



Version **7.8** | November 2012 | DOC2699A

Polycom® RealPresence® Collaboration Server (RMX) 1500/2000/4000 Release Notes



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Patent Information

The accompanying product may be protected by one or more U.S. and foreign patents and/or pending patent applications held by Polycom, Inc.



This software has not achieved UC APL certification.

This document provides the latest information for security-conscious users running Version 7.8 software. The information in this document is not intended to imply that DoD or DISA certifies Polycom RMX systems.

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Regulatory Notices



Warning

- No user-serviceable parts inside. Do not open.
- The plug-socket combination must be accessible at all times, because it serves as the main disconnecting device
- This equipment must be earthed. Do not power this equipment if the integrity of the mains earthing conductor cannot be verified
- Only trained and qualified personnel should be allowed to install, replace, service or repair this equipment
- To prevent system overheating do not operate in an ambient temperature exceeding 40° C / 104° F
- Installation of this equipment must comply with local and national electrical codes.

Environmental

This product is compliant with the requirements of the recast RoHS Directive 2011/65/EU. Information can be obtained from Polycom Ltd, 270 Bath Road, Slough, Berkshire, SL1 4DX, UK or via: RoHSinformation@polycom.com

Information on recycling can be found at: www.polycom.com/WEEE

Disposal of this equipment should be carried out in accordance with local environmental guidelines and regulations for waste. For further information please contact: TakeBack@polycom.com

Batteries

Below is a listing of batteries that could be present in the product:

Description: Internal CMOS battery

Type: CR2032 Lithium Coin Cell

Weight: 3.3g

Batteries used in this product are in compliance with EU Battery Directive 2006/66/EC.

Batteries in this product are not based on mercury, lead or cadmium technologies.

Batteries in this product are not intended to be replaced or removed by the user

Additional information on the safe use and recycling of batteries can be found at: www.polycom.com/batteries

United States Federal Communication Commission (FCC)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

Modifications: Any modifications made to this device that are not approved by Polycom, Inc. may void the authority granted to the user by the FCC to operate this equipment.

Industry Canada (IC)

This Class [A] digital apparatus complies with Canadian ICES-003

Cet appareil numérique de la classe [A] est conforme à la norme NMB-003 du Canada

| European Economic Area (EEA) | |
|---|--|
| Česky [Czech]: | Polycom (UK) Ltd tímto prohlašuje, že tento Polycom RMX je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES. |
| Dansk [Danish]: | Undertegnede Polycom (UK) Ltd erklærer herved, at følgende udstyr Polycom RMX overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF. |
| Deutsch [German]: | Hiermit erkläre Polycom (UK) Ltd, dass sich das Gerät Polycom RMX in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet. |
| Eesti [Estonian]: | Käesolevaga kinnitab Polycom (UK) Ltd seadme Polycom RMX vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele. |
| English: | Hereby, Polycom (UK) Ltd. Declares that this Polycom RMX is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. |
| Español [Spanish]: | Por medio de la presente Polycom (UK) Ltd declara que el Polycom RMX cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE. |
| Ελληνική [Greek]: | ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Polycom (UK) Ltd ΔΗΛΩΝΕΙ ΟΤΙ Polycom RMX ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/EK. |
| Français [French]: | Par la présente Polycom (UK) Ltd déclare que l'appareil Polycom RMX est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE. |
| Italiano [Italian]: | Con la presente Polycom (UK) Ltd dichiara che questo Polycom RMX è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE. |
| Íslenska [Icelandic]: | Hér með lýsir Polycom (UK) Ltd yfir því að Polycom RMX er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 1999/5/EC |
| Latviski [Latvian]: | Ar šo Polycom (UK) Ltd deklarē, ka Polycom RMX atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem. |
| Lietuvių [Lithuanian]: | Šiuo Polycom (UK) Ltd deklaruoja, kad šis Polycom RMX atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas. |
| Nederlands [Dutch]: | Hierbij verklaart Polycom (UK) Ltd dat het toestel Polycom RMX in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG. |
| Malti [Maltese]: | Hawnhekk, Polycom (UK) Ltd, jiddikjara li dan Polycom RMX jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn rilevanti li hemm fid-Dirrettiva 1999/5/EC. |
| Magyar [Hungarian]: | Alulírott, Polycom (UK) Ltd nyilatkozom, hogy a Polycom RMX megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak. |
| Norsk [Norwegian]: | Polycom (UK) Ltd erklærer herved at utstyret Polycom RMX er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF. |
| Polski [Polish]: | Niniejszym Polycom (UK) Ltd oświadczam, że Polycom RMX jest zgodne z zasadniczymi wymaganiami oraz innymi stosownymi postanowieniami Dyrektywy 1999/5/WE. |
| Português [Portuguese]: | Polycom (UK) Ltd declara que este Polycom RMX está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE. |
| Slovensko [Slovenian]: | Polycom (UK) Ltd týmto vyhlasuje, že Polycom RMX spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES. |
| Slovensky [Slovak]: | Polycom (UK) Ltd týmto vyhlasuje, že Polycom RMX spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES. |
| Suomi [Finnish]: | Polycom (UK) Ltd vakuuttaa täten että Polycom RMX tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen. |
| Svenska [Swedish]: | Härmed intygar Polycom (UK) Ltd att denna Polycom RMX står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG. |
| A full copy of the Declaration of Conformity can be obtained from Polycom Ltd, 270 Bath Road, Slough, Berkshire, SL1 4DX, UK. | |

| China CCC EMC statement |
|---|
| <p style="text-align: center;">警告</p> <p>此为 A 级产品，在生活环境中，该产品可能会造成无线电干扰。在这种情况下，可能需要用户对干扰采取切实可行的措施。</p> |

Taiwan BSMI EMC statement

声 明

此为 A 级产品，在生活环境中，该产品可能会造成无线电干扰。在这种情况下，可能需要用户对其干扰采取切实可行的措施。

Japan VCCI EMC statement

この装置は、クラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。 VCCI-A

This is a Class A product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this equipment is used in a domestic environment, radio disturbance may arise. When such trouble occurs, the user may be required to take corrective actions.

Worldwide EMC statement

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Optional ISDN interface card

If the above is fitted to the system then the following statements also apply;

United States Federal Communication Commission (FCC)

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the ISDN card itself is a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. If requested, this number must be provided to the telephone company.

The following USOC, FIC and SOC codes are applicable to this equipment;

USOC Jacks: RJ48S

Service Order Code: 6.0N

Facility Interface Code: 04DU9.DN, 04DU9.BN, 04DU9.1KN, 04DU9.1SN

If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

If trouble is experienced with this equipment, for repair or warranty information, please contact Polycom Inc in the U.S.A. 1-888-248-8294. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

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Version 7.8 - New Features List



The product names, *Polycom® RealPresence® Collaboration Server 1500, 2000, 4000* and *RMX® 1500, 2000, 4000* are used interchangeably throughout this document.

The following table lists the new features in Version 7.8.

Table 1 Version 7.8 - New Features List

| # | Category | Feature Name | Description | Card Mode | |
|----|--------------|----------------------------------|--|-----------|------|
| | | | | MPM+ | MPMx |
| 1 | Video | New Video Resolution 1080p 60 | This version adds the option of <i>HD1080p</i> resolution at 60 fps for improved resolution of motion video. | x | ✓ |
| 2 | Conferencing | Scalable Video Coding (SVC) | Scalable Video Coding (SVC) conferences are now supported. | x | ✓ |
| 3 | Conferencing | Multiple Cascading Links | This version adds support for <i>Multiple Cascade Links</i> between RMXs hosting conferences that include <i>Immersive Telepresence Rooms (ITP)</i> such as Polycom's OTX and RPX Room Systems. | ✓ | ✓ |
| 4 | Conferencing | Layout Overlays | <i>Layout Overlays</i> allow additional participant endpoints to be displayed in 1x1 conference <i>Video Layouts</i> . | x | ✓ |
| 5 | Conferencing | Non-encrypted Conference Message | When mixing encrypted and non-encrypted endpoints in a conference using the " <i>Encrypt When Possible</i> " encryption option in the <i>Conference Profile</i> the encryption status of the conference can change as encrypted and non encrypted participants connect and disconnect. | ✓ | ✓ |
| 6 | Conferencing | Additional Chinese Font Types | Additional Chinese fonts may be selected for several features when using the RMX in Chinese. | x | ✓ |
| 7 | Conferencing | Speaker Change Threshold | The amount of time a participant must speak continuously until becoming the speaker is now configurable. | x | ✓ |
| 8 | Conferencing | Exclusive Content Mode | <i>Exclusive Content Mode</i> allows the administrator to limit Content broadcasting to one participant, preventing other participants from interrupting the Content broadcasting while it is active. | ✓ | ✓ |
| 9 | Conferencing | FECC Control | FECC can be enabled and disabled for individual conferences in the Conference Profile. | ✓ | ✓ |
| 10 | General/IP | Direct IP dialing | For RMXs registered to a gatekeeper, the RMX can be configured to dial and receive calls to and from H.323 endpoints using the IP address in the event that the Gatekeeper is not functioning. | ✓ | ✓ |

Table 1 Version 7.8 - New Features List (Continued)

| # | Category | Feature Name | Description | Card Mode | |
|----|----------|--|---|-----------|------|
| | | | | MPM+ | MPMx |
| 11 | General | Exporting and Importing Conference Templates | Conference Templates can be exported from one MCU and imported to multiple MCUs in your environment. Additionally, you can export Conference Templates and their associated Conference Profiles simultaneously. | ✓ | ✓ |
| 12 | General | Exporting and Importing Conference Profiles | Conference Profiles can be exported from one MCU and imported to multiple MCUs in your environment, enabling you to copy the Conference Profiles definitions to other systems. | ✓ | ✓ |
| 13 | General | Exporting and Importing System Configuration files | System Flags can be exported from one MCU and imported to multiple MCUs in your environment. | ✓ | ✓ |
| 14 | General | Hot Backup | New Hot Backup Triggers for initiating the switch from the Master to the Slave MCU were added to the Hot Backup configuration. | ✓ | ✓ |
| 15 | General | Managing Noisy Content | The system can identify participants who send frequent requests to refresh their content display, subsequently causing the content display of the conference to refresh and degrade the viewing quality. These participants are tagged as noisy content participants. | ✓ | ✓ |

Version 7.8 - Changes to Existing Features

The following table lists changes to existing features in Version 7.8.

Table 2 Version 7.8 changes

| | Category | Feature Name | Description | Card Mode | |
|---|-------------------------------|--|---|-----------|------|
| | | | | MPM+ | MPMx |
| 1 | Web Client/ RMX Manager | Rebranding | The RMX is now called the RealPresence Collaboration Server. As a result several changes have been made to the RMX Manager and RealPresence Collaboration Server interfaces. | ✓ | ✓ |
| 2 | Conference | Address Book - Multi-level Address Book | The RMX <i>Address Book</i> can be organized into a multi-level hierarchical structure. It can be used to mirror the organizational layout of the enterprises and it is especially suitable for large-scale enterprises with a considerable number of conference participants, organizational departments, and divisions. | ✓ | ✓ |
| 3 | Conference | Address Book - Obtaining Display Name from the Address Book | The MCU can be configured to replace the name of the dial-in participant as defined in the endpoint (site name) with the name defined in the address book. | ✓ | ✓ |
| 4 | Conference | Interactive Video Forcing | Participants in ongoing conferences can be interactively forced to a Video Window in the conference layout by using Drag and Drop. | ✓ | ✓ |
| 5 | Conference | Participant Connection Status | The Participants list header displays real-time connection status information of Endpoints and Cascade Links in the selected conference. | ✓ | ✓ |
| 6 | Video | Video Preview | H.264 High Profile is supported with Video Preview. | ✗ | ✓ |
| 7 | General | Packet Loss Compensation (LPR and DBA) | The LPR (Lost Packet Recovery) check box in the New Profile - Advanced and Profile Properties - Advanced dialog boxes has been renamed Packet Loss Compensation (LPR and DBA). | ✓ | ✓ |
| 8 | General | Cascading conferences | The RMX can be defined as Master on Level 1 and the MGC can be defined as Slave in levels 2 and 3. | ✓ | ✓ |
| 9 | General | CDR Changes | A new event (34) was added to the CDR file. It includes information of the maximum line rate, maximum resolution and maximum frame rate used by H.323 or SIP participant during the conference. | ✓ | ✓ |

Table 2 Version 7.8 changes

| | Category | Feature Name | Description | Card Mode | |
|----|----------------------|--|--|-----------|------|
| | | | | MPM+ | MPMx |
| 10 | General | CDR Changes | A new event (35) was added to the CDR file. It includes information of the participant status, line rates, uplink video capabilities, and audio codec used by SVC SIP participants. | ✗ | ✓ |
| 11 | General | CDR - Multi-part CDR | By default, the maximum CDR (Call Data Record) file size is limited to 1MB. When a CDR file reaches a size of 1MB the file is saved and further call data recording is stopped and the additional data is lost. The RMX can be configured to keep recording the data in multiple CDR file set of 1MB each. Multi-Part CDR ensures that conference call data from long duration or permanent conferences is recorded and not lost. | ✓ | ✓ |
| 12 | General | User Authorization Level | A new <i>User Authorization Level, Administrator - Read Only</i> , has been added to this version. | ✓ | ✓ |
| 13 | General | Enhanced SNMP Functionality | Additional information is provided by the SNMP functionality. | ✓ | ✓ |
| 14 | General | NAT (Network Address Translation) Traversal | This version includes support for an additional <i>Business to Business Connection</i> . | | ✓ |
| 15 | General | RMX 1500Q Video/Voice Port Configuration (Slider) Change | On the RMX 1500Q, when a video license of 25 ports is purchased, the Video/Voice Port Configuration (Slider) uses a different formula based on the license information to calculate the conversion ratio between audio and video ports. | ✗ | ✓ |
| 16 | System Configuration | New flag for KeepAlive Requests interval | The flag CPU_TCP_KEEP_INTERVAL_SECONDS was added to the system configuration. This flag indicates the interval in seconds between the KeepAlive requests. Default value: 75 seconds. Range: 10-720 seconds. | ✓ | ✓ |
| 17 | System Configuration | New flag for KeepAlive Request | The flag CPU_TCP_KEEP_ALIVE_TIME_SECONDS was added to the system configuration. This flag indicates when to send the first KeepAlive indication to check the TCP connection. Default value: 7200 seconds (120 minutes) Range: 600-18000 seconds When there are NAT problems, this default may be too long and the TCP connection is lost. In such a case, the default value should be changed to 3600 seconds (60 minutes) or less. | ✓ | ✓ |

Table 2 Version 7.8 changes

| | Category | Feature Name | Description | Card Mode | |
|----|----------------------|---|--|-----------|------|
| | | | | MPM+ | MPMx |
| 18 | System Configuration | New flag for clock drift | <p>The flag MUX_DATA_FLUSHING_FREQUENCY was added to the system configuration.</p> <p>This flag indicates the number of additional data flushes to be performed.</p> <p>Default value: 2</p> <p>Range: 0-6</p> <p>This is for use when the RMX has a clock drift from external ISDN clock source (ISDN switch).</p> <p>The threshold for the drift is 20 milliseconds per 30 second interval.</p> <p>If clock drift is detected, depending on the flag value, the RMX performs additional data flushes to the external MUX in each 30 second interval in order to avoid losing synchronization, avoiding disconnection, video freezes or breaks in audio.</p> | x | ✓ |
| 19 | System Configuration | New flags for Managing Noisy Content | <p>The system can identify participants who send frequent requests to refresh their Content display, subsequently causing the Content display of the conference to refresh and degrade the viewing quality. These participants are tagged as Noisy Content participants.</p> <p>This process is controlled by the following system flags:</p> <ul style="list-style-type: none"> • MAX_INTRA_REQUESTS_PER_INTERVAL_CONTENT • MAX_INTRA_SUPPRESSION_DURATION_IN_SECONDS_CONTENT • CONTENT_SPEAKER_INTRA_SUPPRESSION_IN_SECONDS | ✓ | ✓ |
| 20 | System Configuration | Updated flag values for log messages | <p>The MAX_TRACE_LEVEL flag indicates the minimum level of log messages for RMX processes that is sent to the logger. The processes do not send to the logger messages with a lower priority level that is set using this flag.</p> | ✓ | ✓ |
| 21 | Partners - Microsoft | RMX Support for Microsoft Lync 2013 Clients | <p>The RMX interoperability level with Lync 2013 is the same as the interoperability level with Lync 2010.</p> | x | ✓ |

Version 7.8 - Interoperability Tables

Devices

The following table lists the devices with which Version 7.8 was tested.

Table 3 Version 7.8 Device Interoperability Table

| Device | Version |
|---|--|
| Gatekeepers/Proxies | |
| <i>Netgear WGR614 (VBP AP and H460)</i> | V11.2.x |
| <i>Polycom VBP5300 E/ST</i> | V11.2.x |
| <i>Polycom CMA</i> | 6.2 |
| <i>Polycom XMA</i> | 7.1 |
| <i>Polycom PathNavigator</i> | 7.0.14 |
| <i>Polycom SE200</i> | 3.00.07. |
| <i>Polycom RMX Gateway</i> | 7.8 |
| <i>Cisco (Tandberg) VCS</i> | X7.2 |
| <i>Cisco (Tandberg) gatekeeper</i> | N6.1 |
| <i>Cisco (Tandberg) gateway</i> | G3.2 |
| <i>Cisco 3241 Gateway</i> | 2.1(1.43)p |
| <i>Cisco 3745 Gatekeeper</i> | 12.40 |
| <i>Radvision ECS gatekeeper</i> | 7.1.2.12 |
| <i>Radvision Serial Gateway</i> | 5.7.2.0.x |
| <i>Microsoft OCS Server W13</i> | OCS 2007 R2 server version 3.5.6907.250 (CU11) |
| <i>Microsoft Lync Server W14</i> | 4.0.7577.199 CU6 |
| <i>Microsoft Lync Server W15</i> | 5.0.8308.0 |
| <i>Broadsoft Proxy</i> | R17SP3 |
| <i>Vidyo GW</i> | V2.2.0.x |

Table 3 Version 7.8 Device Interoperability Table (Continued)

| Device | Version |
|--|--|
| Recorder | |
| <i>Polycom RSS 2000</i> | 4.0 |
| <i>Polycom RSS 4000</i> | 8.5 |
| MCUs, Call Managers Network Devices and Add ins | |
| <i>Polycom MGC 25/50/100 and MGC+50/100</i> | 8.0.2 and 9.0.4.X |
| <i>Polycom RMX 1000</i> | 2.1.x |
| <i>Polycom DMA 7000</i> | 5.1.x |
| <i>Polycom RMX Conferencing Add in for Microsoft Outlook</i> | 1.0.x |
| <i>LifeSize MCU</i> | V1.5 |
| <i>BlueJeans MCU</i> | V1.7.0 |
| <i>Radvision Scopia Elite</i> | 7.7 |
| <i>Avaya Communication MGR</i> | vR016x.02.0.823.0 Patch 19761 |
| <i>Avaya Aura Session Manager</i> | v6.2.0.0.620120 |
| <i>Avaya Aura Communication Manager as Evolution Server</i> | R6.0.1 |
| <i>Cisco Call Manager</i> | 8.5, 8.6.2 |
| <i>Cisco (Tandberg) Codian 4505 MCU</i> | 4.3 |
| <i>Cisco Telepresence Server</i> | 2.2 |
| <i>IBM Sametime Server</i> | 7.0.0.15 (Network Deployment) plus required WebSphere iFixes. |
| <i>Siemens Server</i> | OpenScape Voice V5.00.01.ALL.11_PS0017.E19 |
| <i>RealPresence Resource Manager</i> | 7.1 |
| <i>RealPresence Access Director (RPAD)</i> | 2.0.2 |
| <i>Acme Packets SBC</i> | SBC v- Model net-net-3820 nnSCX63flp7 |
| Endpoints | |
| <i>Polycom HDX Family</i> | 3.1 |
| <i>Polycom Telepresence (ITP) Systems</i> | 3.1 |
| <i>PTC</i> | 1.6.0 (polycom-hdx-betarc-3.1.0-23274) |
| <i>RealPresence Group Series software</i> | 4.0.1 |
| <i>Polycom VSX and V-Series Family</i> | 9.0.6.2 |

Table 3 Version 7.8 Device Interoperability Table (Continued)

| Device | Version |
|---|-----------------|
| <i>Polycom Viewstation Family</i> | 7.5.4 or higher |
| <i>Polycom Viewstation FX/EX</i> | 6.0.5 or higher |
| <i>Polycom CMA Desktop</i> | 5.2.3 |
| <i>Polycom CMA Desktop for MAC</i> | 5.2.3 |
| <i>Polycom QDX6000</i> | 4.0.3 |
| <i>Polycom Real Presence Mobile - iOS</i> | 2.0 |
| <i>RealPresence Mobile -Android</i> | 2.0 |
| <i>RealPresence Desktop for Windows</i> | 2.0 |
| <i>Polycom m100</i> | 1.4 |
| <i>Polycom VVX1500</i> | 4.0.2 |
| <i>SoundPointIP 650</i> | 4.0.2 |
| <i>Polycom PVX</i> | 8.0.16 |
| <i>Polycom iPower 9000</i> | 6.2x |
| <i>Polycom Soundstation IP4000 SIP</i> | 3.1.7 |
| <i>Polycom DST B5</i> | 2.0 |
| <i>Polycom DST K60</i> | 2.0.1 |
| <i>Avaya IP Softphone</i> | R6.0.1 |
| <i>Avaya one-X Communicator</i> | v6.1.4.02 |
| <i>Avaya 1000 series endpoint</i> | 4.8.3_24 |
| <i>Avaya Desktop Video endpoint</i> | v1_1_1-019004 |
| <i>LifeSize 200</i> | 4.7.21(4) |
| <i>LifeSize Room and Express</i> | 4.7.21(4) |
| <i>LifeSize Desktop Client</i> | 2.0.2 |
| <i>LifeSize Express 220</i> | 4.11.3(8) |
| <i>LifeSize Team 220</i> | 4.11.3(8) |
| <i>LifeSize Passport</i> | 4.11.3(8) |
| <i>Cisco (Tandberg) 150 MXP</i> | L6.1 |
| <i>Cisco (Tandberg) 6000 B</i> | B10.3 |
| <i>Cisco (Tandberg) 6000 E</i> | E5.3 |
| <i>Cisco (Tandberg) EX90</i> | 5.1.3, 5.1.4 |

Table 3 Version 7.8 Device Interoperability Table (Continued)

| Device | Version |
|--|---|
| <i>Cisco (Tandberg) C Series</i> | 5.1.3, 5.1.4 |
| <i>Cisco (Tandberg) MXP F-Family</i> | F9.1.2 |
| <i>Cisco SX20</i> | 5.1.3, 5.1.4 |
| <i>Cisco E20</i> | 4.1.1 |
| <i>Cisco CTS3010 (Telepresence)</i> | 1.9.1 |
| <i>Cisco CTS1300 (Telepresence)</i> | 1.9.1 |
| <i>Cisco CTS500 (Telepresence)</i> | 1.8.1 |
| <i>Radvision SCOPIA XT5000 endpoint</i> | 3.0.122 |
| <i>Radvision SCOPIA XT1000 endpoint</i> | 2.5.308 |
| <i>Microsoft OC client R2</i> | OCS 2007 R2 client version 3.5.6907.261 |
| <i>Microsoft Lync W14 client</i> | 4.0.7577.4356 (CU6), 4.0.7577.4109 (CU5) |
| <i>Microsoft Lync W15 client</i> | 15.0.4420.1017 |
| <i>Siemens Client</i> | V6 R0.3.6(60.0.3.0006) |
| <i>Siemens OpenStage Desktop Voice</i> | V2_R2_37_0 |
| <i>IBM DB2 Database Server</i> | 9.7 |
| <i>IBM Lotus Domino® Enterprise Server</i> | V8.5.2 |
| <i>IBM Lotus Notes client</i> | V8.5.2 |
| <i>IBM Lotus Sametime Media Manager</i> | V8.5.2 IFR 1 |
| <i>IBM Lotus Sametime System Console</i> | V8.5.2 IFR 1 |
| <i>IBM Lotus Sametime Community Server</i> | V8.5.2 IFR 1 |
| <i>IBM Lotus Sametime Proxy Server</i> | V8.5.2 IFR 1 |
| <i>IBM Lotus Sametime Meeting Server</i> | V8.5.2 IFR 1 |



For more information about partner product interoperability, refer to the partner deployment guides.

Polycom RMX and Avaya Interoperability



For questions and support on the Polycom - Avaya integrated solution, please contact your Avaya Authorized Service Provider.

The Polycom RMX 2000/4000 series of MCUs running software version 7.0.1.16 register to current generally available versions of Avaya Aura Session Manager R6.0 to provide multipoint video calls.

Polycom RMX 4000, RMX 2000 and RMX 1500 can call and receive calls with current generally available versions of Avaya one-X Communicator H.323 video soft clients (R5.2) on Aura Communication Manager R5.2.1, R6.0, and R6.1.

RMX Web Client

The following table lists the environments (Web Browsers and Operating Systems) with which the *RMX Web Client* was tested.

Table 4 *Version 7.8 Environment Interoperability Table*

| Web Browser | Operating System |
|---------------------|------------------|
| Internet Explorer 7 | Windows Vista™ |
| | Windows 7 |
| Internet Explorer 8 | Windows 7 |



It is not recommended to run RMX Web Client and Polycom CMAD applications simultaneously on the same workstation.

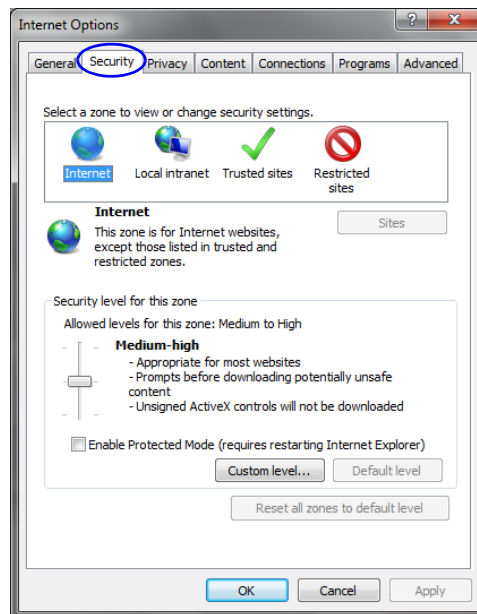
Windows 7™ Security Settings

If *Windows 7* is installed on the workstation, *Protected Mode* must be disabled before downloading the Version 7.8 software to the workstation.

To disable Protected Mode:

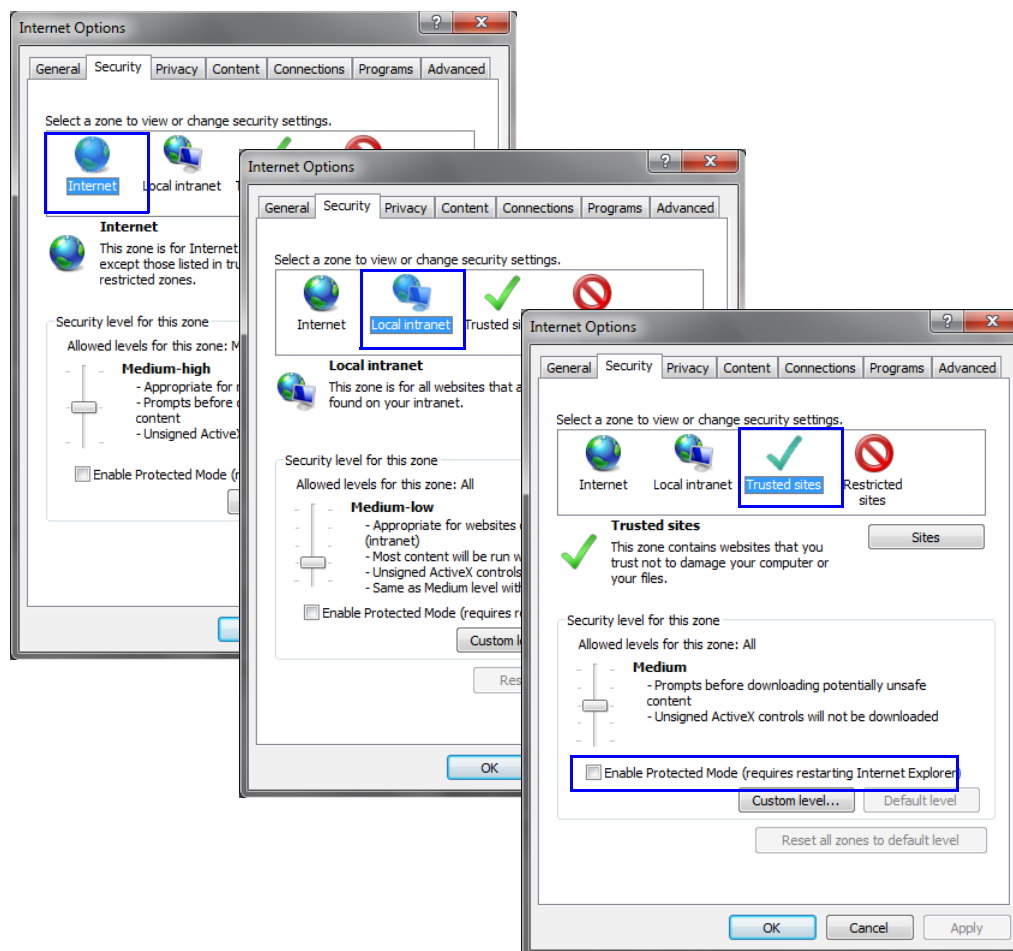
- 1 In the *Internet Options* dialog box, click the **Security** tab.

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 RMX, the *Enable Protected Mode* check boxes can be selected to enable *Protected Mode* for the following tabs:

- *Internet*
- *Local intranet*

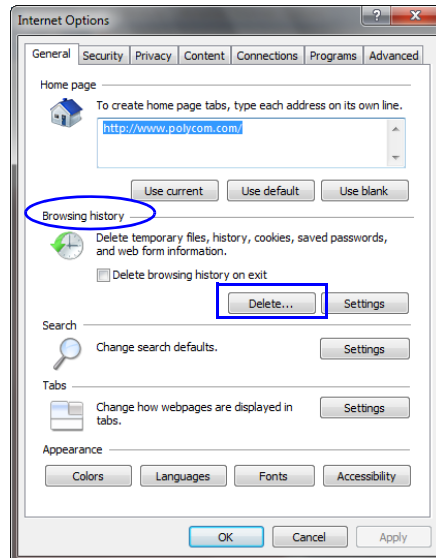
Internet Explorer 8 Configuration

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

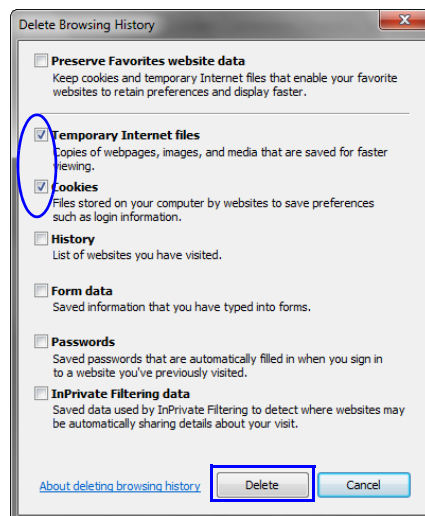
To configure Internet Explorer 8:

- 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.

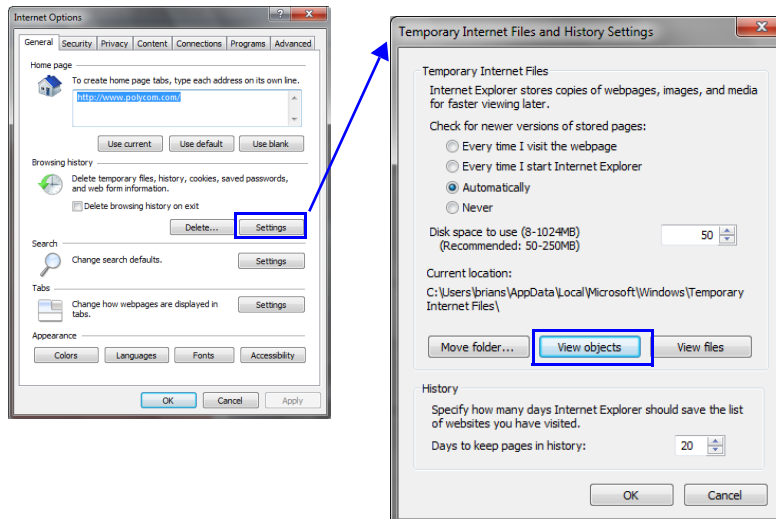


- 5 In the *Browsing history* section, click the **Delete** button.
The *Delete Browsing History* dialog box is displayed.



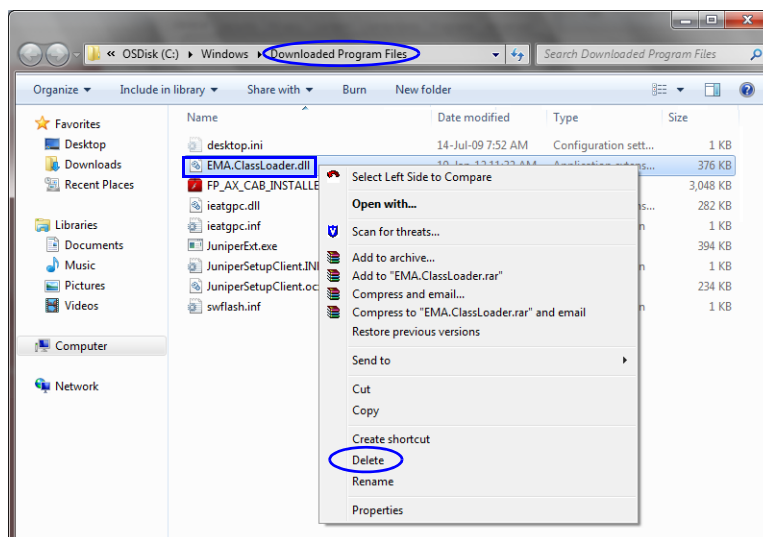
- 6 Select the **Temporary Internet files** and **Cookies** check boxes.
- 7 Click the **Delete** button.
- 8 The *Delete Browsing History* dialog box closes and the files are deleted.
- 9 In the *Internet Options* dialog box, click the **Settings** button.

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.

Polycom Solution Support

Polycom Implementation and Maintenance services provide support for Polycom solution components only. Additional services for supported third-party Unified Communications (UC) environments integrated with Polycom solutions are available from Polycom Global Services and its certified Partners. These additional services will help customers successfully design, deploy, optimize and manage Polycom visual communications within their UC environments.

Professional Services for Microsoft Integration is mandatory for Polycom Conferencing for Microsoft Outlook and Microsoft Office Communications Server integrations. For additional information and details please see http://www.polycom.com/services/professional_services/index.html or contact your local Polycom representative.

Version 7.8 - Upgrade Package Contents

The Version 7.8 upgrade package must be downloaded from the *Polycom Resource Center* and includes the following items:

- lan.cfg file
- LanConfigUtility.exe
- RMX Documentation
 - RealPresence Collaboration Server (RMX) 1500/2000/4000 Version 7.8 Release Notes
 - RealPresence Collaboration Server (RMX) 1500/2000/4000 Getting Started Guide
 - RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator's Guide
 - RealPresence Collaboration Server (RMX) 1500/2000/4000 Hardware Guide
 - RealPresence Collaboration Server (RMX) 1500/2000/4000 Quick Installation Booklet
 - Installation Quick Start Guide for RealPresence Collaboration Server (RMX) 1500/2000/4000
 - RMX Third Party Licenses
- External DB Tools
 - RMX 1500/2000/4000 External Database API Programmer's Guide
 - Sample Scripts
- RMX XML API Kit Version 7.8
 - RMX 1500/2000/4000 XML API Version 7.8 Release Notes
 - RMX 1500/2000/4000 API Overview
 - RMX 1500/2000/4000 API Schema Reference Guide
 - MGC to RMX XML API Conferencing Comparison
 - Polycom XML Tracer User's Guide
 - XML Schemas
 - Polycom XML Tracer application
- Translations of RealPresence Collaboration Server (RMX) 1500/2000/4000 Version 7.8 Documentation:
 - Getting Started Guide: Simplified Chinese
 - Hardware Guide: Simplified Chinese

Where to Get the Latest Product Information

To view the latest Polycom product documentation, visit the **Support** section of the Polycom website at <http://support.polycom.com>

Upgrade Procedures



- **Version 7.8 does not support MPM cards. DO NOT** upgrade to Version 7.8 if *MPM* cards are installed in the RMX and contact *Polycom Support*.
- If the upgrade process includes upgrading the *Media* cards, refer to the *RMX 1500/2000/4000 MPMx Migration Procedure* documentation.

Guidelines

- Ensure that the *Control Unit* memory size is at least 1024MB. If memory size is 512MB, **DO NOT** perform the upgrade procedure. Contact *Polycom Support*.

To check the MCU's Memory size: In the RMX Web Client/RMX Manager go to **Administration > System Information**.

- If *Windows 7™* is installed on the workstation, *Protected Mode* must be disabled before downloading the RMX software to the workstation. For more information see “*Windows 7™ Security Settings*” on page 11.
- To maximize conferencing performance, especially in high bit rate call environments, a 1 Gb connection is recommended for each *LAN* connection.
- If the default **POLYCOM** user is defined in the *RMX Web Client*, an *Active Alarm* is created and the *MCU* status changes to **MAJOR** until a new Administrator user replaces the default user.
- To use the new features such as Gateway Sessions or Exit and Entry Tones the IVR Services must be updated. For more details, see “*Additional/Optional System Updates After Upgrading*” on page 32.
- To enable the *Gathering Phase* in the existing Profiles, you must modify the Profiles assigned to the conferencing entities. For more details, see “*Gathering Settings*” on page 33.

- To keep the conferencing entities registered with the SIP Server defined in the IP Network Service, registration must be enabled in the Profiles assigned to these entities. For more details, see “SIP Registration” on page 34.

Safe Upgrade Paths to Version 7.8

A safety mechanism has been added to RMX to ensure that a viable and safe software version installation is selected on an RMX. It ensures that the current RMX software version and the new software installation are matched to an internal logic table, and enables or rejects the software installation. When an incorrect or non-viable version upgrade/downgrade path is attempted, an alarm and fault are activated on the RMX.

The following table shows a list of the software versions that are supported with the Safe Upgrade process for version 7.8.

Table 5 RMX Version Software Version Upgrade/Downgrade Support for version 7.8

| Software Version | 1500X | 1500Q | RMX 2000 MPM | RMX 2000 MPM+/MPMx | RMX 4000 MPM+/MPMx |
|------------------|-------|-------|--------------|--------------------|--------------------|
| 2.x | - | - | - | - | - |
| 3.x | - | - | - | - | - |
| 4.x | - | - | - | - | - |
| 4.7.2 | ✓ | - | - | ✓ | ✓ |
| 5.x | - | - | - | - | - |
| 6.x | - | - | - | - | - |
| 7.0 | - | - | - | - | - |
| 7.0.x/7.0.2C | ✓ | - | - | ✓ | ✓ |
| 7.1 | ✓ | ✓ | - | ✓ | ✓ |
| 7.2/7.2.x | ✓ | ✓ | - | ✓ | ✓ |
| 7.5.0J/7.5.1J | ✓ | - | - | ✓ | ✓ |
| 7.6/7.6.1 | ✓ | ✓ | - | ✓ | ✓ |
| 7.7 | ✓ | ✓ | - | ✓ | ✓ |
| 7.8 | ✓ | ✓ | | ✓ | ✓ |

To disable this mechanism change the default setting of the ENFORCE_SAFE_UPGRADE system flag to NO.

If your RMX version is not listed in Table 5, refer to Table 6 for intermediate and safe upgrade paths to version 7.8.

Table 6 Upgrade Paths to Version 7.8

| Current Version | First Intermediate Upgrade | | Second Intermediate Upgrade | | Third Intermediate Upgrade | | New Version | |
|-----------------------------|----------------------------|-----|-----------------------------|-----|----------------------------|-----|-------------|-----|
| | Version | Key | Version | Key | Version | Key | Version | Key |
| 7.7 | N/A | | N/A | | N/A | | 7.8 | Yes |
| 7.6/7.6.1 | N/A | | N/A | | N/A | | 7.8 | Yes |
| 7.5.0J/7.5.1J | N/A | | N/A | | N/A | | 7.8 | Yes |
| 7.2 / 7.2.1 / 7.2.2 | N/A | | N/A | | N/A | | 7.8 | Yes |
| 7.0.1 / 7.0.2 / 7.0.3 / 7.1 | N/A | | N/A | | N/A | | 7.8 | Yes |
| 7.0 | 7.0.3 | No | N/A | | N/A | | 7.8 | Yes |
| 6.0.2 | 7.0.3 | Yes | N/A | | N/A | | 7.8 | Yes |
| 6.0 / 6.0.1 | 6.0.2 | No | 7.0.3 | Yes | N/A | | 7.8 | Yes |
| 5.0.2 | 7.0.3 | Yes | N/A | | N/A | | 7.8 | Yes |
| 5.0 / 5.0.1 | 5.0.2 | No | 7.0.3 | Yes | N/A | | 7.8 | Yes |
| 4.x | 5.0.2 | Yes | 7.0.3 | Yes | N/A | | 7.8 | Yes |
| 2.x / 3.x | 4.1.1 | Yes | 5.0.2 | Yes | 7.0.3 | Yes | 7.8 | Yes |

Preparing for the Upgrade

To prepare for the upgrade:

- 1 If the RMX is used with a DMA, disable DMA functionality:
 - a Log into the DMA that handles call transfers for the RMX.
 - b Select Network -> MCU -> MCUs.
 - c Select the MCU and choose either **Stop Using** or **Busy Out**.
- 2 Verify that all conferences, including permanent conferences, have been terminated.



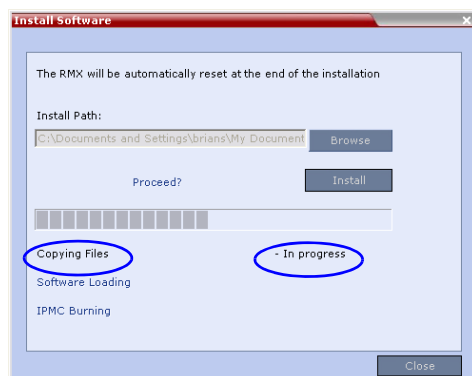
After the upgrade is complete, all permanent conferences must be manually rescheduled.

- 3 If upgrading from 7.0.1 or higher:
 - a Download the Version 7.8 software from the *Polycom Resource Center* web site.
 - b Obtain the Version 7.8 *Product Activation Key* from the *Polycom Resource Center* web site. For more information, see the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Getting Started Guide*, "Obtaining the Activation Key" on page 2-26.

- 4 If upgrading from 7.0:
 - a Download the *Version 7.0.3* software and the *Version 7.8* software from the *Polycom Resource Center* web site.
 - b Obtain the *Version 7.8 Product Activation Key* from the *Polycom Resource Center* web site. For more information, see the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Getting Started Guide*, "Obtaining the Activation Key" on page [2-26](#).
- 5 If upgrading from 5.0.2 or 6.0.2:
 - a Download the *Version 7.0.3* software and the *Version 7.8* software from the *Polycom Resource Center* web site.
 - b Obtain the *Version 7.0.3 Product Activation Key* and the *Version 7.8 Product Activation Key* from the *Polycom Resource Center* web site. For more information, see the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Getting Started Guide*, "Obtaining the Activation Key" on page [2-26](#).
- 6 If upgrading from 6.0 or 6.0.1:
 - a Download the *Version 6.0.2* software, the *Version 7.0.3* software, and the *Version 7.8* software from the *Polycom Resource Center* web site.
 - b Obtain the *Version 7.0.3 Product Activation Key* and the *Version 7.8 Product Activation Key* from the *Polycom Resource Center* web site. For more information, see the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Getting Started Guide*, "Obtaining the Activation Key" on page [2-26](#).
- 7 If upgrading from 5.0 or 5.0.1:
 - a Download the *Version 5.0.2* software, the *Version 7.0.3* software, and the *Version 7.8* software from the *Polycom Resource Center* web site.
 - b Obtain the *Version 7.0.3 Product Activation Key* and the *Version 7.8 Product Activation Key* from the *Polycom Resource Center* web site. For more information, see the *RMX Getting Stated Guide*, "Obtaining the Activation Key" on page [2-26](#).
- 8 If upgrading from 4.x:
 - a Download the *Version 5.0.2* software, the *Version 7.0.3* software, and the *Version 7.8* software from the *Polycom Resource Center* web site.
 - b Obtain the *Version 5.0.2 Product Activation Key*, the *Version 7.03 Product Activation Key*, and the *Version 7.8 Product Activation Key* from the *Polycom Resource Center* web site. For more information, see the *RMX Getting Stated Guide*, "Obtaining the Activation Key" on page [2-26](#).
- 9 If upgrading from 2.x or 3.x:
 - a Download the *Version 4.1.1* software, the *Version 5.0.2* software, the *Version 7.0.3* software, and the *Version 7.8* software from the *Polycom Resource Center* web site.
 - b Obtain the *Version 4.1.1* software, the *Version 7.0.3 Product Activation Key* and the *Version 7.8 Product Activation Key* from the *Polycom Resource Center* web site. For more information, see the *RMX Getting Stated Guide*, "Obtaining the Activation Key" on page [2-26](#).
- 10 Backup the configuration file. For more information, see the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator's Guide*, "Software Management" on page [21-51](#).

Upgrading from Version 7.0.1 / 7.0.2 / 7.0.3 / 7.1 / 7.2 / 7.2.1 / 7.2.2 / 7.5.0J/7.5.1J/7.6/7.6.1/7.7 to Version 7.8

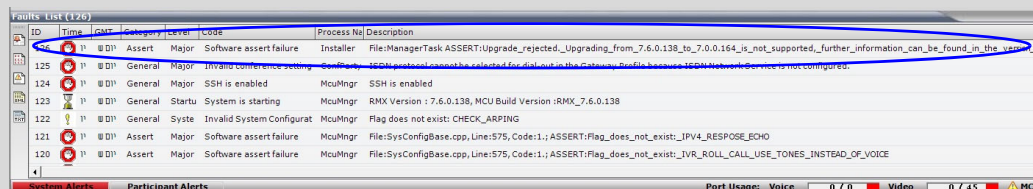
- 1 Install *MCU Software Version 7.8*.
On the RMX menu, click **Administration > Software Management > Software Download**.
- 2 Browse to the *Install Path*, selecting the **Version 7.8.x.x.bin** file in the folder where *Version 7.8* is saved and click **Install**.
- 3 The *Install Software* information box that the file *Copying files* is *In progress*.



- When an incorrect or non viable version upgrade/downgrade is attempted, an alarm and fault are activated on the RMX.



- Click **OK**. The RMX software installation procedure is aborted and a system alert activates in the Faults List as shown below.

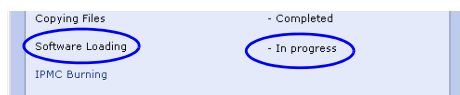


- During any upgrade or downgrade software version installation when the *Safe Software Version Installation* warning has been activated your current browser session will block any new installation attempt. This applies to all software versions, except for version 7.6 which will still enable version downgrades. As a workaround close and then re-open a new browser session, which will enable you to start a new software version installation.

At the end of the *Coping Files* process the system displays an indication that the software copying procedure is *Done*.

- 4 Click the **OK** button.

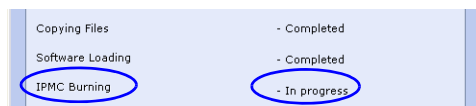
The *Install Software* information box indicates that *Software Loading* is in progress.



A series of *Active Alarms* are displayed indicating the progress of the upgrade process.

| Active Alarms (6) | | | | | | | | |
|-------------------|------|---------|----------|--------|------------------------|--------------|--|--|
| ID | Time | GMT Tim | Category | Level | Code | Process Name | Description | |
| 8 | Wed | Wednes | General | System | IPMC software upgrade | Installer | IPMC upgrade 95% | |
| 7 | Wed | Wednes | General | System | IPMC software upgrade | Cards | RTM IP IPMC upgrade 84% board Id:5 | |
| 6 | Wed | Wednes | General | System | IPMC software upgrade | Cards | Media card IPMC software upgrade 80% board Id:2 | |
| 3 | Wed | Wednes | General | System | Warning: Upgrade start | Installer | Warning: Upgrade started and SAFE Upgrade protection is turned | |

The *Install Software* information box indicates that *IPMC Burning* is in progress.



A further series of *Active Alarms* are displayed indicating the progress of the upgrade process.

| Active Alarms (6) | | | | | | | | |
|-------------------|------|---------|----------|--------|-----------------------|--------------|--|--|
| ID | Time | GMT Tim | Category | Level | Code | Process Name | Description | |
| 7 | Wed | Wednes | General | System | IPMC software upgrade | Cards | RTM IP IPMC upgrade 0% board Id:5 | |
| 6 | Wed | Wednes | General | System | IPMC software upgrade | Cards | Media card IPMC software upgrade 0% board Id:2 | |
| 3 | Wed | Wednes | General | System | IPMC software upgrade | Cards | Media card IPMC software upgrade 0% board Id:3 | |

The upgrade procedure takes approximately **20** minutes.

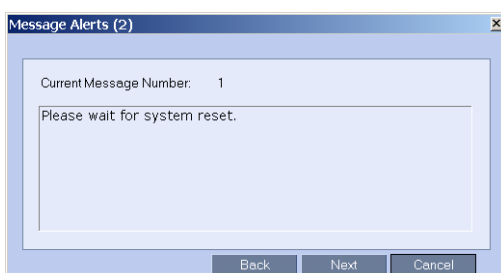


Sometimes, when updating the *Version 7.8* license key, the system displays the following active alarm:

| Active Alarms (1) | | | | | | | | |
|-------------------|----|---------------|----------|-------|------------------------|--------------|------------------------|--|
| MCU | ID | Time | Category | Level | Code | Process Name | Description | |
| 172.22.185.145 | 2 | 11:57:15 2010 | General | Major | Insufficient resources | Resource | Insufficient resources | |

Ignore this Active Alarm and complete this installation procedure.

A system message alert may appear, if so then click **Next/Cancel**.



Connection to the RMX is terminated and you are prompted to reopen the browser.



RMX is not responding - please reopen the browser

- 5 Approximately 10 minutes after receiving this message, close and reopen the browser.
- 6 Enter the IP address of the RMX *Control Unit* in the browser's address line and press **Enter** to reconnect to RMX.

If the browser displays a message indicating that it cannot display the requested page, close and reopen the browser and connect to the RMX.

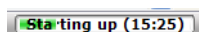
The version number in the *Welcome* screen has changed to 7.8.

- 7 In the *RMX Web Client – Welcome* screen, enter your *User Name* and *Password* and click **Login**.



If the error “Browser environment error. Please close all the browser sessions” appears, close all the browser sessions, and reconnect to the RMX. If the error message appears again, either run the automatic troubleshooter utility or manually perform the suggested troubleshooting procedures. For more details, see “*Troubleshooting Instructions*” on page 188.

In the *Main Screen* an *MCU State* indicator displays a progress indicator



showing the time remaining until the system start-up is complete.

To use the new features such as *Operator Assistance* and *Gateway Sessions* the IVR Services must be updated. For more details, see “*Additional/Optional System Updates After Upgrading*” on page 32.

- 8 If the RMX is used with a DMA, enable DMA functionality:
 - a Log into the DMA that handles call transfers for the RMX.
 - b Select Network -> MCU -> MCUs.
 - c Select the MCU and choose **Start Using**.
 - d Verify that the version number is updated.

The upgrade to Version 7.8 is complete.

Upgrading from Version 7.0 to Version 7.8

This upgrade requires an intermediate upgrade from *Version 7.0* to *Version 7.0.3*.

Upgrading from Version 7.0 to Version 7.0.3

- 1 Install *MCU Software Version 7.0.3*.
On the RMX menu, click **Administration > Software Management > Software Download**.
- 2 Browse to the *Install Path*, selecting the **Version 7.0.3.x.bin** file in the folder where *Version 7.0.3* is saved and click **Install**.

The *Install Software* information box indicates that *Copying Files* is *In progress*.

The *Install Software* information box indicates that *Software Loading* is *In progress*.

A series of *Active Alarms* are displayed indicating the progress of the upgrade process.

The *Install Software* information box indicates that *IPMC Burning* is *In progress*.

A further series of *Active Alarms* are displayed indicating the progress of the upgrade process.

The upgrade procedure takes approximately 20 minutes.

Connection to the RMX is terminated and you are prompted to reopen the browser.

- 3 Approximately 5 minutes after receiving this message, close and reopen the browser.
- 4 Enter the IP address of the *RMX Control Unit* in the browser’s address line and press **Enter** to reconnect to RMX.

