

Release Notes

Polycom® CMA® Systems, Version 6.2.1



Polycom is pleased to announce this v6.2.1 release of the Polycom® Converged Management Application™ (CMA™) system.

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New in CMA System v6.2.1

This CMA system v6.2.1 release is a maintenance release that fixes several known issues. See [“Resolved Issues in CMA System v6.2.1”](#) on page 14.

New in CMA System v6.2.0

The v6.2.0 release of the CMA system includes the following new features:

- [Support for Polycom® RealPresence® Group Series Solution](#)
- [RealPresence Group Series Touch Control Software Updates](#)
- [Support for RealPresence Desktop Video Collaboration Software](#)
- [Enhanced Management of E.164 Numbering for Dynamically-Managed Endpoints](#)

Support for Polycom® RealPresence® Group Series Solution

This release of the CMA system provides support for the Polycom RealPresence Group Series. It provides standard support for the following functionality:

- Authentication
- Scheduling
- Monitoring
- Presence
- Call Detail Records (CDRs) and CDR reporting

It also provides specialized support for the following functionality (as described in the sections that follow):

- [Provisioning](#)
- [Software Updates](#)
- [Management](#)

Note that RealPresence Group Series systems are managed in dynamic management mode only. For more information about dynamic management mode, see the *Polycom CMA System Operations Guide*.



IMPORTANT

If in your environment, RealPresence Group Series systems have already registered with the CMA system v6.0.x (or earlier) gatekeeper, delete them from the CMA system just before you upgrade to CMA system v6.2. Then once the CMA system has been upgraded, allow them to re-register. Otherwise, the Group Series systems may each consume two licenses and the data reported for them may be inconsistent.

Provisioning

In this v6.2.0 release, the CMA system extends its automatic and bundled provisioning capabilities to the new RealPresence Group Series systems.

Administrators can create and lock down automatic and bundled provisioning profiles in order to enforce company policies around network usage, endpoint support, user experience, and security.

The CMA system does not support scheduled provisioning functionality for RealPresence Group Series systems.

Software Updates

Because RealPresence Group Series systems are dynamically managed, this CMA system v6.2.0 release can perform automatic software updates on the systems. When a RealPresence Group Series system starts up (and at

designated intervals thereafter), it can be configured to automatically poll the CMA system for a software update package. If a newer software update is available, the package is sent to the endpoint in XML format over a secure HTTPS connection. In addition, Group Series endpoints may be provisioned to received software updates during specified maintenance windows.

The CMA system does not support scheduled software update functionality on RealPresence Group Series systems.

Management

The CMA system v6.2.0 offers standard management support for RealPresence Group Series systems. It performs the following management functions:

- View Details
- Search Devices
- Connect or Disconnect
- Manage
- Send Message
- Reboot Device
- Manage Owner
- View Peripherals
- Associate User
- Assign Area

Because RealPresence Group Series systems are dynamically managed, they cannot be manually added or edited in the CMA system. Instead, the endpoint systems must be configured with the required address and credentials to poll the CMA system, as the provisioning server, for configuration information.

RealPresence Group Series Touch Control Software Updates

The CMA system v6.2.0 can also perform automatic software updates of the RealPresence Group Series Touch Control software. Note that the software update packages for the RealPresence Group Series Touch Control device are distinct from the software update packages for the HDX Touch Control device.

Support for RealPresence Desktop Video Collaboration Software

In this v6.2.0 release, the CMA system's support for the new RealPresence Desktop video collaboration software includes standard:

- Directory Support
- Scheduling
- Reporting
- License Entitlement Management

With regard to license entitlement, each active RealPresence Desktop instance consumes a license. If a user logs into multiple RealPresence Desktop instances at the same time using the same credentials, each instance will consume a

license. The CMA system can be configured to reclaim inactive RealPresence Desktop licenses. For more information, see the *Polycom CMA System Operations Guide*.

Enhanced Management of E.164 Numbering for Dynamically-Managed Endpoints

In this v6.2.0 release, the CMA system allows administrators to control and configure the E.164 number used to reach dynamically-managed endpoint systems.

To apply the E.164 numbering scheme to an endpoint system, it must be dynamically managed and have H.323 enabled, which can be done during automatic provisioning.

The CMA system will apply the E.164 numbering scheme to all dynamically-managed endpoints registering to the system only if no other E.164 alias has been previously provided in a dial string reservation.

When implementing an E.164 numbering scheme, go to **Admin > Dial Plan and Sites > E.164 Numbering Scheme**. The following options are available:

Field	Description
Prefix	<ul style="list-style-type: none">• No Prefix—The system will not append a prefix to create the E.164 assignment.• A Number —The system appends the prefix specified to create the E.164 assignment.• Based on Device Type—The system appends a pre-defined Device Type suffix to create the E.164 assignment.
Base Field	<ul style="list-style-type: none">• Specify Number Range—Identify a number range to be used. The system uses a number from this number range to create the E.164 assignment.• Use Phone Number—The system will use a portion of the user's phone number to create the E.164 assignment. The phone number information can be accessed from either the Active or local directory.• Maximum number of digits to use from the user's phone number (between 3 and 10 digits).• Number range to use if phone number is empty (reverts to Specify Number Range)—The system will revert to using a number range if the user's phone number is empty.
Suffix	<ul style="list-style-type: none">• No Suffix—The system will not append a suffix to create the E.164 assignment.• A Number —The system appends the suffix specified to create the E.164 assignment.



- The total number of digits specified for an E.164 number must be 15 or less. If the user's phone number is assigned to the Base Field, the system reserves one digit to differentiate between the user's multiple devices. In this case, the total number of digits configured cannot exceed 14 digits.
- The E.164 numbering scheme feature is only applicable to dynamically-managed endpoint systems.

Software Version History

Version	Release Date	Features
6.2.1	December 2012	Fixes for specific customer issues
6.2.0	November 2012	Polycom Group Series and RealPresence Desktop support, E.164 management and fixes for specific customer issues
6.0.3	September 2012	Maintenance release to fix specific issues
6.0.2	August 2012	Maintenance release to fix specific issues
6.0.1	December 2011	Maintenance release to fix specific issues
6.0.0	October 2011	New roles, Multiple Address Books
5.5.0	May 2011	Areas, Endpoint peripheral support

System Parameters

The CMA system operates within the following system parameters:

- Users – no limit
- Groups – no limit
- Areas – no limit
- Devices – limited to maximum number of device licenses
- Global Address Book entries – limited to maximum number of device licenses
- Room entries – no limit, but if the system has more than 500 room entries, it could experience user interface performance issues.
- Site entries – supports up to 500 total sites
- Subnets – supports up to 5000 total subnets
- Site links – no limit

Localization Information

The CMA system user interface (UI) is available in the following languages: English, French, German, International Spanish, Japanese, Korean, Simplified Chinese, Traditional Chinese, Portuguese, and Russian.

Note that the UI may be translated for major releases only. For features delivered in minor releases that require UI changes, these UI changes may be in English only until the next major release.

Installation and Upgrade Notes

Installation of new CMA systems is managed through Polycom Global Services. For more information, please contact your Polycom representative.

CMA systems running any 6.0.x version of software can be upgraded to version 6.2. When upgrading a system, consider the following:

- If your system is not currently at v6.0 or greater, you must perform interim upgrades and apply the v6.0.0 Pre-Upgrade Patch, before upgrading to v6.0.0. Here are the upgrade scenarios that you may need to consider and apply:

Starting CMA System Version	Upgrade to...
CMA v5.0	CMA v5.3
CMA v5.3 or v5.4	CMA v5.5
CMA v5.5 or v5.5.2	Apply Pre-Upgrade Patch and Backup System Settings
CMA v5.5.x with Pre-Upgrade Patch	CMA v6.0.0 with an immediate upgrade to CMA v6.0.3 Note This must be an immediate upgrade. No exceptions.
CMA v6.0.0 through v6.0.3	CMA v6.2.1 and Restore Backup System Settings
CMA v6.2	CMA v6.2.1



IMPORTANT

If in your environment, RealPresence Group Series room telepresence systems have already registered with the CMA system v6.0.x (or earlier) gatekeeper, delete them from the CMA system just before you upgrade to CMA system v6.2.1. Then once the CMA system has been upgraded, allow them to re-register. Otherwise, the Group Series systems may each consume two licenses and the data reported for them may be inconsistent.

Carefully read these [Installation and Upgrade Notes](#) and the *Polycom CMA System Upgrade Guide* (where applicable) for each interim upgrade you must perform. Note that you will also be required to perform an interim system backup after applying the Pre-Upgrade Patch if you need to carry your system data forward. Then after upgrading the system you will perform a system restore of that backup.

- The CMA system upgrade script now verifies the system being upgrade is at a system version level that may be upgraded.
- During the upgrade process, the system will find all RealPresence Mobile client records for clients running version lower than 1.0.3 and remove them from the system. If any of these clients are scheduled for a future conference, they will be removed from the conference. After the client is removed as a participant, if the conference has less than two participants, the conference will be removed as well.
- If the CMA system is integrated with a Polycom VBP system, we recommend shutting down the VBP system before upgrading the CMA system. Once the CMA system is upgraded, restart the VBP system.

Web Interface System Requirements

The following table describes the requirements for the CMA system v6.0.2 web interface.

Product	Versions
Microsoft Windows Operating System	2003 SP2, XP SP3, Vista™ SP2, or Ultimate 7 edition (32 and 64 bit)
Internet Browser <ul style="list-style-type: none">• Microsoft Internet Explorer OR• Mozilla Firefox OR• Apple Safari	v6.0, 7.0, or 8.0 v3.5 or 3.6 v3.2, 4.0, or 5.0
Adobe Flash Player	v9.x or 10.x

Products Tested with This Release

Polycom CMA systems are tested with a wide range of products. The following list is not a complete inventory of compatible equipment. It simply indicates the products that have been tested for compatibility with this release of the CMA system.

