



RELEASE NOTES

Software 2.1.0 | May 2016 | 3725-03317-005J

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# Polycom<sup>®</sup> RealPresence<sup>®</sup> Web Suite



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# What's New in Release 2.1.0

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The Polycom® RealPresence® Web Suite enables users to experience online video conference meetings and feature-rich content sharing capabilities using different web browsers. Polycom offers two licensing options for this release: RealPresence Web Suite and RealPresence Web Suite Pro. See the [Feature Enhancements](#) section for major updates to the RealPresence Web Suite software.

This release requires a complete installation of the RealPresence Web Suite software for both the RealPresence Web Suite Services Portal and RealPresence Web Suite Experience Portal. See the *Polycom RealPresence Web Suite Getting Started Guide* for instructions on installing the new version of the software and the *Polycom RealPresence Web Suite Administrator Guide* for information on upgrading and migrating settings from your previous installation.



**Note: Get the latest product information from Polycom Support**

To view the latest Polycom product documentation, visit the Polycom RealPresence Web Suite Support page on [Polycom Support](#).

## Feature Enhancements

The RealPresence Web Suite 2.1.0 release supports the following features.

### Support for Polycom® Concierge

RealPresence Web Suite 2.1.0 supports the Polycom® Concierge solution. Polycom Concierge enables users to pair their personal device, such as a mobile device or desktop system, with a Polycom® RealPresence® Group Series room endpoint. The user can then dial into meetings, control meetings, and control endpoints from the personal device. Through the Polycom Concierge solution, RealPresence Web Suite also provides dial-out service for room endpoints (for example, Polycom® HDX or third-party endpoints) that do not support the Polycom Concierge application programming interface (API) room control function.

### Security Enhancements

The RealPresence Web Suite 2.1.0 release implements TLS1.2 guidelines.

RealPresence Web Suite 2.1.0 also introduces the ability for the administrator to edit the IP address and DNS name fields in certificate signing requests (CSRs) to facilitate compliance with recommendations from the Certificate Authority/Browser Forum. See <https://cabforum.org/wp-content/uploads/Guidance-Deprecated-Internal-Names.pdf> for more information.

# Release History

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This following table shows the release history of RealPresence Web Suite.

## Release History

<i>Release</i>	<i>Release Date</i>	<i>Features</i>
2.1.0	May 2016	Support for Polycom Concierge. Security enhancements. Customer defect fixes.
2.0.2	February 2016	Maintenance release that fixes customer escalation issues. Support for Polycom RealPresence Clariti.
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.

# Solution Requirements

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Using the RealPresence Web Suite Services and Experience Portals requires meeting the software, browser, server, and hardware requirements outlined in this section.

The following hardware and software requirements were determined based on test scenarios. The quality of video transmission and content-sharing on your system may vary based on how various equipment—including firewalls, routers, proxy servers, load balancers, WAN accelerators, and others—is configured on your network.

## Operating System Requirements

The following software requirements must be met to use the RealPresence Web Suite Services and Experience Portals in Polycom RealPresence Web Suite.

### Operating System Requirements

<i>System Type</i>	<i>Description</i>
Microsoft® Windows® 32-bit and 64-bit systems	Windows 10 Windows 8.1 Windows 8 Windows 7
Mac®	Mac OS X® 10.9.5 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.) Check <a href="#">RealPresence Mobile</a> documentation for information on compatibility with version 3.5 or later.
Other	Android™ Check <a href="#">RealPresence Mobile</a> documentation for information on compatibility with version 3.5 or later.

## Client Software Components

Installing the following software component onto end user computers enables full functionality of RealPresence Web Suite.

## Required Client-Side Software Components

<i>Component</i>	<i>Description</i>
RealPresence Web Suite client plug-in	Required for web browser-based SIP audio/video services; enabled using the RealPresence Web Suite Experience Portal. Download this plug-in by accessing the RealPresence Web Suite Experience Portal using a supported device and install by following the on-screen instructions.
RealPresence Extension	Required to enable audio, video, and content sharing in Google Chrome. Download this extension by accessing the RealPresence Web Suite experience portal using Google Chrome and install by following the on-screen instructions.

