



Polycom® RealPresence® Immersive Telepresence (ITP), Version 5.0.0

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Note: Camera calibration

After upgrading to Version 5.0.0, you must perform the camera calibration process as described in the installation guide.

Overview

The *Polycom® RealPresence® ITP Release Notes* contains the latest information about Polycom® RealPresence Immersive Studio™ and Polycom® RealPresence® OTX® Studio.

Polycom® RealPresence Immersive Studio™

The Polycom RealPresence Immersive Studio system is a high-end immersive telepresence solution that provides the best user experience in high-quality video and sound.

The Polycom RealPresence Immersive Studio experience offers exceptional clarity and realism, including:

- High-quality, 1080p60 video performance with exceptional sharpness and brightness across greater than 100° on ultra-high-definition displays.

- Polycom® 3D Voice™ that delivers extremely clear pinpoint audio which comes directly from the person speaking.
- 1080p60 resolution for any type of content, including video and live animation.

Administrators configure the system through the system's web interface. Users access calling functions through familiar operations on the RealPresence Touch and user-friendly onscreen guides.

For more information about setting up and using the RealPresence Immersive Studio systems, refer to the documents on the product pages at [Polycom Support](#).

Polycom® RealPresence® OTX® Studio

The Polycom RealPresence OTX Studio system is a high-end immersive telepresence solution that provides the best user experience in high-quality video and sound.

The Polycom RealPresence OTX Studio experience offers exceptional clarity and realism, including:

- 1080p60 HD video and content with exceptional sharpness and brightness.
- Polycom 3D Voice that delivers extremely clear pinpoint audio which comes directly from the person speaking.

Administrators configure the system through the system's web interface. Users access calling functions through familiar operations on the RealPresence Touch and user-friendly onscreen guides.

For more information about setting up and using the RealPresence OTX Studio systems, refer to the documents on the product pages at [Polycom Support](#).



Note: System startup

Every time you power on a RealPresence Immersive Studio system, a splash screen appears on the monitor with a note to wait as the system starts. The monitor then goes black for a period of time. Do not attempt to turn off or restart the system during this time.

Software Version History

Polycom RealPresence Immersive Studio Software

Software Version	Release Date	Description
5.0.0	September 2015	Includes support for Microsoft Office 365 calendaring, incorporates first release of the Polycom® RealPresence® Touch™ device, adds support for viewing content from Microsoft Lync desktop clients, includes enhancements to security for SIP applications, adds native support for RealConnect feature, adds support for 3.5mm audio input with HDMI content, and OpenSSL
4.3.2	August 2015	Includes minor updates and corrected issues.
4.3.1	June 2015	Includes minor updates and corrected issues.
4.3.0	March 2015	Includes minor updates and corrected issues.

Software Version	Release Date	Description
4.2.0	December 2014	Includes support for Polycom 70" Touch Digital Display optimized for use with VisualBoard™ applications, call hold and resume, remote manageability enhancements, RealPresence® Mobile SmartPairing™, RealPresence® Access Director™ interoperability.
4.1.3.2	April 2014	Correction for the Heartbleed OpenSSL Security Vulnerability in third-party software.
4.1.3	February 2014	Adds support for Polycom® SmartPairing™. Provides minor fixed issues and software optimization.
4.1.2	December 2013	Initial release.

Polycom RealPresence OTX Studio Software

Software Version	Release Date	Description
5.0.0	September 2015	Initial release.

Polycom Touch Device Software

Software Version	Release Date	Description
5.0.0	September 2015	Initial release.

New Features in 5.0.0

Microsoft Office 365 Calendaring Support

This software release allows you to connect to a Microsoft Office 365 account from a Polycom RealPresence Group Series system. When this feature is enabled, you can access a Microsoft Office 365 calendar and do the following from the RealPresence Group system Home screen:

- View scheduled meetings
- Join a meeting
- Receive meeting alerts

To enable this feature, you must configure the RealPresence Group system calendaring service to connect to the Microsoft Exchange Server using Microsoft Office 365 account credentials for the individual or resource. You can use the RealPresence Group system web interface or an API command to do this.

