Max Life with Polycom RealPresence Web Suite

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About this guide

The Partner Solutions Guide describes how a partner solution and Polycom combine to solve specific customer needs.

The Polycom Partner Solutions Guide for integration with Max Life is for administrators who need to integrate Polycom RealPresence with Max Life.

Please read the Polycom and Max Life documentation before you install or operate the system.
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Overview

Advanced Mobile Telemedicine Solutions

Proven mobile connectivity maintained with video/audio solutions, providing doctors quality telepresence that they control from anywhere

Max Life is a comprehensive telemedicine solution provider. Hardware, software, connectivity, 24/7 support and training designed to meet specific needs and protocol.

Max Life Telemedicine systems provides live streaming video, audio, and diagnostic device capabilities to doctors and specialists who can remotely access ambulances and portable clinic cases to diagnose and treat patients.

Maintain a high-quality Polycom audio/video call in transit with multiple carrier redundancy and bandwidth bonding.

MAX LIFE simplifies the implementation and use of remote access mobile telemedicine.

Polycom® RealPresence® Web Suite combined with Max Life “Doctor Side Control” is an innovative and powerful solution providing telemedicine collaboration to anyone, anywhere with features rich in content sharing capabilities that help bring new ideas to life while integrating easily with everyday workflows.

- Multi-stream content sharing enables multiple documents to be viewed simultaneously including whiteboard, blackboard, and annotation
- Universal browser access allows users to host or join meetings, share content, and collaborate with other web, mobile, desktop, and room system participants
- Simple click-to-connect convenience quickly brings participants into a meeting on a PC, tablet, or smartphone by clicking a URL link received in an IM, email, or calendar invitation
- High-quality B2B collaboration and B2C video conferencing leverages Polycom RealPresence Clariti – the industry’s most interoperable, scalable, and secure video infrastructure solution

Together Max Life and Polycom have delivered a solution specifically designed for the medical industry that will be advancing their protocol with Telemedicine. Along with proven quality connectivity a new feature called “Doctor Side Control” is now available. We can provide total control to the doctor/specialists to fully navigate and conduct a telemedicine session.
Solution Overview

Polycom RealPresence Web Suite featured with Max Life “Doctor Side Control” allows healthcare providers to arrange impromptu or scheduled telehealth face to face audio/video telemedicine sessions to take place by automatically sending invitations with meeting details including a web link for simple click-to-connect convenience. Once in the telemedicine session, Web Suite opens a world of collaboration. With a browser and multiple camera sources on a PC, smartphone, or a tablet, RealPresence Web Suite with “Doctor Side Control” makes it easy to extend telemedicine to any medical necessity, anywhere.

- Experience plug-in free cost effective WebRTC mesh calls with automatic call escalation to a bridge when a non-WebRTC endpoint joins the meeting
- Multi-stream HTML5 content sharing saves network bandwidth while allowing multiple documents to be viewed simultaneously including whiteboard, blackboard, and annotation – with desktop and application sharing providing additional flexibility
- Provide telemedicine services and interoperate with a wide range of Polycom SIP/H.323 solutions and other 3rd party endpoints
- A software solution that runs on industry standard servers on-premise or in cloud datacenters and in conjunction with the RealPresence Platform
- Completely HIPAA compliant and encrypted

The Challenges

Design and build ruggedized, mobile telemedicine equipment.

Provide specialized hardware systems specific to the customer’s protocol and needs.

Must maintain a quality connection weather in transit, rural or urban environments.

Create the simplest one button control software that is virtually self-explanatory in use.

Must allow the remote doctor or specialist to have complete control from their side to see and hear what and when they choose, simply.

Software needs to be HIPAA compliant and encrypted.

Remote doctor must be able to switch audio as needed for electronic stethoscope or specialized audio devices.

Nurse or Medic at the patient side must be able to screen share live ultra sound images as well as a variety of diagnostic equipment including EKG, etc.
The Solution

Max Life and Polycom, together have designed and developed a RealPresence Web Suite add-on to address challenges currently facing the telemedicine industry. Up until now healthcare providers providing telemedicine services had to solely rely on the patient side nurse/medic to control what is to be seen or heard. Max Life has met and exceeded all hardware challenges indicated.

