



Polycom[®] RealPresence[™] Rooms HDX[®] Generic Room Layouts



High Definition Systems

HDX Version 3.1

Jan. 1, 2013

Updated by Frank Rodriguez

Table of Contents

HDX – Generic Room Recommendations	3
1.0 What are your video conferencing requirements?	3
1.1 Video conferencing network considerations	4
1.2 Video conferencing room considerations	5
2.0 Diagrams and Options	7
2.1 Polycom® HDX® 4002 System	7
2.2 Polycom® HDX® 4500 System	8
2.3 Polycom® HDX® 6000 View Room System	9
2.4 Polycom® HDX® 6000 Room System	10
2.5 Polycom® HDX® 7000 Room System	11
2.6 Polycom® HDX® 8000 and HDX Media Center Room System	12
2.7 Polycom® HDX® 8000 and HDX Executive Collection Room System	13
2.8 Polycom® HDX® 8000 Wall mount Room System	14
2.9 Polycom® HDX® 9000 Executive Stand Room System	15
3.0 Polycom® HDX® Top Features/Options Recap	16
3.1 H.264 High Profile	17
3.2 Polycom® Touch Control	18
3.3 Polycom® Eagle Eye Director	19
3.4 Polycom® Eagle Eye Cameras	20
3.5 Polycom® UC Board™ Option	21
3.6 Polycom® HDX® Embedded Multipoint Option	22
3.7 Polycom® Mic Arrays	23
3.8 Polycom® SoundStation® IP 7000	25
3.9 Polycom® SoundStructure™	26
4.0 Polycom® HDX® I/O Ports	27
5.0 Polycom® HDX® Executive Collection and HDX Media Center	28
6.0 Polycom® Global Services	29
7.0 Polycom® RealPresence™ Platform	30

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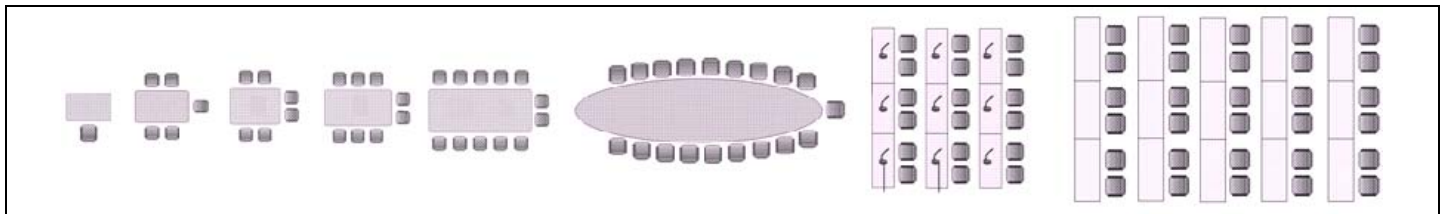
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HDX – Generic Room Recommendations

1.0 What are your video conferencing requirements?

Requirements	Responses
Is the system going to be installed in North America, South America, Europe or Asia?	
Is the system going to be on a Cart, Stand, Wall mounted or Integrated in to the conf room?	
Do you want the Polycom Solution which includes the displays, Stand/Cart or Wall Mount?	
Do you want to have two displays; One for Video and one for Content?	
Do you need table top or ceiling microphones?	
How many microphones will you need?	
Do you need to connect a Secondary Pan Tilt Zoom Camera?	
Do you need to Dial outside your office over the Internet to customers or partners?	
Do you need to connect to a PRI, BRI's or Serial legacy networks?	
Do you need an analog phone line connection?	
Do you need to show PowerPoint presentations and documents?	
Do you need to be part of the presentation like the weatherman using a green screen background?	
Do you need to conference with up to 4 total sites?	
Do you need to conference with up 5 or more sites?	
Or do you need to connect with large number of sites?	
Do you need to connect a DVD/VCR?	
Do you need to connect a Document Camera?	
Do you need to connect to Cable TV or Satellite TV service?	
Do you need to connect to a Control System such as AMX or Crestron?	
Do you need push to talk Mics?	
Do you need Wireless Lapel Mics?	
What speakers are you planning to use?	

What is the conference room seating like? How many conference rooms need video conferencing?



Polycom HDX Solution Options:



1.1 Video conferencing network considerations

Network Verification:

Network verification should be done well ahead of real-time traffic deployment, so that any issues uncovered during the verification process can be resolved before real-time traffic begins to flow. The performance numbers below shows good target values for an enterprise network supporting voice or video conferencing. Meeting these goals will insure quality voice and video conferencing transport.

Performance:

Packet Loss < 0.1%
Packet Latency <= 150 ms
Packet Jitter < 40 ms

Bandwidth:

What is the max video call bandwidth allowed?
Add 20% IP overhead bandwidth above the actual video call rate used
Bandwidth is not constant; it's determined by motion, background and video/content

The HDX Minimum Bandwidth Requirements per resolution (without IP overhead):

Resolution	Bandwidth	including 20% overhead
4CIF at 30 fps	128k	153k
4CIF at 30 fps	256k	307k
4CIF at 30 fps	384k	460k
720p at 30 fps	512k	614k
720p at 30 fps	768k	921k
720p at 60 fps	832k	998k
1080p at 30 fps	1024k	1228k

Quality of Service (QoS):

Provide end to end MPLS if possible
Prioritize Video Conferencing packets for best results
Provide QoS IP Precedence or DiffServ packet tagging info to configure in the HDX's

Virtual Local Area Networks (VLAN's):

If VLAN's are used, implement a VLAN for the Video Conferences Equipment

IP Addresses:

Provide Static IP addresses for all Video Equipment whenever possible

NIC Duplex:

Should configure both HDX and LAN Switch for "AUTO/AUTO" or 100/Full Duplex negotiation (They need to match).

User Experience:

Try to maintain a consistent configuration across all the HDX (Call Rates, Features, User Interface...)

Firewalls:

Allow all H.323 Video ports to pass through any internal firewalls.
The Polycom Video Border Proxy is available for internal or external secured access if existing firewalls do not support H.323.

Gatekeeper:

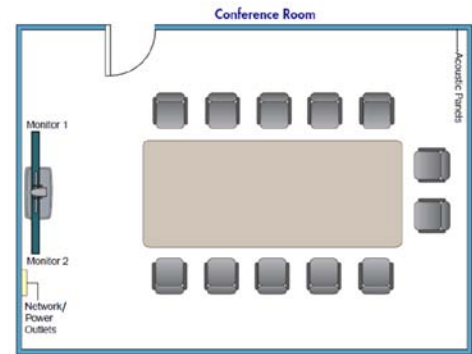
Implement Polycom CMA or DMA for Gatekeeper Services
Implement endpoint BW policies and WAN Link BW policies
Implement a consistent ALIAS assignment, i.e. the phone extension as your HDX ALIAS
Implement a corporate wide dialing scheme

1.2 Video conferencing room considerations

The following are just a few of the room considerations; please see the Plcm Integrators Guide for additional details.

Windows:

Windows usually present the equivalent of an acoustic nightmare (as well as altering the way a camera renders colors and brightness). They not only transmit room sound, but also allow unwanted outside noise to intrude on the conference space. In the event that windows cannot be avoided, it becomes essential that window treatment of some sort be used. This treatment should match the interior look and feel of the space, while providing a high level of sound and light block. Typically a heavyweight drape (24 ounces or more) of heavy fullness (not less than 6" fullness on not less than 8" centers per fold) is preferred. In all cases, the use of sheer draperies or standard vertical or horizontal blinds should be avoided, due to their inherent inefficiency in blocking sound and light, and the fine lines they create within the camera field of view.



Interior Design and Finishes

Wall colors within the field of view of the camera have a significant impact on the far-end perception of the room video quality. Certain colors are better suited to video rooms than others. The electronics and software of the videoconferencing system "builds" the images at the far-end from a gray/blue reference image. When there is a minimal difference between the room background and the reference image color, the codec has an easier time turning the image into numbers, with the result that the far-end will see a much higher quality video presentation. In general, light gray with just a touch of blue seems to work best. For rooms that have marginal lighting, slightly darker colors are quite useful. In keeping with these color recommendations, the acoustic panels should be ordered in light colors such as silver-gray, quartz or champagne for panels within the camera field of view. For aesthetics, however, panels may be alternated in color along the wall.

The brightness of the lighting in a videoconference room plays an important role in determining the far-end view of the meeting. When there are low to moderate amounts of light—20fc to 35fc (footcandles), typical office lighting—the distance range of "in focus" objects (depth-of-field) usually is only 2' or 3' from nearest in-focus to furthest in-focus. With bright light (70fc or more) the range of in-focus objects can more than double. Participants at the far-end will see more people in sharp focus, and the codec will have an easier time encoding the image.

Bright standard direct fluorescent lighting has the undesirable side effect of being harsh for the local participants. In addition, the direct down lighting casts significant "drop shadows." The result is undue stress among participants.

The best plan for videoconferencing is to use indirect lighting for 80 to 85 percent of the light, and evenly distributed direct lighting for the remaining 15 to 20 percent. The indirect light will help minimize shadows on the faces of the participants, and make the room more comfortable for viewing the far-end on the TV monitor. The direct light can be used to create backlight separation between foreground and background objects or surfaces. There should be not less than 55fc and ideally as much as 75fc of light (770lux) on the faces of the participants in the facial field as viewed by the camera in the conference space. The light should be completely even across the field of measure or view, and of one consistent color temperature.

To best meet these requirements, indirect fluorescent lighting most often is recommended. This type of lighting works by using the upper walls and ceiling as diffuse reflectors for the light. The usual recommended color temperature for these is 3,000 to 3,800 degrees Kelvin. If there is a significant quantity of outdoor light entering the room, the lamps should be more than 5,500 degrees Kelvin.

