

show dial-peer through show gatekeeper zone prefix

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show dial-peer

To display the dial plan mapping table for protocol peers, use the **show dial-peer**command in privileged EXEC mode.

show dial-peer {**carrier** | **cor** | **trunk-group-label**}

Syntax Description

carrier	Displays carrier ID configuration details of the peer protocol.
cor	Displays restriction settings class details.
trunk-group-label	Displays trunk group label configuration details.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.2(17)SX	This command was introduced.
12.4(22)T	This command was modified in a release earlier than Cisco IOS Release 12.4(22)T. The **carrier** and **trunk-group-label**keywords were added.

Usage Guidelines

Use this command to display the dial plan mapping table for protocol peers along with the available keywords.

Examples

The following sample output from the **show dial-peer** command displays restriction settings class details. The fields are self-explanatory.

```
Router# show dial-peer cor
Class of Restriction
name: class1
```

show dial-peer video

To display configuration information for video dial peers, use the **show dial-peer video**command in privileged EXEC mode.

show dial-peer video [*number*] [**summary**]

Syntax Description

number	(Optional) A specific video dial peer. Output displays information about that dial peer.
summary	(Optional) Output displays a one-line summary of each video dial peer.

Command Default

If both the *name* argument and **summary** keyword are omitted, command output displays detailed information about all video dial peers.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.0(5)XK	This command was introduced on the Cisco MC3810.
12.0(7)T	This command was integrated into Cisco IOS Release 12.0(7)T.

Usage Guidelines

Use this command to display the configuration for all video dial peers configured for a router. To show configuration information for only one specific dial peer, use the *number* argument to identify the dial peer.

Examples

The following sample output displays detailed information about all configured video dial peers:

```
Router# show dial-peer video
Video Dial-Peer 1
      type = videocodec, destination-pattern = 111
      port signal = 1/0, port media = Serial1
      nsap = 47.0091810000000050E201B101.00107B09C6F2.C8
Video Dial-Peer 2
      type = videoatm,   destination-pattern = 222
      session-target = ATM0 svc nsap 47.0091810000000050E201B101.00E01E92ADC2.C8
Video Dial-Peer 3
      type = videoatm,   destination-pattern = 333
      session-target = ATM0 pvc 70/70
```

The table below describes the significant fields shown in the output.

Table 1: show dial-peer video Field Descriptions

Field	Description
NSAP	Network service access point (NSAP) address

show dial-peer voip keepalive status

To display the status of the destination when options-keepalive is configured under dial-peer, use the **show dial-peer voip keepalive status** command in privileged EXEC mode.

show dial-peer voip keepalive status [*dp-tag* | **tenant** *tenant-tag* | **<cr>**]

dp-tag	Dial-Peer Tag. Range: 1—1073741823.
tenant-tag	Keepalive status info for tenants. Range: 1—10000.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
Cisco IOS XE Cupertino 17.9.1a	This command was introduced.

Usage Guidelines

Use this command to know the status of the destination when options-keepalive is configured under the dial-peer configuration mode using the command **voice-class sip options-keepalive profile**. You can use this command to display the options keepalive status for individual session targets and server groups. The keepalive status is displayed for IPv4, IPv6, and DNS format destinations.

Note CUBE does not display the status for dynamic dial-peers.

If the destination is configured as DNS SRV, the status of each of the records is maintained by CUBE. For example, if the DNS SRV lookup results in four records, the status of each of these four records is displayed. For session server groups which have multiple destinations, the keepalive status of each of these targets is displayed by the command.

The command output can be filtered also on the basis of **tenant-tag** and **dp-tag**.

The different **STATUS** for the dial-peer, as displayed by the command, include:

- **active**—The dial-peer is active and contains destinations that are available to be considered by CUBE for the routing of call handling.
- **busyout**—The dial-peer is inactive and no suitable destinations are available currently.
- **partial**—A dial-peer is marked as partially active if at least one of the destinations is active out of a group, and the rest are inactive (busyout).
- **NA**—The command **voice-class sip options-keepalive profile** is not configured and hence the status is not available.

The different **STATUS** for the different destinations, as displayed by the command, include:

- **active**—The destination is available to CUBE.
- **busyout**—The destination is marked inactive after the keepalive retries are exhausted.

Note You need to configure the same transport type for the dial-peers with same SRV destination.

Examples

The following is sample output of the command that displays the status of the dial-peer destination when options-keepalive is configured under the dial-peer:

```
router#show dial-peer voip keepalive status
 TAG         TENANT   DESTINATION                    OOD-SessID   PRI     WT      STATUS
 6           4        dns:company.com                                             partial
                       company1.com                   437          10      50      active

                       ipv4:10.105.34.88:8788
                       company2.com*                  0            10      50      busyout

 8           -        dns:ex.company.com                                          active
                       example1.com                   438          10      50      active

                       ipv4:10.105.34.88:8790
                       example2.com                   439          10      50      active

                       ipv4:10.64.86.70:8789
 9           3        ipv4:10.64.86.70:8073          1            -       -       busyout
 10          -        sess-svr-grp:1
                       ipv4:10.105.34.88:8071         2            -       -       busyout
                       ipv4:10.105.34.88:8072         3            -       -       busyout
                       ipv4:10.105.34.88:8073         4            -       -       busyout
 11          -        dns:demo3.com                                               active
                       ipv4:10.64.86.70:5060          440          -       -       active

 12          -        dns:demo_failed.com*                                        busyout
 13          -        dns:demo4.com                                               partial
                       example3.com                   441          10      50      active

                       ipv4:10.105.34.88:8792
                       example4.com*                  0            10      50      busyout

Note: For destinations that are marked with (*), DNS resolution has failed.

router#
```

Related Commands

Command	Description
show voice class sip-options-keepalive	Displays the details of connectivity between CUBE VoIP dial peers and SIP servers.

show dial-peer voice

To display information for voice dial peers, use the **show dial-peer voice** command in user EXEC or privileged EXEC mode.

show dial-peer voice [*number* | **busy-trigger-counter** | **summary** | **voip system**]

Syntax Description

number	(Optional) A specific voice dial peer. The output displays detailed information about that dial peer.
busy-trigger-counter	(Optional) Displays the busy trigger call count on the VoIP dial peer.
summary	(Optional) Displays a short summary of each voice dial peer.
voip system	(Optional) Displays information about the VoIP dial peer.

Command Default

If both the *number* argument and **summary** keyword are omitted, the output displays detailed information about all voice dial peers.

Command Modes

User EXEC (>)

Privileged EXEC (#)

Command History

Release	Modification
11.3(1)T	This command was introduced.
11.3(1)MA	This command was modified. The **summary** keyword was added for the Cisco MC3810.
12.0(3)XG	This command was implemented for Voice over Frame Relay (VoFR) on the Cisco 2600 series and Cisco 3600 series.
12.0(4)T	This command was implemented for VoFR on the Cisco 7200 series.
12.1(3)T	This command was implemented for modem pass-through over VoIP on the Cisco AS5300.
12.2(2)XB	This command was modified to support VoiceXML applications.
12.2(4)T	This command was implemented on the Cisco 1750.
12.2(8)T	This command was implemented on the Cisco 1751, Cisco 2600 series, Cisco 3600 series, Cisco 3725, and Cisco 3745.
12.2(2)XN	This command was modified. Support for enhanced Media Gateway Control Protocol (MGCP) voice gateway interoperability was added to Cisco CallManager 3.1 for the Cisco 2600 series, Cisco 3600 series, and Cisco VG200.

Release	Modification
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and Cisco CallManager 3.2 and implemented on the Cisco IAD2420. The command was enhanced to display configuration information for bandwidth, video codec, and rtp payload-type for H.263+ and H.264 video codec.
12.4(22)T	This command was modified. This command was enhanced to display the current configuration state of the history-info header. Command output was updated to show IPv6 information.
15.0(1)XA	This command was modified. The output was enhanced to show the logical partitioning class of restriction (LPCOR) policy for outgoing calls.
15.1(1)T	This command was integrated into Cisco IOS Release 15.1(1)T.
15.1(3)T	This command was modified. The output was enhanced to display information about the bind at the dial-peer level and to display the connection status of Foreign Exchange Office (FXO) ports.
Cisco IOS XE Cupertino 17.9.1a	This command was modified. The output was enhanced to display the OPTIONS ping keepalive status for a dial-peer.

Usage Guidelines

Use the **show dial-peer voice** command to display the configuration for all VoIP and POTS dial peers configured for a gateway. To display configuration information for only one specific dial peer, use the *number* argument. To display summary information for all dial peers, use the **summary** keyword.



Note The recommended command to verify the QoS settings that the signaling and media packets will be marked with when RSVP is not configured for call signaling on the Cisco UBE is the **show dial-peer voice** command.

Examples

The following is sample output from the **show dial-peer voice** command for a POTS dial peer:

```
Device# show dial-peer voice 100
VoiceEncapPeer3201
peer type = voice, information type = video,
description = `',
tag = 3201, destination-pattern = `86001',
answer-address = `', preference=0,
CLID Restriction = None
CLID Network Number = `'
CLID Second Number sent
CLID Override RDNIS = disabled,
source carrier-id = `', target carrier-id = `',
source trunk-group-label = `', target trunk-group-label = `',
numbering Type = `unknown'
group = 3201, Admin state is up, Operation state is up,
Outbound state is up,
incoming called-number = `', connections/maximum = 0/unlimited,
DTMF Relay = disabled,
URI classes:
     Destination =
huntstop = disabled,
```

```
in bound application associated: 'DEFAULT'
out bound application associated: ''
dnis-map =
permission :both
        incoming COR list:maximum capability
outgoing COR list:minimum requirement
Translation profile (Incoming):
Translation profile (Outgoing):
incoming call blocking:
translation-profile = `'
disconnect-cause = `no-service'
advertise 0x40 capacity_update_timer 25 addrFamily 4 oldAddrFamily 4
type = pots, prefix = `',
forward-digits 4
session-target = `', voice-port = `2/0:23',
direct-inward-dial = enabled,
digit_strip = enabled,
register E.164 number with H323 GK and/or SIP Registrar = TRUE
fax rate = system,   payload size =  20 bytes
supported-language = ''
preemption level = `routine'
bandwidth:
     maximum = 384 KBits/sec, minimum = 64 KBits/sec
voice class called-number:
     inbound = `', outbound = `1'
Time elapsed since last clearing of voice call statistics never
        Connect Time = 0, Charged Units = 0,
Successful Calls = 0, Failed Calls = 0, Incomplete Calls = 0
Accepted Calls = 0, Refused Calls = 0,
Last Disconnect Cause is "",
Last Disconnect Text is "",
Last Setup Time = 0.
```

The following is a sample output from this command for a VoIP dial peer:

```
Device# show dial-peer voice 101
VoiceOverIpPeer101
peer type = voice, system default peer = FALSE, information type = voice,
description = `',
tag = 1234, destination-pattern = `',
voice reg type = 0, corresponding tag = 0,
allow watch = FALSE
answer-address = `', preference=0,
CLID Restriction = None
CLID Network Number = `'
CLID Second Number sent
CLID Override RDNIS = disabled,
rtp-ssrc mux = system
source carrier-id = `', target carrier-id = `',
source trunk-group-label = `',  target trunk-group-label = `',
numbering Type = `unknown'
group = 1234, Admin state is up, Operation state is down,
incoming called-number = `', connections/maximum = 0/unlimited,
DTMF Relay = disabled,
modem transport = system,
URI classes:
Incoming (Request) =
Incoming (Via) =
Incoming (To) =
Incoming (From) =
Destination =
huntstop = disabled,
```

```
in bound application associated: 'DEFAULT'
out bound application associated: ''
dnis-map =
permission :both
incoming COR list:maximum capability
outgoing COR list:minimum requirement
outgoing LPCOR:
Translation profile (Incoming):
Translation profile (Outgoing):
incoming call blocking:
translation-profile = `'
disconnect-cause = `no-service'
advertise 0x40 capacity_update_timer 25 addrFamily 4 oldAddrFamily 4
mailbox selection policy: none
type = voip, session-target = `',
technology prefix:
settle-call = disabled
ip media DSCP = ef, ip media rsvp-pass DSCP = ef
ip media rsvp-fail DSCP = ef, ip signaling DSCP = af31,
ip video rsvp-none DSCP = af41,ip video rsvp-pass DSCP = af41
ip video rsvp-fail DSCP = af41,
ip defending Priority = 0, ip preemption priority = 0
ip policy locator voice:
ip policy locator video:
UDP checksum = disabled,
session-protocol = sipv2, session-transport = system,
req-qos = best-effort, acc-qos = best-effort,
req-qos video = best-effort, acc-qos video = best-effort,
req-qos audio def bandwidth = 64, req-qos audio max bandwidth = 0,
req-qos video def bandwidth = 384, req-qos video max bandwidth = 0,
RTP dynamic payload type values: NTE = 101
Cisco: NSE=100, fax=96, fax-ack=97, dtmf=121, fax-relay=122
CAS=123, TTY=119, ClearChan=125, PCM switch over u-law=0,
A-law=8, GSMAMR-NB=117 iLBC=116, AAC-ld=114, iSAC=124
lmr_tone=0, nte_tone=0
h263+=118, h264=119
G726r16 using static payload
G726r24 using static payload
RTP comfort noise payload type = 19
fax rate = voice,   payload size =  20 bytes
fax protocol = system
fax-relay ecm enable
Fax Relay ans enabled
Fax Relay SG3-to-G3 Enabled (by system configuration)
fax NSF = 0xAD0051 (default)
codec = g729r8,   payload size =  20 bytes,
video codec = None
voice class codec = `'
voice class sip session refresh system
voice class sip rsvp-fail-policy voice post-alert mandatory keep-alive interval 30
voice class sip rsvp-fail-policy voice post-alert optional keep-alive interval 30
voice class sip rsvp-fail-policy video post-alert mandatory keep-alive interval 30
voice class sip rsvp-fail-policy video post-alert optional keep-alive interval 30
text relay = disabled
Media Setting = forking (disabled) flow-through (global)
Expect factor = 10, Icpif = 20,
Playout Mode is set to adaptive,
Initial 60 ms, Max 1000 ms
Playout-delay Minimum mode is set to default, value 40 ms
Fax nominal 300 ms
Max Redirects = 1, signaling-type = cas,
VAD = enabled, Poor QOV Trap = disabled,
Source Interface = NONE
voice class sip url = system,
```

```
voice class sip tel-config url = system,
voice class sip rel1xx = system,
voice class sip anat = system,
voice class sip outbound-proxy = "system",
voice class sip associate registered-number = system,
voice class sip asserted-id system,
voice class sip privacy system
voice class sip e911 = system,
voice class sip history-info = system,
voice class sip reset timer expires 183 = system,
voice class sip pass-thru headers = system,
voice class sip pass-thru content unsupp = system,
voice class sip pass-thru content sdp = system,
voice class sip copy-list = system,
voice class sip g729 annexb-all = system,
voice class sip early-offer forced = system,
voice class sip negotiate cisco = system,
voice class sip block 180 = system,
voice class sip block 183 = system,
voice class sip block 181 = system,
voice class sip preloaded-route = system,
voice class sip random-contact = system,
voice class sip random-request-uri validate = system,
voice class sip call-route p-called-party-id = system,
voice class sip call-route history-info = system,
voice class sip privacy-policy send-always = system,
voice class sip privacy-policy passthru = system,
voice class sip privacy-policy strip history-info = system,
voice class sip privacy-policy strip diversion = system,
voice class sip map resp-code 181 = system,
voice class sip bind control = enabled, 9.42.28.29,
voice class sip bind media = enabled, 9.42.28.29,
voice class sip bandwidth audio = system,
voice class sip bandwidth video = system,
voice class sip encap clear-channel = system,
voice class sip error-code-override options-keepalive failure = system,
voice class sip calltype-video = false
voice class sip registration passthrough = System
voice class sip authenticate redirecting-number  = system,
redirect ip2ip = disabled
local peer = false
probe disabled,
Secure RTP: system (use the global setting)
voice class perm tag = `'
Time elapsed since last clearing of voice call statistics never
Connect Time = 0, Charged Units = 0,
Successful Calls = 0, Failed Calls = 0, Incomplete Calls = 0
Accepted Calls = 0, Refused Calls = 0,
Last Disconnect Cause is "",
Last Disconnect Text is "",
Last Setup Time = 0.
Last Disconnect Time = 0.
When there is no Dial-peer level bind -
voice class sip bind control = system,
voice class sip bind media = system,
```

The following is sample output from the **show dial-peer voice summary** command that shows connected FXO port 0/2/0 (the last entry) has OUT STAT set to "up," which indicates that the POTS dial peer can be used for an outgoing call. If this port is disconnected, the status changes in the output so that the OUT STAT field reports "down," and the POTS dial peer cannot be used for an outgoing call.

Note Beginning in Cisco IOS Release 15.1(3)T, there is improved status monitoring of FXO ports--any time an FXO port is connected or disconnected, a message is displayed to indicate the status change. For example, the following message is displayed to report that a cable has been connected, and the status is changed to "up" for FXO port 0/2/0: 000118: Jul 14 18:06:05.122 EST: %LINK-3-UPDOWN: Interface Foreign Exchange Office 0/2/0, changed state to operational status up due to cable reconnection

```
Router# show dial-peer voice summary
dial-peer hunt 0
                    AD                                      PRE PASS                 OUT
TAG    TYPE  MIN  OPER PREFIX    DEST-PATTERN      FER THRU SESS-TARGET    STAT PORT
KEEPALIVE
39275- voip  up   up             .T                 0  syst ipv4:172.18.108.26
82
8880   pots  up   up             8880               0                       up   2/0/0
8881   pots  up   up             8881               0                       up   2/0/1
8882   pots  up   up             8882               0                       up   2/0/2
8883   pots  up   up             8883               0                       up   2/0/3
8884   pots  up   up             8884               0                       up   2/0/4
8885   pots  up   up             8885               0                       up   2/0/5
8886   pots  up   up             8886               0                       up   2/0/6
8887   pots  up   up             8887               0                       up   2/0/7
88888- pots  up   up                                0                     down  0/3/0:23
888
65033- pots  up   up             6503352            0                       up   0/2/0
52
```

The table below describes the significant fields shown in the displays, in alphabetical order.

