Polycom® RealPresence® Distributed Media Application™ (DMA®)

Providing unparalleled quality, resiliency and scale for your video collaboration network

Video calling has become mission-critical as employees are dispersed in many locations and using multiple devices such as tablets, PCs and smartphones, as well as a multitude of collaboration applications. Despite the challenges of expanding scale and providing support for a plethora of device types, network administrators need to ensure that video collaboration is reliable and easy, no matter where employees are working or what devices they are using.

The powerful Polycom® RealPresence® Distributed Media Application™ (DMA®) solution allows users to connect regardless of protocol standard, device, network or location—making communication between employees, partners and customers simple and effective. Administrators can expand and offer new services by leveraging existing communication network investments through the Polycom RealPresence DMA system. With its broad partner support, Polycom RealPresence DMA centralizes dial plans and provisioning, and simplifies management without complex reconfigurations or replacements of bridges or voice IP PBXs.

The highly resilient and scalable Polycom RealPresence DMA solution supports any size video network from small deployments of less than 100 devices to an unmatched scale of 50,000 concurrent calls and 150,000 registrations for the largest available networks. Intelligent load balancing and redundant auto-failover, configured in geographically distributed super clusters, deliver unmatched resiliency.

Video conferencing is now as reliable and available as other mission-critical communications, such as voice solutions. Utilizing intelligent algorithms, the powerful software of Polycom RealPresence DMA dynamically routes calls throughout the network based on priority, class of service, resource availability, network outage and highly efficient load balancing and virtualization of bridging resources. Centralized reporting and monitoring, and native integration with Microsoft® Active Directory®, dramatically simplifies meeting room provisioning and slashes ongoing administration costs.

It's critical to provide a secure route for users to connect from virtually any location and device, providing support for business-to-business and intra-company collaboration. The Polycom RealPresence DMA edge configuration enables users within and beyond the firewall to securely access video services at home, in the office or on the go—securely routing communications, management and content through firewalls without requiring additional client hardware or software. You can easily and effectively deploy, configure and manage the solution while reducing the cost to support the growing number of video-enabled workers in your organization without compromising network security.
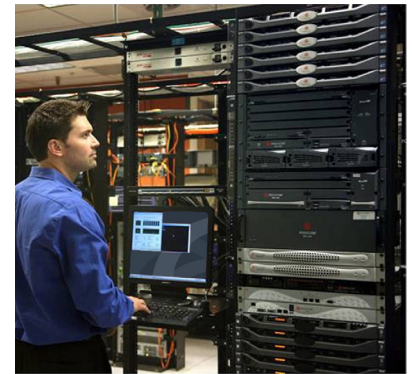
Benefits

- **Universal dial plan**—Connect regardless of protocol standard, device, network or location, providing seamless connectivity without complex reconfiguration of UC environments

- **Unmatched scale**—Supports 150,000 device registrations and 50,000 concurrent calls, and provides load balancing and MCU resource management for up to 64 bridges in the most demanding environments

- **Highest resiliency**—Redundant application servers and databases with geographically distributed super clusters ensures high availability services

- **Simplified administration**—User accounts and personal meeting rooms are automatically provisioned centrally, with little or no administrative effort

- **API suite**—XML and JSON REST standards-based API suite for custom provisioning, conference management, billing and resource reporting applications

- **Secure collaboration from anywhere**—Collaborate over video while on the go, in the office or from home

- **SIP/H.323 combined support**—Single server application that combines remote and B2B calling scenarios with SIP and H.323 (AVC and SVC) capabilities for a seamless video collaboration experience within and beyond the firewall

