

Polycom® RealPresence® Access Director™ System

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What's New in Release 4.2.4

The Polycom® RealPresence® Access Director™ system version 4.2.4 includes the features and functionality of previous releases and provides the following enhancements:

- [Support for Polycom® RealPresence® Resource Manager Version 10.x](#)
- [Other Changes in this Release](#)

Support for Polycom® RealPresence® Resource Manager Version 10.x

This version of the RealPresence Access Director system supports version 10.x of the Polycom® RealPresence® Resource Manager system. The RealPresence Resource Manager system is a management solution that provides unified management of the Polycom® RealPresence® Clariti™ solution and video and audio endpoints. Unified management features include license management, monitoring, conference scheduling, and provisioning of Polycom video infrastructure products and both Polycom and third-party endpoints within your environment.

The RealPresence Access Director system is available as part of the RealPresence Clariti offering. RealPresence Clariti customers who have a RealPresence Resource Manager system version 10.x must use the system to license version 4.2.4 of the RealPresence Access Director system. If you have not deployed a RealPresence Resource Manager system or if you have not upgraded your RealPresence Resource Manager system to version 10.x, you must license your RealPresence Access Director system using the Polycom® RealPresence® Platform Director™ system version 3.0 or later.

RealPresence Clariti customers should consult with their Polycom representative to ensure they have the correct licensing information before upgrading.

If you are not a RealPresence Clariti customer, you must use a license file or activation key code to license your product.

Other Changes in this Release

- The RealPresence Access Director system responds to SIP 302 redirect messages from RealPresence DMA load balancers.
- The system has been upgraded to the CentOS 6.8 platform.
- The system successfully establishes an H.323 call to a new IP address specified in a facility message received from the original target H.323 device.
- The system now tracks SIP tunneled calls from a Polycom® RealPresence® Web Suite client separately from other SIP calls.
- Values for Access Control List (ACL) variables, for example User Agent, can now contain spaces in the text.

Security Updates

This release includes the following security-related changes:

- *Removed high-severity security vulnerability on the server.*

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

Release History

This following table lists the release history of the RealPresence Access Director system.

Release History

Release	System	Release Date	Features
4.2.4	CentOS 6.8 PostgreSQL 9.3.6 OpenJDK 1.7.0.101-2.6.6.4.el6_8.x86_64	November 2016	<ul style="list-style-type: none"> • Enhancements • Bug fixes
4.2.3	CentOS 6.7 PostgreSQL 9.3.6 OpenJDK 1.7.0.79-2.5.5.1	March 2016	<ul style="list-style-type: none"> • Support for RealPresence Clariti solution • Support for disabling TLS v1.0 • Change to interpretation of VMR ranges • Support for VMware vSphere Platform version 6.0 • Resolved some known issues
4.2.2	CentOS 6.7 PostgreSQL 9.3.6 OpenJDK 1.7.0.79-2.5.5.1	December 2015	<ul style="list-style-type: none"> • Resolved some known issues
4.2.1.1	CentOS 6.7 PostgreSQL 9.3.6 OpenJDK 1.7.0.79-2.5.5.1	September 2015	<ul style="list-style-type: none"> • Resolved some known issues
4.2.1	CentOS 6.7 PostgreSQL 9.3.6 OpenJDK 1.7.0.79-2.5.5.1	August 2015	<ul style="list-style-type: none"> • Support for SHA-256 SSL certificates • Security updates • Resolved some known issues
4.2	CentOS 6.6 PostgreSQL 9.3.6 OpenJDK 1.7.0.79-2.5.5.1	June 2015	<ul style="list-style-type: none"> • High Availability deployment option • STUN and TURN service to support WebRTC video conferencing • Support for Hyper-V virtual environments • Operating system upgraded to CentOS 6.6 • Replaced Oracle JDK with OpenJDK