This feature includes an automatic discovery option that you can use to obtain the Microsoft Exchange Server address based on one of the following:

- Email address that you provide to set up the Calendaring Service
- SIP server domain name that is configured for the RealPresence Group system

If you need to set up multiple systems to connect to the same Microsoft Office 365 account, you can reuse the Microsoft Exchange Server address that is obtained during the auto discovery process.

For more information about how to enable the Microsoft Office 365 calendaring feature in the RealPresence Group system web interface, refer to the *Polycom RealPresence Group Series Administrator Guide*. For information about using an API command to enable this feature, refer to the *Polycom RealPresence Group Series Integrator Reference Guide*.

Polycom RealPresence Touch Device

The new Polycom RealPresence Touch graphical interface solution is a highly-intuitive touch control device that enables users to quickly initiate video conferences. By allowing participants to focus on their meeting, the RealPresence Touch accelerates your return on investment in telepresence and video solutions while making your organization more productive and efficient.



RealPresence Touch offers a host of benefits, including the following:

- Reduced video conferencing learning curve and increased user adoption through a highly intuitive interface
- Optimized for use in arms-length transactions using the 10-inch control screen
- Collaboration through seamless integration with RealPresence Group Series room telepresence systems and Polycom RealPresence Immersive Studio telepresence solutions
- USB port for content input
- VisualBoard activation

For more information about RealPresence Touch, refer to the following documents.

- For administrators to learn how to set up RealPresence Touch for the first time, refer to the *RealPresence Group Series Setup Sheet*.
- For administrators to learn how to configure RealPresence Touch for users, refer to the *RealPresence Group Series Administrator Guide*.
- For end users to learn how to use RealPresence Touch, refer to the *RealPresence Group Series with RealPresence Touch User Guide*.
- For end users to learn basic task information, refer to the *RealPresence Group Series Quick Tips*.

Microsoft Lync and Skype for Business Client 2015 Content Viewing

RealPresence Group Series can now view content from Microsoft Lync 2013 and Skype for Business 2015 remote desktop (RDP) clients in active calls. Microsoft clients must initiate the content sharing request.

For information on how to share content from Lync clients, refer to Microsoft documentation. RealPresence Group Series can view the following content types from Lync clients:

- **All Monitors** Displays content from all monitors connected to the system with the Lync client.
- **Primary Monitor** Displays content from the primary monitor connected to the system with the Lync client.
- **Secondary Monitor** Displays content from the secondary monitor connected to the system with the Lync client.
- **Program** Displays content from a particular program connected to the system with the Lync client.

There are a few limitations with Lync, as follows:

- RealPresence Group Series systems can view content from Lync clients, but are not able to share content with Lync clients.
- RealPresence Group systems cannot share content, including content shared through People+Content IP and through VisualBoard, while actively receiving content from Lync clients.
- RealPresence Group Series does not support viewing PowerPoint (Office Web App), Whiteboard, Poll, and Q & A content from Lync clients. In multipoint conferences with more than one Lync client, Lync clients can select these content sharing options, but RealPresence Group systems in the conference do not receive the content.
- For Lync content viewing on Group Series systems, Polycom recommends you deploy Lync Room System accounts instead of regular Lync user accounts for all room-based Group Series systems. By using these accounts, enterprises avoid sharing content within the same room which results in an audio echo. To deploy these accounts, refer to the *Microsoft Lync Room System Deployment Guide* on the Microsoft site.
- Annotating content with a mouse and keyboard is not supported.

Native Support for RealConnect

With the new Native Support for RealConnect feature, Microsoft Lync and traditional video conference users do not have to change their workflow or learn a new process to join together in a video meeting.

Native support for RealConnect eliminates user frustration in trying to determine how to connect with people who might have varying devices. Integration between the RealPresence Group Series, Polycom DMA, Polycom RealPresence Collaboration Server (RMX), and Microsoft 2013 infrastructure automatically connects all of the environments together. This feature makes it easy for Lync and traditional videoconferencing system users to click to join calls from a Lync meeting invitation. For more details about this feature and to obtain setup and configuration information, refer to the *Polycom Unified Communications for Microsoft Environments Deployment Guide*.

