



CHAPTER 5

Configuring Conference Management Settings for the Cisco Unified Videoconferencing 5100 MCU

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Dialing Directly to the Cisco Unified Videoconferencing 5100 MCU

You can allow users to dial directly to the MCU IP address via the “auto-attendant” mechanism without the need to register to an H.323 gatekeeper or SIP registrar.

Users specify the conference they want to create or join via the MCU IVR.

If the MCU is already registered to an H.323 gatekeeper or SIP registrar, you can still allow users to access the auto-attendant mechanism by specifying an auto-attendant number which is registered with the appropriate H.323 gatekeeper or SIP registrar. Any call that the MCU cannot route to a valid conference is sent to the auto-attendant.

Procedure

- Step 1** Select **Configuration**.
- Step 2** Select **Conferences**.
- Step 3** Locate the Conference Control section.
- Step 4** Select Enable auto attendant.
- Step 5** Enter an auto-attendant number.

Use this option if the MCU is already registered to an H.323 gatekeeper or SIP registrar.

- Step 6** (Optional) Select **Prompt for conference PIN during conference creation** if you want the MCU to prompt users for a PIN when accessing a conference using this auto-attendant number.
- Step 7** Select **Apply**.
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Defining Conference Creation Options

You can determine how participants are allowed to create a conference.

Procedure

- Step 1** Select **Configuration**.
- Step 2** Select **Conferences**.
- Step 3** Locate the Conference Control section.
- Step 4** Select **More**.
- Step 5** Select a method by which users can create conferences in the **Users can create conference using** field.
- Scheduler only—Enables conference creation only using a conference scheduling application
 - Scheduler, Web and Control API—Enables conference creation using a conference scheduling application, the Conference Control interface, or an external application that uses the MCU API.
 - Scheduler, Web and Control API and Dial-in (default)—Enables all the conference creation methods listed above, as well as dial-in for ad-hoc conference creation.
- Step 6** Select **Apply**.
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Defining Ad Hoc Conference Termination Options

Procedure

- Step 1** Select **Configuration**.
- Step 2** Select **Conferences**.
- Step 3** Locate the Conference Control section.
- Step 4** Select **More**.
- Step 5** Select a method through which dial-in (ad hoc) conferences terminate in the **Terminate ad hoc conference when** field.
- Last participant leaves—The conference terminates when the last participant leaves the conference.
 - Conference creator leaves—The conference terminates when the conference creator leaves the conference.
- Step 6** Select **Apply**.
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Configuring Dynamic Cisco Unified Videoconferencing 5100 MCU Layouts

You can define dynamic meeting layouts for video callers. A dynamic meeting layout changes automatically as participants join or leave the meeting.

Procedure

- Step 1** Select **Configuration**.
- Step 2** Select **Conferences**.
- Step 3** Locate the Conference Control section.
- Step 4** Select **More**.
- Step 5** Select a set of dynamic layouts from the **Select a set of dynamic layouts for all services** field.
- Enlarged main view—Selects a set of layouts in which the main video frame is the largest frame in the display.
 - Same-sized view—Selects a set of layouts in which all video frames are the same size.
 - Customized set—Enables you to create your own set from the available layouts.
You can change the layouts included in your customized set via the Change link.
- Step 6** Select **Apply**.
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How to Manage Services on the Cisco Unified Videoconferencing 5100 MCU

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Services Overview

A service can be regarded as a conference template. A service is the mechanism that defines the qualities and capabilities of a conference. A service is identified by its prefix. The service prefix number is incorporated into the conference ID to specify the service for the conference. A description of the service indicates the main attributes of the service or the target use for the service.

The MCU comes with several predefined services: one service for the SCCP protocol, one service for Cisco Unified MeetingPlace, and the remainder for audio and video conferencing. The predefined services are factory tuned to be suitable in most cases for audio and video calls. We recommend starting with these services and modifying them as necessary to suit your needs.

When using an SCCP service the following limitations apply:

- No support for presentation view (H.239)
- No support for T.120 data collaboration
- No support for H.235 encryption
- Maximum resolution supported is CIF
- Maximum call rate supported is 768 Kbps
- The G.722.1 and G.723 audio codecs are not available
- No support for conference PINs
- No support for dial out

Creating a New Service

A new service has default settings which are suitable for most conferences and usually no further configuration is needed.