Table 2: show dial-peer voice Field Descriptions

Field	Description
Accepted Calls	Number of calls accepted from this peer since system startup.
acc-qos	Lowest acceptable quality of service configured for calls for this peer.
Admin state	Administrative state of this peer.
answer-address	Answer address configured for this dial peer.
bandwidth maximum/minimum	The maximum and minimum bandwidth, in Kb/s.
Charged Units	Total number of charging units that have applied to this peer since system startup, in hundredths of a second.
CLID Restriction	Indicates if Calling Line ID (CLID) restriction is enabled.
CLID Network Number	Displays the network number sent as CLID, if configured.
CLID Second Number sent	Displays whether a second calling number is stripped from the call setup.
CLID Override RDNIS	Indicates whether the CLID is overridden by the redirecting number.

Field	Description
codec	Default voice codec rate of speech.
Connect Time	Accumulated connect time to the peer since system startup for both incoming and outgoing calls, in hundredths of a second.
connections/maximum	Indicates the maximum number of call connections per peer.
Destination	Indicates the voice class that is used to match the destination URL.
destination-pattern	Destination pattern (telephone number) for this peer.
digit_strip	Indicates if digit stripping is enabled.
direct-inward-dial	Indicates if direct inward dial is enabled.
disconnect-cause	Indicates the disconnect cause code to be used when an incoming call is blocked.
dnis-map	Name of the dialed-number identification service (DNIS) map.
DTMF Relay	Indicates if dual-tone multifrequency (DTMF) relay is enabled.
Expect factor	User-requested expectation factor of voice quality for calls through this peer.
Failed Calls	Number of failed call attempts to this peer since system startup.
fax rate	Fax transmission rate configured for this peer.
forward-digits	Indicates the destination digits to be forwarded of this peer.
group	Group number associated with this peer.
huntstop	Indicates whether dial-peer hunting is turned on, by the **huntstop** command, for this dial peer.
Icpif	Configured Impairment/Calculated Planning Impairment Factor (ICPIF) value for calls sent by a dial peer.
in bound application associated	Interactive voice response (IVR) application that is configured to handle inbound calls to this dial peer.
incall-number	Full E.164 telephone number to be used to identify the dial peer.
incoming call blocking	Indicates the incoming call blocking setup of this peer.
incoming called-number	Indicates the incoming called number if it has been set.
incoming COR list	Indicates the level of Class of Restrictions for incoming calls of this peer.
Incomplete Calls	Indicates the number of outgoing disconnected calls with the user busy (17), no user response (18), or no answer (19) cause code.

Field	Description
information type	Information type for this call (voice, fax, video).
Last Disconnect Cause	Encoded network cause associated with the last call. This value is updated whenever a call is started or cleared and depends on the interface type and session protocol being used on this interface.
Last Disconnect Text	ASCII text describing the reason for the last call termination.
Last Setup Time	Value of the system uptime when the last call to this peer was started.
Modem passthrough	Modem pass-through signaling method is named signaling event (NSE).
numbering Type	Indicates the numbering type for a peer call leg.
Operation state	Operational state of this peer.
outgoing COR list	Indicates the level of Class of Restrictions for outgoing calls of this peer.
outgoing LPCOR	Setting of the **lpcor outgoing** command.
out bound application associated	The voice application that is configured to handle outbound calls from this dial peer. Outbound calls are handed off to the named application.
Outbound state	Indicates the current outbound status of a POTS peer.
payload size	Indicates the size (in bytes) of the payload of the fax rate or codec setup.
payload type	NSE payload type.
peer type	Dial peer type (voice, data).
permission	Configured permission level for this peer.
Poor QOV Trap	Indicates if poor quality of voice trap messages is enabled.
preemption level	Indicates the call preemption level of this peer.
prefix	Indicates dialed digits prefix of this peer.
Redundancy	Packet redundancy (RFC 2198) for modem traffic.
Refused Calls	Number of calls from this peer refused since system startup.
register E.164 number with H.323 GK and/or SIP Registrar	Indicates the "register e.164" option of this peer.
req-qos	Configured requested quality of service for calls for this dial peer.
session-target	Session target of this peer.
session-protocol	Session protocol to be used for Internet calls between local and remote routers through the IP backbone.

Field	Description
source carrier-id	Indicates the source carrier ID of this peer that will be used to match the source carrier ID of an incoming call.
source trunk-group label	Indicates the source trunk group label of this peer that can be used to match the source trunk group label of an incoming call.
Successful Calls	Number of completed calls to this peer.
supported-language	Indicates the list of supported languages of this peer.
tag	Unique dial peer ID number.
target carrier-id	Indicates the target carrier ID of this peer that will be used to match the target carrier ID for an outgoing call.
target-trunkgroup-label	Indicates the target trunk group label of this peer that can be used to match the target trunk group label of an outgoing call.
Time elapsed since last clearing of voice call statistics	Elapsed time between the current time and the time when the**clear dial-peer voice** command was executed.
Translation profile (Incoming)	Indicates the translation profile for incoming calls.
Translation profile (Outgoing)	Indicates the translation profile for outgoing calls.
translation-profile	Indicates the number translation profile of this peer.
type	Indicates the peer encapsulation type (pots, voip, vofr, voatm or mmoip).
VAD	Whether voice activation detection (VAD) is enabled for this dial peer.
voice class called-number inbound/outbound	Indicates the voice-class called number inbound or outbound setup of this peer.
voice class sip history-info	Indicates the configuration state of the history-info header. If the history-info header is not configured for the dial peer, this field is set to system. If the history-info header is enabled on this dial peer, this field is set to enable. If the history-info header is disabled on this dial peer, this field is set to disable.
voice class sip bind	Indicates the configuration state of the bind address. If the bind is configured for the global, this field is sent to system. If the bind address is enabled on this dial peer, this field is set to enabled.
voice-port	Indicates the voice interface setting of this POTS peer.

The following is sample output from this command with the **summary** keyword:

```
Router# show dial-peer voice summary
dial-peer hunt 0
                                                    PASS
  TAG TYPE   ADMIN OPER PREFIX   DEST-PATTERN      PREF THRU SESS-TARGET    PORT
```

```
  100 pots    up     up                              0
  101 voip    up     up            5550112           0   syst ipv4:10.10.1.1
  102 voip    up     up            5550134           0   syst ipv4:10.10.1.1
   99 voip    up     down                            0   syst
   33 pots    up     down                            0
```

The table below describes the significant fields shown in the display.

Table 3: show dial-peer voice summary Field Descriptions

Field	Description
dial-peer hunt	Hunt group selection order that is defined for the dial peer by the **dial-peer hunt** command.
TAG	Unique identifier assigned to the dial peer when it was created.
TYPE	Type of dial peer (mmoip, pots, voatm, vofr, or voip).
ADMIN	Whether the administrative state is up or down.
OPER	Whether the operational state is up or down.
PREFIX	Prefix that is configured in the dial peer by the **prefix** command.
DEST-PATTERN	Destination pattern that is configured in the dial peer by the **destination-pattern** command.
PREF	Hunt group preference that is configured in the dial peer by the **preference** command.
PASS THRU	Modem pass-through method that is configured in the dial peer by the **modem passthrough** command.
SESS-TARGET	Destination that is configured in the dial peer by the **session target** command.
PORT	Router voice port that is configured for the dial peer. Valid only for POTS dial peers.

The following is sample output of the **show dial-peer voice summary** command that is enhanced from Cisco IOS XE Cupertino 17.9.1a to display the overall keepalive status for the DNS SRV at the dial-peer level:

```
Router# show dial-peer voice summary
dial-peer hunt 0
             AD                                      PRE PASS SESS-SER-GRP\  OUT
TAG    TYPE  MIN  OPER PREFIX    DEST-PATTERN      FER THRU SESS-TARGET    STAT PORT
KEEPALIVE    VRF
4      voip  up   up             1234               0  syst dns:example1.com
active      NA
5      voip  up   up             123456             0  syst dns:example2.com
partial     NA
44     voip  up   up             1234               0  syst dns:example3.com
busyout     NA
For server-grp details please execute command:show voice class server-group <tag_id>
To see complete session target for ipv6 use 'sh running-config | section dial-peer <tag>
Some nodes of this target may be down. Please execute the command 'show dial-peer voip
keepalive status' to know the exact status of each node.
```

Note A dial-peer is marked as partially active (**partial**) if at least one of the destinations is active out of a group, and the rest are inactive.

Related Commands

Command	Description
show call active voice	Displays the VoIP active call table.
show call history voice	Displays the VoIP call history table.
show dialplan incall number	Displays which POTS dial peer is matched for a specific calling number or voice port.
show dialplan number	Displays which dial peer is reached when a specific telephone number is dialed.
show num-exp	Displays how the number expansions are configured in VoIP.
show voice port	Displays configuration information about a specific voice port.

show dialplan dialpeer

To display the outbound dial peers that are matched to an incoming dial peer based on the class of restriction (COR) criteria and the dialed number, use the **show dialplan dialpeer** command in privileged EXEC mode.

show dialplan dialpeer incoming-dialpeer-tag number number [**timeout**]

Syntax Description

incoming-dialpeer-tag	The dial peer COR identifier used to determine the matching outbound dial peer.
number	The dialed number used in conjunction with the COR identifier to determine the matching outbound dial peer.
timeout	(Optional) Allows matching for variable-length destination patterns.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.1(3)T	This command was introduced on the Cisco 2600 series and Cisco 3600 series routers and on Cisco AS5800 access servers.
12.2(11)T	This command was implemented on the Cisco 1751 and Cisco 3700 series routers and on Cisco AS5300 access servers.

Usage Guidelines

Use this command as a troubleshooting tool to determine which outbound dial peer is matched for an incoming call, based on the COR criteria and dialed number specified in the command line. Use the timeout keyword to enable matching variable-length destination patters associated with dial peers. This can increase your chances of finding a match for the dial peer number you specify.

Note For actual voice calls coming into the router, the incoming corlist of a specified inbound dial peer and the outgoing called number will be used to match the outbound dial peer.

Examples

The following sample output shows an incoming call with a dialed number of 19001111 and meeting the COR criteria as part of dial peer 300 with incoming COR-list has been matched to an outbound dial peer with IP address 1.8.50.7:

```
Router# show dialplan dialpeer 300 number 1900111
VoiceOverIpPeer900
        information type = voice,
        description = `',
        tag = 900, destination-pattern = `1900',
        answer-address = `', preference=0,
        numbering Type = `unknown'
        group = 900, Admin state is up, Operation state is up,
        incoming called-number = `', connections/maximum = 0/unlimited,
        DTMF Relay = disabled,
        modem passthrough = system,
```

```
        huntstop = disabled,
        in bound application associated: 'DEFAULT'
        out bound application associated: ''
        dnis-map =
        permission :both
        incoming COR list:maximum capability
        outgoing COR list:to900
        type = voip, session-target = `ipv4:1.8.50.7',
        technology prefix:
        settle-call = disabled
        ...
        Time elapsed since last clearing of voice call statistics never
        Connect Time = 0, Charged Units = 0,
        Successful Calls = 0, Failed Calls = 0, Incomplete Calls = 0
        Accepted Calls = 0, Refused Calls = 0,
        Last Disconnect Cause is "",
        Last Disconnect Text is "",
        Last Setup Time = 0.
Matched: 19001111   Digits: 4
Target: ipv4:1.8.50.7
```

The table below describes the significant fields shown in the display.

Table 4: show dialplan command Field Descriptions

Field	Description
Macro Exp.	Expected destination pattern for this dial peer.
VoiceEncapPeer	Dial peer associated with the calling number entered.
VoiceOverIpPeer	Dial peer associated with the calling number entered.
peer type	Type of this dial peer (voice or data).
information type	Information type for this dial peer (voice or data).
description	Any additional information for this dial peer entered using the **description** dial peer command.
tag	Unique number identifying the dial peer.
destination-pattern	Destination pattern (telephone number) configured for this dial peer.
answer-address	Answer address (calling number) configured for this dial peer.
preference	Hunt group preference order set for this dial peer.
CLID restriction	Indicates the Caller ID restriction (if any) configured for this dial peer.
CLID Network Number	Indicates the originating network of the Caller ID source.
CLID Second Number sent	Indicates the digits in the second number (if any) forwarded for this dial peer.
source carrier-id	VoIP or POTS source carrier identifier.
source trunk-group-label	VoIP or POTS source trunk group identifier.

Field	Description
numbering Type	Identifies the numbering scheme employed for this dial peer.
group	Dial peer group in which this dial peer is a member.
Admin state	Administrative state of this dial peer.
Operation state	Operational state of this dial peer.
incoming called-number	Called number (DNIS) configured for this dial peer.
connections/maximum	Number of actual and maximum allowable connections associated with this dial peer.
DTMF Relay	Whether the **dtmf-relay** command is enabled or disabled for this dial peer.
URI classes: Incoming (Request)	URI voice class used for matching dial peer to Request-URI in an incoming SIP Invite message.
URI classes: Incoming (To)	URI voice class used for matching dial peer to the To header in an incoming SIP Invite message.
URI classes: Incoming (From)	URI voice class used for matching dial peer to the From header in an incoming SIP Invite message.
URI classes: Destination	URI voice class used to match the dial peer to the destination URI for an outgoing call.
modem transport	Transport method configured for modem calls. The default is system, which means that the value configured globally is used.
huntstop	Whether the **huntstop** command is enabled or disabled for this dial peer.
in bound application associated	IVR application that is associated with this dial peer when this dial peer is used for an inbound call leg.
out bound application associated	IVR application that is associated with this dial peer when this dial peer is used for an outbound call leg.
dnis-map	Name of the dialed-number identification service (DNIS) map that is configured in the dial peer with the **dnis-map** command.
permission	Configured permission level for this dial peer.
incoming COR list	Class of restriction (COR) criteria associated when matching an incoming dial peer.
outgoing COR list	COR criteria used to determine the appropriate outbound dial peer.
Translation profile (Incoming)	Incoming translation criteria applied to this dial peer.
Translation profile (Outgoing)	Translation criteria applied to this dial peer when matching an outbound dial peer.

Field	Description
incoming call blocking	Indicates whether or not incoming call blocking has been applied for this dial peer.
translation-profile	The predefined translation profile associated with this dial peer.
disconnect-cause	Encoded network cause associated with the last call.
voice-port	Voice port through which calls come into this dial peer.
type	Type of dial peer (POTS or VoIP).
prefix	Prefix number that is added to the front of the dial string before it is forwarded to the telephony device.
forward-digits	Which digits are forwarded to the telephony interface as configured using the **forward-digits** command.
session-target	Configured session target (IP address or host name) for this dial peer.
direct-inward-dial	Whether the **direct-inward-dial** command is enabled or disabled for this dial peer.
digit_strip	Whether digit stripping is enabled or disabled in the dial peer. Enabled is the default.
register E.164 number with GK	Indicates whether or not the dial peer has been configured to register its full E.164-format number with the local gatekeeper.
fax rate	The transmission speed configured for fax calls. The default is system, which means that the value configured globally is used.
payload size	The size (in bytes) for a fax transmission payload.
session-protocol	Session protocol to be used for Internet calls between local and remote router via the IP backbone.
req-qos	Configured requested quality of service for calls for this dial peer.
acc-qos	Lowest acceptable quality of service configured for calls for this dial peer.
codec	Voice codec configured for this dial peer. Default is G.729 (8 kbps).
Expect factor	User-requested expectation factor of voice quality for calls through this dial peer.
Icpif	Configured calculated planning impairment factor (ICPIF) value for calls sent by this dial peer.
VAD	Indicates whether or not voice activation detection (VAD) is enabled for this dial peer.

Field	Description
voice class sip url	URL format (SIP or TEL) used for SIP calls to this dial peer, as configured with the **voice-class sip url** command. The default is system, which means that the value configured globally with the **url** command in voice service VoIP SIP mode is used.
voice class sip rel1xx	Indicates whether or not reliable provisional responses are supported, as configured with the **voice-class sip rel1xx** command. The default is system, which means that the value configured globally with the **rel1xx** command in voice service VoIP SIP mode is used.
voice class perm tag	Voice class for a trunk that is assigned to this dial peer with the **voice-class permanent** command.
Connect Time	Unit of measure indicating the call connection time associated with this dial peer.
Charged Units	Number of call units charged to this dial peer.
Successful Calls	Number of completed calls to this dial peer since system startup.
Failed Calls	Number of uncompleted (failed) calls to this dial peer since system startup.
Incomplete Calls	Number of incomplete calls to this dial peer since system startup.
Accepted Calls	Number of calls from this dial peer accepted since system startup.
Refused Calls	Number of calls from this dial peer refused since system startup.
Last Disconnect Cause	Encoded network cause associated with the last call. This value is updated whenever a call is started or cleared and depends on the interface type and session protocol being used on this interface.
Last Disconnect Text	ASCII text describing the reason for the last call termination.
Last Setup Time	Value of the System Up Time when the last call to this peer was started.
Matched	Destination pattern matched for this dial peer.
Digits	Number of digits in this destination pattern matched for this dial peer.
Target	Matched session target (IP address or host name) for this dial peer.

