

Release Notes

Polycom® HDX Systems, Version 2.5.0.2



Polycom is pleased to announce the latest release of Polycom HDX hardware and software. This document provides the latest information about the Polycom HDX systems and version 2.5.0.2 software.

Polycom HDX software version 2.5 provided support for only the Polycom HDX 8006 (Polycom HDX 8000 series with Hardware Version B). Software version 2.5.0.1 adds support for the 2.5 feature set to the other Polycom HDX models. Version 2.5.0.1 also provides quality improvements across the Polycom HDX product line. Version 2.5.0.2 addresses issues with Software Update.

For more information about using the features described in this document, refer to the product documentation available at www.polycom.com/videodocumentation.

Installing Version 2.5.0.2

To update your system software, use the web-based Software Update. Customers upgrading Polycom HDX systems from 2.0.x or earlier to 2.5.0.2 must have an upgrade key. No key is needed if you are running 2.5.

To access Software Update:

1. Go to www.polycom.com/support and navigate to your product page.
2. Download the Polycom software update package for your system.
3. In the browser address line of Internet Explorer 6.0 or later, enter the system's IP address, for example, `http://10.11.12.13`, to access its web interface.

If Security Mode is enabled on the system, you must use secure HTTPS access, for example, `https://10.11.12.13`. Click **Yes** in the security dialog boxes that appear.

4. Enter `admin` as the user name, and enter the remote access password, if one is set.
5. Go to **Admin Settings > General Settings > Software Update**, and follow the instructions on the screen.



Do not power off the system during the software upgrade process. If the upgrade is interrupted, the system may become unusable.

New Hardware

The following sections describe new Polycom HDX hardware.

New Polycom HDX 8000™ HD System with 1080 Support

The new Polycom HDX 8000 HD system with Hardware Version B can send and receive 1080p video, or 720p video at 60 fps, in a call. The new Polycom HDX 8000 HD systems with Hardware Version B ship with a Polycom EagleEye™ 1080 camera, Polycom HDX microphones, and a Polycom HDX remote control. Bundles including displays and furniture are also available.

Polycom HDX 8000 HD systems with Hardware Version B require software version 2.5 or later.

To find out which hardware version you have, go to **System > System Information**.

For information about setting up this system, refer to *Setting up the Polycom HDX 8000 Series System*.

For information about configuring this system, refer to *Administrator's Guide for Polycom HDX Systems*.

Polycom EagleEye 1080 Camera

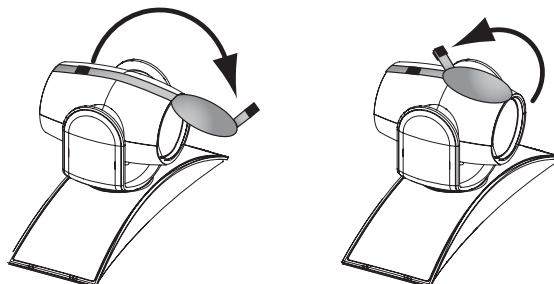


If you want to send 1080p video in calls, Polycom recommends the new Polycom EagleEye 1080 camera for Polycom HDX 8000 HD systems with Hardware Version B. You can also use the Polycom EagleEye 1080 with Polycom HDX 8000 HD systems (Hardware Version A) and Polycom HDX 7000 series systems, to see local video in HD 1080 format.

To use the Polycom EagleEye 1080 camera, systems must be running version 2.5 or later.

Camera Privacy Cover

The Polycom EagleEye camera goes to sleep when the Polycom HDX system does. But for added security, Polycom now offers a privacy cover that you can attach to the camera. You can open and close the cover as needed. Contact your Polycom distributor for more information.



What's New in Version 2.5

The version 2.5 software includes the features and functionality of version 2.0.3.1, with the following additions.

New Version of People+Content IP

People+Content IP version 1.2.1 is now available on the Polycom website, on the Downloads page for each Polycom HDX model. Version 1.2.1 includes performance improvements and fixes to address minor technical issues.

Network Support

H.323 and SIP Mixed Calls

In version 2.5 you can enable both IP H.323 and SIP at the same time. Both IP H.323 and SIP are enabled by default.

- You can enable both IP H.323 and SIP at the same time on the Call Preference screen.
- You can host multipoint calls that include both H.323 and SIP far-end systems.
- You can register the Polycom HDX system with both a SIP server and H.323 gatekeeper at the same time and support features that are unique to both protocols at the same time.

- You can set H.323 and SIP separately in the Dialing Order.
- The call speed preference for “IP Calls” denotes the preference for both H.323 and SIP calls.

IPv6 Support

Version 2.5 includes the following IPv6 enhancements:

- Configurable IPv6 settings: Site-Local, Global Address, and Default Gateway values can be set manually or automatically
- Support for dialing SIP calls using IPv6 address, DNS name, or SIP URI on an IPv6 network
- Support for IPv4-only or IPv6-only networks
- Support for IPv4/IPv6 hybrid networks
- Access to the web interface over IPv6

In hybrid networks, the system tries IPv6 calling first. If that fails, the system calls using the IPv4 address.



Points to Note about IPv6-only Network Limitations:

- Do not configure a Polycom Global Directory Server address.
- Disable IP H.323 in the Call Preference menu.
- The Polycom Global Management System™/ReadiManager® SE200 management servers will not be able to connect to the Polycom HDX system.

SIP Enhancements

Version 2.5 adds the following enhancements for SIP:

- Authentication Name setting for SIP server registration
- TLS (Transport Layer Security) and Auto as additional choices for the SIP Transport Protocol
- Support for AES media encryption in SIP calls
- Support for RFC 2833 in-band signaling of DTMF tones in SIP calls
- Polycom Lost Packet Recovery™ (LPR™)/DBA 3.0 support in SIP calls
- Support for Polycom People+Content™ in SIP calls
- Ability to register with, and place calls through OpenSER SIP servers
- Fast Updates and Flow Controls for SIP calls using RTCP Feedback (per RFC 4585 extension)



Microsoft LCS server is not supported in this release. Version 2.5.0.2 verification with Microsoft OCS 2007 was not yet completed at the time of these release notes. Please contact your local sales representative for the current status.

SIP Settings

This release includes full SIP support for both the IPv4 and IPv6 protocol. The Polycom HDX system can contact SIP Registrar and Proxy servers, as well as place calls, using both protocols. All address fields on the SIP Settings screen can accept raw IPv4 addresses, raw IPv6 addresses, SIP URI, or a hostname. If you enter a hostname, the Polycom HDX system attempts to resolve the address using a DNS server. The address returned by the DNS server determines whether SIP uses the IPv4 or IPv6 protocol. When dialing, the Polycom HDX system automatically selects the correct protocol based on the address.

Media Encryption

This release adds SRTP (Secure Real-time Transport Protocol) encryption to secure the audio, video, and content in SIP calls. SRTP is defined in RFC 3711. Polycom HDX systems support the default transform which is 128-bit AES counter mode for security and HMAC-SHA1 for authentication.

Polycom HDX systems do not support Peer-to-Peer encrypted calls, so a SIP server is required. SRTP media encryption is used only if the call signaling channel is protected with TLS and the far endpoint supports SRTP. The system does not use SRTP encryption if AES Encryption is set to **Off**.

When the SIP call is secure, the  lock icon is displayed on the screen.

In-Band DTMF Tones

Previously, DTMF (Dual Tone Multi Frequency) tones were sent via the audio channel and required the far-end receiver to extract the tones from the audio stream. Version 2.5 provides in-band SIP signaling as per RFC 2833 to transport DTMF audio tones from Polycom HDX systems to the remote SIP device (for example, a SIP registrar server or a SIP bridge). This feature allows Polycom HDX systems in point-to-point calls to access telephony features that are based on transport of DTMF tones to the remote SIP servers or bridges unable to process DTMF tone signaling via the audio channel.



This feature is not supported in multipoint calls or encrypted point-to-point calls. The far-end device (SIP server or bridge) must support and declare this ability as part of its capability set.

Fast Updates and Flow Controls for SIP

Video fast update and flow control messaging is now supported via RTCP Feedback in addition to the existing method based on INFO messages. RTCP Feedback is a method of sending feedback messages through an RTCP port via an extension to RFC 4585. Version 2.5 supports Full-Intra-Frame messages and Flow-Control messages, both of which are sent from the receiving endpoint to the transmitting endpoint through the RTCP port associated with the RTP video channel.

802.1X and 802.1p/Q Network Support

The 2.5 release adds support for 802.1X and 802.1p/Q. The IEEE 802.1X standard provides port-based access control on wired and wireless IEEE 802 LANs. IEEE 802.1p support enables link layer priority tagging of the link layer traffic. IEEE 802.1Q support enables VLAN (virtual LAN) tagging for bridged networks.

Polycom HDX systems allow you to enter 802.1X and 802.1p/Q settings in the system setup wizard. The system may require this information in order to negotiate access to the network.

Quality of Service Value Change

The Type of Service Value previously called **Far End Camera Control** is now called **Control**. This new setting is used for all control channels as follows:

- H.323 – H.225.0 Call Signaling, H.225.0 RAS, H.245, Far End Camera Control
- SIP – SIP Signaling, Far End Camera Control, and Binary Floor Control Protocol (BFCP)

Enhancement to ISDN Support


National ISDN 1 (NI-1) support has been extended to include support for National ISDN 2 (NI-2).

Directory and Home Screen

Directory Screen

The Directory interface has been modified for version 2.5.



