



Release Notes

Version 3.1.1 | March 2014 | 3725-82877-014/B

Polycom[®] RealPresence[®] Mobile, for Android[®]



Trademark Information

POLYCOM® and the names and marks associated with Polycom's 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 the property of their respective owners.

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.

© 2013 Polycom, Inc. All rights reserved.

Polycom, Inc.
6001 America Center Drive
San Jose CA 95002
USA

No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of Polycom, Inc. Under the law, reproducing includes translating into another language or format.

As between the parties, Polycom, Inc., retains title to and ownership of all proprietary rights with respect to the software contained within its products. The software is protected by United States copyright laws and international treaty provision. Therefore, you must treat the software like any other copyrighted material (e.g., a book or sound recording).

Every effort has been made to ensure that the information in this manual is accurate. Polycom, Inc., is not responsible for printing or clerical errors. Information in this document is subject to change without notice.

Contents

Software Version History	5
Hardware and Software Requirements	7
Interoperability	8
Polycom CMA® System and RealPresence Resource Manager System	8
Products Tested with This Release	8
Install and Uninstall RealPresence Mobile	10
Feature Overview	11
New Features in Version 3.1	13
New Features in Previous Versions	14
Version 3.0	14
Version 2.3	14
Version 2.2	16
Version 2.0	17
Version 1.3.1	17
Version 1.3	17
Version 1.1	18
Version 1.0.4	18
Version 1.0.3	18
Version 1.0.2.1	18
Version 1.0.2	19
Version 1.0	19
Access to Media Statistics	20
Corrected Issue in Version 3.1.1	21
Corrected Issues in Previous Versions	21
Version 3.1	21
Version 3.0	22
Version 2.3	22
Version 2.1	22
Version 2.0	22
Version 1.3.1	23
Version 1.3	23
Version 1.1	24

Known Issues	25
Supported Capabilities, Protocols, Algorithms, and Ports	30
Capabilities	30
Protocols	30
Resolutions	30
Algorithms	31
Inbound and Outbound Ports	32
Prepare Your Device for Mutual Transport Layer Security	32

Polycom RealPresence Mobile for Android

Release Notes

Polycom is pleased to announce an update release of the Polycom RealPresence Mobile application.

RealPresence Mobile is a standards-based application that enables you to meet and collaborate face-to-face with anyone from anywhere—improving teamwork, collaborative decision-making, and productivity with colleagues, customers, and business partners.

RealPresence Mobile offers features and user experiences similar to the Polycom RealPresence Desktop application. It is easily installed and configured, supports both basic and professional modes.

This document provides the latest information about the RealPresence Mobile application, version 3.1, for Android-powered smart phones and tablet devices.

Software Version History

The following table shows the version history of the RealPresence Mobile application.

Software Versions

Version	Release Date	Features
3.1.1	March 2014	Fixed the issue SWEP-5765. See Corrected Issue in Version 3.1.1 for details.
3.1	January 2014	Support for portrait mode in a call (Android only) Support for higher quality video on Tegra-3 tablets (test feature) Support for the following new Android devices: <ul style="list-style-type: none">• Samsung Galaxy Tab 10.1" LTE SC-01D tablet• Samsung Galaxy Note II GT-N7100 phone• HTC One 801e phone
3.0	July 2013	Support for H.264 high-profile calls (outgoing and incoming). Support for auto-answer incoming calls. When enabled, this feature allows users to choose to mute the audio or video of auto-answered calls. Support for the following devices: <ul style="list-style-type: none">• Samsung Galaxy S4 GT-I9500 Phone• Samsung Galaxy Note 8.0 GT-N5100 Tablet• LG Optimus G pro LG-F240L Phone• Sony Xperia ZL L35h Phone• Sony Xperia Z SGP312 Tablet Enabled users to hide or display local self-view.
2.3	March 2013	Support for the Polycom RealPresence CloudAXIS™ solution.

Software Versions

Version	Release Date	Features
2.2	February 2013	Support for the following new features on non-Tegra 2 Android tablets: <ul style="list-style-type: none"> • Polycom SmartPairing™ which enables you to control and swipe calls to Polycom HDX and Group Series devices from a tablet. • Content sharing <ul style="list-style-type: none"> ▲ Supported only in the professional mode. ▲ Only PDF files can be shared. Support for the enterprise Scalable Video Coding (SVC) solution on non-Tegra 2 Android tablets and phones. IVR service in SVC calls is also supported.
2.1	December 2012	Bug fix.
2.0	November 2012	Support for H.460 firewall traversal in basic mode. Access to media statistics. Support for Samsung Galaxy Note 10.1" SHW-M480K tablet.
1.3.1	August 2012	Support for the following devices: <ul style="list-style-type: none"> • Samsung Galaxy Tab 2 7" GT-P3110 tablet • Samsung Galaxy Tab 2 10" GT-P5100 tablet • Samsung Galaxy Note GT-I9220 phone • Samsung Galaxy SII GT-I9100 phone • Samsung Galaxy SIII GT-I9300 phone • ASUS Transformer Pad TF300T tablet Added Android 4.1 support for tablets that use hardware codecs.
1.3	June 2012	Ability to run on Android phone. Support for firewall/NAT.
1.1	February 2012	XOOM and Galaxy: Enhanced user interface experience. DROID XYBOARD: Added automatic provisioning support.
1.0.4	January 2012	XOOM and Galaxy: Added support for Android 4.0.
1.0.3	December 2011	XOOM and Galaxy: Enabled users to disable H.323 calls. User interface enhancements. Added support for server provisioning, AES for H.323 calls, and H.460 firewall traversal.
1.0.2.1	November 2011	DROID XYBOARD: Software release specially for DROID XYBOARD.
1.0.2	October 2011	XOOM and Galaxy: Fixed some known issues.
1.0	October 2011	XOOM and Galaxy: Initial release.

Hardware and Software Requirements

The following hardware and software requirements were determined based on test scenarios. Your system's actual performance may vary based on software or hardware configurations.

