CHAPTER 15

Location Configuration

The following topics explain locations in more detail:

Location Configuration Settings

In Cisco Unified Communications Manager Administration, use the **System > Location** menu path to configure locations.

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, see the "Call Admission Control" chapter in the *Cisco Unified Communications Manager 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.

Tip Do not confuse locations with geolocations. Locations, which you configure by using the **System > Location** menu option, allow you to define entities that a centralized call-processing system uses to provide call admission control (CAC). Geolocations, which you configure by using the **System > Geolocation Configuration** menu option, allow you to specify geographic locations that you use to associate Cisco Unified Communications Manager devices for features such as logical partitioning.

In a centralized call-processing system, a single Cisco Unified Communications Manager cluster provides call processing for all locations on the IP telephony network. The Cisco Unified Communications Manager 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 Unified Communications Manager. IP WAN links connect the remote locations to the main location.

Cisco Unified Communications Manager supports up to 2000 locations. The following limitations and restrictions apply:

- Configure as many locations as possible to Use System Default for the RSVP policy.
- This enhancement requires an MCS 7845H1 or higher server.
- See the "Regions" subtopic under the "Administration Considerations" topic of the "IP Video Telephony" chapter of the *Cisco Unified Communications Solution Reference Network Design (SRND)* for the current release, which provides recommendations as to how the video bandwidth should be set for regions and locations, so the video portion of video calls will succeed, and the video calls will not get rejected nor set up as audio-only calls.

Tips About Configuring Locations

Before configuring a location, you must configure the Cisco Unified Communications Managers that form the cluster. Before configuring a location, you must configure the Cisco Unified Communications Manager. For details, see the "Cisco Unified Communications Manager Configuration Settings" section on page 3-1

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

- Gateway Configuration, page 66-1
- Cisco Unified IP Phone Configuration, page 67-1
- CTI Route Point Configuration, page 64-1

Tips About Deleting Locations

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 Unified Communications Manager displays a 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.

Using the GUI

For instructions on how to use the Cisco Unified Communications Manager Administration Graphical User Interface (GUI) to find, delete, configure, or copy records, see the "Navigating the Cisco Unified Communications Manager Administration Application" section on page 1-13 and its subsections, which explain how to use the GUI and detail the functions of the buttons and icons.

Configuration Settings Table

Table 15-1 describes the location configuration settings. For related procedures, see the "Related Topics" section on page 15-5.

Table 15-1 Location Configuration Settings

Field	Description
Location Information	
Name	Enter the name of the new location that you are creating. Two default locations that cannot be modified exist: • Hub_None—The Hub_None location specifies unlimited audio bandwidth and unlimited video bandwidth. A device that associates with the Hub_None location allows an unlimited number of active calls to or from the device. • Phantom—The Phantom location specifies unlimited audio bandwidth and unlimited video bandwidth. Specify this location to allow successful call admission control for calls across intercluster trunks that use either the H.323 protocol or SIP. **Note** Both Hub_None and Phantom locations do allow configuration of the associated RSVP policy setting(s).
Audio Calls Information	
Audio Bandwidth	Enter the maximum amount of audio bandwidth (in kb/s) 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 kb/s 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 kb/s. • G.722 call uses 80 kb/s. • G.723 call uses 24 kb/s. • G.728 call uses 16 kb/s. • G.729 call uses 24 kb/s. • GSM call uses 29 kb/s. • Wideband call uses 272 kb/s. **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.

Table 15-1 Location Configuration Settings (continued)

Field	Description
Video Calls Information	
Video Bandwidth	Enter the maximum amount of video bandwidth (in kb/s) 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 among the following options: • None—The system does not allow video calls 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 kb/s box and entering a specified video bandwidth. The default value specifies 384 kb/s.
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 that is listed in the Location column to the left.
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 that is chosen in the Location pane at left, choose an RSVP setting from the drop-down list box. Choose from the following available settings: • 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 Unified Communications Manager System Guide* for details. • No Reservation—No RSVP reservations can get 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 Unified Communications Manager if reservation succeeds. • Mandatory—Cisco Unified Communications Manager 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.

Additional Information

See the "Related Topics" section on page 15-5.

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 Unified Communications Manager server. For more information, see the "Bandwidth Calculations" section in the "Call Admission Control" chapter of the *Cisco Unified Communications Manager System Guide*.

Procedure

Step 1 Find the location that you want to resynchronize.

The Location Configuration window displays.

Step 2 To resynchronize the bandwidth for the chosen location, click **Resync Bandwidth**.

This following message displays: "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 3 To continue, click **OK** or to cancel, click **Cancel**.

Additional Information

See the "Related Topics" section on page 15-5.

Related Topics

- Location Configuration, page 15-1
- Location Configuration Settings, page 15-1
- Resynchronizing a Location Bandwidth, page 15-5
- Gateway Configuration, page 66-1
- Cisco Unified IP Phone Configuration, page 67-1
- CTI Route Point Configuration, page 64-1