- The alphabet tabs have been removed.
- When the group is set to All, no global entries are displayed until you start entering a name in the search field.
- You can highlight a directory entry and press  on the remote or keypad to get information about the entry, add it to your Contacts list, edit it, or delete it.
- When you create a new one-site directory entry, you can specify multiple call types on one screen.
- The new multiple-site directory entry screen has a design similar to the one-site entry screen. You can now add a multi-site entry to a specific group and edit the multi-site entry name.
- The “Global” group has been removed.
- The “Local” group has been renamed “Contacts.” The Contacts group includes all entries created locally on the system, default LDAP group members (if registered with a provisioning service), and Contacts provided by the Presence Service.





Contacts and Home Screen


The Contacts home screen displays all entries in your Contacts list. Depending on the configuration of your system, and whether it is automatically provisioned and registered to a global directory server, Contacts may include local directory entries, default LDAP group members, Speed Dial or Sites list entries, and Contacts stored by the presence service.

Contacts Home Screen

The Contacts home screen has been modified for version 2.5.

- The Contacts home screen displays presence icons for each Contact. Global Contacts (from a directory server) show one of the following presence icons:

-  Available
-  Busy
-  Available and In a Call
-  Offline

- Local Contacts are marked as  Unknown.
- The Contacts home screen can include additional buttons: Recent Calls, Manual Call, Directory, Alerts, Add a Contact, and Alerts.

The Contacts group includes all directory entries that you have added to the Contacts list or created locally.

Adding Contacts


Version 2.5 provides new ways to add Contacts to your directory, Contacts home screen, and Place a Call screen. When you choose **Add to Contacts** or **Add a Contact**, and **Sites** is enabled in the Home Screen Settings, the entry you choose appears on the Contacts home screen; the entry also appears on the Speed Dial or Sites list on the Place a Call screen (unless the entry is stored by the presence service). If you create a new directory entry, or edit an entry, and save it to the Contacts group, it appears on the Contacts home screen but not the Speed Dial or Sites list on the Place a Call screen.

If your system is provisioned by a Polycom Converged Management Application™ (CMA™) system, your Contacts list can contain up to 200 Contacts that are stored by the presence service. When you add a presence service Contact, you are both automatically added to one another's Contacts lists. Presence service Contacts appear with the display name followed by the device type. If the Contact has more than one device, each one is added as a separate entry on your Contacts list.


Deleting Contacts

You remove a Contact from the Contacts list by deleting it in the system's local interface.

Viewing Contact Details

You can view Contact details in the system's local interface. Highlight the Contact and press . A dialog appears with the display name, address, call speed, group, and presence information.

Calling Contacts

You can call Contacts from the system's local interface or web interface. Highlight the entry and press  on the remote control or keypad.

Recent Calls Screen

The Recent Calls screen has been redesigned with functionality similar to the Contacts home screen.

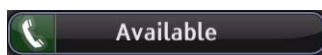



From the Recent Calls screen you can navigate to the Contacts list screen, Place a Call screen, or the directory. You can also add recent calls to your Contacts list.

Sites Display Changes

In version 2.5 the choices for the Sites button name are Speed Dial and Sites, rather than Speed Dial and Contacts as in previous versions.

Do Not Disturb, Availability Control



The button on the Contacts list screen and Place a Call screen that allows you to set your system to Available or Busy is now called **Availability Control** instead of **Do Not Disturb Icon** in Home Screen Settings (**System > Admin Settings > General Settings > Home Screen Settings > **).

Web Interface Changes

Version 2.5 offers an improved directory in the system's web interface. The new design makes the Directory page faster, easier to use, and more reliable. The directory and other status pages on the web no longer require Java.

Directory Services

Directory Client Support

The directory server access for Polycom HDX systems with version 2.5 is shown in the following tables.

You can configure the system to use the following directory server when the system is automatically provisioned by a Polycom CMA system.

Directory Servers Supported	Authentication Protocol	Global Directory Groups	Entry Calling Information
LDAP by a Polycom CMA system	NTLM only (version 1)	Pre-defined groups from the LDAP directory are shown in Polycom HDX system's directory	May include: <ul style="list-style-type: none">• H.323 dialed digits, H.323 ID, or H.323 extension• Phone number*
<p>* To successfully call a phone number from the LDAP directory, the phone number must be stored in one of the following formats:</p> <ul style="list-style-type: none">• +Country Code.Area Code.Number• +Country Code.(National Direct Dial Prefix).Area Code.Number			

You can configure the system to use one of the following directory servers in standard operating mode.

Directory Servers Supported	Authentication Protocols	Global Directory Groups	Entry Calling Information
Polycom GDS	Proprietary	Not Supported	May include: <ul style="list-style-type: none"> H.323 IP address (raw IP address, DNS name, or H.323 extension) ISDN number
LDAP with H.350 or Active Directory	Any of the following: <ul style="list-style-type: none"> NTLM (version 1) Basic Anonymous 	Not Supported	May include: <ul style="list-style-type: none"> H.323 IP address (raw IP address, DNS name, H.323 dialed digits, H.323 ID, or H.323 extension) SIP address (SIP URI) ISDN number Phone number*
* To successfully call a phone number from the LDAP directory, the phone number must be stored in one of the following formats: <ul style="list-style-type: none"> +Country Code.Area Code.Number +Country Code.(National Direct Dial Prefix).Area Code.Number 			

Directory Server Configuration

In version 2.5 the navigation to directory server configuration is slightly different. You can access Polycom GDS, LDAP, and Microsoft OCS settings by going to **System > Admin Settings > Global Services > Directory Servers**. You can only register with one directory server at a time.

Security

Login and Logout

In version 2.5 you can require users to log in for system access. Version 2.5 also adds a logout feature. If **Require Login for System Access** is enabled, the system automatically prompts users to log in when the system comes out of sleep mode. If a call comes in, the user must log in before answering the call, even if the system is configured to answer calls automatically.



When you log in, the system displays the time and date of the last successful login to the account, along with the number of unsuccessful login attempts since that time.

When **Require Login for System Access** is enabled, you can set up a user account by configuring a User ID, User Password, and password policies.

Account Lockout

With version 2.5 you can configure and enforce an account lockout if someone fails to log in correctly. After a configurable number of failed login attempts, the account is locked for an amount of time specified by the administrator.

If the system locks an account, the owner of that account must wait the specified amount of time before trying to log in again. If the system locks the User account and the User password is forgotten, an administrator can log in and reset the user's password. If the system locks the Admin account and the Room password is forgotten, use factory restore to reset the system back to its initial factory default state so that the system can be initialized again.

Sleep Mode Changes

In version 2.5 the microphones are automatically muted in the following cases:





- When Security Mode is enabled and the system goes to sleep.
- When Security Mode is enabled and the system is awake but no one is logged in.

Pressing the **Mute** button on the remote control or on the microphone will *not* unmute the microphone until someone logs in to the system.

AES Required Setting

In this release, you have more control over the AES Encryption behavior. Previously, you could only specify whether to encrypt calls with other sites that support AES encryption. If you had AES Encryption enabled but the far site did not have AES encryption enabled, the call connected without encryption. In version 2.5 you can select Off, When Available, Required for Video Calls Only, or Required for All Calls.

A lock icon in the user interface indicates whether the call is encrypted.

- In a multipoint call, the host system displays  if all connections in the call are encrypted.
- In a multipoint call, the host system displays  if one or more connections in the call are not encrypted.
- Far-end systems that are connected with encryption display .
- Far-end systems that are connected without encryption display .

Some connections might be encrypted while others are not. To avoid security risks, Polycom recommends that all participants communicate the state of their encryption icon verbally at the beginning of a call.



Points to note about AES Encryption:

- AES Encryption is not supported for systems registered to an Avaya H.323 gatekeeper.
- If you enable Security Mode before upgrading the system to version 2.5, this setting is automatically set to When Available but can be changed.
- If you enable Security Mode after installing version 2.5, the system uses Required for Video Calls Only for AES Encryption.

Security Profile

Version 2.5 includes a new Security Profile setting that controls particular security settings in order to meet DoD DSN requirements. The Security Profile can be configured in the setup wizard only. The setup wizard is available during initial setup, after a system update, or after a system reset with system settings deleted. After the setup wizard is complete, the Security Profile setting appears as read-only in the Admin Settings.

For more information about the DoD DSN Security Profile setting, refer to the *U.S. DoD DSN Deployment Guide for Polycom HDX Systems* on the Polycom web site.

API Command Security

Version 2.5 includes the following security changes to the API commands:

- The API cannot be used to get or set the remote access passwords.
- The API cannot be used to get the meeting password.
- Password policies are enforced when using the API to set the meeting password.
- Re-entering the existing meeting password is not required when using the API to set it.

Web Interface Authentication

In version 2.5 the web server allows only HTTPS connections using TLS when Security Mode is enabled. As a result, the server requires that the browser support a TLS connection (not SSLv2 or SSLv3) and a FIPS 140-2 approved cipher such as AES or triple-DES. If you are using a browser that has TLS capabilities disabled by default, such as Microsoft IE 6-SP2, you must change the browser settings to enable TLS connections.


Timeout for Video or Content Preview

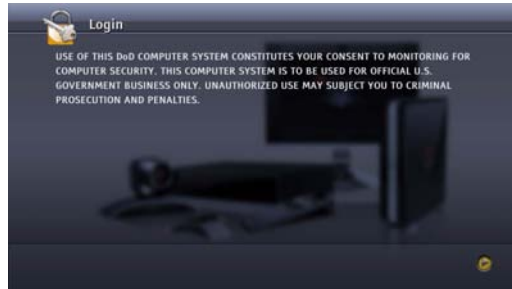
In this version, the **Maximum Time in Call** setting applies when you are viewing the Near video screen or showing content, even if you are not in a call. If the maximum time is reached while viewing Near video, the system automatically returns to the home screen. If content is being shown, the content stops.

Screen Saver Enhancement

You can configure the screen saver wait time to be 10 or 20 minutes, in addition to the previously available settings.