Product	Tested Versions
Video Endpoints	
Polycom V and VSX Series	8.7.1 9.0.5 9.0.6.
Polycom HDX systems	3.0.1 3.0.3 3.0.5
Polycom CMA Desktop for Windows	5.2.3
Polycom CMA Desktop for Mac OS	5.2.3
RealPresence Telepresence m100	1.0
RealPresence Mobile-iPad2®	1.0.2 and higher
RealPresence Mobile-Samsung Galaxy™	1.0.3
RealPresence Mobile-Moto Xoom™	1.0.3
Polycom ViewStation SP/MP/512	7.5.4 (H.323 only)
Polycom ViewStation FX/EX/4000	5.1.2 6.0.5
Polycom PVX	8.0.2
Polycom QDX 6000 ^a	4.0.1
Polycom VVX 1500	UC 3.3.0 3.3.1
Network Devices	
Polycom RMX 1500	7.7
Polycom RMX 2000	7.7

Product	Tested Versions
Polycom RMX 4000	7.7
Polycom RMX 1000	2.1.2
Polycom MGC	9.0.4.3 9.0.4.4
Polycom DMA 7000	5.0.1
Polycom VBP 5300/6400 E/S/T	9.1.5.3 11.2.3 11.2.5
Third Party Products	
Avaya One-X Communicator	6.1.1.02-SP2-33124
Avaya Communication Manager (H.323)	5.02.1.016.4 Patch18111
Cisco CTS	1.7.0.2 1.7.4
Cisco CTMS	1.7.2
Cisco CUCM	8.5.1
Cisco CUVC	7.2
Tandberg MXP 550	F9.0.2 NTSC
Tandberg MXP 770	F8.2 NTSC, security
Tandberg MXP 880	F8.2 NTSC, security F9.0
Tandberg MXP 990	F9.0.2 NTSC
Tandberg MXP 6000	F9.0
Tandberg MXP 1700	F9.0
Tandberg T 150	L5.1.1
Tandberg 150 MXP	L6.2
Tandberg 6000	E5.3 B10.3
Tandberg E20	TE2.2.0.215697

Product	Tested Versions
Tandberg C20	TC2.0.0.191232 TC3.1.1.220240 TC3.1.2.227244 TC4.1.0.247017
Tandberg C40	TC3.1.1.220240 TC4.0.1.240265
Tandberg C60	TC3.1.1.220240 TC3.1.3.234045
Tandberg C90	TC3.1.1.220240 TC3.1.3.234045 TC4.1.0.247017
Tandberg Edge 75	F8.1 NTSC
Tandberg Edge 85	F8.2 NTSC, security
Tandberg Edge 95	F9.0.2 NTSC
LifeSize Room	4.7.0.19 4.7.11
LifeSize Room 200	4.5.1 4.7.0 4.7.0.19
LifeSize Express 220	4.7.0 4.7.0.19
LifeSize Team 200	4.7.0 4.7.0.19
LifeSize Team 220	4.7.0 4.7.10 4.7.0.19
LifeSize Express 200	4.7.0 4.7.0.19
LifeSize Express 220	4.7.0.19
IBM Lotus Notes (for Polycom Scheduling Plugin ^b)	8.0.2 on Windows XP (32 bit) with SP3
Microsoft OCS 2007 R2 SP0	3.5.6907.0
Microsoft Lync 2010 SP0	4.0.7457.0
Microsoft OC 2007 R2 Client	3.5.6907.0
Microsoft Lync 2010 Client	4.0.7577.0

Product	Tested Versions
Microsoft Exchange 2007 R2 SP3	8.3 build 83.6
Microsoft Exchange 2010 SP0	14 build 39.21
Microsoft Outlook (for Polycom Scheduling Plugin)	2007 (12.0.6557.5001) SP2 MSO (12.0.6554.5001) on Windows XP (32 bit) with SP3, Windows 7 Enterprise (32 bit) with SP1 2010 (14.0.5128.5000) on Windows XP (32 bit) with SP2, Windows 7 Home Edition (32 bit) with SP1
Microsoft Windows 2003 Server	x64 R2 with SP2 and KB updates.
Microsoft SQL Server ^{c, d, e, f}	2005 SP3, Standard or Enterprise edition, 32 or 64 bit 2008, Standard or Enterprise edition, 32 or 64 bit Clustering supported.
Microsoft Active Directory ^g	2003 Domain Functional Level w/ Domain Controller Windows Server 2003 SP2; multiple domain controllers 2008 Domain Functional Level w/ Domain Controller Windows Server 2008; single domain controller only

- a. Polycom QDX 6000 endpoints and Polycom DMA systems are supported only as H.323 devices.
- b. The Polycom CMA system includes a “shipped version” of the Scheduling Plugin for IBM Lotus Notes and Scheduling Plugin for Microsoft Outlook. This “shipped version” is the plugin version that has been tested and is certified to interoperate with the associated CMA system.
- c. Microsoft SQL Server is required for all redundant Polycom CMA 5000 systems and for Polycom CMA 5000 systems supporting more than 400 concurrently registered endpoints and 240 concurrent calls.
- d. For installations with an external database, the Polycom CMA system is only certified with the Microsoft SQL Server set to US-English Collation (SQL_Latin1_General_CP1_CI_AS).
- e. The Polycom CMA system databases should have their own database instance and should not be part of a shared database instance.
- f. The recommended size for the external Polycom CMA ReadManager_db system database is now 4GB rather than 2GB with Autogrow set as preferred.
- g. Microsoft Active Directory—Must have Global Catalogs enabled, universal groups defined, and Digitally sign communications enabled.

Polycom DMA 7000 System Interoperability

Beginning with version 4.0, the Polycom DMA system includes Call Server functionality (H.323 gatekeeper and SIP proxy/registrar), and that functionality is always enabled. A DMA system v4.0 or greater can no longer register with a CMA system as previous versions did. Instead, you should add the DMA system as a trusted neighbored gatekeeper.

In some circumstances, each call into a conference hosted on an RMX system may use two CMA system licenses. This happens when the RMX system is registered with both a CMA system and a DMA system, and the DMA system is also registered or neighbored with the CMA system. One license is consumed when the CMA system passes each call to the DMA system. The second license is consumed when the RMX system registers each call back to the CMA system. To resolve this issue, unregister the RMX system from the CMA system.

Polycom RMX Platform Interoperability

A system administrator must plan carefully when integrating a Polycom RMX conferencing platform with a CMA system as both systems manage conference settings and templates.

Synchronization of Templates and Profiles

The CMA system administrator must manually synchronize the settings in the CMA system conference template and its associated RMX profile.

Refer to the *Polycom CMA System Operations Guide* for more information on creating new conference templates. Refer to the *Polycom RMX Administrator's Guide* for more information on creating RMX profiles.

Management of MCU Ports

If you're using a CMA system, do all scheduling and monitoring through it to avoid resource conflicts. While an MCU may have on-board scheduling capabilities, scheduling conflicts can occur when both the CMA system and MCU are used simultaneously to manage the same MCU ports.

Feature Integration

Fixed and Flexible Resource Capacity Modes

The CMA system supports Polycom RMX systems operating in Flexible Resource Capacity™ mode only. The CMA system does not support RMX systems operating in Fixed Resource Capacity mode. That means that when a RMX system registers with the CMA system for the first time, the CMA system queries the RMX system for its defined number of available ports and saves this port count in a CMA system database as the RMX system's maximum capacity. The CMA system schedules, allocates, and reports port usage based on this initial value no matter how the RMX system port usage is defined or redefined.

Auto-extend Conference

The RMX system has an "ENABLE_AUTO_EXTENSION" flag that, when set, allows conferences running on the RMX system to be automatically extended as long as there are participants connected. The CMA system does not recognize this setting, so the CMA system will end a conference scheduled through it regardless of the value of this flag.

Strategic Global Partners - Cisco and Avaya Interoperability

Polycom partners with the leading platform providers—to ensure co-development and interoperability in many environments and to deliver a high quality collaborative experience. For that reason, the CMA system has been qualified to neighbor with versions of the Cisco IOS® Software Gatekeeper and the Avaya Communications Manager.

The CMA system can route H.323 calls to neighboring regions managed by the Cisco IOS or Avaya CM gatekeeper. To enable call routing to these neighboring gatekeepers, you must create CMA system dialing rules. (For more information about dialing rules, see the *Polycom CMA System Operations Guide*.) Then, if the CMA system is unable to resolve a dialed address for a call, from its list of directly registered endpoints, the system invokes the appropriate dial rule to identify the neighboring gatekeeper to which the call should be forwarded.

The Cisco IOS or Avaya CM gatekeeper may require additional configuration to integrate with the CMA system. See the product documentation for the Cisco IOS or Avaya CM gatekeeper to determine how to configure it as a neighboring gatekeeper.

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

Cisco Interoperability

The Polycom video infrastructure allows you to integrate with Cisco Unified Communications Manager infrastructure to enable common dial plans between Polycom and Cisco Unified IP phones or video endpoints, as well as to take advantage of the Cisco Unified Communications Manager monitoring capabilities. For more information about this solution, see the *Polycom Unified Communications for Cisco Unified Communications Manager Environments*, which is available on the Polycom support site.

Resolved Issues in CMA System v6.2.1

The following table lists the resolved issues in this CMA system release.

Issue #	Description
SSGSE-14597	Adding more than 1000 entries to a CMA system multiple address book renders the address book unusable and not visible in the Web UI.
SSGSE-14591	Group550 series only. Failed to download Bundled provisioning on CMA system.
SSGSE-14579	SNMP CMA Endpoint register/unregister (trap)
SSGSE-14578	A Remote System Name in CDR is seen as garbled characters when a remote site in RPM whose LDAP username (AD name) contains Japanese characters. Note When importing a CDR report file into Microsoft Excel, select the UTF-8 format during import.
SSGSE-14486	User intermittently unable to place calls via RPM clients through to CMA system, (via VBP ST).
SSGSE-14564	CMA system Scheduled provisioning profiles for TANDBERG C series, Viewstation, and Viewstation EX/FX prevent user from entering ASCII characters in gatekeeper.
SSGSE-14563	CMA system Scheduled provisioning profiles for HDX and VSX/V-series prevent user from entering '-' (hyphen/minus) character in gatekeeper field.
SSGSE-14420	CMA system v6.01 returns GAB entries as SIP if the CMA system knows their SIP URI, even if they also have H.323 dial strings.
SSGSE-14285	When scheduling a conference via a CMA system, user adds a guest and puts IP + extension. The extension is not carried to the MGC participant.
SSGSE-14622	CMA system provisioning profiles for TANDBERG C series show an Invalid Key error.