If the browser displays a message indicating that it cannot display the requested page close and re-open the browser and connect to the RMX.

The version number in the *Welcome* screen has changed to 7.0.3.

- 5 In the *RMX Web Client – Welcome* screen, enter your *User Name* and *Password* and click **Login**.

In the *Main Screen* an *MCU State* indicator displays a progress indicator

 showing the time remaining until the system start-up is complete.

Upgrade from Version 7.0.3 to Version 7.8

- >> Continue with the upgrade from 7.0.1 / 7.0.2 / 7.0.3 / 7.1 / 7.2 / 7.2.1 / 7.2.2 / 7.5.0J / 7.5.1J / 7.6 / 7.6.1 / 7.7 to Version 7.8 as described on page 21.

Upgrading from Version 6.0.2 to Version 7.8

This upgrade requires an intermediate upgrade from *Version 6.0.2* to *Version 7.0.3*.

Intermediate Upgrade from Version 6.0.2 to Version 7.0.3

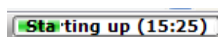
- 1 Install MCU Software Version 7.0.3.
On the RMX menu, click **Administration > Software Management > Software Download**.
- 2 Browse to the *Install Path*, selecting the **Version 7.0.3.x.bin** file in the folder where *Version 7.0.3* is saved and click **Install**.
The *Install Software* information box that *Copying Files* is *In progress*.
At the end of the installation process the system displays an indication that the software copying procedure is *Completed* and that a new *Activation Key* is required.
- 3 Click the **OK** button.
- 4 On the RMX menu, click **Setup > Product Activation**.
The *Product Activation* dialog box is displayed with the *Serial Number* field completed.
- 5 In the *Activation Key* field, enter or paste the *Product Activation Key* obtained earlier and click the **OK** button.
At the end of the *Product Activation* process the system displays an indication that the *Product Activation Key* was successfully installed.
- 6 Click the **OK** button.
The *Install Software* information box indicates that *Software Loading* is *In progress*.
A series of *Active Alarms* are displayed indicating the progress of the upgrade process.
The *Install Software* information box indicates that *IPMC Burning* is *In progress*.
A further series of *Active Alarms* are displayed indicating the progress of the upgrade process.
After about 30 minutes, **close and reopen the browser** and connect to the RMX.
If the browser was not closed and reopened, the following error message is displayed:

Browser environment error. Please reopen the browser. If this occurs, close and re-open the browser and connect to the RMX.

The version number in the *Welcome* screen has changed to 7.0.3.

- 7 In the *RMX Web Client – Welcome* screen, enter your *User Name* and *Password* and click **Login**.

In the *Main Screen* an *MCU State* indicator displays a progress indicator

 showing the time remaining until the system start-up is complete.

Upgrade from Version 7.0.3 to Version 7.8

- >> Continue with the upgrade from 7.0.1 / 7.0.2 / 7.0.3 / 7.1 / 7.2 / 7.2.1 / 7.2.2 / 7.5.0J / 7.5.1J / 7.6 / 7.6.1 / 7.7 to Version 7.8 as described on page 21.

Upgrading from Versions 6.0/6.0.1 to Version 7.8

This upgrade requires the following intermediate upgrade procedures:

- 1 Upgrade from *Version 6.0./6.0.1* to *Version 6.0.2*.
- 2 Upgrade from *Version 6.0.2* to *Version 7.0.3*.

Intermediate Upgrade from Version 6.0/6.0.1 to Version 6.0.2

- 1 Install *MCU Software Version 6.0.2*.
On the *RMX* menu, click **Administration > Software Management > Software Download**.
- 2 Browse to the *Install Path*, selecting the *Version 6.0.2.x.bin* file in the folder where *Version 6.0.2* is saved and click **Install**.

The *Install Software* information box that *Copying Files* is *In progress*.

The *Install Software* information box indicates that *Software Loading* is *In progress*.

A series of *Active Alarms* are displayed indicating the progress of the upgrade process.

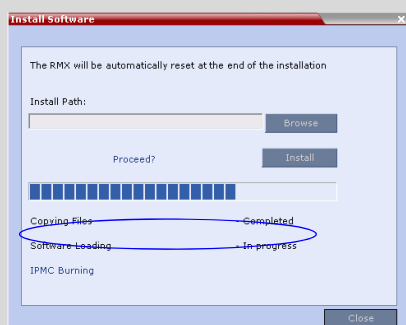
The *Install Software* information box indicates that *IPMC Burning* is *In progress*.

A further series of *Active Alarms* are displayed indicating the progress of the upgrade process.

The upgrade procedure takes approximately **20** minutes.



When upgrading from version 6.0.1, if after 20 minutes the system remains in the *Loading Software* stage:



and sometimes the following Active Alarm is displayed:

| ID | Time | Category | Level | Code | Process | Description |
|------|---------------------|----------|-------|----------|-----------|---|
| 1627 | 26-10-2010 17:37:49 | Assert | Major | Softwar | Installer | File:InstallerManager.cpp,Line:996,Code:1.; ASSERT:Timeout_reached_during_installation_flow |
| 1626 | 26-10-2010 17:14:56 | Assert | Major | Softwar | McuMng | File:McuMngrManager.cpp,Line:947,Code:1.; ASSERT:CMcuMngrManager::OnAuthenticationInd_ |
| 1625 | 26-10-2010 17:14:56 | General | Major | Socket r | MplApi | Socket reconnect (board id: 5) |

Close the Install Software window, access the **Hardware Monitor** and **Reset** the RMX.

After reset, the upgrade process continues as described below.

Connection to the RMX is terminated and you are prompted to reopen the browser.

- 3 After approximately 5 minutes close and reopen the browser.
- 4 Enter the IP address of the *RMX Control Unit* in the browser's address line and press **Enter** to reconnect to RMX.

If the browser displays a message indicating that it cannot display the requested page close and re-open the browser and connect to the RMX.

The *Login* screen is displayed. The version number has changed to 6.0.2.

- 5 In the *RMX Web Client - Welcome* screen, enter your *User Name* and *Password* and click **Login**.

In the *Main Screen* an *MCU State* indicator displays a progress indicator

Starting up (15:25)

showing the time remaining until the system start-up is complete.

Intermediate Upgrade from Version 6.0.2 to Version 7.0.3

- >> Continue with the upgrade from *Version 6.0.2* to *Version 7.0.3* as described starting on page 24.

Upgrade from Version 7.0.3 to Version 7.8

- >> Continue with the upgrade from 7.0.1 / 7.0.2 / 7.0.3 / 7.1 / 7.2 / 7.2.1 / 7.2.2 / 7.5.0J / 7.5.1J / 7.6 / 7.6.1 / 7.7 to Version 7.8 as described on page 21.

Upgrading from Version 5.0.2 to Version 7.8

This upgrade requires an intermediate upgrade from *Version 5.0.2* to *Version 7.0.3*.

Intermediate Upgrade from Version 5.0.2 to Version 7.0.3

- 1 Install *MCU Software Version 7.0.3*.
On the *RMX* menu, click **Administration > Software Management > Software Download**.
- 2 Browse to the *Install Path*, selecting the **Version 7.0.3.x.bin** file in the folder where **Version 7.0.3** is saved and click **Install**.

At the end of the installation process the *Install Software* dialog box indicates that the installed software is being checked. The system then displays an indication that the software was successfully downloaded and that a new activation key is required.
- 3 On the *RMX 2000/4000* menu, click **Setup > Product Activation**.
The *Product Activation* dialog box is displayed with the *Serial Number* field completed.
- 4 In the *Activation Key* field, enter or paste the *Product Activation Key* obtained earlier and click the **OK** button.

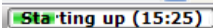
At the end of the *Product Activation* process the system displays an indication that the *Product Activation Key* was successfully installed.
- 5 When prompted whether to reset the *RMX*, click **Yes** to reset the *RMX*.
- 6 When prompted to wait while the *RMX* resets, click **OK**.

The upgrade procedure takes approximately 30 minutes.
Connection to the *RMX* is terminated and you are prompted to reopen the browser.
- 7 After approximately 30 minutes close and reopen the browser.
- 8 Enter the IP address of the *RMX Control Unit* in the browser's address line and press **Enter** to reconnect to *RMX*.

If the browser displays a message indicating that it cannot display the requested page, refresh the browser periodically until connection to the *RMX* is established and the *Login* screen is displayed.

You may receive a message stating *Browser environment error. Please reopen the browser*. If this occurs, close and re-open the browser and connect to the *RMX*.
- 9 **Optional.** Close and reopen the browser.
- 10 Enter the IP address of the *RMX Control Unit* in the browser's address line and press **Enter** to reconnect to *RMX*.

The *Login* screen is displayed. The version number has changed to 7.0.3.
- 11 In the *RMX Web Client – Welcome* screen, enter your *User Name* and *Password* and click **Login**.

In the *Main Screen* an *MCU State* indicator displays a progress indicator
 showing the time remaining until the system start-up is complete.

Upgrade from Version 7.0.3 to Version 7.8

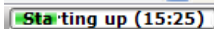
- >> Continue with the upgrade from 7.0.1 / 7.0.2 / 7.0.3 / 7.1 / 7.2 / 7.2.1 / 7.2.2 / 7.5.0J / 7.5.1J / 7.6 / 7.6.1 / 7.7 to Version 7.8 as described on page 21.

Upgrading from Versions 5.0/5.0.1 to Version 7.8

This upgrade requires the following intermediate upgrade procedures:

- 1 Upgrade from *Version 5.0./5.0.1* to *Version 5.0.2*.
- 2 Upgrade from *Version 5.0.2* to *Version 7.0.3*.

Intermediate Upgrade from Version 5.0/5.0.1 to Version 5.0.2

- 1 Install MCU Software *Version 5.0.2*.
On the RMX menu, click **Administration > Software Management > Software Download**.
- 2 Browse to the *Install Path*, selecting the **Version 5.0.2.x.bin** file in the folder where *Version 5.0.2* is saved and click **Install**.
At the end of the installation process the system displays an indication that the software was successfully downloaded and that a new activation key is required.
- 3 Click **Close** to close the *Install Software* dialog box.
- 4 When prompted whether to reset the MCU, click **Yes** to reset the MCU.
At the end of the installation process the system displays an indication that the software was successfully downloaded.
The upgrade procedure takes about **30** minutes during which time an *Active Alarm - System Upgrade* is displayed.
The RMX resets itself during the upgrade process and connection to the *RMX Web Client* may be lost. If the workstation is logged in to the *RMX Web Client* during the resets, the *MCU State* indicator at the bottom right corner of the *RMX Web Client* screen indicates *STARTUP*.
- 5 After about **30** minutes, **close and reopen the browser** and connect to the RMX.
If the browser was not closed and reopened, the following error message is displayed:
Browser environment error. Please reopen the browser.
The version number in the *Welcome* screen has changed to *5.0.2*.
- 6 In the *RMX Web Client - Welcome* screen, enter your *User Name* and *Password* and click **Login**.
In the *Main Screen* an *MCU State* indicator displays a progress indicator
 showing the time remaining until the system start-up is complete.

Intermediate Upgrade from Version 5.0.2 to Version 7.0.3

- 1 Install MCU Software *Version 7.0.3*.
On the RMX menu, click **Administration > Software Management > Software Download**.
- 2 Browse to the *Install Path*, selecting the **Version 7.0.3.x.bin** file in the folder where **Version 7.0.3** is saved and click **Install**.
At the end of the installation process the *Install Software* dialog box indicates that the installed software is being checked. The system then displays an indication that the software was successfully downloaded and that a new activation key is required.
- 3 On the *RMX 2000/4000* menu, click **Setup > Product Activation**.

The *Product Activation* dialog box is displayed with the *Serial Number* field completed.

- 4 In the *Activation Key* field, enter or paste the *Product Activation Key* obtained earlier and click the **OK** button.

At the end of the *Product Activation* process the system displays an indication that the *Product Activation Key* was successfully installed.

- 5 When prompted whether to reset the RMX, click **Yes** to reset the RMX..



Sometimes when upgrading from version 5.0.2 to version 7.0.x the reset process fails. In such a case, you can try to connect to the *MCU* via the Shelf Management and reset the *MCU* from the Hardware Monitor or you can “hard” reset the *MCU* by turning the Power off and on again.

- 6 When prompted to wait while the RMX resets, click **OK**.

The upgrade procedure takes approximately 30 minutes.

Connection to the RMX is terminated and you are prompted to reopen the browser.

- 7 After approximately 30 minutes close and reopen the browser.

- 8 Enter the IP address of the *RMX Control Unit* in the browser’s address line and press **Enter** to reconnect to RMX.

The browser displays a message indicating that it cannot display the requested page.

- 9 Refresh the browser periodically until connection to the RMX is established and the *Login* screen is displayed.

You may receive a message stating *Browser environment error. Please reopen the browser.*

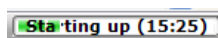
- 10 **Optional.** Close and reopen the browser.

- 11 Enter the IP address of the *RMX Control Unit* in the browser’s address line and press **Enter** to reconnect to RMX.

The *Login* screen is displayed. The version number has changed to 7.0.3.

- 12 In the *RMX Web Client – Welcome* screen, enter your *User Name* and *Password* and click **Login**.

In the *Main Screen* an *MCU State* indicator displays a progress indicator

 showing the time remaining until the system start-up is complete.

Upgrade from Version 7.0.3 to Version 7.8

>> Continue with the upgrade from 7.0.1 / 7.0.2 / 7.0.3 / 7.1 / 7.2 / 7.2.1 / 7.2.2 / 7.5.0J / 7.5.1J / 7.6 / 7.6.1 / 7.7 to Version 7.8 as described on page 21.

Upgrading from Version 4.x to Version 7.8

This upgrade requires the following intermediate upgrade procedures:

- 1 Upgrade from *Version 4.x* to *Version 5.0.2*.
- 2 Upgrade from *Version 5.0.2* to *Version 7.0.3*.

Intermediate Upgrade from Version 4.x to Version 5.0.2

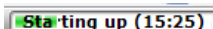
- 1 Install *MCU Software Version 5.0.2*
On the *RMX* menu, click **Administration > Software Management > Software Download**.
- 2 Browse to the *Install Path*, selecting the **Version 5.0.2.x.bin** file in the folder where the downloaded version is saved and click **Install**.
At the end of the installation process the system displays an indication that the software was successfully downloaded and that a new activation key is required.
- 3 On the *RMX* menu, click **Setup > Product Activation**.
The *Product Activation* dialog box is displayed with the *Serial Number* field completed.
- 4 In the *Activation Key* field, enter or paste the *Product Activation Key* obtained earlier and click the **OK** button.
At the end of the *Product Activation* process the system displays an indication that the *Product Activation Key* was successfully installed.
- 5 Click the **OK** button.
- 6 When prompted whether to reset the MCU, click **Yes** to reset the MCU.
At the end of the installation process the system displays an indication that the software was successfully downloaded.
The upgrade procedure takes about **30** minutes during which time an *Active Alarm - System Upgrade* is displayed.
The *RMX* resets itself during the upgrade process and connection to the *RMX Web Client* may be lost. If the workstation is logged in to the *RMX Web Client* during the resets, the *MCU State* indicator at the bottom right corner of the *RMX Web Client* screen indicates *STARTUP*.



Sometimes when upgrading from version 4.x to version 5.0.2 the reset process fails. In such a case, you can try to connect to the MCU via the Shelf Management and reset the MCU from the Hardware Monitor or you can “hard” reset the MCU by turning the Power off and on again.

After about **30** minutes, **close and reopen the browser** and connect to the *RMX*.
If the browser was not closed and reopened, the following error message is displayed: *Browser environment error. Please reopen the browser*. If this occurs, close and re-open the browser and connect to the *RMX*.

The version number in the *Welcome* screen has changed to 5.0.2.

- 7 In the *RMX Web Client - Welcome* screen, enter your *User Name* and *Password* and click **Login**.
In the *Main Screen* an *MCU State* indicator displays a progress indicator  showing the time remaining until the system start-up is complete

Intermediate Upgrade from Version 5.0.2 to Version 7.0.3

- >> Continue with the upgrade from *Version 5.0.2* to *Version 7.0.3* as described starting on page 27.

Upgrade from Version 7.0.3 to Version 7.8

>> Continue with the upgrade from 7.0.1 / 7.0.2 / 7.0.3 / 7.1 / 7.2 / 7.2.1 / 7.2.2 / 7.5.0J / 7.5.1J / 7.6 / 7.6.1 / 7.7 to Version 7.8 as described on page 24.

Upgrading from Versions 2.x/3.x to Version 7.8

From *Versions 2.x/3.x*, the upgrade to *Version 7.8* requires three intermediate upgrades:

- 1 Intermediate upgrade to *Version 4.1.1*.
- 2 Intermediate upgrade from *Version 4.1.1* to *Version 5.0.2*.
- 3 Intermediate upgrade from *Version 5.0.2* to *Version 7.0.3*.

Intermediate Upgrade From Version 2.x/3.x to Version 4.1.1

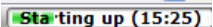
- 1 Install *MCU Software Version 4.1.1*
On the RMX menu, click **Administration > Software Management > Software Download**.
- 2 Browse to the *Install Path*, selecting the **Version 4.1.1.x.bin** file in the folder where *Version 4.1.1* is saved and click **Install**.

At the end of the installation process the system displays an indication that the software was successfully downloaded and that a new activation key is required.
- 3 On the RMX menu, click **Setup > Product Activation**.
The *Product Activation* dialog box is displayed with the serial number field completed.
- 4 In the *Activation Key* field, enter or paste the *Product Activation Key* obtained earlier and click the **OK** button.

At the end of the *Product Activation* process the system displays an indication that the *Product Activation Key* was successfully installed.
- 5 Click the **OK** button.
- 6 When prompted whether to reset the *MCU*, click **Yes** to reset the *MCU*.

The upgrade procedure may take up to 30 minutes during which time an *Active Alarm - System Upgrade* is displayed.

The RMX resets itself during the upgrade process and connection to the *RMX Web Client* may be lost. If the workstation is logged in to the *RMX Web Client* during the resets, the *MCU State* indicator at the bottom right corner of the *RMX Web Client* screen indicates *STARTUP*.
- 7 After 30 minutes, close and re-open the browser and connect to the RMX.
The version number in the *Welcome* screen has changed to 4.1.1
- 8 In the *RMX Web Client - Welcome* screen, enter your *User Name* and *Password* and click **Login**.

In the *Main Screen* an *MCU State* indicator displays a progress indicator  showing the time remaining until the system start-up is complete.

Intermediate Upgrade from Version 4.1.1 to Version 5.0.2

- >> Continue with the upgrade from *Version 4.x* to *Version 5.0.2* as described starting on page 30.

Intermediate Upgrade from Version 5.0.2 to Version 7.0.3

- >> Continue with the upgrade from *Version 5.0.2* to *Version 7.0.3* as described starting on page 27.

Upgrade from Version 7.0.3 to Version 7.8

- >> Continue with the upgrade from 7.0.1 / 7.0.2 / 7.0.3 / 7.1 / 7.2 / 7.2.1 / 7.2.2 / 7.5.0J / 7.5.1J / 7.6 / 7.6.1 / 7.7 to Version 7.8 as described on page 21.

Additional/Optional System Updates After Upgrading

IVR Services Update

When upgrading from version 4.0 and earlier, *Operator Assistance* and the *Gateway calls* options require that the IVR Services include specific (new) DTMF Codes and voice messages. These additions are not automatically added to existing IVR Services in order to avoid conflicts with existing DTMF codes. Therefore, to use these options, new Conference and Entry Queue IVR Services must be created.

In **Version 6.0**, recording can be controlled from the HDX remote control using the designated recording buttons. This is enabled by changing the existing definitions of the DTMF codes of the Roll Call and Recording actions in the Conference IVR Services already defined in the RMX.

In **Version 7.x**, PCM for ISDN participants is enabled by a DTMF code. The code must be added to the *DTMF Codes* tab to enable the PCM for ISDN participants. Default value is 1.

In **Version 7.6.1**, a participant can invite another participant to the conference using a DTMF code. This code must be added manually to the existing Conference IVR Services. In addition, the *Invite Participant* voice message requesting the participant to enter the destination number must be selected in the *General* tab.

To modify the Conference IVR Service:

- 1 In the IVR Services list, double-click the service to modify or right click the service and select Properties.
- 2 To add the gateway voice messages and dial tones, click the **General** tab and select the appropriate *.wav files.
- 3 To modify the DTMF codes, click the **DTMF Codes** tab.

- 4 Modify the DTMF codes as follows:

Table 7 DTMF Code Changes

| Action | Existing DTMF Code | New DTMF Code |
|--|--------------------|---------------|
| <i>Enable Roll Call</i> | *32 | *42 |
| <i>Disable Roll Call</i> | #32 | #42 |
| <i>Roll Call Review Names</i> | *33 | *43 |
| <i>Roll Call Stop Review</i> | #33 | #43 |
| <i>Start/Resume Recording</i> | *73 | *3 |
| <i>Stop Recording</i> | *74 | *2 |
| <i>Pause Recording</i> | *75 | *1 |
| <i>Request Private Assistance</i> | | *0 |
| <i>Request Assistance for the conference</i> | | 00 |
| <i>PCM (for ISDN participants only)</i> | | ## |
| <i>Invite Participant</i> | | *72 |
| <i>Disconnect Last Invited Participant</i> | | #72 |

- 5 To add the Operator Assistance Options, click the **Operator Assistance** tab and select the appropriate options and messages.

For details on modifying the IVR Services, see *RMX 2000 Administrator's Guide*, "Defining a New Conference IVR Service" on page 17-6.

Gathering Settings

When upgrading from earlier versions, the *Enable Gathering* check box in the *Profile Properties - Gathering Settings* dialog box is not selected by default for existing *Profiles*.

To set Enable Gathering as default:

- 1 In the *RMX Management* pane, click *Conference Profiles*.
- 2 In the *Conference Profiles* pane, double-click the **Profile** or right-click the *Profile*, and then click **Profile Properties**.

The *Profile Properties - General* dialog box opens.

3 Click **Gathering Settings**.

The screenshot shows the 'Profile Properties' dialog box with the 'Gathering Settings' tab selected. The left sidebar lists several tabs: General, Advanced, **Gathering Settings** (highlighted with a blue circle), Video Quality, Video Settings, Skins, IVR, and Recording. The main area of the dialog contains the following fields:

- Display Name:** A text input field.
- Enable Gathering:** A checked checkbox.
- Displayed Language:** A dropdown menu currently set to 'English'.
- Access Number 1:** A text input field.
- Access Number 2:** A text input field.
- Info1:** A text input field.
- Info2:** A text input field.
- Info3:** A text input field.

At the bottom right of the dialog are 'OK' and 'Cancel' buttons.

4 Select the **Enable Gathering** check box.

5 Click the **OK** Button.

For more information, see the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator's Guide*, "Gathering Phase" on page [4-30](#).

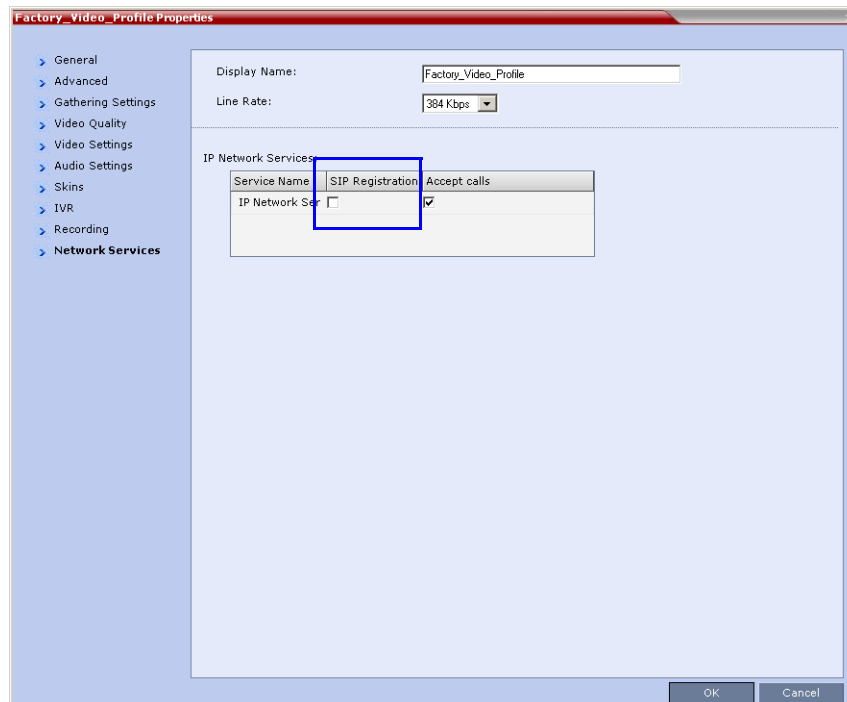
SIP Registration

Starting with Version 7.1, enabling the registration of the conferencing entities with the SIP proxy is moved from the *IP Network Service* to the *Conference Profile - Network Services*. To ensure that conferencing entities that were registered with the SIP Server remain registered after upgrading to Version 7.8, the appropriate conference *Profile* must be updated accordingly.

To enable the registration with the SIP Server:

- 1 Verify which Profile is used by conferencing entities you wish to register with the SIP Server.
- 2 List the **Conference Profiles**.
- 3 Display the *Profile Properties* by double-clicking it or right-clicking the Profile and then selecting **Properties**.
The Profile Properties - General dialog box opens.
- 4 Click the **Network Services** tab.

The *Profile - Network Services* dialog box is displayed.



The system lists the *IP Network Services* currently defined in the RMX depending on the system configuration (single Network or Multiple Networks).

- 5 In the *SIP Registration* column, click the check box of the *Network Service* to enable the registration of the conferencing entity to which this profile is assigned with the SIP Server defined in that Network Service.
- 6 To prevent dial in participants from connecting to a conferencing entity when connecting via a certain Network Service, clear the *Accept Calls* check box of that Network Service.
- 7 Click **OK**.

Media Encryption

When upgrading from a version prior to 7.6.1, the `ALLOW_NON_ENCRYPT_PARTY_IN_ENCRYPT_CONF` *System Flag* is replaced by a value in the *Conference Profile*. Therefore, it is essential that the encryption settings of all existing conference Profiles are verified, and if necessary, modified to meet the encryption requirements through the new encryption options according to Table 8

Table 8 System Flag and Profile Settings in Version 7.6.1 and Earlier

| Encryption Setting | | | |
|----------------------------|--|----------------------------|------------------------------|
| Versions prior to 7.6.1 | | Version 7.6.1 and Later | |
| Parameter | Value | Parameter | Value |
| Profile Encryption Setting | YES | Profile Encryption Setting | Encrypt All |
| Profile Encryption Setting | NO | Profile Encryption Setting | No Encryption |
| System Flag | ALLOW_NON_ENCRYPT _PARTY_IN_ENCRYPT_ CONF=YES | Profile Encryption Setting | Encrypt when possible |

DMA Compatibility

In Version 7.7, if a Polycom DMA system is installed in your environment, you must change the value of the flag **MAX_CONF_PASSWORD_REPEATED_CHAR** to **4** to maintain the compatibility between the RMX and the DMA.

For more details, see the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator's Guide*, "Modifying System Flags" on page **22-1**.

Upgrading the RMX Manager Application

The RMX Manager application can be downloaded from one of the RMX systems installed in your site or from Polycom web site at <http://www.polycom.com/support>.

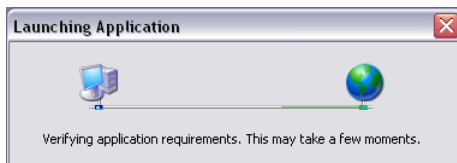
To install RMX Manager (downloading the application from the RMX):



- When upgrading the RMX Manager application, it is recommended to backup the MCU list using the **Export RMX Manager Configuration** option. For more details, see *RealPresence Collaboration Server (RMX) 1500/2000/4000 Getting Started Guide*, "Software Management" on page **21-51**.
- When upgrading the RMX Manager from a major version (for example, version 7.0) to a maintenance version of that version (for example, 7.x), the installation must be performed from the same MCU (IP address) from which the major version (for example, version 7.0) was installed.
If you are upgrading from another MCU (different IP address), you must first uninstall the RMX Manager application using **Control Panel > Add or Remove Programs**.

- 1 Start Internet Explorer and connect to the RMX from which the current version was installed. The *Login* screen is displayed.

- 2 Click the **Install RMX Manager** link on the upper right corner of the *Login* screen. The installer verifies the application's requirements on the workstation.



If the following error message is displayed, you are upgrading from an MCU that is other than the one used for the installed version (different IP address). In such a case, first uninstall the RMX Manager application using **Control Panel > Add or Remove Programs**.



The *Install* dialog box is displayed.

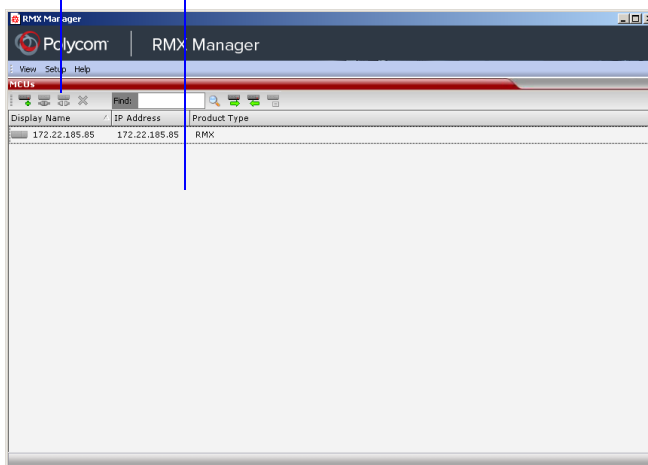
- 3 Click the **Install** button.

The installation proceeds.

The installation completes, the application loads and the *RMX Manager - MCUs* screen is displayed.

MCUs Toolbar

MCUs Pane



The list includes the previously defined MCUs.



If the MCUs list is empty, import the backed up list using the **Import RMX Manager Configuration** option. For more details, see the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator's Guide "Import/Export RMX Manager Configuration"* on page **20-21**.

Version 7.8 Detailed Description - New Features

New Video Resolution 1080p60

This version adds the option of *HD1080p* resolution at 60 fps for improved resolution of motion video. In previous versions the highest resolution at 60 fps was *HD720p*.

Guidelines

HD1080p60 is supported:

- With *MPMx* cards only.
- In *Continuous Presence (CP)* mode:
 - At bit rates of up to 4Mbps.
 - *HD1080p60* is supported asymmetrically: The RMX receives *HD720p60* and sends *HD1080p60*.
 - *HD1080p60* is only selectable when *Video Quality* is set to **Motion**. System behavior when *Video Quality* is set to **Sharpness** is unchanged.
- In *Video Switching (VSW)* mode:
 - At bit rates of up to 6Mbps.
 - *HD1080p60* is supported symmetrically: The RMX receives and sends *HD1080p60*.
- In *Telepresence* environments the RMX sends *HD1080p60* to all endpoints except for those with *1x1 Video Layouts*, which receive the same resolution and frame rate from the RMX as they send. TIP endpoints are not supported
- PAL endpoints are supported at a frame rate of 50 fps.
- Each *HD1080p60* participant consumes 9 system resources.
(For comparison: Each *HD720p60* participant consumes 6 system resources.)

HD1080p60 is not supported:

- For *ISDN* participants.
- For *Content* sharing.
- With *RTV*

CP Resolution Decision Matrix

All the CP resolution options and settings are based on a decision matrix which matches video resolutions to connection line rates, with the aim of providing the best balance between resource usage and video quality at any given line rate.

For more information see the RMX 1500/2000 *RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator's Guide*/4000 "The CP Resolution Decision Matrix" on page [3-4](#).

H.264 Base Profile and High Profile Comparison

The following illustrations show a comparison between the resolutions used at various line rates for *H.264 Baseline* and the *H.264 High Profile*, for the *Motion Video Quality* setting according to the following *Resolution Configuration Modes*:

- *Resource-Quality Balanced*
- *Resource Optimized*
- *Video Quality Optimized*

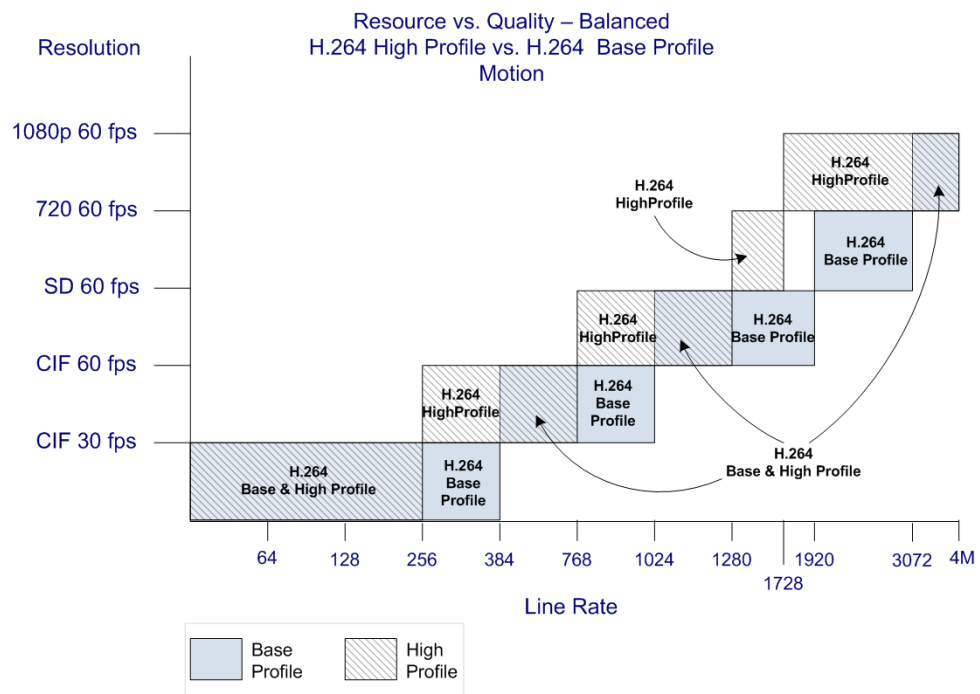


Figure 1-1 Resolution usage for H.264 High Profile and H.264 Base Profile for Motion at various line rates when Resolution Configuration is set to Resource-Quality Balanced

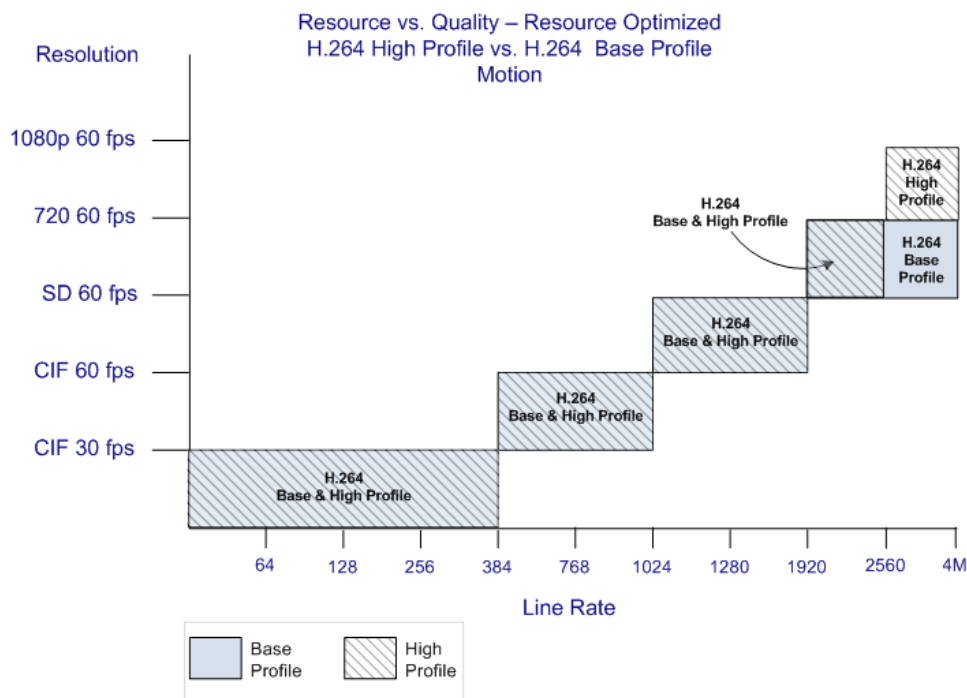


Figure 1-2 Resolution usage for H.264 High Profile and H.264 Base Profile for Motion at various line rates when Resolution Configuration is set to Resource Optimized

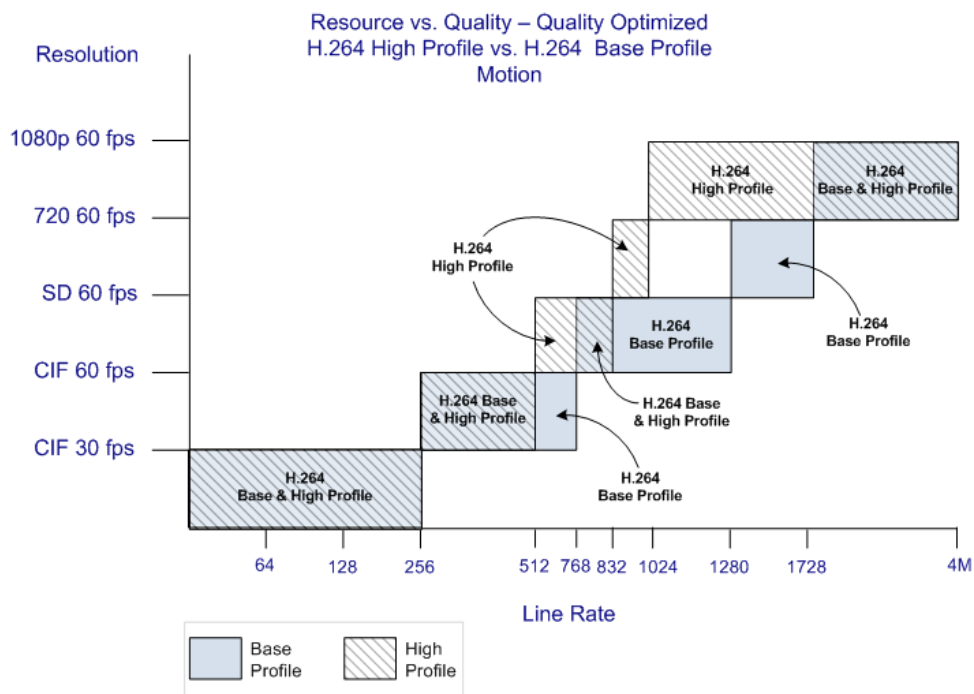


Figure 1-3 Resolution usage for H.264 High Profile and H.264 Base Profile for Motion at various line rates when Resolution Configuration is set to Video Quality Optimized

HD1080p60 Resolution is included in the following table summarizing the *Default Minimum Threshold Line Rates* and *Video Resource* usage for each of the pre-defined optimization settings for each *Resolution*, *H.264 Profile*, *Video Quality* setting (*Sharpness* and *Motion*) for *MPM+* and *MPMx Card Configuration Modes*.

[illegible]

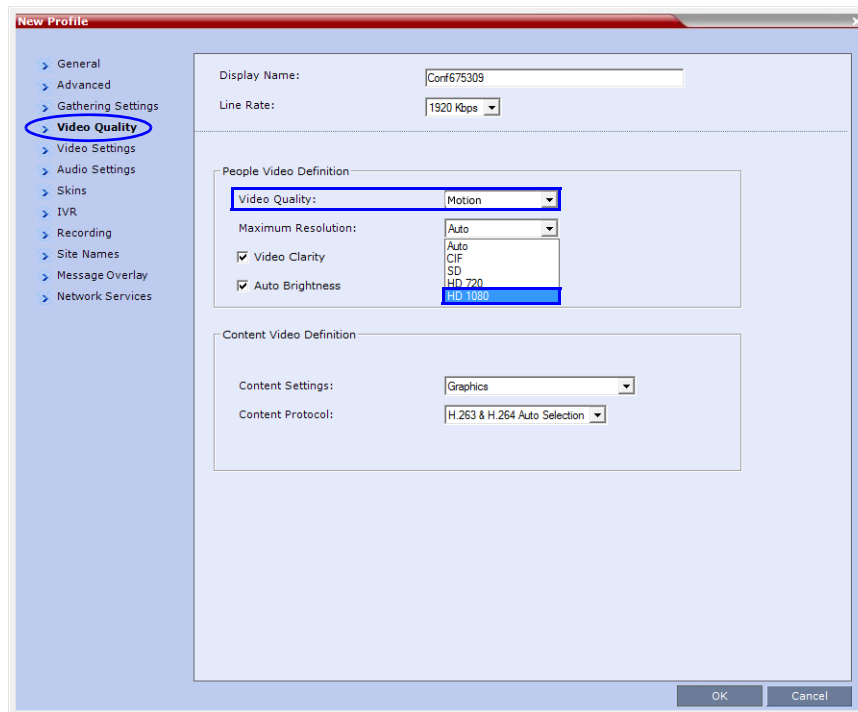
HD1080p60 is enabled and configured using the *New Profile - Video Quality* dialog box and the *Basic* and *Detailed Resolution Configuration* dialog boxes:

- An additional option, HD1080, has been added to the Maximum Resolution drop-down menu of the New Profile - Video Quality dialog box.
- An additional radio button HD1080p60 has been added to the Basic and Detailed Resolution Configuration dialog boxes.

1 In the *New Profile - Video Quality* tab:

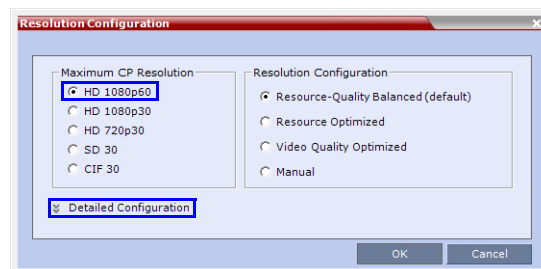
- a** Select **Motion** in the *Video Quality* drop-down menu.
- b** Select **HD1080** in the *Maximum Resolution* drop-down menu.

HD1080 must be selected as the *Maximum Resolution* before *HD1080p60* can be selected using the *Resolution Configuration* dialog boxes.



All other *Conference Profile* fields and their settings are described in detail in the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator's Guide "Defining New Profiles"* on page **2-18**.

- 2 When the *Conference Profile* is complete, click **OK**.
- 3 In the *Resolution Configuration* dialog box:
 - a Click the **HD1080p60** radio button.



- b Optional.** If detailed configuration is required, click **Detailed Configuration** and complete the configuration using the sliders in the *Motion* tabs of the *Detailed Resolution Configuration* dialog boxes.



For more information see the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator's Guide "Modifying the Resolution Configuration in MPMx Card Configuration Mode"* on page 3-17.

- 4** When the *Resolution Configuration* is complete, click **OK**.

Endpoint Connection

Endpoints will connect at resolutions as set out in the following table, depending on whether they support *H.264 High Profile* or not:

| Video Quality Setting | Endpoint Connection Bit Rate (kbps) | | Resolution |
|-----------------------|-------------------------------------|----------------------------|------------|
| | High Profile Supported | High Profile Not Supported | |
| Sharpness | 128<= bit rate <512 | 256<= bit rate <1024 | SD30 |
| | 512<= bit rate <1024 | 1024<= bit rate <1536 | HD720p30 |
| | 1024<= bit rate | 1536<= bit rate | HD1080p30 |

| Video Quality Setting | Endpoint Connection Bit Rate (kbps) | | Resolution |
|-----------------------|-------------------------------------|----------------------------|------------|
| | High Profile Supported | High Profile Not Supported | |
| Motion | 128<= bit rate <512 | 256<= bit rate <1024 | CIF60 |
| | 512<= bit rate <832 | 1024<= bit rate <1536 | SD60 |
| | 832<= bit rate | 1536<= bit rate | HD720p60 |
| | | | HD1080p60 |

System Flags

These *System Flags* must be added to the *System Configuration* file before they can be modified. For more information see the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator's Guide "Modifying System Flags"* on page [22-1](#).

| Flag | Default (kbps) | Description |
|--|----------------------|---|
| <i>H264_BASE_PROFILE_MIN_RATE_HD1080P60_MOTION</i> | 2048 | Endpoints that do not support <i>H.264 High Profile</i> will connect according to the minimum bitrate thresholds defined by this <i>System Flag</i> . |
| <i>VSW_HD1080p60_HP_THRESHOLD_BITRATE</i> | 1728 Minimum 1024 | Controls the Minimum Threshold Line Rate (kbps) for HD1080p60 resolution for <i>H.264 High Profile</i> -enabled <i>VSW</i> conferences. |
| <i>VSW_HD_1080p60_BL_THRESHOLD_BITRATE</i> | 3072 Minimum 1728 | Controls the Minimum Threshold Line Rate for HD1080p60 resolution for <i>H.264 Base Profile</i> -enabled <i>VSW</i> conferences. |
| <i>MAX_CP_RESOLUTION</i> | HD1080p60fps | The flag value is applied to the system during <i>First Time Power-on</i> and after a system upgrade. |

Scalable Video Coding (SVC)-based Conferencing

Version 7.8 supports a new Conferencing Mode - SVC Conferencing, based on the SVC video protocol and Polycom proprietary Scalable Audio Coding (SAC) audio protocol. SVC Conferencing offers high resolution video conferencing with low end-to-end latency, improved Error Resiliency and higher system capacities.

SVC-based Conferencing

The SVC-Based conferencing mode provides video without transcoding by the MCU, hence requiring less video resources while providing better error resiliency and lower latency.

Using the SVC video protocol, SVC conferences provide video bit streams at different resolutions, frame rates and line rates to SVC-enabled endpoints with various display capabilities and layout configurations.

In the SVC-based conference, each SVC-enabled endpoint transmits multiple bit streams, called simulcasting, to the Polycom® RealPresence® Collaboration Server. Simulcasting enables each endpoint to transmit at different resolutions and frame rates such as 720p at 30fps, 15fps, and 7.5fps, 360p at 15fps and 7.5fps, and 180p at 7.5fps.

The Polycom SVC-enabled endpoints (such as Polycom® RealPresence® Desktop and Polycom® RealPresence® Mobile) compose the layout according to their layout settings and video capabilities. This enables the MCU to send or relay the selected video streams to each endpoint without processing the video streams and sending the composite video layout to the endpoints.

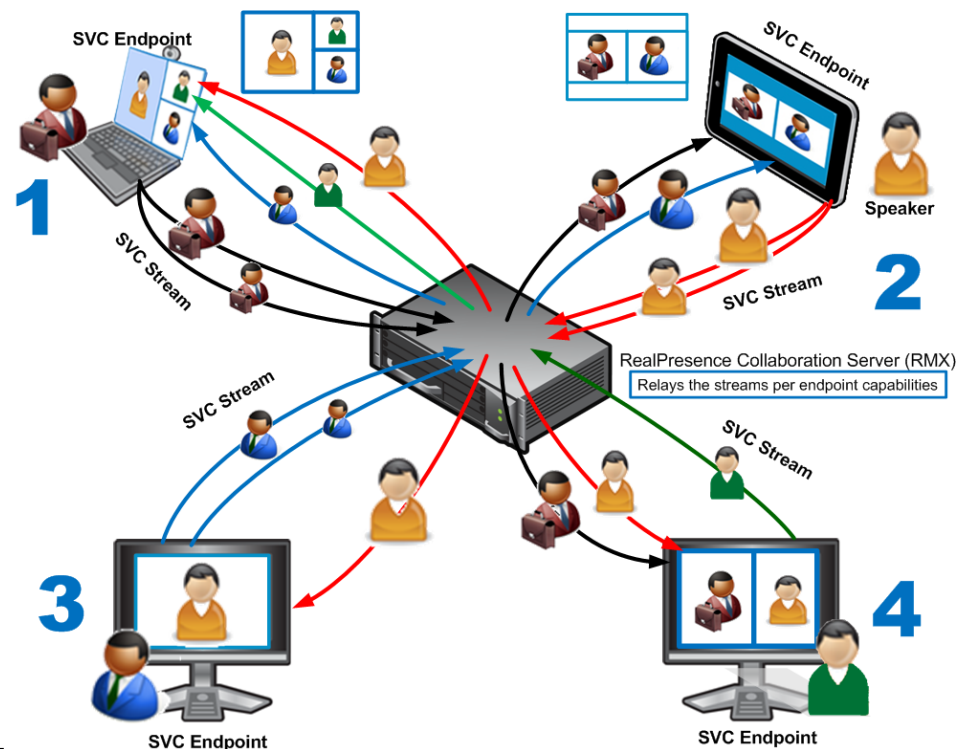


Figure 1-4 SVC video streams and Layouts

The video streams displayed in the conference layout on each endpoint is obtained from the different streams received from each of the endpoints displayed in the layout. Depending on the size of the video cell in the configured layout, the endpoint requests the video stream in the required resolution from the RealPresence Collaboration Server. The higher the display quality and size, the higher the requested resolution will be sent to the endpoint. The endpoint creates the displayed layout from the different video streams it receives.

For instance, an SVC endpoint might want to receive three video streams at different frame rates and resolutions, and create a conference layout with the received video streams. Each SVC-enabled endpoint sends encoded SVC bit streams to the MCU to relay to the other SVC-enabled endpoints in the conference.

The endpoints encode the video in multiple resolutions and decodes the multiple video input streams.

For example:

RealPresence mobile client (2) will transmit two resolutions; one that is suited for RealPresence Desktop client (3) and a second that is suited for two other endpoints: RealPresence Desktop client (4) and (1).

RealPresence Desktop client (1) transmits two resolutions; one that is suited for RealPresence Mobile client (2) and a second that is suited for RealPresence Desktop client (4).

The MCU determines which of the incoming resolutions to send to each endpoint. It does not perform any SVC encoding and decoding, or any transcoding of the video streams. The RealPresence Collaboration Server functions as the multipoint media relay to the endpoints. For voice activated selection of the video streams, the RealPresence Collaboration Server determines which of the incoming bit streams to send to each endpoint.

Advantages of SVC Conferencing

SVC increases the scalability of video networks and enables mass desktop video deployments. Some of the advantages of SVC conferencing are:

- Offers high-resolution video conferencing with low end-to-end latency, improved error resiliency and higher system capacities.
- Allows the SVC-enabled video endpoints to manage display layouts, supporting multiple line rates, resolutions and frame rates.
- The RealPresence Collaboration Server functions as a media relay server providing low cost production benefits. The RealPresence Collaboration Server reduces bandwidth usage by only selecting the necessary video stream to be sent to the endpoints.

Guidelines

- SVC conferences are supported only with the following:
 - RMX systems with MPMx card
 - CP Licensing
 - SIP over UDP signaling
 - SIP over TLS Signaling
 - Polycom SVC-enabled endpoints (Polycom® RealPresence® Desktop, Polycom® RealPresence® Mobile)
 - Ad Hoc conferencing via Meeting Rooms and ongoing conferences

- SVC Only conferences can run on the same MCU as AVC Only conferences.
- All the endpoints participating in a single SVC Only conference must be connected to the same media card and cannot be handled by different media cards as the SVC media streams cannot be shared between them.
- End-to-end latency on a local network (same site), is around 200mSec to ensure AV sync (also known as Lip-sync).
- Dial-out is not available in SVC Only conference.
- Dial-in is available as follows:
 - AVC endpoints (participants) can only connect to an AVC conference. When dialing into SVC Only conferences they will be disconnected and the calls fail.
 - SVC endpoints support both AVC and SVC video protocols. When dialing into SVC Only conferences, they connect as SVC endpoints. When dialing into AVC Only conferences, they connect as AVC endpoints. They cannot connect to an AVC conference using the SVC capabilities.
- SVC endpoints cannot connect to SVC Only conferences via Entry Queues.
- SVC endpoints cannot be moved between conferences.
- Content is supported in H.264 (AVC).
 - Only the *H.264 Cascade and SVC Optimized* option is supported.
 - LPR and DBA are not supported for SVC content sharing.
- Auto Layout is the default and only setting to display the video on the endpoint screen.
- Site names display is controlled from the SVC endpoints.
- When DMA is part of the solution, the DMA is used as the SIP proxy and the SVC endpoint subscribes to DMA for call control. If a DMA is not part of the solution, the SVC endpoint dial directly to the RMX using IP addresses is the SIP dialing strings.
- When Hot backup is enabled, all the conferences are created on the Slave MCU.
- When Hot Backup is activated and the Slave MCU becomes the Master MCU:
 - All AVC endpoints will be reconnected to the AVC (CP and VSW) conferences. SVC endpoints connected to AVC conferences using their AVC capabilities will be reconnected to their AVC conferences.
 - SVC endpoints cannot be reconnected to their SVC Only conferences as dial-out is not supported for SVC endpoints. These endpoints will have to manually reconnect to their SVC conferences.
- Cascading between SVC Only conferences or between AVC and SVC Only conferences is not supported.
- Gateway sessions are not supported for SVC calls.
- Reservations cannot be scheduled for SVC Only conferences.
- The following functionality and features are not supported during SVC Only conferences:
 - FECC
 - Skins. The video cells are displayed on the endpoint's default background.
 - IVR functionality
 - Conference Gathering phase
 - Password protected conferences as DTMF input for passwords cannot be processed
 - All DTMF enabled features during the conference
 - Manual selection of video layout

- Chairperson functionality
- Media Encryption
- Recording of SVC Only conferences
- Text messaging using Message Overlay

MCU Supported Resolutions for SVC Conferencing

The MCU automatically selects the resolution and frame rate according to the conference line rate. Table 1-1 details the maximum resolution and frame rates supported by the MCU for each conference line rate. The actual video rate, resolution and frame rates displayed on each endpoints is determined by the endpoint's capabilities.:

Table 1-1 *SVC Conferencing - Maximum Supported Resolutions per Simulcast Stream*

| Conference Line Rate (kbps) | Profile | Maximum Resolution | Max. Frame Rate (fps) | Audio Rate (kbps) |
|-----------------------------|--------------|--------------------|-----------------------|-------------------|
| 1472 - 2048 | High Profile | 720p | 30fps | 48 |
| 1024 - 1472 | High Profile | 720p | 15fps | 48 |
| 768 - 1024 | High Profile | 360p | 30fps | 48 |
| 512 - 768 | High Profile | 360p | 15fps | 48 |
| 256 - 512 | Base Profile | 180p | 30fps | 48 |
| 192 - 256 | Base Profile | 180p | 15fps | 48 |
| 128 - 192 | Base Profile | 180p | 7.5fps | 48 |

Defining SVC-based Profiles

To define SVC Only Profile:

- 1 In the *RMX Management* pane, click **Conference Profiles**.