Light Fixtures

The light fixtures generally recommended for indirect lighting are available from a number of manufacturers. They typically are three-tube, 8" oval indirect up-lights, though they may take the form of chandelier-style pendant lights, wall sconces, cove lights or flush mounted specialized troughs. Many manufacturers work closely with contractors and lighting designers to ensure that the correct light levels and shadow-free zones are designed into the room, especially when used for videoconferencing. Lamps for these fixtures are available in a variety of specified color temperatures from numerous manufacturers, including Sylvania, General Electric and Osram/Phillips.

Indirect fixtures are available in a number of different designs or "looks," and can be purchased in configurations that will complement and not detract from the interior design of the space. Lighting layout recommendations and determination of the number of fixtures needed are handled either by the architectural design firm or by submitting a complete floor plan, including reflected ceiling, walls and furniture placement, to fixture vendors. The vendors will analyze the plans and return a finished lighting layout to the customer, detailing the number of fixtures, placement and required wiring.

It is important to remember that the use of traditional meeting room downcans—even those that have color-corrected light sources—for any lighting in the field of view that may include human faces is to be avoided at all costs. These will result in extremely uneven fields of light, or pools, and heavy, unnatural shadows on the faces of the participants.

Walls

Conference room walls should be built from slab to slab. That is, there should be no gaps from the concrete of one floor to the concrete of the next floor. Resilient, gypsum board mountings should be used to close any gaps. The thickness of the gypsum board should be 5/8" or more (one layer of 5/8" and one layer of 1/2" bonded together would be ideal) on the inside of the room, with 1/2" thick (or as required by local building codes) appropriate for the outside of the walls. There should always be a difference in thickness between the materials used on the inner versus the outer walls. That difference in thickness subdues mechanical coupling (vibration) between the two layers. A good overall wall thickness is 6". It is recommended that "offset stud" construction be used, typically a 6" header and footer with 3.5" verticals attached in an alternating pattern one toward the outside of the footer, the next toward the inside and so on.

Fiberglass dense batting or mineral rock wool, 4" to 6" thick (the equivalent of R-11 to R-13) should be placed in the wall space. The thickness of the batting is not critical. The critical aspect is that it must be loosely placed in the wall space, not compacted to fit. The resultant wall will have excellent acoustic isolation from the outside world. More significant acoustic isolation can be achieved by placing an additional barrier layer within the wall space. Typically this barrier will be made of a dense polymer material, about 1/8" thick, and the improvement regarding loss of sound transmitted through the wall will be roughly a factor of 10. These materials are available from a variety of manufacturers.

Furniture

As we have noted, VC rooms should be slightly on the large side for the typical number of attendees. The placement of furniture should present a natural rapport with the videoconference system, but shouldn't preclude the local interaction of conference participants. Doorways used for access to the space usually should be within the view of one of the camera presets to prevent the perception from the far-end that people could come into their meeting unseen. Doorways should not, however, be in constant, direct view of the camera system, as this may cause unwanted distractions and movement of people in the picture field.

Any tables within the conference environment should have a light top surface. Glossy tops should be avoided, as should strong colors or any bold wood grain. If glossy or saturated color surfaces are unavoidable, then proper lighting can help reduce (but not necessarily eliminate) their ill effects. The best table surface color is a flat satin finish, in neutral gray. In cases where the worst possible surfaces are present, the proper surface color effect can be achieved by using a table covering, put in place only when the room is being used for videoconferencing. This will, however, create problems related to the use of access ports in the tables or movement of end-user items across the surface.

Ceiling Tiles:

These should be high-quality acoustic tiles, ideally 1"- thick compressed densecore fiberglass. An added benefit of this kind of ceiling tile is that it works well with the indirect lighting as specified elsewhere in this section. To reduce any extraneous noise from leaving or entering the room via the ceiling space, the ceiling tiles can be blanketed completely from the plenum side, with a minimum of 6"- thick unfaced dense fiberglass batting or mineral rock wool, (the equivalent of R-15 to R-19). Here again, a barrier layer will improve the performance, but all local building codes must be followed for allowable materials in the various aspects of room acoustic modifications. To make entry and exit from the ceiling space easier, the blanket and barrier do not need to rest on the ceiling tiles, but may be suspended above it.

Air Conditioning

It is critical that all air-handling equipment (blowers, heat exchangers, solenoid valves, etc.) be located outside the physical meeting room space. This will prevent the noise burden associated with such equipment from affecting the participants of any meetings held in the room. Location of air-handling equipment within the ceiling space of a conference room often renders that room unusable for video or audio-only conferencing.

The air vents should be of open construction to eliminate "wind noise" while the system is running. These vents normally are specified as "low-velocity" diffusers. The number of air vents within the room should be sufficient to maintain a consistent temperature throughout the space. All HVAC ducts and diffusers should be oversized for the general application in the space, with minimum 2' diameter insulated flexible ducts and matching 2' noise dampening diffusers generally best. All ducts should be installed with gradual bends and curves rather than rigid 90-degree corners. This will minimize "thunder" sounds as the initial air pushes through the ductwork and into the room. There should be a thermostat to control this specific room system independently of the rest of the building, and that control should be located within the room.

Important: Allow an additional 5,000 BTU of cooling capacity for a standard "roll-about" single monitor VC system with extended in-room peripherals (PC, document camera, scan converter, etc.) and a minimum of 10,000 BTU for a dual display multimedia presentation system with large screen displays. For the comfort of the participants, the room must accommodate these heat loads, plus the heat load of a room full of people, with minimal temperature rise. [Polycom HDX Integrators Reference Guide](#)

The following diagrams are just recommendations; consideration from number of participants, size of the display, distance to the display, lighting, room colors, type of conference room table and furniture should be discussed before implementing video conferencing.

2.0 Diagrams and Options

2.1 Polycom® HDX® 4002 System



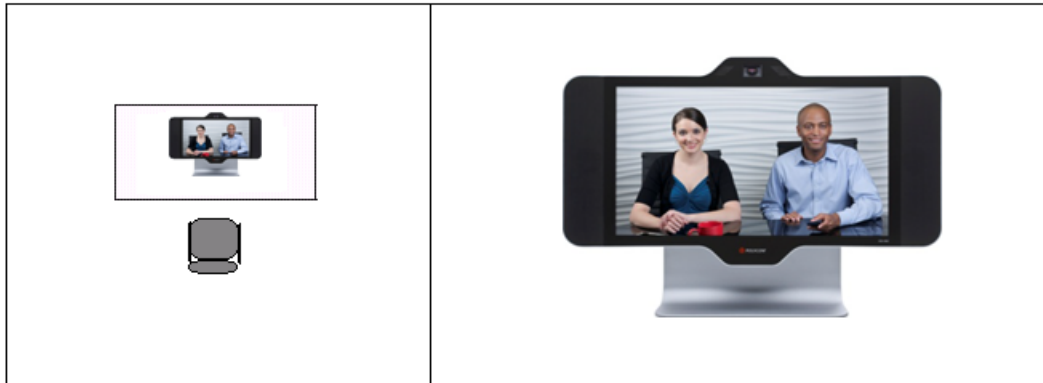
The HDX 4002 is designed as a personal system; which includes the 20" display with integrated camera and Mics and speakers.

HDX® 4002 Options:

Codec Bundle

Features	Description	4002
	HDX-4002 HD System – 20.1 Integrated LCD Display with Camera, Mic's and Speakers	√
	Internal HDX Multipoint Plus Option (Host + 3 sites)	Opt.
	People+Content – Direct VGA connection to HDX for PC Content.	√
	People+Content IP - Send PC Content without a direct VGA cable	√
	People On Content – The weatherman feature (a green screen is required)	√
	HDX Tabletop Microphone Array	Opt.
	HDX Ceiling Microphone Array	Opt.
	HDX H.320 Modules – Optional H.320 PRI, BRI or Serial Modules Options	Opt.
	HDX Remote Control	Opt.
	Polycom IP 7000 SIP Speaker Phone	Opt.
4 Mbps	HDX 4Mbps data rate upgrade option allows for up to 4Mbps IP calls and allows for higher rate Internal Multipoint calls	√
RTV License	HDX RTV/CCCP license for Microsoft® RTV codec and direct calls to MS AV MCU	Opt.








2.2 Polycom® HDX® 4500 System



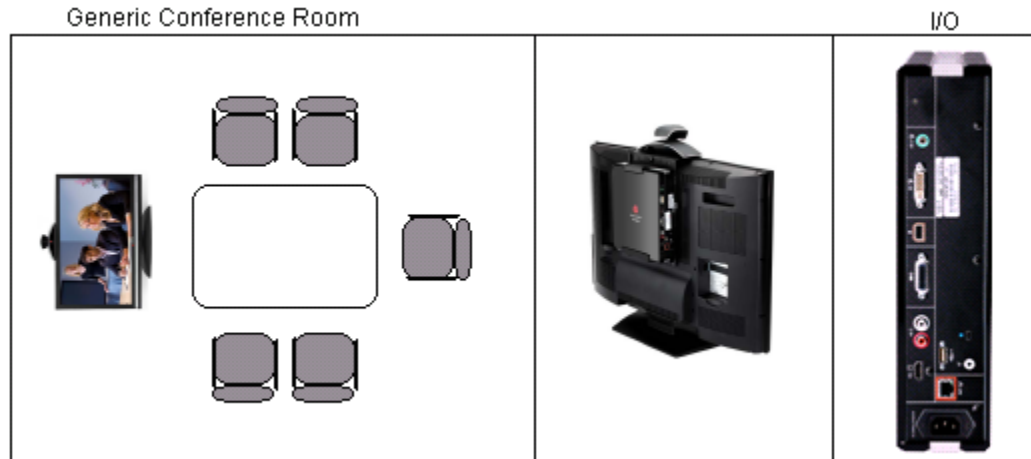
The HDX 4500 is designed as a personal system; which includes the 24” display with integrated camera and Mics and speakers.