Known Issues

The following table lists the known issues found in the CMA system which are not yet fixed.

Category	Issue #	Description	Workaround
Active Directory	SSGSE-10942	After rooms are imported into the CMA system, changes made in Active Directory to room data (e.g., e-mail address or description) are not updated on the CMA system.	Remove and re-import the room after changes are made.
Active Directory	SSGSE-11613	When the CMA system's LDAP integration credentials are invalid, an error message and exception stack trace may appear in the Jserver.log log file when the CMA system tries logging in to Active Directory.	None
Active Directory	SSGSE-11934	Enterprise directory searches on Polycom HDX systems do not succeed after initial provisioning until the endpoint is rebooted.	Reboot after initial provisioning.
Active Directory	SSGSE-6077	If dynamically managed endpoints search for rooms that were created locally on the Polycom CMA system, the search results will not return anything when using cn or displayname. Room searches on the Active Directory server will work.	Search for locally created rooms by SN and SAMAccountName.
Active Directory	SSGSE-6463	If two or more users in the Active Directory have first names and last names match, the video devices for both users will be provisioned with the same LAN host name.	None
Active Directory	SSGSE-7224	It appears to local admins or operators that they can edit or copy a conference with Active Directory participants but the operation will not work, since they cannot work with Active Directory participants.	None
Active Directory	SSGSE-7230	If a group is created by a domain administrator and then edited by a local administrator for the CMA server, any domain users added to the group originally will be removed.	The domain administrator will need to re-add the domain users to the group.
Active Directory	SSGSE-8764	Auto-discovery for Single Sign-on fails when integrating with a Windows Server 2008 Active Directory environment with parent and child domains.	None
Cascading	SSGSE-7550	If two Polycom RMX systems are cascaded and one of them is in secure mode, scheduled conferences will fail.	None

Category	Issue #	Description	Workaround
Conference Management	SSGSE-10517	Scheduled conferences may have slightly shorter durations than expected. Depending on the number of participants, it may take a few seconds or minutes to get the conference started. These shorter durations will be visible in the reports.	None
Conference Management	SSGSE-11372	A scheduled conference on an embedded-MCU endpoint cannot be terminated successfully on first try. The conference appears to be gone but will show up again as an adhoc conference under the name "Internal Multipoint". Subsequent termination of this adhoc conference works.	Terminate the conference again if it reappears as an internal multipoint conference.
Conference Management	SSGSE-12559	The CMA system reports an incorrect conference duration time when the active conference time is extended.	None
Conference Management	SSGSE-13510	The Conference and Chairperson passcode length defaults to the maximum of 15 characters.	None
Conference Management	SSGSE-13592	When starting a conference using the Conference On Demand feature, an external participant is created in the Conference Monitoring view on the CMA system.	None
Conference Management	SSGSE-13757	Point-to-point conferences cannot be terminated on the CMA system if the two endpoints are in the Internet/VPN site.	None
Conference Management	SSGSE-13796	A guest with an H.323 Annex-O alias cannot be connected to a conference on an RMX system, if the guest's Dial Type is set as Dial In.	Either set the Dial Type for the guest to Dial Out or use the IP address or a different alias type for the guest.
Conference Management	SSGSE-13799	The Number field of a guest displays ":", when the conference is scheduled with a Polycom RMX MCU.	None
Conference Management	SSGSE-7728	In the Conference Management page, for a conference hosted on a Polycom RMX v 6.0 bridge with multiple ISDN participants, one of the participant details may display "Unknown."	None
Conference Management	SSGSE-7878	The Polycom CMA system does not send an email alert to the administrator or scheduler if a scheduled conference fails to launch.	None
Conference Management	SSGSE-8996	Extending the duration of a conference by 5 minutes only adds 2 minutes to the conference.	None

Category	Issue #	Description	Workaround
Conference Monitoring	SSGSE-11371	When a device is assigned to both a user and a guest, Conference Monitoring will show the guest name as the participant name when the device is connected in a conference.	None.
Conference Monitoring	SSGSE-12750	If a scheduled call was active when the CMA system was in the process of being upgraded, after the upgrade, the call may still exist on the Conference Monitoring page.	Terminate the point-to-point call from the Ongoing conference page.
Conference Monitoring	SSGSE-13288	The CMA system displays two conference participants for the same endpoint, if the endpoint registered to the CMA system after it was already connected as an external participant in a point-to-point call. The initial external participant does not get matched and updated as the registered participant while the conference is running.	Register the endpoint to the CMA system gatekeeper before the call.
Conference Monitoring	SSGSE-13419	In some cases, a scheduled conference will display 0 kbps for the call rate. This can happen if all of the participants have not joined the conference.	None
Conference Monitoring	SSGSE-13578	When dialing into an entry queue on an RMX or MGC system from an endpoint using a dial string that has the bridge prefix and entry queue number, an external participant could be created in the Conference Monitoring view on the CMA system.	None
Conference Monitoring	SSGSE-13631	TANDBERG-only multipoint calls scheduled on the CMA system and using an RMX system show extra conferences in the Conference Monitor page.	None
Configuration	SSGSE-10182	When the CMA system time zone or Daylight Saving Time flags are change, the CMA system does not reflect the new information in all of its logs until after it is rebooted.	Reboot after changing time zone or Daylight Saving Time flag.

Category	Issue #	Description	Workaround
Configuration	SSGSE-11159	When an administrator first enables IPv6, the initial IPv6 address input by the user (in the CMA network setup) becomes the "SLAAC" address. The SLAAC address can't be removed from the system from that point on. If the administrator then changes the IPv6 address (in CMA network setup), the CMA system will then end up listening on two addresses: the SLAAC address and the new address. From then on, any time the administrator changes the address in CMA system, the second address will change, but the SLAAC address will remain. This is a Windows limitation that has no known workaround.	
Configuration	SSGSE-11363	The CMA system logs may not display timestamps using the time zone configured for the system, if the system has not been rebooted since the time zone was changed. This is an issue during out-of-box setup because there is no reboot after the time zone is set.	Reboot the CMA after changing the time zone.
Configuration	SSGSE-8995	On a Russian-SKU CMA system, the AES Encryption option is still enabled on VSX and HDX endpoints, after provisioning the Security page to disable it.	None
Dashboard	SSGSE-6949	Time extensions for scheduled conferences do not reflect the port usage into the dashboard. Extended confs (port usage) is treated as ad hoc by the CMA system and are not tracked, therefore they do not show in the expected port usage graphs.	None
Database	SSGSE-13094	Legacy (v4.0 or earlier) CMA system database fields store time in local time.	None
Database	SSGSE-14269	The system database may disconnect after patching.	None
Database	SSGSE-5105	When a Polycom CMA system experiences an unexpected disconnection from the external database it does not automatically re-establish connection and some data loss may be experienced.	A Polycom CMA system will show a System Alert if the database connectivity is lost. Log into the Polycom CMA system UI and re-start the server to re-establish full database connectivity. No workarounds for potential data loss.

Category	Issue #	Description	Workaround
Device Management	SSGSE-10090	If an endpoint or endpoints has a software update scheduled or in-progress, a user cannot reset the software update profile for any model of the same device type.	Wait until there are no software updates scheduled or in-progress for any endpoints of that type when trying to reset the software update profile for that endpoint type..
Device Management	SSGSE-10420	If an dynamically managed endpoint is rebooted after having a credentials failure, the endpoint will not reboot and not give an error message.	None.
Device Management	SSGSE-10744	A dynamically-managed endpoint may not be associated with a user for short periods of time. These issues resolve themselves in an hour or so. This happens if you delete the endpoint from the the CMA system. After approximately 5 minutes, the endpoint attempts to register with the CMA system gatekeeper (assuming it was provisioned to point to the CMA system as its gatekeeper and the CMA system is configured to "Allow all registrations." In this case, the endpoint will be added to the system without being associated to the correct user. This will resolve itself after the next provisioning cycle (typically within an hour). However, current device state (like presence status) may not be correct.	To avoid this problem, turn off an endpoint before deleting it. To resolve this problem, reboot the endpoint.
Device Management	SSGSE-11409	If, in the CMA system, you have a room in Active Directory that you first associate with an endpoint before you designate it as a room, the room will lose its association with the endpoint.	Do not associate rooms with endpoints until you have designated them as rooms.
Device Management	SSGSE-11627	The System Name field on the Find Device pane is editable. It should not be editable.	Do not edit the System Name in this manner.
Device Management	SSGSE-12679	If a DMA system is manually added to the CMA system (Network > Add > DMA) with a valid prefix (i.e., a prefix that has been setup on the DMA system), without adding CMA as the gatekeeper for the DMA system, the CMA system cannot display the DMA node information in the Node list.	None
Device Management	SSGSE-12999	On the Network Device > Montior View page, an RMX system may show an invalid time for the last time it was registered to the gatekeeper.	None

Category	Issue #	Description	Workaround
Device Management	SSGSE-13163	When uploading a softupdate package for a QDX system, an HDX system softupdate package can be mistakenly uploaded.	Ensure that the softupdate package for the system being scheduled is the correct type.
Device Management	SSGSE-13244	When a dynamically managed endpoint log off or goes offline, the directory status is inconsistent and should be a gray dash with a state of unknown.	None
Device Management	SSGSE-13319	Manually adding an endpoint and specifying alias type=Transport address fails.	None
Device Management	SSGSE-13348	It is possible to successfully add an endpoint to the CMA system through the Global Address Book that will not be updateable.	Have the default alias be less than 64 characters.
Device Management	SSGSE-13349	If an endpoint is added through the Global Address Book and that endpoint has no aliases, the CMA system will generate an alias for it based on its name. But when the device record is updated based on what was in the Global Address Book (which still has an empty device list), the generated alias is immediately deleted.	None
Device Management	SSGSE-13669	The CMA system does not honor the priority of MCU services which results in incorrect MCU services being used for conferences.	None
Device Management	SSGSE-13676	CMA system device management monitoring loses the status of dynamically-managed endpoints upon a system reboot.	Reboot or manually re-provision the dynamically-managed endpoint.
Device Management	SSGSE-13682	The MCU service priority is not updated after clicking Update on the Edit MCU Service window.	None
Device Management	SSGSE-13748	During an upgrade, the softupdate files are not preserved but any schedules for softupdates are preserved. After the upgrade, whenever the scheduled softupdate happens, the softupdate will fail.	Perform all softupdates before the upgrade or wait until after the upgrade to schedule softupdates.
Device Management	SSGSE-13825	Certain endpoint types do not send call indication events to the CMA system, thus the system may not notice that the endpoint is in a call until the next polling cycle for the endpoint. At that time, the data for the call can be populated in the call details view on both the Endpoint > Monitor View and on the participant details view when managing a conference.	Wait for several minutes for the data to refresh.

