

#### **DATA SHEET**

# Polycom® RealPresence® Collaboration Server 1500, 2000 and 4000 Series

# Universal video collaboration at the highest quality for the lowest cost

From your CEO to the intern, people use video collaboration to share the next great idea from wherever they are at anytime. The rise of the video-enabled workforce creates a need for a dynamic, scalable and reliable platform; a platform that is interoperable with your existing and future collaboration investments. Polycom® RealPresence® Collaboration Server platforms meet these needs, connecting the most people at highest quality.

# Reduce cost and complexity through innovative design

The unique, innovative architecture of Polycom Collaboration Servers reduces costs and complexity. Only Polycom RealPresence Collaboration Server provides support for AVC and SVC protocols without expensive gateways, extra boxes or added risk. With Polycom Collaboration Servers, SVC based HD callers use 1/3 the resource of traditional AVC-based HD callers. In addition, dynamic resource allocation provides the right amount of resources per AVC call to reduce costs by eliminating wasted HD resources and enabling approximately 3.5 times greater capacity compared to other conference platforms.

### Protect your investments and prepare for the future

Polycom RealPresence Collaboration Server breaks down barriers to video collaboration with broad support for existing and emerging standards, protocols, applications, devices and interoperability between unified communications (UC) environments. Only Polycom RealPresence Collaboration Server platform solutions provide native integration with leading UC applications and support for IP, H.323/SIP, PSTN and ISDN, AVC and SVC, all within a single conference platform.

# Transform your office into a high-performance workplace

Collaboration Server helps thousands of companies get business done faster no matter where their people are. Organizations can collaboration from anywhere through video conferencing that's easy to join—as simple as clicking a link from a calendar or social business application or making a phone call. Content is shared in crystal clear high definition. Unique 'selective mixing' audio technology eliminates unwanted background noise, enabling callers to hear the speaker and conversation flow with pin-drop clarity. For IT, Polycom RealPresence Collaboration Server software provides flexibility and control to administrators through customizable virtual meeting rooms and user profiles. Its straightforward administrator interfaces help enable consistent, in-person communication experiences without cumbersome technology roadblocks, speeding your rate of video collaboration adoption to increase productivity.



#### Benefits

- Lowest TCO—Experience a
   3x HD capacity increase with a
   simple software download, lower
   operating expenses with up to
   50 percent less bandwidth
   utilization and enable more people
   on more calls through dynamic
   resource allocation
- Interoperability without compromise—Leverage UC investments without expensive gateways or extra licenses that add cost and complexity
- Highest resiliency—Leverage the power of Polycom® RealPresence® Virtualization Management™ solutions for reliable, extreme scalability with 100 percent auto-failover
- Enterprise quality collaboration— Experience life-like collaboration through Polycom Selective Mixing, Polycom® Lost Packet Recovery™ (LPR™), video and audio upscaling, (Symmetric 1080p) and Polycom® UltimateHD™ technologies
- Universal collaboration—Remove barriers to interoperability with broad support for existing and emerging standards, applications, protocols and devices for seamless worldwide collaboration

