

IP Voice Configure Command

Table of Content

Chapter 1 Dial-peer Command	1
1.1 Dial-peer Command.....	1
Chapter 2 voice-port command.....	13
2.1 voice-port command.....	13
2.2 HDV controller configuration command.....	32
2.3 IVR configuration command.....	37
Chapter 3 cptone cofiguration command.....	52
3.1 cptone cofiguration command.....	52
Chapter 4 Gateway-cfg Cofiguration Command.....	60
4.1 Gateway-cfg Cofiguration Command.....	60
Chapter 5 Gatekeeper-cfg Configuration Command.....	65
5.2 show command.....	71
Chapter 6 VoIP Management Command.....	83
6.1 debug Command.....	83
6.2 Other Commands of VoIP.....	88

Chapter 1 Dial-peer Command

1.1 Dial-peer Command

1.1.1 dial-peer voice

The global configuration command “dial-peer” can be used to access the dial-peer configuration mode.

Syntas

dial-peer voice TAG {voip|pots|ivr}

no dial-peer voice {TAG|all}

Parameter

Parameter	Description
TAG	ID (1~2147483647) of the dialpeer which user wants to create or configure.
voip	This kind of dial-peer describes VOIP connections from or to IP network
pots	This kind of dial-peer describes VOIP connections from or to traditional telecommunication network.
ivr	This kind of dial-peer describes VOIP calls thought IVR applications
all	Choosing all the existing dial-peers.

default

none

Command mode

Global Configuration Mode

Explanation

When user enters configuration command,

- (1) If the user input dialpeer ID exists and its type matches the existing dialpeer record in the dialpeer list, the user will enter dialpeer configuration mode and would be able to configure the current dialpeer.
- (2) If the user input dialpeer ID matches an existing dialpeer but the dialpeer type does not match, the user will be prompted whether he/she would like to create a new dialpeer of the user input type if the user enters ‘y’ or just cancel the operation and return to global configuration mode if he/she enters ‘n’.
- (3) If the ID does not exist in dialpeer list, a dialpeer is created and the user will enter dialpeer configuration mode.

If user enters a ‘no’ format command, and the user input ID exists in dialpeer list, this dialpeer will be deleted. Otherwise the user will be prompted that the ID does not exist

and no operation will be done. If user doesn't specify a dialpeer ID, it means to delete all existing dialpeer, then all the dialpeers will be deleted after the prompt is confirmed.

Example

The example below shows how to enter dialpeer configuration mode and configure a POTS dialpeer whose ID is 2.

```
router>enable
router#config
router_config#dial-peer voice 2 voip
router_config_dialpeer#
```

1.1.2 application

Configure IVR application name

Syntas

application *appname*

no application

Parameter

Parameter	Description
<i>appname</i>	Name of IVR mode

default

no application

Command mode

IVR dialpeer configuration mode

Explanation

none

Example

The following example shows how to configure an application for an IVR dialpeer.

```
router>enable
router#config
router_config#dial-peer voice 1 ivr
router_config_dialpeer#application app1
router_config_dialpeer#
```

1.1.3 codec

Configure voice codec type to be used when the local party involves a VOIP call with a remote party whose E.164 number is the same as the configured destination-pattern.

Syntas

codec {**g711ar64** | **g711ur64** | **g723r53** | **g723r63** | **g726r32** | **g726r40** | **g727r32** | **g727r40** | **g729r8** | **g729-compatible**}

Parameter

Parameter	Description
g711ar64	g.711 alaw 64k
g711ur64	g.711 ulaw 64k
g723r53	g.723.1 5.3k
g723r63	g.723.1 6.3k
g726r32	g.726 32k
g726r40	g.726 40k
g727r32	g.727 32k
g727r40	g.727 40/32k
g729r8	g.729 AnnexA 8k

g729-compatible g.729 AnnexA 8k (for example, it is used when it intercommunicates with cisco IOS12.04(T) and previous versions)

Default

codec g711ar64

Command mode

dial-peer Configuration Mode

Explanation

'xx' of 'Rxx' represents the bandwidth in kbits of the codec type. If user wants to obtain the highest quality, g.711 codec type should be chosen.

g.711 or g.727/g.726 codec type should be chosen for bypass mode fax transmission.

In a dialpeer, a new codec type configuration overwrites the old one.

Fax bypass codec type is always the same as the configured codec type.

Example

The example below sets the codec type of a dialpeer as g711ur64 :

```
router>enable
router#config
router_config#dial-peer voice 1 voip
router_config_dialpeer#codec g711ur64
router_config_dialpeer#
```

1.1.4 destination-pattern

Configure a E.164 like string for a dialpeer.

Syntas**destination-pattern** *str*[*t*]**no destination-pattern****Parameter**

Parameter	Description
<i>str</i>	Consists of no more than 32 symbols in (0~9 , * # .) , '.' matches one E.164 character. ',' represents a pause between the two adjacent numbers when they are dialed out.
<i>t</i>	a variable length string

default

no destination-pattern

Command mode

dial-peer configuration mode

Explanation

If a dialpeer terminator is configured under global configuration mode and t option is set in destination-pattern parameter. Then after all the digits before t are dialed, it will start to wait either a valid E.164 number input or the max destination-pattern length exceeded or a timeout. If a valid E.164 number is input, it will record the digit and wait for the next input. If the max destination-pattern exceeded, the call will be terminated, and the user will hear busy tone. If it times out, a terminator will be automatically added to the end of the string, and it will be matched against the whole dialpeer list to find a dialpeer to place a call.

Example

The example below shows how to configure destination-pattern for a dialpeer.

```

router>enable
router#config
router_config#dial-peer voice 1 voip
router_config_dialpeer#destination-pattern 121212
router_config_dialpeer#

```

1.1.5 dial-prefix

Use the dial-prefix command to specify a prefix for a specific dial peer. When an outgoing call is initiated to this dial peer, the dial-prefix PREFIX value is sent to the telephony interface first, before the telephone number associated with the dial peer. If user input is 5678, and dial-prefix is 1234, 1234 will be dialed out before 5678.

Syntas**dial-prefix** *prefix*

Parameter

Parameter	Description
<i>prefix</i>	The dial prefix less than 10 in length made up of (0~9 , # *)

default

none

Command mode

POTS dialpeer configuration mode

Explanation

To specify a prefix for a dialpeer. Valid for FXO / E&M /E1 port.

Example

The following example shows how to configure dial prefix for a dialpeer.

```
router>enable
router#config
router_config#dial-peer voice 1 pots
router_config_dialpeer#dial-prefix 12345
router_config_dialpeer#
```

1.1.6 dtmf-relay

Configure dtmf relay mode.

Syntas

dtmf-relay {[rtp] [h245-alphanumeric] [h245-signal]}

no dtmf-relay {[rtp] [h245-alphanumeric] [h245-signal]}

default dtmf-relay

Parameter

Parameter	Description
rtp	Pass DTMF digits in voice frames as usual tones.
h245-alphanumeric	Carry dtmf digits in alphanumeric IE of UserInputIndication in H245 asn packets
h245-signal	Carry dtmf digits in signal IE of UserInputIndication in H245 asn packets

default

dtmf-relay rtp

Command mode

Dial-peer configuration mode

Explanation

User can select one or more DTMF relay mode. The no form can be used to remove a mode or restore to the default mode, if no more parameters left.

Example

The example below shows how to set dtmf relay mode to rtp and h245-signal :

```
router>enable
router#config
router_config#dial-peer voice 1 voip
router_config_dialpeer#dtmf-relay rtp h245-signal
router_config_dialpeer#
```

1.1.7 fax-protocol

Specify Fax relay mode for a dialpeer.

Syntas

fax-protocol {t38|rtp}

no fax-protocol

Parameter

Parameter	Description
t38	t38 protocol mode
rtp	Rtp protocol mode

default

no fax-protocol

Command mode

Dialpeer configuration mode except IVR dialpeers.

Explanation

No fax-protocol means bypass mode

Example

The example below shows how to set fax relay mode for a dialpeer.

```
router>enable
router#config
router_config#dial-peer voice 1 voip
router_config_dialpeer#fax-protocol rtp
```

```
router_config_dialpeer#
```

1.1.8 fxo-dial-mode

Set outbound dial mode for FXO ports

Syntas

fxo-dial-mode {**once** | **twice**}

default fxo-dial-mode

Parameter

Parameter	Description
once	once mode
twice	twice mode

default

fxo-dial-mode once

Command mode

POTS dial-peer configuration mode

Explanation

when a gateway receives a call and will connect it to a FXO port, and once mode is specified, digits collected from the called party number will be dialed out at the same time; otherwise if twice mode is selected, no digits will be dialed out.

Example

The example below configures a dial-up method for a dialpeer.

```
router>enable
router#config
router_config#dial-peer voice 1 pots
router_config_dialpeer#fxo-dial-mode once
router_config_dialpeer#
```

1.1.9 port

Bind voice port to a dialpeer.

Syntas

port *slot-num/port-num*[:ds0-group]

no port {*slot-num/sub-num*[:ds0-group]}**all**}

Parameter

Parameter	Description
<i>slot-num</i>	slot index.
<i>port-num</i>	Port index.
<i>ds0-group</i>	E1 ds0-group number
all	all ports on the gateway

default

None

Command mode

POTS dial-peer configuration mode

Explanation

Bind voice port to a POTS dialpeer, multiple bind is allowed to a dialpeer.

Example

The example below shows how to bind a voice port to a dialpeer.

```
router>enable
router#config
router_config#dial-peer voice 1 pots
router_config_dialpeer#port 1/0
router_config_dialpeer#
```

1.1.10 req-qos

Set QoS policy for a dialpeer.

Syntas

```
req-qos { best-effort | controlled-load | guaranteed-delay }
no req-qos
```

Parameter

Parameter	Description
best-effort	Best Effort
controlled-load	Controlled Load
guaranteed-delay	Guaranteed Delay

default

no req-qos

Command mode

dial-peer configuration mode except IVR

Explanation

none

Example

The following example shows how to set QoS policy for a dialpeer.

```
router>enable
router#config
router_config#dial-peer voice 1 voip
router_config_dialpeer#req-qos guaranteed-delay
router_config_dialpeer#
```

1.1.11 session target

Specify a transport address for a dialpeer.

