



Gateways

Cisco IP telephony gateways enable Cisco CallManager to communicate with non-IP telecommunications devices. Cisco CallManager supports several types of gateways as described in Table 38-1.

Table 38-1 Gateway Model Overview

| Gateway Model | Communication Protocol | Device Protocol | Port Types |
|---------------------------------------------------------|-------------------------|-----------------|--------------------------------|
| Cisco Access Analog Station Gateway (AS-2, AS-4, AS-8) | Skinny Station Protocol | Analog | Foreign Exchange Station (FXS) |
| Cisco Access Analog Trunk Gateway (AT-2, AT-4, AT-8) | Skinny Station Protocol | Analog | Foreign Exchange Office (FXO) |
| Cisco Access Digital Trunk Gateway DE-30+ | Skinny Station Protocol | Digital PRI | PRI |
| Cisco Access Digital Trunk Gateway DE-24+ | Skinny Station Protocol | Digital PRI | PRI |
| Cisco Catalyst 6000 24 Port FXS Analog Interface Module | Skinny Station Protocol | Analog | Foreign Exchange Station (FXS) |
| Cisco Catalyst 6000 8 Port T1 and Services Module | Skinny Station Protocol | Digital T1-PRI | PRI |

Table 38-1 Gateway Model Overview (continued)

| Gateway Model | Communication Protocol | Device Protocol | Port Types |
|------------------------------------------------------------------------|--------------------------------------------------------------------------------|----------------------------|-----------------------------------------------------------------|
| Cisco Voice Gateway 200 (VG200) | Media Gateway Control Protocol (MGCP); works as an H.323 gateway with T1 ports | Analog | Foreign Exchange Office (FXO) Foreign Exchange Station (FXS) |
| All H.323 Gateways, including Cisco VG200 and Cisco IOS-based gateways | H.323 | H.225, Inter-cluster Trunk | Depends on model |

These sections provide information about working with and configuring Cisco gateways with Cisco CallManager

- Understanding Supported Gateways, page 38-2
- Adding Gateways to Cisco CallManager, page 38-7
- Configuring Gateway Ports in Cisco CallManager, page 38-25
- Modifying Gateways, page 38-38
- Finding Specific Gateways, page 38-40

Understanding Supported Gateways

Cisco CallManager supports several types of Cisco and third-party IP telephony gateways. These sections provide an overview of these supported gateways:

- Understanding Cisco Access Gateways, page 38-3
- Understanding Catalyst 6000 Gateways, page 38-4
- Understanding the Cisco VG200 Gateway, page 38-6
- Understanding Other H.323 Devices, page 38-6

Understanding Cisco Access Gateways

Cisco Access gateways make it possible for the Cisco CallManager to communicate with non-IP telecommunications devices.

Cisco Access devices use the Cisco Skinny Station protocol, which enable these gateways to be H.323 compliant when used with Cisco CallManager.

The following Cisco Access gateways are available:

- Cisco Access Analog Gateways—Trunk and station analog gateways
- Cisco Access Digital Trunk Gateways—Trunk digital gateways

Cisco Access Analog Gateways

There are two categories of Cisco Access Analog gateways: trunk gateways and station gateways.

Cisco Access Analog Station Gateways

Station gateways let you connect the Cisco CallManager to Plain Old Telephone Service (POTS) analog telephones, interactive voice response (IVR) systems, fax machines, and voice mail systems. Station gateways provide Foreign Exchange Station (FXS) ports. The AS-2, AS-4, and AS-8 models accommodate two, four, and eight Voice over IP (VoIP) gateway channels, respectively.

Access Analog Trunk Gateways

Analog trunk gateways let you connect the Cisco CallManager to standard public switched telephone network (PSTN) central office (CO) or PBX trunks. Trunk gateways provide Foreign Exchange Office (FXO) ports. The AT-2, AT-4, and AT-8 models accommodate two, four, and eight Voice over IP (VoIP) gateway channels.

Related Topics

- Adding an Analog Gateway, page 38-7
- Configuring Ports on Analog Gateways, page 38-26
- Modifying Gateways, page 38-38
- Finding Specific Gateways, page 38-40
- Understanding Device Loads, page 6-5

Cisco Access Digital Trunk Gateways

A Cisco Access Digital Trunk Gateway allows you to connect a Cisco CallManager system to the PSTN or to a private branch exchange PBX.

These models of Cisco Access Digital Trunk gateways are available: Cisco Access Digital Trunk DT-24+ Gateway and Cisco Access Digital Trunk DE-30+ (E1) Gateway.

Access Digital Trunk DT-24+ Gateway

The DT-24+ connects VoIP networks to the PBX or PSTN. The DT-24+ supports ISDN PRI at a T1 rate. The DT-24+ interface card supports 24 channels.

Access Digital Trunk DE-30+ (E1) Gateway

The DE-30+ (E1) gateway connects voice over IP networks to the PBX or PSTN. The DE-30+ supports ISDN PRI at a E1 rate. The DE-30+ is an interface card that supports 30 channels.

Related Topics

- Adding Digital Gateways, page 38-9
- Modifying Gateways, page 38-38
- Finding Specific Gateways, page 38-40
- Understanding Device Loads, page 6-5

Understanding Catalyst 6000 Gateways

Several telephony modules are available for the Cisco Catalyst 6000 Family. These modules act as telephony gateways enabling you to implement IP telephony in your network using existing Cisco Catalyst 6000 Family devices.

The Catalyst 6000 gateways are line cards you can install in any Catalyst 6000 or 6500 series switch.

Catalyst 6000 Family Analog Line Card

The Catalyst 6000 Family Analog Line Cards include the following:

- Cisco Catalyst 6000 24 Port FXS Analog Interface Module

Related Topics

- Adding an Analog Gateway, page 38-7
- Configuring Ports on Analog Gateways, page 38-26
- Modifying Gateways, page 38-38
- Finding Specific Gateways, page 38-40
- Understanding Device Loads, page 6-5

Catalyst 6000 Family T1 Line Card

The Cisco Catalyst 6000 Family T1 Line Card provides eight ports allowing T1 or E1 PRI ISDN ports on connections to the PSTN or a PBX.

