

Polycom RealPresence Distributed Media Application (DMA)

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What's New in This Release

The Polycom RealPresence Distributed Media Application (DMA) system 10.0.0.9 includes the following new features:

- Conference Participant Counts
- Access Control Lists in Log Archives
- Alert History File in Log Archives

Conference Participant Counts

In this version, RealPresence DMA sends counts of all audio and video participants in a VMR conference to all Polycom RealPresence Collaboration Servers (single or cascaded) that are part of the same conference. Each RealPresence Collaboration Server updates the participant counts on the conference layout screen of endpoints based on data received from the RealPresence DMA system. If the RealPresence DMA system doesn't send data, the RealPresence Collaboration Server continues to use its existing mechanism to count participants and display the counts.

RealPresence DMA initially counts audio calls to a VMR conference as video calls and video participant counts increase briefly on the conference layout screens of participants when an audio caller joins a conference. After approximately 15 seconds, accurate audio and video counts display.

The following conditions apply to participant counts:

- Participant counts display on an endpoint's conference layout screen only if the endpoint joins the conference using AVC conference mode.
- If a conference has more than 99 participants, RealPresence Collaboration Server displays 99+ on conference layout screens.
- If you use RMX Manager to move or drop conference participants, RealPresence DMA no longer has an accurate active participant count. Poly recommends not using RMX Manager to move or drop participants from a VMR conference.
- RealPresence DMA counts each codec (video feed) of a Polycom RealPresence Immersive
 Telepresence (ITP) room system as a separate participant. For example, RealPresence DMA
 counts three codecs as three participants.

Access Control Lists in Log Archives

RealPresence DMA log archives in this version include a copy of access control lists (ACLs). You can download individual ACL log files or archived logs that include the ACL log files. Poly Services engineers may use the log files if you need help troubleshooting access issues.

RealPresence DMA includes the following ACL log files:

- acl-drools.log
- acl-export.log

Alert History File in Log Archives

In this version, RealPresence DMA log archives include a file for alert history. When you download an archived log, the log contains the <code>alert_history.csv</code> file. Poly Services engineers may use the <code>.csv</code> file if you need help troubleshooting issues.

Security Updates

This release includes the following security updates.

Security Updates

Description	CVE Number(s)
EN-196019 Disabled client-initiated renegotiation within the SSL and TLS protocols.	CVE-2011-1473
EN-185080 Updated the CentOS Linux kernel version.	CVE-2017-12192

Please see the <u>Security Center</u> for the security advisories, bulletins, and related acknowledgments and recognition.

Release History

The following table lists the release history of the RealPresence DMA system.

Release History

Release	API Release	System	Release Date	Features
10.0.0.9	3.6.7	CentOS 6.10 OpenJDK 1.8.0.265 PostgreSQL 10.14-1	April 2021	Conference participant counts ACLs in log archives Alert history file in log archives
10.0.0.8	3.6.7	CentOS 6.10 OpenJDK 1.8.0.265 PostgreSQL 10.14-1	October 2020	Online RealPresence DMA Deployment Wizard accessible in system web interface Factory ACLs no longer editable Bug fixes
10.0.0.7	3.6.5	CentOS 6.10 OpenJDK 1.8.0.252 PostgreSQL 10.13-1	July 2020	Support for Zoom conferencing Enhancements to Call History and Active Calls on core systems
10.0.0.6	3.6.5	CentOS 6.10 OpenJDK 1.8.0.232 PostgreSQL 10.11-1	March 2020	SIP transport override for outbound calls DNS timeout configuration Alerts for unlicensed systems Interface stability time for high availability systems KVM distribution Support for Microsoft LDAP channel binding

Release	API Release	System	Release Date	Features
10.0.0.5	3.6.4	CentOS 6.10 OpenJDK 1.8.0.232	November 2019	Licensed VMRs dashboard pane in system web interface
		PostgreSQL 10.10-1		ACL rule to block SIP bot calls
		1 UsigieUQL 10.10-1		Support for 5x5 layout in conference templates
				Media relay support of unidirectional media streams
				Call routing loop detection
				Advanced diagnostics for troubleshooting
				Bug fixes
10.0.0.4	3.6.3	CentOS 6.10	August 2019	License sharing and direct call routing
		OpenJDK 1.8.0.222		Bug fixes
		PostgreSQL 10.9-1		
10.0.0.3	3.6.0	CentOS 6.10	May 2019	Auto dial-out cascading to cloud
		OpenJDK 1.8.0.181-		service-based conferences
		3		Bug fixes
		PostgreSQL 10.4-1		
10.0.0.2	3.6.0	CentOS 6.10	February 2019	Maintenance release to fix issues
		OpenJDK 1.8.0.181-		
		3		
		PostgreSQL 10.4-1		
10.0.0.1	3.6.0	CentOS 6.10	December 2018	Maintenance release to fix issues
		OpenJDK 1.8.0_171		
		PostgreSQL 10.4		

Release	API Release	System	Release Date	Features
10.0	3.6.0	CentOS 6.10 OpenJDK 1.8.0_171 PostgreSQL 10.4	October 2018	Access proxy Access Control Lists (ACLs) Integration with multiple Polycom® ContentConnect™ systems Support for ContentConnect High Availability and geo-redundancy Clariti VMR licensing and local burst Edge services High Availability (active-active) Immersive Telepresence (ITP) layout (new) Media traversal MCU conference thresholds NAT Registration sharing from edge to core Pooled conference name synchronizing from the RealPresence Resource Manager system to RMX TURN services TIP version 8 support VPN tunnel
9.0.1	3.5.2	CentOS 6.9 OpenJDK 1.8.0_151 PostgreSQL 9.6.6	January 2018	Load balancer to support multiple Polycom ContentConnect systems Security updates Bug fixes
9.0.0.3	3.5.1	CentOS 6.9 OpenJDK 1.8.0_131 PostgreSQL 9.6.3	November 2017	Maintenance release to fix issues
9.0.0.2	3.5.0	CentOS 6.9 OpenJDK 1.8.0_131 PostgreSQL 9.6.3	August 2017	New system web interface Multiple dial plans Enhanced High Availability Peer-to-Peer to MCU Escalation Two-system installation with the USB Configuration Utility Network packet capture troubleshooting utility Single log file downloads Enhanced network settings Revised security settings Licensing changes Revised superclustering Enhanced security features Bug fixes

