

Polycom® Pano™

Contents

Introducing Polycom® Pano™	1
Getting Started	2
Features	3
Polycom Labs Features	9
Supported Displays	9
Supported Web Browsers	10
Supported Miracast-Capable Devices	10
Supported AirPlay Devices	10
Products Tested with Polycom Pano App	11
Language Support	11
System Constraints and Limitations	12
Known Issues	14
Copyright and Trademark Information	16

Introducing Polycom® Pano™

The Polycom® Pano™ system provides an easy way to connect and share content. From the moment users walk into the meeting room, Polycom Pano invites them to connect their personal device or system with a simple touch using native support for Miracast® or AirPlay® screen sharing, Polycom Pano™ App, or an HDMI connection. Once connected, users can simultaneously share content and collaborate on their organization's high-fidelity content monitors.

Ease-of-use value isn't limited to the end user. Polycom Pano also delivers high-value to the business through easy installation with existing investments in display and video conferencing technology. Turn any regular display into a collaborative solution in minutes, and manage the deployment from anywhere.



The Polycom Pano system allows you to do the following:

- Quickly and easily connect using a personal device.
- Wirelessly share content and more to any size display and in 4K resolution.
- Access and share documents from a personal Microsoft® OneDrive® for Business account.
- Securely manage your entire organization's deployment from anywhere using a browser interface.
- Integrate with existing Polycom video conferencing systems for sharing over distance.
- Experience automatic touch capability when you upgrade your deployment to use a touch display.
- Manipulate, annotate, create, and save important content details.
- Brainstorm on an integrated and infinite blackboard to express, and discuss ideas of just about any size.

Getting Started

An administrator should set up the Polycom Pano system for users to start collaborating.



Note: The Polycom Pano system is designed to be always powered on, so it has no power button.

To get started with the Polycom Pano system:

- 1 Connect the Polycom Pano cables and monitor using the instructions on the setup sheet.
- 2 Perform any additional setup or configuration that is required.

Once the system is up and running, users can start sharing content from personal devices that support Miracast or AirPlay screen mirroring, Polycom Pano App, or an HDMI cable.

For details about setting up and configuring a Polycom Pano system, see the *Polycom Pano Administrator Guide*.

For information about how to use the Polycom Pano system, refer to the *Polycom Pano User Guide*.

Instructions for installing Polycom Pano App are available in the *Polycom Pano User Guide*.

Features

Polycom Pano version 1.0 delivers the following features (each described in the following sections):

[Wireless and Wired Content Display](#)

[Non-Touch Configuration](#)

[Optional Touch Capability](#)

[Integrated Blank Canvas Options](#)

[Infinite Blackboard or Whiteboard](#)

[Integrated Toolbar](#)

[Annotations](#)

[Gestures for Content Interaction](#)

[Administrative Web Interface](#)

[Integration with Polycom Video Systems](#)

[Polycom Cloud Service](#)

[Polycom Pano App](#)

Wireless and Wired Content Display

The Polycom Pano system supports both wired and wireless content display methods.

