



Gateway Configuration

Cisco IP telephony gateways enable Cisco CallManager to communicate with non-IP telecommunications devices. Cisco CallManager supports several types of gateways as described in the *Cisco CallManager System Guide*.

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

- [Adding Gateways to Cisco CallManager, page 41-2](#)
- [Gateway Configuration Settings, page 41-15](#)
- [Port Configuration Settings, page 41-45](#)
- [Modifying Gateways and Ports, page 41-65](#)
- [Finding Specific Gateways, page 41-56](#)
- [Understanding Voice Gateways, *Cisco CallManager System Guide*](#)

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 configuration database. The procedures, web panes, and configuration settings for adding a gateway vary according to the model of gateway that you are adding.

The following procedure describes how to add a new gateway in Cisco CallManager.

Procedure

- Step 1** Choose **Device > Gateway** to display the Find/List Gateways pane.
- Step 2** Click the **Add a New Gateway** link. The Add a New Gateway pane displays.
- Step 3** Choose the type of gateway you want to add from the Gateway type drop-down list box. The Device Protocol field may be automatically populated depending on which gateway type you choose.
- Step 4** Click **Next**.
- Step 5** In the following table, click the specific procedure for the type of gateway you are configuring. Once you are in the correct procedure, start with the step in which you enter the appropriate settings for that particular gateway type.

Table 41-1 Gateways

Type of Gateway	Procedure to Add
Cisco VG200	Adding a Cisco IOS MGCP Gateway, page 41-3
Cisco IOS 362x, 364x, 366x 26xx gateways	
Cisco Catalyst 4000 Access Gateway Module	
Cisco Catalyst 4224 Voice Gateway Switch	
Cisco IAD2400	
Cisco Catalyst 6000 E1 VoIP Gateway	Adding a Non-IOS MGCP Gateway, page 41-10
Cisco Catalyst 6000 T1 VoIP Gateway	
Cisco DT-24+ or DE-30+ Digital Access Trunk Gateway	
Other Cisco IOS gateway configured in H.323 mode or H.323 intercluster trunk.	Adding a Cisco IOS H.323 Gateway or Intercluster Trunk, page 41-12
Cisco Catalyst 6000 24-Port FXS Gateway	Adding an Analog Access Gateway and Ports, page 41-13
Analog Access AS-2, AS-4, AS-8, AT-2, AT-4, AT-8	

Adding a Cisco IOS MGCP Gateway

Use the following procedure to add and configure a Cisco IOS MGCP gateway to Cisco CallManager. The following Cisco IOS gateways support MGCP:

- Cisco VG200 Cisco IP Telephony Voice Gateway
- Cisco IOS 362x, 364x, 366x gateways
- Cisco IOS 26xx gateways

- Cisco Catalyst 4000 Access Gateway Module
- Cisco Catalyst 4224 Voice Gateway Switch
- Cisco IAD2400 gateways

Before You Begin

Before configuring a Cisco IOS MGCP gateway for use with Cisco CallManager, you must configure the gateway using the Cisco IOS command-line interface (CLI). For procedures and commands required to perform this configuration, refer to the configuration documentation supplied with the gateway.

Procedure

Step 1 Choose **Device > Add a New Device**.

The Add a New Device pane appears.

Step 2 From the Device type drop-down list box, choose **Gateway** and click **Next**.

The Add a New Gateway pane appears.

Step 3 From the Gateway Type drop-down list box, choose one of the following gateways:

- Cisco Voice Gateway 200 (VG200)
- Cisco IOS 362x, 364x, 366x gateways
- Cisco IOS 26xx gateways
- Cisco Catalyst 4000 Access Gateway Module
- Cisco Catalyst 4224 Voice Gateway Switch
- Cisco IAD2400 gateway



Note The Cisco Catalyst 6000 gateways also support MGCP, but are configured differently.

When you choose one of the preceding gateways, the Device Protocol drop-down list displays “Not Required for MGCP.”

Cisco IOS MGCP gateways support different device protocols for interfacing to the PSTN or other non-IP devices, depending on the gateway model and the type of installed network modules and voice interface cards (VICs). A subsequent web pane provides configuration for these interfaces.

- Step 4** Click **Next**. The MGCP Configuration pane displays.
- Step 5** Enter the appropriate settings and choose the type of network modules installed in each slot, as described in the “[MGCP Gateway Configuration Settings](#)” section on page 41-16, including any product-specific configuration settings.
- Step 6** Click **Insert**.
- The MGCP Gateway Configuration pane updates and displays drop-down list boxes with options for configuring the type of voice interface cards (VICs) in each sub-unit of each network module.
- The available choices depend on the type of network modules configured in the MGCP Configuration pane.
- Step 7** From the drop-down list boxes, choose the type of VICs installed in each subunit and click **Update**.
- Available VIC types include VIC-2FXS, VIC-2FXO, VWIC-1MFT-T1, VWIC-2MFT-T1, VWIC-1MFT-E1, VWIC-2MFT-E1, and WS-U4604-8FXS.
- The pane updates to add links for configuring endpoint information and ports for the type of VICs chosen.
- Step 8** Click an endpoint identifier (for example, 1/0/0) to configure device protocol information and add ports for the types of VICs installed.
- For detailed instructions, see the following procedures:
- [Adding FXS Ports to an MGCP Gateway, page 41-6](#)
 - [Adding FXO Ports to an MGCP Gateway, page 41-8](#)
 - [Adding T1-CAS Ports to an MGCP Gateway, page 41-9](#)
 - [Adding a T1 PRI or E1 PRI Port to an MGCP Gateway, page 41-10](#)
- Step 9** Reset the gateway to apply the changes.
- Step 10** Continue configuring endpoint information and ports as needed.
- Step 11** After you finish configuring endpoint and adding ports, you need to add the MGCP gateway device to a route group/route list or assign a route pattern to the gateway for calls to be routed to the gateway.



Note You only need to add the MGCP gateway to a route pattern for outbound trunk calling.

Adding Ports to an MGCP Gateway

The device protocols and port types that can be configured on MGCP gateways vary by the type of installed voice interface cards. This section contains the following procedures:

- [Adding FXS Ports to an MGCP Gateway, page 41-6](#)
- [Adding FXO Ports to an MGCP Gateway, page 41-8](#)
- [Adding T1-CAS Ports to an MGCP Gateway, page 41-9](#)
- [Adding a T1 PRI or E1 PRI Port to an MGCP Gateway, page 41-10](#)

Adding FXS Ports to an MGCP Gateway

You can use Foreign Exchange Station (FXS) ports to connect to any POTS device. Use this procedure to configure FXS ports on an MGCP gateway.

Before You Begin

You must add an MGCP gateway before configuring ports. See the [“Adding a Cisco IOS MGCP Gateway” section on page 41-3](#) for instructions.

Procedure

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- Step 1** Choose **Device > Gateway** to display the Find/List Gateways pane, or skip to [Step 4](#) if you have already located the MGCP gateway to which you want to add FXS ports.
- Step 2** Enter the appropriate search criteria to locate the MGCP gateway to which you want to add FXS ports.
- Step 3** Click the name of the desired gateway to display its MGCP configuration settings and endpoint identifiers.

Step 4 From the MGCP Configuration pane, click the endpoint identifier for the FXS VIC you want to configure.

The pane refreshes and displays the Gateway Configuration pane.

Step 5 Enter the appropriate **Gateway Configuration** and **Port Information** settings. Refer to the following sections for details about these fields:

- [FXS/FXO Gateway Configuration Settings, page 41-18](#)
- [POTS Port Configuration Settings, page 41-46](#)

Step 6 Click **Insert**.



Note Once you insert a POTS port, the pane refreshes and displays the POTS port in the list on the left side of the pane. An **Add DN** link displays to the right of the new port.

Step 7 Click **Add DN** to add directory numbers to the POTS port, or, if you configured another type of port, go to [Step 8](#).



Note Refer to the [“Adding a Directory Number” section on page 42-28](#) and [Directory Number Configuration Settings, page 32](#) for information about adding and configuring DNs.

Step 8 Reset the gateway to apply the changes.

Step 9 To return to the main MGCP gateway configuration pane for the gateway to which you just added the ports, click **Back to MGCP Configuration**.

Step 10 Repeat [Step 4](#) through [Step 9](#) to add additional FXS ports.

Related Topics

- [Adding Gateways to Cisco CallManager, page 41-2](#)
- [Adding a Cisco IOS MGCP Gateway, page 41-3](#)
- [Port Configuration Settings, page 41-45](#)

Adding FXO Ports to an MGCP Gateway

You can use Foreign Exchange Office (FXO) ports for connecting to a central office or PBX. Use this procedure to add and configure FXO ports for loop start or ground start on an MGCP gateway.



