Polycom® RealPresence® Immersive Telepresence (ITP), Version 5.1.0

Contents

> **Note: Camera calibration**
>
> **Polycom® RealPresence Immersive Studio™**: After upgrading to version 5.0.2, you must perform the camera calibration process as described in the *Polycom RealPresence Immersive Studio Camera Calibration Process Rev 3.5*.
>
> **Polycom® RealPresence® OTX® Studio**: After upgrading to version 5.0.1 or later, you must perform the camera calibration process as described in the *Polycom RealPresence OTX Studio Camera Calibration Addendum*.

Overview

Polycom announces a new release of Polycom RealPresence Immersive Studio and Polycom RealPresence OTX Studio system software. This document provides the latest information about the following Polycom software:

- Version 5.1.0 of the Polycom RealPresence Immersive Studio system software
- Version 5.1.0 of the Polycom RealPresence OTX Studio system software
- Version 5.1.0 of the Polycom® RealPresence Touch™ Panel software
- Version 1.1.0 of the Polycom RealPresence Touch Operating System software

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 100º 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
5.1.0	February 2016	Includes minor updates and corrected issues.
5.0.2	January 2016	Includes minor updates and corrected issues.
5.0.1	November 2015	Includes minor updates and corrected issues.

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.
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
5.1.0	February 2016	Includes minor updates and corrected issues.
5.0.2	January 2016	Includes minor updates and corrected issues.
5.0.1	November 2015	Includes minor updates and corrected issues.
5.0.0	September 2015	Initial release.

Security Updates

The following table lists security updates in version 5.1.0.

Issue ID	Description
GS-26323	Updated OpenSSH to 7.1 to address CVE-2015-5600, CVE-2015-6563, and CVE-2015-6564.

For 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.

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.

Resolved Issues

The following issues are resolved in the version 5.1.0 release.

Category	Issue ID	Description
Audio	GS-26733	In the OTX Studio system, users who shared VGA content and used the 3.5 mm audio cable for content audio were unable to hear audio. To enable audio: 1　In the web interface, go to **Admin Settings > Audio/Video > Audio > Audio Input**. 2　For the 3.5 mm audio cable section: ⌃　Set the **Audio Input Level** to **5**. ⌃　Enable the **Associate with Video Content Ports** option.
Camera	GS-25946	After you calibrated the cameras on a RealPresence OTX Studio system, each camera would independently adjust based on objects in the camera's field of view. This issue has been resolved.
Video	GS-22112	In the RealPresence Immersive Studio system, jagged diagonal lines sometimes appeared on the far end's center and right displays. This issue has been resolved.
Video	GS-25796	When the RealPresence OTX Studio system was in Sleep mode, it may not have recalled the 1 or 2 screen preset when an incoming call was answered. This issue has been resolved.

Known Issues

Polycom recommends that you use a bridge when connecting the following systems:

● Four-screen Polycom RealPresence Experience (RPX™) Series system to the RealPresence Immersive Studio and RealPresence OTX Studio systems. Using a bridge delivers the best immersive continuous room layout. If you connect a four-screen RPX system to a RealPresence Immersive Studio or RealPresence OTX Studio system 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 4:3 aspect ratio RPX system video feeds.

● Two-screen Polycom RealPresence Experience (RPX™) Series system or standalone endpoint to the RealPresence Immersive Studio system. Using a bridge delivers the best immersive continuous room layout. If you connect an RPX two-screen system to a RealPresence Immersive Studio system without using a bridge, the Immersive Studio system sends only the center and left sections video (for two-screen RPX systems) or center section video (for standalone systems), not the whole room.

The following table lists known issues for the version 5.1.0 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 RealPresence 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.
Contacts	GS-26569	On the RealPresence Touch, deleting contacts using the virtual keyboard sometimes does not function as expected.	Press and hold the contact you want to delete or use the **Delete** button in the Input field.
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.	

Category	Issue ID	Description	Workaround
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-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: • Dial each individual SIP address separately. • Use H323 blast dial. • Have each participant dial into the conference.

Interoperability

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 supported only for point-to-point calls.

3-channel audio does not support LPR (Lost Packet Recovery) in high loss networks.

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 to see the current Polycom Interoperability Matrix.

Product	Interoperable Versions
Management Systems and Recorders	
Polycom Distributed Media Application™ (DMA®) 7000	6.3.1
Polycom RealPresence Resource Manager	9.0
Polycom RealPresence Access Director™	4.2.2
Gatekeeper, Gateways, External MCU, Bridges, Call Managers	
Polycom RealPresence Collaboration Server 2000	8.6.3.6

Product	Interoperable Versions
Polycom RealPresence Collaboration Server 4000	8.6.3.6
Polycom Multipoint Layout Application	3.1.5
Endpoints	
Polycom Architected Telepresence Experience™ (ATX)	3.1.4
Polycom RealPresence Experience (RPX)	3.1.4
Polycom RealPresence OTX Studio	5.1
Polycom RealPresence Immersive Studio™	5.1
Polycom HDX® Systems	3.1.9
Polycom Immersive Telepresence (ITP) Series	3.1.4
Polycom RealPresence Group Series	5.1.0
Polycom RealPresence Mobile	3.5
Polycom RealPresence Desktop for Mac®	3.5
Polycom RealPresence Desktop for Windows®	3.5
Polycom SoundPoint 650 SIP	4.1.1
Polycom SoundStation IP 7000	5.0.8
Peripherals	
Polycom People+Content™ IP	1.3.1
Polycom RealPresence Touch™	5.1.0 Panel software 1.1.0 Operating System software