Category	Issue #	Description	Workaround
Device Management	SSGSE-8266	After dissociating a user from an endpoint on the Endpoint > Monitor View page, editing the user on the Users page still shows the endpoint associated to the user. However, it does appear that if the endpoint is dissociated from the user on the Users page, the endpoint can be associated to other users.	Dissociate the user from the endpoint via the User > Edit dialog box.
Device Management	SSGSE-8273	When selecting the Associate Area action on the Endpoint->Monitor View page, an endpoint that is unassociated from the area that a user belongs to is not removed from the device list automatically.	Navigate to another screen in the CMA and back to the Monitor View will remove the endpoint from the list.
Device Management	SSGSE-9687	When attempting to add an alias of type Transport Address to an endpoint, an error occurs and the operation does not complete successfully.	None
Device Management	SSGSE-9693	When adding or editing an endpoint, adding an Alias type of Unknown and saving will cause an error to be displayed and the operation will fail.	None
Device Management	SSGSE-9981	If, while clearing the help for a endpoint the user selects Send Message, but does not enter a message before clicking Send, the help will be cleared and no message is displayed on the endpoint. However, an error will be displayed on the CMA system interface with no opportunity to re-enter a message.	Use the Send Message action to send the proper message to the endpoint.
Dial Rules	SSGSE-13731	The "# of Digits in Subscriber Num" field on the General Info pane of the Admin > Dial Plan and Sites > Sites page does not have a correct 32bit int type validator. It allows you to enter larger values outside of the "int" type range (e.g. maxInt 2147483647), and then the value is truncated, with possible negative results.	Enter values in the range [0, 2147483647] as "# of Digits in Subscriber Num" field values.
Dial Rules	SSGSE-13732	The "# of Digits in Subscriber Num" field on the General Info pane of the Admin > Dial Plan and Sites > Sites page does not have a correct 32bit int type validator. It allows you to enter larger values outside of the "int" type range (e.g. maxInt 2147483647), and then the value is truncated, with possible negative results.	Enter values in the range [0, 2147483647] as "# of Digits in Subscriber Num" field values.

Category	Issue #	Description	Workaround
Dial Rules	SSGSE-13758	The CMA system gatekeeper does not apply dial rules when forwarding location requests to neighbored gatekeepers. If dial rules were set to add/remove some digits when calling the destination number of a remote device (not directly registered with the CMA system), the CMA system does not modify the destination number before sending the request to its neighbor gatekeepers.	Avoid dial rules that modify the destination dial string for remote devices.
Documentation	SSGSE-13397	When a call is made from an endpoint with a CMA, DMA, and RMX system in between, it counts as two active calls against the maximum number of the allowed active calls in the CMA system.	None
Documentation	SSGSE-14105	After applying the backup patch, when the user logs out, he cannot log back in. This should be documented.	None
First Time Setup	SSGSE-12841	Cannot use the Identity Certificate Chain during First Time Setup.	None
First Time Setup	SSGSE-7476	During first time setup, if the window session times out, the first time setup will not complete and you may be required to start from the last page you were on. If the last page was the Network Setup page, the information you may have entered will be lost and you will be required to re-enter the information.	Click OK in the time-out message dialog box and as prompted, start the setup again.
Gatekeeper	SSGSE-13162	In the situation where an Avaya ACM is neighbored to a CMA system, if a call is placed from an endpoint registered to the ACM, a LocationRequest (LRQ) is sent to the CMA system. In the case where the CMA system cannot resolve the destination but does have another neighbor, the LRQ cannot be forwarded because the ACM Location Request does not have a hopcount. The CMA system gatekeeper requires a hopcount in all LRQ messages to prevent signaling loops. This causes the call to fail since the destination cannot be located.	None
Gatekeeper	SSGSE-3623	If the Polycom CMA system gatekeeper is setup in direct mode, ad hoc point-to-point calls cannot be terminated at the Polycom CMA system.	None
Gatekeeper	SSGSE-6881	If dial rules are implemented blocking some video endpoints from receiving calls, scheduled conferences will still connect those blocked endpoints.	None

Category	Issue #	Description	Workaround
Global Address Book	SSGSE-7701	If you delete a standard managed device (any device that is not being dynamically managed) that is registered to the Polycom CMA system for gatekeeper, Global Address Book, and management services and then add it back (either manually or automatically), the Global Address Book status will be mismatched between the Polycom CMA system and the endpoint.	Power cycle the endpoints.
Guest Book	SSGSE-11407	Audio-only dial-out entries display incorrectly in the CMA system Guest Book. This is a label discrepancy. The label in the Join Mode column should read "Audio Only".	None
Interop-CMAD	SSGSE-10160	When a CMA Desktop software update is cancelled, it may still show as in-progress.	None
Interop-CMAD	SSGSE-11287	A "Presence Status Unknown" error is always displayed for the Polycom CMA Desktop for MacOS.	Since the CMAD Mac does not support presence, the warning may be safely ignored.
Interop-CMAD	SSGSE-6891	The Polycom CMA system reports a successful softupdate status of the Polycom CMA Desktop client before the update process completes on the device.	None
Interop-DMA	SSGSE-7278	When a Polycom DMA system is integrated with the Polycom CMA system, the CMA system does not display the serial number of the DMA device.	None
Interop-Endpoint	SSGSE-10017	For LifeSize Express endpoints, provisioning the properties "Video Dialing" and "Voice Dialing" will fail for certain values.	When setting up a provisioning profile to be used on a Lifesize Express, verify that the values selected for these fields are applicable to the endpoint.
Interop-Endpoint	SSGSE-10650	If a TANDBERG endpoint is managed by the CMA system without valid credentials, the CMA system will indicate that the directory is down even if the endpoint is properly configured to poll the directory.	Edit the device and provide valid username and password so that the CMA can poll it for status.
Interop-Endpoint	SSGSE-10669	If a LifeSize endpoint attempts to register to a specific gatekeeper and the gatekeeper ID does not match the CMA system gatekeeper ID, the registration will fail.	Keep the gatekeeper ID blank on the endpoint or use the same ID as the CMA gatekeeper ID.

Category	Issue #	Description	Workaround
Interop-Endpoint	SSGSE-10983	For the CMA system to successfully manage a LifeSize endpoint, SSH must be enabled on the endpoint.	Enable SSH on the endpoint.
Interop-Endpoint	SSGSE-11402	The TANDBERG MXP phonebook has an issue processing entries that contain an apostrophe. If any of the entries on the page being displayed includes an apostrophe, the page is not displayed. So if page 1 has 15 entries with no apostrophes, the page is displayed. If page 2 has an entry that includes an apostrophe, it is not displayed. If page 3 has 15 entries with no apostrophes, the page is displayed.	Do not include apostrophes in the names of devices, users, guests, or rooms.
Interop-Endpoint	SSGSE-11797	When a CMA system Guest Book entry includes an extension, the guest's entry is displayed in the phone book on LifeSize endpoints with no Video Number.	None
Interop-Endpoint	SSGSE-12753	If a customer uses peripherals before upgrading to CMA system v5.5; they must force a reboot of the endpoint after upgrading to CMA system v5.5 for the peripherals to show up on the Peripherals View.	Reboot the endpoint.
Interop-Endpoint	SSGSE-13642	The CMA system shows directory status for an HDX system based on the receipt of an LDAP status event. This is a one-time event at the time the HDX system boots. If CMA system misses the event, is rebooted, or if the HDX system is provisioned without requiring a reboot (if name does not change), the CMA system may miss the event.	None
Interop-Endpoint	SSGSE-13644	The Synchronize Endpoints action fails when the Global Address Book is configured on a TANDBERG endpoint.	None
Interop-Endpoint	SSGSE-13689	Guests with ISDN endpoints show up in the LifeSize phonebook with blank values.	None
Interop-Endpoint	SSGSE-13716	The length allowed by the CMA system in provisioning HDX system passwords does not match what is implemented on the HDX systems locally.	None
Interop-Endpoint	SSGSE-6088	The Polycom CMA system Device List may display the incorrect software version for Polycom ViewStation FX endpoints or the software version displayed may change inappropriately.	None