- 2 In the *Conference Profiles* pane, click the **New Profile** button. The *New Profile – General* dialog box opens.

The screenshot shows the 'New Profile' dialog box with the 'General' tab selected. The 'Conferencing Mode' dropdown menu is highlighted with a blue box and is set to 'AVC only'. Other visible fields include 'Display Name', 'Line Rate' (set to 384 Kbps), 'Routing Name', 'Video Switching' (unchecked), 'H.264 720p30' (selected in the dropdown), 'H.264 high profile' (unchecked), and 'Operator Conference' (unchecked). The 'OK' and 'Cancel' buttons are at the bottom right.

By default, the Profile is set to *AVC Only Conferencing Mode*.

- 3 In the *Conferencing Mode* list, select **SVC Only** to define an SVC Profile. The profile tabs and options change accordingly and only supported options are available for selection. Unsupported options are disabled (grayed out).

The screenshot shows the 'New Profile' dialog box with the 'General' tab selected. The 'Conferencing Mode' dropdown menu is highlighted with a blue box and is set to 'SVC Only'. Other visible fields include 'Display Name', 'Line Rate' (set to 1920 Kbps), 'Routing Name', 'Video Switching' (unchecked), 'H.264 720p30' (selected in the dropdown), 'H.264 high profile' (unchecked), and 'Operator Conference' (unchecked). The 'OK' and 'Cancel' buttons are at the bottom right.

- 4 Define the *Profile* name and, if required, the *Profile - General* parameters:

Table 1-2 New SVC Profile - General Parameters

| Field/Option | Description |
|---------------------|--|
| <i>Display Name</i> | <p>Enter a unique Profile name, as follows:</p> <ul style="list-style-type: none"> English text uses ASCII encoding and can contain the most characters (length varies according to the field). European and Latin text length is approximately half the length of the maximum. Asian text length is approximately one third of the length of the maximum. <p>It is recommended to use a name that indicates the Profile type, such as Operator conference or Video Switching conference.</p> <p>Note: This is the only parameter that must be defined when creating a new profile.</p> <p>Note: This field is displayed in all tabs.</p> |
| <i>Line Rate</i> | <p>Select the conference bit rate. The line rate represents the combined video, audio and Content rate.</p> <p>The default setting for SVC Only conference is 1920kbps.</p> <p>Notes:</p> <ul style="list-style-type: none"> This field is displayed in all tabs. |
| <i>Routing Name</i> | <p>Enter the <i>Profile</i> name using ASCII characters set.</p> <p>The Routing Name can be defined by the user or automatically generated by the system if no Routing Name is entered as follows:</p> <ul style="list-style-type: none"> If an all ASCII text is entered in Display Name, it is used also as the Routing Name. If any combination of Unicode and ASCII text (or full Unicode text) is entered in Display Name, the ID (such as Conference ID) is used as the Routing Name. |

- 5 Click the **Advanced** tab.

The *New Profile – Advanced* dialog box opens.

- 6 Define the following supported parameters:

Table 1-3 New SVC Profile - Advanced Parameters

| Field/Option | Description |
|-------------------------------|---|
| <i>Auto Terminate</i> | When selected (default), the conference automatically ends when the termination conditions are met: Before First Joins — No participant has connected to a conference during the <i>n</i> minutes after it started. Default idle time is 10 minutes. At the End - After Last participant Quits — All the participants have disconnected from the conference and the conference is idle (empty) for the predefined time period. Default idle time is 1 minute. At the End - When Last Participant Remains — Only one participant is still connected to the conference for the predefined time period (excluding the recording link which is not considered a participant when this option is selected). It is not recommended to select this option for SVC Conferences. Default idle time is 1 minute. |
| <i>Exclusive Content Mode</i> | When selected, <i>Content</i> broadcasting is limited to one participant preventing other participants from interrupting the Content broadcasting while it is active. For more details, see |
| <i>FW NAT Keep Alive</i> | When selected, an <i>FW NAT Keep Alive</i> message is sent at an interval defined in the field below the check box. |
| <i>Interval</i> | The time in seconds between <i>FW NAT Keep Alive</i> messages. |

7 Click the **Video Quality** tab.

The *New Profile – Video Quality* dialog box opens.

8 Define the following parameters:

Table 1-4 New SVC Profile - Video Quality Parameters

| Field/Option | Description |
|---------------------------------|--|
| Content Video Definition | |
| <i>Content Settings</i> | Only Graphics is available in SVC Conferencing Mode for transmission of Content. It offers the basic mode, intended for normal graphics For more information, see " <i>H.239</i> " on page 4-2 . |
| <i>Content Protocol</i> | H.264 Cascade and SVC Optimized is the only available Content Protocol for content sharing during SVC-based conferences. In this mode, all <i>Content</i> is shared using the <i>H.264</i> content protocol and all endpoints must use the set video resolution and frame rate (720p 5fps). Endpoints that do not support these settings cannot share content. |

9 Click the **Network Services** tab.

The *New Profile - Network Services* tab opens.

New Profile

- General
- Advanced
- Video Quality
- Network Services**

Display Name:

Line Rate:

Conferencing Mode:

IP Network Services:

| Service Name | SIP Registration | Accept calls |
|----------------|-------------------------------------|--------------------------|
| IP Network Ser | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

OK Cancel

Registration of conferencing entities such as ongoing conferences, Meeting Rooms, and SIP Factories with SIP servers is done per conferencing entity. This allows better control of the number of entities that register with each SIP server. Selective registration is enabled by assigning a conference Profile in which registration is configured for the required conferencing entities. Assigning a conference Profile in which registration is not configured for conferencing entities will prevent them from registering. By default, Registration is disabled in the Conference Profile, and must be enabled in Profiles assigned to conferencing entities that require registration.

- 10 Define the following parameters:

Table 1-5 New SVC Profile - Network Services Parameters

| Parameter | Description |
|-----------------------------|--|
| IP Network Services: | |
| <i>Service Name</i> | This column lists all the defined <i>Network Services</i> , one or several depending on the system configuration. |
| <i>SIP Registration</i> | <p>To register the conferencing entity to which this profile is assigned with the SIP Server of the selected <i>Network Service</i>, click the check box of that <i>Network Service</i> in this column.</p> <p>When SIP registration is not enabled in the conference profile, the RMX's registering to SIP Servers will each register with an URL derived from its own signaling address. This unique URL replaces the non-unique URL, dummy_tester, used in previous versions.</p> |

Table 1-5 New SVC Profile - Network Services Parameters (Continued)

| Parameter | Description |
|---------------------|--|
| <i>Accept Calls</i> | To prevent dial in participants from connecting to a conferencing entity when connecting via a <i>Network Service</i> , clear the check box of the <i>Network Service</i> from which calls cannot connect to the conference. |

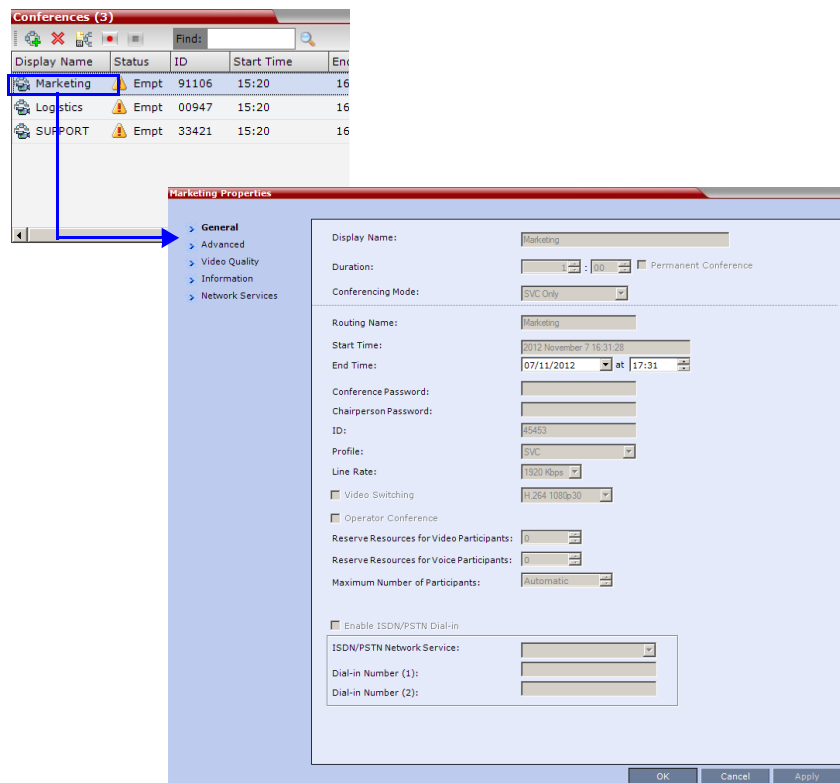
- 11 Click **OK** to complete the *Profile* definition.
A new *Profile* is created and added to the *Conference Profiles* list.

Viewing the Properties of an Ongoing SVC-based Conference

To view the parameters of an ongoing SVC conference:

- 1 In the *Conference* list pane, double-click the SVC conference or right-click the SVC conference and then click **Conference Properties**.

The *Conference Properties - General* dialog box with the **General** tab opens.

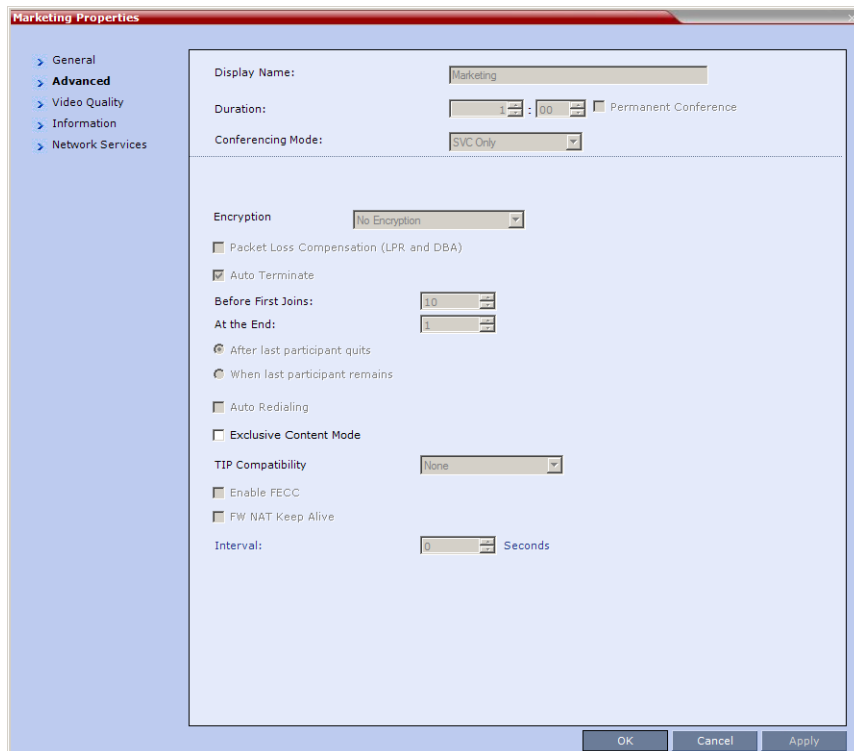


2 The following information is displayed in the *General* tab:

| Field | Description |
|---|---|
| <i>Display Name</i> | The Display Name is the conference name in native language and Unicode character sets to be displayed in the <i>RealPresence Collaboration Server Web Client</i> . Note: This field is displayed in all tabs. |
| <i>Duration</i> | The expected duration of the conference using the format HH:MM. Note: This field is displayed in all tabs. |
| <i>Conferencing Mode</i> | The conferencing mode for the conference. |
| <i>Routing Name</i> | The ASCII name of the conference. It can be used by H.323 and SIP participants for dialing in directly to the conference. It is used to register the conference in the gatekeeper and the SIP server. |
| <i>Start Time</i> | The time the conference started. |
| <i>End Time</i> | The expected conference end time. |
| <i>Conference Password</i> | Conference Password is not supported in SVC conferences. |
| <i>Chairperson Password</i> | Chairperson Password is not supported in SVC conferences. |
| <i>ID</i> | The conference ID. |
| <i>Profile</i> | The name of the conference Profile from which conference parameters were taken. |
| <i>Line Rate</i> | The maximum transfer rate, in kilobytes per second (Kbps) of the call (video and audio streams). |
| <i>Video Switching</i> | Video Switching is not supported in SVC conferences. |
| <i>Reserve Resources for Video Participants</i> | Reserve Resources for Video Participants is not supported in SVC conferences. |
| <i>Reserve Resources for Audio Participants</i> | Reserve Resources for Audio Participants is not supported in SVC conferences. |
| <i>Max Number of Participants</i> | Indicates the total number of participants that can be connected to the conference. The Automatic setting indicates the maximum number of participants that can be connected to the MCU according to resource availability. |
| <i>Enable ISDN/PSTN Network Service</i> | ISDN/PSTN participants are not supported in SVC conferences. |
| <i>ISDN/PSTN Network Service</i> | ISDN/PSTN participants are not supported in SVC conferences. |
| <i>Dial-in Number (1)</i> | ISDN/PSTN participants are not supported in SVC conferences. |
| <i>Dial-in Number (2)</i> | ISDN/PSTN participants are not supported in SVC conferences. |

3 Click the **Advanced** tab.

The *Conference Properties - Advanced* dialog box opens.



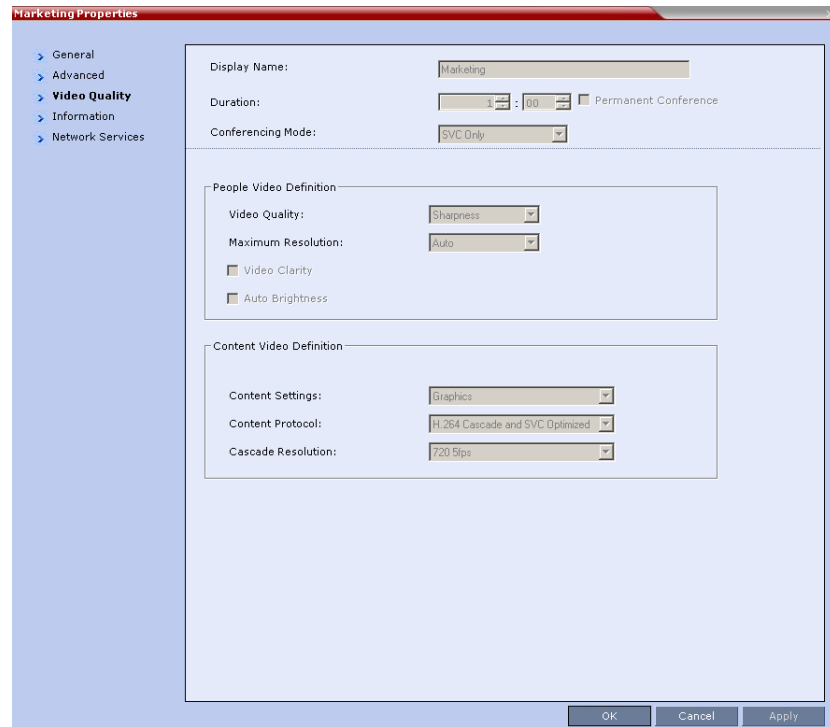
- 4 The following information is displayed in the *Advanced* tab:

Table 1-6 Conference Properties - Advanced Parameters

| Field/Option | Description |
|---|---|
| <i>Encryption</i> | Encryption is not supported in SVC conferences. |
| <i>Packet Loss Compensation (LPR and DBA)</i> | Packet Loss Compensation is not supported in SVC conferences. |
| <i>Auto Terminate</i> | When selected, indicates that the MCU will automatically terminate the conference when <i>Before First Joins</i> , <i>At the End-After Last Quits</i> and <i>At the End - When Last Participant Remains</i> parameters apply. |
| <i>Auto Redialing</i> | Dial-out is not supported in SVC conferences. |
| <i>Exclusive Content Mode</i> | When selected, <i>Content</i> is limited to one participant. |
| <i>TIP Compatibility</i> | TIP Compatibility is not supported in SVC conferences. |
| <i>Enable FECC</i> | Far End Camera Control is not supported in SVC conferences. |

- 5 Click the **Video Quality** tab.

The *Conference Properties - Video Quality* dialog box opens.



The following information is displayed:

Table 1-7 *Conference Properties - Video Quality Parameters*

| Field/Option | Description |
|---------------------------------|--|
| People Video Definition | |
| <i>Video Quality</i> | Indicates the resolution and frame rate that determine the video quality set for the conference. In <i>SVC conferencing</i> , only Sharpness is supported. |
| <i>Maximum Resolution</i> | In <i>SVC conferencing</i> , this is always <i>Auto</i> (default) - The <i>Maximum Resolution</i> remains as selected in the <i>Resolution Configuration</i> dialog box. |
| <i>Video Clarity™</i> | Video Clarity is not supported in SVC conferences. |
| <i>Auto Brightness</i> | <i>Auto Brightness</i> is not supported in SVC conferences. |
| Content Video Definition | |
| <i>Content Settings</i> | In <i>SVC conferencing</i> , this is always set to Graphics |
| <i>Content Protocol</i> | In <i>SVC conferencing</i> this is always set to H.264 Cascade and SVC Optimized . |
| <i>Cascade Resolution</i> | Resolution is fixed in SVC conferences. |

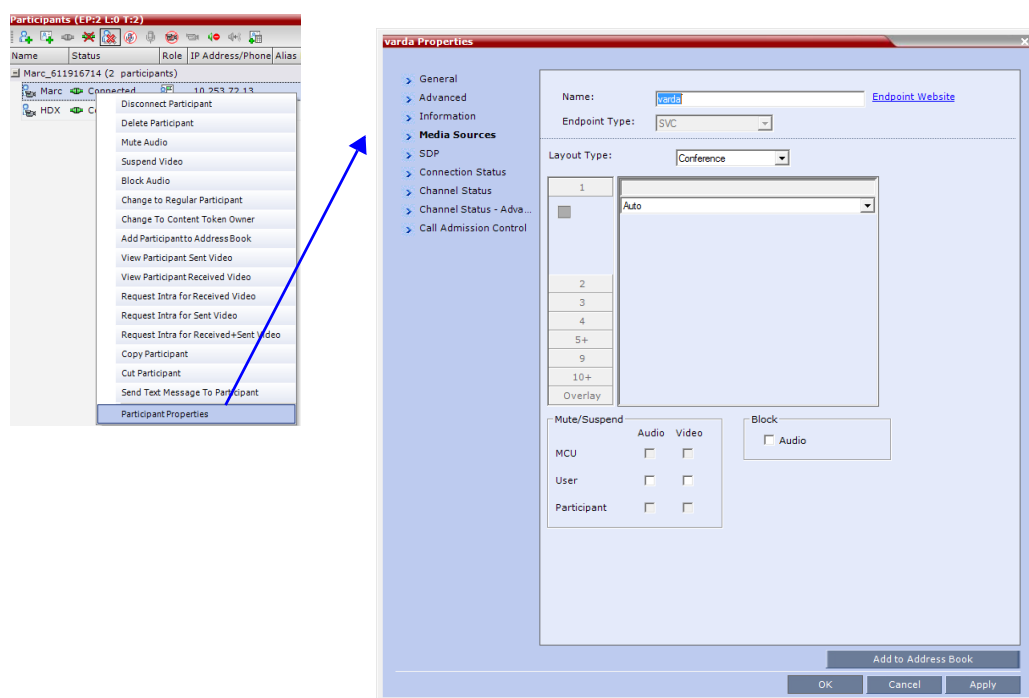
- 6 Click the **Information** tab to view general information defined for the conference. Changes made to this information once the conference is running are not saved to the CDR.
- 7 Click **OK** to close the *Conference Properties* dialog box.

Viewing the SVC Only Participant Properties

To display the participant Properties:

- 1 In the *Participant List* pane double-click the participant entry. Alternatively, right-click a participant and then click **Participant Properties**.

The *Participant Properties - Media Sources* dialog box opens.



The *Media Sources* dialog box enables you to mute participant's audio, suspend participant's video transmission and select a personal Video Layout for the participant

Table 1-8 Participant Properties - Media Sources Parameters

| Field | Description |
|-------------|--|
| <i>Name</i> | Indicates the participant's name. Note: This field is displayed in all tabs. |

Table 1-8 Participant Properties - Media Sources Parameters (Continued)

| Field | Description |
|--------------------------------|--|
| <i>Endpoint Website (link)</i> | <p>Click the Endpoint Website hyperlink to connect to the internal website of the participant's endpoint. It enables you to perform administrative, configuration and troubleshooting activities on the endpoint.</p> <p>The connection is available only if the IP address of the endpoint's internal site is filled in the <i>Website IP Address</i> field in the <i>Participant Properties - General</i> dialog box.</p> <p>Note: This field is displayed in all tabs (excluding ISDN/PSTN participants).</p> |
| <i>Endpoint Type</i> | <p>Indicates whether the participant is using an AVC-based or SVC-based endpoint.</p> <p>Fields, tabs and options are enabled or disabled according to the endpoint type.</p> <p>Note: This field is displayed in all tabs.</p> |
| <i>Layout Type</i> | <p>Indicates whether the video layout currently viewed by the participant is the Conference or Personal Layout. If <i>Personal Layout</i> is selected, you can select a Video Layout that will be viewed only by this participant.</p> |
| <i>Video Layout</i> | <p>Indicates the video layout currently viewed by the participant. When <i>Personal Layout</i> is selected in the <i>Layout Type</i> you can force participants to the video windows in a layout that is specific to the participant. For more information, see <i>RealPresence Collaboration Server (RMX) 1500/2000/4000 Getting Started Guide</i>, "Changing the Video Layout of a Conference (AVC-Based Conferences)" on page 3-56.</p> |
| <i>Mute/Suspend</i> | <p>Indicates if the endpoint's audio and/or video channels have been muted/suspended. The entity that initiated audio mute or video suspend is also indicated.</p> <ul style="list-style-type: none"> • MCU – Audio or Video channel has been muted/suspended by the MCU. • User – Channels have been muted/suspended by the RMX user. • Participant – Channels have been muted/suspended by the participant from the endpoint. <p>You can also cancel or perform mute and suspend operation using these check boxes.</p> <p>Note: If the participant muted his/her audio channel, the system displays the mute icon only for H.323. This icon is not displayed for SIP participant due to SIP standard limitation.</p> |
| <i>Block</i> | <p>When checked, the audio transmission from the conference to the participant's endpoint is blocked, but the participant will still be heard by other participants.</p> |

The remaining participant properties are the same as SIP participant properties. For more details, see *RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator's Guide*, "IP Participant Properties" on page 13-22.

Resource Capacity and Report

MCU license in version 7.8 indicates the maximum number of available CP resources in AVC-based CIF video resources and it is enabled for SVC conferencing.

MCU capacities with MPMx cards installed does not change in version 7.8.

Resource Allocation Method

Flexible Resource Capacity™ – This is the default allocation mode that is used in all versions and can be used in all *Card Configuration Modes* and applies to all Conferencing Modes (SVC and AVC conferencing).

Resource Usage

During a SVC conference, each SVC-endpoint uses one video port. One SVC resource is equivalent to one AVC CIF resource. When sharing content an additional video resource is used.

Resource Report

The *Resource Report* details the current availability and usage of the system resources for both AVC and SVC-based endpoint, displaying the number of free and occupied audio and video resources. A *Resources Graph* is displayed in addition to the *Resources* table.

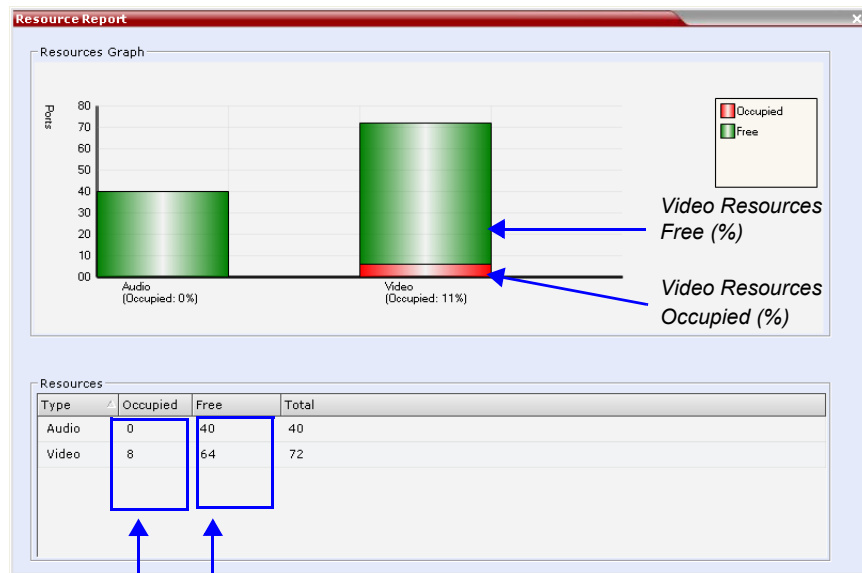
In *Flexible Resource Capacity Mode*, resource usage is displayed for *Voice* and *Video* resources only, where the number of video resources is represented in the equivalent of CIF resources. The number represents a pool of both AVC and SVC resources. They are displayed as percentages of the total resource type.

For each resource type, the Resource Report includes the following columns:

Table 2 *Resource Report Fields Parameters*

| Column | Description |
|-----------------|--|
| <i>Type</i> | The type of audio/video resources available. This applies to both AVC and SVC-based endpoints (and resources). |
| <i>Total</i> | The <i>Total</i> column displays the total number of resources of that type as configured in the system (<i>Occupied</i> and <i>Free</i>). This number reflects the current audio/video port configuration (for AVC and SVC-based conferencing). Any changes to the resource allocation will affect the resource usage displayed in the Resource Report. |
| <i>Occupied</i> | The number of MCU resources that are used by connected AVC and SVC-based participants or reserved for defined participants. |
| <i>Free</i> | The number of MCU resources available for connecting AVC and SVC-based endpoints. |

The *Resource Report* is displayed as follows:



Actual Number of Occupied and Free Audio and Video Resources

Multiple Cascading Links

This version adds support for *Multiple Cascade Links* between RMXs hosting conferences that include *Immersive Telepresence Rooms* (ITP) such as Polycom's OTX and RPX Room Systems. In previous versions the video stream of only one of the ITP endpoints could be sent to the remote RMX.

Guidelines

- *Basic Cascading* topology is used. For more information see the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator's Guide*, "Basic Cascading using IP Cascaded Link" on page 5-4.
- *Multiple Cascade Links* are implemented by creating a *Link Participant* which consists of a main link and sub-links which are automatically generated and sequentially numbered. For more information see "Creating a Link Participant" on page 66.
- All cascaded links must use H.323 protocol.
- *Multiple Cascade Links* are supported with MPMx and MPM+ cards.
- *Multiple Cascade Links* are supported in CP conferencing mode.
- The number of cascading links is defined manually according to the maximum number of Room System cameras in the cascaded conference.
- When the active speaker is in an Immersive Telepresence Room, *Multiple Cascade Links* are used, one link for each of the Room System's cameras.
 - An RPX 4xx Room System requires 4 *Cascaded Links* to carry the video of its 4 cameras.
 - An RPX 2xx Room System requires 2 *Cascaded Links* to carry the video of its 2 cameras.
 - An OTX 3xx Room System requires 3 *Cascaded Links* to carry the video of its 3 cameras. The OTX Room System must be configured as *Room Switch* in order to send multiple streams. When configured in *CP Mode*, its cameras zoom out and all 3 screens are sent as one stream.
- The number of links is defined when creating the *Link Participant*. Each conference in the cascade must have a *Link Participant* with the same number of *Multiple Cascade Links* defined. Calls from *Link Participants* not defined with the same number of links are rejected. *Number of cascading links is not identical for all conferences* is listed as the *Call Disconnection Cause*. For more information see "Creating a Link Participant" on page 66 and "Monitoring Multiple Cascade Links" on page 68.
- Although it is possible to disconnect and reconnect specific *Multiple Cascade Links* using the *RMX Web Client* / *RMX Manager* it not advisable to do so.
 - If the main link is disconnected all sub-links are disconnected and deleted. Reconnecting the main link reconnects all sub-links.
 - If a sub-link is disconnected it remains disconnected until it is manually reconnected.
 - The number of *Multiple Cascade Links* cannot be modified while any of the links are in a disconnected state. All previous links must be deleted before modification is possible. For more information see "Monitoring Multiple Cascade Links" on page 68.
- A *Link Participant* can be dragged from the address book into a conference.

- If it is the first *Link Participant* in the conference, the number of *Multiple Cascade Links* defined for the participant are created and connected.
- If it is not the first *Link Participant* in the conference, the number of *Multiple Cascade Links* defined for the participant is ignored.
- If there are insufficient resources to connect all *Multiple Cascade Links* in either of the RMXs, none of the links are connected and *resources deficiency -0* is listed as the *Call Disconnection Cause*. For more information see “*Monitoring Multiple Cascade Links*” on page 68.
- *Multiple Cascade Links* that are not used by MLA are inactive but continue to consume resources.
- All RMXs participating in the cascade must have the same *Telepresence Mode* definitions, either all defined as *CP* or all defined as *Room Switch*.
- When *Multiple Cascade Links* are defined in the *Conference Profile*, the *Layout Type* field of the *Link Participant's Participant Properties - Media Sources* dialog box is set to **Conference** and cannot be modified.
- TIP Telepresence Rooms (CTS) are supported without *Content*. For more information see the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator's Guide*, “*Collaboration With Cisco's Telepresence Interoperability Protocol (TIP)*” on page I-1.

Enabling and Using Multiple Cascade Links

The settings required to enable *Multiple Cascade Links* on the RMX are minimal and are described in “*Creating a Link Participant*” on page 66.

Most of the layout configuration is performed using *Polycom's Multipoint Layout Application (MLA)*.

Figure 1-5 and Figure 1-6 show example layouts and media flows when MLA is configured for a cascading conference between two RMXs.

In Figure 1-5:

- The OTX Room System connects to RMX A.
- The RPX Room System connects to RMX B.
- This layout requires that the *Telepresence Layout Mode* to be set to **Room Switch** in the *Conference Profiles* of the *Cascading Conferences* in each RMX.
- The current speaker is a participant in the RPX ITP Room.

- Directional media flows, A ↔ B, are shown separately for readability purposes.

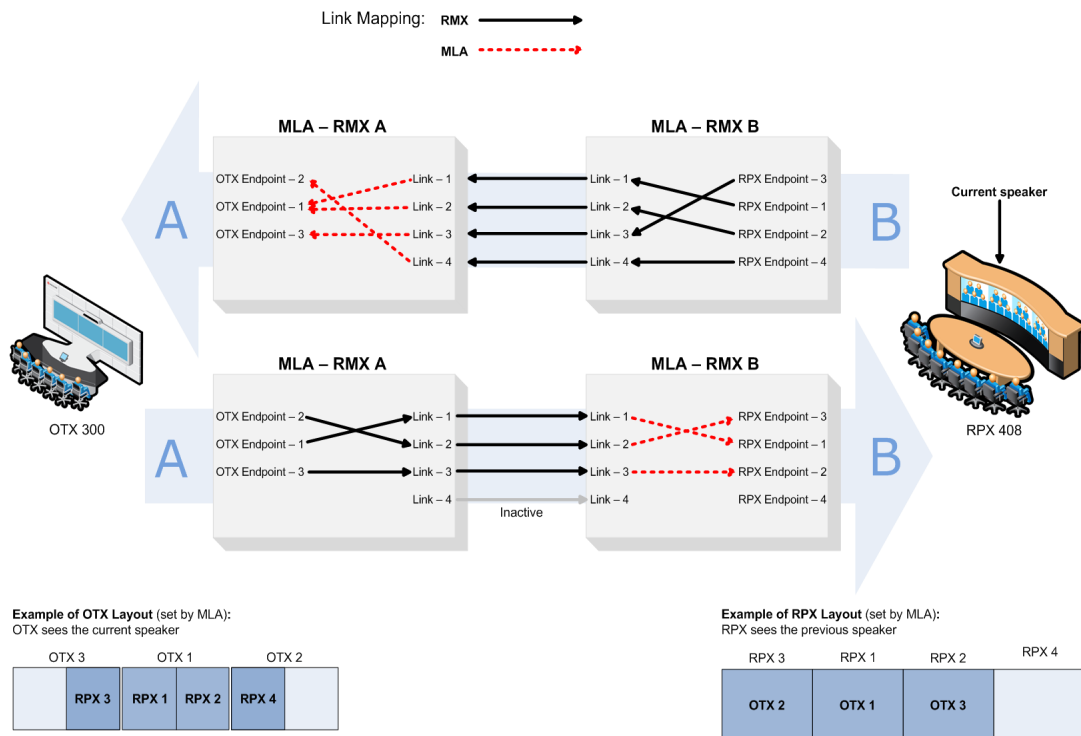


Figure 1-5 RMX Telepresence Layout Mode - Room Switch

In Figure 1-6:

- An HDX endpoint and an OTX Room System connects to RMX A.
- An HDX endpoint and an RPX Room System connects to RMX B.
- This layout requires that the *Telepresence Layout Mode* to be set to **Continuous Presence** in the *Conference Profiles* of the *Cascading Conferences* in each RMX.

- The current speaker is the HDX endpoint connected to RMX A.

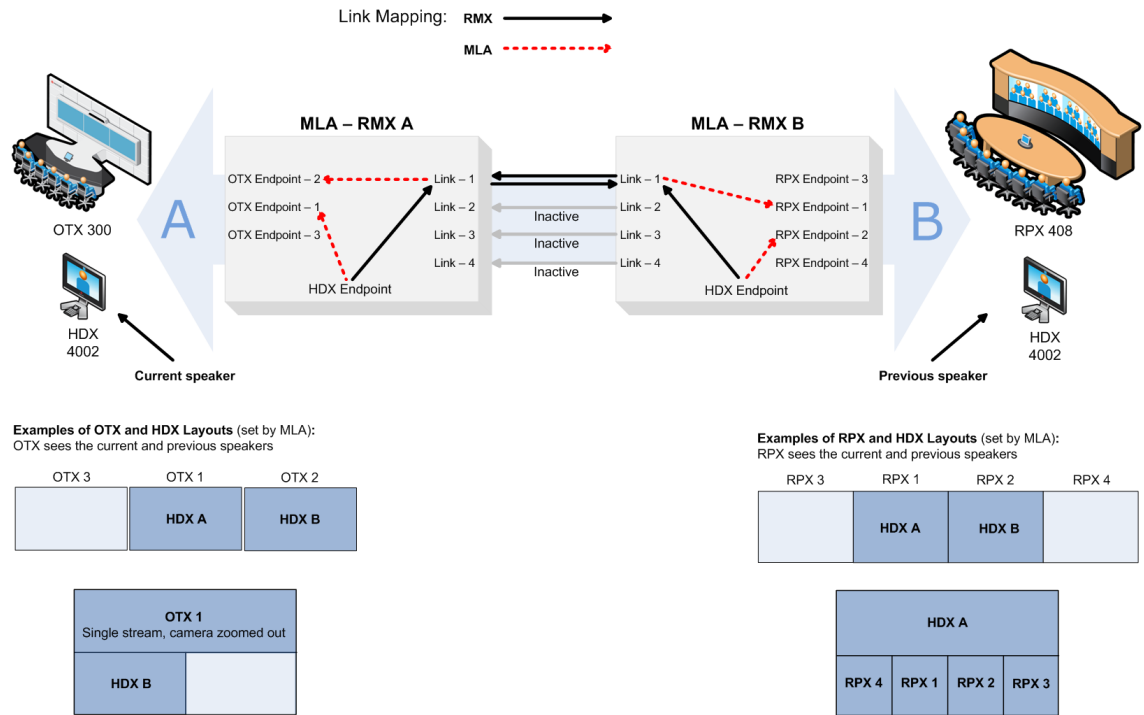


Figure 1-6 RMX Telepresence Layout Mode - Continuous Presence

For more information see:

- RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator's Guide, "Telepresence Layout Mode" on page 2-33.*
- Polycom® Multipoint Layout Application (MLA) User's Guide for Use with Polycom Telepresence Solutions*
- Polycom® Immersive Telepresence (ITP) Deployment Guide*

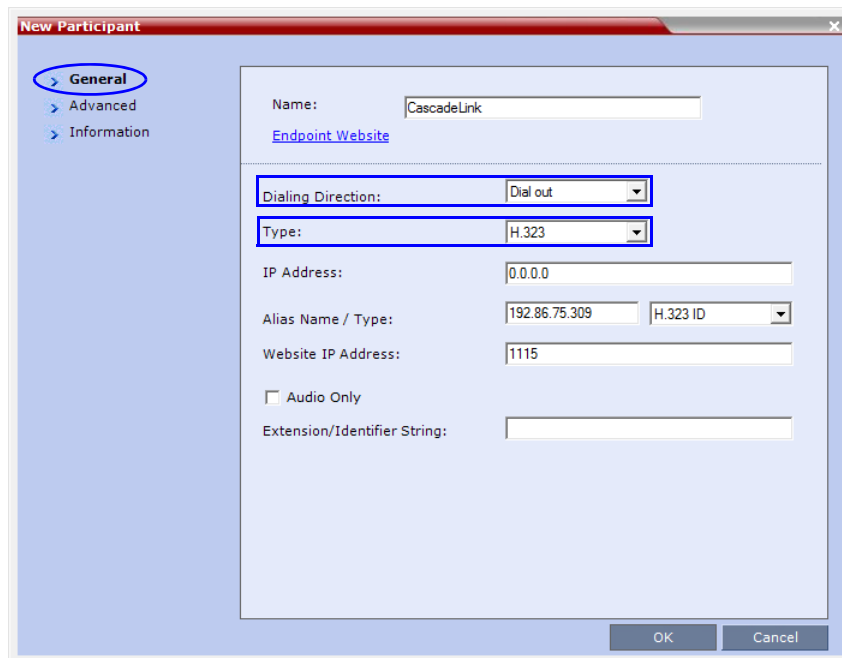
Creating a Link Participant

Link Participant in the Dial Out RMX

The *Link Participant* is defined in the *New Participant* dialog box.

In the *General* tab:

- *Dialing Direction* must be selected as **Dial out**.
- *Type* must be selected as **H.323**.



The screenshot shows the 'New Participant' dialog box with the 'General' tab selected. The 'Name' field contains 'CascadeLink'. The 'Endpoint Website' field is empty. The 'Dialing Direction' dropdown is set to 'Dial out' and the 'Type' dropdown is set to 'H.323'. The 'IP Address' field contains '0.0.0.0'. The 'Alias Name / Type' field contains '192.86.75.309' and the 'H.323 ID' dropdown is set to 'H.323 ID'. The 'Website IP Address' field contains '1115'. The 'Audio Only' checkbox is unchecked. The 'Extension/Identifier String' field is empty. The 'OK' and 'Cancel' buttons are at the bottom right.

For more information see the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator's Guide*, "Creating a Cascade Enabled Dial-out/Dial-in Participant Link" on page 5-15.

In the *Advanced* tab:

(This field is only enabled if the RMX system is licensed for *Telepresence Mode*.)

- In the *Cascade* drop-down menu, select either **Master** or **Slave**.
- In the *Number of cascaded links (for ITP)* drop-down menu, select the maximum number of *Multiple Cascade Links* required according to the number of Room System endpoints in the cascaded conference.

This new field enables the administrator to select the maximum number of *Multiple Cascade Links* required according to the number of Room System endpoints in the cascaded conference.

For example if an *RPX 4xx* is included, the number of links required is 4.

The screenshot shows the 'New Participant' dialog box with the 'Advanced' tab selected. The 'Name' field contains 'CascadedLink'. The 'Cascade' dropdown menu is set to 'Master'. The 'Number of cascaded links (for ITP)' dropdown menu is open, showing a list of options: 1, 2, 3, and 4. The option '4' is currently selected. Other settings visible include 'Call Bit Rate' set to 'Auto', 'Resolution' set to 'Auto', 'Video Protocol' set to 'Auto', 'Broadcasting Volume' and 'Listening Volume' sliders at 5, 'Encryption' set to 'Auto', and 'AGC' checked. At the bottom right, there are buttons for 'Add to Address Book', 'OK', and 'Cancel'.

The RMX automatically adds a number suffix to the name of the *Link Participant*, for example if the *Participant Link Name* is *CascadeLink* and the *Number of cascaded links (for ITP)* field is set to 4, the following *Multiple Cascade Links* are created:

- *CascadeLink-1*
- *CascadeLink-2*
- *CascadeLink-3*
- *CascadeLink-4*

Participant Link in the Dial In RMX

The call from *Participant Link* defined in the *Dial-out* RMX is identified by the *Dial-in* RMX as having been initiated by a *Participant Link*.

Suffixes are appended to the *Multiple Cascade Links* according to the *Number of cascaded links (for ITP)* field depending on whether the *Dial -In Participant Link* is defined or un-defined:

Participant Link is an un-defined:

The *Multiple Cascade Link* names are automatically assigned by the RMX. For example on a RMX 1500 the names of the links are:

- *POLYCOM RMX 1500-1*,
- *POLYCOM RMX 1500-2*
- *POLYCOM RMX 1500-3, etc.*

Participant Link is a defined:

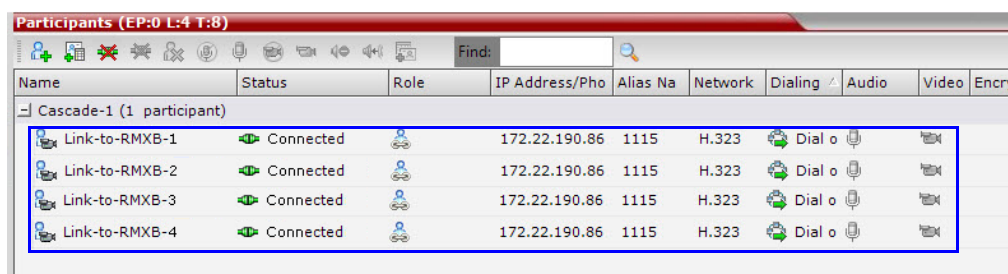
The *Multiple Cascade Link* names are assigned according to the name of the defined participant that is to function as the cascade link and the *Number of cascaded links (for ITP)* information sent by the calling *Dial-Out Participant Link*.

For example if the defined participant that is to function as the cascade link is named *Cascade_Link_From_B* the names of the links are:

- *Cascade_Link_From_B-1*
- *Cascade_Link_From_B-2*
- *Cascade_Link_From_B-3, etc.*

Monitoring Multiple Cascade Links

Multiple Cascade Links connections can be monitored in the *Participants* list of the RMX Web Client / RMX Manager main screen:



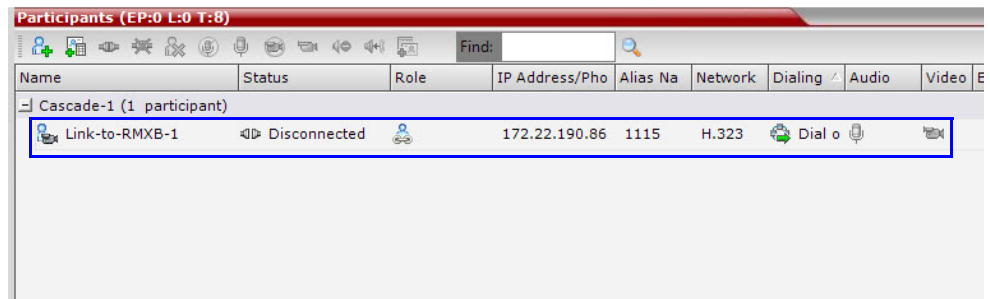
The screenshot shows the 'Participants (EP:0 L:4 T:8)' window. A table lists participants under the 'Cascade-1 (1 participant)' group. The table has columns: Name, Status, Role, IP Address/Pho, Alias Na, Network, Dialing, Audio, Video, and Encry. Four rows are visible, all with a status of 'Connected'.

| Name | Status | Role | IP Address/Pho | Alias Na | Network | Dialing | Audio | Video | Encry |
|----------------|-----------|------|----------------|----------|---------|---------|-------|-------|-------|
| Link-to-RMXB-1 | Connected | | 172.22.190.86 | 1115 | H.323 | Dial o | | | |
| Link-to-RMXB-2 | Connected | | 172.22.190.86 | 1115 | H.323 | Dial o | | | |
| Link-to-RMXB-3 | Connected | | 172.22.190.86 | 1115 | H.323 | Dial o | | | |
| Link-to-RMXB-4 | Connected | | 172.22.190.86 | 1115 | H.323 | Dial o | | | |

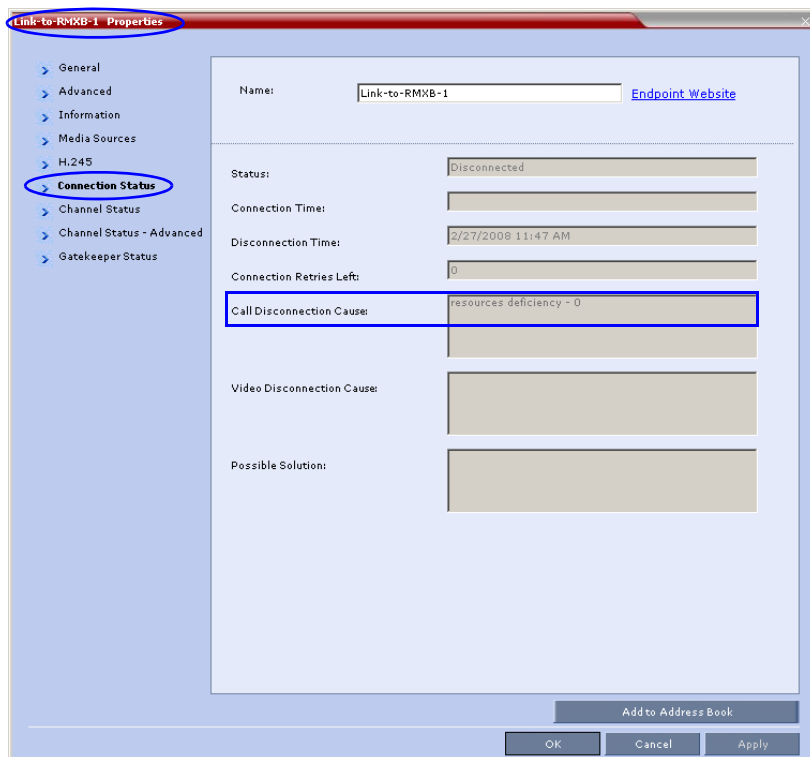
Disconnection Causes

- If there are insufficient resources to connect all the required links:
 - None of the links are connected.

- The first link is listed as **Disconnected** in the *Participants* list of the *RMX Web Client* / *RMX Manager* main screen.



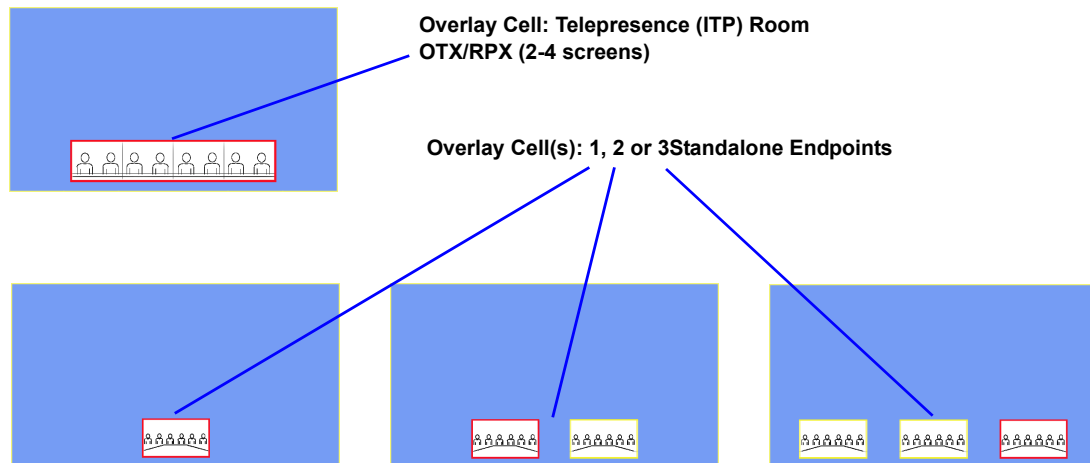
- Resource deficiency is listed as the *Call Disconnection Cause* in the *Participant Properties - Connection Status* dialog box.



- If a calling *Link Participant* is not defined with same number of links as all the other *Link Participants* in the cascaded conferences:
 - The call is rejected.
 - The *Call Disconnection Cause* is: *Number of cascading links is not identical for all conferences.*

Layout Overlays

Overlay Layouts allow additional participant endpoints to be displayed in 1x1 conference *Video Layouts*. The following *Overlay Layouts* are included in this version:



Guidelines

- The *Overlay Layouts* are supported:
 - With MPMx cards only.
 - In RMX CP mode only.
 - With ITP, non-ITP and CTS endpoints. Support of ITP and CTS requires MLA as a system component. (For more information see the *Polycom® Multipoint Layout Application (MLA) User's Guide for Use with Polycom Telepresence Solutions*).
 - With both new and old *Skins* in RMX CP mode. *Skins* do not apply to ITP conferences.
- The *Overlay Layouts* are 20% of the height of the endpoint display and are supported on endpoints of both 16:9 and 4:3 aspect ratios.
- *Overlay Layouts* are recommended for use with high resolution endpoints.
- *Overlay Layouts* are not selected as defaults by the system. Default layouts are selected as in previous versions and are described in detail in the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator's Guide*, "Auto Layout – Default Layouts" on page 2-33.
- The *Overlay Layouts* are not available for selection when using PCM or Click&View for *Personal Layout* selection. PCM menus are not affected by the use of *Overlay Layouts* and are displayed as the top level overlay.
- *Message Overlay* is not affected by the use of *Overlay Layouts* and is displayed as the top level overlay.
- *Vertical Position* for *Site Name* display: *Site Names* are displayed for all cells. Because the smaller cells are located at the bottom of the large cell, when enabling *Site Names* it is advisable not to locate the *Site Name* at the bottom of the cells.

Telepresence (ITP) Room Layout Overlay

- The *Telepresence (ITP) Room Layout Overlay* is displayed with a border of the selected *Skin's* border color for the entire room while no border is displayed between the

individual room cameras. For more information see the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator's Guide, "Skins"* on page [2-38](#).

- When an *ITP Room* is selected for as an overlay cell, only *Telepresence Room* names are listed for selection in the drop-down menu - not the individual endpoints in the *ITP Room*.

If **Auto** is selected in the drop-down menu, the overlay cell will display the active speaker unless the active speaker is the large cell. If the endpoint itself is the current speaker, the previous speaker is displayed.

For more information see "*Selecting the Overlay Layouts*" on page [1-72](#). All other System behavior for *Video Forcing* and *Personal Layout Control* using the *Overlay Layouts* during an ongoing conference is the same as for previous versions and is described in the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Getting Started Guide*:

- "*Video Forcing (AVC-based Conferences)*" on page [3-58](#)
- "*Personal Layout Control with the RMX Web Client*" on page [3-68](#).

Standalone Endpoint Layout Overlay

- Each *Standalone Endpoint Layout Overlay* is displayed with a border of the selected *Skin's* border color. For more information see the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator's Guide, "Skins"* on page [2-38](#).