HDX® 4500 Options:

Codec Bundle

Features	Description	4500
	HDX 4500 Executive Desktop System ; includes: P+C, People On Content licenses, 24” Widescreen Display, Keypad with cable. Requires HDX v3.0.1 or higher.	√
2 nd Monitor	Second monitor output (DVI), supports up to 1080p display	√
	Internal HDX Multipoint Plus Option (Host + 3 sites)	Opt.
	People+Content – Direct VGA connection to HDX for PC Content.	√
	People+Content IP - Send PC Content without a direct VGA cable	√
	People On Content – The weatherman feature (a green screen is required)	√
	HDX Remote Control	Opt.
	Polycom Touch Control for use with HDX 6000, 7000, 8000, and 9000 series codec's with software version 3.0 or later.	Opt.
4 Mbps	HDX 4Mbps data rate upgrade option allows for up to 4Mbps IP calls and allows for higher rate Internal Multipoint calls	√
1080p License	Software option for HDX systems to enable 1080 encode/decode, 1080p codec	√
RTV License	HDX RTV/CCCP license for Microsoft® RTV codec and direct calls to MS AV MCU.	Opt.
TIP License	HDX TIP license to enable support for Cisco TIP compatibility	Opt.

2.3 Polycom® HDX® 6000 View Room System



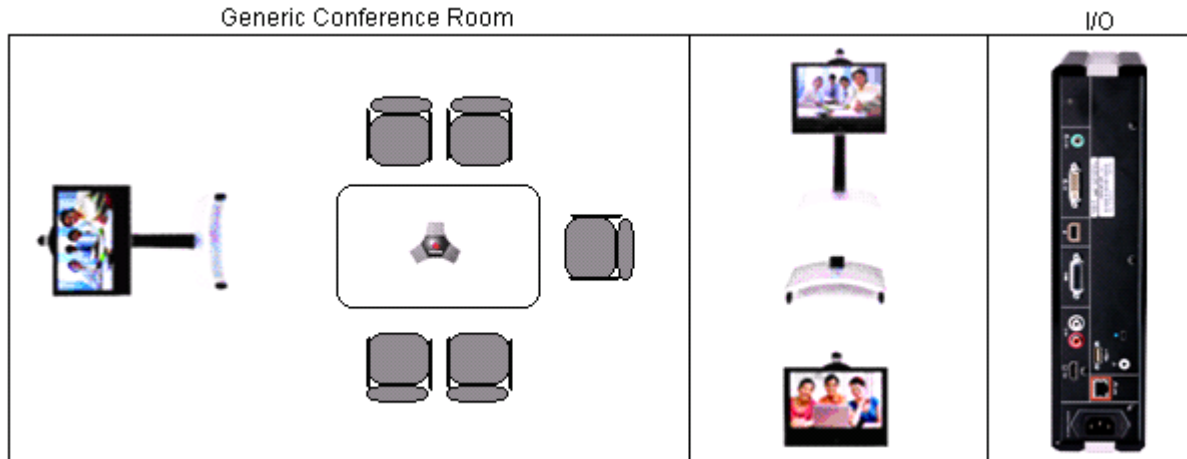
The HDX 6000 is designed for a small room with one display. The HDX 6000 only supports ONE display and ONE Camera. The bundle includes the View HD Fixed camera.

HDX® 6000 View codec and View Media Center Options:

Bundles

Features	Description	View Codec	View MC
	HDX 6000 HD System – Codec, Eagle Eye View Camera, Remote	✓	✓
	Single 42" display with speakers	Opt.	✓
Bracket	Wall mount bracket	Opt.	Opt.
	Polycom View HD Fixed Camera	✓	✓
	Polycom Eagle Eye III HD Camera	Opt.	Opt.
	EagleEye Director and two EagleEye 3 Camera, compatible with EE 2, EE 3, HDCI inputs and HDX software version 3.0.1 or later.	Opt.	Opt.
	EagleEye HD, EagleEye View and EagleEye QDX Camera wall/panel/shelf mounting bracket	Opt.	Opt.
	People+Content – Direct VGA connection to HDX for PC Content.	✓	✓
	People+Content Cable. DVI male to VGA male, with 3.5mm audio m-m, 7.62m (25')	Opt.	Opt.
	People+Content IP - Send PC Content without a direct VGA cable	✓	✓
	HDX Ceiling Microphone Array – Ceiling	Opt.	Opt.
	Polycom IP 7000 SIP Speaker Phone	Opt.	Opt.
	Polycom Touch Control for use with HDX 6000, 7000, 8000, and 9000 series codecs with software version 3.0 or later.	Opt.	Opt.
1080p License	Software option for HDX systems to enable 1080 encode/decode, 1080p codec	Opt.	Opt.
RTV License	HDX RTV/CCCP license for Microsoft® RTV codec and direct calls to MS AV MCU	Opt.	Opt.

2.4 Polycom® HDX® 6000 Room System



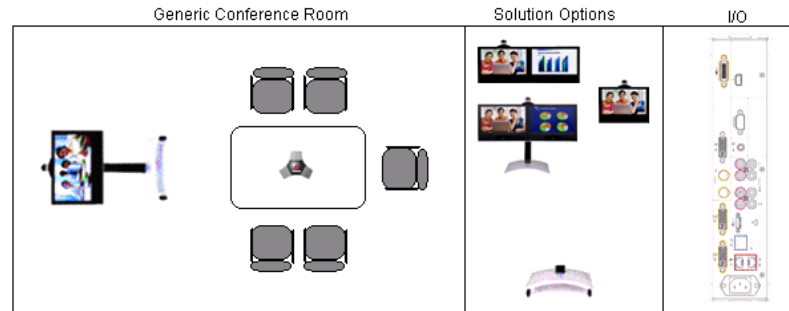
The HDX 6000 is designed for a small room with one display. The HDX 6000 only supports ONE display and ONE Camera.

HDX® 6000 Options:

Codec Bundle

Features	Description	720
	HDX 6000 HD System – Codec, Eagle Eye Camera, Mic Array, Remote	✓
	Polycom Eagle Eye III HD Camera (Primary Only)	✓
	EagleEye Director and two EagleEye 3 Camera, compatible with EE 2, EE 3, HDCI inputs and HDX software version 3.0.1 or later.	Opt.
	Polycom View HD Fixed Camera (Included with View bundle) Primary Only	Opt.
	EagleEye HD, EagleEye View and EagleEye QDX Camera wall/panel/shelf mounting bracket	Opt.
	People+Content – Direct VGA connection to HDX for PC Content.	✓
	People+Content Cable. DVI male to VGA male, with 3.5mm audio m-m, 7.62m (25')	Opt.
	People+Content IP – Send PC Content without a direct VGA cable	✓
	HDX Ceiling Microphone Array – Ceiling	Opt.
	Polycom IP 7000 SIP Speaker Phone	Opt.
	Polycom Touch Control for use with HDX 6000, 7000, 8000, and 9000 series codecs with software version 3.0 or later.	Opt.
1080p License	HDX systems license to enable 1080 encode/decode, 1080p codec	Opt.
RTV License	HDX RTV/CCCP license for Microsoft® RTV codec and direct calls to MS AV MCU	Opt.

2.5 Polycom® HDX® 7000 Room System



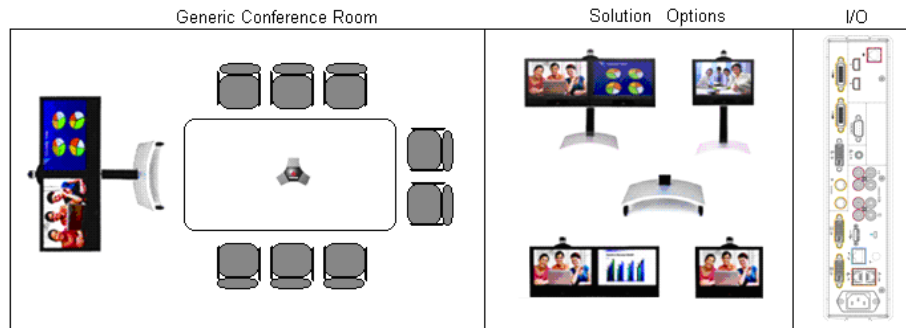
The HDX 7000 is designed for a small room with one camera and up to two displays. If two Eagle Eye cameras or room integration is required, the HDX-8000 or HDX9000 should be considered.

