** command, you can restore the default status of the UNI fault reporting function.

By default, the UNI fault reporting function is disabled.

Format

uni-report { **enable** | **disable** }

undo uni-report

Parameters

Parameter	Description	Value
enable	Enables the UNI fault reporting function.	-
disable	Disables the UNI fault reporting function.	-

Views

SIP AG user view

Default Level

2: Configuration level

Usage Guidelines

The **uni-report** command enables or disables the UNI fault reporting function. If this function is enabled, users on a UNI are deregistered when the UNI fails. This command is optional.

Example

Enable the UNI fault reporting function.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] uni-report enable
```

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Related Topics

16.6.1.15 display voice sipag

16.6.2.45 uri

Function

The **uri** command configures a uniform resource identifier (URI) for a user group.

Format

uri *uri*

Parameters

Parameter	Description	Value
uri	Specifies a URI for a user group.	The value is a string of 1 to 64 characters.

Views

SIP AG user group view

Default Level

2: Configuration level

Usage Guidelines

This command configures a URI for a user group. User groups must use different URIs.

If you run the **uri** command multiple times in the same user group view, only the latest configuration takes effect.

Example

Set the URI of a user group to **28780!*!**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipagusergroup 1 1
[Huawei-voice-sipagusergroup-1-1] uri 28780!*!
```

Related Topics

16.6.1.15 display voice sipag

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16.6.2.46 vqe-agc

Function

Using the **vqe-agc** command, you can enable or disable the voice quality enhancement (VQE) function for a SIP AG user.

Using the **undo vqe-agc** command, you can restore the default VQE status for a SIP AG user.

By default, VQE is disabled for a SIP AG user.

Format

vqe-agc { **enable** | **disable** }

undo vqe-agc

Parameters

Parameter	Description	Value
enable	Enables the VQE function.	-
disable	Disables the VQE function.	-

Views

SIP AG user view

Default Level

2: Configuration level

Usage Guidelines

The **vqe-agc** command enables or disables the VQE function for a SIP AG user. This command is optional.

Before using the **vqe-agc** command, run the **16.6.2.39 sipaguser (Voice View)** command to configure the interface number for the SIP AG user and run the **16.6.2.2 agid (SIP AG user view)** command to configure the SIP AG ID for the SIP AG user.

Example

Enable the VQE function for a SIP AG user.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] vqe-agc enable
```

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Related Topics

16.6.1.15 display voice sipag

16.6.2.47 vqe-agc-level

Function

Using the **vqe-agc-level** command, you can set the target voice quality enhancement (VQE) level for a SIP AG user.

Using the **undo vqe-agc-level** command, you can restore the default target VQE level for a SIP AG user.

By default, the target VQE level of a SIP AG user is 13.

Format

vqe-agc-level *vqe-agc-level*

undo vqe-agc-level

Parameters

Parameter	Description	Value
vqe-agc-level	Specifies the target VQE level.	The value is an integer that ranges from 0 to 15.

Views

SIP AG user view

Default Level

2: Configuration level

Usage Guidelines

The **vqe-agc-level** command sets the target VQE level for a SIP AG user. This command is optional.

Before using the **vqe-agc-level** command, run the **16.6.2.39 sipaguser (Voice View)** command to configure the interface number for the SIP AG user and run the **16.6.2.2 agid (SIP AG user view)** command to configure the SIP AG ID for the SIP AG user.

Example

Set the target VQE level of a SIP AG user to 10

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] vqe-agc-level 10
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.48 vqe-sns

Function

Using the **vqe-sns** command, you can enable or disable voice quality enhancement (VQE) noise suppression for a SIP AG user.

Using the **undo vqe-sns** command, you can restore the default status of VQE noise suppression.

By default, VQE noise suppression is disabled for a SIP AG user.

Format

vqe-sns { **enable** | **disable** }

undo vqe-sns

Parameters

Parameter	Description	Value
enable	Enables VQE noise suppression.	-
disable	Disables VQE noise suppression.	-

Views

SIP AG user view

Default Level

2: Configuration level

Usage Guidelines

The **vqe-sns** command enables or disables VQE noise suppression for a SIP AG user. This command is optional.

Before using the **vqe-sns** command, run the **16.6.2.39 sipaguser (Voice View)** command to configure the interface number for the SIP AG user and run the **16.6.2.2 agid (SIP AG user view)** command to configure the SIP AG ID for the SIP AG user.

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Example

Enable VQE noise suppression for a SIP AG user.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] vqe-sns enable
```

Related Topics

16.6.1.15 display voice sipag

16.6.2.49 vqe-sns-level

Function

Using the **vqe-sns-level** command, you can set the VQE noise suppression value for a SIP AG user.

Using the **undo vqe-sns-level** command, you can restore the default VQE noise suppression value for a SIP AG user.

By default, the VQE noise suppression value of a SIP AG user is 12 dB.

Format

vqe-sns-level *vqe-sns-level*

undo vqe-sns-level

Parameters

Parameter	Description	Value
vqe-sns-level	Specifies a VQE noise suppression value.	The value is an integer that ranges from 6 to 20, in dB.

Views

SIP AG user view

Default Level

2: Configuration level

Usage Guidelines

The **vqe-sns-level** command sets the VQE noise suppression value for a SIP AG user. This command is optional.

Before using the **vqe-sns-level** command, run the **16.6.2.39 sipaguser (Voice View)** command to configure the interface number for the SIP AG user and run

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the **16.6.2.2 agid (SIP AG user view)** command to configure the SIP AG ID for the SIP AG user.

Example

Set the VQE noise suppression value of a SIP AG user to 10.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sipaguser huawei
[Huawei-voice-sipaguser-huawei] vqe-sns-level 10
```

Related Topics

16.6.1.15 display voice sipag

16.7 H.248 AG Commands

Description

This topic describes H.248 AG parameter setting and user configuration commands.

NOTE

- The following product models support voice functions (such as the PBX, SIP AG, and H.248 AG):
  - AR120 series: AR129CV, AR129CVW, and AR129CGVW-L
  - AR150 series: AR157VW and AR158EVW
  - AR160 series: AR161, AR169FVW, AR169FVW-8S, AR169CVW, AR169JFVW-4B4S, AR169JFVW-2S, AR169CVW-4B4S, AR161FV-1P, and AR169FGVW-L
  - AR200 series: AR201VW-P, AR207V, AR207VW, and AR207V-P
  - AR1200 series: AR1220V, AR1220VW, AR1220EV, and AR1220EVW
  - AR2200 series: AR2204, AR2220, AR2220L, AR2220E.
  - AR2240: For the equipped with SRU40, SRU60, SRU80, and SRU100.
  - AR3200 series: For the AR3260 equipped with SRU40, SRU60, SRU80, or SRU100, the same voice mode is set for the active and standby SRUs.

  The AR129CV, AR129CVW, AR169CVW, AR169JFVW-4B4S, AR169JFVW-2S, and AR169CVW-4B4S only support the PBX and SIP AG, but not the H.248 AG.
- When an AR2204, AR2220L, or AR2220E router needs to provide voice services, install a DSP module and a voice subcard in the router. When an AR2220, AR2240, or AR3200 router needs to provide voice services, install a DSP module.
- To provide voice services to POTS users on the AR1200, AR2200, or AR3200, install the 4FXS1FXO, 16FXS, or 32FXS card. The AR1200 does not support the 32FXS card.
- To provide voice services to ISDN phone users on the AR1200, AR2200, or AR3200, install the 2BST card.
- To connect an AR1200, AR2200, or AR3200 router to a TDM PBX through the E1 interface, install the E1T1-M card.
- On the AR169FGVW-L, AR1220EV, and AR1220EVW, the AT0 trunk cannot be connected to the SIP server or SIP trunk.

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16.7.1 H.248 AG Parameter Setting Commands

Description

This topic describes H.248 AG parameter setting commands.

16.7.1.1 2833encrypt

Function

The **2833encrypt** command configures the 2833 key supported by an MG interface.

Format

2833encrypt cipher *password-value*

undo 2833encrypt

Parameters

Parameter	Description	Value
cipher *password-value*	Specifies cipher text of a password. **NOTE** You can set password-value only after entering **cipher** and pressing **Enter**.	The value is a string of 1 to 16 characters.

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

Set this parameter when you need to configure the 2833 key for the specified MG interface. The 2833 key is used to encrypt signals transmitted using RTP packages that comply with RFC 2833. The same key must be configured on the MG and MGC or on the two MGs that communicate with each other.

Example

Set the 2833 key for an MG interface to **abc123**. Keys are sensitive data. Keep them secure.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] 2833encrypt cipher
please input 2833encrypt (1-16 chars,and "-" indicates the deletion):******
```

16.7.1.2 auth

Function

The **auth** command sets authentication parameters on an MG interface that supports H.248 protocol.

Format

auth { **initial_key** *initial_key* | **auth_mgid** *auth_mgid* }

undo auth { **initial_key** | **auth_mgid** }

Parameters

Parameter	Description	Value
initial_key	Specifies the initial key. A hyphen (-) indicates that the initial key is deleted. Set this parameter when the MG interface supports authentication. Used with the authentication identification, the initial key is used to calculate the digital signature of the MG interface.	The value is a string of 1 to 16 characters. The initial key starting with AH must contain 16 characters.
auth_mgid	Specifies the authentication identification of an MG interface. A hyphen (-) indicates that the identification is deleted. Set this parameter when the MG interface supports authentication. The MG interface calculates the digital signature based on the authentication parameters **initial_key** and **auth_mgid**.	The value is a string of 1 to 16 characters.

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Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

- This command can be executed only in H.248 AG view.
- The parameter settings must be the same as those on the MGC.

Example

Set the authentication identification for H.248 AG to **myh248ag** and password to **12345678**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1]auth  auth_mgid myh248ag
[Huawei-voice-h248ag-1]auth initial_key cipher
 please input initialkey (1-16 chars):********
```

16.7.1.3 desc

Function

The **desc** command configures the MG interface description.

Format

desc *description*

undo desc

Parameters

Parameter	Description	Value
description	Specifies the MG interface description. Set this parameter when you need to describe MG interfaces to facilitate the maintenance of different interfaces.	The value is a string of 1 to 32 characters.

Views

H.248 AG view

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Default Level

2: Configuration level

Usage Guidelines

Run this command when you need to describe MG interfaces to facilitate the maintenance of different interfaces. After this command is executed, run the **reset** command to reset the MG interface for the configuration to take effect.

Example

The **desc** command configures the description for a H.248 AG and helps to manage the H.248 AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] desc h248ag
```

16.7.1.4 deviceName

Function

The **deviceName** command configures the device name on an MG interface.

Format

deviceName *device-name*

undo deviceName

Parameters

Parameter	Description	Value
device-name	Specifies the device name of an MG interface. Use this parameter when you need to specify the device name of an MG interface after **MIDType** is set to **deviceName**.	The value is a string of 1 to 64 characters.

Views

H.248 AG view

Default Level

2: Configuration level

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Usage Guidelines

Use this parameter when you need to specify the device name of an MG interface after **MIDType** is set to **deviceName**

Example

Set the device name of an MG interface to **myag**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] deviceName myag
```

16.7.1.5 digitmap

Function

The **digitmap** command configures user-defined internal call digit map, survival channel digit map, auto redialing digit map, and overload emergency call digit map on an MG interface that supports H.248.

Format

digitmap { **inner** *innerldigitmap* | **emergency** *emergencydigitmap* | **dualdial** *dualdialdigitmap* | **urgent** *urgent-digitmap* }*

undo digitmap {**inner** | **emergency** | **dualdial** | **urgent** }*

Parameters

Parameter	Description	Value
innerldigitmap	Specifies the user-defined internal call digit map (also called local switch digit map). Set this parameter when you need to configure the internal call digit map. The internal call digit map is used to match phone numbers for calls made between internal users on an MG.	The value is a string of 1 to 127 characters. The following characters are allowed: (0123456789.|ABCDEFXx[]TSL)
emergencydigitmap	Specifies the user-defined survival channel digit map. Set this parameter when you need to configure the survival channel digit map.	The value is a string of 1 to 127 characters. The following characters are allowed: (0123456789.|ABCDEFXx[]TSL)

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Parameter	Description	Value
dualdialdigitmap	Specifies the user-defined auto redialing digit map. Set this parameter when you need to configure the auto redialing digit map. Only one dialing scheme is supported, such as 2xxx. Multiple dialing schemes such as 2xxx|4xxx|6xxx are not supported.	The value is a string of 1 to 14 characters. The following characters are allowed: (0123456789.ABCDEFXx[ ]TSL)
urgent-digitmap	Specifies the user-defined emergency call digit map used in overload or insufficient bandwidth scenario. Set this parameter when you need to configure the emergency call digit map used in overload or insufficient bandwidth scenario.	The value is a string of 1 to 127 characters. The following characters are allowed: (0123456789.| ABCDEFXx[]TSL)

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

- A digitmap is a dialing scheme of the MG interface, used for detecting and reporting dialing events received on a termination.
- When configuring a digit map, ensure that the input characters must be within the related ranges, and comply with the following rules:
  - The inside of the character [] cannot be empty.
  - Character "." cannot follow character "S" or "L".
- You can configure one or more types of digit maps. When configuring a digit map, enter the type of the digit map. If you select dualdial and urgent, it indicates that you configure the auto redialing digit map, emergency call digit map used in overload or insufficient bandwidth scenario at the same time. When you set the digit map, the input characters are case insensitive.
- When you set the digit map, the input characters are case insensitive.

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Example

Configure the user-defined survival channel digit map **1xx**, internal call digit map **2xx**, auto redialing digit map **3xx**, and emergency call digit map used in overload or insufficient bandwidth scenario **4xx**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1]digitmap emergency 1xx inner 2xx dualdial 3xx urgent 4xx
```

16.7.1.6 digitmap-timer

Function

The **digitmap-timer** command configures digit map timers.

Format

digitmap-timer { **start** *startvalue* | **short** *shortvalue* | **long** *longvalue* | **duration** *durationvalue* }

undo digitmap-timer { **start** | **short** | **long** | **duration** }

Parameters

Parameter	Description	Value
start *startvalue*	Specifies the duration of the digit map start timer. Set this parameter when you need to configure the duration of the digit map start timer. The digit map start timer applies after a user picks up and before the user dials the first digit. If the duration of the digit map start timer is set to 0, the MG indefinitely waits for the user to dial.	The value is an integer that ranges from 0 to 99. Unit: s Default value: 20

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Parameter	Description	Value
short *shortvalue*	Specifies the duration of the digit map short timer. Set this parameter when you need to configure the duration of the digit map short timer. The digit map short timer applies when the digits collected match at least one dialing scheme but may match another dialing scheme when more digits are collected. If the user does not dial any number within the duration of the digit map short timer, the digit map short timer times out and the collected digits that match a dialing scheme are reported. If the user continues to dial within the duration, the MG continues to match the digits collected with dialing schemes. You are advised to use the default value 4s.	The value is an integer that ranges from 1 to 99. Unit: s Default value: 4

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Parameter	Description	Value
long *longvalue*	Specifies the duration of the digit map long timer. Set this parameter when you need to configure the duration of the digit map long timer. The digit map long timer applies when the digits collected do not match any dialing scheme. If the user does not dial any number within the duration of the digit map long timer, the digit map long timer times out and the no-match failure is reported. If the user continues to dial within the duration, the MG continues to match the digits collected with dialing schemes. You are advised to use the default value 20s.	The value is an integer that ranges from 1 to 99. Unit: s Default value: 20
duration *durationvalue*	Specifies the duration of the digit map persistence timer. Set this parameter when you need to configure the duration of the digit map persistence timer. The digit map persistence timer protects the digits collected based on the digit map.	The value is an integer that ranges from 100 to 9900. Unit: ms Default value: 3000

Views

H.248 AG view

Default Level

2: Configuration level

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Usage Guidelines

- This command is used to configure the time length of the digitmap duration timer, long timer, short timer, and start timer of an MG interface that supports the H.248 protocol.
- The time length set by using this command for four timers must be shorter than that set on the MGC. Otherwise, the timer time length set on the MGC is adopted.

Example

Set the duration of the digit map start timer to 22, duration of the digit map short timer to 33, duration of the digit map long timer to 55, and duration of the digit map persistence timer to 666.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] digitmap-timer  start 22 short 33 long 55 duration 666
```

16.7.1.7 display voice h248ag

Function

The **display voice h248ag** [*agid* { **running** | **config** }] command displays attribute configurations of an MG interface.

Format

display voice h248ag [*agid* { **running** | **config** }]

Parameters

Parameter	Description	Value
agid	Specifies the MG interface ID. This parameter is available only in the privilege mode and is mandatory. It specifies the MG interface to be queried.	The value is an integer that ranges from 0 to 16777215.
running	Displays running software parameters of a H248 AG.	-
config	Displays configured software parameters of a H248 AG.	-

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Views

All views

Default Level

2: Configuration level

Usage Guidelines

- When you run this command to query attribute configurations of an MG interface, detailed attribute configurations of the MG interface are displayed. For details about each parameter, see parameter description.
- If an interface attribute is not configured, a hyphen (-) is displayed.

Example

Display attribute configurations of MG interface 0.

```
[huawei-voice]display voice h248ag 0 config

  ------------------------------------------------
  MGID                            0
  MG Description                    mg0
  MG DomainName                       abcd.com
  Protocol                        H248
  Start Negotiate Version            3
  Profile Negotiation Parameter      Disable
  Profile index                    1:NoProfile("")
  2833Encrypt                       -
  Codetype                         Text
  Transfer Mode                     SCTP
  HeartBeatGenTimer(s)               60
  HeartBeatRetransTimes              3
  HeartBeatRetransTimer(s)           60
  MG signaling IP                  10.71.46.69
  MG signaling Port                 2944
  MG media IP 1                     10.10.1.12
  MG media IP 2                     -
  MIDType                          IP4_ADDR
  DeviceName                        -
  Retrans                         Enable

  Active MGC      MGC Port      :2944         MGC IP1:10.71.46.23
  Active MGC      MGC Port      :2944         MGC IP2:10.71.46.24
  Active MGC      MGC Domain Name:-
  Standby MGC     MGC Port      :2944         MGC IP1:10.71.44.23
  Standby MGC     MGC Port      :2944         MGC IP2:10.71.44.24
  Standby MGC     MGC Domain Name:-
  Stand-Alone-MGC  MGC Port      :2945         MGC IP1:192.168.0.91
  Stand-Alone-MGC  MGC Port      :2945         MGC IP2:-
  ------------------------------------------------
```

Table 16-129 Description of the display voice h248ag agid config command output

Item	Description
MGID	ID of an MG interface.
MG Description	Description of an MG interface.

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Item	Description
MG DomainName	Domain name of an MG interface.
Protocol	Protocol used by an MG interface. The value is **H248** for MG interfaces.
Start Negotiate Version	H.248 protocol version for starting negotiation between the MG and MGC.
Profile Negotiation Parameter	Profile negotiation parameter of an MG interface.
Profile index	Index of the profile used by an MG interface.
2833Encrypt	2833 key configured for an MG interface. The 2833 key used by the MG interface must be the same as that configured on the MGC.
Codetype	Code type supported by an MG interface. The code type used by the MG interface must be the same as that configured on the MGC.
Transfer Mode	Transfer mode supported by an MG interface. The transfer mode used by the MG interface must be the same as that configured on the MGC.
HeartBeatGenTimer(s)	Heartbeat initiation duration on an MG interface, in seconds.
HeartBeatRetransTimes	Heartbeat message retransmission times on an MG interface.
HeartBeatRetransTimer(s)	Heartbeat retransmission interval on an MG interface, in seconds.

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Item	Description
MG signaling IP	Signaling IP address of an MG interface. ● If the signaling IP address is a fixed IP address, the parameter value is the specific IP address. ● If the signaling IP address is obtained using DHCP, the parameter value is **DHCP(vlan x)**, where *x* is the DHCP VLAN ID. ● If the signaling IP address is obtained in dynamic IP address name mode, this parameter is replaced with **MG dynamic signaling IP address name**. The parameter value is the dynamic signaling IP address name. The signaling IP address must exist in the signaling IP address pool.
MG signaling Port	Transport layer protocol port number of an MG interface. The port number configured for an MG interface must be the same as that configured on the MGC.
MG MID IP	MID IP address of an MG interface. If this IP address is configured and the MID type is IP address, this IP address is used as the MID header.
MG media IP1	Media IP address 1 of an MG interface. ● If media IP address 1 is a fixed IP address, the parameter value is the specific IP address. ● If media IP address 1 is obtained using DHCP, the parameter value is **DHCP(vlan x)**, where *x* is the DHCP VLAN ID. ● If media IP address 1 is obtained in dynamic IP address name mode, this parameter is replaced with **Dynamic media IP address 1 name**. The parameter value is the dynamic signaling IP address name. The media IP address must exist in the media IP address pool.
MG media IP2	Media IP address 2 of an MG interface.

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Item	Description
MIDType	H.248 MID type of an MG interface.
DeviceName	Device name of an MG interface.
Active MGC MGC Port	Transport layer protocol port number of the primary MGC. When the transport protocol is SCTP, two transport layer protocol port numbers exist.
Active MGC MGC IP1	IP address 1 of the primary MGC.
Active MGC MGC IP2	IP address 2 of the primary MGC. When the transport protocol is UDP, this IP address is invalid and this parameter is optional. If the IAS_VSP_OVERSCTP feature is discarded, this parameter is unavailable.
Active MGC MGC Domain Name	Domain name of the primary MGC.
Standby MGC MGC Port	Transport layer protocol port number of the standby MGC. When the transport protocol is SCTP, two transport layer protocol port numbers exist.
Standby MGC MGC IP1	IP address 1 of the standby MGC.
Standby MGC MGC IP2	IP address 2 of the standby MGC. When the transport protocol is UDP, this IP address is invalid and this parameter is optional. If the IAS_VSP_OVERSCTP feature is discarded, this parameter is unavailable.
Standby MGC MGC Domain Name	Domain name of the standby MGC.
Retrans	Transaction reliability flag of an MG interface.
Stand-Alone-MGC MGC Port	Transport layer protocol port number of the standalone MGC. When the transport protocol is SCTP, two transport layer protocol port numbers exist.
Stand-Alone-MGC MGC IP1	IP address 1 of the standalone MGC.

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Item	Description
Stand-Alone-MGC MGC IP2	IP address 2 of the standalone MGC. When the transport protocol is UDP, this IP address is invalid and this parameter is optional. If the IAS_VSP_OVERSCTP feature is discarded, this parameter is unavailable.

16.7.1.8 display voice h248ag h248stack

Function

The **display voice h248ag** *agid* **h248stack** command displays H.248 protocol stack parameter settings on an MG interface. When you need to display H.248 protocol stack parameter settings on the specified MG interface, run this command.

Format

display voice h248ag *agid* **h248stack** { **MTU** | **format** | **messagesegmentation** | **sdpencodetype** | **securitytype** | **tr** }

Parameters

Parameter	Description	Value
agid	Specifies the MG interface ID. This parameter is available only in the privilege mode and is mandatory. It specifies the MG interface to be queried. If you do not set this parameter in the H.248 mode, H.248 protocol stack parameter settings on the current MG interface are displayed. In the privilege mode, the specified MG interface must exist in the system.	The value is an integer that ranges from 0 to 16777215.

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Parameter	Description	Value
MTU	Displays the MTU. Set this parameter when you need to display the MTU on an MG interface.	-
format	Displays the H.248 message format. The formats include long and short. Set this parameter when you need to display the H.248 message format on an MG interface.	-
messagesegmentation	Indicates whether H.248 message packet fragmentation is supported. Set this parameter when you need to check whether packet fragmentation is supported.	-
sdpencodetype	Displays the H.248 protocol stack SDP codec type. The types include text and hex. Set this parameter when you need to display the H.248 protocol stack SDP codec type.	-
securitytype	Displays the H.248 message authentication type. The types include noah, sha1, and md5. Set this parameter when you need to display the H.248 message authentication type.	-

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Parameter	Description	Value
tr	Displays H.248 protocol stack transaction reliability parameters. For details about each parameter, see parameter description. Set this parameter when you need to display the H.248 protocol stack transaction reliability parameters.	-

Views

All views

Default Level

2: Configuration level

Usage Guidelines

None

Example

Display H.248 protocol stack transaction reliability parameter settings on MG interface 0.

