

Administrator's Guide for Polycom[®] QDX[™] 6000 Systems

Version 3.0

February 2009 Edition
3725-30856-001
Version 3.0



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About This Guide

The *Administrator's Guide for Polycom QDX 6000 Systems* is for administrators who need to configure, customize, manage, and troubleshoot QDX 6000 system.

Please read the QDX 6000 system documentation before you install or operate the system.

- *QDX 6000 System Setting Up Guide*, which describes how to connect the mandatory cables and optional devices to the QDX 6000 system.
- *User's Guide for Polycom QDX 6000 Systems*, which describes how to perform video conferencing tasks.

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Introducing the Polycom QDX System

Your **POLYCOM® QDX™ 6000** is a state-of-the-art visual collaboration tool. With crisp, clean video and crystal-clear sound, Polycom QDX 6000 system provides natural video conferencing interaction through the most advanced video communications technology.

The system provides integrator-class connectors and supports multiple video and audio sources. These solutions allow integrators to create specialized and unique, real-time video environments for their customers.

Setting Up Your System Hardware

This manual provides information to supplement the system setting up guide provided with your system and its optional components. A printed copy of the system setting up guide is provided with each Polycom QDX 6000 system.

Positioning the System

Polycom QDX 6000 system is designed to be placed on a tabletop or in an equipment rack.

To position the system:

- 1 Install the mounting brackets on the system if you need to mount it in an equipment rack, or install the self-adhesive feet if you will place the system on a table or shelf.



- 2 Place the system in the desired location. Position the system so that the camera does not face toward a window or other source of bright light.

Leave enough space to connect the cables easily. Place the camera and display together so that people at your site face the camera when they are looking at the display.

Powering On and Off

Connect power and power on the system after you have connected all of the equipment that you will use with it. Make sure that the system is powered off before you connect devices to it.

To power on the Polycom QDX 6000 system:

- Press the power switch on the back of the system.

The indicator light on the front panel of the system provides this information:

| Indicator Light | System Status |
|---|---|
| Off | System is powered off. |
| Steady red light | System is initializing. |
| Blinking red light | System is updating software. |
| Steady green light | System is in a call. |
| Blinking red light against steady green light | System received an IR signal while in a call. |
| Steady blue light | System is awake, not in a call. |
| Blinking red light against steady blue light | System received an IR signal while awake and not in a call. |
| Blinking blue light (on 1 sec, off 2 sec) | System is asleep. |

Configuring with the Setup Wizard

When you power on your system for the first time, the setup wizard detects the system's IP and leads you through the minimum configuration steps required to place a call.

The setup wizard allows you to set a room password, which allows you to limit access to the Admin Settings. The default room password is the 16-digit system serial number from the System Information screen or the back of the system.



Make sure you can recall the room password if you set one. If you forget the password, you will have to reset the system, delete the system files, and run the setup wizard again in order to access Admin Settings and reset the password.

You can run the setup wizard or view the configuration screens in either of these two ways.

- **In the room with the system** — Use the remote control to navigate the screens and enter information. You can use the number pad on the

remote control to enter text just like you can with a cell phone.

- **From a remote location** – Use a web browser to access the Polycom QDX 6000 Web Interface.

For more information, refer to *Managing the System Remotely*.

Networks

This guide covers network types used worldwide. Please note that not all the network types are available in all countries.

Before you begin configuring the network options, you must make sure your network is ready for video conferencing.

Connecting to the LAN

Before you begin configuring the network options, you must make sure your network is ready for video conferencing.

You must connect the system to a LAN to:

- Make H.323 calls.
- Use the Global Directory Server.
- Access the Web interface.
- Use People+Content™ IP.

Configuring LAN Properties

To configure LAN properties:

- 1 Go to **System > Admin Settings > LAN Properties**.
- 2 Configure these settings on the LAN Properties screen:

| Setting | Description |
|---|--|
| IP Address | Specifies how the system obtains an IP address. <ul style="list-style-type: none"> ▪ Obtain IP address automatically - Select if the system gets an IP address from the DHCP server on the LAN. ▪ Enter IP address manually - Select if the IP address will not be assigned automatically. |
| Your IP Address is Or Use the Following IP Address | If the system obtains its IP address automatically, this area displays the IP address currently assigned to the system. If you selected Enter IP Address Manually , enter the IP address here. Changing the IP address causes the system to restart. |

| Setting | Description |
|------------------------|--|
| Subnet Mask | Displays the subnet mask currently assigned to the system. If the system does not automatically obtain a subnet mask, enter one here. Changing this setting causes the system to restart. |
| Default Gateway | Displays the gateway currently assigned to the system. If the system does not automatically obtain a gateway IP address, enter one here. Changing this setting causes the system to restart. |
| LAN Speed | Specify the LAN speed to use. Note that the speed you choose must be supported by the switch. Choose Auto to have the network switch negotiate the speed automatically. Choosing Auto automatically sets Duplex Mode to Auto . If you choose 10 Mbps, 100 Mbps, or 1000 Mbps you must set Duplex Mode to Half or Full . Note: Polycom does not support Auto for the Polycom QDX 6000 system only or the switch only; the settings for both must be the same. Changing this setting causes the system to restart. |
| Duplex Mode | Specify the duplex mode to use. Note that the Duplex mode you choose must be supported by the switch. Choose Auto to have the network switch negotiate the Duplex mode automatically. Choosing Auto automatically sets LAN Speed to Auto . Note: Polycom does not support Auto for the Polycom QDX 6000 system only or the switch only; the settings for both must be the same. Changing this setting causes the system to restart. |

3 Select  and configure these settings:

| Setting | Description |
|--------------------|--|
| Host Name | Indicates the system's DNS name. Changing this setting causes the system to restart. Notes: The host name can include letters, numbers and the hyphen character (-). The host name cannot begin or end with a hyphen. |
| Domain Name | Displays the domain name currently assigned to the system. If the system does not automatically obtain a domain name, enter one here. Changing this setting causes the system to restart. |
| DNS servers | Displays the DNS servers currently assigned to the system. If the system does not automatically obtain a DNS server address, enter up to four DNS servers here. Changing this setting causes the system to restart. |

Configuring IP Settings

Specifying H.323 Settings

If your network uses a gatekeeper, the system can automatically register its H.323 name and extension. This allows others to call the system by entering the H.323 name or extension instead of the IP address.

