



RELEASE NOTES

2.2.1 | June 2018 | 3725-03317-005P

Polycom[®] RealPresence[®] Web Suite



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What's New in Release 2.2.1

Polycom® RealPresence® Web Suite 2.2.1 supports whitelisting a set of IP addresses allowed to connect to the admin interface (see the Security Updates section) and fixes software defects.

Release History

Release history table lists all release information since RealPresence Web Suite 2.2.1.

Release History

| Release | Release Date | Features |
|---------|----------------|---|
| 2.2.1 | June 2018 | <ul style="list-style-type: none">Support whitelisting.Defect fixes. |
| 2.2.0 | January 2018 | <ul style="list-style-type: none">Introducing RealPresence Desktop as the RealPresence Web Suite soft client.Meeting controls using RealPresence Desktop software.Administrator can mute all RealPresence Desktop attendees (except the Chairperson) when they join a meeting.Administrator can enable TLS 1.0, TLS 1.1, TLS 1.2 from Web UI.Administrator can enable forwarding logs to Syslog Server.Dropped support for Polycom® Concierge.Defect fixes. |
| 2.1.5 | September 2017 | <ul style="list-style-type: none">Collaboration with the Polycom RealPresence DMA system 9.0.Defect fixes. |
| 2.1.4 | May 2017 | Defect fixes. |
| 2.1.3 | March 2017 | <ul style="list-style-type: none">Defect fixes.Support upgrade from version 2.1.2 to version 2.1.3. |
| 2.1.2 | October 2016 | <ul style="list-style-type: none">Infrastructure setup for in-place upgrade for future RealPresence Web Suite releases.Improved serviceability of Standards Connector.User experience enhancement in Join Meeting and End Meeting.Admin option that requires guests to join in Audio-Video modeDefect fixes. |
| 2.1.0 | May 2016 | <ul style="list-style-type: none">Support for Polycom Concierge.Security enhancements.Customer defect fixes. |
| 2.0.2 | February 2016 | <ul style="list-style-type: none">Maintenance release that fixes customer escalation issues.Support for Polycom RealPresence Clariti. |

| Release | Release Date | Features |
|----------------|---------------------|--|
| 2.0.1 | September 2015 | Maintenance release that enables SVC meetings with Google Chrome. |
| 2.0.0 | August 2015 | First release of software to support Enhanced Content Sharing and WebRTC implementation. |

Security Updates

RealPresence Web Suite provides controlled access to privileged utilities like admin portals. This is in conformance with ISO / IEC 27002 Section 9.4 System and Application Access Control.

Refer to <http://www.iso27001security.com/html/27002.html#Section9>.

RealPresence Web Suite supports whitelisting a set of IP addresses allowed to connect to the admin interface.

You need to configure whitelisting in the restricted shell of the RealPresence Web Suite Experience Portal and the RealPresence Web Suite Services Portal separately.

If a RealPresence Web Suite client IP address isn't whitelisted in the RealPresence Web Suite Experience Portal or the RealPresence Web Suite Services Portal, administrators can't log in from the client. The whitelist setting doesn't block non-admin users to access the user interface of either portal.

| Operation | Shell Command |
|-----------------------|--------------------------------|
| Enable whitelist | <code>whitelist enable</code> |
| Disable whitelist | <code>whitelist disable</code> |
| List all IP addresses | <code>whitelist show</code> |
| Add IP address | <code>whitelist add</code> |
| Delete IP address | <code>whitelist delete</code> |

Note: If the whitelist is enabled on the RealPresence Web Suite Experience Portal, you must whitelist the RealPresence Resource Manager IP address if you want to add the RealPresence Web Suite Experience Portal instance in the RealPresence Resource Manager system.

Refer to the [Polycom Security Center](#) for information about known and resolved security vulnerabilities.

Hardware Requirements

Topics:

- [End-User System Requirements](#)
- [Server Requirements](#)

Polycom determined hardware requirements based on test scenarios.

End-User System Requirements

The end-user computer system used must meet minimum requirements.

End-User System Requirements for RealPresence Web Suite

| Component | Description |
|------------------|--|
| Processor | Intel Core i5, 2.5 GHz or AMD equivalent |
| RAM | 4 GB |
| Video memory | 256 MB |
| Hard drive space | 200 MB |
| Camera | Integrated or external |
| Audio devices | Standard PC97 audio devices |
| Monitor | Recommended: 16:9 aspect ratio, 1920 x 1080 resolution Minimum: 1024 x 768 resolution |

For information on supported tablet and smartphone devices when using RealPresence Web Suite with RealPresence Mobile, see the RealPresence Mobile support page on [Polycom Support](#).

Server Requirements

The recommended server requirements for RealPresence Web Suite are based on the type of licensing you have deployed in your system.

RealPresence Web Suite

RealPresence Web Suite requires two virtual machine (VM) instances, one for the RealPresence Web Suite Experience Portal and one for the RealPresence Web Suite Services Portal.

Each instance must meet the requirements in the following tables.

Server Components per VM Instance for RealPresence Web Suite Experience Portal

| Component | Deployment Settings |
|-------------|--------------------------|
| CPU | 5000 MHz allocation |
| Cores | 2 virtual cores |
| Memory | 8 GB |
| Storage | 100 GB |
| Performance | 1200 concurrent sessions |

Server Components per VM Instance for RealPresence Web Suite Services Portal

| Component | Deployment Settings |
|-----------|-----------------------|
| CPU | 20,000 MHz allocation |
| Cores | 8 virtual cores |
| Memory | 8 GB |
| Storage | 100 GB |

RealPresence Web Suite Pro

When Enhanced Content is in use, RealPresence Web Suite Pro requires three or more VM instances, one for the RealPresence Web Suite Experience Portal, one for the RealPresence Web Suite Services Portal, and one or more for the Standards Connector servers.