```
<Huawei> system-view
[Huawei] voice
[huawei-voice]display voice h248ag 0 h248stack tr
  ------------------------------------------------------
  three way handshake                    : false
  longtimer(units: ms)                   : 30000
  MG provisional response timer(units: ms) : 8000
  MGC provisional response timer(units: ms): 8000
  MG originated pending limit            : 5
  MGC originated pending limit           : 5
  retransfailoption                      : max retransfer times
  maxretranstimes                        : 7
  retransmode                            : auto
  maxretranstimerval(units: ms)          : 4000
  minretranstimerval(units: ms)          : 500
  ------------------------------------------------------
```

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Table 16-130 Description of the display voice h248ag h248stack tr command output

Item	Description
three way handshake	Whether to proactively send the RESPONSE ACK message in the common three-way handshake scenario.
longtimer(units: ms)	Duration of the long timer, in milliseconds.
MG provisional response timer(units: ms)	Duration of the temporary response timer on the MG, in milliseconds.
MGC provisional response timer(units: ms)	Duration of the temporary response timer on the MGC, in milliseconds.
MG originated pending limit	Limit of times that the transaction reliability MG sends the temporary response.
MGC originated pending limit	Limit of times that the transaction reliability MGC sends the temporary response.
retransfailoption	Retransmission failure option, indicating whether the retransmission failure is determined by the maximum retransmission times or retransmission duration.
maxretranstimes	Maximum retransmission times.
retransmode	Retransmission mode. The options include **auto** and **fixed**.
maxretranstimerval(units: ms)	Maximum duration of the retransmission timer.
minretranstimerval(units: ms)	Minimum duration of the retransmission timer.

16.7.1.9 display voice h248ag auth

Function

The **display voice h248ag auth** command displays the authentication configuration of an MG interface that supports H.248. When you need to display the authentication configuration of the specified MG interface, run this command.

Format

display voice h248ag *agid* **auth**

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Parameters

Parameter	Description	Value
agid	Specifies the MG interface ID. It specifies the MG interface to be queried.	The value is an integer that ranges from 0 to 16777215.

Views

All views

Default Level

2: Configuration level

Usage Guidelines

None

Example

Display the authentication configuration of MG interface 0 that supports H.248.

```
[Huawei-voice]display voice h248ag 0 auth
 [AUTH_PARA config]
  Initial Key    : ******
  Auth MGid      : AG
  Algorithm      : MD5
```

Table 16-131 Description of the display voice h248ag auth command output

Item	Description
Initial Key	Initial key configured for an MG interface.
Auth MGid	Authentication MG interface ID configured for an MG interface.
Algorithm	Encryption algorithm used by an MG interface.

16.7.1.10 display voice h248ag digitmap

Function

The **display voice h248ag** *agid* **digitmap** command displays the digit map configuration of an MG interface that supports H.248. When you need to display the digit map configuration of the specified MG interface, run this command.

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Format

display voice h248ag *agid* **digitmap**

Parameters

Parameter	Description	Value
agid	Specifies the MG interface ID. The specified MG interface must exist in the system.	The value is an integer that ranges from 0 to 16777215.

Views

All views

Default Level

2: Configuration level

Usage Guidelines

None

Example

Display the digit map configuration of MG interface 0 that supports H.248.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]display voice h248ag 0 digitmap
  ------------------------------------------------------------------------------
  Inner digitmap                                 : 1xx
  Emergency digitmap                               : 119x
  Urgent digitmap (for overload or bandwidth restrict)   : 4xxx
  Dualdial digitmap for card service                 : 00xxx
  ------------------------------------------------------------------------------
```

Table 16-132 Description of the display voice h248ag digitmap command output

Item	Description
Inner digitmap	Internal call digit map.
Emergency digitmap	Survival channel digit map.
Urgent digitmap (for overload or bandwidth restrict)	Emergency call digit map used in overload or insufficient bandwidth scenario.
Dualdial digitmap for card service	Auto redialing digit map for card services.

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16.7.1.11 display voice h248ag digitmap-timer

Function

The **display voice h248ag** *agid* **digitmap-timer** command displays the digit map persistence timer, long timer, short timer, and start timer durations configured on an MG interface that supports H.248. When you need to display the durations of the preceding timers configured on the specified MG interface, run this command.

Format

display voice h248ag *agid* **digitmap-timer**

Parameters

Parameter	Description	Value
agid	Specifies the MG interface ID. The specified MG interface must exist in the system.	The value is an integer that ranges from 0 to 16777215.

Views

All views

Default Level

2: Configuration level

Usage Guidelines

None

Example

Display timer durations of MG interface 0 that supports H.248.

```
<Huawei>display voice h248ag 0 digitmap-timer
  ------------------------------------------------------
  Start     Timer length(s)  : 20
  Short     Timer length(s)  : 4
  Long      Timer length(s)  : 20
  Duration  Timer length(ms) : 3000
  ------------------------------------------------------
```

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Table 16-133 Description of the display voice h248ag agid digitmap-timer command output

Item	Description
Start Timer length(s)	Duration of the digit map start timer, in seconds.
Short Timer length(s)	Duration of the digit map short timer, in seconds.
Long Timer length(s)	Duration of the digit map long timer, in seconds.
Duration Timer length(ms)	Duration of the digit map persistence timer, in milliseconds.

16.7.1.12 display voice h248ag h248profile

Function

The **display voice h248ag** *agid* **h248profile** command displays profile information.

Format

display voice h248ag *agid* **h248profile** [**list** | **detail** | **profile-index** *indexvalue* | **para** *paravalue*]

Parameters

Parameter	Description	Value
agid	Specifies the MG interface ID. The specified MG interface must exist in the system.	The value is an integer that ranges from 0 to 16777215.
list	Displays all profile names instead of profile parameters.	-
detail	Displays detailed information about all profile parameters. If the **detail** parameter is not set, only information about the parameters different from the default profile is displayed.	-

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Parameter	Description	Value
profile-index *indexvalue*	Specifies the index of an MG interface profile. This parameter is optional. Set this parameter when you need to specify the profile used by the specified MG interface. The value 0 indicates that the profile custom template is used. The values 1 to 7 indicates that system built-in profiles are used, where the value 1 indicates that the default profile is used.	The value is an integer that ranges from 0 to 7. Default value: 0
para *paravalue*	Displays the profile parameter with the specified ID.	The value is an integer that ranges from 0 to 4294967295.

Views

All views

Default Level

2: Configuration level

Usage Guidelines

If the **detail** parameter is not set, only information about the parameters different from the default profile is displayed.

Example

Display the profile list on H.248 interface 0.

```
<Huawei>display voice h248ag 0 h248profile list
 ------------------------------------------------
 Profile-Index Profile-Name("Negotiation-Name")
 ------------------------------------------------
 0             CustomizingProfileTemplet("")
 1             NoProfile("")
 2             BT_AGW/3("BT_AGW/3")
 3             FT_AGW/2("FT_AGW/2")
 4             KPN_AGW/1("KPN_AGW/1")
 5             PCCW_AGW/1("PCCW_AGW/1")
 6             ZTE_AGW/1("ZTE_AGW/1")
 7             BELL_AGW/1("BELL_AGW/1")
 ------------------------------------------------
```

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Table 16-134 Description of the display voice h248ag agid h248profile command output

Item	Description
Profile-Name	Name of an H.248 template.
Profile-Name("Negotiation-Name")	Name of an H.248 template.
Profile-Negotiation-Name	ID of an MG interface.
Profile-Index	Terminal ID.

16.7.1.13 display voice h248ag h248statistics

Function

The **display voice h248ag** *agid* **h248statistics** command displays statistical information about an MG interface that supports H.248. When you need to display statistical information about the specified MG interface, such as the numbers of transactions received and sent, number of H.248 messages received, and number of voice playing signals, run this command.

Format

display voice h248ag *agid* **h248statistics**

Parameters

Parameter	Description	Value
agid	Specifies the MG interface ID. The specified MG interface must exist in the system.	The value is an integer that ranges from 0 to 16777215.

Views

All views

Default Level

2: Configuration level

Usage Guidelines

You can run this command on an MG interface that is not reset. You must first run the **reset** command to reset the MG interface.

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Example

Display statistical information about MG interface 0 that supports H.248.

```
<Huawei>display voice h248ag 0 h248statistics
  ------------------------------------------------------------
  H248 Messages Sent                      2
  H248 Messages Re-Sent                   0
  Transaction Requests sent               2
  Transaction Replies sent                0
  Transactions Re-Sent                    0
  H248 Messages Received                  1
  Transaction Requests Received           0
  Transaction Replies Received            1
  Dial Tone Signals Received              0
  Busy Tone Signals Received              0
  Ringback Tone Signals Received          0
  Howler Tone Signals Received            0
  ------------------------------------------------------------
```

Table 16-135 Description of the display voice h248ag h248statistics command output

Item	Description
H248 Messages Sent	Number of H.248 messages sent by an MG interface. If the value is 0, the MG interface is abnormal.
H248 Messages Re-Sent	Number of H.248 messages resent by an MG interface. If the value is not 0, the MG interface has resent messages because it does not receive any response message from the peer device in a period of time and considers that the message sending failure occurs. You must determine whether the number of resent messages meets network quality requirements.
Transaction Requests sent	Number of transaction requests sent by an MG interface.
Transaction Replies sent	Number of transaction responses sent by an MG interface. The number of transaction responses sent by the MG interface must be the same as that of transaction requests sent by the MG interface; otherwise, the communication between the MG and MGC is abnormal, and packet loss occurs. You must determine whether the number of lost packets meets network quality requirements.
Transactions Re-Sent	Number of transactions resent by an MG interface.

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Item	Description
H248 Messages Received	Number of H.248 messages received by an MG interface. The number of H.248 messages received by an MG interface must be the same as that of H.248 messages sent by the MG interface; otherwise, the communication between the MG and MGC is abnormal, and packet loss occurs. You must determine whether the number of lost packets meets network quality requirements.
Transaction Requests Received	Number of transaction requests received by an MG interface.
Transaction Replies Received	Number of transaction responses received by an MG interface. The number of transaction responses received by the MG interface must be the same as that of transaction requests received by the MG interface; otherwise, the communication between the MG and MGC is abnormal, and packet loss occurs. You must determine whether the number of lost packets meets network quality requirements.
Dial Tone Signals Received	Total number of dial tone signals received by an MG interface in a period of time.
Busy Tone Signals Received	Total number of busy tone signals received by an MG interface in a period of time.
Ringback Tone Signals Received	Total number of ring back tone signals received by an MG interface in a period of time.
Howler Tone Signals Received	Total number of howler tone signals received by an MG interface in a period of time.

16.7.1.14 display voice h248ag mg-software

Function

The **display voice h248ag** *agid* **mg-software parameter** command displays control point settings on an MG interface that supports H.248.

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Format

display voice h248ag *agid* **mg-software** [*name*]

Parameters

Parameter	Description	Value
agid	Specifies the MG interface ID. The specified MG interface must exist in the system.	The value is an integer that ranges from 0 to 16777215.
name	Specifies the control point name. Set this parameter when you need to display the setting of the specified control point. If this parameter is not set, settings of all control points are displayed.	The value is an integer that ranges from 0 to 37.

Views

All views

Default Level

2: Configuration level

Usage Guidelines

If you do not enter the control point name index, settings of all control points are displayed.

The following table lists MG interface control points.

Parameter	Description	Value
0	System reserved.	-
1	System reserved.	-

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Parameter	Description	Value
2	Indicates whether an MG interface supports multihoming. Set this parameter when you need to determine whether an MG interface supports multihoming. This parameter can be set only when the MG interface is in Local Closed state. If multihoming is not supported and the MG interface fails to register with the primary MGC, the MG interface will not register with the standby or standalone MGC no matter whether the standby or standalone MGC is configured. If multihoming is supported and a primary MGC fault occurs when the current MG interface is registered with the primary MGC, the MG interface registers with the standby MGC and standalone MGC cyclically. ● If the standby MGC runs properly, the MG interface switches to the standby MGC. ● If the standby MGC is faulty or not configured and the standalone MGC runs properly, the MG interface switches to the standalone MGC. Note: When the MG interface switches to the standalone MGC, the interface restarts	The value can be 0, 1, or 2. ● 0: Multihoming is not supported. ● 1: Multihoming is supported while automatic switchover is not. ● 2: Both multihoming and automatic switchover are supported. Default value: 0

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Parameter	Description	Value
	and services will be interrupted. If the MG interface supports both multihoming and automatic switchover, the MG interface functions as follows: • If the MG interface is registered with the standby MGC and the primary MGC recovers, the MG interface automatically switches to the primary MGC. • If the MG interface is registered with the standalone MGC and the primary or standby MGC recovers, the MG interface automatically switches to the primary or standby MGC. Note: When the MG interface switches to the primary or standby MGC from the standalone MGC, the interface restarts and services will be interrupted. If the MG interface supports multihoming but does not support automatic switchover, the MGC will not automatically switch to the primary MGC from the standby or standalone MGC when the primary MGC recovers. You can run the **mgc switch** command to	

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Parameter	Description	Value
	forcibly switch the MG interface to the primary MGC. If the MG interface supports multihoming, you can run the **mgc switch** command to forcibly switch the MG interface: • Between the primary and standby MGCs. • From the standalone MGC to the primary or standby MGC if the MG interface registers with the standalone MGC.	
3	System reserved.	-
4	Indicates whether wildcard characters are used during MG interface registration. Set this parameter when you need to determine whether wildcard characters are used during MG interface registration. If wildcard characters are used, all terminals on the MG interface are registered with the MGC using one message, which reduces the number of messages sent between the MG interface and MGC. If wildcard characters are not used, all terminals on the MG interface register with the MGC one by one. The registration mode where wildcard characters are not used is also called single-endpoint registration.	The value can be 0 or 1. • 0: used. • 1: not used. Default value: 0

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Parameter	Description	Value
5	System reserved.	-
6	Indicates whether an MG interface supports device authentication. Set this parameter when you need to determine whether an MG interface supports device authentication. After enabling device authentication support, you can run the **auth** command to set authentication parameters and run the **reset** command to reset the MG interface. After the configuration, the MGC manages the MG device security to prevent unauthorized devices from registering with the MGC. Note: When the MG interface is reset, services may be interrupted.	The value is an integer that ranges from 0 to 1. • 0: supported. • 1: not supported. Default value: 1
7	Indicates whether an MG interface supports the security header. Set this parameter when you need to determine whether an MG interface supports the security header. After enabling security header support, you can run the **auth** command to set authentication parameters and run the **reset** command to reset the MG interface. After the configuration, the MGC manages the MG device security to ensure data integrity.	The value is an integer that ranges from 0 to 1. • 0: supported. • 1: not supported. Default value: 1

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Parameter	Description	Value
8	System reserved.	-
9	System reserved.	-
10	System reserved.	-
11	Indicates whether an MG interface supports local switch. Set this parameter when you need to determine whether an MG interface supports local switch. If the MG interface supports local switch and the MG is disconnected from the MGC, users on the MG can still make calls.	The value is an integer that ranges from 0 to 3. ● 0: No call is allowed. ● 1: Only internal calls are allowed. ● 2: Only survival calls are allowed. ● 3: All calls are allowed. Default value: 0
12	System reserved.	-

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Parameter	Description	Value
13	Digit map match scheme used by an MG interface. Set this parameter when you need to configure the digit map match scheme used by an MG interface. In the shortest match scheme, the MG interface reports collected digits immediately when they match a dialing scheme. In the longest match scheme, the MG interface does not report collected digits immediately when they match a dialing scheme. Instead, the MG interface continues to collect digits and match collected digits with dialing schemes if the user dials any numbers within the short timer duration (4s by default), and reports collected digits only when the short timer times out. In the self-adaptive match scheme, the MG interface checks digit map sub-schemes to automatically determine whether to use the shortest or longest match scheme. You can run the **digitmap-timer** command to configure digit map timer durations.	The value is an integer that ranges from 0 to 3. • 0: based on protocol requirements. • 1: longest match. • 2: shortest match. • 3: self-adaptive match. Default value: 2
14	System reserved.	-

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Parameter	Description	Value
15	Indicates whether an MG interface filters media stream source ports. Set this parameter when you need to determine whether an MG interface filters media stream source ports. When the media stream source port filtering function is used, the MG interface receives media stream only from specified ports.	The value is an integer that ranges from 0 to 1. ● 0: not filtered. ● 1: filtered. Default value: 0
16	Duration of the media stream source port filtering timer. If the media stream source port filtering function is disabled, the MG port starts the timer when media streams are received. If the command for enabling the media stream source port filtering function is not received within the timer duration, the timer times out and the media stream source port filtering function is automatically enabled.	The value is an integer that ranges from 1 to 30, in seconds. Default value: 5
17	System reserved.	-
18	System reserved.	-
19	System reserved.	-
20	System reserved.	-
21	System reserved.	-

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Parameter	Description	Value
22	Type of the tone that the MG plays to users when the MG is disconnected from the MGC.	The value is an integer that ranges from 0 to 2. ● 0: busy tone. ● 1: congestion tone. ● 2: voice announcement. Default value: 0
23	Duration of the port status synchronization timer. When a remotely blocked port receives signaling from the MGC, the device determines whether to directly update the port status or initiate port registration to the MGC. If the device initiates port registration, the device initiates port registration again after the port status synchronization timer duration. This parameter is invalid for RTP terminals.	The value is an integer that ranges from 0 to 120, in seconds. Default value: 35

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Parameter	Description	Value
24	Maximum RTP terminal index. An RTP terminal is a temporary terminal, which is a unique terminal type for an MG interface that supports H.248. A temporary terminal represents temporary information streams and exists only when the MG uses these information streams. For example, when establishing media streams, the MG interface uses remote MGC information and a temporary terminal exists. The maximum number of RTP terminals on the MGC must be the same as that on the MG.	The value is an integer. The value range depends on product specifications.

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Parameter	Description	Value
25	Maximum random number for the avalanche prevention mechanism. When the system is reset, all H.248 interfaces on the device register with the MGC again. When all interfaces initiate registration simultaneously, packet conflicts will occur and the MGC may break down. The avalanche prevention mechanism can help avoid this situation. After the maximum random number for the avalanche prevention mechanism is configured, the system uses an internal algorithm to generate the duration after which an H.248 interface can initiate registration. The duration after which an H.248 interface can initiate registration is greater than the sum of the system internal base number and the maximum random number for the avalanche prevention mechanism.	The value is an integer that ranges from 30000 to 300000, in milliseconds. Default value: 60000
26	Local blocking tone type. When the MG interface is faulty or you run the **endservice** command, the MG interface enters the local blocking state. This parameter specifies the type of the tone played in local blocking state.	The value is an integer that ranges from 0 to 4. • 0: busy tone. • 1: congestion tone. • 2: muted. • 3: custom tone 1. • 4: custom tone 2. Default value: 0

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Parameter	Description	Value
27	Remote blocking tone type. When the MGC does not respond and a response error occurs, the MG interface enters the remote blocking state. This parameter specifies the type of the tone played in remote blocking state.	The value is an integer that ranges from 0 to 4. ● 0: busy tone. ● 1: congestion tone. ● 2: muted. ● 3: custom tone 1. ● 4: custom tone 2. Default value: 0
28	Duration of the howler tone. If a user does not hang up the phone after a call ends or picks up but forgets to hang up, the howler tone is played when the busy tone timer times out. After the duration of the howler tone, the port is locked. In this case, the phone cannot be called. The port is automatically unlocked when the user hangs up the phone.	The value is an integer that ranges from 1 to 65535, in seconds. Default value: 60
29	Duration of message prompt tone. When a user who has enabled the message prompt tone service picks up the phone, the MGC delivers the message prompt tone (similar in delivering the dial tone).	The value is an integer that ranges from 1 to 60000, in seconds. Default value: 3
30	Duration for generating the long call alarm. If the long call alarm is enabled and the duration of a call exceeds that for generating the long call alarm, the system generates the H.248 user long call event.	The value is an integer that ranges from 1 to 65535, in minutes. Default value: 60

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Parameter	Description	Value
31	Indicates whether the long call alarm is enabled.	The value is an integer that ranges from 0 to 1. ● 0: enabled. ● 1: disabled. Default value: 1
32	Minimum automatic registration interval for a remotely blocked port. When the interface that a port belongs to functions properly but the port is blocked remotely because the MGC does not respond and a response error occurs, the port automatically initiates registration requests to the MGC based on the interval specified by this parameter.	The value is an integer that ranges from 0 to 60000. The value 0 indicates that the port does not automatically register with the MGC. Unit: s Default value: 1800
33	Indicates whether the heartbeat function is disabled on an MG interface. Generally, the heartbeat function is enabled for the MG to keep the connection with the MGC. In a few cases, some MGCs cannot recognize the heartbeat message sent by the MG interface, and the heartbeat function is disabled. The MGC periodically send the Notify message to keep the connection.	The value is an integer that ranges from 0 to 1. ● 0: disabled. ● 1: enabled. Default value: 1
34	Indicates whether the MG needs to proactively establish or tear links for BRA users when ISDN ports are in service or out of service due to the MGC.	The value is an integer that ranges from 0 to 1. ● 0: yes. ● 1: no. Default value: 0

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Parameter	Description	Value
35	Mode in which an ISDN port enters the in-service or out-of-service state. • If the wildcard mode is supported, the ISDN report only one in-service or out-of-service message. This reduces the number of messages sent between the MG interface and MGC. • If the single-channel mode is supported, each channel reports an in-service or out-of-service message. • If both the wildcard and single-channel modes are supported, the ISDN port selects a mode as required.	The value is an integer that ranges from 0 to 2. • 0: Both the wildcard and single-channel modes are supported. • 1: Only the single-channel mode is supported. • 2: Only the wildcard mode is supported. Default value: 1
36	Interval for sending the registration message when an MG interface switches between multiple MGCs. Set this parameter when you need to configure the interval for sending the registration message when an MG interface switches among the primary, standby, and standalone MGCs.	The value is an integer that ranges from 1 to 1800, in seconds. Default value: 40
37	Indicates whether to enable the function of converting pulse signals to DTMF signals. Set this parameter when you need to convert pulse signals to DTMF signals for transmission.	The value is an integer that ranges from 0 to 1. • 0: enabled. • 1: disabled. Default value: 1

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Example

Display the parameter for determining whether wildcard characters are used during the registration of MG interface 0.

```
<Huawei>display voice h248ag 0 mg-software 4
 ------------------------------------------------
 Interface Id:0          para index:4   value:0
 ------------------------------------------------
APPENDIX:
 ------------------------------------------------
  Interface software parameter name:
  4: Whether MG uses wildcard in registration
     0: Yes
     1: No
```

Table 16-136 Description of the display voice h248ag mg-software command output

Item	Description
Interface Id	ID of interface.
para index	Index of parameter.
value	Value.
APPENDIX	Appendix information.
Interface software parameter name	The name if interface software parameter.
4: Whether MG uses wildcard in registration	Indicates whether wildcard characters are used during MG interface registration. • 0: used • 1: not used

16.7.1.15 display voice h248ag standalone

Function

The **display voice h248ag** *agid* **standalone** command displays local switch parameter settings. When you need to display dial tone, ringing, and busy tone durations, run this command.