Procedure

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- Step 1** Select **Configuration**.
- Step 2** Select **Conferences**.
- Step 3** Locate the Services list section.
- Step 4** Select **Add new service**.
- Step 5** Enter a prefix for the service and a description of the service in free text.



Note The service prefix is used as part of the dialing plan of your enterprise. Ensure that the prefix does not conflict with other prefixes used in your network.

- Step 6** (Optional) Select **Audio only** to force the conference to be audio-only.
- Step 7** (Optional) Select **SCCP service** to enable the conference to support the SCCP protocol.
- Step 8** (Optional) Select **Display welcome screen** and enter your text in the welcome screen window.
- Step 9** (Optional) Enter the string \$DESC to display the conference description in the welcome screen.
You define the conference description in the Conference Control web user interface at Create Conference > Conference Description.
If you do not define a conference description, the \$DESC string displays the conference ID by default.
- Step 10** (Optional) Enter the string \$ID to display the conference ID in the welcome screen.
- Step 11** Select **Apply**.
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Configuring the Auto Attendant Service

Procedure

- Step 1** Select **Configuration**.
 - Step 2** Select **Conferences**.
 - Step 3** Locate the Services list section.
 - Step 4** Select **Review** for the service you want to use as the Auto attendant service.
 - Step 5** Select the **Set as Auto attendant service** link.
 - Step 6** Select **OK**.
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Deleting a Service

Procedure

- Step 1** Select **Configuration**.
 - Step 2** Select **Conferences**.
 - Step 3** Locate the Services list section.
 - Step 4** Select the arrow in the Review column for the service that you want to delete.
 - Step 5** Select **Delete**.
 - Step 6** Select **Yes** in the message that appears.
The service is removed from the services list.
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How to Customize Services

- [Configuring the Default Layout, page 5-6](#)
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Configuring the Default Layout

Procedure

- Step 1** Select **Configuration**.
- Step 2** Select **Conferences**.
- Step 3** Locate the Services list section.
- Step 4** Locate the service that you want to modify in the Services list section or select **Add new service**.
- Step 5** Select **More**.
- Step 6** Perform these steps to enable the conference layout to change automatically as participants join or leave:
- Select **Dynamically adjusted**.
 - Select the maximum number of participants to which the conference layout expands from the **Max displayed streams** field.
 - Select **OK**.
- Step 7** Perform these steps to define a fixed layout for the conference:
- Select **Static** to define a fixed layout for the conference.
 - Select **Select**.
 - Select the required layout and select **OK**.
 - Select **OK** again.
- Step 8** Select **Apply**.
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Enabling Personal Layouts

System administrators can enable conference participants to create a personalized layout during a conference. Personalized layouts do not affect the layouts of any other conference participant. When this feature is disabled, neither the operator nor the participant can create or control personal layouts in conferences that use this service.

Procedure

- Step 1** Select **Configuration**.
- Step 2** Select **Conferences**.
- Step 3** Locate the Services list section.
- Step 4** Locate the service that you want to modify in the Services list section or select **Add new service**.
- Step 5** Select **More**.
- Step 6** Select **Enable personal layout**.
- Step 7** Select **OK**.
- Step 8** Select **Apply**.
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Displaying Participant Names

System administrators can enable conference participants with Moderator-level access to display a participant's name at the bottom of each sub-frame when the conference starts.

This feature is enabled by default.

Procedure

- Step 1** Select **Configuration**.
 - Step 2** Select **Conferences**.
 - Step 3** Locate the Services list section.
 - Step 4** Locate the service that you want to modify in the Services list section or select **Add new service**.
 - Step 5** Select **More**.
 - Step 6** Select **Display participants names**.
 - Step 7** (Optional) Select **Constantly** to display the participant name continuously.
 - Step 8** (Optional) Select **On location changes for** and an interval in seconds to continue to display the participant name after the location of the participant video frame changes during a conference.
 - Step 9** Select **OK**.
 - Step 10** Select **Apply**.
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Configuring Presentation View

You can configure a service to support presentation view (H.239).

