CHAPTER 4

Configuring the Gatekeeper in Resource Manager

Only an administrator has permission to configure an H.323 gatekeeper in the system for video conferences using the H.323 protocol. Topics in this section include:

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Gatekeeper Types

This section describes the gatekeeper types used with Cisco Unified Videoconferencing Manager.

Internal Gatekeeper

Cisco Unified Videoconferencing Manager ships with an internal gatekeeper. Deployments with no external gatekeepers should use the internal gatekeeper for all MCU, gateway, and endpoint registrations.

Cisco IOS H.323 Gatekeeper

Cisco Unified Videoconferencing Manager supports the use of Cisco IOS Gatekeepers. In deployments with Cisco IOS Gatekeepers, we recommend that you register Cisco Unified Videoconferencing MCUs and Cisco Unified Videoconferencing Gateways with the Cisco Unified Videoconferencing Manager internal gatekeeper to preserve the 'virtual MCU' features and that you register endpoints with the Cisco IOS Gatekeepers for scalability. The Cisco Unified Videoconferencing Manager internal gatekeeper and the Cisco IOS Gatekeeper are then configured as “neighbors”.

Third-party Gatekeeper

Resource Manager supports third-party gatekeepers, such as the Radvision ECS Gatekeeper. The Resource Manager can only support third-party gatekeepers if the third-party gatekeeper is configured as a neighbor to the Cisco Unified Videoconferencing Manager Internal Gatekeeper or Cisco IOS H.323 Gatekeeper. Only endpoints (terminals) can be registered to a third-party gatekeeper.
Gatekeeper Profile

This section provides procedures related to the gatekeeper profile.

Procedure

Step 1  From the sidebar menu, go to Admin > Resource Management > Gatekeeper/SIP server.

Step 2  In the General section of the Gatekeeper/SIP server profile window, enter the gatekeeper name in the Name field.

Step 3  Enter an IP address for the gatekeeper in the IP address field.

Step 4  Choose the type of gatekeeper that you want to add, from the Model list. If you select Other Model, then choose H.323 in the Protocol list.

Step 5  Choose the device island to which the device belongs from the Location list.

Note  The Location list is only displayed if the IP Topology tab is displayed.

Step 6  In the Dialing Plan Information section, choose one or both of the following options:

- Hierarchical—Choose this option if the gatekeeper has a parent-child relationship with its neighbor in the dialing plan, rather than a flat peer relationship.

  If you choose Hierarchical, the Parent Gatekeeper lists becomes active. From the list choose a parent zone for the gatekeeper. None is automatically selected in the list if the gatekeeper is a parent at the top of the hierarchy. do not choose Hierarchical for a root gatekeeper. The root gatekeeper in a hierarchical tree structure has no parent but may have peer neighbors.

- Stripping—For a gatekeeper that is configured to strip (remove) zone prefixes.

Step 7  Reflect the configuration of the actual gatekeeper by adding a zone prefix using the Add Zone Prefix button.

Step 8  In the Advanced section, if you are using the Internal Gatekeeper, you need to enable advanced management features of Resource Manager via these gatekeepers.

Step 9  Choose Enable Gatekeeper advanced features (authorization and point-to-point) in the Advanced section.

Step 10  Click the Configure button that appears to open the Authorization window. The Authorization Login, Authorization Password, and Authorization Port must match the corresponding settings on the Internal Gatekeeper or Cisco IOS H.323 Gatekeeper.

Note  The corresponding settings are located in the Internal Gatekeeper or Internal Gatekeeper interface in Gatekeeper > Settings > External API.

Default values appears automatically in the Port, SNMP Get Community, and Get SNMP Get Community fields. If the values on the real device are different, configure them accordingly.
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Additional Configuration

In order to view two gatekeepers as neighbors in a peer or hierarchical relationship, you need to use the appropriate zone prefix. For details, see the documentation for the gatekeeper that you are configuring.

Displaying the Gatekeeper

You can search for a Gatekeeper/SIP server by name.

Procedure

Step 1 In the Name field, enter all or part of the name of the gatekeeper or SIP server you want to find.
Step 2 Click Search, and if a Gatekeeper/SIP server is found, it appears in the list.
Step 3 To view a complete list of Gatekeeper/SIP servers, clear the Search field, and then click Search.

If you are using the Internal Gatekeeper, the following information about connection status is available in the list of search results:

- Authorization Connection indicates whether or not the gatekeeper and Resource Manager authorization link is established. This connection needs to appear as connected for advanced Resource Manager features to function correctly.
- Call Control Connection indicates whether or not API connection is established between the gatekeeper and Resource Manager.
- SNMP Connection indicates whether or not the SNMP connection between the Resource Manager and the gatekeeper is established.

Configuring the SIP Server

Resource Manager includes an embedded SIP Server component used to manage SIP traffic to network devices (such as to MCUs) managed by Resource Manager. In order for Resource Manager to operate with SIP endpoints, Resource Manager must be configured with an external SIP Server to which SIP endpoints are registered.

SIP Profile

This section provides procedures related to the Gatekeeper/SIP server profile.

Procedure

Step 1 Go to Admin > Resource Manager > Gatekeeper/SIP server.
Step 2 In the General section of the Gatekeeper/SIP server profile window, enter the name of the SIP server in the Name field.
Step 3 Enter an IP address for the SIP server in the IP Address field.
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Step 4  Choose the type of SIP server that you want to add, from the Model list. You can select Microsoft LCS, SIP Server, or other third-party SIP servers. If you select Other Model, then choose SIP in the Protocol list.

Step 5  Choose the device island to which the device belongs from the Location list.

Note  The Location list is only displayed if the IP Topology tab is displayed.

Step 6  Enter the name of the SIP server in the SIP Domain field.

Additional Configuration

Procedure

Step 1  To configure an MCU, in the MCU Web-interface, go to MCU > Protocols > SIP.

Step 2  Set the SIP server IP address as the IP address of Resource Manager. Do not change the port number or the type (UDP/TCP).

Step 3  Check Treat as outbound proxy field. This sets Resource Manager as the outbound proxy of the MCU that is working in SIP mode.

Note  Some SIP endpoints can only support an empty invitation. In order to be able to dial out to these endpoints, the MCU needs to send an empty invitation.

Step 4  Click Advanced SIP Settings to open a new window.

Step 5  Check Use "Empty Invite" when sending messages to endpoints.

Step 6  On the external SIP server, set a rule to route calls from registered endpoints to Resource Manager. The exact details of the routing rule should be designated by the system administrator.

Step 7  On the machine where Resource Manager is installed, make sure the Primary DNS suffix field is not empty.

Note  The default signalling port of the external SIP server is 5060. The default signalling protocol is UDP. In order to change these default settings, go to vcs-core.properties and set the following two properties:

\[\text{vnex.vcms.core.sip.proxy.defaultSignalingPort}=5060\]
\[\text{vnex.vcms.core.sip.proxy.defaultTransport}=udp|tcp\]