HDX® 7000 Options:

Codec Bundles

Features	Description	720	1080
	HDX7000 HD System – Codec, Eagle Eye Camera, Mic Array, Remote	✓	✓
	Support for 2 Display Outputs	✓	✓
	Polycom Eagle Eye III HD Camera (Primary Only)	✓	✓
	EagleEye Director and two EagleEye 3 Camera, compatible with EE 2, EE 3, HDCI inputs and HDX software version 3.0.1 or later.	Opt.	Opt.
	Polycom View HD Fixed Camera (Primary Only)	Opt.	Opt.
	EagleEye HD, EagleEye View and EagleEye QDX Camera wall/panel/shelf mounting bracket	Opt.	Opt.
	Internal HDX Multipoint Plus Option (Host + 3 sites)	Opt.	Opt.
	People+Content – Direct VGA connection to HDX for PC Content.	✓	✓
	People+Content Cable. DVI male to VGA male, with 3.5mm audio m-m, 7.62m (25')	Opt.	Opt.
	People+Content IP – Send PC Content without a direct VGA cable	✓	✓
	Polycom UC Board - USB connection directly to the HDX Dual Display Room System	Opt.	Opt.
	Additional HDX Tabletop Microphone Array	Opt.	Opt.
	HDX Ceiling Microphone Array – Ceiling	Opt.	Opt.
	SoundStructure Audio Mixer Option	Opt.	Opt.
	HDX H.320 Modules – Optional H.320 PRI, BRI or Serial Module Options	Opt.	Opt.
	Polycom IP 7000 SIP Speaker Phone	Opt.	Opt.
	Polycom Touch Control for use with HDX 6000, 7000, 8000, and 9000 series codecs with software version 3.0 or later.	Opt.	Opt.
4 Mbps	HDX 4Mbps data rate upgrade option allows for up to 4Mbps IP calls and allows for higher rate Internal Multipoint calls	✓	✓
1080p License	HDX systems license to enable 1080 encode/decode, 1080p codec	Opt.	✓
RTV License	HDX RTV/CCCP license for Microsoft® RTV codec and direct calls to MS AV MCU	Opt.	Opt.
TIP License	HDX TIP license to enable support for Cisco TIP compatibility	Opt.	Opt.

2.6 Polycom® HDX® 8000 and HDX Media Center Room System



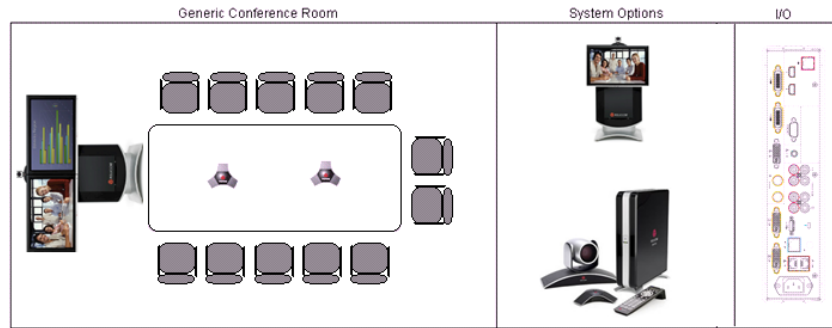
The HDX 8000 Media Center with a Single or Dual 42" LCD's or Single 50" Plasma.

HDX® 8000 Options:

Codec Bundles

Features	Description	720	1080
	HDX8000HD System – Codec, Eagle Eye Camera, Mic Array, Remote (Can receive 1080p and requires 1080p camera to send)	✓	✓
	Polycom Eagle Eye III HD Camera	✓	✓
	EagleEye Director and two EagleEye 3 Camera, compatible with EE 2, EE 3, HDCI inputs and HDX software version 3.0.1 or later.	Opt.	Opt.
	Polycom View HD Fixed Camera	Opt.	Opt.
	EagleEye HD, EagleEye View and EagleEye QDX Camera wall/panel/shelf mounting bracket	Opt.	Opt.
	Support for 2 Display Outputs	✓	✓
	Internal HDX Multipoint Plus Option (Host + 3 sites)	Opt.	Opt.
	People+Content – Direct VGA connection to HDX for PC Content.	✓	✓
	People+Content Cable. DVI male to VGA male, with 3.5mm audio m-m, 7.62m (25')	Opt.	Opt.
	People+Content IP – Send PC Content without a direct VGA cable	✓	✓
	People ON Content – The weatherman feature (Green screen technology)	✓	✓
	Polycom UC Board - USB connection directly to the HDX Dual Display Room System	Opt.	Opt.
	Up to 2 additional HDX Tabletop Microphone Array (Total Max = 3)	Opt.	Opt.
	HDX Ceiling Microphone Array	Opt.	Opt.
	SoundStructure Audio Mixer Option	Opt.	Opt.
	HDX H.320 Modules – Optional H.320 PRI, BRI or Serial Module Options	Opt.	Opt.
	Polycom IP 7000 SIP Speaker Phone	Opt.	Opt.
	Polycom Touch Control for use with HDX 6000, 7000, 8000, and 9000 series codecs with software version 3.0 or later.	Opt.	Opt.
6 Mbps	HDX 6Mbps line rate included with HDX8000 systems	✓	✓
1080p License	HDX systems license to enable 1080 encode/decode, 1080p codec	Opt.	✓
RTV License	HDX RTV/CCCP license for Microsoft® RTV codec and direct calls to MS AV MCU	Opt.	Opt.
TIP License	HDX TIP license to enable support for Cisco TIP compatibility	Opt.	Opt.

2.7 Polycom® HDX® 8000 and HDX Executive Collection Room System



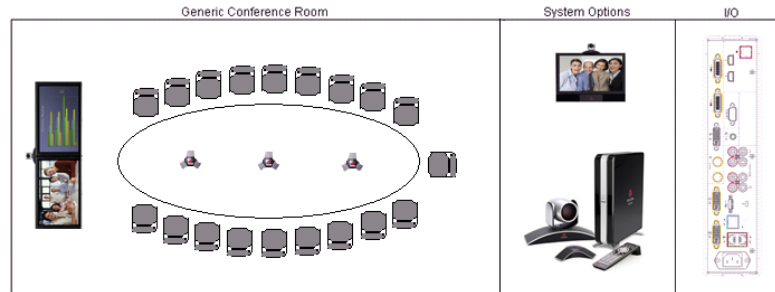
The HDX 8000 with Dual 50" Plasmas and Executive Collection Stand Solution

HDX® 8000 Options:

Codec Bundles

Features	Description	720	1080
	HDX8000 HD System – Codec, Camera, Mic Array, Remote	✓	✓
	Polycom Eagle Eye III HD Camera	✓	✓
	EagleEye Director and two EagleEye 3 Camera, compatible with EE 2, EE 3, HDCI inputs and HDX software version 3.0.1 or later.	Opt.	Opt.
	Polycom View HD Fixed Camera	Opt.	Opt.
	EagleEye HD, EagleEye View and EagleEye QDX Camera wall/panel/shelf mounting bracket	Opt.	Opt.
	Support for 2 Display Outputs	✓	✓
	Internal HDX Multipoint Plus Option (Host + 3 sites)	Opt.	Opt.
	People+Content – Direct VGA connection to HDX for PC Content.	✓	✓
	People+Content Cable. DVI male to VGA male, with 3.5mm audio m-m, 7.62m (25')	Opt.	Opt.
	People+Content IP – Send PC Content without a direct VGA cable	✓	✓
	People ON Content – The weatherman feature (Green screen technology)	✓	✓
	Polycom UC Board - USB connection directly to the HDX Dual Display Room System	Opt.	Opt.
	Up to 2 additional HDX Tabletop Microphone Array (Total Max = 3)	Opt.	Opt.
	HDX Ceiling Microphone Array	Opt.	Opt.
	SoundStructure Audio Mixer	Opt.	Opt.
	HDX H.320 Modules – Optional H.320 PRI, BRI or Serial Module Options	Opt.	Opt.
	Polycom IP 7000 SIP Speaker Phone	Opt.	Opt.
	Polycom Touch Control for use with HDX 6000, 7000, 8000, and 9000 series codecs with software version 3.0 or later.	Opt.	Opt.
6 Mbps	HDX 6Mbps line rate included with HDX8000 systems	✓	✓
1080p License	HDX systems license to enable 1080 encode/decode, 1080p codec	Opt.	✓
RTV License	HDX RTV/CCCP license for Microsoft® RTV codec and direct calls to MS AV MCU	Opt.	Opt.
TIP License	HDX TIP license to enable support for Cisco TIP compatibility	Opt.	Opt.

2.8 Polycom® HDX® 8000 Wall mount Room System



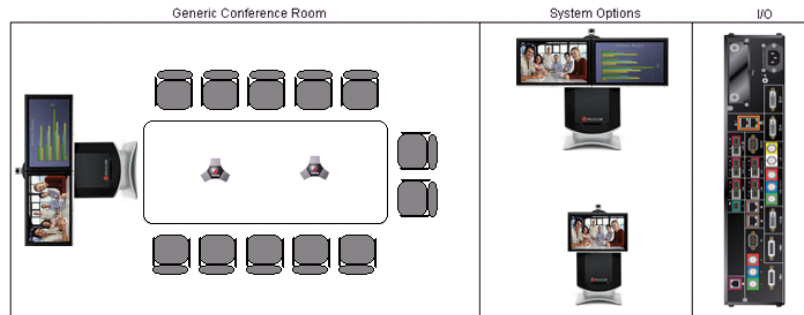
For the larger rooms, 50" or larger displays or projectors should be used. Multiple Mic Arrays or the Sound Structure Audio mixer with multiple microphones and speakers are recommended.

