

Cisco CMR Premises

Release Notes

First Published: January 2016

Release 6.0

Cisco TelePresence Conductor XC4.1

Cisco TelePresence Management Suite 15.1

Cisco TMS Provisioning Extensions 1.6

Cisco TelePresence Server 4.2

Preface

Change History

Table 1 Document Change History

Date	Changes	Reason
January 2016	First version.	New solution release.

Related Documentation

Title	Link
Cisco CMR Premises Solution Guide 6.x	http://www.cisco.com/c/en/us/support/conferencing/telepresence-conductor/products-installation-and-configuration-guides-list.html
Cisco TelePresence Conductor with Cisco Unified Communications Manager Deployment Guide Unified CM 11.x	http://www.cisco.com/c/en/us/support/conferencing/telepresence-conductor/products-installation-and-configuration-guides-list.html
Cisco TMS Provisioning Extension with Cisco Unified Communications Manager Deployment Guide	http://www.cisco.com/c/en/us/support/conferencing/telepresence-management-suite-extensions/products-installation-guides-list.html
Cisco TelePresence Conductor with Cisco VCS (B2BUA) Deployment Guide	http://www.cisco.com/c/en/us/support/conferencing/telepresence-conductor/products-installation-and-configuration-guides-list.html
Cisco TMS Provisioning Extension with Cisco VCS Deployment Guide	http://www.cisco.com/c/en/us/support/conferencing/telepresence-management-suite-extensions/products-installation-guides-list.html
Cisco TelePresence Conductor Administrator Guide XC4.1	http://www.cisco.com/c/en/us/support/conferencing/telepresence-conductor/products-maintenance-guides-list.html
Cisco Unified Communications Manager Administration Guide	http://www.cisco.com/c/en/us/support/unified- communications/unified-communications-manager- callmanager/products-maintenance-guides-list.html
Cisco Unified Communications Manager with Cisco Expressway (SIP Trunk) Deployment Guide	http://www.cisco.com/c/en/us/support/unified- communications/expressway-series/products-installation-and- configuration-guides-list.html
Cisco Unified Communications Manager with Cisco VCS (SIP Trunk) Deployment Guide	http://www.cisco.com/c/en/us/support/unified- communications/telepresence-video-communication-server- vcs/products-installation-and-configuration-guides-list.html
Cisco TelePresence Multiway™ Deployment Guide, Cisco VCS, MCU, Conductor	http://www.cisco.com/c/en/us/support/conferencing/telepresence-conductor/products-installation-and-configuration-guides-list.html
Cisco Expressway Basic Configuration Deployment Guide	http://www.cisco.com/c/en/us/support/unified- communications/expressway-series/products-installation-and- configuration-guides-list.html
Cisco VCS Basic Configuration (Control with Expressway) Deployment Guide	http://www.cisco.com/c/en/us/support/unified- communications/telepresence-video-communication-server- vcs/products-installation-and-configuration-guides-list.html

Title	Link
Cisco TelePresence Conductor with Cisco TMS Deployment Guide	http://www.cisco.com/c/en/us/support/conferencing/telepresence-conductor/products-installation-and-configuration-guides-list.html
Cisco TMS Administrator Guide Version 15.1	http://www.cisco.com/c/en/us/support/conferencing/telepresence-management-suite-tms/products-maintenance-guides-list.html
Cisco Collaboration Meeting Rooms (CMR) Hybrid Configuration Guide	http://www.cisco.com/c/en/us/support/conferencing/telepresence-management-suite-tms/products-installation-and-configuration-guides-list.html
Cisco TelePresence Conductor Product Programming Reference Guide XC4.1	http://www.cisco.com/c/en/us/support/conferencing/telepresence-conductor/products-programming-reference-guides-list.html
Cisco Expressway Administrator Guide X8.7	http://www.cisco.com/c/en/us/support/unified- communications/expressway-series/products-maintenance-guides- list.html
Cisco Expressway and Microsoft Lync Deployment Guide	http://www.cisco.com/c/en/us/support/unified- communications/expressway-series/products-installation-and- configuration-guides-list.html
Cisco VCS and Microsoft Lync Deployment Guide	http://www.cisco.com/c/en/us/support/unified- communications/telepresence-video-communication-server- vcs/products-installation-and-configuration-guides-list.html
Cisco TelePresence Video Communication Server Administrator Guide	http://www.cisco.com/c/en/us/support/unified- communications/telepresence-video-communication-server- vcs/products-maintenance-guides-list.html

More Product Documentation on Cisco.com

Product	Link
TelePresence Conductor	http://www.cisco.com/c/en/us/support/conferencing/telepresence-conductor/tsd-products-support-series-home.html
Cisco TMS	http://www.cisco.com/c/en/us/support/conferencing/telepresence-management-suite-tms/tsd-products-support-series-home.html
Cisco TMSPE and Cisco TMSXE	http://www.cisco.com/c/en/us/support/conferencing/telepresence-management-suite-extensions/tsd-products-support-series-home.html
TelePresence Server	http://www.cisco.com/c/en/us/support/conferencing/telepresence-server/tsd-products-support-series-home.html
MCU 5300 Series	http://www.cisco.com/c/en/us/support/conferencing/telepresence-mcu-5300-series/tsd-products-support-series-home.html
MCU MSE Series	http://www.cisco.com/c/en/us/support/conferencing/telepresence-mcu-mse-series/tsd-products-support-series-home.html
Cisco Expressway	http://www.cisco.com/c/en/us/support/unified-communications/expressway-series/tsd-products-support-series-home.html
Cisco VCS	http://www.cisco.com/c/en/us/support/unified-communications/telepresence-video-communication-server-vcs/tsd-products-support-series-home.html
Unified CM	http://www.cisco.com/c/en/us/support/unified-communications/unified-communications-manager-callmanager/tsd-products-support-series-home.html