Solution Highlights

Connection Services
- Active Redundancy
- Leverage Multiple Carriers
- Packet and Latency Loss Prevention
- Seamless Failover
- Quality Audio/Video in Transit

Application
- Doctor Side Controls
- Simple One Button Click
- Easy to use Interface

Full Service
- System Design/ Integration
- Professional Installation
- Managed Connectivity
- Software/Hardware
- 24/7 Support
- Training
Figure 1 – Max Life System Flow Diagram
Max Life Implementation

Design Considerations

Since Max Life integration with Polycom RealPresence Web Suite is designed for uses in various medical environments important considerations for each use case has been identified. Although the actual software functionality remains constant, each different application produces its own design questions.

Max life is a complete and comprehensive provider of Telemedicine and will design, build and implement per the customer’s specifications and protocol needs.

Mobile Stroke Unit / Specialty Ambulance / General Trauma Vehicles

ML-AMB

Audio / Video / Diagnostic

- 15” PCAP Touch Screen with Built-In USB & Audio Hub
- Rugged Fan Less Computer
- Omni directional Condenser Microphone & Speaker
- Live Streaming HD Web Camera
- Live HD Pan, Tilt, Zoom Camera
- Multi Band Permanent Mount Antennas
- Rugged 5 Port Switch
- Bonded Modem
- Rugged Handheld Real-Time HD Exam Cam with LED Light and Photo Snap Shot
- Digital Video Otoscope w/ Internal Light and Photo Snap Shot Feature
- Electronic Stethoscope
- Wireless Keyboard
- 360° / 180° Panoramic Overhead Camera
- Live HD Dash Camera with Windshield Mount
- Programmable 12V Power Timer (15 min. – 8 hrs.)
- Optional Cameras & Peripheral Devices Can Be Added

Max Life with Polycom RealPresence Web Suite

- Hosted in cloud datacenters and in conjunction with the RealPresence Platform
- Hosted on-premise with industry standard servers in conjunction with the RealPresence Platform
Max Life Mobile Clinic Cases

ML-CC

Audio / Video / Diagnostic

- Overall Weight: 35 lbs.
- Dimensions: 22”x14.5”x9”
- 15” Touch Screen
- Rugged Computer
- Omni Directional Condenser Microphone & Speaker
- Live Streaming HD Web Camera
- Bonded Modem
- Dual Multi Band Antennas
- Battery Backup System (1-2 hrs. of standalone power, pending peripheral consumption)
- Rugged Handheld Real-Time HD Exam Cam with LED Light and Auto Focus
- Digital Video Otoscope w/ Internal Light and Photo Snap Shot Feature
- Electronic Stethoscope
- Wireless Keyboard
- Rugged Case with Pull Handle and Wheels

Max Life with Polycom RealPresence Web Suite

- Hosted in cloud datacenters and in conjunction with the RealPresence Platform
- Hosted on-premise with industry standard servers in conjunction with the RealPresence Platform
ML-ULCC

Audio / Video / Diagnostic

- Overall Weight: 17 lbs.
- Dimensions: 19”x15”x7.5”
- Microsoft Surface Tablet with Pen
- Omni directional Condenser Microphone & Speaker
- Bonded Modem
- Dual Multi Band Antennas
- Battery Backup System (1-2 hrs. of standalone power, pending peripheral consumption)
- Rugged Handheld Real-Time HD Exam Cam with LED Light and Auto Focus
- Digital Video Otoscope w/ Internal Light and Photo Snap Shot Feature
- Electronic Stethoscope
- 5 Port USB Hub
- Rugged Case

Max Life with Polycom RealPresence Web Suite

- Hosted in cloud datacenters and in conjunction with the RealPresence Platform
- Hosted on-premise with industry standard servers in conjunction with the RealPresence Platform

In-Hospital Computer Cart on Wheels

Max Life can update existing in-hospital equipment to provide the same access for the remote doctor with “doctor side controls”.