Format

display voice h248ag *agid* **standalone**

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Parameters

Parameter	Description	Value
agid	Specifies the MG interface ID. The specified MG interface must exist in the system.	The value is an integer that ranges from 0 to 16777215.

Views

All views

Default Level

2: Configuration level

Usage Guidelines

None

Example

Display local switch parameter settings on MG interface 0.

```
<Huawei>display voice h248ag 0 standalone
  ------------------------------------------------------------------------------
  System stand alone para of timer for dial tone :10 (s)
  System stand alone para of timer for busy tone :40 (s)
  System stand alone para of timer for ring      :50 (s)
  ------------------------------------------------------------------------------
```

Table 16-137 Description of the display voice h248ag standalone command output

Item	Description
System stand alone para of timer for dial tone	Duration of the local switch dial tone timer.
System stand alone para of timer for busy tone	Duration of the local switch busy tone timer.
System stand alone para of timer for ring	Duration of the local switch ringing timer.

16.7.1.16 display voice h248ag tid-format

Function

The **display voice h248ag** *agid* **tid-format** command displays the prefix and TID template used by each terminal on one or all MG interfaces. When you need to

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display the prefix and TID template used by each terminal on one or all MG interfaces, run this command.

Format

display voice h248ag *agid* **tid-format**

Parameters

Parameter	Description	Value
agid	Specifies the MG interface ID. The specified MG interface must exist in the system.	The value is an integer that ranges from 0 to 16777215.

Views

All views

Default Level

2: Configuration level

Usage Guidelines

The TID template configured for an MG interface takes effect only when the MG interface is reset. Therefore, the TID template currently used by an MG interface may be different from that configured for the MG interface.

Example

Display the prefix and TID template used by each terminal on MG interface 0.

```
<Huawei>display voice h248ag 0 tid-format
  ------------------------------------------------------------
  MGID      term-type     template-index  prefix
  ------------------------------------------------------------
  0         RTP           1               A
  0         PSTN          2               A
  0         BRA           2               A
  0         PRA           2               A
  0         R2            2               r2/
  ------------------------------------------------------------
```

Table 16-138 Description of the display voice h248ag tid-format command output

Item	Description
MGID	ID of an MG interface.
term-type	Terminal type.
template-index	TID template index.

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Item	Description
prefix	Terminal prefix.

16.7.1.17 display voice h248ag mg-ringmode attribute

Function

The **display voice h248ag** *agid* **mg-ringmode attribute** command displays ringing mode mapping records on an MG interface.

Format

display voice h248ag *agid* **mg-ringmode attribute** [*mgcpara*]

Parameters

Parameter	Description	Value
agid	Specifies the MG interface ID. The specified MG interface must exist in the system.	The value is an integer that ranges from 0 to 16777215.
mgcpara	Specifies the peer parameter identification delivered by the MGC. This parameter is optional. Set this parameter when you need to display the ringing mapping based on the specified peer parameter.	The value is an integer that ranges from 0 to 15.

Views

All views

Default Level

2: Configuration level

Usage Guidelines

To display the ringing mode based on the specified peer parameter, you must set *mgcpara*. To display all ringing modes on an MG interface, you do not need to set *mgcpara*.

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Example

Display ringing mode mapping records on all MG interfaces.

```
[huawei-voice]display voice h248ag 0 mg-ringmode attribute
-------------------------------------------------------
  MGID   PeerPara   CadenceRing   InitialRing
-------------------------------------------------------
0     0         0           4
-------------------------------------------------------
```

Table 16-139 Description of the display voice h248ag mg-ringmode attribute command output

Item	Description
MGID	ID of an MG interface.
PeerPara	Peer parameter identification delivered by the MGC. If no peer parameter identifier is delivered by the MGC, the **MgcPara** parameter delivered is 1.
CadenceRing	Cadence ringing type.
InitialRing	Initial ringing type.

16.7.1.18 display voice h248ag mg-ringmode default-mgcpara

Function

The **display voice h248ag** *agid* **mg-ringmode default-mgcpara** command displays the default ringing mode of an MG interface.

Format

display voice h248ag *agid* **mg-ringmode default-mgcpara**

Parameters

Parameter	Description	Value
agid	Specifies the MG interface ID. It specifies the MG interface to be queried.	The value is an integer that ranges from 0 to 16777215.

Views

All views

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Default Level

2: Configuration level

Usage Guidelines

None

Example

Display the default ringing mode of MG interface 0.

```
<huawei>display voice h248ag 0 mg-ringmode default-mgcpara
  ---------------------------------------------------------
  MGID      Ring-Default-Mgcpara   Mwi-Default-Mgcpara
  ---------------------------------------------------------
  0         1                      2
  ---------------------------------------------------------
```

Table 16-140 Description of the display voice h248ag mg-ringmode default-mgcpara command output

Item	Description
MGID	ID of an MG interface.
Ring-Default-Mgcpara	Peer parameter identification of default ringing.
Mwi-Default-Mgcpara	Peer parameter identification of MWI ringing.

16.7.1.19 display voice h248ag sctp protocol

Function

The **display voice h248ag** *agid* **sctp protocol** command displays SCTP protocol stack parameter settings on an MG interface. When you need to display SCTP protocol stack parameter settings that are currently used or have been configured on an MG interface, run this command.

Format

display voice h248ag *agid* **sctp protocol** { **running** | **config** }

Parameters

Parameter	Description	Value
agid	Specifies the MG interface ID. The specified MG interface must exist in the system.	The value is an integer that ranges from 0 to 16777215.

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Parameter	Description	Value
running	Displays SCTP protocol stack parameter settings that are currently used by an MG interface.	-
config	Displays SCTP protocol stack parameter settings that have been configured for an MG interface in the database. (These parameter settings may not take effect.)	-

Views

All views

Default Level

2: Configuration level

Usage Guidelines

None

Example

Display SCTP protocol stack parameter settings on MG interface 0.

```
<Huawei>display voice h248ag agid sctp protocol config
 ----------------------------------------
 In streams              : 33
 Out streams             : 33
 Minimum rto value       : 1000ms
 Maximum rto value       : 60000ms
 Initial rto value       : 1000ms
 Rto alpha parameter     : 12%
 Rto beta parameter      : 25%
 Heartbeat interval      : 30000ms
 Valid cookie lifetime   : 60000ms
 Maximum init retrans    : 8
 Association maxretrans  : 10
 Path maximum retrans    : 5
 No congestion level     : 40%
 Low congestion level    : 60%
 High congestion level   : 80%
 Send checksum           : yes
 Receive checksum        : yes
 Checksum arithmetic     : CRC32
 ----------------------------------------
```

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Table 16-141 Description of the display voice h248ag sctp-protocol command output

Item	Description
In streams	Number of input SCTP streams.
Out streams	Number of output SCTP streams.
Minimum rto value	Minimum retransmission timeout duration.
Maximum rto value	Maximum retransmission timeout duration.
Initial rto value	Initial value of the retransmission timeout duration.
Valid cookie lifetime	Life cycle of the valid cookie.
Heartbeat interval	Heartbeat interval.
Maximum init retrans	Maximum init message retransmission times.
Rto alpha parameter	Retransmission timeout duration α factor.
Rto beta parameter	Retransmission timeout duration β factor.
Association maxretrans	Maximum association retransmission times.
Path maximum retrans	Maximum route retransmission times.
No congestion level	Non-congestion level.
Low congestion level	Low-congestion level.
High congestion level	High-congestion level.
Send checksum	Whether to send the checksum in a message. The options are as follows: • yes • no
Receive checksum	Whether to receive the checksum in a message. The options are as follows: • yes • no
Checksum arithmetic	Checksum algorithm.

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16.7.1.20 display voice h248ag sctp association statistics

Function

The **display voice h248ag** *agid* **sctp association statistics** command displays SCTP association statistics on an MG interface. An association refers to a logical channel for transmitting data between two SCTP endpoints. The channel is established using the four-way handshake mechanism specified in SCTP. When you need to display SCTP association statistics on an MG interface, run this command.

Format

display voice h248ag *agid* **sctp association statistics**

Parameters

Parameter	Description	Value
agid	Specifies the MG interface ID. The specified MG interface must exist in the system.	The value is an integer that ranges from 0 to 16777215.

Views

All views

Default Level

2: Configuration level

Usage Guidelines

This command can be executed successfully only when the transport protocol used by the MG interface is SCTP and an association exists.

Example

Display SCTP association statistics on MG interface 0.

```
<Huawei> display voice h248ag 0 sctp association statistics
 ---------------------------------------------
 Association ID                : 4
 Times of T1 timer expires     : 0
 Times of T2 timer expires     : 0
 Retrans data chunks           : 0
 Retrans chunks                : 4
 Sent data chunks              : 426
 Received data chunks          : 874
 Received sctp packets         : 876
 Received error sctp packets   : 0
 ---------------------------------------------
```

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Table 16-142 Description of the display voice h248ag agid sctp-association-statistics command output

Item	Description
Association ID	SCTP association ID.
Times of T1 timer expires	Times that the T1 timer times out.
Times of T2 timer expires	Times that the T2 timer times out.
Retrans data chunks	Association data chunk retransmission times.
Retrans chunks	Number of sent association data chunks.
Sent data chunks	Number of sent data chunks.
Received data chunks	Number of received data chunks.
Received sctp packets	Number of received SCTP packets.
Received error sctp packets	Number of received error SCTP packets.

16.7.1.21 display voice h248ag sctp association info

Function

The **display voice h248ag** *agid* **sctp association info** command displays SCTP association information about an MG interface. An association refers to a logical channel for transmitting data between two SCTP endpoints. The channel is established using the four-way handshake mechanism specified in SCTP. When you need to display SCTP association information about an MG interface, run this command.

Format

display voice h248ag *agid* **sctp association info**

Parameters

Parameter	Description	Value
agid	Specifies the MG interface ID. The specified MG interface must exist in the system.	The value is an integer that ranges from 0 to 16777215.

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Views

All views

Default Level

2: Configuration level

Usage Guidelines

This command can be executed successfully only when the transport protocol used by the MG interface is SCTP and an association exists.

Example

Display the SCTP association information about MG interface 0 that supports H.248.

```
<Huawei>display voice h248ag 0 sctp association info
  ------------------------------------------------
  Association ID                : 10
  Association state             : established
  Association type              : client
  Application ID                : 1
  Local port                    : 9901
  Remote port                   : 9900
  Local IP address              : 10.144.70.50
  Remote active IP address      : 10.144.82.114
  Local Received window         : 251500
  Remote Received window        : 65536
  Total unfirm data chunks      : 0
  Remote IP address 1           : 10.144.82.114
  Remote IP 1 state             : active
  Waiting ack data chunks       : 0
  Congestion window             : 6000
  Outstanding data chunks       : 0
  Retransmission time-out       : 1000
  Smoothed round-trip time      : 24ms
  Round-trip time variation     : 34ms
  Whether allow HB              : yes
  ------------------------------------------------
```

Table 16-143 Description of the display voice h248ag agid association info command output

Item	Description
Association ID	SCTP association ID.
Association state	SCTP association status.
Association type	SCTP association type, including the client and server.
Application ID	Upper-level user ID.
Local port	Local port corresponding to the SCTP association.

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Item	Description
Remote port	Remote port corresponding to the SCTP association.
Local IP address	Local IP address corresponding to the SCTP association.
Remote active IP address	Remote primary IP address corresponding to the SCTP association.
Local Received window	Local receive window size.
Remote Received window	Remote receive window size.
Total unfirm data chunks	Number of unconfirmed data chunks.
Remote IP address 1	Remote IP address 1.
Remote IP 1 state	Current status of remote IP address 1.
Waiting ack data chunks	Number of data chunks waiting for the peer end to acknowledge.
Congestion window	Congestion window size.
Outstanding data chunks	Number of unconfirmed data chunks on the path.
Retransmission time-out	Retransmission timeout duration.
Smoothed round-trip time	Average round-trip time of the path.
Round-trip time variation	Average round-trip time variation of the path.
Whether allow HB	Whether the address can send heartbeat messages.

16.7.1.22 display voice h248ag mg-ringmode default-ringpara

Function

The **display voice h248ag** *agid* **mg-ringmode default-ringpara** command displays the default short ringing and advice of charge at the end of conversation (AOCE) ringing type configuration on the specified MG interface.

Format

display voice h248ag *agid* **mg-ringmode default-ringpara**

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Parameters

Parameter	Description	Value
agid	Specifies the MG interface to be queried. This parameter is available only in the privilege mode and is mandatory.	The value is an integer that ranges from 0 to 16777215.

Views

H.248 AG interface view

Default Level

2: Configuration level

Usage Guidelines

This command displays the default short ringing and AOCE ringing type configuration on the specified MG interface.

Example

Display the default short ringing and AOCE ringing type configuration on MG interface 0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]h248ag 0
[Huawei-voice-h248ag-0]display voice h248ag 0 mg-ringmode default-ringpara
  ------------------------------------------------------
  MGID      Short-Ring   AOCE-Ring
  ------------------------------------------------------
  0         12           4
  ------------------------------------------------------
```

Table 16-144 Description of the display voice h248ag mg-ringmode default-ringpara command output

Item	Description
MGID	ID of an MG interface.
Short-Ring	Short ringing type.
AOCE-Ring	AOCE ringing type.

16.7.1.23 display voice sctp version

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Function

The **display voice sctp version** command displays the SCTP version information.

Format

display voice sctp version

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

None

Example

Display the SCTP version information.

```
<Huawei> display voice sctp version
  ------------------------------------------------------------------------
Sctp protocol version : VPP V300R003C18T034 (SCTP) Suse10Sp01 Gcc_Suse10 ASAU
Feb 24 2013 07:44:20

------------------------------------------------------------------------
Service status          : Idle
```

16.7.1.24 domainName

Function

The **domainname** command configures the domain name of the device where an MG interface is located.

Format

domainname *domainname*

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Parameters

Parameter	Description	Value
domainname	Specifies the domain name of the device where an MG interface is located when **MIDType** is set to **domainName**.	The value is a string of 1 to 64 characters. A hyphen (-) indicates that the domain name is deleted.

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

This command sets the **domaninName** attribute of an MG interface that supports H.248. You must run this command when you need to configure the **domaninName** attribute after adding an interface or modify the **domaninName** attribute of an existing MG interface. After this command is executed successfully, you must run the **reset** command to reset the MG interface for the attribute to take effect.

Example

Configure the domain name to abc.com.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 0
[Huawei-voice-h248ag-0] domainName abc.com
```

16.7.1.25 h248profile

Function

The **h248profile** command configures a user-defined profile for the MG interface on an H.248 interface.

The **undo h248profile** command deletes a user-defined profile for the MG interface on an H.248 interface.

Format

h248profile { **profile-name** *profile-name* | **profile-negotiation-name** *profile-negotiation-name* | **para** *para-no para-value* }

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undo h248profile { **profile-name** | **profile-negotiation-name** | **para** *para-no para-value* }

Parameters

Parameter	Description	Value
profile-name	Specified the name of a user-defined profile. This parameter is optional. Use this parameter when you need to modify the name of the user-defined profile on an H.248 interface.	The value is a string of 1-67 characters.
profile-negotiation-name	Specifies the negotiation name of a user-defined profile. This parameter is optional. Use this parameter when you need to modify the negotiation name of the user-defined profile on an H.248 interface.	The value is a string of 1-67 characters.
para-no para-value	Specifies the value of a parameter for a user-defined profile. This parameter is optional. Use this parameter when you need to change the value of a parameter for the user-defined profile on an H.248 interface.	para-no: numeral type. Value range: 0-255 para-value: numeral type. Value range: 0-4294967295

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

Before running the **h248profile modify** command, run the **profile-index 0** to set a profile to the user-defined profile.

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After the configuration is complete, run the **reset** command for the configuration to take effect.

Example

Change the value of the second parameter in the user-defined profile on an H.248 interface to 2.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[huawei-voice-h248ag-1] h248profile modify para 2 2
```

16.7.1.26 h248stack format

Function

The **h248stack format** command configures the protocol stack message format.

Format

h248stack format *format*

undo h248stack format

Parameters

Parameter	Description	Value
format	Specifies the H.248 message format. Set this parameter when you need to configure the H.248 message format. The value **short** indicates the short message format, where commands and descriptors are in abbreviated form, such as **A** for the **ADD** command. The value **long** indicates the long message format, where commands are in complete form.	The value can be **short** or **long**. Default value: short

Views

H.248 AG view

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Default Level

2: Configuration level

Usage Guidelines

This command configures the protocol stack message format.

Example

Configure the H.248 message format to **short**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] h248stack format short
```

16.7.1.27 h248stack messagesegmentation

Function

The **h248stack messagesegmentation** command configures the protocol stack packet fragmentation flag.

Format

h248stack messagesegmentation *messagesegmentation*

Undo h248stack messagesegmentation

Parameters

Parameter	Description	Value
messagesegmentation *messagesegmentation*	Specifies the packet fragmentation flag. Set this parameter when you need to enable or disable packet fragmentation.	The value can be **support** or **notsupport**. Default value: support

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

This command configures the protocol stack packet fragmentation flag.

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Example

Configure the packet fragmentation flag to **support**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] h248stack messagesegmentation support
```

16.7.1.28 h248stack MTU

Function

The **h248stack MTU** command configures the protocol stack maximum transmission unit (MTU).

Format

h248stack MTU *mtu*

undo h248stack MTU

Parameters

Parameter	Description	Value
mtu	Specifies the MTU. Set this parameter when you need to configure the MTU.	The value is an integer that ranges from 1 to 5000. Unit: byte Default value: 1500

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

This command configures the protocol stack maximum transmission unit (MTU).

Example

Set the protocol stack MTU on an H.248 interface to 2000.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] h248stack MTU 2000
```

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16.7.1.29 h248stack sdpencodetype

Function

The **h248stack sdpencodetype** command configures the SDP codec type on an MG interface.

Format

h248stack sdpencodetype *sdpencodetypeval*

undo h248stack sdpencodetype

Parameters

Parameter	Description	Value
sdpencodetypeval	Specifies the H.248 protocol stack SDP codec type. Set this parameter when you need to configure the H.248 protocol stack SDP codec type.	The value can be **text** or **hex**. Default value: text

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

This command configures the SDP codec type on an MG interface.

Example

Set the H.248 protocol stack SDP codec type to **text**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] h248stack sdpencodetype hex
```

16.7.1.30 h248stack securitytype

Function

The **h248stack securitytype** command configures the protocol stack message authentication type.

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Format

h248stack securitytype *securitytypeval*

undo h248stack securitytype

Parameters

Parameter	Description	Value
securitytypeval	Specifies the H.248 protocol stack message authentication type. Set this parameter when you need to configure the H.248 protocol stack message authentication type.	The value can be **noah**, **sha1**, and **md5**. Currently, the system does not support the MD5 and SHA1 authentication types. Default value: noah

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

This command configures the protocol stack message authentication type.

Example

Set the H.248 protocol stack message authentication type to **noah**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] h248stack securitytype noah
```

16.7.1.31 h248stack tr

Function

The **h248stack tr** command sets protocol stack transaction reliability parameters on an MG interface.

Format

h248stack tr { **responseackctrl** *response-ack* | **mgcprovtimer** *provtimerval* | **longtimer** *longtimerval* | **retransfailoption** { **t-max** *t-max* | **times** *maxretranstimes* } | **retransmode** { **auto** { **max-retrans-timer** *maxretranstimerval* | **min-retrans-timer** *minretranstimerval* } | **fixed** *retranstimerval* }

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Undo h248stack tr { **response-ack** | **prov-timer** | **long-timer** | **retrans-failoption** | **retrans-mode** }

Parameters

Parameter	Description	Value
responseackctrl *response-ack*	Specifies whether to proactively send the RESPONSE ACK message in the common three-way handshake scenario (without the PENDING message). Set this parameter when you need to determine whether to proactively send the RESPONSE ACK message in the common three-way handshake scenario.	The value can be **false** or **true**. Default value: false
mgcprovtimer *provtimerval*	Specifies the duration of the temporary response timer. Within the timer duration, the receiver does not process repeated messages and only returns response messages. Set this parameter when you need to configure the duration of the temporary response timer.	The value is an integer that ranges from 6000 to 10000. Unit: ms Default value: 8000
longtimer *longtimerval*	Specifies the duration of the long timer. If no response is received within the timer duration, the MG interface considers that the transaction transmission fails and starts retransmission. Set this parameter when you need to configure the duration of the long timer.	The value is an integer that ranges from 10000 to 40000. Unit: ms Default value: 30000
retransfailoption	Specifies the retransmission failure option.	-

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Parameter	Description	Value
t-max *t-max*	Specifies the maximum retransmission duration. After the transaction fails, the MG interface retransmits the message within the duration specified by **t-max**. If no response is received within the maximum retransmission duration, the MG interface considers that the retransmission fails and stops retransmission. Set this parameter when you need to configure the maximum retransmission duration.	The value is an integer that ranges from 10000 to 30000. Unit: ms Default value: 25000
times *maxretranstimes*	Specifies the maximum retransmission times. After the transaction fails, the MG interface retransmits the message for times specified by **maxretranstimes**. If no response is received after the retransmission times reaches the maximum, the MG interface considers that the retransmission fails and stops retransmission. Set this parameter when you need to configure the maximum retransmission times.	The value is an integer that ranges from 1 to 9. Default value: 7
retransmode	Specifies the retransmission mode.	-
auto	Specifies the automatic mode.	-

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Parameter	Description	Value
max-retrans-timer *maxretranstimerval*	Specifies the maximum duration of the retransmission timer. This parameter is valid only when **Transaction Reliability** is set to **Yes** and **Retransmission Mode** is set to **Automatic**. Set this parameter when you need to configure a maximum duration for the retransmission timer.	The value is an integer that ranges from 500 to 16000. Unit: ms Default value: 4000
min-retrans-timer *minretranstimerval*	Specifies the minimum duration of the retransmission timer. This parameter is valid only when **Transaction Reliability** is set to **Yes** and **Retransmission Mode** is set to **Automatic**. Set this parameter when you need to configure a minimum duration for the retransmission timer.	The value is an integer that ranges from 100 to 4000. Unit: ms Default value: 500
fixed *retranstimerval*	Specifies the fixed duration of the retransmission timer. This parameter is valid only when **Transaction Reliability** is set to **Yes** and **Retransmission Mode** is set to **Fixed**. Set this parameter when you need to configure a fixed duration for the retransmission timer.	The value is an integer that ranges from 100 to 4000. Unit: ms Default value: 2000

Views

H.248 AG view

Default Level

2: Configuration level

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Usage Guidelines

- This command sets transaction reliability parameters of the H.248 protocol stack.
- When you need to use the maximum retransmission times, the duration of the long timer must be greater than the value of the maximum retransmission times multiplied by the maximum duration of the retransmission timer.
- When you need to use the maximum retransmission duration, the duration of the long timer must be greater than the maximum retransmission duration of the transaction reliability timer.

