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Product model: Polycom® RMX™ 1800

For regulatory notices see the Polycom® RMX™ 1800 Hardware Guide.

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The EULA for your version is available on the Polycom Support page for the Polycom® RealPresence® Collaboration Server (RMX®) 1800 system.
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System Overview

About the Getting Started Guide

The Polycom RMX 1800 Getting Started Guide provides information on the installation and basic operation of your RMX 1800 Multipoint Control Unit (MCU) for video conferencing. This guide will help you understand the Polycom video conferencing components, and provides description of basic conferencing operations. This guide will help you perform the following tasks:

• Unpack the RealPresence Collaboration Server system and install it on a rack.
• Connect the required cables to the RealPresence Collaboration Server.
• Perform basic configuration procedures.
• Connect to the MCU.
• Optional. Start a new conference directly on the MCU and connect participants/ endpoints to it.
• Monitor ongoing conferences.
• Perform basic operations and monitoring tasks.

The Polycom RMX 1800 Administrator’s Guide provides more in-depth information on configuring and managing the system, and performing the following tasks:

• Configure the MCU to support special call flows and conferencing requirements, such as Cascading conferences.
• Advanced conference Management.
• Manage and troubleshoot the MCU performance.

Prerequisites

This guide assumes the user has the following knowledge:

• Familiarity with Windows® XP and Windows® 7 operating systems and interface.
• Familiarity with Microsoft® Internet Explorer® Version 7, 8 and 9.
• Basic knowledge of video conferencing concepts and terminology.

Who Should Read This Guide?

System administrators and network engineers should read this guide to learn how to properly install and set up Polycom Collaboration Server systems. Chairpersons and system operators should read this guide to learn how to use the Collaboration Server Web Client/ RMX Manager to run conferences and monitor them.
For more information on configuring and managing the system, refer to the *Polycom RMX 1800 Administrator’s Guide*.

**Chairpersons and Operators (users who start and manage conferences on the MCU) please read:**
- Chapter 1 – System Overview
- Chapter 3 – Basic Operation

**System Administrators please read:**
- Chapter 1 – System Overview
- Chapter 2 – First Time Installation and Configuration
- Chapter 3 – Basic Operation

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**How This Guide is Organized**

The following typographic conventions are used in this guide to distinguish types of in-text information.

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<tr>
<td><strong>Underlined Blue</strong></td>
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<tr>
<td><strong>Blue Text</strong></td>
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**About the Polycom® RMX 1800 System**

The Polycom® RMX 1800 is a high performance, scalable, IP-network (H.323 and SIP) MCU that provides feature-rich and easy-to-use multipoint voice and video conferencing.
The MCU can be used as a standalone device to run voice and video conferences or it can be used as part of a solution provided by Polycom. This solution may include the following components:

- **Polycom® RSS™ 4000** - provides one-touch recording and secure playback on telepresence and video conferencing systems, tablets and smartphones, or from your Web browser.
- **Polycom® Distributed Media Application™ (DMA™)** - provides call control and MCU virtualization with carrier-grade redundancy, resiliency and scalability.
- **Polycom® RealPresence® Access Director™ (RPAD)** - removes communication barriers and enables internal and external teams to collaborate more easily and effectively over video.

The following diagram describes the multipoint video conferencing configuration with the RMX 1800 as a standalone MCU system.

![Multipoint Video Conferencing using a RMX 1800](image)

**Figure 1-1 Multipoint Video Conferencing using a RMX 1800**

The Polycom® RMX 1800 unit can be controlled via the LAN, by the *Collaboration Server Web Client* application, using Internet Explorer® installed on the user’s workstation or the RMX Manager application. The RMX Manager® can control several MCU units. For more information about the RMX Manager, see "*RMX Manager Application*" on page 18-1.

MCU management and IP conferencing are performed via two different LAN ports. The networks can be separated in Maximum Security Environments. Management and IP Service can be combined in one LAN port or separate to different ports.
Main Features

Conferencing Modes

The MCU system offers the following Conferencing Mode:

- CP Transcoding - AVC-based Conferencing

A transcoded CP (Continuous Presence) conference is also described as an AVC (Advanced Video Coding) conference. It supports the standard video protocols. In this mode, video is received from all the endpoints using different line rates, different protocols (SIP, H.323) and video parameters:

- Video protocols: H.261, H.263, H.264 Base and High profile
- Video Resolutions: from QCIF, CIF and up to 1080p60
- Frame rates up to 60fps

The MCU process the received video, transcodes it and send the resulting video streams to the endpoints. The video processing that is required differs according to the video session set for the conference, with all the processing performed by the MCU. For more details, see Polycom RMX 1800 Administrator’s Guide, "AVC Conferencing - Continuous Presence (CP) Conferencing" on page 2-2.

AVC-based Video Session Types

All endpoints have AVC capabilities and can connect to AVC conferences running on the MCU. AVC-based endpoints can connect using different signaling protocols and different video protocols.

Dynamic Continuous Presence

The dynamic Continuous Presence (CP) capability of the Collaboration Server system enables viewing flexibility by offering multiple viewing options and window layouts for video conferencing. By default every conference, Entry Queue and Meeting Room has the ability to declare the maximum CP resolution as defined for the system. This includes conferences launched by the Collaboration Server Web Client and conferences started via the API.

For more details, see Polycom RMX 1800 Administrator's Guide, "AVC Conferencing - Continuous Presence (CP) Conferencing” on page 2-2.

Video Layouts in CP

A selection of layouts are available to accommodate different numbers of participants and conference settings. The following Layouts are available as both Conference and Personal Layouts.
The following Overlay Layouts are available as Conference Layouts. For more information see the RMX 1500/2000/4000 Administrator’s Guide.

The following Layouts are specifically intended for use in Telepresence Mode.
Multiple Switching Modes

If the number of participants is higher than the number of video windows in the selected layout, switching between video participants can be performed in one of these modes:

- Voice activation (default mode)
- The Collaboration Server user forces participants to selected video window
- Lecture Mode - The lecturer is viewed in full screen by all conference participants, while the audience is “time-switched” in the speaker’s view
- Presentation Mode - When the speaker’s presentation extends beyond a predefined time, he/she becomes the current lecturer and the conference switches to Lecture Mode

Operator Conference

In Continuous Presence conferencing, a special conference that enables the MCU user, acting as an operator, to assist participants without disturbing ongoing conferences and without being heard by other conference participants. The operator can move a participant from an Entry Queue or ongoing conference to a private, one-on-one conversation in the Operator conference. For more details, see Polycom RMX 1800 Administrator’s Guide, “Operator Conferences” on page 10-1.

AVC-based Video Resolutions

Resolution Configuration for AVC-based CP Conferences

The Resolution Configuration dialog box enables the Collaboration Server administrators to modify the video resolution decision matrix, effectively creating their own decision matrix. The minimum threshold line rates at which endpoints are connected at the various video resolutions can be optimized by adjusting the resolution sliders.

For more information see the Polycom RMX 1800 Administrator’s Guide.

H.239

The H.239 protocol allows compliant endpoints to share content. By default, all Conferences, Entry Queues, and Meeting Rooms launched on the Collaboration Server have H.239 capability.

For more details, see Polycom RMX 1800 Administrator’s Guide, “Defining Content Sharing Parameters for a Conference” on page 4-3.

IVR-Enabled Conferencing

Interactive Voice Response (IVR) is a software module that automates the connection process and lets participants perform various operations during ongoing conferences. The participants use their endpoints’ keypads, remote controls and touch control devices to interact with the conference’s menu-driven scripts using DTMF codes.
Operations that can be performed by participants or chairpersons during a conference include:

• Mute or unmute the participant’s audio channel.
• Play the Help menu.
• Mute or unmute undefined dial-in participants upon their connection to the conference.
• Secure and unsecure a conference.
• Request individual and conference assistance (CP conferences).
• Manually terminate the conference.

For more details, see Polycom RMX 1800 Administrator’s Guide, “IVR Services” on page 15-1.

Entry Queue

An Entry Queue is a special routing lobby for video and audio participants. After dialing the Entry Queue ID, voice prompts from an IVR service are used to connect the participants to the appropriate conference.

This service can also be used (if required) to verify the participant’s right to start an Ad Hoc conference or to join an ongoing conference.

For more details, see Polycom RMX 1800 Administrator’s Guide, "Entry Queues” on page 7-1.

Conferencing Capabilities and Options

On Demand Conferencing

The following options are available to set up conferences:

• New Conference – set up once, use once.
  The conference is deleted from the MCU after it ends.
• Meeting Rooms – set up once, use many times.
  Meeting Rooms are saved in memory (using no resources) and can be activated as many times as needed.
• Ad Hoc Entry Queue (CP Conferencing) – no setup, a new conference can be created when an AVC participant dials in and enters a conference ID that is not being used by an existing conference or Meeting Room.

Permanent Conference

A Permanent Conference is an ongoing conference with no predetermined End Time, continuing until it is terminated by an administrator, operator or chairperson. For more details, see Polycom RMX 1800 Administrator’s Guide, "Permanent Conference” on page 4-58.

Scheduled Conferencing / Reservations

Reservations provide calendar-based scheduling of single or recurring conferences. These conferences can be launched immediately or become ongoing, at a specified time on a specified date. For more details, see Polycom RMX 1800 Administrator’s Guide, "Reservations” on page 9-1.
Connection Methods

AVC-based Connections
In AVC-based connection, H.323 and SIP communication protocols supported for connection to the conference.
Endpoints can connect using the following Video Protocols: H.263, H.264 Base and High Profile.

- **Dial-out:** automatically, to pre-defined participants (line rate detection is automatic)
- **Dial-in:**
  - for participants defined in advance
  - for undefined participants connecting directly to a conference
  - for undefined participants via a single dial Entry Queue

Cascading Conferences
Cascading enables administrators to connect one conference directly to one or several conferences usually running on different MCUs, depending on the topology, creating one large conference. Supported topologies are:

- Basic Cascading of two MCUs.
- Star Topology.

For more details, see *Polycom RMX 1800 Administrator’s Guide*, .

Security

- In CP conferences Media Encryption is available at conference and participant levels, based on AES 128 Media Encryption and DH 1024 Key Exchange standards.
- Secured Communication Mode (SSL/TLS).
- Secured conferences via DTMF codes and limited monitoring of secured conferences.
- Auditor to analyze configuration changes and unusual or malicious activities in the Collaboration Server.
- Network security can be enhanced by separation of the Signaling and Management Networks.
- Collaboration Server Users can be disabled by the administrator, or automatically when inactive. Disabled Users can be enabled by the administrator.
- Support for SNMP versions 1, 2 and 3.

LAN Redundancy

Enables the redundant LAN port connection to automatically replace the failed LAN port by using another physical connection and NIC (Network Interface Card) should a LAN port fail.

For more details, see *Polycom RMX 1800 Administrator’s Guide*, "LAN Redundancy” on page 16-37.

Conference Management and Monitoring Features

The Collaboration Server Web Client and RMX Manager application provide capabilities for management and monitoring of participants and conferences, including the following:
CP AVC-based Conferencing

- Lecture Mode or Presentation Mode in Continuous Presence conferences.
- Far End Camera Control (FECC/LSD) in video conferences.
- Conference control via DTMF codes from participant’s endpoint or telephone.
- Media Encryption.
- Option to limit the properties display of conference participants in secured conferences.
- Multiple drag & drop of participants.
- Video Preview allows Collaboration Server users to preview video sent from the participants to the conference and from the conference to the participants.
- Auto Redial when Endpoint Drops instructs the Collaboration Server to automatically redial IP and SIP participants that have been abnormally disconnected from the conference.
- Operator Assistance & Participant Move for conferences in CP mode.

Workstation Requirements

The Collaboration Server Web Client and RMX Manager applications can be installed in an environment that meets the following requirements:

- **Minimum Hardware** – Intel® Pentium® III, 1 GHz or higher, 1024 MB RAM, 500 MB free disk space.
- **Network Card** – 10/100/1000 Mbps.
- **Web Browser** - Microsoft® Internet Explorer® Version 7, 8 and 9.
- Collaboration Server Web Client and RMX Manager are optimized for display at a resolution of 1280 x 800 pixels and a magnification of 100%.

.Net Framework 2.0 is required and installed automatically.

If ActiveX installation is blocked please see the Polycom RMX 1800 Administrator’s Guide, “ActiveX Bypass” on page 19-52.

Collaboration Server Web Client does not support larger Windows text or font sizes. It is recommended to set the text size to 100% (default) or Normal in the Display settings in Windows Control Panel on all workstations. Otherwise, some dialog boxes might not appear properly aligned. To change the text size, select Control Panel>Display. For Windows XP, click the Appearance tab, select Normal for the Font size and click OK. For Windows 7, click the Smaller - 100% option and click OK.

When installing the Collaboration Server Web Client, Windows Explorer >Internet Options> Security Settings must be set to Medium or less.

It is not recommended to run Collaboration Server Web Client and Polycom CMAD applications simultaneously on the same workstation.
Microsoft Windows 7™ Security Settings

If Windows 7 is installed on the workstation, Protected Mode must be disabled before downloading the software to the workstation.

To disable Protected Mode:
1. In the Internet Options dialog box, click the Security tab.
   The Security tab is displayed.
2 Clear the Enable Protected Mode check box for each of the following tabs:
   — Internet
   — Local intranet
   — Trusted sites

3 After successful connection to Collaboration Server, the Enable Protected Mode check boxes can be selected to enable Protected Mode for the following tabs:
   — Internet
   — Local intranet

Internet Explorer 8 Configuration

When using Internet Explorer 8 to run the RP Collaboration Server Web Client or RMX Manager applications, it is important to configure the browser according to the following procedure.

To configure Internet Explorer 8:
1 Close all browsers running on the workstation.
2 Use the Windows Task Manager to verify that no iexplore.exe processes are running on the workstation. If any processes are found, use the End Task button to end them.
3 Open Internet Explorer but do not connect to the MCU.
4 In the Internet Explorer menu bar select Tools >> Internet Options. The Internet Options dialog box is displayed with General tab open.

5 In the Browsing history section, click the Delete button. The Delete Browsing History dialog box is displayed.

6 Select the Temporary Internet files and Cookies check boxes.

7 Click the Delete button.

8 The Delete Browsing History dialog box closes and the files are deleted.

9 In the Internet Options dialog box, click the Settings button.
The Temporary Internet Files and History Settings dialog box is displayed.

10 Click the View objects button.

The Downloaded Program Files folder containing the installed Program Files is displayed.

11 Select the EMAClassLoader.dll file and press the Delete key on the workstation or right-click the EMA.ClassLoader.dll file and then click Delete.

12 Close the Downloaded Program Files folder and the Temporary Internet Files and History Settings dialog box.

13 In the Internet Options dialog box, click the OK button to save the changes and close the dialog box.
First Time Installation and Configuration

First Time Installation and Configuration of the RMX 1800 consists of the following procedures:

1 Preparations:
   — Gather Network Equipment and Address Information - get the information needed for integrating the RMX 1800 into the local network.
   — Unpack the Polycom® RMX 1800.
   — Modify the Management Network parameters on the USB memory stick.

2 Hardware Installation and Setup
   — Mount the Collaboration Server in a rack.
   — Connect the necessary cables.

3 First Entry Power-up and Configuration
   — Power up the RMX 1800.
   — Register the RMX 1800.
   — Connect to the RMX 1800.
   — Configure the Default IP Network Service.

Preparations

Gather Network Equipment and Address Information

IP Services

The IP addresses and network parameters which enable communication between the Polycom® RMX 1800, its management application and the conferencing devices are organized in two IP services:

• Management Network (Control Unit)
• Default IP Service (Conferencing Service which includes the signaling and media)

During the First Entry Configuration, the parameters of these two network services are modified to comply with your local network settings.

Management Network

The Management Network enables communication between the RMX 1800 and the Collaboration Server Web Client and is used to manage the MCU.

The Collaboration Server is shipped with default IP addresses as listed in Table 2-1.
Management Network Definition
The configuration of the Management Network can be done by two methods:

- **USB Memory Stick (recommended method)** – The system is shipped with a USB Memory Stick containing the default IP addresses for the Control Unit. These IP addresses are first modified in the administrator’s PC and then uploaded to the RMX 1800.
- **Direct connection** – Creating a private network between the RMX 1800 and the computer and modifying the management network parameters using Fast Configuration Wizard in the Collaboration Server Web Client.

For more information, see the Polycom RMX 1800 Administrator’s Guide, “Configuring Direct Connections to the Collaboration Server” on page F-1.

DHCP is not supported in the Management Network.

Default IP Service (Conferencing Service)
The Default IP Service (Conferencing Service) is used to configure and manage communications between the RMX 1800 and conferencing devices.

IP Network Services Required Information
When installing the RMX 1800, these default IP addresses must be modified to your local network settings. Therefore it is important that before powering up the RMX 1800 for the first time, that you obtain the information needed to complete the Local Network Settings section of the table from your network administrator.

Conferencing (Media and signaling) and Management networks can be logically separated on the Collaboration Server to provide enhanced security. A number of media and signaling networks can be defined on each MCU for the RMX 1800. For more information see “Multiple Networks” in the Polycom RMX 1800 Administrator’s Guide.

For each MCU, an IP address must be allocated in the local network for the:

- Control Unit
- Signaling Host

Example:
The network administrator should allocate Two IP addresses in the local network for a RMX 1800: Control Unit and Signaling Host. Since the signaling and media are transferred on the same network, the same IP address is allocated to both.