Note

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 failover.

Before You Begin

You must add an MGCP gateway before configuring ports. See the [“Adding a Cisco IOS MGCP Gateway”](#) section on page 41-3 for instructions.

Procedure

- Step 1** Choose **Device > Gateway** to display the Find/List Gateways pane, or skip to [Step 4](#) if you have already located the MGCP gateway to which you want to add FXO ports.
- Step 2** Enter the appropriate search criteria to locate the MGCP gateway to which you want to add FXO ports and click **Find**. The search results pane displays.
- Step 3** Click on the name of the desired gateway to display its MGCP configuration settings and endpoint identifiers.
- Step 4** From the MGCP Configuration pane, click the endpoint identifiers of the FXO port you want to configure.
- Step 5** From the Port Type drop-down list box, choose either **Ground Start** or **Loop Start**.
- Step 6** Enter the appropriate **Gateway Configuration** and **Port Information** settings as described in the following sections:
 - [“FXS/FXO Gateway Configuration Settings”](#) section on page 41-18
 - [“Ground Start Port Configuration Settings”](#) section on page 41-51.
 - [“Loop Start Port Configuration Settings”](#) section on page 41-49
- Step 7** Click **Insert**.

- Step 8** To return to the main MGCP gateway configuration pane for the gateway to which you just added the ports, click **Back to MGCP Configuration**.
- Step 9** Repeat [Step 4](#) through [Step 7](#) to add more FXO ports.
- Step 10** Reset the gateway to apply the changes.
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Related Topics

- [Adding Gateways to Cisco CallManager, page 41-2](#)
- [Port Configuration Settings, page 41-45](#)

Adding T1-CAS Ports to an MGCP Gateway

- Step 1** Choose **Device > Gateway** to display the Find/List Gateways pane, or skip to
- Step 2** Enter the appropriate search criteria to locate the MGCP gateway to which you want to add a T1-CAS port.
- Step 3** Click the name of the desired gateway to display its MGCP configuration settings and endpoint identifiers.
- Step 4** From the MGCP Configuration pane, click the endpoint identifier of the T1-CAS port you want to configure.
- Step 5** From the drop-down list box, choose the **T1-CAS** protocol.
- Step 6** Enter the appropriate Gateway Configuration settings. See the “[T1-CAS Gateway Configuration Settings](#)” section on [page 41-33](#) for details.
- Step 7** Click **Insert**.
- Step 8** Click **Add New Port**. A port configuration dialog opens in a separate pane.
- Step 9** Choose a port type from the Port Type drop-down list box. See the “[Port Configuration Settings](#)” section on [page 41-45](#) for the appropriate settings for the port type you choose.
- Step 10** Click **Insert** or **Insert and Close**.
- Step 11** Reset the gateway to apply the changes.
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Related Topics

- [Adding Gateways to Cisco CallManager, page 41-2](#)
- [Port Configuration Settings, page 41-45](#)

Adding a T1 PRI or E1 PRI Port to an MGCP Gateway

- Step 1** Choose **Device > Gateway** to display the Find/List Gateways pane, or skip to [Step 4](#) if you have already located the MGCP gateway to which you want to add a port.
- Step 2** Enter the appropriate search criteria to locate the MGCP gateway to which you want to add a T1 PRI or E1 PRI port.
- Step 3** Click the name of the desired gateway in the list to display the configuration information for the selected gateway.
- Step 4** From the MGCP Configuration pane, click the endpoint identifier of the T1 or E1 PRI port you want to configure.
- Step 5** Configure the T1 PRI or E1 PRI device protocol settings. See the [“E1/T1 PRI Gateway Configuration Settings” section on page 41-21](#) for detailed field descriptions.
- Step 6** Click **Insert**.
- Step 7** Reset the gateway to apply the changes.
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Related Topics

- [Adding a Cisco IOS MGCP Gateway, page 41-3](#)
- [Adding Gateways to Cisco CallManager, page 41-2](#)
- [E1/T1 PRI Gateway Configuration Settings, page 41-21](#)

Adding a Non-IOS MGCP Gateway

Use the following procedure to add the following non-IOS Cisco MGCP gateways to Cisco CallManager:

- Cisco DT-24+ Gateway
- Cisco DE-30+ Gateway

- Cisco Catalyst 6000 E1 VoIP Gateway
- Cisco Catalyst 6000 T1 VoIP Gateway

Procedure

- Step 1** Choose **Device > Add New Device**.
- The Add a New Device pane appears.
- Step 2** From the Device type drop-down list box, choose **Gateway**.
- From the Gateway Type drop-down list box, choose one of the following digital gateways:
- Cisco DT-24+ Gateway
 - Cisco DE-30+ Gateway
 - Cisco Catalyst 6000 E1 VoIP Gateway
 - Cisco Catalyst 6000 T1 VoIP Gateway
- Step 3** From the drop-down list box, choose the appropriate device protocol for the type of interfaces you are configuring on the gateway. The available choices vary according to gateway model:
- DT-24+ or Cisco Catalyst 6000 T1 VoIP Gateway—Choose either Digital Access PRI (T1 PRI) or Digital Access T1 (T1-CAS)
 - DE-30+ or Cisco Catalyst E1 VoIP Gateway—Choose Digital PRI (E1 PRI).
- Step 4** Click **Next**.
- The Gateway Configuration pane displays.
- Step 5** Enter the appropriate settings, depending on whether you are configuring a Digital T1 or E1 PRI interface or a Digital T1-CAS interface as described in following sections:
- [“E1/T1 PRI Gateway Configuration Settings” section on page 41-21.](#)
 - [“T1-CAS Gateway Configuration Settings” section on page 41-33](#)
- Step 6** Click **Insert**.
- Step 7** If you are configuring a T1-CAS interface on a DT-24+ or Catalyst 6000 T1 VoIP Gateway, click **Add a New Port** to configure ports.

See the “Adding T1-CAS Ports to an MGCP Gateway” section on page 41-9 and begin with [Step 9](#).

Step 8 Reset the gateway to apply the changes.

Related Topics

- [Adding Gateways to Cisco CallManager, page 41-2](#)
- [E1/T1 PRI Gateway Configuration Settings, page 41-21](#)
- [T1-CAS Gateway Configuration Settings, page 41-33](#)

Adding a Cisco IOS H.323 Gateway or Intercluster Trunk

Follow these procedures to add a Cisco IOS H.323 gateway or intercluster trunk to Cisco CallManager.

Before You Begin

Before configuring a Cisco IOS H.323 gateway for use with Cisco CallManager, you must configure the gateway using the Cisco IOS command-line interface (CLI). Compared to MGCP gateways, H.323 gateways require more configuration on the gateway because the gateway must maintain the dial plan and route pattern. For procedures and commands required to perform this configuration, refer to the configuration documentation supplied with the gateway.

For information about configuring intercluster trunks, refer to the *Cisco IP Telephone Network Design Guide*.

Procedure

Step 1 Choose **Device > Add a New Device**.

The Add a New Device pane appears.

Step 2 From the Device type drop-down list box, choose **Gateway**.

Step 3 Click **Next**.

The Add a New Gateway pane appears.

Step 4 From the Gateway Type drop-down list box, choose **H.323 Gateway**.

- Step 5** From the Device Protocol drop-down list box, choose one of the two available device protocols:
- **H.225** (default)—Choose H.323 if you are configuring a Cisco IOS gateway in H.323 mode.
 - **Intercluster Trunk**—An intercluster trunk provides a virtual H.323 gateway that is used to interlink Cisco CallManagers in different clusters.
- Step 6** Click **Next**.
- Step 7** Enter the appropriate settings as described in “[H.323 Gateway and Intercluster Trunk Configuration Settings](#)” section on page 41-35.
- Step 8** Click **Insert**.
- Step 9** Reset the gateway to apply the changes.
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Related Topics

- [Adding Gateways to Cisco CallManager, page 41-2](#)
- [H.323 Gateway and Intercluster Trunk Configuration Settings, page 41-35](#)

Adding an Analog Access Gateway and Ports

Use the procedure in this section to add and configure ports for the following Cisco analog access gateways:

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

Procedure

- Step 1** Choose **Device > Add a New Device**.
- The Add a New Device pane appears.
- Step 2** From the Device type drop-down list box, choose **Gateway**.
- Step 3** Click **Next**.
- The Add a New Gateway pane appears.

- Step 4** From the Gateway type drop-down list box, choose a supported analog gateway:
- Cisco AS-2, AS-4, and AS-8 Gateways
 - Cisco AT-2, AT-4, and AT-8 Gateways
 - Cisco Catalyst 6000 24 Port FXS Gateway

When you choose an analog gateway, Cisco CallManager automatically chooses the appropriate device protocol for the gateway (in this case, Analog Access).