Release	API Release	System	Release Date	Features
6.4.1.8	3.4.6	CentOS 6.7 OpenJDK 1.8.0_77 PostgreSQL 9.5.2	December 2017	Maintenance release to fix issues
6.4.1.7	3.4.5	CentOS 6.7 OpenJDK 1.8.0_77 PostgreSQL 9.5.2	September 2017	Maintenance release to fix issues
6.4.1.6	3.4.4	CentOS 6.7 OpenJDK 1.8.0_77 PostgreSQL 9.5.2	July 2017	Maintenance release to fix issues
6.4.1.5	3.4.3	CentOS 6.7 OpenJDK 1.8.0_77 PostgreSQL 9.5.2	July 2017	Maintenance release to fix issues
6.4.1.4	3.4.0	CentOS 6.7 OpenJDK 1.8.0 PostgreSQL 9.4.4	June 2017	Maintenance release to fix issues
6.4.1.1	3.4.0	CentOS 6.7 OpenJDK 1.8.0 PostgreSQL 9.4.4	December 2016	Maintenance release to fix issues
6.4.1	3.4.0	CentOS 6.7 OpenJDK 1.8.0 PostgreSQL 9.4.4	September 2016	Maintenance release to fix issues
6.4.0.1	3.4.0	CentOS 6.7 OpenJDK 1.8.0 PostgreSQL 9.4.4	September 2016	Maintenance release to fix issues
6.4.0	3.4.0	CentOS 6.7 OpenJDK 1.8.0 PostgreSQL 9.4.4	August 2016	Microsoft Skype for Business MCU Affinity Integration with the Polycom RealPresence Collaboration Server MMCU and RDP content translator
				Scheduled conference support for Microsoft Office 365
				Panoramic layout support for Microsoft Skype for Business
				Cleared SNMP traps
				API additions and changes
				Resolved some known issues

Release	API Release	System	Release Date	Features
6.3.2.4	3.1.3	CentOS 6.7 OpenJDK 1.8.0 PostgreSQL 9.4.4		Maintenance release to fix issues
6.3.2.3	3.1.3	CentOS 6.7 OpenJDK 1.8.0 PostgreSQL 9.4.4	July 2016	Maintenance release to fix issues
6.3.2.2	3.1.3	CentOS 6.6 OpenJDK 1.8.0 PostgreSQL 9.4.4	May 2016	Maintenance release to fix issues
6.3.2.1	3.1.2	CentOS 6.6 OpenJDK 1.8.0 PostgreSQL 9.4.4	April 2016	Maintenance release to fix issues
6.3.2	3.1.2	CentOS 6.6 OpenJDK 1.8.0 PostgreSQL 9.4.4	March 2016	Support for RealPresence Clariti Resolved some known issues
6.3.1.2	3.1.0	CentOS 6.6 OpenJDK 1.8.0 PostgreSQL 9.4.4	February 2016	Maintenance release to fix issues
6.3.1.1	3.1.0	CentOS 6.6 OpenJDK 1.8.0 PostgreSQL 9.4.4	February 2016	Maintenance release to fix issues
6.3.1	3.1.0	CentOS 6.6 OpenJDK 1.8.0 PostgreSQL 9.4.4	December 2015	Maintenance release to fix issues
6.3.0.2	2.7.3	CentOS 6.6 OpenJDK 1.8.0 PostgreSQL 9.3	September 2015	Maintenance release to fix issues
6.3.0.1	2.7.3	CentOS 6.6 OpenJDK 1.8.0 PostgreSQL 9.3	August 2015	Maintenance release to fix issues

Release	API Release	System	Release Date	Features
6.3.0	2.7.2	CentOS 6.6 OpenJDK 1.8.0 PostgreSQL 9.3	June 2015	Enhanced CSR dialog Enhanced chairperson functionality for cascaded conferences External Microsoft Lync system integration Lobby support for Polycom RealConnect conferences Scheduled backups Signaling diagram SIP 302 redirect support Support for Polycom Rack Server 630
				(R630) VEQ support for RealConnect conferences WebRTC conferencing
6.2.2.2	2.6.3	CentOS 6.6 Java 8u5 PostgreSQL 9.3	October 2015	Maintenance release to fix issues
6.2.2.1	2.6.3	CentOS 6.6 Java 8u5 PostgreSQL 9.3	September 2015	Maintenance release to fix issues
6.2.2	2.6.3	CentOS 6.6 Java 8u5 PostgreSQL 9.3	August 2015	Maintenance release to fix issues

Products Tested with This Release

Poly tests the RealPresence DMA system with other products. The following tables list the products tested for compatibility with this release but don't include a complete inventory of compatible equipment.

Poly strives to support any system that is standards-compliant and investigates reports of Poly systems that don't interoperate with other standards-compliant vendor systems.

Note:	Poly recommends that you upgrade your Poly devices with the latest software versions, as compatibility issues may already have been addressed by software updates. See the <u>Current Polycom Interoperability Matrix</u> to match product and software versions.

Poly and Polycom Devices

Poly tested the following Poly and Polycom devices with this release.

Border Controllers

Product	Tested Versions
Polycom RealPresence Access Director	4.2.x

Call Processors / Gatekeepers / SIP Servers

Product	Tested Versions
Polycom RealPresence DMA, Appliance Edition	10.0.0.9
Polycom RealPresence DMA, Virtual Edition	10.0.0.9
Polycom RealPresence WebSuite MEA	2.2.1
Polycom RealPresence WebSuite WSP	2.2.1
Polycom Workflow Server (OTD)	1.6.1

Endpoints

Product	Tested Versions
Poly G7500	3.3.1
Poly Studio X50	3.3.1
Poly Studio X30	3.3.1
Poly Trio 8500	5.9.0
Poly Trio 8800	5.9.0
Polycom CX5500	1.3.4
Polycom RealPresence Centro	6.1.8, 6.2.0
Polycom RealPresence Immersive Studio	6.1.8, 6.2.0
Polycom RealPresence Immersive Studio Flex	6.1.8
Polycom Touch Control for RealPresence Group Series	2.1.8
Polycom RealPresence Touch	2.1.8
Polycom RealPresence Debut	1.3.2
Polycom RealPresence Group Series	6.1.8, 6.2.0
Polycom RealPresence Desktop for Mac	3.11.2
Polycom RealPresence Desktop for Windows	3.11.2
Polycom RealPresence Mobile for Android	3.11.2