<table>
<thead>
<tr>
<th>Table 2-1</th>
<th>Network Equipment and Address Information</th>
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<td>Parameter</td>
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</tr>
<tr>
<td>Control Unit IP Address</td>
<td>192.168.1.254</td>
</tr>
<tr>
<td>Control Unit Subnet Mask</td>
<td>255.255.255.0</td>
</tr>
<tr>
<td>Default Router IP Address</td>
<td>192.168.1.1</td>
</tr>
<tr>
<td>Signaling Host IP address</td>
<td>Same as the Media and defined by the Media IP address</td>
</tr>
<tr>
<td>Media Card 1 IP Address</td>
<td>Same as the Signaling Host IP address</td>
</tr>
</tbody>
</table>
Installing the RMX 1800

The following procedures have to be performed to install the RMX 1800 in your site:
- Unpacking the Collaboration Server
- Installing the Collaboration Server in a rack or as a standalone system
- Connecting the Collaboration Server to the power source
- Connecting the network (LAN and IP) cables to the Collaboration Server
- Modifying the Factory Default Management Network Settings on the USB Memory Stick

Unpacking the RMX 1800

To unpack and lift the RMX 1800:
1. When you receive the RMX 1800 packing case, inspect the equipment for damage and verify that the components match the packing slip.
2. Open the top cover of the packing case.
   - Boxes are placed on the top Stratocell® and contain power cables, 2 ethernet cables, USB key and documentation.

Write down the Collaboration Server’s serial number that is on a sticker on the back of the unit. It will be needed for product registration later in the process.

Make sure that boxes contain all the required parts.
Mounting the RealPresence Collaboration Server 1800 on a Shelf

- Install the shelf supplied by the rack manufacturer, in the rack.
- Mount the Collaboration Server on the shelf.
- Fasten the Collaboration Server to the rack with screws through the four holes in the Collaboration Server’s front mounting brackets.

Connecting the RealPresence Collaboration Server 1800 to a Power Source

The following restrictions apply to the conductors and connectors that may be used to ground the unit when rack mounted:

- When using bare conductors, they must be coated with an appropriate antioxidant compound before crimp connections are made. Tinned, solder-plated or silver-plated connectors do not have to be prepared in this manner.
- The same bolt assemblies should not secure multiple connectors.
- Listed fastening hardware must be compatible with the materials being joined and must be preclude loosening, deterioration and electrochemical corrosion of the hardware and joint materials.

Connecting the RealPresence Collaboration Server 1800 to AC Power

- Only the AC Power cable supplied by Polycom should be used.
- The size of the protective earthing conductor should be a minimum of 10 AWG.
- The outlet intended for connecting the power cord must be protected with an external overcurrent protection device either in building or in the rack with the rating not higher than 20 AMP.
- Do not use an extension cord with the cable.

>> Insert the power cable into the power connector on the rear panel of the RealPresence Collaboration Server 1800 system.

Connecting Cables to the RealPresence Collaboration Server 1800

To connect the cables:

1. Connect the management network cable to LAN 1 port.
   When LAN redundancy is enabled, LAN 1 is used for both management, media and signaling network connection.
2 Connect the media and signaling cable to LAN 2 port. By default this port is used for signaling, but when LAN redundancy is enabled, LAN 2 is the backup of LAN 1 port.

---

Modifying the Factory Default Management Network Settings on the USB Memory Stick

The USB memory stick contains a text file, lan.cfg, which holds the factory default IP address parameters. These parameters must be modified to your local network settings using the LAN Configuration Utility, also available on the USB memory stick.

To modify the USB memory stick settings:
1. Take the USB memory stick from the Installation Accessories kit and insert it into the PC workstation.
   - Select Open Folder to view files using Windows Explorer.
2. Double-click the index.htm file.
   - The Language Menu opens, offering a choice of several languages.
3 Click the documentation language of your choice. An End-User Licence Agreement for Polycom Software is displayed.

4 Read the agreement and click the Accept Agreement button.

5 In the Product Type Selection window, click the RealPresence Collaboration Server 1800 hyperlink.

6 In the Initial Setup Utility screen, click the LAN Configuration Utility link.
The **LAN Configuration Utility** dialog box opens.

![LAN Configuration Utility dialog box](image)

7 Modify the following parameters in the utility’s dialog box using the information supplied by your network administrator.
- **Control Unit IP Address** (the Management IP address for the MCU)
- **Subnet Mask**
- **Default Router IP Address**

8 Click **OK**.

9 Remove the **USB memory stick** from the PC workstation.
The **USB memory stick** is required for **First Entry Power-up and Configuration** of the MCU.
First Entry Power-up and Configuration

There are four procedures necessary for setup of the new RealPresence Collaboration Server (RMX). It is important that they are performed in the following sequence:

1. First-time Power-up
2. Product Registration.
3. Connection to MCU.
4. Modifying the Default IP Service Settings (Fast Configuration Wizard).

Procedure 1: First-time Power-up

For first entry installation, you must insert the USB key containing the modified IP addresses in USB slot on the Collaboration Server’s back panel.

1. Turn ON the power by pressing on the ON/OFF button located on the front panel of the RMX 1800.

   The parameters in the lan.cfg file are uploaded from the USB key to the Collaboration Server’s memory and applied during the power-up sequence.

   System power-up sequence may take up to five minutes.

   When the Collaboration Server’s configuration is completed (including the Management and IP Network Services), and if there are no System Errors, the STATUS LED (on the Collaboration Server’s front panel) turns green.

2. Remove the USB key.

Procedure 2: Product Registration

Before the RMX 1800 can be used, it is necessary to register the product and the various software licenses and obtain an Activation Key.

During first-time power-up, the Product Activation dialog box is displayed in the Collaboration Server Web Client, requesting you to enter an Activation Key.

From version 8.1 onwards, a license is required for SVC conferencing.

Obtaining the Activation Key

1. Access the Service & Support page of the Polycom website at: http://support.polycom.com
2 Log in with your Email Address and Password or register as a new user.
3 Select Product Registration.
4 Follow the on-screen instructions for Product Registration and Product Activation. (The MCU’s serial number on the product sticker on the back of the unit).

Register all Polycom Software Licences that you have purchased when obtaining the Activation Key. For example, Encryption and Multiple Networks each have different Polycom Software Licences.

5 When the Product Activation Key is displayed, write it down or copy it for later pasting into the Activation Key field of the Product Activation dialog box.

Procedure 3: Connection to MCU

If Windows7™ is installed on the workstation, Protected Mode must be disabled before connecting to the MCU. For more information, see "Microsoft Windows 7™ Security Settings" on page 1-10.

1 Start the Collaboration Server Web Client application on the workstation.
   a In the browser’s address line, enter the IP address of the Control Unit in the format: http://<Control Unit IP Address>, as defined in the USB memory stick.
   b Click Enter.

The Collaboration Server Web Client Login screen is displayed.

Once the connection with the MCU is established, you can remove the USB memory stick from the system.

If the error “Browser environment error. Please close all the browser sessions” appears, close all the browser sessions, and reconnect to the MCU. If the error message appears again, either run the automatic troubleshooter utility or manually perform the suggested troubleshooting procedures. For more details, see Appendix B, “Installation Troubleshooting Procedures”.

2 In the Collaboration Server Web Client Login screen, enter the default Username (POLYCOM) and Password (POLYCOM) and click Login.
The Collaboration Server Web Client opens and the Product Activation dialog box appears with the serial number filled in:

3 Select the “I accept the license agreement” check box to enable Online Registration of your product.

4 In the Activation Key field, enter or paste the Product Activation Key obtained earlier. If you did not register your product earlier in the process and you do not have an Activation Key, click the Polycom Resource Center button to access the Service & Support page of the Polycom Support website.

5 Click OK. A message indicating that the Product Activation Key was loaded successfully appears. If the Product Activation Key fails to load, please contact your vendor.

6 Click OK.

If the Product Activation dialog box does not appear, go to Setup --> Product Activation to display the dialog box.

As no Default IP Network Service is defined, the system automatically starts the Fast Configuration Wizard.
Procedure 4: Modifying the Default IP Service Settings

The Fast Configuration Wizard is automatically started when no Default IP Network Service is defined and it assists you in configuring the Default IP Network Service. This happens during First Time Power-up, before the service has been defined or if the Signaling Service has been deleted, followed by a Collaboration Server restart.

The IP Management Service tab in the Fast Configuration Wizard is enabled only if the factory default Management IP addresses were not modified.

Fast Configuration Wizard

1. Enter the required IP information in the dialog box.

![Fast Configuration Wizard with IP Service Settings](image)

Table 2-2  Fast Configuration Wizard – IP Signaling

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Service Name</td>
<td>The name Default IP Service is assigned to the IP Network Service by the Fast Configuration Wizard. This name can be changed. <strong>Note:</strong> This field is displayed in all IP Signaling dialog boxes and can contain character sets that use Unicode encoding.</td>
</tr>
<tr>
<td>Signaling Host IP Address</td>
<td>In the RMX 1800, this field is disabled as only one IP address is used for the Signaling Host and the Media Card and it is defined by the Media Card IP address.</td>
</tr>
<tr>
<td>Media Card 1 IP Addresses</td>
<td>In the RMX 1800, one IP address is used for the signaling and media. Enter the address to be used by IP endpoints when dialing into the MCU. Dial out calls from the Collaboration Server are initiated from this address. This address is used to register the Collaboration Server with a Gatekeeper or a SIP Proxy server.</td>
</tr>
<tr>
<td>Subnet Mask</td>
<td>Enter the subnet mask of the MCU. Default value: 255.255.255.0.</td>
</tr>
</tbody>
</table>
2. Click **Next**.
3. Enter the required **Routers** information in the dialog box.

![Fast Configuration Wizard](image)

**Table 2-3 Fast Configuration Wizard – Routers**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Router IP Address</td>
<td>Enter the IP address of the default router.</td>
</tr>
</tbody>
</table>

4. Click **Next**.
5  Enter the required **DNS** information in the dialog box.

---

**Table 2-4  Fast Configuration Wizard – DNS**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>MCU Host Name</em></td>
<td>Enter the name of the MCU on the network. Default name is Polycom MCU.</td>
</tr>
<tr>
<td><em>DNS</em></td>
<td>Select:</td>
</tr>
<tr>
<td></td>
<td>• <strong>Off</strong> – if DNS servers are not used in the network.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Specify</strong> – to enter the IP addresses of the DNS servers.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> The IP address fields are enabled only if <strong>Specify</strong> is selected.</td>
</tr>
<tr>
<td><em>Register Host Names Automatically to DNS Server</em></td>
<td>Select this option to automatically register the MCU Signaling Host with the DNS server.</td>
</tr>
<tr>
<td><em>Local Domain Name</em></td>
<td>Enter the name of the domain where the MCU is installed.</td>
</tr>
<tr>
<td><em>Primary DNS Server IP Address</em></td>
<td>The static IP address of the primary DNS server.</td>
</tr>
</tbody>
</table>

6  Click **Next**.
7 Select the IP Network Type: H.323, SIP or H.323 & SIP.

8 Click Next.

9 If you selected SIP only, go to Step 13.

10 Enter the required Gatekeeper information in the dialog box.

Table 2-5  Fast Configuration Wizard – Gatekeeper

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gatekeeper</td>
<td>Select Specify to enable configuration of the gatekeeper IP address. When Off is selected, all gatekeeper options are disabled.</td>
</tr>
</tbody>
</table>
11 Click Next.

12 If you selected H.323, click Next and go to Step 14.

### Table 2-5  Fast Configuration Wizard – Gatekeeper (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Primary Gatekeeper**   | **IP Address or Name**
Enter either the gatekeeper’s host name (if a DNS Server is used) or IP address.                                           |
| **MCU Prefix in Gatekeeper** | Enter the string with which the MCU registers itself with the gatekeeper. The gatekeeper uses this string to identify the MCU when forwarding calls to it. H.323 endpoints use this number as the first part of their dial-in string when dialing the MCU. |
| **Aliases**              | **Alias**
The alias that identifies the Collaboration Server’s Signaling Host within the network. Up to five aliases can be defined for each Collaboration Server. **Note:** When a gatekeeper is specified, at least one alias must be entered in the table. Additional aliases or prefixes may also be entered. |
| **Type**                 | **Type**
The type defines the format in which the card’s alias is sent to the gatekeeper. Each alias can be of a different type:
- H.323 ID (alphanumeric ID)
- E.164 (digits 0-9, * and #)
- Email ID (email address format, e.g. abc@example.com)
- Participant Number (digits 0-9, * and #)
**Note:** Although all types are supported, the type of alias to be used depends on the gatekeeper’s capabilities. |
13 Enter the required **SIP Server** information in the dialog box.

![Fast Configuration Wizard](image)

**Table 2-6 Fast Configuration Wizard – SIP Server**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SIP Server</strong></td>
<td>Select:</td>
</tr>
<tr>
<td></td>
<td>• <strong>Specify</strong> – to manually configure SIP servers.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Off</strong> – if SIP servers are not present in the network.</td>
</tr>
<tr>
<td><strong>SIP Server IP Address or Name</strong></td>
<td>Enter either the IP address of the preferred SIP server or its host name (if a DNS server is used).</td>
</tr>
<tr>
<td><strong>Server Domain Name</strong></td>
<td>Enter the name of the <strong>SIP domain</strong>.</td>
</tr>
<tr>
<td><strong>Transport Type</strong></td>
<td>Select the transport type and protocol that is used for signaling between the MCU and the SIP Server or the endpoints according to the protocol supported by the SIP Server:</td>
</tr>
<tr>
<td></td>
<td>• <strong>UDP</strong> – Select this option to use UDP for signaling.</td>
</tr>
<tr>
<td></td>
<td>• <strong>TCP</strong> – Select this option to use TCP for signaling.</td>
</tr>
<tr>
<td></td>
<td>• <strong>TLS</strong> – The <strong>Signaling Host</strong> listens on secured port 5061 only and all outgoing connections are established on secured connections. Calls from SIP clients or servers to non secured ports are rejected. The following protocols are supported:</td>
</tr>
<tr>
<td></td>
<td>• <strong>TLS 1.0</strong></td>
</tr>
<tr>
<td></td>
<td>• <strong>SSL 2.0</strong></td>
</tr>
<tr>
<td></td>
<td>• <strong>SSL 3.0</strong></td>
</tr>
</tbody>
</table>

14 Click **Next**.
15. Enter the required **Security** information in the dialog box.

### Table 2-7 Default IP Network Service – Security

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SIP Authentication</strong></td>
<td>Click this check box to enable SIP proxy authentication. Select this check box only if the authentication is enabled on the SIP proxy, to enable the Collaboration Server to register with the SIP proxy. If the authentication is enabled on the SIP proxy and disabled on the Collaboration Server, calls will fail to connect to the conferences. Leave this check box cleared if the authentication option is disabled on the SIP proxy.</td>
</tr>
<tr>
<td><strong>User Name</strong></td>
<td>Enter the user name the Collaboration Server will use to authenticate itself with the SIP proxy. This name must be defined in the gatekeeper. These fields can contain up to 20 ASCII characters.</td>
</tr>
<tr>
<td><strong>Password</strong></td>
<td>Enter the password the Collaboration Server will use to authenticate itself with the gatekeeper. This password must be defined in the SIP proxy.</td>
</tr>
</tbody>
</table>
Table 2-7  Default IP Network Service – Security (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H.323 Authentication</td>
<td>Click this check box to enable H.323 server authentication. Select this check box only if the authentication is enabled on the gatekeeper, to enable the Collaboration Server to register with the gatekeeper. If the authentication is enabled on the gatekeeper and disabled on the Collaboration Server, calls will fail to connect to the conferences. Leave this check box cleared if the authentication option is disabled on the gatekeeper.</td>
</tr>
<tr>
<td>User Name</td>
<td>Enter the user name the Collaboration Server will use to authenticate itself with the gatekeeper. This name must be defined in the gatekeeper. These fields can contain up to 64 ASCII characters.</td>
</tr>
<tr>
<td>Password</td>
<td>Enter the password the Collaboration Server will use to authenticate itself with the gatekeeper. This password must be defined in the gatekeeper.</td>
</tr>
</tbody>
</table>

16 Click Save & Continue.
The IP Network Service is created and confirmed.
Click **OK**.
The **RMX Time** dialog box is displayed.

17 Set the **RMX Time** using one of the three available options: setting the **RMX Time** manually, clicking the **Retrieve Client Time** button, or using the **NTP Servers** options.

**Table 2-8**  Fast Configuration Wizard - Collaboration Server Time

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GMT Date</strong></td>
<td>The date at Greenwich, UK.</td>
</tr>
<tr>
<td><strong>Local Time</strong></td>
<td>The MCU’s local time settings, are calculated from the <strong>GMT Time</strong> and the <strong>GMT Offset</strong>.</td>
</tr>
<tr>
<td><strong>GMT Time</strong></td>
<td>Displays the MCU’s current <strong>GMT Time</strong> settings.</td>
</tr>
<tr>
<td><strong>GMT Offset</strong></td>
<td>The time zone difference between Greenwich and the MCU’s physical location.</td>
</tr>
<tr>
<td><strong>Retrieve Client Time</strong></td>
<td><strong>Option 2:</strong> Automatically setting the MCU time:</td>
</tr>
<tr>
<td></td>
<td>• Click this button to automatically update the MCU’s <strong>GMT Date</strong>, <strong>Time</strong> and <strong>Offset</strong> to match that of the workstation.</td>
</tr>
</tbody>
</table>
Table 2-8  Fast Configuration Wizard - Collaboration Server Time (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Use NTP Server</strong></td>
<td><strong>Option 3:</strong> Setting the MCU time by synchronizing with external NTP servers:</td>
</tr>
<tr>
<td></td>
<td>• Select this check box to synchronize the time with up to three external NTP servers. Once selected, you must enter the IP address of at least one external NTP server to implement this mode.</td>
</tr>
<tr>
<td></td>
<td>• Enter the IP addresses of the required NTP servers in order of precedence.</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td>• When this option is selected, the manual GMT Date and GMT Time setting options are disabled. The GMT Offset fields are still active.</td>
</tr>
<tr>
<td></td>
<td>• The Status fields in Settings &gt; RMX Time indicate whether time retrieval from the NTP Server(s) succeeded or failed.</td>
</tr>
</tbody>
</table>

18 Click Next.

The Administrator User dialog box is displayed.