Related Topics

- Adding an Analog Gateway, page 38-7
- Configuring Ports on Analog Gateways, page 38-26
- Modifying Gateways, page 38-38
- Finding Specific Gateways, page 38-40
- Understanding Device Loads, page 6-5

Catalyst 6000 Family DSP Services Card

The Catalyst 6000 Family DSP Services Card is the same hardware as the Catalyst 6000 Family T1/E1 Line Card. However, the DSP Services Card is configured with a different software load. This special configuration enables the card to function as a conference bridge or media termination point. When used in these configurations, this card does not act as a gateway and is not described in detail in this chapter.

Related Topics

- Understanding Device Loads

Understanding the Cisco VG200 Gateway

The Cisco VG200 gateway allows you to connect standard POTS devices to the Cisco IP Telephony Solution.

The Cisco VG200 gateway provides a 10/100BaseT Ethernet port for connection to the data network. The following telephony connections are available:

- 1 to 4 Foreign Exchange Office (FXO) ports for connecting to a central office or PBX
- 1 to 4 Foreign Exchange Station (FXS) ports for connecting to POTS telephony devices
- 1 to 2 T1 digital ports for connecting to the PSTN

The Cisco VG200 gateway supports MGCP on FXO and FXS analog ports, and it supports H.323 on digital (T1) ports.

Related Topics

- Adding an MGCP Gateway, page 38-21
- Configuring Ports on the Cisco VG200 Gateway, page 38-33
- Modifying Gateways, page 38-38
- Finding Specific Gateways, page 38-40

Understanding Other H.323 Devices

H.323 devices comply with the H.323 communications standards and enable video conferencing over LANs and other packet-switched networks. You can add third-party H.323 devices or other Cisco devices that support H.323 (such as the Cisco 2600 series, 3600 series, or 5300 series gateways). You can interlink multiple Cisco CallManager clusters through the Cisco Multimedia Conference Manager.

Related Topics

- Adding an H.323 Gateway, page 38-22
- Modifying Gateways, page 38-38
- Finding Specific Gateways, page 38-40

Adding Gateways to Cisco CallManager

To enable Cisco CallManager to manage IP telephony gateways in your network, you must first add each gateway to the Cisco CallManager system. Refer to these sections for detailed procedures:

- Adding an Analog Gateway, page 38-7
- Adding Digital Gateways, page 38-9
- Adding an MGCP Gateway, page 38-21
- Adding an H.323 Gateway, page 38-22

Adding an Analog Gateway

Use the following procedure to add these Cisco analog gateways to Cisco CallManager:

- Cisco AS-2, AS-4, and AS-8 Gateways
- Cisco AT-2, AT-4, and AT-8 Gateways
- Cisco Catalyst 6000 12 Port FXO Gateway
- Cisco Catalyst 6000 24 Port FXS Gateway

Procedure

- Step 1** Open Cisco CallManager.
- Step 2** Select **Device > Add a New Device**.

The Add Device screen appears.

- Step 3** Select **Device Type > Gateway**.

- Step 4** Select the Gateway Type.

Analog gateways include the following:

- Cisco AS-2, AS-4, and AS-8 Gateways
- Cisco AT-2, AT-4, and AT-8 Gateways
- Cisco Catalyst 6000 12 Port FXO Gateway
- Cisco Catalyst 6000 24 Port FXS Gateway

- Step 5** Select **Device Protocol > Access Analog**.
- Step 6** Click **Next**.
The Gateway Configuration screen appears.
- Step 7** Enter the appropriate settings, as described in Table 38-2.
- Step 8** Click **Insert**.

Table 38-2 Access Analog Gateway Configuration Settings

| Field | Description | Usage Notes |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| MAC Address | Identifies hardware-based telephones and device name. | Value must be 12 hexadecimal characters. |
| Description | Clarifies the purpose of the device. | |
| Device Pool | Specifies the collection of properties for this device including CallManager Group, Date/Time Group, Region, and Calling Search Space for auto-registration of devices. | |
| Load Information | Specifies the custom software for gateway. | Values entered here override the default values for this gateway. |
| Country Code | The country in which the gateway is located. | Select the country in which the gateway is located from the drop-down selection box. |
| Location | Specifies the remote location accessed using restricted bandwidth connections. | |
| Calling Search Space | Specifies the collection of Route Partitions searched to determine how a collected (originating) number should be routed. | |

Table 38-2 Access Analog Gateway Configuration Settings (continued)

| Field | Description | Usage Notes |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Port Selection Order | Specifies the order in which ports are selected. TOP_DOWN selects ports in descending order, from port 1 to port 8. BOTTOM_UP selects ports in ascending order, from port 8 to port 1. | Valid entries are TOP_DOWN or BOTTOM_UP. If you're not sure which port order to use, choose TOP_DOWN. |

Related Topics

- Cisco Access Analog Gateways, page 38-3
- Catalyst 6000 Family Analog Line Card, page 38-4
- Configuring Ports on Analog Gateways, page 38-26
- Updating Device Loads, page 6-6

Adding Digital Gateways

You can add a Cisco digital gateway to Cisco CallManager. Follow these steps to add a digital PRI gateway.

Procedure

-
- Step 1** Open Cisco CallManager.
- Step 2** Select **Device > Add a New Device**.
The Add Device screen appears.
- Step 3** Select **Device Type > Gateway**.
- Step 4** Select the Gateway Type.
Access Digital PRI gateways include:
- Cisco DT-24+ Gateway
 - Cisco DT-24 Gateway

- Cisco DE-30+ Gateway
- Cisco Catalyst 6000 E1 VoIP Gateway

Step 5 Click **Insert**.

Step 6 Select **Device Protocol > Access Digital PRI**.

Step 7 Click **Next**.

The Gateway Configuration screen appears.

Step 8 Enter the appropriate settings as described in Table 38-3.

Step 9 Click **Insert**.

The Gateway Configuration screen appears.