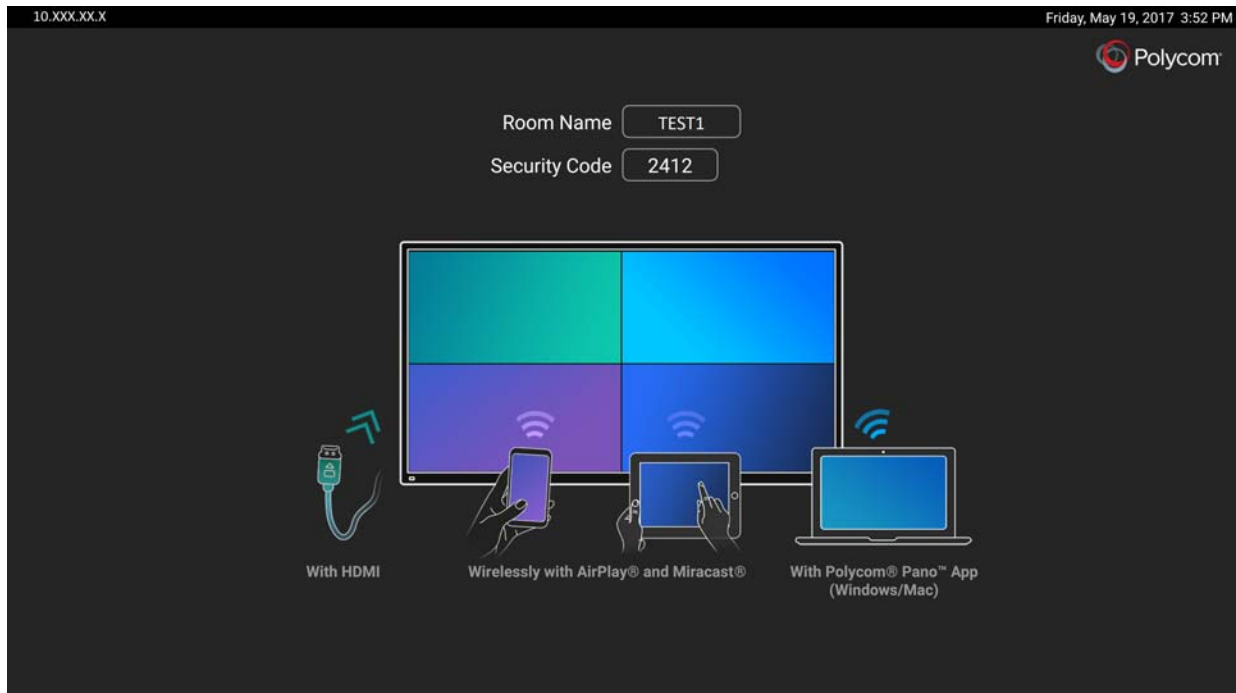
Wired:

- HDMI input
- Application and screen sharing using Polycom Pano App
- Cloud content sharing from Microsoft OneDrive for Business using Polycom Pano App

Wireless:

- AirPlay
- Miracast

The Polycom Pano home screen, shown in the following figure, is a constant reminder of all the content display methods.



For more information on connecting to the system and sharing content, see the *Polycom Pano User Guide*.

Non-Touch Configuration

The Polycom Pano system can connect to a variety of non-touch displays. The system provides the following user experience:

- The Polycom Pano system automatically configures the layout of the shared content using the aspect ratio of the connected devices and systems.
- Users interact with shared content from their personal device or system.
- When a user disconnects a smart device, Polycom Pano App, or an HDMI cable to end a content sharing session, the Polycom Pano system returns to the home screen.

Optional Touch Capability

The Polycom Pano system has touch user interface capability when connected to an optional touch display or a pointing device with a USB interface, such as a USB mouse. This feature allows users to interact with shared content using gestures and the integrated toolbar.

If a touch monitor or pointing device is connected, the Polycom Pano system is automatically configured for a touch experience, as described below:

- The integrated toolbar, content tray, and panel control bar are available.
- Maximizing and minimizing content is supported.
- Ending a content session is possible by closing the content window.

Integrated Blank Canvas Options

The Polycom Pano system allows you to present your ideas on an integrated blackboard or whiteboard canvas.

For details about using a blackboard or whiteboard, see the *Polycom Pano User Guide*

Infinite Blackboard or Whiteboard

You can extend the canvas in a blackboard or whiteboard session to a virtually endless size, and then zoom in and out of that canvas as needed. This feature is beneficial when you need a large collaboration space to describe numerous connected ideas.

For details about creating an infinite blackboard or whiteboard, see the *Polycom Pano User Guide*

Integrated Toolbar

The integrated toolbar becomes available when you share content with the Polycom Pano system or tap the home screen to create a blackboard. You can do the following with the toolbar elements:

- Toggle (enter and exit) full-screen presentation mode
- Adjust ink colors and line widths for annotations
- Highlight content
- Erase annotations
- Navigate Polycom Cloud Service content
- Undo annotations
- Take a snapshot of content
- Create a blackboard or whiteboard
- Access help tips
- End a content sharing session

For details about the toolbar elements, see the *Polycom Pano User Guide*.