To specify H.323 settings:

- 1 Go to **System > Admin Settings > Network > IP > H.323 Settings**.
- 2 Configure these settings on the H.323 Settings screen:


| Setting | Description |
|--------------------------------|--|
| Display H.323 Extension | Lets users placing a gateway call enter the H.323 extension separately from the gateway ID. If you do not select this setting, users make gateway calls by entering the call information in this format: gateway ID + ## + extension |
| H.323 Name | Specifies the name that gatekeepers use to identify this system. You can make point-to-point calls using H.323 names if both systems are registered to a gatekeeper. The H.323 Name is the same as the System Name , unless you change it. Your organization's dial plan may automatically define the names you can use. |
| H.323 Extension (E.164) | Specifies the extension that gatekeepers and gateways use to identify this system. Lets users place point-to-point calls using the extension if both systems are registered with a gatekeeper. The default H.323 Extension can be changed. Your organization's dial plan may automatically define the extensions you can use. |

Configuring the System to Use a Gatekeeper


A gatekeeper is a "network administrator" that supervises network traffic and manages functions such as bandwidth control and admission control. The gatekeeper also handles address translation, which allows users to make calls using static aliases instead of IP addresses that may change each day.

To configure the system to use a gatekeeper:

- 1 Go to **System > Admin Settings > Network > IP > H.323 Settings**.

2 Select  and configure these settings on the Gatekeeper screen:

| Setting | Description |
|--------------------------------|--|
| Use Gatekeeper | <p>Specifies whether to use a gatekeeper.</p> <ul style="list-style-type: none"> ▪ Off - Calls do not use a gatekeeper. ▪ Auto - System attempts to automatically find an available gatekeeper. ▪ Specify - Calls use the specified gatekeeper. Enter the gatekeeper's IP address. |
| H.323 Name | <p>Specifies the name that gatekeepers use to identify this system. You can make point-to-point calls using H.323 names if both systems are registered to a gatekeeper.</p> <p>The H.323 Name is the same as the System Name, unless you change it. Your organization's dial plan may automatically define the names you can use.</p> |
| H.323 Extension (E.164) | <p>Specifies the extension that gatekeepers and gateways use to identify this system. Lets users place point-to-point calls using the extension if both systems are registered with a gatekeeper.</p> <p>The default H.323 Extension is based on the system serial number, but it can be changed. Your organization's dial plan may automatically define the extensions you can use.</p> |
| Gatekeeper IP Address | <p>This option is available only when Use Gatekeeper is set to On.</p> <p>If you chose to use an automatically selected gatekeeper, this area displays the gatekeeper's IP address.</p> <p>If you chose to specify a gatekeeper, enter its IP address.</p> |

3 If you chose to specify a gatekeeper, select  to view **Alternate Gatekeepers** that the system can use if the primary gatekeeper is not available.

Specifying Quality of Service


Set the Quality of Service options for the way your network handles IP packets during video calls.

To specify Quality of Service:

1 Go to **System > Admin Settings > Network > IP > Quality of Service**.

2 Configure these settings on the Quality of Service screen:

| Setting | Description |
|------------------------------|---|
| Type of Service | Specifies your service type and lets you choose how to set the priority of IP packets sent to the system for video, audio, and far-end camera control. The priority of audio and video packets you set here must be the same as the corresponding settings on the router. <ul style="list-style-type: none"> ▪ IP Precedence - Represents the priority of IP packets sent to the system. The value can be between 0 and 5. If this setting is selected, enter the value in the Type of Service Value field. ▪ DiffServ - Represents a priority level between 0 and 63. If this setting is selected, enter the value in the Type of Service Value field. |
| Type of Service Value | Specifies the IP Precedence or Diffserv value for Video, Audio, and Far End Camera Control. |
| Enable LPR | Lets you specify whether to use Polycom Lost Packet Recovery™ (LPR™) for calls. This option is enabled by default. The LPR feature will be enabled to ensure the picture effect at the endpoint when a packet is lost in network transmission. |

3 Select  and configure these settings on the Bandwidth screen:

| Setting | Description |
|-----------------------------------|--|
| Maximum Transmit Bandwidth | Specifies the maximum transmit line speed between 64 kbps and 4096 kbps. |
| Maximum Receive Bandwidth | Specifies the maximum receive line speed between 64 kbps and 4096 kbps. |

Configuring the System for Use with a Firewall or NAT

A firewall protects an organization's IP network by controlling data traffic from outside the network. Unless the firewall is designed to work with H.323 video conferencing equipment, you must configure the system and the firewall to allow video conferencing traffic to pass in and out of the network.

Firewall Settings

Network Address Translation (NAT) network environments use private internal IP addresses for devices within the network, while using one external IP address to allow devices on the LAN to communicate with other devices outside the LAN. If your system is connected to a LAN that uses a NAT, you will need to enter the **NAT Public (WAN) Address** so that your system can communicate outside the LAN.