Selecting the Overlay Layouts

The *Overlay Layouts* are selected using the *New Profile - Video Settings* dialog box.

An additional tab, **Overlay**, has been added and includes the additional layout options.



Non-encrypted Conference Message

When mixing encrypted and non-encrypted endpoints in a conference using the “*Encrypt When Possible*” encryption option in the *Conference Profile* the encryption status of the conference can change as encrypted and non encrypted participants connect and disconnect.

For more information see the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator’s Guide*, “*Mixing Encrypted and Non-encrypted Endpoints in one Conference*” on page **4-41**.

It is important that participants already connected, and those connecting to the conference are aware of whether the conference is encrypted or not.

An *Encryption Status Message* can be enabled by adding the *System Flags* summarized in Table 1-1 to *system.cfg* and modifying their values. Using the flags, the user can enable, disable and control the display of the conference’s encryption status to both connected and connecting participants.

Table 1-1 Encryption Status Message Flag Values

| Flag | Range / Description |
|--|---|
| <code>DISPLAY_UNENCRYPTED_MESSAGE_TIMER_FOR_ENCRYPT_WHEN_POSSIBLE</code> | <p>1 - 300: The duration (seconds) for display of the message: The conference is not secured</p> <p>-1:</p> <ul style="list-style-type: none"> Display the message while there is at least one unencrypted participant in the conference. Display the message when an unencrypted participant connects to the conference and for the duration of the connection. <p>0: The message is disabled (Default).</p> |
| <code>DISPLAY_ENCRYPTED_MESSAGE_TIMER_FOR_ENCRYPT_WHEN_POSSIBLE</code> | <p>1 - 300: The duration (seconds) for display of the message: The conference is secured</p> <p>-1:</p> <ul style="list-style-type: none"> Display the message while there are no unencrypted participant in the conference. Display the message when the last unencrypted participant leaves to the conference and for the duration of the connection. <p>0: The message is disabled (Default).</p> |

Guidelines

- *Encryption Status Message* is supported in *CP* environments only.
- The *Encryption Status Message* is always displayed in English.
- *Encryption Status Message* is not relevant when *Encrypt All* or *No Encryption* is selected in the *Conference Profile*.
- The *Encryption Status Message* is display according to the conference’s *Message Overlay* settings for *Display/ Vertical Position*, *Color* and *Font Size*. It is displayed as a *Static* message.

- Table 1-2 summarizes the system behavior when an *Encryption Status* change triggers an *Encryption Status Message* while a *Conference Message Overlay* or *Message to a Selected Participant* is being displayed.
- Table 1-3 summarizes the system behavior when a *Conference Message Overlay* or *Message to a Selected Participant* is initiated while an *Encryption Status Message* is being displayed.

Table 1-2 Conference Message Overlay / Encryption Status Message Interactio

| Change of Encryption Status | | | | Display |
|---|-------------------------------|---------------------------|------------------------------|---|
| Current Message | | New Message | | |
| Type | Message Setting / Flag Value | Type | Message Setting / Flag Value | |
| Conference Message Overlay or Message to Selected Participant | Static | Encryption Status Message | 1 - 300 | The <i>Conference Message Overlay</i> is displayed again at the end of the duration of the <i>Encryption Status Message</i> . |
| | | | -1 | <i>Encryption Status Message</i> replaces the <i>Conference Message Overlay</i> and is displayed until the <i>Encryption Status</i> changes. |
| | Defined number of Repetitions | Encryption Status Message | 1 - 300 | <i>Encryption Status Message</i> replaces the <i>Conference Message Overlay or Participant Message</i> for the duration of the <i>Encryption Status Message</i> . No message is displayed unless the Encryption Status changes. |
| | | | -1 | <i>Encryption Status Message</i> replaces the <i>Conference Message Overlay or Participant Message</i> for the duration of the <i>Encryption Status Message</i> . <i>Encryption Status Message</i> is displayed until the <i>Encryption Status</i> changes. |

Table 1-3 Encryption Status Message / Conference Message Overlay Interaction

| Change of Encryption Status | | | | Display |
|-----------------------------|------------------------------|---|-------------------------------|---|
| Current Message | | New Message | | |
| Type | Message Setting / Flag Value | Type | Message Setting / Flag Value | |
| Encryption Status Message | -1 | Conference Message Overlay or Message to Selected Participant | Defined number of Repetitions | <i>Message Overlay</i> replaces the <i>Encryption Status Message Overlay</i> and is displayed for the defined number of repetitions. The <i>Encryption Status Message</i> is then displayed until the <i>Encryption Status</i> changes. |
| | | | Static | <i>Message Overlay</i> replaces the <i>Encryption Status Message Overlay</i> and is displayed until encryption status changes. |
| | 1 - 300 | Conference Message Overlay or Message to Selected Participant | Static | <i>Conference Message Overlay</i> replaces the <i>Encryption Status Message</i> and is displayed until the <i>Encryption Status</i> changes. |
| | | | Defined number of Repetitions | <i>Conference Message Overlay</i> replaces the <i>Encryption Status Message</i> for the defined number of repetitions. No message is displayed until the <i>Encryption Status</i> changes. |

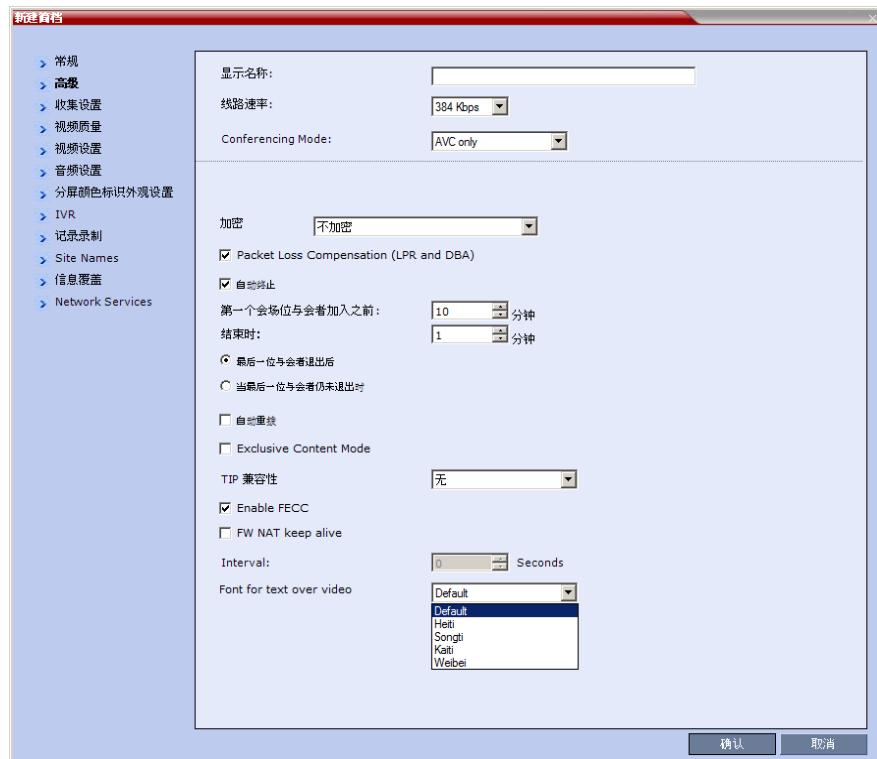
For more information see the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator's Guide*, "Message Overlay Tab" on page [2-45](#).

•

Additional Chinese Font Types

On an RMX with an MPMx card a user can select one of several Chinese fonts for use when sending text over video. New fonts can be selected with the following features:

- Site Names
- Message Overlay
- Gathering Phase Slide



New Chinese fonts available are:

- Heiti (Default)
- Songti
- Kaiti
- Weibei

This feature has the following restrictions:

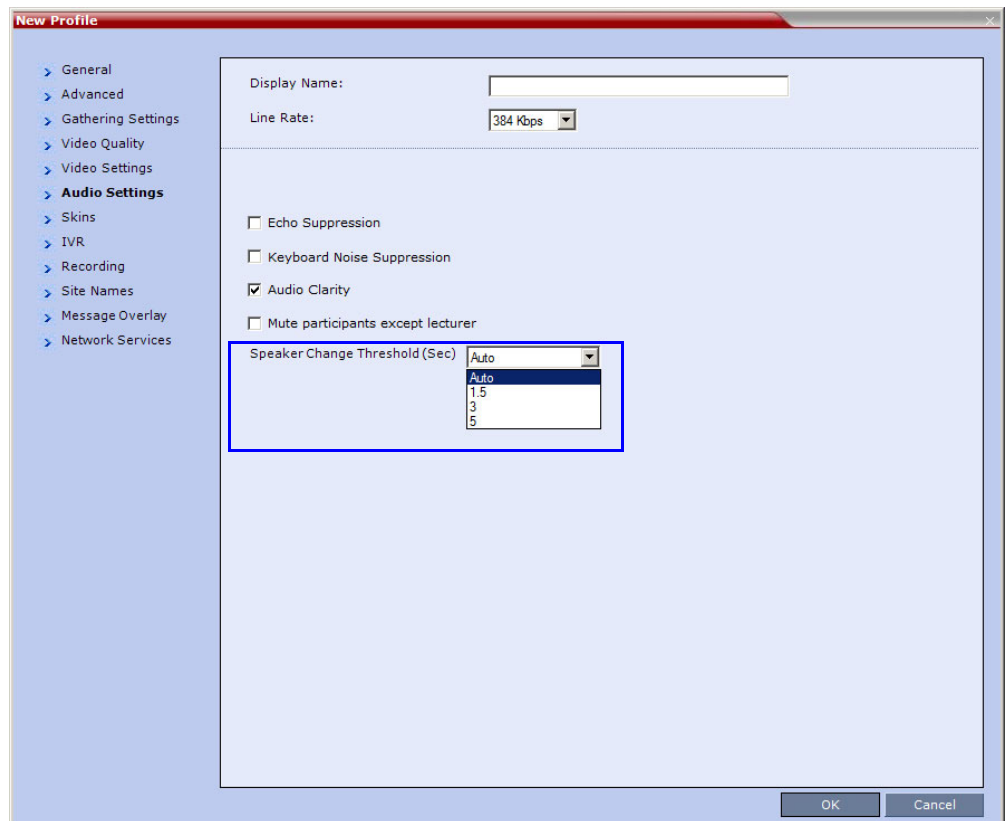
- Supported on an RMX with an MPMx card(s). This feature is disabled when using an MPM+ card.
- Available when either Simplified Chinese or Traditional Chinese is selected as an available language in Setup - Customize Display Settings - Multilingual Setting. The feature is hidden if neither Simplified Chinese nor Traditional Chinese is selected.
- Only be accessed when using the RMX Web Client or the RMX Manager in Chinese.
- Available only with Continuous Presence (CP) conferences.
- Font cannot be changed during an existing conference. It can only be modified in a conference profile.

- A participant moved to another conference will be shown the font used by the new conference, even if the conferences use different fonts.

Speaker Change Threshold

The *Speaker Change Threshold* is the amount of time a participant must speak continuously before becoming the speaker. When defining or editing a conference profile, you can define the *Speaker Change Threshold*.

Speaker Change Threshold is defined in the *New Profile - Audio Settings* dialog box.



The screenshot shows the 'New Profile' dialog box with the 'Audio Settings' tab selected. The 'Speaker Change Threshold (Sec)' dropdown menu is open, displaying the following options: Auto, 1.5, 3, and 5. The 'Auto' option is currently selected. Other settings visible include 'Display Name', 'Line Rate' (384 Kbps), and checkboxes for 'Echo Suppression', 'Keyboard Noise Suppression', 'Audio Clarity' (checked), and 'Mute participants except lecturer'.

To adjust the *Speaker Change Threshold*:

>> Select the desired threshold:

- Auto (Default, 3 seconds)
- 1.5 seconds
- 3 seconds
- 5 seconds



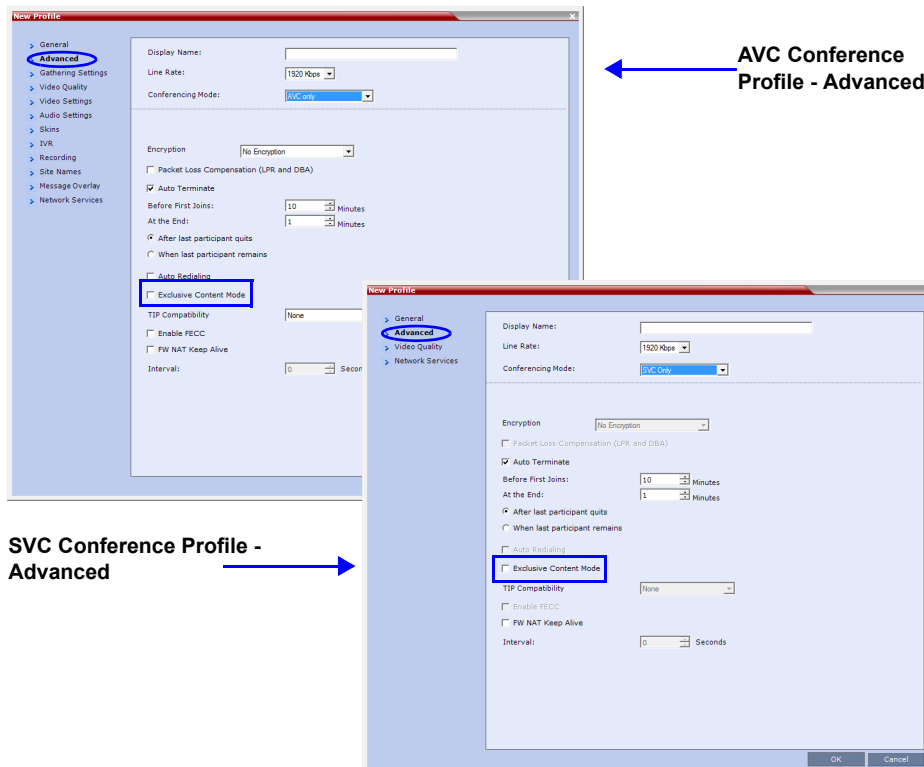
Defining the *Speaker Change Threshold* is only enabled with an MPMx card. The value is always *Auto* when using an MPM+ card.

Exclusive Content Mode

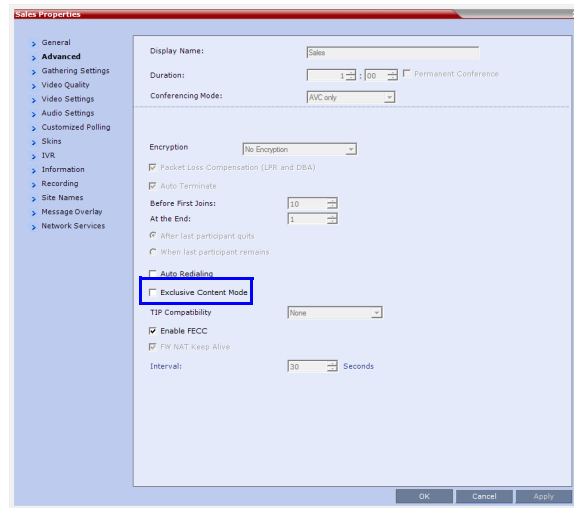
Exclusive Content Mode allows you to limit *Content* broadcasting to one participant, preventing other participants from interrupting the *Content* broadcasting while it is active.

Guidelines

- *Exclusive Content Mode* is available in AVC and SVC Conferencing Modes.
- The *Exclusive Content Mode* is enabled or disabled by a check box in the in the *Advanced* tabs of the *Conference Profile*. The check box is cleared (feature is disabled) by default.



- *Exclusive Content Mode* can be enabled or disabled during an ongoing conference using the *Conference Properties - Advanced* dialog box.



- In *Exclusive Content Mode*, if the *RESTRICT_CONTENT_BROADCAST _ TO_LLECTURER System Flag* is set to:
 - **NO** - the first participant to send content becomes the *Content Token* holder and has to release the *Content Token* before any other participant can acquire the token and begin transmitting *Content*.
 - **YES** - only the designated *Lecturer* can be the *Content Token* holder.
- The *Exclusive Content Mode* check box replaces the *EXCLUSIVE_CONTENT_ MODE System Flag* which was used to control *Exclusive Content Mode* for the system in previous versions.
- In *Exclusive Content Mode*, if an endpoint attempts to send *Content* a few seconds after another endpoint sent *Content*, the *Content* stream it is receiving is momentarily interrupted by a slide which is displayed for a few seconds before the normal *Content* stream is resumed.

FECC Control

FECC can be enabled and disabled for individual conferences in the *Conference Profile*.

Guidelines

- The **Enable FECC** check box in the *Profile - Advanced* tab replaces the *FECC* activation functionality of the *FECC* and *SIP_ENABLE_FECC System Flags*. The check box is selected by default.
- When the *Enable FECC* check box is selected, *Far End Camera Control* can be activated either directly using the *Remote Control* device or by using *PCM*.
- When the *Enable FECC* check box is cleared, both *FECC* activation methods, using *PCM* or using remote control, are disabled and users (*SIP*, *H.323* and *ISDN*) will not be able to control far end cameras.
- *FECC* is not supported by the *ISDN* protocol, therefore it is not supported in *ISDN* calls.
- After upgrading from previous versions, the *Enable FECC* check box is selected by default.

- If in the previous version either of the FECC or SIP_ENABLE_FECC *System Flags* were set to NO, the administrator must manually clear the check box, if required.
- When the PCM_FECC *System Flag* is set to YES, the system enables navigation of PCM using the *Remote Control* device's arrow keys. Disabling FECC at conference level by clearing the *Enable FECC* check box does not affect PCM navigation.

The screenshot shows the 'New Profile' configuration window with the 'Advanced' tab selected. The left sidebar lists various settings categories, with 'Advanced' highlighted. The main panel contains the following settings:

- Display Name: [Text field]
- Line Rate: 384 Kbps [Dropdown]
- Conferencing Mode: AVC only [Dropdown]
- Encryption: No Encryption [Dropdown]
- ☒ Packet Loss Compensation (LPR and DBA)
- ☒ Auto Terminate
 - Before First Joins: 10 [Spin] Minutes
 - At the End: 1 [Spin] Minutes
 - ☒ After last participant quits
 - ☐ When last participant remains
- ☐ Auto Redialing
- ☐ Exclusive Content Mode
- TIP Compatibility: None [Dropdown]
- ☒ Enable FECC
- ☐ FW NAT Keep Alive
- Interval: 0 [Spin] Seconds

At the bottom right are 'OK' and 'Cancel' buttons.

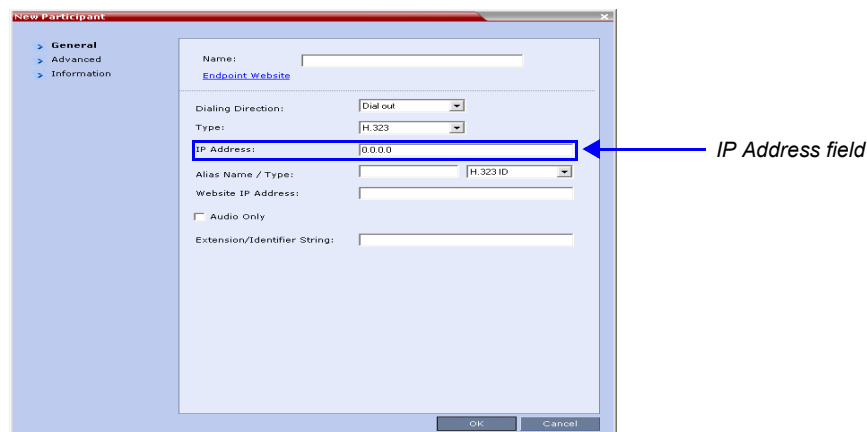
Direct IP Dialing

For RMXs registered to a gatekeeper, the RMX can be configured to dial and receive calls to and from *H.323* endpoints using the IP address in the event that the *Gatekeeper* is not functioning.

Dial-out Calls

For *Dial-out* calls, direct IP dialing is enabled or disabled by the **GK_MANDATORY_FOR_CALLS_OUT** *System Flag*.

When the flag is set to NO (default), if the *Gatekeeper* is not functioning, the RMX dials to the endpoint using the endpoint's IP address configured in the *IP Address* field of the *New Participant/Participant Properties - General* dialog box.



If no IP address is defined in the *Participant Properties*, the call will fail.

The method by which calls are dialed out to the endpoint is dependant on the flag value and the availability of the *Gatekeeper* as summarized in the following table:

Table 1-4 GK_MANDATORY_FOR_CALLS_OUT - System Flag

| Flag Value | Gatekeeper Available | Results |
|------------|----------------------|---|
| NO | NO | Dial out to endpoint <i>IP Address</i> bypassing the Gatekeeper. |
| NO | YES | Dial out to endpoint <i>Alias Name</i> using the <i>Gatekeeper</i> . |
| YES | NO | No dial out to endpoint. |
| YES | YES | Dial out to endpoint <i>Alias Name</i> using the <i>Gatekeeper</i> . |

Dial-in Calls

For *Dial-in* calls, direct IP dialing is enabled or disabled by the **GK_MANDATORY_FOR_CALLS_IN** and *System Flag*.

When the flag is set to NO (default), if the *Gatekeeper* is not functioning, calls from endpoints will be connected directly to the *Entry Queue*, *Conference* or *Meeting Room* that was dialed.

The method by which dial-in calls are accepted or rejected is dependant on the flag value and the availability of the *Gatekeeper* as summarized in Table 1-5:

Table 1-5 GK_MANDATORY_FOR_CALLS_IN - System Flag

| Flag Value | Gatekeeper Available | Results |
|------------|----------------------|---|
| NO | NO | Dial-in call is connected bypassing the Gatekeeper . |
| NO | YES | Dial-in call is connected using the <i>Gatekeeper</i> . |
| YES | NO | Dial-in call is rejected. |
| YES | YES | Dial-in call is connected using the <i>Gatekeeper</i> . |

Enabling or Disabling Direct IP Dialing

The direct IP dialing is enabled by default. To disable it, manually add the flags **GK_MANDATORY_FOR_CALLS_OUT** and **GK_MANDATORY_FOR_CALLS_IN** to the *System Configuration - MCMS_PARAMETERS* dialog box and for each flag enter the required value (YES or NO).

For more information on flag definition, see the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator's Guide*, "Modifying System Flags" on page [22-1](#).



For flag changes (including deletion) to take effect, reset the RMX. For more information see the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator's Guide*, "Resetting the RMX" on page [21-69](#).

Exporting and Importing Conference Templates

Conference Templates can be exported from one MCU and imported to multiple MCUs in your environment. Additionally, you can export *Conference Templates* and their associated *Conference Profiles* simultaneously. Using this option can save configuration time and ensures that identical settings are used for conferences running on different MCUs. This is especially important in environments using cascading conferences that are running on different MCUs.

Guidelines

- Administrators can export and import *Conference Templates*. Operators are only allowed to export *Conference Templates*.
- You can select a single, multiple or all *Conference Templates* to be exported.
- Both *Conference Templates* and their associated *Conference Profiles* can be exported and imported simultaneously when enabling the **Export includes conference profiles** or **Import includes conference profiles** options.
- Exporting and importing *Conference Templates* only can be used when you want to export and import individual *Conference Templates* without their associated *Conference Profiles*. This option enables you to import *Conference Templates* when *Conference Profiles* already exist on an MCU.

Exporting Conference Templates

Conference Templates are exported to a single XML file that can be used to import the *Conference Templates* on multiple MCUs.

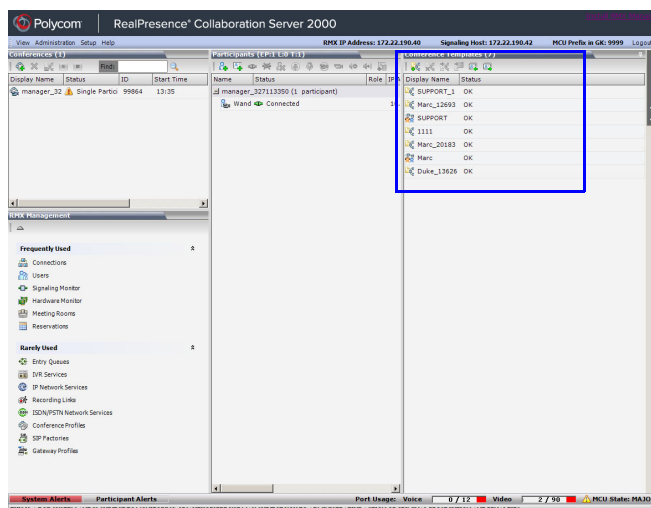
Using the *Export Conference Templates* option, you can:

- Export all *Conference Templates* from an MCU
- Export selected *Conference Templates*

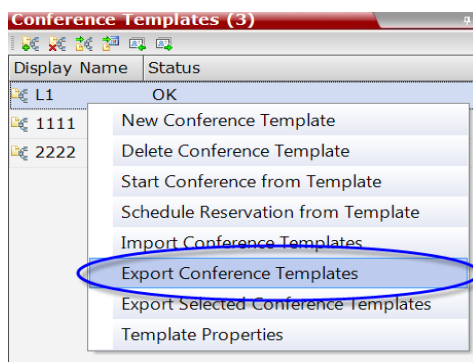
Exporting All Conference Templates from an MCU

To export all Conference Templates from an MCU:

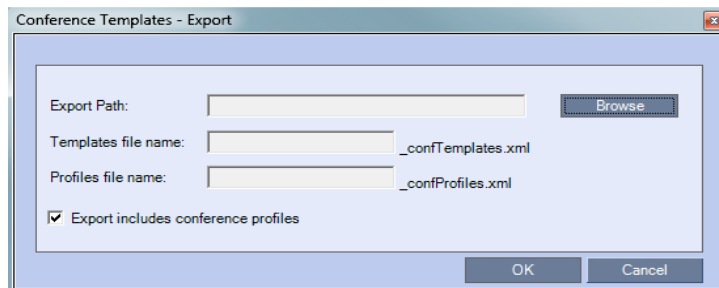
- 1 In the *RMX Web Client* main window, click the *Conference Templates* tab.
The *Conference Templates* list pane is displayed.



- 2 Click the **Export Conference Templates** button or right-click the *Conference Templates* list, and then click **Export Conference Templates**.



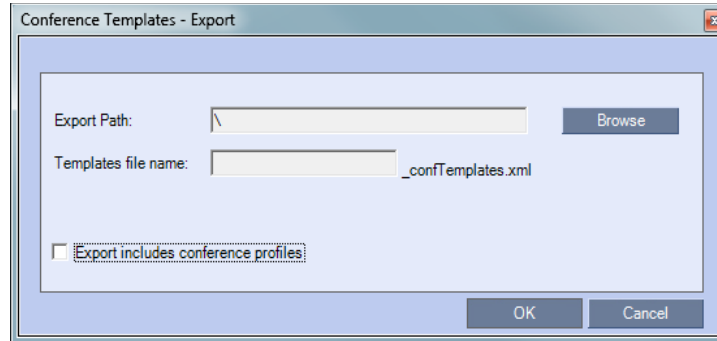
The *Conference Templates - Export* dialog box is displayed.



- 3 In the *Export Path* field, type the path name to the location where you want to save the exported file or click **Browse** to select the desired path.

- 4 Optional. Clear the **Export includes conference profiles** check box when you only want to export *Conference Templates*.

When this check box is cleared, the *Conference Templates - Export* dialog box is displayed without the *Profiles file name* field.



- 5 In the *Templates file name* field, type the file name prefix. The file name suffix (*_confTemplates.xml*) is predefined by the system. For example, if you type *Templates01*, the exported file name is defined as *Templates01_confTemplates.xml*.

The system automatically defines the *Profiles file name* field with the same file name prefix as the *Templates file name* field. For example, if you type *Templates01* in the *Templates file name* field, the exported profiles file name is defined as *Templates01_confProfiles.xml*.

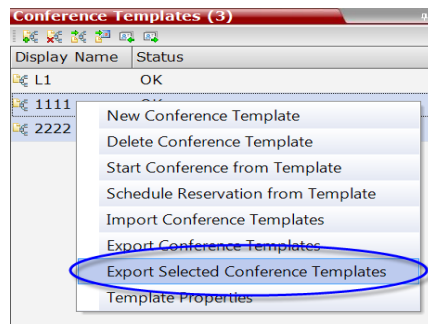
- 6 Click **OK** to export the *Conference Templates* and *Conference Profiles* to a file.

Exporting Selected Conference Templates

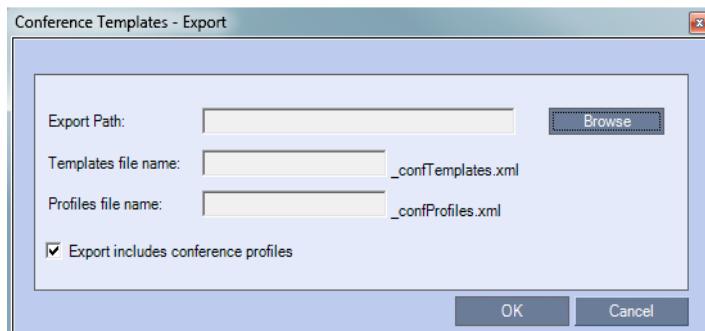
You can export a single *Conference Template* or multiple *Conference Templates* to other MCUs in your environment.

To export selected Conference Templates:

- 1 In the *Conference Templates* list, select the templates you want to export.
- 2 Right-click the *Conference Templates* to be exported, and then click **Export Selected Conference Templates**.

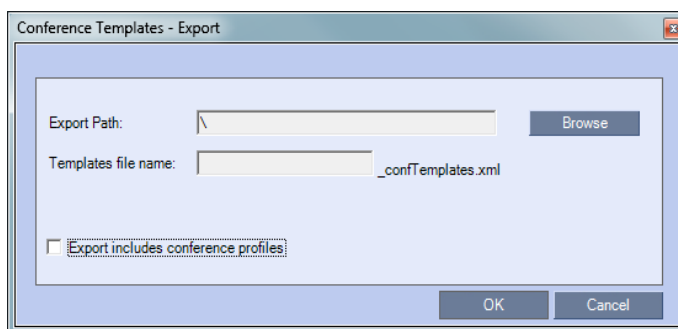


The *Conference Templates - Export* dialog box is displayed.



- 3 In the *Export Path* field, type the path name to the location where you want to save the exported file or click **Browse** to select the desired path.
- 4 Optional. Clear the **Export includes conference profiles** check box when you only want to export Conference Templates.

When this check box is cleared, the *Conference Templates - Export* dialog box is displayed without the *Profiles file name* field.



- 5 In the *Templates file name* field, type the file name prefix. The file name suffix (_confTemplates.xml) is predefined by the system. For example, if you type, *Templates01*, the exported file name is defined as *Templates01_confTemplates.xml*.

The system automatically defines the *Profiles file name* field with the same file name prefix as the *Templates file name* field. For example, if you type *Templates01* in the *Templates file name* field, the exported profiles file name is defined as *Templates01_confProfiles.xml*.

- 6 Click **OK** to export the *Conference Templates* and *Conference Profiles* to a file.

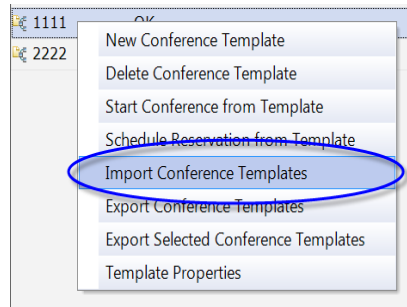
Importing Conference Templates

You can import *Conference Templates* and *Conference Profiles* from one MCU to multiple MCUs in your environment.

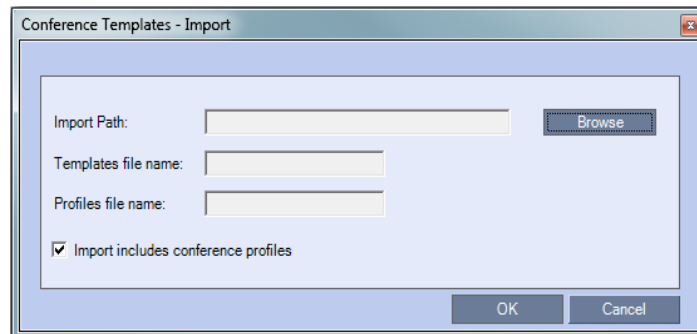
To import Conference Templates:

- 1 In the *RMX Web Client* main window, click the *Conference Templates* tab.
The *Conference Templates* are displayed.

- 2 Click the **Import Conference Templates**  button or right-click the Conference Templates pane, and then click **Import Conference Templates**.

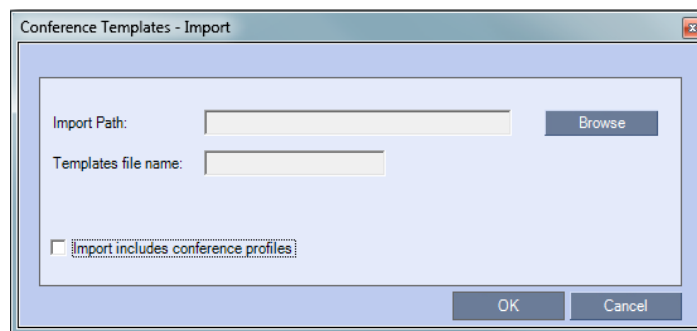


The *Conference Templates - Import* dialog box is displayed.



- 3 Optional. Clear the **Import includes conference profiles** check box when you only want to import *Conference Templates*.

When this check box is cleared, the *Conference Templates - Import* dialog box is displayed without the *Profiles file name* field.



- 4 In the *Import Path* field, click **Browse** to navigate to the path and file name of the *Conference Templates* you want to import.

When clicking the exported templates file you want to import, the system automatically displays the appropriate files in the *Templates file name* field and the *Profiles file name* field (when the **Import includes conference profiles** check box is selected).

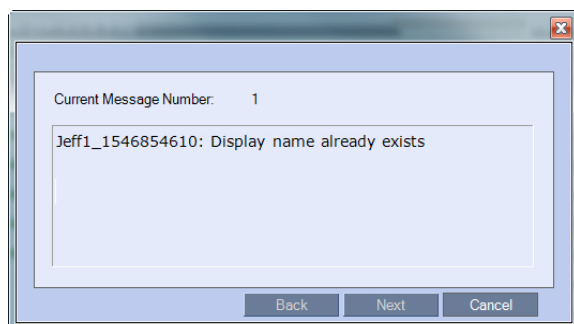
- 5 Click **OK** to import the *Conference Templates* and their associated *Conference Profiles*, if selected.

Conference Templates are not imported when:

- A *Conference Template* already exists

— An associated *Conference Profile* is not defined in the *Conference Profiles* list

When one or more *Conference Templates* are not imported, a Message Alert window is displayed with the templates that were not imported.



- 6 Click **Cancel** to exit the *Message Alerts* window.

The imported *Conference Templates* are added to the *Conference Templates* list. When the **Import includes conference profiles** check box is selected, the imported *Conference Profiles* are added to the *Conference Profiles* list.

Exporting and Importing Conference Profiles

Conference Profiles can be exported from one MCU and imported to multiple MCUs in your environment, enabling you to copy the *Conference Profiles* definitions to other systems. This can save configuration time and ensures that identical settings are used for conferences running on different MCUs. This is especially important in environments using cascading conferences that are running on different MCUs.

Guidelines

- Administrators can export and import *Conference Profiles*. Operators are only allowed to export *Conference Profiles*.
- You can select a single, multiple, or all *Conference Profiles* to be exported.
- *Conference Templates* and their related *Conference Profiles* can be exported and imported simultaneously using the *Conference Templates* export and import function. For more information, see the **Exporting and Importing Conference Templates** section.

Exporting Conference Profiles

Conference Profiles are exported to a single XML file that can be used to import the *Conference Profiles* on multiple MCUs.

Using the Export Conference Profile feature, you can:

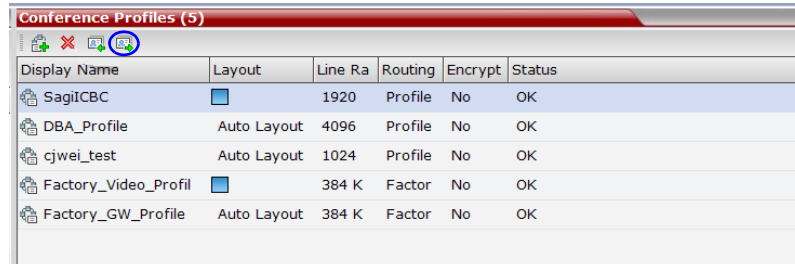
- Export all *Conference Profiles* from an MCU
- Export selected *Conference Profiles*

Exporting All Conference Profiles from an MCU

To export all Conference Profiles from an MCU:

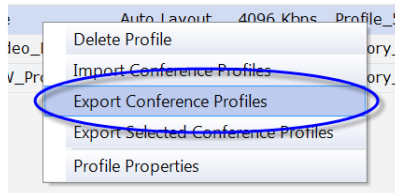
- 1 In the *RMX Management* pane, expand the *Rarely Used* list.
- 2 Click the **Conference Profiles** button.

The *Conference Profiles* are displayed in the *List* pane.

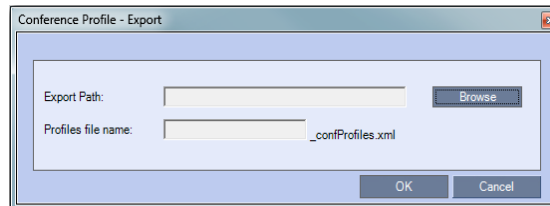


| Display Name | Layout | Line Ra | Routing | Encrypt | Status |
|----------------------|-------------|---------|---------|---------|--------|
| SagiICBC | | 1920 | Profile | No | OK |
| DBA_Profile | Auto Layout | 4096 | Profile | No | OK |
| cjwei_test | Auto Layout | 1024 | Profile | No | OK |
| Factory_Video_Profil | | 384 K | Factor | No | OK |
| Factory_GW_Profile | Auto Layout | 384 K | Factor | No | OK |

- 3 Click the **Export Conference Profiles** button or right-click the *Conference Profiles* pane, and then click **Export Conference Profiles**.



The *Conference Profile - Export* dialog box is displayed.



Conference Profile - Export

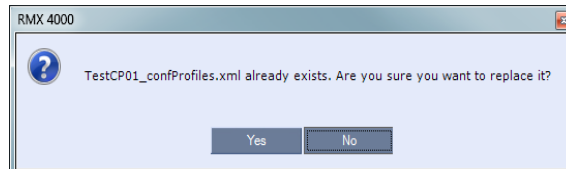
Export Path: Browse

Profiles file name: _confProfiles.xml

OK Cancel

- 4 In the *Export Path* field, click **Browse** to navigate to the location of the desired path where you want to save the exported file.
- 5 In the *Profiles file name* field, type the file name prefix. The file name suffix (_confProfiles.xml) is predefined by the system. For example, if you type *Profiles01*, the exported file name is defined as *Profiles01_confProfiles.xml*.
- 6 Click **OK** to export the *Conference Profiles* to a file.

If the export file with the same file name already exists, a prompt is displayed.



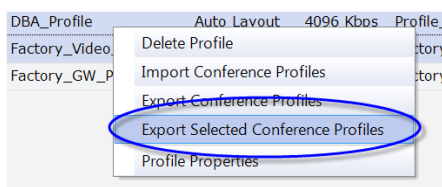
- 7 Click **Yes** to replace the exported file or click **No** to cancel the export operation and return to the *Conference Profiles* list. You can modify the export file name and restart the export operation.

Exporting Selected Conference Profiles

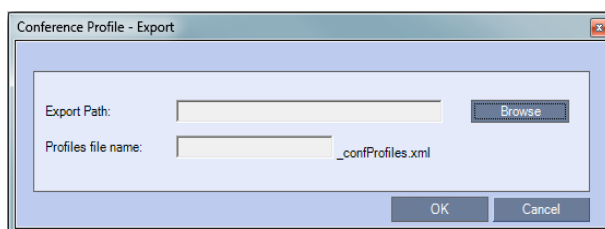
You can select a single Conference Profile or multiple Conference Profiles and export them to a file to be imported to other MCUs in your environment.

To export selected Conference Profiles:

- 1 In the *Conference Profiles* pane, select the profiles you want to export.
- 2 Right-click the selected *Conference Profiles*, and then click **Export Selected Conference Profiles**.

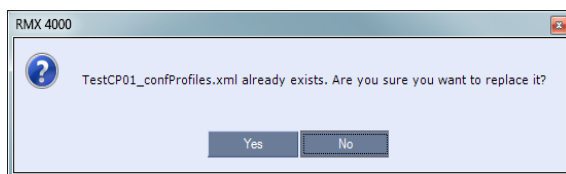


The *Conference Profile - Export* dialog box is displayed.



- 3 In the *Export Path* field, click **Browse** to navigate to the location of the desired path where you want to save the exported file.
- 4 In the *Profiles file name* field, type the file name prefix. The file name suffix (_confProfiles.xml) is predefined by the system. For example, if you type *Profiles01*, the exported file name is defined as *Profiles01_confProfiles.xml*.
- 5 Click **OK** to export the *Conference Profiles* to a file.

If the export file with the same file name already exists, a prompt is displayed.



- 6 Click **Yes** to replace the exported file or click **No** to cancel the export operation and return to the *Conference Profiles* list. You can modify the export file name and restart the export operation.

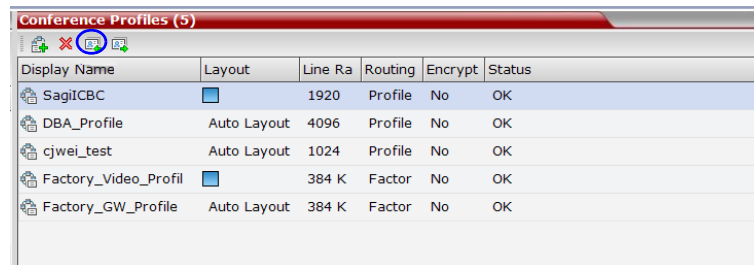
Importing Conference Profiles

You can import Conference Profiles from another MCU in your environment.

To import Conference Profiles:

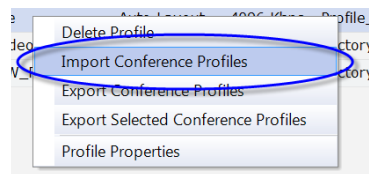
- 1 In the *RMX Management* pane, expand the *Rarely Used* list.
- 2 Click the **Conference Profiles** button.

The *Conference Profiles* are displayed in the *List* pane.

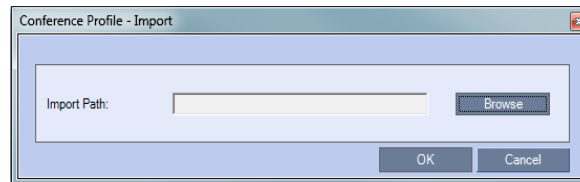


| Display Name | Layout | Line Ra | Routing | Encrypt | Status |
|----------------------|-------------|---------|---------|---------|--------|
| SagiICBC | | 1920 | Profile | No | OK |
| DBA_Profile | Auto Layout | 4096 | Profile | No | OK |
| cjwei_test | Auto Layout | 1024 | Profile | No | OK |
| Factory_Video_Profil | | 384 K | Factor | No | OK |
| Factory_GW_Profile | Auto Layout | 384 K | Factor | No | OK |

- 3 Click the **Import Conference Profiles**  button or right-click the *Conference Profiles* pane, and then click **Import Conference Profiles**.



The *Conference Profile - Import* dialog box is displayed.

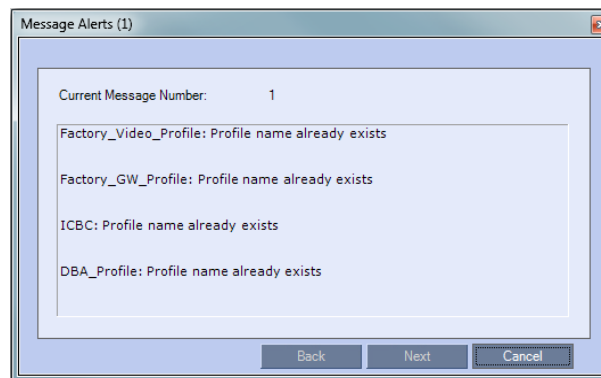


- 4 In the *Import Path* field, click **Browse** to navigate to the path and file name of the exported *Conference Profiles* you want to import.
- 5 Click **OK** to import the *Conference Profiles*.

Conference Profiles are not imported when:

- A *Conference Profile* already exists
- An IVR Service does not exist for the related *Conference Profile*

When *Conference Profiles* are not imported into the *Conference Profiles* list, a Message Alert window is displayed with the profiles that were not imported.



Conference Profiles that are not problematic are imported.

- 6 Click **Cancel** to exit the *Message Alerts* window.
The imported *Conference Profiles* appear in the *Conference Profiles* list.

Exporting and Importing System Configuration Files

System Flags can be exported from one MCU and imported to multiple MCUs in your environment, saving configuration time and ensuring that all MCU systems in your environment have identical settings.

Guidelines

- Only Administrator users are allowed to export and import the *System Flags*.
- When importing *System Flags* to an MCU, existing flag values are overwritten by the imported flag values. Any flag values that were modified locally will need to be modified again after the next import operation.



After importing the *System Flags*, the RMX must be restarted for the imported flag settings to take effect. Old system flag values are overwritten with the imported values.

Using the System Configuration Feature

The System Configuration feature has the following options:

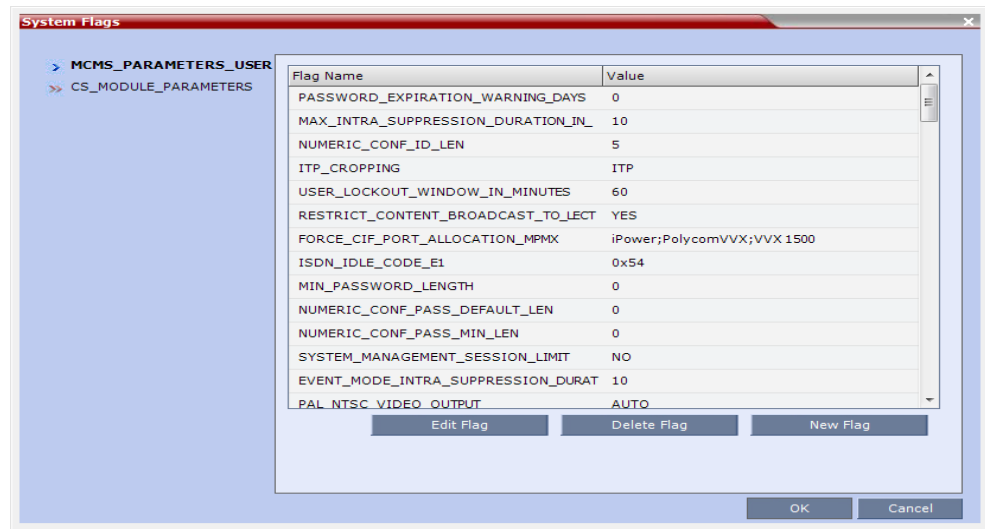
- **Manage** - Manages and sets the *System Flag* values
- **Export** - Exports the *System Flags* to a file
- **Import** - Imports the *System Flags* to an RMX using the file created by the export option

Managing System Flags

To manage system flags:

- 1 On the RMX menu, click **Setup > System Configuration > Manage**.

The *System Flags* dialog box is displayed.



- 2 In the *MCMS_PARAMETERS_USER* tab, select the desired flag and use the **Edit Flag** button to modify the values.
- 3 When you have completed the flag modifications, click **OK** to close the *System Flags - Manage* dialog box.



For flag changes to take effect, the MCU must be reset. For more information, see the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator's Guide*, "Resetting the RMX" on page [21-69](#).

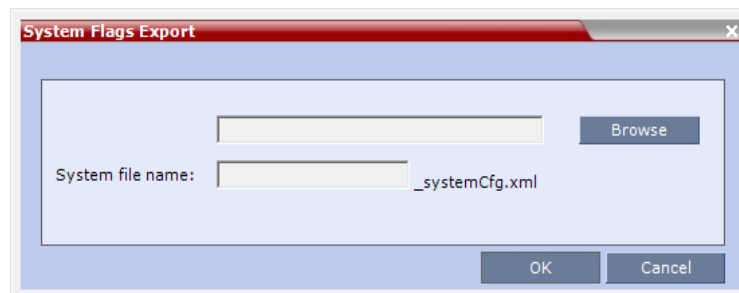
Exporting System Flags

The *System Flags* are exported to an XML file that can be used to import the flags on multiple MCUs.

To export the system flags:

- 1 On the RMX menu, click **Setup > System Configuration > Export**.

The *System Flags Export* dialog box is displayed.



- 2 Click **Browse** to navigate to the desired location to where you want to save the exported file.
- 3 In the *System file name* field, type the file name prefix. The file name suffix (*_systemCfg.xml*) is predefined by the system. For example, if you type *flags_11_11*, the exported file name is defined as *flags_11_11_systemCfg.xml*.

- 4 Click **OK** to export the *System Flags* configuration file.

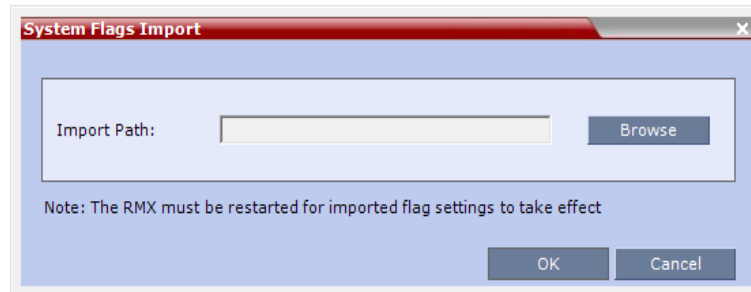
Importing System Flags

You can import *System Flags* from one RMX to multiple RMXs in your environment.

To import system flags:

- 1 On the RMX menu, click **Setup > System Configuration > Import**.

The *System Flags Import* dialog box is displayed.



- 2 Click **Browse** to navigate to the path and file name of the exported *System Flags* configuration file to be imported.
- 3 Click **OK** to import the *System Flags* configuration file.



After importing the *System Flags*, the RMX must be restarted for the imported flag settings to take effect. Old system flag values are overwritten with the imported values.

Hot Backup

Hot Backup implements a high availability and rapid recovery solution.

Two RMXs are configured in a *Master/Slave* relationship: the *Master MCU* is active while the *Slave* acts as a passive, fully redundant *Hot Backup* of the *Master MCU*.

All conferencing activities and configuration changes that do not require a *System Reset* are mirrored on the *Slave MCU* five seconds after they occur on the *Master MCU*.

In the event of failure of the *Master MCU* or the *Media card* on the *Master MCU*, the *Slave MCU* transparently becomes active and assumes the activities and functions with the backed up settings of the failed *Master MCU*.

Both dial-in and dial-out participants are automatically dialed out and reconnected to their conferences. However, the *Hot Backup* solution is optimized for dial-out participants as all the dial-out numbers are defined in the system and are available for redialing.

The following entities are automatically backed up and updated on the *Slave MCU*:

- Ongoing Conferences
 - Layout
 - Video Force
 - Participant Status (Muted, Blocked, Suspended)
- Reservations
- Meeting Rooms
- Entry Queues
- SIP Factories
- Gateway Profiles
- IVR services (excluding *.wav files)
- Recording Link
- Profiles
- IP Network Settings:
 - H.323 settings
 - SIP settings
 - DNS settings
 - Fix Ports (TCP, UDP) settings
 - QoS settings

Guidelines

- Both *Master* and *Slave MCUs* must have the same software version installed.
- The *Users* list and *Passwords* must be the same on both the *Master* and *Slave MCUs*.
- There must be connectivity between the *Master* and *Slave MCUs*, either on the same network or on different networks connected through routers.
- In the event of failure of the *Master MCU* or the occurrence of one of the selected *Hot Backup* triggers, the *Slave MCU* assumes the role of the *Master MCU*. The *Master/Slave* relationship is reversed: the *Slave*, now active, remains the *Master* and the previous *Master MCU*, when restarted, assumes the role of *Slave MCU*.
- *Hot Backup* triggers are configured on the *Master MCU*.

- No changes to the *Slave MCU* are permitted while it is functioning as the *Hot Backup*. Therefore no ongoing conferences or reservations can be added manually to the *Slave MCU*.
- If *Hot Backup* is disabled, all ongoing conferences and *Reservations* backed up on the *Slave MCU* are automatically deleted.
- *Master* and *Slave* initial roles can be reversed only after all ongoing conferences and *Reservations* are deleted.
- Changes to the *Master MCU* that require a *System Reset* can only be made after *Hot Backup* is disabled.
- Video/Voice Port Configurations on the *Master MCU* are not synchronized with the *Slave MCU*. You must manually set the Video/Voice Port Configurations on both the *Master* and *Slave MCUs* to the same level.