- Step 5** Click **Next**.

The Gateway Configuration pane appears.

- Step 6** Enter the appropriate settings, as described in the [“Analog Access Gateway Configuration Settings”](#) section on page 41-44.

- Step 7** Click **Insert**.

- Step 8** Click **Add New Port**.

A port configuration dialog opens in a separate pane.

- Step 9** From the drop-down list box, choose **POTS** or **Loop Start** as the port type depending on the gateway model you are configuring.

- Step 10** Enter the appropriate port configuration settings as described in the following sections:

- [POTS Port Configuration Settings, page 41-46](#)
- [Loop Start Port Configuration Settings, page 41-49](#)

- Step 11** Click **Insert** or **Insert and Close**.

If you have inserted POTS ports, the pane refreshes and displays the POTS port in the list on the left side of the pane. An **Add DN** link displays to the right of the new port.

- Step 12** Click **Add DN** to add a directory numbers to an FXS port.

See the [“Adding a Directory Number”](#) section on page 42-28 and [“Phone Configuration Settings”](#) section on page 42-12 for information about adding and configuring directory numbers.

- Step 13** Reset the gateway to apply the changes.
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Related Topics

- [Adding Gateways to Cisco CallManager, page 41-2](#)
- [Analog Access Gateway Configuration Settings, page 41-44](#)

Gateway Configuration Settings

See the following sections for tables that list detailed descriptions for all gateway configuration fields:

- [MGCP Gateway Configuration Settings, page 41-16](#)
- [FXS/FXO Gateway Configuration Settings, page 41-18](#)
- [E1/T1 PRI Gateway Configuration Settings, page 41-21](#)
- [T1-CAS Gateway Configuration Settings, page 41-33](#)
- [H.323 Gateway and Intercluster Trunk Configuration Settings, page 41-35](#)
- [Analog Access Gateway Configuration Settings, page 41-44](#)

For detailed information about port configuration settings, see the “[Port Configuration Settings](#)” section on page 41-45.

MGCP Gateway Configuration Settings

Table 41-2 provides detailed descriptions for MGCP gateway configuration settings.

Table 41-2 MGCP Gateway Configuration Settings

Field	Description
MGCP Domain Name	<p>Enter a name that identifies the Cisco MGCP gateway.</p> <p>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 MGCP gateway.</p> <p>If you are using the host name as it is configured on the IOS gateway, the name you enter here must match exactly.</p> <p>For example, if the hostname is configured on the gateway to resolve to vg200-1 and the IP domain name is not configured, enter the hostname in this field (in this case, vg200-1).</p> <p>If the hostname is configured on the gateway as vg200-1 and the IP domain name is configured on the gateway as cisco.com, enter vg200-1.cisco.com in this field.</p>
Description	Enter a description that clarifies the purpose of the device.
Cisco CallManager Group	<p>From the drop-down list box, choose a Cisco CallManager redundancy group.</p> <p>A Cisco CallManager redundancy group includes a prioritized list of up to three Cisco CallManagers. The first Cisco CallManager in the list serves as the primary Cisco CallManager. If the primary Cisco CallManager is not available or fails, the gateway attempts to connect with the next Cisco CallManager in the list, and so on.</p>

Table 41-2 MGCP Gateway Configuration Settings (continued)

Field	Description
Module in Slot 0 Module in Slot 1 Module in Slot 2 Module in Slot 3 (and so on)	<p>For each available slot on the selected MGCP gateway, choose the type of network module installed; for example:</p> <ul style="list-style-type: none"> • NM-1V—Has one voice interface card (VIC) in Sub-Unit 0 for FXS or FXO. • NM-2V—Has two VICs, one in Sub-Unit 0 and one in Sub-Unit 1 for either FXS or FXO. • NM-HDV—Has one VIC in Sub-Unit 0 for either T1-CAS or T1-PRI, or E1-PRI. • None—No network modules installed. <p>The correct number of slots displays for each model of MGCP gateway.</p> <p>Note The VG200 gateway has only one slot.</p>
Product-Specific Configuration	
Model-specific configuration fields defined by the gateway manufacturer	<p>The model-specific fields under product-specific configuration define the gateway manufacturer. Because they are dynamically configured, they can change without notice.</p> <p>To view field descriptions and help for product-specific configuration items, click the “i” information icon to the right of the Product Specific Configuration heading to display help in a popup pane.</p> <p>If you need more information, refer to the documentation for the specific gateway that you are configuring or contact the manufacturer.</p>

Related Topics

- [Adding Gateways to Cisco CallManager, page 41-2](#)
- [Adding a Cisco IOS MGCP Gateway, page 41-3](#)
- [Adding a Non-IOS MGCP Gateway, page 41-10](#)
- [Updating Gateways and Ports, page 41-68](#)

FXS/FXO Gateway Configuration Settings

[Table 41-3](#) provides detailed descriptions for FXS/FXO gateway configuration settings.

**Note**

For the VG200 gateway, not all switch emulation types support the network side. Depending on how you configure the gateway switch type, you may or may not be able to set network side.

Table 41-3 FXS/FXO Gateway Configuration Settings

Field	Description
Description	<p>This display-only field contains a string generated by Cisco CallManager that uniquely identifies the analog MGCP description.</p> <p>For example: AALN/S0/SUI/1@domain.com</p> <p>You can edit this field.</p>
Device Pool	<p>From the drop-down list box, choose the appropriate device pool.</p> <p>The device pool specifies a collection of properties for this device including CallManager Group, Date/Time Group, Region, and Calling Search Space for auto registration of devices.</p>

Table 41-3 FXS/FXO Gateway Configuration Settings (continued)

Field	Description
Calling Search Space	Choose the appropriate calling search space. A calling search space comprises a collection of route partitions that are searched to determine how a collected (originating) number should be routed.
Media Resource Group List	This list provides a prioritized grouping of media resource groups. An application chooses the required media resource, such as a Music On Hold server, among the available media resources according to the priority order defined in a Media Resource List.
Network Audio Hold Source	This audio source plays when the network initiates a hold action.
User Audio Hold Source	This field specifies an audio source played when a user initiates a hold action.
Location	Choose the appropriate location for this device. The location specifies the total bandwidth available for calls to and from this location. A location setting of None means that the locations feature does not keep track of the bandwidth consumed by this device.
Prefix DN	Enter 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 Num Digits setting.

Table 41-3 FXS/FXO Gateway Configuration Settings (continued)

Field	Description
Num Digits	<p>Enter the number of significant digits to collect, from 0 to 32.</p> <p>Cisco CallManager counts significant digits from the right (last digit) of the number called.</p> <p>Use this field for the processing of incoming calls and to indicate 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.</p>
Expected Digits	<p>Enter the number of digits expected on the inbound side of the trunk. Leave zero as the default value if you are unsure for this rarely-used field.</p>
Port Direction	<p>Choose 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. • Bothways—Use for inbound and outbound calls (default).
Attendant DN	<p>Enter the directory number to which you want incoming calls routed; for example, zero or a directory number for an attendant.</p>

Related Topics

- [Adding FXS Ports to an MGCP Gateway, page 41-6](#)
- [Adding FXO Ports to an MGCP Gateway, page 41-8](#)
- [Adding Gateways to Cisco CallManager, page 41-2](#)
- [Adding a Cisco IOS MGCP Gateway, page 41-3](#)
- [Adding a Non-IOS MGCP Gateway, page 41-10](#)
- [Updating Gateways and Ports, page 41-68](#)

E1/T1 PRI Gateway Configuration Settings

Table 41-4 provides detailed descriptions for E1/T1 PRI configuration settings.

Table 41-4 E1/T1 PRI Configuration Settings

Field	Description
MAC Address (non-IOS gateway)	Enter the appropriate MAC address. The MAC address identifies hardware-based telephones and device name. You must enter a 12-hexadecimal character value.
Domain Name (MGCP gateways)	For MGCP gateways, this display-only field contains a string generated by Cisco CallManager that uniquely identifies the MGCP endpoint. For example: S1/DS1-0@VG200-2 S1 indicates slot 1, DS1-0 designates the digital interface, and @VG200-2 designates the MGCP domain name.
Description	Enter a description that clarifies the purpose of the device.
Device Pool	From the drop-down list box, choose the appropriate device pool. The device pool specifies a collection of properties for this device including CallManager Group, Date/Time Group, Region, and Calling Search Space for auto-registration of devices.
Media Resource Group List	This list provides a prioritized grouping of media resource groups. An application chooses the required media resource, such as a Music On Hold server, among the available media resources according to the priority order defined in a Media Resource List.
Network Hold Audio Source	This audio source plays when the network initiates a hold action.
User Hold Audio Source	This audio source plays when a user initiates a hold action.