![Administrator User Dialog Box]

19 Enter the required Administrator User information:

Table 2-9  Fast Configuration Wizard - Administrator User

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New User Name</strong></td>
<td>Enter the new user name of the new administrator user.</td>
</tr>
<tr>
<td><strong>New Password</strong></td>
<td>Enter the password for the new administrator user.</td>
</tr>
<tr>
<td><strong>Confirm Password</strong></td>
<td>Enter the same password again to confirm its accuracy.</td>
</tr>
</tbody>
</table>
20 Click Next.

The System Flags dialog box is displayed.

21 Enter the required System Flags information in the dialog box.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description / Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conference ID Length (MCU)</td>
<td>The number of digits of the Conference ID to be assigned by the MCU. Range: 2-16 (Default: 5)</td>
</tr>
<tr>
<td>Minimum Conference ID Length (User)</td>
<td>The minimum number of digits that the user must enter when manually assigning a numeric ID to a conference. Range: 2-16 (Default: 4)</td>
</tr>
<tr>
<td>Maximum Conference ID Length (User)</td>
<td>The maximum number of digits that the user can enter when manually assigning a Numeric ID to a conference. Range: 2-16 (Default: 8)</td>
</tr>
<tr>
<td>MCU Display Name</td>
<td>The MCU name is displayed on the endpoint’s screen. Default name: RMX 1800</td>
</tr>
<tr>
<td>Terminate Conference when Chairperson Exits</td>
<td>When Yes is selected (default), the conference ends when the chairperson exits even if there are other participants connected. When No is selected, the conference automatically ends at the predefined end time, or when all the participants have disconnected from the conference.</td>
</tr>
<tr>
<td>Auto Extend Conferences</td>
<td>When Yes is selected (default), allows conferences running on the Collaboration Server to be automatically extended as long as there are participants connected and there are available resources. The maximum extension time allowed by the MCU is 30 minutes.</td>
</tr>
</tbody>
</table>

Note: Selecting 2 digits limits the number of simultaneous ongoing conferences to 99.
22 Click **Save & Close**.

   The system confirms successful configuration.

23 In the **Success Message** box, click **OK**.

24 In the **Reset Confirmation** dialog box, click **Yes**.

25 In the **Please wait for system reset** message box, click **OK**.

   System restart may take up to five minutes.

26 Refresh the browser periodically until the **Login** screen is displayed.

27 When the **Login** screen is displayed, enter your **Username** and **Password** and click **Login**.

The **Fast Configuration Wizard** configures the **Default IP Network Service** with common parameters. Specific or additional settings (e.g., Secured Mode) should be performed once the initial configuration is complete. For detailed description of the IP Network Services, see the **Polycom RMX 1800 Administrator’s Guide**, “Multilingual Setting” on page 19-33.

---

**Selecting the Collaboration Server Web Client Languages**

By default, the Collaboration Server Web Client interface is displayed only in English. However, the system administrator can choose the languages available for selection on the **Login** screen. These languages are represented by flags.

**To choose the languages for selection in the Login screen:**

1. On the Collaboration Server menu, click **Setup > Customized Display Settings > Multilingual Setting**.


   If the selected language is not supported by the browser or the workstation’s Operating System, the **Collaboration Server Web Client** is displayed in English.

3. Click **OK**.

4. Log out and reconnect to the Collaboration Server.

   The **Login** screen will display the flags of the selected languages.
RMX 1800 Default Conferencing Settings

The Collaboration Server is shipped with default pre-configured conferencing entities set to CP (AVC) Conferencing Mode, which allow the MCU users and participants to start CP AVC ongoing conferences without further configuration.

The default conferencing entities are:

**Table 2-11 Default AVC-based Conferencing Entities**

<table>
<thead>
<tr>
<th>Entity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meeting Rooms</td>
<td>Conferences saved on the MCU without using resources. They are activated when the first participant dials in. There are four Meeting Rooms ready for use:</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
</tr>
<tr>
<td>Maple_Room 1001</td>
<td>ACT</td>
</tr>
<tr>
<td>Oak_Room 1002</td>
<td>ACT</td>
</tr>
<tr>
<td>Juniper_Room 1003</td>
<td>ACT</td>
</tr>
<tr>
<td>Fig_Room 1004</td>
<td>ACT</td>
</tr>
</tbody>
</table>

Each Meeting Room uses the default Conference Profile called Factory_Video_Profile set to CP (AVC) Only Conferencing Mode, running at 384Kbps and has a default duration of one hour.

**Conference Profile**

Name: Factory_Video_Profile

A CP (AVC) Only Conference Profile is assigned to a Meeting Room to define its Conferencing Mode, conferencing parameters, such as line rate and video resolution. Factory_Video_Profile contains AVC video parameters with a bit rate of 384Kbps, Auto Layout and Polycom Skin. The Profile uses an IVR Service called Conference IVR Service.

**Conference IVR Service**

Name: Conference IVR Service

The Conference IVR Service includes an optional video slide and all the voice messages played during the participant’s connection process and during the conference. The Conference IVR Service contains a set of voice prompts in English and an optional video slide. It automates the participant’s connection to a conference.
Using an Entry Queue enables one dial-in number to be used for all AVC-based connections. In the Entry Queue, AVC participants are prompted for information to enable routing to their destination conferences. A default Entry Queue called DefaultEQ is provided. The default Entry Queue is also set to Ad Hoc conferencing which allows participants to start new conferences without prior definition by entering a Conference or Meeting Room ID that is not used by any ongoing conference currently running on the MCU. It uses an Entry Queue IVR Service called Entry Queue IVR Service. The default Welcome Slide displayed at the participants endpoint upon connection to the Entry Queue and lists the default Meeting Rooms. The participant can select one of these Meeting Rooms or enter another ID to start a new conference. If no Transit Entry Queue is defined, DefaultEQ is the default Transit Entry Queue. For more information see the Polycom RMX 1800 Administrator’s Guide, “Transit Entry Queue” on page 7-5.

<table>
<thead>
<tr>
<th>Entity</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Entry Queue (AVC endpoints)** | **Name** | ID  
DefaultEQ 1000  
Using an Entry Queue enables one dial-in number to be used for all AVC-based connections. In the Entry Queue, AVC participants are prompted for information to enable routing to their destination conferences. A default Entry Queue called DefaultEQ is provided. The default Entry Queue is also set to Ad Hoc conferencing which allows participants to start new conferences without prior definition by entering a Conference or Meeting Room ID that is not used by any ongoing conference currently running on the MCU. It uses an Entry Queue IVR Service called Entry Queue IVR Service. The default Welcome Slide displayed at the participants endpoint upon connection to the Entry Queue and lists the default Meeting Rooms. The participant can select one of these Meeting Rooms or enter another ID to start a new conference. If no Transit Entry Queue is defined, DefaultEQ is the default Transit Entry Queue. For more information see the Polycom RMX 1800 Administrator’s Guide, “Transit Entry Queue” on page 7-5. |
| **Entry Queue IVR Service** | **Name:** Entry Queue IVR Service  
Includes all the voice messages and video slides used to guide AVC participants though their connection process to the MCU and route them to their destination conference. Entry Queue IVR Service is the default Entry Queue IVR Service provided for the default Entry Queue. |
Customizing the RMX 1800 Default Conferencing Settings

You can customize the conferencing entities to your organization’s requirements:

• To modify the properties of an existing CP AVC-based conference Profile, such as the conference line rate, specific video layout for the conference, create a new Conference Profile.

You can create a new CP AVC-based conference Profiles, to define additional conferencing parameters and video session types.

For more information, see the Polycom RMX 1800 Administrator’s Guide, "Defining New Profiles” on page 2-9.

To allow AVC participants to connect to a single dial Entry Queue at a line rate other than 384 Kbps (as in the default Entry Queue) or play voice messages in different languages – create a new Entry Queue.

For more information, see the Polycom RMX 1800 Administrator’s Guide, "Defining a New Conference IVR Service” on page 15-6.

• You can personalize Meeting Rooms for people in your organization with predefined conference and chairperson passwords (for added security) and allow only authorized people to start on going conferences. For more information, see the Polycom RMX 1800 Administrator’s Guide, "Meeting Rooms” on page 6-1.

• The conferencing entities are designed mainly for dial in participants without prior definition of participants. You can create your own Address Book containing a list of AVC participants to be dialed by the MCU. Once defined, these participants can be added to ongoing conferences saving the need to define them again.

For more information, see the Polycom RMX 1800 Administrator’s Guide, "Address Book” on page 8-1.

• You can schedule conferences to start in the future. For more details, see the Polycom RMX 1800 Administrator’s Guide, "Reservations” on page 9-1.
Basic Operation

The MCU can be controlled using the Collaboration Server Web Client and the RMX Manager application. The most common operations performed via these applications are:

- Starting, monitoring and managing conferences
- Monitoring and managing participants and endpoints as individuals or groups.
  - Participant – A person using an endpoint to connect to a conference. When using a Room System, several participants use a single endpoint.
  - Endpoint – A hardware device, or set of devices, that can call, and be called by an MCU or another endpoint. For example, an endpoint can be a phone, a camera and microphone connected to a PC or an integrated Room System (conferencing system).
  - Group – A group of participants or endpoints with a common name.

Starting the Collaboration Server Web Client

You start the Collaboration Server Web Client by connecting to the MCU system. To connect to the MCU you need to get the following information from your system administrator:

- User name
- Password
- MCU Control Unit IP Address

To start the Collaboration Server Web Client:

1. In your browser address line, enter http://<Control Unit IP Address> and press the Enter key.
The Login screen is displayed.

2 Enter your Username and Password and click the Login button.

If the default User name and password were not changed on first entry, the default Username and Password are both POLYCOM.

The Collaboration Server Web Client main screen is displayed.

The Login screen contains a link to the RMX Manager installer.

Using the RMX Manager application, a single user can control a single or multiple Collaboration Server units as well as conferences from multiple Collaboration Servers. The RMX 1800 can also be managed and controlled by the same RMX Manager application.

For more information see the Polycom RMX 1800 Administrator’s Guide, "RMX Manager Application" on page 20-1.

**Collaboration Server Web Client Screen Components**

The Collaboration Server Web Client’s main screen consists of the following panes:

- Conference List
- List Pane
- Collaboration Server Management
- Status Bar
- Address Book
- Conference Templates Tab

You can login as a user with Chairperson, Operator or Administrator authorization. Your Authorization Level determines your viewing and system functions.
The Administrator’s view is shown below:

The main screen can be customized. For more information, see "Customizing the Main Screen" on page 3-10.

**Viewing and System Functionality Permissions**

The Collaboration Server Web Client user’s viewing and system functionality depend on the Authorization Level assigned to each user as summarized in Table 3-1:

<table>
<thead>
<tr>
<th>Table 3-1 Viewing and System Permissions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Authorization Level</strong></td>
</tr>
<tr>
<td>Chairperson</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Viewing Permissions</td>
</tr>
<tr>
<td>Conference List</td>
</tr>
<tr>
<td>List Pane</td>
</tr>
<tr>
<td>Address Book</td>
</tr>
<tr>
<td>Conference Templates</td>
</tr>
<tr>
<td>Status Bar</td>
</tr>
<tr>
<td>RealPresence Collaboration Server Management</td>
</tr>
</tbody>
</table>
Table 3-1  Viewing and System Permissions (Continued)

<table>
<thead>
<tr>
<th>Conference Alarms</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Conference Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Configurations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>System Functionality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start Conferences</td>
</tr>
<tr>
<td>Monitor Conferences</td>
</tr>
<tr>
<td>Monitor Participants</td>
</tr>
<tr>
<td>Solve Basic Problems</td>
</tr>
<tr>
<td>Modify MCU Configuration</td>
</tr>
</tbody>
</table>

In addition to Chairpersons, Operators and Administrators, additional user types are:

- **Auditor**: A user that can view Auditor Files and audit the system. For more information see the Polycom RMX 1800 Administrator’s Guide, “Auditor” on page 21-61.
- **Administrator - Read Only**: A user with the viewing and monitoring permissions of a regular Administrator, but can only create system backups and cannot perform any other functional operation. For more information see the Polycom RMX 1800 Administrator’s Guide, "RMX Users" on page 15-1.

For more information, see the Polycom RMX 1800 Administrator’s Guide, "Users, Connections, and Notes" on page 14-1.

Conferences List

If you are logged in as a User with Operator or Administrator permissions:

The Conferences pane lists all the conferences currently running on the MCU along with their Status, Conference ID, Start Time and End Time data. The number of ongoing conferences is displayed in the pane’s title.

The Conferences list toolbar contains the following buttons:

- **New Conference** – to start a new ongoing conference.
- **Delete Conference** – delete the selected conference(s).
• Save Conference to Template - to save the conference with its participants to a template for future use.

• If Conference Recording is enabled for AVC Only conferences, the following buttons are displayed in color:
  — Start/Resume Recording – start/resume recording.
  An Recording Indication is displayed to all conference participants informing them that the conference is being recorded.
  — Stop Recording – stop recording.
  — Pause – toggles with the Start/Resume button.
  APaused Indication is displayed to all conference participants informing them that conference recording has been paused.

If you are logged in as a User with Chairperson permissions:
• You can list and monitor conferences you have started or for which you have entered the password or that don’t have a Chairperson Password assigned.

• A Chairperson Password field and a Refresh button are displayed. The Refresh button does not change the Chairperson Password; it refreshes the Conferences list to display all ongoing conferences with the requested password. For more information see “Using the Chairperson Password for Filtering” on page 3-32.

• A Chairperson Password column is included in the conference data.

List Pane

The List pane displays details of the item selected in the Conferences pane or RMX Management pane.

The title of the pane changes according to the selected item.

Example: When an ongoing conference is selected in the Conferences pane, the list and parameters of the connected participants is displayed.

Selecting an item in the RMX Management pane lists the items currently defined.

Example: If the Users item is selected, a list of system Users defined for the MCU is displayed.

RMX Management Pane

The RMX Management pane lists the entities that need to be configured to enable the RMX to run conferences. Only users with Administrators permission can modify these parameters.

The RMX Management pane is divided into two sections:
• Frequently Used – parameters often configured monitored or modified.
• **Rarely Used** – parameters configured during initial system set-up and rarely modified afterward.

Items can be moved between these two sections to customize the management tasks per system User. For more details, see "Customizing the RMX Management Pane" on page 3-11.

### Status Bar

The Status Bar at the bottom of the Collaboration Server Web Client contains System and Participant Alerts tabs as well as Port Usage Gauges and an MCU State indicator.

#### System Alerts

This is a list of system problems. The alert indicator flashes red when at least one system alert is active. The flashing continues until a user with Operator or Administrator permission reviews the list.

The System Alerts pane is opened and closed by clicking the System Alerts button in the left corner of the Status Bar.

For more information about Active Alarms and Faults List, see the Polycom RMX 1800 Administrator’s Guide, “System and Participant Alerts” on page 19-1.

#### Participant Alerts

This is a list of participants that are experiencing connection problems. It is sorted by conference.

The Participant Alerts pane is opened and closed by clicking the Participant Alerts button in the left corner of the Status Bar.
Port Usage Gauges

The Port Usage gauge indicates:

- The total number of Video or Voice ports in the system according to the Video/Voice Port Configuration.
- The number of Video and Voice ports in use.
- The High Port Usage threshold.

The High Port Usage threshold represents a percentage of the total number of video or voice ports available. It is set to indicate when resource usage is approaching its maximum, resulting in no free resources to run additional conferences. When port usage reaches or exceeds the threshold, the red area of the gauge flashes. The default port usage threshold is 80% and it can be modified by the system administrator. For more information, see the Polycom RMX 1800 Administrator’s Guide, “Port Usage Threshold” on page 19-10.

MCU State

The MCU State indicator displays one of the following:

- The MCU is starting up. The time remaining until the system start-up is complete is displayed between brackets while a blue progress indicator bar indicates the start-up progress.
- The MCU is functioning normally.
- The MCU has a major problem. MCU behavior could be affected and attention is required.
Address Book

The Address Book is a list of Participants and Groups that have been defined on the MCU. The information in the Address Book can be modified only by an administrator. All system users can, however, view and use the Address Book to assign participants to conferences.

The Address Book toolbar contains a Quick Search field and the following six buttons:

- New Participant
- Delete Participant
- Import Address Book
- New Group
- Delete Group
- Export Address Book

The Navigation pane of the Address Book contains the following types of lists:

- **Hierarchical** — displays a multi-level hierarchical tree of groups and participants. Double-clicking a group on the navigation pane displays the group participants and sub-groups in the List pane.

- **All Participants** — when clicked, displays the single unique entity of all the participants in a single level as in previous versions. When adding a participant to a group, the system adds a link to the participant’s unique entity that is stored in the All Participants list.

The Participants List in the Address Book lists entries according to:

- **Type** – whether an individual Participant or a Group of participants
- **Name** – of the participant or group
- **Dialing Direction** – Dial-in or Dial-out
- **IP Address/Phone** – of the participant
- **Encryption** - whether the participant is encrypted, not encrypted or the system automatically selects the encryption according to the conference settings
Displaying and Hiding the Address Book

The first time you access the Collaboration Server Web Client, the Address Book pane is displayed. You can hide it by clicking the anchor pin () button. The Address Book pane closes and a tab appears at the right edge of the screen. Click the tab to re-open the Address Book.

Conference Templates

Conference Templates enable administrators and operators to create, save, schedule and activate identical conferences.

A Conference Template:
• Saves the conference Profile.
• Saves all participant parameters including their Personal Layout and Video Forcing settings.
• Simplifies the setting up Telepresence conferences where precise participant layout and video forcing settings are crucial.

Displaying and Hiding Conference Templates

The Conference Templates list pane is initially displayed as a closed tab in the Collaboration Server Web Client main window. The number of saved Conference Templates is indicated on the tab.
Clicking the tab opens the Conference Templates list pane.

Hide the Conference Templates list pane by clicking the anchor pin (📸) button in the top right corner of the pane. The Conference Templates list pane closes and a tab appears in the top right corner of the screen.