Enabling Hot Backup

To enable Hot Backup:

- 1 On the RMX menu, click **Setup > Hot Backup**.

The *RMX Hot Backup* dialog box is displayed.

- 2 Complete or modify the following fields:

Table 1-6 *Hot Backup Parameters*

| Field | Description |
|------------------------------|---|
| <i>Hot Backup Enabled</i> | Select this check box to enable <i>Hot Backup</i> . |
| <i>MCU Role</i> | This setting determines the role of the MCU in the <i>Hot Backup</i> configuration. Select either Master MCU or Slave MCU from the drop-down menu. |
| <i>Paired MCU IP Address</i> | Enter the <i>Control Unit IP Address</i> of the: <ul style="list-style-type: none"> • <i>Slave MCU</i> (if this MCU is the <i>Master</i>) • <i>Master MCU</i> (if this MCU is the <i>Slave</i>) |

Table 1-6 Hot Backup Parameters

| Field | Description |
|-------------------------------|---|
| <i>Synchronization Status</i> | <p>The status of the synchronization between the Master and Slave MCUs in the <i>Hot Backup</i> configuration is indicated as:</p> <ul style="list-style-type: none"> • OK - Hot Backup is functioning normally, and the Master and Slave MCUs are synchronized. • Attempting - <i>Hot Backup</i> is attempting to synchronize the Master and Slave MCUs. • Fail - A failure occurred while trying to synchronize the paired MCUs. • None - <i>Hot Backup</i> has not been enabled. |

- 3 If you are configuring the Hot Backup on the Slave MCU, click **OK**.
If you are defining the Hot Backup on the Master MCU, you can enable additional events that will trigger Hot Backup role switch.

Modifications to the Master MCU Requiring System Reset

Modifications to the configuration of the *Master MCU* that require a *System Reset* cannot be performed while *Hot Backup* is enabled.

To modify the Master MCU configuration:

- 1 Disable the *Hot Backup* on the *Master* and *Slave* MCUs.
- 2 Modify the *Master MCUs* configuration.
- 3 Reset the *Master MCU*.
- 4 When the reset is complete, enable *Hot Backup* on the *Master* and *Slave* MCUs.
- 5 If required, reset the *Slave MCU*.

Hot Backup Triggers

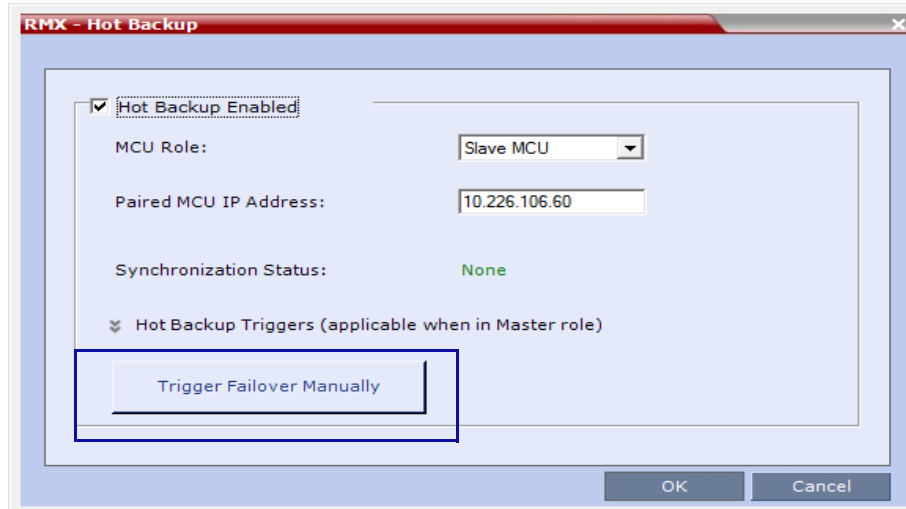
New *Hot Backup* triggers for initiating the switch from the Master to the Slave MCU were added to the *Hot Backup* configuration. *Hot Backup* is initiated by the slave MCU on detection of no response from the master MCU on a “Keep Alive” operation. The new *Hot Backup* triggers initiates the *Hot Backup* swap from Master to Slave when the selected conditions on the Master MCU occur.

Guidelines

- *Hot Backup* triggers should be configured on both the Master and Slave MCUs.
- *Hot Backup* triggers are not synchronized between the Master and Slave MCUs.

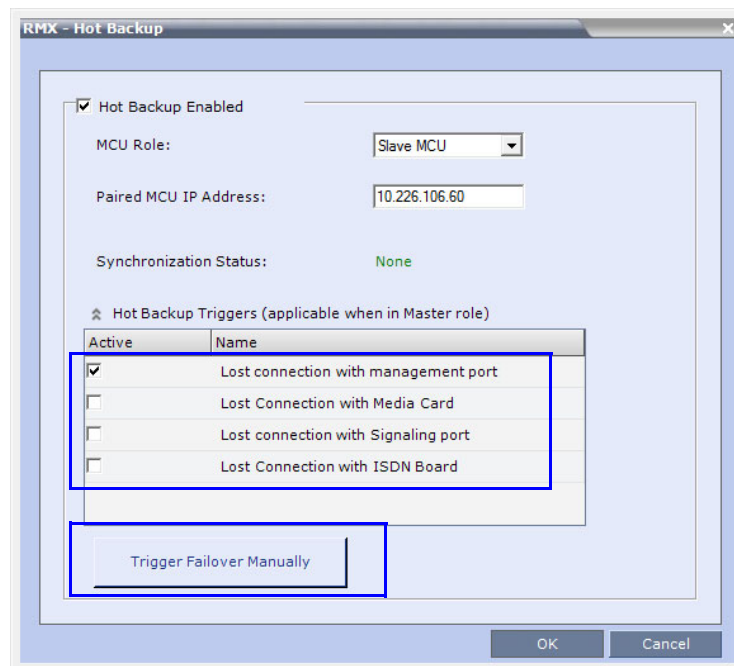
Configuring the Hot Backup Triggers

The *Hot Backup* triggers are configured in the *Hot Backup* dialog box for the Master MCU when the *Hot Backup* feature is enabled.



To add the Hot Backup triggers to the Hot Backup configuration:

- 1 In the *Hot Backup* dialog box, expand the **Trigger Hot Backup Triggers**.
A dialog box opens with a list of event triggers displayed.



- 2 Select the appropriate Hot Backup Triggers check boxes:

Table 1-7 Hot Backup Triggers

| Hot Backup Trigger | Description |
|---|--|
| <i>Lost connection with management port</i> | Initiates the Hot Backup switch from the Master to the Slave MCU when the connection to the management port is lost on the Master MCU. This trigger is always set. |
| <i>Lost connection with media port</i> | Initiates the Hot Backup switch from the Master to the Slave MCU when the connection with an active media port is lost on the Master MCU. |
| <i>Lost connection with signalling port</i> | Initiates the Hot Backup switch from the Master to the Slave MCU when the connection with an active signalling port is inactive for a duration of 30 seconds on the Master MCU. A system flag, ETH_INACTIVITY_DURATION, can be added and configured to modify the duration of inactivity of the signalling port. Default value is 30 seconds; Minimum value is 20 seconds. |
| <i>Lost connection with ISDN card</i> | Initiates the Hot Backup switch from the Master to the Slave MCU when the connection with an ISDN card is disconnected on the Master MCU. |

- 3 Alternatively, click the **Trigger Failover Manually** button when you want to trigger the Hot Backup manually and activate the Slave MCU.
A confirmation message is displayed.
- 4 Click **Yes** to continue the Hot Backup process or click **No** to cancel the Hot Backup process.
- 5 Click **OK**.

Content at HD1080p Resolution

Endpoints that support *H.264* can now receive *H.239 Content* at the following resolutions:

- *HD720p* at 30fps
- *HD1080p* at 15fps

These resolutions are in addition to the existing *HD720p* at 5fps *Content* resolution.

Guidelines

- *Content* at *HD1080p* resolution is supported at conference and call rates of 768 kbps or higher.
- The initial *Content* rate is determined by the conference *Profile - Line Rate* and *Content Settings*.
- The *Content* rate is lowered if endpoints connect at lower call rates.
- All connected endpoints must support the minimum required conference *Line Rate* and be capable of receiving *HD1080p* content.
- The *Content Protocol* setting in the conference *Profile* must be set to *Up to H.264*.
- All endpoints will receive *Content* at the highest resolution common to all connected endpoints.
- During a *H.264 Content* session, changes to resolution or frame rate do not interrupt *Content* transmission.
- Table 1-8 summarizes the *Maximum Resolution of Content* and *Frames per Second (fps)* for *Bit Rate Allocations* to the *Content Channel*.

Table 1-8 *Content - Maximum Resolution, Frames/Second per Bit Rate Allocation*

| Bit Rate Allocated to Content Channel (kbps) | Content | |
|--|--------------------|---------------|
| | Maximum Resolution | Frames/Second |
| From 64 and less than 512 | H.264 HD720p | 5 |
| From 512 and less than 768 | H.264 HD720p | 30 |
| From 768 and up to 1536 | H.264 HD1080p | 15 |

- The *Profile - Content Settings: Graphics, Hi Resolution Graphics* and *Live Video* increasing affect the amount of bandwidth allocated to *Content* and the probability of *HD1080p* being supported.

Table 1-9 summarizes the bit rate allocation to the *Content* channel for each of the three *Content Settings*.

Table 1-9 Bit Rate Allocation to Content Channel per Conference Line Rate

| Content Settings | Bit Rate Allocation per Conference Line Rate (kbps) | | | | | | | | | | |
|------------------------|---|-----|-----|-----|-----|------------|--------------|----------------------|------|------|------|
| | 64/ 96 | 128 | 256 | 384 | 512 | 768 823 | 1024 1152 | 1472 1728 1920 | 2048 | 4096 | 6144 |
| Graphics | 0 | 64 | 64 | 128 | 128 | 256 | 256 | 256 | 512 | 1152 | 1536 |
| Hi Resolution Graphics | 0 | 64 | 128 | 192 | 256 | 384 | 384 | 512 | 768 | 1536 | 1536 |
| Live Video | 0 | 64 | 128 | 256 | 384 | 512 | 768 | 768 | 1152 | 1536 | 1536 |

- If a *Legacy Endpoint* connects, the highest *Content* resolution for the conference is *HD720p* at 30 fps.
- Content is shared across *Cascaded Links* using *H.263* irrespective of whether either or both the cascade-enabled *Entry Queue* and the *Cascaded Link* have *Up to H.264 Content* sharing defined in their profiles.

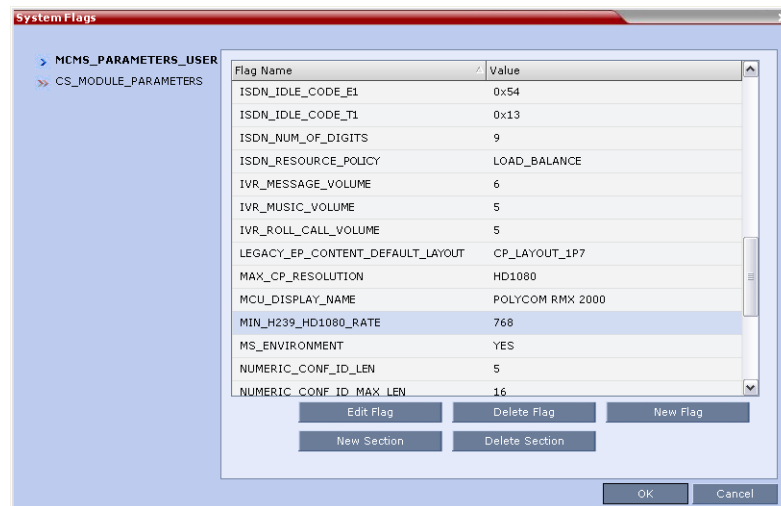
Modifying the Threshold Line Rate for HD Resolution Content

The threshold line rate for *HD Resolution Content* is the line rate at which the RMX will send *Content* at *HD1080 Resolution*. The default is 768 kbps.

To modify the HD Resolution Content threshold line rate:

- 1 On the RMX menu, click **Setup > System Configuration**.

The *System Flags* dialog box opens.



- 2 In the *MCMS_PARAMETERS* tab, double-click the **MIN_H239_HD1080_RATE** entry. The *Update Flag* dialog box is displayed.

- 3 In the *Value* field, enter the minimum threshold line rate at which *HD1080 Resolution Content* will be enabled.
- 4 Click **OK** to exit the **Update Flag** and then again to exit the **System Flags** dialog box.

Disabling HD Resolution Content

To disable HD720p/ HD1080p resolution content:

- 1 On the RMX menu, click **Setup > System Configuration**.
- 2 In the *System Flags - MCMS_PARAMETERS* tab, double-click the **MIN_H239_HD1080_RATE** entry.
- 3 In the *Update Flag - Value* field, enter **0**.
- 4 Click **OK** to exit the **Update Flag** and then again to exit the **System Flags** dialog box.

Managing Noisy Content

The system can identify participants who send frequent requests to refresh their content display, subsequently causing the content display of the conference to refresh and degrade the viewing quality. These participants are tagged as noisy content participants.

When the system identifies the noisy participants, the system will automatically suspend the requests to refresh the content sent by these participants to avoid affecting the quality of the content viewed by other participants connected to the conference.

The automatic identification of a noisy content participant and the duration in which the content will not be refreshed are controlled by the following system flags:

- **MAX_INTRA_REQUESTS_PER_INTERVAL_CONTENT**
Enter the maximum number of refresh (intra) requests for the content channel sent by the participant's endpoint in a 10 second interval that will be dealt by the RMX. When this number is exceeded, the content sent by this participant will be identified as noisy and their requests to refresh the content display will be suspended.
Default setting: 3
- **MAX_INTRA_SUPPRESSION_DURATION_IN_SECONDS_CONTENT**
Enter the duration in seconds to ignore the participant's requests to refresh the content display.
Default setting: 10
- **CONTENT_SPEAKER_INTRA_SUPPRESSION_IN_SECONDS**
This flag controls the requests to refresh (intra) the content sent from the RMX to the content sender as a result of refresh requests initiated by other conference participants.
Enter the interval in seconds between the Intra requests sent from the RMX to the endpoint sending the content to refresh the content display. Refresh requests that will be received from endpoints within the defined interval will be postponed to the next interval.
Default setting: 5

Version 7.8 - Changes to Existing Features

RMX Rebranding

The RMX is now called the RealPresence Collaboration Server. As a result several changes have been made to the RMX Manager and RealPresence Collaboration Server interfaces. The welcome screen of the RealPresence Collaboration Server Web Client now uses a different color scheme:

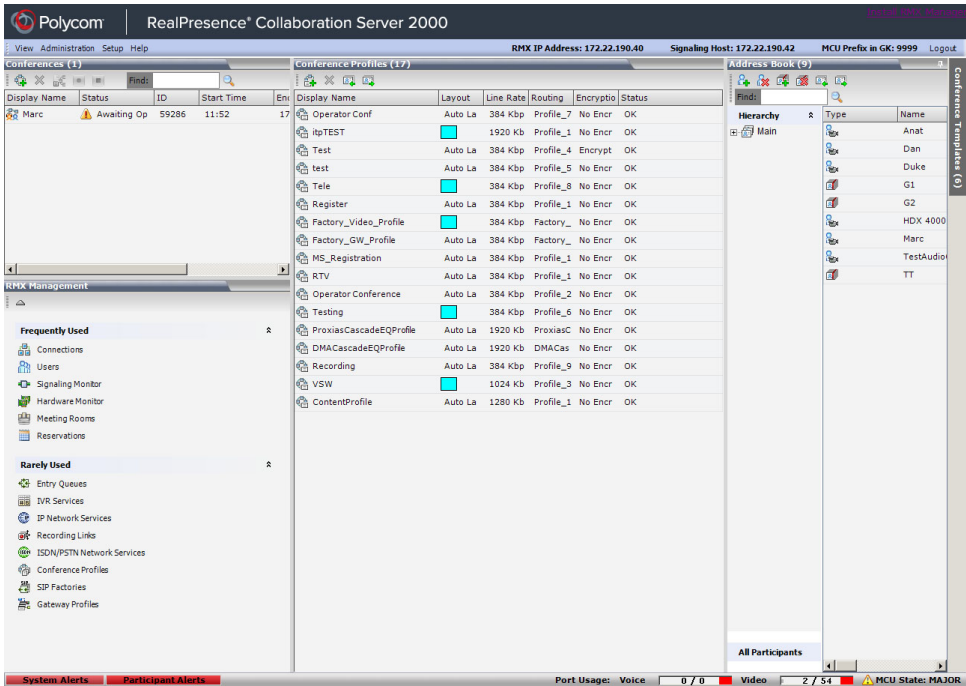


The welcome screen also displays the new Polycom logo.

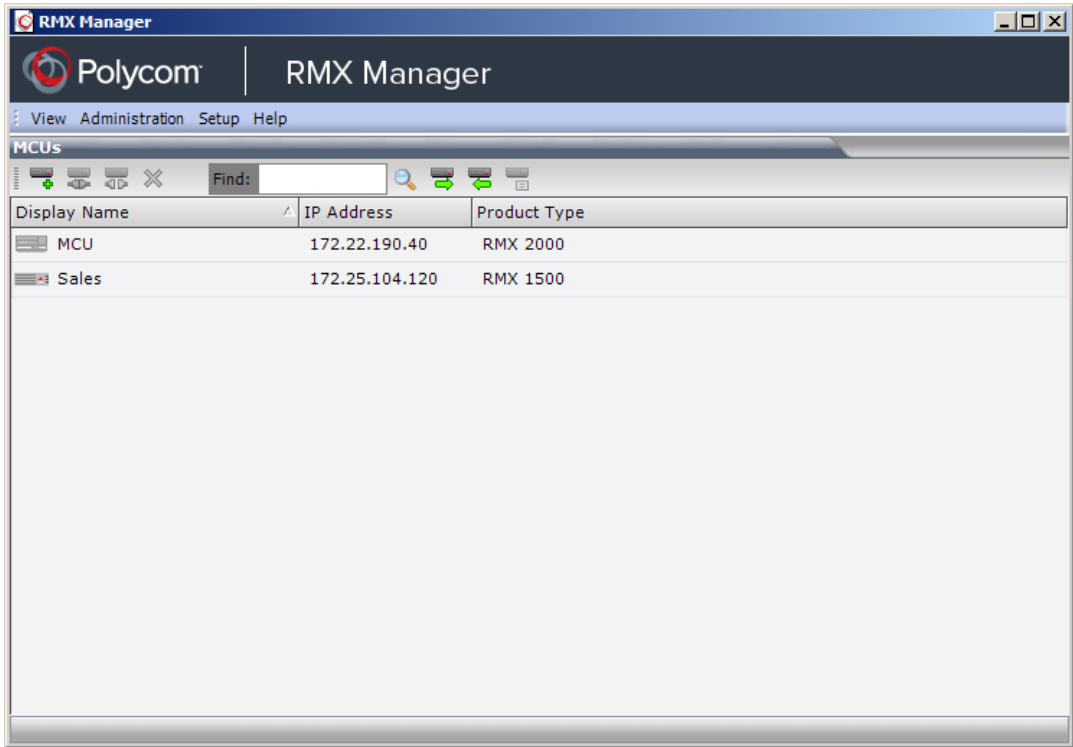


The product names, *Polycom® RealPresence® Collaboration Server 1500, 2000, 4000* and *RMX® 1500, 2000, 4000* are used interchangeably throughout this document.

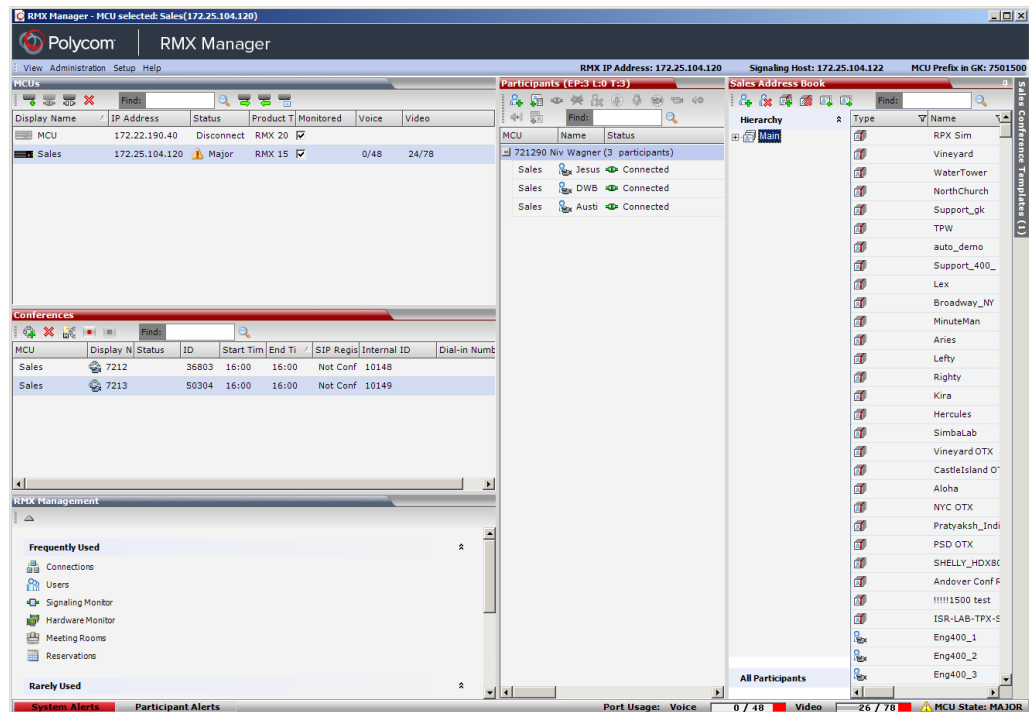
The *main application screen* has a new banner on the top:



The RMX Manager has also been modified in a similar fashion. The *Opening Screen* has been changed to reflect the new logo:



After connecting to an MCU the *RMX Manager Main Screen* opens with the new logo in the banner at the top, in a similar manner to the *RealPresence Collaboration Server Web Client*:



RMX Support for Microsoft Lync 2013 Clients

The RMX interoperability level with Lync 2013 is identical to Lync 2010. The following supported Lync 2010 feature set is supported with Lync 2013:

- RTV
- FEC support
- ICE over TCP
- Media over TCP
- Network Error Recovery
- SIP Dialog Recovery
- Additional meeting room presence mode
- Connecting an RMX meeting room to an AV-MCU conferences



Microsoft Lync Server 2013 BETA was tested on the RMX version 7.8 and is compliant with the RMX support features for both Microsoft Lync 2010 and Lync 2013.

Multi-Level Address Book

The RMX *Address Book* can be organized into a multi-level hierarchical structure. It can be used to mirror the organizational layout of the enterprises and it is especially suitable for large-scale enterprises with a considerable number of conference participants, organizational departments, and divisions.

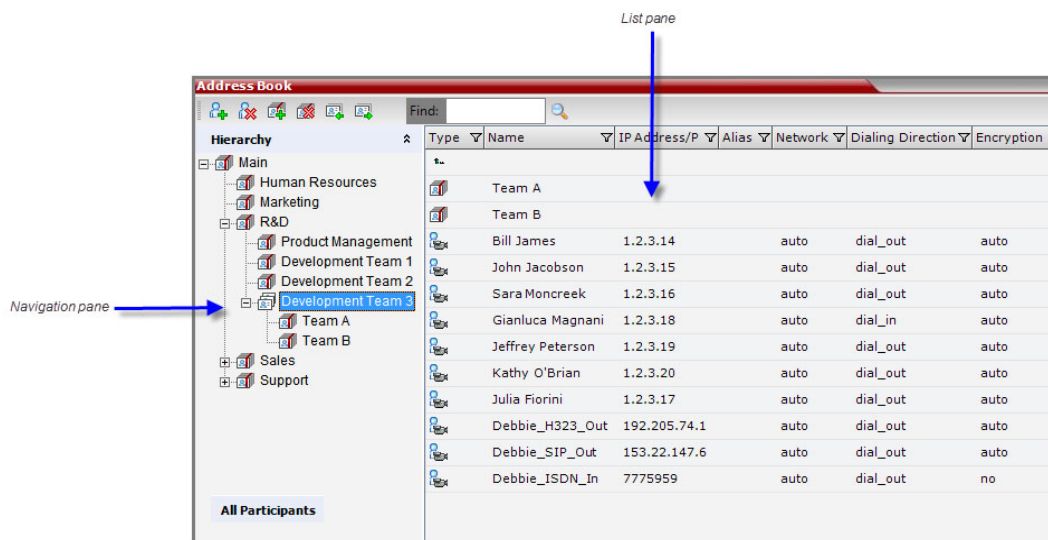
The *Address Book* provides flexibility in arranging conference participants into groups in multiple levels and the capabilities to add groups or participants, move or copy participants to multiple groups within the address book, and use the address book to add groups and participants to a conference or *Conference Template*.

The *Address Book* contains the following types of lists:

- **Hierarchical** – displays a multi-level hierarchical tree of groups and participants.
- **All Participants** – displays the single unique entity of all the participants in a single level. 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 same participant may be added to many groups at different levels, and all these participant links are associated with the same definition of the participant in the *All Participants* list. If the participant properties are changed in one group, they will be changed in all the groups accordingly.

The *Address Book* contains two panes:

- *Navigation pane* - contains the hierarchical tree and *All Participants* list
- *List pane* - displays the list of all the members of the selected group and sub-groups.



Groups in the *Address Book* can contain sub-groups or sub-trees, and individual address book participant entities. Double-clicking a group on the navigation pane displays the group participants and sub-groups in the list pane.

Guidelines

- The multi-level *Address Book* can only be used in a local configuration on the RMX. The hierarchical structure cannot be implemented with the *Global Address Book* (GAB).

- Adding participants to a conference from the *Global Address Book* is similar to previous versions.
- Up to ten levels can be defined in the hierarchical structure of the address book.
- The default name of the root level is “Main”. The “Main” root level cannot be deleted but the root level name can be modified.
- Address book names support multilingual characters.
- Participants in the *Address Book* can be copied to multiple groups. However, only one participant exists in the *Address Book*. Groups that contain the same participants refer to the same definition of the participant entity.

Upgrading and Downgrading Considerations

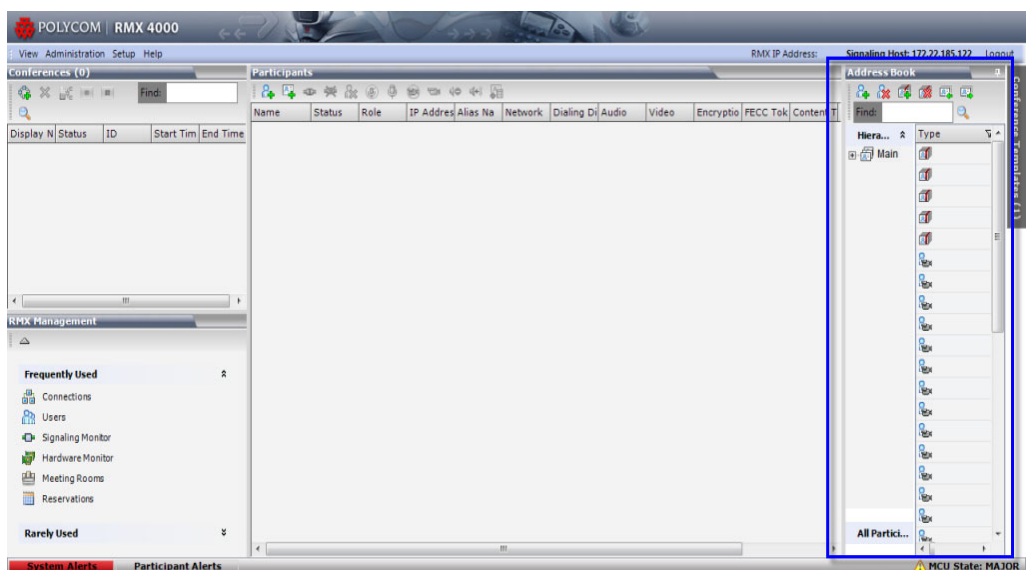
- When upgrading to a multi-level Address Book version from a single level address book, the following factors have to be taken into consideration:
 - The system automatically creates a new address book with a different name and modifies the new address book to a multi-level hierarchical address book.
 - By default, the address book contains two levels:
 - The top level (root) named “Main”.
 - Second level - All address book groups from the single-level address book are placed under the “Main” group with their associated participants.
 - Participants that were not previously associated with any group in the Address Book are placed in the “Main” group.
 - All participants in the address book appear in the “All Participants” group.
 - During the upgrade process, the single-level Address Book file is saved in the system to enable a future the downgrade of the version to a previous, single-level Address Book version (if required).
- When downgrading from a multi-level address book version to a single-level address book version, the multi-level *Address Book* is replaced during the downgrade process by the single-level address book that was saved during the upgrade process.

Displaying the Address Book

To display the Address Book:

- >> Click the **Address Book** tab on the right of the RMX window.

The *Address Book* hierarchical tree layout is displayed in the left pane of the *Address Book* pane. Address book entities and groups associated with the selected group are displayed in the right pane of the *Address Book* pane.




Managing the Address Book

Adding a New Participant

You can add a new participant to the “Main” group or to a group in the *Address Book*. Additionally, you can add a participant from a new conference, ongoing conference, or *Conference Template*.

To add a new participant:

- 1 In the *Address Book - Navigation* pane, select the group to where you want to add the new participant.
- 2 Click the **New Participant** button () or right-click the group to where you want to add the participant and select the **New Participant** option.
— Alternatively, click or anywhere in the *List* pane and select the **New Participant** option.
- 3 In the *New Participant - General* dialog box, fill in the new participant information. You can select the **Advanced** and **Information** tabs to provide more information about the participant.
- 4 Click **OK**.

The participant is added to the selected group.



When adding a participant to the address book from a new conference, *Participants* list of an ongoing conference or *Conference Template*, the participant is added to the “Main” group.

Deleting a Participant

You can delete a participant from the *Address Book*. However, if the participant exists in multiple groups, a message is displayed asking if you want to delete the participant from the selected group or entirely delete the participant from the *Address Book*.



The **Delete Participant** function is not available when selecting multiple participants.

To delete a participant:

- 1 In the *Address Book - Navigation* pane, select the group to where the participant to delete is listed.
- 2 In the *Address Book - List* pane, select the participant you want to delete.
- 3 Click the **Delete Participant** button or right-click the participant and select the **Delete Participant** option.

When the participant belongs to only one group, a confirmation message is displayed.

- a Click **Yes** to permanently delete the participant from the address book.

When the participant belongs to multiple groups, a message is displayed requesting whether to delete the participant from the *Address Book* or from the current selected group.

- b Select the **Current group** option to delete the participant from the selected group or select the **Address Book** option to permanently delete the participant from the address book (all groups). Click **OK** to perform the delete operation or click **Cancel** to exit the delete operation.

Copying or Moving a Participant

You can copy or move a participant from one group to another group using the **Copy**, **Cut**, and **Paste** options. A participant can belong to multiple groups. However, there is only one entity per participant. Groups that contain the same participants refer to the same definition of the participant entity. Alternatively, you can drag a participant from one location in the *Address Book* to another location, moving the participant to its new location using the drag-and-drop operation.



The cut and copy actions are not available when selecting multiple participants.

To copy or move a participant to another group:

- 1 Select the participant you want to copy.
- 2 Right-click the selected participant and select one of the following functions from the drop-down menu:

Table 1-10 Copy/Cut Functions

| Function | Description |
|-------------|---|
| <i>Copy</i> | Copies the participant to be pasted into an additional group. |
| <i>Cut</i> | Moves the participant from the current group to a different group. Alternatively, you can move a participant to another location by dragging the participant to the new location. |

- 3 In the *Address Book* navigation pane, navigate and select the group in which you want to paste the participant.
- 4 Right-click the selected group and click one of the following **Paste** functions from the drop-down menu:

Table 1-11 Paste functions

| Function | Description |
|---------------------------------|--|
| <i>Paste Participant</i> | Creates a link to the participant entity in the pasted location. |
| <i>Paste Participant as New</i> | Pastes as a new participant into the selected group. This paste action adds "Copy" to the end of the participant name. |



The Paste functions are only available after a **Copy** or **Cut** action has been implemented.

To drag a participant from an address book group to another group:

- 1 Select the participant or participants you want to move.
- 2 Click and hold the left mouse button and drag the selection to the new group.
The participants are moved to the new address book group.

Adding Participants to Conferences

You can add a participant or multiple participants to a new conference, ongoing conferences, or to *Conference Templates* by using the drag-and-drop operation.



Multiple selection of group levels is not available.

To add a participant to a new conference or an ongoing conference:

- 1 Select the participant or participants you want to move to the conference.
- 2 Click and hold the left mouse button and drag the selection to the Participants pane of the conference.
The participants are added to the conference.

To add a participant to a Conference Template:

- 1 Select the participant or participants you want to move to the *Conference Template*.
- 2 Click and hold the left mouse button and drag the selection to the Participants pane of the *Conference Template*.
The participants are added to the *Conference Template*.

Managing Groups in the Address Book

In the *Address Book*, you can use groups to manage clusters of participants that are in the same organizational structure. Groups can contain participants and sub-groups. You can define up to ten levels in the "Main" group.

The currently selected group, whose group members are displayed in the *Address Book List* pane is identified by the a special icon .

To expand the group to view the group members:


>> Double-click the group name or click the **Expand**  button.

The address book entities and sub-groups of the group is displayed in the right group list pane. You can drill down the sub-group to view address book entities in the sub-group.

To move up to the next level and view the members in the upper level:

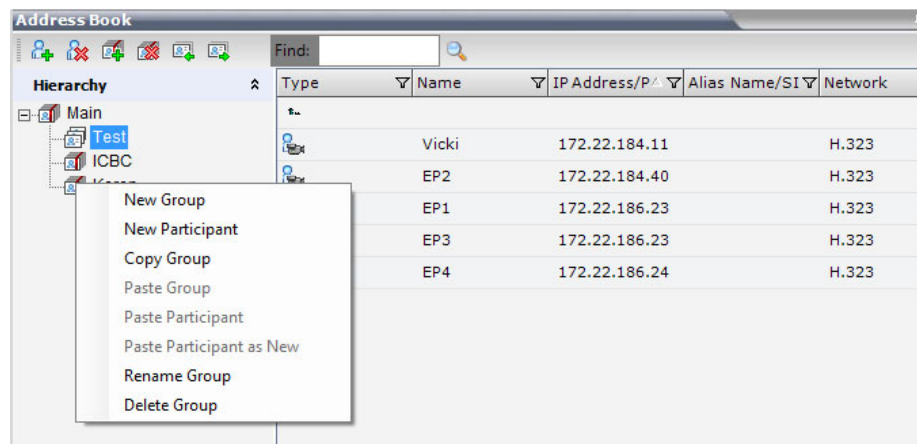
>> Double-click the **navigation arrow**  button in the group members pane.

To collapse a group:

>> Double-click the group name or click the **Collapse**  button.

To manage the groups in the Address Book:

- 1 In the *Address Book Navigation* pane, right-click the group you want to manage. The *Groups* menu is displayed.



- 2 Select one of the following actions:

Table 1-12 Groups Drop-down Menu Actions

| Action | Description |
|---------------------------------|--|
| <i>New Group</i> | Creates a new group within the current group. |
| <i>New Participant</i> | Adds a new participant within the current group. |
| <i>Copy Group</i> | Copies the current group to be pasted as an additional group. |
| <i>Paste Group</i> | Places the copied group into the current group. The group name of the copied group is defined with "Copy" at the end of the group name. This action is only available after a Copy Group action has been implemented. |
| <i>Paste Participant</i> | Places the copied participant into the current selected group. This action is available after a Copy or Cut action was activated when selecting a single participant or multiple participants. |
| <i>Paste Participant as New</i> | Pastes as a new participant into the selected group. This paste action adds "Copy" at the end of the participant name. This action is only available after a Copy action was activated for a single participant. |

Table 1-12 Groups Drop-down Menu Actions

| Action | Description |
|---------------------|--|
| <i>Rename Group</i> | Renames the group name. |
| <i>Delete Group</i> | Deletes the group and all of its members. This action displays a message requesting confirmation to delete the group and all members connected with the group. |

Additionally, you can drag a group from one location in the *Address Book* to another location, moving the group and all its members, including sub-groups, to its new location using the drag-and-drop operation. Moving a group to a new location can be done in the navigation pane or the list pane.

To drag a group from a location in the address book to another location:

- 1 Select the group you want to move.
- 2 Click and hold the left mouse button and drag the selection to the new location. The new location can be either the “Main” root level or another group level.

The group and all its members (participants and groups) are moved to the new address book location.

Adding Groups to Conferences

You can add a group of participants to a new conference, ongoing conferences, or to *Conference Templates* by using the drag-and-drop operation.

To add a group to a new conference or an ongoing conference:

- 1 Select the group you want to move to the conference.
- 2 Click and hold the left mouse button and drag the selection to the *Participants* pane of the conference.

The participants in the group level and all sub-levels are added to the conference.

To add a participant to a Conference Template:

- 1 Select the group you want to move to the *Conference Template*.
- 2 Click and hold the left mouse button and drag the selection to the *Participants* pane of the *Conference Template*.

The participants in the group level and all sub-levels are added to the *Conference Template*.

Searching the Address Book

You can search the *Address Book* for a participant’s name or a group name only on the level on which you are currently selected.

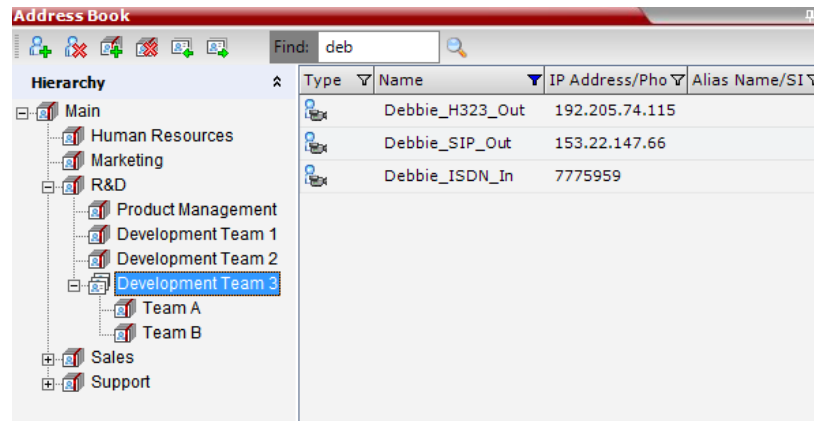
To search for participants or groups in the current selected level:

- 1 In the *Address Book Navigation* pane, select the group/level within to run the search.
- 2 In the *Address Book* toolbar, activate the search option by clicking the **Find** field.

The field clears and a cursor appears indicating that the field is active.



- 3 Type all or part of the participant's name or group name and click the search button. The closest matching participant entries are displayed and the Active Filter indicator turns on.



Obtaining the Display Name from the Address Book

The MCU can be configured to replace the name of the dial-in 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 RMX Web Client/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.

Guidelines

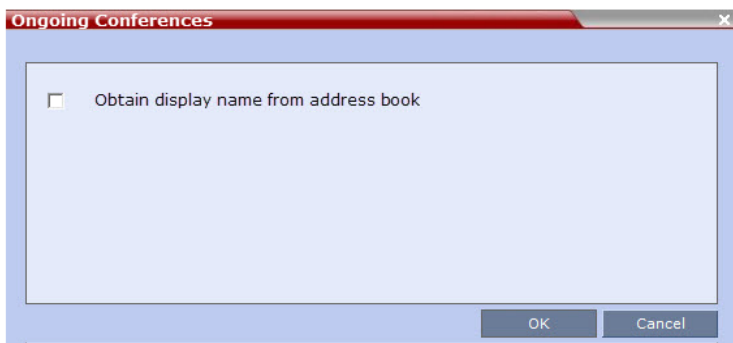
- Only Users with *Administrator* and *Operator* Authorization Levels are allowed to enable and disable the *Obtain Display Name from Address Book* feature.
- This feature is supported only for IPv4 participants.

Enabling and Disabling the Obtain Display Name from Address Book Feature

To enable or disable the Obtain Display Name from Address Book option:

- 1 On the RMX main menu bar, click **Setup > Customize Display Settings > Ongoing Conferences**.

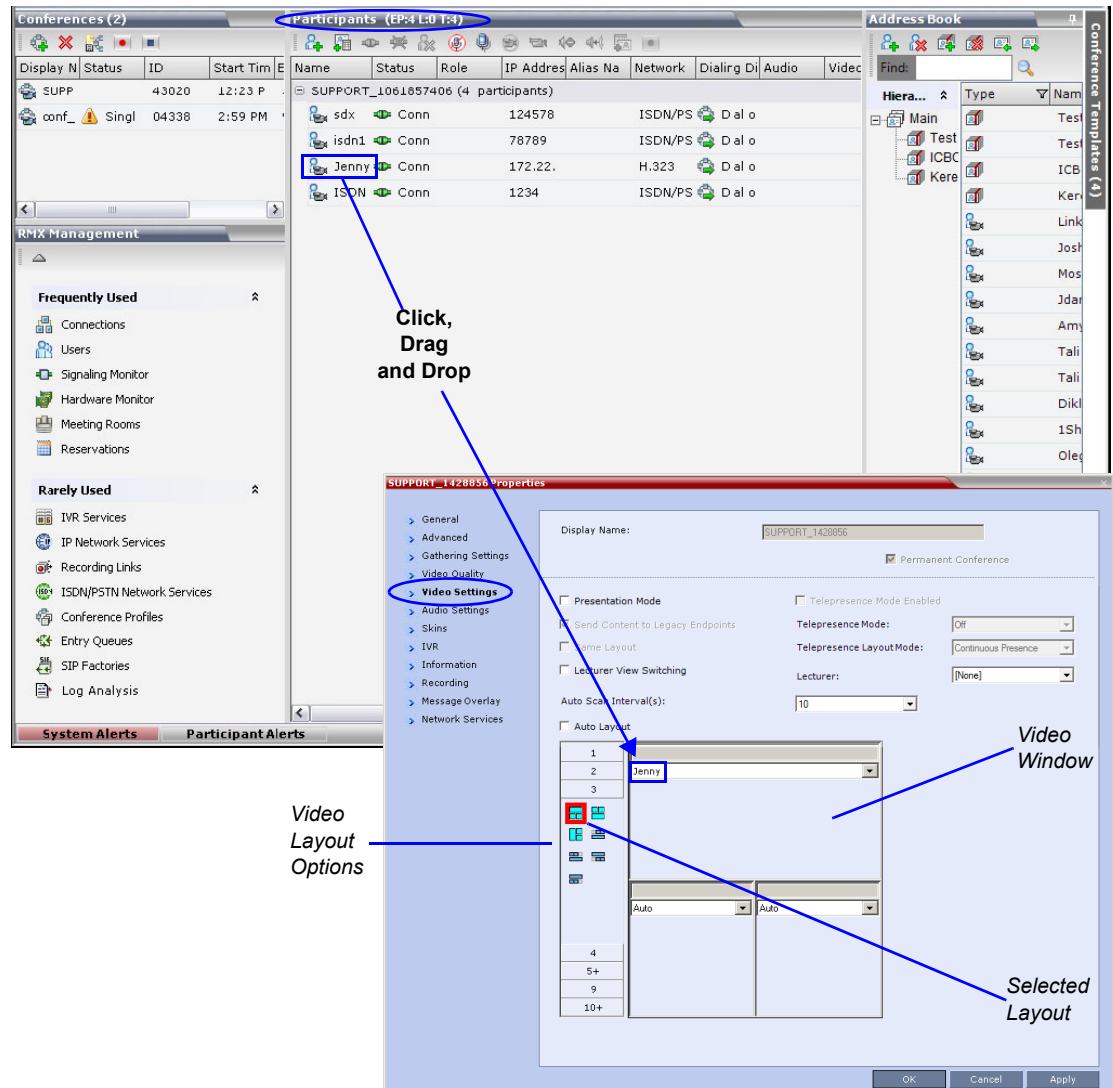
The *Ongoing Conferences* dialog box is displayed.



- 2 Select the **Obtain display name from address book** check box to enable the feature or clear the check box to disable the feature.
- 3 Click **OK**.

Interactive Video Forcing

Participants in ongoing conferences can be interactively forced to a *Video Window* in the conference layout by using *Drag and Drop*. The administrator can click, drag and drop a participant from the conference's *Participants* list into a specific window of an ongoing conference's *Video Layout*.



Guidelines

- A participant can only be placed in one window in the layout.
- The window header is updated with the participant's name.
- A participant that has been placed multiple times will appear in the last window selected. The window that the participant was previously placed in reverts to an **Auto** state.

- Only one participant at a time can be dragged into a *Video Layout*. If multiple participants are selected and dragged, only the first participant in multiple selections will be placed in the *Video Layout*.

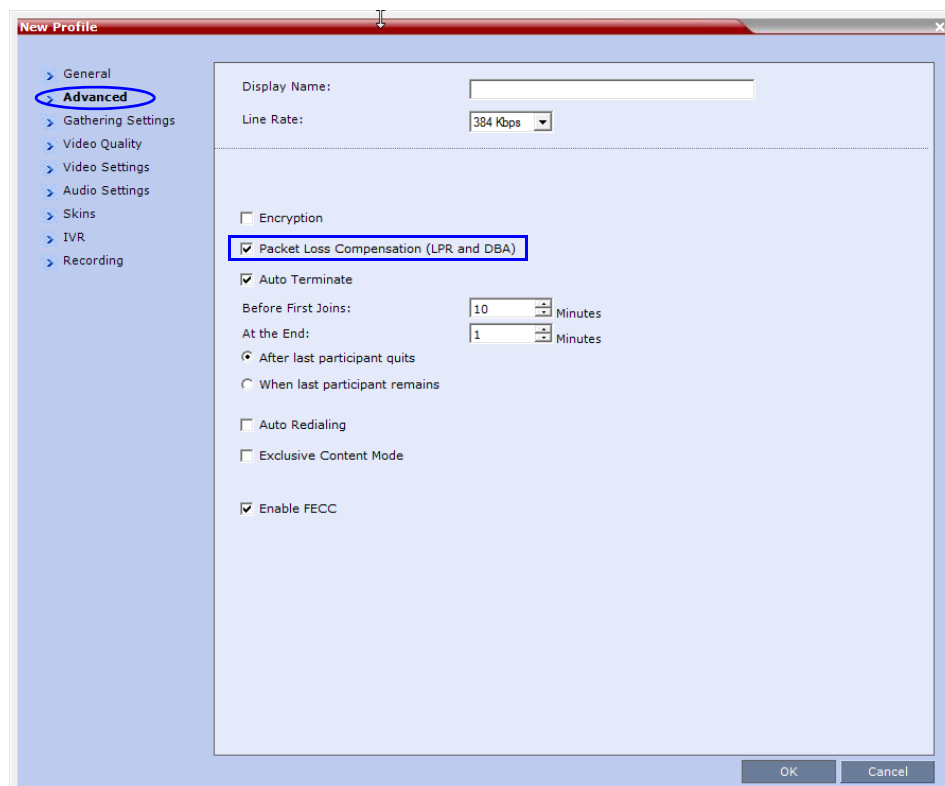
Dragging a Participant to the Video Layout Window

To drag a participant into a video layout window:

- 1 In the *Conferences* pane, right-click the conference that you want to modify.
- 2 In the drop-down menu, select **Conference Properties**.
- 3 In the *Conference Properties* dialog box, select the **Video Settings** tab.
- 4 Click and drag the participant from conference's *Participants* list into the required window of the *Video Layout*.

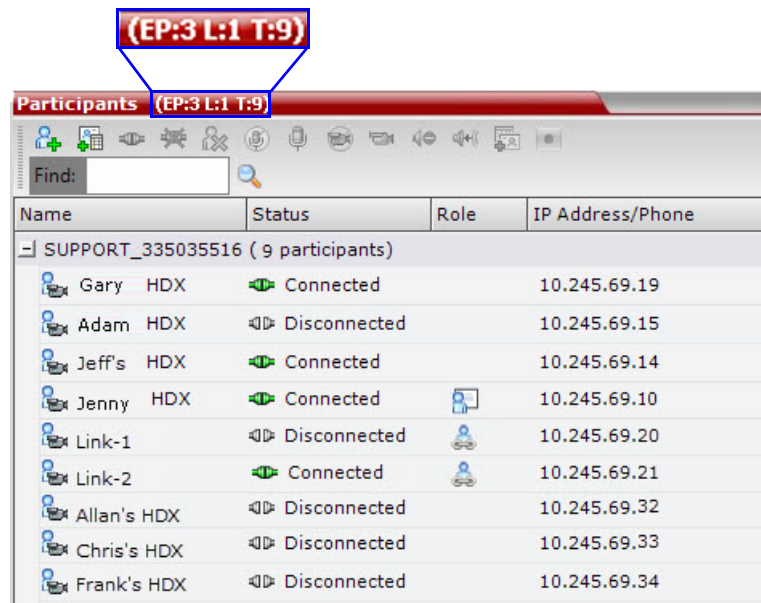
Packet Loss Compensation (LPR and DBA)

The LPR (*Lost Packet Recovery*) check box in the *New Profile - Advanced* and *Profile Properties - Advanced* dialog boxes has been renamed *Packet Loss Compensation (LPR and DBA)*. The new name indicates that both mechanisms are used simultaneously to compensate for packet loss.



Participant Connection Status

Real-time connection status information of *Endpoints* and *Cascade Links* in the selected conference is provided to *RMX Web Client* and *RMX Manager* users.



The screenshot shows the 'Participants' window in the RMX Web Client. The window title is 'Participants (EP:3 L:1 T:9)'. Below the title bar is a toolbar with various icons. A 'Find:' search box is present. The main area is a table with columns: Name, Status, Role, and IP Address/Phone. The table lists 9 participants for the conference 'SUPPORT_335035516'. The participants are: Gary HDX (Connected, 10.245.69.19), Adam HDX (Disconnected, 10.245.69.15), Jeff's HDX (Connected, 10.245.69.14), Jenny HDX (Connected, 10.245.69.10), Link-1 (Disconnected, 10.245.69.20), Link-2 (Connected, 10.245.69.21), Allan's HDX (Disconnected, 10.245.69.32), Chris's HDX (Disconnected, 10.245.69.33), and Frank's HDX (Disconnected, 10.245.69.34). A callout box points to the header '(EP:3 L:1 T:9)'.

| Name | Status | Role | IP Address/Phone |
|-------------------------------------|--------------|------|------------------|
| SUPPORT_335035516 (9 participants) | | | |
| Gary HDX | Connected | | 10.245.69.19 |
| Adam HDX | Disconnected | | 10.245.69.15 |
| Jeff's HDX | Connected | | 10.245.69.14 |
| Jenny HDX | Connected | | 10.245.69.10 |
| Link-1 | Disconnected | | 10.245.69.20 |
| Link-2 | Connected | | 10.245.69.21 |
| Allan's HDX | Disconnected | | 10.245.69.32 |
| Chris's HDX | Disconnected | | 10.245.69.33 |
| Frank's HDX | Disconnected | | 10.245.69.34 |

The participant connection status is represented by three numbers in the *Participants* list header in the format **EP:n L:n T:n** where:

- **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

Guidelines

- 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.

CDR Changes

Multi-part CDR

By default, the maximum CDR (Call Data Record) file size is limited to 1MB. When a CDR file reaches a size of 1MB the file is saved and further call data recording is stopped and the additional data is lost.

The RMX can be configured to keep recording the data in multiple CDR file set of 1MB each. *Multi-Part CDR* ensures that conference call data from long duration or permanent conferences is recorded and not lost.

Guidelines

- Multi-Part CDR* is enabled by setting the value of the **ENABLE_MULTI_PART_CDR System Flag** to **YES**.

The flag's default value is **NO**.

When the flag value is **NO**, CDR file size is limited to one file of 1MB and further call data recording is stopped.

To modify the default setting, the flag must be manually added to the *System Configuration*. For more information see the *RealPresence Collaboration Server (RMX) 1500/2000/4000 Administrator's Guide*, "Modifying System Flags" on page [22-1](#).

- If the flag value is set to **YES**, when a CDR file reaches 1MB, an additional CDR file is created and added to the CDR file set for that conference.
- If the flag value is changed from **YES** to **NO** (or visa versa) all existing CDR files are retained.

Accessing Multi-Part CDR Files

The CDR files are accessed using the RMX menu by clicking **Administration > CDR** to display all the CDR records stored in the RMX.