Example

Configure automatic retransmission. Set the minimum duration of the retransmission timer to 500 and maximum duration to 5000.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] h248stack tr retransmode auto minretranstimer 500 maxretranstimer 5000
```

16.7.1.32 heartBeat

Function

The **heartBeat** command sets heartbeat parameters on an MG interface.

Format

heartBeat { **genTimer** *gentimer* | **retransTimer** *interval* | **retransTimes** *retrans* }*

undo heartBeat { **genTimer** | **retransTimer** | **retransTimes** }*

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Parameters

Parameter	Description	Value
gentimer	Specifies the heartbeat initiation duration on an MG interface. Set this parameter when you need to configure the heartbeat initiation duration on an MG interface. If the MG interface does not receive any messages from the MGC or the MGC fails to respond to a request initiated by the MG interface within the duration specified by **heartBeatGenTimer**, the MG interface starts to send the heartbeat message to the MGC.	The value is an integer that ranges from 0 to 655. Unit: s Default value: 60
interval	Specifies the heartbeat retransmission interval on an MG interface. Set this parameter when you need to configure the heartbeat retransmission interval on an MG interface. If the MGC fails to respond to the heartbeat message sent by the MG interface within the interval specified by **heartBeatRetransTimer**, the MG interface resends the heartbeat message. If this parameter is set to 0, interface interruption cannot be detected using heartbeat messages.	The value is an integer that ranges from 0 to 655. Unit: s Default value: 60

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Parameter	Description	Value
retrans	Specifies the heartbeat message retransmission times on an MG interface. Set this parameter when you need to configure the heartbeat message retransmission times on an MG interface. If the MG interface resends the heartbeat message to the MGC for the times specified by **Times** but still no response is received, the MG interface considers that the connection with the MGC is interrupted.	The value is an integer that ranges from 0 to 20. Default value: 3

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

This command sets heartbeat parameters on an MG interface.

Example

Set the heartbeat parameters on an MG interface. Specifically, set the heartbeat initiation duration to 500, heartbeat retransmission interval to 50, and heartbeat message retransmission times to 6.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] heartBeat genTimer 500 retransTimer 50 retransTimes 6
```

16.7.1.33 mgc switch

Function

The **mgc-switch** command forcibly registers an MG interface with the other MGC.

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Format

Mgc switch mgcno *mgcno*

Parameters

Parameter	Description	Value
mgcno *mgcno*	Specifies the MGC ID. This parameter is mandatory. 1 means the primary MGC. 2 means the secondary MGC.	The value is an integer that ranges from 1 to 2.

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

When the current MGC is under maintenance or overhaul, run this command. After the command is executed successfully, the MG interface registers with the new MGC.

Example

Forcibly switch the registration of an MG interface to the MGC with **mgcno** being 2.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] mgc switch mgcno 2
```

16.7.1.34 mg-media-ip1

Function

The **mg-media-ip1** command configures the media IP address 1 of an MG interface.

Format

mg-media-ip1 {*mg-media-ip* | **addr-name** *addr-name* }

undo mg-media-ip1

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Parameters

Parameter	Description	Value
mg-media-ip	Specifies the media IP address 1 of an MG interface. Set this parameter when you need to use a static media IP address. The media IP address must exist in the media IP address pool.	The value is an IP address in dotted decimal notation.
addr-name	Specifies the dynamic address name. The dynamic address name must exist in the system.	The value is a string of 1 to 64 characters.

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

This command configures the media IP address 1 of an MG interface. The IP address can be a dynamic or static IP address.

The media IP address to specify must exist in the media IP address pool.

Example

Configure the media IP address 1 of an MG interface, and set the dynamic address name to **GigabitEthernet0/0/0**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] mg-media-ip1 media-addr-name GigabitEthernet0/0/0
```

16.7.1.35 mg-media-ip2

Function

The **mg-media-ip2** command configures the media IP address 2 of an MG interface.

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Format

mg-media-ip2 *mg-media-ip*

undo mg-media-ip2

Parameters

Parameter	Description	Value
mg-media-ip	Specifies the media IP address 2 of an MG interface. Set this parameter when you need to classify media packets based on the priority. The IP adders cannot be obtained using DHCP. The media IP address must exist in the media IP address pool.	The value is an IP address in dotted decimal notation.

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

This command configures the media IP address 2 of an MG interface. The IP address must be a static IP address.

The media IP address to specify must exist in the media IP address pool.

Example

Set the media IP address 2 of an MG interface to 192.168.1.126.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] mg-media-ip2 192.168.1.126
```

16.7.1.36 mg-ringmode

Function

The **mg-ringmode** command configures ringing mode mapping.

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Format

mg-ringmode *index* [**cadence-ring** *cadencering-value* | **initial-ring** *initialring-value*]*

undo mg-ringmode [*index*]

Parameters

Parameter	Description	Value
index	Specifies the peer parameter ID issued by the MGC. If the MGC does not specify this ID, the value of **MgcPara** is 1.	Numeral type. Value range: 0-15
cadence-ring *cadencering-value*	Specifies the cadence-ringing type corresponding to the peer parameter.	Numeral type. Value range: 0-3, 5–15, 128-143, and 255
initial-ring *initialring-value*	Specifies the initial ringing type. This parameter is optional. Use this parameter when you need to configure initial ringing type corresponding to the peer parameter.	Numeral type. Value range: 4, 17, 18, 21, 22, 24-26, 29-31, 144-159, and 255

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

- This command adds a ringing mode mapping on an MG interface.
- On an MG interface, if multiple ringing mode mappings have the same value of cadence, only one record is saved.
- A maximum of ringing mode mappings can be configured.

Example

Set the index of the ringing mode mapping to 6, cadence-ringing type to 2, and initial ringing type to 17.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] mg-ringmode 6 cadencering 2 initialring 17
```

16.7.1.37 mg-ringmode default-mgcpara

Function

The **mg-ringmode default-mgcpara** command sets default MGC ringing parameters.

Format

mg-ringmode default-mgcpara { **ring** *ring-default-mgcpara* | **mwi** *mwi-default-mgcpara* } *

undo mg-ringmode default-mgcpara { **ring** | **mwi** } *

Parameters

Parameter	Description	Value
ring *ring-default-mgcpara*	Specifies the peer parameter identification delivered by the MGC. If no ringing type is delivered by the MGC, this setting is used by default. This parameter is optional.	The value is an integer within the range of 0–15 and 255. The value 255 indicates that the system default setting is used. Default value: 255
mwi *mwi-default-mgcpara*	Specifies the peer parameter identification delivered by the MGC. If no MWI ringing type is delivered by the MGC, this setting is used by default. This parameter is optional.	The value is an integer within the range of 0–15 and 255. The value 255 indicates that the system default setting is used. Default value: 255

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

This command is used to configure the default ring parameter of media gateway controller (MGC) on a specified gateway (MG) interface. When the MGC issues a ring or a message waiting indicator (MWI) ring, the ring type and MWI ring

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pattern value configured using this command are used if the pattern value is not specified.

Example

Set the MWI type of the default ring on an MGC to 0 and ring type to 0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] mg-ringmode default-mgcpara mwi 0 ring 0
```

16.7.1.38 mg-ringmode default-ringpara

Function

The **mg-ringmode default-ringpara** command configures the default common ringing type.

Format

mg-ringmode default-ringpara { **short-ring** *short-ring* | **aoce-ring** *aoce-ring* } *

undo mg-ringmode default-ringpara { **short-ring** | **aoce-ring** }

Parameters

Parameter	Description	Value
short-ring *short-ring*	Specifies the short ringing type. Set this parameter when you need to configure the short ringing type corresponding to the peer parameter.	The value is an integer within the range of 0–4, 5, 6, 8–15, 17, 18, 21, 22, 24–26, 29–31, 128–159, and 255.
aoce-ring *aoce-ring*	Specifies the AOCE ringing type. This parameter is optional. Set this parameter when you need to configure the AOCE ringing type.	The value is an integer within the range of 4, 17, 18, 21, 22, 24–26, 29–31, 144–159, and 255.

Views

H.248 AG view

Default Level

2: Configuration level

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Usage Guidelines

This command is used to configure the default common ring type on a specified media gateway (MG) interface. When the media gateway controller (MGC) issues a short-ring or an advice of charge (AoC) ring, the ring type configured using this command is used if no value is specified for the ring type.

Example

Configure the short ringing type of a common ring to 4 and AOCE ringing type to 17.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] mg-ringmode default-ringpara short-ring 4 aoce-ring 17
```

16.7.1.39 mg-signal-ip

Function

The **mg-signal-ip** command sets the signaling IP address and port number on the current H.248 interface. These parameters take effect only after the H.248 interface is reset.

Format

mg-signal-ip { *ip_addr* | **signal-addr-name** *name* } **mgport** *port*

Parameters

Parameter	Description	Value
ip_addr	Specifies the signaling IP address of an MG interface. Set this parameter when you need to use a static signaling IP address. The signaling IP address must exist in the signaling IP address pool. You can run the **ip address** command to configure the signaling IP address pool.	The value is an IP address in dotted decimal notation.
signal-addr-name	Specifies the dynamic address name. The dynamic address name must exist in the system.	The value is a string of 1 to 64 characters.

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Parameter	Description	Value
port	Specifies the transport layer protocol port number of an MG interface. The value must be the same as the MG port number configured on the MGC.	The value is an integer that ranges from 2900 to 2999.

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

This command sets the signaling IP address and port number on the current H.248 interface. The signaling IP address must exist in the signaling IP address pool.

These parameters take effect only after the H.248 interface is reset.

Example

Set the dynamic address name of the signaling IP address on an H.248 interface to **GigabitEthernet0/0/0** and port number to **2949**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] mg-signal-ip signal-addr-name GigabitEthernet0/0/0 mgport 2949
```

16.7.1.40 mg-software parameter

Function

The **mg-software parameter** command sets control points.

The **undo mg-software parameter** command restores the default value of control points.

Format

mg-software parameter *name value*

undo mg-software parameter *name*

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Parameters

Parameter	Description	Value
name	Specifies the control point name.	The value is an integer that ranges from 0 to 37.
value	Specifies the control point value.	The value is an integer. Different control points may use different value ranges.

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

- You can configure control point 2 of the MG interface (whether or not to support multi-homing) only when the MG interface is in the locally closed state. Currently, the multi-homing function and the single-endpoint registration function in the system conflict with each other. If control point 2 is set to 1 or 2, control point 4 must be set to 0 (using the wildcard for registration).
- You can configure control point 4 of the MG interface (whether or not to use the wildcard for registration) only when the MG interface is in the locally closed state. The dual-homing function and the single-endpoint registration function in the system conflict with each other. If control point 4 is set to 1 (not using the wildcard for registration), control point 2 must be set to 0 (not supporting dual-homing). The single-endpoint registration function and the authentication function conflict with each other. If control point 4 is set to 1 (not using the wildcard for registration), control point 6 must be set to 1 (not supporting authentication).

The following table lists MG interface control points.

Parameter	Description	Value
0	System reserved.	-
1	System reserved.	-

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Parameter	Description	Value
2	Indicates whether an MG interface supports multihoming. Set this parameter when you need to determine whether an MG interface supports multihoming. This parameter can be set only when the MG interface is in Local Closed state. If multihoming is not supported and the MG interface fails to register with the primary MGC, the MG interface will not register with the standby or standalone MGC no matter whether the standby or standalone MGC is configured. If multihoming is supported and a primary MGC fault occurs when the current MG interface is registered with the primary MGC, the MG interface registers with the standby MGC and standalone MGC cyclically. ● If the standby MGC runs properly, the MG interface switches to the standby MGC. ● If the standby MGC is faulty or not configured and the standalone MGC runs properly, the MG interface switches to the standalone MGC. Note: When the MG interface switches to the standalone MGC, the interface restarts	The value can be 0, 1, or 2. ● 0: Multihoming is not supported. ● 1: Multihoming is supported while automatic switchover is not. ● 2: Both multihoming and automatic switchover are supported. Default value: 0

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Parameter	Description	Value
	and services will be interrupted. If the MG interface supports both multihoming and automatic switchover, the MG interface functions as follows: • If the MG interface is registered with the standby MGC and the primary MGC recovers, the MG interface automatically switches to the primary MGC. • If the MG interface is registered with the standalone MGC and the primary or standby MGC recovers, the MG interface automatically switches to the primary or standby MGC. Note: When the MG interface switches to the primary or standby MGC from the standalone MGC, the interface restarts and services will be interrupted. If the MG interface supports multihoming but does not support automatic switchover, the MGC will not automatically switch to the primary MGC from the standby or standalone MGC when the primary MGC recovers. You can run the **mgc switch** command to	

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Parameter	Description	Value
	forcibly switch the MG interface to the primary MGC. If the MG interface supports multihoming, you can run the **mgc switch** command to forcibly switch the MG interface: • Between the primary and standby MGCs. • From the standalone MGC to the primary or standby MGC if the MG interface registers with the standalone MGC.	
3	System reserved.	-
4	Indicates whether wildcard characters are used during MG interface registration. Set this parameter when you need to determine whether wildcard characters are used during MG interface registration. If wildcard characters are used, all terminals on the MG interface are registered with the MGC using one message, which reduces the number of messages sent between the MG interface and MGC. If wildcard characters are not used, all terminals on the MG interface register with the MGC one by one. The registration mode where wildcard characters are not used is also called single-endpoint registration.	The value can be 0 or 1. • 0: used. • 1: not used. Default value: 0

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Parameter	Description	Value
5	System reserved.	-
6	Indicates whether an MG interface supports device authentication. Set this parameter when you need to determine whether an MG interface supports device authentication. After enabling device authentication support, you can run the **auth** command to set authentication parameters and run the **reset** command to reset the MG interface. After the configuration, the MGC manages the MG device security to prevent unauthorized devices from registering with the MGC. Note: When the MG interface is reset, services may be interrupted.	The value is an integer that ranges from 0 to 1. • 0: supported. • 1: not supported. Default value: 1
7	Indicates whether an MG interface supports the security header. Set this parameter when you need to determine whether an MG interface supports the security header. After enabling security header support, you can run the **auth** command to set authentication parameters and run the **reset** command to reset the MG interface. After the configuration, the MGC manages the MG device security to ensure data integrity.	The value is an integer that ranges from 0 to 1. • 0: supported. • 1: not supported. Default value: 1

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Parameter	Description	Value
8	System reserved.	-
9	System reserved.	-
10	System reserved.	-
11	Indicates whether an MG interface supports local switch. Set this parameter when you need to determine whether an MG interface supports local switch. If the MG interface supports local switch and the MG is disconnected from the MGC, users on the MG can still make calls.	The value is an integer that ranges from 0 to 3. ● 0: No call is allowed. ● 1: Only internal calls are allowed. ● 2: Only survival calls are allowed. ● 3: All calls are allowed. Default value: 0
12	System reserved.	-

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Parameter	Description	Value
13	Digit map match scheme used by an MG interface. Set this parameter when you need to configure the digit map match scheme used by an MG interface. In the shortest match scheme, the MG interface reports collected digits immediately when they match a dialing scheme. In the longest match scheme, the MG interface does not report collected digits immediately when they match a dialing scheme. Instead, the MG interface continues to collect digits and match collected digits with dialing schemes if the user dials any numbers within the short timer duration (4s by default), and reports collected digits only when the short timer times out. In the self-adaptive match scheme, the MG interface checks digit map sub-schemes to automatically determine whether to use the shortest or longest match scheme. You can run the **digitmap-timer** command to configure digit map timer durations.	The value is an integer that ranges from 0 to 3. • 0: based on protocol requirements. • 1: longest match. • 2: shortest match. • 3: self-adaptive match. Default value: 2
14	System reserved.	-

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Parameter	Description	Value
15	Indicates whether an MG interface filters media stream source ports. Set this parameter when you need to determine whether an MG interface filters media stream source ports. When the media stream source port filtering function is used, the MG interface receives media stream only from specified ports.	The value is an integer that ranges from 0 to 1. ● 0: not filtered. ● 1: filtered. Default value: 0
16	Duration of the media stream source port filtering timer. If the media stream source port filtering function is disabled, the MG port starts the timer when media streams are received. If the command for enabling the media stream source port filtering function is not received within the timer duration, the timer times out and the media stream source port filtering function is automatically enabled.	The value is an integer that ranges from 1 to 30, in seconds. Default value: 5
17	System reserved.	-
18	System reserved.	-
19	System reserved.	-
20	System reserved.	-
21	System reserved.	-

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Parameter	Description	Value
22	Type of the tone that the MG plays to users when the MG is disconnected from the MGC.	The value is an integer that ranges from 0 to 2. ● 0: busy tone. ● 1: congestion tone. ● 2: voice announcement. Default value: 0
23	Duration of the port status synchronization timer. When a remotely blocked port receives signaling from the MGC, the device determines whether to directly update the port status or initiate port registration to the MGC. If the device initiates port registration, the device initiates port registration again after the port status synchronization timer duration. This parameter is invalid for RTP terminals.	The value is an integer that ranges from 0 to 120, in seconds. Default value: 35

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Parameter	Description	Value
24	Maximum RTP terminal index. An RTP terminal is a temporary terminal, which is a unique terminal type for an MG interface that supports H.248. A temporary terminal represents temporary information streams and exists only when the MG uses these information streams. For example, when establishing media streams, the MG interface uses remote MGC information and a temporary terminal exists. The maximum number of RTP terminals on the MGC must be the same as that on the MG.	The value is an integer. The value range depends on product specifications.

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Parameter	Description	Value
25	Maximum random number for the avalanche prevention mechanism. When the system is reset, all H.248 interfaces on the device register with the MGC again. When all interfaces initiate registration simultaneously, packet conflicts will occur and the MGC may break down. The avalanche prevention mechanism can help avoid this situation. After the maximum random number for the avalanche prevention mechanism is configured, the system uses an internal algorithm to generate the duration after which an H.248 interface can initiate registration. The duration after which an H.248 interface can initiate registration is greater than the sum of the system internal base number and the maximum random number for the avalanche prevention mechanism.	The value is an integer that ranges from 30000 to 300000, in milliseconds. Default value: 60000
26	Local blocking tone type. When the MG interface is faulty or you run the **endservice** command, the MG interface enters the local blocking state. This parameter specifies the type of the tone played in local blocking state.	The value is an integer that ranges from 0 to 4. • 0: busy tone. • 1: congestion tone. • 2: muted. • 3: custom tone 1. • 4: custom tone 2. Default value: 0

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Parameter	Description	Value
27	Remote blocking tone type. When the MGC does not respond and a response error occurs, the MG interface enters the remote blocking state. This parameter specifies the type of the tone played in remote blocking state.	The value is an integer that ranges from 0 to 4. ● 0: busy tone. ● 1: congestion tone. ● 2: muted. ● 3: custom tone 1. ● 4: custom tone 2. Default value: 0
28	Duration of the howler tone. If a user does not hang up the phone after a call ends or picks up but forgets to hang up, the howler tone is played when the busy tone timer times out. After the duration of the howler tone, the port is locked. In this case, the phone cannot be called. The port is automatically unlocked when the user hangs up the phone.	The value is an integer that ranges from 1 to 65535, in seconds. Default value: 60
29	Duration of message prompt tone. When a user who has enabled the message prompt tone service picks up the phone, the MGC delivers the message prompt tone (similar in delivering the dial tone).	The value is an integer that ranges from 1 to 60000, in seconds. Default value: 3
30	Duration for generating the long call alarm. If the long call alarm is enabled and the duration of a call exceeds that for generating the long call alarm, the system generates the H.248 user long call event.	The value is an integer that ranges from 1 to 65535, in minutes. Default value: 60

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Parameter	Description	Value
31	Indicates whether the long call alarm is enabled.	The value is an integer that ranges from 0 to 1. ● 0: enabled. ● 1: disabled. Default value: 1
32	Minimum automatic registration interval for a remotely blocked port. When the interface that a port belongs to functions properly but the port is blocked remotely because the MGC does not respond and a response error occurs, the port automatically initiates registration requests to the MGC based on the interval specified by this parameter.	The value is an integer that ranges from 0 to 60000. The value 0 indicates that the port does not automatically register with the MGC. Unit: s Default value: 1800
33	Indicates whether the heartbeat function is disabled on an MG interface. Generally, the heartbeat function is enabled for the MG to keep the connection with the MGC. In a few cases, some MGCs cannot recognize the heartbeat message sent by the MG interface, and the heartbeat function is disabled. The MGC periodically sends the Notify message to keep the connection.	The value is an integer that ranges from 0 to 1. ● 0: disabled. ● 1: enabled. Default value: 1
34	Indicates whether the MG needs to proactively establish or tear links for BRA users when ISDN ports are in service or out of service due to the MGC.	The value is an integer that ranges from 0 to 1. ● 0: yes. ● 1: no. Default value: 0

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Parameter	Description	Value
35	Mode in which an ISDN port enters the in-service or out-of-service state. • If the wildcard mode is supported, the ISDN report only one in-service or out-of-service message. This reduces the number of messages sent between the MG interface and MGC. • If the single-channel mode is supported, each channel reports an in-service or out-of-service message. • If both the wildcard and single-channel modes are supported, the ISDN port selects a mode as required.	The value is an integer that ranges from 0 to 2. • 0: Both the wildcard and single-channel modes are supported. • 1: Only the single-channel mode is supported. • 2: Only the wildcard mode is supported. Default value: 1
36	Interval for sending the registration message when an MG interface switches between multiple MGCs. Set this parameter when you need to configure the interval for sending the registration message when an MG interface switches among the primary, standby, and standalone MGCs.	The value is an integer that ranges from 1 to 1800, in seconds. Default value: 40
37	Indicates whether to enable the function of converting pulse signals to DTMF signals. Set this parameter when you need to convert pulse signals to DTMF signals for transmission.	The value is an integer that ranges from 0 to 1. • 0: enabled. • 1: disabled. Default value: 1

Example

Set the value of control point 25 on an MG interface to 40000.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] mg-software parameter 25 40000
```

16.7.1.41 MIDType

Function

The **midtype** command configures the H.248 message identification (MID) type.