New in CMR Premises Release 6.0

Table 2 New features

Item	Description
Active Meeting Manager (TMSPE)	(Preview Feature) The host of a CMR can easily make adjustments in an ongoing meeting using the Active Meeting Manager (AMM) in Cisco TMSPE. AMM uses a web browser interface and is a component of the CMR self-service portal.
Conference placement	Administrators can now specify how Conductor selects bridges for conferences. They can select "Favor Scheduled" or "Favor CMRs". The default is "Favor Scheduled". More details and examples are provided in the relevant <i>CMR Premises Deployment Guide</i> (for Unified CM or for VCS) on the CMR Premises solution documentation web page.
Microsoft Lync screen sharing	From Expressway / VCS version X8.6, the solution supports screen sharing by Lync users within the local enterprise (not remote Lync users). Microsoft RDP originating from Lync clients is transcoded into H.264 for standards-based endpoints. Version X8.7 extends Lync screen sharing to clustered Expressway / VCS gateways. Clustering allows more screen sharing sessions to be simultaneously transcoded.
	Reverse transcoding from the telepresence side (H.264) toward Lync (RDP) is not performed. Depending on the capability of the telepresence endpoint, Lync users see content either composed with the main video, or instead of the main video.
	Limitations
	Some restrictions currently apply to Lync screen sharing in the solution. These are detailed in the following guides (<i>Features and Limitations</i> section):
	 Cisco Expressway and Microsoft Lync Deployment Guide X8.7 at Expressway Configuration Guides page for Unified CM-based deployments.
	 Cisco VCS and Microsoft Lync Deployment Guide X8.7 at VCS Configuration Guides page for VCS-based deployments.
	The guides also describe performance considerations for screen sharing.
Resource usage reporting (Conductor)	Conductor now logs data about resources used in conferences. This information can help you to monitor conference bridge use. You can download the log entries and analyze them in a third-party tool such as Microsoft Excel. Logging is automatically enabled and runs when certain predefined events occur. These events include:
	Resource utilization updated
	■ Conference start
	■ Conference end
	 Participant connected
	 Participant disconnected
	Supported download formats include CSV, XML, or JSON.

Table 2 New features (continued)

Item	Description
Enhanced layouts	The solution supports multistream video technology, which allows improved conference layouts on endpoints with multistreaming capability. The PiP placements are improved in the Equal and Prominent layouts when content is being shared. Dual-screen endpoints can display the conference participants across both screens. Conferences can have a mix of multistreamed and transcoded endpoints.
	Requirements
	 Cisco TelePresence Server on Virtual Machine, Cisco Multiparty Media 310/320, or Media 820 running TelePresence Server 4.2 software.
	 Multistream-capable endpoints running software version CE8.0 (Cisco TelePresence MX200 G2, MX300 G2, MX700, MX800, SX20, SX80).
	 The IX protocol must be enabled, and must be switched on in Unified CM and in Conductor. It's on by default in the TelePresence Server from Version 4.1.
	Note By default multistreaming is on in the TelePresence Server and off in CE8.0 endpoints.
	Limitations
	The following limitations apply to enhanced layouts in this release:
	 Enhanced layouts are only supported within the local enterprise. They are not supported for remote participants or for business-to-business conferences.
	 Endpoints in multistream mode do not display conference status messages or administrator-configured messages on screen. So for example, users do not see conference end time warnings. Some message types are displayed on the Touch controller.
	 Multistream systems may revert to transcoding mode if insufficient bandwidth exists to support video. This issue is more likely to occur with two-screen and three-screen systems, if insufficient bandwidth exists to support video to multiple screens.
	Upgrades to the next versions of the TelePresence Server software and the CE endpoints software should be done in parallel at the same time. If you upgrade the TelePresence Server software but not the endpoints, or conversely, conferences revert to transcoding mode until you upgrade the other component and they are back in step.
	This requirement arises from our chosen approach to implement this feature. It is not a requirement of multistreaming itself.
	Enhanced layouts do not work through the Cisco Expressway / Cisco VCS back-to-back user agent (B2BUA). Note that the B2BUA is invoked if the Media Encryption mode setting for the Zone (trunk) is anything other than the default "Auto" setting.

Table 2 New features (continued)

Item	Description
Preferred implementation	As in the previous release, the preferred implementation for CMR Premises is the primary deployment architecture and its extensions. The architecture is described in <i>Cisco Collaboration Meeting Rooms (CMR) Premises Solution Guide</i> . In future the solution may provide only limited support for features for certain products, or remove support for those products altogether. Including the Cisco TelePresence MCU Series conference bridges and the Cisco VCS for call
	control.