Each instance must meet the requirements in the following tables.

Server Components per VM Instance for RealPresence Web Suite Pro Experience Portal with Enhanced Content Enabled

| Component | Deployment Settings |
|-------------|--------------------------|
| CPU | 20,000 MHz allocation |
| Cores | 8 virtual cores |
| Memory | 16 GB |
| Storage | 100 GB |
| Performance | 1200 concurrent sessions |

Server Components per VM Instance for RealPresence Web Suite Pro Services Portal

| Component | Deployment Settings |
|------------------|-----------------------------|
| CPU | 20,000 MHz allocation |
| Cores | 8 virtual cores |
| Memory | 8 GB |
| Storage | 100 GB |
| Performance | 1000 concurrent host logins |

Server Components per VM Instance for RealPresence Web Suite Pro Standards Connector

| Component | Deployment Settings |
|------------------|----------------------------|
| CPU | 10,000 MHz allocation |
| Cores | 4 virtual cores |
| Memory | 8 GB |
| Storage | 100 GB |
| Performance | 10 connector sessions |

Software Requirements

Topics:

- [Operating System Requirements](#)
- [Soft Client Requirements](#)
- [Web Browser Requirements](#)

Polycom determined software requirements based on test scenarios.

Operating System Requirements

Your deployment must meet RealPresence Web Suite software requirements.

Operating System Requirements

| System Type | Requirements |
|--|---|
| Microsoft® Windows® 32-bit and 64-bit systems | Windows 10 Windows 8.1 Windows 8 Windows 7 |
| Mac® | Mac OS X® 10.11, 10.12, 10.13 or higher |
| iOS | iOS for use with iPad and iPhone. (iOS is a trademark or registered trademark of Apple Inc. in the U.S. and other countries and is used under license.) See the RealPresence Mobile documentation at Polycom Support for information on compatibility with version 3.9 or later. |
| Android™ | Check RealPresence Mobile on Polycom Support documentation for information on compatibility with version 3.9 or later. |

User Account Limitations on Mac and Windows

You should use Administrator or Standard User (non-admin) accounts on Mac and Windows operating systems to access RealPresence Web Suite.

Guest users with limited permissions can't access RealPresence Web Suite.

Soft Client Requirements

You should review RealPresence Web Suite prerequisites before using RealPresence Desktop video collaboration software and the RealPresence Mobile app to join non-WebRTC meetings with RealPresence Web Suite.

RealPresence Web Suite prerequisites are listed as follows:

- Your company IT must install the root certificate and intermediate certificate (if applicable) from your CA on your computer or mobile device before you use the soft client.
- If you access RealPresence Web Suite Experience Portal or RealPresence Web Suite Services Portal from the external network, your company IT must enter the FQDN of the specific portal in the **Subject Alternative Name** field in the RealPresence Access Director certificate, otherwise, you will fail to launch the soft client.
- If you use Chrome or Firefox to join a meeting and launch the RealPresence Desktop in Windows OS, you need to simultaneously install Internet Explorer 11 (or higher version). This is because RealPresence Desktop Roster functions use the core of the Internet Explorer to work.

RealPresence Desktop working as RealPresence Web Suite soft client or working in standalone mode has same system requirements, for more information refer to [RealPresence Desktop Release Notes](#) of a specific platform.

RealPresence Mobile working as RealPresence Web Suite soft client or working in standalone mode has same system requirements, for more information refer to [RealPresence Mobile Release Notes](#) of a specific platform.

Web Browser Requirements

Polycom supports only production versions of web browsers on your computers; Polycom doesn't support beta or development versions for use with RealPresence Web Suite products.

Web Browser Requirements

| Web Browser | Version |
|------------------------------|---------------------------|
| Microsoft Internet Explorer® | Version 11 for Windows |
| Microsoft Edge | For Windows 10 |
| Mozilla Firefox® | For Windows and Macintosh |
| Google Chrome™ | For Windows and Macintosh |
| Apple® Safari® | For Macintosh |

Mozilla Firefox Web Browser Limitations

Due to issues with Firefox support for WebRTC and lack of feature parity, Polycom recommends selecting the **Enable the WebRTC support in Firefox** option only for testing or evaluation purposes.

For more information, see the *Polycom RealPresence Web Suite Administrator Guide* on [Polycom Support](#).

Some security protection software such as Symantec Endpoint Protection permits Read-Only access to the Mozilla Firefox default download folder. If you failed to download `Launcher.exe` using Mozilla Firefox for Windows, you can use one of the following workarounds:

- Use other supported web browsers.
- Set the value of two system and user environment variables `TEMP` and `TMP` to `%USERPROFILE%\AppData\Local\Microsoft\Windows\Temporary Internet Files\`, then restart Firefox.

Web Browser Extension

You must install web browser extension on your computer to fully enable RealPresence Web Suite web client.

Required Web Client Software Components

| Component | Description |
|------------------------|--|
| RealPresence Extension | Required to enable audio, video, and content sharing in Google Chrome. |

Language Support

RealPresence Web Suite supports following 10 languages.

- Brazilian Portuguese
- English
- French
- German
- Italian
- Japanese
- Korean
- Russian
- Simplified Chinese
- Spanish

Note: Only English is supported in files uploaded to server for Enhanced Content sharing with RealPresence Web Suite Pro license.

For more information, refer to [RealPresence Web Suite Administrator Guide](#).

Other System Requirements

This section lists other system requirements needed to enable the RealPresence Web Suite Services and Experience Portals in Polycom RealPresence Web Suite.