## Browser Requirements

The browser requirements for RealPresence Web Suite are listed in the following table. Polycom supports only production versions of web browsers; beta or development versions are not supported for use with RealPresence Web Suite products.

### Browser Requirements

<i>Browser</i>	<i>Description</i>
Microsoft Internet Explorer®	Version 11 (only) for Windows
Mozilla Firefox®	For Windows and Macintosh
Google Chrome™	For Windows and Macintosh
Apple® Safari®	For Macintosh

## Mozilla Firefox Browser Limitations

Due to issues with Firefox support for WebRTC and lack of feature parity, RealPresence Web Suite Pro is configured by default to require Firefox browsers to use the meeting plug-in, but this can be changed. Because of the limitations in Firefox, however, we recommend selecting this option only for testing or evaluation purposes. For more information, see the *Polycom RealPresence Web Suite Administrator Guide* on [Polycom Support](#).

When installing the RealPresence Web Suite Plug-in on Firefox, click **Allow and Remember** to install the plug-in.

In December 2015, Mozilla introduced a 64-bit edition of Firefox for Windows. This 64-bit version is not supported in RealPresence Web Suite 2.1.0. The 32-bit edition of Firefox for Windows remains available from Mozilla and is fully supported by RealPresence Web Suite.

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## Microsoft Browser Limitations

Microsoft no longer supports Internet Explorer versions lower than Internet Explorer 11. As of version 2.1.0, RealPresence Web Suite supports only Internet Explorer 11.

The Microsoft Edge browser included with Windows 10 is not supported in RealPresence Web Suite 2.1.0. Internet Explorer 11 remains available on Windows 10 and is fully supported by RealPresence Web Suite.

## 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

<i>Component</i>	<i>Deployment Settings</i>
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

<i>Component</i>	<i>Deployment Settings</i>
CPU	4000 MHz allocation
Cores	8 virtual cores
Memory	8 GB
Storage	100 GB
Performance	1000 concurrent host logins



## RealPresence Web Suite Pro

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

<i>Component</i>	<i>Deployment Settings</i>
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

<i>Component</i>	<i>Deployment Settings</i>
CPU	4000 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

<i>Component</i>	<i>Deployment Settings</i>
CPU	10,000 MHz allocation
Cores	4 virtual cores
Memory	8 GB
Storage	100 GB
Performance	10 connector sessions

## Other System Requirements

The requirements needed to enable the RealPresence Web Suite Services and Experience Portals in Polycom RealPresence Web Suite are listed in the following table.

### Other System Requirements

<i>Requirement</i>	<i>Description</i>
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.
.OVA Files	<p>Latest RealPresence Web Suite Experience Portal .OVA file downloaded to your local machine from <a href="#">Polycom Support</a>.</p> <p>Latest RealPresence Web Suite Services Portal .OVA file downloaded to your local machine from <a href="#">Polycom Support</a>.</p>
.VHD Files	<p>Latest RealPresence Web Suite Experience Portal .VHD file downloaded to your local machine from <a href="#">Polycom Support</a>.</p> <p>Latest RealPresence Web Suite Services Portal .VHD file downloaded to your local machine from <a href="#">Polycom Support</a>.</p>
VMware	Version 6.0.
One or more ESXi hosts	<p>Required for VMware deployment.</p> <p>Version 5.0 or higher, supporting 64-bit installations.</p> <p>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.</p>
VMware vSphere vCenter controller	Optional (Version 5.1 and Version 5.5).
Microsoft Hyper-Visor Server	<p>Required for Hyper-V deployment.</p> <p>Microsoft 2012 R2 Standard Edition with Hyper-V Role enabled.</p>
Dynamic Host Configuration Protocol (DHCP)	Allows the portals to obtain their IP addresses.
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>

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<i>Requirement</i>	<i>Description</i>
SMTP Server	Enables the RealPresence Web Suite Services Portal to deliver email meeting invites and other notifications such as user onboarding.
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)	Access the Polycom® Software End User License Agreement on <a href="#">Polycom Support</a> .