Customized Security Banner

You can enable a security banner that appears each time the system wakes up or a user logs in. When the security banner appears, you must select  to acknowledge the banner before you can continue.



Password Security

Version 2.5 includes the following password security enhancements:


- For increased security, the Room, Remote Access, User, and Meeting passwords are stored in encrypted format when Security Mode is enabled. Encrypted login is also supported for remote access passwords.
- All passwords appear as a series of asterisks as you type them in a configuration or login screen. To enter numbers in a password field, use the remote or keypad number buttons. To enter letters in a password field, press  Keyboard on the remote or keypad.
- Room, Remote Access, and User passwords can contain up to 40 characters.

Password Creation Policies

This version allows you to set up password policies, which are requirements that must be met when creating new passwords. These password settings can ensure that strong passwords are used.

If you attempt to create or change a password to a value that does not satisfy the password policy, the system displays a message that lists the password criteria that need to be met.

Meeting Password Status Indicator

The System Status screen now shows the status of the Meeting Password when password aging is enabled as a meeting password policy. Go to **System > Diagnostics > System Status**. Highlight Meeting Password and press  **Info** on the remote or keypad to get more information.

Configurable Admin ID

You can now customize the administrator's account to have an ID other than the default "admin".

The system prompts you to enter the Admin ID and Room password when you attempt to access Admin Settings in the local system interface.

If you set a remote access password, you must enter both the Admin ID and the remote access password to access Admin Settings in the Polycom HDX web interface.

Ability to Disable Serial Ports

In version 2.5 you can disable the serial ports on the back of the system for increased security.

Ability to Disable the PC LAN Port

In version 2.5, you can disable the PC LAN port on the back of a Polycom HDX 4000™, Polycom HDX 7000™, or Polycom HDX 8000 HD system for increased security.

Security Mode Changes

In Polycom HDX software version 2.5, enabling Security Mode provides additional security features.

Reentering the Room Password

When Security Mode is enabled, you must reenter the room password when you try to change it.

Default Configuration

When you enable Security Mode, the following settings are set and controlled by the system:

Setting	Restriction
AES Encryption	Set to "Required for Video Calls Only" (or "When Available" after an upgrade), configurable
Enable Remote Access: Telnet	Disabled for port 23 and 24, read-only
Enable Remote Access: SNMP	Disabled, read-only
Web Access Port	Port 80 disabled with no redirect to port 443, read-only Port 443: Available for HTTPS, read-only

Setting	Restriction
Allow Video Display on Web	Disabled, configurable
Auto Answer Settings	Auto Answer Point-to-Point: Disabled, configurable Auto Answer Multipoint Video: Disabled, configurable
User Settings	Auto Answer Multipoint Video: Hidden Mute Auto-Answer Calls: Hidden Allow Video Display on Web: Hidden Far Control of Near Camera: Hidden
Minimum Password Length	Set to 1, must be at least 1

Log Management

Polycom HDX software version 2.5 allows you to manage log files from the system's local interface. The log files consist of the following information:

- System logs
- Call Detail Report (CDR)
- Configuration profile

For information about each of these components, refer to the *Administrator's Guide for Polycom HDX Systems*, available on the Polycom web site.

You can transfer the log to an external USB storage device manually, or automatically based on a configurable percent-filled threshold.

You can specify the log's percent-filled threshold. When the log fills up past the threshold, the following actions are triggered:

- Transfers the log to the USB device if Transfer Frequency is set to "Auto at Threshold"
- Creates a log entry indicating that the threshold has been reached
- Displays an alert on the home screen
- Displays an indicator on the System Status screen



When the Log Threshold indicator is yellow or red, automatic log transfers cannot be completed, and data may be lost.

HD at Lower Call Rates

With version 2.5, certain Polycom HDX systems have a lower threshold for coding and decoding HD resolutions. Polycom HDX 9004, Polycom HDX 9002, Polycom HDX 8000 HD, Polycom HDX 7000 HD, and Polycom HDX 4000 HD systems set to Sharpness now support 720p resolution at 30 fps at call rates of 832 kbps and higher. When set to Motion, Polycom HDX 8000 HD systems with Hardware Version B support 720p resolution at 60 fps at call rates of 1232 kbps and higher. When set to Sharpness, Polycom HDX 8000 HD systems with Hardware Version B support 1080 resolution at 30 fps at call rates of 1728 kbps and higher.

HD/SD Continuous Presence Multipoint on Polycom HDX 4000 HD, Polycom HDX 7000 HD, and Polycom HDX 8000 HD



In version 2.5 HD/SD continuous presence multipoint is extended to other models besides the Polycom HDX 9000 series. Polycom HDX 4000 HD and Polycom HDX 8000 HD systems will support HD continuous presence in calls with up to four endpoints.

Polycom HDX 4000 HD and Polycom HDX 8000 HD systems now have the same continuous presence functionality as Polycom HDX 9002™ systems with software version 2.0. Polycom HDX 7000 HD systems now provide up to SD resolution in continuous presence.

The same HD/SD continuous presence restrictions apply to all Polycom HDX models: Transcoding must be disabled and the Multipoint Mode must be set to Discussion Mode.

1080 Input/Output Support on Polycom HDX 7000 Series and Polycom HDX 8000 HD Systems

Polycom HDX 7000 series and Polycom HDX 8000 HD systems running version 2.5 support 1080 input and output. You can connect 1080 cameras and 1080 monitors to any Polycom HDX 7000 series or Polycom HDX 8000 series system to see local video in 1080 resolution. Input at 1080 is supported only on sources configured as People.

International System Name Support

Localized System Name support has been added for SIP. Endpoints can send and view each other's Localized System Names, provided they are configured for languages with a common font.

Audio Enhancements

Version 2.5 provides automatic reduction of noise from far-end systems.

- **Echo Terminator** – this feature detects echo in far-end audio and eliminates it. It is useful for addressing a far endpoint whose AEC (Audio Echo Cancellation) is not working properly. If the far endpoint AEC is working properly and there is no echo, the audio is unaffected. In contrast, conventional AEC only eliminates near-end echo. This feature is disabled if Live Music Mode is enabled, but otherwise is always enabled.
- **Far-End Keyboard Noise Reduction** – this feature detects keyboard tapping and other transient noise. When such noise is detected, and if no one is speaking, the audio is attenuated. If there is a mix of speech and tapping sounds, the audio is unaffected. This feature is similar to the existing Keyboard Noise Reduction feature, but operates on far-end audio instead. This feature is enabled automatically whenever Keyboard Noise Reduction is enabled.

With version 2.5, all Polycom HDX systems support up to four Polycom HDX microphones when connected to a Polycom SoundStructure™ mixer. The number of microphones is only limited by what the SoundStructure device can support.

Polycom SoundStation® IP 7000 Conference Phone Integration

Polycom now offers the best in video integrated with the best in audio. You can now combine the power of the SoundStation® IP 7000, a multi-featured telephone that provides both basic and enhanced call-handling capabilities, with the unparalleled video conferencing quality of the Polycom HDX series.

When you connect a SoundStation IP 7000 phone to a Polycom HDX system, it becomes another way to dial audio or video calls. It also operates as a microphone, and as a speaker in audio-only calls. This integration reduces clutter and simplifies the conferencing experience.

For more information, refer to the additional SoundStation IP 7000 documents available on the Polycom web site.

To integrate a Polycom SoundStation IP 7000 phone with a Polycom HDX system, use 3.1.2 or later software on the phone and 2.5.0.1 or later software on the Polycom HDX system.

Dynamic Management Mode with Polycom CMA System

Version 2.5 supports dynamic management by a Polycom CMA system running version 4.0.1 or later software. If a Polycom HDX system is in dynamic management mode, the Polycom CMA system may provision the system automatically, provide standards-based presence information for Contacts and directory entries, and provide automatic software updates. If your

Polycom HDX system is being provisioned by a Polycom CMA system in dynamic management mode, you may notice the following differences in system behavior:

- The setup wizard may prompt you to enter credentials for registration with the provisioning service.
- Any settings provisioned by the Polycom CMA system are displayed as read-only settings in the Polycom HDX system interface.
- You may be registered to a presence service, which allows you to see the current presence state for compatible Polycom CMA Desktop clients and Polycom HDX systems in your Contacts list that are also registered with presence service.
- Your system automatically requests software updates from the Polycom CMA system.
- Your system may have access to a corporate directory that supports LDAP access. For more information about directory services for systems with Automatic Provisioning, refer to [Directory Services](#) on page 10.

Automatic Provisioning

For Automatic Provisioning, Polycom HDX systems must be managed by a Polycom CMA system. For standard provisioning, Polycom HDX systems can be managed by Polycom CMA system or *ReadiManager* SE200. However, Polycom recommends that each endpoint be managed by one server only.

Registration with the Provisioning Service

You can register the Polycom HDX system with the Polycom CMA system in several ways:

- If the system is starting up for the first time and it detects the provisioning service, it prompts you to enter information for registration with the service. If registration fails, you can choose to enter different values and try again, or you can select **Cancel** to start up the system without Automatic Provisioning.
- If the system does not detect a provisioning service on the network when it starts up for the first time, you can enter the registration information and attempt to register in the Polycom HDX system's Admin Settings. Every time the Polycom HDX system starts up, it attempts to register with this provisioning service information.
- If your IT administrator provides you with a USB storage device for registration with the Polycom CMA system server, follow these steps:
 1. Connect the Polycom HDX system as shown on the printed setup sheet, but do not power on the system.
 2. Connect the USB device to the system's USB port.

3. Power on the Polycom HDX system.
4. Complete the setup wizard. Do not remove the USB device until the setup wizard is complete.