Category	Issue #	Description	Workaround
Interop-Endpoint	SSGSE-7289	The TANDBERG 6000 E is unable to send H.239 content in H323 calls when it is registered to the Polycom CMA system. The endpoint also stops transmitting video when this occurs.	None
Interop-Endpoint	SSGSE-7416	When logging into CMA Desktop with the local administrator account, you may receive notifications of available updates for third-party components in a CMA Desktop window. These notifications should be ignored.	None
Interop-Endpoint	SSGSE-7843	After restoring an HDX system to factory defaults, the HDX Management Server List may not include the CMA system to which the endpoint is registered.	None. This is a rare occurrence that the CMA system will correct every 100th polling cycle.
Interop-Endpoint	SSGSE-9031	The CMA system Get Serial Numbers function lists all non-T150 TANDBERG endpoints, including C-Series endpoints.	None
Interop-Endpoint	SSGSE-9710	When adding or editing an endpoint to the CMA system, the user can edit certain fields for the endpoint giving the illusion that these changes will be made permanently. However, if the endpoint is being properly managed by the CMA system Device Manager, then information changed in the Edit dialog is not propagated to the endpoint. Instead it is overwritten each time the endpoint is updated by the Device Manager.	Make changes to endpoint configuration on the endpoint itself. Changes will be reflected on the CMA system when the Device Manager updates the endpoint information.
Interop-Endpoint	SSGSE-9982	The ViewStation FX & ViewStation EX devices can be found by using the Search Devices feature even if they have a remote password.	None
Interop-Endpoint	SSGSE-9986	For LifeSize Express endpoints, provisioning the "HD Camera 2 Moment" property will fail.	Set the property on endpoint manually.
Interop-Endpoint	SSGSE-9987	For LifeSize Express endpoints, provisioning the properties "HD Input 1 Name" and "HD Camera 1 Name" will fail.	Do not include these properties in provisioning profile that will be applied to LifeSize Express endpoints.
Interop-MCU	SSGSE-13665	The conference ID of an adhoc MCU conference is shown as "0000". The expected is "N/A".	None
Interop-MCU	SSGSE-4824	The content for scheduled conferences that are cascaded over multiple MCUs (MGCs or RMXs) is not viewable on the endpoints.	None

Category	Issue #	Description	Workaround
Interop-MGC	SSGSE-13113	Some MGC system settings on conference template cannot be mapped to an MGC system when scheduling a conference.	None
Interop-MGC	SSGSE-13553	A conference scheduled as a 10+ layout conference on an MGC system won't be launched as 10+ conference.	None
Interop-MGC	SSGSE-13576	When registering a Polycom MGC system H.323 card to the CMA system, the CMA services is populated and is almost ready for simplified dialing to work immediately, but the call fails. After modifying the Country Code within the H.323 card registration, the call succeeds but this could be an issue if the entry is deleted and the card automatically re-registers, re-creating the entry but not the country code.	None
Interop-MGC	SSGSE-13783	A guest with an H.323 Annex-O alias cannot be connected in a scheduled conference on an MGC system, if the guest is set to dial-in. The call from the endpoint fails, and the guest shows as disconnected in the conference.	1) Set the guest as Dial-Out if you want it connected by Annex-O alias in the conference. 2) Use a different H323 dial type (IP / E164 / ID) if the participant is kept as Dial-In.
Interop-MGC	SSGSE-13784	When adding a guest to an ad hoc conference on an MGC system, the CMA system does not allow you to specify Dial In. Instead you must specify an IP address for the H.323 guest. The message the system displays does not accurately reflect the requested action.	1) You can configure the guest as DialOut in the CMA GuestBook, and use the preferred H323 dial type. 2) If dialin, and the user enters the correct IP value for the device the guest is associated with, the participant gets connected in the conference.
Interop-MGC	SSGSE-7209	When a MGC-scheduled conference ends at its scheduled end time, some of the participants may be removed. Copying the conference at this time may result in a conference with an incomplete list of participants. This behavior is not seen consistently and is not seen if the conference is terminated before its scheduled end time.	MGC-scheduled conferences should be copied before they're end time (either before the conference is launched or when it's still ongoing).
Interop-MGC	SSGSE-9008	The Extend Duration function does not work on a scheduled conference that uses a Polycom MGC system as the bridge. The call will end at the originally scheduled end time.	None

Category	Issue #	Description	Workaround
Interop-RMX	SSGSE-13362	The CMA system does not currently read the serial number from RMX systems. Thus in the Device Summary display, the serial number field is blank.	None
Interop-RMX	SSGSE-13428	In some cases on the CMA system, the hardware list for an RMX system may not match exactly with what is displayed on the RMX system EMA interface.	None
Interop-RMX	SSGSE-7424	When a Polycom RMX 1000 system is registered to a Polycom CMA system, the hardware status of the RMX is not displayed on the CMA.	None
Interop-RMX	SSGSE-8464	The Polycom CMA system does not warn the user that scheduling will fail when adding an RMX system that is configured for 'Fixed Resource Capacity.'	None
Interop-VBP	SSGSE-13701	Deleting a VBP system does not prompt the user to restart Apache. After deleting a VBP system, Apache must be restarted to unblock the VBP system provider-side IP address from accessing the user interface.	None
Interop-VBP	SSGSE-6544	VBP appliances that are added by the gatekeeper can be added without the Provider-side IP.	Edit the VBP appliance record. If the Provider-side IP changes, delete and re-add the VBP appliance.
Interop-VBP	SSGSE-6752	Polycom VBP appliances cannot be added to a CMA system when the system gatekeeper is set to "Allow predefined endpoints only".	The current workarounds are: (a) Take the gatekeeper out of predefined mode, add the VBP appliance, and then set it back or (b) define the VBP appliance to the gatekeeper before adding it.
Interop-VBP	SSGSE-6827	The Polycom VBP system consumes one license.	None
Interop-VBP	SSGSE-7181	A Polycom CMA Desktop client that is accessing the network through a Polycom VBP appliance gets disconnected from presence service after few hours of successful sign in.	Re-login.
Interop-VBP	SSGSE-8355	The Alias filter on the Network Device > Monitor View page does not display any aliases registered to the CMA system via a Polycom VBP S/T appliance.	None

Category	Issue #	Description	Workaround
Interop-VBP	SSGSE-8925	The CMA Desktop Chat icon is disabled in the call window with some Polycom VBP and Polycom CMA system settings.	None
Interop-VSX	SSGSE-6584	When a Polycom CMA system loses connection to a Polycom ViewStation FX endpoint, the CMA system reports the disconnection in the UI. However, an email alert is not generated for this connection error.	None
Localization	SSGSE-13632	The headers show in English on exported reports when CMA system is set to other language	None
Localization	SSGSE-13723	In the Russian version of the Scheduler Plugin for IBM Lotus Notes, the word "Resources" is displayed in Chinese when a conference is scheduled.	None
Localization	SSGSE-6715	The calendar popup for scheduling a software update and for adding a conference are not localized.	None
Localization	SSGSE-6732	In non-English languages, the Delete button on the Admin > Dial Plan and Sites > Sites > Edit > Subnets web page may be truncated.	None
Localization	SSGSE-6733	Default font size is 11 pt, however this font size is unreadable for Asian languages.	End users can over-ride the default font size for their web browsers.
Localization	SSGSE-7596	If the font size is changed for a language other than English, the change does not take effect immediately.	Log out, close the browser, and start a new browser session.
Logging	SSGSE-13378	The log for the conference launch process for point-to-point calls reports a device managed state of false. This is not necessarily true but can be safely ignored.	None
Logging	SSGSE-8626	String or binary data in the EXXX_LOG is truncated.	None
Messages	SSGSE-12664	The CMA system displays a Monitor Service Alert after a failover. The system should not display that alert after a failover.	None
Messages	SSGSE-13347	The error message that the CMA system interface posts when an attempt to delete all aliases from a device is more alarming than it needs to be.	None

Category	Issue #	Description	Workaround
Messages	SSGSE-13542	The CMA system returns a 500 error when a CMA Desktop system tries to log in with the wrong credentials. It should return a 401 error response when the username or password is incorrect.	None
Messages	SSGSE-13672	There is a Help button on a message box, but context-sensitive help can only be tied to dialog boxes, not the error messages.	None
Messages	SSGSE-13739	An incorrect message (Dial-Out specific) is displayed when trying to add a Dial-In participant in a scheduled conference, if the participant has no number specified. The message should correspond to the way the participant is configured.	Before scheduling the conference, properly configure the device/guest and specify the dial number.
Messages	SSGSE-14260	Error - @0@ show up when operator click on User > Users page on CMA. No user show up on the page.	None
Messages	SSGSE-5773	Scheduling failure message states "Insufficient MCU Resources" when the problem is really "Insufficient Bandwidth".	None
Messages	SSGSE-9747	On the Troubleshooting Utilities page, entering an invalid IP address for the Traceroute or Ping functions will display an inaccurate message implying that multiple IP addresses can be entered when the Remote IP Address field will only accept a single IP address.	Enter a single, valid IP address.
Messages	SSGSE-9951	The system displays an inaccurate error message when no recipients are specified on a scheduled conference E-mail message.	None
Other	SSGSE-11012	By default the Administrators group owns objects created by members of the Administrators group. The default owner should be the object creator.	None
Other	SSGSE-13287	Permission labels for roles are misleading. For example, Device Admin has only "Monitoring" permissions, but can do other actions and operators can monitor conferences, endpoints, and MCUs, but don't have monitoring permissions.	None
Other	SSGSE-13294	If two users with the same name exist in the system, there is currently no way to distinguish them from each other when associating them with an endpoint or when scheduling.	None

Category	Issue #	Description	Workaround
Other	SSGSE-13313	The user who enables the Areas option isn't a default member of the "All" area when the user is not an administrator. The user who enables the Areas option should be a default member of the "All" area no matter what role the user who enabled the option had.	None
Other	SSGSE-13381	Suggested servers are not reported when an invalid FQDN is given for the SSO server.	None
Other	SSGSE-13463	Microsoft Internet Explorer v8 has a known defect when attempting to download a file from the CMA system.	See http://support.microsoft.com/kb/824598 for the patch to IE8
Other	SSGSE-13524	The CMA system may split ISDN conference participant into multiple participants.	None
Other	SSGSE-13656	Local room User IDs are listed in the Area members list, but are not very helpful. Rooms do not have User IDs. A random value is shown.	None
Other	SSGSE-14231	When using the Polycom Scheduling Plugin for IBM Lotus Notes, the selected domain is always changed to Local.	None
Other	SSGSE-14233	The recording link may get disconnected unexpectedly after 20 - 30 minutes of connection in a Microsoft Office Communicator System R2 environment.	None
Other	SSGSE-14255	Disk space growing on Partition E due to large log files - need method to clean up old logs (especially mod_jk.log - which is now at over 5 GB and growing).	Delete or truncate mod_jk.log when it reaches large size - suggest 2 or before it reaches 5 GB.
Other	SSGSE-14458	Web browser incompatibility occurs when uploading files to the CMA system using Google Chrome. Upload and Download issues also exist when using Firefox and Safari.	None
Other	SSGSE-14262	All currently-applicable KB's from MSFT need to be available for customers to apply.	None
Other	SSGSE-7428	Users cannot search for rooms created locally on the CMA system by H.350 common name, given name, or display name.	None
Other	SSGSE-8090	An Area administrator can see all call detail records and all conference reports for the system.	None