Table 38-3 Access Digital PRI Gateway Configuration Settings

| Field | Description | Usage Notes |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| MAC Address | Identifies hardware-based telephones and device name. | Value must be 12 hexadecimal characters. |
| Description | Clarifies the purpose of the device. | |
| Device Pool | Specifies the collection of properties for this device including CallManager Group, Date/Time Group, Region, and Calling Search Space for auto registration of devices. | |
| Calling Search Space | Specifies the collection of Route Partitions searched to determine how a collected (originating) number should be routed. | |
| Location | Remote location accessed using restricted bandwidth connections. | |
| Load Information | Specifies the custom software for gateway. | Values entered here override the default values for this gateway. |

Table 38-3 Access Digital PRI Gateway Configuration Settings (continued)

| Field | Description | Usage Notes |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TX-Level CSU | Specifies the transmit level based on the distance between the gateway and the nearest repeater. The default is full power (0dB). | Select one of the alternative settings to attenuate the line. <ul style="list-style-type: none"> -7.5dB -15dB -22.5dB |
| Channel Selection Order | Specifies the order in which ports are enabled from first (lowest number port) to last (highest number port), or from last to first. | Valid entries are TOP_DOWN (last to first) or BOTTOM_UP (first to last). If you're not sure which port order to use, choose TOP_DOWN. |
| PCM Type | Specifies the digital encoding format. | Choose from the following: <ul style="list-style-type: none"> A-law: Use for Europe and the rest of the world μ-law: Use for North America |
| Clock Reference | Specifies from where the clock is derived. Cisco Catalyst 6000 blades have eight ports on the same hardware card, each of which can be used as a clock reference by other ports on the same blade. | Select Internal or Network. <ul style="list-style-type: none"> Internal—When clocking is derived from the card and is then distributed at the span Network—When the Cisco Access Digital Trunk Gateway receives its clocking from the network Span 1 to Span 8—When the Cisco Access Digital Trunk Gateway receives clocking from another port on the same Cisco Catalyst 6000 blade. |

Table 38-3 Access Digital PRI Gateway Configuration Settings (continued)

| Field | Description | Usage Notes |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protocol Side | <p>Setting used for Cisco Access Digital gateways depending on whether gateway is connected to a Central Office/Network device or to a User device.</p> <p>The two ends of the PRI connection should use opposite settings. For example, if you are connected to a PBX and the PBX uses User as its protocol side, Network should be chosen for this device. Typically, this option is User for Central Office connections.</p> | <p>Read only. To change the Protocol Side setting, you must delete this device and add a new device with the correct information.</p> |
| Caller ID DN | <p>The pattern you want to use for Caller ID, from 0 to 24 digits.</p> | <p>For example, in North America:</p> <ul style="list-style-type: none"> • 555XXXX = variable Caller ID, where X is equal to an extension number. The CO appends the number with the area code if you do not specify it. • 5555000 = Fixed Caller ID. Use when you want the Corporate number to be sent instead of the exact extension from which the call is placed. The CO appends the number with the area code if you do not specify it. |

Table 38-3 Access Digital PRI Gateway Configuration Settings (continued)

| Field | Description | Usage Notes |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Calling Party Selection | Determines which directory number is sent. Any outbound call on a gateway can send directory number information. | The following options specify which directory number is sent: <ul style="list-style-type: none"> • Originator—send the directory number of the calling device. • First Redirect Number—send the directory number of the redirecting device. • Last Redirect Number—send the directory number of the last device to redirect the call. |
| Channel IE Type | Indicates whether channel selection is presented as a slotmap or a channel map. Number—B-channel usage always a channel map format Slotmap—B-channel usage always a slotmap format | Select 0, 1, or 2. Type 2 in this field. |
| Delay for first restart (1/8 sec ticks) | Controls the rate at which the spans are brought in service when and Inhibit Restarts at PRI Initialization is disabled. | Use this option when many PRI spans are enabled on a system and Inhibit Restarts at PRI Initialization is disabled. For example, set the first five cards to 0, and set the next five cards to 16. (Wait two seconds before bringing them in service.) |
| Delay between restarts (1/8 sec ticks) | Determines the length of time between restarts if Inhibit Restarts is disabled, when a PRI restart is sent. | |
| Num Digits | Specifies the number of significant digits to collect, from 0 to 32. Significant digits are counted from the right (last digit) of the number called. | This field is used if you enable Sig Digits. It is used for the processing of incoming calls and indicates the number of digits starting from the last digit of the called number used to route calls coming into the PRI span. See Prefix DN and Sig Digits. |

Table 38-3 Access Digital PRI Gateway Configuration Settings (continued)

| Field | Description | Usage Notes |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sig Digits | Represents the number of final digits a PRI span should retain on inbound calls. A trunk with significant digits enabled truncates all but the final few digits of the address provided an inbound call. | <p>Enable or disable this box depending on whether you want to collect significant digits.</p> <p>If disabled, the Cisco CallManager does not truncate the inbound number.</p> <p>If enabled, you also need to choose the number of significant digits to collect.</p> |
| Prefix DN | Specifies the prefix digits that are appended to the digits this trunk receives on incoming calls. | The Cisco CallManager adds prefix digits after first truncating the number in accordance with the Number of Digits to Collect setting. |
| Presentation Bit | Determines whether the central office transmits or blocks caller ID. | <p>Select Allowed if you want the Central Office to send caller ID.</p> <p>Select Restricted if you do not want the Central Office to send caller ID.</p> |
| Called party IE number type unknown | The format for the type of number in called party directory numbers. Cisco CallManager sets the called DN type of number. We recommend you do not change the default value unless you have advanced experience with dialing plans, such as NANP or the European dialing plan. You may need to change the default in Europe because Cisco CallManager does not recognize European national dialing patterns. You can also change this setting when connecting to PBXs using routing as a non-national type number. | <p>Use the following definition for each of the variables:</p> <ul style="list-style-type: none"> • CallManager—The Cisco CallManager sets the directory number type. • International—Use when you are dialing outside the dialing plan for your country. • National—Use when you are dialing within the dialing plan for your country. • Unknown—The dialing plan is unknown. |