Table 41-4 E1/T1 PRI Configuration Settings (continued)

Field	Description
Calling Search Space	Choose the appropriate calling search space. A calling search space designates a collection of route partitions that are searched to determine how a collected (originating) number should be routed.
Location	Choose the appropriate location for this device. The location specifies the total bandwidth available for calls to and from this location. A location setting of None means that the locations feature does not keep track of the bandwidth consumed by this device.
Load Information	<p>Enter the appropriate firmware load information for the gateway.</p> <p>The value you enter here overrides the default firmware load for this type of gateway.</p>
Channel Selection Order	<p>Choose the order in which channels or ports are enabled from first (lowest number port) to last (highest number port), or from last to first.</p> <p>Valid entries include TOP_DOWN (first to last) or BOTTOM_UP (last to first). If you are not sure which port order to use, choose TOP_DOWN.</p>
Protocol Side	<p>Choose the appropriate protocol side. This setting specifies whether the gateway connects to a Central Office/Network device or to a User device.</p> <p>Make sure the two ends of the PRI connection use opposite settings. For example, if you connect to a PBX and the PBX uses User as its protocol side, choose Network for this device. Typically, use User for this option for central office connections.</p>

Table 41-4 E1/T1 PRI Configuration Settings (continued)

Field	Description
Caller ID DN	<p>Enter 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 equals an extension number. The CO appends the number with the area code if you do not specify it. • 5555000 = Fixed caller ID, where 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	<p>Any outbound call on a gateway can send directory number information. Choose which directory number is sent:</p> <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	<p>Choose one of the following values to specify whether channel selection is presented as a channel map or a slot map.</p> <ul style="list-style-type: none"> • Number—B-channel usage is always a channel map format. • Slotmap—B-channel usage is always a slotmap format • Use Number When 1B—Channel usage is a channel map for one B-channel but is a slot map if more than one B-channel exists.

Table 41-4 E1/T1 PRI Configuration Settings (continued)

Field	Description
Interface Identifier Present	<p>Check the check box to indicate that an interface identifier is present. By default, the Cisco CallManager leaves the check box unchecked.</p> <p>This setting only applies to the DMS100 protocol for digital access gateways in the Channel Identification information element (IE) of the SETUP, CALL PROCEEDING, ALERTING, and CONNECT messages.</p>
Interface Identifier Value	<p>Enter the value obtained from the PBX provider.</p> <p>This field applies to the DMS100 protocol only. Valid values range from 0 to 255.</p>
Display IE Delivery	<p>Check the check box to enable delivery of the display information element (IE) in SETUP and CONNECT messages for the calling and called party name delivery service.</p> <p>Default leaves the check box unchecked.</p>
Redirecting Number IE Delivery	<p>Check the check box to include the Redirecting Number IE in the SETUP message to indicate the first redirecting number and the redirecting reason of the call when Call Forward happens.</p> <p>Default leaves this check box unchecked.</p> <p>This setting applies to the SETUP message only on all protocols for digital access gateways.</p>
Delay for first restart (1/8 sec ticks)	<p>Enter the rate at which the spans are brought in service. The delay occurs when many PRI spans are enabled on a system and the Inhibit Restarts at PRI Initialization check box is unchecked. For example, set the first five cards to 0, and set the next five cards to 16. (Wait 2 seconds before bringing them in service.)</p>
Delay between restarts (1/8 sec ticks)	<p>Enter the time between restarts. The delay occurs when a PRI RESTART is sent if the Inhibit Restarts check box is unchecked.</p>

Table 41-4 E1/T1 PRI Configuration Settings (continued)

Field	Description
Num Digits	<p>Choose the number of significant digits to collect, from 0 to 32. Cisco CallManager counts significant digits from the right (last digit) of the number called.</p> <p>Use this field if you check the Sig Digits check box. Use for the processing of incoming calls and to indicate 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.</p>
Sig Digits	<p>This field 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 by an inbound call.</p> <p>Enable or disable this box depending on whether you want to collect significant digits.</p> <p>If the check box is unchecked, the Cisco CallManager does not truncate the inbound number. If the check box is checked, you also need to choose the number of significant digits to collect.</p>
Prefix DN	<p>Enter the prefix digits that are appended to the digits that this trunk receives on incoming calls.</p> <p>The Cisco CallManager adds prefix digits after first truncating the number in accordance with the Num Digits setting.</p>
Presentation Bit	<p>Choose whether you want the central office to transmit or block caller ID.</p> <p>Choose Allowed if you want the central office to send caller ID. Choose Restricted if you do not want the central office to send caller ID.</p>

Table 41-4 E1/T1 PRI Configuration Settings (continued)

Field	Description
Called party IE number type unknown	<p>Choose the format for the type of number in called party directory numbers. Cisco CallManager sets the called directory number (DN) type. Cisco recommends that 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>Choose one of the following options:</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 41-4 E1/T1 PRI Configuration Settings (continued)

Field	Description
Calling party IE number type unknown	<p data-bbox="602 287 1244 354">Choose the format for the type of number in calling party directory numbers.</p> <p data-bbox="602 358 1244 651">Cisco CallManager sets the calling directory number (DN) type. Cisco recommends that 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 data-bbox="602 656 1244 699">Choose one of the following options:</p> <ul data-bbox="602 704 1244 977" style="list-style-type: none"><li data-bbox="602 704 1244 771">• CallManager—The Cisco CallManager sets the directory number type.<li data-bbox="602 776 1244 842">• International—Use when you are dialing outside the dialing plan for your country.<li data-bbox="602 847 1244 914">• National—Use when you are dialing within the dialing plan for your country.<li data-bbox="602 919 1244 977">• Unknown—The dialing plan is unknown.

Table 41-4 E1/T1 PRI Configuration Settings (continued)

Field	Description
Called Numbering Plan	<p data-bbox="602 289 1244 350">Choose the format for the numbering plan in called party directory numbers.</p> <p data-bbox="602 367 1244 651">Cisco CallManager sets the called DN numbering plan. Cisco recommends that 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 data-bbox="602 667 1244 699">Choose one of the following options:</p> <ul data-bbox="615 716 1244 1049" style="list-style-type: none"> <li data-bbox="615 716 1244 773">• CallManager—The Cisco CallManager sets the Numbering Plan in the directory number. <li data-bbox="615 789 1244 846">• ISDN—Use when you are dialing outside the dialing plan for your country. <li data-bbox="615 862 1244 919">• National Standard—Use when you are dialing within the dialing plan for your country. <li data-bbox="615 935 1244 992">• Private—Use when you are dialing within a private network. <li data-bbox="615 1008 1244 1049">• Unknown—The dialing plan is unknown.

Table 41-4 E1/T1 PRI Configuration Settings (continued)

Field	Description
Calling Numbering Plan	<p data-bbox="602 289 1244 350">Choose the format for the numbering plan in calling party directory numbers.</p> <p data-bbox="602 363 1244 649">Cisco CallManager sets the calling DN numbering plan. Cisco recommends that 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 data-bbox="602 662 1244 698">Choose one of the following options:</p> <ul data-bbox="615 711 1244 1047" style="list-style-type: none"><li data-bbox="615 711 1244 773">• CallManager—The Cisco CallManager sets the Numbering Plan in the directory number.<li data-bbox="615 786 1244 847">• ISDN—Use when you are dialing outside the dialing plan for your country.<li data-bbox="615 860 1244 922">• National Standard—Use when you are dialing within the dialing plan for your country.<li data-bbox="615 935 1244 997">• Private—Use when you are dialing within a private network.<li data-bbox="615 1010 1244 1047">• Unknown—The dialing plan is unknown.