Category	Issue #	Description	Workaround
Other	SSGSE-8205	The administrator needs all of the endpoints from a specific area to be usable by all users of the system without intervention.	Each user can use only those devices in his/her managed area. For all users to see devices in area "A" either all users must manage area A or all endpoints in area A must be moved to the "None" area
Other	SSGSE-8246	When editing the All area, it appears that the admin user can be removed from the area, but after logging out and logging in, the admin user is still in the All area. The system should appear to allow the user to remove the admin user from the All area.	None
Polycom Scheduling for IBM Lotus Notes	SSGSE-13353	A Lotus Notes exception for the ReadManager SE200 (earlier CMA system) popped up endlessly when scheduling a conference using the Scheduling Plugin for IBM Lotus Notes.	None
Polycom Scheduling for IBM Lotus Notes	SSGSE-6500	If a calendar event in the past is selected for editing, the Polycom CMA system displays a message saying that the event occurred in the past. However, the warning message should not appear at that time. Instead it should appear when the user clicks Save and Send Invitation for a start time in the past.	None
Polycom Scheduling for IBM Lotus Notes	SSGSE-7276	When using the Polycom Scheduling Plugin for IBM Lotus Notes, a user can't login when both HTTPS and Single Sign-on are enabled at the same time.	None
Polycom Scheduling for Microsoft Outlook	SSGSE-13482	The decline state on the Edit page for the conference is not consistent with the decline state on the View page when scheduled with the Polycom Scheduling Plugin for Microsoft Outlook.	None
Polycom Scheduling for Microsoft Outlook	SSGSE-6531	On Microsoft Vista the Polycom Scheduling Plugin for Microsoft Outlook is not able to register two DLLs. It raises error messages. A usual source for this error is when the MSI has not been compiled for Windows Vista and/or does handle elevating user privileges required for COM component registration.	Launch MSI in administrator command prompt to solve this issue. At a command prompt, type in the path of the MSI package and Enter.
Polycom Scheduling for Microsoft Outlook	SSGSE-8839	Installing the Polycom Scheduling Plugin for Microsoft Outlook causes some Outlook instability.	None

Category	Issue #	Description	Workaround
Provisioning	SSGSE-10475	If a user tries to delete a scheduled provisioning profile that is in use or is scheduled to be used in the future, the system pops a failure message that does not indicate reason for the failure.	Ensure that a provisioning profile is not being used or scheduled to be used for future provisioning before attempting to delete it.
Provisioning	SSGSE-12582	Some of the timezone options on the CMA system Site Provisioning page do not match the HDX system settings exactly, thus causing an error during provisioning.	Choose a different setting with the same GMT offset.
Provisioning	SSGSE-13429	Scheduled provisioning for an HDX system does not allow Monitor 3 to be selected.	None
Provisioning	SSGSE-13608	In some cases, provisioning may report a failure provisioning certain fields. This only means that the fields that were reported as failing are not provisioned correctly. All other fields in the profile were provisioned successfully.	Changing the values of the fields that are listed in the provisioning log may resolve the issue.
Provisioning	SSGSE-14108	See SSGSE-7886	None
Provisioning	SSGSE-7874	The Polycom CMA system provisions Username and Domain Username for Polycom HDX endpoints when Provision Domain Username option is not enabled on the CMA system.	None
Redundancy	SSGSE-14250	Inaccurate device alerts generated for HDX's after a CMA system redundancy failover.	Rebooting the HDX system will clear the device alerts.
Remote Alerts	SSGSE-7218	If after adding or editing a remote alert profile, a user clicks OK or Cancel to return to the Remote Alert Profile page, a profile is highlighted. If the user then clicks an action button (for example, Delete), the system displays an error.	First re-select the profile and then click the action button.
Reporting	SSGSE-10837	The Endpoint Usage Report appears to use the wrong end-date when filtering by date. This happens because the CDRs begin- and end-time are displayed as GMT, and the filter uses the CMA system local time. So if the call end-time for an endpoint is 6 pm local time on the 25th, it will show on the report as 1 am on the 26th (GMT). The filter is using the 6 pm time, so the CDR is displayed.	

Category	Issue #	Description	Workaround
Reporting	SSGSE-10922	Endpoint Usage reports for outbound and inbound usage identify endpoints by different names. The Outbound report identifies the endpoint by its system name, while the Inbound report identifies the endpoint by its alias.	None.
Reporting	SSGSE-11027	If an endpoint loses connection to the network during a call, the Endpoint Usage Report for the endpoint will not accurately reflect the conference end-time.	None
Reporting	SSGSE-11032	If a call spans midnight GMT, it will be appear in the Endpoint Usage Report as two conferences.	
Reporting	SSGSE-11923	Call Device Record (CDR) times for the start and end of calls are incorrect.	None
Reporting	SSGSE-13369	On the Conference Summary report, the dates and times are sorted independently and so a true chronological order is not obtained.	None
Reporting	SSGSE-13589	On the Endpoint CDR Report page, if an endpoint has calls that failed (wrong number, not answered, etc) the Summary tab will not show those calls in the number of calls, but the graph showing the call bit rates will have those calls taken into account. This results in a discrepancy between the number of calls in the tooltips versus the number of calls displayed at the top of the Summary tab.	None
Reporting	SSGSE-5759	Conferences that fail to launch are still displayed in the Conference Detail Report with "Total Scheduled Participants" and "Total Actual Participants" blank.	None
Reporting	SSGSE-7316	The Endpoint Usage Report displays the start and end time of conferences for Polycom VVX devices incorrectly.	The CDR times can be used as a cross-reference. There is no automated workaround.
Scheduling	SSGSE-10142	Terminating a conference doesn't delete it from CMA system, so the conference ID is reserved even though the conference was terminated. With the introduction of the conference ID customization, the scheduler may wish to reuse the same conference ID multiple times, which will fail if the conference ID isn't released.	None

Category	Issue #	Description	Workaround
Scheduling	SSGSE-10601	When scheduling a point-to-point call on a CMA system that has no MCU configured, changing the dial option of any of the participants will result in a scheduling failure.	Do not change participant dial options when scheduling a point-to-point call.
Scheduling	SSGSE-13426	The CMA system appears to be unable to recover from invalid conference settings when creating a new conference. In particular, the "Insufficient MCU resources" message may also be caused by mis-configured network sites, a missing path, or a full media path between sites. Changing the conference settings will not result in the conference being launched. Instead the CMA system will show the conference but will report the participants as being disconnected. The RMX system will not report the conference at all.	None
Scheduling	SSGSE-6711	A conference cannot be scheduled to cross the start or end boundary of Daylight Saving Time. For example, if a two-hour conference is scheduled on Mar. 14, 2010 from 1:00 am to 3:00 am (GMT-6), the system shows that the conference is scheduled on Mar. 14, 2010 from 1:00 am to 2:00 am (GMT-6).	None
Scheduling	SSGSE-7553	Guests or other conference participants with both an IP address and E.164 alias land on the MCU with only the IP address.	None
Scheduling	SSGSE-9967	When scheduling a recurring conference that starts on today's date, the Start Time and End Time are not propagated to the Appointment Recurrence pop-up. These fields should always be propagated to the Appointment Recurrence pop-up (like the Duration field).	None
Security	SSGSE-11020	User rights and advanced user rights settings do not meet minimum requirements in maximum security mode.	None
Security	SSGSE-11664	Session timeout during File Upload.	Increase the Session Timeout.
Security	SSGSE-11696	As a user I would expect the CMA system to confirm that my password has been changed before I am logged out.	None
Security	SSGSE-13550	Users do not get the option to update certificates after changing network information.	None

Category	Issue #	Description	Workaround
Security	SSGSE-13568	A CMA system in Maximum Security Mode can still log in using that same CMA system. You should only be able to log in via an external web interface.	None
Security	SSGSE-13607	In Maximum Security Mode - Terminal Services are not disabled until the second system reboot.	None
Security	SSGSE-13712	Reverting to the CMA system's self-signed certificate does not allow you to upload the previously uploaded valid certificate.	None
Security	SSGSE-13813	In maximum security mode, when the CMA system provisions a dynamically managed endpoint that is in the default site, the "Lock Port after Failed Logins" field in security settings will provision to be "Off". This is not a valid value in maximum security mode.	Edit the default site and save it. This will save it to the database with a value that is not "Off".
Site Topology	SSGSE-11679	Conferences don't show the correct site information.	As a best practice, if you make changes to the CMA system site topology, you should restart the system.
Site Topology	SSGSE-11955	Using the password rotation functionality may cause the password for the Site Topology Service to be set incorrectly. This will cause the Site Topology Service to become unavailable. Indications that this has happened are: 1) The following error appears in the Jserver.log file: ERROR main SiteTopologyService (WebApplicationContext_0) Unable to communicate with site topology backend within 120 seconds javax.naming.AuthenticationException: [LDAP: error code 49 - Invalid Credentials] 2) Accessing Sites on the CMA system results in an error message and no sites are defined.	A possible workaround is to rotate the passwords a second time.
Site Topology	SSGSE-12058	If a site is created, deleted, and then recreated, provisioning no longer works for devices in that site.	When creating a site, do not use the same name as a previously deleted site.
Site Topology	SSGSE-13565	The SIP bandwidth is not being used in calculations for sites.	None. Expected to be fixed in CMA v7.0.