<i>Release</i>	<i>System</i>	<i>Release Date</i>	<i>Features</i>
4.1	CentOS 6.4 Postgres 9.2 Java 7u21	December 2014	<ul style="list-style-type: none"> • Basic Access Control Lists • Enhanced integration with the RealPresence Platform Director System • Support for higher data rate transfer from RealPresence Content Sharing Suite systems • Integration with an F5 load balancer
4.0.1	CentOS 6.4 Postgres 9.2 Java 7u21	August 2014	<ul style="list-style-type: none"> • Resolved some known issues
4.0.0	CentOS 6.4 Postgres 9.2 Java 7u21	June 2014	<ul style="list-style-type: none"> • Operating system upgraded to CentOS 6.4 • Deploy and manage licenses using Polycom RealPresence Platform Director (Virtual Edition only) • Single interface and port for access proxy services and HTTP tunnel proxy • Firewall port mapping not required for two-system tunnel deployment • Support for BFCP/TCP content sharing through HTTP tunnel proxy • HTTP tunnel proxy auto-discovery • REST API (Virtual Edition) to support integration with the RealPresence Platform Director • License key to enable encryption of the tunnel in a two-system deployment • Other system enhancements
3.1.1	CentOS 5.7 Postgres 9.1 Java 7u21	April 2014	<ul style="list-style-type: none"> • Support for Tandberg endpoints
3.1.0	CentOS 5.7 Postgres 9.1 Java 7u21	January 2014	<ul style="list-style-type: none"> • SIP open business-to-business (B2B) calling, enabling calls to and from external SIP endpoints that are not registered or are not members of a federated enterprise or division • HTTP tunnel reverse proxy that provides firewall traversal for Polycom® integration with RealPresence Platform Director® CloudAXIS™ suite clients making SIP guest calls to video conferences • Increased flexibility of access proxy services to support multiple reverse proxy configurations • License key to enable strong encryption of the tunnel between the tunnel server and tunnel client in a two-box tunnel deployment. • Support for the LDAP v3 extension StartTLS • Support for Polycom® CMA® Desktop Systems

<i>Release</i>	<i>System</i>	<i>Release Date</i>	<i>Features</i>
3.0.0	CentOS 5.7 Postgres 9.1 Java 7u21	August 2013	<ul style="list-style-type: none"> • Support for split interfaces for SIP and H.323 signaling traffic • Tunnel deployment of two RealPresence Access Director Systems • Support of H.460 endpoints • Support of default destination alias for H.323 guest users • Access control lists • Call history and registration history • Port ranges • TCP reverse proxy for Polycom® RealPresence® CloudAXIS™ Suite clients • Interoperability with Cisco VCS Expressway™ • Enhanced security features
2.1.1	CentOS 5.7 Postgres 9.1 Java 6u30	June 2013	<ul style="list-style-type: none"> • Resolved some known issues
2.1.0	CentOS 5.7 Postgres 9.1 Java 6u30	March 2013	<ul style="list-style-type: none"> • Support for SNMP v2c and v3 for monitoring system status • Static route configuration • H.323 guest policy to limit destinations for inbound H.323 calls from the Internet • Support of both SVC and AVC endpoints for calls between federated enterprises
2.0.4	CentOS 5.7 Postgres 9.1 Java 6u30	January 2013	<ul style="list-style-type: none"> • Support for additional Polycom® RealPresence® products, including Content Sharing Suite, Collaboration Server 800s, Virtual Edition, and Group Series 300/500 • User interface updates • SIP and H.323 call disposition descriptions
2.0.3	CentOS 5.7 Postgres 9.1 Java 6u30	December 2012	<ul style="list-style-type: none"> • SIP Back-to-Back User Agent (B2BUA) • H.323 signaling proxy for guest users and enterprise-to-enterprise federated calling • Media relay, including RTP and SRTP passthrough and SVC support for SIP remote users • Access proxy for management, presence, and directory traffic • DMZ deployment • Support for managed endpoints (Polycom HDX systems, RealPresence Mobile, RealPresence Desktop)

Products Tested with this Release

RealPresence Access Director systems are tested extensively with a wide range of products. The following list is not a complete inventory of compatible equipment. It indicates the products that have been tested for compatibility with this release.

Polycom supports mixed Hyper-V/VMware environments, but has not tested all configurations and combinations.



Note: Update your Polycom devices

Polycom recommends that you upgrade your Polycom devices with the latest software versions, as compatibility issues may already have been addressed by software updates. Refer to the [Current Polycom Interoperability Matrix](#) to match Polycom devices with the latest software release.

