CHAPTER 15

Location Configuration

Use locations to implement call admission control in a centralized call-processing system. Call admission control enables you to regulate audio quality and video availability by limiting the amount of bandwidth that is available for audio and video calls over links between the locations. For more information, refer to the "Call Admission Control" section in the *Cisco CallManager System Guide*.

Note If you do not use call admission control to limit the audio and video bandwidth on an IP WAN link, an unlimited number of calls can be active on that link at the same time. This situation can cause the audio quality of each audio call and the video quality of each video call to degrade as the link becomes oversubscribed.

In a centralized call-processing system, a single Cisco CallManager cluster provides call processing for all locations on the IP telephony network. The Cisco CallManager cluster usually resides at the main (or central) location, along with other devices such as phones and gateways. The remote locations contain additional devices, but no Cisco CallManager. IP WAN links connect the remote locations to the main location.

The following topics explain locations in more detail:

Finding a Location

Because you might have several locations in your network, Cisco CallManager Administration lets you locate specific locations on the basis of specific criteria. Use the following procedure to find locations.

Note During your work in a browser session, Cisco CallManager Administration retains your location search preferences. If you navigate to other menu items and return to this menu item, Cisco CallManager Administration retains your location search preferences until you modify your search or close the browser.

Procedure

Step 1 Choose **System > Location**.

The Find and List Locations window displays. Use the two drop-down list boxes to search for a location.

Step 2 From the first Find locations where drop-down list box, choose one of the following criteria:

- Location
- Audio Bandwidth

Note The criterion that you choose in this drop-down list box specifies how the list of location that your search generates will be sorted. For example, if you choose Bandwidth, the Bandwidth column will display as the left column of the results list.

From the second Find locations where drop-down list box, choose one of the following criteria:

- begins with
- contains
- ends with
- is exactly

Step 3 Specify the appropriate search text, if applicable, and click **Find**. You can also specify how many items per page to display.

Tip To find all locations that are registered in the database, click **Find** without entering any search text.

A list of discovered locations displays by

- Location icon
- Location Name
- Bandwidth

Note You can delete multiple locations from the Find and List Locations window by checking the check boxes next to the appropriate locations and clicking **Delete Selected**. You can delete all locations in the window by checking the check box in the Matching records title bar and clicking **Delete Selected**.

Step 4 From the list of records, click the Location name that matches your search criteria.

The window displays information on the location that you choose.

Additional Information

See the "Related Topics" section on page 15-6.

Configuring a Location

This section describes how to add, copy, or update a location to the Cisco CallManager database.

Before You Begin

Before configuring a location, you must configure the Cisco CallManagers that form the cluster. For details, see the "Updating a Cisco CallManager" section on page 3-2

Procedure

Step 1 Choose **System > Location**.

The Find and List Locations window displays.

Step 2 Perform one of the following tasks:

- To copy an existing location, locate the appropriate location as described in the "Finding a Location" section on page 15-1, click the **Copy** button next to the location that you want to copy, and continue with Step 3.
- To add a new location, click the **Add New** button and continue with Step 3.
- To update an existing location, locate the appropriate location as described in the "Finding a Location" section on page 15-1 and continue with Step 3.

Step 3 Enter the appropriate settings as described in Table 15-1.

Step 4 To save the location information in the database, click **Save**.

Next Steps

After adding a new location to the database, you can assign devices to that location; for example, see:

- Gateway Configuration, page 69-1
- Cisco IP Phone Configuration, page 70-1
- CTI Route Point Configuration, page 67-1

Additional Information

See the "Related Topics" section on page 15-6.

Location Configuration Settings

Table 15-1 describes the location configuration settings. For related procedures, see the "Related Topics" section on page 15-6.

Table 15-1 Location Configuration Settings

Field	Description
Location Information	
Name	Enter the name of the new location that you are creating.

Table 15-1 Location Configuration Settings (continued)