Product	Tested Versions
Polycom RealPresence Mobile for Apple iOS	3.11.3
Polycom UC Software for VVX phones	5.8.0

Management Systems

Product	Tested Versions
Polycom RealPresence Resource Manager, Appliance Edition	10.9.0.2
Polycom RealPresence Resource Manager, Virtual Edition	10.9.0.2

MCUs

Product	Tested Versions
Polycom RealPresence Collaboration Server 1800	8.7.5, 8.8.0, 8.8.1, 8.9.0, 8.9.1.1
Polycom RealPresence Collaboration Server 2000	8.7.5, 8.8.0, 8.8.1, 8.9.0, 8.9.1.1
Polycom RealPresence Collaboration Server 4000	8.7.5, 8.8.0, 8.8.1, 8.9.0, 8.9.1.1
Polycom RealPresence Collaboration Server, Virtual Edition	8.7.5, 8.8.0, 8.8.1, 8.9.0, 8.9.1.1

Recorders / Content Servers

Product	Tested Versions
Polycom Content Connect	1.6.2
Polycom Pano	1.1.1
Polycom Content App	1.1.0
Polycom RealPresence MediaSuite	2.8.2

Third-Party Devices

Poly tested the following third-party devices with this release.

Call Processors / Gatekeepers / SIP Servers

Product	Tested Versions
Cisco TelePresence Video Communication Server	8.8.1
Cisco Unified Communications Manager	12.0(1)
Microsoft Exchange 2016	15.1(Build-1466.3)

Product	Tested Versions
Microsoft Skype for Business 2015 (SfB) Server	6.0.9319.516

Endpoints

Product	Tested Versions
Avaya Scopia XT5000	08.03.07.0051 V8_3_7_51
Cisco DX70 / DX650	SIP10.2.5 & CE9.2.4
Cisco DX80	CE9.2.4
Cisco MX300 G2	CE9.2.4
Cisco TelePresence 500-32	6.1.13
Cisco TelePresence C40	TC7.3.14
Cisco TelePresence C60	TC7.3.14
Cisco TelePresence C90	TC7.3.14
Cisco TelePresence EX60	TC7.3.14
Cisco TelePresence EX90	TC7.3.12
Cisco TelePresence IX5000	8.3.1.1
Cisco TelePresence SX10	CE9.2.4
Cisco TelePresence SX20	CE9.2.4
Cisco TelePresence SX80	CE9.3.0
Cisco TelePresence TX1310	6.1.13
Cisco TelePresence TX9000	6.1.13
LifeSize Express 220	LS_EX2_5.0.9(2)
LifeSize Icon 600	LS_RM3_2.9.0 (1982)
Microsoft Lync Mac Client	16.17.65
Microsoft Skype for Business (SfB) 2016 Client	16.0.10228.20080
Microsoft SfB Client (Android-Phone)	6.21.0
Microsoft SfB Mobile Client (iOS-Phone)	6.21.1
Microsoft SfB Client (Android-Tablet)	6.21.0
Microsoft SfB Mobile Client (iOS-Tablet)	6.21.1
Microsoft Teams	1.3.00.4461

Hypervisor Environments for Virtual Edition

Product		Tested Versions
VMware® vS	phere [®]	6.5, 6.7, 7.0.1
VMware vCe	enter® Server	6.5, 6.7, 7.0.1
Microsoft Hy	per-V	Microsoft Windows Server 2016, Datacenter edition
Kernel-based	d Virtual Machine (KVM)	1.5.3
Note:	Poly supports mixed hypervisor environs combinations.	ments but hasn't tested all configurations and

VaaS Providers

Poly tested videoconferencing with the following Video as a Service (VaaS) providers with this release.

VaaS Providers

Product
Microsoft Teams
Zoom

Compatible Products

The following table lists third-party products that use standard, open protocols and Poly expects these products to be compatible with this release. The list isn't exhaustive but includes many products tested with previous versions of the RealPresence DMA system.

Border Controllers

Product	
Sonus SBC	

Call Processors / Gatekeepers / SIP Servers

Product
Avaya Aura CM
Avaya Aura SM
Broadsoft Server

Product Cisco 3241 ISDN Gateway Radvision Scopia P10 ISDN Gateway Radvision ECS Gatekeeper Microsoft Lync 2013 Server Microsoft Skype for Business 2019 (SfB) Server Unify OpenScape Branch Unify OpenScape SBC

Ε

Unify OpenScape Voice Server

Product
Avaya 10XX
Avaya 1X Communicator
Avaya ADVD
Avaya Flare Desktop
Avaya Flare Mobile (iOS)
Avaya Scopia XT7000
Avaya Voice Phone
Broadsoft BTBC_Android (Mobile)
Broadsoft BTBC_Android (Tablet)
Broadsoft BTBC_iOS (Mobile)
Broadsoft BTBC_iOS (Tablet)
Broadsoft BTBC_PC
Cisco TelePresence 1300
Cisco TelePresence 150 MXP
Cisco TelePresence 1700 MXP
Cisco TelePresence 3010
Cisco TelePresence 500-37
Huawei TE30

Product
Huawei TE40
IBM SameTime
TCSPI Adapter
LifeSize Team 220
Microsoft CX500/CX600
Microsoft Lync 2010 Client
Microsoft Lync 2015 Client
Microsoft Skype for Business 2019 (SfB) Client
Radvision Scopia XT1000
Sony PCS-XG100
Sony PCS-XG80
Unify OpenScape UC
Unify OpenScape UC Client
Unify OpenStage 60/80

MCUs

Product
Cisco 5310 MCU
Cisco TelePresence MCU 4505
Cisco TelePresence Server

System Requirements

Your client system and network performance must meet the following requirements before you install or upgrade to this release.

Hardware Requirements

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

To access the system web interface, use a client system running Microsoft Windows with the following hardware:

- 1280 x 1024 (SXGA) minimum display resolution; 1680 x 1050 (WSXGA+) or greater recommended
- USB and Ethernet ports
- DVD-RW drive or an external DVD burner (Appliance Edition only)

Software Requirements

The client system used to access the system web interface requires a web browser that supports HTML5. Microsoft Internet Explorer must be version 11 or later.