Table 38-3 Access Digital PRI Gateway Configuration Settings (continued)

| Field | Description | Usage Notes |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Calling party IE number type unknown | <p>The format for the type of number in calling party directory numbers.</p> <p>Cisco CallManager sets the calling DN type of number. We recommend you do not change the default value unless you have advanced experience with dialing plans, such as NANP or the European dialing plan. You may need to change the default in Europe because Cisco CallManager does not recognize European national dialing patterns. You can also change this setting when connecting to PBXs using routing as a non-national type number.</p> | <p>Use the following definition for each of the variables:</p> <ul style="list-style-type: none"> • CallManager—The Cisco CallManager sets the directory number type. • International—Use when you are dialing outside the dialing plan for your country. • National—Use when you are dialing within the dialing plan for your country. • Unknown—The dialing plan is unknown. |
| Called Numbering Plan | <p>The format for the numbering plan in called party directory numbers.</p> <p>Cisco CallManager sets the called DN numbering plan. We recommend you do not change the default value unless you have advanced experience with dialing plans, such as NANP or the European dialing plan. You may need to change the default in Europe because Cisco CallManager does not recognize European national dialing patterns. You can also change this setting when connecting to PBXs using routing as a non-national type number.</p> | <p>Use the following definition for each of the variables:</p> <p>CallManager—The Cisco CallManager sets the Numbering Plan in the directory number.</p> <p>ISDN—Use when you are dialing outside the dialing plan for your country.</p> <p>National Standard—Use when you are dialing within the dialing plan for your country.</p> <p>Private—Use when you are dialing within a 'private' network. Unknown—The dialing plan is unknown.</p> |

Table 38-3 Access Digital PRI Gateway Configuration Settings (continued)

| Field | Description | Usage Notes |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Calling Numbering Plan | <p>The format for the numbering plan in calling party directory numbers.</p> <p>Cisco CallManager sets the calling DN numbering plan. We recommend you do not change the default value unless you have advanced experience with dialing plans, such as NANP or the European dialing plan. You may need to change the default in Europe because Cisco CallManager does not recognize European national dialing patterns. You can also change this setting when connecting to PBXs using routing as a non-national type number.</p> | <p>Use the following definition for each of the variables:</p> <p>CallManager—The Cisco CallManager sets the Numbering Plan in the directory number.</p> <p>ISDN—Use when you are dialing outside the dialing plan for your country.</p> <p>National Standard—Use when you are dialing within the dialing plan for your country.</p> <p>Private—Use when you are dialing within a 'private' network. Unknown—The dialing plan is unknown.</p> |
| PRI Protocol Type | <p>The communications protocol for the span:</p> <ul style="list-style-type: none"> • 4E —AT&T InterExchange carrier • 5E8 Custom—Cisco IP Phone (does not conform to national ISDN standards) • 5E9 and NI2—AT&T family local exchange switch or carrier • Australian —European ISDN • DMS—MCI family local exchange switch or carrier • ETSI SC—European local exchange carrier • Euro—European ISDN | <p>Determine the switch to which you are connecting and the preferred protocol, as follows:</p> <ul style="list-style-type: none"> • Nortel Meridian—5E8 Custom • Lucent Definity—4ESS or 5E8 • Madge (Teleos) box—5E8 Teleos • Intecom PBX—5E8 Intecom <p>Alternatively, select the protocol based on the carrier:</p> <ul style="list-style-type: none"> • MCI—DMS-250 • Sprint—DMS-250 or DMS-100 • AT&T—4ESS |

Table 38-3 Access Digital PRI Gateway Configuration Settings (continued)

| Field | Description | Usage Notes |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhibit restarts at PRI initialization | A restart is a message that confirms the status of the ports on a PRI span. If restarts are not sent, they are assumed to be in service. | Enable or disable. When the D-Channel successfully connects with another PRI's D-Channel it sends restarts when this option is disabled. |
| Enable status poll | Enable to view the B-channel status in the debug window. | |
| Number of digits to strip | The number of digits to strip on outbound calls, from 0 to 32. | For example, 8889725551234 is dialed, and the number of digits to strip is 3. In this example, 888 is stripped from the outbound number. |
| Zero Suppression | Determines how the T1 or E1 span electrically codes binary 1's and 0's on the wire (line coding selection). | For a T1, this could be AMI (Alternate Mark Inversion) or B8ZS (Bipolar 8-Zeros Substitution). For an E1, this could be AMI or HDB3 |
| Framing | Determines the multiframe format of the span. | The choices are (for T1) <ul style="list-style-type: none"> • SF—superframe consisting of 12 frames • ESF—extended superframe consisting of 24 frames. E1 nis always ESF (Extended Superframe, consisting of 16 frames) |
| FDL Channel | Determines what kind, if any, facility data link is supported by the span. The FDL is a maintenance channel that allows remote troubleshooting of link-layer problems, and remote monitoring of performance statistics of the link. | Only relevant on T1 spans. Choices are: <ul style="list-style-type: none"> • ANSI T.401 • AT&T PUB 54016 • none |
| Yellow Alarm | Determines how a remote alarm indication is coded on a T1 span. A yellow alarm indicates that the other end of the link has lost frame synchronization on the signal being transmitted by this end. | Choices include F-bit (out of band signaling; allows 64kbps clear channel bearer capability per B-channel), or bit-2 (in band signaling; robs bit 2 of every channel). |

Table 38-3 Access Digital PRI Gateway Configuration Settings (continued)

| Field | Description | Usage Notes |
|-------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Trunk Level | Adjusts the gain of audio entering or leaving the span. | |
| Adjustment to Received Audio Signal | Specifies the gain or loss applied to the received audio signal relative to the port application type. | Select the gain or loss you want applied to the received audio signal relative to the following port application types: AnalogCOTrunk—Minus3db DigitalToAnalogCO—NoDbPadding AnalogTieTrunk—NoDbPadding DigitalToDigitalCO—NoDbPadding ISDNStation—NoDbPadding ISDN_DigitalTieTrunk—NoDbPadding ISDNTrunk—NoDbPadding OnPremisePOTSLine—Plus3db OffPremisePOTSLine—NoDbPadding SatelliteAnalogTieTrunk—NoDbPadding SatelliteDigitalTieTrunk—NoDbPadding AnalogTollTrunk—Plus3db |

Table 38-3 Access Digital PRI Gateway Configuration Settings (continued)

| Field | Description | Usage Notes |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Adjustment to Transmitted Audio Signal | Specifies the gain or loss applied to the transmitted audio signal relative to the port application type. | <p>Select the gain or loss you want applied to the transmitted audio signal relative to the following port application types:</p> <ul style="list-style-type: none"> • AnalogCOTrunk—Minus6db • DigitalToAnalogCO—Minus3db • AnalogTieTrunk—NoDbPadding • DigitalToDigitalCO—NoDbPadding • ISDNStation—NoDbPadding • ISDN_DigitalTieTrunk—NoDbPadding • ISDNTrunk—NoDbPadding • OnPremisePOTSLine—Plus3db • OffPremisePOTSLine—Minus3db • SatelliteAnalogTieTrunk—Minus3db • SatelliteDigitalTieTrunk—Minus3db • AnalogTollTrunk—NoDbPadding |

