Release Notes

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Polycom® RealPresence® Mobile, for Apple® iOS

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What's New in Release 3.3

Polycom RealPresence Mobile 3.3 includes the features and functionality of previous releases and includes these new features:

Note: Get the latest product information from Polycom Support
To view the latest Polycom product documentation, visit Polycom Support web site.

User Interface Improvements

RealPresence Mobile 3.3 has newly designed user interfaces and icons to consolidate the user interface across all Polycom endpoint products. The RealPresence Mobile and the RealPresence Desktop user interfaces share common icons such as Recent Calls, Address Book, Mute, Place a Call, and Hang Up.

Standalone Mode Supports More Features

Standalone mode provides features such as content sharing, FECC, TLS in SIP protocol, media encryption, and local contact on tablets. See Feature Overview for a complete list of feature capabilities on tablets and phones.

Support for BroadSoft Device Management as Provisioning Server

From this release, BroadSoft Device Management is supported to provision RealPresence Mobile. In standalone mode, RealPresence Mobile can register with a BroadSoft server to use provisioned features. Only LDAP search is not supported.

Set up BroadSoft Device Management to Provision RealPresence Mobile

To configure BroadSoft Device Management for provisioning RealPresence Mobile, the BroadSoft Device Management administrator must pay attention to the following:

- Review the sample RealPresence Mobile file named `ProvisionData-template.xml` released with RealPresence Mobile. The file `ProvisionData-template.xml` is published on Polycom Support.
- Decide what to be provisioned in the customer deployment.
- Create your RealPresence Mobile provisioning template by defining the customer TAG set and assigning default values to each customer TAG.
- When adding a new Device Profile Type for RealPresence Mobile in the BroadSoft Device Management system, set the parameters to the values as follows:
  - Set **Device Access Context Name** to **`dms`**.

  - Set **Device Access URI** to **`POLYCOM/RPM`**
  - Use the customer TAG set that you defined as **Default System Tag Set** and **Tag Set**.
- When adding a new Device Profile Type file for the new created Device Profile Type, set the parameters to the values as follows:
  - Set **Device Access File Format** to **`ProvisionData.xml`**.
  - Set **Repository File Format** to **`ProvisionData-%BWLOGIN-ID-1%.xml`**.
  - Set **File Category** to **`Dynamic Per-Device`**.
  - Set **File Customization** to **`Administrator and User`**.

  After creating this Device Profile Type file, create a device profile for it.
- When adding or editing existing users for RealPresence Mobile,
  - choose **Use Custom Credentials** in the **Authentication** panel. The custom credentials will be the sign-in credentials for RealPresence Mobile.
  - bind the created device profile to the user account.

  If necessary, you can specify the Custom TAGs of the user account for the provisioning. The new values will overwrite the default values specified in the template **`ProvisionData.xml`** file.

After the configuration is done and the SRV record `_dmsconfig_tcp` is set on the DNS server properly, RealPresence Mobile can detect the provisioning server automatically using users' e-mails. Users can also specify the server when signing in RealPresence Mobile. RealPresence Mobile assumes each BroadSoft user has its specific provisioning data. If an user signs in RealPresence Mobile on multiple devices with the same user account, all the devices will get the same provisioning data.

Support for High Video Resolution (720p)

RealPresence Mobile 3.3 has the capability to encode 720p video stream on powerful mobile devices such as iPad Air, iPad Mini 2, iPad Mini 3, iPhone 6, and iPhone 6 plus. The video quality will be improved significantly. 720p is not supported on iPhone 5S.

This feature is available in standalone mode and managed mode and is only for AVC point to point calls, AVC multi-points calls, and Scalable Video Coding (SVC) point to point calls.

Support for the SDP Size Adjustment Feature

Enable this feature to shorten Session Description Protocol (SDP) size to avoid call failure caused by SDP size limitation for some users. Enter `#001#` from the Dialpad to enable or disable this feature.

Note: Video content, FECC, H.264 high profile, RFC 2833 for DTMF, and SVC cannot be used

When you enable **SDP Size Adjustment**, video content, FECC, H.264 high profile, RFC 2833 for DTMF, and SVC cannot be used.

Devices Support Changes

RealPresence Mobile 3.3 drops support for iOS 6.

RealPresence Mobile 3.3 adds support for iOS 8 and the following iOS devices:

- iPad Air 2, iPad Mini 3
- iPhone 6, iPhone 6 Plus

Release History

The following table shows the release history of the Polycom RealPresence Mobile application.