**Customizing the Main Screen**

You can customize the main screen according to your preferences. Pane sizes can be changed, column widths can be adjusted and data lists can be sorted.

![Customization settings are automatically saved for each logged-in user.](image)

The next time the Collaboration Server Web Client is opened, the main screen settings appear as they were when the user exited the application.

**To re-size a pane:**

>> Move the pointer over the pane border and when the pointer becomes a ⬤ click and drag the pane border to the required size and release the mouse button.

**To adjust column width:**

1. In the column header row, place the pointer on the vertical field-separator bar of the column.
2. When the pointer becomes a ✡ , click and drag the field separator bar to the required column size and release the mouse button.

**To sort the data by any field (column heading):**

1. In the Conference list or List view pane, click on the column heading of the field to be used for sorting.
   
   A ▼ or ▲ symbol appears in the column heading indicating that the list is sorted by this field, as well as the sort order.
2. Click on the column heading to toggle the column’s sort order.

**To change the order of columns in a pane:**

>> Click the column heading to be moved and drag it to its new position. When a set of red arrows appears indicating the column’s new position, release the mouse button.
To restore the RMX display window to its default configuration:
>> On the system menu, click View > Restore RMX Display Defaults.

**Increasing and Decreasing the Text Size**

You can increase or decrease the text size of the Collaboration Server Web Client windows for easier readability.

To increase or decrease the text size:
1. On the system menu, click View.
2. Select the drop-down arrow on the Zoom option and click the desired text size percentage (default is 100%).

In some cases, the text in the dialog boxes in the Collaboration Server Web Client might appear not aligned or incomplete. This issue is not caused by setting the Zoom option. Rather, the text size in the Display settings in Windows Control Panel may affect the display of the dialog boxes. Check the Windows Display settings by clicking the Windows Start button and selecting Control Panel>Display. For Windows XP, click the Appearance tab, select Normal for the Font size and click OK. For Windows 7, select the Smaller - 100% option and click OK.

**Customizing the RMX Management Pane**

The RMX Management pane can be viewed either as a list or as a toolbar.

To switch between Toolbar and List Views:
1. In the RMX Management pane, click the Toolbar View button to switch to Toolbar view.
2. In Toolbar view, click the List View button to switch back to List view.

In List view, you can move items between the Frequently Used and Rarely Used sections depending on the operations you most commonly perform and the way you prefer to work with the Collaboration Server Web Client. This option does not work in Toolbar view as all items are represented by icons.

To expand or collapse the Frequently Used and Rarely Used sections:
The Frequently Used and Rarely Used sections can be expanded or collapsed by clicking the + and - buttons.

To move items within and between the Frequently Used and Rarely Used sections:
1. In the RMX Management pane click and drag the icon of the item that you wish to move.
An indicator line (→) appears indicating the new position of the icon.

2 Release the mouse button when the icon is in the desired position.

Starting a Conference

There are several ways to start a conference:

- Clicking the New Conference button in the Conferences pane. For more information, see “Starting a Conference from the Conferences Pane” on page 3-12.

- Dialing in to a Meeting Room.

  A Meeting Room is a conference that is saved on the MCU. It remains in passive mode until it is activated by the first participant, or the meeting organizer, dialing in.

  For more information about Meeting Rooms, see the Polycom RMX 1800 Administrator’s Guide, “Meeting Rooms” on page 6-1.

- Dialing in to an Ad Hoc Entry Queue which is used as the access point to the MCU. This option is valid to AVC participants dialing into an AVC-based or a Mixed CP and SVC Entry Queue.

  For a detailed description of Ad Hoc Entry Queues, see the Polycom RMX 1800 Administrator’s Guide, “Entry Queues” on page 7-1.

- Start a Reservation:
  - If the Start Time of the Reservation is past due the conference becomes ongoing immediately.
  - If the Start Time of the Reservation is in the future the conference becomes ongoing, at the specified time on the specified date.

  For more information, see “Changes made to this information once the conference is running are not saved to the CDR.” on page 3-18.

- Start any Conference Template saved in the Conference Templates list.

  For more information, see “Starting an Ongoing Conference From a Template” on page 3-21.

Starting a Conference from the Conferences Pane

To start a CP conference from the Conference pane:

1 In the Conferences pane, click the New Conference (.addButton.}
The New Conference – General dialog box opens.

The system displays the conference default *Name*, *Duration* and the default *Profile*, which contains the conference parameters and media settings.

The system automatically allocates the conference *ID*, when the conference starts.

In most cases, the default conference *ID* can be used and you can just click **OK** to launch the conference. If required, you can enter a conference *ID* before clicking **OK** to launch the conference.

If you are the meeting chairperson or organizer using the Collaboration Server Web Client to start your own meeting, you need to communicate the default conference ID (or the one you created) to the other conference participants so they can dial in.

You can use the *New Conference - General* dialog box to modify the conference parameters. If no defined participants are to be added to the conference, or you do not want to add additional information, click **OK**.
General Tab

2 Define the following parameters:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Display Name</strong></td>
<td>The Display Name is the conferencing entity name in native language character sets to be displayed in the RP Collaboration Server Web Client.</td>
</tr>
<tr>
<td></td>
<td>In conferences, Meeting Rooms, Entry Queues and SIP factories the system automatically generates an ASCII name for the Display Name field that can be modified using Unicode encoding.</td>
</tr>
<tr>
<td></td>
<td>• English text uses ASCII encoding and can contain the most characters (length varies according to the field).</td>
</tr>
<tr>
<td></td>
<td>• European and Latin text length is approximately half the length of the maximum.</td>
</tr>
<tr>
<td></td>
<td>• Asian text length is approximately one third of the length of the maximum.</td>
</tr>
<tr>
<td></td>
<td>The maximum length of text fields also varies according to the mixture of character sets (Unicode and ASCII).</td>
</tr>
<tr>
<td></td>
<td>Maximum field length in ASCII is 80 characters.</td>
</tr>
<tr>
<td></td>
<td>If the same name is already used by another conference, Meeting Room or Entry Queue, the Collaboration Server displays an error message requesting you to enter a different name.</td>
</tr>
<tr>
<td><strong>Duration</strong></td>
<td>Define the duration of the conference in hours using the format HH:MM (default 01:00).</td>
</tr>
<tr>
<td></td>
<td>Default minimum duration is 11 minutes when the Automatic Extension of conference duration mechanism is enabled.</td>
</tr>
<tr>
<td></td>
<td>To define a shorter duration, the Automatic Extension of conference duration mechanism is disabled, by setting the system flag</td>
</tr>
<tr>
<td></td>
<td>ENABLE_AUTO_EXTENSION to NO. For more information about system flags, see the Polycom RMX 1800 Administrator’s Guide, &quot;Modifying System Flags&quot; on page 20-1.</td>
</tr>
<tr>
<td><strong>Routing Name</strong></td>
<td>Routing Name is the name with which ongoing conferences, Meeting Rooms, Entry Queues and SIP Factories register with various devices on the network such as gatekeepers and SIP servers. This name must be defined using ASCII characters.</td>
</tr>
<tr>
<td></td>
<td><strong>Comma, colon and semicolon characters cannot be used in the Routing Name.</strong></td>
</tr>
<tr>
<td></td>
<td>The Routing Name can be defined by the user or automatically generated by the system if no Routing Name is entered as follows:</td>
</tr>
<tr>
<td></td>
<td>• If ASCII characters are entered as the Display Name, it is used also as the Routing Name.</td>
</tr>
<tr>
<td></td>
<td>• If a combination of Unicode and ASCII characters (or full Unicode text) is entered as the Display Name, the ID (such as Conference ID) is used as the Routing Name.</td>
</tr>
<tr>
<td></td>
<td>If the same name is already used by another conference, Meeting Room or Entry Queue, the Collaboration Server displays an error message and requests that you enter a different name.</td>
</tr>
</tbody>
</table>
The system displays the name of the default Conference Profile. Select the required Profile from the list.
The Conference Profile includes the conferencing mode, conference line rate, media settings and general settings.
For a detailed description of Conference Profiles, see the Polycom RMX 1800 Administrator’s Guide, "Conference Profiles" on page 2-1.

Enter the unique-per-MCU conference ID. If left blank, the MCU automatically assigns a number once the conference is launched. This ID must be communicated to conference participants to enable them to dial in to the conference.
**Note:** If setting the Conference ID to the digits that are used for MCU prefix in Gatekeeper (for example gatekeeper prefix is set to 10 and the conference ID is 1001), the system will not be able to dial to the destination conference as the prefix digits are truncated from the conference ID, preventing the system from locating it.
**Note:** If SIP Factories are used do not use the number 7001 as an ID. 7001 is the default SIP Factory ID.

Enter a password to be used by participants to access the conference. If left blank, no password is assigned to the conference. This password is valid only in conferences that are configured to prompt for a conference password.
This field is numeric and has a default length of 4 characters. The administrator can modify it in the Setup - System Configuration settings. For more information, see the Polycom RMX 1800 Administrator’s Guide, "Modifying System Flags" on page 20-1. The Collaboration Server can be configured to automatically generate conference (and chairperson) passwords when these fields are left blank. For more information, see the Polycom RMX 1800 Administrator’s Guide, "Automatic Password Generation Flags" on page 20-23.

Enter a password to be used by the Collaboration Server to identify the Chairperson and grant him/her additional privileges. If left blank, no chairperson password is assigned to the conference. This password is valid only in conferences that are configured to prompt for a chairperson password.
This field is numeric and has a default length of 4 characters. The administrator can modify it in the Setup - System Configuration settings. For more information, see the Polycom RMX 1800 Administrator’s Guide, "Modifying System Flags" on page 20-1. The Polycom RMX 1800 Administrator’s Guide can be configured to automatically generate chairperson (and conference) passwords when these fields are left blank. For more information, see the Polycom RMX 1800 Administrator’s Guide, "Manually Adding and Deleting System Flags" on page 20-10.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profile</td>
<td>The system displays the name of the default Conference Profile. Select the required Profile from the list. The Conference Profile includes the conferencing mode, conference line rate, media settings and general settings. For a detailed description of Conference Profiles, see the Polycom RMX 1800 Administrator’s Guide, &quot;Conference Profiles&quot; on page 2-1.</td>
</tr>
<tr>
<td>ID</td>
<td>Enter the unique-per-MCU conference ID. If left blank, the MCU automatically assigns a number once the conference is launched. This ID must be communicated to conference participants to enable them to dial in to the conference. <strong>Note:</strong> If setting the Conference ID to the digits that are used for MCU prefix in Gatekeeper (for example gatekeeper prefix is set to 10 and the conference ID is 1001), the system will not be able to dial to the destination conference as the prefix digits are truncated from the conference ID, preventing the system from locating it. <strong>Note:</strong> If SIP Factories are used do not use the number 7001 as an ID. 7001 is the default SIP Factory ID.</td>
</tr>
<tr>
<td>Conference Password</td>
<td>Enter a password to be used by participants to access the conference. If left blank, no password is assigned to the conference. This password is valid only in conferences that are configured to prompt for a conference password. This field is numeric and has a default length of 4 characters. The administrator can modify it in the Setup - System Configuration settings. For more information, see the Polycom RMX 1800 Administrator’s Guide, &quot;Modifying System Flags&quot; on page 20-1. The Collaboration Server can be configured to automatically generate conference (and chairperson) passwords when these fields are left blank. For more information, see the Polycom RMX 1800 Administrator’s Guide, &quot;Automatic Password Generation Flags&quot; on page 20-23.</td>
</tr>
<tr>
<td>Chairperson Password</td>
<td>Enter a password to be used by the Collaboration Server to identify the Chairperson and grant him/her additional privileges. If left blank, no chairperson password is assigned to the conference. This password is valid only in conferences that are configured to prompt for a chairperson password. This field is numeric and has a default length of 4 characters. The administrator can modify it in the Setup - System Configuration settings. For more information, see the Polycom RMX 1800 Administrator’s Guide, &quot;Modifying System Flags&quot; on page 20-1. The Polycom RMX 1800 Administrator’s Guide can be configured to automatically generate chairperson (and conference) passwords when these fields are left blank. For more information, see the Polycom RMX 1800 Administrator’s Guide, &quot;Manually Adding and Deleting System Flags&quot; on page 20-10.</td>
</tr>
</tbody>
</table>
If all participants are undefined, dial-in and no additional information is required for the new conference, click OK.

To add participants from the Participants Address Book or to define participants (mainly dial-out participants) click the Participants tab.

### Participants Tab

This procedure is optional.
The Participants tab is used to add participants to the conference from the Address Book or by defining them. Defined dial-out participants are connected to the conference automatically when the conference is launched, unless the Dial Out Manually option is selected.

Click the Participants tab.

The Participants tab opens.

When defining a new conference, the Participants List is empty.

The following table describes the information displayed in the Participants List and the operations that can be performed.

**Table 3-2 New Conference – General Options (Continued)**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Number of Participants</td>
<td>Indicate the total number of participants that can be connected to the conference. The automatic setting indicates that the maximum number of participants that can be connected to the conference is determined according to resource availability. <strong>Note:</strong> If a number is specified, it should be large enough to accommodate the participants specified in the Reserve Resources for Video/Audio Participants fields.</td>
</tr>
</tbody>
</table>

**Table 3-3 New Conference – Participants Tab**

<table>
<thead>
<tr>
<th>Column / Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants List</td>
<td>A Unicode field that displays the participant’s name and an icon representing the endpoint type: Voice or Video.</td>
</tr>
</tbody>
</table>
Participants can be added to the conference in the following methods:

- Defining a new participant during the definition of the conference (clicking the **New** button).
- Adding pre-defined participants from the *Address Book* by either selecting the participants from the list or dragging and dropping the participants from the *Address Book* to the Participants list.
- Dial-in participants can connect to the conference after it was started (without using the *New Conference - Participants* dialog box).

### Table 3-3 New Conference – Participants Tab (Continued)

<table>
<thead>
<tr>
<th>Column / Button</th>
<th>Description</th>
</tr>
</thead>
</table>
| IP Address/Phone | Indicates the IP address or phone number of the participant’s endpoint.  
  - For dial-out connection, displays the IP address or phone number of the endpoint called by the RMX 1800.  
  - For dial-in connection, displays the participant’s IP address or phone number used to identify and route the participant to the appropriate conference. |
| Alias Name/SIP Address (IP Only) | Displays the alias name of an H.323 endpoint or the SIP URL. |
| Network | The network communication protocol used by the endpoint to connect to the conference: H.323 or SIP. |
| Dialing Direction | Select the dialing direction:  
  - **Dial-in** – The participant dials in to the conference. This field applies to IP participants only.  
  - **Dial-out** – The MCU dials out to the participant. |
| Encryption | Displays whether the endpoint uses encryption for its media. The default setting is Auto, indicating that the endpoint must connect according to the conference encryption setting. |
| Lecturer | This option is used to activate the Lecture Mode. Select the participant you want to designate as Lecturer from the list of conference participants. The Lecturer can be selected once the conference is running and participants are connected. |
| Buttons **New** | Click to define a new participant. For more information, see the Polycom RMX 1800 Administrator’s Guide, “Adding a New participant to the Address Book Directly” on page 8-8. |
| **Remove** | Click to remove the selected participant from the conference. |
| **Add from Address Book** | Click to add a participant from the Address Book to the conference. |
Once the conference has started, participants can be added to a conference directly from the Participants Address Book without having to use the New Conference – Participants tab. For more details, see “Adding Participants from the Address Book” on page 3-42.

To add participants from the Address Book:

6 In the Participants List, click the Add from Address Book button to open the Participants Address Book.

The All Participants list opens.

7 In the Participants Address Book, select the participants that you want to add to the conference and click the Add button.

Standard Windows multiple selection techniques can be used in this procedure.

8 The selected participants are assigned to the conference and appear in the Participant List.

9 Select additional Participants or click the Close button to return to the Participants tab.

Information Tab

In the Info fields, you can add general information about the conference, such as contact person name, company name, billing code, etc.

This information is written to the Call Detail Record (CDR) when the conference is launched. Changes made to this information once the conference is running are not saved to the CDR.

This procedure is optional.
The information entered into these fields does not affect the conference.
To add information to the conference:

10 Click the Information tab.

The Information tab opens.

11 Enter the following information:

Table 3-4  New Conference – Info Options

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Info1, 2, 3</td>
<td>There are three information fields that allow you to enter general information for the conference such as company name, contact person etc. Unicode can be used in these fields. The maximum length of each field is 80 characters.</td>
</tr>
<tr>
<td>Billing</td>
<td>Enter the conference billing code if applicable.</td>
</tr>
</tbody>
</table>

12 Click OK.

An entry for the new conference appears in the Conferences pane.

If no participants were defined for the conference or as long as no participants are connected, the indication Empty and a warning icon (⚠️) appear in the Status column in the Conferences pane.

The status changes when participants connect to the conference.

If no participant connects within the time specified in the Conference Profiles > Auto Terminate > Before First Joins field, the conference is automatically terminated by the system.
Starting a Reservation

To start a conference from the Reservation Calendar:

1. In the RMX Management pane, click the Reservations entry ( ). The Reservation Calendar is displayed.

2. Click the New Reservation ( ) button.

The New Reservation – General tab dialog box opens.
This dialog box is identical to the New Conference - General dialog box. For a field description, see “General Tab” on page 3-14.

3 Click the OK button.
A confirmation box is displayed stating that the Reservation time is past due and that the conference will become ongoing.

4 Click OK.
The conference is started.
For more information about Reservations, see the Polycom RMX 1800 Administrator’s Guide, “Reservations” on page 9-1.

Starting an Ongoing Conference From a Template

An ongoing conference can be started from any Conference Template saved in the Conference Templates list.

To start an ongoing conference from a Template:
1 In the Conference Templates list, select the Template you want to start as an ongoing conference.