Category	Issue #	Description	Workaround
Site Topology	SSGSE-13570	The Add Site Link screen allows the user to enter invalid combinations.	The CMA system recognizes the invalid combinations and issues an appropriate error message and allows the user to re-select the inputs.
Site Topology	SSGSE-13733	The "# of Digits in Subscriber Num" field on the General Info pane of the Admin > Dial Plan and Sites > Sites page does not have a correct 32bit int type validator. It allows you to enter larger values outside of the "int" type range (e.g. maxInt 2147483647), and then the value is truncated, with possible negative results.	Enter values in the range [0, 2147483647] as "# of Digits in Subscriber Num" field values.
Site Topology	SSGSE-6643	The new site topology map view may display clouds under sites. In some cases, the clouds can't be moved, because the site has focus. The sites can't be moved, because they are geographically fixed.	Edit the site and temporarily change the location data. Move the cloud and then edit the site and enter the correct location information.
SNMP	SSGSE-12073	In some cases, the CMA system SNMP MIB does not include all of the information that is displayed on the CMA system user interface. This issue will be addressed in a subsequent release.	None
SNMP	SSGSE-13292	When adding SNMP notification receivers, it is possible to enter the same IP address multiple times.	Delete duplicate entries.
SNMP	SSGSE-13301	After making changes to the SNMP page and updating the settings, leaving the page to go to a different page displays a message warning that changes will be discarded. This can safely be ignored since the changes were saved to the system.	None
SNMP	SSGSE-6236	SNMP returns incorrect number of total conferences.	None
SNMP	SSGSE-6307	SNMP reports on the number of ad hoc conferences is offset by one. SNMP also reports the total conferences in one day based on a 24-hour interval rather than on the actual calendar dates.	Use the Today's Ad hoc Conferences and Today's Scheduled Conferences pane on the dashboard for accurate conference information.
SNMP	SSGSE-6657	The Polycom CMA system does not always send the correct NTLM version for devices through to SNMP.	None

Category	Issue #	Description	Workaround
System Access	SSGSE-11608	When the CMA system has a session timeout during a file upload or system scan, the browser locks up.	Terminate the browser process, relaunch, log back into the CMA and try the upload again.
System Access, UI	SSGSE-10487	When using Microsoft Internet Explorer to access a CMA system, entering the system's IPV6 address results in a certificate error.	Specify the CMA system's DNS name instead of its IPV6 address in the URI.
UI	SSGSE-10050	Some UI pages with grids do not recognize that a row is selected, so when an ACTION command is clicked, the user gets an error message saying "The set of device IDs must not be null". The set of IDs is the set of selected rows in the grid.	Refresh the browser or logout and log back in.
UI	SSGSE-10282	After finishing the uploading of the first software update on the Automatic Software Update page, the popup box that is displayed (telling the user that it will assume to be the policy for this device type) is cut off at the bottom. The cutoff text is the last part of the following message: "To modify, see the 'Version to use' section at the top of the screen."	Click OK to dismiss the popup.
UI	SSGSE-10303	If the User Interface Timeout value is set to a large number, such as 9999999, the system becomes blocked with "Your session has timed out".	To avoid this problem, do not use large timeout values.
UI	SSGSE-11198	In the "Add New Room" dialog box the participant names are cut off.	None
UI	SSGSE-11749	The text on the Reset System Passwords page does not resize or wrap correctly.	None
UI	SSGSE-12070	On the Admin > Management and Security > Session Management screen, the CMA system user interface timeout does not have a label describing the units for the time entered. In this case, the value represents minutes.	None
UI	SSGSE-13203	The method for selecting dates for the reporting features of the CMA system user interface is inconsistent. Although this causes no real issue, it does need to be changed to make it consistent.	None

Category	Issue #	Description	Workaround
UI	SSGSE-13306	When deleting a provisioning bundle, the user must confirm the deletion and then acknowledge that the bundle was deleted successfully. In the future, the second popup for the status of the deletion will not occur if the deletion was successful.	None
UI	SSGSE-13320	When editing an endpoint (Endpoint > Monitor View > Edit), the ISDN video number could not be saved if ISDN(H.320) is not selected.	None
UI	SSGSE-13443	When scheduling a conference, if a lecturer is selected that has a long name, the page is resized so certain fields are not viewable without using the scrollbar at the bottom.	None
UI	SSGSE-13486	The CMA system does not display the correct conference lecturer when the lecturer is changed during an active conference.	None
UI	SSGSE-13558	The progress bar on the File Download popup for the CMA system backup (Generate Database Backup Files) doesn't update when downloading the update file.	None
UI	SSGSE-13559	In the Traceroute and Ping popup, it is unclear which tab is active.	Please refer to the action button that is active to know which tab is active.
UI	SSGSE-13681	Duplicate MCU services are displayed on the CMA system interface if a user repeatedly clicks the Update button when adding a new MCU service for an RMX system.	None
UI	SSGSE-13734	After failover, the CMA system logo on the new active server is inconsistent with the CMA system logo on the original active server.	None
UI	SSGSE-13754	The number of characters allowed in the Time Server field on the Provisioning page is not sufficient for the full DNS name.	None
UI	SSGSE-13789	When uploading certificates, the "Upload Certificate" option can only be made with the mouse and not with the keyboard; otherwise the user cannot select "Upload File" and "Password".	Use a mouse to make the selections.
UI	SSGSE-14111	Configuring a user interface timeout value of 999999 (or similar) locks all users out of the system.	None

Category	Issue #	Description	Workaround
UI	SSGSE-6109	When tabbing through the internal pages, the Views and Actions labels can be accessed, but not individual views or actions. This makes it impossible for keyboard-only users (users who can't use a mouse) to switch views or initiate actions.	None
UI	SSGSE-6530	With 500 sites + 500 links, first time access can take 3-5 minutes but the system does not indicate that something is happening.	None
UI	SSGSE-6538	If users access the Polycom CMA system web interface from a PC that has the Polycom Scheduling Plugin for Microsoft Outlook installed, they may get intermittent messages stating "Device Not found".	Uninstall the Polycom Scheduling Plugin for Outlook.
UI	SSGSE-6545	After deleting a remote alert profile, users may get an error message that indicates "Failed to delete profile", but the profile was actually deleted. This is a refresh error.	Navigate away from the page and then return.
UI	SSGSE-6796	The Conference Management page may not automatically refresh and show the correct status of a long duration call if the call disconnects by itself, especially if the disconnect occurs at or after midnight.	Click Refresh to manually refresh the page.
UI	SSGSE-7138	For some pop-up messages on the Polycom CMA system, selecting OK does not close the popup.	Click the red X to close the popup message.
UI	SSGSE-7320	When a registered MCU has calls on it, there is no far site call information in the View Details dialog box.	None
UI	SSGSE-7480	See SSGSE-7481	
UI	SSGSE-7498	Selecting the ISDN Required MCU Service on the Device Capabilities page results in a database update even if there is no change in the device information.	None
UI	SSGSE-7499	If a non-dynamically managed endpoint entry is deleted from the Global Address Book and gatekeeper and then the endpoint re-registers automatically, the CMA system will report inaccurately that its Global Address Book and gatekeeper registrations are down.	Restart the endpoint.

Category	Issue #	Description	Workaround
UI	SSGSE-7506	The Area Code field is blank in the Endpoint > Monitor View page even after it is added manually on the Polycom CMA system.	Enter an area code on the endpoint itself. If you do not, the endpoint will replace the value on the Polycom CMA system with a blank value.
UI	SSGSE-7537	A IP-only VSX endpoint will be reported with a SIP alert on a CMA system even when there is no SIP registration attempt from the VSX.	None
UI	SSGSE-7552	MGC and GW/MCU device's site does not update when the device's subnet is added to a site.	Delete the GW/MCU and MGC. After re-registration the UI will display the site correctly.
UI	SSGSE-7644	View Participant Details and Device Summary screens show an unfamiliar device ID.	None. These are IDs used for troubleshooting.
UI	SSGSE-7745	When a PVX is in a conference, an administrator can select View Participant Details for it, and the View Participant details pop-up window appears and Manage Device is one of the available actions. However, Manage Device does not apply to a PVX, and selecting the option for a PVX generates an error message.	None
UI	SSGSE-7917	The Gatekeeper pane shows inaccurate counts.	None
UI	SSGSE-7926	The Internet site is no longer shown on the Site Statistics page.	None
UI	SSGSE-7938	The Troubleshooting Utilities page does not correctly display scroll bars for the panes/pods when the font size is increased, thus making some information inaccessible.	Using a larger browser window and/or a smaller font may resolve the issue.
UI	SSGSE-7977	If an ISDN line is down, the CMA system does not send an alert even though it does shows the line is down.	None
UI	SSGSE-8351	The Alias filter on the Endpoint > Monitor View page only searches E.164 aliases and does not search H.323 IDs.	None
UI	SSGSE-8383	There are redundant commas in the Japanese translation of "Date and Time" information.	None
UI	SSGSE-8994	In the Gatekeeper pane of the CMA system Dashboard, Alternate Configured is always No.	None

Category	Issue #	Description	Workaround
UI	SSGSE-9030	The CMA system Device List refers to endpoint models inconsistently (specific model vs. series).	None
UI	SSGSE-9835	On the Network Device > Monitor View page, the display of the devices does not always lineup properly.	Use the Refresh action to correct the problem. Do not use the browser refresh.
UI	SSGSE-9903	In the popup for selecting the profile to provision to a set of endpoints, there is no default action.	None
UI	SSGSE-9905	On the Admin > Provisioning Profiles > Scheduled Provisioning Profiles screen, the Add Profile popup does not have a default action.	None
UI	SSGSE-9992	When attempting the Send Message action, Cancel is the default action, but when the user accepts the default action (by pressing Enter), the system does not perform the Cancel action.	Click the required button (Cancel).
Upgrade	SSGSE-12682	Apple Safari or Mozilla Firefox on a Macintosh (MAC) computer do not support the CMA system upgrade process. The file is not uploaded correctly.	Use a Microsoft Windows system with Apple Safari, Mozilla Firefox, or Microsoft Internet Explorer for CMA system upgrades.
Upgrade	SSGSE-13798	When uploading softupdate packages to a CMA system, an error might occur during the transfer causing it to fail. In some cases, this may be a result of the CMA system disk being full.	If a upload fails, remove older softupdate files that are no longer needed. Also, clean up other logging or database backups to free up disk space. After cleanup, attempt the upload again.
Upgrade	SSGSE-14242	A Hot Fix applied to newer Hot Fix on same patch level wrongly succeeds.	None
Upgrade	SSGSE-14611	On migrating from CMA system to Resource Manager system, the E.164 Alias Assignment Failed alert value is not being migrated.	None
Upgrade	SSGSE-7921	After upgrading the system, any devices that had two rows in the H323Address no longer get updated correctly.	None
Upgrade	SSGSE-8309	After upgrading to CMA 5.0, CMA Desktop users were added to the Global Address Book, even though the Include dynamically-managed devices in the Global Address Book was unchecked.	Enable and then disable the Include dynamically-managed devices in the Global Address Book option.