	Polycom® RealPresence® Collaboration Server 1500	Polycom® RealPresence® Collaboration Server 2000	Polycom® RealPresence® Collaboration Server 4000
Physical dimensions (H x W x D), power and architecture	<ul> <li>1.75 x 19 x 26.3 in, 1U (4.44 x 48.26 x 60 cm)</li> <li>Weight: Up to 26.5 lbs (12 kg)</li> <li>Power: 100-240 VAC ±10%, 50-60 Hz; 350 W max power consumption</li> </ul>	<ul> <li>5.22 x 19 x 15 in, 3U (13.28 x 48.26 x 40 cm)</li> <li>Weight: Up to 36.38 lbs (16.5 kg)</li> <li>Two slot media processing modules (MPMx cards)</li> <li>Two slot application server (one for MCU management)</li> <li>Power supply drawer</li> <li>Fan drawer</li> <li>Power: 100-240 VAC ±10%, 50-60 Hz; 900 W max power consumption</li> <li>Advanced Telecom Computing Architecture (AdvancedTCA)</li> <li>High bandwidth backplane for seamless connection between all cards</li> </ul>	<ul> <li>10.5 x 19 x 15.74 in, 6U (26.56 x 48.26 x 40 cm)</li> <li>Weight: Up to 88 lbs (40 kg)</li> <li>Four slot media processing modules (MPMx cards)</li> <li>Two slot application server (one for MCU management)</li> <li>Configurable power entry setup: AC or DC</li> <li>AC option: Three AC power supplies with three power cords (at least one redundant and hot swappable)</li> <li>DC option: Two DC inputs (main and battery)</li> <li>DC Power: Voltage range; -40.5 – 60 V DC SELV, with circuit breaker</li> <li>Power: 1500 W max power consumption AC and DC</li> <li>High bandwidth backplane for seamless connection between all cards</li> <li>Fan drawer</li> <li>Advanced Telecom Computing Architecture (AdvancedTCA)</li> </ul>
Capacity	Dynamic Resource Allocation supports up to:  15 HD 1080p30 endpoints in CP  10 HD 1080p60 endpoints in CP  30 HD 720p endpoints in CP  60 SD endpoints in CP  90 CIF (H.264) endpoints in CP  90 SVC endpoints in CP  80 HD 720p 2Mb endpoints in Video Switching (VSW) mode  360 VOIP and 120 PSTN audio endpoints  Fixed Resource Capacity sets RealPresence Collaboration Server 1500 resources for constant capacity no matter what the call type  Supports a single conference without cascading of up to 360 audio or 90 video participants  Integration with Polycom Virtualization Manager (DMA) support up to 25,000 concurrent calls and 75,000 active registrations in a supercluster mode, for highscale, redundant conferencing	Dynamic Resource Allocation supports up to:  30 HD 1080p30 endpoints in CP  20 HD 1080p60 endpoints in CP  60 HD 720p endpoints in CP  120 SD endpoints in CP  180 CIF (H.264) endpoints in CP  180 SVC endpoints in CP  180 HD 720p 2Mb endpoints in Video Switching (VSW) mode  720 VOIP and 400 PSTN audio endpoints  Fixed Resource Capacity sets RealPresence Collaboration Server 2000 resources for constant capacity no matter what the call type  Supports a single conference without cascading of up to 720 audio or 180 video participants  Integration with Polycom Virtualization Manager (DMA) support up to 25,000 concurrent calls and 75,000 active registrations in a supercluster mode, for highscale, redundant conferencing	Dynamic Resource Allocation supports up to:  60 HD 1080p30 endpoints in CP  40 HD 1080p60 endpoints in CP  120 HD 720p endpoints in CP  240 SD endpoints in CP  360 CIF (H.264) endpoints in CP  360 SVC endpoints in HD  320 HD 720p 2Mb endpoints in Video Switching (VSW) mode  1440 VOIP and 400 PSTN audio endpoints  Fixed Resource Capacity sets RealPresence Collaboration Server 4000 resources for constant capacity no matter what the call type  Supports a single conference without cascading of up to 720 audio or 180 video participants  Integration with Polycom Virtualization Manager (DMA) support up to 25,000 concurrent calls and 75,000 active registrations in a supercluster mode, for highscale, redundant conferencing
Operating environment specifics	Maximum BTU output: 1,195 per hour     Operating altitude: 1,200 ft (360 m) below sea level and up to 13,000 ft (4 km)     Transit/Storage Sea level and up to 50,000 ft (15 km)	<ul> <li>Maximum BTU output: 2,390 per hour</li> <li>Operating altitude: 1,200 ft (360 m) below sea level and up to 13,000 ft (4 km)</li> <li>Transit/Storage Sea level and up to 50,000ft (15 km)</li> </ul>	Maximum BTU output: 5,120 per hour     Operating altitude: 1,200 ft (260 m) below sea level and up to 13,000 ft (4 km)     Transit/Storage Sea level and up to 50,000ft (15 km)

# **Product specifications**

#### Operating environment

- Operating temperature: 32–104° F (0–40° C)
- Storage temperature: -40–158° F (-40–70° C)
- Relative humidity: 15–90% non-condensing
- · Video support
- · Native Microsoft RTV support
- Native Telepresence Interoperability Protocol (TIP) support
- Native IBM® Sametime® integration via Polycom RealPresence Collaboration Server conferencing add-in for IBM Sametime
- H.261, H.263 (H.263++), H.264, H.264
   High Profile (AVC & SVC)
- Up to 60 frames per second
- From QCIF to HD1080p including wide range of intermediate resolutions
- Up to HD1080p 60 fps and 720p 60fps in continuous presence (CP) transcoding
- 16:9 and 4:3 aspect ratio
- H.239 content sharing resolution (H.263/H.264): VGA, SVGA, XGA 1080p and 720p
- Polycom® People+Content™ technology
- Polycom® Video Clarity™ technology to sharpen and upscale video

#### Audio support

- G.711a/u, G.722, G.722.1C, G.722.1,
   G.723.1, Add G.719 G.729A, and Polycom®
   Siren™ 14 and Siren 22 (in mono or stereo)
- IVR prompts for auto attendance
- User and managed mute control
- DTMF support
- Echo and keyboard noise suppression
- Audio clarity to sharpen and upscale audio

#### Management tools

- RealPresence Collaboration Server () Manager offers Web-based and application-based access
- Multi-RealPresence Collaboration Server () Manager—View up to 10 RMX platforms
- Administrator, operator, chairperson, and auditor views
- Onboard Shelf management monitors and maintains hardware elements
- Complete XML API kit for 3rd party application integration