Required Software Versions

To deploy the solution you need some or all of the products listed in this section, depending on which solution features you use. Each product you deploy must be running at a minimum the version specified here. The specified versions have been validated for this release of the solution.

Infrastructure Products

Table 3 Infrastructure product versions validated for this release

Product	Version	Role
TelePresence Conductor	XC4.1	Conference resource allocation
Cisco TMS	15.1	Conference management & scheduling
Cisco TMSPE	1.6	Conference provisioning
Cisco TMSXE	5.1	[Optional] Conference scheduling for Microsoft environments
TelePresence Server	4.2x (latest)	Conference bridge resource
MCU 5300 Series, MCU MSE 8510	4.5 ^x (latest)	Conference bridge resource
Unified CM	11.0(1a)SU1 or later	Call control
In networks with multiple Unified CM installations, for full solution functions each one must be at the version specified here.	10.5(2) also acceptable. Except not recommended for multistreaming / enhanced layouts.	See the <i>Compatibility</i> section, for information about using earlier versions of Unified CM.
Cisco Expressway-C	X8.7 X8.5.3 or X8.6 also acceptable. Except Microsoft Lync screen sharing needs X8.6. Clustering with Lync screen sharing needs X8.7.	Remote endpoint registration to Unified CM, business-to-business connectivity, and Microsoft Lync interworking.
Cisco Expressway-E	X8.7 X8.5.3 or X8.6 also acceptable.	Secure firewall traversal
Cisco VCS Control In networks with multiple Cisco VCS installations, for full solution functions each one must be at the version specified here.	X8.7 X8.5.3 or X8.6 also acceptable. Except Microsoft Lync screen sharing needs X8.6. Clustering with Lync screen sharing needs X8.7.	Call control (Cisco VCS-Centric deployments). Microsoft Lync interworking. H.323 interworking.

Table 3 Infrastructure product versions validated for this release (continued)

Product	Version	Role
Cisco VCS Expressway	X8.7 X8.5.3 or X8.6 also acceptable.	Secure firewall traversal. Registration of standards- based endpoints across the Internet.
Microsoft Windows Server	Windows Server 2012 SP2 64-bit Windows Server 2008 R2 64-bit also acceptable. Except Active Meeting Manager feature needs Microsoft Server 2012 SP2 64-bit.	Database for Cisco TMS
Cisco WebEx	WBS (T) T30	Cloud conferencing with audio, video, and content sharing capabilities for WebEx clients

Microsoft Lync

You need Microsoft Lync Server 2013 and Lync 2013 for Windows clients. We do not support any other Lync servers or clients with the solution (including Skype for Business). For more details about Lync 2013 server and client requirements, see:

- Cisco Expressway and Microsoft Lync Deployment Guide X8.7 on the Expressway Configuration Guides listing page for Unified CM-based deployments.
- Cisco VCS and Microsoft Lync Deployment Guide X8.7 on the VCS Configuration Guides listing page for VCSbased deployments.

Endpoints and Soft Clients

Table 4 Endpoint and soft client versions validated for this release

Product	Version
Cisco TelePresence IX5000	IX 8.1
Cisco DX70, DX80	10.2.5
Cisco DX650	10.2.5
Cisco TelePresence MX200 G2, MX300 G2, MX700, MX800 (multistream-capable)	CE8.0 or TC7.3.4 CE8.0 needed for enhanced layouts (multistream video).
Cisco TelePresence MX200 G2, MX300 G2, MX700, MX800	TC7.3.4
Cisco TelePresence Quick Set SX20, SX80 (multistream-capable)	CE8.0 or TC7.3.4 CE8.0 needed for enhanced layouts (multistream video).

Table 4 Endpoint and soft client versions validated for this release (continued)

Product	Version
Cisco TelePresence Quick Set SX10, SX20	TC7.3.4
Cisco TelePresence Quick Set SX10 (not multistream-capable)	CE8.0 or TC7.3.4
Cisco TelePresence EX Series EX60 and EX90	TC7.3.4
Cisco TelePresence Quick Set C20	
Cisco TelePresence Codec C Series C40, C60, C90	
Cisco TelePresence Profile Series	
Cisco TelePresence MX200 and MX300	
Cisco TelePresence Systems CTS 3010, CTS 3210	CTS 1.10.11
Cisco TelePresence System CTS 1100, CTS 1300	CTS 1.10.11
Cisco TelePresence System CTS 500-32	TX6.1.9
Cisco TelePresence TX9000 and TX9200 immersive systems	TX6.1.9
Cisco Unified IP Phone 9900 Series and 8900 Series	9.4(2)
Cisco Jabber for Android	11.5
Cisco Jabber for iPad	
Cisco Jabber for iPhone	
Cisco Jabber for Mac	
Cisco Jabber for Windows	
Cisco Jabber Video for TelePresence	4.8.8

Installing or Upgrading the Solution

For instructions about installing or upgrading the solution, see the relevant Release 6.0 *CMR Premises Deployment Guide* (for Unified CM or for VCS) on the CMR Premises solution documentation web page.

