



User Guide for Cisco Unified Videoconferencing 3500 MCU Release 5.5

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CONTENTS

CHAPTER 1

Dialing via the Cisco Unified Videoconferencing 3500 MCU 1-1

- Accessing Conferences via the Cisco Unified Videoconferencing 3500 MCU 1-1
- Making an Ad Hoc Conference Call 1-1
 - Cisco Unified Videoconferencing 3500 MCU Dialing Conventions for H.323 Endpoints 1-2
 - Cisco Unified Videoconferencing 3500 MCU Dialing Conventions for SIP Endpoints 1-3
 - Using Dialing Conventions with any IP-based Endpoint 1-5
- Controlling Conferences with DTMF 1-5

CHAPTER 2

Introducing the Conference Control Interface 2-1

- Accessing the Conference Control Interface 2-1
- Viewing Online Help from the Conference Control Window 2-2
- Cisco Unified Videoconferencing 3500 MCU Access Levels 2-2
- Conference List Window 2-3
 - Creating Conferences from the Create Conference Window 2-4
 - Terminating Conferences 2-5
 - Signing Out of the Create Conference Window 2-6
- Conference Control Interface 2-6

CHAPTER 3

Working with the Control Conference Interface 3-1

- Conference Control Interface Basics for the Cisco Unified Videoconferencing 3500 MCU 3-1
 - Accessing the Conference Control Interface 3-2
 - Refreshing the Conference Control Interface 3-2
 - Viewing Online Help from the Conference Control Interface 3-3
- Controlling Conference Settings 3-3
 - Becoming a Moderator and Stopping Moderation 3-3
 - Creating Conferences from the Conference Control Interface 3-4
 - Inviting an Operator to a Conference 3-4
 - Configuring T.120 Data Collaboration 3-4
- Configuring Participant Settings 3-5
 - Muting and Unmuting Participant Audio Connections 3-6
 - Muting or Enabling Remote Speakers 3-6
 - Reconnecting Participants 3-7
 - Blocking Conference Admission 3-7
 - Deleting Conference Participants 3-7

- Changing the Volume **3-8**
- Changing Participant Views **3-8**
- Configuring Sub-Conferences **3-9**
- Blocking the Video Stream **3-9**
- Changing a Participant Name **3-10**
- Changing Video Quality Classification **3-10**
- Viewing Participant Call Information **3-10**
- Configuring Outgoing Bandwidth Settings **3-12**
- Viewing Conference Statistics **3-13**
- Using Advanced Invitation Settings **3-13**
 - Using Quick Invites to Invite Conference Participants **3-13**
 - Inviting Participants Using Advanced Settings **3-14**
- Cascading Conferences **3-15**
 - Inviting Participants to a Cascaded Conference **3-16**
 - Viewing Participants in a Cascaded Conference **3-16**
- Defining Conference Views **3-16**
 - Enabling or Disabling Dynamic Layouts **3-17**
 - Changing Conference Layouts **3-17**
 - Displaying Participant Names in Frames **3-18**
 - Enabling or Disabling Auto-Switch Mode **3-18**
- Terminating Conferences **3-18**
- Signing Out of a Conference **3-19**



CHAPTER 1

Dialing via the Cisco Unified Videoconferencing 3500 MCU

This section describes the following topics:

- [Accessing Conferences via the Cisco Unified Videoconferencing 3500 MCU, page 1-1](#)
- [Making an Ad Hoc Conference Call, page 1-1](#)
- [Controlling Conferences with DTMF, page 1-5](#)

Accessing Conferences via the Cisco Unified Videoconferencing 3500 MCU

You can participate in video conferences hosted on the Cisco Unified Videoconferencing 3500 MCU from any phone, terminal, or endpoint on any type of network to which the MCU connects. The MCU can accept calls from H.323, Skinny Client Control Protocol (SCCP), and Session Initiation Protocol (SIP) endpoints, and with Cisco Unified Videoconferencing gateway support, from phones and terminals on networks in the same conference.

You can participate in a conference by dialing from a phone, from an endpoint application, or by using the MCU Conference Control interface.

With appropriate access rights, you can also create conferences, invite other participants and conferences, and use an extensive range of conference control features for enhancing the video conferencing experience.

Making an Ad Hoc Conference Call

All users can create or join an ad hoc (also called dial-in) conference simply by dialing the conference number. Users can invite single or multiple participants in the same operation.

Users can initiate multi-point conferences that run unattended and do not require advance configuration. Users simply dial a number and the MCU automatically sets up the conference. Anyone else who dials that number can join the conference at any time, provided that network resources are available. All that

the user requires is a suitable service number—that an Administrator supplies—to combine with a unique number for the conference. A common practice is to use the telephone extension number of the conference creator as the unique number.

Related Topics

- [Cisco Unified Videoconferencing 3500 MCU Dialing Conventions for H.323 Endpoints, page 1-2](#)
- [Cisco Unified Videoconferencing 3500 MCU Dialing Conventions for SIP Endpoints, page 1-3](#)
- [Using Dialing Conventions with any IP-based Endpoint, page 1-5](#)

Cisco Unified Videoconferencing 3500 MCU Dialing Conventions for H.323 Endpoints

This section describes the dialing conventions relating to H.323 endpoints, including the following topics:

- [Starting or Joining an Ad Hoc Conference with H.323 Endpoints, page 1-2](#)
- [Inviting Multiple H.323 Endpoints with a Single Dial String, page 1-2](#)

Starting or Joining an Ad Hoc Conference with H.323 Endpoints

To start or join an ad hoc conference with H.323 endpoints, you dial in using the conference ID number. The conference ID number is composed of a service prefix number that indicates the conference call type and capabilities and a unique number (or numbers) identifying the conference:

<Service prefix> + <Unique number>

A conference ID can consist of any combination of the characters 1-9, *, and #. It can be up to 256 characters in length.

For example, you can dial:

601234

where:

- 60 is the service prefix.
- 1234 is the unique conference number.

As soon as the MCU accepts the call, you are connected to the existing conference, or the MCU creates a new conference with this conference identifier.



Note

The MCU comes with two predefined services 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.

Inviting Multiple H.323 Endpoints with a Single Dial String

With an H.323 endpoint, you can create or join an ad hoc conference and invite single or multiple participants in the same operation using the invite sign (**). You use the invite sign to separate the called numbers in the dialed string:

<conference ID number> + <*> + <invited participant number>

For example, you can dial:

6012345678**

where:

- **601234** is the conference ID number.
- ****** is the invite sign.
- **5678** is the invited participant number.

**Note**

You can invite multiple participants in one action by using the invite sign to separate each individual participant number.

Cisco Unified Videoconferencing 3500 MCU Dialing Conventions for SIP Endpoints

You can dial to the MCU from SIP endpoints. You can also invite SIP endpoints to ad hoc conferences on the MCU when each is registered with a SIP proxy server on the IP network. The MCU domain name should be registered on a Domain Name System (DNS) or Microsoft Real Time Communications (RTC) server.

This section includes the following topics:

- [Starting or Joining Ad Hoc Conferences with SIP Endpoints, page 1-3](#)
- [Inviting Multiple SIP Endpoints with a Single Dial String, page 1-4](#)
- [Dialing into the Cisco Unified Videoconferencing 3500 MCU Configured as a SIP-compliant Endpoint, page 1-4](#)
- [Dialing into the Cisco Unified Videoconferencing 3500 MCU Configured as a Separate SIP Domain, page 1-4](#)

Starting or Joining Ad Hoc Conferences with SIP Endpoints

When starting or joining an ad hoc conference, the dialed string should contain the conference ID number and the Cisco Unified Videoconferencing 3500 MCU domain name:

`<conference ID number> @ <mcu.domain.com>`

For example, you can dial:

601234@mcu.domain name

where:

- **601234** is the conference ID number.
- **@mcu.domain.com** is the name that the DNS server resolves to a unique IP address.