Release History

Version	Release Date	Features
3.3	January 2015	Support for BroadSoft Device Management as Provisioning Server User Interface Improvements Standalone mode provides more features. See Feature Overview for a complete list of feature capabilities. Support for high video resolution (720p) on powerful mobile devices such as iPad Air and iPad Mini 2, for AVC point to point calls, AVC multi-points calls, and SVC point to point calls. Support for the SDP Size Adjustment Feature Devices Support Changes • Drop support for iOS 6 • Add support for iOS 8 • Add support for iPad Air 2 and iPad Mini 3 • Add support for iPhone 6 and iPhone 6 Plus
3.2.1	July 2014	The **Roster** display button is not shown in CloudAXIS 1.5 and earlier versions. Fixed an OpenSSL security vulnerability (CVE-2014-0224).Fixed two issues.See Resolved Issues for details.
3.2	June 2014	Support for CloudAXIS HTTPs tunneling Support for roster display in a CloudAXIS meeting Support for log collector Support for Czech Support for iPad Air and iPad Mini with Retina display
3.1	January 2014	Support for whiteboard and annotation on iPad Support for sharing content via SmartPairing™ (iPad only)
3.0.1	October 2013	3.0.1 adds support for iOS 7, iPhone 5S, and iPhone 5C.
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.Note: Auto-answer works only when the RealPresence Mobile application is running in the foreground. Support for auto VPN. iPad: Improved content sharing functionality. Enabled users to hide or display local self-view.
2.3	March 2013	Support for the Polycom RealPresence CloudAXIS™ solution.
2.2	February 2013	Added support for iPad Mini and iPhone5.

Release History

Version	Release Date	Features
2.1	December 2012	iPad and iPhone: Support for Interactive Voice Response (IVR) service in SVC calls. iPad: Added automatic Polycom SmartPairing (iOS 5.0 and later) to enable the iPad to control and swipe calls to Polycom HDX and Group Series devices.
2.0	November 2012	Support for H.460 firewall traversal in standalone mode. Access to media statistics. iPad: Added SmartPairing in manual mode (iOS 5.0 and later) to enable the iPad to control Polycom HDX and Group Series devices. Support for the Enterprise SVC Solution, a scalable media relay conferencing solution based on SVC and SAC codecs. Added Portuguese support for the user interface.
1.3.2	September 2012	iPad and iPhone 4S: Added support for iOS 6.0.
1.3.1	August 2012	Fixed several known issues.
1.3	June 2012	iPad: Added support for firewall/NAT, FECC, and ability to run on new iPad. iPhone 4S: Localized user interface.
1.2	March 2012	iPhone 4S: Added support for standalone mode.
1.1	February 2012	iPhone 4S: Initial release. iPad 2: Added content sharing. Improved user interface experience.
1.0.4	January 2012	iPad 2: Fixed some memory leak issues.
1.0.3	December 2011	iPad 2: Enabled users to disable H.323 calls. User interface enhancements. Added multi-language support for the user interface. Added H.263+ content receiving.
1.0.2	October 2011	iPad 2: Fixed some known issues. Added user interface enhancements. Added automatic Polycom CMA® server detection. Features such as AES, H.460 firewall traversal, and content receiving are available only when users are registered to a provisioning server.
1.0.1	October 2011	iPad 2: 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

Apple	• **iPad** iPad Air 2, iPad Air, iPad with Retina display, iPad 2, iPad Mini 3, iPad Mini with Retina display, and iPad Mini. • **iPhone** iPhone 6, iPhone 6 Plus, iPhone 5s, iPhone 5c, iPhone 5, and iPhone 4s.
iOS Requirements	iOS 7.0 or later
System Requirements	Syncing with iTunes® on a Mac or PC requires: • iTunes: 10.2 or later • Mac: OSx 10.2 or later • PC: Windows XP SP3 or later
Network Requirements	• Wireless Local Area Network (WLAN), 802.11 a/b/g/n recommended • 3G or 4G network
Optional Peripheral Devices	• 3.5 mm headset • Stereo Bluetooth headset

To view your iOS system version:

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

Products Tested in 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 your 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.