Format

MIDType *midtypeval*

undo MIDType

Parameters

Parameter	Description	Value
midtypeval	Specifies the H.248 MID type. The MID is contained in a message header and is used to identify the user sending the message. Set this parameter when you need to configure the H.248 MID type for the specified MG interface. When the MG interface IP address is used to identify the user sending the message, select **ip4Address**. When the name of the domain that the device deployed on the MG interface belongs to is used to identify the user sending the message, select **domainName**. When the name of the device deployed on the MG interface is used to identify the user sending the message, select **deviceName**. This parameter is generally set to **ip4Address**. You can select a value based on functions supported by the MGC.	The value can be **ip4Address**, **domainName**, or **deviceName**. Default value: ip4Address

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

This command configures the H.248 message identification (MID) type.

- When the MG interface IP address is used to identify the user sending the message, select **ip4Address**.

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- When the name of the domain that the device deployed on the MG interface belongs to is used to identify the user sending the message, select **domainName**.
- When the name of the device deployed on the MG interface is used to identify the user sending the message, select **deviceName**.

Example

Set the H.248 MID type to **deviceName**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] MIDType deviceName
```

16.7.1.42 profile-negotiation

Function

The **profile-negotiation** command sets the profile negotiation parameter on an MG interface.

The **undo profile-negotiation** command restores the default setting.

Format

profile-negotiation *profile-negotiation*

undo profile-negotiation

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Parameters

Parameter	Description	Value
profile-negotiation	Specifies whether to enable profile negotiation. Set this parameter to **enable** when the MG and the MGC negotiate the profile negotiation name. When the MG and MGC have different profile negotiation names, the negotiation process is as follows: if the MG and MGC have the same profile, the MG and MGC negotiate based on the profile; if the MG and MGC have different profiles, the negotiation fails. When this parameter is set to **disable** and the MG and the MGC have different profile negotiation names, the negotiation fails.	The value can be **enable** or **disable**. Default value: disable

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

When the profile-negotiation is set to enable,

- the MG negotiates the profile-negotiation-name with the MGC.
- When the profile-negotiation-name is inconsistent, if the MG uses the same profile as the MGC, the profile used on the MGC is used for negotiation.
- Otherwise, the negotiation fails.

When the profile-negotiation is set to disable, the profile-negotiation-name of the MG is inconsistent with that of the MGC, the negotiation fails.

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Example

Enable profile negotiation between the MG and MGC.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] profile-negotiation enable
```

16.7.1.43 profile-index

Function

The **profile-index** command configures a profile index of an MG interface.

The **undo profile-index** command deletes a profile index of an MG interface.

Format

profile-index *index*

undo profile-index

Parameters

Parameter	Description	Value
index	Profile index of an MG interface.	Numeral type. Value range: 0–7. Default value: 1 Values: • 0: CustomizingProfile-Templet("") • 1: NoProfile("") • 2: BT_AGW/3("BT_AGW/3") • 3: FT_AGW/2("FT_AGW/2") • 4: KPN_AGW/1("KPN_AGW/1") • 5: PCCW_AGW/1("PCCW_AGW/1") • 6: ZTE_AGW/1("ZTE_AGW/1") • 7: BELL_AGW/1("BELL_AGW/1")

Views

H248AG view

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Default Level

2: Configuration level

Usage Guidelines

When signaling processing on the MG is different from that on the MGC, configure the profile for adaptation.

The profile used by the MG interface must be the same as that on the MGC.

Index 0 specifies a user-defined profile, index 1 specifies the default profile, and the other indexes specify preset profiles in the system.

Example

Set the profile index of an MG interface to 0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] profile-index 0
```

16.7.1.44 primary-mgc-address1

Function

The **primary-mgc-address1** command configures the primary MGC domain name and port number on an H.248 interface.

Format

primary-mgc-address1 primary-mgc-domain-name *domainname port*

Parameters

Parameter	Description	Value
primary-mgc-domain-name *domainname*	Specifies the name of the primary MGC domain that an MG interface belongs to. The MGC that an MG interface belongs to can be identified using the MGC IP address or domain name.	The value is a string of 1 to 64 characters.

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Parameter	Description	Value
port	Specifies the transmission protocol port number of the primary MGC that an MG interface belongs to. The MGC protocol port number configured on an MG interface must be the same as that configured on the MGC.	The value is an integer that ranges from 1 to 65534.

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

This command configures the primary MGC domain name and port number on an H.248 interface.

Example

Set the primary MGC domain name to **abcd.com** and port number to **2949**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1]primary-mgc-address1 primary-mgc-domain-name abcd.com 2949
```

16.7.1.45 primary-mgc-address1 static

Function

The **primary-mgc-address1 static** command configures the primary MGC IP address and port number.

Format

primary-mgc-address1 static *ip_addr port* [**primary-mgc-address2** *ip_addr2*]

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Parameters

Parameter	Description	Value
ip_addr	Specifies IP address 1 of the primary MGC that an MG interface belongs to. The MGC that an MG interface belongs to can be identified using the MGC IP address or domain name. Set this parameter when the IP address is used to identify the primary MGC that an MG interface belongs to.	The value is an IP address in dotted decimal notation.
port	Specifies the transmission protocol port number of the primary MGC that an MG interface belongs to. The MGC protocol port number configured on an MG interface must be the same as that configured on the MGC.	The value is an integer that ranges from 1 to 65534.
ip_addr2	Specifies IP address 2 of the primary MGC that an MG interface belongs to. This parameter is optional and takes effect only when the transmission protocol is SCTP.	The value is an IP address in dotted decimal notation.

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

This command configures the primary MGC IP address and port number.

When the IP address of the primary MGC exists, you can delete the domain name of the primary MGC. When the domain name of the primary MGC exists, you can

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delete the IP address of the primary MGC. However, the domain name and IP address of the primary MGC cannot be deleted at the same time.

When the data of the primary MGC is not configured completely, the data of other secondary MGCs cannot be configured.

Upon the configuration, you must run the **reset** command to reset the MG interface for validating the configuration data. Otherwise, the configuration data is just stored in the database.

Example

Set the primary MGC IP address to 192.168.1.110 and port number to 2944.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 0
[Huawei-voice-h248ag-0] primary-mgc-address1 static 192.168.1.110 2944
```

16.7.1.46 reset

Function

The **reset** command resets an interface.

Format

reset *resettype*

Parameters

Parameter	Description	Value
resettype	Specifies the MG interface reset mode. Set this parameter to specify the reset mode. An MG interface performs different reset operations and sends different registration requests to the MGC based on the reset mode. The options are as follows: ● servicerestored: service restoration. When this reset mode is used, the status of terminals on the MG interface does not change. ● coldstart: cold startup. When this reset mode is used, the status of terminals on the MG interface will be initialized to the default value. ● warmstart: warm startup. When this reset mode is used, the status of terminals on the MG interface does not change. During warm startup, data in all ongoing processes will be lost; however, the status of terminals on the MG interface does not change. ● capabilitieschange: MG performance change. When this reset mode is used, the status of terminals on the MG interface does not change. MG	The value can be **servicerestored**, **coldstart**, **warmstart**, or **capabilitieschange**.

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Parameter	Description	Value
	performance change occurs when the data package does not change while the performance parameters change. The MGC monitors the MG performance to determine which performance parameters can change.	

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

- Only when the MG interface is in the normal or graceful shutdown state, it can be reset in servicerestored mode. The coldstart mode is not restricted.
- You can run this command to reset the interface only after the attributes of the MG interface are configured, such as the signaling IP address, media IP address, port number of the transport layering protocol, MGC IP address, port number of the MGC transport layering protocol, and the transport protocol type.

Example

Cold start the H.248 AG.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] reset coldstart
```

16.7.1.47 retrans

Function

The **retrans** command configures transaction reliability.

The **undo retrans** command disables configuring transaction reliability.

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Format

retrans *retransval*

undo retrans

Parameters

Parameter	Description	Value
retransval	When retransval is set to enable, the system considers a message sending failure if the MG port does not receive a response message from the peer end within a period of time. In this case, the system sends the message again. When xxx is set to disable, the system does not send the message again even if the MG port does not receive a response message from the peer end.	The value can be **enable** or **disable**.

Views

H.248 view

Default Level

2: Configuration level

Usage Guidelines

When retransval is set to enable, the system considers a message sending failure if the MG port does not receive a response message from the peer end within a period of time. In this case, the system sends the message again. When xxx is set to disable, the system does not send the message again even if the MG port does not receive a response message from the peer end.

Example

Enable transaction reliability.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 0
[Huawei-voice-h248ag-0] retrans enable
```

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16.7.1.48 secondary-mgc-address1

Function

The **secondary-mgc-address1** command sets the secondary MGC domain name and port number.

The **undo secondary-mgc-address1** command restores default setting.

Format

secondary-mgc-address1 secondary-mgc-domain-name *domainname port*

undo secondary-mgc-address1

Parameters

Parameter	Description	Value
secondary-mgc-domain-name *domainname*	Specifies the name of the secondary MGC domain that an MG interface belongs to. The MGC that an MG interface belongs to can be identified using the MGC IP address or domain name.	The value is a string of 1 to 64 characters.
port	Specifies the transmission protocol port number of the secondary MGC that an MG interface belongs to. The MGC protocol port number configured on an MG interface must be the same as that configured on the MGC.	The value is an integer that ranges from 1 to 65534.

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

This command sets the secondary MGC domain name and port number.

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Example

Set the secondary MGC domain name to **abcd.com** and port number to **2949**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] secondmary-mgc-address1  secondary-mgc-domain-name abcd.com 2949
```

16.7.1.49 secondary-mgc-address1 static

Function

The **secondary-mgc-address1 static** command configures the secondary MGC IP address and port number.

Format

secondary-mgc-address1 static *ip_addr port* [**primary-mgc-address2** *ip_addr2*]

undo secondary-mgc-address1

Parameters

Parameter	Description	Value
ip_addr	Specifies IP address 1 of the secondary MGC that an MG interface belongs to. The MGC that an MG interface belongs to can be identified using the MGC IP address or domain name. Set this parameter when multihoming is configured and the IP address is used to identify the secondary MGC that an MG interface belongs to.	The value is an IP address in dotted decimal notation. The value **255.255.255.255** indicates that the secondary MGC IP address 1 is deleted. However, you cannot enter **255.255.255.255** to delete a primary MGC IP address in use.
port	Specifies the transmission protocol port number of the secondary MGC that an MG interface belongs to. Set this parameter when multihoming is configured.	The value is an integer that ranges from 1 to 65534.

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Parameter	Description	Value
ip_addr2	Specifies IP address 2 of the secondary MGC that an MG interface belongs to. This parameter is optional and takes effect only when the transmission protocol is SCTP.	The value is an IP address in dotted decimal notation. The value **255.255.255.255** indicates that the secondary MGC IP address 2 is deleted.

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

The command sets the secondary MGC IP address and port number.

Example

Set the secondary MGC IP address to 192.168.1.110 and port number to 2944.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-0] primary-mgc-address1 static 192.168.1.110 2944
```

16.7.1.50 shutdown

Function

The **shutdown** command disables an MG interface.

Format

shutdown { **force** | **graceful** *gracetime* }

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Parameters

Parameter	Description	Value
force	Forcibly disables an MG interface. Set this parameter when you need to forcibly disable an MG interface. When an MG interface is forcibly disabled, all calls routed though this interface are immediately disconnected.	-
graceful *gracetime*	Gracefully disables an MG interface. In the preceding command, *gracetime* indicates the duration when an MG interface is gracefully disabled, and the *gracetime* value varies based on the service running in the system. Set this parameter when you need to gracefully disable an MG interface. Before an MG interface is gracefully disabled, only existing calls routed though this interface can be handled during the duration specified in *gracetime*. When *gracetime* is set to 0s, the MG interface can be disabled only after all existing calls end.	The value is an integer that ranges from 0 to 86400. Unit: s

Views

H.248 AG view

Default Level

2: Configuration level

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Usage Guidelines

- If you set the MG interface to support single-endpoint registration (that is, control point 4 is configured to 1) by running the **mg-software parameter** command, you cannot shut down the interface in graceful mode.
- To reset the MG interface, run the **reset** command in H.248 mode.
- After the duration of the graceful shutdown completes or all calls on the MG interface complete, the MG interface can shut down automatically.
- The MG interface can be shut down in graceful mode only when it is in service or the remote end interface is shut down. In addition, if the user already performs graceful shutdown on an interface, the interface cannot be shut down in graceful mode again before the previous shutdown operation is complete.

Example

Forcibly disables an MG interface.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] shutdown force
```

16.7.1.51 standalone parameters

Function

The **standalone parameters** command sets local switch parameters.

Format

standalone parameters { **dialtone** *dialtoneval* | **ring** *ringval* | **busytone** *busytoneval* } *

undo standalone parameters { **dialtone** | **ring** | **busytone** }

Parameters

Parameter	Description	Value
dialtone *dialtoneval*	Specifies the dialing timer duration. This parameter is optional. Set this parameter when you need to configure the dialing timer duration. If a calling party does not dial a number after the duration specified on the dialing timer, the busy tone is played to the calling party.	The value is an integer that ranges from 1 to 120. Unit: s Default value: 10

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Parameter	Description	Value
ring *ringval*	Specifies the ringing timer duration. This parameter is optional. Set this parameter when you need to configure the ringing timer duration. If a called party does not answer an incoming call after the duration specified on the ringing timer, the ring tone is stopped.	The value is an integer that ranges from 1 to 120. Unit: s Default value: 50
busytone *busytoneval*	Specifies the busy tone timer duration. This parameter is optional. Set this parameter when you need to configure the busy tone timer duration. When the duration specified on the ringing timer expires, the howler tone is played.	The value is an integer that ranges from 1 to 120. Unit: s Default value: 40

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

When you need to set the time length of the busy tone timer, the dial tone timer, or the ringing timer, run this command.

The timer time length that is configured by this command takes effect only to emergency standalone.

When you make a call in the case of emergency standalone, if the time length of the busy tone, dial tone or ringing is the same as the time length that is set, the operation is successful.

Example

Set the dialing timer duration to 33, ringing timer duration to 44, and busy tone timer duration to 55.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] standalone parameters dialtone 33 ring 44 busytone 55
```

16.7.1.52 stand-alone-mgc-ip1

Function

The **stand-alone-mgc-ip1** command sets the standalone MGC IP address and port number.

Format

stand-alone-mgc-ip1 *ip_addr* [**stand-alone-mgc-ip2** *ip_addr2*] **stand-alone-mgc-port** *port*

Undo stand-alone-mgc-ip1

Parameters

Parameter	Description	Value
ip_addr	Specifies IP address 1 of the standalone MGC that an MG interface belongs to. The MGC that an MG interface belongs to can be identified using the MGC IP address or domain name. Set this parameter when multihoming is configured and the IP address is used to identify the standalone MGC that an MG interface belongs to. After multihoming is configured using this parameter, if the primary and secondary MGCs are faulty and the network gateway disconnects from the softswitch, services can be automatically switched to the standalone MGC, inter-office calls can be connected, and users can use the PSTN network to make emergency calls.	The value is an IP address in dotted decimal notation.

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Parameter	Description	Value
stand-alone-mgc-ip2 *ip_addr2*	Specifies IP address 2 of the standalone MGC that an MG interface belongs to. Set this parameter when multihoming is configured.	The value is an IP address in dotted decimal notation.
stand-alone-mgc-port *port*	Specifies the transmission protocol port number of the standalone MGC that an MG interface belongs to. Set this parameter when multihoming is configured.	The value is an integer that ranges from 1 to 65535.

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

To configure multihoming and use the IP address to identify the standalone MGC to which the MG interface belongs, use this parameter.

Example

Set IP address 1 of the standalone MGC that an MG interface belongs to **192.168.1.1**, IP address 2 to **10.10.10.2**, and transmission protocol port number to **2988**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] stand-alone-mgc-ip1 192.168.1.1 stand-alone-mgc-ip2 10.10.10.2 stand-alone-mgc-port 2988
```

16.7.1.53 start-negotiate-version

Function

The **start-negotiate-version** command configures the H.248 protocol version for starting negotiation between the MG and MGC.

Format

start-negotiate-version *verno*

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undo start-negotiate-version

Parameters

Parameter	Description	Value
verno	Specifies the H.248 protocol version for starting negotiation between the MG and MGC. If the MG and MGC have the same signal handling process, the H.248 protocol version for starting negotiation can be configured as required; if the MG and MGC have different signal handling processes, the H.248 protocol version for starting negotiation is set to 0 so that MG negotiates with the MGC based on the profile.	The value is an integer that ranges from 0 to 3. Default value: 3 0: negotiates based on the profile. 1: starts negotiation from V1. 2: starts negotiation from V2. 3: starts negotiation from V3. The negotiation starts based on the H.248 protocol version in ascending order. The recommended value is 1.

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

During the negotiation between the MG and MGC,

- if the signaling processing procedures are the same, configure the negotiation version according to the actual requirement;
- if the signaling processing procedures are different, the negotiation version is configured to 0, that is, negotiating according to the profile.

Example

Set the H.248 protocol version for starting negotiation between the MG and MGC to 1.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1]start-negotiate-version 1
```

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16.7.1.54 transfer

Function

The **transfer** command configures the signaling transmission mode.

Format

transfer *protocol*

undo transfer

Parameters

Parameter	Description	Value
protocol	Specifies the protocol signaling transmission mode used by an MG interface. The signaling transmission mode used by the MG interface must be the same as that configured on the MGC.	The value can be **tcp**, **udp**, **sctp**. The TCP protocol is not supported currently. Default value: udp

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

The transmission mode used by the MG interface must be the same as that configured on the MGC.

Example

Set the signaling transmission mode on an H.248 interface to **sctp**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] transfer sctp
```

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16.7.1.55 tid-format

Function

The **tid-format** command sets the terminal ID (TID) format for an MG interface.

Format

tid-format { { **rtp** | **pstn** | **bra** | **pra** } { **prefix** *prefix-string* | **template** *index* } * } *

undo tid-format

Parameters

Parameter	Description	Value
rtp	Specifies the RTP terminal.	-
pstn	Specifies the PSTN terminal.	-
bra	Specifies the BRA terminal.	-
pra	Specifies the PRA terminal.	-
prefix *prefix-string*	Specifies the terminal prefix. The terminal flag is generated based on the terminal prefix and the TID template.	The value is a string of 1 to 64 characters.
template *index*	Specifies the TID template index used by the terminal. The terminal flag is generated based on the terminal prefix and the TID template. This parameter is optional. Set this parameter when you need to configure the TID template index used by the terminal.	The value is an integer that ranges from 0 to 63.

Views

H.248 AG view

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Default Level

2: Configuration level

Usage Guidelines

When setting prefixes, you must ensure that the PSTN, PRA, and BRA terminal prefixes are the same or different each other.

Example

Set the PSTN terminal prefix to **pstn12** and the TID template index used by the terminal to **4**. Set the BRA terminal prefix to **bra12** and TID template index used by the terminal to **14**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1] tid-format pstn prefix pstn12 template 4 bra prefix bra12 template 14
```

16.7.2 H.248 AG User Configuration Commands

Description

This topic describes H.248 AG user configuration commands.

16.7.2.1 active-mask

Function

The **active-mask** command configures the mask for enabling an ISDN PRA user sub-channel.

The **undo active-mask** command restores the mask for enabling an ISDN PRA user sub-channel to the initial value.

Format

active-mask *mask-value*

undo active-mask

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Parameters

Parameter	Description	Value
mask-value	Specifies the mask for enabling an ISDN PRA user sub-channel. A mask enables a channel from channel 31 to channel 0. The options are as follows: ● 0: unavailable. ● 1: available. The masks for channels 0 and 16 must be set to 1.	Dotted decimal notation. Format: mask0:mask1:mask2:mask3. Mask0 to mask3 are the active masks of sub-channel 31 to sub-channel 0. For each mask, the identification of sub-channel B is from right to left. That is, mask3=1 indicates that sub-channel 0 is available and mask3=3 indicates that sub-channels 0 and 1 are available. Default value: 255.255.255.255. The default value indicates that all sub-channels are available.

Views

H.248 AG user view

Default Level

2: Configuration level

Usage Guidelines

Run this command when you need to enable or disable an ISDN PRA user sub-channel.

Example

Set the mask for enabling an ISDN PRA user sub-channel to 192.168.1.1.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser-1/0/0
[Huawei-voice-h248aguser-1/0/0] active-mask 192.168.1.1
```

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16.7.2.2 auto-resume-limit

Function

Using the **auto-resume-limit** command, you can set the maximum number of automatic recoveries from deterioration.

Using the **undo auto-resume-limit** command, you can restore the default maximum number of automatic recoveries from deterioration.

By default, the maximum number of automatic recoveries from deterioration is 20.

Format

auto-resume-limit *limit*

undo auto-resume-limit

Parameters

Parameter	Description	Value
limit	Specifies the upper limit of times that a degradation fault (especially, a port fault) is automatically rectified.	The value is an integer that ranges from 0 to 255. The default value is 20. The value 0 indicates that the fault is not automatically rectified. The value 255 indicates unlimited times.

Views

H.248 AG user view

Default Level

2: Configuration level

Usage Guidelines

This command sets the upper limit of times that a degradation fault (especially, a port fault) is automatically rectified of PSTN users.

Example

Set the maximum number of automatic recoveries from deterioration to 50.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser-1/0/0
[Huawei-voice-h248aguser-1/0/0] auto-resume-limit 10
```

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16.7.2.3 bell-ans-flag

Function

The **bell-ans-flag** command configures the flag for enabling BELL ANS signal support.

The **undo bell-ans-flag** command deletes the flag for enabling BELL ANS signal support.

Format

bell-ans-flag [*bell-ans-flag-value*]

undo bell-ans-flag

Parameters

Parameter	Description	Value
bell-ans-flag-value	Specifies the flag for enabling BELL ANS signal support.	The value can be **enable** or **disable**. Default value: disable

Views

H.248 AG user view

Default Level

2: Configuration level

Usage Guidelines

This command sets the flag for enabling BELL ANS signal support of PSTN users.

Example

#Enable BELL ANS signal support.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser 1/0/0
[Huawei-voice-h248aguser-1/0/0] bell-ans-flag enable
```

16.7.2.4 clip-format

Function

The **clip-format** command configures the calling number format.

The **undo clip-format** command deletes the calling number format.

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Format

clip-format [*clipformat-value*]

undo clip-format

Parameters

Parameter	Description	Value
clipformat-value	Specifies the calling number format. This parameter is optional. Set this parameter when you need to configure the calling number format for PSTN users. The options are as follows: • sdmffsk: FSK Single Data Message Format (SDMF) format. • mdmffsk: FSK Multiple Data Message Format (MDMF) format. • dtmf: DTMF format. • r1.5: Russia calling number display format. • etsi: BT calling number display format.	The value can be **sdmffsk**, **mdmffsk**, **dtmf**, **r1.5**, or **etsi**. Default value: sdmffsk

Views

H.248 AG user view

Default Level

2: Configuration level

Usage Guidelines

- This command sets the calling number format of PSTN users.
- This command can be executed only in H.248 AG user view.