Inviting Multiple SIP Endpoints with a Single Dial String

You can dial from a SIP endpoint and invite an H.323 or SIP endpoint when the inviting SIP endpoint is registered in the Cisco Unified Videoconferencing 3500 MCU domain. The Cisco Unified Videoconferencing 3500 MCU adds the default domain to the dialed string when a user name is dialed without a domain:

```
<conference ID number> + <*> + <invited SIP endpoint>
```

For example, you can dial:

```
601234**john@mcu.domain.com
```

where:

- **601234** is the conference ID number.
- ****** is the invite sign.
- **john@mcu.domain.com** is the invited participant and domain.

Dialing into the Cisco Unified Videoconferencing 3500 MCU Configured as a SIP-compliant Endpoint

Administrators can configure the MCU as a SIP-complaint endpoint. Users can start or join an ad hoc conference by dialing into this MCU from their SIP endpoint. This procedure assumes that the SIP Proxy responsible for the network is capable of routing calls according to the dialed prefix. Check with your SIP Proxy vendor for compliance.

Procedure

Step 1 Dial a conference on the MCU from a SIP endpoint by dialing the conference ID.

Step 2 Add the default domain to the dial string.

For example, dial:

```
601234@default.domain
```

where:

- **602134** is the MCU conference ID (service prefix + unique conference identifier).
 - **default.domain** is the default domain of the MCU on which the conference is hosted.
-

Dialing into the Cisco Unified Videoconferencing 3500 MCU Configured as a Separate SIP Domain

Administrators can configure the MCU as a separate SIP domain. Users can start or join an ad hoc conference by dialing into this MCU from a SIP-complaint endpoint.

Procedure

Step 1 Dial the conference ID.

Step 2 Add the unique MCU domain as defined in the proxy or Domain Name Server (DNS) server to the dial string.

For example, dial:
conference.id@mcu.domain.com

Using Dialing Conventions with any IP-based Endpoint

You can start or join an ad hoc conference from any IP-based endpoint. When dialing from an IP endpoint, configure the dialing software, IP phone, or other device with the appropriate network configuration details (H.323 gatekeeper IP address or SIP proxy IP).

Procedure

To start or join a conference with an IP endpoint, choose one of the following steps:

- Step 1** To start or join a conference, dial the conference ID number.
For example, dial 601234.
As soon as the MCU accepts the call, you connect to the existing conference or the MCU creates a new conference with this conference identifier.
–or–
- Step 2** To start or join a conference and invite a participant, dial the conference ID number followed by the invite sign (**) and the number of the participant you want to invite.
For example, dial **601234**5678**
As soon as the MCU accepts the call, you connect to the existing conference or the MCU creates a new conference with this conference identifier.
–or–
- Step 3** To start or join a conference and invite a participant on the Integrated Services Digital Network (ISDN), Public Switched Telephone Network (PSTN) or cell phone network, dial the conference ID number followed by the invite sign (**), the appropriate gateway service prefix, and the ISDN line number.
For example, dial **601234**867655001** (<Conference ID number> + <*> + <Gateway service prefix + line number>).
As soon as the MCU accepts the call, you are connected to the existing conference or a new conference is created with this conference identifier.
-

Controlling Conferences with DTMF

You can control MCU conferences using Dual Tone Multi-Frequency (DTMF) signals from your endpoint remote control or key pad.

Depending on how you set the DTMF forwarding advanced command, the MCU passes out-of-band DTMF signals to all endpoints in the conference, to gateways only or does not pass DTMF signals.

The gateway inserts in-band signals on receiving the DTMF from the MCU. The audio bridge receives these in-band signals and responds accordingly.

[Table 1-1](#) shows available DTMF control signals.

Table 1-1 *DTMF Controls*

During a conference press * followed by:	
*	Listen to available options.
1	Become Moderator/stop moderating.
2	Mute/unmute your line.
3	Control your volume.
6	Change the video layout for the conference.
7	Block/unblock admission to conference (for Moderator-level users only).
8	Invite a new participant (for Moderator-level users only).
9	Mute/unmute all participants (for Moderator-level users only).
#	Exit this menu.



CHAPTER 2

Introducing the Conference Control Interface

This section describes the following topics:

- [Accessing the Conference Control Interface, page 2-1](#)
- [Viewing Online Help from the Conference Control Window, page 2-2](#)
- [Cisco Unified Videoconferencing 3500 MCU Access Levels, page 2-2](#)
- [Conference List Window, page 2-3](#)
- [Conference Control Interface, page 2-6](#)

Accessing the Conference Control Interface

All users can access the Cisco Unified Videoconferencing 3500 MCU Conference Control interface.

Procedure

- Step 1** Launch your browser and enter the IP address of the MCU.
The MCU access window appears.
- Step 2** Perform one of the following actions:
- To monitor a conference, follow these steps:
 - In the Conference ID field, enter the number of the conference you want to monitor.
 - In the Password field, enter the PIN for the conference you want to monitor.
 - Click **Go**.
 - To create a new conference, click **Create conference**.
 - To sign in with Operator or Administrator authorization, click **Sign in**.
-

Viewing Online Help from the Conference Control Window

You can view online help about the Create Conference window.

Procedure

-
- Step 1** Access the Create Conference window.
- Step 2** On the control bar, click **Help**.
-

Related Topics

- [Conference Control Interface, page 2-6](#)

Cisco Unified Videoconferencing 3500 MCU Access Levels

There are four ways to interact with the MCU user interfaces according to the following access levels:

- Administrator
- Operator
- Moderator
- User

[Table 2-1](#) describes each access level.

Table 2-1 *MCU Access Levels*

Access Level	Privileges
Administrator	<ul style="list-style-type: none"> • Full access to the MCU Administrator interface. • Full Operator-level access to the Conference Control interface.
Operator	<ul style="list-style-type: none"> • Access to the Conference Control interface using the Create Conference window. • Access to view details of all conferences hosted on the MCU and to cascaded conferences hosted on participating MCUs. • Ability to create a new conference from the Conference Control access window, the Create Conference window, or the Conference Control interface. • Moderator-level access to all conferences while moderator controls are simultaneously held by other users. • Ability to invite other participants to a conference.

Table 2-1 MCU Access Levels (continued)

Access Level	Privileges
Moderator	<ul style="list-style-type: none"> • Access to view conference details of conferences hosted on the MCU and to cascaded conferences hosted on participating MCUs for which access authorization is granted. • Moderator-level access to conferences when the user has a valid Moderator PIN or no other user is a Moderator • Ability to invite other participants to a conference.
User	<ul style="list-style-type: none"> • View-only access to conferences hosted on the MCU for which authorization is granted. • Ability to invite other participants to a conference.

Conference List Window

All users can access the Conference List window where they can join an existing conference or create a new conference. Administrator or Operator-level users can use the Conference List window to select conferences to monitor and control from the list of conferences currently running, or create a new conference.

The number of currently-running conferences appears in the Number of Conferences field. The Conference List window displays information about each conference in a table format with the following columns:

- **Conference ID**—Conference ID number. Each ID number is a hyperlink that you can select to display the Conference Control interface for that conference.
- **Description**—Description of the conference entered by the user who created it.
- **Participants**—The number of participants currently attending the conference.
- **Media Types**—Icons indicate the type of media supported by the conference: voice, video and data.
- **Encryption**—Indicates the level of encryption currently in use for the conference: best effort, encryption required, or strong encryption required.
- **Actions**—Indicates the actions that can be taken.

Creating Conferences from the Create Conference Window

Users with Moderator-level access or Administrators can create a conference using available predefined services in the Create Conference window. Such users can also optionally set a PIN for accessing the new conference and a Moderator PIN for moderation of the new conference.

Table 2-2 list the elements in the Create Conference window.

Table 2-2 Create Conference Window Elements

Number	Description
1	Help button
2	Sign out button
3	Cancel button
4	Advanced button
5	Create button

Before You Begin

Have an Administrator configure MCU services if there are not already existing ones.