Hardware and Software Requirements

Manufacturer	Model	Android Version	Network Requirements	Optional Peripheral Devices
ASUS	Transformer Pad TF300T tablet	4.2.1	<ul style="list-style-type: none"> Wireless Local Area Network (WLAN), 802.11 a/b/g/n 3G or 4G network 	<ul style="list-style-type: none"> 3.5 mm headset Stereo Bluetooth headset
HTC	One X phone	4.2.2		
	One 801e	4.2.2		
LG	Optimus G pro LG-F240L Phone	4.1.2		
Motorola	DROID XYBOARD tablet	4.0.4		
Samsung	Galaxy Tab 8.9" SHV-E140S tablet	4.0.4		
	Galaxy Tab 2 7" GT-P3110 tablet	4.1.1		
	Galaxy Tab 2 10" GT-P5100 tablet	4.1.2		
	Galaxy Tab 10.1" LTE SC-01D tablet	4.0.4		
	Galaxy SII GT-I9100 phone	4.1.2		
	Galaxy SIII GT-I9300 phone	4.1.2		
	Galaxy Note 10.1" SHW-M480K tablet	4.1.2		
	Galaxy Note GT-I9220 phone	4.0.3		
	Galaxy S4 GT-I9500 Phone	4.2.2		
	Galaxy Note 8.0 GT-N5100 tablet	4.1.2		
Galaxy Note II GT-N7100 phone	4.1.2			
SONY	Xperia ZL L35h Phone	4.2.2		
	Xperia Z SGP312 Tablet	4.2.2		



Note: Issues on Tegra-2 devices

RealPresence Mobile Android version 3.1 cannot launch on Tegra-2 devices (XOOM tablet and Galaxy Tab 10.1" GT-P7510/GT-P7500 tablet). After you install and launch 3.1 on Tegra-2, RealPresence Mobile will prompt you to install RealPresence Mobile 2.3. To enjoy the full features (RPM 2.3 release) of this application on your Tegra-2 tablets, download **REALPRESENCE MOBILE - TEGRA 2** from **Google Play**.

To view your Android system version:

- » From your device, touch **Settings > About device > Android Version**.

Interoperability

This section explains the Interoperability of RealPresence Mobile and other applications.

Polycom CMA[®] System and RealPresence Resource Manager System

The RealPresence Mobile application can register to the Polycom CMA Server and Polycom RealPresence Resource Manager server. Some management features have limitations relative to other Polycom endpoints. For example, software updates of RealPresence Mobile are not supported and the QOS monitoring is limited.

Products Tested with This Release

Polycom RealPresence Mobile systems are tested extensively with a wide range of products. The following table does not provide a complete inventory of compatible equipment, but indicates the products that have been tested for compatibility with this release.



Note: Upgrade Polycom Products

You are encouraged to upgrade all your Polycom systems with the latest software before contacting Polycom support to ensure that the issue has not already been addressed by vendor software updates. Go to the [Polycom support website](#) to find the current Polycom Supported Products matrix.

Interoperability

Type	Product	Version
NAT/Firewall/Border Controller	ACME Packet Net-Net 3820	Firmware SCX6.3.0 MR-5 Patch 2
	Polycom VBP [®] 5300-ST	11.2.16
	Polycom RealPresence [®] Access Director [™]	3.0, 3.1

Interoperability

Type	Product	Version
Gatekeeper, Gateways, External MCU, Bridges, Call Managers	Polycom Distributed Media Application™ (DMA®) 7000	6.0.2, 6.0.3
	Polycom Converged Management Application™ (CMA®) 4000/5000	6.2.5
	Polycom RealPresence Resource Manager	8.0, 8.1
	Polycom RMX® 4000/2000	8.2, 8.3
	Polycom RealPresence® Collaboration Server 800s	8.3
	Polycom RealPresence® Collaboration Server 1800	8.1.8, 8.3
	Polycom RMX® 1000C	2.4.2, 2.5.1
	Polycom RSS™ 4000	8.6
	Polycom RealPresence Capture Server	1.0
	Broadsoft SIP r17 Server	SP2
	DeltaPath	2.9.3
	MPX Rx	8.3
Endpoints	Polycom HDX® Series	3.1.1, 3.1.2
	Polycom RealPresence Mobile	3.0, 3.1(iOS) 3.0, 3.1(Android)
	Polycom VVX®	4.1.4, 5.0
	Polycom CMA® Desktop	5.2.5
	Polycom Telepresence M100	1.0.6
	Polycom RealPresence Desktop	3.0, 3.1(Windows)
		3.0, 3.1(Mac)
Polycom RealPresence Group Series	4.1.1, 4.1.3	


Install and Uninstall RealPresence Mobile

This section explains how to install and uninstall RealPresence Mobile.

To install the RealPresence Mobile application:

- 1 From the Google Play application, search for **polycom** or **video conferencing** to find the RealPresence Mobile application.
- 2 Touch **Free**, and touch **OK** to accept permission. The application downloads and installs automatically.

To uninstall the RealPresence Mobile application:

- 1 From your device's application list, touch **Settings > Applications > Manage applications**, and touch  **Video**.
- 2 Touch **Uninstall**.
- 3 When you are prompted to confirm, touch **OK**. Your user data is deleted when you uninstall this application.

Feature Overview

The following table lists features available in version 3.1. Features marked with an asterisk (*) are enabled by a provisioning server.

RealPresence Mobile Features

Category	Features	Android Phone Basic Mode	Android Phone Professional Mode	Android Tablet Basic Mode	Android Tablet Professional Mode
Call functions and capability	Enterprise SVC solution	✓	✓	✓	✓
	IVR service in SVC calls	✓	✓	✓	✓
	Placing H.323 calls	✓	✓	✓	✓
	Enabling and disabling H.323 calling	✓	✓ *	✓	✓ *
	Specifying H.323 gatekeepers	✓	✓ *	✓	✓ *
	Specifying internal or external gatekeepers	✓		✓	
	Receiving H.264 content during H.323 calls		✓		✓
	Receiving H.263 and H.263 + content during H.323 calls		✓		✓
	Registering to SIP servers	✓	✓ *	✓	✓ *
	Specifying SIP proxy servers	✓	✓ *	✓	✓ *
	Placing SIP calls over UDP	✓	✓ *	✓	✓ *
	Placing SIP calls over TCP	✓	✓ *	✓	✓ *
	Receiving H.264 content during SIP calls		✓		✓
	Receiving H.263 and H.263 + content during SIP calls		✓		✓

RealPresence Mobile Features

Category	Features	Android Phone Basic Mode	Android Phone Professional Mode	Android Tablet Basic Mode	Android Tablet Professional Mode
Call functions and capability	Selectable call rates between 64 kbps and 512 kbps	✓	✓	✓	✓
	H.264 content sending up to 720 p (PDF only)				✓
	H.263 and H.263+ content sending up to XGA (PDF only)				✓
	<ul style="list-style-type: none"> H.264 encode at up to 320 x 180 (video) H.264 decode at up to 640 x 480 (video) 	✓	✓	✓	✓
	H.264 decode at up to 720 p (content)		✓		✓
	H.264 high profile calls (outgoing and incoming)	✓	✓	✓	✓
	H.263 and H.263+ decode at up to XGA (content)		✓		✓
	Automatic gain control	✓	✓	✓	✓
	Acoustic echo cancellation	✓	✓	✓	✓
	Automatic noise control	✓	✓	✓	✓
	Polycom Siren Lost Packet Recovery	✓	✓	✓	✓
	WLAN, 3G and 4G network support	✓	✓	✓	✓
Call control	Muting your audio during a call	✓	✓	✓	✓
	Pause your video during a call	✓	✓	✓	✓
	DTMF during a call	✓	✓	✓	✓
	Viewing call statistics by touching 	✓	✓	✓	✓
	Switching between the front and rear cameras	✓	✓	✓	✓
	Adjusting volume during a call	✓	✓	✓	✓
	Network quality indicator during a call	✓	✓	✓	✓
	Portrait Mode	✓	✓	✓	✓