To set up the system to work with a firewall or NAT:

1 Go to **System > Admin Settings > Network > IP > Firewall**.

2 Configure these settings in the Firewall screen:

| Setting | Description |
|--|--|
| Fixed Ports | <p>Lets you specify whether to define the TCP and UDP ports</p> <ul style="list-style-type: none"> If the firewall is not H.323 compatible, enable this setting. The Polycom QDX 6000 system assigns a range of ports starting with the TCP and UDP ports you specify. The system defaults to a range beginning with port 3230 for both TCP and UDP. <p>Note: You must open the corresponding ports in the firewall. You must also open the firewall's TCP port 1720 to allow H.323 traffic.</p> If the firewall is H.323 compatible or the system is not behind a firewall, disable this setting. |
| TCP/UDP Ports | <p>Lets you specify the beginning value for the range of TCP and UDP ports used by the system. The system automatically sets the range of ports based on the beginning value you set.</p> <p>Note: You must also open the firewall's TCP port 1720 to allow H.323 traffic.</p> |
| Enable H.460 Firewall Traversal | <p>Allows the system to use H.460-based firewall traversal. For more information, refer to <i>H.460 NAT Firewall Traversal</i>.</p> |
| NAT Configuration | <p>Lets you specify whether the system should determine the NAT Public WAN Address automatically.</p> <ul style="list-style-type: none"> If the system is not behind a NAT or is connected to the IP network through a Virtual Private Network (VPN), select Off. If the system is configured behind a NAT that allows HTTP traffic, select Auto. If the system is behind a NAT that does not allow HTTP traffic, select Manual. |
| NAT Public (WAN) Address | <p>Displays the address that callers from outside the LAN use to call your system. If you chose to configure the NAT manually, enter the NAT Public Address here.</p> |
| NAT is H.323 Compatible | <p>Specifies that the system is behind a NAT that is capable of translating H.323 traffic.</p> |
| Address Displayed in Global Directory | <p>Lets you choose whether to display this system's public or private address in the global directory.</p> |

H.460 NAT Firewall Traversal

You can configure QDX 6000 systems to use standards-based H.460.18 and H.460.19 firewall traversal, which allows video systems to more easily establish IP connections across firewalls.

To use this traversal, Polycom QDX 6000 systems and firewalls must be configured as follows:

- Enable firewall traversal on the Polycom QDX 6000 system.
- Register the Polycom QDX 6000 system to an external V2IU Traversal Server Gateway that supports the H.460.18 and H.460.19 standards.
- Make sure that firewalls being traversed allow Polycom QDX 6000 systems behind them to open outbound TCP and UDP connections. Disable H.323-aware features on the firewall.
 - Firewalls with a stricter rule set should allow Polycom QDX 6000 systems to open at least the following outbound TCP and UDP ports: 1720 (TCP), 14085-15084 (TCP) and 1719(UDP), 16386-25386 (UDP).
 - Firewalls should permit inbound traffic to TCP and UDP ports that have been opened earlier in the outbound direction.

To enable firewall traversal on a Polycom QDX 6000 system:

- 1 Go to **System > Admin Settings > Network > IP > Firewall**.
- 2 Select **Enable H.460 Firewall Traversal**.

Configuring Call Preferences

Call preferences help you manage the network bandwidth used for calls. You can specify the default and optional call settings for outgoing calls. You can also limit the call speeds of incoming calls.


To choose call preferences:

- 1 Go to **System > Admin Settings > Network > Call Preference**.
- 2 Configure these settings on the Call Preference screen:

| Setting | Description |
|----------------------|---|
| Basic Mode | Enables a limited operating mode that uses H.261 for video and G.711 for audio. This mode provides administrators with a workaround for interoperability issues that cannot be solved using other methods. The Basic Mode setting stays in effect until you change it. |
| H.264 | Specifies that the system should use H.264 for video. |
| H.239 | Specifies standards-based People+Content data collaboration. Select this option if you know that H.239 is supported by the far sites you will call. If callers experience issues when sharing content with other Polycom systems, disable this setting. |
| H.264 Content | If this option is enabled, the endpoint will use H.264 protocol firstly when it is sending content. Some endpoints have the content which is not compatible with H.264, enabling this option may disable the content feature. In this case, it is recommended to disable this option. |

- 3 Select  to go to the Preferred Speeds screens and configure these settings:

| Setting | Description |
|--|---|
| Select the preferred speeds for placing calls | <p>Determines the speeds that will be used for calls from this system when:</p> <ul style="list-style-type: none"> ▪ The Call Quality selection is either unavailable or set to Auto on the Place a Call screen. ▪ The call is placed from the directory. <p>If the far-site system does not support the selected speed, the system automatically negotiates a lower speed.</p> |
| Select the maximum speeds for receiving calls | <p>Allows you to restrict the bandwidth used when receiving calls. If the far site attempts to call the system at a higher speed than selected here, the call is re-negotiated at the speed specified in this field.</p> |

- 4 Select  to go to the Call Speeds screen and specify the call speeds to make available to users, if you are allowing them to choose speeds on a call-by-call basis.

Monitors and Cameras

Monitors

You can connect up to two monitors to the Polycom QDX 6000 System.

- Monitor 1 shows the endpoint onscreen menu by default, and the user can use the remote control to make it show the far-site pictures, local pictures and content.
- Monitor 2 shows the local picture. When the content is sent or received, it shows the complete picture of content.

The following table shows how you can connect monitors to a Polycom QDX 6000 system.

| Video Output Number | Connector | Output Formats |
|---------------------|--------------|----------------|
| 1 | RCA (three) | YPrPb |
| | RCA (yellow) | Composite |
| | S-Video | S-Video |
| 2 | RCA (yellow) | Composite |
| | S-Video | S-Video |
| | VGA | VGA |



For Monitor 2, the system provides RCA, S-Video, and VGA connectors. Only one at a time is active, based on the output format configured for that monitor.

Configuring Monitor Settings

To configure monitors:

- 1 Go to **System > Admin Settings > Monitors**.