Syntas

session target {ipv4: dest-ip | ras | terminal}

Parameter

Parameter	Description
ipv4	The parameter followed is an IP v4 IP address.
dest-ip	IP address string in dot divided format
ras	RAS signaling should be communicated before the call is placed.
terminal	called party of this dialpeer is a H323 terminal.

default

none

Command mode

VOIP dial-peer configuration mode

Explanation

For Ras session target type, before call is placed, the gateway should use RAS signaling to require admission from GK.

For terminal type session target, destination-pattern configuration should follow some rules:

At least 12 digits is needed for a destination-pattern, the string will be translate to a dot divided ip address format, every 3 digits is parsed to a sector of the ip address, if the sector is less than 3 digits, 0s is filled. Prefix can be add to the beginning of the string, then user can use trim-prefix command to strip the prefix before calling out, this can solve phone number confliction well.

If user specified a dialpeer terminator, user can only configure a prefix for this dialpeer, and trim-prefix command is also needed, after terminator entered, the whole dialed digits would be matched against the whole dialpeer list.

Example

The example below shows how to configure ras and ipv4 session target for a dialpeer.

```
router>enable
router#config
router_config#dial-peer voice 1 voip
router_config_dialpeer#session target ras
router_config_dialpeer#exit
router_config#dial-peer voice 2 voip
router_config_dialpeer#session target ipv4: 192.2.2.153
router_config_dialpeer#
```

1.1.12 trim-prefix

Specify how many digits should be stripped from the beginning of destination-pattern when an outbound call is associated with the dialpeer.

Syntas

trim-prefix *length*

Parameter

Parameter	Description
<i>length</i>	1~99

default

none

Command mode

dial-peer configuration mode except IVR dialpeers

Explanation

If fxo-dial-mode once is set and FXO ports is bound to the dialpeer, when the FXO port receives a call, it needs to send called party number to the port and activate the call. Usually the sent digits are extension number for the subscriber line, If two subscriber lines on two different PBXs have the same extension number, there will be two dialpeers with the same destination-patterns, when these dialpeers are called, it will be impossible to judge which one the caller really wants to call. If we add two different prefix to the two destination-pattern and strip them before the called number is dialed out, the confliction can be easily avoided. Ex, two PBXs has the same extension 8001, we can add two dialpeer, one has destination-pattern 18001, and the other has 28001,

both will strip the first digit before dialing out.

Another case, for a terminal type dialpeer, if it is used to call h323 terminals in 192.168.0.0 255.255.0.0 subnet, its destination-pattern should be 192168....., other destination-pattern such as 192 or 19 etc, would not be allowed to configure in other dialpeers, because as they are prefix for 192168....., this destination-pattern would have no chance to be matched in this case. Add distinguishable prefixes and strip them before calling out, two different destination-pattern can be configured.

This command strips digits of specified length from the beginning of the called number string before calling out, the length is specified in LENGTH parameter .

Example

The example below shows how to configure trim-prefix for a dialpeer.

```
router>enable
router#config
router_config#dial-peer voice 1 voip
router_config_dialpeer#trim-prefix 5
router_config_dialpeer#
router_config_dialpeer#
```

1.1.13 alternative

Specify backup dialpeers for a dialpeer.

Syntas

alternative *dialpeerid* **preference** *num*

no alternative *dialpeerid* **preference** *num*

Parameter

Parameter	Description
<i>dialpeerid</i>	backup dialpeer ID (1~2147483647)
<i>num</i>	priority level of the backup dialpeer (0~3)

default

none

Command mode

dial-peer configuration mode

Explanation

If alternative dialpeers is configured for a dialpeer, when a call attempt through a this dialpeer failed, the alternative dialpeer of the highest priority will be choosed instead of the original dialpeer. At most 4 alternative dialpeers of different priorities can be configured for a dialpeer.

Example

The example below shows how to configure alternative dialpeers for a dialpeer.

```
router>enable
router#config
router_config#dial-peer voice 1 voip
router_config_dialpeer#alternative 3 preference 0
router_config_dialpeer#alternative 4 preference 2
router_config_dialpeer#
```

1.1.14 shutdown(dial-peer)

Shut down the current dial-peer.

Syntas

shutdown
no shutdown

Parameter

none

Default

no shutdown

command mode

Dial-peer configuration mode

Explanation

Dialpeers which is shutdown will not be used to match against user input digits.

Example

The following example shows how to shut down a dialpeer.

```
router>enable
router#config
router_config#dial-peer voice 1 voip
router_config_dialpeer#shutdown
router_config_dialpeer#
```


Chapter 2 voice-port command

2.1 voice-port command

2.1.1 voice-port

Enter voice port configuration mode

Syntas

voice-port *slot-num/port-num[:ds0-group]*

Parameter

Parameter	Description
slot-num	slot index.
port-num	port index
ds0-group	E1 ds0-group number

default

none

Command mode

Global configuration mode

Explanation

If the port does not exist, the user will be prompted an error message. If the port exists, it will change to voice port configuration mode(FXO/FXS/E&M/E1).

Example

The example shows how to enter configuration mode of voice port 1/0.

```
router>enable
router#config
router_config#voice-port 1/0
router_config_voiceport#
```

2.1.2 comfort-noise

If silence suppression is enabled on a DSP channel, no voice packets would be generated when mute encode detected, DSP will also generate comfort noise on PCM output in such case. Otherwise, no comfort noise would be generated.

Syntas

comfort-noise

no comfort-noise

Parameter

none

Default

no comfort-noise

Command mode

Voice-port configuration mode

Explanation

With silence compression technology, no voice packets will be transmitted when mute encode detected, also DSP will generate comfort noise on PCM output, this can effectively decrease bandwidth usage.

Example

The example below shows how to remove comfort noise configuration on a voice port.

```
router>enable
router#config
router_config#voice-port 1/0
router_config_voiceport#comfort-noise
router_config_voiceport#
```

2.1.3 connection-plar

If connection plar is configured on a voice port, when a incoming call arrives, it will turn to active mode and use the number configured in connection-plar command to setup a call.

Syntas

connection-plar *str*

no connection-plar

Parameter

Parameter	Description
<i>str</i>	string consists no more than 100 characters (0~9 , * # a b c d)

default

no connection-plar

Command mode

Voice-port configuration

Explanation

User don't need to dial the called number on PLAR lines, and PLAR configuration can also restrict the voice port that only the designated number can be called.

Example

The example below shows how to configure PLAR on a voice port.

```
router>enable
router#config
router_config#voice-port 1/0
router_config_voiceport#connection-plar 15300
router_config_voiceport#
router_config_voiceport#
```

2.1.4 description

Add description to a voice port.

Syntas

description *str*

no description

Parameter

Parameter	Description
<i>str</i>	character string, less than 255 bytes in length

default

no description

Command mode

Voice-port configuration mode

Explanation

The descriptor is added to the descriptor to the designated port. The configuration followed covers the previous one.

Example

The following example show s how to add a description of a port.

```
router>enable
router#config
router_config#voice-port 1/0
router_config_voiceport#description "This is a FXS voice port."
router_config_voiceport#
```

2.1.5 emsignal-in

Specify inbound E&M signaling on an E&M port

Syntas

emsignal-in {immediate | wink-start | delay-dial}

default emsignal-in

Parameter

Parameter	Description
immediate	immediate start signaling
wink-start	wink start signaling
delay-dial	delay dial signaling

Default

emsignal-in immediate

Command mode

E&M voice-port configuration mode

Explanation

Usually the E&M signaling on a E&M port should be set to the same as the PBX port it connects to, but as we know delay dial signaling can be used on the calling party to call all of the three singnalings, so we can sometimes set the outbound signaling to delay dial, and the inbound signaling to the same as which singaling is adopted on the PBX port it connects to. This can provide better compatability with different PBXs.

All the signaling configuration of all E&M port on a card will be changed at the same time when one of them is configured.. The configuration followed covers the previous one.

Example

The example below shows how to configure inbound signaling on a E&M port:.

```
router>enable
router#config
router_config#voice-port 3/0
router_config_voiceport#emsignal-in wink-start
router_config_voiceport#
```

2.1.6 emsignal-out

Specify outbound E&M signaling on an E&M port

Syntas

emsignal-out {immediate | wink-start | delay-dial}

default emsignal-out

parameter

Parameter	Description
immediate	immediate start signaling
wink-start	wink start signaling
delay-dial	delay dial signaling

default

emsignal-out delay-dial

Command mode

E&m voice-port configuration mode

Explanation

Usually the E&M signaling on a E&M port should be set to the same as the PBX port it connects to, but as we know delay dial signaling can be used on the calling party to call all of the three singnalings, so we can sometimes set the outbound signaling to delay dial, and the inbound signaling to the same as which singaling is adopted on the PBX port it connects to. This can provide better compatability with different PBXs.

All the signaling configuration of all E&M port on a card will be changed at the same time when one of them is configured.. The configuration followed covers the previous one.

Example

The example below shows how to configure outbound signaling on an E&M port.

```
router>enable
router#config
router_config#voice-port 3/0
router_config_voiceport#emsignal-out wink-start
router_config_voiceport#
```

2.1.7 input-gain

Adjust the input gain of voice port

Syntas

input-gain *num*

default input-gain

Parameter

Parameter	Description
<i>num</i>	-31~31(db)

default

input-gain 0

Command mode

Voice-port configuration mode

Explanation

Change input gain to improve echo cancellation, usually the default value is OK. Tune the parameter up or down until no echo heard when needed.

Example

The example below shows how to configure input gain on a voice port.

```
router>enable
router#config
router_config#voice-port 1/0
router_config_voiceport#input-gain 10
router_config_voiceport#
```

2.1.8 operation

Set operation mode of an E&M voice port.

Syntas

operation {2-wire|4-wire}

default operation

Parameter

Parameter	Description
2-wire	two-wire
4-wire	four-wire

default

operation 4-wire

Command mode

E&M voice-port configuration mode

Explanation

Operation mode should be set to the same as the PBX port which this voice port connects to.

Example

The example below how to configure operation of an E&M port.

```
router>enable
router#config
router_config#voice-port 3/0
router_config_voiceport#operation 2-wire
router_config_voiceport#
```

2.1.9 output-gain

Adjust output volumn of a voice port.