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# Installation and Upgrade Notes

For the best experience, Polycom recommends that you install the RealPresence Platform component versions listed in the following table for RealPresence Web Suite and RealPresence Web Suite Pro.



## Note: Required RealPresence Platform versions for WebRTC

RealPresence Web Suite Pro with WebRTC requires that the listed RealPresence Platform component versions be installed.

## RealPresence Platform Component Minimum Versions for RealPresence Web Suite and RealPresence Web Suite Pro

<i>Product</i>	<i>RealPresence Web Suite</i>	<i>RealPresence Web Suite Pro (Enhanced Content)</i>	<i>RealPresence Web Suite Pro (WebRTC)</i>
Polycom® RealPresence® DMA® 7000	6.2	6.2	6.3.0.2
Polycom® RealPresence® Collaboration Server	8.5 (appliance or virtual edition)	8.5 (appliance or virtual edition)	8.6.3.480 <sup>1</sup> (virtual edition only)
Polycom® RealPresence® Access Director™	4.2.1 <sup>2</sup>	4.2.1 <sup>2</sup>	4.2.1 <sup>2</sup>

<sup>1</sup> Collaboration Server version 8.6.3.480 or higher is required for support of Chrome version 48 and higher as a WebRTC client.

<sup>2</sup> Due to RealPresence Access Director issue EDGE-1707, if RealPresence Access Director is used as an HTTP reverse proxy, then RealPresence Web Suite version 4.2.2 or higher is recommended.



## Note: Update your system

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.

## Upgrade Paths

The following table lists the upgrade paths while migrating to RealPresence Web Suite 2.1.0.

### RealPresence Web Suite Upgrade Path

<i>From Release</i>	<i>To Release</i>	<i>Notes</i>
RealPresence CloudAXIS Suite 1.7.0	RealPresence Web Suite 2.1.0	Polycom recommends to first migrate from RealPresence CloudAXIS Suite 1.7.0 to RealPresence Web Suite 2.0.0 instead of directly migrating from RealPresence CloudAXIS Suite 1.7.0 to RealPresence Web Suite 2.1.0.
RealPresence Web Suite 2.0.0	RealPresence Web Suite 2.1.0	Upgrade works and has been tested.
RealPresence Web Suite 2.0.1	RealPresence Web Suite 2.1.0	Upgrade works and has been tested.
RealPresence Web Suite 2.0.2	RealPresence Web Suite 2.1.0	Upgrade works and has been tested.

For more information on your RealPresence Web Suite system, refer to the product documentation on [Polycom Support](#).

## Skype for Business Compatibility

Skype for Business interoperability is available for RealPresence Web Suite client plug-in-based calls when deploying RealPresence Collaboration Server 8.6 or higher. However, for compatibility with WebRTC calls with Skype for Business, you must deploy RealPresence Collaboration Server 8.6.3.480.

## Polycom® RealPresence Clariti™ Support

RealPresence Web Suite is available as part of Polycom® 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 Polycom® RealPresence® Platform Director™ system to license your product.



### **Note: Upgrade the RealPresence Platform Director System to Version 3.0**

If you are a RealPresence Clariti customer, you must upgrade your RealPresence Platform Director system to version 3.0 before you upgrade RealPresence Web Suite.

# 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: Update your system

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.

For information on required and recommended RealPresence Platform components for RealPresence Web Suite and RealPresence Web Suite Pro, see [Installation and Upgrade Notes](#).