Network Performance Requirements

The following table describes RealPresence DMA system network connections and the related network performance requirements.

Network Performance Requirements

RealPresence DMA System Network Connections	Network Performance			
Between clusters of a RealPresence DMA supercluster – core configuration	 Bandwidth above 10 Mbps, regardless of packet loss or latency Less than 1% packet loss if network latency is 300 ms or less (one-way) 			
	or			
	 No packet loss if network latency is below 350 ms (one-way) 			
Between two RealPresence DMA systems configured for	100 Mbps link			
High Availability – edge and core configurations	 Less than 200 ms round-trip latency 			
Between a RealPresence DMA system and all MCUs –	 Less than 200 ms round-trip latency 			
core and combination system configurations	 Less than 2 percent round-trip packet loss Note: Since this network carries only signaling traffic (the RTP stream goes directly from the endpoint to the MCU), bandwidth is not an issue. 			
Between a RealPresence DMA system and video	Less than 200 ms round-trip latency			
endpoints – core, edge, and combination system configurations	Less than 6 percent round-trip packet loss			
Between a RealPresence DMA system and Microsoft	Less than 200 ms round-trip latency			
Active Directory (if integrated) – core, edge, and combination system configurations	Less than 4 percent round-trip packet loss			

System Capabilities

The RealPresence DMA system is available in an Appliance Edition and a Virtual Edition.

If your RealPresence DMA system is licensed for more than 200 concurrent calls, the server you use must have 16 GB of RAM.

- If you use the Virtual Edition, you need to create a new virtual machine (VM) with the required 16 GB of RAM and at least 146 GB of hard disk space.
- If you use the Appliance Edition, you must use a Polycom Rack Server R630 or R640, or a combination of two servers (see <u>Supported High Availability Cluster Configurations</u>). These servers come with 16 GB RAM.

Note:

Poly supports this version of the RealPresence DMA system software when installed on a Polycom Rack Server R620 (with 16 GB RAM), but recommends that you upgrade your server to a Polycom Rack Server R640. Support for the Polycom Rack Server R620 will end soon in a future software release. If you have a RealPresence Access Director R620 server, v2 or v3 (shipped from January 2013 through June 2014), you must perform a new installation of this version of the RealPresence DMA software on the server. RealPresence Access Director R620 servers cannot be upgraded.

Supported High Availability Cluster Configurations

The RealPresence DMA system supports two-system clusters configured for High Availability (HA) only with certain server and virtual instance combinations. The following table details the combinations of server models and Virtual Edition instances that can be configured for HA.

Supported Two-System Combinations for High Availability Configuration

	Polycom Rack Server 630 (R630)	Polycom Rack Server 640 (R640)	Polycom Rack Server 220 (R220)	Polycom Rack Server 230 (R230)	Poly Rack Server 240 (R240)	RealPresence DMA Virtual Edition
Polycom Rack Server 630 (R630)	Supported	Supported	Not Supported	Not Supported	Not Supported	Supported ¹
Polycom Rack Server 640 (R640)	Supported	Supported	Supported Not Supported Not Supported Not Supported		Not Supported	Supported ¹
Polycom Rack Server 220 (R220)	Not Supported	Not Supported	Supported	Supported	Supported	Supported ²
Polycom Rack Server 230 (R230)	Not Supported	Not Supported	Supported	Supported	Supported	Supported ²
Poly Rack Server 240 (R240)	Not Supported	Not Supported	Supported	Supported	Supported	Supported ²
RealPresence DMA Virtual Edition	Supported ¹	Supported ¹	Supported ²	Supported ²	Supported ²	Supported

¹ The default .OVA settings for the VM match the specifications of the R630 and R640 servers.

² The default .OVA settings for the VM must be adjusted to match the specifications of the R220, R230, and R240 servers.

Appliance Edition

You can install this version of the RealPresence DMA system, Appliance Edition, on the following Polycom servers:

- Polycom Rack Server 630 (R630)
- Polycom Rack Server 640 (R640)
- Polycom Rack Server 220 (R220) deployments with 200 or fewer licensed concurrent calls
- Polycom Rack Server 230 (R230) deployments with 200 or fewer licensed concurrent calls
- Poly Rack Server 240 (R240) deployments with 200 or fewer licensed concurrent calls

Maximum Capabilities of Servers - Core Configuration

The maximum capabilities of the system differ with the server you are using. The following table lists the maximum capabilities of the Poly or Polycom Rack Servers running a core configuration of the RealPresence DMA system software.

Maximum Capabilities for Servers - Core Configuration

Maximum Capability	Polycom Rack Server 220/230, Poly Rack Server 240	Polycom Rack Server 630/640
Number of sites	100	500
Number of subnets	1000	5000
Number of RealPresence DMA clusters in a supercluster	3	10
Number of clusters enabled for conference rooms	3	3
Number of MCUs enabled for conference rooms	5	64
Number of concurrent SIP<->H.323 gateway calls	200	500
Size of Active Directory supported	1,000,000 users and 1,000,000 groups (up to 10,000 groups maybe imported)	1,000,000 users and 1,000,000 groups (up to 10,000 groups maybe imported)
Number of contacts registered to a Skype for Business server per cluster	25000	25000
Number of network usage data points retained per cluster	8,000,000	8,000,000
Concurrent registrations per cluster	1600	15000

Maximum Capability	Polycom Rack Server 220/230, Poly Rack Server 240	Polycom Rack Server 630/640		
Total concurrent conference room (VMR) calls per cluster	200	1200 H.323 only 3600 SIP only		
Total point-to-point concurrent calls per cluster	200	5000		
Total concurrent VMR calls for a supercluster ¹	600	3600 H.323 only 10800 SIP only ¹		
Total point-to-point concurrent calls for a supercluster	600	50000		
Number of participants per VMR for each RealPresence Collaboration Server	180 (includes 10 ports reserved for cascading) ²	180 (includes 10 ports reserved for cascading) ²		

¹ To support 3600 H.323 or 10800 SIP calls, the supercluster must contain at least three clusters.

Maximum Capabilities of Servers - Edge/Combination Configuration

The following table lists the maximum capabilities of Poly or Polycom Rack Servers with an edge or combination configuration of the RealPresence DMA system software.