Related Commands

Command	Description
show dialplan in-carrier	Displays which VoIP or POTS dial peer is matched for a specific source carrier.
show dialplan in-trunk-group-label	Displays which VoIP or POTS dial peer is matched for a specific source trunk group.
show dialplan incall	Displays which POTS dial peer is matched for a specific calling number or voice port.

Command	Description
show dialplan number	Displays which dial peer is matched for a particular telephone number.

show dialplan incall

To display which incoming POTS dial peer is matched for a specific calling number or voice port, use the **show dialplan incall number** command in privileged EXEC mode.

show dialplan incall *voice-port* **number** *calling-number* [**timeout**]

Syntax Description

voice -port	Voice port location. The syntax of this argument is platform-specific. For information on the syntax for a particular platform, see the **voice-port** command.
calling -number	E.164 Calling number or ANI of the incoming voice call.
timeout	(Optional) Allows matching for variable-length destination patterns.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
11.3(1)T	This command was introduced on the Cisco 3600 series.
12.2(8)T	This command was implemented on the Cisco 1751, Cisco 2600 series, Cisco 3725, and Cisco 3745 and the timeout keyword was added.

Usage Guidelines

Use this command as a troubleshooting tool to determine which POTS dial peer is matched for an incoming call, for the selected calling number and voice port. The router attempts to match these items in the order listed:

1. Calling number with answer-address configured in dial peer
2. Calling number with destination-pattern configured in dial peer
3. Voice port with voice port configured in dial peer

The router first attempts to match a dial peer based on the calling number (ANI). If the router is unable to match a dial peer based on the calling number, it matches the call to a POTS dial peer based on the selected voice interface. If more than one dial peer uses the same voice port, the router selects the first matching dial peer. Use the timeout keyword to enable matching variable-length destination patters associated with dial peers. This can increase you r chances of finding a match for the dial peer number you specify.



Note For actual voice calls coming into the router, the router attempts to match the called number (the dialed number identification service [DNIS] number) with the incoming called-number configured in a dial peer. The router, however, does not consider the called number when using the **show dialplan incall number** command.

Examples

The following sample output shows that an incoming call from interface 1/0/0:D with a calling number of 12345 is matched to POTS dial peer 10:

```
Router# show dialplan incall 1/0/0:D number 12345
Macro Exp.: 12345
VoiceEncapPeer10
        information type = voice,
        tag = 10, destination-pattern = `123..',
        answer-address = `', preference=0,
        numbering Type = `unknown'
        group = 10, Admin state is up, Operation state is up,
        incoming called-number = `', connections/maximum = 0/unlimited,
        DTMF Relay = disabled,
        huntstop = disabled,
        in bound application associated: DEFAULT
        out bound application associated:
        permission :both
        incoming COR list:maximum capability
        outgoing COR list:minimum requirement
        type = pots, prefix = `',
        forward-digits default
        session-target = `', voice-port = `1/0/0:D',
        direct-inward-dial = disabled,
        digit_strip = enabled,
        register E.164 number with GK = TRUE
        Connect Time = 0, Charged Units = 0,
        register E.164 number with GK = TRUE
        Connect Time = 0, Charged Units = 0,
        Successful Calls = 0, Failed Calls = 0,
        Accepted Calls = 0, Refused Calls = 0,
        Last Disconnect Cause is "",
        Last Disconnect Text is "",
        Last Setup Time = 0.
Matched: 12345   Digits: 3
Target:
```

The following sample output shows that, if no dial peer has a destination pattern or answer address that matches the calling number of 888, the incoming call is matched to POTS dial peer 99, because the call comes in on voice port 1/0/1:D, which is the voice port configured for this dial peer:

```
Router# show dialplan incall 1/0/1:D number 888
Macro Exp.: 888
VoiceEncapPeer99
        information type = voice,
        tag = 99, destination-pattern = `99...',
        answer-address = `', preference=1,
        numbering Type = `national'
        group = 99, Admin state is up, Operation state is up,
        incoming called-number = `', connections/maximum = 0/unlimited,
        DTMF Relay = disabled,
        huntstop = disabled,
        in bound application associated: DEFAULT
        out bound application associated:
        permission :both
        incoming COR list:maximum capability
        outgoing COR list:minimum requirement
        type = pots, prefix = `5',
        forward-digits 4
        session-target = `', voice-port = `1/0/1:D',
        direct-inward-dial = enabled,
        digit_strip = enabled,
register E.164 number with GK = TRUE
        Connect Time = 0, Charged Units = 0,
        Successful Calls = 0, Failed Calls = 0,
        Accepted Calls = 0, Refused Calls = 0,
```

```
        Last Disconnect Cause is "",
        Last Disconnect Text is "",
        Last Setup Time = 0.
Matched:    Digits: 0
Target:
```

Related Commands

Command	Description
show dialplan dialpeer	Displays which outbound dial peer is matched based upon the incoming dialed number and the COR criteria specified in the command line.
show dialplan in-carrier	Displays which VoIP or POTS dial peer is matched for a specific source carrier.
show dialplan in-trunk-group-label	Displays which VoIP or POTS dial peer is matched for a specific source trunk group.
show dialplan number	Displays which dial peer is matched for a particular telephone number.

show dialplan incall uri

To display which dial peer is matched for a specific uniform resource identifier (URI) in an incoming voice call, use the **show dialplan incall uri**command in privileged EXEC mode.

H.323 Session Protocol
show dialplan incall uri h323 {**called** | **calling**} *uri*

SIP Session Protocol
show dialplan incall uri sip {**from** | **request** | **to**} *uri*

Syntax Description

called	Voice class that is configured in dial peers with the **incoming uri called** command.
calling	Voice class that is configured in dial peers with the **incoming uri calling**command.
from	Voice class that is configured in dial peers with the **incoming uri from**command.
request	Voice class that is configured in dial peers with the **incoming uri request**command.
to	Voice class that is configured in dial peers with the **incoming uri to**command.
uri	URI of the incoming call.

Command Default

No default behavior or values

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.3(4)T	This command was introduced.

Usage Guidelines

- Use this command for troubleshooting to determine which dial peer is matched for an incoming call, based on the selected URI and the specified field in the call message.
- To set the URI format for matching calls, use the **voice class uri** command. To set the URI voice class in the inbound dial peer, use the **incoming uri** command.

Examples

The following is sample output from this command for a SIP URI:

```
Router# show dialplan incall uri sip from sip:5551234
Inbound VoIP dialpeer matching based on SIP URI's
VoiceOverIpPeer10
        peer type = voice, information type = voice,
        description = `',
        tag = 10, destination-pattern = `',
        answer-address = `', preference=0,
        CLID Restriction = None
        CLID Network Number = `'
        CLID Second Number sent
```

```
        source carrier-id = `', target carrier-id = `',
        source trunk-group-label = `',  target trunk-group-label = `',
        numbering Type = `unknown'
        group = 10, Admin state is up, Operation state is up,
        incoming called-number = `', connections/maximum = 0/unlimited,
        DTMF Relay = disabled,
        modem transport = system,
        URI classes:
            Incoming (Request) =
            Incoming (To) =
            Incoming (From) = 101
            Destination =
        huntstop = disabled,
        in bound application associated: 'get_headers_tcl'
        out bound application associated: ''
        dnis-map =
        permission :both
        incoming COR list:maximum capability
        outgoing COR list:minimum requirement
        Translation profile (Incoming):
        Translation profile (Outgoing):
        incoming call blocking:
        translation-profile = `'
        disconnect-cause = `no-service'
        type = voip, session-target = `',
        technology prefix:
        settle-call = disabled
        ip media DSCP = ef, ip signaling DSCP = af31, UDP checksum = disabled,
        session-protocol = sipv2, session-transport = system, req-qos = best-ef
        acc-qos = best-effort,
        RTP dynamic payload type values: NTE = 101
        Cisco: NSE=100, fax=96, fax-ack=97, dtmf=121, fax-relay=122
               CAS=123, ClearChan=125, PCM switch over u-law=0,A-law=8
        RTP comfort noise payload type = 19
        fax rate = voice,   payload size =  20 bytes
        fax protocol = system
        fax-relay ecm enable
        fax NSF = 0xAD0051 (default)
        codec = g729r8,   payload size =  20 bytes,
        Expect factor = 0, Icpif = 20,
        Playout Mode is set to default,
        Initial 60 ms, Max 300 ms
        Playout-delay Minimum mode is set to default, value 40 ms
        Fax nominal 300 ms
        Max Redirects = 1, signaling-type = ext-signal,
        VAD = enabled, Poor QOV Trap = disabled,
        Source Interface = NONE
        voice class sip url = system,
        voice class sip rel1xx = system,
        voice class perm tag = `'
        Time elapsed since last clearing of voice call statistics never
        Connect Time = 0, Charged Units = 0,
        Successful Calls = 0, Failed Calls = 0, Incomplete Calls = 0
        Accepted Calls = 0, Refused Calls = 0,
        Last Disconnect Cause is "",
        Last Disconnect Text is "",
        Last Setup Time = 0.
Matched:    Digits: 0
Target:
```

The following is sample output from this command for a TEL URI:

```
Router# show dialplan incall uri h323 called tel:1234567
 Inbound VoIP dialpeer matching based on H323 URI's
```

```
VoiceOverIpPeer25
        peer type = voice, information type = voice,
        description = `',
        tag = 25, destination-pattern = `',
        answer-address = `', preference=0,
        CLID Restriction = None
        CLID Network Number = `'
        CLID Second Number sent
        source carrier-id = `', target carrier-id = `',
        source trunk-group-label = `',  target trunk-group-label = `',
        numbering Type = `unknown'
        group = 25, Admin state is up, Operation state is up,
        incoming called-number = `', connections/maximum = 0/unlimited,
        DTMF Relay = disabled,
        modem transport = system,
        URI classes:
            Incoming (Called) = 103
            Incoming (Calling) =
            Destination =
        huntstop = disabled,
        in bound application associated: 'callme'
        out bound application associated: ''
        dnis-map =
        permission :both
        incoming COR list:maximum capability
        outgoing COR list:minimum requirement
        Translation profile (Incoming):
        Translation profile (Outgoing):
        incoming call blocking:
        translation-profile = `'
        disconnect-cause = `no-service'
        type = voip, session-target = `ipv4:10.10.1.1',
        technology prefix:
        settle-call = disabled
        ip media DSCP = ef, ip signaling DSCP = af31, UDP checksum = disabled,
        session-protocol = cisco, session-transport = system, req-qos = best-ef
        acc-qos = best-effort,
        RTP dynamic payload type values: NTE = 101
        Cisco: NSE=100, fax=96, fax-ack=97, dtmf=121, fax-relay=122
               CAS=123, ClearChan=125, PCM switch over u-law=0,A-law=8
        RTP comfort noise payload type = 19
        fax rate = voice,   payload size =  20 bytes
        fax protocol = system
        fax-relay ecm enable
        fax NSF = 0xAD0051 (default)
        codec = g729r8,   payload size =  20 bytes,
        Expect factor = 0, Icpif = 20,
        Playout Mode is set to default,
        Initial 60 ms, Max 300 ms
        Playout-delay Minimum mode is set to default, value 40 ms
        Fax nominal 300 ms
        Max Redirects = 1, signaling-type = ext-signal,
        VAD = enabled, Poor QOV Trap = disabled,
        Source Interface = NONE
        voice class sip url = system,
        voice class sip rel1xx = system,
        voice class perm tag = `'
        Time elapsed since last clearing of voice call statistics never
        Connect Time = 0, Charged Units = 0,
        Successful Calls = 0, Failed Calls = 0, Incomplete Calls = 0
        Accepted Calls = 0, Refused Calls = 0,
        Last Disconnect Cause is "",
        Last Disconnect Text is "",
        Last Setup Time = 0.
```

```
Matched:    Digits: 0
Target:
```

The table below describes significant fields in the displays.

Table 5: show dialplan incall uri Field Descriptions

Field	Description
VoiceOverIpPeer	Dial peer associated with the calling number entered.
information type	Information type for this call; for example, voice or fax.
tag	Unique number that identifies the dial peer.
destination-pattern	Destination pattern (called number) configured for this dial peer.
answer-address	Answer address (calling number) configured for this dial peer.
preference	Hunt group preference order set for this dial peer.
Admin state	Administrative state of this dial peer.
Operation state	Operational state of this dial peer.
incoming called-number	Called number (DNIS) configured for this dial peer.
DTMF Relay	Whether the **dtmf-relay** command is enabled or disabled for this dial peer.
URI classes: Incoming (Request)	URI voice class used for matching dial peer to Request-URI in an incoming SIP Invite message.
URI classes: Incoming (To)	URI voice class used for matching dial peer to the To header in an incoming SIP Invite message.
URI classes: Incoming (From)	URI voice class used for matching dial peer to the From header in an incoming SIP Invite message.
URI classes: Destination	URI voice class used to match the dial peer to the destination URI for an outgoing call.
huntstop	Whether the **huntstop** command is enabled or disabled for this dial peer.
in bound application associated	IVR application that is associated with this dial peer when this dial peer is used for an inbound call leg.
out bound application associated	IVR application that is associated with this dial peer when this dial peer is used for an outbound call leg.
dnis-map	Name of the dialed-number identification service (DNIS) map that is configured in the dial peer with the **dnis-map** command.
permission	Configured permission level for this peer.
type	Type of dial peer (POTS or VoIP).

Field	Description
session-target	Configured session target (IP address or host name) for this dial peer.
session-protocol	Session protocol to be used for Internet calls between local and remote router via the IP backbone.
req-qos	Configured requested quality of service for calls for this dial peer.
acc-qos	Lowest acceptable quality of service configured for calls for this peer.
codec	Voice codec configured for this dial peer. Default is G.729 (8 kbps).
Expect factor	User-requested expectation factor of voice quality for calls through this peer.
Icpif	Configured calculated planning impairment factor (ICPIF) value for calls sent by a dial peer.
VAD	Whether voice activation detection (VAD) is enabled for this dial peer.
voice class sip url	URL format (SIP or TEL) used for SIP calls to this dial peer, as configured with the **voice-class sip url** command. The default is system, which means that the value configured globally with the **url** command in voice service VoIP SIP mode is used.
voice class sip rel1xx	Whether reliable provisional responses are supported, as configured with the **voice-class sip rel1xx** command. The default is system, which means that the value configured globally with the **rel1xx** command in voice service VoIP SIP mode is used.
voice class perm tag	Voice class for a trunk that is assigned to this dial peer with the **voice-class permanent** command.
Connect Time	Unit of measure indicating the call connection time associated with this dial peer.
Charged Units	Number of call units charged to this dial peer.
Successful Calls	Number of completed calls to this peer since system startup.
Failed Calls	Number of uncompleted (failed) calls to this peer since system startup.
Accepted Calls	Number of calls from this peer accepted since system startup.
Refused Calls	Number of calls from this peer refused since system startup.
Last Disconnect Cause	Encoded network cause associated with the last call. This value is updated whenever a call is started or cleared and depends on the interface type and session protocol being used on this interface.
Last Disconnect Text	ASCII text describing the reason for the last call termination.
Last Setup Time	Value of the System Up Time when the last call to this peer was started.

Field	Description
Matched	Destination pattern matched for this dial peer.
Target	Matched session target (IP address or host name) for this dial peer.

Related Commands

Command	Description
debug voice uri	Displays debugging messages related to URI voice classes.
incoming uri	Specifies the voice class used to match a VoIP dial peer to the URI of an incoming call.
session protocol	Specifies the session protocol in the dial peer for calls between the local and remote router.
show dial-peer voice	Displays detailed and summary information about voice dial peers.
show dialplan uri	Displays which outbound dial peer is matched for a specific destination URI.
voice class uri	Creates or modifies a voice class for matching dial peers to calls containing a SIP or TEL URI.
voice class uri sip preference	Sets a preference for selecting voice classes for a SIP URI.

show dialplan in-carrier

To display which incoming VoIP or POTS dial peer is matched for a specific source carrier or voice port, use the **show dialplan in-carrier** command in privileged EXEC mode.

show dialplan in-carrier *carrier-id* [**voip** | **pots**]

Syntax Description

carrier -id	VoIP or POTS source carrier identifier.
voip	(Optional) Allows you to limit the search criteria to only VoIP dial peers.
pots	(Optional) Allows you to limit the search criteria to only POTS dial peers.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.2(13)T	This command was introduced on the Cisco 2600 series and Cisco 3600 series routers and on Cisco AS5300, Cisco AS5400, and Cisco AS5800 access servers.

Usage Guidelines

Use this command as a troubleshooting tool to determine which VoIP or POTS dial peer is matched for an incoming call, based on the carrier identifier specified in the command line. Use the voip or pots keywords to further limit the scope of possible matches for the dial peer specified in the **show dialplan** command line.