Procedure

-
- Step 1** Launch your browser and enter the IP address of the MCU.
The MCU access window appears.
- Step 2** Click **Create conference**.
The Create Conference window appears, displaying available pre-configured service prefixes and their descriptions.
- Step 3** Choose a service prefix from the list of pre-configured ones.
The prefix appears in the Prefix field.
- Step 4** In the Unique Number field, enter a number for this conference.



Note You cannot use an existing conference number.

- Step 5** (Optional) In the Conference PIN field, enter a PIN used for accessing the conference.
- Step 6** (Optional) In the Moderator PIN field, enter a PIN used for moderating the new conference.



Note You can also configure a default Moderator PIN for a service profile in the Administrator interface.

- Step 7** (Optional) In the Conference Description field, you can enter text describing the conference that appears in the Create Conference window.
- Step 8** (Optional) You can configure additional settings for a new conference such as conference duration, time-out, and dialing policy settings:
- Click **Advanced**.
 - The Advanced Features dialog box appears.
 - (Optional) In the Conference Duration section, click **Unlimited** or **Min** and set time limitation (in minutes) for the conference.
 - (Optional) Select **Terminate Conference when empty** to end a conference after it is vacant for the number of minutes you enter in the field in this setting.
 - (Optional) Select **Disallow dial-in to the conference** to prevent participants dialing in to the conference. Attendance is thus by invitation only. This ensures that users dialing the wrong number do not join this conference by mistake.
 - Click **OK**.
- Step 9** Click **Create**.



Note If an error appears, stating that no resources are available, check whether the MCU or the appropriate EMP is registered or online in the Media Processing tab in the Administrator interface.

Terminating Conferences

You can disconnect an inactive or unused conference in the Create Conference window.

Procedure

- Step 1** Access the Create Conference window.
- Step 2** Click **Terminate Conference** (11 in [Table 2-2 on page 2-7](#)) next to the conference name to end the conference.

Signing Out of the Create Conference Window

You can exit the Create Conference window by clicking the **Sign out** button.

Procedure

-
- Step 1** Access the Create Conference window.
- Step 2** On the control bar, click **Sign out**.
-

Conference Control Interface

From the MCU Conference Control interface, you can:

- View active conferences hosted on the MCUs.
- View conference participant details.
- Create conferences.
- Control conference connections.
- Monitor and manage conference behavior.

While all users can view the Conference Control interface, access to conference management features is controlled by authorization access levels: Administrator, Operator, Moderator and User.



Note

The Conference Control interface is best viewed in full screen mode (1024 x 768 fps).



Note

You can view multiple Conference Control interface browser windows at the same time to monitor different conferences. We recommend, however, that you close windows you are not currently viewing to avoid confusion and carrying out operations in the wrong conference.

[Figure 2-1](#) shows the Conference Control interface.

[Figure 2-2](#) to [Figure 2-5](#) show the elements of the Conference Control interface in more detail.

[Table 2-3](#) on page 2-9 lists these elements in numerical order of the labels in [Figure 2-2](#) to [Figure 2-5](#).

[Table 2-4](#) on page 2-12 lists these elements in alphabetical order.