Table 38-3 Access Digital PRI Gateway Configuration Settings (continued)

| Field | Description | Usage Notes |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| D Channel Enable | <p>If enabled for an E1 or T1 PRI, then one of the span B-channels will be appropriated and used to establish a D-channel across the span for Common Channel Signaling (CCS) of calls.</p> <p>If disabled, then all B-channels on the span will be available for audio calls.</p> | |
| Card Locations | <p>When you set this option, the Device Wizard—Slot Position screen appears. Follow the diagram in the Device Wizard.</p> | <p>Only appears on a DT-24 Gateway.</p> <p>A slot position refers to the peripheral component interconnect (PCI) card slot into which the digital signal processor (DSP) card is plugged. When adding a new card to the digital access, always add cards from right to left when viewing the gateway from the back. The first (oldest) card should be in the right-most slot (labeled 1 in the Device Wizard), and each subsequent card should be installed in the next available slot position, moving from right to left. If you have existing cards that were not installed in the right-most positions, move the original cards to the right-most slots before adding the new card.</p> |

Related Topics

- Cisco Access Digital Trunk Gateways, page 38-4
- Catalyst 6000 Family T1 Line Card, page 38-5
- Updating Device Loads, page 6-6

Adding an MGCP Gateway

To use a Cisco VG200 gateway with MGCP, you must use the FXO or FXS analog ports.

Before You Begin

Before using Cisco CallManager, you must configure the Cisco VG200 gateway using the Cisco IOS command line interface (CLI). The procedures and commands required to perform this configuration are described in the *Software Configuration Guide for the Cisco VG200*.

Procedure

-
- Step 1** Open Cisco CallManager.
 - Step 2** Select **Device > Add a New Device**.
The Add Device screen appears.
 - Step 3** Select **Device Type > MGCP Gateway**.
 - Step 4** Click **Next**.
 - Step 5** Enter the appropriate settings, as described in Table 38-4.
Slot 0 is not used on the Cisco VG200 gateway.

Table 38-4 MGCP Configuration Settings

| Field | Description | Usage Notes |
|------------------|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MGCP Domain Name | Uniquely identifies the Cisco VG200 gateway. | Use the Domain Name Service (DNS) host name if it is configured to resolve correctly. Otherwise use the host name as defined on the Cisco VG200 gateway. You must use the same value here that is used to configure the Cisco VG200 gateway at the IOS command line. |
| Description | Clarifies the purpose of the device. | |

Table 38-4 MGCP Configuration Settings (continued)

| Field | Description | Usage Notes |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| VIC in Slot 1/Sub-Unit 0 | The type of Voice Interface Card installed in the right side of the Cisco VG200 gateway voice network module, which resides in Slot 1. | If there is an FXS or an FXO VIC installed in Slot 1/Sub0Unit 0, then select the installed VIC Type. Slot 0 is not used on the Cisco VG200 gateway. |
| VIC in Slot 1 / Sub-Unit 1 | The type of Voice Interface Card installed in the left side of the Cisco VG200 gateway voice network module, which resides in Slot 1. | If there is an FXS or an FXO VIC installed in Slot 1/Sub0Unit 1, then select the installed VIC Type. Slot 0 is not used on the Cisco VG200 gateway. |

Step 6 Click **Insert**.

Step 7 To configure ports on this gateway, see the “Configuring Ports on the Cisco VG200 Gateway” section on page 38-33.

Related Topics

- Understanding the Cisco VG200 Gateway, page 38-6
- Configuring Ports on the Cisco VG200 Gateway, page 38-33

Adding an H.323 Gateway

Follow these instructions to add an H.323 gateway to Cisco CallManager.

Procedure

- Step 1** Open Cisco CallManager.
- Step 2** Select **Device > Add a New Device**.
The Add Device screen appears.
- Step 3** Select **Device Type > Gateway**
- Step 4** Select **Gateway Type > H.323**.

Step 5 Select the Device Protocol.

The following device protocols are available:

- H.225
- Inter-cluster Trunk

Step 6 Click **Next**.

Step 7 Enter the appropriate settings as described in Table 38-5.

Step 8 Click **Insert**.

Table 38-5 H.323 Gateway Configuration Settings

| Field | Description | Usage Notes |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Device Name | Specifies unique name used by Cisco CallManager to identify the device. | |
| Description | Clarifies the purpose of the device. | |
| Device Pool | Specifies the collection of properties for this device including CallManager Group, Date/Time Group, Region, and Calling Search Space for auto-registration of devices. | |
| Calling Search Space | Specifies the collection of Route Partitions searched to determine how a collected (originating) number should be routed. | |

Table 38-5 H.323 Gateway Configuration Settings (continued)

| Field | Description | Usage Notes |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Caller ID DN | The pattern you want to use for Caller ID, from 0 to 24 digits. | For example, in North America: <ul style="list-style-type: none"> • 555XXXX = variable Caller ID, where X is equal to an extension number. The CO appends the number with the area code if you do not specify it. • 5555000 = Fixed Caller ID. Use when you want the Corporate number to be sent instead of the exact extension from which the call is placed. The CO appends the number with the area code if you do not specify it. |
| Calling Party Selection | Any outbound call on a gateway can send directory number information. This field determines which directory number is sent. | The following options specify which directory number is sent: <ul style="list-style-type: none"> • Originator—send the directory number of the calling device. • First Redirect Number—send the directory number of the redirecting device. • Last Redirect Number—send the directory number of the last device to redirect the call. |
| Presentation Bit | Determines whether the central office transmits or blocks caller ID. | Select Allowed if you want the Central Office to send caller ID. Select Restricted if you do not want the Central Office to send caller ID. |

Table 38-5 H.323 Gateway Configuration Settings (continued)

| Field | Description | Usage Notes |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gatekeeper registration | A gatekeeper is an H.323 entity on the LAN that provides address translation and controls access to the LAN for connections between H.323-compliant devices such as terminals and gateways. Use only for H.323-compliant gateways. All other devices do not use this box. | <ul style="list-style-type: none"> If your device is not gatekeeper controlled, select None. If you want Cisco CallManager to register a device with a specific remote gatekeeper, select Remote. |
| Gatekeeper Name | The Domain Name Service (DNS) name or IP address of the H.323 gatekeeper. | Use only for H.323-compliant gateways. All other devices do not use this box. This is an optional box. If Remote is selected as the Gatekeeper Registration, type a Gatekeeper Name (optional). |
| Media Termination Point Required | Determines whether or not a Media Termination Point is used to implement features that H.323 does not support (such as hold and transfer). | Used for H.323 clients only and those H.323 devices that do not support the H.245 empty capabilities set. |