2 Click the Start Conference from Template button.
or Right-click and select Start Conference from Template.

The conference is started.
The name of the ongoing conference in the Conferences list is taken from the Conference Template Display Name.
Participants that are connected to other ongoing conferences when the template becomes an ongoing conference are not connected.

If an ongoing conference, Meeting Room or Entry Queue with the same Display Name, Routing Name or ID already exist in the system, the conference will not be started.

Connecting to a Conference

Direct Dial-in to the MCU

Direct dial-in connection to conferences and Meeting Rooms is available to all endpoints. Participants must be provided with a dialing string which can vary according to the network type, conference password and chairperson password. Participants dial the conference dial-in string and are connected to the conference IVR Service. Once the correct information, such as the conference password and chairperson password are entered, the participants are connected to the conference.

![Image](image.png)

**Figure 3-1** Dial-in Connection via IVR System

In CP AVC Conferencing Mode, the MCU can be configured to enable the chairperson to use the chairperson password as the conference password without the need to enter the conference password.

H.323 Participants (AVC CP Only Conferencing)

For H.323 participants, the dialing string is composed of the MCU prefix in the Gatekeeper and the conference ID.

**Example:**
Prefix in gatekeeper 925
Conference ID 1001
Conference Name Maple_Room
The participant dials 9251001 or 925Maple_room

If there is no gatekeeper defined for the network, H.323 participants dial the MCU’s signaling host IP address and the conference ID, separated by ##.

Example:
MCU (Signaling Host) IP address  172.22.30.40
Conference ID 1001

The participant dials 172.22.30.40##1001

SIP Participants (All Conferences)

For SIP participants the dialing string is composed of:

- The conference routing name and domain name in the following format:
  conference_routing_name@domain_name
- The conference routing name and the IP address of the MCU signaling in the following format:
  conference_routing_name@IP Address of the MCU Signaling

Example:
Conference routing name 1001
MCU domain name polycom.com
MCU (Signaling Host) IP address 172.22.20.42

The participant dials 1001@polycom.com
or:
The participant dials 1001@172.22.20.42
Entry Queue Access

Access via an Entry Queue allows all participants to dial the same entry point that acts as a routing lobby. Once in the Entry Queue, participants are guided to the conference according to the conference ID they enter.

**Figure 3-2 Dial-in Connection via Entry Queue**

H.323 Participants (AVC Participants)

Dialing is executed in the same way as for conferences, where the Entry Queue ID/Name replaces the Conference ID/Name.

H.323 participants dial `[Gatekeeper Prefix][Entry Queue ID/Name]`.

**Example:**
- Prefix in gatekeeper 925
- Entry Queue ID 1000
  - The participant dials 9251000

H.323 participants can bypass the Entry Queue IVR voice messages by adding the correct Conference ID of destination conference to the initial dial string:

`[Gatekeeper Prefix][EQ ID][##Destination Conference ID]`

**Example:**
- Conference ID 1001
  - H.323 participants dial 9251000##1001

H.323 participants can also bypass the conference IVR voice messages by adding the Conference Password to the initial dial string:

`[Gatekeeper Prefix][EQ ID][##Destination Conference ID][##Password]`
Example:
Conference ID 1001
Conference Password 34567
>> H.323 participants dial 9251000##1001##34567

SIP Participants (AVC Participants)
Using an Entry Queue or Meeting Room minimizes the number of conferences that require registration with the SIP server and enables using one URI address for all dial-in connections, using the format:
<Entry Queue routing name>@<domain name> or <Entry Queue routing name>@<MCU signaling IP Address> or <Meeting_Room_Name>**<password>@MCU signaling IP Address>

Examples:
Entry Queue Routing Name DefaultEQ
Domain Name polycom.com
MCU Signaling IP address 172.22.20.42
>> SIP participants dial DefaultEQ@polycom.com, or DefaultEQ@172.22.20.42

Meeting Room Name Maple_Room
Password 1234
MCU Signaling IP address 172.22.20.42
>> SIP participants dial Maple_Room**1234@172.22.20.42

Dial-out Participants (AVC CP Only Conferencing)
Dial-out participants are participants that the MCU dials to their endpoint to connect them to the conference. These participants must be defined in the conference when the conference is started (they are usually added to the conference from the Address Book.)

From version 8.1, H.323 Alias or SIP address can be used instead of the IP address for a participant when a scheduled conference or conference from a template is started.

Automatic Dial Out
Dial-out participants are defined with their dial-out number. Once they are added to the ongoing conference, the MCU automatically calls them at a rate of 1 dial-out per second, using the default IP Network Service defined for them.

Audio and Visual Indications
During conferences, visual and audio indications are used. Various tones and voice messages may be played during the conference, depending on the IVR Service configuration. For more details, see "Audio Indications" on page 3-30.
Visual indications can be displayed on the screen of the endpoint participating in the meeting, usually as an overlay layer on top of the video layout that includes the participants video.

These indications include:
- Site Names displaying the names of the endpoints that are connected to the conference
- Text messages sent by the meeting organizer to all conference participants or selected participants

**Site Names**

During conferences you can view the names of the endpoints that are connected to the conference in your endpoint’s video layout windows. The MCU can display up to 33 characters of the endpoint’s name, depending on the window’s layout (size).

The following is an example of endpoint name display in the endpoint screen:

The display of the site names is enabled or disabled in the conference Profile for CP Only conferences and AVC-based endpoints.

The displayed name is determined as follows:
- The system displays the name that is defined at the endpoint.
- If the endpoint does not send its name:
  - For a defined H.323 or SIP participant:
    - The system displays the name from the participant definition.
  - For an undefined H.323 participant:
    - Display the H.323 ID alias.
    - or
    - Display the E.164 alias.
    - or
    - Display nothing if all the fields are empty.
  - For a SIP undefined participant:
    - Display the SIP DisplayName field.
    - or
    - Display the SIP Address (SIP application server).
    - or
    - Display the SIP ContactDisplay field.
    - or
    - Display nothing if all the fields are empty.
• If the endpoint’s Display Name is changed in the Collaboration Server Web Client, it overrides all the above.

To change the Display Name:
1. In the Participants list, double-click the participant or right-click the participant and then select Participant Properties.
2. Click the Media Sources tab.
   The Participant Properties – Media Sources dialog box opens:
3. Enter the new Display Name in the Name field.
4. Click OK.

Displaying and Hiding Site Names
All Site Names display characteristics are controlled using the Site Names tab in the New Profile and Conference Properties dialog boxes.

Permanent Display of Site Names
Site Names can be permanently displayed on the screens of the endpoints.
For more information see Polycom RMX 1800 Administrator’s Guide, .

Obtaining the Display Name from the Address Book
The MCU can be configured to replace the name of the dial-in IP participant as defined in the endpoint (site name) with the name defined in the address book.
In this process, the system retrieves the data (name, alias, number or IP address) of the dial in participant and compares it first with the conference defined dial-in participants and if the endpoint is not found, it then searches for the endpoint with entries in the address book. After a match is found, the system displays the participant name as defined in the address book instead of the site name, in both the video layout and the Collaboration Server Web Client/RMX Manager.

The system compares the following endpoint data with the address book entries:

- For H.323 participants, the system compares the IP address, Alias, or H.323 number.
- For SIP participants, the system compares the IP address or the SIP URI.

For more details, see the Polycom RMX 1800 Administrator’s Guide, “Obtaining the Display Name from the Address Book” on page 8-23.

**Message Overlay for Text Messaging (AVC Only)**

*Message Overlay* allows messages to be sent during a conference to a single participant, selected number of participants or all participants in to an ongoing conference.

The number of characters that can be included in a message varies according to the language and can differ due to the type of font used. For example, the available number of characters in Chinese is 32 and 48 for English and Russian.

In some languages, for example Russian, when a large font size is selected, both rolling and static messages may be truncated if the message length exceeds the resolution width.

The message can be set to be displayed at various positions on the screen in different colors, static or scrolling.

For more information see the Polycom RMX 1800 Administrator’s Guide “Media Encryption” on page 4-27.
**Network Quality Indication**

If network quality issues occur, the *Network Quality* icon provides information to participants about their own network quality and that of other participants displayed in the cells of the conference *Video Layout*.

The display of the *Network Quality icon* can be customized for the following:

- The participant’s own endpoint
- Participants displayed in the cells of the conference *Video Layout*

The display of *Network Quality* icon (showing or hiding the icon) and the position of the icon in the video layout cell can be customized by modifying the values of the relevant *System Flags*.

For more information see "Manually Adding and Deleting System Flags" on page 20-10.

**Network Quality Levels**

Network quality is determined by the percentage of packet loss according to the following default threshold values:

- Packet loss less than 1% is considered *Normal*
- Packet loss in the range of 1% - 5% is considered *Major*
- Packet loss above 5% is considered *Critical*.

The default *Major* and *Critical* indication threshold values can be manually modified by changing the system flag values.

*Major* and *Critical* states are indicated with yellow and red indicator bars respectively.

When network quality improves from *Critical* to *Major* remaining stable for 5 seconds, the *Network Quality Indicator* is changed accordingly and when network quality improves from *Major* to *Normal*, remaining stable for 5 seconds, the *Network Quality Indicator* is no longer displayed.
Guidelines

Network Quality Indicators are displayed for:

- The Video Channel only in AVC Conferencing Mode.
  Content, Audio and FECC Channel quality issues are not indicated.
- The participant’s own endpoint:
  - Network Quality Indicators are displayed by default and can be disabled
  - For media transmitted to and received from the RMX (Video in / Video out).
- Participants displayed in the cells of the conference Video Layout:
  - Network Quality Indicators are not displayed by default and can be enabled
  - The media transmitted from the endpoint to the RMX (Video in).

Network Quality Indicators:

- Are supported with MPMx cards only
- Are not supported in:
  - SVC Conferencing Mode
  - AVC - Video switched conferences

Audio Indications

During the definition of the IVR Service which is assigned to the conference, you can enable any of the audio tones (Entry tone and Exit tone) or voice messages (when a participant joins the conference or leaves the conference) to be heard during an ongoing conference. If Roll Call is enabled for the conference, a roll call can be requested. In addition, various other massages may be heard during the conference, if enabled. For example, when the conference is being recorded, or when the conference is locked.

Noisy Line Detection and Automatic Muting of Noisy Endpoints

The Collaboration Server can detect AVC-enabled endpoints with a noisy audio channel and automatically mute them, reducing the noise heard by other conference participants. When the auto muted endpoint becomes the “speaker” the endpoint is automatically unmuted by the system. If the speaker halts his/her conversation and the line still emits noises, the endpoint will be automatically muted again.

When the endpoints are automatically muted by the MCU, no indication is displayed in the Collaboration Server Web Client or RMX Manager as the system does not consider it as a “real” mute.

For more information see "Managing Noisy Content Connections" on page 4-20.
Monitoring Ongoing Conferences

Conference monitoring enables you to keep track of conferences and their participants: if all its participants are correctly connected and whether errors or faults have occurred.

General Monitoring

All monitoring and operations procedures performed during ongoing conferences can be performed by either of two methods:

- **Using the buttons** in the toolbars.

  ![Toolbar Buttons](image)

- **Right-clicking** an entity in the Conferences or Participants pane and selecting an operation from the menu.

  ![Operations Menu](image)

Multi Selection

Using multiple selection, you can monitor and perform simultaneous operations on multiple participants in multiple conferences.

The selected conferences are displayed as sub-lists in the Participants list pane.
The sub-lists can be expanded and collapsed by clicking the + and - sublist control buttons that appear next to the conference name in the sublist headings.

Using the Chairperson Password for Filtering

If you are logged in as a chairperson, the Chairperson Password field is displayed. It enables you to search for, and display a list of, ongoing conferences for which you have the password.

To search for an ongoing conference by Chairperson Password:
1. Click in the Chairperson Password field.
2. Enter the password to be searched for.
3. Click the Refresh button.

The Conferences list is refreshed and ongoing conferences with the requested password are displayed.

Conference Level Monitoring

Conference level monitoring is available to the administrator, operator and chairperson. The Conference List pane displays information about ongoing conferences.
No status indicator display in the Status column means that the conference is running without problems.

One or more of the status indicators listed in Table 3-5 may appear in the Status column.

**Table 3-5  Conferences – Monitoring Information**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Display Name</strong></td>
<td>Displays conference name and type of conference:</td>
</tr>
<tr>
<td></td>
<td>• AVC Conference running in CP mode.</td>
</tr>
<tr>
<td></td>
<td>• The AVC conference has been secured using the *71 DTMF code. For details, see &quot;Secured Conference Monitoring&quot; on page 3-35.</td>
</tr>
<tr>
<td></td>
<td>• AVC Operator Conference</td>
</tr>
<tr>
<td><strong>Status</strong></td>
<td>Displays the status of the ongoing conference.</td>
</tr>
<tr>
<td></td>
<td>If there is no problem with the participant’s connection no indication is displayed.</td>
</tr>
<tr>
<td></td>
<td>If one of the following statuses occur, the appropriate indication is displayed, proceeded by a warning icon (⚠️):</td>
</tr>
<tr>
<td></td>
<td>• Audio – There is a problem with the participant’s audio.</td>
</tr>
<tr>
<td></td>
<td>• Empty – No participants are connected.</td>
</tr>
<tr>
<td></td>
<td>• Faulty Connection – Participants are connected, but the connection is problematic.</td>
</tr>
<tr>
<td></td>
<td>• Not Full – Not all the defined participants are connected.</td>
</tr>
<tr>
<td></td>
<td>• Partially Connected – The connection process is not yet complete; the video channel has not been connected.</td>
</tr>
<tr>
<td></td>
<td>• Single Participant – Only one participant is connected.</td>
</tr>
<tr>
<td></td>
<td>• Video – There is a problem with the participant’s video.</td>
</tr>
<tr>
<td></td>
<td>• Content Resource Deficiency – Content will not be sent to legacy endpoints.</td>
</tr>
<tr>
<td></td>
<td>• Awaiting Operator – A participant has requested operator assistance.</td>
</tr>
<tr>
<td><strong>ID</strong></td>
<td>The Conference ID assigned to the conference.</td>
</tr>
<tr>
<td><strong>Start Time</strong></td>
<td>Conference start time.</td>
</tr>
<tr>
<td><strong>End Time</strong></td>
<td>The time the conference is expected to end.</td>
</tr>
<tr>
<td><strong>Dial in Number(1)</strong></td>
<td>The Conference dial in number for ISDN/PSTN participants.</td>
</tr>
<tr>
<td><strong>SIP Registration</strong></td>
<td>The status of registration with the SIP server:</td>
</tr>
<tr>
<td></td>
<td>• Not configured - Registration with the SIP Server was not enabled in the Conference Profile assigned to this conferencing Entity. In Multiple Networks configuration, If one service is not configured while others are configured and registered, the status reflects the registration with the configured Network Services. The registration status with each SIP Server can be viewed in the Properties - Network Services dialog box of each conferencing entity.</td>
</tr>
</tbody>
</table>
Table 3-5  Conferences – Monitoring Information (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
</table>
| SIP Registration       | • **Failed** - Registration with the SIP Server failed. This may be due to incorrect definition of the SIP server in the IP Network Service, or the SIP server may be down, or any other reason the affects the connection between the MCU or the SIP Server to the network.  
  • **Registered** - the conferencing entity is registered with the SIP Server.  
  • **Partially Registered** - This status is available only in Multiple Networks configuration, when the conferencing entity failed to register to all the required Network Services if more than one Network Service was selected. |
| SIP Registration       | The status of registration with the SIP server:  
  • **Not configured** - Registration with the SIP Server was not enabled in the Conference Profile assigned to this conferencing Entity.  
    In Multiple Networks configuration, if one service is not configured while others are configured and registered, the status reflects the registration with the configured Network Services. The registration status with each SIP Server can be viewed in the Properties - Network Services dialog box of each conferencing entity.  
  • **Failed** - Registration with the SIP Server failed. This may be due to incorrect definition of the SIP server in the IP Network Service, or the SIP server may be down, or any other reason the affects the connection between the MCU or the SIP Server to the network.  
  • **Registered** - the conferencing entity is registered with the SIP Server.  
  • **Partially Registered** - This status is available only in Multiple Networks configuration, when the conferencing entity failed to register to all the required Network Services if more than one Network Service was selected. |

Additional information about the conference can be viewed when accessing the conference properties.

To monitor a conference:
>> In the Conference List pane, double click the name of the conference you wish to monitor, or right-click the conference and then click Conference Properties.
The Conference Properties - General dialog box opens.

You can view all the conference properties but those that appear with a gray background cannot be modified.

For more information, see the Polycom RMX 1800 Administrator’s Guide, "Conference Level Monitoring" on page 12-2.

Audio Only Message

H.323 and SIP video participants that are connected as Secondary (Audio Only) because of a lack of video resources receive an audio message: “All video resources are currently in use. Connecting using audio only” indicating why their video has not connected. For more information see the Polycom RMX 1800 Administrator’s Guide.

Secured Conference Monitoring

When Secured Conference Mode is enabled on the Collaboration Server, it locks the conference and prevents participants and Collaboration Server Users from joining the conference. A Secured conference cannot be monitored or controlled in any way. While a conference is in the Secure Mode, the Collaboration Server User with Administrator authorization cannot view the participants list or any other conference properties, but can manually terminate it.
The conference chairperson can enable or disable the Secure mode from the DTMF input device (touch-tone telephone or the endpoint’s remote control), using the appropriate DTMF code (the default code is *71). During the secure conference, the chairperson and participants can perform various operations, such as muting, via their DTMF input device using the appropriate DTMF codes. However, because Secure conferences cannot be monitored, these operations or status changes are not displayed in the Conferences or Participants panes.

A special icon is used to indicate that the conference is in Secure mode.

**Participant Level Monitoring**

**Participant Connection Monitoring (AVC Connections)**

When a conference is selected in the Conference list, the Participants list header displays a summary of participant connection status.