Other System Requirements

| Requirement | Description |
|--|---|
| Polycom® RealPresence® Platform | Polycom RealPresence Web Suite requires RealPresence Platform components such as Polycom® RealPresence® Collaboration Server (RMX or Virtual Edition), Polycom® RealPresence® DMA® 7000, and Polycom® RealPresence® Access Director™ to function. RealPresence Collaboration Server, Virtual Edition is required for RealPresence Web Suite Pro deployments for WebRTC mesh-to-bridge call escalations. |
| VMware Deployments | |
| .OVA Files | Latest RealPresence Web Suite Experience Portal .OVA file downloaded to your local machine from Polycom Support . Latest RealPresence Web Suite Services Portal .OVA file downloaded to your local machine from Polycom Support . |
| VMware | Version 6.0 and 6.5 |
| One or more ESXi hosts | Required for VMware deployment. Version 5.5 or higher, supporting 64-bit installations. Using a vSphere client, you must be able to access and administer your VMware ESXi hosts either directly or from a vCenter controlling the hosts. |
| VMware vSphere vCenter controller | Optional. Version 5.5 or higher. |
| Hyper-V Deployments | |
| .VHD Files | Latest RealPresence Web Suite Experience Portal .VHD file downloaded to your local machine from Polycom Support . Latest RealPresence Web Suite Services Portal .VHD file downloaded to your local machine from Polycom Support . |
| Microsoft Hyper-Visor Server | Required for Hyper-V deployment. Microsoft 2012 R2 Standard Edition with Hyper-V Role enabled. |
| Dynamic Host Configuration Protocol (DHCP) | Allows the portals to obtain their IP addresses. |

| Requirement | Description |
|-----------------------------------|---|
| LDAP Server | <p>Optional. Enables authentication for enterprise users with their network credentials. The RealPresence Web Suite Services Portal currently supports integration with only Microsoft Active Directory.</p> <p>This feature also enables administrators to import users from an enterprise LDAP server. The administrator can edit user roles or set user status as inactive for imported users.</p> <p>For information on user roles and on changing imported user accounts, see the <i>Polycom RealPresence Web Suite Administrator Guide</i>.</p> |
| SMTP Server | <p>Enables the RealPresence Web Suite Services Portal to deliver email meeting invites and other notifications such as user onboarding.</p> |
| Edge Proxy | <p>If providing access to external guests through a firewall, a functioning firewall/NAT traversal element such as RealPresence Access Director, Virtual Edition or Acme Packet SBC is required, as outlined in the <i>Polycom RealPresence Web Suite Administrator Guide</i>. This element requires provisioning to allow SIP guest access and optional H.323 access to your RealPresence DMA and MCUs.</p> <p>RealPresence Access Director 3.1 or higher is required to enable HTTPS tunneling functionality.</p> |
| HTTP Reverse Proxy | <p>If providing access to external guests through a firewall, an HTTP reverse proxy or a NAT server is required. This element must be provisioned to allow HTTPS and optional web socket access to the RealPresence Web Suite Experience Portal and HTTPS access to the RealPresence Web Suite Services Portal.</p> <p>RealPresence Access Director 3.0 or later can also be used as an HTTP Reverse Proxy for the RealPresence Web Suite Experience Portal.</p> |
| End User License Agreement (EULA) | <p>Access the Polycom® Software End User License Agreement on Polycom Support.</p> |

Installation and Upgrade Notes

Topics:

- [Upgrade and Migration Paths](#)
- [Upgrade from Version 2.2.0 to Version 2.2.1](#)
- [Accepting RealPresence Desktop Upgrade](#)
- [RealPresence Clariti Support](#)

This section provides information on RealPresence Web Suite installation and upgrading operations.

Upgrade and Migration Paths

This section lists tested upgrade and migration paths.

- If your RealPresence Web Suite is version 2.2.0, you can upgrade or migrate it to 2.2.1.
- If your RealPresence Web Suite is a lower version, you need to upgrade or migrate it to 2.2.0 first, then upgrade or migrate to 2.2.1. For information on upgrade and migration paths of version 2.2.0, refer to the Release Notes of this version.

After you migrate RealPresence Web Suite server from version 2.1.0 to version 2.1.x and then upgrade the server to version 2.2.0, your RealPresence Web Suite users may be directed to version 2.1.0 online help when they click on the Help button. You need to customize the URLs linked to the Help buttons to make sure your users use correct online help version.

Customize the URLs as follows:

- URL for RealPresence Web Suite Experience Portal and Services Portal user interfaces: https://documents.polycom.com/bundle/rpws-ug-2-2/page/c_rpws_ug_getting_started.html.
- URL for RealPresence Web Suite Experience Portal and Services Portal admin interfaces: https://documents.polycom.com/bundle/rpws-ag-2-2/page/c_rpws_ag_getting_started.html

Upgrade from Version 2.2.0 to Version 2.2.1

You need to upgrade Web Suite Services Portal first, then upgrade RealPresence Web Suite Experience Portal.

Procedure

1. Download the upgrade package (.upg) from [Polycom Support](#)
2. Validate the upgrade package (for example using MD5 checksum).
3. Login Web Suite Services Portal as Super Admin or RealPresence Web Suite Experience Portal as Admin.
4. Click **Platform Settings > Upgrade**
5. Click **Choose File**, and select the upgrade package.

6. Validate the product version:
 - If you uploaded the wrong version or file, click **Choose File** to overwrite the previously uploaded upgrade package.
 - If you uploaded the correct version, click **Continue to Upgrade**.
7. Click **Upgrade** to initiate the upgrade process.

The system reboots automatically once the upgrade is completed.
8. Login again as the same role.
9. Click **Platform Settings > Upgrade History** to view the upgrade history, and **Download** the upgrade logs for troubleshooting.
10. Go to **Product Info** to validate the product version.

Accepting RealPresence Desktop Upgrade

Since version 2.2.0, when you join a non-WebRTC meeting, you can accept RealPresence Web Suite to upgrade your RealPresence Desktop to a higher version.

Note: You still need to buy the RealPresence Desktop license, if you want to use RealPresence Desktop as a standalone meeting software (not the soft client of RealPresence Web Suite).