Maximum Capabilities for Polycom Rack Servers 220/230 and 630/640 - Edge/Combination Configuration

Maximum Capability	Polycom Rack Server 220/230, Poly Rack Server 240	Polycom Rack Server 630/640
Registrations	2000	5000
Concurrent calls ¹	200	1000
HTTPS tunnel calls (RealPresence Web Suite SIP guest calls only)	200	200
Throughput (Mbps)	700	700

¹ In a VPN tunnel configuration, the maximum concurrent call capacities are reduced.

Trial Licenses

All new RealPresence DMA systems, Appliance Edition, include a trial license for five concurrent calls. After you install purchased licenses, the trial license for five concurrent calls is no longer available.

If you deploy two RealPresence DMA systems, Appliance Edition, as an HA pair, the two systems combined include a trial license for five concurrent calls.

² You must enable **Cascade for size** in the RealPresence DMA system.

Virtual Edition

This version is available in an edition packaged for virtual-based deployment. Polycom supports the RealPresence DMA system, Virtual Edition, in VMware, Microsoft Hyper-V, Microsoft Azure, Kernel-based Virtual Machine (KVM), and Amazon Web Services (AWS) environments.

Polycom supports mixed environments but hasn't tested all configurations and combinations.

New RealPresence DMA systems, Virtual Edition, don't include a trial license for calls.

Host Installation Guidelines

The RealPresence DMA system, Virtual Edition, software package requires 146 GB hard disk capacity for standard installations.

Note: The only benefit to having greater hard disk capacity is the ability to store more log files.

If you deploy two systems as a high availability pair, one of which is a virtual instance and the other is a Polycom server, the profile of the VM should be consistent with the server's profile.

The following table describes the recommended VM host deployment settings for each instance of the RealPresence DMA system, Virtual Edition. It also shows the typical performance capacities of that deployment.

Recommended VM Host Deployment Settings

Component	Recommended Small Deployment Settings	Recommended Medium-Large Deployment Settings
Virtual Cores	6	12
Min. CPU Speed	2.4 GHz	2.4 GHz
Total Required GHz	14.4 GHz	28.8 GHz
Min. CPU Family	Haswell	Haswell
Memory	16 GB	16 GB
Storage	146 GB	146 GB
Random IOPS	110 total	210 total

Component	Recommended Small Deployment Settings	Recommended Medium-Large Deployment Settings		
Performance	200 concurrent calls	RealPresence DMA core system: 5000 concurrent calls		
		 Up to 1200 H.323 calls, not to exceed 5000 total calls 		
		 Up to 3600 SIP calls (encrypted or unencrypted), not to exceed 5000 total calls 		
		 Up to 5000 point-to-point calls, not to exceed 5000 total calls 		
		RealPresence DMA edge and combination systems: 1000 concurrent calls		

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

Installation and Upgrade Notes

You can upgrade previous versions of the RealPresence DMA system software to version 10.0.0.9 (see <u>Supported Upgrade Paths – RealPresence DMA System</u>). You can also upgrade the RealPresence Access Director system to version 10.0.0.9 of the RealPresence DMA system (see <u>Supported Upgrade Paths – RealPresence Access Director System</u>).

When you log into the <u>Poly Online Support Center</u>, you can download the 10.0.0.9 upgrade package and any interim upgrade packages you need for both the Appliance Edition and Virtual Edition.

Note:	Starting in 10.0.0.8, you can't edit a default factory access control list (ACL). If you revised a
	factory ACL prior to version 10.0.0.8 and want to keep the changes, you must copy the factory
	ACL to a new ACL before you upgrade to 10.0.0.8 or later. If you don't create a copy of the
	factory ACL prior to upgrading, you must add a new ACL with your changes after the upgrade.

See the *Polycom RealPresence DMA System Administrator Guide* for instructions on how to upgrade the RealPresence DMA system or RealPresence Access Director system.

See the *Polycom RealPresence DMA System Getting Started Guide* for instructions on how to install and license your product.

Supported Upgrade Paths – RealPresence DMA System

You can upgrade to version 10.0.0.9 of the RealPresence DMA system only from version 9.0.x or 10.0.x.

If your RealPresence DMA system is running a version prior to 9.0.x, you must perform interim upgrades before you can upgrade to version 10.0.0.9.

Do not perform a new installation of version 10.0.0.9 and then restore a backup of a non-supported version. You must upgrade a non-supported version to one of the supported versions before upgrading to 10.0.0.9.

Note:	If you have a system running version 6.4.x that has two default territories and is integrated with a RealPresence Resource Manager system, you must delete one of the territories before you upgrade to version 10.0.x. If you upgrade without deleting one of the default territories, the system displays an error when you attempt to change some user settings. To resolve the error,
	remove your integration with the RealPresence Resource Manager system, then reintegrate.

Your upgrade to version 9.0.1 or 10.0.0.9 may be blocked if you are running one of the following versions of the RealPresence DMA system on a Polycom Rack Server 630 (R630). In this case, you must upload and install DELL-HW-Utility.bin before upgrading to 9.0.1 or 10.0.0.9.

- 6.4.1.3
- 6.4.1.4
- 6.4.1.5
- 6.4.1.6
- 6.4.1.7
- 9.0.0
- 9.0.0.1
- 9.0.0.2

The following table outlines the supported paths you can use to upgrade to this version. Read the release notes for each version in your upgrade path to review any upgrade notes.

Supported Upgrade Paths: RealPresence DMA System to RealPresence DMA System, Version 10.0.x

Current Version		Intermediate Upgrade		Intermediate Upgrade		Intermediate Upgrade		Final Upgrade	New License Required?
5.0.x 5.1.x 5.2.0	\rightarrow	5.2.1	→	6.2.2.2	→	6.4.1.1	\rightarrow	9.0.1	Yes
5.2.1 5.2.2.x 6.0.x	\rightarrow	6.2.2.2			→	6.4.1.1	\rightarrow	9.0.1	Yes
6.1.x 6.2.x 6.3.x					>	6.4.1.1	\rightarrow	9.0.1	Yes
6.4.0.x 6.4.1 6.4.1.1 6.4.1.2							\rightarrow	9.0.1	Yes
6.4.1.3 6.4.1.4 6.4.1.5 6.4.1.6 6.4.1.7					→	DELL-HW Utility (only if using Polycom R630 server)	→	9.0.1	Yes
6.4.1.8							>	9.0.1	Yes

Current Version	Intermediate Upgrade	Intermediate Upgrade		Intermediate Upgrade		Final Upgrade	New License Required?
9.0.0 9.0.0.1 9.0.0.2			→	DELL-HW Utility (only if using Polycom R630 server)	→	10.0.0.9	Yes
9.0.0.3					\rightarrow	10.0.0.9	Yes
9.0.1.x					\rightarrow	10.0.0.9	Yes
10.0.x					\rightarrow	10.0.0.9	No

Supported Upgrade Paths – RealPresence Access Director System

The following table outlines the supported path you can use to upgrade the RealPresence Access Director system to this version of the RealPresence DMA system.