These numbers include:
- **EP** = the number of Endpoints currently connected to the conference (both defined and undefined participants). This number includes participants whose status is connected with problem, connected partially or connected as secondary. Connected Cascading Links are not included and are detailed separately.
- **L** = the number of Cascading Links currently connected to the conference.
- **T** = the total number of all:
  - connected Participants - both defined and undefined participants
  - defined participants that are currently disconnected
  - Cascading Links - both connected and disconnected

If more than one conference is selected, the EP:n L:n T:n numbers reflect the cumulative connection status information of all the selected conferences.

If no conference is selected, the EP:n L:n T:n numbers are all zeroed.

If the T(otal) number of participants is higher than the number of connected participants, it indicates that additional participants defined for the conference have not yet connected. For example, if the EP: is 12 and the T: is 15, it means that 12 out of 15 of the expected participants have connected and that 3 defined participants have not yet connected.
The *Participant* list displays the following participant indicators and properties:

**Table 3-6  Participant Monitoring – Indicators and Properties**

<table>
<thead>
<tr>
<th>Column</th>
<th>Icon/Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name</strong></td>
<td>Displays the name and type (icon) of the participant:</td>
</tr>
<tr>
<td></td>
<td><strong>Audio Participant</strong> – Connected via IP phone.</td>
</tr>
<tr>
<td></td>
<td><strong>Video Participant</strong> – Connected with audio and video channels.</td>
</tr>
<tr>
<td><strong>Status</strong></td>
<td>Displays the connection status (text and icon) of the participant. If there is no</td>
</tr>
<tr>
<td></td>
<td>problem with the participant’s connection no indication is displayed.</td>
</tr>
<tr>
<td></td>
<td><strong>Connected</strong> – The participant is successfully connected to the conference.</td>
</tr>
<tr>
<td></td>
<td><strong>Disconnected</strong> – The participant is disconnected from the conference. This status</td>
</tr>
<tr>
<td></td>
<td>applies only to defined participants.</td>
</tr>
<tr>
<td></td>
<td><strong>Waiting for Dial-in</strong> – The system is waiting for the defined participant to</td>
</tr>
<tr>
<td></td>
<td>dial into the conference.</td>
</tr>
<tr>
<td></td>
<td><strong>Partially Connected</strong> – The connection process is not yet complete; the video</td>
</tr>
<tr>
<td></td>
<td>channel has not been connected.</td>
</tr>
<tr>
<td></td>
<td><strong>Faulty Connection</strong> – The participant is connected, but problems occurred in the</td>
</tr>
<tr>
<td></td>
<td>connection, such as synchronization loss.</td>
</tr>
<tr>
<td></td>
<td><strong>Secondary Connection</strong> – The endpoint’s video channel cannot be connected to the</td>
</tr>
<tr>
<td></td>
<td>conference and the participant is connected only via audio.</td>
</tr>
<tr>
<td></td>
<td><strong>Awaiting Individual Assistance</strong> (AVC-based connection) – The participant has</td>
</tr>
<tr>
<td></td>
<td>requested the user’s (operator’s) assistance.</td>
</tr>
<tr>
<td></td>
<td><strong>Awaiting Conference Assistance</strong> (AVC-based connection) – The participant has</td>
</tr>
<tr>
<td></td>
<td>requested the operator’s assistance for the conference. This usually means that the</td>
</tr>
<tr>
<td></td>
<td>user (operator) has been requested to join the conference.</td>
</tr>
</tbody>
</table>
Table 3-6  Participant Monitoring – Indicators and Properties (Continued)

<table>
<thead>
<tr>
<th>Column</th>
<th>Icon/Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role</td>
<td>Displays the participant’s role or function in the conference:</td>
</tr>
<tr>
<td>Chairperson</td>
<td>The participant is defined as the conference chairperson. The chairperson can manage the conference using touch-tone signals (DTMF codes).</td>
</tr>
<tr>
<td>Lecturer (AVC-based connection)</td>
<td>The participant is defined as the conference Lecturer.</td>
</tr>
<tr>
<td>Lecturer and Chairperson</td>
<td>The participant is defined as both the conference Lecturer and Chairperson.</td>
</tr>
<tr>
<td>Cascade-enabled Dial-out Participant (AVC-based connection)</td>
<td>A special participant functioning as a link in a cascaded conference.</td>
</tr>
<tr>
<td>Recording (AVC-based connection)</td>
<td>A special participant functioning as a Recording Link.</td>
</tr>
<tr>
<td>Note:</td>
<td>The Recording participant does not support H.264 High Profile. If recording a conference set to H.264 High Profile, the Recording participant connects as Audio Only and records the conference Audio while displaying the recording icon for the conference.</td>
</tr>
<tr>
<td>Request to speak (AVC-based connection)</td>
<td>Participants that were muted by the conference organizer/system operator can indicate that they want to be unmuted by entering the appropriate DTMF code (default 99). The icon is displayed for 30 seconds.</td>
</tr>
<tr>
<td>IP Address/Phone</td>
<td>The IP participant’s IP address or the number.</td>
</tr>
<tr>
<td>Alias Name/ SIP Address</td>
<td>The participant’s Alias Name or SIP URI. The alias of an RSS 4000 Recording System if the participant is functioning as a recording link.</td>
</tr>
<tr>
<td>Network</td>
<td>The participant’s network connection type – H.323 SIP.</td>
</tr>
<tr>
<td>Dialing Direction</td>
<td>Dial-in – The participant dialed the conference.</td>
</tr>
<tr>
<td></td>
<td>Dial-out – The MCU dialed the participant.</td>
</tr>
</tbody>
</table>
### Table 3-6  Participant Monitoring – Indicators and Properties (Continued)

<table>
<thead>
<tr>
<th>Column</th>
<th>Icon/Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio</td>
<td>Displays the status of the participant’s audio channel. If the participant’s audio is connected and the channel is neither muted nor blocked, no indication is displayed.</td>
</tr>
<tr>
<td></td>
<td><strong>Disconnected</strong> – Participant’s audio channel is disconnected. This is a defined participant who is waiting to be connected to the conference.</td>
</tr>
<tr>
<td></td>
<td><strong>Muted</strong> – Participant’s audio channel is muted. Indicates who initiated the Mute: participant, Collaboration Server User or MCU. The participant can still hear the conference. <strong>Note</strong>: If the participant muted his/her audio channel from the endpoint, the system displays the mute icon only for H.323. This icon is not displayed for SIP participant due to SIP standard limitation.</td>
</tr>
<tr>
<td></td>
<td><strong>Blocked</strong> – Transmission of audio from the conference to the participant is blocked.</td>
</tr>
<tr>
<td></td>
<td><strong>Muted and Blocked</strong> - Audio channel is muted and blocked.</td>
</tr>
<tr>
<td>Video</td>
<td>Displays the status of the participant’s video channel. If there is no problem with the participant’s video connection and the channel is neither suspended nor secondary, no indication is displayed.</td>
</tr>
<tr>
<td></td>
<td><strong>Disconnected</strong> – Participant’s video channel is disconnected. This is a defined participant who is waiting to be connected to the conference.</td>
</tr>
<tr>
<td></td>
<td><strong>Suspended</strong> – Video transmission from the endpoint to the conference is suspended.</td>
</tr>
<tr>
<td></td>
<td><strong>Secondary</strong> – Participant is connected only through the audio channel due to problems with the video channel.</td>
</tr>
<tr>
<td>Encryption</td>
<td>(AVC-based connection) Indicates that the endpoint is connected to the conference using encryption.</td>
</tr>
<tr>
<td>Service Name</td>
<td>Displays the IP Network Service used to connect this participant to the conference.</td>
</tr>
<tr>
<td>FECC Token</td>
<td>Participant is the holder of the FECC token and has Far End Camera Control capabilities. The FECC token can be allocated to only one participant at a time and remains un-allocated if no participant requests it.</td>
</tr>
<tr>
<td>Content Token</td>
<td>Participant is the holder of the Content token and has content sharing permission. The Content token can be allocated to only one participant at a time and remains un-allocated if no participant requests it. For more information, see the Polycom RMX 1800 Administrator’s Guide, “Content Sharing” on page 4-1.</td>
</tr>
</tbody>
</table>

For more information, see the Polycom RMX 1800 Administrator’s Guide, "Participant Level Monitoring” on page 12-15.
Video Preview (AVC-based Connection)

*Video Preview* enables the system users to monitor the quality of the video sent and received by the participant and identify possible quality degradation.

**Guidelines**

- Only one preview window can be displayed for each Collaboration Server Web Client connection (workstation).
- Only one preview window can be displayed for a single conference and up to four preview windows can be displayed for each media card on different workstations (one per workstation and one per conference).

For more information see the *Polycom RMX 1800 Administrator’s Guide, "Video Preview"* on page 4-21.

**To preview the participant video:**

1. List the conference participants in the *Participants* pane.
2. Right-click the participant whose video you want to preview and then click one of the following options:

   - **View Participant Sent Video** - to display the video sent from the participant to the conference.
   - **View Participant Received Video** - to display the video sent from the conference to the participant.

The *Video Preview* window opens.
Operations Performed During On Going Conferences

During ongoing conferences, operators and administrators can perform various operations, at the conference level affecting the entire conference or at a participant level affecting individual participants.

Conference Level operations

The following operations can be performed during an ongoing conference, affecting all the participants in the conference:

- Changing the Duration of a Conference
- Adding Participants from the Address Book
- Moving Participants Between Conferences (AVC-based Connection)
- Saving an Ongoing Conference as a Template
- Copy and Paste Conference
- Changing the Video Layout of a Conference
- Video Forcing (AVC-Based CP Conferences)
- Muting all Participants Except the Lecturer
- Sending Messages to All Conference Participants Using Message Overlay (AVC-based Conferences)
- Auto Scan
- Customized Polling

Changing the Duration of a Conference

The duration of each conference is set when the new conference is created. The default duration of a conference is 1 hour. All conferences running on the MCU are automatically extended as long as there are participants connected to the conference.

A conference’s Duration can be extended or shortened while it is running, by modifying its scheduled End Time.

To extend or shorten a conference manually:

1. In the Conference List pane, double-click the conference Name.
2 In the General tab, modify the End Time fields and click OK.

The End Time is changed and the Duration field is updated.

To terminate a conference manually:
1 In the Conferences list, select the conference you wish to delete and click the Delete Conference button.
2 Click OK to terminate the conference.

Adding Participants from the Address Book

Once the conference has started, you can add participants to a conference directly from the Participants Address Book without having to use the New Conference – Participants tab.

To drag & drop participants into the Participants List:
1 Open the Address Book.
2 Select, drag and drop the participant that you wish to add to the conference directly from the Participant Address Book into the Participant List.
Standard Windows multiple selection techniques can be used in this procedure.

Moving Participants Between Conferences (AVC-based Connection)

Collaboration Server users can assist participants by performing the following operations:

- Move participant from one ongoing conference to another
- Move a participant to an Operator conference (Attend a participant).
- Move a participant to the Home (destination) conference.

The move to the Operator conference is enabled only when an Operator conference is running. For more details about Operator conferences and moving participants to and from the Operator conference, see the Polycom RMX 1800 Administrator’s Guide, "Operator Assistance & Participant Move” on page 10-1.

You can move participants using the following methods:

- Using the participant right-click menu
- Using drag and drop

To move a participant from the ongoing conference using the right-click menu options:

1. In the Conferences list, click the conference where there are participants waiting to be moved.
2. In the Participants list, right-click the icon of the participant to move and select Move to Conference to move the participant to any ongoing conference.

The Move to Conference dialog box opens.
3. Select the name of the destination conference from the ongoing conferences list.

Moving a Participant Interactively
You can drag and drop a participant from the Entry Queue or ongoing conference to the Operator or destination (Home) conference:

1. Display the participants list of the Entry Queue or the source conference by clicking its entry in the Conferences list.
2. In the Participants list, drag the icon of the participant to the Conferences List pane and drop it on the Operator Conference icon or another ongoing conference.

Saving an Ongoing Conference as a Template
Any conference that is ongoing can be saved as a template.

To save an ongoing conference as a template:
1. In the Conferences List, select the conference you want to save as a Template.
2. Click the Save Conference button.
   or
   Right-click and select Save Conference to Template.

The conference is saved to a template whose name is taken from the ongoing conference Display Name.

Copy and Paste Conference
The Collaboration Server user can Copy, and Paste conferences. When using the Collaboration Server Web Client, conferences can copied and pasted on the same MCU, however when using the RMX Manager, with its ability to manage multiple MCUs, conferences can be copied and pasted between different MCUs.
Copy Conference

The Copy command copies all the conference’s properties including connected participants and makes these properties available for pasting, starting a new conference. The copied conference remains active until it terminates or is deleted.

To copy a conference:
1. In the Conferences List pane, right-click the conference you want to copy.
2. In the drop-down menu select Copy Conference.

Paste Conference

The Paste Conference command starts the new conference on the same MCU or on a different MCU.

To paste a conference:

Right-click in the Conferences List pane and in the drop-down menu select Paste Conference.

or

If you are using the RMX Manager and you want to paste the conference to a different MCU:

a. In the MCUs list pane, click the MCU that is to receive the conference.
b. In the Conferences list pane, right-click, and in the drop-down menu select Paste Conference.

The conference is pasted to the MCU with a Display Name is assigned by the system.

Paste Conference As

The Paste Conference As command allows the system user to create a new conference using the copied conference’s properties as a template. It automatically opens the Conference Properties dialog box allowing the user to modify the General, Participants and Information
tabs to create the new conference. When the OK button in the Conference Properties dialog box is clicked the new conference is started.

To paste a conference as a new conference:
1. Right-click in the Conferences List pane and in the drop-down menu select Paste Conference As.
   or
   If you are using the RMX Manager and you want to paste the conference to a different MCU:
   a. In the MCUs list pane, click the MCU that is to receive the conference.
   b. In the Conferences list pane, right-click, and in the drop-down menu select Paste Conference As.

   The Conference Properties dialog box is displayed.
2. Modify the conference information as required.
3. Click the OK button to paste and start the new conference.

Changing the Video Layout of a Conference

In AVC-based CP conferences, while the conference is running, you can change the video layout and select one of the video layouts supported by the MCU.

Video Layout selection can be done in two levels:
• Conference Level – Applies to all conference participants. All participants have the same video layout.
• Participant Level – The participant’s video layout is changed. The video layout of all other conference participants is unaffected.

The initial video layout is selected for the conference in the Conference Profile. Participant level video layout selection overrides conference level video layout settings. Participants cannot change their Personal Layouts when Lecturer Mode is enabled.
To change the video layout of a conference:

1. In the Conference Properties dialog box, select Video Settings.

2. If the Auto Layout check box is selected, clear it.

3. From the Video Layout options, select the Number of Windows to display and the Video Layout thumbnail required and click OK.

Video Forcing (AVC-Based CP Conferences)

You can select which participant appears in each of the video layout windows using Video Forcing. When a participant is forced to a layout window, switching between participants is suspended for that window and only the assigned participant is viewed. Video Forcing works on Conference Level:

- **Conference Level** – When forcing a participant to a window, all conference participants will see that participant in the selected window.
Video Forcing Guidelines:

- A participant cannot appear in two or more windows at the same time.
- In **Same Layout** mode, participant can view him/herself in a layout window.
- When changing the Video Layout at the conference level, the video forcing settings are not applied to a new layout, and switching between participants is audio-activated. The video forcing setting is saved and applied the next time that layout is selected.
- Windows are not assigned any participant display, but appear at random.

To video force a participant to a window:

1. In the **Conference Properties** dialog box, select the **Video Settings** tab.
2. If **Auto Layout** check box is selected, clear it.
3. Select the required video layout.
4. In the window to which you want to force a participant, select the participant’s name from the list of conference participants.
5. Repeat step 3 to force participants to other windows.
6. Click **OK**.

To cancel Video Forcing for a window:

1. In the **Conference Properties** dialog box, select the **Video Settings** tab.
2. In the video layout window, in the **Participants** list, select **Auto**.
3. Click **OK**.
4. Switching between participants is renewed and is audio activated.
Muting all Participants Except the Lecturer

The Mute Participants Except Lecturer option can be enabled or disabled during the ongoing conference (in addition to its setting in the conference Profile). When enabled, the audio of all participants in the conference except for the lecturer can be automatically muted upon connection to the conference. This prevents other conference participants from accidentally interrupting the lecture, or from a noisy participant affecting the audio quality of the entire conference. Muted participants cannot unmute themselves unless they are unmuted from the Collaboration Server Web Client/RMX Manager.

Guidelines

• Both Administrators and Operators (users) are allowed to set the Mute Participants Except Lecturer option. It can be enabled at any time after the start of the conference to allow the conference participants to converse before the lecturer joins the conference or before they are muted.

• When the Mute Participants Except Lecturer option is enabled:
  — The mute indicator on the participant endpoints are not visible because the mute participants was initiated by the MCU.
  — If the endpoint of the designated lecturer is muted when the lecturer connects to the conference, the lecturer remains muted until the endpoint has been unmuted.
  — When you disconnect a lecturer from the conference or the lecturer leaves the conference, all participants remain muted but are able to view participants in regular video layout until you disable the Mute Participants Except Lecturer option. When you replace a lecturer, the MCU automatically mutes the previous lecturer and unmutes the new lecturer.

• When The Mute Participants Except Lecturer option is disabled during the ongoing conference, all the participants in the conference are unmuted.

• A participant can override the Mute Participants Except Lecturer option by activating the Mute All Except Me option using the appropriate DTMF code, provided the participant has authorization for this operation in the IVR Services properties. The lecturer audio is muted and the participant audio is unmuted. You can reactivate the Mute Participants Except Lecturer option after a participant has previously activated the Mute All Except Me option. The participant is muted and the lecturer, if designated, is unmuted.

• In cascaded conferences, all participants (including the link participants) except the lecturer are muted. Only the lecturer is not muted.

To enable or disable the Mute Participants Except the Lecturer option:
The Mute Participants Except Lecturer option is enabled or disabled in the Conference Properties - Audio Settings dialog box:
When the *Mute Participants Except Lecturer* option is enabled and a conference has started, the *Mute by MCU* icon is displayed in the *Audio* column in the *Participants* pane of each participant that is muted.