Audio Input Selection

Administrators can now use the RealPresence Group system web interface to enable 3.5mm audio input from the RealPresence Group system 3.5mm audio port when content sharing is active. When administrators enable the **Associate with Video Content Ports** option, 3.5mm audio input is heard during active calls from the RealPresence Group system speakers and from all far-end sites. For more information, refer to the *Polycom RealPresence ITP Administrator Guide*.

TLS 1.2 for SIP Support

RealPresence Group Series systems now support Transport Layer Security (TLS) version 1.2 for SIP applications. TLS version 1.2 is an improvement over previous versions in data integrity and connection privacy between communicating SIP applications. If required by the peer connection, RealPresence Group system SIP applications are capable of backward compatibility with TLS versions 1.0.

The following applications support TLS 1.2:

- SIP
- Web Server
- Microsoft Exchange (Calendar)
- External AD Authentication
- Lync Directory
- LDAP Directory

Security Updates

The following table lists the security update in version 5.0.0.

Issue ID	Description
GS-24874	OpenSSL updated to version 1.0.1p.

For more information about known and resolved security vulnerabilities, refer to the [Polycom Security Center](#).

RealPresence Touch Configuration

Perform the RealPresence Touch configuration according to the instructions in the *Polycom RealPresence ITP Administrator Guide* and the *Polycom RealPresence Immersive Studio Installation Guide* or the *Polycom RealPresence OTX Studio Installation Guide*. Settings not listed in the Administrator Guide and Installation Guide should be left at the factory default. Otherwise, a factory reset may be required.

Software Update Using the Web Interface

RealPresence Immersive Studio and RealPresence OTX Studio support updating the system software through the individual codec web interface of the primary, left, and right codecs.

To install software updates manually:

- 1 Go to **Admin Settings > General Settings > Software Updates > Manual Software Updates**.
- 2 Browse to locate the software update package on your PC and select **Start Transfer** to download it to the RealPresence Group Series Primary codec.
- 3 Repeat steps 1 and 2 for the left and right RealPresence Group Series codecs.

- 4 Select **Start Update** for the Primary, left, and right codecs.

Polycom Solution Support

Polycom Implementation and Maintenance services provide support for Polycom solution components only. Additional services for supported third-party Unified Communications (UC) environments integrated with Polycom solutions are available from Polycom Global Services, and its certified Partners, to help customers successfully design, deploy, optimize, and manage Polycom visual communication within their third-party UC environments. UC Professional Services for Microsoft Integration is mandatory for Polycom Conferencing for Microsoft Outlook and Microsoft Office Communications Server or Microsoft Lync Server integrations.

For additional information and details, refer to [Polycom Professional Services](#) or contact your local Polycom representative.

Corrected Issues in Version 5.0.0

The following table lists the issues corrected in version 5.0.0.

Category	Issue ID	Description
Calling	GS-20811	Using the camera calibration kit and procedure, color/gain matching across all three cameras was not consistent. This issue has been corrected.
Calling	GS-22499	Meeting Composer worked with Favorites entries, but did not work with RealPresence® Resource Manager address book entries. This issue has been corrected.
Cameras	GS-17987	Using web interface tools in an Immersive Studio system, camera color/gain between screens may not have matched. This issue has been corrected.
Interoperability Microsoft	GS-20295	If the system dialed a non-existent or invalid Lync address when the system was in a Lync call and the call was escalated to AVMCU, the system displayed the invalid Lync participant as a participant in the call. This issue has been corrected.
Interoperability Polycom VisualBoard	GS-22335	RealPresence Immersive Studio only: The 70" Visual Board did not turn black in Sleep mode because baud rate configurations didn't match. This issue has been corrected.
Interoperability Polycom VisualBoard	GS-22349	RealPresence Immersive Studio only: The 70" VisualBoard web interface Room Control Devices configuration was not included in documentation. This issue has been corrected.
Web Interface	GS-21532	On the RealPresence Immersive Studio web interface status page, the VisualBoard status was still shown as active after the monitor USB connection was removed from the system. This issue has been corrected.
Web Interface	GS-22722	Camera configuration settings in the Web interface may have been missing. This issue has been corrected.