After the upgrade completes, you need to restart the RealPresence Desktop, then join the meeting again from the web portal.

RealPresence Clariti Support

RealPresence Web Suite is available as part of RealPresence Clariti, a Polycom collaboration infrastructure offer that features simplified concurrent user licensing and add-on options. RealPresence Clariti customers must consult with their Polycom representative to ensure they have the correct licensing information before upgrading.

If you are a RealPresence Clariti customer, you must use the RealPresence Resource Manager 10.0 or a higher version to license your product. If the RealPresence Resource Manager is not available, you can use RealPresence Platform Director 3.0 system alternatively to license your product.

Products Tested with this Release

RealPresence Web Suite systems are tested extensively with a wide range of products. While the following list is not a complete inventory of compatible equipment, it lists the products that have been specifically tested for compatibility with this release.

Note: Polycom recommends that you upgrade all of your Polycom systems with the latest software versions before contacting Polycom support, as compatibility issues may have been addressed by software updates. Refer to the Current Polycom Interoperability Matrix on the [Polycom Service Policies](#) site for more information.

Browsers Versions Tested

| Browser | Description |
|------------------------------|---|
| Microsoft Internet Explorer® | Version 11.0 for Windows |
| Microsoft Edge | Version 41.16299.15.0 for Windows 10 |
| Google Chrome™ | Up to version 62 for Windows and Macintosh ¹ |
| Apple® Safari® | Version 11.0.1 for Macintosh |
| Mozilla Firefox® | Version 56 |

¹ Collaboration Server version 8.6.4.97 or higher is required to support Chrome version 52 and higher as a WebRTC client.

RealPresence Platform Product Versions Tested

| Product | RealPresence Web Suite | RealPresence Web Suite Pro with Enhanced Content | RealPresence Web Suite Pro with WebRTC |
|---|------------------------|--|--|
| Polycom® RealPresence® Collaboration Server (RMX®) 1800/2000/4000 | 8.7.4 | 8.7.4 | N/A |
| | 8.7.3 | 8.7.3 | |
| Polycom® RealPresence® Collaboration Server, Virtual Edition | 8.7.4 | 8.7.4 | 8.7.4 |
| | 8.7.3 | 8.7.3 | 8.7.3 |
| Polycom® RealPresence® Media Suite | 2.8.2 | 2.8.2 | 2.8.2 |
| Polycom® RealPresence® DMA® | 9.0.1 | 9.0.1 | 9.0.1 |
| | 9.0.0 | 9.0.0 | 9.0.0 |
| Polycom® RealPresence® Access Director™ | 4.2.5.1 | 4.2.5.1 | 4.2.5.1 |

Other Product Versions Tested

| Product | Tested Versions |
|---|------------------------|
| Polycom® RealPresence® Group Series systems | 6.2.0 |
| Polycom® RealPresence® Desktop | 3.9.0 |
| Polycom® RealPresence® Mobile | 3.9.0 |
| Skype for Business Server 2015 (volume license key installed) | 6.0.9319.281 |

System Constraints and Limitations

Topics:

- [Supported Bandwidths and Video Formats](#)
- [Firewall Restrictions](#)
- [System Constraints](#)

This section provides information on capabilities supported for RealPresence Web Suite in this release and any restrictions and constraints.

Supported Bandwidths and Video Formats

The RealPresence Web Suite soft client supports the bandwidth, video format, and resolution as outlined in the following tables. Individual system performance and camera capabilities may limit available video formats and resolutions.

Note: The RealPresence DMA in your Polycom environment sets and regulates bandwidth available for meeting attendees using the RealPresence Web Suite Services and Experience Portals.

Receive Capabilities

The following tables outline the formats supported for received video at different call rates.

H.264 High-Profile Receive Capability

| Resolution | Required Call Rate (kbps) | Resolution | Required Call Rate (kbps) |
|--------------|---------------------------|--------------|---------------------------|
| 1280x720 | 512 | 640x360 | 384 |
| 1024x768 XGA | 512 | 432x240 | 192 |
| 1024x576 | 512 | 424x240 | 96 |
| 960x720 | 512 | 352x288 CIF | 96 |
| 800x600 SVGA | 448 | 352x240 SIF | 96 |
| 864x480 | 256 | 320x240 QVGA | 96 |
| 640x480 VGA | 192 | 320x180 | 96 |
| 704x576 CIF4 | 192 | 176x144 QCIF | 96 |
| 704x480 SIF4 | 192 | 128x96 SQCIF | 96 |

H.264 Receive Capability

| Resolution | Required Call Rate (kbps) | Resolution | Required Call Rate (kbps) |
|--------------|---------------------------|--------------|---------------------------|
| 1280x720 | 832 | 704x480 SIF4 | 256 |
| 1024x768 | 832 | 432x240 | 256 |
| 1024x576 | 832 | 352x288 CIF | 96 |
| 960x720 | 832 | 352x240 SIF | 96 |
| 800x600 | 768 | 320x240 QVGA | 96 |
| 864x480 | 384 | 176x144 QCIF | 96 |
| 640x480 VGA | 256 | 128x96 SQCIF | 96 |
| 704x576 CIF4 | 256 | | |

H.263 Receive Capability

| Resolution | Required Call Rate (kbps) | Resolution | Required Call Rate (kbps) |
|--------------|---------------------------|--------------|---------------------------|
| 1024x768 | 1024 | 352x288 CIF | 96 |
| 800x600 | 1024 | 352x240 SIF | 96 |
| 640x480 VGA | 512 | 176x144 QCIF | 96 |
| 704x576 CIF4 | 1024 | 128x96 SQCIF | 96 |
| 704x480 SIF4 | 1024 | | |