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 in This Release

Type	Product	Version
NAT/Firewall/Border Controller	ACME Packet Net-Net 3820	Firmware SCX6.3.0 MR-5 Patch 2
	Polycom VBP® 5300-ST	11.2.19
	Polycom VBP-E	11.2.19
	Polycom RealPresence® Access Director™	4.0, 4.1
Gatekeeper, Gateways, External MCU, Bridges, Call Managers	Polycom Distributed Media Application™ (DMA®) 7000	6.1.0, 6.2.0
	Polycom Converged Management Application™ (CMA®) 4000/5000	6.2.5
	Polycom RealPresence Resource Manager	8.2, 8.3
	Polycom RMX® 4000/2000	8.4, 8.5
	Polycom RMX® 1500	8.5
	Polycom RealPresence® Collaboration Server 1800	8.4, 8.5
	Polycom RMX® 1000C	2.5.1
	Polycom RSS™ 4000	8.5.1
	Polycom RealPresence Capture Server	1.8
	Broadsoft SIP r19 Server	r19
	Polycom RealPresence CloudAXIS™ Suite	1.6, 1.6.1

Products Tested in This Release

Type	Product	Version
Endpoints	Polycom HDX® Series	3.1.4, 3.1.5
	Polycom RealPresence Mobile	3.2, 3.3(iOS) 3.2, 3.3(Android)
	Polycom VVX®	5.0.1
	Polycom CMA® Desktop	5.2.6
	Polycom Telepresence m100	1.0.7
	Polycom RealPresence Desktop	3.2, 3.3(Windows)
		3.2, 3.3(Mac)
	Polycom RealPresence Group Series	4.1.4, 4.2

Install and Uninstall RealPresence Mobile

This section explains how to install and uninstall RealPresence Mobile.

To install the RealPresence Mobile application:

1. From Apple Store, search for **Polycom** or **video conferencing** to find the RealPresence Mobile application.
2. Touch **Free,** and touch **INSTALL APP.**

Note: Consume one more license after upgrade
RealPresence Mobile will consume one more license after upgrading from 3.0 or earlier version to version 3.1 or later versions.To release the old license, you must remove the old license manually or set the license reclaim cycle to be a small value (for example five minutes) on RealPresence Resource Manager.

To uninstall the RealPresence Mobile application:

1. From your device's application list, touch and hold **Video** until it begins to jiggle.
2. Touch .
3. Touch **Delete.** Your user data is deleted when you uninstall this application.

Feature Overview

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

RealPresence Mobile Features

Category	Features	iPad Standalone Mode	iPad Managed Mode	iPhone Standalone Mode	iPhone Managed 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	✓	✓	✓	✓
	Whiteboard and annotation	✓	✓		
	Placing SIP calls	✓	✓	✓	✓
	Enabling and disabling SIP 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	✓	✓	✓	✓
	H.264 content sending up to XGA	✓	✓		
	H.263 and H.263+ content sending up to XGA	✓	✓		
	Selectable call rates between 64 kbps - 1 Mbps (high call rate is only supported on on high performance devices)	✓	✓	✓	✓

RealPresence Mobile Features

Call functions and capability	H.264 encode at up to 1280 x 720 (video)	✓	✓	✓	✓
	H.264 decode at up to 1280 x 720 (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 and 3G network support	✓	✓	✓	✓
	User interface Localization	✓	✓	✓	✓
Call control	Muting your audio during a call	✓	✓	✓	✓
	Disabling 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	✓	✓	✓	✓
	Indicating network quality during a call	✓	✓	✓	✓
	Far-end Carmera Control (FECC)	✓	✓		
SmartPairing	SmartPairing for iPad (iOS 7.0 and later)	✓	✓		
	Call transferring to an HDX or RealPresence Group system	✓	✓		
	Content Sharing	✓	✓		

RealPresence Mobile Features

Firewall traversal security	H.460 firewall traversal	✓	✓	✓	✓
	Encrypting H.323 calls	✓	✓	✓	✓
	SIP digest authentication	✓	✓ *	✓	✓ *
	Certificate verification	✓	✓	✓	✓
	BFCP over UDP	✓	✓	✓	✓
	RTP keep-alive	✓	✓	✓	✓
	TLS/SRTP support	✓	✓	✓	✓
	SIP dial string	✓	✓	✓	✓
	SBC Interoperability	✓	✓	✓	✓
	SIP outbound proxy	✓	✓	✓	✓
	SIP fail-over	✓	✓	✓	✓
Managed features	Provisioning service		✓		✓
	Local address book	✓	✓	✓	✓
	LDAP service		✓		✓

System Capabilities and Constraints

The following protocols, resolutions, algorithms, and ports are supported for RealPresence Mobile.