Syntas

output-gain *num*
no output-gain
default output-gain

Parameter

Parameter	Description
<i>num</i>	-31~31(db)

default

output-gain -8 (FXO port)
output-gain -6 (other port)

Command mode

Voice-port configuration mode

Explanation

To tune voice volumn of a voice port, use this command. The configuration followed covers the previous one.

Example

The example below shows how to set output volumn on a voice port.

```
router>enable
router#config
router_config#voice-port 1/0
router_config_voiceport#output-gain 10
router_config_voiceport#
```

2.1.10 sig-gain

Set gain of output IBS signaling on a voice port.

Syntas

sig-gain *num*

default sig-gain

Parameter

Parameter	Description
<i>num</i>	-31~0 (db)

default

sig-gain -23 (E&M port)

sig-gain -11 (other port)

Command mode

Voice-port configuration mode.

Explanation

Signaling gain should be adjust to a suitable level, if it is too low, the PBX port it connects to may not be able to detect IBS signaling the voice port send to PBX; if too high, it may generate echo which cause the voice port detect wrong signalings.

Example

The example below shows how to configure signaling gain on a voice port.

```
router>enable
router#config
router_config#voice-port 1/0
router_config_voiceport#sig-gain -15
router_config_voiceport#
```

2.1.11 timing delay-start

Set time to wait between local offhook and dialing out on E&M port which adopt delay dial outbound signaling.

Syntas

timing delay-start MS

default timing delay-start

Parameter

Parameter	Description
MS	20~2000ms

default

timing delay-start 300

Command mode

E&M Voice-port configuration mode

Explanation

Case there is an outbound call attempt on an E&M port which adopts delay dial signaling, firstly it goes offhook, and wait delay start time out, then check hook status of PBX port it connects to, and starts dialing out if it is onhook, otherwise onhook and the call fails

Example

The example below shows how to configure delay start timer on an E&M port.

```
router>enable
router#config
router_config#voice-port 3/0
router_config_voiceport#timing delay-start 1000
router_config_voiceport#
```

2.1.12 timing dialout-delay

Set time to wait between local offhook and dialing out on E&M port which adopt immediate start outbound signaling.

Syntas

timing dialout-delay *ms*

default timing dialout-delay

Parameter

Parameter	Description
<i>ms</i>	100~5000ms

default

timing dialout-delay 300

Command mode

E&M Voice-port configuration mode

Explanation

Case there is an outbound call attempt on an E&M port which adopts immediate start signaling, after it goes offhook, a timer of dialout delay timeout is started, on timeout, it starts dialing out to the PBX port it connects to.

Example

The example below shows how to configure dialout delay on an E&M port

```
router>enable
router#config
router_config#voice-port 3/0
router_config_voiceport#timing dialout-delay 1000
router_config_voiceport#
```

2.1.13 timing dialout-pause

Set time interval of a pause while a voice port is dialing out.

Syntas

timing dialout-pause *ms*

no timing dialout-pause

default timing dialout-pause

Parameter

Parameter	Description
<i>ms</i>	500~5000ms

default

timing dialout-pause 2000

Command mode

Voice-port configuration mode

Explanation

While a dial string is been dialing out on a voice port, if the next symbol is ',', it means a pause, this port will wait for dialout pause timeout before the next digit is dialed out.

Example

The example below shows how to configure dialout pause on a voice port

```
router>enable
router#config
router_config#voice-port 1/0
router_config_voiceport#timing dialout-pause 3000
router_config_voiceport#
```

2.1.14 timing digit

Set duration of a single DTMF while a voice port sends digits to PBX port it connects to.

Syntas

timing digit *ms*

default timing digit

Parameter

Parameter	Description
<i>ms</i>	50~100ms

default

timing digit 100

Command mode

Voice-port configuration mode

Explanation

Set duration of a single DTMF while a voice port sends digits to PBX port it connects to.

Example

The example below shows how to configure digit duration on a voice port.

```
router>enable
router#config
router_config#voice-port 1/0
router_config_voiceport#timing digit 80
router_config_voiceport#
```

2.1.15 timing interdigit

The time interval between two DTMF digits when the voice port sends digits to PBX port it connects to.

Syntas

timing interdigit MS

default timing interdigit

Parameter

Parameter	Description
<i>ms</i>	50~500ms

default

timing interdigit 100

Command mode

Voice-port configuration mode

Explanation

The time interval between two DTMF digits when the voice port sends digits to PBX port it connects to. The configuration followed covers the previous one.

Example

The example below shows how to configure interdigit interval on a voice port

```
router>enable
router#config
router_config#voice-port 1/0
router_config_voiceport#timing interdigit 100
router_config_voiceport#
```

2.1.16 timing offhook-delay

Set time interval between inbound call attempt comes and the voice port goes offhook.

Syntas

timing offhook-delay MS

default timing offhook-delay

Parameter

Parameter	Description
<i>ms</i>	0~200ms

default

timing offhook-delay 5 (FXO port)

timing offhook-delay 0 (E&M port)

Command mode

Voice-port configuration mode

Explanation

On an inbound call indication, FXO or E&M port may need to go offhook to receive the call. But it should not offhook too soon, as there may be large capacitance in the circuit, it will prevent the offhook current to arrive a level which is high enough to meet the PBX port's offhook detection limitation, and will cause the call fail. If a certain time is waited, the capacitance will be countacted, the offhook won't fail then.

For E&M port which adoptds immediate start signaling, it is the time interval between remote offhook detected and local offhook.

For E&M port which adopts delay dial signaling, it is the time interval between remote offhook and the time local port is ready to receive digits from the remote port.

Example

The example below shows how to configure offhook delay of a voice port.

```
router>enable
router#config
router_config#voice-port 1/0
router_config_voiceport#timing offhook-delay 50
router_config_voiceport#
```

2.1.17 timing wink-duration

Set wink duration of an E&M port which adopts wink start signaling.

Syntas

timing wink-duration MS

default timing wink-duration

Parameter

Parameter	Description
<i>ms</i>	100~400ms

default

timing wink-duration 200

Command mode

E&M voice-port configuration mode.

Explanation

Wink duration is the time interval that local port used to generate a wink; or the lower limit of a wink generated by the remote port, if it receives a wink whose duration is larger than this value, it is regard as a true wink, otherwise not.

Example

The example below shows how to configure wink duration of an E&M port.

```
router>enable
router#config
router_config#voice-port 3/0
router_config_voiceport#timing wink-duration 150
router_config_voiceport#
```

2.1.18 timing wink-wait

In outbound case, set timeout between local offhook and remote port generates a wink..

Syntas

timing wink-wait MS

default timing wink-wait

Parameter

Parameter	Description
<i>ms</i>	100~5000ms

default

timing wink-wait 200

Command mode

E&M voice-port configuration mode

Explanation

On an outbound call attempt on an E&M port which adopts wink start signaling, after it goes offhook, it starts a timer which interval is wink wait, if it timeouts and the remote port still doesn't generate a wink, the call fails; otherwise it starts dialing out on reception of the wink.

Example

The example below shows how to configure wink wait on an E&M port.

```
router>enable
router#config
router_config#voice-port 3/0
router_config_voiceport#timing wink-wait 1000
router_config_voiceport#
```

2.1.19 timeouts initial

Set timeout to wait for the first incoming digit on an inbound call.

Syntas

timeouts initial sec

default timeouts initial**Parameter**

Parameter	Description
sec	5~30s

default

timeouts initial 10

Command mode

voice-port configuration mode

Explanation

When the switch accepts the dial, it will send busy tone to the calling party in case of timeout.

Example

The example below shows how to configure initial timeout for a voice port.

```
router>enable
router#config
router_config#voice-port 1/0
router_config_voiceport#timeouts initial 20
router_config_voiceport#
```

2.1.20 timeouts interdigit

Set timeout between two digits on a voice port.

Syntas

timeouts interdigit sec

default timeouts interdigit

Parameter

Parameter	Description
sec	5~20s

default

timeouts interdigit 10

Command mode

voice-port configuration mode

Explanation

If interdigit timer timeouts, the call will be terminated and busytone will be sent to user. The configuration followed covers the previous one.

Example

The example below shows how to configure interdigit timeout on a voice port.

```
router>enable
router#config
router_config#voice-port 1/0
router_config_voiceport#timeouts interdigit 20
router_config_voiceport#
```

2.1.21 type

Configuring the mode of connection of E&M voice port.

Syntas

type {1 | 2 | 3 | 5}
default **type**

Parameter

Parameter	Description
1	Type 1 mode of connection
2	Type 2 mode of connection
3	Type 3 mode of connection
5	Type 5 mode of connection

default

type 5

Command mode

voice-port configuration mode of E&M type

Explanation

E&M port has 1 to 5 modes of connection in total. Our hardware supports all the other types except for Type 4 mode of connection. When the mode of connection of E&M port agrees with the connected port of PBX, the communication takes place.

Example

The example below configures the mode of connection of a port as Type 3 mode of connection.

The example below configures

```
router>enable
router#config
```



```
router_config#voice-port 3/0
router_config_voiceport#type 3
router_config_voiceport#
```

2.1.22 shutdown (voice-port)

Shutting down the current voice port.

Syntas

shutdown
no shutdown

Parameter

none

Default

no shutdown

Command mode

Voice-port configuration mode

Explanation

The function of continuing protection of the voice port is shut down at the time of shutdown. When it is under no shutdown, the current port is allowed to continue the call and the port is re-initialized. When the trouble occurs to the current port, the command “no shutdown” can be used for restoring the function of the port. When the command “shutdown” and “no shutdown” are used, the port will not allow a call to go on.

Example

The example below shuts down a port.

```
router>enable
router#config
router_config#voice-port 1/0
router_config_voiceport#shutdown
router_config_voiceport#
```

2.1.23 restrict

Setting the channel or call limited of HDV channel group.

syntas

restrict { *dial-in* | *dial-out* | *bothway* | *busyout* }
no restrict

Parameter

Parameter	Description
<i>dial-in</i>	It is only allow to call in.
<i>dial-out</i>	It is only allow to call out.
<i>bothway</i>	It is allow to call each other.
<i>busyout</i>	It is forbid to call each other.

Default

bothway

Command mode

voice-port configuration mode

Explanation

Setting the call limited of voip channel.