Related Topics

- Understanding Other H.323 Devices, page 38-6

Configuring Gateway Ports in Cisco CallManager

After adding gateways to Cisco CallManager refer to these sections to configure the ports on the analog gateways in your network:

- Configuring Ports on Analog Gateways, page 38-26
- Configuring Ports on the Cisco VG200 Gateway, page 38-33

Configuring Ports on Analog Gateways

You can configure ports on the analog devices added to Cisco CallManager. Follow these procedures to configure ports on these analog gateways:

- Cisco AS-2, AS-4, and AS-8 Gateways
- Cisco AT-2, AT-4, and AT-8 Gateways
- Cisco Catalyst 6000 12 Port FXO Gateway
- Cisco Catalyst 6000 24 Port FXS Gateway

Configuring POTS Ports

Use this procedure to configure POTS ports on these devices:

- Cisco Access Analog AS-2, AS-4, and AS-8 Gateways
- Cisco Catalyst 6000 24 Port FXS Gateway

Before You Begin

You must add a Cisco analog gateway before configuring ports. See “Adding an Analog Gateway” section on page 38-7 for instructions.

Procedure

- Step 1** From the Gateway Configuration window, click **Add a New Port**.
- Step 2** Select **Port Type > Pots**.
- Step 3** Select the appropriate settings from the Port Number and End Port Number menus.
- Step 4** To modify additional settings, click **Advanced**.
- Step 5** Enter the appropriate settings, as described in Table 38-6.
- Step 6** Click **Insert and Close** to apply the changes and close the window.

Table 38-6 POTS Port Configuration Settings

| Field | Description | Usage Notes |
|-------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Trunk Level | Adjusts the gain of audio entering or leaving the span. | |
| Adjustment to Received Audio Signal | Specifies the gain or loss applied to the received audio signal relative to the port application type. | Select the gain or loss you want applied to the received audio signal relative to the following port application types: AnalogCOTrunk—Minus3db DigitalToAnalogCO—NoDbPadding AnalogTieTrunk—NoDbPadding DigitalToDigitalCO—NoDbPadding ISDNStation—NoDbPadding ISDN_DigitalTieTrunk—NoDbPadding ISDNTrunk—NoDbPadding OnPremisePOTSLine—Plus3db OffPremisePOTSLine—NoDbPadding SatelliteAnalogTieTrunk—NoDbPadding SatelliteDigitalTieTrunk—NoDbPadding AnalogTollTrunk—Plus3db |

Table 38-6 POTS Port Configuration Settings (continued)

| Field | Description | Usage Notes |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Adjustment to Transmitted Audio Signal | Specifies the gain or loss applied to the transmitted audio signal relative to the port application type. | <p>Select the gain or loss you want applied to the transmitted audio signal relative to the following port application types:</p> <ul style="list-style-type: none"> • AnalogCOTrunk—Minus6db • DigitalToAnalogCO—Minus3db • AnalogTieTrunk—NoDbPadding • DigitalToDigitalCO—NoDbPadding • ISDNStation—NoDbPadding • ISDN_DigitalTieTrunk—NoDbPadding • ISDNTrunk—NoDbPadding • OnPremisePOTSLine—Plus3db • OffPremisePOTSLine—Minus3db • SatelliteAnalogTieTrunk—Minus3db • SatelliteDigitalTieTrunk—Minus3db • AnalogTollTrunk—NoDbPadding |
| Prefix DN | Specifies the prefix digits that are appended to the digits this trunk receives on incoming calls. | The Cisco CallManager adds prefix digits after first truncating the number in accordance with the Number of Digits to Collect setting. |
| Num Digits | <p>Specifies the number of significant digits to collect, from 0 to 32.</p> <p>Significant digits are counted from the right (last digit) of the number called.</p> | This field is used for the processing of incoming calls and indicates the number of digits starting from the last digit of the called number used to route calls coming into the PRI span. See Prefix DN. |
| Expected Digits | Number of digits expected on the inbound side of the trunk. Leave zero as the default value if you are unsure. This field is rarely used. | |

Table 38-6 POTS Port Configuration Settings (continued)

| Field | Description | Usage Notes |
|----------------------------------------|-------------------------|----------------------------------------------------------|
| Call Restart Timer (1000-5000 ms) | The default is 1500 ms. | We recommend always using default values for this timer. |
| Offhook Validation Timer (100-1000 ms) | The default is 100 ms. | We recommend always using default values for this timer. |
| Onhook Validation Timer (100-1000 ms) | The default is 250 ms. | We recommend always using default values for this timer. |
| Hookflash Timer (100-1500 ms) | The default is 1000 ms | We recommend always using default values for this timer. |

Related Topics

- Cisco Access Analog Gateways, page 38-3
- Catalyst 6000 Family Analog Line Card, page 38-4
- Adding an Analog Gateway, page 38-7

Configuring Loop Start Ports

Use this procedure to configure loop start ports on these devices:

- Cisco AT-2, AT-4, and AT-8 Gateways
- Cisco Catalyst 6000 12 Port FXO Gateway

Before You Begin

You must add a Cisco analog gateway before configuring ports. See “Adding an Analog Gateway” section on page 38-7 for instructions.

Procedure

-
- Step 1** Select **Add a New Port** from the Gateway Configuration screen.
- Step 2** Select **Port Type > Loop Start**.
- Step 3** Select the appropriate settings from the Port Number and End Port Number menus.
- Step 4** To modify additional settings, click **Advanced**.
- Step 5** Enter the appropriate settings as described in Table 38-7.
- Step 6** Click **Insert and Close** to apply the changes and close the window.