Known Issues

Polycom recommends that you use a bridge when connecting a four-screen Polycom RealPresence Experience (RPX™) Series system to the RealPresence Immersive Studio. This type of connection delivers the best immersive continuous room layout. If you connect an RPX system to a RealPresence Immersive Studio without using a bridge, the connection adjusts for the different aspect ratios by dropping the video from the fourth RPX system codec and displaying black bars around the 3:4 aspect ratio RPX system video feeds.

The following table lists the known issues for the version 5.0.0 release.

Category	Issue ID	Description	Workaround
Audio	GS-19769	Calls between RealPresence Immersive Studio and Cisco CTS room systems may experience issues with spatial audio on the CTS side where the left and right speakers are slightly louder than the center speaker.	
Calling	GS-21507	When Immersive Studio systems, registered to CUCM, are in a point-to-point SIP call, call statistics show the call connecting at lower than set preferred speeds and do not match between the two systems.	Register to DMA trunked to CUCM.
Camera	GS-13182	Before attaching, disconnecting, or otherwise modifying the cabling to a camera system, you must physically disconnect the DC power supply for the right and left codecs. It is not sufficient to simply "turn off" the systems because power to the camera system is maintained due to other system requirements.	Polycom recommends that you disconnect the AC supply cable to turn off the primary codec power instead of using the front switch. You might experience improper camera operation if you ignore these instructions.
Cameras	GS-25946	RealPresence OTX Studio only: After calibrating the cameras, each camera's color balance or white balance will independently adjust based on objects in the camera's field of view. Refer to the OTX Studio Installation Guide for more information.	Contact Polycom for a service call.
Cameras	GS-23424	A band of lines/video tearing is occasionally visible when there is motion in the camera view.	Power cycle the RealPresence Group Series codecs.
Content	GS-23968	In an RMX call, if you switch content from PPCIP to Visual Board, content may not launch in the first try.	Relaunch VisualBoard to show content.

Category	Issue ID	Description	Workaround
Hardware	GS-15698	If you are out of a call and Self View is enabled, the system goes to sleep according to the sleep timer setting. The default setting is 3 minutes.	Change the sleep timer settings. Polycom recommends that you do not turn off the sleep timer.
Interoperability Microsoft	GS-12982	When a RealPresence Group system is in a multipoint call hosted by a Microsoft Lync AV MCU, the RealPresence Group system participant name, number, and system values on the Settings > System Information > Call Statistics screen might be incorrect.	
Interoperability Microsoft	GS-18630	RealPresence Group systems currently do not support Lync mobility clients.	
Interoperability Microsoft	GS-24640	Remote desktop (RDP) content is delayed for 15 seconds on a RealPresence Group system when sharing from Lync client on an Apple Mac computer in a point-to-point call.	
Monitors	GS-25845	After a softupdate, displays might remain on if the sleep timer is set to less than three minutes.	Do not set the codec sleep timer to less than three minutes.
Provisioning	GS-19239	While in a TIP call, the bandwidth reported by the Primary codec is an aggregate of all three codecs and not only the Primary codec.	
User Interface	GS-16887	On Immersive Telepresence systems, closed caption text is only displayed on the main monitor and the text may be partially blocked by the camera.	
User Interface	GS-22702	On a Lync client, you might see incorrect presence information.	
User Interface	GS-22730	After terminating a call that used video mute, you might continue to see the video mute icon on the secondary monitors.	
Video	GS-22065	Diagonal lines and edges of objects might appear jagged on the center and right screens from the far end.	

Category	Issue ID	Description	Workaround
Video	GS-22112	Jagged diagonal lines might appear on the far end's center and right displays.	On the web interface, set the Power Frequency to match the regional setting. For example, for countries with power frequency 50, set the Power Frequency to 50. Go to Admin Settings > Audio/Video > Video Inputs > General Camera Settings > Power Frequency and enter 50 . If the diagonal lines still appear, toggle the frequency setting, for example, 50 to 60 and then back to 50. This will correct the issue.
Video	GS-24153	The 22" display does not report 1080p50 in its EDID.	On the Kramer HDMI DA located in the video wall, use the Select button to cycle through the green Output LEDs. The Select button will blink red. Select one of the outputs connected to the 65" displays (cables HDMI-101, HDMI-102, or HDMI-103). Press Read . Both the Select and Read buttons will fast-blink red while the EDID is being captured.
Video	GS-24574	If you terminated a just initiated call and promptly dialed another call, the far end system might not see the secondary and tertiary video from the near end system.	
Video	GS-25796	When the OTX Studio system is in Sleep mode, it may not recall the 1 or 2 screen preset when an incoming call is answered.	Re-establish the call while the system is not in Sleep mode or, if in a single screen call, use the Close/Wide button on RealPresence Touch to recall the desired preset. The desired preset can also be recalled manually or remotely by an administrator using the Primary Group Series 700 web interface.
Video	GS-25874	When placing a SIP blast dialing call from an OTX Studio system to two endpoints, the video will not display correctly on each endpoint.	Do one of the following: <ul style="list-style-type: none"> • Dial each individual SIP address separately. • Use H323 blast dial. • Have each participant dial into the conference.