Supported Upgrade Paths: RealPresence Access Director System to RealPresence DMA System, Version 10.0.x

Current Version		Intermediate Upgrade		Final Upgrade	New License Required?
4.1.x or earlier	→	4.2.x	\rightarrow	10.0.0.9	Yes

Upgrading the RealPresence DMA System

Upgrading the RealPresence DMA system typically takes approximately 30 to 60 minutes but can sometimes take longer. Once you start the upgrade process, don't reboot the server.

If you upgrade a RealPresence DMA system from version 9.0.x to 10.0.x and a RealPresence Access Director system from version 4.2.x to 10.0.x at the same time, Poly recommends the following:

- First, upgrade your RealPresence DMA system from version 9.0.x to version 10.0.x. The 10.0.x system automatically includes a core configuration.
- Next, upgrade your RealPresence Access Director system from version 4.2.x to version 10.0.x The 10.0.x system automatically includes an edge configuration.

Note the following:

- A RealPresence Access Director system, version 4.2.x, operates with a RealPresence DMA coreconfigured system (version 10.0.x or later).
- A RealPresence DMA edge-configured system (version 10.0 or later) doesn't operate with any older versions of the RealPresence DMA system.

If your RealPresence DMA system is integrated with a RealPresence Collaboration Server, upgrade the RealPresence DMA system to version 10.0.x before upgrading the RealPresence Collaboration Server to version 8.8 or later.

Upgrading the RealPresence Access Director System to the RealPresence DMA System

You can upgrade version 4.2.x of the RealPresence Access Director system to version 10.0.x of the RealPresence DMA system. A new license is required.

Upgrading a RealPresence Access Director system to a RealPresence DMA system is a major upgrade. You must make configuration changes after upgrading to ensure that the RealPresence DMA edge system functions like your RealPresence Access Director system did.

A RealPresence DMA edge or combination system configured with a single NIC uses the combined range of private and public dynamic ports for media relay. Before you upgrade a RealPresence Access Director system with a single-NIC configuration to a RealPresence DMA edge or combination system, make sure your external and internal firewalls allow the combined private and public port range for media traversal.

The RealPresence DMA system uses the following dynamic source ports for media traversal services.

Media Traversal Dynamic Source Ports

Service	First Port	Last Port	Interfaces
Private media traversal dynamic source ports	40002	50998	The network interfaces on the private side with media traversal services assigned
Public media traversal dynamic source ports	23002	33998	The network interfaces on the public side with media traversal services assigned

Resolved Issues

The following table lists the issues resolved in this release.

Resolved Issues

Category	Issue ID	Found in Release	Description
ACL Denials	EN-188982	10.0.0.7	In the RealPresence DMA system web interface, the port filter doesn't work in the ACL Denials report page.

Category	Issue ID	Found in Release	Description
Access Control Lists	EN-196858	10.0.0.8	The ACL Rules page in the system web interface of a RealPresence DMA edge system doesn't display and the ACL Settings page displays an error.
Alerts	EN-189499	10.0.0.7	A RealPresence DMA system alert incorrectly reports MCU capacity.
Alerts	EN-191547	10.0	After installing a new RealPresence DMA and configuring it as an edge system, an incorrect alert (3205) displays in the system web interface.
Call Server	EN-191376	10.0.0.5	A RealPresence DMA edge system doesn't correctly forward audio between a RealPresence Group Series endpoint and a Cisco Webex meeting.
Call Server	EN-195175	10.0.0.6	The RealPresence DMA system doesn't respond to an H.323 ARQ message from a RealPresence Collaboration Server, causing calls to disconnect.
Call Server	EN-195503	10.0.0.8	The RealPresence DMA system fails to transfer audio-only and low-speed calls from a VEQ to a VMR if the system sends an offerless invite first to an endpoint.
High Availability	EN-187932	10.0	High availability configuration can't be completed if the DNS server has multiple entries for the virtual interface IP address.

Category	Issue ID	Found in Release	Description
High Availability	EN-190216	10.0.0.7	High availability for RealPresence DMA edge systems can't be configured if the external FQDNs are in a different domain.
High Availability	EN-194784	10.0.0.8	After a failover of a RealPresence DMA edge system in an active-active high availability environment, calls can't connect.
High Availability	EN-195383	10.0.0.8	A failover occurs between RealPresence DMA high availability nodes when logs are being rolled.
License Sharing	EN-191140	10.0.0.8	A RealPresence DMA edge system H.323 guest endpoint can't call registered H.323 users because the edge system doesn't borrow a license from the core system for this call scenario.
Logging	EN-196335	10.0	A RealPresence DMA system doesn't always capture all traffic when the logging level is Debug .
Media Relay	EN-194099	10.0	The RealPresence DMA system doesn't relay media based on the external gatekeeper dial rule setting.
Media Relay	EN-195479	10.0.0.8	Media relay doesn't work for audio calls.
Preliminary Scripts	EN-195564	10.0	A RealPresence DMA edge system can't execute a preliminary script to modify incoming calls with no destination information.

Category	Issue ID	Found in Release	Description
RealPresence Desktop, RealPresence Mobile	EN-187682	10.0.0.7	After upgrading a RealPresence Access Director system to a RealPresence DMA edge system, RealPresence Desktop and RealPresence Mobile clients don't receive content on H.323 calls connecting from the internet.
RealPresence Desktop, RealPresence Mobile	EN-190353	10.0.0.6	On a RealPresence DMA edge system with active-passive high availability configuration, inbound SIP calls from provisioned RealPresence Desktop and RealPresence Mobile clients fail.
RealPresence Mobile	EN-188773	10.0.0.7	On an H.323 call through a RealPresence DMA edge system, a RealPresence Mobile client can't receive content.
RealPresence Resource Manager Integration	EN-140017 (formerly EN-148061)	10.0	A RealPresence Resource Manager system fails to integrate with the RealPresence DMA system after two attempts but integrates after the third attempt.
RealPresence Resource Manager Integration	EN-187455	10.0.0.7	After recovering a RealPresence Resource Manager system, reintegration with a RealPresence DMA supercluster fails because the RealPresence DMA generates a signature for the incorrect timestamp.