2 Configure these settings on the Monitors screen:

| Setting | Description |
|--|---|
| Number of Monitors | Specifies the number of monitors to use. |
| Output Upon Screen Saver Activation (Monitor 1) | <p>Specifies the screen saver output for Monitor 1: Specifies whether black video or no signal is sent to the monitor when the system goes to sleep and the screen saver activates.</p> <p>Select Black if you want to display screen saver text. This is the recommended setting to prevent burn-in for TV monitors.</p> <p>Select No Signal if you want the display to react as if it is not connected when the system goes to sleep. This is the recommended setting for VGA monitors and projectors.</p> |
| Aspect Ratio (Monitor 1) | <p>Specifies the monitor's aspect ratio:</p> <ul style="list-style-type: none"> ▪ 4:3 - Select if you are using a regular TV monitor. ▪ 16:9 - Select if you are using a wide-screen monitor. |
| PIP (Monitor 1) | <p>This option is available only when you selected 4:3 for Aspect Ratio. Specifies PIP (Picture-in-Picture) behavior:</p> <ul style="list-style-type: none"> ▪ On — The PIP window stays on for the duration of the call. ▪ Auto — Shows the PIP window when the user operates the remote control (the PIP window is closed when the user presses the hook at the bottom of remote control, and it is opened when the hook is released). ▪ Off — The PIP window is not displayed during the call. <p>Note: PIP settings are also available in the User Settings screen. For more information about User Settings, refer to <i>Managing User Access to Settings and Features</i>.</p> |
| Output Upon Screen Saver Activation (Monitor 2) | <p>Specifies the screen saver output for Monitor 2: Specifies whether black video or no signal is sent to the monitor when the system goes to sleep and the screen saver activates.</p> <p>Select Black if you want to display screen saver text. This is the recommended setting to prevent burn-in for TV monitors.</p> <p>Select No Signal if you want the display to react as if it is not connected when the system goes to sleep. This is the recommended setting for VGA monitors and projectors.</p> |
| Aspect Ratio (Monitor 2) | <p>Specifies the second monitor's aspect ratio:</p> <ul style="list-style-type: none"> ▪ 4:3 - Select if you are using a regular TV monitor. ▪ 16:9 - Select if you are using a wide-screen monitor. |
| Video Format (Monitor 2) | <p>Selects the second monitor to use TV or VGA monitor.</p> <ul style="list-style-type: none"> ▪ VGA — Select if the monitor is connected using a VGA cable. ▪ TV — Select if the TV is connected using a composite video cable or S-video cable. |
| VGA Resolution (Monitor 2) | Specifies the resolution for the monitor. |


3 Select  and configure these settings:






| Setting | Description |
|--|--|
| People Video Adjustment, Content Video Adjustment | <p>Specifies the adjustment made to people video and content video images.</p> <ul style="list-style-type: none"> ▪ None—Preserves the aspect ratio of the source video. The image is scaled (if necessary) to the largest supported resolution that fits on the display without cropping. Extra areas on the display are filled with black borders. ▪ Stretch—Does not preserve aspect ratio. The image is scaled horizontally and vertically to exactly match the resolution of the display. ▪ Zoom—Preserves the aspect ratio of the source video. The image is scaled to exactly match one of the display dimensions while matching or exceeding the other display dimension. The image is centered and cropped. |
| Display Icons in a Call | Specifies whether to display all on-screen graphics and icons during calls. |
| Screen Saver Wait Time | Specifies how long the system remains awake during periods of inactivity. The default is 3 minutes. Setting this option to Off prevents the system from going to sleep. |
| Color System | Specifies the color system used by your monitor. Changing this setting causes the system to restart. |

Adjusting Screen Layout

In calls, you can change the current screen layout on the monitor. What you see during a call can depend on factors such as the system monitor configuration, the number of sites in the call, whether the Picture-in-Picture (PIP) is enabled and whether the content is being shared.

To change the screen layout:


In a call, repeatedly press  **PIP** on the remote control to switch among the screen layouts supported by the Polycom QDX 6000 system. These might include the following layouts:

| Layout Feature | Effect Example |
|--|--|
| <p>Far site, full screen</p> |  |
| <p>Far and near sites, the same size, side by side</p> |  |
| <p>Far site big, near site small (only available when your monitor is configured to 16:9)</p> |  |
| <p>Far site displayed in full screen, and near site in the right-bottom small window (PIP layout, only available when your monitor is configured to 4:3)</p> |  |
| <p>Content displayed in the left big window, and far and near sites in the right small window</p> |  |

Specifying, Showing and Turning Off the PIP


Your system can be configured to display a Picture-in-Picture (PIP) window if your monitor is set to an aspect ratio of 4:3. You can show the PIP any time the system is not sending or receiving content.

To specify whether and when to display the PIP:

- 1 Select **System** from the Place a Call screen.
- 2 Select **User Settings** from the System screen.
- 3 Select  to see more settings.
- 4 Scroll to **PIP**, and select one of these settings:

| Select this setting... | To set the PIP... |
|------------------------|--|
| On | Stays on for the duration of the call |
| Auto | Be shown when the user operates the remote control and be turned off when the user puts the remote control on the table (the PIP window is closed when the user presses the hook at the bottom of remote control, and it is opened when the hook is released). |
| Off | Be turned off during the call. |

To show the PIP during a call:

Repeatedly pressing  **PIP** on the remote control to switch to the PIP display. PIP can change to show the near or far site.

Adjusting the Monitor's Color Balance, Sharpness, and Brightness

In most cases, the monitor you connect to your Polycom QDX 6000 system may be set to a configuration that is appropriate for video conferencing applications. Depending on your environment and model of monitor, however, the video may exhibit one of these problems:

- Picture is too dark or too bright.
- Colors appear faded.
- Picture has too much of one color – for example, the picture may appear greenish.
- Picture has blocky or softened edge detail.