Products Tested with this Release

<i>Product</i>	<i>Tested Versions</i>
NAT, Firewall, Session Border Controllers	
Polycom RealPresence Access Director	4.2.4
Management Systems	
Polycom RealPresence Resource Manager	8.3, 9.0.1, 10.x
Microsoft Active Directory	Microsoft Windows Server 2012 R2
Web Browser-Based Solutions	
Polycom RealPresence Web Suite	2.1
Gatekeepers, Gateways, and MCUs	
Polycom RealPresence Distributed Media Application (DMA) 7000	6.3.2, 6.4.1
Polycom RealPresence Collaboration Server	8.6, 8.6.3, 8.7.1
Polycom RMX 1500/2000/4000 (MPMx)	8.5.x
Endpoints	
Polycom RealPresence Group Series 500/700; 310; 550	4.3.0, 5.1.0
Polycom HDX 7000	3.1.3, 3.1.4, 3.1.10
Polycom RealPresence Desktop	3.6
Polycom RealPresence Mobile	3.6

<i>Product</i>	<i>Tested Versions</i>
RealPresence Platform Virtual Edition Infrastructure	
Polycom RealPresence Platform Director (required for virtual edition customers as well as RealPresence Clariti customers)	3.0
Hypervisor Environments for Virtual Editions	
VMware vSphere Platform	5.5, 6.0
Microsoft Hyper-V	Microsoft Windows Server 2012 R2 with the Hyper-V role enabled

Interoperability Issues

The following table lists potential interoperability issues when using the RealPresence Access Director system, version 4.2.4.

Interoperability Constraints

<i>Product</i>	<i>Description</i>
Cisco VCS Expressway	A Cisco VCS Expressway call from an endpoint in an enterprise using Cisco VCS Control plus VCS Expressway to an endpoint in an enterprise using the RealPresence Access Director system and a RealPresence DMA system fails if SIP authentication is enabled in the RealPresence DMA system. Cisco VCS Expressway currently does not support SIP enterprise-to-enterprise calls.
Sony H.460-enabled endpoint	Video latency occurs in H.323 calls from an external Sony H.460-enabled endpoint to an internal Polycom RealPresence Group Series endpoint.
LifeSize H.460-enabled endpoint	Video latency occurs in H.323 calls from an external LifeSize H.460-enabled endpoint to an internal Polycom RealPresence Group Series endpoint.
Google Chrome Browser	When using the Google Chrome browser to download a file, such as a log or an upgrade file, Chrome displays an error stating that the file could not be downloaded. The error message is incorrect and the file should download successfully.
Cisco PIX 515E firewall, version 7.1(2)	Rapid network outages may cause the Address Resolution Protocol (ARP) table in the firewall to have an incorrect MAC address for a RealPresence Access Director system configured for High Availability. This situation causes signaling for registrations and calls to that system to fail. Cisco no longer supports this firewall model.

System Capabilities and Constraints

The RealPresence Access Director system is available as an Appliance Edition or Virtual Edition.

The system software for the RealPresence Access Director, Appliance Edition, can be installed on the following Polycom servers:

- Polycom Rack Server 220 (R220)
- Polycom Rack Server 620 (R620)
- Polycom Rack Server 630 (R630)

Appliance Edition

When installed on a Polycom R630, R620, or R220 server, the RealPresence Access Director system supports the maximum capabilities listed in the following table.

RealPresence Access Director Maximum Server Capabilities

Capability	R220	R620	R630
Registrations	2000	5000	5000
Concurrent calls	200	1000*	1000*
HTTPS tunnel calls (Polycom® RealPresence® CloudAXIS™ Suite and Polycom® RealPresence® Web Suite SIP guest calls only)	50	50	50
Throughput (Mbps)	700	700	700

* Maximum concurrent call numbers will depend on the overall deployment model, network quality, codecs used, total throughput of all calls, and available bandwidth.

Virtual Edition

The RealPresence Access Director, Virtual Edition, is available for Virtual Machine (VM)-based deployment in VMware environments and Microsoft Hyper-V environments.

Polycom supports mixed Hyper-V/VMware environments, but has not tested all configurations and combinations.