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Example

#Specify the calling number format to **mdmffsk**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser 1/0/0
[Huawei-voice-h248aguser-1/0/0] clip-format mdmffsk
```

16.7.2.5 clip-transmission-sequence

Function

The **clip-transmission-sequence** command configures the mode for delivering calling numbers for PSTN users.

The **undo clip-transmission-sequence** command restores the mode for delivering calling numbers for PSTN users to the default value.

Format

clip-transmission-sequence [*clip-transmission-sequence*]

undo clip-transmission-sequence

Parameters

Parameter	Description	Value
clip-transmission-sequence	Specifies the mode for delivering calling numbers. This parameter is optional. Set this parameter when you need to configure the mode for delivering calling numbers for PSTN users. The options are as follows: • after-ring: delivers calling numbers after ringing. • before-ring: delivers calling numbers before ringing.	The value can be **after-ring** or **before-ring**. Default value: after-ring

Views

H.248 AG user view

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Default Level

2: Configuration level

Usage Guidelines

- This command sets the mode for delivering calling numbers of PSTN users.
- This command can be executed only in H.248 AG user view.

Example

#Configure the mode for delivering calling numbers to **before-ring**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser 1/0/0
[Huawei-voice-h248aguser-1/0/0] clip-transmission-sequence before-ring
```

16.7.2.6 dc-time

Function

The **dc-time** command configures the power-off interval for PSTN users.

The **undo dc-time** command deletes the power-off interval for PSTN users.

Format

dc-time [*dc-time-value*]

undo dc-time

Parameters

Parameter	Description	Value
dc-time-value	Specifies the power-off interval. This parameter is optional. Set this parameter when you need to configure the power-off interval for PSTN users.	The value is an integer that ranges from 10 to 100 (100 ms to 1000 ms). Unit: 10 ms Default value: 10 (100 ms)

Views

H.248 AG user view

Default Level

2: Configuration level

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Usage Guidelines

- This command sets the power-off interval of PSTN users.
- This command can be executed only in H.248 AG user view.

Example

#Set the power-off interval to 200 ms.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser 1/0/0
[Huawei-voice-h248aguser-1/0/0] dc-time 20
```

16.7.2.7 detect-ansbar-by-single-tone

Function

The **detect-ansbar-by-single-tone** command configures the flag for enabling ANSbar signal detection based on the single tone (special modem process in Bahrain).

The **undo detect-ansbar-by-single-tone** command deletes the flag for enabling ANSbar signal detection based on the single tone (special modem process in Bahrain).

Format

detect-ansbar-by-single-tone [*detect-ansbar-by-single-tone-value*]

undo detect-ansbar-by-single-tone

Parameters

Parameter	Description	Value
detect-ansbar-by-single-tone-value	Specifies the flag for enabling ANSbar signal detection based on the single tone (special modem process in Bahrain).	The value can be **enable** or **disable**. Default value: disable

Views

H.248 AG user view

Default Level

2: Configuration level

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Usage Guidelines

- This command enables or disables ANSbar signal detection based on the single tone for an existing PSTN user.
- This command can be executed only in H.248 AG user view.

Example

#Enable ANSbar signal detection based on the single tone.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser 1/0/0
[Huawei-voice-h248aguser-1/0/0] detect-ansbar-by-single-tone enable
```

16.7.2.8 display voice h248aguser

Function

The **display voice h248aguser** command displays the information about all H.248 AG users.

Format

display voice h248aguser

Parameters

None

Views

All views

Default Level

2: Configuration level

Usage Guidelines

None

Example

#Display the information about all H.248 AG users.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] display voice h248aguser
S /SC/P MGID TerminalID
1 /0 /0 0 A0
1 /0 /1 0 A1
3 /0 /0 0 A300
4 /0 /0 0 A400
```

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Table 16-145 Parameters in the display voice h248aguser command output

Parameter	Description
S	Slot ID of an H.248 user
SC	Subcard ID of an H.248 user.
P	Port ID of an H.248 user.
MGID	H.248 interface ID of an H.248 user.
TerminalID	Terminal ID.

16.7.2.9 display voice h248aguser bra

Function

The **display voice h248aguser bra** command displays basic rate access (BRA) user information.

Format

display voice h248aguser bra { *mgid terminalID* [*spanarea*] | **attribute** *username* | *username* }

Parameters

Parameter	Description	Value
mgid	Specifies the ID of the interface that a user belongs to.	The value is an integer that ranges from 0 to 16777215.
username	Specifies the user name.	The value is a string. Value format: *slot/subcard/port*
terminalID	Specifies the terminal ID.	The value is an integer that ranges from 0 to 9999.
spanarea	Specifies the terminal range.	The value is an integer that ranges from 1 to 10000. Default value: 1

Views

All views

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Default Level

2: Configuration level

Usage Guidelines

None

Example

Display BRA user information.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] display voice h248aguser bra 0 0 500
------------------------------------------------------------------------------
S /SC/P /B MGID LinkSetNo UserIFID TelNo Priority TerminalID
------------------------------------------------------------------------------
 4 /0 /0 /0 0 0 400 - Cat3 A400
```

Table 16-146 Parameters in the display voice h248aguser bra command output

Parameter	Description
S	Slot ID of a BRA user.
SC	Subcard ID of a BRA user.
P	Port ID of a BRA user.
B	B channel ID.
Linkset	IUA link set of a BRA user.
UserIFID	Interface ID of a BRA user.
TelNo	Phone number of a BRA user.
Priority	Priority of a BRA user.
TerminalID	Terminal ID.

16.7.2.10 display voice h248aguser pots

Function

The **display voice h248aguser pots** command displays PSTN user information.

Format

display voice h248aguser pots { *mgid terminalID* [*spanarea*] | **attribute** { *mgid terminalID* [*spanarea*] | *username* } | *username* }

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Parameters

Parameter	Description	Value
mgid	Specifies the ID of the interface that a user belongs to.	The value is an integer that ranges from 0 to 16777215.
username	Specifies the user name.	The value is a string. Value format: *slot/subcard/port*
terminalID	Specifies the terminal ID.	The value is an integer that ranges from 0 to 9999.
spanarea	Specifies the terminal range.	The value is an integer that ranges from 1 to 10000. Default value: 1

Views

All views

Default Level

2: Configuration level

Usage Guidelines

None

Example

Display POTS user information.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] display voice h248aguser pots 0 0 100
------------------------------------------------------------------------------
 S /SC/P MGID TelNo Priority PotsLineType TerminalID
------------------------------------------------------------------------------
 1 /0 /0 0 - Cat3 DEL A0
 1 /0 /1 0 - Cat3 DEL A1
```

Table 16-147 Parameters in the display voice h248aguser pots command output

Parameter	Description
S	Slot ID of a POTS user.
SC	Subcard ID of a POTS user.

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Parameter	Description
P	Port ID of a POTS user.
MGID	H.248 interface ID.
TelNo	Phone number of a POTS user.
Priority	Priority of a POTS user.
PotsLineType	Line type of a POTS user.
TerminalID	Terminal ID.

16.7.2.11 display voice h248aguser pra

Function

The **display voice h248aguser pra** command displays PRA user information.

Format

display voice h248aguser pra { **all** | **attribute** *username* | *username* }

Parameters

Parameter	Description	Value
all	Specifies all the users.	-
attribute	Specifies the designated user.	-
username	Specifies the user name.	The value is a string. Value format: *slot/subcard/port.*

Views

All views

Default Level

2: Configuration level

Usage Guidelines

To display PRA user information, run **display voice h248aguser pra** command.

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Example

Display PRA user information.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] display voice h248aguser pra attribute 3/0/0
------------------------------------------------------------------------
 F /S /P : 3 /0 /0
 UNIreport : disable
 Prior : Cat3
 Mask of sub channel : 255.255.255.255
 Auto reservice times/limit : 0/20
 Powerdialer : enable
```

Table 16-148 Parameters in the **display voice h248aguser pots** command output

Parameter	Description
F /S /P	Subrack ID/Slot ID/Port ID of a port.
UNIreport	Flag for reporting UNI faults. Options: enable and disable
Prior	Terminal priority. Options: cat1, cat2, and cat3
Mask of sub channel	Sub-channel mask.
Auto reservice times/limit	Automatic in-service count/Automatic in-service limit.
Powerdialer	Malicious call detection.

16.7.2.12 display voice iua-link

Function

The **display voice iua-link** command displays configurations on an IUA link.

Format

display voice iua-link sctp { **protocol** { **running** | **config** } | **association** { **info** | **statistics** } } *linkno*

Parameters

Parameter	Description	Value
linkno	Specifies the ID of an IUA link.	The value is an integer that ranges from 0 to 15.

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Views

All views

Default Level

2: Configuration level

Usage Guidelines

You can run this command to query the configuration of an IUA link.

Example

Display the configuration of an IUA link.

```
<Huawei> display voice iua-link sctp protocol config 0
  In streams             : 33
  Out streams            : 33
  Minimum rto value      : 1000ms
  Maximum rto value      : 60000ms
  Initial rto value      : 1000ms
  Rto alpha parameter    : 12%
  Rto beta parameter     : 25%
  Heartbeat interval     : 30000ms
  Valid cookie lifetime  : 60000ms
  Maximum init retrans   : 8
  Association maxretrans : 10
  Path maximum retrans   : 5
  No congestion level    : 40%
  Low congestion level   : 60%
  High congestion level  : 80%
  Send checksum          : yes
  Receive checksum       : yes
  Checksum arithmetic    : CRC32
```

Table 16-149 Description of the **display voice iua-link sctp** command output

Parameter	Description
In streams	Indicates the number of incoming SCTP streams.
Out streams	Indicates the number of outgoing SCTP streams.
Minimum rto value	Indicates the minimum retransmission time-out duration.
Maximum rto value	Indicates the maximum retransmission time-out duration.
Initial rto value	Indicates the initial value of the retransmission time-out duration.
Valid cookie lifetime	Indicates the life cycle of the valid cookie.

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Parameter	Description
Heartbeat interval	Indicates the heartbeat interval.
Maximum init retrans	Indicates the maximum init retransmission count.
Rto alpha parameter	Indicates the retransmission time-out duration factor α.
Rto beta parameter	Indicates the retransmission time-out duration factor β.
No congestion level	Indicates the no congestion level.
Low congestion level	Indicates the low congestion level.
High congestion level	Indicates the high congestion level.
Send checksum	Indicates whether to send the checksum when sending messages. The query result can be: • yes: send • no: Not send
Receive checksum	Indicates whether to receive the checksum when receiving messages. The query result can be: • yes: receive • no: not receive
Checksum arithmetic	Indicates the checksum algorithm.

Related Topics

16.7.3.9 iua-link

16.7.2.13 display voice iua-linkset

Function

The **display voice iua-linkset** command displays configurations on an IUA link set.

Format

display voice iua-linkset { **state** | **attribute** | **statistics** } *linksetno*

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Parameters

Parameter	Description	Value
state	Displays status information about an IUA link set.	-
attribute	Displays basic information about an IUA link set.	-
statistics	Displays statistical information about an IUA link set.	-
linksetno	Specifies the ID of an IUA link set. This parameter is mandatory.	The value is an integer that ranges from 0 to 15.

Views

All views

Default Level

2: Configuration level

Usage Guidelines

You can run this command to query the configuration of an IUA link set.

Example

Display the configuration of an IUA link set.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sigtran
[Huawei-voice-sigtran] display voice iua-linkset attribute 0
  LinksetNo            :0
  MGID                 :-
  PendingTime          :50
  TrafficMode          :override
  C/S-Mode             :server
  IID-Type             :integer
  IID-Map              :1
  BRA IID-Prefix       :-
  BRA IID-Suffix       :-
  PRA IID-Prefix       :-
  PRA IID-Suffix       :-
  Jointly-Work         :disable
```

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Table 16-150 Description of the **display voice iua-linkset** command output

Parameter	Description
LinksetNo	Linkset ID.
MGID	Indicates the corresponding MG interface ID of the IUA link set. In the case of a SIP protocol, this parameter is not displayed. If MGID is not specified in adding the link set, this parameter is displayed as "-".
PendingTime	Indicates the pending duration of the IUA link set.
TrafficMode	Indicates the working mode of an IUA link set. The query result can be: ● override: active/standby mode ● loadshare: load sharing mode
C/S-Mode	Indicates the corresponding service environment of the IUA link set. The query result can be: ● server: The link set is configured at the server side. ● client: The link set is configured at the client side.
IID-Type	Indicates the corresponding interface ID type of the IUA link set.
IID-Map	Indicates the mode of generating the identifier corresponding to the IUA link set.
Jointly-Work	Indicates whether the IUA link supports the interlocking. If the system supports only one protocol, the parameter is visible only when the system protocol is H.248. The parameter is displayed as disable if the link does not switch over in the H.248 protocol or SIP protocol.
BRA IID-Prefix	Indicates the bra prefix of the interface ID of the IUA link set.
BRA IID-Suffix	Indicates the bra suffix of the interface ID of the IUA link set.

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Parameter	Description
PRA IID-Prefix	Indicates the pra prefix of the interface ID of the IUA link set.
PRA IID-Suffix	Indicates the pra suffix of the interface ID of the IUA link set.

Related Topics

16.7.3.14 iua-linkset

16.7.2.14 dsp-input-gain

Function

The **dsp-input-gain** command configures the input gain of a DSP chip.

The **undo dsp-input-gain** command deletes the input gain configured for a DSP chip.

Format

dsp-input-gain *dsp-input-gain-value*

undo dsp-input-gain

Parameters

Parameter	Description	Value
dsp-input-gain-value	Specifies the input gain of a DSP chip. This parameter is optional. Set this parameter when you need to configure the input gain of a DSP chip. The input gain refers to the gain from the PCM side to IP side. By configuring the gain, you can adjust the voice quality.	The value is an integer that ranges from 0 to 15 (–10 dB to +5 dB). Default value: 10 (0 dB)

Views

H.248 AG user view

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Default Level

2: Configuration level

Usage Guidelines

This command configures the input gain of a DSP chip.

Example

#Specify the input gain of a DSP chip to +5 dB.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser 1/0/0
[Huawei-voice-h248aguser-1/0/0] dsp-input-gain 15
```

16.7.2.15 dsp-output-gain

Function

The **dsp-input-gain** command configures the output gain of a DSP chip.

The **undo dsp-output-gain** command deletes the output gain configured for a DSP chip.

Format

dsp-output-gain *dsp-output-gain-value*

undo dsp-output-gain

Parameters

Parameter	Description	Value
dsp-output-gain-value	Specifies the output gain of a DSP chip. This parameter is optional. Set this parameter when you need to configure the output gain of a DSP chip. The output gain refers to the gain from the IP side to PCM side. By configuring the gain, you can adjust the voice quality.	The value is an integer that ranges from 0 to 20 (–10 dB to +10 dB). Default value: 10 (0 dB)

Views

H.248 AG user view

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Default Level

2: Configuration level

Usage Guidelines

This command configures the output gain of a DSP chip.

Example

#Specify the output gain of a DSP chip to +10 dB.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser 1/0/0
[Huawei-voice-h248aguser-1/0/0] dsp-output-gain 20
```

16.7.2.16 dsp-template

Function

The **dsp-template** command configures the DSP parameter template name.

The **undo dsp-template** command deletes the DSP parameter template name.

Format

dsp-template *dsp-template-name*

undo dsp-template

Parameters

Parameter	Description	Value
dsp-template-name	Specifies the DSP parameter template name. You can set the work mode parameter to **FAX** or **MODEM** for a DSP parameter template only when the fax or modem negotiation mode is local switch. If you use the template in the IMS negotiation mode, the function may be unavailable.	The value is a string of 1 to 31 characters. Default value: a hyphen (-), indicating that no DSP parameter template is set.

Views

H.248 AG user view

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Default Level

2: Configuration level

Usage Guidelines

This command specifies an existing DSP parameter template to users.

Example

#Name the DSP parameter template **1**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser 1/0/0
[Huawei-voice-h248aguser-1/0/0] dsp-template 1
```

16.7.2.17 endservice

Function

The **endservice** command terminates user services.

The **undo endservice** command restores user services.

Format

endservice { **immediate** | **defer** [**maxcobtime** maxcobtime [**onexpire** [forced | cancel]]] }

undo endservice

Parameters

Parameter	Description	Value
immediate	Indicates the mode that the port immediately quits the services.	-
defer	Indicates the mode that the port delays quitting the services. When this mode is used, the port quits the services normally if the services on the port are terminated within the delay duration; otherwise, the services are processed in the corresponding way after the delay duration.	-

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Parameter	Description	Value
maxcobtime *maxcobtime*	Indicates the maximum delay duration within which the port delays quitting the services. When the mode that the port delays quitting the services is used, this parameter is used to specify the maximum duration for the system to wait for the services on the port. If the port does not quit services after this duration, the system processes the services in the corresponding way specified for the case where the delay duration times out.	Numeral type. Range: 1-1440. Unit: minute. Default value: 240.
onexpire	Indicates processing way specified for the case where the delay duration times out. • forced: The port is forced to quit the services. When the mode in which the port delays quitting the services is used, the port is forced to quit the services after the delay duration. • cancel: The operation that the port quits the services is canceled. When the mode in which the port delays quitting the services is used, the port does not quit the services after the delay duration.	Enumerated type. Options: forced and cancel. Default value: forced.

Views

H.248 AG user view

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Default Level

2: Configuration level

Usage Guidelines

This command terminates user services.

Example

Terminate services of a specified user group.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser 1/0/0
[Huawei-voice-h248aguser-1/0/0] endservice
```

16.7.2.18 force-sendfsk

Function

The **force-sendfsk** command configures the forcibly sent FSK flag.

The **undo force-sendfsk** command deletes the forcibly sent FSK flag.

Format

force-sendfsk *force-sendfsk-value*

undo force-sendfsk

Parameters

Parameter	Description	Value
force-sendfsk-value	Specifies the forcibly sent FSK flag. This parameter is optional. Set this parameter when you need to modify the forcibly sent FSK flag.	The value can be **enable** or **disable**. Default value: disable

Views

H.248 AG user view

Default Level

2: Configuration level

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Usage Guidelines

This command is used to configure the forcibly sent FSK flag of an existing PSTN user.

Example

#Enable the forcibly sent FSK flag.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser 1/0/0
[Huawei-voice-h248aguser-1/0/0] force-sendfsk enable
```

16.7.2.19 fsk-mode

Function

The **fsk-mode** command configures the FSK CLIP mode.

The **undo fsk-mode** command deletes the FSK CLIP mode.

Format

fsk-mode *fsk-mode*

undo fsk-mode

Parameters

Parameter	Description	Value
fsk-mode	Specifies the FSK CLIP mode. This parameter is optional. CCITT_V23 is a special mode for Telecom Austria.	The value can be **BELL_202**, **CCITT_V23**, or **NTT**. Default value: BELL_202

Views

H.248 AG user view

Default Level

2: Configuration level

Usage Guidelines

This command is used to configure the FSK CLIP mode of an existing PSTN user.

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Example

#Set the FSK CLIP mode to **ntt**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser 1/0/0
[Huawei-voice-h248aguser-1/0/0] fsk-mode ntt
```

16.7.2.20 fsk-time

Function

The **fsk-time** command configures the FSK delay.

The **undo fsk-time** command deletes the FSK delay.

Format

fsk-time *fsk-time-value*

undo fsk-time

Parameters

Parameter	Description	Value
fsk-time-value	Specifies the FSK delay. This parameter is optional. Set this parameter when you need to configure the FSK delay for PSTN users.	The value is an integer that ranges from 0 to 100 (0 ms to 1000 ms). Unit: 10 ms Default value: 80 (800 ms)

Views

H.248 AG user view

Default Level

2: Configuration level

Usage Guidelines

This command is used to configure the FSK delay of an existing PSTN user.

Example

#Set the FSK delay to 200 ms.

```
<Huawei> system-view
[Huawei] voice
```

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```
[Huawei-voice] h248aguser 1/0/0
[Huawei-voice-h248aguser-1/0/0] fsk-time 20
```

16.7.2.21 h248aguser

Function

The **h248aguser** command adds a H248 AG user or displays the H248 AG user view (if the user exists).

The **undo h248aguser** command deletes a H248 AG user.

By default, no H248 AG user is created.

Format

h248aguser *slotid/subcard/portid* [**agid** *agid* [**terminalid** *terminalid* **linksetno** *linksetno* **interfaceid** *interfaceid*] *]

Parameters

Parameter	Description	Value
slotid/subcard/portid	Specifies the user name in the *slot/subcard/port* format.	The value is a string of 1 to 15 characters.
agid *agid*	Specifies the ID of the interface that a user belongs to.	The value is an integer that ranges from 1 to 16777215.
terminalid *terminalid*	Specifies the terminal ID.	The value is an integer that ranges from 0 to 9999.
linksetno *linksetno*	Specifies the link set that a user belongs to. This parameter is required only for ISDN users.	The value is an integer that ranges from 0 to 15.
interfaceid *interfaceid*	Specifies the interface that a user belongs to. This parameter is required only for ISDN users.	The value is an integer that ranges from 0 to 65535.

Views

Voice view

Default Level

2: Configuration level

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Usage Guidelines

This command adds a H248 AG user or displays the H248 AG user view (if the user exists).

Example

Create a H248 AG user.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser 1/0/0 ag 0
```

16.7.2.22 line-type

Function

The **line-type** command sets the line type of PSTN users.

The **undo line-type** command deletes the line type of PSTN users.

Format

line-type *line-type*

undo line-type

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Parameters

Parameter	Description	Value
line-type	Specifies the line type of PSTN users. Set this parameter based on the actual PSTN line type. Currently, the following line types are available: • Direct Exchange Line (DEL) • Earth Calling PBX (ECPBX) • Loop Calling PBX (LCPBX) • Pay Phone (PayPhone) Device ports of DEL users are directly connected to user lines. Device ports of PBX users are connected to user lines through the PBX. Device ports of PayPhone users are connected to charging terminals.	The value can be **DEL**, **ECPBX**, **LCPBX**, or **PayPhone**. Default value: DEL

Views

H.248 AG user view

Default Level

2: Configuration level

Usage Guidelines

This command sets the line type of PSTN users.

Example

#Set the user line type to **ECPBX**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser 1/0/0
[Huawei-voice-h248aguser-1/0/0] line-type ecpbx
```

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16.7.2.23 priority

Function

Using the **priority** command, you can configure the priority for a H248 AG user.

Using the **undo priority** command, you can restore the default priority of a H248 AG user.

By default, the priority of a H248 AG user is **cat3**.

Format

priority *priority*

undo priority

Parameters

Parameter	Description	Value
priority	Specifies the user priority. This parameter is optional. Set this parameter when you need to specify the priority for a new user. The options are as follows: • cat1: category-1 user priority • cat2: category-2 user priority • cat3: normal (common user)	The value can be **cat1**, **cat2**, or **cat3**. Default value: cat3

Views

H.248 AG user view

Default Level

2: Configuration level

Usage Guidelines

You can run this command to configure the H248 AG user priority. Priorities are **cat1**, **cat2**, **cat3** in a descending order.