Changes to the CDR list

An additional column, *Part Index*, has been added to the CDR list.

| Display Name | Part Index | Start | Durati | Reser | Reser | Status | File R |
|--------------|------------|--------|--------|--------|--------|--------|--------|
| Conf8 | 1 | Thursd | 00:00: | Thursd | 02:00: | Confer | No |
| Conf6 | 1 | Thursd | 00:00: | Thursd | 02:00: | Confer | No |
| Conf7 | 1 | Thursd | 00:00: | Thursd | 02:00: | Confer | No |
| undefConf | 2 | Thursd | 01:00: | Thursd | 01:00: | Ongoin | No |
| undefConf | 3 | Thursd | 01:00: | Thursd | 01:00: | Ongoin | No |
| undefConf | 4 | Thursd | 01:00: | Thursd | 01:00: | Ongoin | No |
| undefConf | 5 | Thursd | 01:00: | Thursd | 01:00: | Ongoin | No |
| undefConf | 6 | Thursd | 01:00: | Thursd | 01:00: | Ongoin | No |
| undefConf | 7 | Thursd | 01:00: | Thursd | 01:00: | Ongoin | No |

The *Part Index* column displays the CDR file's sequence in the CDR file set:

- CDRs that are up to 1MB consist of a single file. Each file has a unique *Display Name* and a *Part Index* of **1**.

- Files included in a *Multi-Part CDR* file sets have the same *Display Name*. The first file of the set is numbered **1** with each additional *CDR* file numbered in an ascending numeric sequence.

New CDR Event 34

A new *event*, **Event 34 - PARTICIPANT MAXIMUM USAGE INFORMATION** was added to the *CDR* file.

This event includes information of the *maximum line rate*, *maximum resolution* and *maximum frame rate* used by *H.323* or *SIP* participant during the conference.

The event includes the following fields:

Table 1-13 Event fields for Event 34 - PARTICIPANT MAXIMUM USAGE INFORMATION

| Field | Description |
|----------------------------|---|
| <i>Participant Name</i> | The name of the participant. |
| <i>Participant ID</i> | The identification number assigned to the participant by the MCU. |
| <i>Maximum Bit Rate</i> | The maximum bit rate used by the participant during the call. |
| <i>Maximum Resolution</i> | The maximum resolution used by the participant during the call. Note: The reported resolutions are: CIF, SD, HD720, and HD1080. Other resolutions are round up to the nearest resolution. For example, 2SIF is reported as SD resolution. |
| <i>Maximum Frame Rate</i> | The maximum frame rate used by the participant during the call. |
| <i>Participant Address</i> | Note: This field is only relevant to IP participants. For H.323 participants, the participant alias. The alias may contain up to 512 characters. For SIP participants, the participant address. The address may contain up to 80 characters. |

New CDR Event 35

A new *event*, **Event 35 - SVC SIP PARTICIPANT CONNECTED** was added to the *CDR* file.

This event includes information of the *participant status*, *line rates*, *uplink video capabilities*, and *audio codec* used by SVC SIP participants.

The event includes the following fields:

Table 1-14 Event Fields for Event 35 - SVC SIP PARTICIPANT CONNECTED

| Field | Description |
|-------------------------|--|
| <i>Participant Name</i> | The name of the participant. An empty field "" denotes an unidentified participant or a participant whose name is unspecified |
| <i>Participant ID</i> | The identification number assigned to the participant by the MCU. |

Table 1-14 Event Fields for Event 35 - SVC SIP PARTICIPANT CONNECTED (Continued)

| Field | Description |
|----------------------------------|---|
| <i>Participant Status</i> | The participant status, as follows: 0 - Idle 1 - Connected 2 - Disconnected 3 - Waiting for dial-in 4 - Connecting 5 - Disconnecting 6 - Partially connected. Party has completed H.221 capability exchange 7 - Deleted by a user 8 - Secondary. The participant could not connect the video channels and is connected via audio only 10 - Connected with problem 11 - Redialing |
| <i>Receive line rate</i> | Negotiated reception line rate |
| <i>Transmit line rate</i> | Negotiated transmission line rate |
| <i>Uplink Video Capabilities</i> | a.Number of uplink streams b.Video stream (multiple streams) i.Resolution width ii.resolution height iii.max frame rate iv.max line rate |
| <i>Audio Codec</i> | SAC, Other |
| <i>Secondary Cause</i> | |

Enhanced SNMP Functionality

Note: This information is subject to change. The information below is not final.

The RMX uses the Polycom Unified MIB, in addition to the RMX specific MIB. The Polycom Unified MIB is an MIB that is used by many Polycom products. The following table describes the information provided by the RMX in the Unified MIB.

Table 2 New Unified MIB SNMP Fields

| Name | Type | Description |
|----------------------------|----------------|--|
| <i>Debug</i> | Boolean | Indicates whether the unit is in a debugging state. |
| <i>IncomingCallsReqrGK</i> | Boolean | Indicates whether a gatekeeper is required to receive incoming H.323 calls. |
| <i>OutgoingCallsReqrGK</i> | Boolean | Indicates whether a gatekeeper is required to make outgoing H.323 calls. |
| <i>HDBitrateThrshld</i> | Integer | The minimum bit rate required by endpoints in order to connect to an HD conference. |
| <i>MaxCPRstIn</i> | Integer | Maximum resolution of a CP conference. |
| <i>MaxCPRstInCfg</i> | Integer | Configured resolution for a CP conference. |
| <i>EndpointDispayName</i> | String | The name of the MCU that is displayed on the screen of endpoints that are connecting to the conference. |
| <i>PALNTSC</i> | NTSC/PAL/AUTO | The video encoding of the RMX. |
| <i>SeparateMgmtNet</i> | Boolean | Indicates whether management network separation is enabled. |
| <i>NumPorts</i> | Integer | Total number of ports. |
| <i>NumVideoPorts</i> | Integer | Number of ports configured for video. |
| <i>ServiceH323</i> | Integer | Indicates the status of H.323 capabilities: 1 - The service is enabled and operational. 2 - The service is enabled but is not operational. 3 - The service is disabled. |
| <i>ServiceSIP</i> | Integer | Indicates the status of SIP capabilities: 1 - The service is enabled and operational. 2 - The service is enabled but is not operational. 3 - The service is disabled. |
| <i>ServiceISDN</i> | Integer | Indicates the status of SIP capabilities: 1 - The service is enabled and operational. 2 - The service is enabled but is not operational. 3 - The service is disabled. |
| <i>RsrcAllocMode</i> | Fixed/Flexible | The resource allocation method which determines how the system resources are allocated to the connecting endpoints. |

Table 2 New Unified MIB SNMP Fields (Continued)

| Name | Type | Description |
|-------------------------------|---------|---|
| <i>McuSystemStatus</i> | Integer | System State. |
| <i>FanStatus</i> | Boolean | Status of the hardware fan. |
| <i>PowerSupplyStatus</i> | Boolean | Status of the power supply. |
| <i>IntegratedBoardsStatus</i> | Boolean | Status of the integrated boards. |
| <i>UltraSecureMode</i> | Boolean | Indicates whether the RMX is operating in Ultra Secure Mode. |
| <i>ChassisTemp</i> | Integer | The temperature of the chasis. |
| <i>NumPortsUsed</i> | Integer | Number of ports currently in use. |
| <i>NewCallsPerMinute</i> | Integer | New calls in the last minute. |
| <i>ScsfNewCallsPerMinute</i> | Integer | Successful new calls in the last minute. |
| <i>FldNewCallsPerMinute</i> | Integer | Failed new calls in the last minute. |
| <i>PctScsflNewCalls</i> | Integer | Percentage of new calls in the last minute which were successful. |
| <i>CallsEndedScsflPerMin</i> | Integer | Number of calls in the last minute which ended with a success code. |
| <i>CallsEndedFailedPerMin</i> | Integer | Number of calls in the last minute which ended with a failure code. |
| <i>CallsEndedScsfl</i> | Integer | Number of calls in the last minute which ended with a success code. |
| <i>CallsEndedFailed</i> | Integer | Number of calls in the last minute which ended with a failure code. |
| <i>NumActvCnfrncs</i> | Integer | Number of active conferences. |

MAX_TRACE_LEVEL Flag

The MAX_TRACE_LEVEL flag indicates the minimum level of log messages for RMX processes that is sent to the logger. The processes do not send to the logger messages with a lower priority level that is set using this flag.



The flag's values have been modified for this version and are not backward compatible with previous versions.

The following table describes the values and descriptions of the MAX_TRACE_LEVEL for the different versions:

Table 1-1 MAX_TRACE_LEVEL Descriptions and Values per Version

| Level Name | Description | Value From Version 7.8 | Value From Version 7.7 and lower |
|-------------|---|------------------------|----------------------------------|
| OFF | Trace is off. | o | no |
| FATAL | Fatal errors such as a system crash, conference crash, and so forth. | f | n/a |
| ERROR | An error that is not fatal but is considered a bug. | e | crt |
| WARN | Not a bug but has to be taken into consideration. For example, high CPU usage messages. | w | n/a |
| INFO_HIGH | MPLAPI, internal process, and other high importance messages. | i | api |
| INFO_NORMAL | Minimal debugging information | n | n |
| DEBUG | Debugging messages | d | n/a |
| TRACE | Trace messages | t | n/a |

Corrections and Known Limitations

Corrections Between Version 7.7 and Version 7.8

Table 2 Corrections between Version 7.7 and Version 7.8

| # | Key | Category | Description | Detected in Version |
|---|------------|-----------------------------|--|---------------------|
| 1 | VNGR-26280 | <i>Partners - Microsoft</i> | Lync endpoints disconnected from a Meeting Room after 17 hours (instead of 24 hours). | V7.7 |
| 2 | VNGR-26071 | <i>SIP</i> | On an RMX 2000 with MPMx-D cards in a high load capacity test, when connecting more than 109 SIP Dial-out participants and sending H.239 People plus Content, many SIP endpoints disconnected. | V7.7 |
| 3 | VNGR-25826 | <i>Upgrade Process</i> | After upgrading an RMX 4000 in Ultra Secure Mode with MPMx cards to version 7.7.111, two alarms; "Insufficient resources" and "could not complete MPM card startup procedure" appeared. | V7.7 |
| 4 | VNGR-25603 | <i>Interoperability</i> | In a conference started from a Gateway profile, when sending content to SIP participants all H.323 endpoint monitors display a black screen. | V7.7 |
| 5 | VNGR-25457 | <i>Interoperability</i> | In an RMX conference with telepresence mode enabled, CTS1300 endpoints display identical layouts using OTX and RPX. | V7.7 |
| 6 | VNGR-25387 | <i>General</i> | On an RMX 4000, only 100 conference templates can be defined instead of 200 that are listed in the system capacities table in the RMX 4000 Hardware Guide. | V7.7 |
| 7 | VNGR-25339 | <i>Video</i> | When dialing into an Entry Queue, the endpoint displays the participant's personal layout instead of the conference defined layout. | V7.7 |
| 8 | VNGR-25311 | <i>General</i> | On an RMX 4000 with 4 MPMx cards installed, after upgrading to version 7.7.0.73, sometimes one or more cards stay in MAJOR status, and an Active Alarms appears with message: Description: MPM startup incomplete: Unit loading confirmation was not received. | V7.7 |

Table 2 Corrections between Version 7.7 and Version 7.8 (Continued)

| # | Key | Category | Description | Detected in Version |
|----|------------|-----------------------|---|---------------------|
| 9 | VNGR-25254 | <i>Video</i> | During a conference set to Video Quality Optimized, Sharpness and H.239 High Resolution Graphics, a few HDX 9004 endpoints are connected using 4SIF, while the majority of the endpoints (76) are connected using 864x480 resolution. | V7.7 |
| 10 | VNGR-25206 | <i>General</i> | Status; Already ongoing or stop not finished. When trying to start a second Network Traffic Capture from the Administration/Tools menu of the RMX Manager/Web Client a message alert appears: Failure Status; Already ongoing or stop not finished. | V7.7 |
| 11 | VNGR-25111 | <i>Video</i> | During a 128/256kpbs conference set to Video Quality Optimized, Sharpness and H.239 High Resolution Graphics, the Video Out Frame for many endpoints rate was 14. | V7.7 |
| 12 | VNGR-25106 | <i>Video</i> | During a 128/256kpbs conference set to Video Quality Optimized, Sharpness and H.239 High Resolution Graphics, the Video Out Frame rate appeared low (14) and the Video In Frame rate was very high (100). | V7.7 |
| 13 | VNGR-25013 | <i>General</i> | In the Logger Configuration dialog box, when opening the Remote Viewer Log Level drop down list, the options are displayed repeatedly. | V7.7 |
| 14 | VNGR-24935 | <i>RMX Manager</i> | In the RMX Manager, when the RMX is connected, the Disconnect MCU icon appears gray (as if the RMX is disconnected) when it should appear as green letting you disconnect the RMX. | V7.7 |
| 15 | VNGR-24869 | <i>Recording</i> | During a conference running on an MPM+ card, on the HDX monitor there is no recording icon available. | V7.6.1 |
| 16 | VNGR-24851 | <i>RMX Web Client</i> | An RMX 2000 with MPMx cards, when a conference is set to the Presentation Mode, participants cannot be muted on the RMX Client. | V7.7 |
| 17 | VNGR-24775 | <i>RMX Manager</i> | In the RMX Manager, after enabling the secured communications port 443, login to port 80 fails and an RMX error message appears: "Failed to connect to MCU: no error. | V7.7 |

Table 2 Corrections between Version 7.7 and Version 7.8 (Continued)

| # | Key | Category | Description | Detected in Version |
|----|------------|-------------------------|--|---------------------|
| 18 | VNGR-24363 | <i>Encryption</i> | When RMX 2000 (V7.6.1) is connected to OpenScape Voice over TLS (MTLS), ODC-PE and ODC-WE cannot decrypt the Audio and Video received from RMX, and they appear as “connected with Problem” in the RMX Web Client/Manager. | V7.6.1 |
| 19 | VNGR-24356 | <i>IVR</i> | When trying to upload a .jpg video slide in the New Conference IVR Service - Welcome dialog box, the dialog box freezes. | V7.6.1 |
| 20 | VNGR-23245 | <i>Software Version</i> | Content display persists on several endpoints (of different types) after Content has been terminated and People+Content utility has been terminated. | V7.6 |
| 21 | VNGR-23164 | <i>IVR</i> | Cannot add a customized video welcome slide to the IVR Service. With Windows 7 the operating system crashes. | V7.6H |
| 22 | VNGR-22648 | <i>Interoperability</i> | In a dial-out SIP conference on the RMX 1500, Polycom Immersive TelePresence rooms are not receiving content from DMA registered HDX endpoints or CUCM registered CTS endpoints. | V7.6 |
| 23 | VNGR-22620 | <i>Content</i> | In a 1472 Kbps conference with H.239 content enabled, H.320 HDX endpoints view frozen or black video slides. | V7.6 |
| 24 | VNGR-22569 | <i>Video</i> | After viewing the Gathering screen and changing layouts, HDX endpoints view a green bar on the bottom of their video where the participant's name should appear. | V7.6 |
| 25 | VNGR-22431 | <i>Interoperability</i> | When Telepresence endpoints connect with a problem to a conference set to Auto Telepresence Mode and Telepresence Layout Mode, instead of their cell display being blank, video from other telepresence endpoints is displayed in those cells. | V7.6 |
| 26 | VNGR-22353 | <i>Video</i> | In a Telepresence conference, when a telepresence endpoint disconnects from the conference the video from another endpoint that is still in the conference is displayed briefly where the disconnected endpoint used to be displayed. | V7.6 |
| 27 | VNGR-22158 | <i>RMX Web Client</i> | After configuring RMX's IP and default router IP address correctly in the Network Services, you cannot Ping the RMX address using the RMX Client. | V7.6 |

Table 2 Corrections between Version 7.7 and Version 7.8 (Continued)

| # | Key | Category | Description | Detected in Version |
|----|------------|-------------------------|--|---------------------|
| 28 | VNGR-20854 | <i>Upgrade Process</i> | The installation of a new RMX software fails when performed while there are ongoing conferences and all the command buttons in the Software Installation dialog box including the Cancel button are disabled. The only way to close this dialog box is by clicking its X button on the top right corner. | V7.2 |
| 29 | VNGR-20738 | <i>SIP</i> | The Meeting Room and Entry Queue are register twice with the SIP registrar instead of once. | V7.2.1 |
| 30 | VNGR-20646 | <i>General</i> | After reducing the header packet size using the system flag; MTU_SIZE, the MCMS doesn't calculate the additions (IP header, UDP header, encryption, LPR etc.), and therefore packets are exceeding the allowed size as set in the flag. | V7.6.1 |
| 31 | VNGR-20608 | <i>Interoperability</i> | After registering the RMX 1500 to the VCS as Generic server type and starting a conference, when connecting MOC endpoints and sending DTMF "****", Click & View does not load. | V7.2 |
| 32 | VNGR-20305 | <i>General</i> | On an RMX 2000, after accessing; Setup>> Ethernet Settings pane, the properties listed belong to an RMX 4000. | V7.2 |
| 33 | VNGR-19797 | <i>Interoperability</i> | On an RMX 2000 with MPMx cards running a 128 Kbps conference, after connecting Lync endpoints, the background video blinks. | V7.2 |
| 34 | VNGR-19394 | <i>General</i> | On an RMX 2000, when creating a 768 Kbps Telepresence Conference and selecting a Skin, after conference start a green screen appears instead of the selected conference Skin. | V7.2 |
| 35 | VNGR-19248 | <i>Interoperability</i> | When endpoints are registered with an Avaya Call Manager, VSX endpoints view a black video pane from the 1XC Softphone endpoint. | V7.1 |
| 36 | VNGR-18975 | <i>FECC</i> | In an dial-in H.323 VSW conference, HDX SIP endpoints cannot use FECC. | V7.1 |
| 37 | VNGR-18924 | <i>Interoperability</i> | After a Radvision Gateway call disconnects from the conference, a ticking sound can be heard in the conference. | V7.1 |
| 38 | VNGR-18378 | <i>Recording</i> | After creating a new profile with a recording link, and a new conference initiates the recording link does not activate. | V7.1 |

Table 2 Corrections between Version 7.7 and Version 7.8 (Continued)

| # | Key | Category | Description | Detected in Version |
|----|------------|-------------------------|---|--|
| 39 | VNGR-17729 | <i>Content</i> | Video freeze was experienced by many participants when content was sent from a PC to 160 CIF participants connected to a conference running on RMX 2000 with MPM+80 at a line rate of 384kbps and LPR and Encryption options enabled. | V7.0.2 |
| 40 | VNGR-17586 | <i>RMX Manager</i> | Selecting to save the Alarms and Faults to a text file when "Group by MCU" is selected in RMX Manager results in an empty text file. | V7.0.2 |
| 41 | VNGR-16776 | <i>Interoperability</i> | Undefined HDX endpoint cannot be added to the Address Book on RMX with Avaya Call Manager. Second attempt yields message that participant name already exists in Address Book. | V7.0 |
| 42 | VNGR-16745 | <i>General</i> | In the RMX manager 7.0, the "new conference" icon suddenly appears in the conferences properties window. | V7.0 |
| 43 | VNGR-16610 | <i>General</i> | The Column width displayed in Web Client and in the RMX Manager UI need to be made broader. | V7.0, V6.0, V5.0.1, V5.0.0, V4.6.1 |
| 44 | VNGR-16537 | <i>Hardware</i> | On the RMX 1500 when the RMX is in a "Diagnostic Mode" the listed slot numbers of the modules are incorrect. | V7.0 |
| 45 | VNGR-16301 | <i>ISDN</i> | After starting a VSW conference with LPR enabled, when dialing out using ISDN a message appears: "SIP cannot connect to VSW with LPR enabled." | V7.0 |
| 46 | VNGR-16237 | <i>General</i> | Connect to an RMX as Operator using the RMX Manager. Then connect an Administrator to same RMX the following message appears: "cannot login to MCU x.x.x.x with the user name and password entered". | V7.0 |

Version 7.8 System Limitations

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|---|-------------|----------------------|---|---------------------|--|
| 1 | BRIDGE-2516 | General | When creating two SVC only conferences, one set to a line rate of 768kbps and the other to 1920 kbps and connecting participants to both conferences simultaneously, after about 50 SVC participant connections, the MPMx card running the conferences crashed. | V7.8.0 | |
| 2 | BRIDGE-2476 | Video | Sometimes cyclic video freezes and predator video are seen on HDX endpoints and Polycom Group series endpoints when connected to an encrypted conference at a line rate of 768Kbps. | V7.8.0 | |
| 3 | BRIDGE-246 | Interoperability | A Sony PCS-G50 endpoint stops sending video when the Sony PCS-XG80 sends content while both endpoints are connected via H.323 to the conference. | V7.8.0 | |
| 4 | BRIDGE-245 | Interoperability | In a Continuous Presence conference with two Cisco (CTS3010 & CTS1300) endpoints, video from the CTS1300 is displayed on the right of the CTS3010 screen instead of the center. | V7.8.0 | |
| 5 | BRIDGE-2446 | Interoperability | When disconnecting RP desktop endpoints running on Windows or iOS Operating System from an ongoing conference via the RMX Web Client or RMX Manager, the endpoints behave as if they are still connected to the conference. | V7.8.0 | Disconnect the endpoints from their user interface |
| 6 | BRIDGE-243 | Interoperability | In a conference with HDX and ITP endpoints registered to an IOS gatekeeper and a CTS endpoint registered to CUCM, after 30 minutes into the conference the CTS endpoint is disconnected. | V7.8.0 | |
| 7 | BRIDGE-2429 | Partners - Microsoft | When MS ICE environment is enabled, HDX endpoint on a non-ICE call is disconnected from the conference due to MCU Internal Problem . Only one HDX can connect. | V7.8.0 | |
| 8 | BRIDGE-242 | SIP | When the "auto connection" check box is unchecked in the SIP factory's properties and endpoints dial into a SIP Factory, multiple conferences are started but the endpoints never connect. | V7.8.0 | |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|----|-------------|----------------------|--|---------------------|------------|
| 9 | BRIDGE-241 | Partners - Microsoft | When a Lync endpoint that is connected to a Meeting Room running on the RMX escalates the call from audio to video and back to audio many times within a short period, all the Lync participants disconnect from the conference. | V7.8.0 | |
| 10 | BRIDGE-2391 | Interoperability | When the RMX dials out to an Avaya One XC the call is disconnected immediately after being answered. | V7.8.0 | |
| 11 | BRIDGE-2334 | Interoperability | Siptask core dump occurs after several endpoints dial in to an AVC Virtual Meeting room via an RPAD Session Border Controller through 3G/wireless ADSL network. | V7.8.0 | |
| 12 | BRIDGE-2320 | Interoperability | An HDX that is registered on a Siemens OpenScope Voice cannot send video when connecting to an established conference. | V7.8.0 | |
| 13 | BRIDGE-232 | Video | When the camera of a 1080p 60-enabled endpoint connected at a resolution of 1080p60 is quickly moved, the top half of the video is sometimes not synced with the bottom half. | V7.8.0 | |
| 14 | BRIDGE-2302 | General | Dial in H.323 endpoint in Video Switching conference is not moved from the Entry Queue to the Conference due to password failure. | V7.8.0 | |
| 15 | BRIDGE-2297 | General | When the TERMINATE_CONF_AFTER_CHAIR_DROP PED flag is set to yes, in a conference with 2 participants, if one is changed to chairperson and is disconnected the other participant remains connected to the conference although the conference should have been terminated after the chairperson disconnected. | V7.8.0 | |
| 16 | BRIDGE-2282 | General | When 90 HD SVC participants connect to SVC Only conference running on a single MPMx card, a high CPU utilization indication appears after a few minutes followed by card crash. | V7.8.0 | |
| 17 | BRIDGE-2271 | Video | When using Auto Layout in an AVC Only conference, the video layout constantly changes its display showing different participants in the video layout. The video layout should remain the same during the video conference. | V7.8.0 | |
| 18 | BRIDGE-2253 | Partners - Microsoft | When an HDX or Lync 2010 client using RTV connect to an unencrypted conference with a bit rate of 384K the video lags behind the audio. | V7.8.0 | |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|----|-------------|----------------------|---|---------------------|--|
| 19 | BRIDGE-2250 | General | When more than 20 SVC RPD participants are connected to SVC Only conference, an assert may be displayed after many frequent speaker changes. | V7.8.0 | |
| 20 | BRIDGE-2205 | Security | When the MAX_PASSWORD_REPEATED_CHAR is changed the MCU needs to be reset. | V7.8.0 | |
| 21 | BRIDGE-2201 | Partners - Microsoft | Call Admission Control (CAC) calls from HDX get disconnected after approximately 1 hour when both SIP_TCP_PORT_ADDR_STRATEGY and MS_KEEP_ALIVE_ENABLE System Flags are set to NO. | V7.8.0 | Set both flags SIP_TCP_PORT_ADDR_STRATEGY and MS_KEEP_ALIVE_ENABLE to YES. |
| 22 | BRIDGE-2198 | IVR | When the first participant connects to a conference running on an RMX 2000 with an MPM+ card with roll call enabled and records his/her name, when that participant disconnects from the conference, other participants that are also connected hear a cut off message ("left the conference") without the first participant's recorded name. | V7.8.0 | |
| 23 | BRIDGE-2197 | General | In a conference with one participant with recording enabled on an RMX 2000 with an MPM+ card the participant cannot hear the welcome music. | V7.8.0 | |
| 24 | BRIDGE-2178 | SIP | When RealPresence Mobile client starts Content sharing, MCU does not send notification message to RealPresence Mobile client stating unavailability of People Video stream during SVC conference. | V7.8.0 | |
| 25 | BRIDGE-2165 | RMX Web Client | When changing the participant's Role using "Change to Regular Participant" or "Change to Chairperson", the change in role icon display in the RMX Web Client may take up to 2 minutes. | V7.8.0 | |
| 26 | BRIDGE-2153 | General | On an RMX 2000 with an MPMX-D card, when changing a participant to Chairperson sometimes it takes over two minutes for the icon to change in the RMX Manager or the Web Client, and sometimes does not change at all. In addition, the Chairperson in such a case cannot use Chairperson DTMF codes. | V7.8.0 | |
| 27 | BRIDGE-2129 | Partners - Microsoft | With Call Admission Control (CAC) enabled, Lync/HDX connection fails with MCU Internal Problem. | V7.8.0 | |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|----|-------------|----------|---|---------------------|--|
| 28 | BRIDGE-2122 | General | If a conference profile has Lecturer View Switching enabled and then is edited to disable Lecturer View Switching, conferences using this profile have Lecturer View Switching enabled. | V7.8.0 | |
| 29 | BRIDGE-2107 | SIP | An RMX 2000 with 32 TCP and 16 UDP fixed ports configured, a second SIP endpoint fails to connect after the first SIP endpoint connected (each SIP endpoint requires a minimum of 2 TCP and 8 UDP ports) as there are not enough resources for the additional BFCP port that is required. | V7.8.0 | |
| 30 | BRIDGE-2105 | Video | Gathering (lobby) Slide is partially and incorrectly loaded and displayed while Conference Password is being entered using DTMF on H.323 or SIP endpoint. | V7.8.0 | |
| 31 | BRIDGE-2101 | FECC | In a 1920Kbps conference with three dialout 1080p60Mars endpoints, when using FECC to control Speaker's camera, the Far button with arrows and Zoom In/Out do not function. | V7.8.0 | |
| 32 | BRIDGE-2098 | FECC | In a 1920Kbps conference with three dialout 1080p60Mars endpoints, when using FECC to control Speaker's camera, the Far button with arrows and Zoom In/Out do not function. | V7.8.0 | |
| 33 | BRIDGE-2071 | Gateway | When a VSX 7000A ISDN endpoint connects via gateway to a conference running on RMX 2000 with an MPMx card, the video frame rate is very low. | V7.8.0 | |
| 34 | BRIDGE-2069 | Content | An ISDN endpoint connected to a conference via RMX gateway call, does not receive content that is sent from an IP endpoint that is using the People+Content protocol. | V7.8.0 | Not a Polycom bug |
| 35 | BRIDGE-2041 | General | In the Address Book, the Alias column is always blank regardless of what is defined in the participant properties dialog box. | V7.8.0 | |
| 36 | BRIDGE-2035 | General | All RealPresence Desktop SVC clients in one SVC conference disconnect automatically after 4 hours. | V7.8.0 | |
| 37 | BRIDGE-2029 | General | In a Hot Backup configuration, an AVC call is present in a restored SVC conference on the Slave MCU following a 5 minute freeze after the Master MCU is rebooted. | V7.8.0 | SVC endpoints should dial-in to the SVC-based conference after a Hot Backup event. |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|----|-------------|----------------------|---|---------------------|---|
| 38 | BRIDGE-2028 | General | Resource deficiency can occur on the RMX 2000 when 18 conferences each with 10 dial-out participants simultaneously connect. | V7.8.0 | Do not start all the conferences at once. |
| 39 | BRIDGE-2003 | Cascading | An ISDN Cascading Link cannot be connected to cascading conferences. | V7.8.0 | |
| 40 | BRIDGE-2002 | Security | Message Overlay should not be enabled for conferences when the Secured Message is displayed permanently (the DISPLAY_UNENCRYPTED_MESSAGE_TIMER_FOR_ENCRYPT_WHEN_POSSIBLE = -1) | V7.8.0 | |
| 41 | BRIDGE-1952 | Video | Image distortion develops in static scene after several minutes in 3Mb, 1080p, Sharpness call on HDX to RMX using MPMx. LPR, AES are off. | V7.8.0 | |
| 42 | BRIDGE-1907 | IP | In IP Service - Fixed Ports, when configuring a number of TCP ports that is lower than the number of UDP ports, no warning message is displayed indicating that this may affect the MCU capacity. | V7.8.0 | |
| 43 | BRIDGE-1841 | SIP | In an SVC conference, under poor network conditions, a participant may be duplicated in two cells, one of which is frozen. | V7.8.0 | Wait 10 minutes. |
| 44 | BRIDGE-1813 | Partners - Microsoft | When the CAC_ENABLE flag is set to YES, only 13 endpoints can connect to the conference. | V7.8.0 | |
| 45 | BRIDGE-1806 | General | In an encrypted 384Kbps conference with 3 participants, when invoking DTMF, the DTMF tones can be heard by the other participants. | V7.8.0 | |
| 46 | BRIDGE-1793 | Interoperability | Video cannot be displayed on RPM v1.3.x when connecting to a conference running on RMX Version 7.8. | V7.8.0 | Upgrade RPM to version 2.0 or later. |
| 47 | BRIDGE-1710 | Content | A RealPresence Desktop endpoint connected at a line rate of 128kbps to SVC conference cannot receive video after sending content. | V7.8.0 | |
| 48 | BRIDGE-1657 | Software Version | In Customized Polling, a disconnected and reconnected participant is not displayed last in the polling queue. | V7.8.0 | |
| 49 | BRIDGE-1621 | General | In Auto Scan, the order of the endpoints for customized polling is other than the order in which the endpoints connected to the conference. | V7.8.0 | |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|----|-------------|----------------|---|---------------------|------------|
| 50 | BRIDGE-1617 | General | In the Directory Services window, the field: Administrator - Read Only is not translated. | V7.8.0 | |
| 51 | BRIDGE-1616 | General | In the Notification Settings pane, New Connection, Conference not Full, New Conference Created, Active Alarms Update, Welcome Message, and Fault List Updated fields are not translated. | V7.8.0 | |
| 52 | BRIDGE-1611 | RMX Web Client | In the SNMP Properties, Security tab, the Security Level and Authentication Protocol fields are not translated. | V7.8.0 | |
| 53 | BRIDGE-1610 | Multilingual | When hovering over the "Import Conference Templates" and, "Export Conference Templates" buttons in the RMX Manager or Web Client while using the RMX Manager or Web Client in Russian, the tool tips are displayed in English. | V7.8.0 | |
| 54 | BRIDGE-1609 | RMX Web Client | "Information Collector, when interrupted, displays Collection Info Status message in English in the Russian User Interface. | V7.8.0 | |
| 55 | BRIDGE-1608 | Multilingual | The, "Import System Flags" and, "Export System Flags" windows in the RMX Manager and the Web Client are not translated into Russian. | V7.8.0 | |
| 56 | BRIDGE-1607 | RMX Web Client | GMT Time is displayed in Hebrew in Administration > CDR list in Russian User Interface. | V7.8.0 | |
| 57 | BRIDGE-1605 | Multilingual | When creating a profile while using the RMX Manager or Web Client in Russian, the, "Conferencing Mode" and, "Video Clarity" fields of the Video Quality tab are not translated. In addition, in the Video Settings tab the, "Same Layout" and, "TelePresence Layout Mode" fields are cut off. | V7.8.0 | |
| 58 | BRIDGE-1604 | RMX Web Client | In the Administration, Tools menu some fields are displayed in English in the Russian User Interface. | V7.8.0 | |
| 59 | BRIDGE-1602 | RMX Web Client | Conferencing Mode field and Note texts are displayed in English in Profiles Skins dialog box in Russian User Interface. | V7.8.0 | |
| 60 | BRIDGE-1601 | Multilingual | When using the RMX Manager or Web Client in Russian, the right-click menu on a group in the address group shows several items not translated into Russian. | V7.8.0 | |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|----|-------------|-------------------|--|---------------------|------------|
| 61 | BRIDGE-1600 | Multilingual | When using the RMX Manager or Web Client in Russian, the "Audio Clarity", "Mute participants except lecturer", and "Speaker Change Threshold" options are not translated into Russian. | V7.8.0 | |
| 62 | BRIDGE-1599 | RMX Web Client | In the Profile Recording dialog box, some fields are displayed in English in the Russian User Interface. | V7.8.0 | |
| 63 | BRIDGE-1598 | RMX Web Client | Destination field names are incorrect in the Administration, Tools, Logger Configuration dialog box in the Russian User Interface. | V7.8.0 | |
| 64 | BRIDGE-1597 | Multilingual | When using the RMX Manager or Web Client in Russian, the "Conference Mode", "Vertical Position", and "Background Transparency" fields of the Message Overlay tab of a new profile are not translated into Russian. | V7.8.0 | |
| 65 | BRIDGE-1596 | General | When initiating a Network Traffic Capture, the message stating that the recording has started is not translated. | V7.8.0 | |
| 66 | BRIDGE-1595 | General | In the Site Names pane, the Horizontal Position, Vertical Position, Background Transparency and Preview fields are not translated. | V7.8.0 | |
| 67 | BRIDGE-1593 | RMX Web Client | In the Profile Gathering Settings dialog box, some fields are displayed in English in the Russian User Interface. | V7.8.0 | |
| 68 | BRIDGE-1592 | RMX Web Client | In the Profile Advanced dialog box, some fields are displayed in English in the Russian User Interface. | V7.8.0 | |
| 69 | BRIDGE-1588 | Interoperability | Call from CTS endpoint via Cisco Session Border Controller fails. | V7.8.0 | |
| 70 | BRIDGE-1581 | Resource Capacity | In a 4096k confernece on an RMX 4000 with and MPMx card, a dial-out HDX connecting with 1080p uses 8 ports from the resource pool instead of 6 ports as was the case in RMV Version 7.7. | V7.8.0 | |
| 71 | BRIDGE-1579 | Multilingual | When using the RMX Manager or Web Client in Turkish, the "Use Entry Tone" option in the Roll Call/Notifications tab of a New Conference IVR Service is not translated into Turkish. | V7.8.0 | |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|----|-------------|----------------------|---|---------------------|------------|
| 72 | BRIDGE-1576 | Multilingual | When using the RMX Manager or Web Client in Turkish, "FECC Token" in the Channel Status tab of the properties of a participant is not translated into Turkish. | V7.8.0 | |
| 73 | BRIDGE-1574 | General | After a participant connects to the conference, when accessing the participant's properties in the Advanced tab, Endpoint Type and Call bit Rate fields are not translated. | V7.8.0 | |
| 74 | BRIDGE-1573 | General | In a conference with a 96k line rate, one SIP dial-out participant, and one H.323 dial-out participant the H.323 participant connects at 128k. | V7.8.0 | |
| 75 | BRIDGE-1560 | Partners - Microsoft | When a Lync client dials in using TCP only the Channel Status - Advanced tab in the participant properties window shows it is connecting using UDP instead, even though it is really connecting using TCP. | V7.8.0 | |
| 76 | BRIDGE-1543 | General | When attempting to create a 64kbps AVC only conference profile the following message is always displayed: The selected Conference Line Rate is too low to support the selected Content Line Rate. Click Cancel and reconfigure either of the Line Rates or click OK to return to the default Content Setting. | V7.8.0 | |
| 77 | BRIDGE-1538 | Video | Zoomed-in video received by endpoints in H.323 Video Switching, H.264 SD 30 conference. | V7.8.0 | |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|----|-------------|----------------------|--|---------------------|--|
| 78 | BRIDGE-1529 | Partners - Microsoft | HDX endpoints disconnected from the conference after 10 to 20 minutes, when the RMX is configured with FQDN address and the Lync server is working with load balancing and holds more than one address. | V7.8.0 | To ensure that endpoints such as HDX remain connected to the conference for its duration when the RMX is configured with FQDN address and the Lync server is working with load balancing and holds more than one address, the following two flags must be manually added and set to: MS_KEEP_ALIVE_ENABLED = YES SIP_TCP_PORT_ADDRESS_STRATEGY = 1 (default setting) |
| 79 | BRIDGE-1518 | Software Version | Virtual Meeting Room call from SIP RealPresence Mobile or Desktop is set up with Subscribe/Notify Message due to "isfocus" in "200 OK" Message returned by RMX. Conference Mode: AVC only. | V7.8.0 | |
| 80 | BRIDGE-1493 | General | In the IVR Services, Video Services tab, the Invite Participant section is not translated. | V7.8.0 | |
| 81 | BRIDGE-1492 | RMX Web Client | In IVR Services DTMF codes dialog box, some DTMF Code Names are displayed in English in the Russian User Interface. | V7.8.0 | |
| 82 | BRIDGE-1491 | RMX Web Client | In Entry Queue IVR Service Video Services dialog box, the Delete Slide button is displayed in English in the Russian User Interface. | V7.8.0 | |
| 83 | BRIDGE-1490 | RMX Web Client | In Hardware Monitor, Location Header and Card Location data are displayed in English in the Russian User Interface. | V7.8.0 | |
| 84 | BRIDGE-1488 | RMX Web Client | In the Profile Properties Video Settings dialog box, some field descriptions are incomplete in the Russian User Interface. | V7.8.0 | |
| 85 | BRIDGE-1378 | General | When using all the video resources while connecting participants simultaneously at a resolution of H.264 HD720p and H.263 CIF, if the HD720p participant is the last participant to connect, the actual connection resolution will be H.263 CIF and not H.264 HD 720p. | V7.8.0 | Connect the H.264 HD 720p participants first and then connect the H.263 CIF participants. |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|----|---------------------------|------------------|---|---------------------|------------|
| 86 | BRIDGE-1307 | RMX Web Client | Connection to RMX is lost due to Internal MCU resetMcmsDaemon reset resulting from Mcms request: No connection with Switch. | V7.8.0 | |
| 87 | BRIDGE-1229 | Interoperability | OTX layout changes in a Telepresence Enabled conference when a H.323 EP starts sharing Content. OTX displays Content on all three screens. | V7.8.0 | |
| 88 | BRIDGE-1176 | Video | QCIF resolution option is not listed in the Profiles, Video Quality, Maximum Resolution menu. | V7.8.0 | |
| 89 | BRIDGE-1170 | Video | HDX 4000/8000 connects at 720p instead of 1080p to 2.5Mb, TIP: Video & Content, RMX Multi-POCN conference. | V7.8.0 | |
| 90 | BRIDGE-1167 VNGR-25626 | General | After upgrading the RMX 4000 to version 7.7 and installing certificates they do not appear in the Certification Repository page. An RMX reset is required to update the Certification Repository page. | V7.8.0 | |
| 91 | BRIDGE-1166 VNGR-25630 | Interoperability | During an H.323 to H.320 gateway call to an RMX meeting room, a Tandberg Edge95 MXP endpoint does not receive content from a Cisco C20 endpoint. | V7.8.0 | |
| 92 | BRIDGE-1147 | RMX Web Client | Address Book contains previously deleted, obsolete participant entries after upgrade. | V7.8.0 | |
| 93 | BRIDGE-1139 | Multilingual | When using the RMX Manager or Web Client in any language other than English, the Send Certificate Button in the Certificate Repository window is not translated into any language. | V7.8.0 | |
| 94 | BRIDGE-1128 VNGR-25561 | General | On a Desktop with Windows 7 and Internet Explorer 9.0 installed, the RMX Client does not load due to Browser Error. Workaround: Install certificates using Internet Explorer in the certificate popup page. | V7.8.0 | |
| 95 | BRIDGE-1123 | Interoperability | HDX video not recorded by manually started recording of an ongoing conference. VVX video is recorded. Recording, started automatically at conference start records correctly. Components include: RSS registered to DMA; DMA configured with Broadsoft as external SIP peer; VMRs configured on DMA; RMX configured with DMA; Recording links on RMX; HDX and VVX directly registered to Broadsoft. | V7.8.0 | |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|---------------------------|----------------------|--|---------------------|------------|
| 96 | BRIDGE-1060 | Interoperability | Content shared by CTS 3000 endpoint is not received by RPX and OTX endpoints. Conference is CP, TIP: Video & Content at 2560kbps, 1080p resolution with Encrypt When Possible. | V7.8.0 | |
| 97 | BRIDGE-1051 | Video | After a participant connects to the conference, when accessing the participant's properties, the Channel Status tab cannot be enlarged and a lot of blank fields are shown in the pane. | V7.8.0 | |
| 98 | BRIDGE-1033 | Encryption | Non-encrypted H.323 endpoint cannot connect to conference with profile set to "Encrypt when possible". | V7.8.0 | |
| 99 | BRIDGE-1028 VNGR-26347 | Interoperability | A V500 endpoint connects as secondary when dialing-out from an RMX in a H.264/CIF Video Switching conference at 128Kbps. | V7.8.0 | |
| 100 | BRIDGE-1012 | Multilingual | The presence status of Meeting Rooms connected to the Microsoft Lync Server might be set to "Offline" instead of "Available" when the Lync Server is reset. | V7.8.0 | |
| 101 | BRIDGE-1009 | Partners - Microsoft | After sending content in a conference using Microsoft Lync, an Assert fault appears with a No ACK message. No content is sent to the endpoints. | V7.8.0 | |
| 102 | BRIDGE-978 VNGR-16975 | Interoperability | In 768Kbps conference with RMX H.264 HighProfile resolution settings, the H.320 HDX endpoint views fragmented video as it cannot support HighProfile resolutions at 520 Kbps and above. | V7.8.0 | |
| 103 | BRIDGE-976 VNGR-17062 | IVR | When two Avaya 1XC Softphone endpoints join a conference, the IVR Service "first to join conference" music continues to play as if there is just one person in the conference. | V7.8.0 | |
| 104 | BRIDGE-964 VNGR-20419 | General | In the Network Traffic Capture (Administration-->Tool-->Network Traffic Capture) pane select Start Network Traffic Capture. No network traffic capture file of Central Signaling (CS) created. | V7.8.0 | |
| 105 | BRIDGE-948 | Multilingual | The RMX Time menu option was not properly translated in Russian. The user interface in Russian displays the menu item for RMX Time, which does not contain the word, "RMX", although it is included for other languages, | V7.8.0 | |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|--------------------------|----------------------|--|---------------------|----------------|
| 106 | BRIDGE-931 | ISDN | ISDN calls with a lower line rate might connect but video will not be displayed and possibly will be disconnected. ISDN calls with a higher line rate using BONDING may fail. | V7.8.0 | |
| 107 | BRIDGE-930 VNGR-26288 | Partners - Microsoft | Malformed header in 200 OK is sent by the RMX Meeting Room to a W13 qualified LS endpoint, preventing the endpoint from connecting to the Meeting. | V7.8.0 | |
| 108 | BRIDGE-925 VNGR-25513 | Video | When the Telepresence Mode is enabled in the Conference Profile, conferences are able to start even though the flag: "ITP_CERTIFICATION" is set to NO. This flag should disable Telepresence features in the Conference Profile. | V7.8.0 | |
| 109 | BRIDGE-915 VNGR-20637 | IP | On an RMX 1500 with Multiple Services enabled, when configuring the Network service to support LYNC and OCS servers, the Linux DNS configuration can support only a single network. | V7.8.0 | |
| 110 | BRIDGE-885 | Interoperability | Cisco CTS endpoints do not connect when the video quality in the Conference Profile is set to Motion. The call failed in the negotiation stage due to a timeout error. | V7.8.0 | |
| 111 | BRIDGE-884 | Video | Cisco CTS3000 Room System disconnects when maximum packet loss threshold is exceeded in TIP-enabled CP conference at 2560kbps with Maximum Resolution of 1080p. | V7.8.0 | |
| 112 | BRIDGE-847 | SIP | SIP Registration status is listed as Not Configured although SIP Registration is enabled in the conference profile. SIP endpoints do connect. | V7.8.0 | |
| 113 | BRIDGE-846 VNGR-24606 | General | On a desktop with 64 bit Windows 7 and Internet Explorer 8 installed, when viewing conference participants and selecting "View Participant Sent Video" from the participant right-click menu, an exception occurs. | V7.8.0 | |
| 114 | BRIDGE-842 VNGR-24621 | SIP | When muting a SIP participant during an ongoing conference, the mute participant icon does not appear in the Participants pane of the RMX Client/RMX Manager. | V7.8.0 | |
| 115 | BRIDGE-841 VNGR-24650 | IP | When IPv6 only is enabled in the Management Network Services - IP tab, the RMX Web Client displays the "Browser environment error. Please close and reopen all browser sessions". | V7.8.0 | Reset the RMX. |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|--------------------------|--------------------------------|--|---------------------|------------|
| 116 | BRIDGE-817 | Unified Communication Solution | Participant Properties Channel Status of CTS3000 Endpoint Slave video channels contain no information during conference. CTS3000 connects to non-encrypted, 1080p, 3584kbps, TIP Video+Content, CP, conference through DMA. Master Channel information is displayed. | V7.8.0 | |
| 117 | BRIDGE-793 | Interoperability | Gathering Slide on CTS 3000 endpoint flickers and displays artifacts. Conference is gathering enabled, CP, TIP: Video&Content at 2560kbps, 1080p resolution with No Encryption. CTS 3000 connects as dial in through DMA. | V7.8.0 | |
| 118 | BRIDGE-783 | Interoperability | OTX layout changes in a Telepresence Enabled conference. OTX displays local video on two screens. CTS view of OTX is correct. | V7.8.0 | |
| 119 | BRIDGE-775 | RMX Web Client | When a Lync endpoint using SIP is muted during a CP conference, there no indication in RMX Web Client that the endpoint is muted. | V7.8.0 | |
| 120 | BRIDGE-764 | Software Version | Gathering slide is not displayed on OTX Room System when dialing into RMX MPMx conference. | V7.8.0 | |
| 121 | BRIDGE-753 | Resource Capacity | On an RMX 2000 running a 384 Kbps conference with a large number of CIF participants, the system registered a high system CPU usage assert. | V7.8.0 | |
| 122 | BRIDGE-743 | SIP | On an RMX 1500 with an MPMx card, no more than 120 meeting rooms can be registered. When additional meeting rooms are attempted to be registered the following faults are displayed: Secured SIP communication failed: SipProxySIP secured communication failed. Failed to connect to SIP registrar: SipProxyCan not establish connection with SIP registrar | V7.8.0 | |
| 123 | BRIDGE-737 | Interoperability | RealPresence Mobile client does not receive video when connected to conference on RMX via SIP call. Sametime Unified Telephony client is enabled for SIP but not registered to the SIP server. | V7.8.0 | |
| 124 | BRIDGE-734 VNGR-25372 | General | During a conference with H.264, when starting Click&View from a Legacy endpoint, after pressing "0" repeatedly, different layouts appear each with or without content. | V7.8.0 | |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|--------------------------|----------------------|---|---------------------|------------|
| 125 | BRIDGE-729 | Partners - Microsoft | Lync client running on Dual core PC connects as RTV/VGA and consumes VGA resources (2) instead of CIF (1) in CP conference with rate of 1024kbps and resolution of 720p. | V7.8.0 | |
| 126 | BRIDGE-711 VNGR-16752 | Upgrade Process | On the RMX 2000/4000 with an ISDN card installed, after configuring the IP Fast Configuration Wizard, the system requests a reset and not to configure the ISDN Service. | V7.8.0 | |
| 127 | BRIDGE-706 VNGR-18111 | General | An unclear message "No utilizable unit for audio controller" is displayed when removing all Media cards from the RMX. | V7.8.0 | |
| 128 | BRIDGE-702 | H.323 | In a 4Mb conference with 15 participants, mixed H.323, SIP, and H.320, the RMX will occasionally indicate a Gatekeeper registration failure. | V7.8.0 | |
| 129 | BRIDGE-692 | Content | A presenter loses their content token whenever another endpoint disconnects from the conference. | V7.8.0 | |
| 130 | BRIDGE-683 | Interoperability | When connecting an endpoint to a 768 Kbps CP conference using HD720p (High Profile H.264 disabled on endpoint), the endpoint still connects using H.264. | V7.8.0 | |
| 131 | BRIDGE-678 | Audio | SirenLPR is not supported in a 128kbps conference for H.323 connections. | V7.8.0 | |
| 132 | BRIDGE-677 | Video | An HDX 9004 connecting at a maximum of 786k to an RMX 2000 with MPMx card may display green splotches on the Welcome slide. | V7.8.0 | |
| 133 | BRIDGE-675 | Partners - Microsoft | RMX Signaling Monitor for ICE Server Status displays "Not Available" but ICE calls can be made. | V7.8.0 | |
| 134 | BRIDGE-673 VNGR-25680 | Interoperability | When the RMX 2000 and HDX and HDX endpoints are registered with a Siemens OSV when dialing out using SIP, OpenScape Desktop audio only endpoints disconnect. | V7.8.0 | |
| 135 | BRIDGE-670 | Software Version | Manual connection can take up to 30 seconds to begin in 2048kbps conference, with manual dial out to over 80 participants. | V7.8.0 | |
| 136 | BRIDGE-667 | Content | Legacy endpoints receive 1x4 Content layout instead of 1x1 from RMX MPMx with line rate of 512kbps, Video Quality=Sharpness, Content Setting=Graphics and H.239 Protocol=Up to H.264. | V7.8.0 | |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|--------------------------|------------------|--|---------------------|------------|
| 137 | BRIDGE-666 | IVR | When a CIF endpoint connects to a conference, the wrong IVR slide is displayed and the text is unreadable. | V7.8.0 | |
| 138 | BRIDGE-651 | Content | Shared H.263 Content is received slowly on RealPresence Mobile client. | V7.8.0 | |
| 139 | BRIDGE-650 | General | After moving participants between conferences with different default line-rates, the participant's line-rate does not match that of the destination conference. The result is that content cannot be send to the new conference. | V7.8.0 | |
| 140 | BRIDGE-647 VNGR-24903 | General | After adding an activation key on the RMX 1500, an error stating: "expired" appeared, when it should have stated "incompatible key". | V7.8.0 | |
| 141 | BRIDGE-645 VNGR-13965 | General | RMX 4000 prompts for an extra reset during "Restore Factory Defaults" procedure (after insertion of the Activation Key). Reset should only be performed after the Fast Configuration Wizard has completed. | V7.8.0 | |
| 142 | BRIDGE-644 | Multilingual | A number of fields in the RMX Manager and Web Client are not translated into Traditional Chinese | V7.8.0 | |
| 143 | BRIDGE-643 | General | When an RMX 4000 with 4 MPMx cards connects to two HDX 7000's using SIP in a 1024 kbps conference set for 1080p they instead connect as 4SIF, but if they connect using H.323 they connect as 1080p. | V7.8.0 | |
| 144 | BRIDGE-641 VNGR-24924 | Video | When HDX 4000 endpoints connected to a VSW, H.263 CIF conference at a line rate of 128kbps, the Video Out frame rate for many of the endpoints was 15 FPS. | V7.8.0 | |
| 145 | BRIDGE-635 | Interoperability | EX90 endpoint is Connected with problem" in TIP enabled conference. Both RMX and EX90 are registered to CUCM. | V7.8.0 | |
| 146 | BRIDGE-626 | General | When trying to control the conference using PCM via a virtual remote control, some of the PCM options cannot be selected. | V7.8.0 | |
| 147 | BRIDGE-606 VNGR-25728 | General | Due to the activation of the Information Collector, an RMX 2000 with an MPMx card encounters High CPU usage, and as a result a CP conference with a line rate of 512 Kbps views artifacts in the layout. | V7.8.0 | |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|--------------------------|----------------------|---|---------------------|------------|
| 148 | BRIDGE-603 | Resource Capacity | On an RMX with an MPM+ card set to maximum resolution of HD720, only 19 parties can connect. | V7.8.0 | |
| 149 | BRIDGE-602 VNGR-25015 | SIP | A SIP participant is disconnected from the conference when the active DMA is shut down. The secondary DMA does not reconnect the SIP participant. | V7.8.0 | |
| 150 | BRIDGE-594 | Interoperability | A Telepresene server cannot connect to a 4mb TIP: Video + Content conference on an RMX 1500 with an MPMx card. | V7.8.0 | |
| 151 | BRIDGE-593 | Video | An HDX that connects to a Video Switching High Profile 720p60 will get a frame rate of 25 fps instead of 50/60 fps. | V7.8.0 | |
| 152 | BRIDGE-591 | General | When selecting one of the last three colors from the Message Overlay color drop down menu, the color selection is not implemented during the conference. | V7.8.0 | |
| 153 | BRIDGE-590 | Interoperability | Telepresence server cannot connect to 4mbps, TIP: Video & Content conference on RMX configured as legacy endpoint that doesn't declare TIP compatibility. | V7.8.0 | |
| 154 | BRIDGE-587 VNGR-25041 | Video | During a SD conference with a 256 Kbps line rate set to Video Quality Optimized, Sharpness and H.239 High Resolution Graphics, the Video Out Frame for many HDX 7000/HDX 9004 endpoints rate was 14. | V7.8.0 | |
| 155 | BRIDGE-586 | Content | In a CP conference with Content to Legacy enabled in the profile, when an HDX endpoint sends content, the Lync client cannot view the content. | V7.8.0 | |
| 156 | BRIDGE-585 | Partners - Microsoft | When starting a video call on MS A/V MCU, then inviting an RMX Meeting Room to which two Lync endpoints connected directly, if the speaker that is connected to the conference via the A/V MCU selects the Hold and then Resume options, a layout within a layout is displayed on the endpoints connected to the Meeting Room directly. | V7.8.0 | |
| 157 | BRIDGE-578 VNGR-25785 | Upgrade Process | After adding the Activation key and the upgrade process continues to run, the active alarm does is not deleted and the message "A matching activation key is required" remains. | V7.8.0 | |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|--------------------------|----------------------|--|---------------------|-------------------------------------|
| 158 | BRIDGE-575 | General | On an RMX registered with the DMA (SIP and Gatekeeper), after upgrading and downgrading the DMA, the RMX failed to register with the DMA. | V7.8.0 | |
| 159 | BRIDGE-567 | General | In an Event Mode conference, after selecting an HDX to be the chairperson, nothing happened when using a PCM remote control to Mute& Block audio / suspend video of the chairperson. | V7.8.0 | |
| 160 | BRIDGE-563 | Content | During a TelePresence conference with CTS and HDX conferences, when an HDX sends content the CTS endpoint disconnects and the conference therefore becomes non TelePresence, however the Skin and borders of the previous layout still appear. | V7.8.0 | |
| 161 | BRIDGE-561 | Partners - Microsoft | In a Microsoft environment, there is a disparity in Video In/ Video Out channel line rates between the CAC LYCN Server and the LYNC endpoint. | V7.8.0 | |
| 162 | BRIDGE-560 | Interoperability | On an RMX registered with the DMA (SIP), after an Avaya 10xx endpoints connect with good audio and video, the endpoints suddenly disconnects. | V7.8.0 | |
| 163 | BRIDGE-559 | Content | During a CP conference with dial-in HDX endpoints, after sending content from a desktop, the content displays in a single cell of the CP layout. | V7.8.0 | |
| 164 | BRIDGE-556 | Interoperability | When the RMX is registered with the Broadsoft server, a SIP to H.323 gateway call fails when dialing directly to the destination endpoint. | V7.8.0 | Use the Gateway IVR routing method. |
| 165 | BRIDGE-554 | ISDN | ISDN participants cannot connect to Meeting Rooms running at a line rate of 512, 768, 1024, 1472, or 1920 kbps if they are connected simulatneously or if the interval between the connections is less than 20 seconds. | V7.8.0 | |
| 166 | BRIDGE-553 VNGR-22208 | IVR | When using Internet Explorer version 8.0, you cannot upload a low resolution Welcome slide in the IVR - Video Services tab. | V7.8.0 | |
| 167 | BRIDGE-548 | IVR | When a VSX 7000 using H.263 connects to a conference running on RMX with an MPM+ card, the Meeting Room slide is not shown. | V7.8.0 | |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|--------------------------|------------------|--|---------------------|------------|
| 168 | BRIDGE-544 | Video | During a TelePresence conference with OTX systems, after dragging and dropping an OTX 300 endpoint into the conference, the layouts did not display properly. | V7.8.0 | |
| 169 | BRIDGE-538 VNGR-25116 | Interoperability | A Sony PCS-G90 is unable to connect over H.323 to an encrypted conference running on RMX 1500. | V7.8.0 | |
| 170 | BRIDGE-536 VNGR-22533 | General | In a conference with Recording enabled, after dialing out to an H.320 HDX, the HDX does not view the recording icon. | V7.8.0 | |
| 171 | BRIDGE-533 VNGR-25118 | Interoperability | A Sony PCS-G50 is unable to send content when connected over H.323 to a conference running on RMX 1500. | V7.8.0 | |
| 172 | BRIDGE-531 VNGR-25142 | Gateway | In Gateway Calls, a call is disconnected and a "call failed" message is displayed when dialing a wrong number. An IVR message to redial the number is not played. | V7.8.0 | |
| 173 | BRIDGE-526 | General | On an RMX 2000 during a gateway call, when selecting conference properties, Site Names tab, when changing the site names color it always remains white. | V7.8.0 | |
| 174 | BRIDGE-524 | SIP | When multiple Network Services are configured on RMX with an MPM+ card, each of which is registered with a SIP registrar, and one of those SIP registrars has a problem, an alarm will be raised but it will not specify the network service or the SIP registrar. | V7.8.0 | |
| 175 | BRIDGE-517 | Interoperability | In a CP conference with Content to Legacy enabled, when sending content from an HDX 8000 all endpoints initially viewed content, but then the content was dropped. | V7.8.0 | |
| 176 | BRIDGE-516 | Video | Gathering phase slide is displayed at 50% transparency (instead of solid background) on ITP endpoints. | V7.8.0 | |
| 177 | BRIDGE-515 VNGR-22657 | Upgrade Process | When initiating a downgrade from version 7.6 to 7.5.0/ 7.5.1 on the RMX 1500Q, the Safe Software Version Installation alarm message is not generated warning that you cannot perform the downgrade. | V7.8.0 | |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|--------------------------|----------------------|---|---------------------|------------|
| 178 | BRIDGE-513 VNGR-22694 | Video | Lync clients may randomly connect at frame rate lower than 30 fps when connecting to a conference at a line rate of 768Kbps and a resolution of 720p. | V7.8.0 | |
| 179 | BRIDGE-512 | RMX Manager | In a video Switching conference, when forcing a participant to the main window, whenever the active speaker changes, the forcing indication in the RMX web client/RMX Manager is canceled and replaced by the "Auto" indication. | V7.8.0 | |
| 180 | BRIDGE-511 VNGR-25255 | General | When an RMX 2000/4000 with an MPM+ card is registered with a CMA 4000, in the H.323 tab of the IP Network Service properties the ID is represented by black dimond characters with question marks inside them. | V7.8.0 | |
| 181 | BRIDGE-510 | Video | In a 768kbps conference that dials out to three HDXs, using a different protocol for each connection (SIP, H.323, and H.320), the HDX using H.320 receives frozen or garbled video. | V7.8.0 | |
| 182 | BRIDGE-509 | Interoperability | CTS1300 endpoint connected to multiple RMXs when disconnected from either of the RMXs its Audio channel to that RMX remains connected and cannot be disconnected using the RMX Web client. | V7.8.0 | |
| 183 | BRIDGE-506 | General | When accessing the Network Traffic Capture window, there is no option to Start Network Traffic Capture. | V7.8.0 | |
| 184 | BRIDGE-505 VNGR-22828 | Partners - Microsoft | The aspect ratio of the video display on the Lync client running on a MAC workstation is always 4:3 and does not change according to the actual screen aspect ration (16:9), after changing the Video layout from a big screen to a smaller screen. | V7.8.0 | |
| 185 | BRIDGE-503 VNGR-22830 | General | When configuring the RMX with Multiple Network Services and defining the DNS for each Network Service, after RMX reset the Lync client cannot connect to the RMX as it cannot resolve the RMX address using the configured DNS. | V7.8.0 | |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|--------------------------|------------------|--|---------------------|---|
| 186 | BRIDGE-501 VNGR-17861 | RMX Manager | RMX Manager failed to install from login page. The request is aborted with the message: "Could not create SSL/TLS secure channel". | V7.8.0 | Workaround: 1. Install RMX Manager before initiating Secured Communications Mode. 2. Install from a network 3. Install locally from RMX Manager folder |
| 187 | BRIDGE-500 VNGR-18279 | Video | The video display is "jumpy" when endpoints connect to a conference running on RMX with MPMx at a line rate of 512Kbps and SD resolution. | V7.8.0 | |
| 188 | BRIDGE-498 | Audio | During a video conference call with IBM ST clients, when 2 clients are placed on hold and reconnect, they cannot hear audio. | V7.8.0 | |
| 189 | BRIDGE-495 | Interoperability | In an RMX conference with telepresence mode enabled, CTS1300 endpoints display identical layouts using OTX and RPX. | V7.8.0 | |
| 190 | BRIDGE-491 | General | In the Participant Properties - Channel Status - Advanced dialog box, the protocol indicated for each IP is always UDP, even when connecting using TCP. | V7.8.0 | |
| 191 | BRIDGE-486 | Video | When running a conference set to Same Layout, Auto layout and Polycom skin on the RMX whose resolution configuration for SD is set to 128Kbps, one of the layout cells displayed on some of the endpoints is distorted. | V7.8.0 | |
| 192 | BRIDGE-478 | General | When there are more than one conferences configured to "Video Quality Optimized" or H.323 running simultaneously, some dial-out participants will not connect to a conference, receiving a "resource deficiency - 0" in the Call Disconnection Cause field in the endpoint Properties box. | V7.8.0 | |
| 193 | BRIDGE-467 VNGR-24746 | Upgrade Process | After upgrading from version 7.6.1.136 to 7.7.0.41, an activation key is not requested. | V7.8.0 | |
| 194 | BRIDGE-458 VNGR-24791 | Diagnostics | When the RMX is in Hardware Monitor - Diagnostic mode, Loop Tests fail on the ISDN card. | V7.8.0 | |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|--------------------------|-------------------|--|---------------------|------------|
| 195 | BRIDGE-450 VNGR-24182 | Diagnostics | When the RMX is in a Diagnostic mode, in the Hardware Monitor, Loop Tests fail on the ISDN card. | V7.8.0 | |
| 196 | BRIDGE-447 | Resource Capacity | Two VSW conferences each with participants are all located on one MPMx card, when it is expected that each conference and its participants should be located on separate MPMx cards. | V7.8.0 | |
| 197 | BRIDGE-444 | IP | After setting an RMX 2000 with an MPM+ card to use both IPv4 and IPv6 and attempting to use the Web Client using IPv6 addresses, the following error message is displayed: "Browser environment error. Please reopen the browser" | V7.8.0 | |
| 198 | BRIDGE-443 VNGR-20048 | General | After changing the conference name and the Profile to the SIP Registration profile and then clicking OK, the changes do not take affect nor are they registered. | V7.8.0 | |
| 199 | BRIDGE-442 VNGR-20097 | Cascading | During a Cascaded conference, the cascaded link sometimes send a "need help" message to participants. | V7.8.0 | |
| 200 | BRIDGE-440 | Video | Auto Scan does not work when Same Layout is active. | V7.8.0 | |
| 201 | BRIDGE-433 | Interoperability | When the RMX and HDX endpoints are registered with a CMA, after dialing out from an HDX endpoint a numerical error message appears. | V7.8.0 | |
| 202 | BRIDGE-430 | General | In a 512kbps CP conference without encryption with several dial-in endpoints some of the endpoints use the personal layout and not the conference layout. | V7.8.0 | |
| 203 | BRIDGE-428 | General | VSX endpoints sends video at a low bit rate level of 2.0 when endpoints are moved from a source conference to the destination conference. The video layout on other endpoints do not display the VSX endpoint's video and the video pane is a blue screen. | V7.8.0 | |
| 204 | BRIDGE-422 | General | During a CP conference, when sending Closed Caption from an HDX endpoint to mixed SIP and H.323 endpoints, they do not receive Closed Caption. | V7.8.0 | |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|--------------------------|------------------|---|---------------------|------------|
| 205 | BRIDGE-419 | Audio | The audio volume is lower on Lync clients during a Meeting room conference than when they communicate point to point. | V7.8.0 | |
| 206 | BRIDGE-418 | General | When upgrading the RMX and changing from Event Mode to CP mode, a conference template which is a mismatch for CP mode can be scheduled as a reservation, even though it cannot be used to start a conference immediately. | V7.8.0 | |
| 207 | BRIDGE-410 VNGR-24531 | Software Version | VVX dial in participant's IPAddress/Phone field in Participants List field is listed as 0.0.0.0 instead of the VVX's actual IP Address or phone number. | V7.8.0 | |
| 208 | BRIDGE-408 VNGR-20726 | General | A Lync endpoint can call and connect to a meeting room that is available in his buddy list even though the meeting room is unavailable/offline and has SIP registration disabled in the Conference Profile. | V7.8.0 | |
| 209 | BRIDGE-404 | Content | In a conference with Send content to Legacy Endpoint enabled, an RPM endpoint cannot receive content but does see video. When content is stopped and then restated the RPM endpoint does view content. | V7.8.0 | |
| 210 | BRIDGE-401 VNGR-24553 | Software Version | User Customization of Audible Alarms for Awaiting Operator Assistance function returns "value is out of range" message when both the number of repetitions and repetitions interval in seconds parameters are modified. | V7.8.0 | |
| 211 | BRIDGE-400 VNGR-20918 | General | In Multiple Networks Configuration, Recording Links use the default Network Service to connect to conferences, therefore the recording system must be defined on the default network Service to enable the recording. | V7.8.0 | |
| 212 | BRIDGE-390 | Audio | A CP conference with LPR enabled hosted an RMX 2000 with the ENABLE_SIRENLPR set to "YES" that dials out to an HDX 8000 audio only does not use the sirenLPR audio codec, rather siren22S_96k for incoming audio, and siren22_32k for outgoing audio. | V7.8.0 | |
| 213 | BRIDGE-387 VNGR-21159 | IVR | In the IVR Services when replacing/changing a music file and clicking on Play, the music file does not start. | V7.8.0 | |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|-------------------------|------------------|---|---------------------|------------|
| 214 | BRIDGE-372 | General | TelePresence conferences registered with a CUCM (Call Manager) after dialing-in with OTX and CTS1300 systems, the CTS1300 disconnected twice after 2 minutes. | V7.8.0 | |
| 215 | BRIDGE-369 | General | RMX does not detect non standard DTMF tones from Panasonic KX-TS2565RU phones. | V7.8.0 | |
| 216 | BRIDGE-365 | Interoperability | In an ICE environment, during a CP meeting room conference with defined dial-in participants, when a Lync endpoint connects the participant views a black screen. | V7.8.0 | |
| 217 | BRIDGE-362 | Video | Small white artifacts may appear on the video display of a participant connected at a resolution of 1080p 60fps. | V7.8.0 | |
| 218 | BRIDGE-360 | Interoperability | When an Sametime Unified Telephony client connects to an RMX 2000 conference using SIP or H.323, after entering the conference ID only the lobby video is shown if the Sametime Unified Telephony client is the only participant. | V7.8.0 | |
| 219 | BRIDGE-355 | Video | During Hold/Resume, CTS3010 endpoints display local video instead of empty layout cells. | V7.8.0 | |
| 220 | BRIDGE-353 | Audio | After an RMX is reset CTS rooms connect the first time without audio. Subsequent connections have audio. | V7.8.0 | |
| 221 | BRIDGE-352 | Recording | A recording link cannot be created using an IPv6 address. | V7.8.0 | |
| 222 | BRIDGE-341 | FECC | It is possible to choose an empty layout cell for far camera control. | V7.8.0 | |
| 223 | BRIDGE-337 | | When 2 Lifesize Team 220 endpoints connect to a conference using SIP one indicates that it is receiving video but displays a black screen anyway. | V7.8.0 | |
| 224 | BRIDGE-336 | Interoperability | During a CP conference after a VVX 15000 endpoint registered to a FED14 Lync FE server is muted and then unmuted, the endpoint cannot receive audio or video. | V7.8.0 | |
| 225 | BRIDGE-329 VNGR-9809 | IVR | When DTMF codes have been entered by the participants, the volume of the IVR Message may be suppressed or the message may be cut. | V7.8.0 | |