Annotations

The Polycom Pano system includes an advanced “inking” capability that provides a real-time annotation and blackboard or whiteboard writing experience.

For detailed information about annotations, see the *Polycom Pano User Guide*.

Gestures for Content Interaction

The Polycom Pano system includes intelligent multi-finger gesture detection for erase, zoom, pan, and panel moving capabilities to provide users flexibility when interacting with content.

For details about how to interact with shared content, see the *Polycom Pano User Guide*.

Administrative Web Interface

You can access the Polycom Pano administrative web interface from a supported web browser and use it to configure network settings, security options, and general settings such as system date and time. You can also access the Polycom Cloud Service registration.

The web interface also includes a Diagnostics tab that provides troubleshooting features and options.

For details about the web interface, see the *Polycom Pano Administrator Guide*.

Integration with Polycom Video Systems

A Polycom Pano system can pair with a Polycom video system that is in the same room. Once administrators perform the minimal setup required, meeting participants can present content displayed on the Polycom Pano system to the Polycom video system. Polycom® RealPresence® Group Series 310, 500, 550, and 700 systems and Polycom® RealPresence Centro™ systems are supported.

For details about connecting to a Polycom video system, including required equipment, see the *Polycom Pano Administrator Guide*.

Polycom Cloud Service

The Polycom Pano system offers connectivity to the Polycom Cloud Service, which offers the following functionality and features:

- Quick access to nearby Polycom Pano devices using only room name as the search criterion.
- Users can share documents from their Microsoft OneDrive for Business folders for display on a Polycom Pano using the Polycom Pano App.
- Navigation control of shared content from the Polycom Pano display, in addition to control from the Polycom Pano App (when connected to a touch-enabled display).
- Software update service for Polycom Pano and Polycom Pano App.

The Polycom Cloud Service supports the following enterprise authentication providers:

- Microsoft Active Directory® Federation Services (ADFS) 3.0 with Auth2 Integration
- Microsoft® Office 365™ (Microsoft Azure® Active Directory) with Auth2 Integration

The Polycom Cloud Service supports the following files as content from Microsoft Office 365 OneDrive for Business:

- Microsoft Word
- Microsoft PowerPoint®
- Microsoft Excel®
- Microsoft OneNote®
- Adobe® PDF
- Image: .jpg, .jpeg, .png, .gif, and .webp
- Text: .txt and .rtf

For details about sharing cloud documents, see the *Polycom Pano User Guide*.

For details about updating software for Polycom Pano systems that are registered to the Polycom Cloud Service, see the *Polycom Pano Administrator Guide*.

Related Links

[Polycom Cloud Service Content Sharing](#) on page 9

Polycom Pano App

You can use Polycom Pano App to share content with a Polycom Pano system. Descriptions of key features of Polycom Pano App are provided in the following sections:



Note: Polycom Pano App is available for download from the Polycom Pano page at support.polycom.com.

[Content Sharing Options](#)

[Save Snapshots](#)

[Command-Line Installation](#)

Content Sharing Options

Users can share up to four content sources simultaneously from Polycom Pano App in the following combinations:

- One local screen or application and up to three files from the Polycom Cloud Service and up to three files from the user's OneDrive for Business folders
- Four files from the user's OneDrive for Business folders.

For more information about Polycom Pano App, see the *Polycom Pano User Guide*.

Related Links

[Polycom Cloud Service Content Sharing](#) on page 9

Save Snapshots

Polycom Pano App allows you to save screenshots of the content created or casted to the Polycom Pano system during a content sharing session.

For details about saving snapshots, see the *Polycom Pano User Guide*.