Application specifications

Highlights

- Redundant/fault tolerant application clusters
- Cluster/supercluster configuration
- Geographical distribution of application cluster
- Geographic distribution of media/content servers
- Access proxy
- Firewall/NAT traversal
- Combined edge and core combo configuration for all core conferencing and firewall traversal needs on one device
- Auto-cascade for size and bandwidth
- Automatic call routing using H.323/SIP
- API Suite for provisioning, billing and conference management
- Polycom® RealPresence® Resource Manager/RealPresence DMA share bridge resources
- Automatic SIP conference failover
- Unified communications support
- Configurable conference templates
- Configurable group policies
- Support for Polycom® RealPresence® Web Suite
- Support of multiple dial plans
- HTML5 user interface for administration
- Point-to-point call to VMR escalation (works with Polycom® RealPresence® Group Series v6.1.5 or higher)
- Simplified deployment options for Polycom® ContentConnect™ using the DMA MatchMaker load balancer
- SIP and H.323 remote users (registered/provisioned endpoints)
- SIP and H.323 guest users (unregistered/unprovisioned endpoints)
- SIP and H.323 business-to-business calling
- RTP/SRTP media relay
- HTTP(S) tunneling
- AVC and SVC support
- LDAP/H.350 directory
- XMPP presence
- HTTPS/XML provisioning
- TLS security
- WebRTC
- STUN/TURN

Supported protocols

- E.164 dialing
- H.323 audio/video
- SIP audio/video support
- PSTN/ISDN audio/video via Polycom® RealPresence® Collaboration Server 2000/4000
- Telepresence Interoperability Protocol (TIP)
- Scalable Video Coding (SVC)
- IPv6
- VLAN

Reliability

- Supports full redundancy with automatic failover
- Cluster and super cluster configurations for full redundancy with automatic failover throughout the network
- License pooling across clusters
- Support for NIC bonding
- High system availability
  - Duplicate application servers (clusters)
  - Geographically distributed application clusters
  - Replicated databases
  - Synchronized data updates and call processing
  - Mix and match appliance and virtual machine for high availability
- Media server and dynamic resource (port) management
  - Multiple routing policies: zone-based, least used, priority
  - Media server management

Capacity

- Supports up to 64 Polycom RealPresence Collaboration Servers and Cisco Telepresence MCU
- Single cluster (node) supports:
  - Registrations: 15,000
  - Point to point concurrent calls: 5,000
  - VMR concurrent calls:
    - SIP = 2,400
    - H.323 = 1,200
- Supercluster (up to 10 servers in a cluster) supports:
  - Registrations: 150,000
  - Point to point concurrent calls: 50,000
  - VMR concurrent calls:
    - SIP = 7,200
    - H.323 = 3,600
- DMA in edge configuration supports:
  - Up to 1,000 concurrent calls

Security

- Linux operating system
- Integration with existing IT access control mechanisms (e.g., Microsoft Active Directory)
- Lock-down of all nonessential services
- Does not provide or affect Assured Services Features (ASFs)
- Access List (ACL)

Call control features

- SIP registrar
- SIP proxy
- H.323 gatekeeper
- 500 concurrent SIP/H.323 GW calls
- IPv4/IPv6 – H.323 and SIP
- Network bandwidth management
- Priority-based routing
- Advanced dial plan management (numerous dial options/flat dial plan/MCU prefix dialing/ISDN gateway dialing/prefix dialing/Polycom one dial)
- Flexible call models – Ad hoc dial in, dial out, scheduled calls via Polycom RealPresence Resource Manager API

System management

- Web-based, real-time dashboard for network administration
- Real-time data updates on capacity and system information
- Capacity histogram of high water daily port utilization
- Policy-based device/resource controls
- API suite for provisioning, billing and conference management
- Auto accounts and conference room creation when using corporate Microsoft Active Directory
- Logging, alarming, notification and audit records for troubleshooting, diagnostics and reporting
- SNMP v3 network management
- Quick initial configuration
- HTML5 administrator interface

Services available

- Polycom RealPresence Platform solution design
  - Design the right deployment plan for your environment
- Video network readiness services
  - Prepare your network for reliable, high-quality video service
- Remote implementation services
  - Deploy smoothly and efficiently
- User adoption services
  - Increase usage through training and awareness
- Support services
  - Access features and enhancements as released, reduce downtime

About Polycom

Polycom helps organizations unleash the power of human collaboration. More than 400,000 companies and institutions worldwide defy distance with video, voice and content solutions from Polycom. Polycom and its global partner ecosystem provide flexible collaboration solutions for any environment that deliver the best user experience and unmatched investment protection.

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