## Browsers Versions Tested

<i>Browser</i>	<i>Description</i>
Microsoft Internet Explorer®	Version 11.0 for Windows
Mozilla Firefox®	Version 45.0.1 for Windows and Macintosh
Google Chrome™	Version 50.0.2661.75 for Windows and Macintosh
Apple® Safari®	Version 9.1 for Macintosh

## RealPresence Platform Product Versions Tested with Polycom Concierge

<i>Product</i>	<i>RealPresence Mobile</i>	<i>RealPresence Desktop</i>	<i>RealPresence Group Series</i>	<i>RealPresence Resource Manager</i>
Polycom® Concierge	3.5.1 (Recommended) 3.5.0	3.5.1 (Recommended) 3.5.0	5.1	9.0.1 (Recommended) 9.0

## RealPresence Platform Product Versions Tested

<i>Product</i>	<i>RealPresence Web Suite</i>	<i>RealPresence Web Suite Pro with Enhanced Content</i>	<i>RealPresence Web Suite Pro with WebRTC</i>
Polycom® RealPresence® Collaboration Server (RMX®) 1500/2000/4000	8.6 8.5	8.6 8.5	N/A

<i>Product</i>	<i>RealPresence Web Suite</i>	<i>RealPresence Web Suite Pro with Enhanced Content</i>	<i>RealPresence Web Suite Pro with WebRTC</i>
Polycom® RealPresence® Collaboration Server, Virtual Edition	8.6.3 8.5	8.6.3 8.5	8.6.3
Polycom® RealPresence® Media Suite	2.5.0 2.1.0	2.5.0 2.1.0	2.5.0 2.1.0
Polycom® RealPresence® DMA® 7000	6.3.x 6.2	6.3.x 6.2	6.3.2 6.3.1 6.3.0.2 6.3.0.1
Polycom® RealPresence® Resource Manager	9.0.1	9.0.1	9.0.1
Polycom® RealPresence® Access Director™	4.2.2 4.2.1	4.2.2 4.2.1	4.2.2 4.2.1
Polycom® RealPresence® Platform Director™	3.0.0	3.0.0	3.0.0

### Other Product Versions Tested

<i>Product</i>	<i>Tested Versions</i>
Polycom® RealPresence® Group Series systems	5.1 4.3 4.2
Polycom® HDX® group video systems	3.1.4 or higher
Polycom® RealPresence® Desktop	3.5.1 3.5
Polycom® RealPresence® Mobile	3.5.1 3.5
Skype for Business Server 2015 (volume license key installed)*	6.0.9319.102
Exchange 2010	14.03
Exchange 2013	8.3.389.2

# System Capabilities and Constraints

The following sections provide 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 plug-in-based video conferencing 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: Bandwidth regulation

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

<i>Resolution</i>	<i>Required Call Rate (kbps)</i>	<i>Resolution</i>	<i>Required Call Rate (kbps)</i>
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

<i>Resolution</i>	<i>Required Call Rate (kbps)</i>	<i>Resolution</i>	<i>Required Call Rate (kbps)</i>
1280x720	832	704x480 SIF4	256



<i>Resolution</i>	<i>Required Call Rate (kbps)</i>	<i>Resolution</i>	<i>Required Call Rate (kbps)</i>
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**

<i>Resolution</i>	<i>Required Call Rate (kbps)</i>	<i>Resolution</i>	<i>Required Call Rate (kbps)</i>
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**

<i>Bit Rate (kbps)</i>	<i>Downlink</i>	<i>Bit Rate (kbps)</i>	<i>Downlink</i>
<b>Number of Remote Participants: Up to 9</b>			
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
<b>Number of Remote Participants: Up to 8</b>			
1920	360p30 x 1 + 180p30 x 7	512	360P7.5 x 1 + 180P7.5 x 3
1024	360P15 x 1 + 180P15 x 2 + 180P7.5 x 5	384	360P7.5 x 1 + 180P7.5 x 1