If you use Multiparty Licensing with PMP licenses, you do not need a separate license for Cisco TMSPE to provision Personal CMRs (or to use the Smart Scheduler booking feature in Cisco TMSPE). Just download the Cisco TMSPE software from the Cisco TMS software download page on Cisco.com. You do <u>not</u> need the *Cisco TMS Provisioning Extension* option key.

Caution: We recommend that you install the products for your solution deployment in the sequence specified in the deployment guide.

Resolved Issues

The following issues found in previous releases of CMR Premises are resolved in Release 6.0.

Resolved Since Release 5.0

Identifier	Description
CSCuo69678	It is not possible to enable auto answer on TC7.1 endpoints registered to Unified CM.
	Subject to installing the latest Unified CM device packs for your Unified CM version, this issue is resolved in endpoint software version TC7.2.0.
CSCuo69660	Resolved the issue where endpoints running TC 7.1 or later send 768 x 448 resolution after deescalating from an MCU to Unified CM ad hoc conference to a point-to-point call. Resolved in endpoint software version TC7.3.3.
CSCup49770	This issue has been closed, as we were unable to reproduce it in the solution software. Low frame rate on video between between Microsoft Lync and TelePresence MCU behind TelePresence Conductor, after hold/resume.
CSCus28591	This issue has been closed, as we were unable to reproduce it in the solution software. B2BUA hangs up call from DX to Microsoft Lync.

Resolved Since Release 4.0

Identifier	Description
CSCun25443	Resolved the issue where the Cisco DX650 endpoint did not decode 720p60fps properly. Corrupted video was seen on the DX650 when receiving 720p60fps.
CSCuo69663	This issue has not been reported since March 2014, so it has been closed. Incoming FECC breaks after Hold/Resume in a Multiway call to TelePresence Conductor-managed MCU.
CSCuo69672	This issue has been closed, as we were unable to reproduce it in the solution software. Resuming a call fails when Cisco Collaboration Edge is used in the specific scenario of a participant in an existing ad hoc conference adding a new participant to the conference. The new participant is added, but the original participant is not correctly resumed back into the conference. The workaround is for the original participant to Resume at their endpoint, which will rejoin the conference.
CSCus26169	Resolved the issue where it was not possible to join a PIN-enabled conference from Cisco TelePresence IX5000. Resolved since TelePresence Conductor Version XC3.0.1.

Resolved Since Release 3.0

Identifier	Description	
CSCuo82382	Resolved the issue of no media in H.323 TelePresence Server ad hoc conference until after hold/resume.	

Identifier	Description
CSCuo26979	Resolved the issue where in some cases the Cisco TMS might not resolve participants when scheduling Microsoft Lync participants. As a result, the Cisco TMS Live Service could instruct the conference bridge to dial the Lync participants repeatedly, even though the participants are actually connected. This issue was seen with this call flow: MCU - Conductor - CUCM - VCS - VCS (Lync GW) - Lync. Other deployments where bridges dial to participants through both a Unified CM and a Cisco VCS could also have been affected.
CSCup74093	Resolved the issue of Microsoft Lync audio calls failing to TS.

Resolved Since Release 2.0

Identifier	Description	
CSCud89449	Provided that SIP messaging is configured for Early Offer (as recommended for this release) this resolved the issue where if a call between an H.323 endpoint to a Unified CM endpoint is escalated, the H.323 endpoint might receive the presentation in the main video rather than the presentation channel.	
CSCug89748	Unified CM Version 9.1.2 resolved an issue in Versions 9.0, 9.1, and 9.1.1, where pressing Hold on a CTS (or TC) endpoint in a conference hosted on a TelePresence Server through TelePresence Conductor caused the call to drop.	
CSCuh00285	Resolved the issue where the "conference ends in five minutes" warning message to participants was not adjusted if a conference master extended the meeting duration (the warning to the conference master was adjusted, but not to other participants).	
CSCuh60040	Resolved the issue where for outdialed calls the TelePresence Conductor-generated Call Tags (UUIDs) are used in user interface displays and in event logs, instead of participant names.	
CSCuh60704	Resolved the issue where in encrypted calls, Cisco DX650 endpoints do not send video to Cisco VCS-managed H.323 endpoints.	
CSCuh64139	Resolved the issue where CTS endpoints in escalated conferences send content in the main video channel.	
CSCuh69830, CSCuh89695	[Only applies to Cisco VCS-Centric model of CMR Premises] Resolved the issue where Cisco DX650 endpoints with encryption enabled stop sending audio and video after escalating to a Multiway conference on an MCU.	
CSCuh78199	Resolved the issue where joining a Unified CM-registered endpoint into an existing Multiway conference on the Cisco VCS fails.	
CSCuh99378	Resolved the issue where scheduled conferences that include immersive endpoints are routed direct to the conference bridge rather than via TelePresence Conductor, even though TelePresence Conductor is defined as the preferred bridge type.	
CSCui01713	Resolved the issue where for an H.323 endpoint defined with an E.164 number (and no SIP URI) Cisco TMS does not correlate an active interworked H.323 to SIP call with scheduled outdialed calls to that same endpoint.	
CSCui06221	Resolved the issue where the Touch controller on endpoints running TC6.2 displayed a button to change the layout of remote participants in ad hoc, Multiway, and CMR conferences. The button had no effect as it is only relevant in multisite conferences.	