RealPresence Mobile Features

Category	Features	Android Phone Basic Mode	Android Phone Professional Mode	Android Tablet Basic Mode	Android Tablet Professional Mode
SmartPairing	SmartPairing			✓	✓
	Transferring calls to HDX or RealPresence Group systems			✓	✓
Security and Encryption	H.460 firewall traversal	✓	✓	✓	✓
	Encrypting H.323 calls		✓		✓ *
	SIP digest authentication	✓	✓ *	✓	✓ *
	RTP keep-alive	✓	✓	✓	✓
	TLS/SRTP support		✓		✓
	BFCP over UDP		✓		✓
	SIP dial string	✓	✓	✓	✓
	Certificate verification (Android 4.0 and later)		✓		✓
	SBC Interoperability	✓	✓	✓	✓
	SIP outbound proxy	✓	✓	✓	✓
	SIP fail-over	✓	✓	✓	✓
Professional features	Provisioning service		✓		✓
	Local address book		✓		✓
	LDAP service		✓		✓

New Features in Version 3.1

Version 3.1 supports the following new features. See the RealPresence Mobile online help on [Polycom Support Site](#) for details about the new features.

- Support for Portrait Mode in a Call (Android only)

When you rotate your tablet 180 or 90 degrees during a call, RealPresence Mobile will adjust the video accordingly and will also send the adjusted content to far end systems.

If you enable SmartPairing, after you rotate your device 90 degrees during a call, you cannot see the swipe call button.

This feature is available when you enable auto-rotation on your device.

- Support for Higher Quality Video (Test Feature)

You can get higher quality video on Tegra-3 tablets by checking the **Enable Hardware Codec** checkbox under Settings > Test Features.

To use this feature,

- a** Go to **Settings > Test Features**.
- b** Select the **Enable Hardware Codec** checkbox.
- c** Enter the password, **456** and touch **OK**.
- d** Touch **Yes** to restart RealPresence Mobile.

After restart, the 768 Kbps and 1 Mbps call rates will be available under Network Settings. Choose a high call rate to get better quality video.

After this feature is enabled, SVC, SmartPairing, and content sending will be disabled.

You can see this feature only on Tegra-3 tablets. Polycom recommends you to test this feature and send us logs via the Polycom Community.

- Support for new Android devices
 - Samsung Galaxy Tab 10.1" LTE SC-01D tablet
 - Samsung Galaxy Note II GT-N7100 phone
 - HTC One 801e phone

New Features in Previous Versions

This section describes the new features in the previous releases.

Version 3.0

- Support for H.264 high profile calls (outgoing and incoming).
- Support for auto-answer of incoming calls. When you enable this feature, you can choose to mute the audio or video of auto-answered calls.
- Enables you to hide or display local self-view.
- Support for the following devices:
 - Samsung Galaxy S4 GT-I9500 Phone
 - Samsung Galaxy Note 8.0 GT-N5100 Tablet
 - LG Optimus G pro LG-F240L Phone
 - Sony Xperia ZL L35h Phone
 - Sony Xperia Z SGP312 Tablet

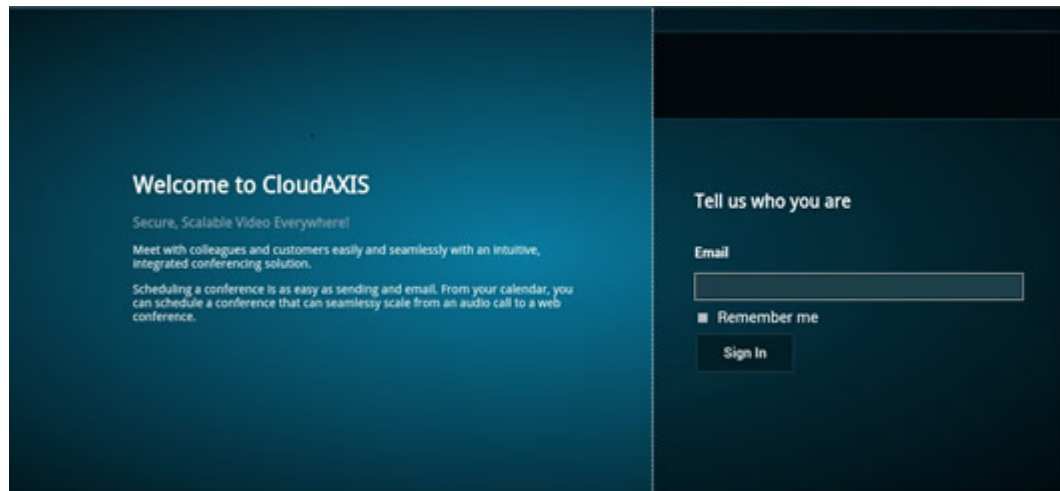
Version 2.3

This release adds support for Polycom RealPresence CloudAXIS solution. If you are invited to a CloudAXIS meeting, you will receive a meeting invitation e-mail.

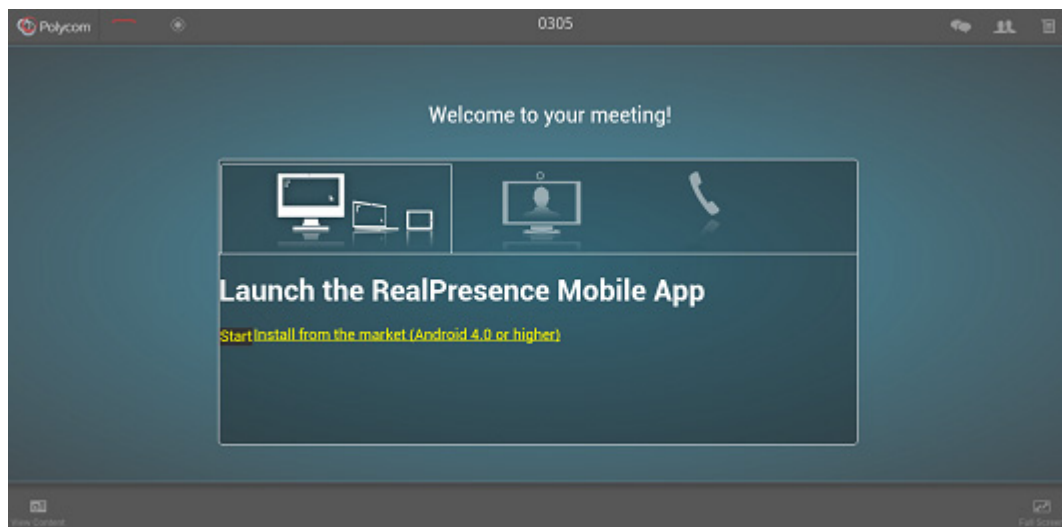
To attend a CloudAXIS meeting:

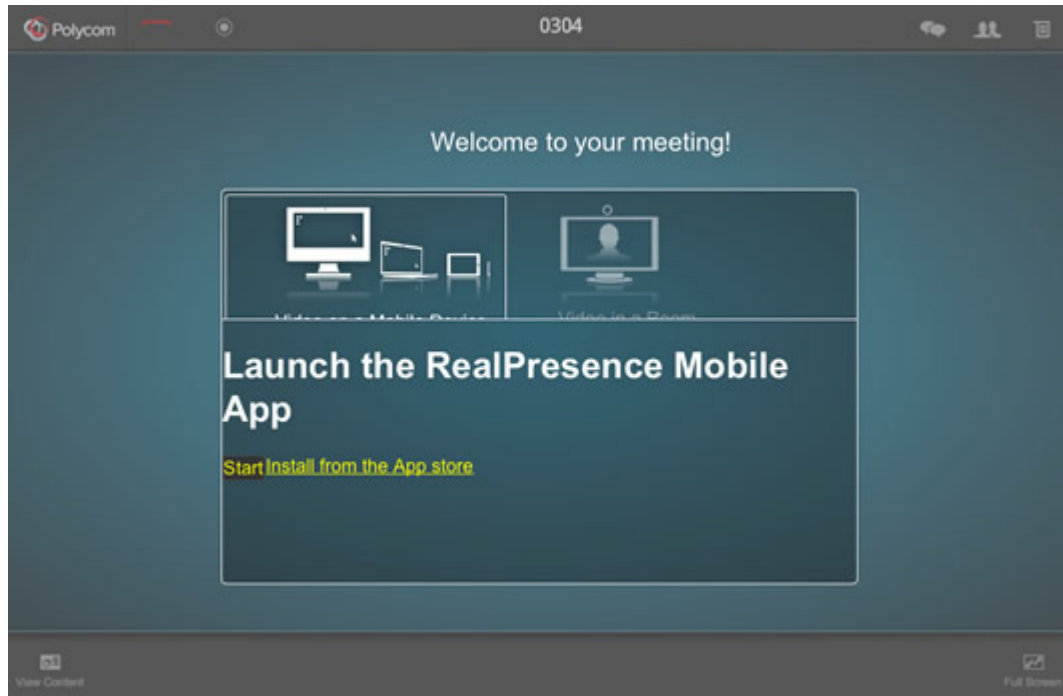
- 1 Open the meeting invitation e-mail.

- 2 Select the web URL, or enter the web URL in a browser address line.
- 3 Enter your e-mail address to sign in to CloudAXIS.



- 4 After you sign in, swipe on the target device panel and select **Video on a Mobile Device**.





- 5 Do one of the following:
 - Click **Start** to launch the RealPresence Mobile application and attend the meeting.
 - Click **Install** to download the application from the Google Play store.


Version 2.2

Version 2.2 provides the following new features:

- Features supported on non-Tegra2 Android tablets only:
 - Added SmartPairing in automatic mode and manual mode to enable a tablet to control Polycom HDX or Group Series systems.
 - Ability to transfer calls to a Polycom HDX or Group Series system.

When a call is transferred, you can mute the call, adjust its audio volume, send DTMF tones, or the call using your tablet. You can also place calls from the paired HDX or Group Series system.
 - Content sharing
 - ◆ Content sharing is supported only by a provisioning server. When you register to a provisioning server, you can view content sent by others in the call or show PDF files to others.
 - ◆ Only PDF files can be shared. You can save desired PDF files to share in either your device's SD card, or use applications such as Dropbox or SkyDrive.
- Features supported on non-Tegra2 Android tablets and phones:
 - Support for the Enterprise Scalable Video Coding (SVC) Solution
 - Support for IVR service in SVC calls.

Version 2.0

- Support for H.460 firewall traversal in basic mode.
- Ability to access Media Statistics by clicking .
- Support for Samsung Galaxy Note 10.1" SHW-M480K tablet

Version 1.3.1

Version 1.3.1 provides the following new features.

- Support for the following devices:
 - Samsung Galaxy Tab 2 7" GT-P3110 tablet
 - Samsung Galaxy Tab 2 10" GT-P5100 tablet
 - Samsung Galaxy Note GT-I9220 phone
 - Samsung Galaxy SII GT-I9100 phone
 - Samsung Galaxy SIII GT-I9300 phone
 - ASUS Transformer Pad TF300T tablet
- Android 4.1 support for tablets that use hardware codecs

Version 1.3

- Support for the following Android devices:
 - HTC One S
 - HTC One X
 - HTC JetStream tablets
- Firewall/NAT Support

This version provides firewall and Network Address Translator (NAT) traversal ability with the following features:

 - Ability to keep Real-time Transport Protocol (RTP) NAT mapping alive during a live streaming.
 - Support for guest user dialing.
 - Ability to support Secure Real-time Transport Protocol (SRTP) and Transport Layer Security (TLS) for the secure transmission of media.
 - Ability to support Binary Floor Control Protocol (BFCP) over both TCP and UDP links (UDP preferred). Control signaling can now be forwarded using the best-effort traffic class in firewall and NAT traversal.
- Support for the following dial strings when you place calls without registering to the server:

H.323	SIP
<ul style="list-style-type: none"> • <i>name@domain</i> • <i>name@IP</i> • <i>extension@domain</i> • <i>extension@IP</i> • <i>IP##extension</i> 	<ul style="list-style-type: none"> • <i><name>@<domain></i> • <i><name>@<ipAddress:port></i> • <i><extension>@<domain></i> • <i><extension>@<ipAddress:port></i>

- Ability to verify server certificates by using installed root certificates, such as SIP, HTTPS, and LDAP, when establishing TLS connections.
- Ability to interoperate with ACME SBC systems.
- Support for SIP signaling FW/NAT traversal over TCP/TLS as defined in RFC5626.
- Ability to switch to a backup SIP server in case the primary server fails.

Version 1.1

For Galaxy, XOOM, and DROID XYBOARD:

- Ability to support Galaxy, XOOM, and DROID XYBOARD in one RealPresence Mobile application .apk file
- Usability enhancement

Version 1.0.4

For Galaxy and XOOM: Support for Android 4.0.