Audio / Video Devise Selection

- Pan-Tilt-Zoom Camera
- General Hand Held Exam Camera
- Otoscope
- Dermascope
- Iris Scope
- Ultra Sound Probe
- Electronic Stethoscope

Max Life with Polycom RealPresence Web Suite

- Hosted in cloud datacenters and in conjunction with the RealPresence Platform
- Hosted on-premise with industry standard servers in conjunction with the RealPresence Platform
Overall Key Features

Hardware
- High Tolerance of Shock and Vibration
- High Performance
- Wide Operating Temps
- Rugged Computing

Bonded Connectivity
- Bandwidth Bonding
- Multiple Carrier Redundancy
- WAN Smoothing
- Best In Class Performance

Telemedicine Applications
- Ambulance (Mobile Stroke Unit, Pediatric Transport, Cardio Transport, and General Emergency Transport)
- Clinic Cases (Portable Units with Mobile Connectivity and Medical Devices)
- Home Healthcare
- Patient Follow-up Care
- Telemedicine Hospital Carts (ER Carts, Bedside Carts, Surgical Room Carts)

No Additional Hardware Purchase Required
- Use Existing Devices from the Hospital or Doctors Side
- Tablets, Smartphones, Laptops and Desktop PCs
Installation
Installation Requirements

Max Life with Polycom RealPresence Web Suite

Operating System Requirement
- Microsoft Windows 32-bit and 64-bit – Windows 7,8,8.1,10
- Mac® - Mac OS X® 10.9.5 or higher
- iOS – iOS 9 and 10 (Select Devices)
- Android – 4.4 and later (Select Devices)

Browser Requirements
- Microsoft Internet Explorer - Version 11 (only) for Windows
- Mozilla Firefox - For Windows and Macintosh
- Google Chrome - For Windows and Macintosh
- Apple Safari - For Macintosh

Client Software Component
- RealPresence Web Suite client plug-in – Required for web browser-based SIP services
- RealPresence Extension – Required for Google Chrome

Minimum End User Requirements
- Processor – Intel Core i5, 2.5 GHz or AMD equivalent
- RAM – 4GB
- Video Memory – 256 MB
- Hard Drive Space 200 MB
- Audio Devices - Standard PC97 audio devices
- Camera Integrated or external
- Monitor Recommended: 16:9 aspect ratio, 1920 x 1080 resolution Minimum: 1024 x 768 resolution

Max Life with Polycom RealPresence Web Suite
- Hosted in cloud datacenters and in conjunction with the RealPresence Platform
- Hosted on-premise with industry standard servers in conjunction with the RealPresence Platform.
  This option will require a technical discussion with Polycom and Max Life.
For More Information

Max Life Product Information
For more information about Max Life visit www.maxlifelive.com

https://www.youtube.com/watch?v=P9P-k3Qd80M

Max Life Support
For technical support of any Max Life Products or Services, please go to https://www.maxlifelive.com/support or Email to Support@maxlifelive.com

Polycom Support
For support or service of Polycom products, please contact your Polycom distributor or go to Polycom Support at http://www.polycom.com/support

For more information about Polycom Technology Partner Program and the Technology and Developer Partner solutions, visit http://www.polycom.com/partners
Test/Validation Annex

Max Life integration with Polycom RealPresence Web Suite has been validated by Max Life in mobile broadband environments bonding multiple carriers.

Cellular connectivity is a major topic of conversation when talking about telemedicine especially in the mobile environment. Cellular Coverage, reliability and signal strength are a few major components that really play a role in defining how well we can stay “connected”. Below are graphs representing ATT and Verizon coverage during one of many road tests Max Life has done. Notice the type of signal variation that happens during any mobile broadband session. With many road trips and connectivity test we learned that relying on a single network provider for connectivity is really limiting how far telemedicine services can be extended. By combining multiple carriers into a single broadband tunnel we can now take advantage of the reliability of these network at the same time to enhance the overall telemedicine experience.

Graph of Verizon Connection

Graph of ATT Connection
Area covered corresponding to the cellular connectivity graphs