Example

```
router_config#voice-port 1/0:1
router_config_voiceport#restrict dial-in
```

2.1.24 KA**Syntas**

KA *val*

no KA

Parameter

Parameter	Description
<i>val</i>	Setting the sorts of R2 direct call. 1~15

Default

1

Command mode

voice-port configuration mode

Explanation

Setting the direct call sorts of R2.

Example

```
router_config#voice-port 1/0:1
router_config_voiceport#KA 1
```

2.1.25 KD**Syntas**

KD *val*
no KD

Parameter

Parameter	Description
<i>val</i>	Setting the inchoation operation sorts of R2. 1~15

Default

3

Command mode

voice-port configuration mode

Explanation

Setting the inchoation operation sorts of R2.

Example

```
router_config#voice-port 1/0:1
router_config_voiceport#KD 1
```

2.1.26 default-abcd**Syntas**

default-abcd *val*
no default-abcd

Parameter

Parameter	Description
<i>val</i>	Setting the default ABCD digit. "0000"~"1111"

Default

"1010"

Command mode

voice-port configuration mode

Explanation

Setting the default ABCD digit of R2.

Example

```
router_config#voice-port 1/0:1
router_config_voiceport#default-abcd 1010
```

2.2 HDV controller configuration command

2.2.1 framing

configure the frame mode of HDV, whether or not take check sum.

Syntas

framing {*crc4* | *no-crc4*}

no framing

Parameter

Parameter	Description
<i>crc4</i>	Take check sum.
<i>no-crc4</i>	Not take check sum.

Default

crc4

Command mode

HDV-controller configuration mode

Explanation

Configuration the MF frame of E1 interface to take check sum whether or not.

Example

```
router_config#HDV-controller 1/0
router_config_HDV-controller1/0#framing crc4
```

2.2.2 clock

Configure the clock mode of HDV.

Syntas**clock** { *internal* | *external* }**no clock****Parameter**

Parameter	Description
<i>internal</i>	Inside clock mode.
<i>external</i>	Besides clock mode.

Default

external

Command mode

HDV-controller configuration mode

Explanation

Configure the clock mode of E1 interface

Example

```

router_config#HDV-controller 1/0
router_config_HDV-controller1/0#clock in

```

2.2.3 linecode

Configure the coding mode of HDV.

Syntas**linecode** { *ami* | *hdb3* }**no linecode****Parameter**

Parameter	Description
ami	Ami code
hdb3	hdb3 code

Default

hdb3

Command mode

HDV-controller configuration mode

Explanation

Configure the coding mode of E1

Example

```
router_config#HDV-controller 1/0
router_config_HDV-controller1/0#linecode ami
```

2.2.4 cable

Configure the coding mode of HDV.

Syntas

cable { 120 | 75}
no cable

Parameter

Parameter	Description
120	120 ohm
75	75 ohm

Default

75

Command mode

HDV-controller configuration mode

Explanation

configure the impedance of E1 line.

Example

```
router_config#HDV-controller 1/0
router_config_HDV-controller1/0#cable 120
```

2.2.5 ds0-group

A ds0-group is made up of one group of hours system at some HDV port.

Syntas

ds0-group ds0-group-no timeslots timeslot-list type {r2-digital}
no ds0-group ds0-group-no

Parameter

Parameter	Description
<i>ds0-group-no</i>	1-5 .
<i>timeslot-list</i>	1-15, 17-31. The separate symbol is "-" and ",", "-" show the next group of hours system. For example: 1-10,19-28 show NO.1 to NO.10 hours system and NO.19 to NO.28 hours system.

Default

none

Command mode

HDV-controller configuration mode

Explanation

Design a DS0 group at some HDV port to offer service as CAS voip port. It only can configure five different DS0 group at the same HDV port, and at the same time any hours system that is designed by timeslot-list of some DS0 group can't exist in other DS0 group. For all DS0 group only offer the sustainment of r2-digital protocol.

Example

```
router_config#HDV-controller 1/0
router_config_HDV-controller1/0#ds0-group 1 timeslots 1-15 type r2-digital
```

2.2.6 HDV-controller

Enter the configuration mode of some HDV controller.

Syntas

HDV-controller *slot-number/subnumber*

Parameter

Parameter	Description
<i>slot-number</i>	The number of slot
<i>subnumber</i>	The number of HDV trunk

Default

none

Command mode

global configuration mode

Explanation

Enter the configuration mode of some HDV controller.

Example

```
router_config#HDV-controller 1/0
router_config_HDV-controller1/0#ds0-group 1 timeslots 1-15 type r2-digital
```

2.2.7 companding-type

Design the voip sampling style of PCM channel at some HDV controller.

Syntas

companding-type {alaw | ulaw}
no companding-type

Parameter

Parameter	Description
alaw	A law
ulaw	U law

Default

alaw

Command mode

HDV-controller configuration mode

Explanation

The different switch adopt different sampling style.

Example

```
router_config#HDV-controller 1/0
router_config_HDV-controller1/0#companding-type alaw
```

2.3 IVR configuration command

2.3.1 ivr-cfg

The global configuration command “ivr-cfg” can be used for entering IVR configuration mode.

Syntas

ivr-cfg

Parameter

None

Default

None

Command mode

Global configuration mode

Explanation

None

Example

```
router>enable
router#config
router_config#ivr-cfg
router_config_ivr#
```

2.3.2 account-rate

Configuring call rate

Syntas

account-rate *rate*

def account-rate

Parameter

Parameter	Description
<i>rate</i>	value of rate

default

def authen

Command mode

ivr configuration mode

Explanation

The unit of rate value is cent/6 seconds

Example

```
router>enable
router#config
```

```
router_config#ivr-cfg
router_config_ivr#account-rate 10
router_config_ivr#
```

2.3.3 authen card

Configuring information of authentication account

Syntas

authen card *num_len key_len times*
def authen

Parameter

Parameter	Description
<i>num_len</i>	Number length of account name
<i>key_len</i>	Key length of account
<i>times</i>	Times of authentication

default

def authen

Command mode

IVR configuration mode

Explanation

Configuring the number of bit card number and password in cassette telephone mode .
The default value of NUM_LEN is 6, KEY_LEN is 6, and times is 3.

Example

```
router>enable
router#config
router_config#ivr-cfg
router_config_ivr#authen card 5 5 2
router_config_ivr#
```

2.3.4 authen timeout

Configuring information of authentication timeout.

Syntas

authen timeout *first_key all_key*
def authen

Parameter

Parameter	Description
<i>first_key</i>	Waiting for time of dial timeout
<i>all_key</i>	Time of timeout of whole dial process

default

def authen

Command mode

ivr configuration mode

Explanation

Configuring the username and the waiting time of pressing the first key and all the key in the process of dialing password. The default value of FIRST_KEY is 10, ALL_KEY is 20.

Example

```
router>enable
router#config
router_config#ivr-cfg
router_config_ivr#authen timeout 15 30
router_config_ivr#
```

2.3.5 dial dialing

Configuring the dial setting

Syntas

dial dialing *num_len times*

def dial

Parameter

Parameter	Description
<i>num_len</i>	Length of user's number
<i>times</i>	Times of user's dialing

default

def dial

Command mode

IVR configuration mode

Explanation

Configuring the default length and allowed times of re-dialing of all the dials in IVR configuration mode. The default value NUM_LEN is 6, TIMES is 3.

Example

```
router>enable
router#config
router_config#ivr-cfg
router_config_ivr#dial dialing 5 2
router_config_ivr#
```

2.3.6 dial timeout

Configuring the information of dial timeout

Syntas

dial timeout *first_key all_key*

def dial

Parameter

Parameter	Description
<i>first_key</i>	Waiting for the time of dial timeout °
<i>all_key</i>	Time of timeout of whole dialing process of user °

default

def dial

Command mode

ivr configuration mode

Explanation

Configuring the default length and allowed times of re-dialing of all the dials in IVR configuration mode. The default value FIRST_KEY is 10, ALL_KEY is 20.

Example

```
router>enable
router#config
router_config#ivr-cfg
router_config_ivr#dial timeout 15 30
router_config_ivr#
```

2.3.7 file play-start

Configuring file name of welcome message.

Syntas**file play-start *file*****def file****Parameter**

Parameter	Description
<i>file</i>	file name without postfix

default

def file

Command mode

IVR configuration mode

Explanation

Configuring the voice prompt file of welcome message in cassette telephone mode .

Example

```
router>enable
router#config
router_config#ivr-cfg
router_config_ivr#file play-start playstart
router_config_ivr#
```

2.3.8 file record-start

Configuring the filename of recording prompt.

Syntas**file record-start *file*****def file****Parameter**

Parameter	Description
<i>file</i>	filename without postfix.

default

def file

Command mode

IVR configuration mode

Explanation

Configuring the voice prompt file of prompt voice for recording

Example

```
router>enable
router#config
router_config#ivr-cfg
router_config_ivr#file record-start recordstart
router_config_ivr#
```

2.3.9 file record-again

Configuring the filename of a second recording

Syntas

file record-again *file*

def file

Parameter

Parameter	Description
<i>file</i>	filename without postfix

default

def file

Command mode

IVR configuration mode

Explanation

Configuring voice prompt file of continuing recording

Example

```
router>enable
router#config
router_config#ivr-cfg
router_config_ivr#file record-again recordagain
router_config_ivr#
```

2.3.10 file record-failed

Configuring filename of recording failure

Syntas

file record-failed *file*

def file**Parameter**

Parameter	Description
<i>file</i>	filename without a postfix

default

def file

Command mode

IVR configuration mode

Explanation

Configuring voice file of recording failure

Example

```
router>enable
router#config
router_config#ivr-cfg
router_config_ivr#file record-failed reocrdfailed
router_config_ivr#
```

2.3.11 file authen-user-start

Configuring filename of authentication start.

Syntas

file authen-user-start *file*

def file

Parameter

Parameter	Description
<i>file</i>	filename without postfix

default

def file

Command mode

ivr configuration mode

Explanation

Configuring the recording file of entering username prompt in cassette telephone.

Example

```
router>enable
router#config
router_config#ivr-cfg
router_config_ivr#file authen-user-start authenuserstart
router_config_ivr#
```

2.3.12 file authen-key-start

Configuring filename of password input.