Figure 2-1 Conference Control Interface Elements

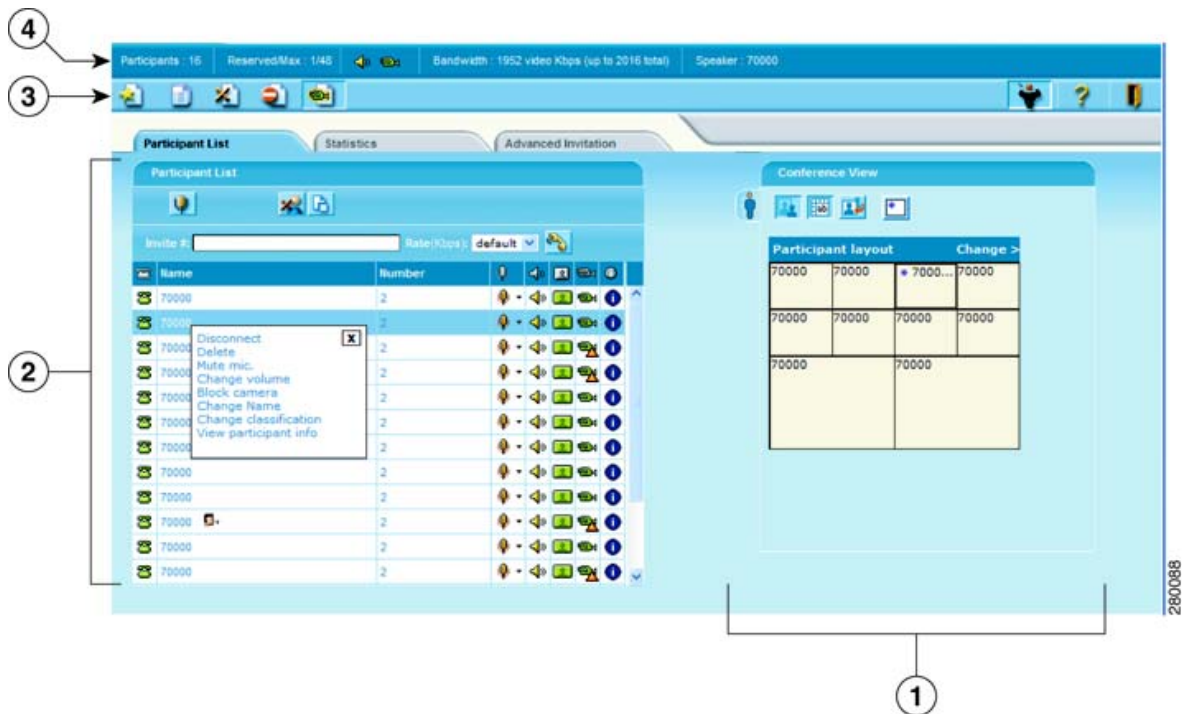


Figure 2-2 Conference Control Status Bar

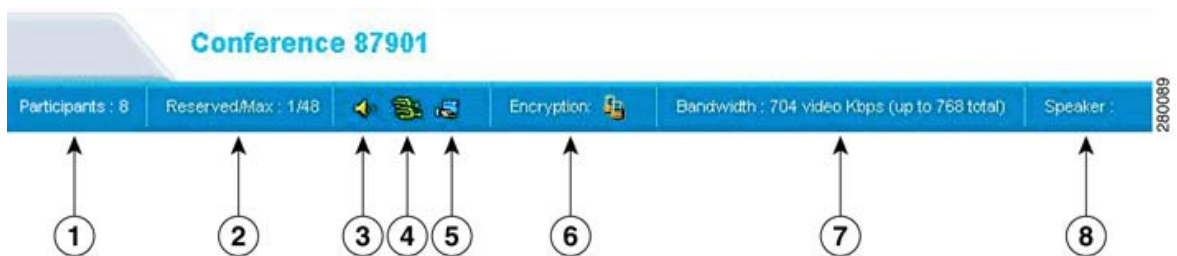


Figure 2-3 Conference Control Toolbar



Figure 2-5 Conference Control Conference View

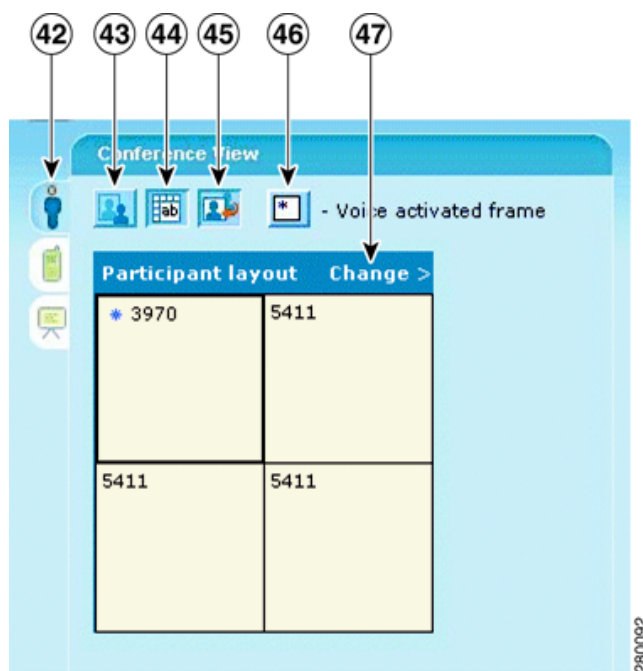


Table 2-3 Conference Control Interface Elements by Number

Numbered Label	Description
Status Bar	
1	Participants field. Displays number of participants in the current conference.
2	Reserved/Max field. Displays the reserved number of participants and maximum number of participants for this conference.
3	Media type icon indicating that this conference supports voice. An error symbol appears if a media processing error occurs in the MCU.
4	Media type icon indicating that this conference supports video. An error symbol appears if a media processing error occurs in the MCU.
5	Media type icon indicating that this conference supports T.120 data sharing.
6	Encryption field. Displays the level of encryption for this conference: best effort, encryption required or strong encryption required.
7	Bandwidth field. Displays the bandwidth the current conference is using.
8	Speaker field. Displays the participant currently speaking in the conference.
Toolbar	
9	Create Conference button.
10	View Conference List button. Click to view the Create Conference window. See the “Conference List Window” section on page 2-3 for more information.
11	Terminate Conference button.
12	Conference Admission button.

Table 2-3 Conference Control Interface Elements by Number (continued)

Numbered Label	Description
13	Enable/Disable QualiVision button. Select to enable or disable the Cisco QualiVision feature for improved video quality.
14	Operator tab. Click the icon in the tab to invite the operator to join the conference to answer queries and provide support. The operator E.164 number is pre-configured by the network administrator under Settings > Basics > Operator.
15	Operator button.
16	Join data conference (Data Sharing) button.
17	Become Moderator/Stop Moderating button.
18	Help button.
19	Sign out button.
Participant List Tab	
20	Participant List tab.
21	Mute/Unmute button.
22	Change Participant View button.
23	Invite # field. Enter the number of the participant you wish to invite to the conference. You can invite multiple participants at the same time by separating each number with the invite sign (**). The invite sign is configurable. For more information, see the “Using Quick Invites to Invite Conference Participants” section on page 3-13 .
24	Delete Participant button.
25	Move participants to sub-conference button. Click to view the Select sub-conference dialog box. See the “Configuring Sub-Conferences” section on page 3-9 for more information.
26	Statistics tab.
27	Rate(Kbps) field.
28	Invite button. Click to invite the number entered in the Invite # field (23).
29	Advanced Invitation tab.
30	Participant info column. Click the icon
31	Encryption column. Displays the level of encryption that the endpoints require: best effort, encryption required, or strong encryption required.
32	T.120 data sharing column. Indicates that the participant supports T.120 data sharing.
33	Video Image column. <ul style="list-style-type: none"> Displays video image icons that indicate whether the video stream from the participant to the MCU is enabled or blocked. If the video image icon has a star, then QualiVision is enabled for the video stream from the participant to the MCU. Displays video quality warning icons—medium or poor video quality—that indicate the current quality of the IP network video connection for the participant.

Table 2-3 Conference Control Interface Elements by Number (continued)

Numbered Label	Description
34	Video Display column. <ul style="list-style-type: none"> Displays video display icons that indicate whether the conference video display sent to the participants is enabled or blocked. If the video display icon has a star, then QualiVision is enabled for the video stream from the MCU to the participant. Displays video quality warning icons—medium or poor video quality—that indicate the current quality of the IP network video connection for the participant. Different icons used to indicate standard definition and high definition participants.
35	Audio Out column. Displays Audio Out icons that indicate whether the conference audio connections to the participants are enabled or muted.
36	Audio In column. <ul style="list-style-type: none"> Displays Mute icons for participants whose audio is not muted and Unmute icons for participants whose audio is muted. These icons are clickable by Moderator to mute/unmute audio channel of remote speakers of a participant. Icon indicates the active speaker.
37	Location in View column. Indicates the conference view displayed to the participants. <p>Note High definition participants see only the participant layout.</p>
38	Number column. Displays the endpoint numbers of the conference participants.
39	Actions pop-up
40	Name column. Displays the names of the endpoint.
41	Participant connection status icons: Connected, Disconnecting or Disconnected.
Conference View	
42	Layout display frame.
43	Enable self-see button. Click to enable the self-see feature. <p>Note No Self-See available for HD endpoints.</p>
44	Display participants name in frame button. Click to display the name of endpoints or participants in specific positions of the video layout frame.
45	Auto-switch button. The auto-switch mode displays all the participants of a large conference in Continuous Presence (CP) mode display in the video layout on a rotating basis.
46	Voice activated frame button. Drag and drop the icon to the preferred position of the voice-activated image in the video display layout.
47	Change button. Select to display a list of layouts available in the current conference. Select the required layout. The conference view layout adjusts according to your selection. For more information, see the “Changing Conference Layouts” section on page 3-17.

Table 2-4 *Conference Control Interface Elements by Name*

Description	Numbered Label
Actions pop-up.	39
Advanced Invitation tab.	29
Audio In column. Displays Mute icons for participants whose audio is not muted and Unmute icons for participants whose audio is muted. Indicates active speaker.	36
Audio Out column. Displays Audio Out icons that indicate whether the conference audio connections to the participants are enabled or muted.	35
Auto-switch button. The auto-switch mode displays all the participants of a large conference in Continuous Presence (CP) mode display in the video layout on a rotating basis.	45
Bandwidth field. Displays the bandwidth the current conference is using.	7
Change button. Select to display a list of layouts available in the current conference. Select the required layout. The conference view layout adjusts according to your selection. For more information, see the “Changing Conference Layouts” section on page 3-17.	47
Change Participant View button.	22
Conference Admission button.	12
Create Conference button.	9
Delete Participant button.	24
Display participants name in frame button. Click to display the name of endpoints or participants in specific positions of the video layout frame.	44
Enable self-see button. Click to enable the self-see feature.	43
Encryption column. Displays the level of encryption that the endpoints require: best effort, encryption required or strong encryption required.	31
Encryption field. Displays the level of encryption for this conference: best effort, encryption required or strong encryption required.	6
Help button.	18
Invite button. Click to invite the number entered in the Invite # field.	28
Invite # field. Enter the number of the participant you wish to invite to the conference. You can invite multiple participants at the same time by separating each number with the invite sign (**). The invite sign is configurable. For more information, see the “Using Quick Invites to Invite Conference Participants” section on page 3-13.	23
Join data conference (Data Sharing) button.	16
Layout display frame.	42
Location in View column. Indicates the conference view displayed to the participants.	37
Media type icon indicating that this conference supports video.	4
Media type icon indicating that this conference supports voice.	3

Table 2-4 Conference Control Interface Elements by Name (continued)

Description	Numbered Label
Mute/Unmute button.	21
Name column. Displays the names of the endpoint.	40
Number column. Displays the endpoint numbers of the conference participants.	38
Operator button. Select the icon to invite the operator to join the conference to answer queries and provide support. The operator number is pre-configured by the network administrator.	14, 15
Participant connection status icons: Connected, Disconnecting or Disconnected.	41
Participants field. Displays number of participants in the current conference.	1
QualiVision button. Select to enable or disable the Cisco QualiVision feature for improved video quality.	13
Rate(Kbps) field.	27
Reserved/Max field. Displays the reserved number of participants and maximum number of participants for this conference.	2
Sign out button.	19
Speaker field. Displays the participant currently speaking in the conference.	8
Statistics tab.	26
Move participants to sub-conference button. Click to view the Select sub-conference dialog box. See the “Configuring Sub-Conferences” section on page 3-9 for more information.	25
T.120 data sharing column. Indicates that the participant supports T.120 data sharing.	32
T.120 data sharing icon. Indicates that the conference supports T.120 data sharing.	5
Become Moderator /Stop Moderating button.	17
Terminate Conference button.	11
Voice activated frame button. Drag and drop the icon to the preferred position of the voice-activated image in the video display layout.	46
Video Display column. Displays Video Display icons that indicate whether the conference video display sent to the participants is enabled or blocked. If the Video Display icon has a star, then QualiVision is enabled for the video stream from the MCU to the participant.	34
Video Image column. Displays Video Image icons that indicate whether the video stream from the participant to the MCU is enabled or blocked. If the Video Image icon has a star, then QualiVision is enabled for the video stream from the participant to the MCU.	33