Table 41-4 E1/T1 PRI Configuration Settings (continued)

Field	Description
PRI Protocol Type	<p>Choose the communications protocol for the span:</p> <p>For E1 PRI spans, two options exist:</p> <ul style="list-style-type: none"> • PRI AUSTRALIAN—Australian ISDN • PRI EURO—European ISDN <p>T1 PRI spans have several options, depending on the carrier or switch:</p> <ul style="list-style-type: none"> • 4E—AT&T InterExchange carrier • 5E8 Custom—Cisco IP Phone • 5E9 and NI2—AT&T family local exchange switch or carrier • DMS—MCI family local exchange switch or carrier • ETSI SC—European local exchange carrier on T1; also, Japanese local exchange. <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, choose 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 41-4 E1/T1 PRI Configuration Settings (continued)

Field	Description
Inhibit restarts at PRI initialization	<p>A RESTART message confirms the status of the ports on a PRI span. If RESTARTs are not sent, Cisco CallManager assumes the ports are in service.</p> <p>When the D-Channel successfully connects with another PRI D-Channel, it sends restarts when this check box is unchecked.</p>
Enable status poll	Check the check box to view the B-channel status in the debug pane.
Number of digits to strip	<p>Choose the number of digits to strip on outbound calls, from 0 to 32.</p> <p>For example, 8889725551234 is dialed, and the number of digits to strip is 3. In this example, Cisco CallManager strips 888 from the outbound number.</p>
Country Code	Choose the country in which the gateway is located.
Setup non-ISDN Progress Indicator IE Enable	<p>Default leaves this setting disabled (unchecked).</p> <p>Enable this setting only if users are not receiving ringback tones on outbound calls.</p> <p>When this setting is enabled, the Cisco CallManager sends Q.931 Setup messages out digital (that is, non-H.323) gateways with the Progress Indicator field set to non-ISDN.</p> <p>This message notifies the destination device that the Cisco CallManager gateway is non-ISDN and that the destination device should play in-band ringback.</p> <p>This problem usually associates with Cisco CallManagers that connect to PBXs through digital gateways.</p>

Table 41-4 E1/T1 PRI Configuration Settings (continued)

Field	Description
Product-Specific Configuration	
Model-specific configuration fields defined by the gateway manufacturer	<p>The model-specific fields under product-specific configuration define the gateway manufacturer. Because they are dynamically configured, they can change without notice.</p> <p>To view field descriptions and help for product-specific configuration items, click the “i” information icon to the right of the Product Specific Configuration heading to display help in a popup pane.</p> <p>If you need more information, refer to the documentation for the specific gateway that you are configuring or contact the manufacturer.</p>

Related Topics

- [Adding a Non-IOS MGCP Gateway, page 41-10](#)
- [Adding Gateways to Cisco CallManager, page 41-2](#)
- [Updating Gateways and Ports, page 41-68](#)
- [Gateway Configuration, page 41-1](#)

T1-CAS Gateway Configuration Settings

Table 41-5 provides detailed descriptions for T1-CAS configuration settings.

Table 41-5 T1-CAS Configuration Settings

Field	Description
MAC Address (non-IOS gateway)	Enter the MAC address as a 12-digit hexadecimal number that uniquely identifies a hardware device. Make sure that you enter a 12-hexadecimal character value.
Domain Name	For MGCP gateways, this display-only field contains a string generated by Cisco CallManager that uniquely identifies the MGCP digital interface. For example: S1/DS1-0@VG200-2 S1 indicates slot 1, DS1-0 designates the digital interface, and @VG200-2 designates the MGCP domain name.
Note Enter either a MAC address or a domain name, whichever applies.	
Description	Enter a description that clarifies the purpose of the device.
Device Pool	From the drop-down list box, choose the appropriate device pool. The device pool specifies a collection of properties for this device including CallManager Group, Date/Time Group, Region, and Calling Search Space for auto-registration of devices.
Media Resource Group List	This list provides a prioritized grouping of media resource groups. An application chooses the required media resource, such as a Music On Hold server, among the available media resources according to the priority order defined in a Media Resource List.

Table 41-5 T1-CAS Configuration Settings (continued)

Field	Description
Network Audio Hold Source	This audio source plays when the network initiates a hold action.
User Audio Hold Source	This audio source plays when a user initiates a hold action.
Calling Search Space	Choose the appropriate calling search space. A calling search space designates a collection of route partitions that are searched to determine how a collected (originating) number should be routed.
Load Information	Enter the appropriate firmware load information for the gateway. The values you enter here override the default values for this gateway.
Location	Choose the appropriate location for this device. The location specifies the total bandwidth available for calls to and from this location. A location setting of None means that the locations feature does not keep track of the bandwidth consumed by this device.
Port Selection Order	Choose the order in which channels or ports are enabled from first (lowest number port) to last (highest number port) or from last to first. Valid entries are TOP_DOWN (first to last) or BOTTOM_UP (last to first). If you are not sure which port order to use, choose TOP_DOWN.
Country Code	Choose the country in which the gateway is located.

Related Topics

- [Adding a Non-IOS MGCP Gateway, page 41-10](#)
- [Adding Gateways to Cisco CallManager, page 41-2](#)
- [Updating Gateways and Ports, page 41-68](#)
- [Gateway Configuration, page 41-1](#)

H.323 Gateway and Intercluster Trunk Configuration Settings

Table 41-6 lists configuration settings for H.323 gateways and intercluster trunks.

Table 41-6 H.323 Gateway/Intercluster Trunk Configuration Settings

Field	Description
Device Name	Enter a unique name that is used by Cisco CallManager to identify the device.
Description	Enter a description that clarifies the purpose of the device.
Device Pool	From the drop-down list box, choose the appropriate device pool. The device pool specifies a collection of properties for this device including CallManager Group, Date/Time Group, Region, and Calling Search Space for auto-registration of devices.
Media Resource Group List	This list provides a prioritized grouping of media resource groups. An application chooses the required media resource, such as a Music On Hold server, among the available media resources according to the priority order defined in a Media Resource Group List.
Network Hold Audio Source	This audio source plays when the network initiates a hold action.
User Hold Audio Source	This audio source plays when a user initiates a hold action.

**Table 41-6 H.323 Gateway/Intercluster Trunk Configuration Settings
(continued)**

Field	Description
Calling Search Space	Choose the appropriate calling search space. A calling search space specifies the collection of Route Partitions searched to determine how a collected (originating) number should be routed.
Location	Choose the appropriate location for this device. The location specifies the total bandwidth available for calls to and from this location. A location setting of None means that the locations feature does not keep track of the bandwidth consumed by this device.
Caller ID DN	<p>Enter 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"> • 55XXXXX = 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 41-6 H.323 Gateway/Intercluster Trunk Configuration Settings
(continued)**

Field	Description
Calling Party Selection	<p>Any outbound call on a gateway can send directory number information. This field determines which directory number is sent.</p> <p>Choose one of the following options to specify which directory number is sent:</p> <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	<p>Choose whether the central office transmits or blocks caller ID.</p> <p>Choose Allowed if you want the central office to send caller ID.</p> <p>Choose Restricted if you do not want the central office to send caller ID.</p>
Display IE Delivery	<p>Check the check box to enable delivery of the display IE in SETUP and CONNECT messages for the calling and called party name delivery service.</p> <p>Default leaves Display IE Delivery check box unchecked.</p>

**Table 41-6 H.323 Gateway/Intercluster Trunk Configuration Settings
(continued)**

Field	Description
Gatekeeper Name	<p>Choose the Domain Name Service (DNS) name or IP address of the H.323 gatekeeper.</p> <p>A gatekeeper H.323 entity on the LAN supports the H.225 RAS message set used for admission control, bandwidth allocation, and dial pattern resolution. It controls access to the LAN for connections between H.323-compliant devices such as terminals and gateways.</p> <p>Use only for H.323-compliant gateways. All other devices do not use this box:</p> <ul style="list-style-type: none"> • If your device is not gatekeeper controlled, choose None. • If a remote gatekeeper controls the H.225 device, choose the name of the gatekeeper from the drop-down list.
Media Termination Point Required	<p>If you want a Media Termination Point to implement features that H.323 does not support (such as hold and transfer), check the check box.</p> <p>Use this check box only for H.323 clients and H.323 devices that do not support the H.245 Empty Capabilities Set message.</p>
Num Digits	<p>Choose the number of significant digits to collect, from 0 to 32.</p> <p>Cisco CallManager counts significant digits from the right (last digit) of the number called.</p> <p>Use this field if you enable Sig Digits. Use for the processing of incoming calls and to indicate the number of digits starting from the last digit of the called number used to route calls coming into the H.323 device. See Prefix DN and Sig Digits.</p>

Table 41-6 H.323 Gateway/Intercluster Trunk Configuration Settings (continued)

Field	Description
Sig Digits	<p>Significant digits represent the number of final digits retained on inbound calls. A trunk with significant digits enabled truncates all but the final few digits of the address provided by an inbound call.</p> <p>Check or uncheck this box depending on whether you want to collect significant digits.</p> <p>If check box is unchecked, the Cisco CallManager does not truncate the inbound number.</p> <p>If check box is checked, you also need to choose the number of significant digits to collect (see Num Digits).</p>
Prefix DN	<p>Enter the prefix digits that are appended to the called party number on incoming calls.</p> <p>The Cisco CallManager adds prefix digits after first truncating the number in accordance with the Num Digits setting.</p>
Run H225D On Every Node	<p>This option determines which Cisco CallManager in the cluster establishes the H.225 session. The default setting (checked) establishes the H.225 session on the Cisco CallManager where the calling device has registered. For most systems, the default setting works best.</p> <p></p> <p>Caution Unchecking this check box establishes the H.255 session on the controlling Cisco CallManager in the same Cisco CallManager group and device pool as the H.225 gateway. Do not uncheck this box unless advised to do so by Cisco Technical Assistance (TAC).</p>