Examples

The following sample output shows a VoIP or POTS dial peer being matched to another POTS dial peer based on its carrier identifier, "aaa":

```
Router# show dialplan in-carrier aaa pots
 Inbound pots dialpeer Matching based on source carrier-id
VoiceEncapPeer7777
        information type = voice,
        description = `',
        tag = 7777, destination-pattern = `',
        answer-address = `', preference=0,
        CLID Restriction = None
        CLID Network Number = `'
        CLID Second Number sent
        source carrier-id = `aaa',      target carrier-id = `',
        source trunk-group-label = `',  target trunk-group-label = `',
        numbering Type = `unknown'
        group = 7777, Admin state is up, Operation state is up,
        incoming called-number = `', connections/maximum = 0/unlimited,
        DTMF Relay = disabled,
        huntstop = disabled,
        in bound application associated:'DEFAULT'
        out bound application associated:''
        dnis-map =
        permission :both
        incoming COR list:maximum capability
        outgoing COR list:minimum requirement
        Translation profile (Incoming):
        Translation profile (Outgoing):
```

```
        incoming call blocking:
        translation-profile = `'
        disconnect-cause = `no-service'
voice-port = `'
        type = pots, prefix = `',
        forward-digits default
        session-target = `', up,
        direct-inward-dial = disabled,
        digit_strip = enabled,
        register E.164 number with GK = TRUE
        fax rate = system,   payload size =  20 bytes
        Time elapsed since last clearing of voice call statistics never
        Connect Time = 0, Charged Units = 0,
        Successful Calls = 0, Failed Calls = 0, Incomplete Calls = 0
        Accepted Calls = 0, Refused Calls = 0,
        Last Disconnect Cause is "",
        Last Disconnect Text is "",
        Last Setup Time = 0.
Matched:   Digits:0
Target:
```

Related Commands

Command	Description
show dialplan dialpeer	Displays which outbound dial peer is matched based upon the incoming dialed number and the COR criteria specified in the command line.
show dialplan incall	Displays which POTS dial peer is matched for a specific calling number or voice port.
show dialplan in-trunk-group-label	Displays which VoIP or POTS dial peer is matched for a specific source trunk group.
show dialplan number	Displays which dial peer is matched for a particular telephone number.

show dialplan in-trunk-group-label

To display which incoming VoIP or POTS dial peer is matched for a specific trunk group label, use the **show dialplan in-trunk-group-label** command in privileged EXEC mode.

show dialplan in-trunk-group-label *trunk-group-label* {**pots** | **voip**}

Syntax Description

trunk -group-label	VoIP or POTS source trunk group identifier.
voip	(Optional) Allows you to limit the search criteria to only VoIP dial peers.
pots	(Optional) Allows you to limit the search criteria to only POTS dial peers.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.2(13)T	This command was introduced on the Cisco 2600 series and Cisco 3600 series routers and on Cisco AS5300, Cisco AS5400, and Cisco AS5800 access servers.

Usage Guidelines

Use this command to determine which VoIP or POTS dial peer is matched for an incoming call, based on the identifier of the source trunk group. The router attempts to match these items in the order listed. Use the voip or pots keywords to further limit the scope of possible matches for the dial peer specified in the **show dialplan** command line.

Examples

The following sample output shows an inbound VoIP or POTS dial peer being matched to an outbound POTS dial peer based on the trunk group label "NYtrunk":

```
Router# show dialplan in-trunk-group-label NYtrunk pots
 Inbound pots dialpeer Matching based on source trunk-group-label
VoiceEncapPeer2003
        information type = voice,
        description = `',
        tag = 2003, destination-pattern = `',
        answer-address = `', preference=0,
        CLID Restriction = None
        CLID Network Number = `'
        CLID Second Number sent
        source carrier-id = `', target carrier-id = `',
        source trunk-group-label = `NYtrunk',   target trunk-group-label = `',
        numbering Type = `unknown'
        group = 2003, Admin state is up, Operation state is up,
        incoming called-number = `', connections/maximum = 0/unlimited,
        DTMF Relay = disabled,
        huntstop = disabled,
        in bound application associated:'debit-card'
        out bound application associated:''
        dnis-map =
        permission :both
        incoming COR list:maximum capability
        outgoing COR list:minimum requirement
        Translation profile (Incoming):
```

```
        Translation profile (Outgoing):
        incoming call blocking:
        translation-profile = `'
        disconnect-cause = `no-service'
voice-port = `'
        type = pots, prefix = `',
        forward-digits default
        session-target = `', up,
        direct-inward-dial = disabled,
        digit_strip = enabled,
        register E.164 number with GK = TRUE
        fax rate = system,   payload size =  20 bytes
        Time elapsed since last clearing of voice call statistics never
        Connect Time = 0, Charged Units = 0,
        Successful Calls = 0, Failed Calls = 0, Incomplete Calls = 0
        Accepted Calls = 0, Refused Calls = 0,
        Last Disconnect Cause is "",
        Last Disconnect Text is "",
        Last Setup Time = 0.
Matched:   Digits:0
Target:
```

Related Commands

Command	Description
show dialplan dialpeer	Displays which outbound dial peer is matched based upon the incoming dialed number and the COR criteria specified in the command line.
show dialplan in-carrier	Displays which VoIP or POTS dial peer is matched for a specific source carrier.
show dialplan incall	Displays which POTS dial peer is matched for a specific calling number or voice port.
show dialplan number	Displays which dial peer is matched for a particular telephone number.

show dialplan number

To display which outgoing dial peer is reached when a particular telephone number is dialed, use the **show dialplan number** command in privileged EXEC mode.

show dialplan number *dial-string* [**carrier identifier**] [**fax** | **huntstop** | **voice**] [**timeout**]

Syntax Description

dial -string	Particular destination pattern (E.164 telephone number).
carrier	(Optional) Indicates that you wish to base your search for applicable dial peers on the source carrier identifier.
identifier	(Optional) Source carrier identifier to accompany the **carrier** keyword.
fax	(Optional) Fax information type.
huntstop	(Optional) Terminates further dial-peer hunting upon encountering the first dial-string match.
timeout	(Optional) Allows matching for variable-length destination patterns.
voice	(Optional) Voice information type.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
11.3(1)T	This command was introduced on the Cisco 3600 series.
12.2(1)	The **huntstop** keyword was added.
12.2(8)T	This command was implemented on the Cisco 1751, Cisco 2600 series, Cisco 3725, and Cisco 3745 and the timeout keyword was added.
12.2(11)T	The **carrier**, **fax**, and **voice** keywords were added.

Usage Guidelines

Use this command to test whether the dial plan configuration is valid and working as expected. Use the timeout keyword to enable matching variable-length destination patters associated with dial peers. This can increase you r chances of finding a match for the dial peer number you specify.

Examples

The following is sample output from thiscommand using a destination pattern of 1001:

```
Router# show dialplan number 1001
Macro Exp.: 1001
VoiceEncapPeer1003
        information type = voice,
        tag = 1003, destination-pattern = `1001',
        answer-address = `', preference=0,
        numbering Type = `unknown'
        group = 1003, Admin state is up, Operation state is up,
        incoming called-number = `', connections/maximum = 0/unlimited,
```

```
         DTMF Relay = disabled,
         huntstop = enabled,
         type = pots, prefix = `',
         forward-digits default
         session-target = `', voice-port = `1/1',
         direct-inward-dial = disabled,
         Connect Time = 0, Charged Units = 0,
         Successful Calls = 0, Failed Calls = 0, Incomplete Calls = 0
         Accepted Calls = 0, Refused Calls = 0,
         Last Disconnect Cause is "",
         Last Disconnect Text is "",
         Last Setup Time = 0.
Matched: 1001   Digits: 4
Target:
VoiceEncapPeer1004
         information type = voice,
         tag = 1004, destination-pattern = `1001',
         answer-address = `', preference=0,
         numbering Type = `unknown'
         group = 1004, Admin state is up, Operation state is up,
...
Matched: 1001   Digits: 4
Target:
VoiceEncapPeer1002
         information type = voice,
         tag = 1002, destination-pattern = `1001',
         answer-address = `', preference=0,
         numbering Type = `unknown'
         group = 1002, Admin state is up, Operation state is up,
...
Matched: 1001   Digits: 4
Target:
VoiceEncapPeer1001
         information type = voice,
         tag = 1001, destination-pattern = `1001',
         answer-address = `', preference=0,
         numbering Type = `unknown'
         group = 1001, Admin state is up, Operation state is up,
...
Matched: 1001   Digits: 4
Target:
```

The following is sample output from this command using a destination pattern of 1001 and the **huntstop** keyword:

```
Router# show dialplan number 1001 huntstop
 Macro Exp.: 1001
 VoiceEncapPeer1003
         information type = voice,
         tag = 1003, destination-pattern = `1001',
         answer-address = `', preference=0,
         numbering Type = `unknown'
         group = 1003, Admin state is up, Operation state is up,
         incoming called-number = `', connections/maximum = 0/unlimited,
         DTMF Relay = disabled,
         huntstop = enabled,
         type = pots, prefix = `',
         forward-digits default
         session-target = `', voice-port = `1/1',
         direct-inward-dial = disabled,
         Connect Time = 0, Charged Units = 0,
         Successful Calls = 0, Failed Calls = 0, Incomplete Calls = 0
         Accepted Calls = 0, Refused Calls = 0,
```

```
        Last Disconnect Cause is "",
        Last Disconnect Text is "",
        Last Setup Time = 0.
Matched: 1001   Digits: 4
Target:
```

Related Commands

Command	Description
show dialplan dialpeer	Displays which outbound dial peer is matched based upon the incoming dialed number and the COR criteria specified in the command line.
show dialplan incall	Displays which POTS dial peer is matched for a specific calling number or voice port.
show dialplan in-carrier	Displays which VoIP or POTS dial peer is matched for a specific source carrier.
show dialplan in-trunk-group-label	Displays which VoIP or POTS dial peer is matched for a specific source trunk group.

show dialplan uri

To display which outbound dial peer is matched for a specific destination uniform resource identifier (URI), use the **show dialplan uri**command in privileged EXEC mode.

show dialplan uri *uri*

Syntax Description

uri	Destination Session Initiation Protocol (SIP) or telephone (TEL) URI for the outgoing call.

Command Default

No default behavior or values

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.3(4)T	This command was introduced.

Usage Guidelines

- Use this command for troubleshooting to determine which dial peer is matched for an outgoing call, based on the selected URI.
- To set the URI format used to match calls, use the **voice class uri** command. To set the URI voice class in the outbound dial peer, use the **destination uri** command.

Examples

The following is sample output from this command:

```
Router# show dialplan uri sip:123456
 Outbound dialpeer matching based on destination URI
VoiceOverIpPeer99
        peer type = voice, information type = voice,
        description = `',
        tag = 99, destination-pattern = `',
        answer-address = `', preference=0,
        CLID Restriction = None
        CLID Network Number = `'
        CLID Second Number sent
        source carrier-id = `', target carrier-id = `',
        source trunk-group-label = `',  target trunk-group-label = `',
        numbering Type = `unknown'
        group = 99, Admin state is up, Operation state is up,
        incoming called-number = `', connections/maximum = 0/unlimited,
        DTMF Relay = disabled,
        modem transport = system,
        URI classes:
            Incoming (Request) =
            Incoming (To) =
            Incoming (From) =
            Destination = 100
        huntstop = disabled,
        in bound application associated: 'DEFAULT'
        out bound application associated: ''
        dnis-map =
        permission :both
```

```
        incoming COR list:maximum capability
        outgoing COR list:minimum requirement
        Translation profile (Incoming):
        Translation profile (Outgoing):
        incoming call blocking:
        translation-profile = `'
        disconnect-cause = `no-service'
        type = voip, session-target = `',
        technology prefix:
        settle-call = disabled
        ip media DSCP = ef, ip signaling DSCP = af31, UDP checksum = disabled,
        session-protocol = sipv2, session-transport = system, req-qos = best-ef
        acc-qos = best-effort,
        RTP dynamic payload type values: NTE = 101
        Cisco: NSE=100, fax=96, fax-ack=97, dtmf=121, fax-relay=122
               CAS=123, ClearChan=125, PCM switch over u-law=0,A-law=8
        RTP comfort noise payload type = 19
        fax rate = voice,   payload size =  20 bytes
        fax protocol = system
        fax-relay ecm enable
        fax NSF = 0xAD0051 (default)
        codec = g729r8,   payload size =  20 bytes,
        Expect factor = 0, Icpif = 20,
        Playout Mode is set to default,
        Initial 60 ms, Max 300 ms
        Playout-delay Minimum mode is set to default, value 40 ms
        Fax nominal 300 ms
        Max Redirects = 1, signaling-type = ext-signal,
        VAD = enabled, Poor QOV Trap = disabled,
        Source Interface = NONE
        voice class sip url = system,
        voice class sip rel1xx = system,
        voice class perm tag = `'
        Time elapsed since last clearing of voice call statistics never
        Connect Time = 0, Charged Units = 0,
        Successful Calls = 0, Failed Calls = 0, Incomplete Calls = 0
        Accepted Calls = 0, Refused Calls = 0,
        Last Disconnect Cause is "",
        Last Disconnect Text is "",
        Last Setup Time = 0.
Matched:    Digits: 0
Target:
```

Related Commands

Command	Description
debug voice uri	Displays debugging messages related to URI voice classes.
destination uri	Specifies the voice class used to match the dial peer to the destination URI for an outgoing call.
show dialplan incall uri	Displays which dial peer is matched for a specific URI in an incoming call.
voice class uri	Creates or modifies a voice class for matching dial peers to a SIP or TEL URI.
voice class uri sip preference	Sets a preference for selecting voice classes for a SIP URI.

show dn-numbers

To display directory number information of Call Manager Express (CME), use the **show dn-numbers** command in user EXEC or privileged EXEC mode.

show dn-numbers

Syntax Description

This command has no arguments or keywords.

Command Modes

User EXEC (>)
Privileged EXEC (#))

Command History

Release	Modification
12.4(15)T	This command was introduced.
Cisco IOS XE Release 2.4	This command was integrated into Cisco IOS XE Release 2.4.

Examples

The following is sample output from the **show dn-numbers** command:

```
Router# show dn-numbers

 Directory numbers
 Entry          name                          number
 1              user1                         0
 10             user2                         7890
 3              user3                         1234
 4              user4                         890
 12             user5                         5676
 11             user6                         987

 ephone directory numbers
 DN             name                           number
 2              user7                          1000
 4              user10                         34567
 6              user11                         1234567891
 10             user12                         1234567
sip phone numbers
 DN             name                           number
 1              user13                         10000
 8              user14                         87953893
 9              user15                         Not Configured
```

The table below describes the significant fields shown in the display.

Table 6: show dn-numbers Field Descriptions

Field	Description
DN	Directory number.
name	Name of the connection.

Field	Description
number	Telephone number.

show dspfarm

To display digital signal processor (DSP) farm service information such as operational status and DSP resource allocation for transcoding and conferencing, use the **show dspfarm** command in user EXEC or privileged EXEC mode.

show dspfarm [**all** | **dsp** { **active** | **all** | **idle** | **stats** *bridge-id* [**sample** *seconds*] } | **profile** [*profile-id*] | **sessions** [*session-id*] | **video** { **conference** | **statistics** | **transcode** }]

Cisco ASR 1000 Series Router
show dspfarm { **all** | **dsp** { **active** | **all** | **idle** | **stats** *bridge-id* [**sample** *seconds*] } | **profile** [*profile-identifier*] }

Syntax Description

all	(Optional) Displays all global information about the DSP farm service.
dsp	(Optional) Displays DSP information about the DSP farm service.
active	Displays active DSP information about the DSP farm service.
all	Displays all DSP information about the DSP farm service.
idle	Displays idle DSP information about the DSP farm service.
stats	Displays DSP statistics about the DSP farm service.
bridge-id	Displays the DSP statistics for a call bridge the specified bridge ID.
sample	(Optional) Displays statistics of the specified sample interval.
seconds	(Optional) The DSP sample interval time, in seconds.
profile	(Optional) Displays profiles about the DSP farm service.
profile-id	(Optional) The profile ID about the DSP farm service.
sessions	(Optional) Displays sessions and connections about the DSP farm service.
session-id	(Optional) The session identifier to be displayed for the DSP farm service.
video	(Optional) Displays information on video resources.
conference	(Optional) Displays the DSP information, such as the codecs, video bridge channel, and transmit (tx) and receive (rx) packets that are used for each participant in a conference and is grouped by conference sessions.
statistics	(Optional) Displays the DSP statistics of the call bridge.
transcode	(Optional) Displays the DSP status and statistics for the transcoding call.

Command Modes

User EXEC (>)

Privileged EXEC (#)

Command History

Release	Modification
Cisco IOS XE 17.18.2	This command was implemented on C8375-E-G2 router platform.
15.1(4)M	This command was modified. The **video**, **conference**, **statistics**, and **transcode** keywords were added.
Cisco IOS XE Release 3.2S	This command was implemented on the Cisco ASR 1000 Series Router.
12.4(15)T	The **stats**, **sample**, **sessions**, and **profile** keywords were added. The *bridge-id*, *profile-id*, *seconds*, and *session-id* arguments were added.
12.2(13)T	This command was implemented on the Cisco 2600 series, Cisco 3620, Cisco 3640, Cisco 3660, and Cisco 3700 series.
12.1(5)YH	This command was introduced on the Cisco VG200.

Usage Guidelines

The router on which this command is used must be equipped with one or more digital T1/E1 packet voice trunk network modules (NM-HDVs) or high-density voice (HDV) transcoding/conferencing DSP farms (NM-HDV-FARMs) to provide DSP resources.

Cisco ASR 1000 Series Router

The show dspfarm command is used to view the DSP farm service information such as operational status and DSP resource allocation for transcoding.

Note The **session** keyword and *session-id* argument is not supported on Cisco ASR 1000 Series Router.