HDX® 8000 Options:

Codec Bundles

Features	Description	720	1080
	HDX8000 HD System – Codec, Camera, Mic Array, Remote	√	√
	Polycom Eagle Eye III HD Camera	√	√
	EagleEye Director and two EagleEye 3 Camera, compatible with EE 2, EE 3, HDCI inputs and HDX software version 3.0.1 or later.	Opt.	Opt.
	Polycom View HD Fixed Camera	Opt.	Opt.
	EagleEye HD, EagleEye View and EagleEye QDX Camera wall/panel/shelf mounting bracket	Opt.	Opt.
	Support for 2 Display Outputs	√	√
	Internal HDX Multipoint Plus Option (Host + 3 sites)	Opt.	Opt.
	People+Content – Direct VGA connection to HDX for PC Content.	√	√
	People+Content Cable. DVI male to VGA male, with 3.5mm audio m-m, 7.62m (25')	Opt.	Opt.
	People+Content IP – Send PC Content without a direct VGA cable	√	√
	People ON Content – The weatherman feature (Green screen technology)	√	√
	Polycom UC Board - USB connection directly to the HDX Dual Display Room System	Opt.	Opt.
	Up to 2 additional HDX Tabletop Microphone Array (Total Max = 3)	Opt.	Opt.
	HDX Ceiling Microphone Array	Opt.	Opt.
	SoundStructure Audio Mixer Option	Opt.	Opt.
	HDX H.320 Modules – Optional H.320 PRI, BRI or Serial Module Options	Opt.	Opt.
	Polycom IP 7000 SIP Speaker Phone	Opt.	Opt.
	Polycom Touch Control for use with HDX 6000, 7000, 8000, and 9000 series codecs with software version 3.0 or later.	Opt.	Opt.
6 Mbps	HDX 6Mbps line rate included with HDX8000 systems	√	√
1080p License	HDX systems license to enable 1080 encode/decode, 1080p codec	Opt.	√
RTV License	HDX RTV/CCCP license for Microsoft® RTV codec and direct calls to MS AV MCU	Opt.	Opt.
TIP License	HDX TIP license to enable support for Cisco TIP compatibility.	Opt.	Opt.

2.9 Polycom® HDX® 9000 Executive Stand Room System



HDX 9000 Executive Collection Bundles are only available in the US.

HDX® 9000 Options:

Codec Bundles

Features	Description	720	1080
	HDX9000 HD System – Codec and Remote	√	√
	Polycom Eagle Eye III HD Camera	Opt.	Opt.
	EagleEye Director and two EagleEye 3 Camera, compatible with EE 2, EE 3, HDCI inputs and HDX software version 3.0.1 or later.	Opt.	Opt.
	Polycom View HD Fixed Camera	Opt.	Opt.
	EagleEye HD, EagleEye View and EagleEye QDX Camera wall/panel/shelf mounting bracket	Opt.	Opt.
	Support for 2 Display Outputs	√	√
	Internal HDX Multipoint Plus Option (Host + 3 sites)	Opt	Opt
	People+Content - Direct VGA connection to HDX for PC Content.	√	√
	People+Content Cable. DVI male to VGA male, with 3.5mm audio m-m, 7.62m (25')	Opt	Opt
	People+Content IP - Send PC Content without a direct VGA cable	√	√
	People ON Content Option - The weatherman feature (Green screen technology)	√	√
	Polycom UC Board - USB connection directly to the HDX Dual Display Room System	Opt.	Opt.
	Up to 2 additional HDX Tabletop Microphone Array (Total Max = 3)	Opt	Opt
	HDX Ceiling Microphone Array	Opt.	Opt.
	SoundStructure Audio Mixer	Opt.	Opt.
	HDX H.320 Modules - H.320 PRI, BRI or Serial Module Options	Opt.	Opt.
	Polycom IP 7000 SIP Speaker Phone	Opt.	Opt.
	Polycom Touch Control for use with HDX 6000, 7000, 8000, and 9000 series codecs with software version 3.0 or later.	Opt	Opt
6 Mbps	HDX 6Mbps line rate included with HDX8000 systems	√	√
1080p License	HDX systems license to enable 1080 encode/decode, 1080p codec	Opt.	√
RTV License	HDX RTV/CCCP license for Microsoft® RTV codec and direct calls to MS AV MCU	Opt.	Opt.
TIP License	HDX TIP license to enable support for Cisco TIP compatibility	Opt.	Opt.

3.0 Polycom® HDX® Top Features/Options Recap

HDX Features & Supported Options	HDX	HDX	HDX	HDX	HDX	HDX	HDX
HDX v3.1	4002	4500	6000	6000	7000	8000	9000
Hardware	Rev C	N/A	N/A	N/A	Rev C	Rev B	Rev B
HDX Bundle Type	720	1080	View	720	720	720	720
HDX Base Unit	√	√	√	√	√	√	√
HDX Eagle Eye III HD Camera	X	X	Opt.	√	√	√	√
HDX View Fixed Camera	X	X	√	Opt.	Opt.	Opt.	Opt.
HDX Eagle Eye Director	X	X	Opt.	Opt.	Opt.	Opt.	Opt.
HDX Table Mica Array	Opt.	X	√	√	√	√	Opt.
HDX Remote Control	Opt.	Opt.	√	√	√	√	√
2 Mbps Line Rate	√	√	√	√	√	√	√
4 Mbps Line Rate	√	√	X	X	√	√	√
6 Mbps Line Rate	X	X	X	X	X	√	√
2 Video Output Support	X	√	X	X	√	√	√
3 Video Output Support	X	X	X	X	X	√	√
4-Way Embedded Multipoint (Host +3)	Opt	Opt	X	X	Opt	Opt	Opt
People+Content VGA Input	√	√	√	√	√	√	√
People+Content IP Software Applet	√	√	√	√	√	√	√
People ON Content (Green screen)	√	√	X	X	X	√	√
Polycom UC Board	X	X	X	X	Opt.	Opt.	Opt.
Additional HDX Table Mica Array Support	Opt Max 3	X	X	X	Opt. Max 2	Opt. Max 3	Opt. Max 3
HDX Ceiling Mic Array Support	Opt.	X	Opt.	Opt.	Opt.	Opt.	Opt.
H.320 Modules (BRI/PRI/Serial) Support	Opt.	X	X	X	Opt.	Opt.	Opt.
RS-232 (for control panel or camera) Support	X	X	X	Via IP	√	√	√
Analog Line (POTS) Port	√	X	X	X	X	√	√
HDX EE Secondary PTZ Camera Support	X	X	X	X	X	Opt.	Opt.
EE Camera wall/panel/shelf/bracket	X	X	Opt.	Opt.	Opt.	Opt.	Opt.
IP 7000 SIP Speaker Phone Support	Opt.	X	Opt.	Opt.	Opt.	Opt.	Opt.
SoundStructure Audio Mixer Support via RS232	X	X	X	X	Opt.	Opt.	Opt.
Polycom Touch Control	X	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.
ITU H.264 High Profile	√	√	√	√	√	√	√
ICE for Microsoft® environment	√	√	√	√	√	√	√
1080p License	X	√	Opt.	Opt.	Opt.	Opt.	Opt.
Microsoft® RTV License	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.
TIP License	X	Opt.	X	X	Opt.	Opt.	Opt.
HDX Features & Supported Options	HDX	HDX	HDX	HDX	HDX	HDX	HDX
HDX v3.1	4002	4500	6000	6000	7000	8000	9000
Hardware	Rev C	N/A	N/A	N/A	Rev C	Rev B	Rev B
Bundle Type	720	1080	View	720	720	720	720

There are 1080p bundles available for the HDX7000, HDX8000 and HDX9000
HDX4500 and Eagle Eye Director required HDX v3.0.1 or newer

3.1 H.264 High Profile

Polycom Is First to Deliver Breakthrough H.264 High Profile Telepresence Solutions

With the first and only H.264 High Profile implementation for real-time video, customers can immediately begin saving on bandwidth costs—up to 50%! With H.264 High Profile in [Polycom® HDX® room telepresence solutions](#) (shipping now) and on [RMX Conference Platforms](#) and [Polycom Immersive Telepresence](#) solutions in Q3 2010, Polycom continues bringing leading-edge, standards-based technologies to visual communication.

Now Less Delivers Much More

High Profile enables a dramatic reduction in the network resources necessary to video-enable organizations. It allows CIOs to meet budget challenges and power visual communication with fewer resources, thus limiting or avoiding costly network upgrades—all while remaining standards-based. Video deployments can now be extended to more sites, most cost effectively, and with greater quality, than ever before. In fact, in the first twelve months of ownership, a 5,000 person organization deploying a Polycom video network vs. a Cisco video network can see up to \$2 million in savings.

Performance Gains Accelerate High Definition Adoption and Lower Costs

The shift from Baseline Profile to High Profile delivers gains in performance across the full bandwidth spectrum. As a result, High Definition systems benefit the most from High Profile, enabling accelerated adoption of HD communication across organizations. Branch offices, remote sites, rural locations, and more can now enjoy the benefits of HD quality.