For information about the USB device data, or about configuring the Polycom CMA system server so that Polycom HDX systems detect and register with it, refer to the *Deploying Visual Communications Administration Guide*.

System Status for Automatic Provisioning

If the system has previously registered successfully with a provisioning service but fails to detect the service when it restarts or checks for updates, an alert appears on the System Status screen. If no Provisioning Service icon appears, no provisioning service was ever detected and Automatic Provisioning has never been enabled on the system.

If the system loses registration with the provisioning service, it continues operating with the most recent configuration that it received from the provisioning service.

Changing Automatic Provisioning Settings

If Automatic Provisioning is enabled but the system is not registered successfully with the provisioning service, you can verify or change the Domain, User Name, Password, and Server Address used for registration in the Admin Settings.

System Behavior with Automatic Provisioning

When a Polycom HDX system is successfully being automatically provisioned:


- The Contacts list becomes the default home screen on the system.
- The Domain, User Name, Password, and Server Address fields are populated on the Provisioning Service screen.
- Every time the system restarts, it automatically sets any configuration items provided by the provisioning service.
- The system periodically checks for updates from the service (every 5 minutes to 24 hours, as defined by the service), and it automatically sets any configuration items provided by the provisioning service.
- If a configuration update from the provisioning service requires the system to restart, a pop-up message appears and the system restarts.
- Configuration settings that are provisioned, or that are dependent on provisioned values, are read-only on the Polycom HDX system.

Automatic Provisioning and Software Update






When a Polycom HDX system is automatically provisioned, it automatically accesses and runs any software updates made available by the Polycom CMA system server. The Polycom HDX system checks for new software from the Polycom CMA system server every time it restarts and at an interval set by the service.

Presence Service

A presence service allows you to share presence information with compatible Polycom CMA Desktop and Polycom HDX system Contacts, so that you can see whether someone is available for a call.









When a Polycom HDX system is in dynamic management mode with Polycom CMA system server, the server can register the Polycom HDX system with the Presence Service. The System Status screen, in the system's local interface and web interface, shows a successful Presence Service connection. For an explanation of the status, select the item in the system's local interface and press  **Info**, or click the item name in the web interface. If no Presence Server icon appears on the System Status screen, no Presence Server has been detected.

If your Polycom HDX system is successfully registered with the Presence Service, one of the following presence icons appears next to each Contact on the Contacts home screen of the system's local interface.

Icon	Presence State
	Available: Contact is registered with Presence Service and available to receive a call
	Busy: Contact is set to Busy, or is in a call and not available to receive another call
	Available: Contact is in a call but is available to receive another call
	Unknown: Contact is not registered with Presence Service or is not sharing presence with your system, but you can place a call to it
	Offline: Contact is not available to receive video calls because it is offline

If your system is successfully registered with the Presence Service, it sends its presence state to each of its compatible far-end Contacts.

Your presence state depends on how you set your Availability Control in the local interface and whether you are in a call, as shown in the following table.

Availability Control	Description of Presence State	Icon Seen by Far-End Contacts
 Available	Your system is set to Available and is registered with a Presence Service.	
 Busy	<ul style="list-style-type: none"> Your system is set to Busy. or Your system is set to Available but is in a call and is not available to receive another call. 	
 Available	Your system is set to Available and is in a call, but is available to receive another call.	
 Available	Your system is set to Available, but is not registered with a Presence Service.	

Additional Camera Support

Version 2.5 adds support for the following non-Polycom cameras:

- Sony BRC-H700 as a 1080i source
- Sony EVI-HD1 as a 1080i source

New API Commands

The following API commands are new in version 2.5.

Command	Description
addrbook	Returns local directory (address book) entries.
amxdd	Sets or gets the AMX Device Discovery beacon.
encryption	Sets or gets the AES encryption mode for the system.
gaddrbook	Returns global directory (address book) entries.
gdsdirectory	Sets or gets whether the Polycom GDS directory server is enabled.
ldapauthenticationtype	Sets or gets the authentication type required to authenticate with an LDAP server.
ldapbasedn	Sets or gets the base distinguished name (DN) of an LDAP server.
ldapbinddn	Sets or gets the bind DN for LDAP Simple Authentication.
ldapdirectory	Sets or gets whether the LDAP directory server is enabled.

Command	Description
ldapntlm domain	Sets or gets the domain in which authentication takes place in the Active Directory server.
ldappassword	Sets the password for Simple or NT LAN Manager (NTLM) authentication of an LDAP server.
ldaps server address	Sets or gets the LDAP server address.
ldaps server port	Sets or gets the port number of an LDAP server.
ldaps ssl enabled	Sets or gets the Secure Sockets Layer (SSL)/Transport Layer Security (TLS) encryption state for LDAP operations.
ldap username	Sets or gets the user name for NTLM authentication of an LDAP server.
ocs directory	Sets or gets whether the Microsoft OCS directory server is enabled.

The following API commands have been modified in version 2.5:

- advnetstats
- button
- chaircontrol
- encryption
- meetingpassword
- vcbutton

The following API commands have been deprecated in version 2.5:

- abk
- gabk

For more information about API commands in version 2.5, refer to the *Integrator's Reference Manual for Polycom HDX Systems*.

Corrected Issues in 2.5.0.2

The following table lists corrected issues in version 2.5.0.2

Issue	Description
Monitors	The Polycom HDX 9000 series splash screen sometimes appeared shifted after a software update or when the system was restarted. This issue has been corrected.
Network	On occasion, the system would stop at the splash screen if the network cable was connected to an active network but an IP address was not obtained while starting up. This issue has been corrected.
Power	On occasion the system would not power on or off when the power switch was pushed. This issue has been corrected.
	Sometimes a Polycom HDX 9000 series system would repeatedly restart after power cycling. This issue has been corrected.
Software Update	Occasionally while downgrading a Polycom HDX 9000 series system from 2.5.0.1, the system would display a black screen after 60 seconds. This issue has been corrected.
	Sometimes during a Factory Restore the system would appear to stall when the progress bar on the main monitor reached 100%. This issue has been corrected.
	Sometimes while downgrading a Polycom HDX 9000 series system from 2.5.0.1 to 2.0.3.1, the system would automatically turn off. This issue has been corrected.

Corrected Issues in 2.5.0.1

The following table lists corrected issues in version 2.5.0.1

Issue	Description
Automatic Provisioning	When the Polycom CMA system was shut down, any Polycom HDX system that was registered to it restarted automatically. This issue has been corrected.
Interoperability ViewStation	ViewStation FX systems sometimes received blue video in a transcoded multipoint call hosted by a Polycom HDX system. This issue has been corrected.

Corrected Issues in 2.5

The following table lists corrected issues in version 2.5.

Issue	Description
Content	When the Polycom HDX system sent content in calls with Polycom MGC™ or Polycom RMX system, it sent at the dialed rate rather than Maximum Transmit Bandwidth. This issue has been corrected.
	In a multipoint conference hosted on a Polycom HDX system, far-end systems sometimes stopped receiving content after an endpoint left the conference. This issue has been corrected.
Directory	When creating a multiple site entry in the directory, existing numbers in that entry sometimes disappeared as you added new numbers. This issue has been corrected.
Encryption	Polycom HDX systems that had H.239 disabled and PVEC enabled sometimes failed to establish encryption in H.323 calls. This issue has been corrected.
Gatekeepers	After upgrading Polycom HDX software, the system sometimes failed to register to a gatekeeper. This issue has been corrected.
Interoperability Avaya	Since the Polycom HDX system's IR remote uses the same key for both asterisk (*) and Flash, you could not send key sequences that included both Flash and *. Polycom HDX systems now send Flash using the center Select button on the remote control or keypad.
Interoperability Sony	Sony PCS-G50 systems did not receive content from Polycom HDX systems in H.320 calls if one site had encryption configured on and the other had encryption configured off. This issue has been corrected.
Interoperability TANDBERG	Polycom HDX 9004™ systems transmitted H.263 video to TANDBERG 6000 MXP systems in 4 Mbps H.323 calls if either system had H.239 disabled. This issue has been corrected.
Polycom MGC	Polycom HDX systems with H.239 and encryption enabled could not connect to H.261 conferences via H.320. This issue has been corrected.
Transcoding	Polycom HDX systems sometimes transmitted lower frame rates when downsampling due to transcoding. This issue has been corrected.

Issue	Description
Web Interface	The web interface allowed duplicate Directory groups to be created without displaying a warning. This issue has been corrected.
	Accessing the Directory page in the web interface using https caused the interface to freeze. This issue has been corrected.
	Entering single quotes in the SIP User Name field of the IP Network page caused the Directory Servers web page to stop displaying correctly. This issue has been corrected.
	When you entered a directory server address in the web interface, the system automatically populated the remaining server address fields. This issue has been corrected.
	If you configured your system to auto-answer calls, the web interface still asked if you wanted to answer an incoming SIP call. If you did not respond (or clicked Yes), the system accepted the call. If you clicked Cancel , the system dropped the call. This issue has been corrected.
	The volume and zoom controls on the web interface remote control did not work. This issue has been corrected.
	Entering single quotes or commas in the Enter Marquee Text field of the Home Screen Settings page caused the web page to stop displaying correctly. This issue has been corrected.

Feature Limitations

The following table lists the known feature limitations for the version 2.5.0.2 release. If a workaround is available, it is noted in the table.