Command-Line Installation

An administrator can distribute the latest version of Polycom Pano App to multiple managed systems using the command line. Two distribution files are available at the [Polycom Support Center](#):

- The `.pkg` file is intended for use by experienced Mac administrators to support silent installations.

- The `.msi` file is intended for use by experienced Windows administrators to support silent installations. These procedures use methods such as group policy objects (GPOs). You should already be familiar with these methods to use the `.msi` installation file.

About the Installation Files

- Centralized distribution is used by corporate system administrators for software installation or upgrades.
- When you save the installation file to your local disk, do not rename it.
- Silent installation requires administrator-level permission.
- The name of the installation file on the command line should match the name of the installation package

For details about Polycom Pano App installation options, see the *Polycom Pano User Guide*.

Polycom Pano App Versus People™ + Content IP

People+Content™ IP is another application that Polycom offers for you to share content from your computer to a connected Polycom video system. The following tables are provided to help you determine the best solution for your environment.

The following table lists the feature differences between these two content sharing methods.

Feature	Polycom Pano App	People+Content™ IP
Auto detecting Polycom video systems	Yes	No
Manual connecting to a Polycom video system	Yes	Yes
Sharing local content	Yes	Yes
Sharing files in Microsoft OneDrive	Yes	No
Content resolution	Up to 1080p	Up to 720p
Content frame rate	Up to 20 fps with 1920 x1080 screen resolution	Up to 15 fps with 1280 x720 screen resolution

Polycom recommends that you pair the content sharing applications with Polycom video systems according to the following:

Content Sharing Application	System for Sharing Content
Polycom Pano App	<ul style="list-style-type: none"> • Polycom® Pano™ • Polycom® RealPresence® Group Series • Polycom® RealPresence Debut™ • Polycom® RealPresence Centro™ • Polycom® RealPresence Immersive Studio™ • Polycom® RealPresence® OTX® Studio
People+Content IP	<ul style="list-style-type: none"> • Polycom® RealPresence Trio™

Polycom Labs Features

Polycom occasionally releases features to provide early access to an area of new innovation and capability within the Polycom solution ecosystem.

Polycom Pano version 1.0 delivers the following Polycom Labs feature (described in the following section):

[Polycom Cloud Service Content Sharing](#)

Polycom Cloud Service Content Sharing

In this release, sharing content from Microsoft OneDrive for Business is provided as a Polycom Labs feature (denoted as **LABS**). This feature lets Polycom Pano App users securely share content from their Microsoft OneDrive for Business folders to a Polycom Pano that is registered with the Polycom Cloud Service. This feature is an early glimpse at the rich, cloud-based collaboration capabilities coming from Polycom in the future.

Polycom Cloud Service Content Sharing is fully tested and supported as a production feature and can be used and evaluated in production environments. As a Polycom Labs feature, we encourage you to provide feedback on its utility and behavior as we continue to evolve, enhance, and enrich collaboration offerings in the Polycom Cloud Service. Send your feedback to labssupport@polycom.com.

Supported Displays

Polycom Pano systems can present content streams on user-supplied, non-touch or touch displays that support up to 4K (UHD) 60 frames per second (FPS) RGB444 output over HDMI 2.0. Polycom recommends that you use a display that supports the same input and visual output.

Recommendations for Using an Optional Touch-Capable Monitor

The Polycom Pano system supports single and multi-touch input from the USB port of an HID-compliant device.

The following touch-capable monitors have been tested with the Polycom Pano system and provide an optimal touch experience.

Tested Touch-Capable Monitors

Size (inches)	Touch Technology	Brand	Model/Part Number
55	InGlass	Dell	C5518QT
65	InGlass	Volanti	VD-6500/VD-6500-0B0C-1154
70	IR	Sharp	PN-L703B

Supported Web Browsers

The Polycom Pano web interface is supported in the following browsers:

- Apple® Safari® 9 and above
- Google Chrome™ 46.0.2490.86 and above
- Mozilla® Firefox® 42.0 and above
- Microsoft Edge™ (all versions)

Supported Miracast-Capable Devices

Polycom cannot guarantee connectivity with all Miracast-capable devices, but has validated that connectivity works well with Samsung smartphones and tablets running Android 4.4+, as well as Microsoft Surface Pro 3 and Surface Pro 4 systems running Microsoft Windows 10. A device must also have built-in hardware to receive and transmit Miracast.