SVC Multipoint Receive Capability

| Bit Rate (kbps) | Downlink | Bit Rate (kbps) | Downlink |
|--|--------------------------------------|-----------------|---------------------------|
| Number of Remote Participants: Up to 9 | | | |
| 1920 | 360p30 x 1 + 180P30 x 6 + 180P15 x 2 | 512 | 360P7.5 x 1 + 180P7.5 x 3 |
| 1024 | 360P15 x 1 + 180P7.5 x 8 | 384 | 360P7.5 x 1 + 180P7.5 x 1 |
| 768 | 360P15 x 1 + 180P7.5 x 5 | 256 | 360P7.5 x 1 |
| Number of Remote Participants: Up to 8 | | | |
| 1920 | 360p30 x 1 + 180p30 x 7 | 512 | 360P7.5 x 1 + 180P7.5 x 3 |

| Bit Rate (kbps) | Downlink | Bit Rate (kbps) | Downlink |
|--|---------------------------------------|-----------------|---------------------------|
| 1024 | 360P15 x 1 + 180P15 x 2 + 180P7.5 x 5 | 384 | 360P7.5 x 1 + 180P7.5 x 1 |
| 768 | 360P15 x 1 + 180P7.5 x 5 | 256 | 360P7.5 x 1 |
| Number of Remote Participants: Up to 7 | | | |
| 1920 | 360p30 x 1 + 180P30 x 6 | 512 | 360P7.5 x 1 + 180P7.5 x 3 |
| 1024 | 360P15 x 1 + 180P15 x 4 + 180P7.5 x 2 | 384 | 360P7.5 x 1 + 180P7.5 x 2 |
| 768 | 360P15 x 1 + 180P7.5 x 5 | 256 | 360P7.5 x 1 |
| Number of Remote Participants: Up to 6 | | | |
| 1920 | 360P30 x 1 + 180P30 x 5 | 512 | 360P7.5 x 1 + 180P7.5 x 3 |
| 1024 | 360P15 x 1 + 180P15 x 5 | 384 | 360P7.5 x 1 + 180P7.5 x 1 |
| 768 | 360P15 x 1 + 180P7.5 x 5 | 256 | 360P7.5 x 1 |
| Number of Remote Participants: Up to 5 | | | |
| 1920 | 360P30 x 1 + 180p30 x 4 | 512 | 360P7.5 x 1 + 180P7.5 x 3 |
| 1024 | 360P30 x 1 + 180P15 x 4 | 384 | 360P7.5 x 1 + 180P7.5 x 1 |
| 768 | 360P15 x 1 + 180P15 x 2 + 180P7.5 x 2 | 256 | 360P7.5 x 1 |
| Number of Remote Participants: Up to 4 | | | |
| 1920 | 360P30 x 1 + 180p30 x 3 | 512 | 360P7.5 x 1 + 180P7.5 x 3 |
| 1024 | 360P30 x 1 + 180P30 x 2 + 180P15 x 1 | 384 | 360P7.5 x 1 + 180P7.5 x 1 |
| 768 | 360P15 x 1 + 180P15 x 3 | 256 | 360P7.5 x 1 |
| Number of Remote Participants: Up to 3 | | | |
| 1920 | 360p30 x 1 + 180P30 x 2 | 512 | 360P15 x 1 + 180P7.5 x 2 |
| 1024 | 360P30 x 1 + 180P30 x 2 | 384 | 360P7.5 x 1 + 180P7.5 x 1 |
| 768 | 360P15 x 1 + 180P15 x 2 | 256 | 360P7.5 x 1 |
| Number of Remote Participants: Up to 2 | | | |
| 1920 | 360p30 x 1 + 180P30 x 1 | 512 | 360P15 x 1 + 180P15 x 1 |
| 1024 | 360P30 x 1 + 180P30 x 1 | 384 | 360P7.5 x 1 + 180P7.5 x 1 |
| 768 | 360P30 x 1 + 180P30 x 1 | 256 | 360P7.5 x 1 |

| Bit Rate (kbps) | Downlink | Bit Rate (kbps) | Downlink |
|--|------------|-----------------|-------------|
| Number of Remote Participants: Up to 1 | | | |
| 1920 | 720p30 x 1 | 512 | 360P30 x 1 |
| 1024 | 720P30 x 1 | 384 | 360P15 x 1 |
| 768 | 360P30 x 1 | 256 | 360P7.5 x 1 |

Transmit Capabilities

The following tables outline the formats supported for transmitted video at different call rates.

H.264 High-Profile Transmit Capability

| Resolution | Required Call Rate (kbps) | Resolution | Required Call Rate (kbps) |
|-------------|---------------------------|--------------|---------------------------|
| 1280x720 | 832 | 320x240 QVGA | 96 |
| 640x480 VGA | 384 | 176x144 QCIF | 96 |
| 352x288 CIF | 96 | 128x96 SQCIF | 96 |

H.264 Transmit Capability

| Resolution | Required Call Rate (kbps) | Resolution | Required Call Rate (kbps) |
|-------------|---------------------------|--------------|---------------------------|
| 1280x720 | 960 | 320x240 QVGA | 96 |
| 640x480 VGA | 384 | 176x144 QCIF | 96 |
| 352x288 CIF | 96 | 128x96 SQCIF | 96 |
| 352X240 SIF | 96 | | |

H.263 Transmit Capability

| Resolution | Required Call Rate (kbps) | Resolution | Required Call Rate (kbps) |
|--------------|---------------------------|--------------|---------------------------|
| 704X576 CIF4 | 960 | 352X240 SIF | 128 |
| 704X480 SIF4 | 960 | 176x144 QCIF | 96 |
| 640x480 VGA | 448 | 128x96 SQCIF | 96 |
| 352x288 CIF | 128 | | |

SVC Multipoint Transmit Capability¹

| Call Rate (kbps) | Uplink | Call Rate (kbps) | Uplink |
|------------------|--------------------------|------------------|-----------------|
| 1920 | 180p30 + 360p30 + 720p30 | 384 | 180p15 + 270p15 |
| 1024 | 180p30 + 360p15 + 720p15 | 256 | 180p30 |
| 768 | 180p30 + 360p30 | 128 | 180p7.5 |
| 512 | 180p30 + 360p15 | | |

¹ RealPresence Web Suite will not send 720p if the RealPresence DMA conference template is provisioned with a line rate of 2048 or greater.