Feature	Limitation
Analog Phone	<p>Do not use the analog phone connector if you are using the Polycom HDX system in Hong Kong or South Africa.</p> <p>For information about whether you need to use the telephone adapter in your area, refer to the telephone adapter setup sheet that came with the Polycom HDX system.</p>
API	The <code>dir</code> command is not supported.
	The <code>remotecontrol enable all</code> command does not work after disabling the remote. Use <code>remotecontrol disable none</code> to enable the remote control buttons.
	The <code>sysinfo get</code> command does not return information as stated in the <i>Integrator's Reference Manual for Polycom HDX Systems</i> . Instead, it returns <code>sysinfo registered</code> or <code>sysinfo unregistered</code> .
	<p>API sessions that are registered for call state notifications using the <code>callstate register</code> command will receive a notification with word BONDING for IP calls. The panel code should ignore it as that state will be dropped in the next release. Example from 1.0.2 API session:</p> <pre>-> dial manual 512 172.26.48.42 h323 dialing manual cs: call[38] chan[0] dialstr[172.26.48.42] state[ALLOCATED] cs: call[38] chan[0] dialstr[172.26.48.42] state[RINGING] cs: call[38] chan[0] dialstr[172.26.48.42] state[BONDING] cs: call[38] chan[0] dialstr[172.26.48.42] state[COMPLETE] active: call[38] speed[512]</pre> <p>The notification in boldface is not applicable to calls made to/received from IP end points.</p>

Feature	Limitation
Audio	If you establish multiple calls between the same two systems, you may experience audio feedback. Hang up one of the calls.
	Incoming voice calls do not work in a password-protected conference.
	When you plug a headset into the Polycom HDX 4000 series panel, the system's built-in microphones and any attached microphones are automatically muted even though the Enable Polycom Microphones and Enable Built-In Microphones configuration settings remain selected.
	Starting with the release 2.5, Polycom HDX systems do not play music while restarting.
	You cannot enable or disable Stereo while in a call.
	Do not connect or disconnect a Polycom SoundStation IP 7000 conference phone or Polycom HDX digital microphones while in a call. Doing so may result in some anomalous behavior such as audio coming out both the conference phone and Polycom HDX system. To restore normal operation, hang up the call.
	Polycom HDX digital microphones may fail to initialize properly after disconnecting or reconnecting them. If this occurs, the System Status screen shows a red down arrow for microphones. To work around this issue, make sure that the microphones are securely connected. If the problem persists, restart the Polycom HDX system.
	Volume changes made during the setup wizard are lost when the system restarts.

Feature	Limitation
Automatic Provisioning	<p>If you configure a Polycom HDX system for automatic provisioning but the system cannot access the provisioning service, the status indicator for provisioning toggles between green and red as the Polycom HDX system automatically tries to access the service again. After three retries, the indicator remains red.</p>
	<p>If you want the system to check for provisioning changes immediately, restart the system.</p>
	<p>On occasion, Polycom HDX systems may fail to enter automatic provisioning mode after an administrator has configured the system for automatic provisioning using the system's local or web interface. When this occurs, the provisioning service status will not be displayed in the system status. To work around this issue, select Register on the Provisioning Service screen in the Polycom HDX system's interface.</p>
	<p>If Polycom HDX systems operating with automatic provisioning are unable to reach the presence service for an extended period of time (for example, due to a server problem or network outage), they will not reregister to the server once it becomes available. If this occurs, restart the system.</p>
	<p>Polycom HDX systems operating with automatic provisioning check for software updates at an interval specified by the administrator. If an update is required, Polycom HDX 4000 systems perform the update even if they are currently being used as PC displays.</p>
	<p>Polycom HDX systems sold in Russia do not operate with automatic provisioning.</p>
	<p>If user name and password authentication fails during an automatic provisioning update, the Polycom HDX system will try to authenticate again after the configured update interval. If authentication continues to fail, and a lockout policy is enforced by the network administrator, the user's domain account will be locked out.</p>

Feature	Limitation
Calling	Calls dialed using analog voice lines will not roll over to other call types if the call is busy or otherwise fails.
	Do not mix unrestricted (speeds that are a multiple of 64 kbps) and restricted (multiple of 56 kbps) participants in an internal multipoint conference.
	Do not use H.323 names that include a comma.
	Polycom HDX systems cannot call sites using the Mobile field in the directory. Use the Phone field instead.
	Polycom HDX systems do not respond to the H.225 facility message "call forwarded". As a result, they do not reroute calls when requested to do so by the far end.
Cameras	You may see a few seconds of blue video while the Polycom HDX camera wakes up. The camera may also take a few seconds to focus after waking up.
	If you downgrade the software from version 2.0 to an earlier version, you may need to reconfigure white balance on the Polycom EagleEye HD camera. Select the detect camera command in the user interface or web interface, and then configure the white balance.
	Polycom HDX 4000, Polycom HDX 7000, and Polycom HDX 8000 series systems do not provide support for calibrating VGA input.
	Do not configure a Polycom EagleEye camera for 4:3 aspect ratio.
	If you have an external power supply attached to a camera and you want to move that camera from one port to another, you must follow these steps: <ol style="list-style-type: none"> 1. Power off the camera. 2. Connect the camera to the new port. 3. Power on the camera. 4. Select "Detect Camera" in the system's user interface.
	Do not change camera settings between Motion and Sharpness while in a call.
	During a call if you switch between a camera that produces 30 fps video (such as a Polycom EagleEye 1080) to one that produces 60 fps video (such as a Polycom EagleEye HD), the second camera will behave as if it is configured for motion even if it's configured for sharpness. To work around this issue, hang up and redial.

Feature	Limitation
Closed Captions	When providing closed captions over a serial connection, you must manually go to near video before entering text.
	Closed captioning (sent via either the serial port or the web interface) is limited to 31 characters per line.
Contacts	Polycom HDX systems can share presence information with up to 200 Contacts. If a remote site attempts to invite the Polycom HDX system as a Contact after it has reached its limit of 200 Contacts, the Polycom HDX system rejects the invitation but does not display a warning message to the local user.
	You cannot delete Contacts using the web interface. Instead, delete them in the system's local interface.
	You cannot add Contacts that support presence using the web interface. Instead, add them in the system's local interface.
	With Allow Directory Changes provisioned to disabled, you can add Contacts, but you can't delete them. To work around this issue, log into Polycom CMA Desktop with the same credentials used on your Polycom HDX system and delete the Contacts in Polycom CMA Desktop.
	Occasionally, an invitation to add a far site as a Contact may fail to reach the far site and the site is added to the Polycom HDX system's Contact list without presence information. If this occurs, restart the Polycom HDX system to reissue the invitation.

Feature	Limitation
Content	Some DVI video sources (such as certain laptops) do not correctly support the hot plug detect pin (HPD). This can result in the source sending video in the wrong format for Polycom HDX video input ports 4 and 5. Please consult your equipment manuals to find out the behavior of the HPD pin.
	Presets support switching from one People source to another. Presets do not support switching from a People source to a Content source or from one Content source to another.
	Content at a resolution of 1280 x 1024 is scaled and sent to the far site in 1024 x 768 format unless the far site can display it at 1280 x 1024.
	You cannot send content from a Polycom HDX 4000 system using the Content button on a Polycom HDX remote control. You must use the built-in keypad button.
	If you have a computer connected to the Polycom HDX 4000 monitor when you install the People+Content option key, the Camera 2 setting does not change from People to Content. In this case you must go to the Cameras screen for Camera 2 and set Source to Content in order to send dual streams.
	When hosting a multipoint call, Polycom HDX systems typically stop showing content when a new participant joins the call. It may fail to do so when the fourth participant joins.
	Polycom HDX systems do not support using 1080 sources for content. If a user attempts to send a 1080 source as content, the Polycom HDX system will not send it and will prevent future uses of that port for content, even if the source is switched to one that is supported. To work around this issue, restart the system.
	Polycom HDX systems may fail to send content in a SIP conference that does not support People and Content (H.239).
When using a content source other than the VCR ports, audio associated with the content source may stop playing when people sources switch. The VCR content port does not have this problem.	

Feature	Limitation
Directory	When the directory does not have enough entries, starting at the letter specified, to fill the screen, it shows earlier entries as well to fill the screen.
	When navigating through entries in the directory, you may see both a solid yellow highlight and an outlined yellow highlight.
	Directory entries do not successfully connect calls to sites dialed over ISDN voice. Add voice sites manually.
	When a directory entry has both an ISDN and IP address, calls placed as IP connect at the designated call rate for ISDN.
	An entry in a custom directory group may be removed from the group if you edit the entry. The entry is still available in the Contacts group.
	From time to time a directory query may not return a full list of matching entries. If this occurs, reissue the request.
Encryption	You cannot place voice calls if a Polycom HDX system is configured to require encryption for all calls (since voice calls do not support encryption). If a user attempts to do this, the warning message explaining this may display too quickly to be easily read.
	When AES encryption is configured as "Required for All Calls" multiple-site directory entries that include voice endpoints will not connect all sites.
Gatekeepers	Registering to a gatekeeper may change the dialing order configured on the system.
Global Management System	Global Management System shows Polycom HDX systems as being active even if they are powered off.
	The Netstats page on Global Management System reports the wrong call type for Polycom HDX systems.
	Global Management System version 7.1.8 software supports all Polycom HDX software versions through version 2.5. Global Management System software versions earlier than 7.1.8 do not support the new software update method required for Polycom HDX version 2.5 or later software.
Interoperability ADTRAN	The first call attempt after adjusting the call rate on an ADTRAN TSU 100 fails, but subsequent calls connect without a problem.
Interoperability Aethra	Polycom HDX systems are not able to send HD video to the Aethra X7 M11.1.4 HD unit.