Examples

The following is sample output from several forms of the **show dspfarm** command. The fields are self explanatory.

```
Router# show dspfarm
DSPFARM Configuration Information:
Admin State: UP, Oper Status: ACTIVE - Cause code: NONE
Transcoding Sessions: 4, Conferencing Sessions: 0
RTP Timeout: 600
Router# show dspfarm all
DSPFARM Configuration Information:
Admin State: UP, Oper Status: ACTIVE - Cause code: NONE
Transcoding Sessions: 4, Conferencing Sessions: 2
RTP Timeout: 1200
Connection average duration: 3600, Connection check interval 600
Codec G729 VAD: ENABLED
Total number of active session(s) 0, and connection(s) 0
SLOT  DSP   CHNL  STATUS USE   TYPE   SESS-ID   CONN-ID   PKTS-RXED PKTS-TXED
1     3     1     UP     FREE  conf   -         -         -         -
1     3     2     UP     FREE  conf   -         -         -         -
1     3     3     UP     FREE  conf   -         -         -         -
1     3     4     UP     FREE  conf   -         -         -         -
1     3     5     UP     FREE  conf   -         -         -         -
1     3     6     UP     FREE  conf   -         -         -         -
1     4     1     UP     FREE  conf   -         -         -         -
1     4     2     UP     FREE  conf   -         -         -         -
1     4     3     UP     FREE  conf   -         -         -         -
```

```
1     4     4     UP     FREE  conf   -         -         -         -
1     4     5     UP     FREE  conf   -         -         -         -
1     4     6     UP     FREE  conf   -         -         -         -
1     5     1     UP     FREE  xcode  -         -         -         -
1     5     2     UP     FREE  xcode  -         -         -         -
1     5     3     UP     FREE  xcode  -         -         -         -
1     5     4     UP     FREE  xcode  -         -         -         -
1     5     5     UP     FREE  xcode  -         -         -         -
1     5     6     UP     FREE  xcode  -         -         -         -
1     5     7     UP     FREE  xcode  -         -         -         -
1     5     8     UP     FREE  xcode  -         -         -         -
Total number of DSPFARM DSP channel(s) 20
Router# show dspfarm dsp all
DSPFARM Configuration Information:
Admin State: UP, Oper Status: ACTIVE - Cause code: NONE
Transcoding Sessions: 4, Conferencing Sessions: 2
RTP Timeout: 1200
Connection average duration: 3600, Connection check interval 600
Codec G729 VAD: ENABLED
Total number of active session(s) 0, and connection(s) 0
SLOT  DSP  CHNL  STATUS  USE   TYPE   SESS-ID  CONN-ID  PKTS-RXED  PKTS-TXED
1     3    1     UP      FREE  conf   -        -        -          -
1     3    2     UP      FREE  conf   -        -        -          -
1     3    3     UP      FREE  conf   -        -        -          -
1     3    4     UP      FREE  conf   -        -        -          -
1     3    5     UP      FREE  conf   -        -        -          -
1     3    6     UP      FREE  conf   -        -        -          -
1     4    1     UP      FREE  conf   -        -        -          -
1     4    2     UP      FREE  conf   -        -        -          -
1     4    3     UP      FREE  conf   -        -        -          -
1     4    4     UP      FREE  conf   -        -        -          -
1     4    5     UP      FREE  conf   -        -        -          -
1     4    6     UP      FREE  conf   -        -        -          -
1     5    1     UP      FREE  xcode  -        -        -          -
1     5    2     UP      FREE  xcode  -        -        -          -
1     5    3     UP      FREE  xcode  -        -        -          -
1     5    4     UP      FREE  xcode  -        -        -          -
1     5    5     UP      FREE  xcode  -        -        -          -
1     5    6     UP      FREE  xcode  -        -        -          -
1     5    7     UP      FREE  xcode  -        -        -          -
1     5    8     UP      FREE  xcode  -        -        -          -
Total number of DSPFARM DSP channel(s) 20



Router# show dspfarm sessions
sess_id  conn_id  stype  mode      codec  pkt  ripaddr      rport  sport
4        145      xcode  sendrecv  g711a  20   10.10.10.19  19460  21284
4        161      xcode  sendrecv  g729   10   10.10.10.28  19414  20382
5        177      xcode  sendrecv  g711u  20   10.10.10.17  18290  21170
5        193      xcode  sendrecv  g729b  10   10.10.10.18  19150  18968
```

The following output shows the active channels on the slots of C8375-E-G2 router platform:

```
Router# show dspfarm dsp active

    VDSP   DSP VERSION  STATUS CHNL USE   TYPE    RSC_ID BRIDGE_ID PKTS_TXED PKTS_RXED

     vDSP   1   1.0.827  UP     4    USED  xcode   1      24        0         0
     vDSP   1   1.0.827  UP     4    USED  xcode   1      23        0         0
        Total number of DSPFARM DSP channel(s) 1
```

Examples

The following sample output displays dspfarm profiles for video conferencing and video transcoding:

```
Router# show dspfarm profile
 Profile ID = 1, Service = VIDEO CONFERENCING, Resource ID = 2
 Video Conference Type : HOMOGENEOUS, Layout : disabled
 Profile Description :
 Profile Service Mode : Non Secure
 Profile Admin State : DOWN
 Profile Operation State : DOWN
 Application : SCCP   Status : NOT ASSOCIATED
 Resource Provider : FLEX_DSPRM   Status : NONE
 Number of Resource Configured : 1
 Number of Resource Available : 0
 Maximum conference participants : 16
 Codec Configuration: num_of_codecs:6
 Codec : g711ulaw, Maximum Packetization Period : 30
 Codec : g711alaw, Maximum Packetization Period : 30
 Codec : g729ar8, Maximum Packetization Period : 60
 Codec : g729abr8, Maximum Packetization Period : 60
 Codec : g729r8, Maximum Packetization Period : 60
 Codec : g729br8, Maximum Packetization Period : 60
 Video Codec Configuration:
 Codec : h263
   Resolution : cif
     Frame rate:30, Min bitrate:320kbps, Max bitrate:320kbps
     Payload protocol : rfc-2190, Extension : annex-none
 Profile ID = 2, Service = VIDEO CONFERENCING, Resource ID = 3
 Video Conference Type : HETEROGENEOUS, Layout : disabled
 Profile Description :
 Profile Service Mode : Non Secure
 Profile Admin State : UP
 Profile Operation State : ACTIVE IN PROGRESS
 Application : SCCP   Status : ASSOCIATION IN PROGRESS
 Resource Provider : FLEX_DSPRM   Status : UP
 Number of Resource Configured : 1
 Number of Resource Available : 1
 Maximum conference participants : 4
 Maximum video ports : 4
 Codec Configuration: num_of_codecs:6
 Codec : g729br8, Maximum Packetization Period : 60
 Codec : g729r8, Maximum Packetization Period : 60
 Codec : g729abr8, Maximum Packetization Period : 60
 Codec : g729ar8, Maximum Packetization Period : 60
 Codec : g711alaw, Maximum Packetization Period : 30
 Codec : g711ulaw, Maximum Packetization Period : 30
 Video Codec Configuration:
 Codec : h264
   Resolution : qcif
     Frame rate:15, Min bitrate:64kbps, Max bitrate:704kbps
     Frame rate:30, Min bitrate:64kbps, Max bitrate:704kbps
   Resolution : cif
     Frame rate:15, Min bitrate:64kbps, Max bitrate:704kbps
     Frame rate:30, Min bitrate:64kbps, Max bitrate:704kbps
 Codec : h263
   Resolution : qcif
     Frame rate:15, Min bitrate:64kbps, Max bitrate:704kbps
     Frame rate:30, Min bitrate:64kbps, Max bitrate:704kbps
   Resolution : cif
     Frame rate:15, Min bitrate:64kbps, Max bitrate:704kbps
     Frame rate:30, Min bitrate:64kbps, Max bitrate:704kbps
Dspfarm Profile Configuration
Profile ID = 3, Service =Universal TRANSCODING, Resource ID = 1
 Profile Description :
```

```
 Profile Service Mode : Non Secure
 Profile Admin State : DOWN
 Profile Operation State : DOWN
 Application : SCCP   Status : NOT ASSOCIATED
 Resource Provider : FLEX_DSPRM   Status : NONE
 Number of Resource Configured : 0
 Number of Resource Available : 0
 Codec Configuration: num_of_codecs:4
 Codec : g711ulaw, Maximum Packetization Period : 30
 Codec : g711alaw, Maximum Packetization Period : 30
 Codec : g729ar8, Maximum Packetization Period : 60
 Codec : g729abr8, Maximum Packetization Period : 60
```

Examples

The following sample output displays DSP information for video conferences:

```
Router# show dspfarm video conference
 VIDEO CONFERENCE SESSION: slot 0 dsp 3 channel_id 1 rsc_id 8 profile_id 101
 conferee_id 1  name_num:  62783363
         audio_codec g711u     pkt_size 160  bridge_id 1
         dsp_txed_pkts 25993     dsp_rxed_pkts 25888
 conferee_id 1  name_num:  62783363
         video_codec H264_VGA  rfc_number RFC3984 payload rx: 97   tx:97
         framerate 30 bitrate(k) 960  annex 0x40
         cluster_id 0  bridge_id 2         layout_id 0
         dsp_txed_pkts 59230     dsp_rxed_pkts 63019
 conferee_id 2  name_num:  62783365
         audio_codec g711u     pkt_size 160  bridge_id 3
         dsp_txed_pkts 21682     dsp_rxed_pkts 21598
 conferee_id 2  name_num:  62783365
         video_codec H264_4CIF rfc_number RFC3984 payload rx: 97   tx:97
         framerate 30 bitrate(k) 960  annex 0x40
         cluster_id 1  bridge_id 4         layout_id 0
         dsp_txed_pkts 49488     dsp_rxed_pkts 78510
 conferee_id 3  name_num:  3004
         audio_codec g711u     pkt_size 160  bridge_id 5
         dsp_txed_pkts 12130     dsp_rxed_pkts 12067
 conferee_id 3  name_num:  3004
         video_codec H264_CIF  rfc_number RFC3984 payload rx: 97   tx:97
         framerate 30 bitrate(k) 704  annex 0x40
         cluster_id 2  bridge_id 6         layout_id 0
         dsp_txed_pkts 20354     dsp_rxed_pkts 25702
 conferee_id 4  name_num: LifeSize LifeSize
         audio_codec g711u     pkt_size 160  bridge_id 7
         dsp_txed_pkts 1751      dsp_rxed_pkts 1672
 conferee_id 4  name_num: LifeSize LifeSize
         video_codec H264_4CIF rfc_number RFC3984 payload rx: 96   tx:96
         framerate 30 bitrate(k) 1100 annex 0x40
         cluster_id 1  bridge_id 8         layout_id 0
         dsp_txed_pkts 3558      dsp_rxed_pkts 3569
 cluster_id 0  video_codec H264_VGA  rfc_number RFC3984 rfc_payload 100
         framerate 30 bitrate(k) 1000, annex 0x40
 decoder_id 1  slot 0  dsp 13 codec h264 vga           cluster_id 0
 encoder_id 1  slot 0  dsp 10 codec h264 vga           cluster_id 0
 cluster_id 1  video_codec H264_4CIF rfc_number RFC3984 rfc_payload 100
         framerate 30 bitrate(k) 1000, annex 0x40
 decoder_id 1  slot 0  dsp 2  codec h264 4cif          cluster_id 1
 encoder_id 1  slot 0  dsp 7  codec h264 4cif          cluster_id 1
 cluster_id 2  video_codec H264_CIF  rfc_number RFC3984 rfc_payload 100
         framerate 30 bitrate(k) 704 , annex 0x40
 decoder_id 1  slot 0  dsp 15 codec h264 cif           cluster_id 2
 encoder_id 1  slot 0  dsp 14 codec h264 cif           cluster_id 2
Total number of DSPFARM DSP channel(s) 1
```

Examples

The following sample output displays the statistics for a call that uses video transcoding:

```
Router#  show dspfarm dsp stats
Gathering total stats...
Video Statistics for bridge_id=3 call_id=2
 Video Decoder Statistics:
  Slot=0  DSP_Id=8  Decoder_Id=1
  CallDuration=268  Codec=1  ProfileId=0x0  LevelId=0
  PicWidth=352  PicHeight=288  FrameRate=30  Bitrate=360000
  NumMacroBlocksConcealed=0  NumFramesConcealed=0
  NumPackets=13269  NumBytesConsumed=12096254
  NumBadHeaderPackets=0  NumOutOfSyncPackets=24
  NumBufferOverflow=0
 Video Encoder Statistics:
  Slot=0  DSP_Id=2  Encoder_Id=1
  Duration=268  Codec=1  ProfileId=0x0  LevelId=0
  PicWidth=176  PicHeight=144  FrameRate=30  Bitrate=704000
  InstantBitrate=440000  NumPackets=17571  NumBytesGenerated=14830996
```

Examples

The following sample output displays the statistics for a video conference:

```
Router# show dspfarm dsp stats
Gathering total stats...
Video Statistics for bridge_id=3 call_id=4
 Video Conferee Status - ConfereeID=1
  ContributionState=0x1  IngressMute=0  EgressMute=0
  DtmfRtpPlt=0  ClusterId=1  StreamDir=3
  PayloadType=0x6161  TxSSRC=0x1F3C  RtpProtocol=2
  CodecType=2  Annex=0x0  PicWidth=352  PicHeight=288
  FrameRate=30  Bitrate(x100)=3760
 Video Conferee Statistics - ConfereeID=1
  TotalRxPackets=5076  TotalRxBytes=3957126
  TotalTxPackets=3829  TotalTxBytes=3429797
  TotalDroppedPackets=3  CurDroppedPackets=0
  TotalOutOfOrderPackets=0  CurOutOfOrderPackets=0
  MaxObservedJitter=0  CurObservedJitter=0
  MaxObservedDelay=0  CurObservedDelay=0
  MaxOutOfSyncDelay=0  CurOutOfSyncDelay=0
  ActualFrameRate=0  ActualBitrate(x100)=2017
  FastVideoUpdateRate=0  TotalDuration=135
 Video Conference Status:
  ServiceType=0  MuteAllStatus=0
  CurSpeakerConfereeId=1  LastSpeakerConfereeId=3  NewSpeakerConfereeId=0
  ConfereeIdBitMap=0x07
 Video Conference Statistics:
  NumActiveChans=3  NumMaxChans=1
  TotalRxPackets=42589  TotalRxBytes=29979147
  TotalTxPackets=12361  TotalTxBytes=10003701
  TotalDroppedPackets=3  CurDroppedPackets=0
  TotalOutOfOrderPackets=0  CurOutOfOrderPackets=0
  MaxObservedJitter=0  CurObservedJitter=0
  MaxObservedDelay=0  CurObservedDelay=0
MaxOutOfSyncDelay=0  CurOutOfSyncDelay=0
```

Examples

The following is a sample output of the **show dspfarm** all command on Cisco ASR 1000 Series Router:

```
Router# show dspfarm all
Dspfarm Profile Configuration
 Profile ID = 1, Service = TRANSCODING, Resource ID = 1
 Profile Description :
 Profile Service Mode : Non Secure
 Profile Admin State : UP
 Profile Operation State : ACTIVE
 Application : SBC   Status : ASSOCIATED
 Resource Provider : FLEX_DSPRM   Status : UP
 Number of Resources Configured : 588
 Number of Resources Out of Service : 0
 Codec Configuration
 Codec : g711ulaw, Maximum Packetization Period : 30
 Codec : g711alaw, Maximum Packetization Period : 30
 Codec : g729ar8, Maximum Packetization Period : 60
 Codec : g729abr8, Maximum Packetization Period : 60
SLOT DSP VERSION  STATUS CHNL USE   TYPE    RSC_ID BRIDGE_ID
5    1   26.7.0   UP     N/A  FREE  xcode  1      -         -         -
5    1   26.7.0   UP     N/A  FREE  xcode  1      -         -         -
5    1   26.7.0   UP     N/A  FREE  xcode  1      -         -         -
5    1   26.7.0   UP     N/A  FREE  xcode  1      -         -         -
5    1   26.7.0   UP     N/A  FREE  xcode  1      -         -         -
```

The following is a sample output of the **show dspfarm dsp idle** command providing idle DSP information on Cisco ASR 1000 Series Router:

```
Router# show dspfarm dsp idle
SLOT DSP VERSION  STATUS CHNL USE   TYPE    RSC_ID BRIDGE_ID
5    1   26.7.0   UP     N/A  FREE  xcode  1      -         -         -
5    1   26.7.0   UP     N/A  FREE  xcode  1      -         -         -
5    1   26.7.0   UP     N/A  FREE  xcode  1      -         -         -
5    1   26.7.0   UP     N/A  FREE  xcode  1      -         -         -
5    1   26.7.0   UP     N/A  FREE  xcode  1      -         -         -
5    1   26.7.0   UP     N/A  FREE  xcode  1      -         -         -
5    1   26.7.0   UP     N/A  FREE  xcode  1      -         -         -
5    1   26.7.0   UP     N/A  FREE  xcode  1      -         -         -
5    1   26.7.0   UP     N/A  FREE  xcode  1      -         -         -
```

The following is sample output of the **show dspfarm profile 1** command providing DSP Farm profile configuration details such as application association, number of resources configured, Codecs added, and maximum number of sessions for profile 1 on Cisco ASR 1000 Series Router.

```
Router# show dspfarm profile 1
Dspfarm Profile Configuration
 Profile ID = 1, Service = TRANSCODING, Resource ID = 1
 Profile Description :
 Profile Service Mode : Non Secure
 Profile Admin State : UP
 Profile Operation State : ACTIVE
 Application : SBC   Status : ASSOCIATED
 Resource Provider : FLEX_DSPRM   Status : UP
 Number of Resources Configured : 588
 Number of Resources Out of Service : 0
 Codec Configuration
 Codec : g711ulaw, Maximum Packetization Period : 30
 Codec : g711alaw, Maximum Packetization Period : 30
 Codec : g729ar8, Maximum Packetization Period : 60
 Codec : g729abr8, Maximum Packetization Period : 60
```

```
Router#show dspfarm profile ?
  <1-65535>  Profile ID
  |          Output modifiers
  <cr>
```

Related Commands

Command	Description
dspfarm (DSP farm)	Enables DSP-farm service.

show dspfarm profile

To display configured digital signal processor (DSP) farm profile information for a selected Cisco CallManager group, use the **show dspfarm profile**command in privileged EXEC mode.

show dspfarm profile [*profile-identifier*]

Syntax Description

profile ide ntifier	(Optional) Number that uniquely identifies a profile. Range is from 1 to 65535. There is no default.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.3(8)T	This command was introduced.