Host Installation Guidelines

The following table describes the minimum VM host requirements for each instance of the RealPresence Access Director, Virtual Edition. The table also shows the typical performance capabilities of the minimum host requirements.

RealPresence Access Director Minimum Deployment Settings in a Virtual Environment Using a 2.9 GHz Server

<i>Component</i>	<i>Minimum Deployment Profile</i>	<i>Maximum Deployment Profile</i>
Virtual Cores*	2	8
CPU	3.5GHz	2GHz
Memory	8 GB	12GB
Storage	146GB	146GB
Number of concurrent calls**	200	1000
Throughput capacity (Mbps)	700	700

* CPU Affinity & HT Sharing should be set to “None.”

** Maximum concurrent call numbers will depend on the overall deployment model, network quality, codecs used, total throughput of all calls, and available bandwidth.

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

Hardware Requirements

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

To access the management interface, you need a client system running Microsoft® Windows® with the following hardware:

- 1280x1024 (SXGA) minimum display resolution; 1680x1050 (WSXGA+) or greater recommended
- USB and Ethernet ports
- DVD-RW drive or an external DVD burner (Appliance Edition only)

Software Requirements

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

The client system used to access the management interface requires the following software:

- A supported web browser:

- Microsoft Internet Explorer®, version 8 or later
- Google Chrome™, current version (with Adobe Flash plugin, not built-in Flash support)
- Mozilla® Firefox®, current version
- Java™, version 7
- Adobe® Flash® Player, version 11 or later
For stability and security reasons, Polycom recommends always using the latest version of Adobe Flash Player.

Installation and Upgrade Notes

If you have purchased a new RealPresence Access Director system as a single product or as a component of the RealPresence Clariti solution, see the *Polycom RealPresence Access Director System Getting Started Guide* for instructions on how to install and license your product.

For complete instructions on how to upgrade your system, see the *RealPresence Access Director System Administrator Guide*.

Supported Upgrade Paths

The upgrade package for this software version allows any version 4.1 or 4.2.x RealPresence Access Director system to be upgraded to version 4.2.4. You can download the upgrade package and product documentation from the [RealPresence Access Director support portal](#).



Downloading the upgrade package from a Google Chrome browser

If you use Google Chrome to download the version 4.2.4 upgrade package, Chrome may display an error stating that the file could not be downloaded. *The error message is incorrect and the upgrade file should download successfully.*

If your system is not currently running version 4.1 or 4.2.x, you need to install intermediate upgrades before upgrading to version 4.2.4. Polycom supports the upgrade paths listed in the following table and recommends that you read all relevant Release Notes before upgrading to an intermediate version.

Upgrade Paths

<i>Current Version</i>	<i>Intermediate Upgrade</i>	<i>Final Version</i>
Prior to version 2.1.x	2.1.x	3.0
3.0		3.1.x
3.1.x	4.0	4.0.1
	This version of the RealPresence Access Director System, Virtual Edition, cannot be upgraded from version 3.1.x and instead requires a new installation and data migration.	

<i>Current Version</i>	<i>Intermediate Upgrade</i>	<i>Final Version</i>
4.0.x		4.1
4.1		4.2.4
4.2.x		4.2.4

Consider the following information if you upgrade from a system running version 4.2.0:

- When you start the upgrade, you will not be logged out of the web user interface immediately. It takes time for the upgrade process to unpack the upgrade file.
- Your browser will lose connectivity to the server during the upgrade and may display an "Unexpected Exception Happened" error or the upgrade status page may lose connectivity to the server. If this happens, let the upgrade proceed.