High Definition at lower call speeds

Resolution / Frame Rate	H.264 Baseline Profile Call Speed in Kbps (Industry Norm Today)	H.264 High Profile Call Speed in Kbps <i>Only from Polycom</i>
CIF 30fps	128	64
4CIF 30fps	256	128
4CIF 60fps	1024	512
720p 30fps	1024	512
720p 60fps	1512	832
1080p 30fps	2048	1024



"Our research has shown that a vast majority of video calls are being done at 768 Kbps or lower, so this move by Polycom is significant. Whoever said bandwidth was free?"
 – Andrew Davis, Wainhouse Research Bulletin February 22, 2010

H.264 High Profile Compatible Models

- HDX 6000 (All units with 2.6) *
- HDX 7002 (Rev C – shipping from early February 2010)
- HDX 8002 (Rev B – shipping from January 2009)
- HDX 8004 (Rev B – shipping from January 2009)
- HDX 8006 (Rev B – shipping from January 2009)
- HDX 9000 (New model – shipping from April 2010)

* HDX 6000 will RX-only 720p60 and 1080p30 in 2.6 with 1080 license key installed. Transmit is limited to 720p30 and 1080p15.
 High Profile also supported on the new HDX4500 with software v3.0.1 or higher

[H.264 High Profile Information Link](#)

[High Profile Video](#)

3.2 Polycom® Touch Control

Package Includes

- Polycom Touch Control, stand and RJ45 (LAN) cable
- POE adaptor

Usability

- Touch control on 7-inch screen
- Tap and touch control to access call controls and administrative menus

Technology

- Flexible Operating System
- Capacitive touch screen
- IR control for third-party devices
- Direct API command through network Electrical
- Power Over Ethernet (POE) required (power injector available)

Physical Characteristics

- Polycom Touch Control with removable stand
- 7.25" (W) x 5.5" (D) x 1 – 1.75" (H)

Warranty

- One-year return to factory parts and labor
- 90-day software warranty

Technical Documentation

- Award-winning documentation for setting up, maintaining, and using the system
- Available at www.polycom.com/videodocumentation

Development Information

- Visit www.polycom.com/touchcontrol to sign up for the latest developments with Polycom Touch Control



[Polycom Touch Control Information](#)

[Touch Control Video](#)

3.3 Polycom® Eagle Eye Director

Affordable Immersive Experience for Every Telepresence Application

- Revolutionizes the video conference experience by transforming any group meeting into an immersive experience with personalized, face-to-face communication
- Delivers close-up views, expressions and body language of every speaker in the conference, regardless of their location or the number of people in the room, with automated and 'directed' pan/tilt/zoom
- Intelligently emulates professional video production techniques, with seamless transitions between speakers and multiple camera views – like having a professional camera man on staff!
- Resolves common camera usability shortcomings by combining patent-pending technology and human factors break-through
- Eliminates embarrassing remote control errors to simplify and enhance the overall user experience



Front View



Rear View



Side View



Traditional Conference



Improved Experience with EagleEye Director

Features and Benefits

- Ideal for a wide variety of rooms from boardrooms to classrooms, giving users an affordable telepresence experience without manual intervention
- Automatically locates active speakers and through simultaneous voice triangulation and face-finding accurately crops their image for maximum visual impact
- Allows meeting participants to focus on participating - eliminates the need for user intervention with remote control; no confined movements to presets or IR collars to wear for historic tracking
- Installs quickly and easily to any Polycom HDX room telepresence system with a single camera-to-codec connection
- Minimizes training requirements, speeds user adoption and delivers faster ROI through maximum ease of use and heightened meeting interaction

[Polycom Eagle Eye Director Information Info](#)

[EagleEye Director Video](#)

3.4 Polycom® Eagle Eye Cameras

Experience high-definition video with the Polycom EagleEye HD camera and camera options, designed for the Polycom HDX conference room solutions, including the Polycom HDX 6000, 7000, 8000 and 9000 video conferencing solutions.



Eagle Eye III (MPTZ-9)

Camera Cable Options:

9ft10"/3M MAIN/AUX Camera Cable for EE HD 720, EE II & III 1080 cameras.

HDCI(M) to HDCI(M) Connects EagleEye HD camera to HDX series codec as main or secondary camera, secondary HDCI input requires camera to use external PS (1465-52748-040).

33ft/10M MAIN/AUX Camera Cable for EE HD 720, EE II & III 1080 cameras.

HDCI(M) to HDCI(M). Connects EagleEye HD camera to HDX series codec as main or secondary camera, secondary HDCI input requires camera to use external PS (1465-52748-040).

50ft/15M MAIN/AUX camera cable for EE HD 720, EE II & III 1080 cameras.

Limited support for EagleEye View camera (video & control only, no voice). Includes power supply and replaceable North American power cord (customer supplied for add'l geo's)

100ft/30M MAIN/AUX camera cable for EE HD 720, EE II & III 1080 cameras. Limited support for EagleEye View camera (video & control only, no voice). Includes power supply and replaceable North American power cord (customer supplied for add'l geo's)

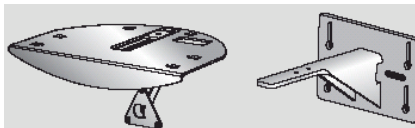


Eagle Eye View

Camera Cable Options:

9ft10"/3M Cable, EagleEye View camera cable. HDCI(M) to HDCI(M) with audio. Connects EagleEye camera to HDX series codec as main Camera only to HDCI 1. EagleEye View microphones active only with out Clink 2 connection

Camera shelf supports the EE HD, EE II, III, EE View, EE QDX, EE Director Cameras (2215-24143-001).



[HDX-Eagle-Eye-Comparison-Tech-Specs.pdf](#)

3.5 Polycom® UC Board™ Option



Easy-to-share and Easy-to-see – Start Creating

People meet to strategize, share ideas, and plan. When meeting over distance, participants on the far end of a video meeting can be at a disadvantage during creative or brainstorming sessions when content is shared spontaneously, spurred by conversation in the meeting. Whiteboarding and smart-boards are a great way to creatively interact and capture ideas but traditionally have been expensive and cumbersome to install and use in a video setting.

The Polycom® UC Board™ solution is the perfect solution to transform any whiteboard or LCD monitor into an interactive video whiteboard space and it natively integrates with the Polycom HDX® video system in the room. Sharing ideas in any video session is as simple as picking up a pen and starting to write, draw, and interact.

The Polycom UC Board solution is the latest in break-through innovations from Polycom that are transforming the collaborative experience and elevating a typical video conference into a fully interactive and immersive session where people make decisions, solve problems, and move to action. From doctors illustrating a diagnosis to a patient, to an architect sketching the next concept for green construction, to a student solving a problem with classmates from around the world, the Polycom UC Board solution enables users to interact naturally and efficiently. Users can easily share with multiple participants and also record their work with Polycom's recording and streaming technology.

Polycom UC Board Transforms Ordinary Surfaces into Virtual Whiteboards, Making Sharing Content via Video as Easy as Picking up a Pen

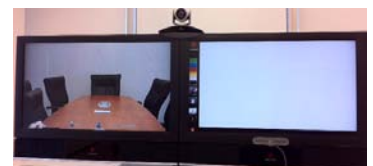
- The ability to 'video whiteboard' ideas and concepts with teams across the globe is finally here
- Breakthrough innovation brings secure HD video collaboration to the broadest range of business, video, mobile and social network applications
- Easily and quickly expand your reach with a full UC solution by integrating Polycom's recording and streaming solutions allowing all users to be on the same page no matter their location or device
- Immediate collaboration with no-training needed for end-users – simply pick up the pen and start sharing

Features and Benefits

- **Intuitive, familiar components** – Combines a compact infrared sensor that attaches to a whiteboard or monitor and a wireless stylus that meeting hosts can use to sketch, write and annotate just as they would use any pen or marker.
- **Easy to install** – Set up and use UC Board in minutes without opening more applications or hunting for extra hardware, via a simple, direct USB connection to the Polycom HDX system.
- **Easy to use** – Polycom UC Board works the moment the stylus touches the writing surface, requiring absolutely no technical skill or training to operate – including whiteboard sharing and annotating over Content
- **Cost Effective** – Provides HD video whiteboarding at a fraction of the cost by leveraging your existing Polycom investments and the whiteboards you already own.
- **Easy-to-share and easy-to-see** – A simple, elegant and cost-effective solution to the common problem that remote participants cannot see whiteboard content during video conferences and are therefore unable to engage and participate the same as others.

The UC Board Requires a dual display HDX configuration




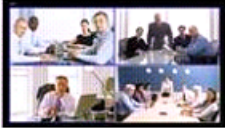






- HDX7000 Rev C
- HDX8000 Rev B
- HDX9000 Rev B







[Polycom UC Board Product Info](#)

[UC Board Video](#)

3.6 Polycom® HDX® Embedded Multipoint Option

HDX 4000		HDX 4500		HDX 7000		HDX 8000		HDX 9000	
									
									
Resolution	Participants	Resolution	Participants	Resolution	Participants	Resolution	Participants	Resolution	Participants
PSTN Voice	1	PSTN Voice				PSTN Voice	1	PSTN Voice	1
HD, SD, or CIF	Host + 3	HD, SD, or CIF	Host + 3	SD, or CIF	Host + 3	HD, SD, or CIF	Host + 3	HD, SD, or CIF	Host + 3

HDX Multipoint Viewing Modes:

HDX Multipoint Modes	Continuous Presences — Video images from multiple sites can be automatically combined on one screen. Voice Activated Switching: The active speaker is broadcast to everyone in Full Screen.
 AUTO	Auto — The view switches between continuous presence and full screen, depending on the interaction between the sites. If multiple sites are talking at the same time, continuous presence is used. If one site speaks uninterrupted for at least 15 seconds, that site appears in presentation mode.
 DISCUSSION	Discussion — Multiple sites are displayed in continuous presence. The current speaker's image is highlighted.
 PRESENTATION	Presentation — The speaker sees continuous presences while the other sites see the speaker in full screen.
 FULL SCREEN	Full Screen — The site that is speaking is shown in full screen to all other sites. The current speaker sees the previous speaker.

What you see during a multipoint call can depend on factors such as the Polycom HDX system monitor configuration, the number of sites in the call, the speed of the call, whether content is shared, and whether dual monitor emulation is used. The multipoint viewing mode on the host system is the mode used in the call.

If Polycom StereoSurround™ is enabled; multipoint calls in continuous presence provide a stereo effect. This stereo effect matches a far site's audio to its location on the display.

The HDX embedded Multipoint option does not support High Profile, 1080p, 720p60 resolution/content or Microsoft® RTV, however, these features are supported on the RMX series MCU's.

Polycom HDX7000 Embedded MCU (Host + 3)

Extend the reach of your Polycom HDX video conferencing solution to more locations. Supports mixed protocol dialing, including IP, SIP, ISDN, and Serial in Continuous Presence, Voice Activated Switching, or Presenter modes. It supports up to four video systems in SD resolution.