Syntas

file authen-key-start *file*
def file

Parameter

Parameter	Description
<i>file</i>	filename without postfix

default

def file

Command mode

IVR configuration mode

Explanation

Configuring the recording file of entering password prompt in cassette telephone.

Example

```
router>enable
router#config
router_config#ivr-cfg
router_config_ivr#file authen-key-start authenkeystart
router_config_ivr#
```

2.3.13 file authen-failed

Configuring filename of authentication failure

Syntas

file authen-failed *file*

def file**Parameter**

Parameter	Description
<i>file</i>	filename without postfix

default

def file

Command mode

IVR configuration mode

Explanation

Configuring the recording file of authentication failure prompt

Example

```
router>enable
router#config
router_config#ivr-cfg
router_config_ivr#file authen-failed authenfailed
router_config_ivr#
```

2.3.14 file dial-start

Configuring dial-start filename

Syntas

file dial-start *file*

def file

Parameter

Parameter	Description
<i>file</i>	filename without postfix

default

def file

Command mode

IVR configuration mode

Explanation

Configuring recording file of being able to dial the prompt of dialed number

Example

```
router>enable
router#config
router_config#ivr-cfg
router_config_ivr#file dial-start dialstart
router_config_ivr#
```

2.3.15 file dial-failed

Configuring the filename of connection failure.

Syntas

file dial-failed *file*

def file

Parameter

Parameter	Description
<i>file</i>	filename without postfix

default

def file

Command mode

ivr configuration mode

Explanation

Configuring recording file of connection failure

Example

```
router>enable
router#config
router_config#ivr-cfg
router_config_ivr#file dial-failed dialfailed
router_config_ivr#
```

2.3.16 file interrupt-start

Configuring the filename of interrupt information

Syntas

file interrupt-start *file*

def file**Parameter**

Parameter	Description
<i>file</i>	filename without postfix

default

def file

Command mode

IVR configuration mode

Explanation

Configuring the recording file of ending communication upon the exhaust of the prepaid.

Example

```
router>enable
router#config
router_config#ivr-cfg
router_config_ivr#file interrupt-start interstart
router_config_ivr#
```

2.3.17 file record-gather-name

Configuring the filename of setting voice

Syntas

file record-gather-name *file*

def file

Parameter

Parameter	Description
<i>file</i>	filename without postfix

default

def file

Command mode

IVR configuration mode

Explanation

Configuring the configuration of integrated voice filename of recording

Example

```
router>enable
router#config
router_config#ivr-cfg
router_config_ivr#file record-gather-name gathername
router_config_ivr#
```

2.3.18 ivr

Configuring IVR startup/shutdown mode

Syntas

ivr enable

ivr disable

Parameter

Parameter	Description
enable	Startup
disable	Shutdown

default

ivr enable

Command mode

IVR configuration mode

Explanation

After IVR is shut down, all DIALPEER configurations related to IVE are of no effect.

Example

```
router>enable
router#config
router_config#ivr-cfg
router_config_ivr#ivr disable
router_config_ivr#
```

2.3.19 record key

Configuring the key information used for recording

Syntas

```
record key start_key restart_key
def record
```

Parameter

Parameter	Description
<i>start_key</i>	The key for starting recording
<i>restart_key</i>	The key for restarting recording

default

```
def record
```

Command mode

```
ivr configuration mode
```

Explanation

Configuring the key for starting recording and the key for continuing recording. The default value of START_KEY is '*', RESTART_KEY is '1'

Example

```
router>enable
router#config
router_config#ivr-cfg
router_config_ivr#record key 0
router_config_ivr#
```

2.3.20 record time

Configuring the information of recording times

Syntas

```
record time max_preiod def_period
def record
```

Parameter

Parameter	Description
<i>max_preiod</i>	Maximum time of recording
<i>def_period</i>	Time of one recording

default

```
def record
```

Command mode

IVR configuration mode

Explanation

The time parameters for configuring a recording is second and 0.1 second respectively, subject to the smaller one. The default value of MAX_PERIOD is 100, DEF_PERIOD is 10.

Example

```
router>enable
router#config
router_config#ivr-cfg
router_config_ivr#record time 150 30
router_config_ivr#
```

2.3.21 stop-key

Configuring the stop key used by IVR

Syntax

stop-key *key*

def stop-key

Parameter

Parameter	Description
key	Stop key

default

def stop-key

Command mode

IVR configuration mode

Explanation

The stop of all the operations uses this defined key. The default key is '#'

Example

```
router>enable
router#config
router_config#ivr-cfg
router_config_ivr#stop-key *
router_config_ivr#
```

Chapter 3 cptone cofiguration command

3.1 cptone cofiguration command

3.1.1 cptone

Signal tone made by each switch has a certain frequency value. If the detective frequency of signal tone of this equipment is set as a corresponding value, it will improve the detective function of the busy tone. The command is used for entering cptone configuration mode. The command "Default" is used for restoring all the signal tones on the slot to the default value.

Syntas

cptone *slot*

default cptone SLOT

Parameter

Parameter	Description
<i>slot</i>	Slot number of the card for setting

default

none

Command mode

voice-port configuration mode

Explanation

The user sets the busy tone, ring back tone, dialing tone and other signaling tones for FXO phonetic module on the designated card slot. If the signaling tone is of single frequency, the high frequency value shall be set as 2001.

Among signaling tones, the dialing tone, ring back tone, busy tone and dead signal tone on PBX shall be set and only one type can be set for each tone. No type or multiple types can be set for other kinds of signals. The set value will be written into DSP at the time of configuration mode exit. If the set value is ineffective, the configuration mode will not exit.

Example

The example below is the setting of entry signal tone

```
router>enable
router#config
router_config#cptone 1
router_config_cptone#
```

3.1.2 cptone-vty-cfg

Compulsory cancellation of multiple vty masking to cptone configuration

Syntas

cptone-vty-cfg

Parameter

none

Default

none

Command mode

Global configuration mode

Explanation

If vty is closed down compulsively (such as power down, compulsory closedown of window, etcc) in configuring cptone, any vty followed will not be able to access to cptone configuration unless otherwise the computer is restarted. In order to shoot this trouble, the command should be used for compulsory removal of masking function.

This command is effective at the time of the next access to cptone and Cptone masking will be restored after that.

It shall be confirmed that no vty is configuring cptone before this command is used. Otherwise it is likely to lead to the confusion of cptone configuration at the time of accessing to cptone configuration.

Example

The example below is the setting of entry signal tone.

```
router>enable
router#config
router_config#cptone 1
router_config_cptone#
```

3.1.3 dial-tone-pbx

Setting the dialing tone on PBX

Syntas

dial-tone-pbx *low-freq high-freq*

Parameter

Parameter	Description
<i>low-freq</i>	Low Frequency Value

<i>high-freq</i>	High Frequency Value
------------------	----------------------

default

None

Command mode

Cptone configuration mode

Explanation

Low frequency value shall be less than high frequency value.

Example

The example below is the setting of signaling tone.

```
router>enable
router#config
router_config#cptone 1
router_config_cptone#dial-tone-pbx 400 480
router_config_cptone#
```

3.1.4 alert-tone-pbx

Setting the ring back tone on PBX

Syntas

alert-tone-pbx *low-freq high-freq on-time off-time*

Parameter

Parameter	Description
<i>low-freq</i>	Low frequency value
<i>high-freq</i>	High frequency value
<i>on-time</i>	Time being on
<i>off-time</i>	Time being off

default

none

Command mode

Cptone configuration mode

Explanation

Low frequency value shall be less than high frequency value

Example

The example below is the setting of signaling tone

```
router>enable
router#config
router_config#cptone 1
router_config_cptone#alert-tone-pbx 400 480 100 400
router_config_cptone#
```

3.1.5 busy-tone-pbx

Setting the busy tone on PBX

Syntas

busy-tone-pbx *low-freq high-freq on-time off-time*

Parameter

Parameter	Description
<i>low-freq</i>	Low frequency value
<i>high-freq</i>	High frequency value
<i>on-time</i>	Time of being on
<i>off-time</i>	Time of being off

default

none

Command mode

Cptone configuration mode

Explanation

Low frequency value shall be less than high frequency value

Example

The example below is the setting of signaling tone.

```
router>enable
router#config
router_config#cptone 1
router_config_cptone#busy-tone-pbx 400 480 35 35
router_config_cptone#
```

3.1.6 empty-tone-pbx

Setting dead lexel signal on PBX

Syntas

empty-tone-pbx *low-freq high-freq on-time off-time*

Parameter

Parameter	Description
<i>low-freq</i>	Low frequency value
<i>high-freq</i>	High frequency value
<i>on-time</i>	Time being on
<i>off-time</i>	Time being off

default

none

Command mode

Cptone configuration mode

Explanation

Low frequency value shall be less than high frequency value.

Example

The example below is the setting of signaling tone.

```
router>enable
router#config
router_config#cptone 1
router_config_cptone#empty-tone-pbx 400 480 40 40
router_config_cptone#
```

3.1.7 dial-tone-ext

Setting the dialing tone on the remote PBX

Syntas

dial-tone-ext *low-freq high-freq*

Parameter

Parameter	Description
<i>low-freq</i>	Low frequency value
<i>high-freq</i>	High frequency value

default

none

Command mode

Cptone configuration mode

Explanation

Low frequency value shall be less than high frequency value.

Example

The example below is the setting of the signaling tone.

```
router>enable
router#config
router_config#cptone 1
router_config_cptone#dial-tone-ext 400 2001
router_config_cptone#
```

3.1.8 alert-tone-ext

Setting ring back tone on the remote PBX

Syntas

alert-tone-ext *low-freq high-freq on-time off-time*

Parameter

Parameter	Description
<i>low-freq</i>	Low frequency value
<i>high-freq</i>	High frequency value
<i>on-time</i>	Time being on
<i>off-time</i>	Time being off

default

none

Command mode

Cptone configuration mode

Explanation

Low frequency value shall be less than high frequency value.

Example

The example below is the setting of the signaling tone.

```
router>enable
router#config
router_config#cptone 1
router_config_cptone#alert-tone-ext 400 2001 100 400
router_config_cptone#
```

3.1.9 busy-tone-ext

Setting the busy tone on the remote PBX

Syntas

busy-tone-ext *low-freq high-freq on-time off-time*

Parameter

Parameter	Description
<i>low-freq</i>	Low frequency value
<i>high-freq</i>	High frequency value
<i>on-time</i>	Time being on
<i>off-time</i>	Time being off

default

none

Command mode

Cptone configuration mode

Explanation

Low frequency value shall be less than high frequency value.