**Table 41-6 H.323 Gateway/Intercluster Trunk Configuration Settings
(continued)**

Field	Description
Called party IE number type unknown	<p>Choose the format for the type of number in called party directory numbers. Cisco CallManager sets the called directory number (DN) type. Cisco recommends that 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>Choose one of the following options:</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 41-6 H.323 Gateway/Intercluster Trunk Configuration Settings
(continued)**

Field	Description
Calling party IE number type unknown	<p>Choose the format for the type of number in calling party directory numbers.</p> <p>Cisco CallManager sets the calling directory number (DN) type. Cisco recommends that 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>Choose one of the following options:</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 41-6 H.323 Gateway/Intercluster Trunk Configuration Settings
(continued)**

Field	Description
Called Numbering Plan	<p>Choose the format for the numbering plan in called party directory numbers.</p> <p>Cisco CallManager sets the called DN numbering plan. Cisco recommends that 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>Choose one of the following options:</p> <ul style="list-style-type: none"> • CallManager—The Cisco CallManager sets the Numbering Plan in the directory number. • ISDN—Use when you are dialing outside the dialing plan for your country. • National Standard—Use when you are dialing within the dialing plan for your country. • Private—Use when you are dialing within a private network. • Unknown—The dialing plan is unknown.

Table 41-6 H.323 Gateway/Intercluster Trunk Configuration Settings (continued)

Field	Description
Calling Numbering Plan	<p>Choose the format for the numbering plan in calling party directory numbers.</p> <p>Cisco CallManager sets the calling DN numbering plan. Cisco recommends that 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>Choose one of the following options:</p> <ul style="list-style-type: none"> • CallManager—The Cisco CallManager sets the Numbering Plan in the directory number. • ISDN—Use when you are dialing outside the dialing plan for your country. • National Standard—Use when you are dialing within the dialing plan for your country. • Private—Use when you are dialing within a private network. • Unknown—The dialing plan is unknown.

Related Topics

- [Adding a Cisco IOS H.323 Gateway or Intercluster Trunk, page 41-12](#)
- [Updating Gateways and Ports, page 41-68](#)
- [Gateway Configuration, page 41-1](#)

Analog Access Gateway Configuration Settings

Table 41-6 lists configuration settings for Analog Access gateways (Cisco AS-2, AS-4, and AS-8 gateways; Cisco AT-2, AT-4, and AT-8 gateways).

Table 41-7 Access Analog Gateway Configuration Settings

Field	Description
MAC Address	Enter the media access control address. Make sure that you enter a 12-hexadecimal character value. The MAC address uniquely identifies hardware-based devices.
Description	Enter the purpose of the device.
Device Pool	From the drop-down list box, choose the appropriate device pool. The device pool specifies a collection of properties for this device including CallManager Group, Date/Time Group, Region, and Calling Search Space for auto-registration of devices.
Load Information	Enter the appropriate load information for the custom software for gateway. The values you enter here override the default values for this gateway.
Country Code	Choose the country in which the gateway is located.
Location	Choose the appropriate location for this device. The location specifies the total bandwidth available for calls to and from this location. A location setting of None means that the locations feature does not keep track of the bandwidth consumed by this device.
Calling Search Space	Choose the appropriate calling search space. The calling search space specifies a collection of partitions that are searched to determine how a collected (originating) number should be routed.

Table 41-7 Access Analog Gateway Configuration Settings (continued)

Field	Description
Media Resource Group List	This list provides a prioritized grouping of media resource groups. An application chooses the required media resource, such as a Music On Hold server, among the available media resources according to the priority order defined in a Media Resource Group List.
Network Hold Audio Source	This audio source plays when the network initiates a hold action.
User Hold Audio Source	This audio source plays when a user initiates a hold action.
Port Selection Order	Choose the order in which ports are chosen. If you are not sure which port order to use, choose TOP_DOWN: <ul style="list-style-type: none"> • 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.

Related Topics

- [Adding an Analog Access Gateway and Ports, page 41-13](#)
- [Updating Gateways and Ports, page 41-68](#)
- [Gateway Configuration, page 41-1](#)

Port Configuration Settings

See the following sections for tables that list detailed descriptions for all port type configuration fields:

- [POTS Port Configuration Settings, page 41-46](#)
- [Loop Start Port Configuration Settings, page 41-49](#)
- [Ground Start Port Configuration Settings, page 41-51](#)
- [E & M Port Configuration Settings, page 41-52](#)

For detailed information about gateway configuration settings, see the [“Gateway Configuration Settings” section on page 41-15](#).

POTS Port Configuration Settings

Table 41-8 POTS Port Configuration Settings

Field	Description
Port Type	Choose POTS from the Port Type drop-down list box.
Port Number End Port Number	Choose whether you want to add and configure all available ports, a single port, or a range of ports by setting values for the Port Number and End Port Number fields. <ul style="list-style-type: none"> To specify a range of ports, choose appropriate values for Port Number and End Port Number. To create a single port, choose the same number in the Port Number and End Port Number fields. To add all available ports, choose All Ports for both the Port Number and End Port Number fields.
Port Direction	Choose 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. Bothways—Use for inbound and outbound calls (default).
Audio Signal Adjustment into IP Network	This specifies the gain or loss applied to the received audio signal relative to the port application type.
Audio Signal Adjustment from IP Network	This specifies the gain or loss applied to the transmitted audio signal relative to the port application type.

Table 41-8 POTS Port Configuration Settings (continued)

Field	Description
Prefix DN	<p>Enter the prefix digits that are appended to the digits this trunk receives on incoming calls.</p> <p>The Cisco CallManager adds prefix digits after truncating the number in accordance with the Num Digits setting.</p>
Num Digits	<p>Enter the number of significant digits to collect, from 0 to 32.</p> <p>Cisco CallManager counts significant digits from the right (last digit) of the number called.</p> <p>Use this field for the processing of incoming calls and to indicate 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.</p>
Expected Digits	<p>Enter the number of digits expected on the inbound side of the trunk. For this rarely used field, leave zero as the default value if you are unsure.</p>
Call Restart Timer (1000-5000ms)	<p>Call Restart Timer (1000-5000ms); ms indicates time in milliseconds.</p>
Offhook Validation Timer (100-1000ms)	<p>Offhook Validation Timer (100-1000ms); ms indicates time in milliseconds.</p>
Onhook Validation Timer (100-1000ms)	<p>Onhook Validation Timer (100-1000ms); ms indicates time in milliseconds.</p>
Hookflash Timer (100-1500ms)	<p>Hookflash Timer (100-1500ms); ms indicates time in milliseconds.</p>
SMDI Port Number (0-4096)	<p>Use this field for analog access ports that connect to a voice-mail system.</p> <p>Set the SMDI Port Number equal to the actual port number on the voice-mail system to which the analog access port connects.</p>

Table 41-8 POTS Port Configuration Settings (continued)

Field	Description
Product-Specific Configuration	
Model-specific configuration fields defined by the gateway manufacturer	<p>The model-specific fields under product-specific configuration define the gateway manufacturer. Because they are dynamically configured, they can change without notice.</p> <p>To view field descriptions and help for product-specific configuration items, click the “i” information icon to the right of the Product Specific Configuration heading to display help in a popup pane.</p> <p>If you need more information, refer to the documentation for the specific gateway that you are configuring or contact the manufacturer.</p>

Related Topics

- [Adding T1-CAS Ports to an MGCP Gateway, page 41-9](#)
- [Adding an Analog Access Gateway and Ports, page 41-13](#)
- [Gateway Configuration, page 41-1](#)
- [Adding Gateways to Cisco CallManager, page 41-2](#)

Loop Start Port Configuration Settings

Table 41-9 Loop Start Port Configuration Settings

Field	Description
Port Type	Choose Loop Start from the Port Type drop-down list box.
Port Number End Port Number	Choose whether you want to add and configure all available ports, a single port, or a range of ports by setting values for the Port Number and End Port Number fields. <ul style="list-style-type: none"> To specify a range of ports, choose appropriate values for Port Number and End Port Number. To create a single port, choose the same number in the Port Number and End Port Number fields. To add all available ports, choose All Ports for both the Port Number and End Port Number fields.
Port Direction	Choose 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—Use for inbound and outbound calls.
Audio Signal Adjustment into IP Network	This specifies the gain or loss applied to the received audio signal relative to the port application type.
Audio Signal Adjustment from IP Network	This specifies the gain or loss applied to the transmitted audio signal relative to the port application type.
Caller ID Enable	Check this check box to enable Caller ID.
Attendant DN	Enter the directory number to which you want incoming calls routed; for example, zero or a directory number for an attendant.
Delay Before Dialing Timer (100-5000ms)	Delay Before Dialing Timer (100-5000ms); ms indicates time in milliseconds.

