



Trunk Configuration

Use a trunk device to configure a logical route to a gatekeeper (that is, the wholesale network or an intercluster trunk with gatekeeper control) or to an intercluster trunk without a gatekeeper. Choose from the following available trunk types:

- H.225 trunk (gatekeeper controlled)
- Intercluster trunk (gatekeeper controlled)
- Intercluster trunk (non-gatekeeper controlled)

The following topics cover Cisco CallManager trunk configuration:

- [Finding a Trunk, page 48-2](#)
- [Adding a Trunk, page 48-3](#)
- [Deleting a Trunk, page 48-4](#)
- [Modifying a Trunk, page 48-5](#)
- [Resetting a Trunk, page 48-6](#)
- [Trunk Configuration Settings, page 48-8](#)

The following topics contain additional information related to trunks:

- [Call Admission Control, *Cisco CallManager System Guide*](#)
- [Gatekeepers and Trunks, *Cisco CallManager System Guide*](#)
- [Gatekeeper and Trunk Configuration in Cisco CallManager, *Cisco CallManager System Guide*](#)
- [Cisco IP Telephony Network Design Guide](#)

Finding a Trunk

Because you might have multiple trunks in your network, Cisco CallManager lets you search for trunks based on specified criteria. Follow these steps to search for a specific trunk in the Cisco CallManager database.

Procedure

Step 1 Choose **Device > Trunk**.

The Find and List Trunks window displays.

Step 2 Choose the field that you want to use to locate a trunk.



Note To find all trunks registered in the database, choose Device Name from the list of fields and choose “is not empty” from the list of patterns; then, click **Find**.

Step 3 Choose the appropriate search pattern for your text search. If you do not want to perform a text search, choose “is empty.”

Step 4 Enter your search text, if any, in the Find field.

Step 5 If you choose calling search space or device pool in [Step 2](#), the options available in the database display. From the drop-down list box below the **Find** button, you can choose one of these options.

Step 6 Click **Find**.

A list of devices matching the criteria appears. The field that you chose in [Step 2](#) determines how the devices in the list are sorted.

This window also lists the total number of devices and windows in this window.

Step 7 To view the next set of discovered devices, click **Next**.



Note You can delete or reset multiple trunks from the Find and List Trunks window by checking the check boxes next to the appropriate trunks and clicking **Delete Selected** to delete the trunks or clicking **Reset Selected** to reset the trunks. You can choose all of the trunks in the window by checking the check box in the Matching records title bar.

Related Topics

- [Adding a Trunk, page 48-3](#)
- [Deleting a Trunk, page 48-4](#)
- [Modifying a Trunk, page 48-5](#)
- [Resetting a Trunk, page 48-6](#)
- [Trunk Configuration Settings, page 48-8](#)
- [Gatekeepers and Trunks, *Cisco CallManager System Guide*](#)
- [Gatekeeper and Trunk Configuration in Cisco CallManager, *Cisco CallManager System Guide*](#)

Adding a Trunk

Perform the following procedure to add a trunk device.



Note You can configure multiple trunk devices per Cisco CallManager cluster.

Procedure

- Step 1** Choose **Device > Trunk**.
- Step 2** Choose **Add a New Trunk**.
- Step 3** From the drop-down list, choose the type of trunk to add and click **Next**.
- Step 4** On the Trunk Configuration window that displays, enter the appropriate settings as described in [Table 48-1](#).

- Step 5** Click **Insert** to add the new trunk.
The page updates, and the name of the new trunk displays in the Trunks list.
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Related Topics

- [Finding a Trunk, page 48-2](#)
- [Deleting a Trunk, page 48-4](#)
- [Modifying a Trunk, page 48-5](#)
- [Resetting a Trunk, page 48-6](#)
- [Trunk Configuration Settings, page 48-8](#)
- [Gatekeepers and Trunks, Cisco CallManager System Guide](#)
- [Gatekeeper and Trunk Configuration in Cisco CallManager, Cisco CallManager System Guide](#)

Deleting a Trunk

Perform the following steps to delete a trunk.

Procedure

- Step 1** Choose **Device > Trunk**.
The Find and List Trunks window displays.
- Step 2** To locate a specific trunk, enter search criteria, and click **Find**.
A list of trunks that match the search criteria appears.

- Step 3** Perform one of the following actions:
- Check the check boxes next to the trunks that you want to delete and click **Delete Selected**.
 - Delete all trunks in the window by checking the check box in the Matching records title bar and clicking **Delete Selected**.
 - From the list, choose the name of the trunk that you want to delete to display its current settings and click **Delete**.

A confirmation dialog displays.

- Step 4** To delete the trunk, click **OK**.