Example

The example below is the setting of signaling tone.

```
router>enable
router#config
router_config#cptone 1
router_config_cptone#busy-tone-ext 400 2001 35 35
router_config_cptone#
```

3.1.10 empty-tone-ext**Syntas**

Setting the dead lexel signal on the remote PBX

empty-tone-ext *low-freq high-freq on-time off-time*

Parameter

Parameter	Description
<i>low-freq</i>	Low frequency value
<i>high-freq</i>	High frequency value
<i>on-time</i>	Time being on
<i>off-time</i>	Time being off

default

none

Command mode

Cptone configuration mode

Explanation

Low frequency value shall be less than high frequency value.

Example

The example below is the setting of the signaling tone.

```
router>enable
router#config
router_config#cptone 1
router_config_cptone#empty-tone-ext 400 2001 40 40
router_config_cptone#
```

Chapter 4 Gateway-cfg Cofiguration Command

4.1 Gateway-cfg Cofiguration Command

4.1.1 gateway-cfg

Accessing to gateway configuration mode

Syntas

gateway-cfg

Parameter

none

Default

none

Command mode

Global configuration mode

Explanation

Accessing to gateway configuration mode

Example

```
router>enable
router#config
router_config#gateway-cfg
router_config_gw#
```

4.1.2 gateway ipaddr

Designating IP address of voice gateway

Syntas

gateway ipaddr *IPaddr*
no gateway ipaddr *IPaddr*

Parameter

Parameter	Description
<i>IPaddr</i>	IP point-divided type address

default

none

Command mode

Gateway configuration mode

Explanation

Configuring IP address used by the voice gateway

Example

```
router>enable
router#config
router_config#gateway-cfg
router_config_gw#gateway ipaddr 192.2.2.152
router_config_gw#
```

4.1.3 gateway gkid

Designating IP address that the voice gateway registers with the gatekeeper.

Syntas

gateway gkid *gkname* **ipaddr** *ipaddr* [*port*]

gateway gkid *gkname*

Parameter

Parameter	Description
<i>gkname</i>	Name of gatekeeper (the maximum length is 16)
<i>IPAddr</i>	IP point-divided type address of the gatekeeper
<i>port</i>	The port used by the gatekeeper

default

none

Command mode

Gateway configuration mode

Explanation

Designating IP address that the voice gateway registers with the gatekeeper.

Example

```
router>enable
router#config
router_config#gateway-cfg
```



```
router_config_gw#gateway gkid gk1 ipaddr 192.2.2.152
router_config_gw#
```

4.1.4 gateway h323id

Designating H.323 ID used by the voice gateway

Syntas

gateway h323id *H323ID*
no gateway h323id *H323ID*

Parameter

Parameter	Description
<i>H323ID</i>	H.323 ID used by the gateway (the maximum length is 47)

default

none

Command mode

Gateway configuration mode

Explanation

Designating H.323 ID used by the voice gateway.

Example

```
router>enable
router#config
router_config#gateway-cfg
router_config_gw#gateway h323id 152@rnd.com
router_config_gw#
```

4.1.5 gateway tech-prefix

Designating the technical prefix used for registering the voice gateway with the gatekeeper.

Syntas

gateway tech-prefix *prefix*
no gateway tech-prefix *prefix*

Parameter

Parameter	Description
<i>prefix</i>	The technical prefix used by the gateway (the maximum length is 15)

default

none

Command mode

Gateway configuration mode

Explanation

Designating the technical prefix used for registering the voice gateway with the gatekeeper. Currently, GK of BDCOM does not support this registration function temporarily. This command can be used at the time of registering with GK of CISCO.

Example

```
router>enable
router#config
router_config#gateway-cfg
router_config_gw#gateway tech-prefix 123
router_config_gw#
```

4.1.6 shutdown (gateway)

Shutting down the voice gateway

Syntas

shutdown
no shutdown

Parameter

none

Default

no shutdown

Command mode

Gateway configuration mode

Explanation

The function of the voice gateway is to shut down at the time of shutdown. When the voice gateway has been registered with a gatekeeper, it will cancel the registration with that gatekeeper.

Example

The example below shuts down the voice gateway.

```
router>enable
router#config
router_config#gateway-cfg
```

```
router_config_gw#shutdown  
router_config_gw#
```

Chapter 5 Gatekeeper-cfg Configuration Command

5.1.1 gatekeeper-cfg

Accessing to gatekeeper configuration mode

Syntas

gatekeeper-cfg

Parameter

none

Default

none

Command mode

Global configuration mode

Explanation

Accessing to gatekeeper configuration mode

Example

```
router>enable
router#config
router_config#gatekeeper-cfg
router_config_gk#
```

5.1.2 zone local

Setting the local zone of the voice gatekeeper

Syntas

zone local *gkname* **domain** {{**ipaddr** *IPAddr*}} {{**interface** *interface*}}
no zone local *gkname*

Parameter

Parameter	Description
<i>gkname</i>	Name of gatekeeper (the maximum length is 16)
domain	Domain name (the maximum length is 31)
<i>ipaddr</i>	Point-divided IP address

<i>interface</i>	Network interface, such as Ethernet interface, serial interface, Synchronous interface, etc.
------------------	--

default

none

Command mode

gatekeeper configuration mode

Explanation

Setting local zone of the voice gatekeeper

Example

```
router>enable
router#config
router_config#gatekeeper-cfg
router_config_gk#zone local gk1 rnd.com ipaddr 192.2.2.155
router_config_gk#
```

5.1.3 zone remote

Setting the remote zone of the voice gatekeeper.

Syntas

zone remote *gkname domain ipaddr*

no zone remote *gkname*

Parameter

Parameter	Description
<i>gkname</i>	Name of gatekeeper (the maximum length is 16)
<i>domain</i>	Domain name (the maximum length is 31)
<i>ipaddr</i>	Point-divided IP address

default

none

Command mode

Gatekeeper configuration mode

Explanation

Setting remote zone of the voice gatekeeper

Example

```

router>enable
router#config
router_config#gatekeeper-cfg
router_config_gk#zone remote gk2 rnd.com 192.2.2.156
router_config_gk#

```

5.1.4 zone prefix

Setting the prefix of the voice gatekeeper

Syntas

zone prefix *gkname prefix*

no zone remote *gkname prefix*

Parameter

Parameter	Description
<i>gkname</i>	Name of gatekeeper (the maximum length is 16)
<i>prefix</i>	Character string of prefix (the maximum length is 15)

default

none

Command mode

gatekeeper configuration mode

Explanation

Setting the prefix of the voice gatekeeper

Example

```

router>enable
router#config
router_config#gatekeeper-cfg
router_config_gk#zone prefix gk1 123
router_config_gk#

```

5.1.5 zone subnet

Setting the subnet of the voice gatekeeper

Syntas

zone subnet *gkname* {**default**|*IPaddr*{*Ipmask*|*num*}} **enable**

no zone subnet *gkname* {**default**|*IPaddr*{*Ipmask*|*num*}} **enable**

Parameter

Parameter	Description
<i>gkname</i>	Name of the gatekeeper (the maximum length is 16)
<i>IPaddr</i>	Point-divided address of subnet
<i>Ipmask</i>	Point-divided address mask of subnet
<i>num</i>	The number of byte of 1 in subnet mask.
enable	Allowing the equipment registration of the subnet

default

none

Command mode

Gatekeeper configuration mode

Explanation

Setting the subnet of the voice gatekeeper

Example

```
router>enable
router#config
router_config#gatekeeper-cfg
router_config_gk#zone subnet
router_config_gk#
```

5.1.6 alias

Setting the static alias name entry of the voice gatekeeper

Syntas

alias static *ipaddr gkid gkname* {[**gateway**][**terminal**][**mcu**][**e164** *e164num*][**h323id** *h323id*][**ras** *rasipaddr*]}

alias static *IPaddr gkid gkname*

no alias static *IPaddr*

Parameter

Parameter	Description
static	Configuring static terminal list item
<i>IPaddr</i>	Point-divided IP address of signaling of this static terminal
<i>gkname</i>	Configuring the gatekeeper name registered by this static terminal
gateway	Static terminal is a gateway
terminal	Static terminal is a terminal
mcu	Static terminal is a multi-point controlled unit

E164NUM	Configuring E.164 number (the maximum length is 32), 10 numbers can be configured at the most.
H323ID	Configuring H323 ID (the maximum length is 47)
rasIPAddr	RAS address of this terminal

Default

none

Command mode

Gatekeeper configuration mode

Explanation

Setting the static alias name entry of the voice gatekeeper. Multiple options can be chosen.

Example

```
router>enable
router#config
router_config#gatekeeper-cfg
router_config_gk#alias static
router_config_gk#
```

5.1.7 gw-type-prefix

Setting the technical prefix of the voice gatekeeper.

Syntas

gw-type-prefix *E164NUM* {**default-technology**[[**gw** *ipaddr* *IPAddr*]][**hopoff** *gkname*]]

gw-type-prefix *E164NUM*

no gw-type-prefix *E164NUM*

Parameter

Parameter	Description
E164NUM	E.164 prefix (it can be ended with '*' or multiple '.', the maximum length is 15)
default-technology	This prefix is default technical prefix
gw	Designating the gateway related to this prefix
IPAddr	RAS signaling IP point-divided address of gateway
hopoff	This prefix designates the resolution on the specific gatekeeper.

default

none

Command mode

Gatekeeper configuration mode

Explanation

Setting the technical prefix of gateway of the voice gatekeeper.

Example

```
router>enable
router#config
router_config#gatekeeper-cfg
router_config_gk#gw-type-prefix
router_config_gk#
```

5.1.8 shutdown (gatekeeper)

Shutting down the voice gatekeeper

Syntas

shutdown
no shutdown

Parameter

none

Default

no shutdown

Command mode

gatekeeper configuration mode

Explanation

The function of the voice gateway is shut down at the time of shutdown. When some gateway has been registered with the gatekeeper, it will cancel the registration with those gateways.