Depending on your device, additional software may be required to use the Polycom Pano Miracast-compatible feature.

Supported AirPlay Devices

You can share the screen and audio of an iPhone®, iPad®, or Mac® computer that is AirPlay-enabled.

Products Tested with Polycom Pano App

Polycom Pano App is tested extensively with a wide range of products. The following list indicates the products that have been tested for compatibility with this release, but is not a complete inventory of compatible equipment.

Type	Product	Version
Endpoint	Polycom® RealPresence® Group Series	6.1.1
	Polycom® HDX® Series	3.1.11
	Polycom® Pano™ system	1.0
	Polycom® RealPresence Debut™	1.3
	Polycom® RealPresence Centro™	6.1.1
	Polycom® RealPresence Trio™	5.4.5
	Polycom® Open Telepresence Experience™ 300 (with ITP)	3.1.4



Note: When Polycom Pano App is connected to a Polycom RealPresence OTX 300 or RealPresence Group Series system, you can only use Polycom Pano App to start content sharing. You cannot do this using the Touch Pad of the OTX or RealPresence Group Series system. However, you can stop content sharing using the Touch Pad.

Language Support

The Polycom Pano user interfaces provide support for the following languages:

- Chinese (Simplified)
- Chinese (Traditional)
- British English
- American English
- French
- German
- Hungarian
- Italian
- Japanese
- Korean
- Norwegian
- Polish
- Portuguese (Brazilian)
- Russian
- Spanish

System Constraints and Limitations

The following sections provide information on constraints and limitations when using the Polycom Pano system.

Polycom Cloud Service

Polycom Pano systems that are shipped to China, Mexico, Brazil, and Argentina are bundled with a service feature that must be activated on the [Polycom Support Center](#) before you can register a system from one of these countries with the Polycom Cloud Service.

AirPlay

Connecting to a Polycom Pano system from a device with iOS 9.x version installed is only supported when the two systems are on the same subnet.

The Polycom Pano system does not support casting from direct streaming sources such as web links, YouTube™, or Google Chromecast® when sharing content using an AirPlay-enabled device. If you share content that streams by sending direct links to the Polycom Pano device, the content is not shown.

For some AirPlay-capable devices and systems, the behavior of the security code differs from what is expected when connecting to a Polycom Pano system. The following variances may be important to note, depending on your organization's security plan:

- The security code is not highlighted on the Polycom Pano system when the device or system that is attempting to connect is running iOS 9 and is in charging mode.
- If a user attempts to connect to a previously connected Polycom Pano system and the security code has not changed, the user is not prompted for a security code and the connection is not successful.

Miracast

For some Miracast-compatible devices and systems, the behavior of the security code differs from what is expected when connecting to a Polycom Pano system. The following variances may be important to note, depending on your organization's security plan:

- Android devices that require an 8-digit security code are not able to connect to a Polycom Pano system since its security code contains only four digits.
- Some Android devices or operating systems may only prompt the user for a security code the first time the user attempts to connect to a Polycom Pano system. To force their personal device to prompt for a security code after the initial attempt, a user can remove Polycom Pano from the list of connected devices (also referred to as "forget" a device).
- Systems running the Windows operating system will only prompt the user for a security code during the first connection attempt. To force their personal device to prompt for a security code after the initial attempt, a user can remove Polycom Pano from the list of connected devices (also referred to as "forget" a device).
- As of the December 15, 2016 release of the Samsung software update, the method to send a security code from a Samsung device to a Polycom Pano system has changed. A user must now press and hold the desired Polycom Pano selection in the list of devices, and then select the option to send the entered security code to the Polycom Pano.