Table 2-4 *Conference Control Interface Elements by Name (continued)*

Description	Numbered Label
View Conference List button. Click to view the Create Conference window. See the “Conference List Window” section on page 2-3 for more information.	10
Voice activated frame button. Drag and drop the icon to the preferred position of the voice-activated image in the video display layout.	46



CHAPTER 3

Working with the Control Conference Interface

This section describes the following topics:

- [Conference Control Interface Basics for the Cisco Unified Videoconferencing 3500 MCU, page 3-1](#)
- [Controlling Conference Settings, page 3-3](#)
- [Configuring Participant Settings, page 3-5](#)
- [Viewing Conference Statistics, page 3-13](#)
- [Using Advanced Invitation Settings, page 3-13](#)
- [Cascading Conferences, page 3-15](#)
- [Defining Conference Views, page 3-16](#)
- [Terminating Conferences, page 3-18](#)
- [Signing Out of a Conference, page 3-19](#)

Conference Control Interface Basics for the Cisco Unified Videoconferencing 3500 MCU

The following sections describe the tasks that users with appropriate access levels can perform in the Conference Control interface:

- [Accessing the Conference Control Interface, page 3-2](#)
- [Refreshing the Conference Control Interface, page 3-2](#)
- [Viewing Online Help from the Conference Control Interface, page 3-3](#)
- [Controlling Conference Settings, page 3-3](#)
- [Creating Conferences from the Conference Control Interface, page 3-4](#)
- [Inviting an Operator to a Conference, page 3-4](#)
- [Configuring T.120 Data Collaboration, page 3-4](#)

Accessing the Conference Control Interface

You can access the Conference Control interface from any Java-enabled web browser.

Procedure

Step 1 Access the MCU interface.



Note The Conference Control interface is best viewed in full screen mode (1024 x 768 fps).

Step 2 Click **Enter a conference**.

The MCU Conference Control access window appears.

Step 3 Choose one of the following two methods.

- To access an existing conference:
 - In the Conference ID field, enter the conference ID.
 - In the Conference PIN field, enter the PIN, if applicable.
 - Click **Go**.

–or–

- To create a new conference:
 - Click **Create Conference**.
 - The Create Conference window appears.
 - Choose a service prefix from the list of pre-configured services.
 - In the Unique Number field, enter a unique number for the conference.



Note You cannot use a number already in use by another conference.

- Click **Create**.

Refreshing the Conference Control Interface

By default, the Conference Control interface refreshes itself every 10 seconds to provide updated information. To refresh information instantly, click the tab in the interface that you are viewing. You can configure the refresh interval by using the Conference control Web refresh interval advanced command.



Note Do not click **Refresh** in your web browser. This closes the Conference Control interface and returns you to the access window.

For Microsoft Windows systems, if you have enabled the Start Navigation sound, and a continuous clicking sound is heard when the Conference Control interface automatically refreshes, disable this setting in the Sounds and Multimedia section of the Control Panel.

Viewing Online Help from the Conference Control Interface

You can view help information for a selected tab in the Conference Control interface.

Procedure

-
- Step 1** In the Conference Control interface, click the tab you want to view help information for:
- Participant List
 - Statistics
 - Advanced Invitation.
- Step 2** Click **Help**.
-

Controlling Conference Settings

With Moderator-level access, for conferences already in progress, you can control conference activity and initiate events such as inviting participants. When you are a Moderator, you can edit participant connections, create new conferences, and audio sub-conferences, and change video layout and the position of participant images. You can block conference admission, block audio and video streams, and terminate the conference. You can split the existing conference and transfer some participants to the new conference. Moderator-level access also provides additional viewing and configuration options in the Conference Control interface.

The following sections describe the tasks that users with appropriate access levels can perform to control conference activities in the Conference Control interface:

- [Becoming a Moderator and Stopping Moderation, page 3-3](#)
- [Creating Conferences from the Conference Control Interface, page 3-4](#)
- [Inviting an Operator to a Conference, page 3-4](#)
- [Configuring T.120 Data Collaboration, page 3-4](#)

Becoming a Moderator and Stopping Moderation

Moderator access can be PIN-protected. Administrators and Operators can jointly be Moderators simultaneously.

Procedure

-
- Step 1** In the Conference Control interface, click **Become Moderator** to take control of that conference.
- Step 2** A dialog box requesting a PIN might appear if Moderator access is PIN-protected. Enter the PIN.
- Step 3** To release control of the conference, click **Stop Moderation**.
-

Creating Conferences from the Conference Control Interface

Moderators, Operators, and Administrators can create a new conference from the Conference Control interface.

Procedure

-
- Step 1** In the Conference Control interface, click **Create Conference**.
 - Step 2** Follow the steps in the [“Creating Conferences from the Create Conference Window”](#) section on page 2-4.
-

Inviting an Operator to a Conference

Users with Moderator-level access can invite an Operator to join a conference to answer questions and provide support. An Administrator pre-configures the Operator number.



Note

If an Operator is not pre-configured by an Administrator, the call to the Operator does not connect.

Procedure

-
- Step 1** Access the Conference Control interface.
 - Step 2** Click **Operator**.
- The Operator appears in the Participant List.
-

Configuring T.120 Data Collaboration

From the Conference Control interface, users with Moderator-level access can open a T.120 data sharing session in Microsoft NetMeeting or join a session if one already exists for the conference. T.120 data collaboration over the video conference connection enhances the conference by providing data-sharing tools. Participants in a T.120 data collaboration video conference can simultaneously view diagrams, graphic presentations, and slide lectures. In addition, private text chats, white board exchanges, or rapid file transfers can occur while the video conference proceeds.

Users with Moderator-level access can set up a T.120 data conference in the Conference Control interface.

Procedure

-
- Step 1** Access the Conference Control interface.
 - Step 2** Click **Join Data Conference**.
-

Configuring Participant Settings

The Participant List tab in the Conference Control interface contains the following sections:

- Participant List section, which displays information about conference participants. Users with Moderator-level access can view and edit media connections for each participant. [Table 3-1](#) describes the information that appears in the Participants List section.
- Conference Views section, which displays information about the conference layout and view.

[Table 3-1 on page 3-5](#) lists the elements that appear in the Participants List section.

Table 3-1 *Participants List Section Columns*

Numbered Label	Column	Description
41	Status	Displays status icons for the connection status of each conference participant. <ul style="list-style-type: none"> • Disconnected participants remain in the Participant List for the duration of the conference, enabling you to reconnect participants without sending repeat invitations. • You can rearrange the list of participants in the Participant List by clicking the icon in the title of this column. • Icon indicates that the MCU invited the specified participant.
40	Name	The name of the conference participant.
38	Number	The participant's endpoint number.
37	Change Participant View	Indicates the conference view that appears to the participant. When the conference is configured with more than one view, you can choose available views from a list.
36	Audio In	<ul style="list-style-type: none"> • Indicates whether the voice of the selected participant is muted or enabled. • The current speaker indication icon that indicates that the specified participant is currently the active speaker.
35	Audio Out	Indicates whether the conference audio connection is muted or enabled.
34	Video Display	Indicates whether the conference video display sent to the participant is blocked or unblocked. If the icon contains a star, then QualiVision is enabled for the video stream from the MCU to the participant.
33	Video Image	Indicates whether the video stream that the participant is sending to the conference is blocked or unblocked.
32	Data Sharing	Indicates that the participant supports T.120 data sharing.