Firewall Restrictions

Polycom recommends system administrators configure RealPresence Web Suite to operate inside the enterprise firewall, protected by a web reverse proxy, such as the one included with RealPresence Access Director.

Implementing a Demilitarized Zone (DMZ) with the RealPresence Web Suite components between the inner and outer firewall requires additional rules to be added to the internal firewall of the DMZ to enable the RealPresence Web Suite components to communicate with enterprise services, including the RealPresence DMA system, Active Directory, and Exchange. This configuration is not tested as part of the standard solution deployment and therefore is not supported by Polycom.

System Constraints

Start and restart RealPresence Web Suite must follow the restricted orders.

Starting RealPresence Web Suite

When starting RealPresence Web Suite, make sure to start the RealPresence DMA system and RealPresence Web Suite Services Portal before starting the RealPresence Web Suite Experience Portal. If you do not start RealPresence Web Suite in this order, the API that handles feature functionality on the Experience Portal is impacted.

Restarting RealPresence Web Suite

When restarting the RealPresence DMA system or RealPresence Web Suite Services Portal, make sure to also restart the RealPresence Web Suite Experience Portal afterwards. If you restart the RealPresence DMA system or Services Portal without restarting the Experience Portal afterwards, the API that handles feature functionality on the Portal is impacted.

Resolved Issues

Resolved issues table lists the resolved issues in RealPresence Web Suite 2.2.1.

Resolved RealPresence Web Suite Services Portal and Experience Portal Issues

| Category | Issue No. | Description |
|-----------------|-----------|---|
| Functionality | EN-89789 | RealPresence Web Suite users can't access RealPresence Web Suite Experience Portal after loading an SHA512 certificate. |
| Functionality | EN-89282 | When scheduling meetings on the RealPresence Web Suite Services Portal, RealPresence Web Suite users can't successfully search email addresses containing German Umlaut character (ü) and add them to the meetings. |
| User Experience | EN-84406 | The meeting calendar in the Germany interface uses the 12-hour clock. |
| User Experience | EN-66644 | "This may take several minutes..." doesn't clearly state system is launching the RealPresence Desktop software. |

Known Issues

Known issues table lists known issues in all releases of RealPresence Web Suite.

Known RealPresence Web Suite Services Portal and Experience Portal Issues

| Category | Issue No. | Release | Description | Workaround |
|------------------|-------------|---------|--|--|
| Audio | CAXIS-10670 | 2.0.0 | Occasionally when users with multiple speaker options test the options before selecting a speaker, the test will not sound in the selected speaker. | No workaround in this release. |
| Browser | CAXIS-13773 | 2.1.2 | For Chrome version 54 and higher, when the user stops screen share using the Stop Sharing Chrome button, the screen at the receiver side displays as black, while the sender side appears to be still sharing the screen. | Use the Stop button from RealPresence Web Suite client user interface or Content Queue panel to stop screen share instead of the Stop Sharing Chrome button. |
| Certificates | CAXIS-9280 | 1.7.0 | The SAN field cannot be entered as part of the certificate signing requests initiated from the RealPresence Web Suite Experience Portal. | No workaround in this release. |
| Content | CAXIS-11860 | 2.0.0 | When a Chrome participant is sharing a PDF document, the Windows 7 Internet Explorer 11 participant observes the letters are shrunk. | No workaround in this release. |
| Deployment | CAXIS-13636 | 2.1.1 | If the deployment has a self-signed certificate, the uploaded document might fail intermittently. | Open the content specific URL <code><MEA_URL>/ecs</code> in a separate tab and accept the certificate. Any document uploaded after accepting the certificate is uploaded. |
| First Time Setup | CAXIS-13394 | 2.1.2 | EDU does not configure RealPresence Web Suite for secure LDAP. | Configure LDAP in RealPresence Web Suite manually post-deployment. |
| First Time Setup | CAXIS-13554 | 2.1.1 | RealPresence Web Suite Experience Portal is assigned a dynamic IP address even through a static IP address has been configured for it during the deployment through EDU. | |

| Category | Issue No. | Release | Description | Workaround |
|------------------|-------------|---------|---|--|
| First Time Setup | CAXIS-13605 | 2.1.1 | If the FQDN was not mapped to the IP address before RealPresence Web Suite is deployed on the Hyper-V through EDU, the RealPresence Web Suite is not accessible. | Make sure 'A' records are created for Static IP address of the RealPresence Web Suite Services Portal and RealPresence Web Suite Experience Portal and they are solvable, then implement the deployment. |
| Functionality | CAXIS-11537 | 2.0.1 | At times, although the network indicator bars are fully lit, only some of the video participants can be connected to the SVC conference. At times, although the network indicator bars are fully gray, all the video participants can be connected to the SVC conference. | No workaround in this release. |
| Functionality | CAXIS-14323 | 2.2.0 | On MacBook, participants fail to join a RealPresence Web Suite conference if they didn't hang up the call in RealPresence Desktop and quit the application. | Perform following steps: <ol style="list-style-type: none"> 1. Manually hang up the call in RealPresence Desktop and quit the application. 2. Join RealPresence Web Suite conference again from a web browser. |
| Functionality | CAXIS-10046 | 2.0.0 | For meetings that require a chairperson (the RealPresence DMA setting "Conference requires Chairperson" is enabled), attendees can still participate in the roster, chat, and enhanced content sharing even before a chairperson has joined the call. | No workaround in this release. |
| Functionality | CAXIS-10287 | 2.0.0 | Participants with the Promote option selected can only exercise promote/demote functions on the roster only if full roster control is enabled for participants in the RealPresence Web Suite admin console. | No workaround in this release. |