Table 41-9 Loop Start Port Configuration Settings (continued)

Field	Description
Release Guard Timer (100-5000ms)	Release Guard Timer (100-5000ms); ms indicates time in milliseconds
Incoming Ring Halt Timer (1000-8000ms)	Incoming Ring Halt Timer (1000-8000ms); ms indicates time in milliseconds.
Incoming Ring Validation Timer (100-2000ms)	Incoming Ring Validation Timer (100-2000ms); ms indicates time in milliseconds.

Product-Specific Configurations

Model-specific configuration fields defined by the gateway manufacturer	<p>The model-specific fields under product-specific configuration define the gateway manufacturer. Because they are dynamically configured, they can change without notice.</p> <p>To view field descriptions and help for product-specific configuration items, click the “i” information icon to the right of the Product Specific Configuration heading to display help in a popup pane.</p> <p>If you need more information, refer to the documentation for the specific gateway that you are configuring or contact the manufacturer.</p>
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Related Topics

- [Adding T1-CAS Ports to an MGCP Gateway, page 41-9](#)
- [Gateway Configuration, page 41-1](#)
- [Adding Gateways to Cisco CallManager, page 41-2](#)

Ground Start Port Configuration Settings

Table 41-10 Ground Start Port Configuration Settings

Field	Description
Port Type	Choose Ground Start from the Port Type drop-down list box.
Port Number End Port Number	<p>Choose whether you want to add and configure all available ports, a single port, or a range of ports by setting values for the Port Number and End Port Number fields.</p> <ul style="list-style-type: none"> To specify a range of ports, choose appropriate values for Port Number and End Port Number. To create a single port, choose the same number in the Port Number and End Port Number fields. To add all available ports, choose All Ports for both the Port Number and End Port Number fields.
Port Direction	<p>Choose 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—Use for inbound and outbound calls.
Attendant DN	Enter the number to which you want incoming calls routed; for example, zero or a directory number for an attendant.

Table 41-10 Ground Start Port Configuration Settings (continued)

Field	Description
Product-Specific Configuration	
Model-specific configuration fields defined by the gateway manufacturer	<p>The model-specific fields under product-specific configuration define the gateway manufacturer. Because they are dynamically configured, they can change without notice.</p> <p>To view field descriptions and help for product-specific configuration items, click the “i” information icon to the right of the Product Specific Configuration heading to display help in a popup pane.</p> <p>If you need more information, refer to the documentation for the specific gateway that you are configuring or contact the manufacturer.</p>

Related Topics

- [Adding T1-CAS Ports to an MGCP Gateway, page 41-9](#)
- [Gateway Configuration, page 41-1](#)
- [Adding Gateways to Cisco CallManager, page 41-2](#)

E & M Port Configuration Settings

E & M (Ear and Mouth or receive and transit) ports allow connection for PBX trunk lines (tie lines). E & M designates a signaling technique for two-wire and four-wire telephone and trunk interfaces.

E & M port configuration values must match those of the PBX to which the port connects. Refer to the documentation that came with your specific PBX for the appropriate E & M voice-port configuration values.

Table 41-11 E & M Port Configuration Settings

Field	Description
Port Type	Choose EANDM from the Port Type drop-down list box.
Port Number End Port Number	<p>Choose whether you want to add and configure all available ports, a single port, or a range of ports by setting values for the Port Number and End Port Number fields.</p> <ul style="list-style-type: none"> • To specify a range of ports, choose appropriate values for Port Number and End Port Number. • To create a single port, choose the same number in the Port Number and End Port Number fields. • To add all available ports, choose All Ports for both the Port Number and End Port Number fields.
Port Direction	<p>Choose 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—Use for inbound and outbound calls.
Calling Party Selection	<p>Because any outbound call on a gateway can send directory number information, choose which directory number to send:</p> <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.
Digit Sending	<p>Choose one of the following digit sending types for out-dialing:</p> <ul style="list-style-type: none"> • DTMF—Dual-tone multifrequency. Normal touchtone dialing • MF—Multifrequency • PULSE—Pulse (rotary) dialing

Table 41-11 E & M Port Configuration Settings (continued)

Field	Description
Caller ID Type	<p>Choose the type of caller ID that displays to the called party:</p> <ul style="list-style-type: none"> • ANI—Automatic number identification displays the number of the calling party. • DNIS—Dialed number identification service displays the number that the caller dialed.
Caller ID DN	<p>Enter 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 equals an extension number. The CO appends the number with the area code if you do not specify it. • 5555000 = Fixed caller ID, for 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.
Prefix DN	<p>Enter the prefix digits that are appended to the called party number on incoming calls.</p> <p>The Cisco CallManager adds prefix digits after first truncating the number in accordance with the Num Digits setting.</p>
Num Digits	<p>Choose the number of significant digits to collect, from 0 to 32. Cisco CallManager counts significant digits from the right (last digit) of the number called.</p> <p>Use this field if you check the Sig Digits check box. Use this field for the processing of incoming calls and to indicate 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.</p>

Table 41-11 E & M Port Configuration Settings (continued)

Field	Description
Expected Digits	Enter the number of digits expected on the inbound side of the trunk. If you are unsure, leave zero as the default value for this rarely used field.
Product-Specific Configuration	
Model-specific configuration fields defined by the gateway manufacturer	<p>The model-specific fields under product-specific configuration define the gateway manufacturer. Because they are dynamically configured, they can change without notice.</p> <p>To view field descriptions and help for product-specific configuration items, click the “i” information icon to the right of the Product Specific Configuration heading to display help in a popup pane.</p> <p>If you need more information, refer to the documentation for the specific gateway that you are configuring or contact the manufacturer.</p>

Related Topics

- [Adding T1-CAS Ports to an MGCP Gateway, page 41-9](#)
- [Gateway Configuration, page 41-1](#)
- [Adding Gateways to Cisco CallManager, page 41-2](#)

Finding Specific Gateways

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

- [Searching by Device Name, page 41-56](#)
- [Searching by Description, page 41-58](#)
- [Searching by Directory Number, page 41-59](#)
- [Searching by Calling Search Space, page 41-60](#)
- [Searching by Device Pool, page 41-62](#)
- [Searching by Route Group, page 41-64](#)

Searching by Device Name

Use this procedure 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** Choose **Device > Gateway**.
- The Find and List Gateways pane appears.
- Step 2** From the drop-down list box, choose **Device Name**; then, choose one of the following criteria:
- begins with
 - contains
 - ends with
 - is exactly
 - is not empty
 - is empty
- Step 3** Specify the appropriate search text, if applicable. You can also specify how many items per page to display, and whether to hide or show endpoints.

Step 4 Click **Find**.

A list of discovered gateways displays by:

- Device icon
- Device name
- Description (if applicable)
- Device pool (if applicable)
- Status
- IP address

**Note**

You can delete or reset multiple gateways from the Find and List Gateways pane by checking the check boxes next to the appropriate gateways and clicking **Delete Selected** to delete the gateways or clicking **Reset Selected** to reset the gateways. You can choose all of the gateways on the pane by checking the check box in the matching records title bar.

Related Topics

- [Searching by Description, page 41-58](#)
- [Searching by Directory Number, page 41-59](#)
- [Searching by Calling Search Space, page 41-60](#)
- [Searching by Device Pool, page 41-62](#)
- [Searching by Route Group, page 41-64](#)

Searching by Description

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

Procedure

Step 1 Choose **Device > Gateway**.

The Find and List Gateways pane appears.

Step 2 From the drop-down list box, choose **Description**; then, choose one of the following criteria:

- begins with
- contains
- ends with
- is exactly
- is not empty
- is empty

Step 3 Specify the appropriate search text, if applicable. You can also specify how many items per page to display, and whether to hide or show endpoints.

Step 4 Click **Find**.

A list of discovered gateways displays by:

- Device icon
- Description (if applicable)
- Device name
- Device pool
- Status
- IP address



Note You can delete or reset multiple gateways from the Find and List Gateways pane by checking the check boxes next to the appropriate gateways and clicking **Delete Selected** to delete the gateways or clicking **Reset Selected** to reset the gateways. You can choose all of the gateways on the pane by checking the check box in the matching records title bar.