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Example

Set the SIP AG user priority to **cat1**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser-1/0/0
[Huawei-voice-h248aguser-1/0/0] priority cat1
```

16.7.2.24 power-dialer

Function

The **power-dialer** command configures malicious calling user detection for ISDN users.

Format

power-dialer *flag*

undo power-dialer

Parameters

Parameter	Description	Value
flag	Specifies malicious calling user detection. This parameter indicates whether malicious calling user detection is supported. The options are as follows: • enable: enables malicious calling user detection. • disable: disables malicious calling user detection.	The value can be **enable** or **disable**. Default value: enable

Views

ISDN user view

Default Level

2: Configuration level

Usage Guidelines

This command configures malicious calling user detection for ISDN users.

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Example

Enable malicious calling user detection.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser 1/0/0
[Huawei-voice-h248aguser-1/0/0] power-dialer enable
```

16.7.2.25 tas-pattern

Function

The **tas-pattern** command configures the TAS CLIP mode.

The **undo tas-pattern** command disables the TAS CLIP mode.

Format

tas-pattern [*tas-pattern-value*]

undo tas-pattern

Parameters

Parameter	Description	Value
tas-pattern-value	Specifies the TAS CLIP mode. This parameter is optional.	The value can be **NO-TAS** or **DT-AS**. Default value: NO-TAS

Views

H.248 AG user view

Default Level

2: Configuration level

Usage Guidelines

This command is used to configure the TAS CLIP mode of an existing PSTN user.

Example

#Set the TAS CLIP mode to **NO-TAS**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser 1/0/0
[Huawei-voice-h248aguser-1/0/0] tas-pattern NO-TAS
```

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16.7.2.26 telno

Function

The **telno** command configures a user's emergency standalone number.

Format

telno *telno*

undo telno

Parameters

Parameter	Description	Value
telno	Specifies the phone number.	The value is a string of 1 to 15 digits.

Views

H.248 AG user view

Default Level

2: Configuration level

Usage Guidelines

This command configures the emergency standalone number for an existing user.

Example

Set the emergency standalone number for an existing user to 123456.

```
<Huawei>system-view
[Huawei] voice
[Huawei-voice] h248aguser-1/0/0
[Huawei-voice-h248aguser-1/0/0]telno 123456
```

16.7.2.27 uni-report

Function

Using the **uni-report** command, you can enable or disable the function that reports user network interface (UNI) faults.

Using the **undo uni-report** command, you can restore the default status of the UNI fault reporting function.

By default, the UNI fault reporting function is **disabled**.

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Format

uni-report *flag*

undo uni-report

Parameters

Parameter	Description	Value
flag	Specifies the flag for reporting UNI faults to ISDN PRA users. Set this parameter to enable or disable the function of reporting UNI faults to ISDN PRA users.	The value can be **enable** or **disable**. Default value: disable

Views

H.248 AG view

Default Level

2: Configuration level

Usage Guidelines

Set this parameter to enable or disable the function of reporting UNI faults to ISDN PRA users.

Example

Enable the UNI fault reporting function.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser-1/0/0
[Huawei-voice-h248aguser-1/0/0]uni-report enable
```

16.7.2.28 vqe-agc

Function

The **vqe-agc** command configures the VQE automatic gain flag.

The **undo vqe-agc** command deletes the VQE automatic gain flag.

Format

vqe-agc [*vqe-agc*]

undo vqe-agc

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Parameters

Parameter	Description	Value
vqe-agc	Specifies the VQE automatic gain flag. This parameter is optional. Set this parameter when you need to modify the VQE automatic gain flag.	The value can be **enable** or **disable**. Default value: disable

Views

H.248 AG user view

Default Level

2: Configuration level

Usage Guidelines

This command is used to configure the VQE automatic gain flag of an existing PSTN user.

Example

#Enable the VQE automatic gain flag.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser 1/0/0
[Huawei-voice-h248aguser-1/0/0] vqe-agc enable
```

16.7.2.29 vqe-agc-level

Function

The **vqe-agc-level** command configures the target value for VQE automatic gain.

The **undo vqe-agc-level** command deletes the target value for VQE automatic gain.

Format

vqe-agc-level [*levelvalue*]

undo vqe-agc-level

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Parameters

Parameter	Description	Value
levelvalue	Specifies the target value for VQE automatic gain. This parameter is optional. Set this parameter when you need to modify the target value for VQE automatic gain.	The value is an integer that ranges from 0 to 15 (-9 dBm0 to -24 dBm0). Default value: 13 (-22 dBm0)

Views

H.248 AG user view

Default Level

2: Configuration level

Usage Guidelines

This command is used to configure the target value for VQE automatic gain of an existing PSTN user.

Example

#Set the target value for VQE automatic gain to -19 dBm0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser 1/0/0
[Huawei-voice-h248aguser-1/0/0] vqe-agc-level 10
```

16.7.2.30 vqe-sns

Function

The **vqe-sns** command configures the VQE noise suppression flag.

The **undo vqe-sns** command deletes the VQE noise suppression flag.

Format

vqe-sns [*vqe-sns*]

undo vqe-sns

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Parameters

Parameter	Description	Value
vqe-sns	Specifies the VQE noise suppression flag. This parameter is optional. Set this parameter when you need to modify the VQE noise suppression flag.	The value can be **enable** or **disable**. Default value: disable

Views

H.248 AG user view

Default Level

2: Configuration level

Usage Guidelines

This command is used to configure the VQE noise suppression flag of an existing PSTN user.

Example

#Enable the VQE noise suppression flag.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser 1/0/0
[Huawei-voice-h248aguser-1/0/0] vuq-sns enable
```

16.7.2.31 vqe-sns-level

Function

The **vqe-sns-level** command configures the VQE noise suppression value.

The **undo vqe-sns-level** command deletes the VQE noise suppression value.

Format

vqe-sns-level [*levelvalue*]

undo vqe-sns-level

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Parameters

Parameter	Description	Value
levelvalue	Specifies the VQE noise suppression value. This parameter is optional. Set this parameter when you need to modify the VQE noise suppression value.	The value is an integer that ranges from 6 to 20. Unit: dB Default value: 12

Views

H.248 AG user view

Default Level

2: Configuration level

Usage Guidelines

This command is used to configure the VQE noise suppression value of an existing PSTN user.

Example

#Set the VQE noise suppression value to 10 dB.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248aguser 1/0/0
[Huawei-voice-h248aguser-1/0/0] vqe-sns-level 10
```

16.7.3 H.248 AG Common Commands

Description

This topic describes H.248 AG common configuration commands.

16.7.3.1 display voice fax-modem

Function

The **display voice fax-modem** command displays settings of fax, modem, and public parameters.

Format

display voice fax-modem

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Parameters

None

Views

All views

Default Level

2: Configuration level

Usage Guidelines

This command displays settings of fax, modem, and public parameters.

Example

Display the settings of fax, modem, and public parameters.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] display voice fax-modem
  ------------------------------------------------------------------------------
  FAX transfers mode                  : throughly
  T38 Fax Port                        : RTP port
  FAX flow                            : V5 Flow
  ------------------------------------------------------------------------------
  MODEM transfers mode                : -
  MODEM event mode                    : Direct
  ------------------------------------------------------------------------------
  Negomode                            : Negotiation
  Packet-interval-10ms                : Disable
  Rfc2198-start-mode                  : Disable Rfc2198SmartStartup
  TransEvent                          : ControlledByMGC
  Vbd-codec                           : G.711A
  Vbd-payload-type                    : Static
  ------------------------------------------------------------------------------
```

Table 16-151 Description of the **display voice fax-modem** command output

Item	Description
FAX transfers mode	Fax codec mode. The options are as follows: • throughly: transparent mode. • T.38: T.38 mode.
T38 Fax Port	T.38 fax port. The options are as follows: • RTP port: voice port number. • RTP port+2: voice port number + 2.
FAX flow	Fax negotiation process. The options are as follows: • V2 Flow: V2 process (self negotiation process). • V3 Flow: V3 process. • V5 Flow: V5 process.

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Item	Description
MODEM transfers mode	Modem transfer mode. The options are as follows: ● throughly: transparent mode. ● Relay: relay mode.
MODEM event mode	Mode for reporting modem events. The options are as follows: ● Delay: buffer reporting mode. ● Direct: direct reporting mode. ● Direct for high-speed signals: high-speed signal immediate reporting mode.
Negomode	Codec negotiation mode. Codec negotiation modes include local switch and negotiation modes. In the negotiation mode, the MG uses signaling to negotiate the codec with the MGC. The local switch does not have this process. The value can be **selfswitch** or **negotiation**. ● selfswitch: local switch mode. ● negotiation: negotiation mode. Default value: negotiation
Packet-interval-10ms	Flag for enabling the 10 ms packing function. The 10 ms packing function improves the stability of the fax and modem services but occupies more bandwidth resources. The value can be **enable** or **disable**. ● enable: The 10 ms packing function is enabled. ● disable: The 10 ms packing function is disabled. Default value: disable

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Item	Description
Rfc2198-start-mode	Flag for enabling the RFC 2198 smart start function. The RFC 2198 smart start function ensures that RFC 2198 redundant transmission automatically starts when packet loss occurs. RFC 2198 improves message reliability by sending redundant packets and ensures the service quality when the network quality is poor. To use this function, both the sending and receiving parties must enable this function; otherwise, faxes cannot be sent or received properly. When connecting the device to devices from other vendors, you must ensure that the RFC 2198 parameters are consistent on both ends. The value can be **DisableRfc2198SmartStartup**, **EnableRfc2198SmartStartup**, or **ImmediatelyStartupRFC2198**. ● DisableRfc2198SmartStartup: The RFC 2198 smart start function is disabled. ● EnableRfc2198SmartStartup: The RFC 2198 smart start function is enabled. When packet loss occurs, the system automatically starts RFC 2198 redundant transmission. ● ImmediatelyStartupRFC2198: The system immediately starts RFC 2198 redundant transmission. Default value: DisableRfc2198SmartStartup
TransEvent	Mode for sending fax or modem events. This parameter is optional. Set this parameter when you need to set the mode for sending fax or modem events. The value can be **ControlledByMGC** or **RFC2833**. ● ControlledByMGC: softswitch control mode. By default, transparent transmission is used. ● RFC2833: RFC 2833 transmission mode (self control). Default value: ControlledByMGC
Vbd-codec	VBD codec mode. This parameter is optional. Set this parameter when you need to set the VBD codec mode. The value can be **G.711A** or **G.711U**. Default value: G.711A

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Item	Description
Vbd-payload-type	VBD payload type. This parameter is optional. Set this parameter when you need to set the VBD payload type. The value can be **static** or **dynamic**. • static: static payload. • dynamic: dynamic payload. Default value: static

Related Topics

16.7.3.6 fax-modem common
16.7.3.7 fax-modem fax
16.7.3.8 fax-modem modem

16.7.3.2 display voice media-bandwidth-control

Function

Using the **display voice media-bandwidth-control** command, you can view the call restriction configuration when the uplink bandwidth is insufficient.

Format

display voice media-bandwidth-control

Parameters

None

Views

All views

Default Level

3: Management level

Usage Guidelines

You can run the **display voice media-bandwidth-control** command only after the **media-bandwidth-control enable** command is executed to enable the call restriction function when the uplink bandwidth is insufficient.

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Example

Display the call restriction configuration when the uplink bandwidth is insufficient.

```
<Huawei> display voice media-bandwidth-control
 Upward bandwidth                        : disable
 The maximum upward bandwidth            : 100000 kbit/s
 The reserved bandwidth for emergency call : 1000 kbit/s
 The used normal bandwidth               : 0 kbit/s
 The used bandwidth for emergency call   : 0 kbit/s
```

Table 16-152 Description of the display voice upward-bandwidth command output

Item	Description
Upward bandwidth	Whether call restriction is enabled when the uplink bandwidth is insufficient. • enable: call restriction is enabled when the uplink bandwidth is insufficient. • disable: call restriction is disabled when the uplink bandwidth is insufficient.
The maximum upward bandwidth	Maximum uplink bandwidth.
The reserved bandwidth for emergency call	Reserved bandwidth for emergency calls.
The used normal bandwidth	Used bandwidth.
The used bandwidth for emergency call	Used bandwidth for emergency calls.

16.7.3.3 display voice rfc2198

Function

The **display voice rfc2198** command displays the upper limit of the packet loss rate and the number of RFC 2198 redundant packets at each of the four stages.

Format

display voice rfc2198 smart-parameters

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Parameters

Parameter	Description	Value
smart-parameters	Displays the upper limit of the packet loss rate and the number of RFC 2198 redundant packets at each of the four stages.	-

Views

All views

Default Level

2: Configuration level

Usage Guidelines

This command displays the upper limit of the packet loss rate and the number of RFC 2198 redundant packets at each of the four stages.

Example

Display the upper limit of the packet loss rate and the number of RFC 2198 redundant packets at each stage.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] display voice rfc2198 smart-parameters
  ------------------------------------------------------------------------------
  Section                    : first
  Up-threshold                  : 20
  Redundant-num                    : 3
  ------------------------------------------------------------------------------
  Section                    : second
  Up-threshold                  : 30
  Redundant-num                    : 1
  ------------------------------------------------------------------------------
  Section                    : third
  Up-threshold                  : 50
  Redundant-num                    : 2
  ------------------------------------------------------------------------------
  Section                    : fourth
  Up-threshold                  : 1000
  Redundant-num                    : 3
  ------------------------------------------------------------------------------
```

Table 16-153 Description of the **display voice rfc2198 smart-parameters** command output

Parameter	Description
Section	Stage.

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Parameter	Description
Up-threshold	Upper limit of the packet loss rate.
Redundant-num	Number of redundant packets.

16.7.3.4 display voice tid-template

Function

The **display voice tid-template** command displays basic information about one or all TID templates.

Format

display voice tid-template [*index*]

Parameters

Parameter	Description	Value
index	Specifies the index of a TID template. If this parameter is not set, basic information about all TID templates is displayed.	The value is an integer that ranges from 0 to 63.

Views

All views

Default Level

2: Configuration level

Usage Guidelines

This command displays basic information about one or all TID templates.

Example

Display basic information about TID template 1.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] display voice tid-template 1
  Index      : 1
  Format     : %u
  Para-list  : R+100000001
  Name       : Rtp_No_Delamination
```

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Parameter	Description
Index	TID template index.
Format	TID template format.
Para-list	Parameter list.
Name	TID template name.

Related Topics

16.7.3.19 tid-template
16.7.3.20 tid-template-modify

16.7.3.5 h248ag

Function

The **h248ag** command creates a H248 AG interface and displays the H248 AG interface view.

The **undo h248ag** command deletes a H248 AG interface.

By default, no H248 AG interface is created.

Format

h248ag *mg-id*

undo h248ag *mg-id*

Parameters

Parameter	Description	Value
mg-id	Specifies the interface ID of a H248 AG.	The value is an integer that ranges from 0 to 16777215.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

When a H248 AG is required to communicate with the remote device, use the **h248ag** command to create a H248 AG interface. If the specified H248 AG

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interface exists, the H248 AG interface view is displayed. After creating a H248 AG interface, you can configure attributes, control points, and protocol stack parameters for the H248 AG interface. When deleting a H248 AG interface, pay attention to the following points:

- Before deleting a H248 AG interface, delete all the user number configured on the H248 AG interface.
- Before deleting a H248 AG interface, disable H248 AG interface.
- When a H248 AG interface is deleted, configurations of the H248 AG interface including ring mappings and control points are deleted.

Example

Create H248 AG 1.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] h248ag 1
[Huawei-voice-h248ag-1]
```

Related Topics

16.7.1.7 display voice h248ag

16.7.3.6 fax-modem common

Function

The **fax-modem common** command sets public parameters for an MG. If the MG supports fax and modem services, you must run this command to the set public fax and modem parameters. After the parameters are set, the fax machine and modem work in the specified mode.

Format

fax-modem common { **negomode** *negomode-value* | **packet-interval-10ms** *packet-interval-10ms-value* | **transevent** *transevent-value* | **vbd-codec** *vbd-codec-value* | **vbd-pt-type** *vbd-pt-type-value* | rfc2198-start-mode rfc2198-start-mode }

undo fax-modem common { **negomode** | **packet-interval-10ms** | **transevent** | **vbd-codec** | **vbd-pt-type** | rfc2198-start-mode }

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Parameters

Parameter	Description	Value
negomode-value	Specifies the codec negotiation mode. Codec negotiation modes include local switch and negotiation modes. In the negotiation mode, the MG uses signaling to negotiate the codec with the MGC. The local switch mode does not have this process.	The value can be **selfswitch** or **negotiation**. • selfswitch: local switch mode. • negotiation: negotiation mode. Default value: negotiation
packet-interval-10ms-value	Specifies the flag for enabling the 10 ms packing function. The 10 ms packing function improves the stability of the fax and modem services but occupies more bandwidth resources.	The value can be **enable** or **disable**. • enable: enables the 10 ms packing function. • disable: disables the 10 ms packing function. Default value: disable
transevent-value	Specifies the mode for sending fax or modem events. This parameter is optional. Set this parameter when you need to set the mode for sending fax or modem events.	The value can be **ControlledByMGC** or **RFC2833**. • ControlledByMGC: softswitch control mode. By default, transparent transmission. • RFC2833: the RFC 2833 transmission mode (self control). Default value: ControlledByMGC
vbd-codec-value	Specifies the VBD codec mode. This parameter is optional. Set this parameter when you need to set the VBD codec mode.	The value can be **G.711A** or **G.711U**. Default value: G.711A
vbd-pt-type-value	Specifies the VBD payload type. This parameter is optional. Set this parameter when you need to set the VBD payload type.	The value can be **static** or **dynamic**. • static: static payload. • dynamic: dynamic payload. Default value: static

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Parameter	Description	Value
rfc2198-start-mode	Indicates the flag of enabling the RFC2198 intelligent enabling function. The RFC2198 intelligent enabling function ensures that the RFC2198 redundancy transmission is enabled automatically when the packet loss occurs in the network. RFC2198 defines redundant transmission, which is used to improve the reliability of data transmission and to ensure service quality in the case of poor network conditions. Redundant transmission must be enabled on both the receiver and transmitter. Otherwise, the fax service is abnormal. Ensure that RFC2198 parameters are consistent when the modem is interconnected with devices from another manufacturer.	Enumerated type. Options: DisableRfc2198SmartStartup, EnableRfc2198SmartStartup, and ImmediatelyStartupRFC2198. • DisableRfc2198SmartStartup: The RFC2198 intelligent enabling function is disabled. • EnableRfc2198SmartStartup: The RFC2198 intelligent enabling function is enabled (When the packet loss occurs in the network, the RFC2198 redundancy transmission is enabled automatically.) • ImmediatelyStartupRFC2198: The RFC2198 intelligent enabling function is immediately enabled. Default value: DisableRfc2198SmartStartup.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

Run this command when you need to configure the fax and modem functions for the MG.

Example

Configure the fax codec negotiation mode to **selfswitch**.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]fax-modem common negomode selfswitch
```

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Related Topics

16.7.3.8 fax-modem modem

16.7.3.7 fax-modem fax

16.7.3.7 fax-modem fax

Function

The **fax-modem common** command sets fax parameters. If the MG supports the fax service, you must run this command to the set fax parameters. After the parameters are set, the fax machine works in the specified mode.

Format

fax-modem fax { **is-port+2** *portvalue* | **transmission-mode** *mode* | **flow** *flowvalue* }

undo fax-modem fax { **is-port+2** | **transmission-mode** | **flow** }

Parameters

Parameter	Description	Value
portvalue	Specifies the T.38 fax port. Set this parameter when the fax transmission mode is set to self negotiation T.38. The value must be the same as the T.38 fax port configured on the peer MG.	The value is an integer that ranges from 0 to 1. • 0: voice port number. • 1: voice port number + 2. Default value: 0
mode	Specifies the fax codec mode. Fax codec modes include transparent and T.38 mode. The fax transmission mode is based on two aspects: codec mode (transparent or T.38) and MGC involvement. This parameter determines the codec mode. If the codec is G.711, the transparent mode is used. T.38 is a dedicated fax codec mode. The **flowvalue** parameter determines the MGC involvement.	The value can be **throughly** or **T.38**. • throughly: transparent mode. • T.38: T.38 mode. Default value: throughly

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Parameter	Description	Value
flowvalue	Specifies the fax negotiation process. The fax transmission mode is based on two aspects: codec mode (transparent or T.38) and MGC involvement. This parameter determines the MGC involvement. The **mode** parameter determines the codec mode.	The value can be **v2**, **v3**, or **v5**. • v2: V2 process (self negotiation process). • v3: V3 process. • v5: V5 process. Default value: v3

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

If the MG supports the fax service, you must run this command to the set fax parameters.

Example

Configure the fax negotiation process to V5.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] fax-modem fax flow v5
```

Related Topics

16.7.3.6 fax-modem common

16.7.3.8 fax-modem modem

Function

The **fax-modem modem** command sets modem parameters for an MG. If the MG supports high-speed fax machines or modems, you must run this command to set modem parameters.

Format

fax-modem modem { **eventmode** *eventmode* | **tranmode** *tranmode* }

undo fax-modem modem { **eventmode** | **tranmode** }

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Parameters

Parameter	Description	Value
eventmode	Specifies the mode for reporting modem events. Modes for reporting modem events include buffer reporting, direct reporting, and high-speed signal immediate reporting modes. • Buffer reporting mode: When a modem event is received from the driver, the host does not report the modem event immediately. Instead, the host waits for the timeout duration and reports the modem event only when no fax event V21flag is reported within the duration. In this way, when high-speed transmission negotiation (modem mode to the host) fails on the high-speed fax machine, the low-speed transmission (fax mode to the host) can be used. • Direct reporting mode: When a modem event is received from the driver, the host immediately reports the modem event to the MGC. • High-speed signal immediate reporting mode: The host waits for 5.5s before reporting low-speed modem signals but immediately reports high-speed modem signals.	The value is an integer that ranges from 0 to 2. • 0: buffer reporting mode. • 1: direct reporting mode. • 2: high-speed signal immediate reporting mode. Default value: 1

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Parameter	Description	Value
tranmode	Specifies the modem transmission mode. Modem transmission modes include transparent transmission and relay modes. • Transparent transmission mode: The G.711 codec is used, and modem signals are processed as common RTP data. The transparent transmission mode depends on the bearer network. If disconnection, low access rate, or instability occurs, you are advised to check the packet loss rate, delay, and jitter counters of the bearer network. • Relay mode: also called redundancy mode. The gateway modulates modem signals, performs local error correction in most cases, and sends the modulated data to the peer gateway using a reliable transmission protocol. Currently, only the transparent transmission mode is supported.	The value is an integer that ranges from 0 to 1. • 0: transparent transmission mode. • 1: relay mode. Default value: 0

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

Run this command when the MG needs to support devices such as high-speed fax machines and modems.

Example

Configure the mode for the MG to report modem events to buffer reporting.