Identifier	Description
CSCui15452	Resolved the issue where "Session Interval Too Small" (422) SIP messages are not proxied back to the call originator and instead the interworking function tries to send them out over H.323 as an interworked call.
CSCui40418	Resolved the issue where EX90 endpoints occasionally exhibited high latency and video corruption in low bandwidth calls.

Resolved Since Release 1.0

Identifier	Description	
CSCtx16122	Resolved the issue of intermittent lack of video or audio experienced by H.323 endpoints registered to a Cisco VCS when in a call with a Unified CM endpoint.	
CSCud38739	Resolved the issue of no received video on H.323 endpoints if the vcs-interop script was enabled on TelePresence Conductor.	
CSCud59961	EX60 endpoint users added to a Unified CM ad hoc conference may see the Welcome screen with a randomly generated conference name. This does not impact the conference. Instructions have now been added to the TelePresence Conductor user documentation to explain how to suppress the Welcome screen.	
CSCud83749	Resolved the issue where if a participant left a 3-party ad hoc conference, the remaining two endpoints in the call might lose video or audio after the participant left the call.	
CSCue04207	[Reassigned to ID CSCue58577]	
CSCue21164	Resolved the issue where calls were not resumed after de-escalating from an ad hoc conference involving Jabber for Windows or EX90 (running TE6.x) endpoints and endpoints registered to another Unified CM.	
CSCue58577	Resolved the issue where CTS 3000 endpoint users might experience corrupted video on calls de- escalated from MCU or TelePresence Server ad hoc conferences.	
CSCug94725	[This was found during Early Field Trials of CMR Premises Version 2.0 and is now resolved in TelePresence Conductor XC2.2] Previously some HTTPS clients caused high CPU loads on MCU 4500 Series and MCU 4200 Series devices when connected to the MCU.	
	Note: High CPU loading may still occur if HTTPS traffic to the MCU does not maintain its session.	

Open Issues

The following issues apply to CMR Premises Release 6.0.

Identifier	Description	
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CSCux76336	If the conference type is set to automatic connect, endpoints will not be able to join a scheduled conference. Instead they will dial themselves.	
CSCux57676	Participant display names are different on TS, compared to Active Meeting Manager or the Conference Control Center, when using TMS-managed endpoints.	
CSCux55614	For endpoints without Touch controllers installed, no connect prompt is displayed for Manual Connect Conferences.	
CSCux33498	NULL is shown on Touch controller when the SIP From field is not a SIP URI.	
CSCuw94161	Lync share to TS conference doesn't restart properly after Hold. The workaround is to stop the RDP session and restart it on the Lync client.	
CSCuw26051	Users viewing video from WebEx (CMR Hybrid) on a conference hosted by a 5300 series MCU may notice frozen video frames under poor network conditions.	
CSCuv88170	No warning or error message is displayed on Cisco TMS, when scheduling with Webex with exceptions.	
CSCuv88160	Cisco TMS displays "Bad Request" when adding endpoints to a booking.	
CSCuv85510	IP address not released when TelePresence Conductor Location type is changed.	
CSCuv58318	Video on Lync very jerky when TelePresence Server tries to send it 1080p video.	
CSCuv12544	Media 820 may fail to establish a cluster after an unexpected reboot by a subordinate blade.	
CSCuu69550	No indication on screen that the participant is muted on the server side during a multistream conference.	
CSCuu62416	When setting the Unified CM-to-TelePresence Conductor trunk to non-secure mode with SRTP on, and if both ends support encryption, calls to TelePresence Server have no media in either direction.	
CSCut47719	Endpoints operating in multistream mode do not display messages received via ActiveControl. This includes warning messages about the conference end time.	
CSCus40272	Instant WebEx meeting link appears in portal even when disabled.	
CSCus40116	The current WebEx-enabled CMR solution is only implemented and tested with WebEx of type 'SIP' when provisioning data to the TelePresence Conductor.	
CSCus28595	Poor video quality from MCU to Microsoft Lync when three participants in a conference.	
[CSCun81590]	Reassigned to ID CSCuw26051	
CSCun76724	When the DN range for a direct managed bridge in Cisco TMS is changed, the old values are cached for a while. Conferences booked shortly after the change are still allocated using the old DN range. The issue has been observed with the Cisco TelePresence MCU Series, but other bridge types could be affected as well.	
[CSCuj40302]	Reassigned to ID CSCup74093	

Identifier	Description	
[CSCuh64828]	Reassigned to ID CSCuo82382	
CSCug68727	CTS endpoint users sometimes hear audio corruption while joining as the first participant in an MCU-hosted conference.	
CSCuc34385	Unified CM does not support Multiway with Cisco ad hoc call escalation (see Escalated Conferences (Ad Hoc and Multiway), page 19).	

Limitations

These limitations apply to Release 6.0.