Usage Guidelines

Use the **show dspfarm profile** command to verify that the association between Skinny Client Control Protocol (SCCP) Cisco Unified CallManager and the DSP farm profiles match your organizational plan.

The output of the **show dspfarm profile** command differs depending on the services configured in the profile.

Examples

```
The following is sample output from the show dspfarm profile
 command:
Router# show dspfarm profile

Dspfarm Profile Configuration
 Profile ID = 6, Service = TRANSCODING, Resource ID = 1
 Profile Description :
 Profile Service Mode : Non Secure
 Profile Admin State : UP
 Profile Operation State : ACTIVE
 Application : SCCP   Status : ASSOCIATED
 Resource Provider : FLEX_DSPRM   Status : UP
 Number of Resource Configured : 4
 Number of Resource Available : 4
 Codec Configuration
 Codec : g711ulaw, Maximum Packetization Period : 30
 Codec : g711alaw, Maximum Packetization Period : 30
 Codec : g729ar8, Maximum Packetization Period : 60
 Codec : g729abr8, Maximum Packetization Period : 60
 Codec : g729br8, Maximum Packetization Period : 60
 RSVP : ENABLED
 TRP : FW-TRAVERSAL ENABLED
Dspfarm Profile Configuration
 Profile ID = 27, Service = CONFERENCING, Resource ID = 2
 Profile Description :
 Profile Service Mode : Non Secure
 Profile Admin State : UP
 Profile Operation State : ACTIVE
 Application : SCCP   Status : ASSOCIATED
 Resource Provider : FLEX_DSPRM   Status : UP
 Number of Resource Configured : 6
 Number of Resource Available : 6
```

```
 Codec Configuration
 Codec : g711alaw, Maximum Packetization Period : 30
 Codec : g729ar8, Maximum Packetization Period : 60
Dspfarm Profile Configuration
 Profile ID = 34, Service = MTP, Resource ID = 1
 Profile Description :
 Profile Service Mode : secure
 Profile Admin State : UP
 Profile Operation State : ACTIVE
 Application : SCCP   Status : ASSOCIATED
 Resource Provider : NONE   Status : UP
 Number of Resource Configured : 2
 Number of Resource Available : 2
 Hardware Configured Resources : 1
 Hardware Available Resources : 1
 Software Resources : 1
 Codec Configuration
 Codec : g711ulaw, Maximum Packetization Period : 30
 TRP : FW-TRAVERSAL ENABLED
```

The table below describes the significant fields shown in the display.

Table 7: show dspfarm profile Field Descriptions

Field	Description
Profile ID	Displays the profile ID number.
Service	Displays the service that is associated with the profile.
Resource ID	Displays the ID number that the profile is associated with in the Cisco CallManager register.
Profile Description	Displays the description of the profile.
Profile Service Mode	The status of the profile service. It can be either Secure or Non Secure.
Profile Admin State	Displays the status of the profile. If the Profile Admin State is DOWN, use the **no shutdown** command in DSP farm profile configuration mode.
Profile Operation State	Displays the status of the DSP farm profiles registration process with the Cisco CallManager. Status options are as follows: • ACTIVE--The profile is registered with the Cisco Unified CallManager. • ACTIVE IN PROGRESS--The profile is still registering with the Cisco Unified CallManager. Wait for the profile to finish registering. • DOWN--The profile is not registering with the Cisco Unified CallManager. Check the connectivity between the DSP farm gateway and the Cisco Unified CallManager. • DOWN IN PROGRESS--The profile is deregistering from the Cisco Unified CallManager and deallocating the DSP resources. • RESOURCE ALLOCATED--The DSP resources for this profile are allocated or reserved.

Field	Description
Application	Displays the routing protocol used.
Number of Resource Configured	Maximum number of sessions that are supported by a profile.
Number of Resource Available	Total number of resources that are configurable.
Hardware Configured Resources	Number of sessions configured in the profile.
Hardware Available Resources	Number of sessions available for this profile.
Software Resources	Number of software sessions configured for this profile (applicable only to MTP profiles).
Codec Configuration	Lists the codecs that are configured. **Note** Media Termination Point (MTP) profile supports only one codec per profile.
RSVP	Resource Reservation Protocol (RSVP) support for this profile.
TRP	Displays whether firewall traversal is enabled for Trusted Relay Point.

Related Commands

Command	Description
dsp services dspfarm	Configures DSP farm services for a specified voice card.
dspfarm profile	Enters DSP farm profile configuration mode and defines a profile for DSP farm services.
show media resource status	Displays the current media resource status.

show dsp-group

To display digital signal processor (DSP) group information including both voice and video information, use the **show dsp-group** command in user EXEC or privileged EXEC mode.

show dsp-group {**all** | **slot** *slot-number* | **video** [**all** | **slot** *slot-number*] | **voice** [**all** | **slot** *slot-number*]}

Syntax Description

all	Displays DSP information for all DSP group.
slot	Displays DSP information for the specified slot.
slot-number	Slot used in the DSP group.
video	Displays information on video resources.
voice	Displays information on voice resources.

Command Modes

User EXEC (>)
Privileged EXEC (#)

Command History

Release	Modification
15.1(4)M	This command was introduced.

Usage Guidelines

The router on which this command is used must be equipped with one or more digital T1/E1 packet voice trunk network modules (NM-HDVs), high-density voice (HDV) transcoding/conferencing DSP farms (NM-HDV-FARMs), or packet voice data module (PVDM) slots to provide DSP resources.

Examples

The following shows sample output from several forms of the **show dsp-group**command. The fields are self explanatory.

```
Router# show dsp-group all
DSP groups on slot 0:
dsp 1:
  State: UP, firmware: 28.0.103
  Max signal/voice channel: 32/32
  Max credits: 480, Voice credits: 0, Video credits: 480
  num_of_sig_chnls_allocated: 32
  Transcoding channels allocated: 0
  Group: FLEX_GROUP_VIDEO_POOL, complexity: FLEX
    Video Credits Max: 480, Share: 0, Reserved (rounded-up): 480
    Video Group: VIDEO_CONF, rsc id: 2, mode: VCONF_HETE
      Session: 0, maximum participants: 4
        Video Transcoding channels reserved credits: 480
        Video Transcoding channels allocated: 1
          Encoder: inactive, credit reserved: 480
  Slot: 0
  Device idx: 0
  PVDM Slot: 0
  Dsp Type: SP2600
dsp 2:
```

```
  State: UP, firmware: 28.0.103
  Max signal/voice channel: 32/32
  Max credits: 480, Voice credits: 0, Video credits: 480
  num_of_sig_chnls_allocated: 32
  Transcoding channels allocated: 0
  Group: FLEX_GROUP_VIDEO_POOL, complexity: FLEX
    Video Credits Max: 480, Share: 0, Reserved (rounded-up): 480
    Video Group: VIDEO_CONF, rsc id: 2, mode: VCONF_HETE
      Session: 0, maximum participants: 4
        Video Transcoding channels reserved credits: 480
        Video Transcoding channels allocated: 3
          Decoder: inactive, credits reserved: 160
          Decoder: inactive, credits reserved: 160
          Decoder: inactive, credits reserved: 160
  Slot: 0
  Device idx: 0
  PVDM Slot: 0
  Dsp Type: SP2600
DSP groups on slot 1:
 This command is not applicable to slot 1
DSP groups on slot 2:
 This command is not applicable to slot 2
DSP groups on slot 3:
 This command is not applicable to slot 3
```

Related Commands

Command	Description
dsp service dspfarm	Configures DSP farm services for a specified voice card.
dspfarm (DSP farm)	Enables DSP-farm service.
voice service dsp-reservation	Configures the percentage of DSP resources are reserved for voice services and enables video services to use the remaining DSP resources. This command is required to enable video services.
voice-card	Enters voice-card configuration mode.

show echo-cancel

To display the echo-cancellation information of T1/E1 multiflex voice/WAN interface cards, use the **show echo-cancel** command in privileged EXEC mode.

show echo-cancel hardware status *slot-number*

Syntax Description

hardware	Displays information about the hardware accelerated EC device.
status	Displays the allocation status.
slot-number	The slot number of the interface cards.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.4(24)T	This command was introduced in a release earlier than Cisco IOS Release 12.4(24)T.

Usage Guidelines

Hardware echo cancellation is restricted to the same baseboard voice/WAN interface card (VWIC) on which the daughter card (EC-MFT-32 and EC-MFT-64) is installed and cannot be shared by other T1/E1 controllers.

Examples

The following is sample output from the **show echo-cancel hardware status**command:

```
Router# show echo-cancel hardware status
ECAN CH   Assigned   DSP ID   VOICEPORT   EC   NLP   COV  LAW
=============================================================
   0          yes       8       1/0/0      on   off   on   u-Law
   1          no        -          -       off  on    on   u-Law
   2          no        -          -       off  on    on   u-Law
   3          no        -          -       off  on    on   u-Law
   4          no        -          -       off  on    on   u-Law
   5          no        -          -       off  on    on   u-Law
```

The table below describes the significant fields shown in the display.

Table 8: show echo-cancel Field Descriptions

Field	Description
ECAN CH	Total channels in the slot.
Assigned	Status of the assigned channels.
DSP ID	Digital Signaling Processor (DSP) identification number for the assigned channels.
VOICEPORT	Voice port of the channels.
EC	Echo Cancellation status of the assigned channels.

Field	Description
NLP	Status of the Non-Linear Processor (NLP).
COV	Echo cancellation Coverage status of the assigned channels.

show event-manager consumers

To display event-manager statistics for debugging purposes, use the **show event-manager consumers**command in privileged EXEC mode.

show event-manager consumers

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.3(4)T	This command was introduced.

Examples

The following example shows one call (two call legs) going through the gateway:

```
Router# show event-manager consumers
Hash table indexed by AAA_UNIQUE_ID
Uid        Consumer_id  Consumer_hdl  evt_type
00000015   0002         65B35570      START
00000015   0002         65B35570      STOP
00000016   0002         65B34ECC      START
00000016   0002         65B34ECC      STOP
```

The table below lists and describes the significant output fields.

Table 9: show event-manager consumers Field Descriptions

Field	Description
Uid	User ID.
Consumer_id	ID of the consumer client process.
Consumer_hdl	Handler of the consumer client process.
evt_type	Event type.

Related Commands

Command	Description
show voice statistics csr interval accounting	Displays all accounting CSRs specified by interval number.
show voice statistics csr interval aggregation	Displays signaling CSRs specified by interval number.
show voice statistics csr since-reset accounting	Displays all accounting CSRs since the last reset.
show voice statistics csr since-reset aggregation-level	Displays all signaling CSRs since the last reset.

Command	Description
show voice statistics csr since-reset all	Displays all CSRs since the last reset.
show voice statistics interval-tag	Displays the configured interval numbers.
show voice statistics memory-usage	Displays current memory usage.

show frame-relay vofr

To display information about the FRF.11 subchannels being used on Voice over Frame Relay (VoFR) data link connection identifiers (DLCIs), use the **show frame-relay vofr** command in privileged EXEC mode.

show frame-relay vofr [*interface* [*dlci* [*cid*]]]

Syntax Description

interface	(Optional) Specific interface type and number for which you want to display FRF.11 subchannel information.
dlci	(Optional) Specific data link connection identifier for which you want to display FRF.11 subchannel information.
cid	(Optional) Specific subchannel for which you want to display information.

Command Default

If this command is entered without a specified interface, FRF.11 subchannel information is displayed for all VoFR interfaces and DLCIs configured on the router.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.0(4)T	This command was introduced on the Cisco 2600 series, Cisco 3600 series, and Cisco MC3810 series.

Examples

The following is sample output from this command when an interface is not specified:

```
Router# show frame-relay vofr
interface         vofr-type   dlci   cid   cid-type
Serial0/0.1       VoFR        16     4     data
Serial0/0.1       VoFR        16     5     call-control
Serial0/0.1       VoFR        16     10    voice
Serial0/1.1       VoFR cisco  17     4     data
```

The following is sample output from this command when an interface is specified:

```
Router# show frame-relay vofr serial0
interface         vofr-type   dlci   cid   cid-type
Serial0           VoFR        16     4     data
Serial0           VoFR        16     5     call-control
Serial0           VoFR        16     10    voice
```

The following is sample output from this command when an interface and a DLCI are specified:

```
Router# show frame-relay vofr serial0 16
VoFR Configuration for interface Serial0
dlci vofr-type  cid cid-type          input-pkts    output-pkts   dropped-pkts
16   VoFR       4   data              0             0             0
16   VoFR       5   call-control      85982         86099         0
16   VoFR       10  voice             2172293       6370815       0
```

The following is sample output from this command when an interface, a DLCI, and a CID are specified:

```
Router# show frame-relay vofr serial0 16 10
VoFR Configuration for interface Serial0 dlci 16
  vofr-type  VoFR     cid 10      cid-type voice
  input-pkts 2172293   output-pkts 6370815   dropped-pkts 0
```

The table below describes significant fields shown in this output.

Table 10: show frame-relay vofr Field Descriptions

Field	Description
interface	Number of the interface that has been selected for observation of FRF.11 subchannels.
vofr-type	Type of VoFR DLCI being observed.
cid	Portion of the specified DLCI that is carrying the designated traffic type. A DLCI can be subdivided into 255 subchannels.
cid-type	Type of traffic carried on this subchannel.
input-pkts	Number of packets received by this subchannel.
output-pkts	Number of packets sent on this subchannel.
dropped-pkts	Total number of packets discarded by this subchannel.

Related Commands

Command	Description
show call active voice	Displays the contents of the active call table.
show call history voice	Displays the contents of the call history table.
show dial-peer voice	Displays configuration information and call statistics for dial peers.
show frame-relay fragment	Displays Frame Relay fragmentation details.
show frame-relay pvc	Displays statistics about PVCs for Frame Relay interfaces.
show voice-port	Displays configuration information about a specific voice port.

show gatekeeper calls

To display the status of each ongoing call of which a gatekeeper is aware, use the **show gatekeeper calls**command in privilegedEXEC mode.

show gatekeeper calls [**history**]

Syntax Description

history	(Optional) Displays call history information along with internal error codes at the gatekeeper. The number of disconnected calls displayed in response to this command is the *number* specified in the **call-history max-size** *number* command. Use of this **max-size** number helps to reduce CPU usage in the storage and reporting of this information.

Command Default

The default expression of this command displays information for all active calls detected on the gatekeeper.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
11.3(2)NA	This command was introduced.
12.0(3)T	This command was integrated into Cisco IOS Release 12.0(3)T.
12.0(5)T	The output for this command was changed.
12.1(5)XM2	This command was implemented on the Cisco AS5350 and Cisco AS5400.
12.2(4)T	Support for the Cisco AS5300, Cisco AS5350, and Cisco AS5400 is not included in this release.
12.2(2)XB1	This command was implemented on the Cisco AS5850.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T. This command is supported on the Cisco AS5300, Cisco AS5350, Cisco AS5400, and Cisco AS5850 in this release.
12.4(4)T	The **history** keyword was added to display historical information on disconnected calls.

Usage Guidelines

Use this command to show all active calls currently being handled by a particular Multimedia Conference Manager (MCM) gatekeeper. If you force a disconnect for either a particular call or all calls associated with a particular MCM gatekeeper by using the **clear h323 gatekeeper call** command, the system does not display information about those calls.

Using the **history** keyword displays the number of disconnected calls specified in the **call-history max-size** *number* command. Use of this **max-size**number helps to reduce CPU usage in the storage and reporting of this information.

Examples

The following is sample output showing active calls:

```
Router# show gatekeeper calls
Total number of active calls = 1.
                          GATEKEEPER CALL INFO
```

```
                          ====================
LocalCallID                          Age(secs)    BW
12-3339                              94           768(Kbps)
 Endpt(s):Alias          E.164Addr     CallSignalAddr  Port  RASSignalAddr   Port
   src EP:epA                          10.0.0.0        1720  10.0.0.0        1700
   dst EP:epB@zoneB.com
   src PX:pxA                          10.0.0.0        1720  10.0.0.00       24999
   dst PX:pxB                          255.255.255.0   1720  255.255.255.0   24999
```

The table below describes the significant fields shown in the display.

Table 11: show gatekeeper calls Field Descriptions

Field	Description
LocalCallID	Identification number of the call.
Age(secs)	Age of the call, in seconds.
BW(Kbps)	Bandwidth in use, in kilobytes per second.
Endpt	Role of each endpoint (terminal, gateway, or proxy) in the call (originator, target, or proxy) and the call signaling and Registration, Admission, and Status (RAS) protocol address.
Alias	H.323-Identification (ID) or Email-ID of the endpoint.
E.164Addr	E.164 address of the endpoint.
CallSignalAddr	Call-signaling IP address of the endpoint.
Port	Call-signaling port number of the endpoint.
RASSignalAddr	RAS IP address of the endpoint.
Port	RAS port number of the endpoint.

Related Commands

Command	Description
clear h323 gatekeeper call	Forces the disconnection of a specific call or of all calls active on a particular gatekeeper.
call history max	Specifies the number of records to be kept in the history table.

show gatekeeper circuits

To display the circuit information on a gatekeeper, use the **show gatekeeper circuits** command in privileged EXEC mode.

show gatekeeper circuits [{**begin** | **exclude** | **include**} *expression*]

Syntax Description

begin	(Optional) Displays all circuits, beginning with the line containing the *expression.*
exclude	(Optional) Displays all circuits, excluding those containing the *expression.*
include	(Optional) Displays all circuits, including those containing the *expression.*
expression	(Optional) Word or phrase used to determine what lines are displayed.