### Sending Messages to All Conference Participants Using Message Overlay (AVC-based Conferences)

Messages can be sent during a conference to a single participant, selected number of participants or all participants in an ongoing conference. For more information see the *Polycom RMX 1800 Administrator’s Guide “Media Encryption”* on page 4-27.

**To send messages to all conference participants using Message Overlay:**

1. In the *Conferences List* pane, double click the name of the conference to have *Message Overlay* enabled or right-click the conference name and then click *Conference Properties*.
2. Click the *Message Overlay* tab.
3. Select the *Enable* check box.
4. In the *Content* field, enter the text to be displayed to all the conference participants. The number of characters that can be included in a message varies according to the language and can differ due to the type of font used. For example, the available number of characters in Chinese is 32 and 48 for English and Russian.
5. Modify the remaining fields in the dialog box to display the message as required.
6. Click OK.

When sending text messages using Message Overlay and stopping the text messaging in the middle, you must change (and then cancel the change) one of the message overlay properties in the *Conference Properties - Message Overlay* dialog box before you can re-send the same message.

**To cancel the Message Overlay display:**

1. Repeat Step 1 and Step 2 in the enabling procedure above.
2. Clear the *Enable* check box.
3. Click OK.
Auto Scan

*Auto Scan* enables a user to define a single cell in the conference layout to cycle the display of participants that are not in the conference layout.

*Customized Polling* allows the cyclic display to be set to a predefined order for a predefined time period. The cyclic display only occurs when the number of participants is larger than the number of cells in the layout.

**To enable Auto Scan:**
1. In the *Collaboration Server Web Client Main Screen - Conference* list pane, double-click the conference or right-click the conference and then click *Conference Properties*.
2. In the *Conference Properties - General* dialog box, click *Video Settings*. The *Video Settings* tab is displayed.
3. Clear the *Auto Layout* check box.
4. In the video layout cell to be designated for *Auto Scan*, click the drop-down menu button and select *Auto Scan*.
5. Select from the *Auto Scan Interval(s)* drop-down list the scanning interval in seconds.
6. Click the *Apply* button to confirm and keep the *Conference Properties* dialog box open.
   - or -
   Click *OK* to confirm and close the *Conference Properties* dialog box.

Customized Polling

The order in which the Auto Scanned participants are displayed in the *Auto Scan* enabled cell of the video layout can be customized.

1. Open the *Customized Polling* tab:
   a. If the *Video Settings* tab is open click the *Customized Polling* tab.
   or
   b. In the *Conference* list pane, double-click the conference or right-click the conference and then click *Conference Properties*. 

In the Conference Properties - General dialog box, click **Customized Polling**. The Customized Polling tab is displayed.

All conference participants are listed in the left pane (All Participants) while the participants that are to be displayed in the Auto Scan enabled cell of the video layout are listed in the right pane (Scanning Order).

The dialog box buttons are summarized in Table 3-7.

**Table 3-7  Customized Polling - Buttons**

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add</td>
<td>Select a participant and click this button to Add a the participant to the list of participants to be Auto Scanned. The participants name is removed from the All Participants pane.</td>
</tr>
<tr>
<td>Delete</td>
<td>Select a participant and click this button to Delete the participant from the list of participants to be Auto Scanned. The participants name is moved back to the All Participants pane.</td>
</tr>
<tr>
<td>Add All</td>
<td>Add all participants to the list of participants to be Auto Scanned. All participants’ names are removed from the All Participants pane.</td>
</tr>
<tr>
<td>Delete All</td>
<td>Delete all participant from the list of participants to be Auto Scanned. All participants’ names are moved back to the All Participants pane.</td>
</tr>
<tr>
<td>Up</td>
<td>Select a participant and click this button to move the participant Up in the Scanning Order.</td>
</tr>
</tbody>
</table>
Optional. Add a participant to the list of participants to be Auto Scanned:

a  Click on the participant’s name in the All Participants list.

b  Click the Add button to move the participant to the Scanning Order pane.

Optional. Delete a participant from the list of participants to be Auto Scanned:

a  Click on a participant’s name in the Scanning Order list.

b  Click the Delete button to move the participant back to the All Participants pane.

Optional. Add all participants to the list of participants to be Auto Scanned:

—  Click the Add All button.

Optional. Delete all participant from the list of participants to be Auto Scanned:

—  Click the Delete All button.

Optional. Move the participant up in the Scanning Order:

—  Click the Up button.

Optional. Move the participant down in the Scanning Order:

—  Click the Down button.

Click the Apply button to confirm and keep the Conference Properties dialog box open.
or
Click the OK button to confirm and return to the Collaboration Server Web Client Main Screen.

### Table 3-7  Customized Polling - Buttons

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Down</td>
<td>Select a participant and click this button to move the participant Down in the Scanning Order.</td>
</tr>
</tbody>
</table>

### Sending Text Messages to All Participants Using Message Overlay (AVC-based Conferences)

Text messages can be sent to all participant in the conference using the Message Overlay options in the Conference Properties – Message Overlay dialog box.

To send text messages to all participants in a conference using Message Overlay:

1  In the Conferences List pane, double-click the conference entry or right-click the conference entry and then click Conference Properties. The Conference Properties – General dialog box is displayed.

2  Click the Message Overlay tab.

3  Click the Enable check box.


5  Click the OK button.
To cancel the Message Overlay display:
1  Repeat Step 1 and Step 2 in the enabling procedure above.
2  Clear the Enable check box.
3  Click OK.

Participant Level Operations

Various operations can be performed during an ongoing conference, affecting only the selected participants in the conference. These operations enable you to modify and control the connections and statuses of participants in ongoing conferences, as described in the following table:

Table 3-8   Participant Level Operations

<table>
<thead>
<tr>
<th>Menu Option</th>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Participant</td>
<td></td>
<td>Define a new participant. For more information about the New Participant dialog box tab, see Table 3-3 on page 3-16.</td>
</tr>
<tr>
<td>Add Participant From Address Book</td>
<td></td>
<td>Open the Address Book to select the participant for the conference. For more information about the Address Book, see the Polycom RMX 1800 Administrator’s Guide, &quot;Address Book&quot; on page 8-1.</td>
</tr>
<tr>
<td>Connect Participant</td>
<td></td>
<td>Connect a disconnected defined dial-out participant to the conference.</td>
</tr>
<tr>
<td>Disconnect Participant</td>
<td></td>
<td>Disconnect the participant from the conference.</td>
</tr>
<tr>
<td>Delete Participant</td>
<td></td>
<td>Delete the selected participants from the conference.</td>
</tr>
<tr>
<td>Mute Audio</td>
<td></td>
<td>Mute the audio transmission from the participant to the conference. The Audio Muted indicator appears in the Participants List and the Unmute Audio button ( ) becomes active.</td>
</tr>
<tr>
<td>Unmute Audio</td>
<td></td>
<td>Resume the participant’s audio transmission to the conference. The Mute Audio button ( ) becomes active.</td>
</tr>
<tr>
<td>Suspend Video</td>
<td></td>
<td>Suspend the video transmission from the participant to the conference. The suppressed participant’s video is not transmitted to the conference but the participant still receives conference video. The Suspend Video indicator appears in the Participants List and the Resume Video button ( ) becomes active.</td>
</tr>
<tr>
<td>Resume Video</td>
<td></td>
<td>Resume the participant’s video transmission to the conference. The Suspend Video button becomes active ( ).</td>
</tr>
<tr>
<td>Block Audio</td>
<td></td>
<td>Block the audio transmission from the conference to the participant. When blocked, the participant can still be heard by the conference. The Audio Blocked indicator appears in the Participants List and the Unblock Audio button ( ) becomes active.</td>
</tr>
</tbody>
</table>
### Table 3-8  Participant Level Operations (Continued)

<table>
<thead>
<tr>
<th>Menu Option</th>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unblock Audio</td>
<td><img src="image" alt="Audio Button" /></td>
<td>Resume the audio transmission from the conference to the participant. The <strong>Block Audio</strong> button ( <img src="image" alt="Block Audio Button" /> ) becomes active.</td>
</tr>
<tr>
<td>Change to Chairperson</td>
<td></td>
<td>Define the selected participant as the conference leader/chairperson.</td>
</tr>
<tr>
<td>Change to Regular Participant</td>
<td></td>
<td>Define the chairperson as a regular participant without chairperson privileges.</td>
</tr>
<tr>
<td>Change To Content Token Owner</td>
<td></td>
<td>Initiate <strong>Content Broadcast Control</strong> to prevent the accidental interruption or termination of <strong>H.239 Content</strong> that is being shared by this participant. For more information see the Polycom RMX 1800 Administrator’s Guide, “Content Settings” on page 4-6.</td>
</tr>
<tr>
<td>Cancel Content Token Owner</td>
<td></td>
<td>Cancel <strong>Content Broadcast Control</strong>. For more information see the Polycom RMX 1800 Administrator’s Guide, “Content Settings” on page 4-6.</td>
</tr>
<tr>
<td>Add Participant to Address Book</td>
<td><img src="image" alt="Address Book Button" /></td>
<td>Add selected participant’s details to the <strong>Participant Address Book</strong>.</td>
</tr>
<tr>
<td>Move to Conference (AVC Only)</td>
<td></td>
<td>Move an AVC participant to another ongoing AVC CP conference. The destination conference is selected from a displayed list.</td>
</tr>
<tr>
<td>View Participant Sent Video (AVC Only)</td>
<td><img src="image" alt="Participant Sent Video Button" /></td>
<td>Preview the video sent from the AVC participant to the conference.</td>
</tr>
<tr>
<td>View Participant Received Video (AVC Only)</td>
<td><img src="image" alt="Participant Received Video Button" /></td>
<td>Preview the video sent from the conference to the AVC participant.</td>
</tr>
<tr>
<td>Copy Participant</td>
<td></td>
<td>Copy the all participant’s parameters in preparation for Pasting into another conference or back into the current conference.</td>
</tr>
<tr>
<td>Cut Participant</td>
<td></td>
<td>Copy the all participant’s parameters and delete the participant from the current conference. The participant can be Pasted into another conference or back into the current conference.</td>
</tr>
<tr>
<td>Paste Participant As</td>
<td></td>
<td>Paste the participant into the selected conference as a new participant with parameters modified via the Address Book Participant - Properties dialog box.</td>
</tr>
<tr>
<td>Participant Properties</td>
<td><img src="image" alt="Participant Properties Button" /></td>
<td>View <strong>Participant Properties</strong>. For more information, see the Polycom RMX 1800 Administrator’s Guide, “Participant Level Monitoring” on page 12-15.</td>
</tr>
</tbody>
</table>
Copy Cut and Paste Participant

The Collaboration Server user can **Copy**, **Cut** and **Paste** participants between different conferences running on the MCU, including his/her current conference. These functions, when used via the *RMX Manager*, with its ability to manage multiple MCUs, participants, allows the MCU user to **Copy**, **Cut** and **Paste** participants between conferences running on different MCUs.

**Copy Participant**

The **Copy** command copies all the participant’s properties and makes them available for pasting. The participant remains connected to his/her current conference.

**To copy a participant:**
1. In the *Participants List* pane, right-click the participant you want to copy.
2. In the drop-down menu select **Copy Participant**.

**Cut Participant**

The **Cut** command copies all the participant’s properties and makes them available for pasting. The participant is deleted from his/her current conference.

**To cut a participant:**
1. In the *Participants List* pane, right-click the participant you want to cut.
2. In the drop-down menu select **Cut Participant**.
Paste Participant

The Paste command connects the copied or cut participant to the selected conference. If the participant was copied, he/she should be deleted from the conference he/she was copied from, unless it is required that the participant is connected to two (or more) conferences. (There are endpoints that permit a participant to be connected to multiple conferences).

To paste a participant:
1. In the Conferences List pane, click the conference you want to paste the copied/cut participant into.
2. Right-click in the Participants List pane of the selected conference and in the drop-down menu select Paste Participant.

or

If you are using the RMX Manager and you want to paste the participant to a conference to a different MCU:

a. In the MCUs list pane, click the MCU that is hosting the conference that is to receive the participant.

b. In the Conferences list pane, click the conference you want to paste the copied/cut participant into.

c. Right-click the Participants list pane, and in the drop-down menu select Paste Participant.

The participant is connected to the conference.

Paste Participant As

The Paste Participant As command allows the MCU user to create a new participant using the copied participant’s properties as a template. It automatically opens the Address Book - Participant Properties dialog box allowing the MCU user to modify the participant’s properties effectively creating a new participant. When the OK button in the Participant Properties dialog box is clicked the new participant is connected to the selected conference.

To paste a participant as a new participant:
1. In the Conferences List pane, click the conference you want to paste the copied/cut participant into.

Right-click in the Participants List pane of the selected conference and in the drop-down menu select Paste Participant As.

or
If you are using the RMX Manager and you want to paste the participant to a conference on another MCU:

a. In the MCUs list pane, click the MCU that is hosting the conference that is to receive the participant.

b. In the Conferences list pane, click the conference you want to paste the copied/cut participant into.

c. Right-click the Participants list pane, and in the drop-down menu select Paste Participant As.

The Address Book - Participant Properties dialog box is displayed.

2. Modify the participant information as required. For more information see the Polycom RMX 1800 Administrator’s Guide, “Modifying Participants in the Address Book” on page 5-11.

Optional. If not already in the Address Book, the copied/cut participant can be added to the Address Book.

Optional. The new participant can be added to the Address Book.

3. Click the OK button to connect the new participant to the selected conference.
Sending Messages to Selected Participants Using Message Overlay (AVC-based Conferences)

During an ongoing conference, text messages can be sent to selected participants (a single participant or a number of participants) using the Send Text Message to Participant right-click menu option.

To send text to selected participants:
1. In the Participant List pane, choose a participant or a number of participants.
2. In the Participant List pane, right-click a participant or a number of participants and then select Send Text Message to Participant.
   The Send Text Message to Participant dialog box is displayed.

   ![Sending a Text Message](image)

3. In the Content field, enter the text to be displayed to all the conference participants. The number of characters that can be included in a message varies according to the language and can differ due to the type of font used.
5. Click the OK button.

Conference Control Using DTMF Codes

Participants and chairpersons can manage their connection to ongoing conferences from their endpoints, using touch-tone signals (DTMF codes) from their endpoints. Table 3-9 lists the DTMF Codes that can be used.

Chairpersons can also control an ongoing conference using DTMF codes. Permissions for DTMF actions to be performed by all conference participants or by chairperson only are configured in the Conference IVR Service assigned to the conference.

For more information, see the Polycom RMX 1800 Administrator’s Guide, "Defining a New Conference IVR Service" on page 15-6.
To use the DTMF codes to control the conference, the DTMF input must be first enabled on the endpoint remote control (for example, entering #).

### Requesting Help (AVC-based Conferences)

A participant can request help using the appropriate DTMF code from his/her touch tone telephone or the endpoint’s DTMF input device. The participant can request Individual Assistance (default DTMF code *0) or Conference Assistance (default DTMF code 00). Participants in Entry Queues who failed to enter the correct destination conference ID or the conference password will wait for operator assistance (provided that an Operator conference is active).

<table>
<thead>
<tr>
<th>Operation</th>
<th>DTMF String</th>
<th>Permission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conference help</td>
<td>00</td>
<td>Chairperson</td>
</tr>
<tr>
<td>Individual help</td>
<td>*0</td>
<td>Everyone</td>
</tr>
<tr>
<td>Pause Recording</td>
<td>*1</td>
<td>Chairperson</td>
</tr>
<tr>
<td>Stop Recording</td>
<td>*2</td>
<td>Chairperson</td>
</tr>
<tr>
<td>Start/Resume Recording</td>
<td>*3</td>
<td>Chairperson</td>
</tr>
<tr>
<td>Mute All Except Me</td>
<td>*5</td>
<td>Chairperson</td>
</tr>
<tr>
<td>Cancel Mute All Except Me</td>
<td>#5</td>
<td>Chairperson</td>
</tr>
<tr>
<td>Mute My Line</td>
<td>*6</td>
<td>Everyone</td>
</tr>
<tr>
<td>Unmute My Line</td>
<td>#6</td>
<td>Everyone</td>
</tr>
<tr>
<td>Secure Conference</td>
<td>*71</td>
<td>Chairperson</td>
</tr>
<tr>
<td>Unsecure Conference</td>
<td>#71</td>
<td>Chairperson</td>
</tr>
<tr>
<td>Change Password</td>
<td>*77</td>
<td>Chairperson</td>
</tr>
<tr>
<td>Change To Chairperson</td>
<td>*78</td>
<td>Everyone</td>
</tr>
<tr>
<td>Play Help Menu</td>
<td>*83</td>
<td>Everyone</td>
</tr>
<tr>
<td>Mute Incoming Participants</td>
<td>*86</td>
<td>Chairperson</td>
</tr>
<tr>
<td>Unmute Incoming Participants</td>
<td>#86</td>
<td>Chairperson</td>
</tr>
<tr>
<td>Terminate Conference</td>
<td>*87</td>
<td>Chairperson</td>
</tr>
<tr>
<td>Show Participants</td>
<td>*88</td>
<td>Everyone</td>
</tr>
<tr>
<td>Request to speak</td>
<td>99</td>
<td>Everyone</td>
</tr>
<tr>
<td>Override Mute All</td>
<td>Configurable</td>
<td>Everyone</td>
</tr>
</tbody>
</table>
Participant who is waiting for User (Operator) Assistance is displayed with the following icons in the Status column of the Participants pane.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Icon]</td>
<td><strong>Awaiting Individual Assistance</strong> – The participant has requested the user’s (operator’s) assistance.</td>
</tr>
<tr>
<td>![Icon]</td>
<td><strong>Awaiting Conference Assistance</strong> – The participant has requested the user’s (operator’s) assistance for the conference. This usually means that the Collaboration Server user (operator) has been requested to join the conference.</td>
</tr>
</tbody>
</table>

**Request to Speak (AVC-based Conferences)**

Participants that were muted by the conference organizer/system operator can indicate that they want to be unmuted by entering the appropriate DTMF code.