Capabilities

Capabilities

Call Rate	Video Capability
1 Mbps	720p
512 kbps 384 kbps 256 kbps	480x270
128 kbps	240x135
64 kbps	Audio only

Protocols

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

Protocols

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

Resolutions

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

Resolutions and Frame Rate

Resolution and Frame Rate	Source
Up to 720p, 15 fps	People video sent from camera
Up to 720p, 30 fps	People video received from far end
Up to 720p, 7.5 fps	Content received from far end
Up to XGA, 3 fps	Content showing from the tablet

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 30 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.

Algorithms

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	Polycom Lost Packet Recovery™ (LPR™) H.264 SVC H.264 AVC H.264 high profile H.263 and H.263+ (for content only) **Note:** H.261 is not supported.
Encryption	AES-128 media encryption TLS for SIP calls

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 Call Signaling (H.225)
1719 (UDP)	H.323 Registration, Admission, and Status (RAS)
3230 - 3250 (TCP)	H.323 Call Signaling (H.245)
3230 - 3250 (UDP)	Media (RTP/RTCP)
3238 (UDP and TCP)	BFCP
5060 (UPD and TCP)	SIP

Outbound Ports

Port	Function
443 (TCP)	Provisioning, Monitoring, Help Files, HTTPS
389 (TCP)	LDAP
5060 (UDP and TCP)	SIP
5061 (TCP)	SIP TLS signaling
1720 (TCP)	H.323 Signaling (H.225)
1719 (UDP)	H.323 Registration, Admission, and Status (RAS)
3230 - 3250 (TCP)	H.323 Signaling (H.245)
3230 - 3250 (UDP)	Media (RTP/RTCP)
3238 (UDP and TCP)	BFCP

Interoperability Issues

You may encounter the following issues when using RealPresence Mobile with other products or on specific operating systems.

Interoperability Issues

Limitation Type	Description	Solution
Limitations Related to Operation System or Devices	On some iPads with poor CPU performance, when RealPresence Mobile send PDF content, the video may freeze on far ends every three seconds.	None.
	Audio may stop in the first few seconds when plugging in an earphone in a call on iPhone 6.	None. This is a device issue.
Limitations Related to Other Polycom Products	If you create a Continuous Presence (CP) only conference call on Polycom RMX 4000/2000 system 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.	• 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.
	Polycom VSX® Visual Concert™ cannot display 1024x576 content sent by RealPresence Mobile, whether or not they call each other directly.	Double-click the content to show the content in full screen, then RealPresence Mobile will send 1024x768 content, and the Polycom VSX Visual Concert can display correctly.
	RealPresence Mobile may consume more than one license on RealPresence Resource Manager if you install and uninstall RealPresence Mobile several times.	Configure the reclaim period on RealPresence Resource Manager to a small value (for example five minutes).
	RealPresence Mobile supports only using English user names and password to sign in Polycom CMA server and RealPresence Resource Manager, or to register to a gatekeeper or an SIP server.	Use English user name and password.
	In a motion mode conference, RealPresence Mobile receives video with a long delay because the video is 60 fps.	Set a conference with sharpness mode on MCU.
	RealPresence Mobile in internet may fail to call Telepresence m100 in intranet.	Let Telepresence m100 call RealPresence Mobile.
	You may hear a short audio glitch on RealPresence Mobile when dialing in an SIP AVC encrypted conference created on the RMX 4000 with NGB.	None.

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
Other	SWEP-6812	OpenSSL Memory Leak may occur. This issue impacts OpenSSL1.0.1 server implementations for both SSL or TLS and DTLS.	None.

Resolved Issues

The following table lists the resolved issues in version 3.3.

3.3 Resolved Issues

Category	Issue ID	Description
Content	SWEP-6290	You might see a mosaic screen when RealPresence Mobile joins a RMX conference which enables content transcoding, and there is packet loss to the H.264 content stream.
SVC	SWEP-6350	RealPresence Mobile may stop working after joining an SVC conference with more than 100 SVC participants.

The following table lists the resolved issues in version 3.2.1.