Feature	Limitation
Interoperability Avaya	<p>AES Encryption is not supported while registered to the Avaya Communication Manager.</p> <p>When a Polycom HDX system attempts to call another Polycom system through Avaya Communication Manager, the near-site system continues to ring if the far site rejects the call.</p> <p>NAT is not supported for systems registered to the Avaya Communication Manager.</p> <p>While connected to the Avaya Communication Manager, telephony features are not supported to systems behind a neighboring gatekeeper.</p> <p>The Avaya Communication Manager version 4 supports wideband audio over trunk calls. However, Avaya Communication Manager version 4 will not support wideband audio over a trunk to Polycom PathNavigator.</p> <p>Cisco PIX does not pass through Annex H which is required by the Avaya Communication Manager. Polycom HDX systems will not connect calls across a Firewall that does not pass Annex H.</p> <p>Avaya's IP Softphone (IPSP) with video set to manual will not negotiate video with endpoints registered to a neighboring gatekeeper.</p> <p>In calls placed from a Polycom HDX system, the far-site system name may show a neighboring gatekeeper, such as "PathNavigator," instead of the actual system name.</p> <p>G728 k and G722.1-16 k audio codecs are not available when registered to the Avaya Communication Manager.</p> <p>Internal MCU calls from a Polycom iPower™ system to an Avaya IP Softphone (IPSP) or Polycom HDX system do not connect.</p> <p>Avaya Communication Manager Telephony features and IPSP video mute are not supported with Polycom HDX, V500, Polycom VSX®, iPower, or Polycom ViewStation® FX systems behind PathNavigator.</p> <p>iPower IMCU calls to Polycom HDX systems using Avaya do not connect.</p> <p>The Avaya Communication Manager does not support Polycom Siren™ 22 audio or Siren 22 stereo.</p>
	<p>If you set the gatekeeper field to Specify with PIN, you will see an additional field Outbound Call Route. Ignore this field.</p>
	<p>When configuring the Polycom HDX system gatekeeper setting to Specify with PIN, you may see an extraneous field "PathNavigator for Multipoint Calls." Ignore this field.</p>

Feature	Limitation
Interoperability Cisco	Cisco PIX does not support H.239. Disable H.239 on the endpoints.
	Far end camera control does not work in calls that go through a Cisco Catalyst 6509 with Firewall Service Module version 3.1(1).
Interoperability iPower	Polycom HDX systems transmit and receive H.263 content rather than H.264 content in calls with iPower 9000 systems running 6.2.0.
Interoperability LifeSize	In SIP calls between Polycom HDX and LifeSize 2.6 systems, Polycom HDX systems do not receive 720HD.
	In SIP calls between Polycom HDX and LifeSize 2.6 systems, neither system has far-site camera control.
	In SIP calls between Polycom HDX and LifeSize systems, Polycom HDX systems send 711u audio.
	In a SIP multipoint HD call with a Polycom HDX 9004 system as the host, you cannot dial out to the second HD endpoint when LifeSize is connected as the first endpoint in the call.
	LifeSize systems may experience poor audio in SIP calls with Polycom HDX systems.
	LifeSize Express systems running 4.0.6(7) software transmit video at 15 frames per second in HD calls with Polycom HDX systems.
Interoperability Microsoft	When People Video Adjustment is set to Stretch on a Polycom HDX 8000 HD system in a call with Microsoft Office Communicator, Office Communicator displays black video.
Interoperability PathNavigator™	<p>Multipoint directory entries with speed configured for "Auto" will be placed at the maximum rate supported by the calling system. In some cases, this may be greater than the rate supported by the network. To work around this issue, do one of the following:</p> <ul style="list-style-type: none"> • Configure the directory entry for the desired speed, rather than leaving it as "Auto". • Configure your gatekeeper to downspeed call requests to a rate that the network supports.
	Set Use PathNavigator for Multipoint Calls to Always if you want to automatically use the Polycom PathNavigator Conference on Demand to place multipoint calls.
	When using PathNavigator Conference on Demand to place multipoint calls to Polycom VSX systems using ISDN, the conference may connect with audio only. Polycom MGC 9.0 resolves this issue.

Feature	Limitation
Interoperability Polycom PVX™	When H.239 is disabled, Polycom HDX systems transmit and receive H.263 content (instead of H.264 content) in calls with Polycom PVX. To resolve this issue, enable H.239.
Interoperability Polycom RMX	In an HDCP call hosted by Polycom RMX 1000™ systems, layout changes that move Polycom HDX systems from a small window to a large window (and vice versa) may take several seconds.
Interoperability Polycom RSS™ 2000	Polycom RSS 2000 supports a maximum call speed of 1024 kbps. To record a conference in HD using Polycom RSS 2000, make sure that the Polycom HDX system is configured for sharpness.
	Polycom HDX systems display blocky, gray video for a few seconds after leaving the Polycom RSS 2000 menu.
	In calls using a Polycom RSS 2000, audio is transmitted using G.722.1 Annex C.
Interoperability Polycom VSX Systems	Calls between Polycom HDX and Polycom VSX systems configured for Pro-Motion may experience poor video (interlacing artifacts). To work around this issue, disable Pro-Motion on the Polycom VSX system.
Interoperability RADVISION	In calls using a RADVISION viaIP gateway, Polycom HDX 9004 H.323 systems report packet loss on the transmit side, even though there might not be any packet loss.
	Polycom HDX 9004 systems cannot send dual streams to a Polycom HDX 9001™ system in IP-to-ISDN calls made through the RADVISION viaIP gateway.
Interoperability ReadiManager SE200	ReadiManager SE200 version 3.0.6 software supports all Polycom HDX software versions through version 2.5. ReadiManager SE200 versions earlier than 3.0.6 do not support the new software update method required for Polycom HDX version 2.5 or later software.
	ReadiManager SE200 does not support account validation.
	If a Polycom HDX system becomes unresponsive after a software update from ReadiManager SE200, restart the system.

Feature	Limitation
Interoperability Sony	H.323 encrypted calls between a Polycom HDX system and Sony PCS-1 produce a constant audio screeching. To work around this issue, disable AES Encryption.
	Polycom HDX systems are not able to receive video in an AES HD call from HG90.
	Content sent from Sony PCS-1 or PCS-G50 systems to Polycom HDX systems may display video artifacts.
	Content received on a Sony PCS-1 is not legible if Content Video Adjustment is set to Stretch on the Polycom HDX system. To work around this issue, set Content Video Adjustment to None .
	Calls between Polycom HDX systems and Sony PCS-HG90 systems may result in video divergence on the Sony system and freezing video on the Polycom system.
	Polycom HDX systems can receive but not place SIP calls with Sony PCS-1, PCS-G50 or G70 systems.
	Sony PCS-G70, PCS-G50, and PCS-1 systems receive distorted audio in point-to-point SIP calls with Polycom HDX systems at call rates of 192 kbps and below.
	A Sony PCS-HG90 HD system generates continuous fast updates in a call with Polycom HDX systems.
	Sony XG80 HD systems occasionally do not receive video in encrypted calls with Polycom HDX systems. To work around this issue, disable encryption.

Feature	Limitation
Interoperability SoundStation IP 7000	Audio calls to a Polycom HDX system integrated with a Polycom SoundStation IP 7000 automatically join the conference when they connect. By contrast, a standalone SoundStation IP 7000 will place the conference on hold when connecting the new call.
	If a Polycom HDX system integrated with a SoundStation IP 7000 phone receives multiple incoming calls, answer or ignore them in the order received.
	SoundStation IP 7000 phones may fail to detect a Polycom HDX system after the Polycom HDX system restarts. When this occurs, the SoundStation IP 7000 interface does not display any video-related options. To work around this issue, disconnect the phone from the system, and then reconnect it.
	A SoundStation IP 7000 phone may repeatedly restart after the attached Polycom HDX system has been restarted. To restore normal operation, restart the Polycom HDX system. This problem does not occur if the phone is connected to the left microphone port on the Polycom HDX system (when facing the back of the system).
	Please use the Polycom SoundStation IP 7000 documentation for details on how to use the product. When answering calls to add sites to a multipoint conference, you must use the down arrow on the IP 7000 keypad to go to the next user interface screen to Answer or Reject the calls.
Interoperability SoundStructure	You can use either the Polycom SoundStructure or Polycom HDX system volume controls to adjust the volume. Changes made on one system, however, will not change the visual representation of volume on the other system.

Feature	Limitation
Interoperability TANDBERG	Polycom HDX systems are not able to send HD video to TANDBERG 6000 MXP systems.
	In a multipoint H.320 call with a TANDBERG MXP F5.0, a Polycom HDX system stops receiving people video when the Polycom HDX system sends content.
	TANDBERG and Polycom products use different techniques to generate the AES checksum shown on the Statistics screen. As a result, these numbers will not agree in calls between Tandberg and Polycom systems.
	In H.323 calls at 512 kbps and higher, TANDBERG MXP systems receive video artifacts from Polycom HDX systems. TANDBERG version F6.2 corrects this issue.
	When registered to a TANDBERG gatekeeper, calls do not connect properly if you enter the gatekeeper address in the address field and the far-end extension (E.164 address) in the extension field. To work around this, enter <ip address>##<extension> in the address field.
	Content does not work in SIP calls between Polycom HDX systems and Tandberg MXP systems.
	Polycom HDX systems do not receive content from Tandberg MXP systems in H.320 calls if the Polycom HDX systems send content first.
Interoperability VCON	The Polycom HDX 9001 system does not negotiate H.264 video with the VCON HD3000 system if H.239 is enabled in the call. H.263 video is negotiated instead.
	VCON HD3000 systems may display poor video in calls with a Polycom HDX system.
	In calls between VCON HD3000 and Polycom HDX systems, the VCON system sends content to the Polycom system in a single stream instead of dual streams.