Upgrading from version 4.1 or 4.2.x to version 4.2.4 can take approximately 45 minutes and require multiple reboots. After you start the upgrade, allow the process to finish. *Do not start an additional upgrade.*

To upgrade to version 4.2.4 of the RealPresence Access Director system:

- 1 Go to **Maintenance > Backup and Restore** and create a new backup of your current system.
- 2 Download the backup file to your local system.
- 3 From the [Polycom Support](#) site, download the appropriate version 4.2.4 upgrade file and save it on your local system:
 - a *.bin file if upgrading from version 4.1
 - b *.upg file if upgrading from 4.2.x
- 4 Follow the instructions in the *Polycom RealPresence Access Director System Administrator Guide* or the online help to upgrade the system to version 4.2.4.
Your browser will lose connectivity to the server during the upgrade and may display an "Unexpected Exception Happened" error or the upgrade status page may lose connectivity to the server. If this happens, let the upgrade proceed.
- 5 After the upgrade is complete, clear the cache of your browser to ensure that the RealPresence Access Director web user interface displays all updated components.
- 6 From your browser, log into the system's web interface with the following credentials:
 - User ID: **admin**
 - Password: **Polycom12#\$**
- 7 Go to **Maintenance > Software Upgrade**.
- 8 Review the **System Version** field and **Operation History** table to confirm the upgrade was successful.
- 9 Go to **Admin > Network Settings** and modify your network settings as needed for your environment. *The upgrade may not maintain all network settings.*



Reconfigure your call policy settings in Basic ACL Settings after upgrading

If you configured a call policy in the Basic ACL Settings in your previous version of the system, after you upgrade to version 4.2.4, you need to delete your previous settings, disable call policy, re-enable it, and re-configure your previous settings, such as VMR ranges.

Upgrades and Network Interface Mapping in VMware Environments and High Availability Configurations

If you upgrade a VMware instance from version 4.2.x to 4.2.4, eth0 will incorrectly map to network interface 4. However, if you upgrade a VMware instance from version 4.1 to 4.2.4 or install the version 4.2.4 VMware OVA file for the first time, eth0 maps correctly to network interface 1.

If you installed the RealPresence Access Director, Virtual Edition, from the version 4.2.0 OVA file, your ethernet interface and network adapter mapping may not be sequential due to a known issue in VMware and CentOS. For High Availability configurations in a VMware environment, you need to ensure that both virtual machines have identical sequential ethernet interface-to-network adapter mapping. If not, you can fix the problem by installing the RealPresence Access Director version 4.2.1 or higher from an OVA file.

Resolved Issues

The following table lists the resolved issues in the RealPresence Access Director system, version 4.2.4.

Resolved Issues

<i>Category</i>	<i>Issue Number</i>	<i>Found in Release</i>	<i>Description</i>
SIP Calls	EDGE-1913	4.2.4	An external SIP guest endpoint cannot automatically rejoin a conference with a password after an MCU failover occurs.
HTTP Tunnel Calls	EDGE-1922	4.2.4	An external Polycom RealPresence Web Suite client on an HTTP tunnel call cannot send and receive content.
Endpoints	EDGE-1770	4.2.2	Dynamically managed Polycom® RealPresence® Group Series intermittently loses connectivity with LDAP.
Advanced ACL Variables	EDGE-1883	4.2.3	Advanced ACL variable values do not allow spaces.
Upgrades	EDGE-1887	4.2.3.1	If the RealPresence Access Director system is upgraded from any version to version 4.2.3.1, the SIP_CLI_CLIENT ACL rule contains a misspelled user agent value, which prevents SipCLI calls from being blocked.
H.323 Calls	EDGE-1889	4.2.3	For active outbound H.323 calls using IP as the dial string, the RealPresence Access Director system does not display destination information.