The following sections describe the tasks that users with appropriate access level can perform in the Participant List tab:

- [Muting and Unmuting Participant Audio Connections, page 3-6](#)
- [Reconnecting Participants, page 3-7](#)
- [Blocking Conference Admission, page 3-7](#)
- [Deleting Conference Participants, page 3-7](#)
- [Changing the Volume, page 3-8](#)
- [Changing Participant Views, page 3-8](#)
- [Configuring Sub-Conferences, page 3-9](#)
- [Blocking the Video Stream, page 3-9](#)
- [Changing a Participant Name, page 3-10](#)
- [Changing Video Quality Classification, page 3-10](#)
- [Viewing Participant Call Information, page 3-10](#)
- [Configuring Outgoing Bandwidth Settings, page 3-12](#)

Muting and Unmuting Participant Audio Connections

In the Participant List tab, users with Moderator-level access can mute or enable the audio connection to the conference of all participants in the conference.

Procedure

- Step 1** Access the Conference Control interface.
- Step 2** On the control bar, click **Mute** to mute all participants or **Unmute** to enable the audio connection for all participants.
-

Users with Moderator-level access can also mute or enable the audio connection of an individual participant in a conference.

Procedure

- Step 1** In the Participants List section, select a participant.
- Step 2** Right click and select **Mute mic** from the pop-up.
-

Muting or Enabling Remote Speakers

Users with Moderator-level access can mute or enable the remote speakers for the conference.

Procedure

- Step 1** In the Participants List section, select a participant.

- Step 2** Right click and select Mute speaker from the pop-up.
-

Reconnecting Participants

If participants are disconnected from a conference, users with Moderator-level access can reconnect them in the Participant List tab.



Note

When the Enable auto-reconnect option is configured in the conference service, then the MCU automatically calls disconnected terminals to attempt a reconnection.

Procedure

- Step 1** Access the Participant List tab.
- Step 2** Click **Disconnect** to attempt a reconnection.
-

Blocking Conference Admission

Users with Moderator-level access can block the admission of additional participants in a conference in the Conference Control interface.

Procedure

- Step 1** Access the control bar.
- Step 2** Click **Conference Admission**.
- No further participants can join the conference. To readmit participants, click **Conference Admission** again.
-

Deleting Conference Participants

In the Participant List tab, users with Moderator-level access can remove participants from conferences.

Procedure

- Step 1** In the Participants List section, click the participant you want to remove.
- Step 2** On the control bar, click **Delete Participant**.
- or–
- Step 3** In the Participants List section, select a participant.

- Step 4** Right click and select **View participant info** from the pop-up.
-

Changing the Volume

In the Conference Control interface, users with Moderator-level access can control the volume of participating endpoints (manual gain control) in a conference. For a regular conference, your setting only affects the location that is connected to a specific MCU port. In a cascaded conference, changing this setting affects all remote participants on other MCUs. Once you change this setting, the new setting remains in effect until that endpoint leaves the MCU.

Procedure

- Step 1** In the Participant List tab, select the participant whose volume you want to change.
- Step 2** Right click and select **Change volume** from the pop-up.
- Step 3** The gain control scroll bar dialog box appears, with a gain span of -5 to +5.
- Step 4** Drag the scroll bar to the right to increase the gain; drag the slide bar to the left to decrease the gain.
- Step 5** Close the gain control slide bar dialog box.
-

Changing Participant Views

In the Participant List tab, if a conference supports multiple views, users with Moderator-level access can change the conference view layout for an individual conference participant or all conference participants while the conference is in progress.



- Note** Multiple view are not available to high definition participants. High definition participants can only see the main participant layout.
-

Procedure

- Step 1** If you wish to change the conference view for specific conference participants only, select those participant(s) in the Participant List table.
- Step 2** Click **Change Participants View**.
- Step 3** Select **Selected Participants** to change the conference view layout for the conference participants you selected in [Step 1](#),
 –or–
 Select **All** to change the conference view layout for all conference participants.
- Step 4** Click **OK**.
-

Configuring Sub-Conferences

In the Participant List tab, users with Moderator-level access can create a sub-conference within a conference. The MCU supports audio sub-conferences to which the Moderator can divert selected participants in the existing conference to a private audio sub-conference session. The connection to the main conference remains active.

**Note**

The MCU can support up to three sub-conferences per conference according to the service configuration.

The MCU hides sub-conference session participants from the other participants in the video layout. They can return to the conference at any time and reoccupy any previously held positions in the main conference video display. While in a sub-conference, participants can continue viewing and hearing the main conference.

**Note**

This option is available only when a conference is configured to support sub-conferences

Procedure

Step 1 In the Participant List tab, select the required participant.

Step 2 Right click and select **Move to sub-conference** from the pop-up.

The Select sub-conference dialog box appears.

Step 3 From the list, select the required sub-conference.

Step 4 Click **Ok**.

A new Sub-conf column appears in the Participant List with a list of all available sub-conferences for that participant.

Step 5 In the Sub-conf column, select a sub-conference for that participant.

Step 6 To return the participant to the main conference, in the Sub-conf list, select **Main**.

When all participants return to the main conference and none remain in the sub-conference, the Sub-conf column disappears from the Participant List.

Blocking the Video Stream

In the Participant List tab, users with Moderator-level access can block the video stream sent by a participant to a conference. For example, a participant video connection might affect conference processing and degrade performance. You can block the participant's video until problems at the participant's endpoint are resolved.

Procedure

Step 1 In the Participant List tab, select the participant that you want to block.

Step 2 Right click and select **Block camera** from the pop-up

–or–

Click **Video Image**.

Changing a Participant Name

In the Participant List tab, users with Moderator-level access can change the name of conference participants.

Procedure

- Step 1** In the Participant List tab, select the participant whose name you want to change.
 - Step 2** Right click and select **Change Name** from the pop-up.
The Change Name dialog box appears.
 - Step 3** In the Change name field, enter the new name.
 - Step 4** Click **OK**.
-

Changing Video Quality Classification

In the Participant List tab, users with Moderator-level access can change the video quality classification associated with a conference participant.

Procedure

- Step 1** In the Participant List tab, select the required participant.
 - Step 2** Right click and select **Change classification** from the pop-up see pop-up.
The Video Quality Classification dialog box appears.
 - Step 3** In the Change to class field, select the new video quality classification.
 - Step 4** Click **OK**.
-

Viewing Participant Call Information

Users with Moderator-level access, can view a comprehensive set of participant call statistical information.

Procedure

- Step 1** In the Participant List tab, select the required participant.
- Step 2** Right click and select **View participant info** from the pop-up see pop-up.
–or–

- Step 3** Click the information icon in the **Participants List** section for the selected participant. The Call Information dialog box for the specified participant appears.

Table 3-2 lists the statistics displayed.

Table 3-2 Participant Information Statistics

Group	Field	Description
Endpoint Information	Type	Participant endpoint type.
	IP address	Participant endpoint IP address.
	Description	Participant description (displays the endpoint vendor identifier, if available).
	Connect time	Time at which the participant connected to the conference.
Basic Call Information		
Audio	Audio Codec	Audio codecs sent to and received by the participant.
	Audio rate	Total audio bandwidth sent and received by the participant.
	Audio Packets loss count	Total lost audio packets sent to and received by the participant.
	Audio Jitter (curr/min/max)	Accumulated audio packets sent to and received from the participant. Includes the current value and average values for the minimum and maximum number of packets sent to and received from the participant.
Video	Video codec	Video codecs sent to and received by the participant.
	Video resolution	Picture size of video sent and received by the participant.
	Video frame rate	Frame rate of video sent to and received by the participant.
	Video rate	Total video bandwidth sent and received by the participant.
	Video packets loss count	Total lost video packets sent to and received by the participant.
	Video jitter (curr/min/max)	Accumulated video packets sent to and received from the participant. Includes the current value and average values for the minimum and maximum number of packets sent to and received from the participant.
	2nd video codec	The second video codec sent to and received by the participant (if used).