Related Topics

- [Searching by Device Name, page 41-56](#)
- [Searching by Directory Number, page 41-59](#)
- [Searching by Calling Search Space, page 41-60](#)
- [Searching by Device Pool, page 41-62](#)
- [Searching by Route Group, page 41-64](#)

Searching by Directory Number

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

Procedure

-
- Step 1** Choose **Device > Gateway**.
- The Find and List Gateways pane appears.
- Step 2** From the drop-down list box, choose **Directory Number**; then, choose one of the following criteria:
- begins with
 - contains
 - ends with
 - is exactly
 - is not empty

- is empty

Step 3 Specify the appropriate search text, if applicable. You can also specify how many items per page to display, and whether to hide or show endpoints.

Step 4 Click **Find**.

A list of discovered gateways displays by:

- Extension
- Partition
- Device name
- Description (if applicable)
- Status
- IP address

**Note**

You can delete or reset multiple gateways from the Find and List Gateways pane by checking the check boxes next to the appropriate gateways and clicking **Delete Selected** to delete the gateways or clicking **Reset Selected** to reset the gateways. You can choose all of the gateways on the pane by checking the check box in the matching records title bar.

Related Topics

- [Searching by Device Name, page 41-56](#)
- [Searching by Description, page 41-58](#)
- [Searching by Calling Search Space, page 41-60](#)
- [Searching by Device Pool, page 41-62](#)
- [Searching by Route Group, page 41-64](#)

Searching by Calling Search Space

Use this procedure to locate gateways assigned to a calling search space and registered with Cisco CallManager.

Procedure

Step 1 Choose **Device > Gateway**.

The Find and List Gateways pane appears.

Step 2 From the drop-down list box, choose **Calling Search Space**; then, choose one of the following criteria:

- begins with
- contains
- ends with
- is exactly
- is not empty
- is empty

Step 3 Specify the appropriate search text, if applicable. You can also specify how many items per page to display, and whether to hide or show endpoints.



Tips

You can locate an existing calling search space by choosing one from the drop-down list box under the **Find** button. This automatically inserts the name of the calling search space you choose into the **Find** field.

Step 4 Click **Find**.

A list of discovered gateways displays by:

- Calling search space
- Device name
- Description (if applicable)
- Status
- IP address

**Note**

You can delete or reset multiple gateways from the Find and List Gateways pane by checking the check boxes next to the appropriate gateways and clicking **Delete Selected** to delete the gateways or clicking **Reset Selected** to reset the gateways. You can choose all of the gateways on the pane by checking the check box in the matching records title bar.

Related Topics

- [Searching by Device Name, page 41-56](#)
- [Searching by Description, page 41-58](#)
- [Searching by Directory Number, page 41-59](#)
- [Searching by Device Pool, page 41-62](#)
- [Searching by Route Group, page 41-64](#)

Searching by Device Pool

Use this procedure to locate gateways assigned to a specific device pool and registered with Cisco CallManager.

Procedure

Step 1 Choose **Device > Gateway**.

The Find and List Gateways pane appears.

Step 2 From the drop-down list box, choose **Device Pool**; then, choose one of the following criteria:

- begins with
- contains
- ends with
- is exactly
- is not empty

- is empty

Step 3 Specify the appropriate search text, if applicable. You can also specify how many items per page to display, and whether to hide or show endpoints.

**Tips**

You can locate an existing device pool by choosing one from the drop-down list box under the **Find** button. This automatically inserts the name of the device pool you choose into the **Find** field.

Step 4 Click **Find**.

A list of discovered gateways displays by:

- Device pool
- Device name
- Description (if applicable)
- Status
- IP address

**Note**

You can delete or reset multiple gateways from the Find and List Gateways pane by checking the check boxes next to the appropriate gateways and clicking **Delete Selected** to delete the gateways or clicking **Reset Selected** to reset the gateways. You can choose all of the gateways on the pane by checking the check box in the matching records title bar.

Related Topics

- [Searching by Device Name, page 41-56](#)
- [Searching by Description, page 41-58](#)
- [Searching by Directory Number, page 41-59](#)
- [Searching by Calling Search Space, page 41-60](#)
- [Searching by Route Group, page 41-64](#)

Searching by Route Group

Use this procedure to locate gateways assigned to a specific route group and registered with Cisco CallManager.

Procedure

Step 1 Choose **Device > Gateway**.

The Find and List Gateways pane appears.

Step 2 From the drop-down list box, choose **Route Group**; then, choose one of the following criteria:

- begins with
- contains
- ends with
- is exactly
- is not empty
- is empty

Step 3 Specify the appropriate search text, if applicable. You can also specify how many items per page to display, and whether to hide or show endpoints.



Tips

You can locate an existing route group by choosing one from the drop-down list box under the **Find** button. This automatically inserts the name of the route group you choose into the **Find** field.

Step 4 Click **Find**.

A list of discovered gateways displays by:

- Route group priority)
- Device name (port)
- Description (if applicable)
- Status
- IP address

**Note**

You can delete or reset multiple gateways from the Find and List Gateways pane by checking the check boxes next to the appropriate gateways and clicking **Delete Selected** to delete the gateways or clicking **Reset Selected** to reset the gateways. You can choose all of the gateways on the pane by checking the check box in the matching records title bar.

Related Topics

- [Searching by Device Name, page 41-56](#)
- [Searching by Description, page 41-58](#)
- [Searching by Directory Number, page 41-59](#)
- [Searching by Calling Search Space, page 41-60](#)
- [Searching by Device Pool, page 41-62](#)

Modifying Gateways and Ports

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

- [Deleting Gateways, page 41-66](#)
- [Resetting and Restarting Gateways, page 41-67](#)
- [Updating Gateways and Ports, page 41-68](#)

Deleting Gateways

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

Procedure

- Step 1** Choose **Device > Gateway**.
The Find and List Gateways pane appears.
- Step 2** Enter search criteria to locate a specific gateway.
- Step 3** Click **Find**.
A list of discovered gateways matching your search criteria displays.
- Step 4** Check the check box next to the gateway you want to delete.
- Step 5** Click **Delete Selected**.
A message displays stating that you cannot undo this action.
- Step 6** Click **OK** to delete the gateway, or **Cancel** to cancel the operation.



Tips

You can delete all of the gateways on the pane by checking the check box in the matching records title bar and clicking **Delete Selected**.

Related Topics

- [Adding Gateways to Cisco CallManager, page 41-2](#)
- [Finding Specific Gateways, page 41-56](#)

Resetting and Restarting Gateways

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

Procedure

- Step 1** Choose **Device > Gateway**.
- The Find and List Gateway pane appears.
- Step 2** Enter search criteria to locate a specific gateway.
- Step 3** Click **Find**.
- A list of discovered gateways matching your search criteria displays.
- Step 4** Check the check box next to the gateway you want to reset.
- Step 5** Click **Reset Selected**.
- The Reset Gateway(s) pane appears.
- Step 6** Click one of the following choices:
- **Restart**—Restarts a device without shutting it down.
 - **Reset**—Shuts down a device and brings it back up.
-

Related Topics

- [Finding Specific Gateways, page 41-56](#)
- [Updating Gateways and Ports, page 41-68](#)

Updating Gateways and Ports

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

Procedure

Step 1 Choose **Device > Gateway**.

The Find and List Gateways pane appears.

Step 2 Enter search criteria to locate a specific gateway.

Step 3 Click **Find**.

A list of discovered devices displays.

Step 4 Click the **Device Name** of the gateway you want to update.

The Gateway Configuration pane appears.

Step 5 Update the appropriate gateway or port settings as described in the following sections.

To access gateway ports, click the icon of the gateway port or the MGCP endpoint link on the left side of the configuration pane for the selected gateway.

- [MGCP Gateway Configuration Settings, page 41-16](#)
- [FXS/FXO Gateway Configuration Settings, page 41-18](#)
- [E1/T1 PRI Gateway Configuration Settings, page 41-21,](#)
- [T1-CAS Gateway Configuration Settings, page 41-33.](#)
- [Analog Access Gateway Configuration Settings, page 41-44](#)
- [Port Configuration Settings, page 41-45](#)

Step 6 Click **Update**.

Step 7 Reset the gateway to apply the changes.

Related Topics

- [Adding Gateways to Cisco CallManager, page 41-2](#)
- [Finding Specific Gateways, page 41-56](#)

- [Resetting and Restarting Gateways, page 41-67](#)
- [Deleting Gateways, page 41-66](#)

■ Modifying Gateways and Ports