If you notice any of these problems, adjust the monitor until the display seems acceptable. Use the video diagnostics test as described in the following steps, or purchase a calibration program DVD tool to help you fine-tune the display settings.

To adjust the monitor for natural color:

- 1 Go to **System > Diagnostics > Video**.
- 2 Select the color bars icon to display the color bar test screen.
- 3 Adjust the color using the monitor's controls for color, contrast, and brightness. Your monitor may also have the controls for tint and

temperature.

The colors from left to right should be white, yellow, cyan, green, magenta, red and blue. Make sure that the white is not tinted red, green, or blue, and that the red is not tinted pink or orange.

- 4 When the colors look right on the test screen, press  **Near** until you see video of the room.
- 5 If the color appears natural, you do not need to make further adjustments. If the color appears adjustment, use the monitor's controls to make small adjustments until the picture appears natural.

Preventing Monitor Burn-In

Monitors and Polycom QDX 6000 system provide display settings to help prevent image burn-in. Plasma televisions can be particularly vulnerable to this problem. Refer to your monitor's documentation or manufacturer for specific recommendations and instructions. The following guidelines help prevent image burn-in:

- Use the monitor's burn-in prevention features, if available.
- Ensure that static images are not displayed for long periods.
- Set the **Screen Saver Wait Time** to 3 minutes or less (For more information about configuring monitors, refer to *Configuring Monitor Settings*).
- To keep the screen clear of static images during a call, disable the following settings:
 - **Display Icons in a Call** described on page 3-3.
 - **Display Time in a Call** described on page 6-1.
 - **Far Site Name Display** described on page 6-1.
- Be aware that meetings that last more than an hour without much movement can have the same effect as a static image.
- Consider decreasing the monitor's sharpness, brightness, and contrast settings if they are set to their maximum values.

Connecting Cameras

Refer to your system's setting up guide for connection details. Refer to the release notes for a list of supported PTZ cameras. If you connect a supported PTZ camera, the system detects the camera type and sets the appropriate configuration. Make sure that the system is powered off before you connect devices to it.

The following table shows how you can connect video sources to a Polycom QDX 6000 system.

| Video Input Number | Connector | Format | Power | Control |
|--------------------|-----------|---------|----------|----------------------|
| 1 (main camera) | S-Video | S-Video | Provided | Camera PTZ, IR input |

| Video Input Number | Connector | Format | Power | Control |
|----------------------|-----------|-----------|-------|---------|
| 2 (auxiliary camera) | RCA | Composite | None | None |
| 3 (document camera) | S-Video | S-Video | None | None |
| 4 (VCR) | RCA | Composite | None | None |
| 5 (VGA) | VGA | VGA | None | None |

Configuring Camera Settings and Video Quality Options

To configure camera and video settings:

- 1 Go to **System > Admin Settings > Cameras**.
- 2 Configure these settings on the Cameras screen:

| Setting | Description |
|-----------------------------------|--|
| Far Control of Near Camera | Specifies whether the far site can pan, tilt, or zoom the near-site camera. When this option is selected, a user at the far site can control the framing and angle of the camera for the best view of the near site. |
| Backlight Compensation | Specifies whether to have the camera automatically adjust for a bright background. Backlight compensation is best used in situations where the subject appears darker than the background. |
| Main,AUX, DOC, VCR Camera | Sets the video quality of Main, AUX, DOC, VCR camera video input depending on the active level contained in the video picture: <ul style="list-style-type: none"> ▪ Motion - This setting is for showing people or other video with motion. ▪ Sharpness - The picture will be sharp and clear, but moderate to heavy motion at low call rates can cause some frames to be dropped. |
| Default Video Source | Sets the default camera for the Polycom QDX 6000 system video input. |

3 Select  and configure these settings:

| Setting | Description |
|-------------------------------------|--|
| Camera Control Protocol | Specifies the communication protocol for the camera. <ul style="list-style-type: none"> ▪ Auto - The camera automatically selects the communication protocol. ▪ PELCO-P— The camera uses the PELCO-P protocol for communication. ▪ PELCO-D - The camera uses the PELCO-D protocol for communication. |
| Camera Pan/Tilt Speed: | Sets the camera pan rate. <ul style="list-style-type: none"> ▪ Slow - The camera pans at a low rate. ▪ Medium - The camera pans at a medium rate. ▪ Fast - The camera pans at a high rate. |
| EagleEye Camera Aspect Ratio | Specifies the aspect ratio used by the Polycom EagleEye™ camera. |

Configuring Advanced Polycom EagleEye Camera Settings

You can use the system’s web interface to configure or restore the following Polycom EagleEye camera settings:

- Brightness
- Black Level
- Color Saturation
- White Balance

To adjust Polycom EagleEye camera’s brightness, black level, or color saturation:

- 1 Make sure that the system and camera are powered on and awake.
- 2 On a computer, open a web browser.
- 3 In the browser address line, enter the system’s IP address, for example, `http://10.11.12.13`, to go to the Polycom QDX 6000 web interface.
- 4 Go to **Admin Settings > Cameras**.
- 5 Click **Advanced**.
- 6 Select values for brightness, black level, and color saturation.
- 7 Click **Update**.

To restore the Polycom EagleEye camera’s default settings:

- 1 Make sure that the system and camera are powered on and awake.
- 2 On a computer, open a web browser.
- 3 In the browser address line, enter the system’s IP address, for example, `http://10.11.12.13`, to go to the Polycom QDX 6000 web interface.

- 4 Go to **Admin Settings > Cameras**.
- 5 Click **Restore**. White Balance, Brightness, Black Level, and Color Saturation are returned to their default values.

To set the Polycom EagleEye white balance:

You can set the white balance to one of several fixed values, or you can set it manually.