| Category | Issue No. | Release | Description | Workaround |
|------------------|-------------|---------|---|---|
| Functionality | CAXIS-13756 | 2.1.0 | Each RealPresence Web Suite Services Portal deployed on Hyper-V has the same GUID and therefore the WSP deployed on Hyper-V after the first one cannot be licensed with the direct licensing model. | No workaround in this release. |
| Interoperability | CAXIS-12116 | 2.0.1 | RealPresence Resource Manager is not able to block the video of the RealPresence Web Suite participant nor change the layout in the pure-mesh Web RTC and adhoc RealPresence DMA conference. | No workaround in this release. |
| Interoperability | CAXIS-11077 | 2.0.0 | When a user connects to a meeting using RealPresence Web Suite and another Polycom standard endpoint (RealPresence Mobile, RealPresence Desktop, RealPresence Group Series or Polycom HDX) using the same AD credentials, the RealPresence Web Suite Experience Portal disconnects when the user hangs up the other endpoint. | All Endpoints to have different dial strings. |
| Interoperability | CAXIS-13659 | 2.1.2 | Unable to receive licenseServer, dmaConnects, meaConnection, and ldapConnection SNMP trap from RealPresence Web Suite | No workaround in this release. |
| Interoperability | CAXIS-13753 | 2.1.2 | RealPresence Web Suite participants on iPad and Android tablet endpoints are not connected to a CP and SVC mixed conference on RealPresence Collaboration Server, Virtual Edition. The conference is set to Encrypt All and 1920 Kbps. | No workaround in this release. |
| User Experience | CAXIS-8858 | 2.0.0 | When drawing a large shape on the whiteboard that overlaps or encloses a number of other small shapes, if the larger shape is selected and it appears that the smaller shapes are also selected when they are not. | No workaround in this release. |

| Category | Issue No. | Release | Description | Workaround |
|-----------------|-------------|---------|--|---|
| User Experience | CAXIS-8997 | 2.0.0 | Application sharing does not list Windows 8 default applications to preview PDF and PowerPoint files. | Use the screen sharing feature to bring the needed application to the foreground. |
| User Experience | CAXIS-9292 | 2.0.0 | If sharing multiple documents in a meeting and the first document is larger in size than the stage area due to monitor resolution, the document will not display on the stage. | Increase your monitor resolution or delete the document and put it further in the document queue. |
| User Experience | CAXIS-10746 | 2.0.0 | When operating as an AVC video client, a RealPresence Web Suite user may receive far-end content both as enhanced content (displayed separately from people video, with additional controls) and as legacy content (displayed as people video along with other people video, potentially at a reduced resolution). | <p>Do one of the following:</p> <ul style="list-style-type: none"> ▪ Enable SVC in the applicable conference template settings to allow RealPresence Web Suite clients to use SVC video rather than AVC. ▪ Disable Send content to legacy endpoints under Content Video Settings in the RealPresence DMA conference template. This workaround may impact the ability of legitimate legacy endpoints from being able to view content. <p>Limitation: If Multiple Content Resolutions is also enabled, this workaround has no effect and will not eliminate the redundant content.</p> |
| User Experience | CAXIS-10770 | 2.0.0 | When a user connects a USB headset while in a meeting, the user must refresh the page or refresh the browser to use it in the meeting. | No workaround in this release. |
| User Interface | CAXIS-9787 | 2.0.0 | It is possible in the RealPresence Web Suite Experience Portal admin console to enable enhanced content even if the required RealPresence Web Suite Pro license has not been implemented. | No workaround in this release. |

| Category | Issue No. | Release | Description | Workaround |
|----------|-------------|---------|---|--------------------------------|
| Video | CAXIS-13321 | 2.1.0 | <p>In certain cases during an SVC call, the video may look elongated or stretched.</p> <p>This can happen due to the changes in network dynamics which cause the video resolution and the aspect ratio to change.</p> | No workaround in this release. |

Limitations

Limitations table lists limitations in all releases of RealPresence Web Suite and other software.

RealPresence Web Suite Services Portal and Experience Portal Limitations

| Category | Issue No. | Release | Description | Workaround |
|--------------|-------------|----------------|--|--|
| Browser | CAXIS-9755 | 2.0.0 | The specific browser instance that is running RealPresence Web Suite cannot be shared as an app during screen share on Chrome. | Share the complete screen instead of the application. |
| Browser | CAXIS-10418 | 2.0.0 | If hardware acceleration is not enabled in Chrome, you may not receive the main video in a meeting and your self-view will not display. | Configure Chrome to "Use H/W Acceleration when available" within the Chrome browser settings and restart the browser. |
| Browser | CAXIS-10503 | 2.0.0 | If a user starts or joins a call in Chrome incognito mode, the Polycom Chrome extension cannot be added from the Chrome web store. | Relaunch your meeting in a window that does not have incognito mode enabled. You can also enable the app by using developer mode to work in incognito mode. |
| Browser | CAXIS-12838 | 2.0.0 | When using Enhanced Content screen sharing in Chrome to display a presentation in PowerPoint Slide Show mode, far-end participants still see the PowerPoint application window with editing tools instead of the full-screen slide view, and the slides won't advance. | Do one of the following: <ul style="list-style-type: none">▪ Enter Slide Show mode in PowerPoint first and then start sharing the PowerPoint application window in Chrome.▪ Select the screen share option to share the entire screen rather than the PowerPoint application window.▪ Use a browser other than Chrome. |
| Certificates | CAXIS-9280 | 1.7.0 2.0.0 | The SAN field cannot be entered as part of the certificate signing requests initiated from the RealPresence Web Suite Experience Portal. | No workaround in this release. |