Category	Issue ID	Found in Release	Description
Registration Sharing Settings	EN-185823	10.0.0.7	When a RealPresence DMA edge system's Registration Sharing Settings specify a DNS embedded name in uppercase letters, the RealPresence DMA core system fails to validate a license sharing request for a hairpin call.
System Performance	EN-186419	10.0.0.7	Remote endpoints don't receive media on calls from Cisco endpoints that pass through a RealPresence DMA edge system.
System Performance	EN-189056	10.0.0.6	A RealPresence DMA system doesn't update the recording status when a RealPresence Collaboration Server recording link fails to connect or drops mid-call.
System Performance	EN-189965	10.0.0.8	After upgrading, a RealPresence DMA edge system denies all registrations and calls.
System Performance	EN-190357	10.0.0.7	After the primary RealPresence DMA system in a supercluster reboots, the VMR service requires more than 30 minutes to resume.
System Performance	EN-194577	10.0.0.6	The response time of a RealPresence DMA system becomes slow when an invalid RealPresence Collaboration Server interactive voice response (IVR) file is uploaded.

Category	Issue ID	Found in Release	Description
System Web Interface	EN-189078	10.0.0.7	The Log In button is disabled in the RealPresence DMA edge system web interface if the system has TURN service enabled and multiple active WebRTC calls.
System Web Interface	EN-190364	10.0.0.7	Users can't access the RealPresence DMA system web interface and calls can't be established.
System Web Interface	EN-197857	10.0.0.7	Users can't log in_to the system web interface of a RealPresence DMA edge system.
Time Settings	EN-190542	10.0.0.8	After upgrading, the original configured values for the NTP time server, time zone, and other information are lost and the RealPresence DMA system restores the factory default values.
TURN Service	EN-190621	10.0.0.8	The RealPresence DMA system generates a port conflict error for TURN service even if TURN service isn't enabled.

Known Issues

The following table lists the known issues in this release.

IMPORTANT: These release notes do not provide a complete listing of all known issues for the software. Issues not expected to significantly impact customers with standard voice and video conferencing environments may not be included. In addition, the information in these release notes is provided as-is at the time of release and is subject to change without notice.

Known Issues

Category	Issue ID	Found in Release	Description	Workaround
Access Control Lists	EN-128836	10.0.x	When using Internet Explorer to access the system web interface, a RealPresence DMA edge system doesn't save the custom variable values that can be added to ACL Variables.	
Active Calls	EN-190992	10.0.0.5	The RealPresence DMA system web interface Active Calls page displays some previous H.323 calls that have ended as active calls.	
API	EN-130890	9.0.1	The RealPresence DMA system has replication delays caused by excessive API updates from the Workflow server.	
Backup and Restore	EN-109539	9.0.1	The backup-restore.sh file fails to restore a configuration backup if the filename contains special characters such as parentheses. The system web interface doesn't prevent the file upload.	
Backup and Restore	EN-156465	10.0	The RealPresence DMA proximo service doesn't load if you restore a backup from another RealPresence DMA system without restoring the IP configuration.	
Call Detail Records (CDRs)	EN-104927	9.0.1	A CDR exported from the RealPresence DMA system contains no data.	
Call Details	EN-125424	10.0.0.2, 10.0.0.3	During RealConnect calls with the Polycom ContentConnect (PCC) system, the RealPresence DMA system's call details show the PCC IP address with the name of the RealPresence Collaboration server instead of the name of the PCC system.	
Call Details	EN-187538	10.0.0.7	A signaling diagram in a RealPresence DMA edge system displays incorrect signaling in the call details for an outgoing call.	

Category	Issue ID	Found in Release	Description	Workaround
Conference Template	EN-107775	9.0.1	An error occurs when setting the line rate in Conference Templates back to 1920 Kbps: <i>The customized content rate value '1920' is not valid for specified line rate value '1920' and H239 settings value 'HIREGRAPHICS.'</i>	
DNS	EN-112724	9.0.1.1	RealPresence DMA delays 5 to 10 seconds to respond to an inbound SIP INVITE if the primary DNS server doesn't respond. The RealPresence DMA system doesn't display an alert or include an error in the logs to indicate the primary DNS is unresponsive.	
High Availability	EN-158408	10.0	High availability can't be enabled from a RealPresence DMA edge system.	
License Sharing	EN-181174	10.0.0.6	When a WAN-to-WAN call connects, a RealPresence DMA edge system displays an alert that it has reached its call license limit, even when license sharing with a core system is configured.	
Licensing	EN-183169	10.0.0.7	After upgrading, a RealPresence DMA edge system displays a licensing alert and doesn't permit calls or VMRs, even though licensing is configured on the core system.	
Logs	EN-187933	10.0.0.7	When RealPresence DMA rolls logs every 12 hours in a WebRTC call environment, the logs don't filter out WebRTC/TURN media traffic and the generated archives are large with hundreds of pcap files.	
Microsoft Lync Integration	EN-158321	10.0	The RealPresence DMA system can't allocate MS Lync Conference Auto Attendant (CAA) contacts, and CAA calls fail.	
Network Settings	EN-130185	10.0	You can't change the RealPresence DMA system's network settings after allocating the management service to a bonded interface.	
Network Usage	EN-164650	10.0	You can't open a network usage file exported from the RealPresence DMA system.	

Category	Issue ID	Found in Release	Description	Workaround
Network Usage	EN-170805	10.0.0.5	Network usage reports include cluster names but not site names and display inconsistent values for Bitrate limit , Bandwidth limit , Bandwidth usage , and Bandwidth usage percent .	
Participant Count	EN-200163	10.0.0.9	The participant count displayed on an AVC endpoint in a VMR call is incremented by 1 if a Skype for Business (Mac) participant on the same VMR starts sharing content.	
RealPresence Access Director to RealPresence DMA Upgrade	EN-150437	10.0.0.4	A RealPresence Access Director upgrade to a RealPresence DMA edge system generates a port conflict detected alert. Restoring the defaults changes the ports to a different range and resolves the alert, but H.323 calls fail since the range changed and the firewall wasn't configured for the change.	
RealPresence Collaboration Server	EN-91544	9.0.1	When you set a RealPresence Collaboration Server's Microsoft AVMCU cascade link to auto- reconnect, the cascade link auto- reconnects even when there are no participants in the conference and a new Skype for Business client can't join the conference.	