Polycom HDX4002, 4500, 8000 and 9000 Embedded MCU (Host + 3)

Extend the reach of your Polycom HDX video conferencing solution to more locations. Supports mixed protocol dialing, including IP, SIP, ISDN, and Serial in Continuous Presence, Voice Activated Switching, or Presenter modes. It supports up to four video systems in HD resolution and 1 POTS voice participant.

3.7 Polycom® Mic Arrays

Tabletop Mic Arrays

Polycom microphones each contain three microphone elements for 360° coverage. You can connect multiple Polycom microphones to a Polycom HDX system. Please see the possible microphone configuration options below per system:

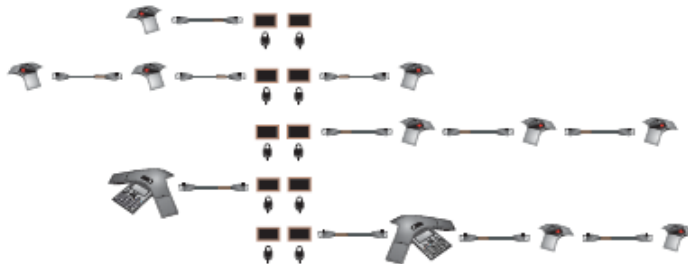
HDX6000



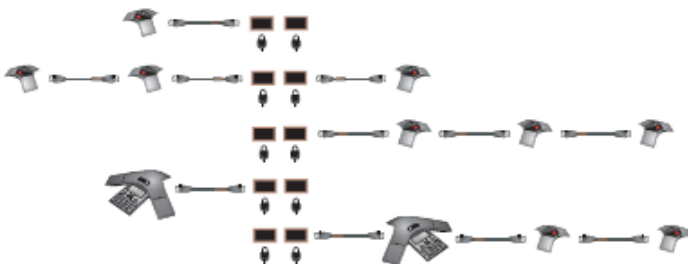
HDX7000



HDX8000



HDX9000



[HDX Microphone Array Info](#)

Ceiling Mic Arrays

Polycom microphones each contain three microphone elements for 360° coverage. You can connect multiple Polycom microphones to a Polycom HDX system. You can deploy a 1, 2 or 3 ceiling Mic arrays depending on the HDX Model and the room requirements. For additional Mics, the SoundStructure is utilized.

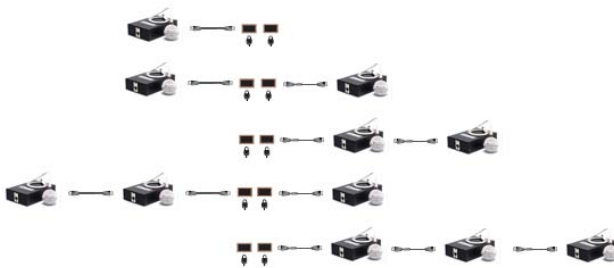
HDX6000:



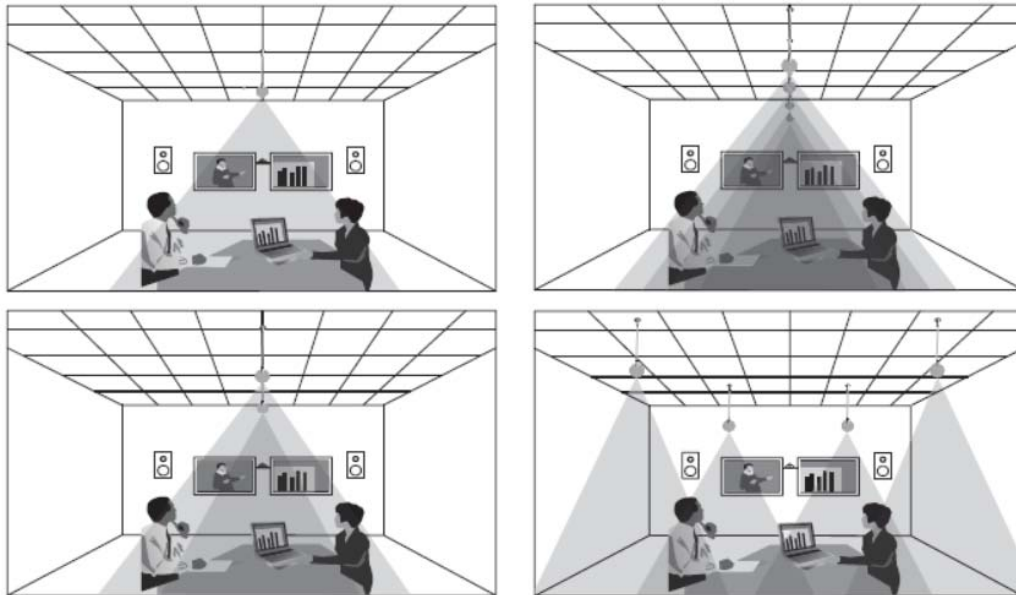
HDX7000:



HDX8000/9000:



Ceiling Mic Array Placements:



Four Ceiling Mic arrays are supported with the Polycom Sound Structure Series.

[Polycom Ceiling Microphone Array Info](#)

3.8 Polycom® SoundStation® IP 7000

The SoundStation IP 7000 is the most advanced conference phone ever developed. In addition to being a high-performance stand-alone conference phone, it also integrates with the Polycom HDX series of high-definition video conferencing systems. Integrating the two devices together delivers the following features and benefits:

- Dial, pick up, and hang up video calls from the conference phone without using a separate remote control
- The SoundStation IP 7000 delivers 20 feet of microphone pickup during video calls, reducing or eliminating the need for separate video microphones
- Add additional microphone pickup by connecting a SoundStation IP7000 expansion microphone directly to the conference phone
- The SoundStation IP 7000 is fully compatible with the Siren22 capabilities of HDX, delivering an unmatched HD Voice experience during video calls
- The conference phone can dial audio-only calls using the PSTN interface available on select Polycom HDX systems
- Initiate content sharing over video via the conference phone soft keys

Together, the Polycom HDX and SoundStation IP 7000 deliver a complete, integrated voice and video conferencing solution. One common interface is used for both video and video calls, making communication and collaboration easier and more intuitive. Plus, the HDX system supplies both power and connectivity to the SoundStation IP 7000 through a single cable, eliminating additional power supplies and conference room clutter.

In addition to its HDX integration features, the SoundStation IP 7000 is also a stand-alone IP conference phone that interfaces with select SIP-based IP telephony platforms. The conference phone can be connected to both Polycom HDX and a supported SIP platform simultaneously. If the conference phone is only connected to HDX, all voice and video calls are routed through the HDX, and the conference phone can then place audio-only calls via the PSTN interface on select HDX systems.

Astounding voice quality and clarity from the world's most advanced VoIP conference phone

- Polycom HD Voice™ technology for outstanding clarity
- 20-foot (7-meter) microphone pickup range for optimal performance and clarity
- Interoperable with leading SIP-based IP PBX and Softswitch platforms
- Integrates with Polycom HDX™ Video Conferencing Systems
- Integrated Power over Ethernet (PoE)



[Polycom SoundStation IP7000 Info](#)

3.9 Polycom® SoundStructure™

Scalability for Larger Rooms

For Polycom HDX applications in large environments, SoundStructure enables greater numbers of microphones and loudspeakers to be used, optimizing the audio experience for all participants, providing unprecedented flexibility for room combine and divide applications, and simplifying sound reinforcement applications. SoundStructure's OBAM™ matrix architecture enables up to 8 SoundStructure units to work together seamlessly, with up to 128 inputs and outputs for robust audio even in the largest meeting spaces.

Direct Integration with Polycom HDX Microphone Options

In addition to direct integration with HDX, SoundStructure can also connect directly to the Polycom HDX microphone array and HDX Ceiling Microphone Array. In environments where HDX is being used, simply connect the HDX microphones or HDX Ceiling Microphone Array directly to SoundStructure to take advantage of SoundStructure's advanced audio processing and performance. SoundStructure recognizes the microphones after they are plugged in and automatically configures the audio settings to maximize microphone performance. Up to four HDX microphones or HDX Ceiling Microphone Arrays can be connected at a time, or mix-and-match them with analog microphones.

Even in audio-only environments where HDX is not being used, the HDX microphones or HDX Ceiling Microphone Array can still be directly integrated with SoundStructure, delivering a high-performance installed audio solution that you can get up and running quickly.

Extend HD Voice to your HD Video Experience

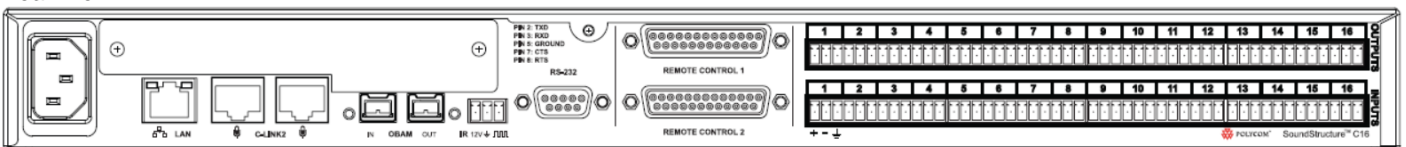
In addition to full compatibility with the audio features built into Polycom HDX, SoundStructure delivers many additional audio features that benefit HD video deployments in any size conference room:

- Customizable audio matrix for any custom signal routing of inputs to outputs
- Configurable noise reduction technology eliminates a broader range of background noises
- Feedback reduction technology enables much greater flexibility when designing and configuring the audio for in-room reinforcement applications
- Gain sharing microphones create smoother transitions between talkers for more natural conversations among all participants
- Advanced equalization options allow far greater flexibility in designing the room audio
- Dynamics processing results in more consistent, pleasing audio levels for all participants
- Use the HDX microphones individually or collectively for room combining applications
- Advanced telephony configuration options provide much greater control over how audio-only participants sound

Polycom SoundStructure C-Series



Rear View



SoundStructure is supported with the HDX7000, 8000 and 9000 Systems.