Example

The example below shuts down the voice gatekeeper

```
router>enable
router#config
router_config#gatekeeper-cfg
router_config_gk#shutdown
router_config_gk#
```

5.2 show command

5.2.1 show voip

Showing the version information of voice module

Syntas

show voip

Parameter

none

Default

none

Command mode

Enable and the above modes

Explanation

none

Example

```
router>enable
router#show voip
bdcom voip software v2.0.0 build 20020828
router#
```

5.2.2 show voip dial-peer

Showing the current parameter setting of some or whole dial-peers

Syntas

show voip dial-peer [*tag*]

Parameter

Parameter	Description
<i>tag</i>	dial-peer index (1~2147483647)

default

none

Command mode

Enable and above modes

Explanation

Showing the current parameter setting of some or whole dial-peers. If TAG is not entered, all the dial-peers will be shown.

Example

```
router>enable
router#show voip dial-peer 1
index: 1(dialpeer id)
  type: pots
  destination pattern: 11910
  no answer address
  port list: 1/0
  trim prefix length: 0, no dial prefix
  codec type: g711ar64, no require-qos, fax protocol:bypass
  fxo dial mode: once
  no shutdown
router#
```

5.2.3 show voip voice-port

Showing the current status of some or all the voice ports

Syntas

show voip voice-port {slot-num/port-num | **all**}

Parameter

Parameter	Description
slot-num	Showing the slot number where status port is located.
port-num	Showing port number of the status port
all	Showing all the voice ports

default

none

Command mode

Enable and the above modes

Explanation

Showing the current status of some or whole voice ports.

Example

```
router>enable
router#show voip voice-port 1/0
fxs mode voice port 1/0
  comfort noise: off
  connection plar: empty
```

```
description: empty
input gain: 0(db), output gain: 2(db), signal gain: -11(db)
timeouts initial: 10(s), timeouts interdigit: 10(s)
timing dialout pause: 2000(ms), timing digit: 100(ms)
timing interval digit: 100(ms)
no shutdown
router#
```

5.2.4 show voip voice-dsp

Showing the status of all the voice DSP in the system

Syntas

show voip voice-dsp

Parameter

none

Default

none

Command mode

Enable and above modes

Explanation

Showing the status of all the voice DSP in the system.

Example

```
router>enable
router#show voip voice-dsp
router#
```

5.2.5 show voip voice-regs

Showing the value of CPLD register of all the voice plug-in cards on the equipment.

Syntas

show voip voice-regs

Parameter

none

Default

none

Command mode

Enable and above modes

Explanation

Showing the value of CPLD register of all the voice plug-in cards on the equipment

Example

```
Router>enable
Router#show voip voice-regs
=====
Slot 1: 2 FXS
DSP0 Base Address: 0xF0830000
Out_reg:  1 1 0 1 0 0 1 0
Imask_reg: 1 1 1 1 1 0 0 0
Ipend_reg: 1 1 1 1 1 1 1 1
Router#
```

5.2.6 show voip cptone

Showing the signaling tone configuration of the designated voice plug-in card on the equipment.

Syntas

show voip cptone *slot-num*

Parameter

Parameter	Description
<i>slot-num</i>	Showing the slot number where status port is located

default

none

Command mode

Enable and the above modes

Explanation

Showing the signaling tone configuration of the designated voice plug-in card on the equipment.

Example

This example is the demonstration of single frequency signaling tone configured by the example in cptone commands.

```
Router>enable
Router#show voip cptone 1
```

If it is single frequency signal, it's high frequency would be 2001!

```
=====
==
Tone Type   Source  High Frequency  Low Frequency  On Time  Off Time
-----
DIAL        PBX     2001           450
ALERT       PBX     2001           450          100      400
BUSY        PBX     2001           450          35       35
EMPTY       PBX     2001           450          12       12
DIAL        EXT     2001           450
ALERT       EXT     2001           450          100      400
BUSY        EXT     2001           455          35       35
=====
==
Router#
```

5.2.7 show voip ivr

Showing the setting of current parameter of IVR and other information related to IVR.

Syntas

show IVR {configuration | call-instance | ivri-session}

Parameter

Parameter	Description
configuration	Showing command configuration of IVR
call-instance	Showing the information of instance of IVR call.
ivri-session	Showing the information of IVR interactive session.

default

none

Command mode

Enable and above modes

Explanation

Showing the setting of current parameters of IVR and other contents.

Example

```
Router>enable
Router#show voip ivr configuration
=====
=====
IVR disable
Authen info:
  Card name number length: 10, key length: 6, authen times: 3
  Timeout for waiting dialing: 30s, for dial ending: 60s
Dialing info:
```

```

Dial number length: 10, times: 3
Timeout for waiting dialing: 30s, for dial ending: 60s
File info:
Play start   : default/6           Record start  : default/4
Record again : default/5           Record failed : default/10
Authen start : default/1           Key start    : default/2
Authen failed: default/9           Dial start   : default/3
Dial failed  : default/7           Interrupt start: default/8
Gather audio : user
Record info:
All record period: 300s, one record period: 3000ms
Start record key: '*', restart key: '1', stop key: '#'
Play info:
Play times: 3
=====
=====
Router#

```

5.2.8 show voip h323

Showing the information of all or some call of H.323

Syntas

show voip h323 session [*H323_SESS_ID*]

Parameter

Parameter	Description
session	Showing the information of H.323 session
H323_SESS_ID	ID of H.323 call

command mode

Enable mode

Explanation

If there is no ID parameter, all the session information of current types will be shown. Otherwise the call information of ID of current types will be shown.

example

The example below is the output of executing the command “show voip h323 session 0”.

5.2.9 show voip data

Showing the information of whole or some call of data platform.

Syntas

show voip data session [*data_sess_id*]

Parameter

Parameter	Description
session	Showing the information of the data session
<i>DATA_SESS_ID</i>	Calling the reference value ID

command mode

Enable mode

Explanation

If there is no ID parameter, all the session information of current types will be shown. Otherwise the call information of ID of current types will be shown.

Example

The example below is the output of executing the command “show voip data session”.

5.2.10 show voip audio

Showing the information of all the sub audio file in the integrated audio file.

Syntas

show voip audio *filename*

Parameter

Parameter	Description
<i>filename</i>	Name of audio file

command mode

Enable mode

explanation

Showing the relevant information of all sub audio file in the integrated audio file, including the name of sub audio file, side-play mount of sub audio file in the integrated audio file, the length of sub audio file.

Note: When the non-audio type file, namely the file whose postfix name is not “.au”, is used as shown, the above similar information will not be obtained and the relevant error prompt will occur.

example

The example below is the output of executing the command “show voip audio”.

```
Router>enable
Router#show voip audio single.au
This is a single audio file, codec type is G723r53.
Router#show voip audio multi.au
=====
Sub audio name   Offset  Length
-----
SubAudio1       200    200
SubAudio2       400    200
SubAudio3       600    200
=====
This is a single audio file, codec type is G723r53.
```

5.2.11 show gateway

Showing the information of voice gateway on the equipment

Syntas

show gateway

Parameter

none

Default

none

Command mode

Enable and above modes

Explanation

Showing the information of the voice gateway on the equipment.

Example

The example below shows the information of unregistered voice gateway.

```
Router>enable
Router#show gateway
Gateway bd119 172.16.20.119 is registered to
gatekeeper cisco106 172.16.20.106
Alias list (CLI configured)
H323-ID bd119
E164-ID 11910
E164-ID 11911
Alias list (last RCF)
H323-ID bd119
```

```
E164-ID 11910
E164-ID 11911
Gateway Endpoint Identifier
8122610400000004
```

Router#

The example below shows the information of registered voice gateway.

```
Router>enable
Router#show gateway
Gateway bd119 172.16.20.119 is registered to
gatekeeper cisco106 172.16.20.106
Alias list (CLI configured)
H323-ID bd119
E164-ID 11910
E164-ID 11911
Alias list (last RCF)
H323-ID bd119
E164-ID 11910
E164-ID 11911
Gateway Endpoint Identifier
8122610400000004
Router#
```

5.2.12 show gatekeeper endpoints

Showing the information of all the terminals of the voice gatekeeper registered with the equipment.

Syntax

show gatekeeper endpoints {[gkid *gkname*][dynamic | static]}

Parameter

Parameter	Description
GKNAME	Name of gatekeeper (the maximum length is 16)
static	Showing the static alias name entry
dynamic	showing dynamic alias name entry

default

none

Command mode

Enable and above modes

Explanation

Showing the information of all the terminals of the voice gatekeeper registered with the equipment.

Example

```

Router>enable
Router#show gatekeeper endpoints
Router#show gatekeeper endpoint
      GATEKEEPER ENDPOINT REGISTRATION
      =====
CallSig Address Port  RAS Address  Port Zone Name    Type   Static
-----
172.16.20.119 1720 172.16.20.119 20001 gk1      GW     N
E164-ID: 11910
E164-ID: 11911
H323-ID: bd119
=====
=====
Total number of this kind endpoints = 1
Total number of active registrations =
Router#

```

5.2.13 show gatekeeper gw-type-prefix

Showing the information of technical prefix list of gateway.

Syntas

show gatekeeper gw-type-prefix

Parameter

none

Default

none

Command mode

Enable and above modes

Explanation

Showing the information of technical prefix list of gateway.

Example

```

Router>enable
Router#show gatekeeper gw-tech-prefix
GATEWAY TYPE PREFIX TABLE
=====
Prefix: 123
=====

Router#

```

5.2.14 show gatekeeper status

Showing the status information of local gatekeeper

Syntas

show gatekeeper status

Parameter

none

Default

none

Command mode

Enable and above modes

Explanation

Showing the status information of local gatekeeper

Example

```
Router>enable
Router#show gatekeeper status
  Gatekeeper State: UP
  Zone Name:      gk1
  Zone Name:      gk2
Router#
```

5.2.15 show gatekeeper zone

Showing the relevant information of the zone

Syntas

show gatekeeper zone {[gkid gkname]][local|prefix|remote|subnet]}

Parameter

Parameter	Description
<i>gkname</i>	Name of gatekeeper (the maximum length is 16).
local	Showing local zone.
prefix	Showing prefix information of zone.
remote	Showing remote zone.
subnet	Showing information of local subnet.

default

none

Command mode

Enable and above modes

Explanation

Showing the relevant information of zone

Example

```
Router>enable
Router#show gatekeeper zone
      GATEKEEPER ZONES
      =====
GK name      Domain Name      RAS Address  PORT  Local MAX-BW CUR-BW
              (kbps) (kbps)
-----
gk1          rnd.com          172.16.20.115 1719 Y
SUBNET ATTRIBUTES :
 subnet 172.16.20.0/255.255.255.0 : (Enabled)
All Other Subnets : (Disabled)
gk2          rnd.com          172.16.20.115 1719 Y
SUBNET ATTRIBUTES :
All Other Subnets : (Enabled)
gk153        rnd.com          172.16.20.153 1719 N
=====
=====
Router#
```

Chapter 6 VoIP Management Command

6.1 debug Command

6.1.1 debug vpm dsp

Exporting the debug information when DSP is working.