White balance settings require particular camera and system firmware versions. Contact your Polycom distributor for more information.

- 1 Make sure that the system and camera are powered on and awake.
- 2 On a computer, open a web browser.
- 3 In the browser address line, enter the system's IP address, for example, `http://10.11.12.13`, to go to the Polycom QDX 6000 web interface.
- 4 Go to **Admin Settings > Cameras**.
- 5 Select a value for White Balance.
 - **Auto:** Polycom recommends this setting for most situations. It calculates the best white balance setting based on lighting conditions in the room.
 - **Pre-defined values:** Use one of the pre-defined color temperature settings to provide acceptable color reproduction.
- 6 Click **Update**.

Configuring Camera Presets

Camera presets are stored camera positions that you can create ahead of time or during a call.

Presets allow users to:

- Automatically point a camera at pre-defined locations in a room.
- Select a video source.


If your system's main camera supports electronic pan, tilt, and zoom movement, you can create up to 100 preset camera positions for the near site. Each preset stores the camera number, its zoom level, and the direction it points (if appropriate). They remain in effect until you delete or change them.

To store a preset:



- 1 If you are in a call, press **Near** or **Far** then choose a near-site or far-site camera or other video source.
- 2 If you selected a camera that supports electronic pan, tilt, and zoom, you can adjust the camera's position:
 - Press **Zoom** to zoom the camera out or in.
 - Press the arrow buttons on the remote control to move the camera up, down, left, or right.
- 3 Press **Preset**.
- 4 Press and hold a number to store the preset position.

To store a double-digit preset (10-99), hold the second number down. Any existing preset stored at the number you enter is replaced.




To view your near-site presets:

- 1 Press  **Preset** on the remote control.
- 2 Icons for presets 0-9 are shown on the screen. The colored icons indicate stored camera positions, and the gray icons indicate available presets.

To move the camera to a preset:

- 1 If a call is connected, press  **Near** or  **Far**, and then choose a near-site or far-site camera.
- 2 Press a number on the remote control.

To delete all presets:

- 1 If you are in a call, press  **Near**, and then choose a near-site video source.
- 2 Press  **Preset** on the remote control.
- 3 Press and hold  **Delete** to delete all presets.

Microphones and Speakers

Microphones

The table below shows the audio input sources supported by the Polycom QDX 6000 system:

| Audio inputs | Connector | Acceptable Input Source |
|-------------------------|-----------|-------------------------|
| Mic 1 | RJ-11 | Polycom microphone |
| Mic 2 | RJ-11 | Polycom microphone |
| Line In (Main Audio) | RCA | Line Level |
| VCR IN (VCR/DVD Player) | RCA | Mono/Stereo Line Level |

To pick up audio from your site, you must connect a microphone to the Polycom QDX 6000 system. The microphone picks up sound from the sides. You can connect multiple Polycom microphones to a Polycom QDX 6000 system.

For best audio:

- Place the microphone on a hard, flat surface (table, wall, or ceiling) away from obstructions, so the sound will be directed into the microphone elements properly.
- Place the microphone near the people closest to the monitor.
- In large conference rooms, you may need more than one microphone. Each Polycom microphone covers a 3-6 foot radius, depending on the noise level and acoustics in the room.

Polycom Microphone Lights

The following table describes the behavior of the microphone lights.

| Microphone Light | Status |
|------------------|---------------------|
| Off | Not in a call |
| Green | In a call, mute off |
| Red | Mute on |
| Amber | Firmware upload |

Configuring Audio Settings

To configure general audio settings:

- 1 Go to **System > Admin Settings > Audio > Audio Settings**.
- 2 Configure these settings on the Audio Settings screen:

| Setting | Description |
|--------------------------------------|--|
| Sound Effects Volume | Sets the volume level of the ring tone and user alert tones. |
| Mute Auto Answer Calls | Specifies whether to mute incoming calls. Incoming calls are muted by default until you press the mute on the microphone or on the remote control. |
| Microphone Gain | Sets the microphone input volume. |
| Echo Cancellation | Lets you specify whether to use the system's built-in echo canceller with the main audio input (Line In). |
| Enable Polycom StereoSurround | Specifies that Polycom StereoSurround is used for all calls. |

Speakers

You must connect at least one speaker to the Polycom QDX 6000 system in order to hear audio. You can use the speakers built into the main monitor, or you can connect an external speaker system to provide more volume and richer sound in large rooms.

The following table describes the audio outputs of the Polycom QDX 6000 system.

| Audio Outputs | Connector | Output Type | Audio Mix Routed to the Output |
|--------------------------|-----------|-------------|--|
| Line Out (Main Audio) | RCA | Mono/Stereo | System tones and sound effects + Audio from the far site + |
| VCR OUT (VCR/DVD Player) | RCA | Mono/Stereo | Near-site talkers + Audio from the far site + |

Setting the Speaker Volume

To set the volume of an external speaker system:

- 1 Go to **System > Diagnostics > Audio > Speaker Test**.
- 2 Start the speaker test.
- 3 Adjust the volume of the speaker system. From the center of the room the test tone should be as loud as a person speaking loudly, about 80-90 dBA on a sound pressure level meter.

Audio meter

The audio meters in the user interface allow you to identify left and right channels. The meters also indicate peak signal levels. Set signal levels so that you see peaks between +3dB and +7dB with normal speech and program material. Occasional peaks of +12 dB to +16 dB with loud transient noises are acceptable. If you see +20 on the audio meter, the audio signal is 0 dBFS and the audio might be distorted.

To access the audio meter:

- Go to **System > Diagnostics > Audio > Audio Meter**.

Content and Captions

Sharing content

You can present content during calls when you use:

- A VCR or DVD player connected directly to a Polycom QDX 6000 system.
- People+Content IP installed on a computer, with any Polycom QDX 6000 system that has the People+Content IP option installed.
- A computer connected directly to a Polycom QDX 6000 system.