<i>Category</i>	<i>Issue Number</i>	<i>Found in Release</i>	<i>Description</i>
Basic ACL Call Policy	EDGE-1888	4.2.3	If a Basic ACL call policy is enabled with a VMR range, the RealPresence Access Director system will reject an H.323 call if the caller alias address type is email-id or H323-ID.
SIP Calls	EDGE-1886	4.2.2	The RealPresence Access Director system does not track SIP tunneled calls from a RealPresence Web Suite client separately from other SIP calls.
H.323 Calls	EDGE-1750	4.2.1	When the RealPresence Access Director system forwards an H.323 call to an H.323 device and the target device sends back an alerting message followed by a facility message with a new address to forward the call to, the RealPresence Access Director system terminates the call.
Platform	EDGE-1904	4.2.4	The RealPresence Access Director system has not upgraded to CentOS 6.8.
SNMP	EDGE-1900	4.2.1	When SNMP is configured to use <i>community: polycom</i> or anything other than public, the RealPresence Access Director system only sends SNMP traps using <i>community: public</i> .
H.323 Guest Calls	EDGE-1899	4.2.3.1	An inbound H.323 guest call is not transferred when the next hop sends a facility message to transfer the call to a different IP address.
302 URL Redirection	EDGE-1897	4.2.3	The RealPresence Access Director system does not respond to 302 redirects from RealPresence DMA load balancers.
SIP Guest Calls	EDGE-1828	4.2.3.1	A SIP guest call from a RealPresence Mobile client behind a NAT (standalone or invoked through RealPresence Web Suite on a mobile device) is disconnected when the RealPresence Access Director system uses the private IP address/port to send new SIP information or messages back to the far-end RealPresence Mobile endpoint.
H.323 Calls	EDGE-1891	4.2.3	Incoming H.323 RAS messages that are not recognized by the RealPresence Access Director system cause an H.323 transaction leak, which eventually causes H.323 calls to fail.
Access Proxy	EDGE-1818	4.2.3.1	Access proxy does not function after upgrading the RealPresence Access Director system to a new version.

Known Issues

The following table lists all known issues in all releases of the RealPresence Access Director system.

Known Issues

<i>Category</i>	<i>Issue No.</i>	<i>Found in Release</i>	<i>Description</i>	<i>Workaround</i>
Certificates	EDGE-1517	4.2.0	An error results when uploading some certificate files due to unsupported characters in the file name.	
Certificates	EDGE-1659	4.2.0	After creating a new SHA-256 Certificate Signing Request (CSR), when you view the CSR by clicking Create a Certificate Signing Request and selecting Use Existing , the system displays a SHA-1 encoded request instead of a SHA-256 request.	<ul style="list-style-type: none"> Go to Admin > Certificates. Click Create a Certificate Signing Request. If a SHA-256 CSR already exists on your system, select Generate New in the Confirm Action window to create a new SHA-256 CSR.
High Availability	EDGE-1600	4.2.0	High Availability settings cannot be configured if two or more network interfaces for the RealPresence Access Director system are not configured consecutively.	Configure network settings on consecutive network interface cards before enabling High Availability. For example, configure network settings for eth0 and eth1 instead of eth0 and eth3, then configure HA settings.
High Availability	EDGE-1658	4.2.0	In some situations after a failover occurs in a High Availability configuration, the RealPresence Access Director system that owns the resources of both systems does not automatically release the resources of the peer system when it requests them.	<p>If resources are not released back to a peer system within a few minutes after it requests them, complete these steps:</p> <ul style="list-style-type: none"> From the web user interface of the system that owns the resources, go to Diagnostics > High Availability Status. Click Release Peer Resources to force the release of the peer system's resources.

<i>Category</i>	<i>Issue No.</i>	<i>Found in Release</i>	<i>Description</i>	<i>Workaround</i>
Federations	EDGE-1910	4.2.4	The RealPresence Access Director system does not dial a SIP or H.323 federation based on signaling type but instead dials by the signaling path that was first enabled.	
Two-box Tunnel	EDGE-1909	4.2.4	After disabling the two-box tunnel configuration and restarting the RealPresence Access Director system, a user cannot log in to the web user interface on the management interface IP address and can only log in on the eth0 network interface.	

Get Help

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

The Polycom Community

[The Polycom Community](#) gives you access to the latest developer and support information. Participate in discussion forums to share ideas and solve problems with your colleagues. To register with the Polycom Community, create a Polycom online account. When logged in, you can access Polycom support personnel and participate in developer and support forums to find the latest information on hardware, software, and partner solutions topics.

Polycom Solution Support

Polycom Implementation and Maintenance services provide support for Polycom solution components only. Additional services for supported third-party Unified Communications (UC) environments integrated with Polycom solutions are available from Polycom Global Services and its certified Partners. These additional services will help customers successfully design, deploy, optimize, and manage Polycom visual communications within their UC environments.

Professional Services for Microsoft Integration is mandatory for Polycom Conferencing for Microsoft Outlook and Microsoft Office Communications Server, Lync 2010 Server, and Skype for Business integrations. For additional information, please see http://www.polycom.com/services/professional_services/index.html or contact your local Polycom representative.

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