Version 1.0.3

For Galaxy and XOOM:

- Usability enhancement.
- Ability to disable H.323 calls.
- Ability to receive content using H.239 and BFCP when you are registered to a provisioning server.
- Ability to support AES encryption for H.323 calls when you are registered to a provisioning server.
- Support for H.460 firewall traversal when you are registered to a provisioning server.
- Support for muting your audio and video during a call.
- Ability to allow a provisioning server to supply configuration settings automatically when you are registered to the provisioning server.
- Ability to create a local address book when you are registered to a provisioning server.
- Ability to access Lightweight Directory Access Protocol (LDAP) service when you are registered to a provisioning server. With LDAP service, you can call contacts in your corporate directory or add them to your local address book.

Version 1.0.2.1

For DROID XYBOARD:

- Dual stack operation that enables the Polycom RealPresence Mobile application to connect to SIP or H.323 systems.
- H.264 encode at up to QVGA, 15 fps.
- Support for H.460 firewall traversal.
- Video receives up to 480x352, 30 fps
- Support for Polycom Constant Clarity™ technology, such as Polycom® Siren™ Lost Packet Recovery, which can effectively improve the decreased audio quality caused by packet loss.

- Configurable network and bandwidth settings that make the RealPresence Mobile application operate well in virtually any network.
- Support for automatic gain control and echo cancellation.
- Ability to view network quality during a call.

Version 1.0.2

For Galaxy and DROID XYBOARD: Usability enhancements.

Version 1.0

For Galaxy and DROID XYBOARD:

- Dual-stack operation that enables the Polycom RealPresence Mobile application to connect to SIP or H.323 systems.
- H.264 encode and decode at up to 720p, 30fps.
- Support for Polycom Constant Clarity™ technology, such as Polycom® Siren™ Lost Packet Recovery, which can effectively improve the decreased audio quality caused by packet loss.
- Support for automatic gain control and echo cancellation.
- Ability to view network quality during a call.

SVC is a scalable media relay conferencing solution based on SVC and Scalable Audio Coding (SAC) codecs. It is an alternative to the Advanced Video Coding (AVC) mode that has traditionally been supported. Differences between the two modes are listed in the following table.

Differences between SVC and AVC

SVC Mode	AVC Mode
Each participant in the conference call is received by the client as a separate video stream.	The composite video image is determined by the bridge based on administrator configuration.
A Caller ID is indicated by text in the appropriate window, on display throughout the call.	Caller ID information is displayed intermittently.
Double-clicking or tapping on a participant's video, content video, or local preview expands that video to full screen. Double-clicking or tapping again reverts the display to the composite image. Pinch controls enable you to zoom in and out on a participant's video or content video.	Layout may typically be controlled by dialing **, and then selecting a format.

- For video send, support 180p (320 x 180)
- For video receive, support up to 360p with no bandwidth limitation; average is 270p or 180p (480x270)
- For video send, support 7.5/15 fps
- For video receive, support 7.5/15 fps
- Support auto layouts of 1x1, 1+1 through 1+5.
The maximum layout of 1+5 comprises 4 remote participants plus 1 content-sharing frame, and 1 local preview frame.

- Support for AVC content.
- Support for SVC auto layouts:
 - Display of last active speakers.
 - Dynamic display of resolution, bandwidth, number of participants are adjusted based on network bandwidth and processor capabilities.
- Support for Scalable Audio Coding (SAC) with at least two quality layers.
- Ability to mix up to three different audio streams from the MCU.
- Ability to combine up to four different SVC video streams (call rate at 512kbps) from the MCUs.

Using SVC conference calls has following limitation:

- Do not support recording.
- Only SIP calls are supported.
- A maximum of four far-end video streams and one content video is supported.
 - Use SIP TCP for SVC conferences.

Access to Media Statistics

To access media statistics, click . The following table shows the meaning of each value.

Media Statistics

Value	Description
Call Type	SIP or H.323 call type.
Call Encryption	Indicates whether your call is encrypted.
Far Site Name	Name of the far site.
Far Site System	Type of video conferencing system at the far end and the software version.
Call Speed	Negotiated speed (bandwidth) for the call, which is usually the combined video and audio speeds in the call.
Video Protocol	ITU-C video algorithm and annexes used in the current call. The video protocol used depends on the capabilities of the system at the far end as well as on your system's configuration.
Video Format	Picture size currently in use.
Audio Protocol	Audio algorithm and annexes used in the current call. The audio protocol used depends on the capabilities of the system at the far end as well as on your system's configuration.
Audio Rate	Bandwidth specified for the audio portion of the call. The proportion of the audio rate to the video rate depends on the protocol used.
Video Rate	Bandwidth specified for the video portion of the call. The proportion of the video rate to the audio rate depends on the protocol used.
Video Rate Used	Actual bandwidth being used for the video portion of the call. This is a real-time measurement, which normally fluctuates.

Media Statistics

Value	Description
Video Frame Rate	Rate your system uses to update the picture seen at the far end. The system can send up to 15 fps. If the camera picks up large, continuous, or frequent motions, the software takes longer to assemble the data into video frames, and the frame rate drops. Changes in lighting also reduce the frame rate.
Video Packets Loss Percentage	Total video packet loss as a percentage of the total number of video packets transmitted by your system and those transmitted by the far end.
Video Jitter	Percentage of variation in the video transmission rate.
Audio Packet Lost	Number of audio data packets lost during the call, including transmitted packets and incoming packets. Packet loss indicates congestion or other problems on the network.
Audio Packets Loss Percentage	Total audio packet loss as a percentage of the total number of audio packets transmitted by your system and those transmitted by the far end.
Audio Jitter	Percentage of variation in the audio transmission rate.
Content Protocol	Format used for the recording, compression, and distribution of the content.
Content Format	Display resolution of the content.
Content Rate	Rate your system uses in content transmission.
Content Rate Used	Actual bandwidth being used for the content transmission.
Content Frame Rate	Rate your system uses in content frame transmission.
Content Packets Lost	Number of content data packets lost during the call, including transmitted packets and incoming packets. Packet loss indicates congestion or other problems on the network.
Content Packets Loss Percentage	Total audio packet loss as a percentage of the total number of content packets transmitted by your system and those transmitted by the far end.

Corrected Issue in Version 3.1.1

Version 3.1.1 fixed the issue SWEP-5765.

Category	Issue ID	Description
CloudAXIS	SWEP-5765	Android participants are not able to join CloudAXIS meetings.

Corrected Issues in Previous Versions

This section lists the correct issues in previous releases.

Version 3.1

There are no corrected issues in this release.

Version 3.0

Category	Issue ID	Description
Video	SWEP-3772	When you answered a telephone call, the RealPresence Mobile application remained active and transferred audio to far end. This issue has been fixed.