Table 38-7 Access Analog Loop Start Port Configuration Settings

| Field | Description | Usage Notes |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Port Direction | <p>The direction of calls passing through this port:</p> <ul style="list-style-type: none"> • Inbound. Use for incoming calls only • Outbound. Use for outgoing calls • Both Ways. Inbound and outbound calls | |
| Trunk Level | Adjusts the gain of audio entering or leaving the span. | |

Table 38-7 Access Analog Loop Start Port Configuration Settings (continued)

| Field | Description | Usage Notes |
|-------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Adjustment to Received Audio Signal | Specifies the gain or loss applied to the received audio signal relative to the port application type. | <p>Select the gain or loss you want applied to the received audio signal relative to the following port application types:</p> <ul style="list-style-type: none"> • AnalogCOTrunk—Minus3db • DigitalToAnalogCO—NoDbPadding • AnalogTieTrunk—NoDbPadding • DigitalToDigitalCO—NoDbPadding • ISDNStation—NoDbPadding • ISDN_DigitalTieTrunk—NoDbPadding • ISDNTrunk—NoDbPadding • OnPremisePOTSLine—Plus3db • OffPremisePOTSLine—NoDbPadding • SatelliteAnalogTieTrunk—NoDbPadding • SatelliteDigitalTieTrunk—NoDbPadding • AnalogTollTrunk—Plus3db |

Table 38-7 Access Analog Loop Start Port Configuration Settings (continued)

| Field | Description | Usage Notes |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Adjustment to Transmitted Audio Signal | Specifies the gain or loss applied to the transmitted audio signal relative to the port application type. | Select the gain or loss you want applied to the transmitted audio signal relative to the following port application types: <ul style="list-style-type: none"> AnalogCOTrunk—Minus6db DigitalToAnalogCO—Minus3db AnalogTieTrunk—NoDbPadding DigitalToDigitalCO—NoDbPadding ISDNStation—NoDbPadding ISDN_DigitalTieTrunk—NoDbPadding ISDNTrunk—NoDbPadding OnPremisePOTSLine—Plus3db OffPremisePOTSLine—Minus3db SatelliteAnalogTieTrunk—Minus3db SatelliteDigitalTieTrunk—Minus3db AnalogTollTrunk—NoDbPadding |
| Caller ID Enable | Determines whether the Central Office transmits or blocks caller ID. | <ul style="list-style-type: none"> Allowed Select if you want the Central Office to send caller ID Restricted Select if you do not want the Central Office to send caller ID |
| Attendant DN | For Loop_Start port type only. The directory number to which you want incoming calls routed. | Type the number to which you want incoming calls routed. For example, zero or a directory number for an attendant. |
| Delay Before Dialing Timer (100-5000 ms) | The default is 500 ms. | We recommend always using default values for this timer. |
| Release Guard Timer (100-5000 ms) | The default is 2000 ms. | We recommend always using default values for this timer. |

Table 38-7 Access Analog Loop Start Port Configuration Settings (continued)

| Field | Description | Usage Notes |
|----------------------------------------------|-------------------------|----------------------------------------------------------|
| Incoming Ring Halt Timer (1000-8000 ms) | The default is 4500 ms. | We recommend always using default values for this timer. |
| Incoming Ring Validation Timer (100-2000 ms) | The default is 400 ms. | We recommend always using default values for this timer. |

Related Topics

- Cisco Access Analog Gateways, page 38-3
- Catalyst 6000 Family Analog Line Card, page 38-4
- Adding an Analog Gateway, page 38-7

Configuring Ports on the Cisco VG200 Gateway

Refer to these sections to configure ports on the VG200 FXS or FXO:

- Configuring FXS Ports on the Cisco VG200 Gateway, page 38-33
- Configuring FXO Ports on the Cisco VG200 Gateway, page 38-35

Configuring FXS Ports on the Cisco VG200 Gateway

FXS ports can be used to connect to any POTS device. Use this procedure to configure FXS ports on the Cisco VG200 gateway.

Before You Begin

You must add a Cisco VG200 gateway before configuring ports. See the “Adding an MGCP Gateway” section on page 38-21 for instructions.

Procedure

- Step 1** From the MGCP Configuration screen, click the endpoint identifiers of the FXS port you want to configure.
- Step 2** Select **Port Type > POTS**.
- Step 3** Enter the appropriate settings as described in Table 38-8.

Table 38-8 POTS on VG200 Gateway Configuration Settings

| Field | Description | Usage Notes |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MGCP Member Information | | |
| Description | Describes the purpose of the device. | |
| Device Pool | Identifies the device pool to which this gateway belongs. | |
| Calling Search Space | Identifies the collection of route partitions searched to determine how a dialed number is routed. | |
| Port Information | | |
| Prefix DN | Specifies the prefix digits that are appended to the digits received on incoming calls. | The Cisco CallManager adds prefix digits after first truncating the number in accordance with the Number of Digits to Collect setting. |
| Num Digits | Specifies the number of significant digits to collect, from 0 to 32. Significant digits are counted from the right (last digit) of the number called. | This field is used for the processing of incoming calls and indicates the number of digits starting from the last digit of the called number used to route calls coming into the PRI span. See Prefix DN. |
| Expected Digits | Number of digits expected on the inbound side of the trunk. Leave zero as the default value if you are unsure. This field is rarely used. | |

Related Topics

- Understanding the Cisco VG200 Gateway, page 38-6
- Adding an MGCP Gateway, page 38-21

Configuring FXO Ports on the Cisco VG200 Gateway

FXO ports can be used for connecting to a central office or PBX. The following two subsections describe how to configure FXO ports for ground start and loop start:

- Configuring Ground Start on MGCP Gateway, page 38-35
- Configuring Loop Start on MGCP Gateways, page 38-36

Cisco CallManager assumes all loop start trunks lack positive disconnect supervision. Configure trunks with positive disconnect supervision as ground start so that active calls can be maintained during a Cisco CallManager server fail-over.



Note

The physical characteristics of a Cisco VG200 gateway port are configured under Cisco VG200 configuration.

Configuring Ground Start on MGCP Gateway

Use this procedure to configure FXO ports for ground start on a Cisco VG200 gateway.

Before You Begin

You must add a Cisco VG200 gateway before configuring ports. See the section “Adding an MGCP Gateway” section on page 38-21 for instructions.

Procedure

-
- Step 1** From the MGCP Configuration screen, click the endpoint identifiers of the FXO port you want to configure.
 - Step 2** Select **Port Type > Ground Start**.
 - Step 3** Enter the appropriate settings as described in Table 38-9.