Syntas

debug vpm dsp
no debug vpm dsp

Parameter

none

Default

no debug vpm dsp

Command mode

Enable mode

Explanation

Checking whether DSP module is used when the operation has trouble.

Example

```
router>enable
router#debug vpm dsp
VPM Dsp debugging is on
router#
```

6.1.2 debug vpm error

Exporting the error situation encountered in processing the voice module.

Syntas

debug vpm error
no debug vpm error

Parameter

none

Default

no debug vpm error

Command mode

Enable mode

Explanation

Exporting the error message in processing the voice module.

Example

```
router>enable
router#debug vpm error
VPM Error debugging is on
router#
```

6.1.3 debug vpm port

Exporting the error situation encountered in processing the voice module.

Syntas

debug vpm port *slot-num/port-num*
no debug vpm port *slot-num/port-num*

Parameter

Parameter	Description
slot-num	The number of slots where debug port is located.
port-num	Port number of debug

default

none

Command mode

Enable mode

Explanation

In order to reduce the trouble in correcting the error, this command can be used for preventing the information of multiple voice ports from being exported together.

Example

```
router>enable
router#debug vpm port 1/0
VPM Port debugging is on
router#
```

6.1.4 debug vpm signal

Exporting the information of message processing flow when the voice module is running.

Syntas

debug vpm signal

no debug vpm signal

Parameter

none

Default

no debug vpm signal

Command mode

Enable mode

Explanation

This function can be used for tracing the message of the voice module and the flow of state machine processing.

Example

```
router>enable
router#debug vpm signal
VPM Signal debugging is on
router#
```

6.1.5 debug voip error

Exporting the information of wrong content of VoIP

Syntas

debug voip error { [h323] | [dialsig] | [ras] | [gw] | [gk] | [asn1] | [dp] | [vdata] | [ivrm] | [ivrp] | [ivri] | [ivrc] | [ct] | [others] }

no debug voip error { [h323] | [dialsig] | [ras] | [gw] | [gk] | [asn1] | [dp] | [vdata] | [ivrm] | [ivrp] | [ivri] | [ivrc] | [ct] | [others] }

Parameter

Parameter	Description
h323	Debugging VoIP H323 error
dialsig	Debugging VoIP Dialsig error
ras	Debugging VoIP RAS error
gw	Debugging VoIP gateway error

gk	Debugging VoIP Gatekeeper error
asn1	Debugging VoIP ASN.1 error
dp	Debugging VoIP data plane error
vdata	Debugging VoIP vdata error
ivrm	Debugging VoIP IVR main error
ivrp	Debugging VoIP IVR play error
ivri	Debugging VoIP IVRI error
ivrc	Debugging VoIP IVRC error
ct	Debugging VoIP call control error
others	Debugging other error of VoIP call

default

no debug all

Command mode

Enable mode

Explanation

The function can be used for checking the error message of various sub-modules of VoIP.

example

```
Router>enable
Router#debug voip error h323
Router#
```

6.1.6 debug voip event

Exporting the information of the content of VoIP event

Syntas

debug voip error { [h323 | dialsig | ras | gw | gk | asn1 | dp | vdata | ivrm | ivrp | ivri | ivrc | ct | others] detail

no debug voip error { [h323 | dialsig | ras | gw | gk | asn1 | dp | vdata | ivrm | ivrp | ivri | ivrc | ct | others] detail

Parameter

Parameter	Description
h323	Debugging VoIP H323 event
dialsig	Debugging VoIP Dialsig event
ras	Debugging VoIP RAS event
gw	Debugging VoIP gateway event
gk	Debugging VoIP Gatekeeper event
asn1	Debugging VoIP ASN.1 event

dp	Debugging VoIP data plane event
vdata	Debugging VoIP vdata event
ivrm	Debugging VoIP IVR main event
ivrp	Debugging VoIP IVR play event
ivri	Debugging VoIP IVRI event
ivrc	Debugging VoIP IVRC event
ct	Debugging VoIP call control event
others	Debugging other events of VoIP call
detail	Debugging the detailed content of VoIP event

default

no debug all

Command mode

Enable mode

Explanation

The function can be used for checking the event message of various sub-modules of VoIP.

Example

```
Router>enable
Router#debug voip event ras
2002-5-17 01:51:12 VOIP(RAS):
RasSendData: send msg length 85 to 172.16.20.115:1719
RASSendData: RRQ (seq# 356)
2002-5-17 01:51:12 VOIP(RAS):
RASRecvData: rcvd msg length 62 from 172.16.20.115:1719
2002-5-17 01:51:12 VOIP(RAS):
RASRecvData: RCF (seq# 356)
```

6.1.7 debug voip packet

Exporting the message of VoIP event content.

Syntas

```
debug voip error { [q931 | h225 | h245 | rtp | rtcp | fax ]
no debug voip error { [q931 | h225 | h245 | rtp | rtcp | fax ]
```

Parameter

Parameter	Description
q931	showing VoIP Q.931 message content
h225	showing VoIP H.225 message content
h245	showing VoIP h245 message content
rtp	showing VoIP RTP message content

rtcp	showing VoIP RTCP message content
fax	showing VoIP FAX message content

default

no debug all

Command mode

Enable mode

Explanation

The function can be used for checking the event message of various sub-modules of VoIP.

Example

```
Router>enable
Router#debug voip packet q931
Router#
```

6.2 Other Commands of VoIP

6.2.1 aline-dialpeer

Re-sequencing the configured dialpeer on dialpeer ID

Syntas

aline-dialpeer

Parameter

none

Default

none

Command mode

Global configuration mode

Explanation

The general dialpeer is sequenced on the order of configured time. In order to facilitate the user's management, the command can be used for sequencing dialpeer after dialpeer configuration is over. The command shall be confirmed as feasible before it is used because of the irreversible operation of the command (among the different dialpeers with the same number configured, the one arranged in the front is always used in dialing).

Example

```
router>enable
```

```

router#config
router_config#aline-dialpeer
This operation can't be restore, continue?[y/n]y
router_config#

```

6.2.2 clear h323-session

Clearing some session.

Syntas

clear h323-session *session_id*

Parameter

Parameter	Description
<i>session_id</i>	Session ID

default

The command can be used for ending a session compulsively in the event that some session suffers confusion, fails to response or cannot be brought to an end.

Command mode

Enable mode

Explanation

none

Example

The example below clears a session with session ID as 0.

```

router>enable
router#clear h323-session 0
router#

```

6.2.3 dial-peer terminator

Configuring the termination match character of dial string

Syntas

dial-peer terminator *char*

no dail-peer terminator

Parameter

Parameter	Description
char	The termination match the character of the dial string (0~9 # * a b c d)

default

no dail-peer terminator

Command mode

Global configuration mode

Explanation

After the user enters the configuration command, the matched character deposit will end and the dial will apply the match method of the termination character. When the dial is over, this termination character prompt shall be entered for matching. <![endif]>

After the user enters the “no” format

of the command, the stored termination match character is ineffective. The dial applies to the match the method of each dial.

Example

The example below configures '*' as termination match character.

```
router>enable
router#config
router_config#dial-peer terminator *
router_config#
```

6.2.4 gw-accounting-h323

Configuring RADIUS accounting of all the session users.

Syntas

gw-accounting-h323
no gw-accounting-h323

Parameter

none

Default

no gw-accounting-h323

Command mode

Global configuration mode

Explanation

Controlling the accounting switch of all h323 voice, including the configuration of the command used for opening the accounting of tel and voip.

Example

none

6.2.5 gw-authen-h323

Configuring RADIUS authentication of all one-off dial users.

Syntas

gw-authen-h323
no gw-authen-h323

Parameter

none

Default

none

Command mode

Global configuration mode

Explanation

The command is configured for one-off dial authentication switch and using one-off authentication of ivr.

Example

none

6.2.6 sense cptone

This command “sense cptone” is used for detecting the frequency and on off time (unit:10ms) of 10 signaling tones like the busy tone, dead lexel signal, congestion tone, dialing tone and ring back tone, etc of PBX and outside line connected with FXO port slot/port.

Syntas

sense cptone port slot-num|port-num dial str tone_type { single | dual }

Parameter

Parameter	Description
port	Port to be detected
slot-num	The number of the slot where the port to be detected is located.
port-num	The port number to be detected
dial	The number used for triggering PBX or local network port exchanger connected with PBX to play the signaling tone of designated type.
STR	Dial string
TONE_TYPE	Detected signaling tone type
single	Detecting single frequency

dual	Detecting dual frequency
-------------	--------------------------

default

none

Command mode

Global configuration mode

Explanation

The two exported parameters are the lower frequency limit and upper frequency limit of signaling tone sent by the switch connected with the port respectively as well as the on off time of the first cycle. After the command is used, the command "cptone" can be used for configuring the frequency and on off time of detective signaling tone for DSP on the port to ensure the normal function of the port.

Example

The example below makes a detection:

```
router>enable
router#config
router_config#sense cptone port 1/0 dial 12345 dial-tone-pbx dual
High:450 Low:420
High:460 Low:430
High:460 Low:420
router_config#
```

6.2.7 voip asn-opt

Using the optimized asn coding

Syntas

voip asn-opt

no voip asn-opt

Parameter

none

Default

no voip asn-opt

Command mode

Global configuration mode

Explanation

The command can be used for improving the coding efficiency<![endif]>

Example

The example below configures the use of the optimized asn coding.

```
router>enable
router#config
router_config#voip asn-opt
router_config#
```