Category	Issue ID	Found in Release	Description	Wo	orkaround
Registration Policy Script	EN-181151	10.0.0.7	An illegal argument exception occurs when you attempt to debug a registration policy script before you save the registration policy.	1.	In the system web interface, go to Service Config > Access Control > Registration Policies.
				2.	Select Add.
				3.	Enter a Registration policy compliance script.
				4.	Select OK .
				5.	Select the registration policy, then select Edit .
				6.	Select Debug this Script .
Sites	EN-147536	10.0.0.3	Direct VMR calls from Microsoft Skype for Business clients fail from sites that don't have a site link to the internet site.		
System Web Interface	EN-178546	10.0	After restarting the system from the system web interface, the interface is unavailable.		
System Web Interface	EN-179452	10.0	The system web interface doesn't allow use of the \ character in the Username field within the remote FTP backup configuration menu.		
VMR	EN-155765	10.0	The RealPresence DMA system routes calls originally destined for a VMR to the RealPresence Collaboration Server's default entry queue.		
VMR	EN-186258	10.0.0.7	All RealPresence DMA clusters in a supercluster have high CPU usage and VMR calls fail until the clusters are rebooted.		
Zoom Calls	EN-186889	10.0.0.7	Calls from a RealPresence DMA edge system to a Zoom conference fail.		

System Constraints and Limitations

The following table lists limitations of the RealPresence DMA system or other products that may cause interoperability issues.

Interoperability Limitations

Product	Description	Workaround
Polycom RealPresence DMA	SIP calls to any SIP endpoint or Video as a Service (VaaS) don't connect if the far-end endpoint requests an increase in bandwidth.	Use total bandwidth limits for sites and site links in the RealPresence DMA system instead of bandwidth limits per-call. Reconfigure endpoints/VaaS service bandwidth limits to values like the bandwidth values set in the RealPresence DMA system. Re-evaluate the use of bandwidth limitations in the network and in the RealPresence DMA system.
Polycom RealPresence Group Series	When a RealPresence Group Series system is registered to a RealPresence DMA system and hosts an encrypted conference, Cisco Cseries endpoints that are registered to the RealPresence DMA system and dial in to the conference can't complete the SSL handshake with the RealPresence Group Series system's MCU.	Dial out from the RealPresence Group Series system to the Cisco endpoints.
Polycom HDX endpoints	A Polycom HDX endpoint using the RealPresence DMA system as its SIP registrar can't complete a point-to-point call to a Microsoft Lync or Skype for Business client.	In the RealPresence DMA system, edit the Microsoft external SIP peer on the External SIP Peers page and enable the Postliminary feature.
Polycom HDX endpoints	You can use Polycom HDX endpoints with a Lync Server, but they don't support Skype for Business video conferencing.	
Polycom HDX endpoints, Poly Trio	RealPresence DMA systems don't support H.264 high profile (HP) for SIP to and from H.323 calls.	
Sony, Radvision, Avaya, and Polycom VVX endpoints	In the RealPresence DMA system, the Terminate calls based on failed responses to IRQs call server setting is enabled by default, causing some Sony, Radvision, Avaya, and Polycom VVX endpoints to disconnect during conferences.	In the RealPresence DMA system, disable the Terminate calls based on failed responses to IRQs call server setting.

Product	Description	Workaround
Various endpoints	RealPresence DMA systems 6.4 or later don't support certificates with an RSA key size less than 1024 bits in length. Manufacturers of some endpoints have not yet enhanced their software to support more secure encryption. As a result, TLS connections made from the RealPresence DMA system to some endpoints no longer work.	
Cisco SX endpoints	When Cisco SX devices running CE 8.X software are registered to the RealPresence DMA system using SIP/TLS, SSL handshake failures between the Cisco SX and RealPresence DMA system during establishment of SIP/TLS connections can result in call failures.	Add a certificate to the Cisco SX device and enable the certificate for use with SIP. See the Cisco SX CE 8.X Administrator Guide for additional details.
Microsoft Skype for Business and Polycom RealPresence Desktop	When Microsoft Skype for Business and Polycom RealPresence Desktop are connected in a point-to-point call, the call doesn't include video media. When Microsoft Skype for Business and Polycom RealPresence Desktop are connected in a VMR call, the call does include video.	As an alternative to a point-to-point call, if Skype for Business joins a VMR or RealConnect conference with RealPresence Desktop, the conference includes video.
Microsoft Skype for Business and Polycom RealPresence DMA virtual entry queues	On RealPresence DMA systems, virtual entry queues (VEQs) don't support direct dialing from Skype for Business clients into the RealPresence Platform.	
Microsoft Skype for Business and Polycom RealPresence DMA presence publishing	After editing a VMR in the RealPresence DMA system, Skype for Business clients experience a delay in updating presence information.	

Get Help

For more information about installing, configuring, and administering Poly/Polycom products or services, go to the Poly Online Support Center.

Related Poly and Partner Resources

See the following sites for information related to this product.

- The <u>Poly Online Support Center</u> is the entry point to online product, service, and solution support information including Video Tutorials, Documents & Software, Knowledge Base, Community Discussions, Poly University, and additional services.
- The <u>Poly Document Library</u> provides support documentation for active products, services, and solutions. The documentation displays in responsive HTML5 format so that you can easily access and view installation, configuration, or administration content from any online device.
- The <u>Poly Community</u> provides access to the latest developer and support information. Create an
 account to access Poly support personnel and participate in developer and support forums. You
 can find the latest information on hardware, software, and partner solutions topics, share ideas, and
 solve problems with your colleagues.
- The <u>Poly Partner Network</u> are industry leaders who natively integrate the Poly standards-based RealPresence Platform with their customers' current UC infrastructures, making it easy for you to communicate face-to-face with the applications and devices you use every day.
- The <u>Poly Services</u> help your business succeed and get the most out of your investment through the benefits of collaboration.

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