<i>Bit Rate (kbps)</i>	<i>Downlink</i>	<i>Bit Rate (kbps)</i>	<i>Downlink</i>
768	360P15 x 1 + 180P7.5 x 5	256	360P7.5 x 1
<b>Number of Remote Participants: Up to 7</b>			
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
<b>Number of Remote Participants: Up to 6</b>			
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
<b>Number of Remote Participants: Up to 5</b>			
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
<b>Number of Remote Participants: Up to 4</b>			
1920	360P30 x 1 + 180p30 x 3	512	360P7.5 x 1 + 180P7.5 x 3
1024	360P30 x1 + 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
<b>Number of Remote Participants: Up to 3</b>			
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
<b>Number of Remote Participants: Up to 2</b>			
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
<b>Number of Remote Participants: Up to 1</b>			

<i>Bit Rate (kbps)</i>	<i>Downlink</i>	<i>Bit Rate (kbps)</i>	<i>Downlink</i>
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

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

### H.264 Transmit Capability

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

### H.263 Transmit Capability

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

**SVC Multipoint Transmit Capability<sup>1</sup>**

<i>Call Rate (kbps)</i>	<i>Uplink</i>	<i>Call Rate (kbps)</i>	<i>Uplink</i>
1920	180p30 + 360p30 + 720p30	384	180p15 + 270p15
1024	180p30 + 360p15 + 720p15	256	180p30
768	180p30 + 360p30	128	180p7.5
512	180p30 + 360p15		

<sup>1</sup> 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 Polycom 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 Polycom 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

The following sections describe the start and restart order for RealPresence Web Suite.

### 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.

# Virtual Edition Host Server Hardware Profile

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For information on minimum VM host deployment settings for RealPresence Web Suite instances, see [Server Requirements](#).

Because of differences in hardware and virtual machine environments, the performance information is provided for guidance purposes and does not represent a guarantee of any kind by Polycom.

# Resolved Issues

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The following table lists the resolved issues for RealPresence Web Suite and other software in this release.

## Resolved RealPresence Web Suite Services Portal and Experience Portal Issues

<i>Category</i>	<i>Issue No.</i>	<i>Description</i>
Browser	CAXIS-9657	If a user shares the full screen using Chrome on a monitor that is larger than 32" with 4K resolution, the browser crashes.
Browser	CAXIS-9662	Using Internet Explorer 11 to view the screen share during a meeting will cause memory consumption buildup over time on the device.
Browser	CAXIS-9806	When a user attempts to join a meeting without enabling audio and video on a non-Chrome browser, the required plug-in to share content does not prompt for installation.
Browser	CAXIS-10955	Occasionally when trying to connect to a meeting in Chrome with the PAC file configured for proxy, the user is not able to join the call.
Browser	CAXIS-11076	When joining a call using WebRTC, the browser may become stuck on the "Joining the meeting. Please wait." screen.
Browser	CAXIS-12825	When connecting to a plug-in meeting using Chrome, in some cases when a user enters a meeting, the video layout does not display properly and the user is disconnected.
Certificates	CAXIS-7027	The RealPresence Web Suite Experience Portal admin UI does not import the private key from CSR and the settings.json file shows the certificate in a pending state.
Functionality	CAXIS-5990	When setting up a new tunnel Access Point type, the Access Proxy port is in use. A non-default port must be manually assigned to the address on the RPAD.
Functionality	CAXIS-8003	In some restrictive environments with a forwarding web proxy that requires authentication, calls can fail when accessing RealPresence Web Suite from a Mac.
Functionality	CAXIS-10940	When uploading a PowerPoint document for content share, the converted file may be missing some graphical elements.
Functionality	CAXIS-11710	The RealPresence Web Suite Experience Portal occasionally disconnects due to a websocket transport close.
Interoperability	CAXIS-8923	When using a Windows-based tablet, such as a Microsoft Surface Pro, the meeting layout does not adjust when shifting from the landscape orientation to the portrait orientation.