Feature	Limitation
Lync Screen Sharing	Some restrictions currently apply to Lync screen sharing in the solution. These are detailed in the following guides (Features and Limitations section): Cisco Expressway and Microsoft Lync Deployment Guide X8.7 at Expressway Configuration Guides page for Unified CM-based deployments. Cisco VCS and Microsoft Lync Deployment Guide X8.7 at VCS Configuration Guides page for VCS-based deployments. The guides also describe performance considerations for screen sharing.
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Enhanced Layouts / Multistreaming	 Enhanced layouts are only supported within the local enterprise. They are not supported for remote participants or for business-to-business conferences.
	 Endpoints in multistream mode do not display conference status messages or administrator-configured messages on screen. So for example, users do not see conference end time warnings. Some message types are displayed on the Touch controller.
	 Multistream systems may revert to transcoding mode if insufficient bandwidth exists to support video. This issue is more likely to occur with two-screen and three-screen systems, if insufficient bandwidth exists to support video to multiple screens.
	Upgrades to the next versions of the TelePresence Server software and the CE endpoints software should be done in parallel at the same time. If you upgrade the TelePresence Server software but not the endpoints, or conversely, conferences revert to transcoding mode until you upgrade the other component and they are back in step.
	This requirement arises from our chosen approach to implement this feature. It is not a requirement of multistreaming itself.
	 Enhanced layouts do not work through the Cisco Expressway / Cisco VCS back-to-back user agent (B2BUA). Note that the B2BUA is invoked if the Media Encryption mode setting for the Zone (trunk) is anything other than the default "Auto" setting.
Muting Behavior	If an audio-only endpoint is muted in a conference (by a third party), no audio notification is provided to the affected participants that they have been muted. This includes audio-only WebEx clients.
	If a WebEx link is muted in a conference, any WebEx video clients indicate that they are muted, and to press *6 to unmute. In fact it is not possible to unmute the clients, and the affected participants will remain muted even after pressing *6.
	For details of muting behavior specific to Active Meeting Manager, see <i>Active Meeting Manager</i> section, below.

Feature	Limitation
Active Meeting Manager (Preview Feature)	The Active Meeting Manager (AMM) is provided as a preview feature and currently has the following limitations:
	■ WebEx
	Audio
	If a WebEx connection is established for a meeting that uses TSP Audio, these two entries are displayed in the participants list:
	 Cisco WebEx Meeting
	 Cisco WebEx Meeting (audio)
	If a WebEx connection is established for a meeting that uses IP Audio, only one entry is displayed in the participants list:
	 Cisco WebEx Meeting
	Muting and removing participants
	 If the host clicks the mute or unmute icon for the WebEx entry, the WebEx bridge is muted or unmuted, and therefore the audio from the bridge is muted/unmuted. All participants on the WebEx side of the conference will be muted/unmuted, accordingly.
	Muted WebEx participants can still send and receive audio and video from other WebEx participants, and receive audio from TelePresence endpoints.
	 If the host clicks the remove icon for the WebEx entry, all participants who have joined the meeting through the WebEx bridge are disconnected from the TelePresence part of the conference.
	■ Performance
	Depending on your configuration and the number of concurrent meetings at any time, TMSPE and Smart Scheduler response times may be degraded if a significant number of meeting hosts use the AMM at the same time.
	■ Endpoints
	On multistreaming endpoints, participants do not see a video message on the endpoint if they are muted or removed from a meeting by the host.
	Conferences
	AMM only supports CMR conferences.

Feature	Limitation
	■ Browsers
	Windows operating system
	When using AMM with Windows, these browsers are recommended:
	 Mozilla Firefox. Version 42
	 Internet Explorer. Version 11
	 Microsoft Edge. Version 20
	These browsers are <i>not</i> recommended for AMM with Windows:
	- Chrome
	- Safari
	Mac operating system
	Only the Mozilla Firefox version 42 browser is recommended when using AMM with the Mac OS.
Personal Multiparty Licenses for Ad Hoc Conferences From Extension Mobility Devices	This limitation applies to ad hoc conferences initiated from an Extension Mobility-enabled device, if you assign specific users to devices in Unified CM.
	In this case, Unified CM sends to TelePresence Conductor the user details of the individual who is assigned to the <i>device</i> . This is not necessarily the same individual who is logged in to Extension Mobility and who initiated the conference. If the user assigned to the device is not in Conductor's user list, then Conductor will not apply a PMP (Personal Multiparty) license to the ad hoc conference.