Related Topics

- [Finding a Trunk, page 48-2](#)
- [Adding a Trunk, page 48-3](#)
- [Modifying a Trunk, page 48-5](#)
- [Resetting a Trunk, page 48-6](#)
- [Trunk Configuration Settings, page 48-8](#)
- [Gatekeepers and Trunks, Cisco CallManager System Guide](#)
- [Gatekeeper and Trunk Configuration in Cisco CallManager, Cisco CallManager System Guide](#)

Modifying a Trunk

Perform the following steps to modify trunk settings:

Procedure

- Step 1** Choose **Device > Trunk**.
- The Find and List Trunks window displays.
- Step 2** To locate a specific trunk, enter search criteria and click **Find**.
- A list of trunks that match the search criteria appears.

- Step 3** From the list, click the name of the trunk that you want to update. The Trunk Configuration window displays.
- Step 4** Update the appropriate settings as described in [Table 48-1](#).
- Step 5** Click **Update**.
The page refreshes to display the new settings.
- Step 6** Click **Reset Trunk** to reset or restart the trunk and apply the new settings.



Note Resetting a trunk **drops** any calls in progress that are using that trunk. Restarting a gateway tries to preserve the calls in progress that are using that gateway, if possible. Other devices wait until calls complete before restarting or resetting. Resetting/restarting an H323 device does not physically reset/restart the hardware; it only reinitializes the configuration loaded by Cisco CallManager

Related Topics

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- [Trunk Configuration Settings, page 48-8](#)
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- [Gatekeeper and Trunk Configuration in Cisco CallManager, Cisco CallManager System Guide](#)

Resetting a Trunk

Perform the following procedure to reset the trunk.



Caution

Resetting devices can cause them to drop calls.

Procedure

- Step 1** Choose **Device > Trunk**.
- The Find and List Trunks window displays.
- Step 2** To locate a specific trunk, enter search criteria and click **Find**.
- A list of trunks that match the search criteria appears.
- Step 3** From the list, click the name of the trunk that you want to reset.
- The Trunk Configuration window displays.
- Step 4** If you changed any settings for the Trunk Device, click **Reset Trunk**. Otherwise, skip the rest of this procedure.
- The Reset Device dialog displays.
- Step 5** Click one of the following choices:
- **Restart**—Restarts the trunk device without shutting it down first.
 - **Reset**—Shuts down, then restarts the internal trunk device. The Cisco CallManager cluster unregisters (URQ) and then reregisters (RRQ) with the trunk if the trunk is gatekeeper-controlled.
 - **Close**—Closes the Reset Device dialog without performing any action.
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Related Topics

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Trunk Configuration Settings

Table 48-1 describes the trunk configuration settings.

Table 48-1 Trunk Configuration Settings

Field	Description
Device Information	
Device Name	Enter a unique identifier for the trunk.
Description	Enter a descriptive name for the trunk.
Device Pool	<p>Choose the appropriate device pool for the trunk.</p> <p>For trunks, device pools specify a list of Cisco CallManagers that the trunk uses to distribute the call load dynamically.</p> <p>Note Calls that are initiated from a phone that is registered to a Cisco CallManager that does not belong to the trunk's device pool use different Cisco CallManagers of this device pool for different outgoing calls. Selection of Cisco CallManager nodes occurs in a random order.</p> <p>A call that is initiated from a phone that is registered to a Cisco CallManager that does belong to the trunk's device pool uses the same Cisco CallManager node for outgoing calls, provided that the Cisco CallManager is up and running.</p>
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.

Table 48-1 Trunk Configuration Settings (continued)

Field	Description
Location	Choose the appropriate location for the trunk. The location specifies the total bandwidth available for calls between this location and the central location, or hub. A location setting of None specifies unlimited available bandwidth.
AAR Group	Choose the automated alternate routing (AAR) group for this device. The AAR group provides the prefix digits used to route calls that are otherwise blocked due to insufficient bandwidth. An AAR group setting of None specifies that no rerouting of blocked calls will be attempted.
Media Termination Point Required	<p>Indicate whether a media termination point (MTP) is used to implement features that H.323 does not support (such as hold and transfer).</p> <p>Check the Media Termination Point Required check box if you want to use a media termination point to implement features. Uncheck the Media Termination Point Required check box if you do not want to use a media termination point to implement features.</p> <p>Use this check box only for H.323 clients and those H.323 devices that do not support the H.245 empty capabilities set, or if you want media streaming to terminate through a single source.</p>

Table 48-1 Trunk Configuration Settings (continued)