<i>Category</i>	<i>Issue No.</i>	<i>Description</i>
Interoperability	CAXIS-8980	When using the Samsung browser in certain Samsung phones, if you view the RealPresence Web Suite Experience Portal in landscape orientation and rotate the phone to portrait orientation, the page may not fully adjust properly to fit on the screen.
Interoperability	PD-834	When licensing RealPresence Web Suite, RealPresence Web Suite does not receive the FNE server connection details when deployed in RealPresence Platform Director 2.0. RealPresence Web Suite moved to standalone mode even though the instance is created in RealPresence Platform Director.
Performance	CAXIS-12764	If many attempts are made to join meetings using invalid VMRs, there may be an impact on the RealPresence Web Suite Experience Portal server memory.
Software Update	CAXIS-10557	Secure LDAP settings do not get migrated when migrating from RealPresence CloudAXIS Suite 1.7.0 to RealPresence Web Suite 2.0.0.
Software Update	CAXIS-11035	When upgrading from RealPresence CloudAXIS Suite 1.7.0 to RealPresence Web Suite, the plug-in name does not update.
User Experience	CAXIS-205	An appropriate error message is not displayed when the RealPresence Web Suite Experience Portal server is unable to perform API communication with the RealPresence Web Suite Services Portal server.
User Experience	CAXIS-7390	In rare cases, when you attempt to disconnect from a RealPresence Web Suite meeting on a Mac, the RealPresence Web Suite Experience Portal may not fully disconnect. The following are indications that this has happened: <ul style="list-style-type: none"> <li>• A spinning rainbow cursor displays and does not go away.</li> <li>• The "Yes" button on the "Would you like to leave the meeting?" displays grey and you cannot select it.</li> <li>• The dialog remains open.</li> <li>• The camera in-use light remains on.</li> </ul>
User Experience	CAXIS-8434	When six or more attendees are in an SVC-only meeting, some video may appear blurred.
User Experience	CAXIS-8740	In some situations, refreshing the browser while in a call may display an unexpected page.
User Experience	CAXIS-8871	When sharing a large-sized image on a monitor set to a high resolution, the size of the content pointer appears small.
User Experience	CAXIS-9102	If a chairperson uses the roster to promote a guest to chairperson just as they are joining the meeting, the guest will instead be disconnected from the meeting.
User Experience	CAXIS-9202	If a participant attempts to upload a password-protected PDF file for content sharing, the upload fails and is shown as "Document not found."

<i>Category</i>	<i>Issue No.</i>	<i>Description</i>
User Experience	CAXIS-9823	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).
User Experience	CAXIS-10730	Occasionally when refreshing the Today calendar page on the RealPresence Web Suite Services Portal, a blank screen displays instead of the meeting schedule.
User Experience	CAXIS-10850	If a participant uploads a document for content share in the RealPresence Web Suite Services Portal after a meeting is scheduled, the document will display in the meeting with the Chairperson information.
User Experience	CAXIS-12375	Occasionally a user on the RealPresence Web Suite Experience Portal may get disconnected from the meeting. It can happen during joining the call or while the user is already in an active meeting. The portal does not automatically dial back.
User Interface	CAXIS-7991	If a user attempts to join a meeting before the plug-in installation is complete, the user name displays in the Roster twice with “_web” added to the end of one of the entries.
User Interface	CAXIS-8727	When a shared application's window is maximized, the blue border indicating that the application is selected does not appear.
User Interface	CAXIS-9013	The administrator interface freezes on the loading screen and displays a white screen in Mozilla Firefox when self-signed certificates are uploaded to the RealPresence Web Suite Experience Portal.
User Interface	CAXIS-9081	Occasionally the admin UI will freeze on loading and display a white screen in Firefox.
User Interface	CAXIS-9360	In some instances, the browser page that a RealPresence Web Suite call is presented in may stop responding to mouse clicks.
User Interface	CAXIS-9691	The display numbering for screen share is wrong if a user has multiple monitors. The user sees DISPLAY 1 and DISPLAY 3 instead of DISPLAY 1 and DISPLAY 2.
Video	CAXIS-10369	When using an HD camera on an iMac or Mac system with retina display and connecting to a meeting with Chrome, your video may appear in slow motion.
Video	CAXIS-12786	No video is shown (black video only) occasionally while in an SVC call.