Command Default

Shows all circuit information.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(11)T	This command was introduced.

Usage Guidelines

Use this command to display current configuration information about the circuits that are registered with the gatekeeper.

Examples

The following command displays the circuit information for the gatekeeper:

```
Router# show gatekeeper circuits
Circuit       Endpoint   Max Calls Avail Calls Resources     Zone
-------       --------   --------- ----------- ---------     ----
CarrierA      Total Endpoints: 2
              3640-gw1   25        25          Available
              5400-gw1   23        19          Unavailable
CarrierB      Total Zones: 1
                                                           MsPacmanGK
```

The table below describes the fields shown in this output.

Table 12: show gatekeeper circuits Field Descriptions

Field	Description
Circuit	Name of the each circuit connected to the gatekeeper.
Endpoint	Name of each H.323 endpoint.
Max Calls	Maximum number of calls that circuit can handle.
Avail Calls	Number of new calls that the circuit can handle at the current time.

Field	Description
Resources	Whether the circuit's resources have exceeded the defined threshold limits. The **endpoint resource-threshold** command defines these thresholds.
Zone	Zone that supports the endpoint. The **zone circuit-id** command assigns a zone to an endpoint.
Total Endpoints	Total number of endpoints supported by the circuit.
Total Zones	Total number of zones supported by the circuit.

Related Commands

Command	Description
endpoint resource-threshold	Sets a gateway's capacity thresholds in the gatekeeper.
zone circuit-id	Assigns a remote zone to a carrier.

show gatekeeper cluster

To display all the configured gatekeeper clusters information, use the **show gatekeeper cluster** command in user EXEC or privileged EXEC mode.

show gatekeeper cluster

Syntax Description

This command has no arguments or keywords.

Command Modes

User EXEC (>)
Privileged EXEC (#)

Command History

Release1.25	Modification
12.1(5)XM	This command was introduced.
12.2(2)T	This command was integrated into Cisco IOS Release 12.2(2)T.
12.2(2)XB1	This command was integrated into Cisco IOS Release 12.2(2)XB1 and implemented on the Cisco AS5850 router.

Examples

The following is sample output from the **show gatekeeper cluster** command. Field descriptions are self-explanatory.

```
Router# show gatekeeper cluster
                    CONFIGURED CLUSTERS
                    ===================
Cluster Name    Type     Local Zone   Elements  IP
------------    ----     ----------   --------  --
Cluster A       Local    AGK1         AGK2      192.168.200.254 1719
                                      AGK3      192.168.200.223 1719
Cluster B       Remote               BGK1      192.168.200.257 1719
                                      BGK2      192.168.200.258 1719
                                      BGK3      192.168.200.259 1719
```

Related Commands

Command	Description
show gatekeeper endpoints	Displays the status of all registered endpoints for a gatekeeper.
show gatekeeper performance stats	Displays the performance statistics on the the gatekeeper level message.
show gatekeeper zone cluster	Displays the dynamic status of all local clusters.

show gatekeeper endpoint circuits

To display information on all registered endpoints and carriers or trunk groups for a gatekeeper, use the **show gatekeeper endpoint circuits**command in privileged EXEC mode.

show gatekeeper endpoint circuits [{**begin** | **exclude** | **include**} *expression*]

Syntax Description

| begin	(Optional) Displays all circuits, beginning with the line that contains *expression.*
| exclude	(Optional) Displays all circuits, excluding those that contain *expression.*
| include	(Optional) Displays all circuits, including those that contain *expression.*
expression	(Optional) Word or phrase used to determine what lines are displayed.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
11.3(2)NA	This command was introduced.
12.0(5)T	The display format was modified for H.323 Version 2.
12.2(11)T	The display format was modified to show the E.164 ID, carrier and trunk group data, and total number of active calls.

Usage Guidelines

Use this command to display current configuration information about the endpoints and carriers registered with the gatekeeper. Note that you must type the pipe (|) before any of the optional keywords.

Examples

The following command displays the circuit information for the gatekeeper:

```
Router# show gatekeeper endpoint circuits
                    GATEKEEPER ENDPOINT REGISTRATION
                    ================================
CallSignalAddr  Port  RASSignalAddr   Port  Zone Name         Type    Flags
--------------- ----- --------------- ----- ---------         ----    -----
172.18.195.120  1720  172.18.195.120  51059 LavenderGK        VOIP-GW
    E164-ID: 4081234
    H323-ID: 3640-gw1
    Carrier: CarrierA, Max Calls: 25, Available: 25
172.18.197.143  1720  172.18.197.143  57071 LavenderGK        VOIP-GW
    H323-ID: 5400-gw1
    Carrier: CarrierB, Max Calls: 23, Available: 19
    Carrier: CarrierA, Max Calls: 25, Available: 25
Total number of active registrations = 2
```

The table below describes the fields shown in this output.

Table 13: show gatekeeper endpoint circuits Fields

Field	Description
CallsignalAddr	Call signaling IP address of the endpoint. If the endpoint is also registered with an alias, a list of all aliases registered for that endpoint should be listed on the line below.
Port	Call signaling port number of the endpoint.
RASSignalAddr	RAS IP address of the endpoint.
Port	RAS port number of the endpoint.
Zone Name	Zone name (gatekeeper ID) that this endpoint registered in.
Type	Endpoint type (for example, terminal, gateway, or MCU).
Flags	S--Endpoint is statically entered from the **alias**command rather than being dynamically registered through RAS messages. O--Endpoint, which is a gateway, has sent notification that it is nearly out of resources.
E164-ID	E.164 ID of the endpoint.
H323-ID	H.323 ID of the endpoint.
Carrier	Carrier associated with the endpoint.
Max Calls	Maximum number of calls the circuit can handle.
Available	Number of new calls the circuit can handle currently.

Related Commands

Command	Description
endpoint circuit-id h323id	Assigns a circuit to a non-Cisco endpoint.
endpoint resource-threshold	Sets a gateway's capacity thresholds in the gatekeeper.
zone circuit-id	Assigns a circuit to a remote zone.

show gatekeeper endpoints

To display the status of all registered endpoints for a gatekeeper, use the **show gatekeeper endpoints** command in privileged EXEC mode.

show gatekeeper endpoints [**alternates**]

Syntax Description

alternates	(Optional) Displays information about alternate endpoints. All information normally included with this command is also displayed.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
11.3(2)NA	This command was introduced.
12.0(5)T	The display format was modified for H.323 Version 2.
12.1(5)XM	The **alternates** keyword was added.
12.1(5)XM2	This command was implemented on the Cisco AS5350 and Cisco AS5400.
12.2(2)T	This command was integrated into Cisco IOS Release 12.2(2)T.
12.2(4)T	This command was not supported on the Cisco AS5300, Cisco AS5350, and Cisco AS5400 in this release.
12.2(2)XB1	This command was implemented on the Cisco AS5850.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T. The registration and call capacity values were added to the output display.
12.3(1)	This command was modified to reflect concurrent calls for the endpoints.

Examples

The following is sample output from this command:

```
Router# show gatekeeper endpoints
CallsignalAddr   Port  RASSignalAddr   Port   Zone Name    Type     F
---------------  ----  -------------   -----  ----------   -----    --
172.21.127.8     1720  172.21.127.8    24999  sj-gk        MCU
H323-ID:joe@cisco.com
           Voice Capacity Max.=23  Avail.=23
           Total number of active registrations = 1
172.21.13.88     1720  172.21.13.88    1719   sj-gk        VOIP-GW   O    H323-ID:la-gw
```

The table below describes significant fields shown in this output.

Table 14: show gatekeeper endpoints Field Descriptions

Field	Description
CallsignalAddr	Call signaling IP address of the endpoint. If the endpoint is also registered with an alias (or aliases), a list of all aliases registered for that endpoint should be listed on the line below.
Port	Call signaling port number of the endpoint.
RASSignalAddr	Registration, Admission, and Status (RAS) protocol IP address of the endpoint.
Port	RAS port number of the endpoint.
Zone Name	Zone name (gatekeeper identification [ID]) to which this endpoint is registered.
Type	Endpoint type (for example, terminal, gateway, or multipoint control unit [MCU]).
F	S--Endpoint is statically entered from the **alias** command rather than being dynamically registered through RAS messages. O--Endpoint, which is a gateway, has sent notification that it is nearly out of resources.
Voice Capacity Max.	Maximum number of channels available on the endpoint.
Avail.	Current number of channels available on the endpoint.
Total number of active registrations	Total number of endpoints registered with the gatekeeper.

In the following example, the **show gatekeeper endpoints** output has been modified to reflect concurrent calls for the endpoint. If an endpoint is not reporting capacity and the **endpoint max-calls h323id** command is not configured, "Voice Capacity Max." and "Avail." will not be shown. "Current.= 2" indicates that the current active calls for the endpoint are 2.

```
Router# show gatekeeper endpoints
!
                    GATEKEEPER ENDPOINT REGISTRATION
                    ================================
CallSignalAddr  Port  RASSignalAddr   Port  Zone Name         Type    Flags
--------------- ----  -------------   ----  ---------         ----    -----
172.18.200.27   1720  172.18.200.27   49918 GK-1              VOIP-GW
    H323-ID:GW1
    Voice Capacity Max.=  Avail.=  Current.= 2
```

If an endpoint is reporting capacity but the **endpoint max-calls h323id** command is not configured, "Voice Capacity Max." and "Avail." will show reported call capacity of the endpoint as follows:

```
Router# show gatekeeper endpoints
!
                    GATEKEEPER ENDPOINT REGISTRATION
                    ================================
CallSignalAddr  Port  RASSignalAddr  Port  Zone Name          Type  Flags
--------------  ----  -------------  ----  ---------          ----  -----
```

```
172.18.200.29   1720  172.18.200.29  53152 GK-2              VOIP-GW
    H323-ID:GW2
    Voice Capacity Max.= 23 Avail.= 22 Current.= 1
```

If an endpoint is reporting capacity but the **endpoint max-calls h323id** command is not configured, "Voice Capacity Max." will show the maximum calls configured and "Avail." will show the available calls of the endpoint. In this example, "Voice Capacity Max.= 10" is showing that the maximum calls configured for the endpoint are 10. "Avail.= 2" shows that currently available calls for the endpoint are 2. "Current.= 8" shows that current active calls for the endpoint are 8.

```
Router# show gatekeeper endpoints
!
                    GATEKEEPER ENDPOINT REGISTRATION
                    ================================
CallSignalAddr  Port  RASSignalAddr   Port  Zone Name         Type     Flags
--------------  ----  -------------   ----  ---------         ----     -----
172.18.200.27   1720  172.18.200.27   49918 GK-1              VOIP-GW
    H323-ID:GW1
    Voice Capacity Max.= 10  Avail.= 2  Current.= 8
```

The table below describes significant fields in the output examples.

Table 15: show gatekeeper endpoints Field Descriptions

Field	Description
CallsignalAddr	Call signaling IP address of the endpoint. If the endpoint is also registered with an alias (or aliases), a list of all aliases registered for that endpoint should be listed on the line below.
Port	Call signaling port number of the endpoint.
RASSignalAddr	Registration, Admission, and Status (RAS) protocol IP address of the endpoint.
Port	RAS port number of the endpoint.
Zone Name	Zone name (gatekeeper ID) to which this endpoint is registered.
Type	The endpoint type (for example, terminal, gateway, or multipoint control unit [MCU]).
Flags	S--Endpoint is statically entered from the **alias** command rather than being dynamically registered through RAS messages. O--Endpoint, which is a gateway, has sent notification that it is nearly out of resources.

Related Commands

Command	Description
endpoint resource-threshold	Sets a gateway's capacity thresholds in the gatekeeper.
show gatekeeper endpoint circuits	Displays endpoint and carrier or trunk group call capacities.
show gatekeeper gw-type-prefix	Displays the gateway technology prefix table.
show gatekeeper zone status	Displays the status of zones related to a gatekeeper.
show gateway	Displays the current gateway status.

show gatekeeper gw-type-prefix

To display the gateway technology prefix table, use the **show gatekeeper gw-type-prefix** command in privileged EXEC mode.

show gatekeeper gw-type-prefix

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
11.3(2)NA	This command was introduced.
12.0(5)T	The display format was modified for H.323 Version 2.
12.1(5)XM2	This command was implemented on the Cisco AS5350 and Cisco AS5400.
12.2(4)T	This command was not supported on the Cisco AS5300, Cisco AS5350, and Cisco AS5400 in this release.
12.2(2)XB1	This command was implemented on the Cisco AS5850.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T.

Examples

The following is sample output from this command for a gatekeeper that controls two local zones, sj-gk and la-gk:

```
Router# show gatekeeper gw-type-prefix
GATEWAY TYPE PREFIX TABLE
=========================
Prefix:12#*     (Default gateway-technology)
  Zone sj-gk master gateway list:
    10.0.0.0:1720 sj-gw1
    10.0.0.0:1720 sj-gw2 (out-of-resources)
    10.0.0.0:1720 sj-gw3
  Zone sj-gk prefix 408....... priority gateway list(s):
   Priority 10:
    10.0.0.0:1720 sj-gw1
   Priority 5:
    10.0.0.0:1720 sj-gw2 (out-of-resources)
    10.0.0.0:1720 sj-gw3
Prefix:7#*     (Hopoff zone la-gk)
  Statically-configured gateways (not necessarily currently registered):
    10.0.0.0:1720
    10.0.0.0:1720
  Zone la-gk master gateway list:
    10.0.0.0:1720 la-gw1
    10.0.0.0:1720 la-gw2
```

The table below describes significant fields shown in this output.

Table 16: show gatekeeper gw-type-prefix Field Descriptions

Field	Description
Prefix	Technology prefix defined with the **gw-type-prefix** command.
Zone sj-gk master gateway list	List of all the gateways registered to zone sj-gk with the technology prefix under which they are listed. (This display shows that gateways sj-gw1, sj-gw2, and sj-gw3 have registered in zone sj-gk with the technology prefix 12#.)
Zone sj-gk prefix 408..... priority gateway list(s)	List of prioritized gateways to handle calls to area code 408.
Priority 10	Highest priority level. Gateways listed following "Priority 10" are given the highest priority when selecting a gateway to service calls to the specified area code. (In this display, gateway sj-gw1 is given the highest priority to handle calls to the 408 area code.)
Priority 5	Any gateway that does not have a priority level assigned to it defaults to priority 5.
(out-of-resources)	Indication that the displayed gateway has sent a "low-in-resources" notification.
(Hopoff zone la-gk)	Any call that specifies this technology prefix should be directed to hop off in the la-gk zone, no matter what the area code of the called number is. (In this display, calls that specify technology prefix 7# are always routed to zone la-gk, regardless of the actual zone prefix in the destination address.)
Zone la-gk master gateway list	List of all the gateways registered to la-gk with the technology prefix under which they are listed. (This display shows that gateways la-gw1 and la-gw2 have registered in zone la-gk with the technology prefix 7#. No priority lists are displayed here because none were defined for zone la-gk.)
(Default gateway-technology)	If no gateway-type prefix is specified in a called number, then gateways that register with 12# are the default type to be used for the call.
Statically-configured gateways	List of all IP addresses and port numbers of gateways that are incapable of supplying technology-prefix information when they register. This display shows that, when gateways 1.1.1.1:1720 and 2.2.2.2:1720 register, they are considered to be of type 7#.

Related Commands

Command	Description
show gatekeeper calls	Displays the status of each ongoing call of which a gatekeeper is aware.
show gatekeeper endpoints	Displays the status of all registered endpoints for a gatekeeper.
show gateway	Displays the current gateway status.

show gatekeeper performance statistics

To display performance statistics on the gatekeeper level message, use the **show gatekeeper performance stats** command in user EXEC or privileged EXEC mode.

show gatekeeper performance statistics [**zone** [**name** *zone-name*]] [**cumulative**]

Syntax Description

zone	(Optional) Displays zone statistics of the gatekeeper.
name *zone -name*	(Optional) Specifies the zone name or gatekeeper name.
cumulative	(Optional) Displays the total statistics collected by the gatekeeper since the last reload.

Command Modes

User EXEC (>)
Privileged EXEC (#)

Command History

Release	Modification
12.1(5)XM	This command was introduced.
12.2(2)T1	This command was integrated into Cisco IOS Release 12.2(2)T.
12.2(2)XB1	This command was implemented on the Cisco AS5850.
12.2(15)T	This command was modified. The **zone**, **name**, and **cumulative** keywords were added and the *zone-name* argument was added.
12.4(5)	This command was modified. Command output was enhanced to include counters for: • Automatic rejections (ARJs) sent due to an ARQ access-list denial. • Location rejections (LRJs) sent due to an LRQ access-list denial.

Usage Guidelines

Use this command to display the statistics on calls, registration, calls routed to other gatekeepers, and calls used via zone processing.

When the **cumulative** keyword is used along with **zone name** keywords displays the total statistics for the specified zone, from the starting time of the gatekeeper. These values are not reset when the **clear h323 gatekeeper stats**command is used.