Table 3-2 Participant Information Statistics (continued)

Group	Field	Description
Data	Data protocol	Indicates whether or not the protocol is used if the participant is participating in data sharing.
Advanced Call Information		
Audio	Audio out of order packets count	Total audio packets sent to and received from the participant out of sequence.
	Audio packets count	Total audio packets sent and received by the participant.
	Audio bytes count	Total audio bytes sent and received by the participant.
	Audio IP address	IP address and port to which audio is sent to the participant.
Video	Video out of order packets count	Total video packets sent to and received from the participant out of sequence.
	Video fast update requests count	Total Video Fast Update (VFU) requests sent and received by the participant.
	Video packets count	Total video packets sent and received by the participant.
	Video bytes count	Total video packets sent and received by the participant.
	Video IP address	IP address and port to which video is sent to the participant.
	Qualivision state	Encryption level used.
Data	Data IP address (Local/Remote)	IP address of the participant data sharing terminal.
	FECC	Indicates whether or not Far End Camera Control is in use.

Configuring Outgoing Bandwidth Settings

Users with Moderator-level access can also configure the bandwidth rate at which they invite other participants to the conference.

Procedure

-
- Step 1** In the **Participant List** tab
- Enter the name of the participant being invited in the Invite field.
 - Select the required bandwidth in the Rate(Kbps) field.
 - Click **Invite**.

–or–

- Step 2** In the Advanced Invitation tab,
- Enter the name of the participant being invited in the Invite field.
 - Select the required bandwidth in the Kbps field.
 - Click **Invite**.
-

Viewing Conference Statistics

Users with Moderator-level access, can view a comprehensive set of statistical information in the Statistics tab. Statistics frequently update automatically and enable you to monitor conference performance.

Procedure

- Step 1** In the **Participants List** section, click **Statistics** to view conference statistics.
- Step 2** Click **Update** to refresh the information displayed.
-

Using Advanced Invitation Settings

The following sections describe the tasks that users with appropriate access level can perform in the Advanced Invitation tab:

- [Using Quick Invites to Invite Conference Participants, page 3-13](#)
- [Inviting Participants Using Advanced Settings, page 3-14](#)

Using Quick Invites to Invite Conference Participants

In the Participant List tab of the Conference Control interface, all users can use the quick invite feature to send an invitation to participate in a conference.

Procedure

- Step 1** In the Invite # field, enter the participant number you want to invite. You can invite multiple participants by separating them with the invite sign (**).
- Step 2** (Optional) You can select a bandwidth rate lower than the current conference rate at which the invited participant joins the conference. You can thus invite individual participants with lower connection capabilities. In the Rate(kbps) field, choose a new bandwidth rate.
- Step 3** Click **Invite**.
-

Related Topics

- [Inviting Participants Using Advanced Settings, page 3-14](#)

Inviting Participants Using Advanced Settings

All users can invite multiple participants into a conference at the same time in the Advanced Invitation tab of the Conference Control interface. As each invite field can accommodate multiple participant numbers with separators, you can use this tab to invite a large number of participants at the same time. All users can also select a lower bandwidth rate with which to connect individual participants.

In the Advanced Invitation tab, all users can also drag and drop participant images into preferred positions in the layout of each conference view that the conference supports. All users can also set the layout which invited participants see when joining a conference.

In a cascaded conference, all users can choose which MCU actually invites the participant.

Procedure

-
- Step 1** In the Conference Control interface, click **Advanced Invitation**.
- Step 2** In the first Invite # field, enter the participant contact numbers. You can enter multiple numbers separated by the invite sign (**).
- Step 3** In the Display Name field, enter the name you want to appear when the participant enters the conference.
- Step 4** In the Kbps field, choose the bit rate that the MCU uses when inviting a participant to a conference. Choose **default** for optimal bit rate performance.
- Step 5** In the MCU field, choose a cascaded MCU conference to which invited participants connect.



Note This step is only for cascaded conferences.

- Step 6** (Optional) To configure advanced features, follow these additional steps; Additional control features appear in the **Advanced Invitation** tab.

- In the **Participant Layout** area click **Change**.
A dialog box appears displaying a list of the current layouts available in the current conference.
- Drag and drop the Voice activated frame button into the preferred position in the Layout display frame that appears in the Conference View section.



Note You can set a position for the participant image in all layouts that the conference currently supports.

- At the end of each participant row, choose from the list the number of the conference video layout you want to display to the participant upon entry into the conference. Choose **L** to display the local view of a slave conference.

A slave conference on an EMP-enabled MCU has two views:

- The local (slave MCU conference) CP view
- The view that the master MCU broadcasts.

An Operator of the slave conference should be able to switch the view for each participant in the slave conference so that the participant can see the view broadcast by the master or the local view. This feature is useful in large cascaded conferences where each site has a local operator. Most participants at the local site see the view broadcast by the master MCU, but the local operator can see the local view of local participants.

You can enable a local view of a slave conference in the **Edit View** dialog box.

- Step 7** Repeat step 1 to step 6 for each Invite # field until you configure all required the participant invites.
- Step 8** Click **Invite** to send the invitations.
-

Related Topics

- [Using Quick Invites to Invite Conference Participants, page 3-13](#)

Cascading Conferences

Users with Moderator-level access can increase MCU call capacity by cascading MCUs. This option supports the bridging of several separate conferences to create very large conferences through IP connections (H.323 and SIP) and also through ISDN/PSTN connections (H.320) when operating in conjunction with a gateway.

In the Conference Control interface, cascading a conference works the same way as inviting a single participant into an existing conference. Once you create a cascaded conference, you can use the MCU to set the conference to which invited participants are connected, providing precision control of resources. In a cascaded conference, you can view participants in a tree view that displays each participant according to the conference to which each is connected.



Note

If a failure occurs in a cascaded conference, local MCU users can see this status in the Create Conference window or Conference Control interface. This status, however, only appears if it was the local EMP or MCU that was lost. If the EMP of a slave MCU is lost, then the user of the master MCU can view which participants are without audio/video in the Participant List tab. If the EMP of the master MCU is lost, then slave MCUs do not receive any indication that there has been a failure.

Procedure

- Step 1** Access the **Participant List** tab.
- Step 2** Invite another conference on the host MCU or on another MCU by entering the number in the Invite # field and clicking **Dial**.

The invited conference and connected participants appear in the host conference participant list in the Participant List tab.

Inviting Participants to a Cascaded Conference

All users can invite participants to a cascaded conference in the Advanced Invitation tab of the Conference Control interface.

Procedure

- Step 1** In the Conference Control interface, click **Advanced Invitation**.
- Step 2** In the MCU column, choose the conference to which the invited participant connects upon acceptance of the conference invite.
-

Viewing Participants in a Cascaded Conference

In the Conference Control interface, you can view participants in a cascaded conference in a hierarchical display in one of the following two ways:

- **Normal View**—All conference participants appear in a single list. Cascaded participants appear without any indication of the cascaded MCU connection.
- **Tree View**—Conference participants appear in an expandable tree view showing cascaded MCU connections to the conference. Click the plus sign (+) next to the name of the cascaded MCU to expand the tree showing cascaded conference participant details.

Procedure

- Step 1** Access the **Participant List** tab.
- Step 2** Click **Normal View** to display cascaded conference participants in a single list.
-

Defining Conference Views

The following sections describe the tasks that users with appropriate access level can perform in the Conference View section:

- [Enabling or Disabling Dynamic Layouts, page 3-17](#)
- [Changing Conference Layouts, page 3-17](#)
- [Displaying Participant Names in Frames, page 3-18](#)
- [Enabling or Disabling Auto-Switch Mode, page 3-18](#)

Enabling or Disabling Dynamic Layouts

Users with Moderator-level access can enable or disable dynamic layouts for a conference. A dynamic layout seamlessly switches the conference video image between a wide range of layouts to correspond with the number of participants in attendance at any given time during the conference. The video image switches to a layout with frames equal to the number of participant images, to a maximum of 16. The layout changes accordingly as participants join or leave a conference.

A dynamic layout conserves bandwidth, eliminates the display of empty frames in the video image, and makes optimum use of the video image for displaying participant images. This type of layout switching is suitable for a conference with a high rate of participant traffic joining and leaving the conference or an adaptive service used for a variety of conference sizes.