Field	Description
Call Routing Information	
Inbound Calls	
Significant Digits	<p>Significant digits represent the number of final digits retained on inbound calls. Use for the processing of incoming calls and to indicate the number of digits used to route calls coming into the H.323 device.</p> <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>
Calling Search Space	Choose the appropriate calling search space for the trunk. The calling search space specifies the collection of route partitions that are searched to determine how to route a collected (originating) number.
AAR Calling Search Space	Choose the appropriate calling search space for the device to use when performing automated alternate routing (AAR). The AAR calling search space specifies the collection of route partitions that are searched to determine how to route a collected (originating) number that is otherwise blocked due to insufficient bandwidth.
Prefix DN	<p>Enter the prefix digits that are appended to the called party number on incoming calls.</p> <p>Cisco CallManager adds prefix digits after first truncating the number in accordance with the Significant Digits setting.</p>

Table 48-1 Trunk Configuration Settings (continued)

Field	Description
Redirecting Number IE Delivery - Inbound	<p>Check this check box to accept the Redirecting Number IE in the incoming SETUP message to the Cisco CallManager.</p> <p>Uncheck the check box to exclude the Redirecting Number IE in the incoming SETUP message to the Cisco CallManager.</p> <p>You use Redirecting Number IE for voice-mail integration only. If your configured voice-mail system supports Redirecting Number IE, you should check the check box.</p> <p>Note Default leaves the check box unchecked.</p>
Outbound Calls	
Calling Party Selection	<p>Choose the directory number sent on an outbound call on a gateway.</p> <p>The following options 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. • First Redirect Number (External)—Send the external directory number of the redirecting device. • Last Redirect Number (External)—Send the external directory number of the last device to redirect the call.

Table 48-1 Trunk Configuration Settings (continued)

Field	Description
Calling Party Presentation	<p>Choose whether the Cisco CallManager transmits or blocks caller ID.</p> <p>Choose Allowed if you want the Cisco CallManager to send caller ID.</p> <p>Choose Restricted if you do not want the Cisco CallManager to send caller ID.</p>
Called party IE number type unknown	<p>Choose the format for the type of number in called party directory numbers.</p> <p>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 a PBX that expects the called directory number to be encoded to a non-national numbering plan type.</p> <p>Choose one of the following options:</p> <ul style="list-style-type: none"> • Cisco CallManager—Cisco CallManager sets the directory number type. • Unknown—The dialing plan is unknown. • National—Use when you are dialing within the dialing plan for your country. • International—Use when you are dialing outside the dialing plan for your country. • Subscriber—Use when you are dialing a subscriber by using a shortened subscriber number.

Table 48-1 Trunk Configuration Settings (continued)

Field	Description
Calling party IE number type unknown	<p data-bbox="659 285 1241 350">Choose the format for the type of number in calling party directory numbers.</p> <p data-bbox="659 367 1241 716">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 a PBX that expects the calling directory number to be encoded to a non-national numbering plan type.</p> <p data-bbox="659 732 1241 760">Choose one of the following options:</p> <ul data-bbox="673 776 1241 1149" style="list-style-type: none"> <li data-bbox="673 776 1241 841">• Cisco CallManager—Cisco CallManager sets the directory number type. <li data-bbox="673 857 1241 885">• Unknown—The dialing plan is unknown. <li data-bbox="673 901 1241 966">• National—Use when you are dialing within the dialing plan for your country. <li data-bbox="673 982 1241 1047">• International—Use when you are dialing outside the dialing plan for your country. <li data-bbox="673 1063 1241 1149">• Subscriber—Use when you are dialing a subscriber by using a shortened subscriber number.

Table 48-1 Trunk Configuration Settings (continued)

Field	Description
Called Numbering Plan	<p data-bbox="659 293 1231 350">Choose the format for the numbering plan in called party directory numbers.</p> <p data-bbox="659 370 1231 683">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 a PBX that expects the called numbering plan to be encoded to a non-national numbering plan.</p> <p data-bbox="659 703 1076 727">Choose one of the following options:</p> <ul data-bbox="673 747 1231 1078" style="list-style-type: none"> <li data-bbox="673 747 1231 803">• Cisco CallManager—Cisco CallManager sets the Numbering Plan in the directory number. <li data-bbox="673 823 1231 880">• ISDN—Use when you are dialing outside the dialing plan for your country. <li data-bbox="673 899 1231 956">• National Standard—Use when you are dialing within the dialing plan for your country. <li data-bbox="673 976 1231 1032">• Private—Use when you are dialing within a private network. <li data-bbox="673 1052 1231 1078">• Unknown—The dialing plan is unknown.

Table 48-1 Trunk Configuration Settings (continued)

Field	Description
Calling Numbering Plan	<p data-bbox="659 285 1244 354">Choose the format for the numbering plan in calling party directory numbers.</p> <p data-bbox="659 358 1244 683">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 a PBX that expects the calling numbering plan to be encoded to a non-national numbering plan.</p> <p data-bbox="659 688 1244 727">Choose one of the following options:</p> <ul data-bbox="659 732 1244 1081" style="list-style-type: none"><li data-bbox="659 732 1244 800">• Cisco CallManager—Cisco CallManager sets the Numbering Plan in the directory number.<li data-bbox="659 805 1244 873">• ISDN—Use when you are dialing outside the dialing plan for your country.<li data-bbox="659 878 1244 946">• National Standard—Use when you are dialing within the dialing plan for your country.<li data-bbox="659 951 1244 1019">• Private—Use when you are dialing within a private network.<li data-bbox="659 1024 1244 1081">• Unknown—The dialing plan is unknown.