Category	Issue #	Description	Workaround
Upgrade	SSGSE-9088	Multiple MCUs lost gatekeeper registration with CMA system. PN_Log.txt stops reporting info after upgrade from v4.1.4 to v5.0.	None

The following table lists some of the known limitations of the CMA system when interoperating with partner gatekeepers and endpoints.

Issue #	Description	Comment
CSC-6	Cisco/Busy signal is heard on Cisco phones when VSX or HDX disconnects.	An endpoint issue related to issue VIDEO-57092, which is marked Will Not Fix.
CSC-3	Call Type in conference management screen indicates an incorrect type	Open issue
CSC-2 SSGSE-2200	Bit Rate in conference management screen is incorrect	Open issue
AVA-707 CSC-5 SSGSE-2202	Mute indication not displayed in conference management screen when muting occurs.	Open issue
AVA-708	Avaya/Video protocol and format on the conference management screen always displays as AUTO.	Open issue
AVA-726	Avaya/RMX2000/CDR/Destination field is blank on the CDR when the Avaya softphone or hardphone dial into a conference.	Open issue
AVA-715	No audio heard after Avaya phone is taken off hold.	Enhancement request. The CMA system does not currently support audio shuffling.
AVA-716	Endpoints do not negotiate video when the Avaya softphone transfers a call.	Enhancement request. The CMA system does not currently support audio shuffling.
AVA-709 CSC-4	Incorrect call duration for an ad hoc conference.	Enhancement request. Currently, the CMA system shows duration for scheduled conferences only, not ad hoc conferences.
SSGSE-4566	In an environment with an Avaya ACM, if a RMX registered to a CMA system has an audio call to a telepresence room, the telepresence systems will get excessive background/white noise.	Open issue

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Appendix A: SQL Server Configuration to Prevent Random Database Disconnection

Polycom CMA and REDIManager SE200 systems connected to an external database sometimes experience problems with random disconnection from the Microsoft SQL server. A subset of database connections from a Polycom CMA or REDIManager SE200 system may drop, and a drop can remain unnoticed until a user performs an operation that attempts to use the connection. This problem is exacerbated by the fact that a Polycom CMA or REDIManager SE200 system does not try to reconnect on its own. We have enhanced some system modules, such as the Device Manager and CDR Manager, so they do initiate a reconnection to the database, which alleviates the problem to a great extent. But there are still modules that do not.

After researching the problem, we have determined that the database connection is closed by the TCP stack on the Microsoft SQL 2005 server, not by the Polycom CMA and REDIManager SE200 systems. There is a fairly new feature in the SQL server's TCP that looks for orphaned connections. The server sends "Keep Alive" (heartbeat) messages to the client through each of the connections and expects acknowledgments. If no acknowledgment is received within stipulated time and after a stipulated number of re-transmissions, the server closes that particular connection. The default time for "Keep Alive" message to start is 30secs. If no acknowledgment is received from the client for that particular connection, the local server TCP will keep sending "Keep Alives" to the client and will wait for KeepAliveInterval (default 1sec) between each retransmissions. After TcpMaxDataRetransmissions (default 5) times of sends-and-no-acknowledgments, the server will close the connection with the assumption that the client is probably not operational anymore.

The default setting for this feature has been found to be too aggressive and it renders easy for client systems to fatally miss successful acknowledgments every time. Temporary network latencies, systems being too busy to respond or even the low level NICs state can cause this failure.

Hence, Polycom recommends changing the configuration of the "Keep Alive" settings on the server to pace the heartbeats better. We have tested with various wait-time settings for the "Keep Alive" variable and have found that exercising this feature every hour to be ideal.

The change of configuration on SQL server is on a per instance basis. So the affect should be localized and should not affect other instances in the same database.

The following is the procedure:

- 1 From the Microsoft SQL Server Configuration Manager, select Start > All Programs > Microsoft SQL Server 2005 > Configuration Tools > SQL Server Configuration Manager.
- 2 Expand SQL Server 2005 Network Configuration.

- 3** Select the relevant instance. For default, select Protocols for MSSQLSERVER.
- 4** Double click TCP/IP.
- 5** Select the field that corresponds to the KeepAlive setting.
- 6** Type in the number of milliseconds the Microsoft SQL server should wait before sending subsequent KeepAlive messages.
NOTE: The tested value is 3600000 (once every hour).
- 7** Restart Microsoft SQL server.

Appendix B: Polycom CMA System End-User License Agreement

Welcome to Polycom® Converged Management Application™ (CMA™) (Version 6.0)

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___ Windows User CALs

___ Windows Device CALs

The software licensing model consists of an operating system license and incremental CALs. The total cost for the software scales with usage. Several CAL types and licensing modes are available to suit your individual needs.

Windows Server 2003 Client Access License (“Windows CAL”) Requirements. In addition to the license for the server software, you must acquire a Windows CAL for each individual person (“User”) or device that accesses or uses the server software, whether directly or through a Multiplexing Service. A “Multiplexing Service” is a software application or service accessing or using the server software at the request of a User or device. For example, a Windows CAL is required for each User or device that uses any of the following services of the server software:

- authentication services (when user or application credentials are exchanged between the server software and a User or device),
- file services (accessing or managing files or disk storage),
- printing services (printing to a printer managed by the server software), or
- remote access service (accessing the server from a remote location through a communications link, including a virtual private network).

You do not need to acquire a Windows CAL for any User or device that accesses the server software solely through the Internet and is not authenticated by the server software or a Multiplexing Service.

Types of Windows CALs.

- “Windows Device CAL” permits one device (used by any User) to access or use the server software.
- “Windows User CAL” permits one User (using any device) to access or use the server software.

You may use a mix of Windows Device CALs and Windows User CALs at the same time with the server software.

Windows CAL Licensing Modes. You may use Windows CALs with the server software in either “Per Device or Per User” or “Per Server” mode.

- (i) In Per Device or Per User mode, a Windows CAL is required for each device or User that accesses server software on the Server. If you choose Per Device or Per User mode, the choice is permanent.

You may reassign a Windows CAL from one device to another device, or from one User to another User, if the reassignment is made

- (A) permanently away from the one device or User, or
- (B) temporarily to accommodate the use of the Windows CAL by a loaner device while a permanent device is out of service, or the use of the Windows CAL by a temporary worker while a regular employee is absent.

If the server software is not used in Per Device or Per User mode, the server software is deployed in Per Server mode.

- (ii) In Per Server mode, the maximum number of devices and Users that may at the same time access server software installed on this server equals the number of Windows CALs (of either type) that you acquire and designate for use exclusively with this server. You have the one-time right to change your use of the server software from Per Server mode to Per Device or Per User mode. If you do so, you may apply the same number of Windows CALs you acquired for use in Per Server mode in Per Device or Per User mode instead.

Terminal Server Client Access License (“TS CAL”) Requirements. In addition to a Windows CAL, if you wish to conduct a Windows Session, you must acquire a TS CAL for each User or device. A “Windows Session” means a session during which

the server software hosts a graphical user interface on a device.

Types of TS CALs.

- “TS Device CAL” permits one device (used by any User) to conduct Windows Sessions on the Server.
- “TS User CAL” permits one User (using any device) to conduct Windows Sessions on the Server.

You may use a mix of TS Device CALs and TS User CALs at the same time with the server software.

TS CAL Licensing Modes

- (i) In Per Device or Per User mode, a separate TS CAL is required for each device or User that accesses server software on the Server.

You may reassign a TS CAL from one device to another device, or from one User to another User, if the reassignment is made

(A) permanently away from the one device or User, or

(B) temporarily to accommodate the use of the TS CAL by a loaner device while a permanent device is out of service, or the use of the TS CAL by a temporary worker while a regular employee is absent.

- (ii) Windows Sessions are not allowed in Per Server mode.

Premium Windows Server Services. New software functions (“Premium Services”) may be available for use with this software. These Premium Services may be provided under additional license terms. Additional access license fees may apply if you install and use these Premium Services.

Additional CAL Requirements.

- (i) Single Licensee. Only you can use Windows CALs, TS CALs, and any future Premium Services CALs with server software.
- (ii) Version Matching. Each required CAL must be version Windows Server 2003 or a later version.
- (iii) Administration. Up to 2 Users or devices may access or use the server software at the same time, without acquiring any CALs, solely for administration of the server software. You do not need a TS CAL when attaching to or mirroring the single Console Session. The “Console Session” is the Windows Session that is conducted through the designated primary keyboard and display device (or similar peripherals).

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b. **Computer Information.** The following features use Internet protocols, which send to the appropriate systems computer information, such as your Internet protocol address, the type of operating system, browser and name and version of the software you are using, and the language code of the device where you installed the software. Microsoft uses this information to make the Internet-based services available to you.

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- **Auto Root Update.** The Auto Root Update feature updates the list of trusted certificate authorities. You can switch off the Auto Root Update feature.
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