Procedure

- Step 1** Access the **Conference View** section of the **Participant List** tab.
 - Step 2** Click **Change**.
A pop-up appears, displaying a list of currently available layouts for the current conference.
 - Step 3** Click **Dynamic Layout** to enable (if not selected) or disable (if already selected) dynamic layout for this conference.
-

Changing Conference Layouts

In the **Conference View** section, users with Moderator-level access can change the layout for the current conference.

Procedure

- Step 1** In the **Conference View** section of the **Participant List** tab, click **Change**.
A pop-up appears, displaying a list of currently available layouts for the current conference.
 - Step 2** Click a layout.
The conference adjusts to the new selection.
-

Displaying Participant Names in Frames

In the **Conference View** section, users with Moderator-level access can choose to display the name of endpoints or participants in specific positions of the video layout frame.

**Note**

This feature is visible only when you configure text overlay in the service.

Procedure

- Step 1** Access the **Conference View** section of the **Participant List** tab.
- Step 2** Click **Display participant names in frame**.

Enabling or Disabling Auto-Switch Mode

In the **Conference View** section, users with Moderator-level access can enable the auto-switch mode for a conference. The auto-switch mode displays all the participants of a large conference in Continuous Presence (CP) mode display in the video layout on a rotating basis. Participant images can be replaced at preset intervals.

Procedure

- Step 1** Access the **Conference View** section of the **Participant List** tab.
- Step 2** Click **Auto-switch** to enable (if not already selected) or disable (if already selected) auto-switch mode.

Terminating Conferences

In the Conference Control interface, users with Moderator-level access can terminate a conference, which ends that conference and disconnects the participants.

Procedure

- Step 1** Access the control bar.
- Step 2** Click **Terminate Conference**.

Signing Out of a Conference

When you finish configuring or viewing details of the current conference, you can sign out.

Procedure

- Step 1** Access the control bar.
 - Step 2** Click **Sign out**.
-



INDEX

A

access levels See user types
actions [2-3](#)
ad hoc conference call [1-1](#)
Advanced Features dialog box [2-5](#)
Advanced Invitation tab [2-10, 3-13, 3-14, 3-16](#)
auto switch [3-18](#)

B

bandwidth
 configuring outgoing rate [3-12](#)
block admission [3-7](#)
block video stream [3-9](#)

C

cascaded conferences [3-15](#)
 create [3-15](#)
 invite participants [3-16](#)
 view participants [3-16](#)
Change Name dialog box [3-10](#)
Conference Control interface [2-1, 2-6](#)
 accessing [3-2](#)
 Advanced Invitation tab [3-14](#)
 creating conferences [3-4](#)
 Moderator-level options [3-3](#)
 online help [3-3](#)
 refresh [3-2](#)
 screen elements [2-7](#)
 terminate conference [3-18](#)
 working with [3-1](#)

conference description [2-3](#)
conference ID number [1-2, 2-3](#)
conference layouts See layouts
Conference List window [2-3](#)
conference procedures
 access Conference Control interface [2-1, 3-2](#)
 becoming a Moderator [3-3](#)
 block admission [3-7](#)
 block video stream [3-9](#)
 change conference layouts [3-17](#)
 change participant name [3-10](#)
 change participant view [3-8](#)
 change volume [3-8](#)
 configure outgoing bandwidth rate [3-12](#)
 create a sub-conference [3-9](#)
 create cascaded conference [3-15](#)
 create conferences from Conference Control interface [3-4](#)
 create conferences from Create Conference window [2-4](#)
 dial from [1-4](#)
 disable auto-switch [3-18](#)
 disable dynamic layouts [3-17](#)
 disconnect inactive conference [2-5](#)
 display name in video layout frame [3-18](#)
 enable auto-switch [3-18](#)
 enable dynamic layouts [3-17](#)
 exit Create Conference window [2-6](#)
 invite from SIP endpoint [1-4](#)
 invite multiple H.323 endpoints [1-2](#)
 invite operator to join [3-4](#)
 invite participants to a cascaded conference [3-16](#)
 invite using advanced settings [3-14](#)
 invite using quick invite [3-13](#)

- join ad hoc conference with H.323 endpoint [1-2](#)
- join ad hoc conference with SIP [1-3](#)
- join conference with any IP endpoint [1-5](#)
- join T.120 data conference [3-4](#)
- mute audio connection [3-6](#)
- reconnect participant [3-7](#)
- remove participant from conference [3-7](#)
- sign out from a conference [3-19](#)
- start ad hoc conference with H.323 endpoint [1-2](#)
- start ad hoc conference with SIP [1-3](#)
- start conference with any IP endpoint [1-5](#)
- stop moderation [3-3](#)
- terminate conference [3-18](#)
- unmute [3-6](#)
- view a cascaded conference [3-16](#)
- view participant information [3-13](#)
- view statistics [3-13](#)

conference statistics [3-13](#)

Conference View section [3-16](#)

Create Conference window [2-6](#)

- create conference [2-4](#)
- screen elements [2-4](#)
- terminate conference [2-5](#)

creating conferences

- from the Conference Control interface [3-4](#)
- from the Create Conference window [2-4](#)

D

data collaboration

- set up a T.120 conference [3-4](#)

deleting participants [3-7](#)

dialing conventions

- H.323 endpoints [1-2](#)
- IP-based endpoints [1-5](#)
- SIP endpoints [1-3](#)

dial-in See ad hoc conference call

disconnect inactive conference [2-5](#)

DTMF

- conference control [1-5](#)
- control signals [1-5](#)

dynamic layouts [3-17](#)

E

Edit View dialog box [3-15](#)

encryption [2-3, 2-9](#)

H

H.323 endpoints

- dialing conventions [1-2](#)
- inviting [1-2](#)
- joining ad hoc [1-2](#)
- starting ad hoc [1-2](#)

I

invite

- cascaded conferences [3-16](#)
- from SIP endpoint [1-4](#)
- multiple participants with single dial string [1-2, 1-4](#)
- operator to join a conference [3-4](#)
- using advanced settings [3-14](#)
- using quick invite [3-13](#)

invite sign [1-2](#)

IP-based endpoints

- dialing conventions [1-5](#)

L

layouts

- changing [3-17](#)
- display name in video layout frame [3-18](#)

M

media types [2-3](#)

Moderator

 becoming a Moderator [3-3](#)

 stopping moderation [3-3](#)

mute [3-6](#)

O

online help

 Conference Control interface [3-3](#)

 Create Conference window [2-2](#)

P

participant

 audio in [3-5](#)

 audio out [3-5](#)

 change participant view [3-5](#)

 current number of [2-3](#)

 data sharing [3-5](#)

 name [3-5, 3-10](#)

 number [3-5](#)

 status [3-5](#)

 video display [3-5](#)

 video image [3-5](#)

 view [3-8](#)

participant call information [3-11](#)

Participant List tab [2-10, 3-5, 3-15](#)

Q

QualiVision [2-10](#)

quick invite [3-13](#)

R

reconnect participants [3-7](#)

remove participants [3-7](#)

S

Select sub-conference dialog box [2-10, 3-9](#)

service prefix number [1-2](#)

sign out [2-6, 3-19](#)

SIP endpoints

 dialing conventions [1-3](#)

 dialing from [1-4](#)

 inviting [1-4](#)

 joining ad hoc [1-3](#)

 starting ad hoc [1-3](#)

Statistics tab [2-10](#)

sub-conference [3-9](#)

 create [3-9](#)

T

T.120

 set up a data collaboration conference [3-4](#)

terminate

 conference [3-18](#)

 inactive conference [2-5](#)

U

unattended multi-point conferences [1-1](#)

unmute [3-6](#)

user types

 administrators [2-2](#)

 conference participants [2-3](#)

 Moderators [2-3](#)

 operators [2-2](#)

V

Video Quality Classification dialog box [3-10](#)

viewing

- conference statistics [3-13](#)

- online help [2-2, 3-3](#)

- participant names [3-18](#)

- participants in cascaded conference [3-16](#)

volume [3-8](#)