Interoperability



Note: Software upgrades recommended

Polycom recommends that you upgrade all of your Polycom systems with the latest software versions. Any compatibility issues may already have been addressed by software updates. Go to [PolycomService/support/us/support/service_policies.html](https://polycomservice.com/support/us/support/service_policies.html) to see the Current Interoperability Matrix.

Video conferencing systems use a variety of algorithms to compress audio and video. In a call between two systems, each end transmits audio and video using algorithms supported by the other end. In some cases, a system might transmit a different algorithm than it receives. This process occurs because each system independently selects the optimum algorithms for a particular call, and different products might make different selections. This process should not affect the quality of the call.

Video

Video	Description
H.264 High Profile, RTV	Video system: Baseline, High Profile (HiP)
H.263 & H.264	Video Error Concealment
H.239	Polycom People + Content
Binary Floor Control Protocol (BFCP)	Content sharing via Session Initiation Protocol (SIP)
AES Media Encryption	For secure video/audio and content

Audio

Audio	Description
G.719	3-channel audio for point-to-point calls between RealPresence Immersive Studio and RealPresence OTX Studio systems.
Siren™ 22	22kHz bandwidth with StereoSurround™
Siren™ LPR (Lost Packet Recovery)	Siren LPR preserves audio quality during high packet loss.
G722.1 Annex C	14kHz bandwidth with Polycom Siren 14
G.722, G.722.1	7kHz bandwidth
G.711	3.4kHz bandwidth



Note: 3-channel audio

3-channel audio is currently only supported for point-to-point calls.
 3-channel audio does not support LPR (Lost Packet Recovery) in high loss network.

Products Tested in This Release

Polycom RealPresence Immersive Studio and RealPresence OTX Studio systems are tested extensively 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.

Polycom strives to support any system that is standards-compliant, and investigates reports of Polycom systems that are not interoperable with other vendor systems.



Note: Update your system

Polycom recommends that you upgrade all of your Polycom systems with the latest software versions. Any compatibility issues may already have been addressed by software updates. Go to [PolycomService/support/us/support/service_policies.html](https://polycomservice.com/support/us/support/service_policies.html) to see the current Polycom Interoperability Matrix.

Product	Interoperable Versions
Management Systems and Recorders	
Polycom® Distributed Media Application™ (DMA®) 7000	6.3.0
Polycom® RealPresence® Resource Manager	8.4.0
Polycom® RealPresence® Access Director™	4.2.0
Gatekeeper, Gateways, External MCU, Bridges, Call Managers	
Polycom® RealPresence® Collaboration Server 2000	8.6.0

Product	Interoperable Versions
Polycom® RealPresence® Collaboration Server 4000	8.6.0
Polycom® Multipoint Layout Application	3.1.5
Endpoints	
Polycom RealPresence OTX Studio	5.0.0
Polycom RealPresence Immersive Studio	5.0.0
Polycom® HDX® Series	3.1.7
Polycom® Immersive Telepresence (ITP) Series	3.1.4
Polycom® RealPresence® Group Series	5.0.0
Polycom® RealPresence® Mobile	3.4.1
Polycom® RealPresence® Desktop for Mac®	3.4.1
Polycom® RealPresence® Desktop for Windows®	3.4.1
Polycom® SoundStructure®	1.7.2
Polycom® SoundStructure Studio	1.9.0
Polycom® Telepresence m100	1.0.7

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