Feature	Limitation
Interoperability ViewStation	In calls between Polycom HDX systems and ViewStation systems with Basic Mode enabled, the ViewStation system does not receive video. To address this issue, turn off Basic Mode.
	ViewStation EX/FX v6.0.5 does not support People+Content in calls with Polycom HDX systems. ViewStation EX/FX version 6.0.5.20 addresses this issue.
	Polycom HDX systems do not receive graphics from ViewStation systems.
	In 4-way H.320 calls that include ViewStation as a far site, sending content from a Polycom HDX system may cause ViewStation to display frozen video.
	ISDN internal MCU calls from Polycom HDX systems to ViewStation FX systems that experience downspeeding may result in the ViewStation FX system not receiving video. To work around this issue, place calls at the final conference rate.
Interoperability Westinghouse	When using a Polycom remote control with the default channel ID of 3, the remote control signal can interfere with a Westinghouse LCD HD monitor. To work around this issue, change the channel ID of the remote control and Polycom HDX system.
Localization	Limit names of localized directory entries to 31 or fewer characters.
	Directory entries with localized names longer than 21 characters are truncated on the "Edit Entry" screen.
	Localized system names longer than 13 characters are truncated on some of the system's local interface screens.
	Localized meeting names longer than 14 characters are truncated on some of the system's local interface screens.
	Localized Names in the directory longer than 17 characters are truncated on some of the system's local interface screens.
Logging	Changing the Transfer Frequency on the Log Management screen causes the Folder Name to return to its default value.

Feature	Limitation
Monitors	You may observe user interface distortion if you attempt to configure a monitor with a 4:3 aspect ratio for a resolution of 1280 x 720.
	You may observe distorted video in a multipoint call between PAL and NTSC systems if Zoom People Video to Fit Screen is enabled.
	Borders are clipped when using Discussion mode in a multipoint call with a DVI monitor set to 1280 x 720 resolution.
	When Dual Monitor Emulation is enabled, the composite video in multipoint calls with five or more sites is clipped on the left and right sides.
	A Polycom HDX system provides the option to output black video or no signal when the system goes to sleep. Select the setting that works best for the system. Note that you may also need to adjust the monitor's configuration to achieve optimal results. For more information, refer to the <i>Administrator's Guide for Polycom HDX Systems</i> .
	If Monitor 1 is connected to the system using a different format than what is configured in the user interface, you may get a blank screen. To work around this issue, press and hold the Display button on the remote control, then select the appropriate format in the remote control window. Or if you know the system's IP address, you can change the monitor format using the web interface.
	Video from some computers may be slightly clipped on the left side when viewed on a Polycom HDX 4000 series display.
	Do not configure both Monitor 1 and Monitor 2 to display far-end video; you can configure one or the other to display far video.
	Do not change monitor settings while in a call.
	Some monitors may fail to correctly center video and user interface screens from a Polycom HDX system. If this occurs, use your monitor's horizontal adjustment feature to center the video.
	Do not configure screen savers with scrolling text on Polycom HDX 8000 HD systems with Hardware Version B.
When a system with a 1080 monitor hosts a multipoint call, a continuous presence conference with a mix of HD and SD endpoints may have unequally-sized windows for the various sites. To work around this, configure People Video Adjustment for "none" or "stretch".	

Feature	Limitation
Monitors	If you change monitor output to S-Video in the setup wizard in the web interface, you may not see video until after the setup wizard completes.
Multipoint	PAL Polycom HDX 8006 systems (HDX 8000 HD with Hardware Version B) do not support HD continuous presence in multipoint calls.
Network	Starting a Polycom HDX system without a LAN connection and subsequently connecting the LAN may cause the LAN interface to fail to come up. If this occurs, restart the system with the LAN connected.
	You must provide an 802.1 password when configuring a system for 802.1X authentication. If you do not provide a password, the system will not activate 802.1X.
People+Content	You cannot enable or disable H.239 while in a call.
People on Content™	When using Polycom People on Content on a Polycom HDX 4000 system, do not preview camera 2 before activating People on Content.
Polycom MGC	Polycom HDX systems in high-speed, video-switched conferences with Polycom Pro-Motion™ on Polycom MGC may experience video artifacts when sending content. Polycom MGC 8.0.0.26 resolves this issue.
	Polycom HDX 9004 systems connect as audio only in H.320 Pro-Motion conferences on Polycom MGC-100 v7.5.1.6.
	Configure Polycom HDX system video content sources for motion when connecting with a video-switched sharpness conference on Polycom MGC v7.5.
	Enable H.239 on Polycom HDX systems when connecting into a Polycom MGC conference configured for H.239.
	If you are using Conference on Demand with a Polycom HDX system, configure this feature to use Continuous Presence or Transcoding instead of Video Switched.
	When People Video Adjustment is set to zoom, Polycom HDX systems may crop some messages sent by Polycom MGC.
	Polycom HDX systems with H.323 that do not have H.239 enabled on them do not receive content in video switching and continuous presence H.239/People+Content conferences with Polycom MGC version 9.0.1.5. To address this issue, enable H.239 on the Polycom HDX system.

Feature	Limitation
Profiles	Profiles do not save Monitor 2 settings.
	If the profile you upload to a Polycom HDX system includes registration with multiple Global Management System servers, only the first server is registered after the system restarts. To work around this issue, manually register with the other servers.
Remote Control	When the Display button is held down, the Polycom HDX remote control displays some video output formats that are not available for Polycom HDX 4000 and Polycom 8000 HD systems.

Feature	Limitation
Security	The Security page in both the local and web interface does not correctly report Telnet, SNMP and Web connections.
	When Security Mode is enabled on a Polycom HDX system, attempting to enable or disable Telnet access from the Security page causes the system to restart.
	Polycom HDX systems do not issue an SNMP alert for failed or successful attempts to log in via Telnet.
	When a Meeting Password is set on a Polycom HDX 8000 HD system and multiple sites call it and enter the password in rapid succession, the Polycom HDX 8000 HD system displays blue video. To work around this issue, press Home then Near on the remote control.
	If your system is in Security Mode and you use the web interface, your browser may display warning messages stating that the security certificate for the web site "Polycom" cannot be verified. Click "Yes, I want to accept the certificate" to continue normal operation.
	Do not set a meeting password if multipoint calls will include SIP endpoints.
	If you attempt to configure an invalid User ID on a system (one that does not meet the system's security policy), you may get an error message that mentions the Admin ID rather than the User ID.
	If you attempt to configure an invalid Admin ID on a system (one that does not meet the system's security policy), you may get the error message "You must specify an Admin ID" rather than one that tells you that the ID was invalid.
	Polycom HDX systems may fail to display the padlock icon after the configuration setting for AES Encryption changes from Off to some other value. To view the padlock icon, go to the home screen and then return to the video screen. Please note that subsequent calls correctly display the padlock icon even without this workaround.
	When you change password creation policies, the changes apply to newly created/changed passwords but do not apply to the passwords that existed before the policy change.
The user interface changes related to password management do not apply to Polycom HDX systems sold in Russia.	
SIP	SIP conferences do not support a meeting password. Do not configure a meeting password if you are using SIP.
	SIP calls across firewalls may fail to connect fully. If a Polycom HDX system restarts when attempting a SIP call across a firewall, disable H.239.

Feature	Limitation
SNMP	The Main Camera Up trap is not sent when a Polycom HDX system starts up.
Software Update	Polycom HDX systems do not time out in software update mode if they are waiting for user response.
	The Polycom HDX system retains its directory entries after you use the hardware restore button to restore the system's configuration to its default values.
	You may observe black video when performing software update on a Polycom HDX 9000 system configured for DVI 1280 x 720 50 Hz. Allow the software update to complete normally. Do not power off the system during the software update process. If the upgrade is interrupted, the system may become unusable.
	When running a software update, you may see video artifacts on secondary monitors. The primary monitor will display the Software Update status screen.
	Use the local user interface or web interface to change monitor settings rather than the configuration screens provided with Software Update.
	When updating a Polycom HDX system that is behind a Linksys router, the update stalls unless the computer you are using to run the update is configured as host on the network.
	When updating a Polycom HDX system using the USB port, the root of the USB stick should have a single .pup file and single .txt file.
	If the Software Update page does not load after a few seconds, click the browser's Refresh button.
	While a software update is in progress, additional browser sessions that attempt to connect to the system may fail to do so, even though the update is preceding normally.
	Disable security mode before downgrading the system software from 2.0 to 1.0.x
Polycom HDX 7000 series or Polycom HDX 8000 series systems customers in a PAL environment will switch to Component monitor output after a Software Update is run with Erase System Flash Memory selected. After the update, hold down the remote control Display button and change the monitor output type.	