This command displays statistical data related to the router. You can identify the number of call initiation events using the following messages:

- Automatic repeat request (ARQ)
- Admission confirmation (ACF)
- Admission rejection (ARJ)

You can identify endpoint contact events that have been requested and either confirmed or rejected on the router using the following:

- Location request (LRQ)
- Location confirm (LCF)
- Location reject (LRJ)

The counts associated with overload and the number of endpoints sent to alternate gatekeepers that are associated with overload conditions are also displayed. Only when the router experiences an overload condition do these counters reveal a value other than zero. The real endpoint count simply displays the number of endpoints registered on this router platform. The time stamp displays the start time when the counters started capturing the data. When you want to request a new start period, enter the **clear h323 gatekeeper stats** command. The counters are reset and the time stamp is updated with the new time.

You can identify remote gatekeeper contacts that have been requested and either confirmed or rejected on the router using the following messages:

- Location confirm (LCF)
- Location rejection (LRJ)
- Location request (LRQ)

You can identify zone-level or gatekeeper-level registration statistics using the following messages:

- Registration confirmation (RCF)
- Registration rejection (RRJ)
- Registration request (RRQ)

You can identify zone-level or gatekeeper-level unregistration statistics using the following messages:

- Unregistration confirmation (UCF)
- Unregistration rejection (URJ)
- Unregistration request (URQ)

Examples

The following is the example of basic output from the **show gatekeeper performance stats** command. The basic output specifies that the counters are reset using the **clear h323 gatekeeper stats** command and the output displays the statistcs from the last reset.

```
Router# show gatekeeper performance stats
-----Gatekeeper Performance Statistics-----
Performance statistics captured since: 20:09:00 UTC Thu Sep 15 2005
Gatekeeper level Admission Statistics:
        ARQs received: 1
        ARQs received from originating endpoints: 0
        ACFs sent: 1
        ACFs sent to the originating endpoint: 0
        ARJs sent: 0
        ARJs sent to the originating endpoint: 0
        ARJs sent due to overload: 0
        ARJs sent due to ARQ access-list denial: 0
        Number of concurrent calls: 0
        Number of concurrent originating calls: 0
Gatekeeper level Location Statistics:
        LRQs received: 3
```

```
        LRQs sent: 0
        LCFs received: 0
        LCFs sent: 1
        LRJs received: 0
        LRJs sent: 2
        LRJs sent due to overload: 0
        LRJs sent due to LRQ access-list denial: 2
Gatekeeper level Registration Statistics:
        RRJ due to overload: 0
        Total Registered  Endpoints: 2
Gatekeeper level Disengage Statistics:
        DRQs received: 1
        DRQs sent: 0
        DCFs received: 0
        DCFs sent: 1
        DRJs received: 0
        DRJs sent: 0
Gatekeeper viazone message counters:
        inARQ: 0
        infwdARQ: 0
        inerrARQ: 0
        inLRQ: 0
        infwdLRQ: 0
        inerrLRQ: 0
        outLRQ: 0
        outfwdLRQ: 0
        outerrLRQ: 0
        outARQ: 0
        outfwdARQ: 0
        outerrARQ: 0
Load balancing events: 0
```

The following is the example of cumulative output from the **show gatekeeper performance stats** command. The cumulative output specifies that the counters are not reset and the output displays the total statistcs from the starting time of the gatekeeper.

```
Router# show gatekeeper performance stats zone name voip3-2600-2
Performance statistics for zone voip3-2600-2
-----Zone Level Performance Statistics-----
Performance statistics captured since: 00:17:00 UTC Mon Mar 1 1993
Zone level Admission Statistics:
        ARQs received: 1
        ARQs received from originating endpoints: 0
        ACFs sent: 1
        ACFs sent to the originating endpoint: 0
        ARJs sent: 0
        ARJs sent to the originating endpoint: 0
        Number of concurrent total calls: 0
        Number of concurrent originating calls: 0
Zone level Location Statistics:
        LRQs received: 1
        LRQs sent: 0
        LCFs received: 0
        LCFs sent: 1
        LRJs received: 0
        LRJs sent: 0
Zone level Registration Statistics:
        Full RRQs received: 1
        Light RRQs received: 574
        RCFs sent: 576
        RRJs sent: 0
        Total Registered Endpoints: 1
Zone level UnRegistration Statistics:
```

```
        URQs received: 0
        URQs sent: 0
        UCFs received: 0
        UCFs sent: 0
        URJs received: 0
        URJs sent: 0
        URQs sent due to timeout: 0
Zone level Disengage Statistics:
        DRQs received: 1
        DRQs sent: 0
        DCFs received: 0
        DCFs sent: 1
        DRJs received: 0
        DRJs sent: 0
```

The table below shows significant fields shown in the displays. Most of the fields are self-explanatory and are not listed the table.

Table 17: show gatekeeper performance statistics Field Descriptions

Field	Description
Full RRQs received	A full registration request (RRQ) contains all registration information that is used for successful registration.
Light RRQs received	A light RRQ contains abbreviated registration information that is used to maintain an existing registration.

Related Commands

Command	Description
clear h323 gatekeeper stats	Clears statistics about gatekeeper performance.

show gatekeeper servers

To display a list of currently registered and statically configured triggers on a gatekeeper router, use the **show gatekeeper servers** command in EXEC mode.

show gatekeeper servers [*gkid*]

Syntax Description

gkid	(Optional) Local gatekeeper name to which this trigger applies.

Command Modes

EXEC (#)

Command History

Release	Modification
12.1(1)T	This command was introduced on the Cisco 2500 series, Cisco 2600 series, Cisco 3600 series, Cisco 7200, and Cisco MC3810.
12.2(2)XB	The output of this command was modified to show additional server statistics, including the following: gatekeeper server timeout value; Gatekeeper Transaction Message Protocol (GKTMP) version installed; number of Registration Request (RRQ), Registration Response (RRQ), Response Confirmation (RCF), and Response Reject (RRJ) messages received; timeouts encountered; average response time; and if the server is usable.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T.
12.2(11)T	This command was implemented on the Cisco 3700 series.
12.2(15)T12	The command was modified to show additional server statistics.
12.3(8)T	The command was modified to show additional server statistics.
12.3(9)	The command was modified to show additional server statistics.

Usage Guidelines

Use this command to show all server triggers (whether dynamically registered from the external servers or statically configured from the command-line interface) on this gatekeeper. If the gatekeeper ID is specified, only triggers applied to the specified gatekeeper zone appear. If the gatekeeper ID is not specified, server triggers for all local zones on this gatekeeper appear.

Examples

The following is sample output from this command:

```
Router# show gatekeeper servers
            GATEKEEPER SERVERS STATUS
            =========================
Gatekeeper Server listening port: 8250
Gatekeeper Server timeout value: 30 (100ms)
GateKeeper GKTMP version: 4.1
Gatekeeper-ID: Gatekeeper1
------------------------
RRQ Priority: 5
Server-ID: Server43
Server IP address: 209.165.200.254:40118
```

```
Server type: dynamically registered
Connection Status: active
Trigger Information:
Trigger unconditionally
Server Statistics:
REQUEST RRQ Sent=0
RESPONSE RRQ Received = 0
RESPONSE RCF Received = 0
RESPONSE RRJ Received = 0
Average response time(ms)=0
Server Usable=TRUE
Timeout Statistics:
Server-ID: Server43
Server IP address: 209.165.200.254:40118
Server type: dynamically registered
Connection Status: active
Timeout Encountered=0
```

The table below describes significant fields shown in this output.

Table 18: show gatekeeper servers Field Descriptions

Field	Description
GateKeeper GKTMP version	Version of Gatekeeper Transaction Message Protocol installed.
RRQ Priority	Registration priority.
Server-ID	Server ID name.
Server IP address	Server IP address.
Server type	Type of server.
Connection Status	Whether the connection is active or inactive.
Trigger Information	Which Registration, Admission, and Status (RAS) messages the Cisco IOS gatekeeper forwards to the external application.
REQUEST RRQ	Registration requests received.
RESPONSE RRQ	Registration responses received.
RESPONSE RCF	Response confirmations received.
RESPONSE RRJ	Response reject messages received.

Related Commands

Command	Description
debug gatekeeper server	Traces all the message exchanges between the Cisco IOS gatekeeper and the external applications.
endpoint circuit-id h323id	Tracks call capacity information on the gatekeeper.
server registration-port	Configures a listening port on the gatekeeper for server registration.
server trigger arq	Configures static triggers on the gatekeeper.

show gatekeeper status

To display overall gatekeeper status, including authorization and authentication status and zone status, use the **show gatekeeper status**command in privileged EXEC mode.

show gatekeeper status

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
11.3(2)NA	This command was introduced.
12.0(3)T	This command was integrated into Cisco IOS Release 12.0(3)T.
12.1(5)XM	This command was modified to show information about load balancing and vendor-specific attributes.
12.2(2)T	This command was integrated into Cisco IOS Release 12.2(2)T.
12.2(2)XB	This command was modified to show information about server flow control.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T.

Examples

The following is sample output from this command:

```
Router# show gatekeeper status
Gatekeeper State: UP
    Load Balancing:   DISABLED
    Flow Control:     ENABLED
    Zone Name:        snet-3660-3
    Accounting:       DISABLED
    Endpoint Throttling:        DISABLED
    Security:         DISABLED
    Maximum Remote Bandwidth:              unlimited
    Current Remote Bandwidth:              0 kbps
    Current Remote Bandwidth (w/ Alt GKs): 0 kbps
```

The table below describes significant fields shown in this output.

Table 19: show gatekeeper status Field Descriptions

Field	Description
Gatekeeper State	Gatekeeper state has the following values: • UP is operational. • DOWN is administratively shut down. • INACTIVE is administratively enabled; that is, the **no shutdown** command has been issued, but no local zones have been configured. • HSRP STANDBY indicates that the gatekeeper is on hot standby and will take over when the currently active gatekeeper fails.
Load Balancing	Whether load balancing is enabled.
Flow Control	Whether server flow control is enabled.
Zone Name	Zone name to which the gatekeeper belongs.
Accounting	Whether authorization and accounting features are enabled.
Endpoint Throttling	Whether endpoint throttling is enabled.
Security	Whether security features are enabled.
Bandwidth	Maximum remote bandwidth, current remote bandwidth, and current remote bandwidth with alternate gatekeepers.

Related Commands

Command	Description
show gatekeeper servers	Displays statistics about the gatekeeper.

show gatekeeper status cluster

To display information about each element of a local cluster, such as the amount of memory used, the number of active calls, and the number of endpoints registered on the element, use the **show gatekeeper status cluster** command in privileged EXEC mode.

show gatekeeper status cluster

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.1(5)XM1	This command was introduced.
12.2(2)T	This command was integrated into Cisco IOS Release 12.2(2)T.
12.2(2)XB1	This command was implemented on the Cisco AS5850.

Examples

The following command displays information about elements of a local cluster, two of whose components are RoseGK and LavenderGK:

```
Router# show gatekeeper status cluster
                  CLUSTER INFORMATION
                  ===================

                          Active     Endpoint       Last
Hostname     %Mem   %CPU    Calls        Count   Announce
--------     ----   ----   ------     --------   --------
RoseGK         72      0        1   Local Host
LavenderGK     30      1        0            4        14s
```

Related Commands

Command	Description
show gatekeeper endpoints	Displays the status of all registered endpoints for a gatekeeper.
show gatekeeper performance statistics	Displays information about the number of calls accepted and rejected, and finds the number of endpoints sent to other gatekeepers.
show gatekeeper zone cluster	Displays the dynamic status of all local clusters.

show gatekeeper zone cluster

To display the dynamic status of all local clusters, use the **show gatekeeper zone cluster**command in privilegedEXEC mode.

show gatekeeper zone cluster

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.1(5)XM1	This command was introduced.
12.2(2)T	This command was integrated into Cisco IOS Release 12.2(2)T.
12.2(2)XB1	This command was implemented on the Cisco AS5850.

Examples

The following command displays information about the current bandwidth values and about when the last announcement message from the alternate gatekeeper was received. In the following example, PRI represents the priority value assigned to an alternate gatekeeper. This field ranges from 0 to 127, with 127 representing the lowest priority.

```
Router# show gatekeeper zone cluster
                 LOCAL CLUSTER INFORMATION, 6t
                 ============================
                                        TOT BW   INT BW   REM BW   LAST       ALT GK
LOCAL GK NAME    ALT GK NAME    PRI    (kbps)   (kbps)   (kbps)   ANNOUNCE   STATUS
-------------    -----------    ---    ------   ------   ------   --------   ------
ParisGK          GenevaGK       120    0        0        0        7s         CONNECTED
NiceGK           ZurichGK       100    0        0        0        7s         CONNECTED
```

Related Commands

Command	Description
timer cluster -element announce	Defines the time interval between successive announcement messages exchanged between elements of a local cluster.
zone cluster local	Defines a local grouping of gatekeepers.
zone remote	Statically specifies a remote zone if DNS is unavailable or undesirable.

show gatekeeper zone prefix

To display the zone prefix table, use the **show gatekeeper zone prefix**command in privileged EXEC mode.

show gatekeeper zone prefix [**all**]

Syntax Description

all	(Optional) Displays the dynamic zone prefixes registered by each gateway.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
11.3(2)NA	This command was introduced.
12.2(15)T	The **all** keyword was added.

Usage Guidelines

If the **all** keyword is not specified, this command displays the static zone prefixes only. Use the **include** filter with the **all** keyword to display the prefixes associated with a particular gateway. For example, the **show gatekeeper zone prefix all | include GW1** command displays the dynamic prefixes associated with gateway GW1.

Examples

The following command displays the zone prefix table for the gatekeeper:

```
Router# show gatekeeper zone prefix
      ZONE PREFIX TABLE
      =================
GK-NAME               E164-PREFIX
-------               -----------
gk2                   408*
gk2                   5551001*
gk2                   5551002*
gk2                   5553020*
gk2                   5553020*
gk1                   555....
gk2                   719*
gk2                   919*
```

The following command displays the zone prefix table, including the dynamic zone prefixes, for the gatekeeper:

```
Router# show gatekeeper zone prefix all
                    ZONE PREFIX TABLE
      ================================================
GK-NAME               E164-PREFIX       Dynamic GW-priority
-------               -----------       -------------------
gk2                   408*
gk2                   5551001*            GW1 /5
gk2                   5551002*            GW1 /5 GW2 /10
gk2                   5553020*            GW1 /8
gk2                   5553020*
gk1                   555....
```

```
gk2                  719*
gk2                  919*                GW2 /5
```

The table below describes significant fields shown in this output.

Table 20: show gatekeeper zone prefix Field Descriptions

Field	Description
GK-NAME	Gatekeeper name.
E164-PREFIX	E.164 prefix and a dot that acts as a wildcard for matching each remaining number in the telephone number.
Dynamic GW-priority	Gateway that serves this E164 prefix. Gateway priority. A 0 value prevents the gatekeeper from using the gateway for that prefix. Value 10 places the highest priority on the gateway. The default priority value for a dynamic gateway is 5.

Related Commands

Command	Description
show gatekeeper zone cluster	Displays the dynamic status of all local clusters.

show gatekeeper zone status

To display the status of zones related to a gatekeeper, use the **show gatekeeper zone status** command in privileged EXEC mode.

show gatekeeper zone status

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
11.3(2)NA	This command was introduced.
12.0(5)T	The display format was modified for H.323 Version 2.
12.1(5)XM2	This command was implemented on the Cisco AS5350 and Cisco AS5400.
12.2(4)T	This command was not supported on the Cisco AS5300, Cisco AS5350, and Cisco AS5400 in this release.
12.2(2)XB1	This command was implemented on the Cisco AS5850.
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T.

Examples

The following is sample output from thiscommand:

```
Router# show gatekeeper zone status
                     GATEKEEPER ZONES
                     ================
GK name      Domain Name   RAS Address     PORT  FLAGS MAX-BW   CUR-BW
                                                     (kbps)    (kbps)
-------      -----------   -----------     ----  ----- ------   ------
sj.xyz.com   xyz.com       10.0.0.0        1719  LS             0
  SUBNET ATTRIBUTES :
    All Other Subnets :(Enabled)
  PROXY USAGE CONFIGURATION :
    inbound Calls from germany.xyz.com :
      to terminals in local zone sj.xyz.com :use proxy
      to gateways in local zone sj.xyz.com  :do not use proxy
    Outbound Calls to germany.xyz.com
      from terminals in local zone germany.xyz.com :use proxy
      from gateways in local zone germany.xyz.com  :do not use proxy
    Inbound Calls from all other zones :
      to terminals in local zone sj.xyz.com :use proxy
      to gateways in local zone sj.xyz.com  :do not use proxy
    Outbound Calls to all other zones :
      from terminals in local zone sj.xyz.com :do not use proxy
      from gateways in local zone sj.xyz.com  :do not use proxy
tokyo.xyz.co xyz.com         10.0.0.0        1719  RS             0
milan.xyz.co xyz.com         10.0.0.0        1719  RS             0
```

The table below describes significant fields shown in this output.

Table 21: show gatekeeper zone status Field Descriptions

Field	Description
GK name	Gatekeeper name (also known as the zone name), which is truncated after 12 characters in the display.
Domain Name	Domain with which the gatekeeper is associated.
RAS Address	Registration, Admission, and Status (RAS) protocol address of the gatekeeper.
FLAGS	Displays the following information: • S = static (CLI-configured, not DNS-discovered) • L = local • R = remote
MAX-BW	Maximum bandwidth for the zone, in kbps.
CUR-BW	Current bandwidth in use, in kbps.
SUBNET ATTRIBUTES	List of subnets controlled by the local gatekeeper.
PROXY USAGE CONFIGURATION	Inbound and outbound proxy policies as configured for the local gatekeeper (or zone).

Related Commands

Command	Description
show gatekeeper calls	Displays the status of each ongoing call of which a gatekeeper is aware.
show gatekeeper endpoints	Displays the status of registered endpoints for a gatekeeper.
show gateway	Displays the current gateway status.