Table 48-1 Trunk Configuration Settings (continued)

Field	Description
Caller ID DN	<p>Enter the pattern, from 0 to 24 digits, that you want to use to format the caller ID on outbound calls from the trunk.</p> <p>For example, in North America</p> <ul style="list-style-type: none"> • 555XXXX = Variable Caller ID, where X represents an extension number. The Central Office (CO) appends the number with the area code if you do not specify it. • 5555000 = Fixed Caller ID. Use this form 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.
Display IE Delivery	<p>Check this 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>The default setting leaves this check box unchecked.</p>
Redirecting Number IE Delivery - Outbound	<p>Check this check box to include the Redirecting Number IE in the outgoing SETUP message from the Cisco CallManager to indicate the first redirecting number and the redirecting reason of the call when the call is forwarded.</p> <p>Uncheck the check box to exclude the first redirecting number and the redirecting reason from the outgoing SETUP message.</p> <p>You use Redirecting Number IE for voice-mail integration only. If your configured voice-mail system supports Redirecting Number IE, you should check the check box.</p> <p>Note The default setting leaves this check box unchecked.</p>

Table 48-1 Trunk Configuration Settings (continued)

Field	Description
Gatekeeper Information	
(for gatekeeper-controlled H.225 trunks and intercluster trunks)	
Gatekeeper Name	Choose the gatekeeper that controls this trunk.
Terminal Type	Use the Terminal Type field to designate the type for all devices controlled by this trunk. Always set this field to Gateway for normal trunk call admission control.
Technology Prefix	Use this optional field to eliminate the need for entering the IP address of every Cisco CallManager when configuring the gw-type-prefix on the trunk: <ul style="list-style-type: none"> • If you leave this field blank (the default setting), you must specify the IP address of each Cisco CallManager that can register with the trunk when you enter the gw-type-prefix command on the trunk. • When you use this field, make sure that the value entered here exactly matches the <i>type-prefix</i> value specified with the gw-type-prefix command on the trunk. <p>For example, if you leave this field blank and you have two Cisco CallManagers with IP addresses of 10.1.1.2 and 11.1.1.3, enter the following gw-type-prefix command on the trunk:</p> <pre>gw-type-prefix 1#* default-technology gw ip 10.1.1.2 gw ip 11.1.1.3</pre> <p>If you enter 1#* in this field, enter the following gw-type-prefix command on the trunk:</p> <pre>gw-type-prefix 1#* default-technology</pre>

Table 48-1 Trunk Configuration Settings (continued)

Field	Description
Zone	<p>Use this optional field to request a specific zone on the trunk with which Cisco CallManager will register. The zone specifies the total bandwidth available for calls between this zone and another zone:</p> <ul style="list-style-type: none"> • If you do not enter a value in this field, the zone subnet command on the trunk determines the zone with which Cisco CallManager registers. Cisco recommends the default setting for most configurations. • If you want Cisco CallManager to register with a specific zone on the trunk, enter the value in this field that exactly matches the zone name configured on the trunk with the zone command. Specifying a zone name in this field eliminates the need for a zone subnet command for each Cisco CallManager registered with the trunk. <p>Refer to the command reference documentation for your trunk for more information.</p>
Remote Cisco CallManager Information	
(for non-gatekeeper-controlled intercluster trunks)	
Server 1 IP Address/Host Name	<i>Required.</i> Enter the IP address or host name of the first remote Cisco CallManager that this trunk accesses.

Table 48-1 Trunk Configuration Settings (continued)

Field	Description
Server 2 IP Address/Host Name	<p><i>Optional.</i> Enter the IP address or host name of the second remote Cisco CallManager that this trunk accesses.</p> <p>Note If this non-gatekeeper-controlled intercluster trunk accesses the device pool of a remote non-gatekeeper-controlled intercluster trunk and that device pool has a second Cisco CallManager node, you must enter the second remote Cisco CallManager IP address/host name in this field.</p>
Server 3 IP Address/Host Name	<p><i>Optional.</i> Enter the IP address or host name of the third remote Cisco CallManager that this trunk accesses.</p> <p>Note If this non-gatekeeper-controlled intercluster trunk accesses the device pool of a remote non-gatekeeper-controlled intercluster trunk and that device pool has a third Cisco CallManager node, you must enter the third remote Cisco CallManager IP address/host name in this field.</p>

Related Topics

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