Field	Description
Audio Calls Information	
Audio Bandwidth	Enter the maximum amount of audio bandwidth (in kbps) that is available for all audio calls on the link between this location and other locations. For audio calls, the audio bandwidth includes overhead. Choose between the following options: • Unlimited bandwidth—Click the Unlimited radio button. • Specified bandwidth—Specify a bandwidth by clicking the radio button next to the kbps box and entering a specified bandwidth. Valid values are 1 to 2147483647. For purposes of location bandwidth calculations only, assume that each call stream consumes the following amount of bandwidth: • G.711 call uses 80 kbps. • G.722 call uses 80 kbps. • G.723 call uses 24 kbps. • G.728 call uses 16 kbps. • G.729 call uses 24 kbps. • GSM call uses 29 kbps. • Wideband call uses 272 kbps. **Note** Each call comprises two call streams. To improve audio quality, lower the bandwidth setting, so fewer active calls are allowed on the link to this location.
Video Calls Information	
Video Bandwidth	Enter the maximum amount of video bandwidth (in kbps) that is available for all video calls on the link between this location and other locations. For video calls, the video bandwidth does not include overhead. Choose between the following options: • None—Video calls are not allowed between this location and other locations. Video calls can, however, take place within this location. • Unlimited bandwidth—Click the Unlimited radio button. • Specified bandwidth—Specify a video bandwidth by clicking the radio button next to the kbps box and entering a specified video bandwidth. The default value is 384 kbps.
Locations RSVP Settings	
Location	This display-only field displays locations for which the interlocation RSVP setting has been changed from the system default RSVP policy.
RSVP Setting	This display-only field displays the RSVP policy setting between the selected location and the location listed in the Location column to the left.

Table 15-1 Location Configuration Settings (continued)

Field	Description
Modify Setting(s) to Other Locations	
Location	To change the RSVP policy setting between the current location and a location that displays in this pane, choose a location in this pane.
RSVP Setting	To choose an RSVP policy setting between the current location and the location chosen in the Location pane at left, choose an RSVP setting from the drop-down list box. The following settings are available: • Use System Default—The RSVP policy for the location pair matches the clusterwide RSVP policy. See the "Clusterwide Default RSVP Policy" section of the *Cisco CallManager System Guide* for details. • No Reservation—No RSVP reservations are made between any two locations. • Optional (Video Desired)—A call can proceed as a best-effort audio-only call if failure to obtain reservations for both audio and video streams occurs. RSVP Agent continues to attempt RSVP reservation and informs Cisco CallManager if reservation succeeds. • Mandatory—Cisco CallManager does not ring the terminating device until RSVP reservation succeeds for the audio stream and, if the call is a video call, for the video stream as well. • Mandatory (Video Desired)—A video call can proceed as an audio-only call if a reservation for the video stream cannot be reserved.

Deleting a Location

This section describes how to delete a location from the Cisco CallManager database.

Before You Begin

You cannot delete a location to which devices are assigned. To find out which devices are using the location, click **Dependency Records** from **Related Links** in the Location Configuration window, then click **Go**. If the dependency records are not enabled for the system, the dependency records summary window displays a message. For more information about dependency records, see the "Accessing Dependency Records" section on page A-2. If you try to delete a location that is in use, Cisco CallManager displays an error message. Before deleting a location that is currently in use, you must perform either or both of the following tasks:

- Update the devices to assign them to a different location.
- Delete the devices that are assigned to the location that you want to delete.

Note Deleting a location allocates infinite bandwidth for the links that are connected to that location and allows an unlimited number of calls on those links. Deleting a location can cause audio quality on the links to degrade.

Procedure

Step 1 Find the location by using the procedure in the "Finding a Location" section on page 15-1.

Step 2 From the list of matching records, choose the location that you want to delete.

Step 3 Click **Delete Selected**.

Step 4 When prompted to confirm the delete operation, click either **OK** to confirm deletion or **Cancel** to cancel the delete operation.

Additional Information

See the "Related Topics" section on page 15-6.

Resynchronizing a Location Bandwidth

This section describes how to resynchronize the bandwidth for a location. When calls are blocked from using the link for a location, bandwidth leakage may have occurred that may reduce the allotted bandwidth for the location. You can resynchronize the location bandwidth to the maximum amount that is assigned to this location without resetting the Cisco CallManager server. For more information, refer to the "Bandwidth Calculations" section in the Call Admission Control chapter of the *Cisco CallManager System Guide*.

Procedure

Step 1 Find the location by using the procedure in the "Finding a Location" section on page 15-1.

Step 2 From the list of matching records, choose the location that you want to resynchronize.

The Location Configuration window displays.

Step 3 To resynchronize the bandwidth for the chosen location click **Resync Bandwidth**.

This warning message appears: "If calls are using the bandwidth for this location when the bandwidth is resynchronized, the bandwidth might be oversubscribed until all calls that are using the bandwidth for this location disconnect."

Step 4 To continue click **OK** or click **Cancel**.

Additional Information

See the "Related Topics" section on page 15-6.

Related Topics

- Location Configuration, page 15-1
- Finding a Location, page 15-1
- Configuring a Location, page 15-3
- Location Configuration Settings, page 15-3

- Deleting a Location, page 15-5
- Resynchronizing a Location Bandwidth, page 15-6