3.2.1 Resolved Issues

Category	Issue ID	Description
CloudAXIS	VIDESC-12565	After upgrading to RealPresence Mobile 3.2, if you join a CloudAXIS 1.5 meeting via Safari or Chrome, the call will be dropped after 90 seconds.
Other	SWEP-6396	After changing calendar from Gregorian to other calendars, you cannot sign in RealPresence Mobile.

The following table lists the resolved issues in version 3.2.

3.2 Resolved Issues

Category	Issue ID	Description
Content	SWEP-4932	(SIP Call only) When the call rate of Telepresence m100 is lower than the call rate of RealPresence Mobile and when M100 calls RealPresence Mobile, RealPresence Mobile cannot send content to M100.
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.

3.2 Resolved Issues

Category	Issue ID	Description
Video	SWEP-5592	RealPresence Mobile received video is stretched when RealPresence Mobile is inter-operating with VSX Visual Concert.
Video	SWEP-5614	If RealPresence Mobile is the only SIP SVC endpoint in a AVC and SVC mixed conference, after RealPresence Mobile sends content, the RealPresence Mobile transmitted video will freeze.

The following table lists the resolved issues in version 3.1.

Resolved Issues in Version 3.1

Category	Issue ID	Description
General	SWEP-5271	When you add a new contact, you cannot input the character *or* in any text box. This issue has been fixed.
Call Control	SWEP-4495	Under Broadsoft environment, the RealPresence Mobile application can only send 135 p video to the RealPresence Group Series system. This issue has been fixed.
Video	SWEP-4399	When sending PDF content, transmitted video frame rate of RealPresence Mobile application is downgraded to about 5 fps. This issue has been fixed.

The following table lists the resolved issues in version 3.0.

3.0 Resolved Issues

Category	Issue ID	Description
General	SWEP-3941	You need to uninstall the RealPresence Mobile application and install again for logs to update automatically. This issue has been fixed.

Enterprise Scalable Video Coding Solution

The Enterprise Scalable Video Coding (SVC) solution is an alternative to the 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.

The SVC solution provides the following features:

- For video send and receive, support up to 720p on high performance devices under 1 Mbps call rate.
- For video send, support 7.5/15 fps
- For video receive, support 7.5/15/30 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 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 and above) from the MCUs.
- Support for SVC dial-out from DMA.

Using SVC conference calls has following limitations:

- Does not support recording.
- Far-end Camera Control (FECC)
- In a SIP call, when networks using UDP experience 10 percent packet loss, the screen layout on received devices can be incorrect.
- Does not support H.323 call
- In a poor network connection, sometimes a participant disconnects automatically from an SVC call. This can result in a frozen video stream of the participant. The RMX system will clear the frozen stream in 30 minutes.
- Do not use 128 kbps if you share content in a SVC call, otherwise people's video will freeze while sending or receiving content.

Access 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.
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.

Media Statistics

Value	Description
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.

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 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 iPad, you need to generate a Certificate Request (CSR) first by using a computer that has installed the OpenSSL tool. This is an iOS limitation.

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

   ```
   A challenge password []:1234            -----see [Note1]
   An optional company name []:poly
   ```

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 **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.

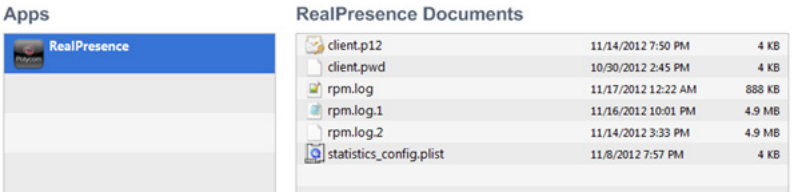
7 Encrypt the challenge password you set in Step 3:

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 Add both *client.p12* and *client.pwd* to your iPad using iTunes.



To import the root certificate of your CA into your iPad:

1 Go to your CA's web address http://<MCA's IP address>/certsrv/, click **Download a CA certificate, certificate chain, or CRL**.

2 Select **Base 64**, and click **Download CA Certificate.**

3 Send the certificate to your iPad as an e-mail attachment.

4 On your iPad, open the attached certificate from your e-mail, and then click **Install**.

5 When prompted to install the profile, tap **Install Now**, and then tap **Done**.

The certificate is now installed on your iPad. You can find it from your iPad **Settings > General > Profile > Configuration Profiles**.

Note: Hold CA root certificate and system's certificates on servers

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