For more information about sharing content during a call, refer to the *User's Guide for Polycom QDX 6000 Systems*.

Configuring Content Sharing

To configure the content display:

- 1 Go to **System > Admin Settings > Network > Call Preference**.
- 2 Enable **H.239**.

| Setting | Description |
|---------------------|--|
| Enable H.264 | Select this option if you know that H.264 is supported by the far sites you will call. If callers experiencing issues when sharing content with other Polycom systems, disable this setting. |

For more information about sharing content during a call, refer to the *User's Guide for Polycom QDX 6000 System*.

Configuring Content Display with People+Content IP

People+Content IP enables a presenter to show the content from a computer to other sites in a video conference using only an IP network connection. The presenter can show PowerPoint® slides, video clips, spreadsheets, or any other type of content from a computer. People+Content IP supports any computer desktop resolution with the color set to 16-bit or higher.

Before a presenter can use a computer to show content with People+Content IP, you need to:

- Download the People+Content IP software application from the Polycom web site to the computer(s) that the presenter will use to show content.

You don't need to change the computer resolutions and you don't need

special cables or hardware, but the computer(s) must meet these requirements:

- Operating System: Windows 2000, Windows XP Home, or Windows XP Professional.
- Minimum computer: 500 MHz Pentium® III (or equivalent); 256 MB memory.
Recommended computer: 1 GHz Pentium III (or equivalent); 512 MB memory.

- Connect the computer(s) to the IP network.

To install People+Content IP on a computer:

- 1 On a computer with Windows XP or Windows 2000, open a web browser and go to the Polycom web site at www.polycom.com/support.
- 2 Navigate to your product page.
- 3 Download and install the People+Content IP software.

Configuring Captions

To customize your meeting, you can define a meeting name that displays on the screen at all sites. For example, your meeting name might be Beijing Executive Team. You can also define text that all participants see moving across the screen (a “rolling caption”). For example, your rolling caption might be “For technical support, call technical support at 597-636-557”.

Configuring Meeting Captions

To configure the meeting caption:

- 1 Go to **System > Utilities > Meeting Caption**.
- 2 Configure these settings on the Meeting Caption screen:

| Setting | Description |
|-------------------------------|--|
| Enable Meeting Caption | Specifies whether to display the meeting name to all sites in a call. |
| Meeting Name | Specifies the meeting name used for this system. Meeting names can contain up to 10 double-byte or 20 single-byte letters, numbers, symbols, and Chinese characters. |
| Color | Sets the display color of the meeting name. |
| Caption Position | Specifies the display position of the local meeting name. <ul style="list-style-type: none"> ▪ Upper Left - The meeting name is shown in the upper left corner of the screen. ▪ Upper Right - The meeting name is shown in the upper right corner of the screen. ▪ Lower Left - The meeting name is shown in the lower left corner of the screen. ▪ Lower Right - The meeting name is shown in the lower right corner of the screen. |

Configuring Rolling Captions

To configure the rolling caption:

- 1 Go to **System > Utilities > Rolling Caption**.
- 2 Configure these settings on the Rolling Caption screen:

| Setting | Description |
|--------------------------------|--|
| Enable Rolling Caption | Sets whether to display a moving caption to all participants. |
| Color | Sets the display color of caption |
| Rolling Speed | Sets the scrolling speed of the rolling caption. A scrolling speed of 1 is the slowest speed, and 3 is the fastest. |
| Caption Position | Sets the display position of marquee in the picture |
| Rolling Caption Content | Text to display in the rolling caption. The text can contain letters, numbers, symbols, and Chinese characters. |

Calling and Answering

Configuring Call Settings

The Call Settings screens provide access to high-level options for the entire system. For convenience, some of the User Settings options are repeated on these screens.

To configure call settings:

- 1 Go to **System > Admin Settings > General Settings > System Settings > Call Settings**.
- 2 Configure these settings on the Call Settings screen:

| Setting | Description |
|---|---|
| Maximum Time in Call | Enter the maximum number of minutes allowed for call length. When that time has expired, you see a message asking you if you want to hang up or stay in the call. If you do not answer within one minute, the call automatically disconnects. If you choose to stay in the call at this time, you will not be prompted again. Choosing 0 removes any limit. |
| Display Time in Call | Specifies whether to display the elapsed time or the local time during a call. You can also choose not to display the time. |
| Call Detail Report | Specifies whether to collect call data for the Call Detail Report and Recent Calls list. When selected, information about calls can be viewed through the Polycom QDX 6000 Web interface and downloaded as a .csv file. For more information, refer to see <i>Call Detail Report (CDR)</i> . |
| Recent Calls | Specifies whether to display the Recent Calls button on the home screen. The Recent Calls screen lists the site number or name, the date and time, and whether the call was incoming or outgoing. Note: If the Call Detail Report option is not selected, the Recent Calls option is not available. |
| Far Site Name Display | Turns the far site name display on or off. |
| Auto Answer Point-to-Point Video | Specifies whether to answer incoming point-to-point calls automatically. |

Configuring Directory Settings

To configure directory settings:

- 1 Go to **System > Admin Settings > General Settings > System Settings > Directory**.
- 2 Configure these settings on the Directory screen:

| Setting | Description |
|---|--|
| System Name | Enter or change the system name in this field. This name appears on the screen for the far site when you are making calls. |
| Localized System Name | Displays the localized system name, if you have entered one. You can enter a Localized System Name for Simplified Chinese on this screen using the Chinese Virtual Keyboard. You must use the Polycom QDX 6000 web interface to enter localized system names for other languages. |
| Allow Directory Changes | Specifies whether users can save changes to the directory. |
| Confirm Directory Deletions | Specifies whether users are prompted to confirm deletions of directory entries. |
| Confirm Directory Additions Upon Call Disconnect | Specifies whether users are prompted to confirm new directory entries when saving the information for the last site called. |
| Preview Directory Entry Information | Specifies whether to display a preview of each entry on the Directory screen. |

Creating a Localized System Name with the Polycom QDX 6000 Web Interface

Localized system names are sent to the far site and displayed as the caller ID by Polycom QDX 6000 systems running any version or VSX systems running version 8.0 or later. When you enter a localized system name, it is also entered in English/Pinyin. The English/Pinyin name is the name used by the Global Directory Server, the gatekeeper, and other systems that do not support this feature, and it is also the name that shows up in the Recent Calls list.