Feature	Limitation
Escalated Conferences (Ad Hoc and Multiway)	Note: Unified CM-based deployments use the ad hoc method of escalated (instant) conferencing. VCS-based deployments use Multiway. Ad hoc escalation is not currently supported when one participant is a Microsoft Lync Windows client and the other is a DX Series TelePresence endpoint, or Cisco Unified 9971 or 8800 Series IP phone. As a workaround to this issue, do not have Music on Hold media resources defined with the SIP trunk that handles the Cisco Expressway-C Lync Gateway. Remove Announcements (ANN) or Music on Hold (MoH) resources from the MRGL resource group defined for the Expressway Lync gateway. Immersive endpoints in the solution do not support ad hoc conferences. (Cisco TelePresence System CTS 3010 and CTS 3020, Cisco TelePresence System CTS 500-32, Cisco TelePresence TX9000 and TX9200, and the Cisco TelePresence IX5000 Series.) These endpoints only support audio add-in. For details, see the administration documentation for the endpoint. Ad hoc conference calls should not be used to add participants to conferences created by another method, such as a Personal CMR / rendezvous conference. Other conference call methods should not be used to add participants to an ad hoc conference. The solution does not support hosting mixed ad hoc escalations via Unified CM-registered endpoints and Multiway escalations via Cisco VCS-registered endpoints on the same set of conference bridges. We recommend migrating endpoint registration from Cisco VCS to Unified CM. For cases where endpoints must remain registered to Cisco VCS, separate, dedicated bridge resources should be implemented for ad hoc conferencing and for Multiway conferencing respectively. If you join a Multiway conference from an MS Lync endpoint, you join with audio only at first. You need to manually restart the video connection. You can't create a Multiway conference from an endpoint running software version CE8.0 and later. You can participate in a Multiway conference, but you can't start it.
Scheduled Conferences	Some limitations apply for scheduled conferences, as detailed in the relevant Release 6.0 <i>CMR Premises Deployment Guide</i> (for Unified CM or for VCS) on the CMR Premises solution documentation web page. See section "Limitations and Requirements for Scheduled Conferencing".
Audio-Only Quality Setting in Ad Hoc Conferencing (TelePresence Servers)	Primary deployment only. TelePresence Conductor supports audio-only as a quality setting (service level) for TelePresence Server conference bridges. Some limitations and recommendations apply to the audio-only quality setting with ad hoc conferencing in Unified CM deployments, and system behavior may not be as you expect. See the relevant Release 6.0 CMR Premises Deployment Guide (for Unified CM or for VCS) on the CMR Premises solution documentation web page.

Feature	Limitation	
Personal CMRs with WebEx Cannot be Rejoined After Original Conference	This limitation applies if you deploy CMR Hybrid with CMR Premises and support Cisco WebEx users connecting to Personal CMRs. It can occur afte a CMR Hybrid conference, when all participants (WebEx and TelePresence) leave the CMR and the associated conference is deleted from the conference bridge.	
	If a WebEx user now reconnects to the CMR by re-clicking the existing WebEx link in the user portal, or re-clicking the link in the notification email, then a new WebEx meeting is started. However, if TelePresence users reconnect to the CMR then a new TelePresence conference is started. WebEx users cannot access the TelePresence conference, and TelePresence users cannot access the WebEx meeting.	
Participants Threshold for ActiveControl	The ActiveControl feature on the TelePresence Server supports up to 500 participants.	
No Priority for Conference Organizer if Maximum Participants Reached	No preference is given to participants who have organized a conference. If the maximum number of participants is reached before the participant who organized the conference has dialed in, this participant is rejected. This applies to any conference where a maximum number of participants is defined, including Personal CMRs provisioned through Cisco TMSPE and conferences defined through the TelePresence Conductor.	
Resource Allocation by TelePresence Conductor	When you provision a CMR using Cisco TMSPE on TelePresence Conductor, the Conductor reserves resources for one participant with the defined quality level. When participants dial into the CMR and resource optimization is enabled, TelePresence Conductor optimizes the resources so that only the resources that are needed are used on the conference bridge. However, the resources that were previously reserved are not freed up completely. They can be used by additional participants calling into the same CMR, but not for other conferences. Note: The conference bridge utilization on TelePresence Conductor shows the number of resources reserved if this number is higher than the number of	
IPv6	resources used. This release of CMR Premises does not support IPv6. We do however	
- 	support IPv6 for interworked calls through the Cisco VCS Control.	

Feature	Limitation	Limitation	
Reduced Feature Set for TMS Conference Control Center	Because TelePresence Conductor and not Cisco TMS manages the conference bridges, the solution only supports a subset of the standard Cisco TMS Conference Control Center features, as listed below. Conference Control Center functions are not supported for cascaded conferences, except for visibility of which bridge a participant is connected to. Cisco TMSConference Control Center features in the solution:		
	On a conference	On a participant	
	 Set the picture mode (only applied to participants who join after the setting is changed) 	■ Mute/unmute audio	
	 Add participant 	 Mute/unmute outgoing audio 	
	■ End	■ Mute/unmute video	
	-	■ Disconnect	
	_	 Change display name (the new name is not updated in the TMS interface) 	
	_	■ Send message	
	_	Show snapshot (MCU bridges only)	
	_	■ Set picture mode	
Cisco TelePresence MCU Series	Cisco TelePresence MCU Series conference bridges use Port Licensing, not Multiparty Licensing. The MCU auto attendant is not used in the solution - it is not available on conference bridges managed behind Conductor. Note that Unified CM can integrate its own auto attendant from a suitable product such as Unity Connection.		

Compatibility

Software Version Lists

See Required Software Versions, page 7.

Using Cisco Unified Communications Manager Versions Earlier than 10.5(2)

Cisco Unified Communications Manager Version 10.5(2) or Version 11.0(1a)SU1 or later is recommended for the Multiparty Licensing feature in the solution. Earlier versions from 8.6(2) onwards can be used, but be aware that we performed only limited testing with these versions, as time and resources allowed. Issues may arise if you use them with Multiparty Licensing.

Subject to a valid service contract, the Cisco Technical Assistance Center (TAC) will endeavor to provide support for any issues or defects that arise, and where appropriate we will document them in the solution release notes and/or in the Bug Search Tool. However, Cisco may choose not to resolve any issues or defects, depending on the version in use and the impact of the issue or defect. In this case it will be for the customer to decide whether to manage the issue, or to upgrade to the recommended version of Cisco Unified Communications Manager if the version in use is the cause.