Version 2.3

Category	Issue ID	Description
Call Control	SWEP-3015	When the RealPresence Mobile application is called, BFCP cannot be negotiated as BFCP over UDP.
Content	SWEP-2936	At the far end, the RealPresence Mobile application does not completely display some content files that include special content.

Version 2.1

Category	Issue ID	Description
Audio/Video	SWEP-2757	No media is shown or heard in the HDX system when the RealPresence Mobile application calls H.323 Business-to-business (B2B) through a SIP trunk to the H.323 HDX system in the other enterprise.

Version 2.0

Category	Issue ID	Description
Audio	SWEP-1904	In a call on the Galaxy Tab 8.9" SHV-E140S tablet, the RealPresence Mobile application cannot detect audio through the speaker. You must use a headset.
Calling	CMAD-9743	On the XOOM with Android 4.1.1, the system crashes when you press the video mute button while connecting to an IP address.
Calling	CMAD-9748	On the XOOM with Android 4.1.1, the far end cannot receive video during a call.
Calling	CMAD-9383	When you place a point-to-point call from a RealPresence Mobile Android device to a RealPresence Desktop system in a RealPresence Access Director environment, the screen goes black.
Call Control	CMAD-9824	A RealPresence Mobile system cannot hang up a call before the call is set up.
SIP	CMAD-9828	A RealPresence Mobile system in an external network cannot answer a SIP call from an internal network.
User Interface	CMAD-8330	SIP registration fails before SRV lookup returns the record.

Version 1.3.1

Category	Issue ID	Description
Call Control	CMAD-9021	The RealPresence Mobile application failed to send a keep-alive message with TCP when switched from registering to an RFC 5626 server to a non-RFC 5626 server. This issue has been corrected.
Calling	CMAD-8550	The RealPresence Mobile application did not send an authentication update when the SIP server authentication valid time expired. This issue has been corrected.
CMA Provisioning	CMAD-9024	Endcall callStatsMessage content was not correct. The callStatus should be ENDED in endcall message, not ACTIVE. This issue has been corrected.
Interoperability	CMAD-8588	The RealPresence Mobile application did not support PLI. This issue has been corrected.
Interoperability	CMAD-8590	An external participant appeared on the participant list in a conference-managed screen when monitoring an ad-hoc point-to-point call from CMA Desktop to the RealPresence Mobile application or the RealPresence Mobile application to the RealPresence Mobile application. This issue has been corrected.
Installation	CMAD-8597	The RealPresence Mobile application could not be launched on the Motorola XOOM tablet with Android version 4.1. This issue has been corrected.
Installation	CMAD-8977	You could not launch the RealPresence Mobile application after installing Samsung P7510, Android version 4.0.4 on a tablet device. This issue has been corrected.

Version 1.3

Category	Issue ID	Description
Interoperability: Polycom HDX systems	CMAD-5331	When in an H.323 call with a Polycom HDX 8000 system using the call rate 512 kbps, the far end video freezes after a Polycom Telepresence m100 application joins the call. This issue has been corrected.
Interoperability	CMAD-4417	When you attempt to leave a video voice message to a contact that also has supported video voice messaging, the recorded message contained only audio (no video). This issue has been corrected.
Interoperability: Polycom HDX systems	CMAD-4361	When you placed SIP calls to a Polycom HDX system, local video was unavailable. This issue has been corrected.
Interoperability: Polycom m100	CMAD-4519	When you and a Polycom m100 application joined a multipoint call hosted by a Polycom HDX 9006 system, local video froze in the call for about 10 minutes. This issue has been corrected.
Interoperability	CMAD-8591	RealPresence Mobile did not send an authentication update when the SIP server authentication valid time expired, which caused authentication failure and disconnected the call. This issue has been corrected.

Version 1.1

Category	Issue ID	Description
Calling	CMAD-4438	When you call a contact who is already in a call, you get the message Unreachable, instead of Busy.
Calling	CMAD-4946	When you call a Polycom CMA Desktop system while your tablet is connected to a monitor using an HDMI cable, your screen turns black for a while after either you or the far end hangs up.
Calling	CMAD-4945	When you place a SIP call with a Polycom HDX 8000 system, your far-end video is displayed with the 4:3 aspect ratio, instead of 16:9.
Content	CMAD-5645	When you are in a multipoint call hosted through a bridge, and two far sites send you content in short succession, you receive the second content in the wrong aspect ratio.
User Interface	CMAD-4951	When you place a call to another XOOM 2, which is in a call with a Polycom RMX system, you receive the message Far end hangs up, instead of Busy MSG.
Video	CMAD-4953	When you place an H.323 call to a bridge with 128 kbps as the call rate, the screen turns black for several seconds.
Video	CMAD-3571	In SIP calls hosted by a Polycom RMX1500 system, the far end video is not displayed. In H.323 calls, the far end video can be displayed after a three-minute delay.

Known Issues

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

Known Issues

Category	Issue ID	Description	Workaround
Audio	SWEP-2636	<p>The following two issues are due to the system limitation on tables using Acoustic Echo Cancellation (AEC):</p> <ul style="list-style-type: none"> On the Samsung Galaxy Tab 8.9", Samsung Galaxy Tab 10.1" LTE SC-01D, and ASUS Transformer Pad TF300T tablets, you cannot adjust the speaker volume by using the hardware Volume control. If a Transformer Pad TF300T tablet is close to Polycom HDX or Group Serial 500 systems which enable Ultrasound, you can hear noise from the far end. 	<p>It is system limitation of the tablet. The tablet's system volume control is used for RealPresence Mobile. When a tablet uses AEC, the system volume control does not work.</p>
Audio	SWEP-4398	<p>The far end can hear an echo if RealPresence Mobile running on Android device is in the same conference and does not mute.</p> <ul style="list-style-type: none"> Sony Xperia Z SGP312 Tablet Transformer Pad TF300T Tablet DROID XYBOARD Tablet Galaxy Tab 2 10" GT-P5100 Tablet 	<p>Use a headset or lower the speaker's volume.</p>
Audio	CMAD-9416	<p>Loudspeaker volume is too low to be heard during a call. (HTC smart phones)</p>	<p>Use a headset.</p>
Calling	CMAD-8460	<p>H.323 registration fails with notification Configuration error, but provision is successful.</p>	<p>Sign out and sign in again, or force stop the application.</p>
Contacts	SWEP-5627	<p>After you enter a key word and start to search contacts, you cannot cancel this operation.</p>	<p>Use more specific key word to search contacts.</p>