An icon is displayed in the Role column of the Participants list for 30 seconds.

**Request to Speak**

- Activated when the participant enters the appropriate DTMF code (default: 99). The DTMF code can be modified in the conference IVR Service Properties - DTMF Codes dialog box.
- Available for dial-in and dial-out participants.
- A participant can request to speak more than once during the conference.
- Supported in all conference types.
- Supported in H.323 and SIP environments.
- The duration of the icon display cannot be modified.
## Glossary

This appendix lists the terms and abbreviations that are related to the RMX 1800, and are commonly used in the Collaboration Server documentation.

<table>
<thead>
<tr>
<th>Abbreviation/ Term</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGC</td>
<td>Auto Gain Control. A mechanism that regulates noise and audio volume by keeping the received signal of all participants balanced.</td>
</tr>
<tr>
<td>Bandwidth</td>
<td>Defines the information carrying capacity of a channel. In analog systems, it is the difference between the highest frequency that a channel can carry and the lowest, measured in hertz. In digital systems, bandwidth is measured in bits per second. The larger a connection's bandwidth, the more data can be transmitted in a given amount of time, allowing for greater video resolution and more sites in a conference. For more information, see Line Rate.</td>
</tr>
<tr>
<td>Bonding</td>
<td>Bandwidth ON Demand Interpolarity Group. A transmission protocol that aggregates two 64 Kbps B channels to function as one 128 Kbps channel. When using several BRI channels, Bonding means that only one D-channel serves all BRI channels, while the remaining D-channels are used for data transfer. See also: BRI.</td>
</tr>
<tr>
<td>Bps, Kbps</td>
<td>Bits and kilobits per second; a unit of bandwidth, which is the amount of data that can flow during one second over a communications line (using a transmission medium). 1 Kbps = 1000 Bps</td>
</tr>
<tr>
<td>BRI</td>
<td>Basic Rate Interface. A type of ISDN connection for transiting data, consisting of 3 channels: two B-channels (each of 64 Kbps) and one D-channel (16 Kbps).</td>
</tr>
<tr>
<td>Carrier</td>
<td>A telephone or other company that provides telecommunication transmission services.</td>
</tr>
<tr>
<td>CIF, 4CIF, QCIF</td>
<td>Common Intermediate Format, an optional part of the ITU-T's H.261 and H.263 standards. CIF specifies 288 non-interlaced luminance lines, that contain 176 pixels. CIF can be sent at frame rates of 7.5, 10, 15, or 30 per second. When operating with CIF, the amount of data to transmit cannot exceed 256 K bits (where K equals 1024). The CIF video format has the capacity to transmit video images of 352x288 pixels at 36.45 Mbps and 30 frames per second. A 4CIF format has four times the capacity of CIF; QCIF has quarter the capacity of CIF.</td>
</tr>
<tr>
<td>Codec</td>
<td>Coder-decoder. A device that converts voice and video into digital code, and vice versa. Refers to the endpoint video camera and video board that are used for video conferencing.</td>
</tr>
<tr>
<td>Abbreviation/ Term</td>
<td>Explanation</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Conference</td>
<td>Connection between two or more endpoints exchanging video and audio information. If only two endpoints are involved, a conference is called point-to-point and no MCU is required. If more than two endpoints are involved, it is called a multipoint conference, and an MCU (Multipoint Control Unit) is required as the management system. For more information, see MCU.</td>
</tr>
<tr>
<td>CSU</td>
<td>Channel Service Unit. Customer-provided equipment that is used as an interface between a communication network and the data terminal.</td>
</tr>
<tr>
<td>DBA</td>
<td>Dynamic Bandwidth Allocation. Used to allocate the bandwidth needed to transmit the additional packets for LPR.</td>
</tr>
<tr>
<td>DTMF</td>
<td>Dual Tone Multi Frequency. A system of coded signals used by touch-tone telephones in which a specific sound, frequency or tone is assigned to each key so that the signal can be easily recognized by a computer. The codes enable data input and control of voice-processing systems. DTMF signals can pass through the entire connection to the destination device and therefore are used for remote control after the connection with the MCU is established.</td>
</tr>
<tr>
<td>Endpoint</td>
<td>A hardware device, or set of devices, that can call, and be called by an MCU or another endpoint. For example, an endpoint can be a phone, a camera and microphone connected to a PC or an integrated Room System (conferencing system).</td>
</tr>
<tr>
<td>FECC</td>
<td>Far End Camera Control. In certain video cameras, the accompanying software that enables a participant to control a remote camera. Used in Continuous Presence video conferences in conjunction with the LSD option. For more information, see LSD.</td>
</tr>
<tr>
<td>Frame</td>
<td>A group of bits that make up an elementary block of video data for transmission by certain protocols.</td>
</tr>
<tr>
<td>Frame Rate</td>
<td>The number of video frames displayed on-screen during one second, measured in fps (frames per second).</td>
</tr>
<tr>
<td>G.711</td>
<td>ITU-T audio algorithm, 64Kbps, 3.4 kHz.</td>
</tr>
<tr>
<td>G.722</td>
<td>ITU-T audio algorithm, 64Kbps, 7 kHz.</td>
</tr>
<tr>
<td>G.728</td>
<td>ITU-T audio algorithm, 16Kbps, 3.4 kHz.</td>
</tr>
<tr>
<td>Gatekeeper</td>
<td>A type of server that performs two main functions: translates LAN alias addresses of terminals and gateways to IP addresses and provides bandwidth management.</td>
</tr>
<tr>
<td>H.221</td>
<td>ITU-T standard that defines how to multiplex video, audio, control, and user data into one serial bit stream.</td>
</tr>
<tr>
<td>H.230</td>
<td>ITU-T standard that defines simple multipoint control systems procedures and describes network maintenance functions.</td>
</tr>
<tr>
<td>H.231</td>
<td>ITU-T standard that defines a set of MCU functions and operational requirements.</td>
</tr>
<tr>
<td>H.242</td>
<td>ITU-T standard that defines initiation of communications between systems and capabilities negotiation procedures.</td>
</tr>
<tr>
<td>Abbreviation/ Term</td>
<td>Explanation</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>H.243</td>
<td>ITU-T standard that defines initiation of communications between systems and capabilities negotiation procedures in multipoint conferences.</td>
</tr>
<tr>
<td>H.261</td>
<td>ITU-T standard that defines the Px64 video coding algorithm.</td>
</tr>
<tr>
<td>H.263</td>
<td>ITU-T standard that provides improved compression and quality of video images at a line rate lower than 384 Kbps. This standard is not supported by all codecs.</td>
</tr>
<tr>
<td>H.264*</td>
<td>A proprietary Polycom Video compression standard.</td>
</tr>
<tr>
<td>H.264</td>
<td>ITU-T standard that provides improved compression and quality of video images in lower line rate connections and is part of the Highest Common mechanism in Video Switching conferences.</td>
</tr>
<tr>
<td>H.320</td>
<td>ITU-T standard that defines how the H-series video conferencing recommendations work together.</td>
</tr>
<tr>
<td>H.323</td>
<td>ITU-T standard for audio, video and data communications across IP-based (LAN) networks, including the Internet.</td>
</tr>
<tr>
<td>ICE</td>
<td>Interactive Connectivity Establishment (ICE) provides a structure/protocol to unify the various NAT Traversal techniques that are used to cross firewalls. It enables SIP based endpoints to connect while traversing a variety of firewalls that may exist between the calling endpoint (local) and the MCU or called endpoint (remote).</td>
</tr>
<tr>
<td>IP</td>
<td>Internet Protocol. The working protocol that forms the basis of the internet.</td>
</tr>
<tr>
<td>ISDN</td>
<td>Integrated Services Digital Network. A set of protocol and interface standards (voice, video and data) that comprise a telephone network. There are two types of ISDN lines: BRI and PRI.</td>
</tr>
<tr>
<td>ITU-T Standard</td>
<td>International Telecommunications Union, Telecommunication Standardization Sector (formerly CCITT). An international group that produces official standards for telecommunications.</td>
</tr>
<tr>
<td>LAN</td>
<td>Local Area Network. A group of computers and other devices linked via a network’s operating system.</td>
</tr>
<tr>
<td>Line Rate</td>
<td>The amount of bandwidth used by a communication device, measured in Kbps (kilobits per second).</td>
</tr>
<tr>
<td>LPR</td>
<td>Lost Packet Recovery. An algorithm that creates additional packets that contain recovery information necessary to reconstruct lost packets.</td>
</tr>
<tr>
<td>MCU</td>
<td>Multipoint Control Unit. Device which allows more than two sites to be connected in a video conference.</td>
</tr>
<tr>
<td>Null modem cable</td>
<td>A serial cable designed to eliminate the need for communication equipment when two digital devices are directly connected to each other.</td>
</tr>
<tr>
<td>Participant</td>
<td>A person using an endpoint to connect to a conference. When using a Room System, several participants use a single endpoint.</td>
</tr>
<tr>
<td>Abbreviation/ Term</td>
<td>Explanation</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>QCIF</td>
<td>Quarter CIF. A video format with image size of 176x144 pixels that transmits 9.115 Mbps at 30 frames per second (a quarter of the capacity of CIF). For more information, see CIF.</td>
</tr>
<tr>
<td>QoS</td>
<td>Quality of Service. QoS defines the performance of a network service, such as the average delay between packets.</td>
</tr>
<tr>
<td>RS-232</td>
<td>A standard for serial interface connection.</td>
</tr>
<tr>
<td>RTV</td>
<td>Real Time Video protocol provides high quality video conferencing capability to Microsoft OCS (Office Communicator Server) endpoints.</td>
</tr>
<tr>
<td>SIP</td>
<td>Session Initiation Protocol. An application-layer protocol designed to work over IP networks. A SIP service defines the properties and the IP addresses of the SIP network components.</td>
</tr>
<tr>
<td>SRTP</td>
<td>Encryption of SIP Media is supported using SRTP (Secured Real-time Transport Protocol) and the AES key exchange method.</td>
</tr>
<tr>
<td>T1 Line</td>
<td>A 1.5Mb digital switched line used in the United States.</td>
</tr>
<tr>
<td>ToS</td>
<td>Type of Service. ToS defines optimization tagging for routing audio and video packets.</td>
</tr>
<tr>
<td>WAN</td>
<td>Wide Area Network. A communications network that services a geographical area larger than the LAN.</td>
</tr>
<tr>
<td>Whiteboard</td>
<td>An on-screen shared notebook for placement of shared documents.</td>
</tr>
</tbody>
</table>
Troubleshooting

Collaboration Server Web Client Installation - Troubleshooting Instructions

If a Browser Environment Error occurs, close all the Internet Explorer sessions and reconnect to the MCU.

If the problem persists, you can run the Automatic Troubleshooting Utility or perform the Troubleshooting Procedures manually.

The Manual Troubleshooting Procedures include several procedures that can be performed in order to solve the connection error. At the end of each procedure, check if you can connect to the MCU and if the problem persists, perform the next procedure.

In Secured Mode (https://), the DNS name specified in the Collaboration Server’s Certificate must correspond with that of the DNS Server used by the Client that is connecting to the RMX.

The following troubleshooting procedures can be performed manually:

- Procedure 1: Ending all Internet Explorer Sessions
- Procedure 2: Deleting the Temporary Internet Files, Collaboration Server Cookie and Collaboration Server Object
- Procedure 3: Managing Add-ons Collisions
- Procedure 4: Add the Collaboration Server to the Internet Explorer Trusted Sites List
Procedure 1: Ending all Internet Explorer Sessions

In some cases, although all the Internet Explorer sessions were closed, the system did not end one or several IE processes. These processes must be ended manually.

To end all Internet Explorer sessions:
1. Start the Task Manager and click the Processes tab.
2. Select an iexplore process and click the End Process button.
3. Repeat this process for all iexplore processes that are currently active.
4. Close the Windows Task Manager dialog box.
5. Open the Internet Explorer and connect to the MCU.

If the problem persists, continue with Procedure 2.

Procedure 2: Deleting the Temporary Internet Files, Collaboration Server Cookie and Collaboration Server Object

If at the end of Procedure 1 the error message is still displayed, and you cannot connect to the MCU, perform the following operations:

- Delete the Temporary Internet files
- Delete the RMX/Collaboration Server Cookie
- Delete the RMX/Collaboration Server ActiveX Object
Deleting the Temporary Internet Files

To delete the Temporary files:
1. In the Internet Explorer, click Tools > Internet Options. The Internet Options dialog box opens.
2. In the Browsing history pane, click the Delete button.

The Delete Browsing History dialog box opens.
3 It is recommended to delete only the **Temporary Internet files**. By default, the **Cookies** option is also selected. Clear it if you do not want to clear the cookies from your computer.

![Image of Internet Options dialog box with Temporary Internet files option circled]

4 Click the **Delete** button.

5 When the process is complete, the system return to the **Internet Options** dialog box.
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Deleting the RMX/Collaboration Server Cookie

To delete the Collaboration Server Cookie:

6 In the Internet Options dialog box - Browsing History pane, click the Settings button.

The Temporary Internet Files and History Settings dialog box opens.

7 Click the View files button.

The Windows Explorer screen opens, listing Windows Temporary Internet Files.
8 Browse to the RMX/ Collaboration Server cookie. The cookie is listed in the format: cookie:username@Collaboration Server/RMX IP address. For example: cookie:valerie@172.22.189.110.

9 Right-click the Collaboration Server cookie and click Delete.

The system prompts for confirmation.

10 Click Yes. The cookie is deleted.

11 Close the Windows Explorer screen.

Deleting the RMX/Collaboration Server ActiveX Object

To delete the RMX/Collaboration Server ActiveX Object:

12 In the Temporary Internet Files and History Settings dialog box, click the View objects button.

The Windows Explorer screen opens, listing the Windows Downloaded Program Files.
13 Right-click the EMA.ClassLoader.dll and then click Delete.

The system prompts for confirmation.

14 Click Yes.

The Collaboration Server object is deleted.

15 Close the Windows Explorer screen.

16 In the Temporary Internet Files and History Settings dialog box, click OK.

17 In the Internet Options dialog box, click OK to close it.

18 Close the Internet Explorer session and reopen it.

19 Connect to the Collaboration Server.

If the problem persists, continue with Procedure 3.

**Procedure 3: Managing Add-ons Collisions**

In some cases, previously installed add-ons, such as anti virus programs can create collisions between applications and prevent the installation of a new add on. Disabling these add-ons may be required in order to install the Collaboration Server Web Client.
To disable an add-on:

1. In the Internet Explorer, click Tools > Manage Add-ons. The Manage Add-ons - Toolbars and Extensions dialog box opens.
2. Scroll to the add-on to disable (for example, the anti virus add-on), right-click it and then click Disable.
   Alternatively, select the add-on and click the Disable button.

3. Click the Close button to close this dialog box.
4. Connect to the Collaboration Server.

If the problem persists, continue with the Procedure 4.

**Procedure 4: Add the Collaboration Server to the Internet Explorer Trusted Sites List**

In some cases, local security settings may prevent Internet Explorer from accessing the Collaboration Server.

To add the Collaboration Server to the Internet Explorer Trusted Sites list:

1. In the Internet Options dialog box, click the Security tab.
Chapter B-Troubleshooting

The Security tab is displayed.

![Internet Options Security Tab](image)

2 Click the Trusted Sites tab.
3 Click the Sites button.

The Trusted sites dialog is displayed.

![Trusted Sites Dialog](image)

4 If the Collaboration Server is using Secure Mode:
   a In the Add this website to the zone: field, enter “https://” followed by the IP address or the DNS name of the Collaboration Server.
   b Click the Add button.
   c Click the Close button.

5 If the Collaboration Server is using Standard Security Mode:
   a In the Add this website to the zone: field, enter “https://” followed by the IP address or the DNS name of the Collaboration Server.
   b Click the Add button.
   c Clear the Require server verification (https:) for all sites in this zone checkbox.
   d Click the Close button.
Procedure 5: Browser Hosting Controls (Optional)

If the Collaboration Server Web Client does not load and run after Procedures 1-4 have been performed, the reason may be that .NET Framework 4 or higher is running on the workstation with Managed Browser Hosting Controls disabled.

Managed Browser Hosting Controls is an Internet Explorer operating mode required by the Collaboration Server Web Client. By default, .NET Framework 4 and higher are not enabled to support Managed Browser Hosting Controls.

Perform Procedure 5 to:

• Determine whether .NET Framework 4 or higher is running on the workstation.
• Determine whether a 32-bit or 64-bit version of Windows is running on the workstation.
• Enable Managed Browser Hosting Controls if .NET Framework 4 or higher is running on the workstation.

To enable Managed Browser Hosting Controls:

1 Determine whether .NET Framework 4 or higher is running on the workstation.
   a) On the Windows Desktop, click Start.
   b) In the Start Menu, click Control Panel.
   c) In the Control Panel, click Programs and Features.
   d) Inspect the Programs and Features list for the version of Microsoft .NET Framework Client Profile that is installed.

2 Determine whether a 32-bit or 64-bit version of Windows is running on the workstation:
   a) On the Windows Desktop, click Start.
   b) In the Start Menu, click Computer.
   c) In the Computer Menu, System properties and inspect the value of the System type field in the System section

3 Enable Managed Browser Hosting Controls if .NET Framework 4 or higher is running on the workstation.
   a) Open the Registry.
   b) Navigate to the Subkey:
      • 32-bit System:
        HKEY_LOCAL_MACHINE\SOFTWARE\MICROSOFT\.NETFramework
      • 64-bit System:
        HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\.NETFramework
   c) Add the Dword Value: EnableIEHosting
   d) Set value of EnableIEHosting to 1.
   e) Close the Registry.
   f) Close and re-open Internet Explorer.