Table 3 Version 7.8 System Limitations (BRIDGE ID)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|--------------------------|----------------------|---|---------------------|------------|
| 226 | BRIDGE-327 VNGR-9960 | Interoperability | RSS 2000 Connection H.323 Link Status pane, E.164 column displays RMX Conference ID instead of E.164 data when recording RMX conference that is enabled to start recording immediately. | V7.8.0 | |
| 227 | BRIDGE-322 VNGR-18414 | RMX Manager | Active Directory user cannot open the Hardware Monitor section in the RMX Manager. | V7.8.0 | |
| 228 | BRIDGE-320 VNGR-18531 | General | When forbidden characters are used in the conference name, when retrieving the CDR file an error message will appear "Invalid Directory or path". | V7.8.0 | |
| 229 | BRIDGE-300 | Multilingual | When using the RMX Manager or Web Client in German, the text next to the dropdown for encryption options in the advanced tab of Conference Profile properties uses two lines. The second line is cut off. . | V7.8.0 | |
| 230 | BRIDGE-295 | Video | Participants in Telepresence conference configured with Auto Layout , Gathering and Telepresence Mode=Auto receive Gathering slide followed by 1+4 layout with black background as soon as ITP room connects. | V7.8.0 | |
| 231 | BRIDGE-287 | Interoperability | CTS Gathering slide is pixelated and of poor quality when connected to conference on RMX registered to DMA. | V7.8.0 | |
| 232 | BRIDGE-285 | Interoperability | CTS endpoint status is displayed as "Connected with problem" when it is the first dial-in participant to connect to conference on RMX registered to DMA. | V7.8.0 | |
| 233 | BRIDGE-279 VNGR-26236 | Partners - Microsoft | It takes the system more than 9 seconds to show the active speaker in an environment where microphones are installed in close proximity. | V7.8.0 | |
| 234 | BRIDGE-254 | General | On the RMX, CUCM registered endpoints are listed with the conference name: "RMX CUCM" instead of listing the conference type display name. | V7.8.0 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|---|------------|-----------------------------|---|---------------------|--|
| 1 | VNGR-26687 | <i>Partners - Microsoft</i> | When a Lync endpoint that is connected to a Meeting Room running on the RMX escalates the call from audio to video and back to audio many times within a short period, all the Lync participants disconnect from the conference. | V7.7 | To suspend and resume the video display during the conference, use the Pause/Resume video button. |
| 2 | VNGR-26479 | <i>Interoperability</i> | When Radvision Scopia XT1000 endpoint, which is connected over SIP to a conference running on RMX 1500 sends BFCP content, it disconnects from the call and a core dump is created on the RMX1500. | V7.7 | |
| 3 | VNGR-26460 | <i>Content</i> | Rarely, content sharing session dropped unexpectedly during the conference and a SIP participant was disconnected from the conference followed by the error message "MCU internal problem". | V7.7 | |
| 4 | VNGR-26441 | <i>Interoperability</i> | When RMX4000 dials out to Avaya SIP endpoints (HDX or AV10xx) registered to ASM via the DMA | V7.7 | DMA issue (DMA-9163) |
| 5 | VNGR-26440 | <i>Interoperability</i> | When Tandberg MPX endpoints connect to a conference running on the RMX system before the HDX endpoints connected, the Tandberg MPX endpoints cannot share content. | V7.7 | <ul style="list-style-type: none"> On the Tandberg MPX, disable the H.239 option. On the RMX, set the content in the Conference Profile to H.264 HD A hot fix will be available shortly. |
| 6 | VNGR-26413 | <i>Interoperability</i> | M100 endpoint that connected via dial out over SIP to RMX 1500 cannot send or receive content. | V7.7 | An endpoint issue (CMAD-8799). |
| 7 | VNGR-26379 | <i>Interoperability</i> | A Cisco CTS 3000 endpoint that connected via CUCM V8.5 and a DMA V4.0.3 to a conference running on the RMX registered to a Lync server, randomly disconnected from the conference. | V7.7 | |
| 8 | VNGR-26336 | <i>Partners - Microsoft</i> | When a Lync endpoint using SIP is muted during a CP conference, there no indication in RMX Client that the endpoint is muted. | V7.7 | |
| 9 | VNGR-26290 | <i>Partners - Microsoft</i> | When a Lync participant connected to a Meeting Room running on the RMX tries to invite a third participant to the meeting, a message indicating that the participant has left the conference is played although all three participants are connected to the conference. | V7.7 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|----|------------|-----------------------------|--|---------------------|---|
| 10 | VNGR-26282 | <i>Interoperability</i> | When a Lync endpoint connects to the RMX Meeting Room via RadVision Scopia gateway in an ICE environment, an incorrect line a=a=icepwd is sent in the 200 ok SDP message sent by the RMX. | V7.7 | |
| 11 | VNGR-26235 | <i>Partners - Microsoft</i> | Meeting Room Presence remains “busy” (instead of “available”) after all participants disconnected from the meeting. | V7.7 | The AVMCU meeting must be manually terminated either by the Lync user who initiated the call or by the RMX Manager. |
| 12 | VNGR-26152 | <i>IVR</i> | After selecting and adding a .jpg video slide in the Install File pane in the New Conference IVR Service - Video Services dialog box, the Yes and No buttons are grayed out and the slide cannot be uploaded. | V7.6.1 | |
| 13 | VNGR-25950 | <i>Video</i> | When packet loss occurs on the network, video displayed on Lync and HDX endpoints is poor and with video freezes. | V7.7 | |
| 14 | VNGR-25582 | <i>General</i> | Cannot send Content from a RealPresence Mobile endpoint to a conference via a Session Border Controller (SBC). | V7.7 | Manually add the flag NUM_OF_INITIATE_HELLO_MESSAGE_IN_CALL_ESTABLISHMENT to the System configuration and set its value to 3. |
| 15 | VNGR-25580 | <i>General</i> | On RMX 2000 with MPMx cards, after connecting several endpoints to a conference with a line rate of 2048 Kbps, DSP video consumption reached 150% instead of 100%. | V7.7 | |
| 16 | VNGR-25559 | <i>Interoperability</i> | When a number of Lync endpoints dial-in to a Meeting Room, when a Lync endpoint wants to share the desktop, error 488 appears. | V7.7 | |
| 17 | VNGR-25556 | <i>Partners - Microsoft</i> | When a participant attempts to call a Meeting Room using the Lync client, the participant might receive a “Call was not completed or has ended” message. This can occur when the MCU is shut down and the Lync client displays the Meeting Room as Busy and not as Offline. A few minutes after the MCU shutdown, the Meeting Room status will change to Offline. A participant cannot connect to a meeting room when the status is Offline. | V7.7 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|----|------------|-----------------------------|--|---------------------|--|
| 18 | VNGR-25555 | <i>Partners - Microsoft</i> | Networks that experience packet loss close to a 10% range may result in degraded video for endpoints that are connecting to the RMX. | V7.7 | Implementation of Forward Error Correction improvements will be implemented in a future release. |
| 19 | VNGR-25526 | <i>General</i> | Participants are able to move from a LPR enabled conference to a conference in which LPR is disabled. | V7.7 | |
| 20 | VNGR-25499 | <i>SIP</i> | When the “auto connection” check box is unchecked in the SIP factory's properties and endpoints dial into a SIP Factory, multiple conferences are started but the endpoints never connect. | V7.7 | |
| 21 | VNGR-25496 | <i>Interoperability</i> | In a conference with HDX and ITP endpoints registered to an IOS gatekeeper and a CTS endpoint registered to CUCM, after 30 minutes into the conference the CTS endpoint is disconnected. | V7.7 | |
| 22 | VNGR-25495 | <i>Interoperability</i> | In a Continuous Presence conference with two Cisco (CTS3010 & CTS1300) endpoints, video from the CTS1300 is displayed on the right of the CTS3010 screen instead of the center. | V7.7 | |
| 23 | VNGR-25490 | <i>Interoperability</i> | A Sony PCS-G50 endpoint stops sending video when the Sony PCS-XG80 sends content while both endpoints are connected via H.323 to the conference. | V7.7 | |
| 24 | VNGR-25458 | <i>General</i> | On the RMX, CUCM registered endpoints are listed with the conference name: “RMX CUCM” instead of listing the conference type display name. | V7.7 | |
| 25 | VNGR-25400 | <i>Interoperability</i> | When a Tandberg CTS 3000 press hold/ unhold during a 4Mb TIP conference running on the RMX that is registered directly to CUCM, the CTS 3000 status changes to “connected with problem” and then it disconnects from the conference. | V7.7 | |
| 26 | VNGR-2473 | <i>RMX Web Client</i> | When installing the RMX Web Client, Windows Explorer >Internet Options> Security Settings must be set to Medium or less. | V1.1.0 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|----|------------|----------------------|--|---------------------|--|
| 27 | VNGR-24505 | Video | In the New Conference IVR Service, Video Services tab after selecting and adding a .jpg video slide in the Install File pane, the Yes and No buttons are grayed out and the slide cannot be uploaded. | V7.7 | |
| 28 | VNGR-24249 | Interoperability | A conference passcode created on the DMA system may not conform to the passcode rules enforced by the MCU hosting the conference, causing calls to fail. For example, the maximum number of permitted repeated characters in password is different on the DMA and RMX. | V7.6 | Make sure that the passcodes created on the DMA system meet the requirements of the MCUs that the system uses. |
| 29 | VNGR-24209 | General | The ACT LED on the FSM (Fabric Switch module) is ON when there is IP packet activity, however when the conference terminates, the ACT LED may remain active (ON) if the card is used for other packet traffic such as other conferences. | V7.6.1 | Reset the RMX from the Hardware Monitor. |
| 30 | VNGR-24072 | Interoperability | On an RMX 1500, calls from a Cisco SIP phone to VRM fail when routed over an H.323 CUCM trunk to DMA (pre-release 4.0.2). | V7.6 | |
| 31 | VNGR-24071 | Video | In a CP conference with a Lync client connected, the client's video jumps between HD and QCIF VGA. | V7.6.1 | |
| 32 | VNGR-24009 | Security | In Ultra Secured Mode, Audio becomes very noisy, when an IP participant connects via the RMX SGW gateway to a conference running on the RMX 2000 with MPM+ card and configured to Multiple Networks. | V7.6.1 | |
| 33 | VNGR-23902 | Audio | When self muting the VVX1500 endpoint during a conference running on the RMX, the audio mute icon does not appear in the Participants pane of the RMX Web client/ Manager. | V7.7 | Not RMX issue; an endpoint issue (VOIP-78013). |
| 34 | VNGR-23892 | General | On different RMX's with multiple networks enabled, a number of Internet ports were found to be open and readily accessible by unauthorized parties. | V7.2 | |
| 35 | VNGR-23888 | Interoperability | During ongoing conferences, VSX7000 endpoints cannot open the Content channel as they do not support the BFCP protocol (token management protocol for SIP). | V7.6.1 | |
| 36 | VNGR-23767 | Partners - Microsoft | Microsoft R1 is not supported with the RMX systems. | V7.6.1 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|----|------------|-------------------------|---|---------------------|------------|
| 37 | VNGR-23764 | <i>IP</i> | After starting 2 conferences with 600 VoIP dial-out participants, the RMX is unresponsive and an "Internal communication Error" message appears. | V7.6.1 | |
| 38 | VNGR-23755 | <i>Interoperability</i> | During a TIP CP conference set to 1080p resolution, CTS, OTX and HDX endpoints send 720p instead of 1080P. | V7.6.1 | |
| 39 | VNGR-23627 | <i>IVR</i> | Cannot add a customized video welcome slide to the IVR Service. Windows 7 operating system crashes. | V7.6H | |
| 40 | VNGR-23534 | <i>FECC</i> | During a 768 H.323 conference with FECC, Tandberg endpoints are unable to control Tandberg 6000E using FECC. | V7.6 | |
| 41 | VNGR-23418 | <i>SIP</i> | When muting a SIP participant during an ongoing conference, the mute participant icon does not appear in the Participants pane of the RMX Client/RMX Manager. | V7.6.1 | |
| 42 | VNGR-23335 | <i>General</i> | For a conference with a short duration (for example 20 minutes), when the conference duration is shorter than the settings of the flag EXTENSION_TIME_INTERVAL, the RMX will add the additional time interval (from the flag) to the conference. | V7.6.1 | |
| 43 | VNGR-23267 | <i>General</i> | Message Overlay parameters are not saved when saving the ongoing conference to a template. | V7.6.1 | |
| 44 | VNGR-23204 | <i>General</i> | After the configuration on the NTP servers and system startup, only one NTP server status appears as OK while the two others appears as failed. The NTP server that is listed as "OK" then keeps changing. | V7.5.1 | |
| 45 | VNGR-23182 | <i>General</i> | In cascaded conferences with Message Overlay enabled, participant line rate and frame rate may decrease. | V7.0.2C | |
| 46 | VNGR-23177 | <i>Interoperability</i> | Occasionally, when Lifesize endpoint is connected over IPv4 to a conference running on RMX 2000 set to Ultra Secure Mode, the video becomes unstable after several minutes, experiencing frozen video or blank screen and resets itself. This occurs, in both dial-in and dial-out calls to/from RMX. | V7.5.1 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|----|------------|-----------------------------|--|---------------------|--|
| 47 | VNGR-23176 | <i>Interoperability</i> | In Ultra Secure Mode, Lifesize endpoint using ISDN resets itself while in the Entry Queue when attempting to dial in to RMX. | V7.5.1 | |
| 48 | VNGR-23123 | <i>General</i> | During a conference, many endpoints could not connect, and intermittently viewed the Welcome Slide for just a few seconds. | V7.1 | |
| 49 | VNGR-23061 | <i>Cascading</i> | A Slave conference cannot be connected to two Master conferences simultaneously. | V7.0.2C | |
| 50 | VNGR-23060 | <i>Cascading</i> | A Cascading Link is “connected with problem” when connected to a conference with no other endpoint connected to it and there is no video source to display. Connection is restored to normal (“connected”) once an endpoint connects to that conference. | V7.0.2C | |
| 51 | VNGR-22840 | <i>Interoperability</i> | Siemens endpoints cannot connect to conference with TIP Compatibility enabled when running on an RMX configured with Multiple Network Services. | V7.6 | |
| 52 | VNGR-22824 | <i>Partners - Microsoft</i> | After upgrading from version 7.2.2 to 7.6, the Faults List of the RMX registered to a Lync server occasionally reports DSP crashes. | V7.6 | |
| 53 | VNGR-22796 | <i>Diagnostics</i> | When the RMX is in a Diagnostic mode, in the Hardware Monitor, Loop Tests fail on the ISDN card. | V7.6 | |
| 54 | VNGR-22749 | <i>General</i> | On the RMX with an MPMx card, H263 4CIF(SD) endpoints are allocated as HD resources, which can lead to insufficient resources being allocated to a conference. | V7.2.2 | |
| 55 | VNGR-22734 | <i>General</i> | When running the Call Generator and the RMX Manager on a laptop/computer when PC CPU Usage exceeds 80%, this can result in RMX Manager disconnections. | V7.0.2C | |
| 56 | VNGR-22724 | <i>Security</i> | In Directory Services, the IP Address or DNS Name field will only accept a DNS Name. Entering an IPv4 address in the field results in an error message stating that the Directory Service is not available. | V7.5.1 | |
| 57 | VNGR-22676 | <i>General</i> | When connecting several participants using blast dial out, the participant that connects using the last available video resource may fail to connect due to lack of video resources. | V7.7 | Connect the disconnected participant manually. |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|----|------------|-------------------------|---|---------------------|------------|
| 58 | VNGR-22657 | <i>Upgrade Process</i> | When initiating a downgrade from version 7.6 to 7.5.0/ 7.5.1 on the RMX 1500Q, the Safe Software Version Installation alarm message is not generated warning that you cannot perform the downgrade. | V7.6 | |
| 59 | VNGR-22647 | <i>Interoperability</i> | A Polycom Immersive TelePresence (ITP) system registered with the CUCM server, after dialing out using SIP and connecting to the primary endpoint, the secondary endpoints must be connected manually. | V7.6 | |
| 60 | VNGR-22646 | <i>Security</i> | When the RMX is set to a Maximum Security Mode, verify that there are address book entries, when disconnecting the LAN cables, the LAN connection is lost but the entry book entries are not cleared. The RMX Address Book entries should no longer be displayed when the connection to the RMX is lost as this could lead to disclosure of information to unauthenticated users. | V7.6 | |
| 61 | VNGR-22631 | <i>Content</i> | In Exclusive Content Mode, if an endpoint attempts to send Content a few seconds after another endpoint sent content, the Content stream it is receiving is momentarily interrupted by a slide which is displayed for a few seconds before the normal Content stream is resumed. | V7.0.2C | |
| 62 | VNGR-22627 | <i>IVR</i> | In a conference with the Operator Assistance options enabled, a HDX defined as the operator could not hear the general welcome nor view the video messages. As designed. | V7.5.1 | |
| 63 | VNGR-22617 | <i>General</i> | When running the Call Generator and the RMX Client on a laptop/computer when PC CPU Usage reaches 100%, the RMX Client disconnects. Workaround: Use the RMX Manager. | V7.0.2C | |
| 64 | VNGR-22560 | <i>Calendaring</i> | When the Cascading Link Participant is connected on each end (Master Conference/ Slave Conference) to a different gatekeeper, link may fail to reconnect if it was previously disconnected and the redialing occurs before the disconnection process was terminated. | V7.0.2C | |
| 65 | VNGR-22550 | <i>Cascading</i> | Endpoints failed to receive and view content when an RMX 4000 is in a 384 Kbps cascaded conference with an MGC. | V7.0.2C | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|----|------------|------------------------|--|---------------------|---|
| 66 | VNGR-22504 | <i>Upgrade Process</i> | During any software upgrade or downgrade process, if the system identifies that an intermediate version installation is required, the Safe Path Enforcement warning is displayed and the current installation process is aborted. At this point the browser will block any attempt to install any other software version. This applies to all software versions, except for version 7.6 which will still enable a new version downgrade process without closing the browser. | V7.6 | Close and then re-open a new browser session. |
| 67 | VNGR-22456 | <i>RMX Manager</i> | Login with the RMX Manager as an Administrator and then select Hardware Monitor, and press the System Reset button. After system reset, the RMX Manager does not remove items from the Administration and Setup menus when the user is not connected to the MCU which can cause a .Net exception to occur when accessing the CDR. | V7.6 | |
| 68 | VNGR-22407 | <i>General</i> | The first 10 OTX systems that connect to the same MPMx card receive video at 1080p 30fps. Any additional OTX system that connects to the same MPMx card will receive video at a lower frame rate. | V7.6 | |
| 69 | VNGR-22390 | <i>General</i> | After changing the gatekeeper registration on the RMX 1500/RMX 4000 and then restarting the RMX, the IPv6 signaling address field appears empty in the GUI. Retrieval of the External IPv6 signaling address takes time and there is considerable delay before it is loaded onto the GUI. | V7.6 | |
| 70 | VNGR-22319 | <i>General</i> | The Lans List - Ethernet Settings dialog box does not display all of the LANS in the RMX. | V7.2.2 | |
| 71 | VNGR-22252 | <i>Hot Backup</i> | When Hot Backup is enabled between two RMX 4000s, the Slave's SNMP settings are not synchronized with the Master. | V7.0.2C | |
| 72 | VNGR-22250 | <i>General</i> | On two cascaded RMX 4000, after enabling Hot Backup and completing synchronization, the Video/Voice Port Configuration is not identical to the master (Note: this must be done manually). | V7.0.2C | |
| 73 | VNGR-22217 | <i>General</i> | After removing an MPM+80 card from an RMX 4000, the Video/Voice Port Configuration dialog box is not updated and does not reflect the change in port number. | V7.2.2 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|----|------------|-----------------------------|---|---------------------|----------------------|
| 74 | VNGR-22197 | <i>Hot Backup</i> | When Hot Backup is enabled between two RMX systems and the synchronization is completed, the Slave MCU displayed an alarm: "IP network service was modified please reset MCU". | V7.0.2C | Reset the slave RMX. |
| 75 | VNGR-22181 | <i>General</i> | In the Hardware Monitor, Slots 1 & 2 may sometimes appear as duplicates in the Slot list. | V7.6 | |
| 76 | VNGR-22100 | <i>Hot Backup</i> | In Hot Backup configuration, the SIP Authentication and configuration of the User Name and Password in the IP Network Service Properties - Security tab of the Master RMX are not backed up in the Slave RMX. | V7.6 | |
| 77 | VNGR-22018 | <i>Partners - Microsoft</i> | Click to Conferences is supported only with Microsoft OCS R2 and Lync clients. HDX endpoints are not supported. | V7.6 | |
| 78 | VNGR-21980 | <i>General</i> | The License Information pane listing the total number of resources does not fully match the Voice/Video Port Usage numbers. As designed, as the port slider increases/decreases in increments of three. | V7.6 | |
| 79 | VNGR-21878 | <i>Video</i> | Participant's video preview and the CMAD window cannot be open and running simultaneously on the same PC as both require the same DirectDraw resource. | V7.6 | |
| 80 | VNGR-21781 | <i>General</i> | During a conference with Message Overlay enabled, any connected participant can view the overlay message, however connecting participants do not. | V7.0.2C | |
| 81 | VNGR-21729 | <i>General</i> | The ISDN/PSTN value (true/false) listed in the System Information dialog box are only taken from the activation key according to the license, regardless if the RTM-ISDN card is installed in the RMX. | V7.0.2C | |
| 82 | VNGR-21514 | <i>Software Version</i> | When inserting an MPM card into an RMX 2000 with version 7.6 that does not support MPM card, an active alarm did not appear. | V7.6 | |
| 83 | VNGR-21429 | <i>Audio</i> | HDX endpoints with versions prior to 3.0.3 fail to connect to conferences when SirenLPR is enabled on the RMX. | V7.6 | |
| 84 | VNGR-21396 | <i>Recording</i> | Cannot use an Audio Only Recording Link to record a conference if there are no Voice resources allocated in the Video/Voice Port Configuration. | V7.6 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|----|------------|-----------------------------|--|---------------------|--|
| 85 | VNGR-21024 | <i>Partners - Microsoft</i> | Video with corrupted edges is displayed on MOC clients when connected to a conference running at a line rate of 1MB using RTV. | V7.2.2 | Not RMX issue. Lync issue. |
| 86 | VNGR-20945 | <i>Partners - Microsoft</i> | In a conference running at a line rate of 1MB with HDX and Microsoft OC client connected using RTV, Content sent by the HDX was blurred on the Microsoft OC client. | V7.2.1 | Not RMX issue. Lync issue. |
| 87 | VNGR-20914 | <i>General</i> | Cannot connect to the RMX from a PC running Windows 7 using Internet Explorer 9 when it is a new RMX installation. | V4.7.2 | |
| 88 | VNGR-20864 | <i>Diagnostics</i> | On any type of RMX after accessing Basic Diagnostics and resetting the RMX, after restart the RMX switches to the Advanced Diagnostic mode. | V4.7.2 | |
| 89 | VNGR-20855 | <i>SIP</i> | When resetting the RMX from the Hardware Monitor, SIP endpoints may remain connected, although the conference ended. | V7.2 | |
| 90 | VNGR-20829 | <i>Content</i> | Content is stopped and has to be resent when the Content protocol changes following the connection or disconnection of a participant from the conference. | V4.7.2 | |
| 91 | VNGR-20783 | <i>Upgrade Process</i> | Sometimes during upgrade, the message "Activation key required" is not displayed. | V7.0.3 | |
| 92 | VNGR-20732 | <i>General</i> | When stereo is disabled on an QDX endpoint and the QDX dials-in using SIP into an Entry Queue, the QDX endpoint is prompted to enter the conference ID, however the DTMF tones to are not detected by the RMX. | V7.2 | Not RMX issue; an endpoint issue (QDX-305) |
| 93 | VNGR-20723 | <i>Software Version</i> | When a participant accesses an Entry Queue and he/she is then moved from to a conference with a profile different from the Entry Queue, the call is disconnected. | V4.7.2 | |
| 94 | VNGR-20574 | <i>Software Version</i> | After enabling multiple services on the RMX and resetting the RMX system starts up with the message "failed to read MCU time configuration file. (file does not exist)" and an active alarm appears. | V7.2 | |
| 95 | VNGR-20572 | <i>Interoperability</i> | On an RMX 1500, after configuring the SIP server & domain, registration failed with the Cisco VSC. | V7.2 | |
| 96 | VNGR-20534 | <i>Content</i> | In a 128Kbps conference with content started from a Profile, when 20 ISDN endpoints connected the video froze. | V7.2 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|------------|-----------------------------|---|---------------------|--|
| 97 | VNGR-20492 | <i>RMX Manager</i> | Sometimes after upgrade, when logging in the error message "browser env. error" is displayed and you must close all browsers sessions to re-login. | V7.2 | |
| 98 | VNGR-20478 | <i>RMX Manager</i> | Internet Explorer 8 crashed while loading the RMX Manager. | V7.2 | Not an RMX issue - an Internet Explorer issue. |
| 99 | VNGR-20434 | <i>General</i> | When Hot Swapping MPM+/MPMx cards, Port Usage and Resource reports do not display correctly. | V7.2 | |
| 100 | VNGR-20432 | <i>Diagnostics</i> | On an RMX 1500 after attempting to access the Diagnostic mode manually, the CTNL card remains in a "normal" mode while other cards are in a "Diagnostic" mode. | V7.2 | |
| 101 | VNGR-20416 | <i>General</i> | In the Network Traffic Capture (Administration-->Tool-->Network Traffic Capture) pane select Start Network Traffic Capture. When the cyclic check box is not selected, older files are still being deleted. | V7.2 | |
| 102 | VNGR-20406 | <i>General</i> | On the RMX 1500/2000, High CPU utilization occurs during startup. | V7.0.3 | |
| 103 | VNGR-20372 | <i>General</i> | During RMX 4000 startup, the following message appears: "No connection to switch". This message is not displayed in the Hardware Monitor. | V5.0.2 | |
| 104 | VNGR-20353 | <i>Interoperability</i> | The Tandberg C90 endpoint cannot connect to a conference set to a line rate of 6144Kbps as the Tandberg C90 maximum connection line rate is 6000Kbps. | V7.2 | Change the conference line rate to 4096Kbps to fully connect the Tandberg C90. |
| 105 | VNGR-20317 | <i>Partners - Microsoft</i> | Microsoft Lync client disconnected from a conference running on an RMX2000 with MPMx cards several minutes after connecting to the Meeting Room. | V7.2 | |
| 106 | VNGR-20276 | <i>Audio</i> | Keyboard Noise Suppression and Echo suppression options do not suppress the noise as expected. | V7.2 | |
| 107 | VNGR-20269 | <i>ISDN</i> | In a 384 Kbps CP conference with Auto Layout enabled, the H.320 Tandberg Edge95 MXP displays bands of green and purple video. | V7.2 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|------------|------------------|--|---------------------|------------|
| 108 | VNGR-20247 | Video | During a conference with Telepresence endpoint connected, endpoints view black backgrounds with no borders. After the disconnection of the Telepresence endpoint, the video layout background and borders remain as if in Telepresence mode. The display is updated after the next layout change. | V7.2 | |
| 109 | VNGR-20243 | Hardware | On an inactive RMX 1500, an active alarm: "High CPU utilization - Process CPU usage is high:99%" appears. | V7.2 | |
| 110 | VNGR-20223 | ISDN | In a 1920 Kbps CP conference with Auto Layout, Gathering, LPR, Sharpness, Video Clarity, Graphics and Send Content to Legacy Endpoints enabled, after connecting H.320 Sony PCS-XG80 endpoint no video can be seen. | V7.2 | |
| 111 | VNGR-20195 | Interoperability | On an RMX with MPM+ cards running a 384 Kbps CP conference with LPR and Encryption enabled, after connecting two Lync endpoints, green artifacts appear briefly in the video. | V7.2 | |
| 112 | VNGR-20056 | General | On an RMX in with the flag; ULTRA_SECURED_MODE and Multiple Services enabled, when attempting to configure additional IP Network services (when the default IP Network service already configured), all IP address slots appear as available even though these slots are already occupied by the default IP Network Service. | V7.5 | |
| 113 | VNGR-20036 | Video | When attempting to switch the Lecture Mode between endpoints, the video froze. | V4.7.1 | |
| 114 | VNGR-19952 | Upgrade Process | On an RMX 1500, a Power Supply voltage active alarm is triggered in error on sensor 8. | V4.7.1 | |
| 115 | VNGR-19881 | Content | Chroma shift viewed on Legacy endpoints when sending content in a conference running on RMX 2000 with MPMx at a line rate of 512kbps and the Send Content to Legacy Endpoint option enabled. | V7.5 | |
| 116 | VNGR-19873 | ISDN | During a Conference with High Profile enabled, H.320 endpoints view bad video. | V7.2 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|------------|--------------------------|--|---------------------|------------|
| 117 | VNGR-19782 | <i>Resource Capacity</i> | On an RMX 2000 running a 1024 Kbps CP conference with Auto Layout, Auto Brightness, LPR, Sharpness, Video Clarity, Graphics and Send Content to Legacy Endpoints enabled, after connecting H.263 CIF VSX endpoints, each endpoint used 1.5 resources instead of 1. | V7.2 | |
| 118 | VNGR-19767 | <i>Encryption</i> | A Tandberg 6000 DMA registered endpoint requires several attempts to connect to an AES encrypted ISDN conference. | V7.6 | |
| 119 | VNGR-19628 | <i>SIP</i> | The RMX system changes the Call-ID for each new registration. This may trigger a boot cycle on certain SIP Servers. | V7.0.2 | |
| 120 | VNGR-19606 | <i>Cascading</i> | During a 2Mb/384 kbps cascaded conferences with H.239 People+Content enabled, both conferences cannot view content. | V7.0.2C | |
| 121 | VNGR-19541 | <i>Interoperability</i> | Tandberg C20 and C90 endpoints, version TC4.0.1.240265 connect as audio only to a VSW HD conference running at a line rate of 6Mb on RMX version 7.1. Issue is not reproduced when Tandberg release 3.1.2 is installed on the endpoints. | V7.1 | |
| 122 | VNGR-19536 | <i>General</i> | The Default IP Network Service configured using the Fast Configuration Wizard is not saved if no media cards are installed in the RMX during the configuration process. | V7.1 | |
| 123 | VNGR-19505 | <i>Interoperability</i> | Tandberg MXP endpoints connect as Audio Only to Video Switching conferences running at a line rate of 768 kbps and resolution of SD 30 fps on RMX Version 7.0.x with MPM+ card installed. | V7.0 | |
| 124 | VNGR-19459 | <i>General</i> | When the workstation's screen resolution is set to 1280 x 720, the Accept Agreement button in RMX Documentation and Utilities screen provided on the Polycom USB key is cut and the screen becomes corrupted when enlarging the display using Ctrl, +, +. | V7.1 | |
| 125 | VNGR-19455 | <i>General</i> | Layout.CPP assert is displayed when changing the conference layout via Conference Properties dialog box of a conference running on RMX 1500 at a line rate of 512Kbps with 20 ISDN/H.323 and SIP endpoints connected to the conference. | V7.1 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|------------|----------|--|---------------------|---|
| 126 | VNGR-19423 | Content | When two 512 Kbps conferences are created and cascaded with an ISDN link with Content enabled, when ISDN & IP endpoints connected, the IP endpoint attempts to snatch the token from an ISDN endpoint. | V7.1 | |
| 127 | VNGR-19422 | Content | The Tandberg 6000 E does not receive content from the HDX9004 in H320 conferences. The Tandberg displays a black screen on its content monitor. | V7.1 | |
| 128 | VNGR-19364 | General | Changing the font size display of the workstation monitor does not change the size of the fonts displayed in the RMX Documentation and Utilities screens provided on the Polycom USB key shipped with the RMX. | V7.1 | |
| 129 | VNGR-19323 | Content | After setting up a conference and sending content, while connected to a RSS4000 the content's resolution dropped from H.264 to H.263. | V4.7.1 | |
| 130 | VNGR-19262 | ISDN | On an RMX 2000 with MPMx cards, the maximum capacity of 40 ISDN participants could not be attained when participants connected at 256Kbps to a conference running at a line rate of 512Kbps as downspeeding of the conference line rate is not supported. | V7.1 | Set the Conference line rate to 256Kbps |
| 131 | VNGR-19221 | IVR | On an RMX 4000 in the Ultra Secure Mode, when a dial-out conference is started from a Profile and the IVR initiates, audio and video problems occur. | V7.5 | |
| 132 | VNGR-19109 | SIP | In an 768 Kbps CP conference with Auto Layout, Gathering, LPR, Sharpness Graphics and Video Clarity enabled, the SIP call negotiates H.263 instead of H.264. | V7.1 | Not an RMX issue; an endpoint issue. |
| 133 | VNGR-19087 | Video | On an RMX 1500 in a Real Life conference, all endpoints have their audio and video halted for 10 seconds. | V7.1 | |
| 134 | VNGR-19085 | Content | In a conference with mixed H.323 and ISDN endpoints, when content switches between participants, the ISDN participant can receive the content token but cannot resend it. As a result all participants view black screen for a few seconds, and then the view returns to normal video. | V7.1 | |
| 135 | VNGR-19077 | Content | In a ISDN cascaded conference that places a call using the Codian Gateway, after sending Content the call disconnects. | V7.1 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|------------|------------------|---|---------------------|--------------------------------------|
| 136 | VNGR-19076 | Gateway | When an IP call is forwarded from the RadVision Gateway to RMX over ISDN, bad video can be seen. | V7.1 | |
| 137 | VNGR-19068 | H.323 | In an 512 Kbps SIP/H.323 VSW conference with LPR, Sharpness, Graphic Auto Layout and Video Clarity enabled, when sending content from an HDX endpoint, VSX endpoints cannot view content. | V7.1 | Not an RMX issue; an endpoint issue. |
| 138 | VNGR-19038 | Software Version | On an RMX 2000/4000 with Ultra Secure Mode/ Secure Communication enabled, after a system restart, the system date sometimes reverts back to a previous date or incorrect date. | V7.5 | |
| 139 | VNGR-19033 | Video | In a 512 Kbps H.323 conference with AES, LPR and single layout enabled, when HDX one endpoint uses PCM the other HDX endpoint's video becomes blurred. | V7.1 | |
| 140 | VNGR-18990 | Video | On an RMX 2000 with MPM+ cards and a 4Mb conference with Motion enabled, 2 OTX-306, 1 RPX-400 endpoints, horizontal black lines appear. | V7.1 | |
| 141 | VNGR-18985 | Content | When Serial endpoint sends content, the H.323 endpoint views a black screen, when serial endpoint stops content, content remains frozen for 10-20 seconds and then endpoints view frozen video. | V5.1 | |
| 142 | VNGR-18943 | Interoperability | In a 4096 Kbps CP conference with Auto Layout, LPR and Graphics enabled, when an Sony XG80 endpoint sends content, HDX endpoints do not see video. | V7.1 | |
| 143 | VNGR-18936 | Interoperability | In a conference on an RMX with MPMx cards, H.320 LifeSize Room endpoints do not receive content. | V7.1 | |
| 144 | VNGR-18918 | Recording | Display of recording icon when recording an ongoing conference is not supported in MPM+ Card Configuration mode. | V7.1 | |
| 145 | VNGR-18772 | General | Incorrect timing values in Release Notes 7.0.2 have been corrected for version 7.0.3 Release Notes. | V7.0.2 | |
| 146 | VNGR-18718 | General | After starting Basic Diagnostic Mode on the system, in the Hardware Monitor the Estimated Duration field lists an inaccurate number of minutes that remain until completion. | V7.1 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|------------|-------------------------|---|---------------------|---|
| 147 | VNGR-18697 | <i>RMX Manager</i> | On the RMX Manager the port gauge flashes but the system alert is no longer generated in the faults list like in previous versions. | V6.0 | |
| 148 | VNGR-18679 | <i>Interoperability</i> | Endpoints defined in the Global Address Book of the CMA with both H.323 and ISDN numbers, will be called by the RMX using only the H.323 number and not the ISDN. | V7.1 | |
| 149 | VNGR-18637 | <i>Interoperability</i> | When content is sent from an ISDN HDX7006 endpoint, LifeSize Room 200 endpoint cannot view the content. | V7.1 | Not an RMX issue; LifeSize issue. |
| 150 | VNGR-18622 | <i>RMX Manager</i> | An RMX 2000 in the MPM+ mode recognizes in the Hardware Monitor the MPMx card and displays a "normal" status when the card is in fact disabled. | V4.7 | |
| 151 | VNGR-18554 | <i>CMA</i> | On an RMX registered to the IOS/CMA, when an VVX endpoint connects to the conference, no video is seen. | V7.1 | Not an RMX issue; an endpoint issue (VOIP-66645). |
| 152 | VNGR-18528 | <i>FECC</i> | When FECC is activated from the PCM application, when pressing the exit button "0", there is no response. | V7.1 | |
| 153 | VNGR-18522 | <i>Interoperability</i> | When using PCM to use Click & View, the menu appears in the middle of the screen. | V7.1 | |
| 154 | VNGR-18497 | <i>Interoperability</i> | On a Radvision Scopia XT1000 endpoint the PCM menu appears on screen, however you cannot select or execute some of the menus. | V7.1 | |
| 155 | VNGR-18443 | <i>Security</i> | RMX Manager is designed not to Remember Login, Username and Password when in Ultra Secure Mode. | V7.5 | |
| 156 | VNGR-18438 | <i>Upgrade Process</i> | When upgrading to version 7.5 the following error message appears: "installation of MCU version failed". This is caused when the bin file exceeds 200MB. | V5.0.2 | |
| 157 | VNGR-18370 | <i>Interoperability</i> | In Meeting Rooms where the conference line rates are higher than 384 Kbps, Sony PCS1600 endpoints connect as Audio Only. | V7.0.1 | |
| 158 | VNGR-18357 | <i>Multilingual</i> | When the PCM menu is set to the Japanese language, Click & View appears in English as it is Polycom registered name for this feature. | V7.1 | |
| 159 | VNGR-18344 | <i>RMX Manager</i> | After changing the status of an Ongoing Meeting Room to "Permanent Conference", in the Meeting Room pane the status remains unchanged. | V4.7 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|------------|--------------------------|--|---------------------|------------|
| 160 | VNGR-18330 | <i>Resource Capacity</i> | On the RMX 4000, the maximum number of video participants in one conference is limited to 180. | V7.2 | |
| 161 | VNGR-18211 | <i>RMX Manager</i> | On RMX2000 with MPMx-S, when two ViewStation endpoints connect to the conference using H.263, the Video Port Usage display on the RMX Manager displays 3 ports used. The Administrator guide states 4 ports. | V7.0 | |
| 162 | VNGR-18116 | <i>Interoperability</i> | In a 384 Kbps CP conference with LPR and AES enabled, when Touch Control changes the layouts, HDX endpoints hear a string of DTMF tones after each change. | V7.1 | |
| 163 | VNGR-18021 | <i>Interoperability</i> | In DMA, when a SIP endpoint is connected to a certain MCU, and the user chooses to stop using it, the call is routed to a different MCU while the call rate is reduced by 64k. | V7.0 | |
| 164 | VNGR-17944 | <i>ISDN</i> | ISDN HDX endpoints may disconnect from ongoing conferences following a recovery of the processing unit. | V7.1 | |
| 165 | VNGR-17889 | <i>RMX Manager</i> | The RMX Web Client does not show the status of the link between the client and the MCU correctly when it is failing. A manual reset was required to reestablish the link. | V7.1 | |
| 166 | VNGR-17888 | <i>Video</i> | Full screen layout is displayed instead of 3x3 layout when the 3x3 layout is selected using Click&View from HDX9004 version 2.7.0-5547. Conference is running on RMX 2000 with either MPM+ or MPMx. | V7.0.2 | |
| 167 | VNGR-17843 | <i>General</i> | HDX H323 endpoints are unable to remain connected to a CP conference running on RMX1500 at a line rate of 1920kbps with LPR, Video Clarity and Send Content to Legacy Endpoint options enabled. The disconnect status displays MCU internal problem 32212. | V7.0.2 | |
| 168 | VNGR-17818 | <i>General</i> | Video Preview cannot be disabled. | V7.0 | |
| 169 | VNGR-17807 | <i>Interoperability</i> | Radvision Scopia XT1000 does not transmit video when connected at a line rate of at 1920kbps to a CP conference running on RMX 2000 with MPMx and its Resource Configuration set for "Video Quality Optimized". | V7.0.2 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|------------|-----------------------------|--|---------------------|---|
| 170 | VNGR-17746 | <i>Partners - Microsoft</i> | In an environment that includes the Microsoft Lync server and RMX 4000 MPM+80 with ICE enabled, when the Lync client escalates to video after connecting as Audio Only to a Meeting Room that is running at 384kbps, with Encryption and LPR enabled, artifacts appears at the start of the video. | V7.0.2 | Not an RMX issue; Microsoft Lync Server issue. |
| 171 | VNGR-17724 | <i>General</i> | After Comprehensive Restore to Factory Defaults, an active alarm displayed, indicating voltage problem on MPM-f - card. | V7.0.2 | |
| 172 | VNGR-17689 | <i>ISDN</i> | Blurred (Predator) video is displayed on the HDX endpoint that is in self view when a movement occurs while the endpoint is connected via ISDN to a conference running at a line rate of 1472kbps, with encryption enabled. | V7.0.2 | |
| 173 | VNGR-17668 | <i>Interoperability</i> | Sony PCS-XG80 receives video at a resolution of 432x240 instead of 720p when connected to a CP conference running on RMX 2000 with MPM+ at a line rate of 1920kbps with LPR, Video Clarity and Send Content to Legacy Endpoint options enabled. | V7.0.2 | |
| 174 | VNGR-17616 | <i>Audio</i> | HDX H.323 endpoint receives G.722 audio instead of Siren22 (as the SIP endpoints) when connected to a conference running at a line rate of 384kbps on RMX4000 with MPM+ and the CS_ENABLE_EPC flag is set to YES. | V7.0.2 | Not an RMX issue; Endpoint issue (VIDEO-88386). |
| 175 | VNGR-17525 | <i>Video</i> | A black vertical line is displayed between cells where usually there is a border when OTX and RPX 400 endpoints are connected to a conference running on RMX system with MPMx at a line rate of 4MB and video Quality set to Sharpness. | V7.0.2 | An endpoint issue (VIDEO-86473) |
| 176 | VNGR-17509 | <i>Hardware</i> | Sometimes during a conference, the error message "no LAN connection" appears as a result of momentary network problems. However, the endpoints remain connected to the MPM card. | V7.0.2 | Check the network. |
| 177 | VNGR-17409 | <i>Upgrade Process</i> | Sometimes, when upgrading an RMX 2000 with two MPM cards from version 6.0.2 to 7.0.2, the Software Loading process remains stuck at 22%. | V7.0.2 | An IBM Lotus Sametime Client issue. |
| 178 | VNGR-17395 | <i>Interoperability</i> | During a video conference between 3 ST client s and a video Desktop endpoint, zebra video artifacts appear on the conference layout of all endpoints. | V7.1 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|------------|------------------|--|---------------------|---------------------------------------|
| 179 | VNGR-17333 | General | When you add an MCU to RMX Manager (v6, v7) the password is displayed in plain text if you selected the "Remember Login" check box during Login. | V6.0 | |
| 180 | VNGR-17001 | Hardware | MPMx card remains in startup mode instead of Major state after restoring the RMX to factory defaults and without configuring the IP address of the media card(s) in the Fast Configuration Wizard. | V7.0.1 | |
| 181 | VNGR-16997 | LPR | LPR is enabled by default in the conference profile when CP mode is selected. LPR is disabled by default in the conference profile when VSW mode is selected. Changing between CP and VSW modes causes LPR to be enabled/disabled. | V7.0 | |
| 182 | VNGR-16981 | Audio | Audio volume of PSTN audio-only participants connecting via GW is approximately three times lower than that audio volume of video participants. | V6.0 | |
| 183 | VNGR-16974 | ISDN | Dial-in or dial-out ISDN endpoints do not connect at line rates higher than 768kbps, irrespective of profile setting. | V7.0 | |
| 184 | VNGR-16955 | Interoperability | iPower 9000 endpoint in H.323 call with RMX with MPM+ or MPMx does not transmit audio in encrypted calls. | V7.0 | |
| 185 | VNGR-16924 | Interoperability | In DMA, when a SIP endpoint is connected to a certain MCU, and the user chooses to stop using it, the call is routed to a different MCU while the call rate is reduced by 64k. | V7.0 | May be a DMA issue. |
| 186 | VNGR-16919 | Audio | On RMX with MPMx using H.323 with HDX endpoint, sites receive Siren14 instead of Siren22 Stereo audio algorithm in 6Mbps VSW conferences. | V7.0 | An endpoint issue (VIDEO-88345). |
| 187 | VNGR-16901 | Software Version | On RMX 1500 Video Preview is preceded by a green screen momentarily before Video Preview starts. | V7.0 | |
| 188 | VNGR-16871 | Video | When LPR is activated in a conference, the actual HDX endpoint's "Used Call Rate" is approximately 100kbps lower than expected. | V7.0 | |
| 189 | VNGR-16841 | Interoperability | Connect to the network using VPN and then start a conference with LPR enabled, connect endpoints using CMAD, the video of the endpoints was very fragmented. | V7.0 | Not RMX issue; endpoint issue (CMAD). |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|------------|------------------|---|---------------------|------------|
| 190 | VNGR-16809 | IVR | DTMF Code *71 (Secure Conference) sent to RMX 1500 displays Gathering Slide Text instead of "Secured" indicator text. | V7.0 | |
| 191 | VNGR-16794 | Audio | On RMX 4000 with MPM+, G.728 codec isn't declared 1st codec in conference at 96kbps. | V7.0 | |
| 192 | VNGR-16757 | RMX Manager | When starting a new conference from a conference template, the new conference is not selected or highlighted in the conferences pane. | V6.0 | |
| 193 | VNGR-16754 | Diagnostics | On an RMX 4000 in the Diagnostic mode when pressing the menu reset button the following message appears: "connection with shelf management is lost, please log in again". You can only exit the Diagnostic mode after physically turning the RMX Off and On. | V7.0.2 | |
| 194 | VNGR-16742 | Diagnostics | On an RMX2000 with MPMx_D cards when performing an Power ON Self Test (POST), the MPMx card runs the card monitoring test in an endless loop. | V7.0 | |
| 195 | VNGR-16724 | Video | On RMX 1500, video display freezes momentarily during Video Layout changes before the new Video Layout is displayed. | V7.0 | |
| 196 | VNGR-16722 | Video | On RMX 2000 with one MPM-H, small artifacts are displayed in the Gathering Slide when the configuration is changed to Presentation Mode during the Gathering Phase. | V7.0 | |
| 197 | VNGR-16624 | General | In the RMX Manager, when attempting to upgrade two RMX's simultaneously, the Install Software window only appears for one RMX, when you should view both. | V7.0 | |
| 198 | VNGR-16595 | Interoperability | On an RMX 4000 & MPM+ cards, running an 1920Kbps conference with Video Clarity, Auto Terminate, Video Quality, Sharpness, Encryption, LPR, Echo Suppression, Auto Layout, Gathering and Content for Legacy Endpoints enabled, when connecting 20 HDX, Tandberg 17000 and edge95 MXP & 3 Tandberg C series endpoints an MFA card error occurs. | V7.0 | |
| 199 | VNGR-16562 | Gateway | Gateway sessions are always running in CP mode. If Video Switching is selected in the Profile, the system will change it to CP mode, using the closest possible video settings. However, 60fps may not be supported in CP mode for the selected line rate. | V7.0 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|------------|-------------------------|--|---------------------|---|
| 200 | VNGR-16560 | <i>General</i> | Sometimes after log-in to the RMX 1500 Web Client, a Microsoft .NET Framework error message may appear. | V7.0 | |
| 201 | VNGR-16539 | <i>IVR</i> | In a mixed H.323 & SIP 128Kbps conference with Video Clarity, Sharpness, IVR Service and Welcome Slide settings set to "High profile optimized", when connecting HDX 8000 endpoints, the H.323 HDX endpoint does not view the IVR slide but a black screen for 15 seconds. | V7.0 | |
| 202 | VNGR-16535 | <i>SIP</i> | SIP HDX sites (Version 2.6.1 and 2.6.0) receive video in resolution of 432x240 instead of 720p when connecting to a CP conference running on RMX 4000 at a line rate of 1920Kbps with 10+ layout selected and LPR is enabled. | V7.0 | |
| 203 | VNGR-16523 | <i>FECC</i> | When connecting a Tandberg SIP endpoint to a conference running on RMX 1500 at a line rate of 384kbp, FECC does not work. | V7.0 | |
| 204 | VNGR-16462 | <i>Software upgrade</i> | When downgrading to software V6.0.0.105 and performing "Comprehensive restore" to Factory default, followed by upgrade to version V7.0.0.115 the upgrade procedure is stuck in "Software Loading" phase. System Reset (hard or soft) is required to resolve the problem. | V7.0 | |
| 205 | VNGR-16460 | <i>IVR</i> | On RMX 2000 with MPMx, H.261 endpoint that displays the default slide does not access nor display a new slide that is added to the IVR Service. | V7.0 | |
| 206 | VNGR-16427 | <i>Software Version</i> | On RMX 1500 with two conferences running and Legacy Content enabled, line artifacts are displayed in the middle of the CMAD screen after it is disconnected from the first and reconnected to the second conference. | V7.0 | |
| 207 | VNGR-16422 | <i>Software Version</i> | RMX 2000 logs off during upgrade procedure when network is under stress. | V7.0 | When the network is busy, use the RMX Manager application instead of the RMX Web Client to control the MCU. |
| 208 | VNGR-16387 | <i>Interoperability</i> | On an RMX2000 with the MPM+ card, when connecting with an HDX9000 endpoint to the Entry Queue using a line rate of 384Kbps, the IVR slide blinks. | V7.0 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|------------|------------------|---|---------------------|------------|
| 209 | VNGR-16378 | Interoperability | In a SD conference (1024 resolution) with motion, auto layout enabled, when connecting HDX and dial in from Life Size endpoint, the endpoints do not connect in SD with 60 FPS as required. | V7.0 | |
| 210 | VNGR-16377 | General | On an RMX with MPM+ card, when starting a VSW conference from the Profile, the maximum line rate that can be selected is 6144kbps. | V7.0 | |
| 211 | VNGR-16363 | Interoperability | When starting a new 2MB conference on the RMX2000 with MPMx card, lpower endpoints take a long time to connect. | V7.0 | |
| 212 | VNGR-16313 | IVR | When running a 512kbps conference with Gathering, IVR and Echo Suppression enabled on RMX 2000 with MPMx card and the resource allocation is set to Flexible Mode, the IVR slide flashes when dialing out using H.261. | V7.0 | |
| 213 | VNGR-16283 | General | When opening the video preview pane during a conference and previewing the next participant without closing the previous preview pane, the pane is minimized and does not show video of the next participant. | V7.0 | |
| 214 | VNGR-16281 | Content | Content sent from HDX (in H.264) is automatically stopped when a second participant that does not support H.264 Content (for example, CMAD that only supports H.263) joins the conference. When the content is sent again, the Content protocol is H.263+ to enable all conference participants to receive content. | V7.0 | |
| 215 | VNGR-16210 | RMX Web Client | When trying to open the video Preview from a fifth computer's Web browser connected to a conference running on the RMX 1500, all the other four browsers that were running from four different computers close, and the error message "failure status" is displayed on some of the browsers. | V7.0 | |
| 216 | VNGR-16120 | General | Saving to a Conference Template a conference in which the Message Overlay is enabled, automatically enables the message overlay option in the conference that is started from this template. | V7.0 | |
| 217 | VNGR-16103 | General | After running diagnostics on the RMX, LED functionality is not documented. | V7.0 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|------------|----------------------|---|---------------------|------------|
| 218 | VNGR-15953 | General | When copying an on going conference that is based on a Profile that was deleted while the conference is running, when pasting the conference, it is added to conference templates. | V7.0 | |
| 219 | VNGR-15939 | Interoperability | In a "Fixed Resource Capacity" mode, Legacy endpoints can still receive content when they should not. | V7.0 | |
| 220 | VNGR-15935 | Gateway | When creating a new Gateway Profile and setting the Gateway ID to "#1234", no confirmation message appears when clicking OK. | V7.0 | |
| 221 | VNGR-15831 | IVR | When uploading a number of high and low resolution slides to an IVR service, there is only the option to choose one slide. | V7.0 | |
| 222 | VNGR-15822 | Software Version | When PCM is activated in a Gathering-enabled conference, the PCM menu is displayed on top of the gathering slide instead of the display of the Gathering Slide being terminated before the PCM menu is displayed. | V7.0 | |
| 223 | VNGR-15798 | Partners - Microsoft | In ICE environment, a green overlay is displayed on top of one of the video layout in the Gathering slide when a dial out MOC or HDX endpoint connect to the conference. | V7.0 | |
| 224 | VNGR-15757 | Software Version | Initiating PCM when there is only one endpoint connected to a conference that is receiving music results in the music being interrupted. | V7.0 | |
| 225 | VNGR-15755 | General | During an active Telepresence conference, when clicking the Video Settings tab, the "Telepresence Mode enabled" check box appears to indicate the status of the Telepresence Mode. | V7.0 | |
| 226 | VNGR-15737 | General | In the Resolution Configuration Slider, the CIF30 slider is absent from the UI. | V7.0 | |
| 227 | VNGR-15724 | Software Version | On RMX with MPMx, when a skin without background is selected, the Polycom skin background is displayed. When a skin with a background is selected, the speaker notation color is incorrect. | V7.0 | |
| 228 | VNGR-15719 | Interoperability | Tandberg C20 endpoint stops receiving video when the HDX8006 sends content during 6 Mbps HD1080p encrypted conference. | V5.1 | |
| 229 | VNGR-15718 | General | When pulling the LAN cable from the RMX, incorrect disconnection cause is displayed on the endpoints: "call close normal". | V7.0 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|------------|----------------------|--|---------------------|------------|
| 230 | VNGR-15707 | ISDN | When a Tandberg 6000 MXP connects over H.320 to a 384kbps conference running on RMX 4000 with Motion and AES enabled, the endpoint encounters video freezes. | V7.0 | |
| 231 | VNGR-15706 | Video | Tandberg H.320 6000 MXP endpoint displays video freezes throughout the duration of a conference set to motion & encryption. | V5.1 | |
| 232 | VNGR-15704 | Content | Tandberg 6000 MXP H.320 endpoint receives poor quality content from Tandberg Edge95 MXP H.323 endpoint during a 384 kbps, CP, encrypted conference. | V5.1 | |
| 233 | VNGR-15700 | PCM | When PCM is initiated, site names are displayed over the PCM menu. | V7.0 | |
| 234 | VNGR-1569 | CDR | When the conference termination time is changed, the CDR is not updated. | V1.0.0 | |
| 235 | VNGR-15649 | Interoperability | In a continuously running conference, after two HDX7000 and VSX7000 endpoints disconnect, the HDX4000 endpoint's video freezes. | V7.0 | |
| 236 | VNGR-15541 | Video | Create a conference on the RMX using the default factory video profile, connect a Sony PCS-G50 endpoint, and then try to control the XG80's camera. There is no response. | V7.0 | |
| 237 | VNGR-15523 | Partners - Microsoft | Primary and Secondary dial in numbers entered in the Polycom Conferencing Add-in to Microsoft Outlook are always displayed on the Gathering slide (during the gathering phase) for reference, even if the participant connected using the invitation link. | V6.0 | |
| 238 | VNGR-15386 | Video | Artifacts present in the Gathering Slide in 2560kbps, CP conference with Motion selected. | V7.0 | |
| 239 | VNGR-15324 | General | When monitoring a CP conference with 5 or more endpoints from 5 Web Client sessions on separate workstations, Video Previews can be opened from 4 workstations. Attempting to open a fifth Video Preview causes an error "Failed to Preview Video: Failure Status" instead of "The Preview cannot be displayed. The maximum number of previews per MCU has been reached. | V7.0 | |
| 240 | VNGR-15320 | General | Saving to a Conference Template a conference in which the Message Overlay is enabled, automatically enables the message overlay option in the conference that is started from this template. | V7.0 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|------------|-------------------------|---|---------------------|------------|
| 241 | VNGR-15281 | <i>Interoperability</i> | When Aethra VegaStar Gold endpoint connects via ISDN to 384kbps conference, the created CDR Event shows the participant status as "Connected with problem". | V7.0 | |
| 242 | VNGR-15256 | <i>Encryption</i> | When using DTMF codes (*71/#71/*88) to secure and unsecure a conference in which these codes are enabled for everyone in the IVR Service, there is no text/icon indication on the HDX 8000/9000, VSX 3000, Tandberg and Lifesize endpoints. | V7.0 | |
| 243 | VNGR-15222 | <i>RMX Manager</i> | After disconnecting the AC power or physically removing the power supply, an alarm is not generated on the RMX and the RMX Manager Hardware Properties show the disconnected power supply status as "Normal". | V5.0.1 | |
| 244 | VNGR-15155 | | In a conference with a line rate of 4096kbps, set to Sharpness, 1+5 layout, after connecting a few endpoints, when an endpoint dials out, video In & Out freeze. | V7.0 | |
| 245 | VNGR-15131 | <i>IVR</i> | In a conference started from a Profile, when an ISDN call is forced to Audio algorithm G722_1_C_24k a buzzing noise can be heard before the IVR starts. | V7.0 | |
| 246 | VNGR-15101 | <i>IVR</i> | In a Video Switched 4Mbps conference, only the last part of DTMFs *6 (mute) and #6 (unmute) messages are heard. | V7.0 | |
| 247 | VNGR-14780 | <i>Interoperability</i> | RMX4000 using 4Mb, Same Layout, Sharpness, Video Clarity in profile and Entry Queue becomes inaccessible when called via an Entry Queue from H.323 LifeSize endpoint. | V6.0 | |
| 248 | VNGR-14778 | <i>RMX Web Client</i> | ISDN/PSTN fields are disabled (grayed out) although Enable ISDN/PSTN Dial-in check box is selected when modifying an existing Entry Queue. Does not happen when creating a new EQ. | V6.0 | |
| 249 | VNGR-14767 | <i>General</i> | H.323 party disconnect due to MCU Internal Problem 32212. | V6.0 | |
| 250 | VNGR-14688 | <i>General</i> | When a conference is deleted in the RMX Manager, conference participants are not deleted in the participants list. | V6.0 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|------------|------------------|--|---------------------|------------|
| 251 | VNGR-14687 | Audio | When connecting 800 VOIP using 4 Entry Queues and 396 Ad Hoc conferences, when adding Dial out participants to the conferences they could connect. An MCU error message appears: MCU INTERNAL PROBLEM - 65012. | V6.0 | |
| 252 | VNGR-14667 | General | When defining a New Profile in the Video Settings tab and selecting a Layout, in the Conference Profiles list there is no indication of the selected layout and the layout icon is missing. | V6.0 | |
| 253 | VNGR-14624 | General | After changing the conference profile assigned to a conference template that includes participants, some of these participant are randomly deleted from the conference template. | V7.0 | |
| 254 | VNGR-14578 | Audio | On an RMX with a license for 800 audio only participants, a disconnection cause always occurs after connecting the 767th participant. | V6.0 | |
| 255 | VNGR-14417 | General | On an RMX 2000, when QoS is selected in the IP Network Service and connecting more than 5 HDX endpoints in an HDCP call, packet loss occurs when sending audio and video. | V5.0.1 | |
| 256 | VNGR-14175 | RMX Manager | When using the RMX Manager, a Message Alert "500" is displayed when an RMX running Version 4.6 is selected in the MCU's list. | V6.0 | |
| 257 | VNGR-14159 | General | Operator assistance function is blocked when the TelePresence mode is enabled. | V6.0 | |
| 258 | VNGR-14151 | General | A Shelf Voltage problem is always displayed in the System Alerts pane regardless of the actual status. | V6.0 | |
| 259 | VNGR-14124 | Video | On rare occasions in 2Mbps ISDN calls, ISDN participants connected without their endpoints sending video for a few seconds. | V6.0 | |
| 260 | VNGR-14062 | General | On a fully loaded RMX 4000, endpoint may disconnects with Call Disconnection Cause stated as "MCU internal problem - 11122". | V6.0 | |
| 261 | VNGR-14047 | Interoperability | Artifacts appear on LifeSize _RM1_4.5.1(15) endpoint connected via SIP or H.323 to a 2Mbps conference with Video Quality set to "Sharpness" running on the RMX 2000 in MPM mode. The LifeSize endpoint is using 4SIF 30 resolution while Polycom endpoints are using 720*400 resolution. | V6.0 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|------------|---------------------------------------|---|---------------------|------------|
| 262 | VNGR-13951 | <i>RMX Manager</i> | On the RMX 2000/4000, on the RMX Manager - IP Network Service, open the Properties window and then click Management Network, the Management Network pane UI remains offset. | V5.0.1 | |
| 263 | VNGR-13832 | <i>RMX Manager</i> | When the RMX is in an Ultra Secure Mode, the RMX Manager window appears "Maximized". After changing the layout settings, after re-login the latest settings are not implemented. | V5.0.1 | |
| 264 | VNGR-13808 | <i>General</i> | On an RMX 2000, an invalid system flag (CS_TUNNELING instead of H245_TUNNELING) can be added to the system configuration. | V4.1.1 | |
| 265 | VNGR-13729 | <i>Unified Communication Solution</i> | When connecting from a MOC endpoint using the link sent in the meeting invitation to an ongoing conference that was scheduled via the Polycom add-in for Microsoft Outlook on the RMX 4000 (standalone) with Gathering and Recording enabled, the conference is not started as a Meeting Room/Conference Reservation or ongoing conference with the same name already exist in the MCU. | V6.0 | |
| 266 | VNGR-13314 | <i>Partners - Microsoft</i> | When resetting the RMX after loading the certificate and registering the RMX with the OCS, two active alarms appear: "SIP registration transport error" and "No response from Registration server". | V6.0 | |
| 267 | VNGR-13152 | <i>Video</i> | Message overlay is limited to 32 Chinese characters OR 96 ASCII characters. | V4.6 | |
| 268 | VNGR-13001 | <i>Video</i> | Video display freezes momentarily with every speaker or layout change in a conference with HDX and SVX endpoints. | V4.6 | |
| 269 | VNGR-12732 | <i>Upgrade Process</i> | After upgrading the system from version 5.0 to version 4.6, the Users list is deleted and the default POLYCOM User is created. For security reasons, it is recommended to delete this User and create your own User. | V4.6 | |
| 270 | VNGR-12373 | <i>Interoperability</i> | HDX endpoint connected via H.320 does not receive Content from Tandberg MXP endpoint connected via H.323. | V5.0.0 | |
| 271 | VNGR-12372 | <i>Interoperability</i> | Tandberg 6000 E and B series, H.320 endpoints do not connect to conferences when encryption is enabled. | V5.0.0 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|------------|------------------|---|---------------------|--|
| 272 | VNGR-12369 | Interoperability | Tandberg C20 endpoint periodically displays fast updates in HD1080p conferences. | V5.0.0 | |
| 273 | VNGR-12355 | Interoperability | DST K60 endpoint receives tiled video from HDX9004 endpoint during H.323 conference. | V7.1 | Set the system flag SEND_WIDE_RES_T O_IP to NO to force the system to send 4CIF. |
| 274 | VNGR-12266 | Interoperability | Tandberg MXP endpoint receives ghosted video from HDX9004 endpoint during H.323 conference. | V5.0.0 | |
| 275 | VNGR-12257 | RMX Web Client | When upgrading the RMX Web Client with software changes, Internet Explorer needs to be closed and opened before the upgrade can take place. | V5.0.0 | |
| 276 | VNGR-12202 | Encryption | Rarely, in an encrypted conference, H.323 encrypted dial-in and dial-out participants cannot connect and an assert appears (File:EncryptionKeyServerManager.cpp). | V5.0.0 | |
| 277 | VNGR-12178 | Content | RMX does not support H.264 Content in ISDN calls. | V5.0.0 | |
| 278 | VNGR-12177 | Interoperability | In a conference with AES, LPR and Video Clarity enabled, H.320 Tandberg MXP endpoints connect with resolution of 960x720, while identical H.323 MXP endpoints connect with resolution of 720p. | V5.0.0 | |
| 279 | VNGR-12172 | RMX Web Client | In the RMX Web Client, the main window opens up as full screen and cannot be resized. | V5.0.0 | |
| 280 | VNGR-12116 | General | When a participant is moved from one conference to another and becomes the single participant in the destination conference, the participant does not hear music. | V5.0.0 | |
| 281 | VNGR-12034 | ISDN | In a conference running at a line rate of 384 Kbps, H.320 encrypted participant cannot connect and an assert appears. | V5.0.0 | |
| 282 | VNGR-12033 | General | Rarely a system error (BridgePartyVideoOut.cpp, Line:1458, Code:1701.; DEBUG-ASSERT:) is written to the log file if a change is made to the conference layout while participants are disconnecting. | V5.0.0 | |
| 283 | VNGR-12031 | IVR | A conference running at a line rate of 1920Kbps and IVR Service that includes a Welcome Slide, both the Welcome Slide and Video are partially blacked out. | V5.0.0 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|------------|------------------|---|---------------------|--|
| 284 | VNGR-12011 | ISDN | Occasionally, an ISDN participant fails to connect to the conference due to the following error - "MCU internal problem - 50020". | V5.0.0 | |
| 285 | VNGR-12007 | ISDN | Occasionally, when ISDN participants connect to a conference with line rate 384kbs, multiple asserts appear in the log file. | V5.0.0 | |
| 286 | VNGR-12006 | SIP | With SIP defined and undefined dial-in participants you cannot change the layout type from "conference layout" to "personal layout". | V5.0.0 | |
| 287 | VNGR-11987 | General | When upgrading from V4.0.3 to V5.0, after inserting the activation key an invalid key message appears. | V5.0.0 | Logout and login to the web browser or reopen the Internet Explorer. |
| 288 | VNGR-11965 | Video | In a conference running at a line rate of 384 Kbps, with AES and LPR enabled, calls connect using the H.263 instead of the H.264 video protocol. | V5.0.0 | |
| 289 | VNGR-11963 | Interoperability | In a conference running at a line rate of 384 Kbps with AES, LPR and Video Clarity enabled, HDX ISDN participants connect with SIF resolution while HDX IP endpoints connect using a 4SIF resolution. | V5.0.0 | |
| 290 | VNGR-11953 | Cascading | When connecting to a cascaded CP conference with a 768Kbps line rate and the video quality set to Sharpness, HDX endpoints experience bad video quality. | V5.0.0 | |
| 291 | VNGR-11949 | SIP | The maximum number of Meeting Rooms, Entry Queues, SIP Factories and ongoing conferences that can be registered to the Proxy, is limited to 100. | V5.0.0 | |
| 292 | VNGR-11920 | Interoperability | In a 4 Mb RPX conference with LPR enabled, video-out bit rate decreases to 128 Kbps due to packet loss and does not increase. | V5.0.0 | |
| 293 | VNGR-11883 | General | After software upgrade, it is necessary to close and reopen Internet Explorer. | V5.0.0 | |
| 294 | VNGR-11843 | Video | In a 2 Mb Video Switched conference with 10 or more H.323 endpoints connected, random video refreshes may occur. | V5.0.0 | |
| 295 | VNGR-11830 | Interoperability | Sony XG80 endpoint cannot send Content in H.323 384 Kbps call. | V6.0 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|------------|------------------|--|---------------------|------------|
| 296 | VNGR-11810 | H.323 | The following assert may appear when H.323 participant connects to a 2 Mb Continuous Presence conference: File:AuditorApi.cpp, Line:112, Code:1.; ASSERT:Audit_free_Data_is_too_long_20882,_max_is_20480data_size_is_:_20882 | V5.0.0 | |
| 297 | VNGR-11798 | Interoperability | When Tandberg C20 endpoint sends Content, the far end indicates that Content is being received but received Content is black. | V5.0.0 | |
| 298 | VNGR-11767 | Interoperability | In a 6 Mb, Video Switched conference, HDX endpoints that declare 2 Mb capability may only connect at a line rate of 896 Kbps after 30 seconds. | V4.1.1 | |
| 299 | VNGR-11746 | CDR | GMT Time Offset is written to the unformatted CDR as 0. | V4.1 | |
| 300 | VNGR-11563 | Interoperability | Legacy endpoints occasionally cannot switch to Content when Content switched from H,264 to H.263. | V4.1 | |
| 301 | VNGR-11531 | IVR | After upgrading the RMX to a software version that includes the gateway and the maximum number of IVR services reached 40 in RMX 2000 and 80 in RMX 4000, the default Gateway IVR Service is not created. | V4.1 | |
| 302 | VNGR-11523 | Interoperability | In a conference started using the default factory profile, when connecting to the conference with a MOC Client or HDX SIP endpoint, there is no indication on the RMX if audio is muted or unmuted. | V4.1 | |
| 303 | VNGR-11489 | Interoperability | In a conference running at a line rate of 384 Kbps, when HDX 8006 endpoint that sends Content is moved to another conference, Content is still viewed for a number of seconds on the HDX. | V4.1 | |
| 304 | VNGR-11463 | Interoperability | In a conference running at a line rate of 128 Kbps that includes Content sent by H.323 endpoint, Lifesize ISDN endpoints cannot view the Content. | V7.7 | |
| 305 | VNGR-11425 | Interoperability | When Tandberg MXP sends Content using H.323, ISDN endpoints cannot view Content. | V7.1 | |
| 306 | VNGR-11417 | Interoperability | On an RMX 2000 running a 1472 Kbps conference with Auto Layout, Sharpness and Graphics enabled, the Tandberg 6000 MXP endpoint does not negotiate using 720p HD with the RMX. | V7.1 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|------------|------------------|---|---------------------|------------|
| 307 | VNGR-11401 | Encryption | In an encrypted conference, Tandberg MXP endpoints encounter audio problems. | V4.1 | |
| 308 | VNGR-11383 | General | When updating the Profile assigned to a Conference Template, changes are not applied when the conference becomes ongoing. | V4.1 | |
| 309 | VNGR-11382 | Video | Legacy endpoints receive Content in 1+7 layout with black stripes on the sides (for aspect ratio fitting), selecting a different layout using Click&View (**) causes the black stripes to disappear. | V4.1 | |
| 310 | VNGR-11351 | Video | When the video from an endpoint is blocked, inconsistent video resolution settings are implemented. | V4.1 | |
| 311 | VNGR-11341 | Interoperability | During H.320 calls, Lip Sync issues occur when content is being sent. | V4.1 | |
| 312 | VNGR-11324 | General | When moving many participants simultaneously from one conference to the other (both with a line rate of 1920 Kbps), a number of HDX8000 endpoints connect secondary. When trying to disconnect and reconnect the participants connected as Secondary, an MCU Internal error 32122 is displayed. | V4.1 | |
| 313 | VNGR-10922 | General | Dial out to participants assigned to a Meeting Room will only start when the dial-in participant who has activated it has completed the connection process and the Meeting Room has become an ongoing conference. | V4.1 | |
| 314 | VNGR-10239 | Video | In a 4Mb conference set to Sharpness and the IVR Welcome Message enable video appears in a 4x3 format. Disable IVR Welcome message and the video appears in 6x9 format. | V4.0.1 | |
| 315 | VNGR-10162 | Interoperability | An HDX 2.5.0.2-3395 endpoint cannot control a Sony XG80 endpoint using FECC. | V7.2 | |
| 316 | VNGR-10104 | LPR | When an H.323 HDX endpoint sends Content, the endpoint disables the LPR. | V4.0.1 | |
| 317 | VNGR-9909 | Interoperability | When dialing out to a Tandberg MXP ISDN endpoint, the IVR slide is not displayed, although the IVR message is played. | V4.0.0 | |
| 318 | VNGR-9844 | Interoperability | During an H.320 call, Tandberg 6000 B10 endpoint does not receive content from an HDX9004. | V7.1 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|-----------|------------------|--|---------------------|--|
| 319 | VNGR-9843 | Interoperability | During an H.323 call, Tandberg 6000 B10 endpoint receives corrupted H.239 content from an HDX. | V7.1 | |
| 320 | VNGR-9834 | IVR | When DTMF codes have been entered by the participants, the volume of the IVR Message may be suppressed or the message may be cut. | V4.0.0 | |
| 321 | VNGR-9830 | Interoperability | HDX endpoints may experience packet loss when the HDX endpoint's LAN Speed is configured to 100MB. | V4.0.0 | Set the endpoint LAN Speed and Duplex Mode to Auto. |
| 322 | VNGR-9829 | RMX Web Client | Occasionally, during an ongoing conference, when selecting the Hardware Monitor menu the message "No connection with Switch" appears. | V4.0.0 | |
| 323 | VNGR-9803 | General | When using the restore to factory defaults, after inserting the Activation key, the system requires a reset when the reset is not required. | V4.0.0 | |
| 324 | VNGR-9740 | Upgrade Process | When upgrading from version 2.0.2 to version 4.1, and then Restoring the Factory Defaults, during system restart sometimes MPL failure is encountered. | V4.0.0 | Turn the MCU off and then turn it on ("hardware" reset). |
| 325 | VNGR-9729 | General | When moving from MPM+ to MPM mode (with only MPM cards installed in the MCU), the Card Configuration Mode, indicated in the System Information dialog box, remains in MPM+ Mode. | V4.0.0 | Logout and then login to the RMX Web Client. |
| 326 | VNGR-9677 | Interoperability | When switching Content sending from an HDX9004 to Aethra X7 and back, Content is not received by Aethra X7. | V4.0.0 | |
| 327 | VNGR-9565 | Upgrade Process | When downgrading from version 4.0 to version 3.0, the MPM card does revert to normal. | V4.0.0 | |
| 328 | VNGR-9340 | CDR | When a conference was terminated by an MCU reset, an incorrect status "Ongoing Conference" will be displayed in the CDR List pane. | V4.0.0 | |
| 329 | VNGR-9228 | Software Version | When trying to restore last version, after upgrading from version 3 to version 4, the RMX prompts for an activation key. | V4.0.0 | |
| 330 | VNGR-9015 | Interoperability | Radvision ECS Gatekeeper set to Routed Mode is not forwarding the LPR parameters as required, causing HDX calls with LPR enabled to connect with no video. | V3.0.0 | |
| 331 | VNGR-8605 | Interoperability | The video of Sony G70 endpoint that is connected to a conference over ISDN at line rate of 128Kbps freezes when receiving Content from an HDX endpoint. | V3.0.0 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|-----------|-------------------------|---|---------------------|--|
| 332 | VNGR-8259 | <i>Software Version</i> | If an RMX operating in Secure Communication Mode, is downgraded to a version that does not support Secure Communication Mode (V2.0, V1.1), all connectivity to the RMX is lost. | V3.0.0 | Cancel the Secure Mode before downgrading |
| 333 | VNGR-7734 | <i>IP</i> | Static Routes table in IP Network Service does not function. | V3.0.0 | |
| 334 | VNGR-7598 | <i>Interoperability</i> | H.323 link is connected as secondary when cascading with Tandberg MPS at 768Kbps, in both Video Switching and CP conferences. | V3.0.0 | |
| 335 | VNGR-7597 | <i>Interoperability</i> | H.323 link is connected as secondary when cascading with Tandberg MPS at 768Kbps, in both Video Switching and CP conferences. | V3.0.0 | |
| 336 | VNGR-7557 | <i>RMX Web Client</i> | When connecting directly to the Shelf Manager and selecting Diagnostic Mode the CNTL module does not enter the diagnostic mode and stays "Normal". | V3.0.0 | Reset the MCU and then switch to Diagnostic Mode. |
| 337 | VNGR-6902 | <i>Interoperability</i> | Sony PCS G70 (v2.61) and Sony PCS-1(v3.41) endpoints cannot connect to conferences using SIP connections. | V5.1 | Force the endpoints to connect using H.323 connection. |
| 338 | VNGR-6809 | <i>Interoperability</i> | iPower endpoints are transmitting H.263 video instead of H.264 video in 384Kbps conferences while other endpoints transmit H.264 video. | V7.1 | |
| 339 | VNGR-5310 | <i>Multilingual</i> | Multilingual Settings are not reflected on the Shelf Management login page and the multilingual flags appear in the Shelf Manager window even when they have not been selected in the Multilingual Settings pane. | V2.0.0 | |
| 340 | VNGR-5151 | <i>Multilingual</i> | The Display Name of undefined dial-in participant using HDX and VSX 7000 endpoints is displayed in English in the RMX Web Client. | V2.0.0 | |
| 341 | VNGR-4652 | <i>Interoperability</i> | HDX/VSX endpoints cannot connect directly to conferences while registered with Cisco Gatekeeper using the IP##NID string. | V1.1.0 | Connect directly using the MCU IP Address via the Transit Entry Queue. |
| 342 | VNGR-4405 | <i>ISDN</i> | When a busy signal is returned by a PSTN dial-out participant, the RMX does not redial but disconnects the participant with "party hung-up-0" status. | V2.0.0 | |