# Known Issues

This section lists known issues for RealPresence Web Suite and other software issues and workarounds (if available) for this and earlier releases.

## Known RealPresence Web Suite Services Portal and Experience Portal Issues

<i>Category</i>	<i>Issue No.</i>	<i>Release</i>	<i>Description</i>	<i>Workaround</i>
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-10715	2.0.0	When sharing content in Firefox in Windows 8, double-clicking the video thumbnails does not maximize them.	Use a different browser.
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.
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 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.
Functionality	CAXIS-12837	2.1.0	When using an extended second monitor on a Mac system and the user tries to share the PowerPoint application from the second monitor, the application will not get shared.	Do one of the following: <ul style="list-style-type: none"><li>• Share the PowerPoint application from the main monitor.</li><li>• Share the entire second monitor instead of the PowerPoint application.</li></ul>

<i>Category</i>	<i>Issue No.</i>	<i>Release</i>	<i>Description</i>	<i>Workaround</i>
Functionality	CAXIS-13267	2.0.1 2.1.0	<p>If any incoming SIP calls are signaled on the client PC IP address port 5060 while a RealPresence Web Suite call is in progress, the RealPresence Web Suite call disconnect.</p> <p>Under normal/expected operation, no such calls should be received (RealPresence Web Suite does not register with RealPresence DMA, so it will never receive any calls routed through it). The problem can be triggered, however, by SIP scanner applications, which hackers use to probe for unprotected SIP servers on the public Internet.</p>	<p>If disconnected in this manner, the user can either click <b>Close</b> or refresh the browser and rejoin the meeting</p> <p>To prevent the problem from occurring, block incoming requests on TCP and UDP ports 5060 using your personal firewall, home router firewall, or corporate firewall as applicable and appropriate.</p>
Interoperability	CAXIS-10342	2.0.0	Users who connect to a meeting using RealPresence Mobile cannot choose between roster-only and audio/video mode because the connection redirects immediately to the App Launch page.	RealPresence Mobile has roster capabilities, so roster usage is not impacted if the user connects with RealPresence Mobile.
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.	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.
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.

<i>Category</i>	<i>Issue No.</i>	<i>Release</i>	<i>Description</i>	<i>Workaround</i>
User Experience	CAXIS-10681	2.0.0	If a user joins a meeting with a low bandwidth or slow connection and there is a screen share in progress displaying rapidly changing content (such as a video), the user may experience delay in content replay and meeting functions such as chat and roster control.	No workaround in this release.
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"> <li>• Enable SVC in the applicable conference template settings to allow RealPresence Web Suite clients to use SVC video rather than AVC.</li> <li>• Disable <b>Send content to legacy endpoints</b> under <b>Content Video Settings</b> in the RealPresence DMA conference template. This workaround may impact the ability of legitimate legacy endpoints from being able to view content.</li> </ul> <p><b>Limitation: If Multiple Content Resolutions</b> is also enabled, this workaround has no effect and will not eliminate the redundant content.</p>
User Experience	CAXIS-10770	2.0.0	When 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 Experience	CAXIS-11969	2.1.0	When using the RealPresence Mobile pairing application for the first time with Polycom Concierge, it may take several seconds for the application to complete the sign-in process and be ready to detect and pair with room systems.	No workaround in this release.
User Experience	CAXIS-13193	2.1.0	If a user shares a continuous content stream for longer than 110 minutes, when another user attempts to share content, the first content-sharing user does not see the new content.	The original content-sharing user must disconnect and rejoin the meeting to see the new content.