Table 38-9 Ground Start on VG200 Gateway Configuration Settings

| Field | Description | Usage Notes |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| MGCP Member Information | | |
| Description | Clarifies the purpose of device. | |
| Device Pool | Identifies the device pool to which this gateway belongs. | |
| Calling Search Space | Specifies the collection of route partitions searched to determine how a dialed number should be routed. | |
| Port Information | | |
| Port Direction | The direction of calls passing through this port: <ul style="list-style-type: none"> • Inbound. Use for incoming calls only • Outbound. Use for outgoing calls • Both Ways. Inbound and outbound calls | |
| Attendant DN | The directory number to which you want incoming calls routed. | Type the number to which you want incoming calls routed. For example, zero or a directory number for an attendant. |

Related Topics

- Understanding the Cisco VG200 Gateway, page 38-6
- Adding an MGCP Gateway, page 38-21

Configuring Loop Start on MGCP Gateways

Use this procedure to configure FXO ports for loop start on the Cisco VG200 gateway.

Before You Begin

You must add a Cisco VG200 gateway before configuring ports. See the section “Adding an MGCP Gateway” section on page 38-21 for instructions.

Procedure

- Step 1** From the MGCP Configuration screen, click the endpoint identifiers of the FXO port you want to configure.
- Step 2** Select **Port Type > Loop Start**.
- Step 3** Enter the appropriate settings as described in Table 38-10.

Table 38-10 Loop Start on VG200 Gateway Configuration Settings

| Field | Description | Usage Notes |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| MGCP Member Information | | |
| Description | Clarifies the purpose of the device. | |
| Device Pool | Identifies the device pool to which this gateway belongs. | |
| Calling Search Space | Specifies the collection of route partitions searched to determine how a number should be routed. | |
| Port Information | | |
| Port Direction | The direction of calls passing through this port: <ul style="list-style-type: none"> • Inbound. Use for incoming calls only. • Outbound. Use for outgoing calls. • Both Ways. Inbound and outbound calls. | |
| Attendant DN | The directory number to which you want incoming calls routed. | For example, zero or a directory number for an attendant. |

Related Topics

- Understanding the Cisco VG200 Gateway, page 38-6
- Adding an MGCP Gateway, page 38-21

Modifying Gateways

Using Cisco CallManager, you perform several tasks identically regardless of the gateway type, including:

- Deleting Gateways
- Resetting Gateways
- Updating Gateways

Deleting Gateways

Complete the following steps to delete a gateway from Cisco CallManager.

Procedure

- Step 1** Open Cisco CallManager.
- Step 2** Select **Devices > Gateway**.
The Gateway screen appears.
- Step 3** Enter search criteria to locate a specific gateway.
A list of discovered devices appears.
- Step 4** Click the **Delete** icon next to the gateway you want to delete.
A message appears verifying that you want to delete the gateway.
- Step 5** Click **OK**.
-

Related Topics

- Adding Gateways to Cisco CallManager, page 38-7
- Finding Specific Gateways, page 38-40

Resetting Gateways

Complete the following steps to reset a gateway using Cisco CallManager.

Procedure

- Step 1** Open Cisco CallManager
- Step 2** Select **Devices > Gateway**.
The Gateway screen appears.
- Step 3** Enter search criteria to locate a specific gateway.
A list of discovered devices appears.
- Step 4** Click the **Reset** button next to the gateway you want to reset.
The Reset Device window appears.
- Step 5** Click one of the following:
- **Restart Device**—Restart a device without shutting it down.
 - **Reset Device**—Shuts down a device and bring it back up.
-

Related Topics

- Finding Specific Gateways, page 38-40

Updating Gateways

Complete the following steps to update a gateway from Cisco CallManager.

Procedure

- Step 1** Open Cisco CallManager
- Step 2** Select **Devices > Gateway**.
The Gateway screen appears.

- Step 3** Enter search criteria to locate a specific gateway.
A list of discovered device appears.
- Step 4** Click **Device Name**.
The Gateway Configuration window appears.
- Step 5** Enter desired changes.
- Step 6** Click **Update**.
- Step 7** Reset the gateway to put the changes into effect.
-

Related Topics

- Adding Gateways to Cisco CallManager, page 38-7
- Finding Specific Gateways, page 38-40

Finding Specific Gateways

Because you might have hundreds of gateways in your network, Cisco CallManager enables you to locate specific gateways based on specific criteria. Use these sections to

- Searching by Device Name
- Searching by Description
- Searching by Directory Number or Pattern

Searching by Device Name

Use this option if you know the device name of a specific gateway or if you want to get a listing of all gateways registered with Cisco CallManager.

Procedure

Step 1 Open Cisco CallManager.

Step 2 Select **Devices > Gateway**.

The Gateway screen appears.

Step 3 Enter one of the following in the **By Device Name** field:

- Enter an asterisk in the **By Device Name** field to display all gateways.
- Enter a device name to display a specific device.

A list of discovered devices appears displaying:

- Device icon
 - Device name
 - Description
 - Device pool
 - Delete
 - Reset
-

Related Topics

- Searching by Description, page 38-42
- Searching by Directory Number or Pattern, page 38-43

Searching by Description

Use this option if you know any of the key words used in the Description field of a specific gateway registered with Cisco CallManager.

Procedure

- Step 1** Open Cisco CallManager
- Step 2** Select **Devices > Gateway**.
The Phone Search screen appears.
- Step 3** Enter text in the **By Description** field:
A list of discovered devices appears displaying:
- Device icon
 - Device name
 - Description
 - Device pool
 - Delete
 - Reset
-

Related Topics

- Searching by Device Name, page 38-41
- Searching by Directory Number or Pattern, page 38-43

Searching by Directory Number or Pattern

Use this option to locate gateways assigned to a specific extension or range of extensions and registered with Cisco CallManager.

Procedure

- Step 1** Open Cisco CallManager
- Step 2** Select **Devices > Gateway**.
The Phone Search screen appears.
- Step 3** Enter one of the following in the **By Directory Number or Pattern** field:
- Enter an asterisk to display all gateways.
 - Enter a directory number or pattern to display a specific device.

A list of discovered devices appears displaying:

- Device icon
 - Device name
 - Description
 - Delete
 - Reset
-

Related Topics

- Searching by Device Name, page 38-41
- Searching by Description, page 38-42