Do not use versions earlier than Cisco Unified Communications Manager 8.6(2).

Virtualized Platforms

For details about supported virtualized platforms and VM configurations for individual products, refer to http://www.cisco.com/go/uc-virtualized.

Endpoints

Cisco VCS-managed H.323 endpoints with encryption switched off cannot call secure Unified CM endpoints (see identifier CSCui15439 in Bug Search Tool for details).

Conference Bridges

Only Cisco multiparty conference bridges (such as the Cisco TelePresence Server and Cisco TelePresence MCU Series) are supported by the TelePresence Conductor. We do not support other conference bridges.

Configuration Requirements

Deployment best practices and feature configuration requirements for the solution are detailed in the relevant Release 6.0 *CMR Premises Deployment Guide* (for Unified CM or for VCS) on the CMR Premises solution documentation web page. The best practices and requirements are designed to avoid potential issues with elements in the solution, or between the solution and external systems or networks.

The following items are new for this release:

- DTMF recommendation for Conductor-Unified CM trunks.
- Unified CM-based deployments only. Maximum incoming SIP message size recommendation for Unified CM if you use multistreaming.

DTMF Setting for Conductor to Unified CM SIP Trunks

Deployments with Cisco Unified Communications Manager (Unified CM) Version 11.0(1) or later. For each SIP trunk between Unified CM and Conductor, we recommend that you set the DTMF signaling method to out of band and RFC 2833 ("OOB and RFC 2833").

Adjust Unified CM Maximum Incoming SIP Message Size

In multistreaming mode, TelePresence Server and endpoints produce larger SIP messages than for transcoded operations. If you use multistreaming, to avoid possible call failure we recommend adjusting the **Maximum Incoming SIP Message Size** for Unified CM to at least 18000. For details, see the relevant Release 6.0 *CMR Premises Deployment Guide* (for Unified CM or for VCS) on the CMR Premises solution documentation web page.

Reduce Default SIP TCP Timeout

From Cisco Expressway / Cisco VCS Version X8.5.3, the SIP TCP timeout value is configurable. The default value is 10 seconds. We strongly recommend that you set the timeout to the lowest value that is appropriate for your deployment.

A value of 1 second is likely to be suitable in most cases. Unless your network has extreme amounts of latency such as video over satellite communications.

If an outbound call is placed to an external DNS destination, and that destination has secondary/tertiary servers and the primary server is out of service, it will take N seconds (where N is the timeout value) to timeout and try the secondary server, and N seconds again to timeout and try the tertiary server, and so on. This applies to B2B point to point calls and calls into cloud-based hosted services.

Setting the SIP TCP timeout value

For version X8.6 onwards - to set the SIP TCP timeout value do the following:

Go to Configuration > Protocols > SIP and set the value for SIP TCP connect timeout.

Example: 1

- On version X8.5.3, this setting cannot be configured through the web interface. Do the following:
 - 1. Access the command line interface.
 - 2. Type this command, replacing "n" with the required timeout value:

 $\verb"xConfiguration SIP Advanced SipTcpConnectTimeout: n"$

Example: xConfiguration SIP Advanced SipTcpConnectTimeout: 1

Encryption in Cisco Expressway / Cisco VCS

If you want to apply media encryption to calls that egress the Expressway solution toward DNS Zone destinations, we strongly recommend that you use this approach:

- Enable media encryption on the traversal client zone, from the Cisco Expressway-C / Cisco VCS Control toward the Cisco Expressway-E / Cisco VCS Expressway. To do this set Media encryption mode to Best effort or Force encrypted, depending on your security policy.
- 2. Disable additional, unnecessary media encryption on the DNS egress zone, from the Cisco Expressway-E / Cisco VCS Expressway toward the Internet. To do this set **Media encryption mode** on that zone to *Auto*.

Using the Bug Search Tool

The Bug Search Tool contains information about open and resolved issues for this release and previous releases, including descriptions of the problems and available workarounds. The identifiers listed in these release notes will take you directly to a description of each issue.

To look for information about a specific problem mentioned in this document:

- 1. Using a web browser, go to the Bug Search Tool.
- 2. Sign in with a cisco.com username and password.
- 3. Enter the bug identifier in the **Search** field and click **Search**.

To look for information when you do not know the identifier:

- 1. Type the product name in the **Search** field and click **Search**.
- 2. From the list of bugs that appears, use the **Filter** drop-down list to filter on either *Keyword, Modified Date, Severity, Status*, or *Technology*.

Use Advanced Search on the Bug Search Tool home page to search on a specific software version.

The Bug Search Tool help pages have further information on using the Bug Search Tool.

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, see What's New in Cisco Product Documentation at: www.cisco.com/c/en/us/td/docs/general/whatsnew/whatsnew.html.

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Active Meeting Manager Disclaimer

The Active Meeting Manager (AMM) is provided as a preview feature to the Cisco TelePresence Management Suite Provisioning Extension (Cisco TMSPE) and Cisco Collaboration Meeting Rooms (CMR) Premises. Use of the AMM is subject to the software license and limited warranty

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