Polycom Pano App

Internet Explorer version 11 or later must be installed on a system using the Windows version of Polycom Pano App to access a shared component that does not exist in previous versions of Internet Explorer.

To prevent unexpected results when connecting to the Polycom Cloud Service, make sure the time clock of the system on which Polycom Pano App is installed matches the current local time.

Users can share image files from their OneDrive for Business folders that are in .jpg, .jpeg, .png, .gif, or .webp file format. Polycom recommends that shared image files be less than 20 MB in size to ensure acceptable download and rendering time.

The Polycom Pano system displays a blank panel or screen when the last Polycom Pano App content source is disconnected.

When Bluetooth® detection is enabled, Polycom Pano App can search for nearby Polycom Pano systems that have enabled Bluetooth broadcasting and that are registered to the same Polycom Cloud Service account (when you are signed in to the service). This feature is available to users of Microsoft Windows® 10 and Apple Mac® OS X® 10.8 (Mountain Lion) or later, with hardware supporting Bluetooth version 4.0 or higher.



Note: If you prefer to limit the knowledge of room names, consider using a different naming convention for your Polycom Pano systems other than room name.

Related Links

[Polycom Cloud Service Content Sharing](#) on page 9

HDCP Support

High-bandwidth digital content protection (HDCP) is not supported. The Polycom Pano system will display a blank screen or a default non-HDCP screen provided by the source.

Integration with Polycom Video Systems

In order to integrate a Polycom Pano system with a Polycom video system, be sure that both systems are connected to networks that allow connectivity between them. For example, if the Polycom Pano system is connected to the Internet and the Polycom video system is on a Trusted network, the Polycom Pano system would not be able to detect and pair with the Polycom video system and functionality may be limited.

Polycom Pano systems do not support receiving content from a Polycom video system.

Known Issues

The following table lists the known issues for this release. If a workaround is available, it is noted in the table.

Issue ID	Description	Workaround
EN-12087	When performing application or screen sharing using Polycom Pano App, power consumption is higher than typical applications and may consume battery capacity quickly on lower-end mobile devices.	For best results when used on a low performing laptop, always connect using your AC power source.
EN-14662	The frame rate is low for application or screen sharing from Polycom Pano App on devices configured for 4K display resolution.	Lower the device's display resolution if a higher frame rate is required.
EN-17320	Changing the Room Name for a Polycom Pano system that is paired with a Polycom video system fails when the value provided exceeds 40 characters.	Use 40 characters or fewer when entering a value for Room Name.
EN-19020	Device Name or Room Name are not updated for a Polycom Pano device when the values are more than 40 characters. The provided name appears on the Device Management page in the Polycom Cloud Administration portal.	Use a device or room name that is fewer than 40 English characters and 13 Chinese/Japanese/Korean letters.
EN-19567	Occasionally, while the Polycom Pano App is sharing content with a Polycom RealPresence Group Series system, the content flashes and is partially scrambled.	Switch to a wired network or connect to a steady Wi-Fi network.
EN-20023	If there is modal window when you share a local application using Polycom Pano App, the content is shown as a black screen to your far end. A modal window is a child window which requires the user to interact with it before they can return to operate the parent application.	Close the modal window before sharing content.
EN-20254	If your device has multiple monitors connected in Duplicate mode and you are sharing local content on a connected Polycom video system, starting Slide Show on a PowerPoint deck of Office 2013 or later stops the content sharing.	Do one of the following: <ul style="list-style-type: none"> Set the display mode to Extended Disable or disconnect the other monitors From PowerPoint, select Slide Show. Make sure Use Presenter View is not selected.
EN-20587	Maximizing video content does not function properly when a user is connected to the Polycom Pano system using AirPlay and the video content is shared from Chrome version 58.	Either use a different version of Chrome, or use a different supported browser, such as Firefox.
EN-21006	If you share GIF files from OneDrive, Polycom Pano App may hang or crash.	None.