[Polycom SoundStructure C Series Info](#)

4.0 Polycom® HDX® I/O Ports

[HDX4002](#)



[HDX4500](#)



[HDX6000](#)



[HDX7000](#)



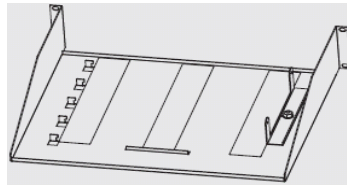
[HDX8000](#)



[HDX9000](#)



**HDX6000, 7000, 8000
Base Mounting Shelf**



[HDX Series Info Link](#)

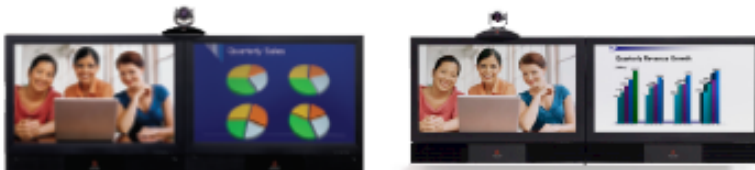
5.0 Polycom® HDX® Executive Collection and HDX Media Center

HDX Media Center Package Includes:

- Polycom HDX 8000 / 7000 / 6000 codec, Polycom EagleEye or EagleEye View camera, cables, microphone, remote control, 120w Sound bar
- Single 50" plasma display
- Dual or single 42" LCD display(s)
- Pedestal mount

Measurements, Weights and Electrical

- Dual 42" Display Unit – 62" x 82" x 23" (H/W/D), 393 lbs (227 lbs wall), 10.7A
- Single 50" Display Unit – 62" x 42" x 23" (H/W/D), 253 lbs (227 lbs wall), 6.5A
- Single 42" Display Unit (HDX 6000 View Media Center) - 25.17" x 48.14" x 4.58" (H/W/D), 58.42 lbs, 4.8A



Wall Mount Configuration



Dual Monitor Configuration
(Shown with optional caster kit)



HDX 6000 View Media Center



Single Monitor Configuration

HDX Executive Collection Package Includes:

- Polycom HDX® 8000 codec, Polycom EagleEye™ camera, cables, table top microphone array, and remote control
- Dual 50" 1080p plasma displays
- Pedestal mount with integrated speakers

Measurements, Weights and Electrical

- Dual Display Unit – 62" x 99" x 23" (H/W/D), 278.5 lbs, 11.5A



Side view

Dual Monitor Configuration

Media Cart Package Includes:

- Cart with universal single VESA display mount, mounting hardware, casters
- Optional: dual display kit, 19" rack mount kit

Measurements and Weights

- Single mount cart – 59" x 36" x 24" (H/W/D), 126 lbs (without LCD)
- Dual mount cart – 55" x 79" x 24" (H/W/D), 135 lbs (without LCDs)



(Shown with optional dual display kits)

	HDX Executive Collection	HDX Media Center	HDX 6000 View Media Center	Media Cart
Codec Options Available	HDX 8000	HDX 8000 / 7000 / 6000	HDX 6000	
Screen Size (Min–Max screen size)	Dual: 50" plasma	Single: 42" LCD or 50" plasma Dual: 42" LCD	42" LCD	Single: 37–60" Dual: 37–42"
Screen Specifications	16:9 aspect ratio, 1920 x 1080 pixels	16:9 aspect ratio, 1920 x 1080 pixels	16:9 aspect ratio, 1920 x 1080 pixels	
Contrast	5,000:1	800:1 contrast LCD or 5,000:1 plasma	800:1	
Wall Mount Options Available		•	•	
Ceiling Microphone - Optional	•	•		
Caster Kit		optional		•
Rack Mount Option				•
AVV Accessory Storage				•

[HDX Media Center Info](#)

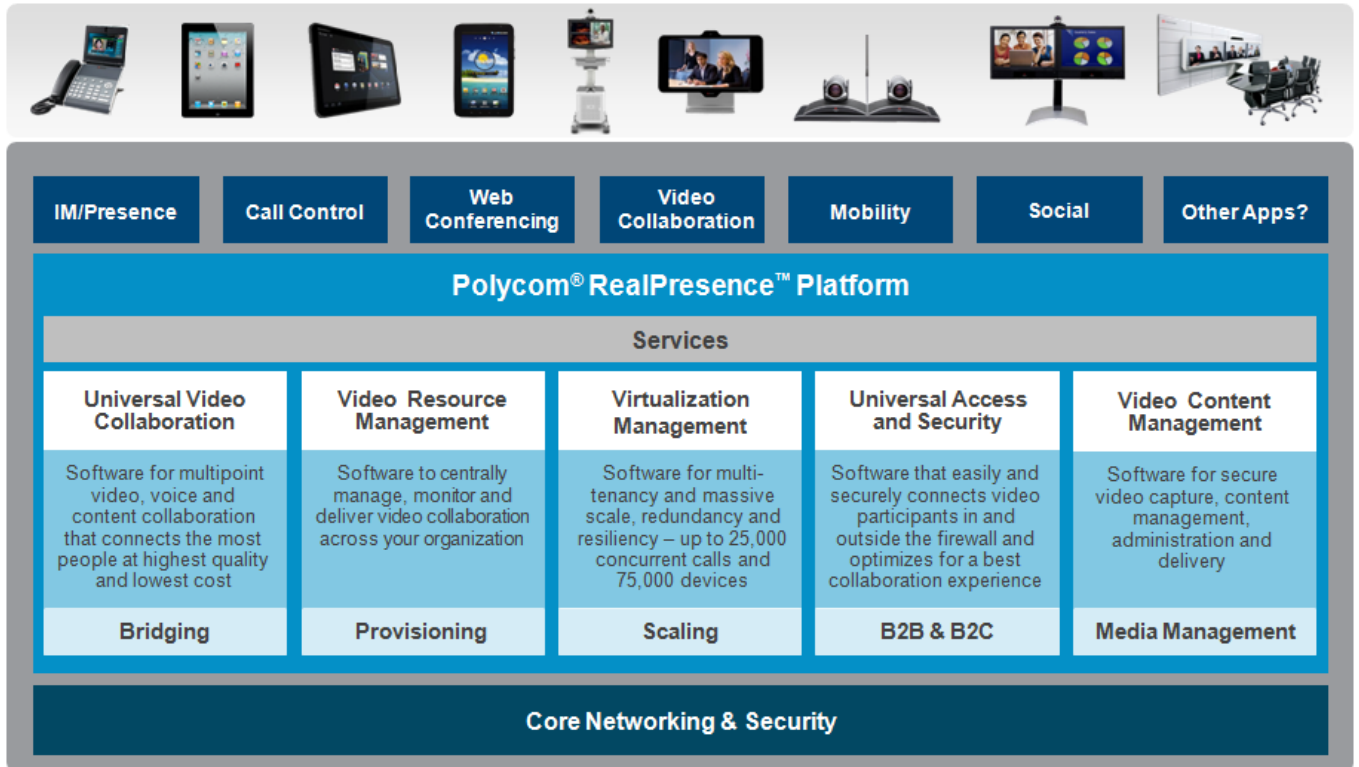
6.0 Polycom® Global Services

Polycom Global Services provide a lifecycle of services which support our customer's complete solution. Polycom Professional Services deliver Unified Communications (UC) expertise that can transform your organization—externally and internally. Combining unparalleled strategic partnerships with industry-leading knowledge and experience, our dedicated UC professionals can help you plan, integrate, deploy and evolve UC solutions that reduce total cost of ownership, and deliver immediate returns to your bottom line. If you want to grow your business but lack the resources or know how to plan, implement or optimize the leading edge technologies you need, Polycom Global Services and our certified partners can help you position your business ahead of your competitors. Polycom are here to support our customers throughout their journey from initial design and deployment through to post deployment maintenance support. We offer best in class support services to meet your business needs. The summary chart below shows the deliverables for our key service levels. But it doesn't end there, Polycom can also help train your IT administrators and engineers through our comprehensive technical training courses available through our global network of Polycom Learning Centers.

	Elite	AdvancedAccess	Premier Onsite	Premier
Elite Service Manager	▪			
Elite Service Engineer	▪			
Assigned Service Engineer		▪		
Account Specific tech support access 24x7	▪	▪		
Software Version Control	▪			
Enhanced reporting	▪			
Root Cause Analysis	▪			
Upgrade Management	▪			
Asset Management	▪	▪		
Monthly Utilization Report	▪			
Onsite Support	▪	▪	▪	
24x7 telephone support	▪	▪		
Technical telephone support	Unlimited	Unlimited	Business hours M-F	Business hours M-F
Software Upgrades & Updates	▪	▪	▪	▪
Advanced parts replacement	▪	▪	▪	▪
Escalation support	▪	▪	▪	▪
Online Support	▪	▪	▪	▪

[Polycom Support Services](#)

7.0 Polycom® RealPresence™ Platform



HDX® Family



For the complete Polycom product portfolio please visit: www.polycom.com

For the latest HDX documentation and software visit:
<http://support.polycom.com/PolycomService/support/us/support/video/index.html>

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