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```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]fax-modem modem eventmode 0
```

16.7.3.9 iua-link

Function

The **iua-link** command adds an IUA link or displays the IUA link view.

The **undo iualink** *linkno* command deletes an IUA link.

Format

iua-link *linkno linksetno localport* { *localipaddr* | **local-addr-name** *local-addr-name-value* } *remoteport remoteipaddr*1 [**remoteipaddr2** *remoteipaddr2* | **priority** *priority* | **jointly-work-with** *jointly-work-with*] *

undo iua-link *linkno*

Parameters

Parameter	Description	Value
linkno	Specifies the ID of an IUA link. This parameter is mandatory and uniquely identifies a link in an IUA link set. An IUA link set can have a maximum of two IUA links configured. The IDs of the two links must be two different values within the value range of **linkno**.	The value is an integer that ranges from 0 to 15.
linksetno	Specifies the ID of an IUA link set. This parameter is mandatory and identifies the IUA link to which you want to add an IUA link.	The value is an integer that ranges from 0 to 15.

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Parameter	Description	Value
localipaddr	Specifies the local IP address. This parameter is optional. Set this parameter when you need to use a permanent local IP address. The value must be the same as the remote IP address configured on the MGC. In the same link set, the local IP addresses of links must be the same. Local port numbers, local IP addresses, remote port numbers, and remote IP addresses for different links cannot be all the same; otherwise, the link cannot be configured.	The value is an IP address in dotted decimal notation.
local-addr-name-value	Specifies the dynamic address name corresponding to the local IP address. This parameter is optional. Set this parameter when you need to obtain the local IP address using the dynamic address name. The dynamic address name must exist in the system.	The value is a string of 1 to 64 characters.
localport	Specifies the local port number. This parameter is mandatory and must be the same as the remote port number configured on the MGC so that the link can be activated properly. Local port numbers, local IP addresses, remote port numbers, and remote IP addresses for different links cannot be all the same; otherwise, the link cannot be configured.	The value is an integer that ranges from 1 to 65534.

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Parameter	Description	Value
remoteipaddr	Specifies the primary remote IP address. This parameter is mandatory and must be the same as the local IP address configured on the MGC. Local port numbers, local IP addresses, remote port numbers, and remote IP addresses for different links cannot be all the same; otherwise, the link cannot be configured. SCTP supports multihoming and can use multiple IP address to transmit data. This parameter configures the primary IP address.	The value is an IP address in dotted decimal notation.
remoteport	Specifies the remote port number. This parameter is mandatory and must be the same as the local port number configured on the MGC so that the link can be activated properly. Local port numbers, local IP addresses, remote port numbers, and remote IP addresses for different links cannot be all the same; otherwise, the link cannot be configured.	The value is an integer that ranges from 1 to 65534.
remoteipaddr2	Specifies the secondary remote IP address. This parameter is optional. Set this parameters when you need to configure the secondary remote IP address for the new IUA link. During the establishment of a connection, the primary path (primary IP address) is used first, and the secondary IP address is used only when the primary path is unreachable or retransmission is required.	The value is an IP address in dotted decimal notation.

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Parameter	Description	Value
priority	Specifies the priority of an IUA link. This parameter is optional and is valid when the IUA link set works in load balancing mode. In load balancing mode, the system selects current link based on the link priority and balances load among links with the same priority. The system select links with a lower priority only when all links with a higher priority are faulty. When links with a higher priority recover, the system switches services back to these links.	The value is an integer that ranges from 0 to 15. (A smaller value means a higher priority.) Default value: 0
jointly-work-with	Specifies the MGC bound to an IUA link, that is, specifies the MGC that the link jointly works with. This parameter is available only when the system protocol is H.248.	The value can be **primary-mgc** or **secondary-mgc**. • primary-mgc: jointly works with the primary MGC. • secondary-mgc: jointly works with the secondary MGC.

Views

SIGTRAN view

Default Level

2: Configuration level

Usage Guidelines

When you need to configure the system to support the communication between ISDN users and configure the link for ISDN users, run this command. After the link is configured, you can add the matched IUA link on the MGC, and then the link can be activated.

When you add links in an IUA link set, pay attention to the following points:

- Before adding a link, run the **iua-linkset add** command to add the matched link set. Otherwise, the link set to which the link belongs might not be used.
- For the local port number, local IP address, remote port number and remote IP address, ensure that at least one of them has different numbers among different links.

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- Only 2 links can be configured in the same link set.
- The local IP addresses of two links that belong to the same link set must be the same.

Example

Add an IUA link. Set the link ID to 0, link set ID to 9, local port number to 6666, local IP address to 192.168.1.209, remote port number to 6666, and remote IP address 1 to 10.10.10.1, and use default values for the other parameters.

```
<huawei> system
[huawei] voice
[huawei-voice] sigtran
[huawei-voice-sigtran] iua-link 0 0 6666 192.168.1.209 6666 10.10.10.1 priority 0
```

Related Topics

16.7.2.12 display voice iua-link

16.7.3.10 iua-link clear sctp association statistics

Function

The **iua-link clear sctp association statistics** command clears SCTP association statistics on an IUA link.

Format

iua-link clear sctp association statistics *linkno*

Parameters

Parameter	Description	Value
linkno	Specifies the ID of an IUA link. This parameter is mandatory and identifies the IUA link on which you want to clear SCTP association statistics.	The value is an integer that ranges from 1 to 15.

Views

SIGTRAN view

Default Level

2: Configuration level

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Usage Guidelines

This command is used to clear the statistics of the Stream Control Transport Protocol (SCTP) association on an IUA link. An association refers to the logical relation (channel) for data transmission that is set up by two SCTP endpoints through the 4-way handshake mechanism of SCTP. When you need to clear the statistics of the SCTP association on an IUA link, run this command.

Example

Clear SCTP association statistics on IUA link 0.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sigtran
[huawei-voice-sigtran]iua-link clear sctp association statistics  0
```

16.7.3.11 iua-link clear statistics

Function

The **iua-link clear statistics** command clears statistical information about an IUA link.

Format

iua-link clear statistics *linkno*

Parameters

Parameter	Description	Value
linkno	Specifies the ID of an IUA link. This parameter is mandatory and uniquely identifies a link in an IUA link set.	The value is an integer that ranges from 1 to 15.

Views

SIGTRAN view

Default Level

2: Configuration level

Usage Guidelines

This command clears statistical information about an IUA link.

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Example

Clear statistical information about IUA link 0.

```
<huawei> system
[huawei] voice
[huawei-voice] sigtran
[huawei-voice-sigtran] iua-link clear statistics 0
```

Related Topics

16.7.3.9 iua-link

16.7.3.12 iua-link lock

Function

The **iua-link lock** command locks an IUA link. If the link is a server link, the link is released when it is locked and the status is also locked so that the link cannot be reactivated. If the link is a client link, the link is directly released when it is locked.

The **undo iua-link lock** command unlocks an IUA link.

Format

iua-link lock *linkno*

undo iua-link lock *linkno*

Parameters

Parameter	Description	Value
linkno	Specifies the ID of an IUA link. This parameter is mandatory and identifies the IUA link that you want to lock or unlock.	The value is an integer that ranges from 1 to 15.

Views

SIGTRAN view

Default Level

2: Configuration level

Usage Guidelines

- After an IUA link is locked successfully, the link is released and link status is locked and cannot be activated again in the case of a server link, and the link is directly released in the case of a client link.

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- After an IUA link is unlocked, the locking status of the link is canceled and can be activated again in the case of a server link, and a link setup is initiated to activate the link.

Example

Lock IUA link 0.

```
<huawei> system
[huawei] voice
[huawei-voice] sigtran
[huawei-voice-sigtran] iua-link lock 0
[huawei-voice-sigtran] undo iua-link lock 0
```

Related Topics

16.7.3.9 iua-link

16.7.3.13 iua-link reset

Function

The **iua-link reset** command resets an IUA link. After SCTP protocol stack parameters for an IUA link are modified, you must run this command to reset the IUA link for the modifications to take effect. When an IUA link is reset, the link is reactivated.

Format

iua-link reset *linkno*

Parameters

Parameter	Description	Value
linkno	Specifies the ID of an IUA link. This parameter is mandatory and identifies the IUA link that you want to reset.	The value is an integer that ranges from 1 to 15.

Views

SIGTRAN view

Default Level

2: Configuration level

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Usage Guidelines

After SCTP protocol stack parameters for an IUA link are modified, you must run this command to reset the IUA link for the modifications to take effect. When an IUA link is reset, the link is reactivated.

Example

Reset IUA link 0.

```
<huawei> system
[huawei] voice
[huawei-voice] sigtran
[huawei-voice-sigtran] iua-link reset 0
  This operation may interrupt the service of the IUA link, Are you sure? (y/n)[n]:y
```

Related Topics

16.7.3.9 iua-link

16.7.3.14 iua-linkset

Function

The **iua-linkset** command adds an IUA link set.

The **undo iua-linkset linksetno** command deletes an IUA link set.

Format

iua-linkset *linksetno* [**mgid** *mgid* [**jointly-work** *jointly-work*] | **trafficmode** *trafficmode* | **pendingtime** *pendingtime* | **iid-map** *iid-map* [**braprefix** *braprefix* | **brasuffix** *brasuffix* | **praprefix** *praprefix* | **prasuffix** *prasuffix*] | **cs-mode** *cs-mode*] *

undo iua-linkset linksetno

Parameters

Parameter	Description	Value
linksetno	Specifies the ID of an IUA link set. This parameter is mandatory and uniquely identifies an IUA link set.	The value is an integer that ranges from 0 to 15.
mgid *mgid*	Specifies the MG interface ID.	The value is an integer that ranges from 0 to 16777215.

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Parameter	Description	Value
jointly-work *jointly-work*	Specifies whether links in a link set support switchover.	The value can be **enable** or **disable**. • enable: support. • disable: not support. Default value: disable
trafficmode *trafficmode*	Specifies the work mode of a link set. This parameter is optional. Set this parameter when you need to configure the work mode for the new link set. A link set can work in the primary/secondary mode (**override**) or load balancing mode (**loadshare**). A link set may contain multiple links. In the primary/standby mode, one link is the primary link and other links are secondary links. In the load balancing mode, all links bear load.	The value can be **override** or **loadshare**. Default value: override
pendingtime *pendingtime*	Specifies the pending duration. This parameter is optional. Set this parameter when you need to configure the pending duration for the new link set. When the status of a link set changes, the system first changes the link state to Pending to prevent jitter, starts timing, and changes the link set to the final state when the pending duration ends.	-

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Parameter	Description	Value
iid-map *iid-map*	Specifies the interface ID (IID) generation mode. This parameter is optional. Set this parameter when the default IID generation mode cannot meet the requirements.	The value is an integer that ranges from 1 to 5. ● 1: The IID is configured by a user. ● 2: The system uses an automatically generated decimal value in the *ffsspp* format as the IID. In the preceding format, *ff* indicates the subrack ID, *ss* indicates the slot ID, and *pp* indicates the port number. ● 3: The system uses an automatically generated binary value in the *rrrrrfffffsssssppppppxxxxxxxxxx* format as the IID. In the preceding format, *rrrrr* indicates the shelf ID (automatically recognized by the system), *fffff* indicates the subrack ID, *sssss* indicates the slot ID, *ppppppp* indicates the port number, and *xxxxxxxxxx* is not used (system fixed value). ● 4: The system uses an automatically generated string in the *prefix* + *ff/ss/pp* format as the IID. In the preceding format, *ff* indicates the subrack ID, *ss* indicates the slot ID, and *pp* indicates the port number. ● 5: The system uses an automatically generated string in the *prefix* + *interfaceID* + *suffix* format as the IID. In the preceding format, *prefix* indicates the prefix, *interfaceID* indicates the IID entered by a user, and *suffix* indicates the suffix. Default value: 1
braprefix *braprefix*	Specifies the BRA IID prefix. This parameter is optional. When **iid-map** is set to 4, the IID is in the *prefix* + *ff/ss/pp* format. When **iid-map** is set to 5, the IID is in the *prefix* + *interfaceID* + *suffix* format.	The value is a string of 1 to 20 characters. Default value: a hyphen (-)

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Parameter	Description	Value
brasuffix *brasuffix*	Specifies the BRA IID suffix. This parameter is optional. When **iid-map** is set to 5, the IID is in the *prefix* + *interfaceID* + *suffix* format.	The value is a string of 1 to 20 characters. Default value: a hyphen (-)
praprefix *praprefix*	Specifies the PRA IID prefix. This parameter is optional. When **iid-map** is set to 4, the IID is in the *prefix* + *ff/ss/pp* format. When **iid-map** is set to 5, the IID is in the *prefix* + *interfaceID* + *suffix* format.	The value is a string of 1 to 20 characters. Default value: a hyphen (-)
prasuffix *prasuffix*	Specifies the PRA IID suffix. This parameter is optional. When **iid-map** is set to 5, the IID is in the *prefix* + *interfaceID* + *suffix* format.	The value is a string of 1 to 20 characters. Default value: a hyphen (-)
cs-mode *cs-mode*	Specifies the server environment for an IUA link set. This parameter is optional. Set this parameter when the default configuration cannot meet the requirements.	The value can be **server** or **client**. • server: The link set is configured on the server. • client: The link set is configured on the client. Default value: server

Views

SIGTRAN view

Default Level

2: Configuration level

Usage Guidelines

When you need to add an ISDN user and configure link set for the user, run this command. After the link set is successfully added, the user can be added.

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Example

Add an IUA link set. Set the link set ID to 0 and MG interface ID to 0, enable link switchover, and set the working mode to primary/secondary mode, pending duration to 100s, and IID generation mode to user input.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sigtran
[Huawei-voice-sigtran] iua-linkset 0 mgid 0 jointly-work enable trafficmode override pendingtime 100 iid-map 1
```

Related Topics

16.7.2.13 display voice iua-linkset

16.7.3.15 iua-linkset-pendingtime

Function

The **iua-linkset-pendingtime** command changes the pending duration of an IUA link set.

Format

iua-linkset-pendingtime *linksetno* **pendingtime** *timevalue*

undo iua-linkset-pendingtime *linksetno*

Parameters

Parameter	Description	Value
linksetno	Specifies the ID of an IUA link set. This parameter is mandatory.	The value is an integer that ranges from 0 to 15.
timevalue	This parameter is mandatory. When the status of a link set changes, the system first changes the link state to Pending to prevent jitter, starts timing, and changes the link set to the final state when the pending duration ends.	The value is an integer that ranges from 1 to 100. Unit: s

Views

SIGTRAN view

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Default Level

2: Configuration level

Usage Guidelines

The configuration of the pending duration for a link set helps prevent jitter caused by link set status change.

Example

Set the pending duration of IUA link set 0 to 50s.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] sigtran
[huawei-voice-sigtran] iua-linkset-pendingtime 0 pendingtime 50
```

Related Topics

16.7.3.14 iua-linkset

16.7.3.16 local-digitmap

Function

The **local-digitmap** command adds a local preset digit map or adds the local preset digit map body for a local preset digit map. When you need to add a local preset digit map for matching phone numbers based on the digit map, run this command.

Format

local-digitmap *name* {*bodyvalue* | **append** *bodyvalue* }

undo local-digitmap *name* [*bodyvalue*]

Parameters

Parameter	Description	Value
name	Specifies the name of a digit map. This parameter is mandatory.	The value is a string of 1 to 32 characters. The first character must be a letter, and subsequent characters must be digits, letters, or underscores.

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Parameter	Description	Value
Bodyvalue	Specifies the digit map body, that is, the digit map match scheme. This parameter is optional.	The value is a string of 1 to 256 characters. The digit map body can contain one or more sub-schemes. Each sub-scheme cannot exceed 180 characters.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

A H248 AG digitmap contains one or more bodies. Each body contains no more than 256 bytes.

A digitmap defines dialup rules. Calls can be initiated only when numbers match the rules. By default, all calling numbers are allowed.

A body can contain the following characters: digits 0 to 9, dot (.), vertical bar (|), square brackets [ ], hyphen (-), parentheses ( ), letters A to K and X, and letters T, S, L, Z (case-sensitive). A body complies with the following rules:

- Parentheses ( ) and square brackets [ ] must be used in pairs, and ( ) cannot be placed in the middle of the body.
- X, |, or . cannot be included in square brackets.
- A hyphen (-) is placed between two numbers, indicating a value range. The number behind the hyphen must be greater than the number before the hyphen. The value range must be included in square brackets.
- L, S, T, or Z cannot be followed by a dot.
- A body cannot start with L, S, T, Z, or a dot.

Example

Configure a digitmap for a H248 AG, which allows only 8-digit numbers starting with 8888.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] local-digitmap huawei type normal 8888xxxx
```

Related Topics

16.6.1.10 display voice local-digitmap

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16.7.3.17 rfc2198 smart-parameters

Function

The **rfc2198 smart-parameters** command configures the upper limit of the packet loss rate and the number of RFC 2198 redundant packets at each of the four stages.

The **undo rfc2198 smart-parameters** command disables the RFC 2198 packet loss settings.

Format

rfc2198 smart-parameters *section-value* { **up-threshold** *up-threshold-value* | **redundant-num** *redundant-num-value* }*

undo rfc2198 smart-parameters *section-value* { **up-threshold** | **redundant-num** }*

Parameters

Parameter	Description	Value
section-value	Specifies the redundant packet stage based on the packet loss rate.	The value can be **first**, **second**, **third**, or **fourth**. • first: stage 1. • second: stage 2. • third: stage 3. • fourth: stage 4.
up-threshold-value	Specifies the upper limit of the packet loss rate at each stage. Set this parameter to specify the upper limit of the packet loss rate during RFC 2198 intelligent startup. The parameter value is expressed in permillage and must be greater than the upper limit of the packet loss rate specified in the previous stage.	The value is an integer that ranges from 0 to 1000. Default value: first-5; second-30; third-50; fourth-1000
redundant-num-value	Specifies the number of RFC 2198 redundant packets at each stage.	The value is an integer that ranges from 0 to 3. Default value: first-0; second-1; third-2; fourth-3

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Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

The upper threshold of the packet loss rate in one section must be greater than that in the previous section and smaller than that in the next section. The packet loss rate in section four must be configured to 1000.

Example

Set the number of RFC 2198 redundant packets to 3 at the first stage and upper limit of the packet loss rate to 20.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice]rfc2198 smart-parameters first redundant-num 3 up-threshold 20
```

16.7.3.18 sigtran

Function

The **sigtran** command switches from the voice view to the SIGTRAN view.

Format

sigtran

Parameters

None

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

Switch from the voice view to the SIGTRAN view.

Example

Switch from the voice view to the SIGTRAN view.

```
<huawei> system-view
[huawei] voice
```

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```
[huawei-voice] sigtran
[huawei-voice-sigtran]
```

16.7.3.19 tid-template

Function

The **tid-template** command adds a user-defined TID template.

The **undo tid-template** command deletes a TID template.

Format

tid-template *templateid* **format** *formatstring* **parameter-list** *string* **name** *namestring*

undo tid-template

Parameters

Parameter	Description	Value
templateid	Specifies the template index that uniquely identifies a TID template.	The value is an integer that ranges from 32 to 63.
format *formatstring*	Specifies the format string that defines the format of strings generated from the parameter list.	The value is a string of 2 to 64 characters.
parameter-list *string*	Specifies the parameter list that defines parameters to be converted to strings. The number of parameters must be the same as that defined in the format string.	The value is a string of 1 to 64 characters.
name *namestring*	Specifies the unique template name.	The value is a string of 1 to 32 characters.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

- The index and name of an added profile must be different from that of any profile existing in the system.

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- There are 19 default TID profiles (profiles 0-18) in the system. The default TID profiles can be referenced but cannot be added, modified or deleted.
- The format character string and the parameter list must comply with the following format rules:
  - A security character string is a character string used for separating data formats, and can consist of letters, "/" and "_".
  - A format character string contains one or more data formats, and the security character string between data formats. (A format character string can contain no security character string.).
  - The data format is divided into fixed length data format and non-fixed length data format. The fixed length data format is %u and the non-fixed length data format is %0Xu. The X is an integer between 1 and 10 and indicates the length of a figure. If a figure is shorter than x, 0s are added in front of the figure.
  - There must be a security character between two non-fixed length data formats or when a non-fixed length data format is in front of a fixed length data format. For example, %02u%u is valid while %u%02u is invalid, because a security character string must be added between %u and %02.
  - A parameter list consists of one or more parameters, which are separated by ",".
  - The format of a parameter: parameter = "keyword" or "keyword + offset".
  - Only F, S, P, B, G and R are valid keywords and the meaning that each of them indicates is shown as follows:
    - F: Frame, indicates the shelf number.
    - S: Slot, indicates the slot number.
    - P: Port, indicates the port number.
    - B: B Channel, indicates the B channel number.
    - G: indicates the general permanent termination index.
    - R: indicates the RTP ephemeral termination index.
  - In a parameter list, the keyword cannot occur repeatedly, and the offset is an integer between 1 and 0X40000000.
  - The format character string and the parameter list must match each other, that is, the number of the data formats in the format character string must be the same as that of the parameters in the parameter list. If a parameter maps a format character string in a fixed length, the offset of the parameter cannot exceed the length defined by the format character string. For example, data format %02u that parameter G+100 maps is invalid because parameter G+100 contains at least three figures.
  - The mapping between the terminal type and the keyword is shown as follows:

Terminal Type	Keyword of the Matched Parameter List
RTP	Contains and contains only R.

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Terminal Type	Keyword of the Matched Parameter List
PSTN	Contains only G when the terminal identifier is not layered.
PSTN	Contains and contains only F, S and P when the terminal identifier is layered.
BRA	Contains only G or G, B when the terminal identifier is not layered.
BRA	Contains and contains only F, S, P and B when the terminal identifier is layered.
PRA	Contains only G or G, B when the terminal identifier is not layered.
PRA	Contains and contains only F, S, P and B when the terminal identifier is layered.
R2	Contains only G or G, B when the terminal identifier is not layered.
R2	Contains and contains only F, S, P and B when the terminal identifier is layered.

Example

Add TID template 36.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] tid-template 36 format %u/%u/%u parameter-list F+1,S+1,P+1 name SelfDesign
```

16.7.3.20 tid-template-modify

Function

The **tid-template-modify** command modifies a user-defined TID template.

Format

tid-template-modify *templateid* { **format** *formatstring* **parameter-list** *string* **name** *namestring* } *

Parameters

Parameter	Description	Value
templateid	Specifies the template index that uniquely identifies a TID template.	The value is an integer that ranges from 32 to 63.

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Parameter	Description	Value
formatstring	Specifies the format string that defines the format of strings generated from the parameter list.	The value is a string of 2 to 64 characters.
string	Specifies the parameter list that defines parameters to be converted to strings. The number of parameters must be the same as that defined in the format string.	The value is a string of 1 to 64 characters.
namestring	Specifies the unique template name.	The value is a string of 1 to 32 characters.

Views

Voice view

Default Level

2: Configuration level

Usage Guidelines

This command modifies a user-defined TID template.

Example

Modify TID template 36.

```
<Huawei> system-view
[Huawei] voice
[Huawei-voice] tid-template-modify 36 format %u/%u/%u parameter-list F+1,S+1,P+1 name
SelfDesign
```

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