Table 4 Version 7.8 System Limitations (VNGR IDs)

| # | Key | Category | Description | Detected in Version | Workaround |
|-----|-----------|-------------------------|--|---------------------|---|
| 343 | VNGR-3977 | <i>Interoperability</i> | Faulty connection status is indicated when the RSS 2000 recording link is the only participant in a conference and its video stream is not synchronized. | V1.1.0 | The video stream is synchronized when the first participant connects to the conference. |
| 344 | VNGR-3824 | <i>General</i> | The Click & View menu doesn't appear in 64 Kbps calls. | V1.1.0 | Use the RMX Web Client. |
| 345 | VNGR-3276 | <i>SIP</i> | SIP participants cannot connect to a conference when the conference name contains blank spaces. | V1.1.0 | |
| 346 | VNGR-3089 | <i>HD</i> | In HD Video Switching conferences, Tandberg endpoints may connect as Secondary when HD frame rate capabilities are less than 7.5 frames per second. | V1.1.0 | Create a CP conference |
| 347 | VNGR-3011 | <i>CDR</i> | The Encryption field is missing from the CDR file. | V1.1.0 | |

Troubleshooting Instructions

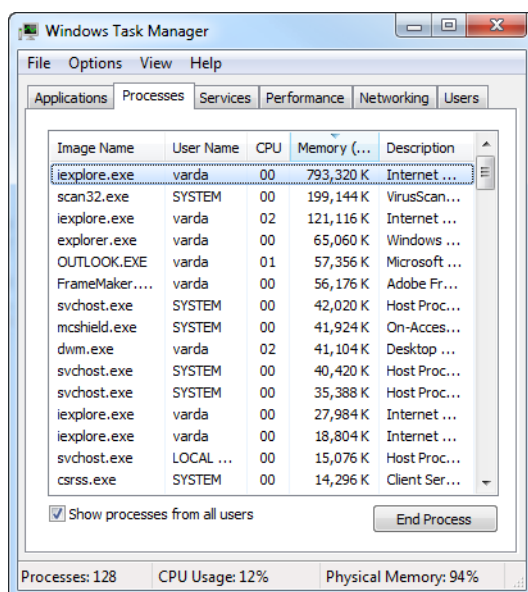
RealPresence Collaboration Server (RMX) Web Client Installation - Troubleshooting Instructions

Close all the Internet Explorer sessions and perform the following procedure.

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.

- 1 Start the **Task Manager** and click the **Processes** tab.
- 2 Select an **iexplore** process and click the **End Process** button.



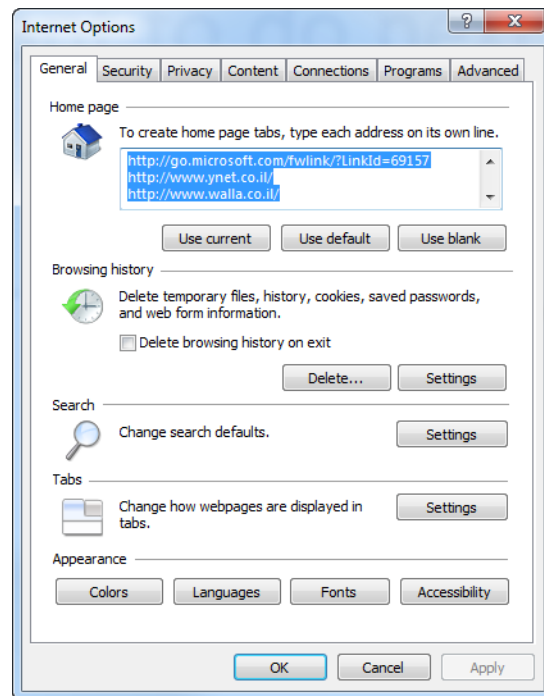
- 3 Repeat this process for all **iexplore** processes that are currently active.
- 4 Close the *Windows Task Manager* dialog box.
- 5 Open the Internet Explorer and connect to the MCU.

If the problem persists, continue with the next step.

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

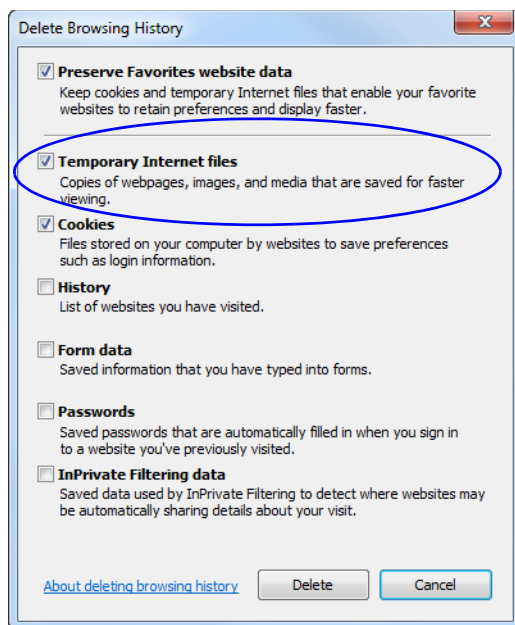
To delete the Temporary files:

- 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.

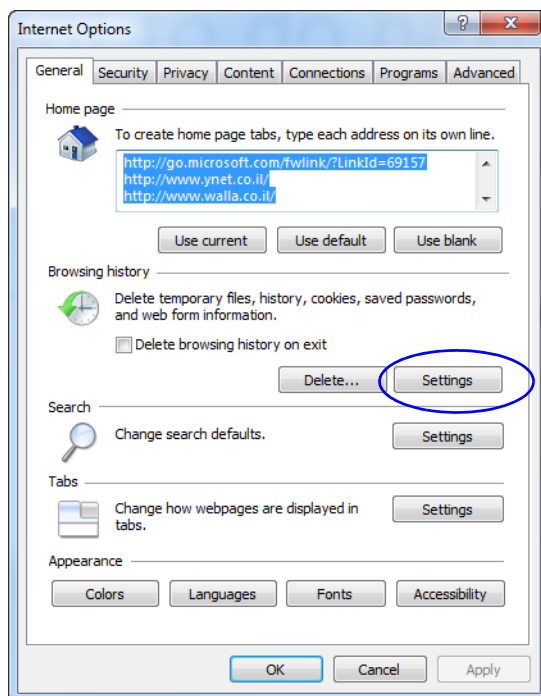


The *Delete Browsing History* dialog box opens.

- 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.

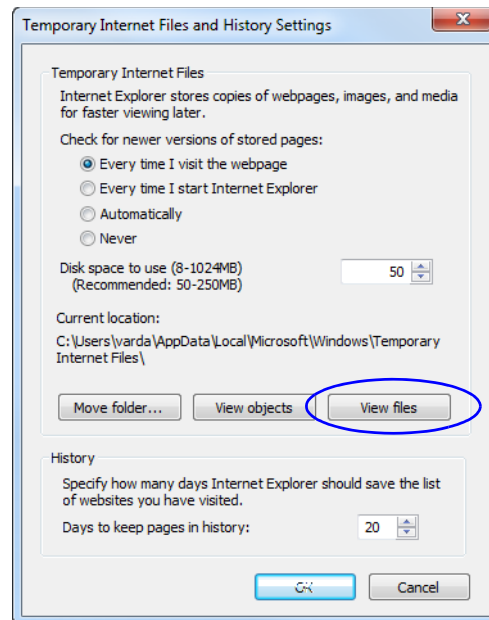


- 4 Click the **Delete** button.
- 5 When the process is complete, the system return to the *Internet Options* dialog box.
- To delete the RMX Cookie:**
- 6 In the *Internet Options* dialog box - *Browsing History* pane, click the **Settings** button.



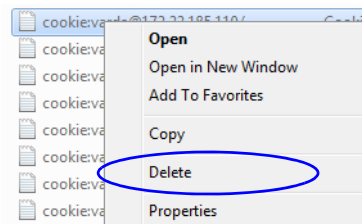
The *Temporary Internet Files and History Settings* dialog box opens.

- 7 Click the **View files** button.



The Windows Explorer screen opens, listing Windows *Temporary Internet Files*.

- 8 Browse to the RMX cookie.
The cookie is listed in the format: **cookie:user name@RMX IP address**. For example: **cookie:valerie@172.22.189.110**.
- 9 Right-click the RMX cookie and click **Delete**.

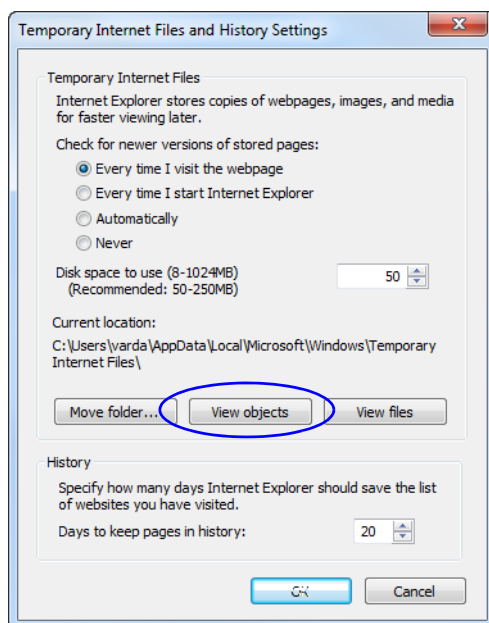


The system prompts for confirmation.

- 10 Click **Yes**.
The cookie is deleted.
- 11 Close the Windows Explorer screen.

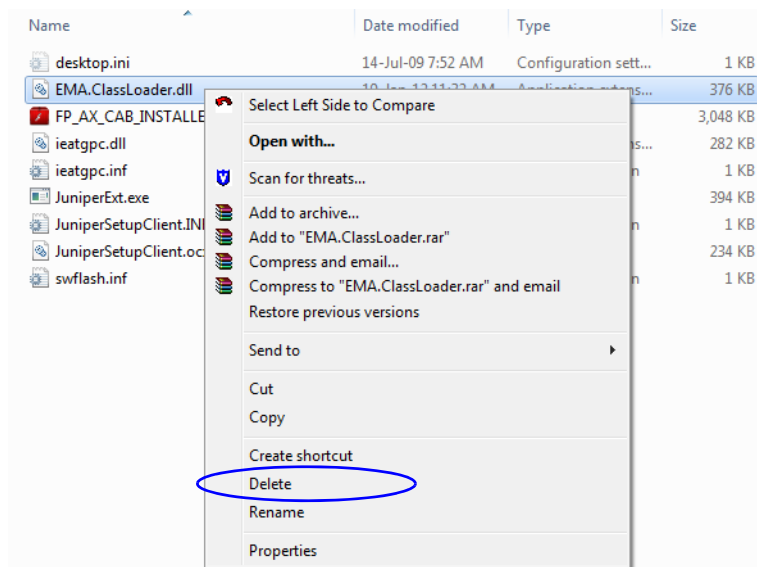
To delete the RMX ActiveX Object:

- 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 RMX 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 RMX.

If the problem persists, continue with the next step.

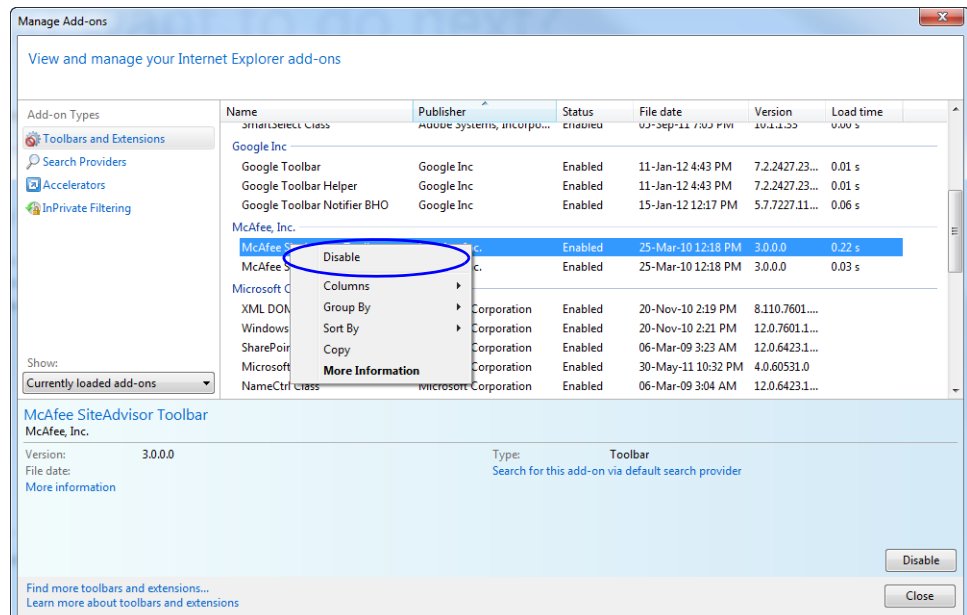
Procedure 3: Managing Add-ons Collisions

In some cases, previously installed add-ons, such as anti virus programs can prevent the installation of a new add on. In some cases, disabling these add-ons is required in order to install the RMX 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 RMX.