Issue ID	Description	Workaround
EN-21583	Connections to the ADFS3OAuth2 authentication provider are sometimes unsuccessful.	Use the O365OAuth authentication provider.
EN-23435	(Mac users only) If you play files using the Apple Keynote application on Polycom Pano, content shows as a black screen to the far end. If the files are shared on another Polycom video system, Polycom Pano App is disconnected from the video system.	Share your desktop instead of the Keynote application.



Note: These release notes do not provide a complete listing of all known issues that are included in the software. Issues not expected to significantly impact customers with standard voice or video conferencing environments may not be included. In addition, the information in these release notes is provided as-is at the time of release and is subject to change without notice.

Other Known Issues

Previous Polycom Pano App Installation

If you previously installed Polycom Pano App, you must uninstall it before you install the current Polycom Pano App software update.



Note: When using a system running Microsoft Windows with Polycom Pano App, you must set the display color depth to 32-bit.

To uninstall Polycom Pano App (Windows Users Only):

- 1 Select **Start**, select **Polycom > Polycom Pano App** from **All Programs**.
- 2 Select **Uninstall Polycom Pano App**. When asked to confirm the operation, select **Yes**.
- 3 Select **No** when asked “**Do you want to keep current configurations and logs?**”

To uninstall Polycom Pano App (Mac Users Only):

- 1 Log in to your Mac with an administrator account.
- 2 Open your **Applications** folder and select **Polycom Pano App**.
- 3 Drag the program to the **Trash**.
- 4 Right-click on the **Trash** icon, select **Empty Trash**, and then click **Empty Trash** to confirm.

To install Polycom Pano App:

- » Double-click the installation package and follow the on-screen instructions to install it.

Copyright and Trademark Information

Copyright© 2017, Polycom, Inc. All rights reserved. No part of this document may be reproduced, translated into another language or format, or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of Polycom, Inc.

6001 America Center Drive
San Jose, CA 95002
USA

Trademarks Polycom®, the Polycom logo and the names and marks associated with Polycom products are trademarks and/or service marks of Polycom, Inc. and are registered and/or common law marks in the United States and various other countries.



All other trademarks are property of their respective owners. No portion hereof may be reproduced or transmitted in any form or by any means, for any purpose other than the recipient's personal use, without the express written permission of Polycom.

Disclaimer While Polycom uses reasonable efforts to include accurate and up-to-date information in this document, Polycom makes no warranties or representations as to its accuracy. Polycom assumes no liability or responsibility for any typographical or other errors or omissions in the content of this document.

Limitation of Liability Polycom and/or its respective suppliers make no representations about the suitability of the information contained in this document for any purpose. Information is provided "as is" without warranty of any kind and is subject to change without notice. The entire risk arising out of its use remains with the recipient. In no event shall Polycom and/or its respective suppliers be liable for any direct, consequential, incidental, special, punitive or other damages whatsoever (including without limitation, damages for loss of business profits, business interruption, or loss of business information), even if Polycom has been advised of the possibility of such damages.

End User License Agreement BY USING THIS PRODUCT, YOU ARE AGREEING TO THE TERMS OF THE END USER LICENSE AGREEMENT (EULA) AT: <http://documents.polycom.com/indexes/licenses>. IF YOU DO NOT AGREE TO THE TERMS OF THE EULA, DO NOT USE THE PRODUCT, AND YOU MAY RETURN IT IN THE ORIGINAL PACKAGING TO THE SELLER FROM WHOM YOU PURCHASED THE PRODUCT.

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

Open Source Software Used in this Product This product may contain open source software. You may receive the open source software from Polycom up to three (3) years after the distribution date of the applicable product or software at a charge not greater than the cost to Polycom of shipping or distributing the software to you. To receive software information, as well as the open source software code used in this product, contact Polycom by email at OpenSourceVideo@polycom.com.

Customer Feedback We are striving to improve our documentation quality and we appreciate your feedback. Email your opinions and comments to DocumentationFeedback@polycom.com.