<i>Category</i>	<i>Issue No.</i>	<i>Release</i>	<i>Description</i>	<i>Workaround</i>
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.
User Interface	CAXIS-13352	2.1.0	When migrating from software version 2.0.0 to 2.1.0, the Help links on the RealPresence Web Suite Services Portal user UI also get migrated from the old machine to the new deployment. The Help link points to the 2.0.0 <i>User Guide</i> instead of the 2.1.0 version.	To reset the Help links to display the 2.1.0 <i>User Guide</i> : <ol style="list-style-type: none"> <li>1. Login into the RealPresence Web Suite Services Portal using admin credentials</li> <li>2. Go to <b>Settings &gt; Custom UI &gt; Footer / URL's.</b></li> <li>3. Click <b>Restore Default.</b></li> </ol>
Video	CAXIS-5571	1.4.0	In some environments, video may be delayed or frozen on calls made from outside the enterprise network through an HTTPS tunnel.	Try the call again with a higher bandwidth connection.
Video	CAXIS-10859	2.0.0	Occasionally, a guest user's camera will remain active on screen after the chairperson has ended the call for all attendees.	After the meeting has ended for all, close out of the meeting.
Video	CAXIS-13303	2.1.0	In rare cases during an AVC call, the far end video might display as a thumbnail.	Double-click the far end video to render it on the main stage.
Video	CAXIS-13321	2.1.0	In certain cases during an SVC call, the video may look elongated or stretched. This can happen due to the changes in network dynamics which cause the video resolution and the aspect ratio to change.	No workaround in this release.

# Limitations

This section lists the limitations for RealPresence Web Suite and other software limitations and workarounds (if available) in this and earlier releases.

## RealPresence Web Suite Services Portal and Experience Portal Limitations

<i>Category</i>	<i>Issue No.</i>	<i>Release</i>	<i>Description</i>	<i>Workaround</i>
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"> <li>• Enter Slide Show mode in PowerPoint first and then start sharing the PowerPoint application window in Chrome.</li> <li>• Select the screen share option to share the entire screen rather than the PowerPoint application window.</li> <li>• Use a browser other than Chrome.</li> </ul>
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.
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.

<i>Category</i>	<i>Issue No.</i>	<i>Release</i>	<i>Description</i>	<i>Workaround</i>
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 to restart 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 ( <b>Content Settings: HiResGraphics</b> and <b>Content Protocol: H.264 HD</b> ), 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) <b>Content Settings</b> to <b>Graphics</b> and the <b>Content Protocol</b> to <b>H.263</b> and <b>H.264 Auto Selection</b> .
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 participant, another presenter must switch the role back to presenter before the user can rejoin the meeting.

<i>Category</i>	<i>Issue No.</i>	<i>Release</i>	<i>Description</i>	<i>Workaround</i>
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

<i>Category</i>	<i>Description</i>	<i>Workaround</i>
Functionality	Application share has been disabled in Google Chrome due to problems with sharing open applications.	Use another browser to share enhanced content.
Functionality	When trying to install the plug-in on a Mac, occasionally the system will time out and the plug-in does not install. This is a known issue with Mac systems.	You can do one of the following to install the plug-in: <ul style="list-style-type: none"> <li>• If the plug-in installer hangs and does not respond, stop the installer process and reinstall the plug-in.</li> <li>• Reboot the Mac system. This will indirectly stop the install process and bring the system back to a good install state.</li> <li>• Use a system cleaner to clean up the Mac system and reattempt the install.</li> </ul>
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 <a href="#">Collaboration and Conferencing Platforms Support</a> page on <a href="#">Polycom Support</a> .
Video	In Google Chrome for Windows, if WebGL is supported but the canvas value in chrome://gpu is <b>software only</b> , then the user will not see video.	No workaround in this release. Restarting your browser may resolve this issue.
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).

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<i>Category</i>	<i>Description</i>	<i>Workaround</i>
User Experience	<p>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.</p> <p>This is a known issue with the Chrome browser.</p>	<p>Do one of the following:</p> <ul style="list-style-type: none"><li>• Choose another camera from the drop down menu if one is available.</li><li>• Restart the Chrome browser.</li></ul>

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