Known Issues

Category	Issue ID	Description	Workaround
Content	SWEP-4496	If you create a Continuous Presence (CP) only conference call on Polycom RMX 4000/2000 system and RMX and Polycom RealPresence Collaboration Server 800s version 8.1 with default content settings (Content Settings: HiResGraphics and Content Protocol: H.264 HD), the RealPresence Mobile application cannot send or receive content if call rate is set as 384 kbps or below.	<ul style="list-style-type: none"> Change the RMX Content Settings to Graphics, and Content Protocol to H.263 & H.264 Auto Selection. Set the call rate on RPM to above 384 kbps.
Content	SWEP-4932	(SIP Call only) When the call rate of M100 is lower than the call rate of RealPresence Mobile and when M100 calls RealPresence Mobile, RealPresence Mobile cannot send content to M100.	Use higher call rate for M100 than RealPresence Mobile.
General	CMAD-5818	After you closed the Polycom RealPresence Mobile application by stopping the LogService and MainService from Settings > Applications > Running Services , if you then try to launch the application again, you get a message saying that the application has stopped unexpectedly.	<p>Always follow these steps to force close the RealPresence Mobile application:</p> <ol style="list-style-type: none"> From your tablet, touch Settings. Touch Applications > Manage Applications. Touch Video. Touch Force Stop, and touch OK to confirm.
General	SWEP-2677	In very rare conditions, there may be something wrong with the application UI (provision status is not right, sign-out button and call button are grayed out) because it was not stopped properly the last time. This issue might occur when you update the operating system or force stop the RealPresence Mobile application in Settings.	Reboot the device.
Interoperability	SWEP-3280	Prior to version 4.1.0, Polycom VVX 1500 always reboots when the RealPresence Mobile application sends 320 x 180 video to a Polycom VVX 1500 system.	Upgrade VVX 1500 to 4.1.0 or newer.

Known Issues

Category	Issue ID	Description	Workaround
Localization	SWEP-2756	You can use only English user names to sign into Polycom CMA system and Polycom RealPresence Resource Manager, or register to GK and SIP servers.	None.
Other	DSTC-1541	When you are trying to sign in RealPresence Mobile, RealPresence Mobile may incorrectly display a certificate warning for the intermediate CA issued certificate.	When you see the warning message, click OK to trust the certificate.
Provisioning	CMAD-6209	When you are signed in to a Polycom CMA server through a WiFi network, if you then switch to another WiFi network and try to search in your corporate directory, it takes a long time before you see an error message about provisioning failure.	None.
SIP	SWEP-4441	If the dialed SIP URI contains spaces, the SIP call cannot be connected.	Remove the spaces.
SIP	CMAD-7896	<p>Placing SIP calls over TCP may fail on the following tablets:</p> <ul style="list-style-type: none"> ▲ Transformer Pad TF300T Tablet 4.1.1 ▲ HTC One X 4.1.1 ▲ HTC One 801e phone 4.2.2 ▲ Samsung Tab2 7" GT-P3110 Tablet 4.1.1 ▲ Samsung Tab2 10" GT-P5100 Tablet 4.0.3 ▲ Samsung Galaxy SII GT-I9100 Phone 4.0.3 ▲ Samsung Galaxy Note GT-I9220 Phone 4.0.3 ▲ SONY Xperia ZL L35h Phone 4.1.2 ▲ SONY Xperia Z SGP312 Tablet <p>Placing SIP calls over UDP (Default) and SIP over TLS on the above tablets works well.</p> <p>The root cause is TCP/IP stack on Android 4.0.3 will check SIP messages. If TCP packet size is larger than 1500 bytes, it may be dropped by the system.</p>	<p>Try one of the following:</p> <ul style="list-style-type: none"> • Use SIP over UDP (Default) or SIP over TLS. • Change the UDP or TCP listening port to a non-standard port on the SIP server.

Known Issues

Category	Issue ID	Description	Workaround
SmartPairing	SWEP-3281	(When using Android tablets with Acoustic Echo Cancellers), SmartPairing fails with ultrasonic detection. <ul style="list-style-type: none"> On Transformer Pad TF300T tablets, auto detection does not work. On Galaxy Tab 8.9" SHV-E140S, Galaxy Tab 10.1" LTE SC-01D, and Galaxy Tab 2 10" GT-P5100 tablets, auto detection does not work during calls. 	
SmartPairing	SWEP-1819	When there are several Polycom HDX or Group Series systems nearby, your RealPresence Mobile application either fails to detect them all, or returns incorrect IP addresses.	Pair the Group Series or HDX system manually.
SVC	SWEP-2372	When there is 10% packet loss and UDP is used for an SVC call, the screen layout is incorrect.	None.
SVC	SWEP-2736	In a poor network connection, sometimes a participant disconnects automatically from an SVC call. This can result in a participant showing up in two video streams—one frozen and one active. The RMX system will clear the frozen stream in 30 minutes.	None.
Video	SWEP-3295	On the Samsung Galaxy Tab2 PT-3110 tablet and Samsung Galaxy Tab2 PT-5100, received video is delayed on long calls, or when you are sharing content. This is due to the low CPU capability of the tablets. Note: To avoid performance issues, only 1x1 layout is supported in SVC meetings. Users can see only the active speaker during SVC meetings.	None.
Video	SWEP-3450	In a call with an RMX system that uses an MPM+ media card, a blue edge is displayed at the bottom of the video window.	Use an MPMX media card with the RMX system.
Video	SWEP-4396	The video freezes and flashes for a few seconds for some SVC conference calls	None.

Known Issues

Category	Issue ID	Description	Workaround
Video	SWEP-4548	In a motion mode conference, RealPresence Mobile receives video with a large delay because the video is 60 fps.	Set a conference with sharpness mode on MCU.
Video	SWEP-5592	The RealPresence Mobile received video is stretched when RealPresence Mobile is inter operating with VSX® Visual Concert™.	None.

Supported Capabilities, Protocols, Algorithms, and Ports

The following capabilities, protocols, resolutions, algorithms, and ports are support for the RealPresence Mobileapplication.

Capabilities

Call Rate	Video Capability
512 kbps 384 kbps 256 kbps	180p
64 kbps	Audio only

Protocols

The following table lists the protocols supported in this version of the RealPresence Mobile application.

Protocol	Description
DNS	Domain Name System
H.235	Security and Encryption
H.239	Token Management
H.323	Signaling
H.460	Firewall/NAT Traversal
LDAP, H.350	Directory Services
NTLMv2	Authentication
Polycom LPR™	Lost Packet Recovery
SIP	Session Initiation Protocol



Note: H.239 and BFCP Support

H.239 and BFCP are supported only when you are registered to a provisioning server.

Resolutions

The following table lists the resolutions supported in this version of the RealPresence Mobile application.

Resolution and Frame Rate	Source
Up to 320x180, 15 fps	Video sent from camera
Up to 640x480 (VGA), 30 fps	Video received from far end
Up to 720p, 7.5 fps	Content received from far end
Up to 720 p, 3 fps (Tablets only)	Content showing from the tablets

**Note: Video Capability**

Actual transmitted video resolution is determined by several factors, such as camera capability, computer performance, network conditions, the far-end system's capabilities, and whether content is being received.