- Up to 4000 address book entries
- · Address book quick search
- Scheduling options\*
- Operator conference
   Internal reservation calendar\*
- Scheduling and gatekeeping functions via the Polycom® Converged Management Application™ (CMA®) 4000/5000 solution
- Move participant between conferences
- Conference templates to easily save layouts for recurring meetings\*
- External database access (LDAP/AD)
- SNMP V3.0 for external monitoring

#### Language support

- English, Simplified Chinese, Traditional Chinese, Japanese, Russian, German, Korean, Spanish, French, Italian, Portuguese, Norwegian
- Double Byte (Unicode) site names

#### Network support

- Network Separation (multiple IPs)
- ICE and SRTP Support —video and content
- IP H.323 (AVC)
- IP SIP (AVC and SVC)
- PSTN and VoIP voice
- ISDN (H.320)
- IPV4 and IPV6
- 10/100/1000 Mb interface
- 64 kbps to 6 Mbps conference data rates
- Up to 768 kbps for content
- · Gateway calls
- Direct dial-in from any network
- AS-SIP

#### Transcoding

- · Audio algorithms
- · Video algorithms
- Networks
- Resolution
- Frames rates
- Bit rates
- Content Transcode for H.263 and H.264 on the same conference

#### IP QOS

- Polycom® Lost Packet Recovery™ (LPR™) technology
- DiffServ
- IP Precedence
- Dynamic jitter buffer
- · Voice and video error concealment

#### Security

- UC APL
- Separation of management and media networks
- AES media encryption (IP and ISDN)
- Transport layer security (SIP and management network)
- · Strong password policy
- · Tiered administrative access levels
- Secure conference mode

#### Approval and compliance

- JITC
- RoHS 6
- EMC: FCC 47CFR PART 15, VCCI, C-Tick, ICES-003, EN55022, EN55024, EN 61000-3-2, EN 61000-3-3, EN 300-386\*
- Safety: UL 60950-1 (ETL), IEC 60950-1 (CB), EN 60950-1 (CE), AS/NZS 60950-1, CCC, GoST-R
- Telco (ISDN): IDA TS ISDN-PRA, A-Tick AS/ACIF S038:2001, MII, KC, TIA-968-A, CS-03 Issue 9 Part VI, Ordinance No. 31, TBR-4, PTC 100, PTC 216, TRA, TEC, MOC, SIRIM, GEN001, IT001

#### Conferencing highlights

- Support for Polycom® RealPresence® CloudAXIS™ Suite v1.1
- · Selective mixing audio
- Integration with Polycom® RSS™ series for recording and streatming
- Support for Polycom immersive telepresence rooms (Polycom® ATX™, Polycom® OTX®, Polycom® RPX™)
   HD multipoint conferencing
- Unified conferencing (voice, video and data)
- Up to 35 different conference layouts
- Personal and auto layout options
- Layout range 1 x 1 to 4 x 4
- Support of Polycom LPR technology on both H.323 & SIP protocols
- Support standard H.264 High Profile
- Advanced Polycom Polycom® Click&View™ visual layout tool
- Customized resolution configuration
- Customized HD welcome slides
- Layout background (skin) options
- Lecture and presentation mode
- Roll call
- Closed caption
- · Message overlay
- · Conference profiles
- Conference templates

- Far-end camera control (FECC) H.224/ H.281, H.323 annex Q and SIP FECC
- · Conference dial out and dial in
- Up to 2000 virtual meeting rooms
- · Advanced IVR flow
- Multilingual and transparent site name options
- H.239 support over H.323 cascaded links (between any Polycom bridges)

#### Native integration

- Microsoft® Lync® Server 2010 and Office Communications Server 2007R2
- IBM® Sametime® 8.5.2 IFR1 (Standard or Advanced)
- Cisco Unified Communications Manager 8.6.2, 8.5 (Polycom RealPresence Virtualization Manager (DMA) 5.0 required)

# Warranty

 One (1) year limited hardware warranty: unit returned to Polycom factory within 30 days after receipt; 90-day software warranty: bug fixes/minor releases.
 Please contact your Polycom reseller or a Polycom sales representative for more details.



# **About Polycom**

Polycom is the global leader in open standards-based unified communications and collaboration (UC&C) solutions for voice and video collaboration, trusted by more than 415,000 customers around the world. Polycom solutions are powered by the Polycom® RealPresence® Platform, comprehensive software infrastructure and rich APIs that interoperate with the broadest set of communication, business, mobile and cloud applications and devices to deliver secure face-to-face video collaboration in any environment.

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<sup>\*</sup> RealPresence Collaboration Server 4000 only