Feature	Limitation
Software Update	<p>Polycom HDX systems may fail to reboot after completing a software update, the web interface displays the message "The software update has completed", and the Polycom HDX system displays the splash screen. If this condition persists for more than 10 minutes, restart the system by pressing the power button on the HDX system's front panel until the green indicator light turns off and then pressing the power button a second time.</p>
	<p>Downgrading Polycom HDX software from version 2.5 (or later) to 2.0.x (or earlier) erases the system's local directory and CDR. To preserve this information, use the system's web interface to download it to your computer before the update.</p>
	<p>If the Polycom HDX 4000 series monitor cables are not properly connected, Software Update displays an error message and aborts the update. Connect the monitor cables and retry the Software Update.</p>
	<p>Polycom HDX 9000 series systems occasionally display a shifted or split progress screen during a software update. Allow the software update to complete normally. Do not power off the system during the software upgrade process. If the upgrade is interrupted, the system may become unusable.</p>
Transcoding	<p>Due to the increased functionality of the Polycom HDX multipoint software, transcoding is now enabled by default.</p>
	<p>Make sure that Transcoding is enabled if you plan to host multipoint calls that include SIP.</p>

Feature	Limitation
User Interface	When the trace route diagnostic screen lists more than one line in the results, you must use the Back button on the remote control to exit the screen.
	When you create a system name, the first character should be either a letter or a digit. System names can't start with the \$ or the _ characters.
	Camera icons and names may not be properly transferred to the far end system.
	No warning appears in the user interface when changing the settings for content display in the web interface.
	On the Call Statistics screen, the video rate used may appear to exceed the negotiated video rate. This is only a statistics issue and does not reflect what is actually happening on the network.
	If you do not configure Polycom HDX 4000 series, Polycom HDX 7000 series, or Polycom HDX 8000 HD systems with Hardware Version A to use a time server, you will have to reset the time manually whenever the system restarts.
	It may take several minutes for the LAN status indicator to update after the LAN has been reactivated.
	The user interface may fail to redraw properly after repeated changes to the configuration of Monitor 1. If this occurs, navigate to another user interface screen and then return to the original screen. If this does not resolve the issue, restart the system.
	When a system is configured for basic mode, it does not report far-site information correctly.
	The statistics for receive content show the maximum that might be received rather than the rate currently being received.
	When you add Polycom HDX microphones one at a time, the Diagnostics screen may list the version of the first microphone as None. If multiple microphones are connected, and then you restart the system, they are all correctly displayed.
	Selecting the space bar in the onscreen keyboard toggles between upper case and lower case letters.
Do not add more than six entries to the Speed Dial or Sites list displayed on the Place a Call screen.	
V.35	Polycom HDX 9004 systems allow IP calls when in a V.35 direct call.

Feature	Limitation
Video	When powering down the system, you may notice that the system continues to display video for a few seconds after the power LED turns off.
	Under certain rare conditions, DBA may reduce the bandwidth excessively, resulting in reduced video quality. If this occurs, hang up and place the call again. If the problem reoccurs, disable "Dynamic Bandwidth" (System > Admin Settings > Network > IP > Quality of Service > Next) in the system's user interface.
	Multipoint calls hosted by a Polycom HDX 4000, Polycom HDX 7000, or Polycom HDX 8000 series system may display green video artifacts while the call is being established. These artifacts are gone once the call is fully connected.
	Attempting to send a 1280x1024 video source as People causes People video to freeze. To work around this issue, select another video source.
	Attempting to send Camera 4 or Camera 5 as People when there is no video source connected to the port causes People video to freeze. To work around this issue, select another video source.

Feature	Limitation
Web Interface	If an incorrect logo file type is loaded via the web interface, the logo does not show up and no error message is displayed.
	When you use the web interface to register a system to a Global Directory Server, clicking Update registers the system, but the registration status is not displayed correctly. To display the system's registration status, click the browser's Refresh button.
	Logs cannot be downloaded from the web interface while in a call.
	When multipoint directory entries are edited in the web interface, the Call Quality changes to Auto. You can manually change the entry back to the desired speed.
	Maximum Transmit Bandwidth and Maximum Receive Bandwidth (QoS) settings incorrectly display 4096 kbps as a choice when the 4 Mbps software option is not installed.
	If you do not know the system's IP address due to a software update or some other reason, you can access the web interface using the Host Name. For example, you would enter something like <code>http://systemhostname</code> in the web browser. To access the web interface before a Host Name is configured (such as during initial setup), use the default Host Name, which is "hdx" plus the serial number. For example, you would enter something like <code>http://hdx82071908B008CH</code> in the web browser.
	When moving a camera to a different preset from the web interface, the Web Director progress bar may hang.
	Web Director and remote monitoring do not display video when connected to a system that has Monitor 2 set to a resolution of 1024x768 and Monitor 3 enabled.
	If the system is registered with Microsoft LCS, you cannot view logs in the web interface.
	Local multiple-site directory entries may not be displayed in the web interface list of Sites. To work around this issue, use the multiple-site entry in the web interface directory.

Feature	Limitation
Web Interface	When you use a serial port for camera control, the system incorrectly allows you to set the parity setting. The system ignores the manually set parity setting and automatically determines the correct parity setting.
	Use the local system interface instead of the web interface to configure video dialing order.
	After enabling or disabling Security Mode, allow the system to restart before attempting to use the web interface.
	<p>After upgrading or downgrading a Polycom HDX system, you may experience web interface problems caused by cached pages from the previously loaded software. To work around this issue, clear you browser's cache.</p> <p>For Internet Explorer 6.x do the following:</p> <ol style="list-style-type: none"> 1. In the browser select Tools > Internet Options. 2. Click Delete files in the "Temporary Internet Files" section in the middle of the Options dialog. 3. Click OK in the Delete Files popup. 4. Click OK or Cancel to close the Internet Options dialog. 5. Refresh the web page. <p>For Internet Explorer 7.x do the following:</p> <ol style="list-style-type: none"> 1. In the browser select Tools > Internet Options > General. 2. Click Delete under "Browsing history". 3. Click Delete files in the "Temporary Internet Files" section. 4. Click Yes when asked if are you sure. 5. Close the dialog boxes. 6. Refresh the web page.
	You cannot update screen saver texts from the web interface while the system is showing the screen saver. To change the screen saver, first wake the system using the button provided on the cameras page in the web interface.
	When performing an initial system setup using the web interface and Internet Explorer version 7, you may be asked for the user ID and password twice.
	When configuring the Provisioning Service using the web interface, you must select the Change Password checkbox to enter the password used to log into the provisioning service.
	The Availability Control is not available in the web interface. To set the system to Available or Busy using the web interface, use the Auto Answer Point-to-Point Video setting under General Settings > System Settings.

Feature	Limitation
Web Interface	On occasion, the system may fail to update after an administrator has configured the system for automatic provisioning in the web interface. If this occurs, refresh the browser page after the system has completed the restart required to enable automatic provisioning.
	If the web interface does not report a camera's type correctly after selecting Detect Camera, refresh the browser.
	Editing a system's screen saver text while the system is asleep can cause the text to freeze on the system's display and cause screen burn-in. To avoid this issue, wake the system before adding or modifying screen saver text.

Hardware and Software Requirements

To use the web interface, you need Microsoft Internet Explorer 6.0 or later.

To integrate a Polycom SoundStation IP 7000 phone with a Polycom HDX system, use 3.1.2 or later software on the phone and 2.5.0.1 or later software on the Polycom HDX system.

Interoperability

The following PTZ cameras are supported for use with Polycom HDX systems:

- Polycom EagleEye HD
- Polycom EagleEye 1080
- Polycom PowerCam™ Plus
- Polycom PowerCam
- Sony EVI-D30/31
- Sony EVI-D70 / Vaddio WallVIEW 70
- Sony EVI-D100 / Vaddio WallVIEW 100
- Sony BRC-300 / Vaddio WallVIEW 300
- Elmo PTC-100S/110R/150S/160R
- Canon VC-C50i/Vaddio WallVIEW 50i
- Sony BRC-H700
- Sony EVI-HD1

Polycom HDX systems are tested extensively with a wide range of products. The following list is not a complete inventory of compatible equipment; it simply indicates the products that have been tested for compatibility with the 2.5 release.

Video conferencing systems use a variety of algorithms to compress audio and video. In a call between two systems, each end transmits audio and video using algorithms supported by the other end. In some cases, a system may transmit a different algorithm than it receives. This process occurs because each system independently selects the optimum algorithms for a particular call, and different products may make different selections. This process should not affect the quality of the call.

Type	Product	Version
NAT/Firewall/Border Controller	Linksys BEFVP41	1.01.04
	NETGEAR FR114P	1.5 Release 14
	Polycom V ² IU™ 4350	7.2.2
	Polycom V ² IU 5300 E/S	7.2.2
	SMC7004ABR	1.42.012
Management Systems and Recorders	Polycom RSS 2000	3.0.1, 3.0.2
	Polycom VMC1000	1.0.3 patch 104
Gatekeeper, Gateways, External MCU, Bridges, Call Managers	Codian MCU	2.4.1
	Polycom CMA 4000, CMA 5000	4.0.1
	Polycom Global Management System	7.1.6
	Polycom Read <i>Manager</i> SE200	3.0.5
	Polycom PathNavigator	7.0.11
	Polycom RMX 1000	1.1.0, 1.1.1
	Polycom RMX 2000™	3.0.0
	Polycom MGC	8.0.2.6, 9.0.1.8
	RADVISION ECS	5.6.2.4
	TANDBERG Gateway	G3.2, N6.0

Type	Product	Version
Endpoints	Aethra VegaStar Gold	6.0.49
	Aethra X3	10.7.32
	Polycom DSTMedia Broad5	2.0.0
	Polycom DSTMedia K60	2.0.1
	Polycom DSTMedia K80	1.0
	LifeSize Express	3.5.3.(11)
	LifeSize Room, LifeSize Team	3.5.3.(11)
	Polycom CMAD	4.0.0.0540
	Polycom iPower 9000	6.2.0.1208
	Polycom PVX	8.0.2
	Polycom V500™, Polycom V700™	8.7.1, 9.0.1
	Polycom ViewStation 512	7.5.4
	Polycom ViewStation FX	6.0.5
	Polycom SoundPoint® IP 601	3.0.3
	Polycom SoundPoint IP 650	3.0.3
	Polycom SoundStation IP 3000	2.8
	Polycom SoundStation IP 4000	3.0.3
	Polycom VSX 3000, VSX 5000, VSX 6000, VSX 7000, VSX 7000e, VSX 8000	8.7.1, 9.0.1
	Sony PCS-1	3.42
	Sony PCS-G50, PCS-G70	2.63
	Sony PCS-G90	2.22
	Sony PCS-TL50	2.42
	TANDBERG 6000 B Series	B10.3
	TANDBERG 6000 E Series	E5.3
	TANDBERG MXP 150	L5.1
	TANDBERG Edge95 MXP, MXP 880, MXP 1500, MXP 1700, MXP 6000	F7.0

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