HD/720p fps is the maximum video receiving capability. The actual resolution is based on the negotiation with the far end.

Algorithms

The following table lists the algorithms supported in this version of the RealPresence Mobile application.

Algorithm Type	Description
Audio	G.722.1 Annex C G.711u G.711a Siren LPR Acoustic Echo Cancellation (AEC) Automatic Gain Control (AGC) Scalable Audio Coding (SAC)
Video	H.264 SVC H.264 AVC H.264 high profile H.263 and H.263+ (for content only)
Encryption	AES-128 media encryption TLS for SIP calls

**Note: Availability of AES and TLS Encryption**

AES encryption is available only when you are registered to a provisioning server.

TLS encryption is available only when you are registered to a provisioning server.

Inbound and Outbound Ports

The following table lists the inbound and outbound ports supported in this version of the RealPresence Mobile application.

Inbound ports

Port	Function
1720 (TCP)	H.323 Signaling
1719 (UDP)	Registration, Admission, and Status (RAS)
3230 - 3329 (TCP)	Call Signaling
3230 - 3237 (UDP)	Media (RTP/RTCP)
5060	SIP
3238 (UDP and TCP)	BFCP

Outbound ports

Port	Function
443 (TCP)	Provisioning, Monitoring, Help Files, HTTPS
389 (TCP)	LDAP
5060	SIP
5061 (TCP)	SIP TLS signaling
1720 (TCP)	H.323 Signaling
1719 (UDP)	Registration, Admission, and Status (RAS)
3230 - 3329 (TCP)	Call Signaling
3230 - 3237 (UDP)	Media (RTP/RTCP)
3238 (UDP and TCP)	BFCP

Prepare Your Device for Mutual Transport Layer Security

You can establish secure communications using Mutual Transport Layer Security (MTLS) with provisioning servers such as Polycom DMA, CMA, or RealPresence Resource Manager systems.

To establish MTLS connections, the client and server need to hold certificates issued from the same Certificate Authority (CA) and the root certificate of this CA.

To import certificates into your Android device, you need to generate a Certificate Request (CSR) first by using a computer that has installed the openssl tool.

The following example uses Mac as the example.

To generate and import your certificate:

- 1 Open the Terminal from your Mac computer.

- 2 Generate the private key *client.key*. For example:

```
Mike-MacBook-Pro:~ root# openssl genrsa -out client.key 1024
```

- 3 Generate the certificate request *client.csr*. For example:

```
Mike-MacBook-Pro:~ root# openssl req -new -key client.key -out client.csr
```

You are about to be asked to enter information that will be incorporated into your certificate request.

What you are about to enter is what is called a Distinguished Name or a DN.

There are quite a few fields but you can leave some blank

For som-----

```
Country Name (2 letter code) [GB]:cn          ---CSR info.
```

```
State or Province Name (full name) [Berkshire]:bj ---CSR info.
```

```
Locality Name (eg, city) [Newbury]:bj        ---CSR info.
```

```
Organization Name (eg, company) [My Company Ltd]:plcm ---CSR info.
```

```
Organizational Unit Name (eg, section) []:caqa ---CSR info.
```

```
Common Name (eg, your name or your server's hostname) []:caqa ---CSR info.
```

```
E-mail Address []:pp@pp.com ---CSR info.
```

Enter the following 'extra' attributes to be sent with your certificate request

```
A challenge password []:1234          -----see [Notel]
```

```
An optional company name []:poly
```



Note: Write down the Challenge Password

Write down the challenge password. You will need it later in the procedure.

- 4 Submit the certificate request to your CA:

- a View the content of the file *client.csr* using the following command, then select and copy its content (from ---BEGIN CERTIFICATE REQUEST to END CERTIFICATE REQUEST---):

```
Mike-MacBook-Pro:~ root# cat client.csr
```

- b Go to your CA's web interface <http://<CA's IP address>/certsrv/>, and click **Request a certificate**.

- c Click **advanced certificate request**.

- d Click **Submit a certificate request by using a base-64-encoded CMC or PKCS #10 file, or submit a renewal request by using a base-64-encoded PKCS #7 file**.

- e Paste the content of the file *client.csr* to the text filed under **Saved Request** text field, and click **Submit**.

- f Click **Base 64 encoded** and click **Download certificate**.

The file is saved as *certnew.cer* by default in the folder **Downloads**.

- 5 Move the generated **certnew.cer** file to your current directory.

- 6 Convert the file *ccertnew.cer* to a .p12 file by using the openSSL tool. For example:

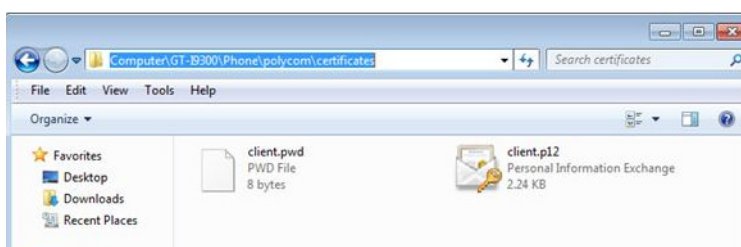
```
Mike-MacBook-Pro:~ root#openssl pkcs12 -export -in certnew.cer -inkey
client.key -out client.p12 -name testp12
```

Enter Export Password:

Verifying - Enter Export Password:

The export password should be the same as the challenge password you set in step 3.

- 7 Encrypt the challenge password you set in Step 3:
 - a Go to [Convert Strings](#).
 - b Enter the challenge password in the text field, and click **Base64 Encode!**.
 - c Copy the encoded text from the following text field, and save it as a .pwd file, for example, *client.pwd*.
- 8 Connect your Android phone or tablet to a PC using a USB cable, then copy file *client.p12* and *client.pwd* to your phone or tablet's internal storage, under the directory **/polycom/certificates**.



To import the root certificate of your CA into Android device:

- 1 Go to your CA's web address <http://<CA's IP address>/certsrv/>, click **Download a CA certificate, certificate chain, or CRL**.
- 2 Select **Base 64**, and then click **Download CA Certificate**.
- 3 Connect your Android phone or tablet to a PC using a USB cable.
- 4 From your Android phone or tablet, tap **Settings > Security > Install from Storage**.
- 5 Follow the screen prompt to enter, or set, screen lock password.
- 6 Name the certificate, or accept the suggested name.
- 7 Click **OK** to install the certificate.

The certificate is now installed on your device.



To establish MTLS connection with servers such as Polycom DMA, CMA, or RealPresence Resource Manager systems, the Polycom DMA, CMA, or RealPresence Resource Manager system should also hold the CA root certificate and the system's certificates.