| Category | Issue No. | Release | Description | Workaround |
|------------------|-------------|---------|---|--|
| Connectivity | CAXIS-8348 | 1.7.0 | If a conference is configured to require encryption and a participant can't establish encryption, the call disconnects without providing this information to the user. | No workaround in this release. |
| Functionality | CAXIS-14318 | 2.2.0 | RealPresence Web Suite users cannot join meetings if Mozilla Firefox Proxy is in use. | Open Firefox and go to Options > Advanced > Network > Connection Settings , and select Use system proxy settings to use the proxy settings in the Internet Explorer. |
| Functionality | CAXIS-7885 | 1.6.1 | The direct access probe feature is not available when running the RealPresence Web Suite client on Mac systems. On a Mac system, the RealPresence Web Suite client always attempts to use a forwarding web proxy, if one is configured on the local system and/or browser. | No workaround in this release. |
| Functionality | CAXIS-13228 | 2.1.0 | In deployments where users upload PowerPoint and Word document files, the RealPresence Web Suite Experience Portal instance may reach a state where the memory utilized by the conversion library exceeds the specified limits. If this occurs, file uploads might fail intermittently. | Polycom recommends restarting the MEA services once every two weeks for these types of deployments. |
| Interoperability | CAXIS-8815 | 1.7.0 | If you create a Continuous Presence-only conference call on Polycom RealPresence Collaboration Server (RMX) 4000, 2000, and 800s, version 8.1, with default content settings (Content Settings: HiResGraphics and Content Protocol: H.264 HD), RealPresence Web Suite cannot send or receive content if the call rate is set to 384 kbps or below. | Set the call rate on RealPresence Web Suite to above 384 kbps. Or, change the RealPresence Collaboration Server (RMX) Content Settings to Graphics and the Content Protocol to H.263 and H.264 Auto Selection . |

| Category | Issue No. | Release | Description | Workaround |
|-----------------|-------------|---------|---|--|
| Software Update | CAXIS-13907 | 2.2.0 | During the RealPresence Web Suite Experience portal upgrade process, the Authentication Required window repeatedly pops up and the upgrade cannot continue. | Ensure you use the same TLS settings between the RealPresence Web Suite Experience Portal and the RealPresence Web Suite Services Portal. |
| Software Update | CAXIS-13149 | 2.1.0 | At times, the default NTP server address provisioned in the RealPresence Web Suite Services and Experience Portals does not reach the actual NTP server and causes the time sync between the MEA/WSP portals and RealPresence DMA to fail. As a result, the call attempt from the RealPresence Web Suite client fails, and the user sees a "The conference does not exist" error. | Verify that you can reach the NTP server from the RealPresence Web Suite Services and Experience Portals and RealPresence DMA. Once the reachability to the NTP server is established, update the MEA/WSP portals and RealPresence DMA with the NTP details. |
| User Experience | CAXIS-1529 | 1.3.2 | The Host, the initiator of the meeting, can be dropped by a Presenter. | If a presenter switches his or her role to a participant, another presenter must switch the role back to presenter before the user can rejoin the meeting. |
| User Experience | CAXIS-6802 | 1.5.0 | Quality of RealPresence Web Suite Experience Portal meeting session is degraded when performing network-intensive tasks (for example, large file downloads) during a meeting. | While participating in RealPresence Web Suite Experience Portal meetings, avoid performing tasks that require a lot of network bandwidth. |

Other Limitations

| Category | Description | Workaround |
|----------|--|---|
| WebRTC | WebRTC calls take up a long time to start media when use ONLY MCUs is selected in the WebRTC profile on the RealPresence DMA. | You can download WebRTC Network Limiter from Chrome Store. |
| WebRTC | The first WebRTC user can't see other users after the fourth user joins (WebRTC mesh-to-bridge call escalation). | It is a free plug-in published by a WebRTC organization http://www.webrtc.org . |

| Category | Description | Workaround |
|------------------|--|--|
| Functionality | Application share has been disabled in Google Chrome due to problems with sharing open applications. | Use another browser to share enhanced content. |
| Video | Under some circumstances, the video bridge may truncate the top and bottom rows of windows in a displayed multipoint video conference. This can occur when the video bridge is required to send a 4:3 conference mix in a 16:9 video stream. | For more information on the behavior and configuration of the video bridge, go to the Collaboration and Conferencing Platforms Support page on Polycom Support . |
| Video | In Google Chrome for Windows, if WebGL is supported but the canvas value in chrome://gpu is software only , then the user will not see the video. | No workaround in this release. Restarting your browser may resolve this issue. |
| Video | In some environments, video may be delayed or frozen on calls made from outside the enterprise network through an HTTPS tunnel. In some cases, video calls may be de-escalated to audio calls. | Try the call again with a higher bandwidth connection. |
| Video Resolution | RealPresence Web Suite does not support the Motion setting (60fps) on RealPresence Collaboration Server (RMX). Users will see video delays if this setting is enabled. | Do not enable the Motion setting (60fps) on RealPresence Collaboration Server (RMX). |
| User Experience | If language setting of the operating system is different from the setting of the web browser, RealPresence Desktop will display the operating system language while RealPresence Web Suite portals will display the web browser language. | No workaround in this release. |
| User Experience | During WebRTC conferences connecting with Chrome, some first-time participants see a blank screen instead of their video feed after clicking "Allow" to access the camera and mic. This is a known issue with the Chrome browser. | Do one of the following: <ol style="list-style-type: none"> 1. Choose another camera from the drop down menu if one is available. 2. Restart the Chrome browser. |

Getting Help

For more information about installing, configuring, and administering Polycom products, refer to **Documents and Downloads** at [Polycom Support](#).

The Community

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