Procedure

- Step 1** Select **Configuration**.
 - Step 2** Select **Conferences**.
 - Step 3** Locate the Services list section.
 - Step 4** Locate the service that you want to modify in the Services list section or select **Add new service**.
 - Step 5** Select **More**.
 - Step 6** Select **Enable presentation view** and a presentation video codec.
 - Step 7** Select **OK**.
 - Step 8** Select **Apply**.
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Configuring Encryption Support

Restrictions

The MCU supports encrypted calls over IP networks. You can configure the service to be encrypted and the encryption mode required.

Encryption configuration options are not available for SCCP services.

The encryption conforms to the H.235 standard and supports the AES encryption algorithm with an encryption key of 128 bits.

Encryption on the MCU can operate in one of the following modes:

- Disabled—No encryption. The supported capability for this mode is Priority 1: no encryption.
- Best effort—This mode implements a “best effort” encryption algorithm. If an endpoint supports encryption, it connects with encryption. If not, it connects without encryption. The supported capabilities for this mode are AES 128 keys of lengths 512 bits or 1024 bits:
 - Priority 1: AES 128
 - Priority 2: No encryption
- Strong encryption required—This mode only allows AES 128 encrypted calls. Endpoints that do not support AES 128 are not allowed to connect. The supported capability for this mode is AES 128 keys of 1024 bits.

These channels support encryption:

- Audio channel
- Video channel
- Far End Camera Control (FECC)



Note

All channels (audio, video, FECC, incoming, and outgoing) on the same call must have the same encryption levels. If the encryption on all channels cannot be achieved, the call disconnects.

Procedure

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- Step 1** Select **Configuration**.
 - Step 2** Select **Conferences**.
 - Step 3** Locate the Services list section.
 - Step 4** Locate the service that you want to modify in the Services list section or select **Add new service**.
 - Step 5** Select **More**.
 - Step 6** Select **Encryption**.
 - Step 7** Select the type of encryption from the Encryption mode field.
 - Best effort
 - Strong encryption required
 - Step 8** Select **OK**.
 - Step 9** Select **Apply**.
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Muting Participants on Joining a Conference

Procedure

- Step 1** Select **Configuration**.
 - Step 2** Select **Conferences**.
 - Step 3** Locate the Services list section.
 - Step 4** Locate the service that you want to modify in the Services list section or select **Add new service**.
 - Step 5** Select **More**.
 - Step 6** Select **Auto mute joining participant** to instruct the MCU to initially mute all participants joining the conference.

Once the conference begins, the conference Moderator can unmute selected participants. This is useful for lectures.
 - Step 7** (Optional) Deselect **Auto mute first joining participant** to instruct the MCU to initially mute all conference participants except the first participant that joins the conference.
 - Step 8** Select **OK**.
 - Step 9** Select **Apply**.
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Automatically Reconnecting Conference Participants

You can instruct the MCU to automatically call disconnected terminals to attempt a reconnection. The MCU attempts reconnection three times.

Procedure

- Step 1** Select **Configuration**.
 - Step 2** Select **Conferences**.
 - Step 3** Locate the Services list section.
 - Step 4** Locate the service that you want to modify in the Services list section or select **Add new service**.
 - Step 5** Select **More**.
 - Step 6** Select **Automatically reconnect dropped participants**.
 - Step 7** Select **OK**.
 - Step 8** Select **Apply**.
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Configuring PIN Settings

You can define a policy for the use of PINs for accessing a conference. PINs can contain up to 32 characters.

Procedure

- Step 1** Select **Configuration**.
- Step 2** Select **Conferences**.
- Step 3** Locate the Services list section.
- Step 4** Locate the service that you want to modify in the Services list section or select **Add new service**.
- Step 5** Select **More**.
- Step 6** Select **Force conference PIN protection** if you want the user to enter a PIN when creating or entering a conference using this service.
- Step 7** Select **Ask for conference PIN on invite** if you want invitees to enter a PIN when they join a conference. Leave deselected if you want only dial-in participants to enter the conference PIN.
- Step 8** Select **OK**.
- Step 9** Select **Apply**.
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