To create a localized system name using the Polycom QDX 6000 Web interface:

- 1 On a computer, open a web browser.
- 2 In the browser address line, enter the system's IP address, for example, `http://10.11.12.13`, to go to the Polycom QDX 6000 Web interface.
- 3 Go to **Admin Settings > General Settings > System Settings**.
- 4 Enter the localized system name in the **Localized System Name** field.

Managing Directories with the Polycom QDX 6000 Web Interface


The Polycom QDX 6000 Web Interface import/export directory feature allows you to maintain consistency of Polycom QDX 6000 system directories in your organization efficiently. It is particularly useful for administrators

managing multiple systems that call the same locations. You can:


- Transfer the existing directory entries between Polycom QDX 6000 systems.
- Develop directory entries on one system, save them to your computer, and then distribute them to other systems.
- Create localized directory entries.

Only the local directories can be downloaded. The directory file is in the .csv format.

To download a Polycom QDX 6000 system directory to your computer:

- 1 On a computer, open a web browser.
- 2 In the browser address line, enter the system's IP address, for example, http://10.11.12.13, to go to the Polycom QDX 6000 Web interface.
- 3 Go to **Utilities > Import/Export Directory**.
- 4 Click **QDX 6000**  **PC** to download the .csv file from the Polycom QDX 6000 system.

To upload Polycom QDX 6000 system directory entries:

- 1 On a computer, open a web browser.
- 2 In the browser address line, enter the system's IP address, for example, http://10.11.12.13, to go to the Polycom QDX 6000 Web interface.
- 3 Go to **Utilities > Import/Export Directory**.
- 4 Click **PC**  **QDX 6000**.
- 5 Click **Browse** and browse to the location of the .csv file on your computer.
- 6 Click **Export Directory** to upload the .csv file to the Polycom QDX 6000 system.

Configuring the Global Directory

The global directory provides a list of other systems that are registered with the Global Directory Server and available for calls. The other systems appear in the directory, allowing users to place calls to other users by selecting their names.

To configure the directory server settings:

- 1 Go to **System > Admin Settings > Global Services > Directory Servers**.
- 2 Configure these settings on the Global Directory Servers screen:

| Setting | Description |
|-------------------------------|---|
| Global Directory (GDS) | Specifies the IP address or DNS address of the Global Directory Server. You can enter up to five addresses. |
| Password | Lets you enter the global directory password, if there is one. |
| Register | Registers this system with the Global Directory Server. |


| Setting | Description |
|---|---|
| Display Global Addresses | Displays other registered systems in the global directory. |
| Display Name in Global Directory | Specifies whether to display the system's name in the global directories of other registered systems. |
| Save Global Directory to System | Copies the global directory to this local system. When this setting is disabled, the system can display no more than 1,000 global directory entries. When this setting is enabled, the system can display up to 4,000 global directory entries. |
| Group Name | Specifies the group name used for global directory entries in the local directory. In the directory, entries from Global Directory Servers are listed in the Polycom GDS group. |

Configuring Remote Control Behavior

You can customize the behavior of the remote control to support the users' environment.

To configure remote control behavior:

- 1 Go to **System > Admin Settings > General Settings > System Settings > Remote Control**.
- 2 Configure these settings on the Remote Control screen:

| Setting | Description |
|----------------------------------|--|
| Keypad Audio Confirmation | Specifies whether to play a touch tones (DTMF) confirmation of numbers selected with the remote control or keypad. |
| Remote Control Keypad | Specifies whether pressing number buttons on the remote control or keypad moves the camera to presets or generates touch tones (DTMF tones). If this is set to Presets , users can generate DTMF tones by pressing  while on a video screen. |

System Location and Appearance

Setting Date, Time, and Language

You can update the system with regional settings, including the location-specific language and time.


To set the language for the user interface:

- 1 Go to **System > Admin Settings > General Settings > Language**.
- 2 Set the language for the user interface.

To set the date and time:

- 1 Go to **System > Admin Settings > General Settings > Date and Time**.
- 2 Configure these settings on the Time Zone screen:

| Setting | Description |
|---|--|
| Auto Adjust for Daylight Saving Time | Specifies the daylight savings time setting. When you enable this setting, the system clock automatically changes for daylight saving time. |
| Time Zone | Specifies the time difference between GMT (Greenwich Mean Time) and your location. |
| Time Server | Specifies connection to a time server for automatic system time settings. The date and time must be manually reset every time a Polycom QDX 6000 system restarts, in the following cases: <ul style="list-style-type: none"> ▪ Time Server is set to Off. ▪ Time Server is set to Manual or Auto, but the system cannot connect to a time server successfully. |
| Time Server Address | Specifies the address of the time server to use when Time Server is set to Manual . |

- 3 Select  and configure these settings on the Date and Time screen:

| Setting | Description |
|---------------------|--|
| Date Format | Specifies your format preference for the date display. |
| Time Format | Specifies your format preference for the time display. |
| Current Date | Lets you enter your local date. |
| Current Time | Lets you enter your local time. |

| Setting | Description |
|-----------------------------|---|
| Display Time in Call | <p>Specifies the time display in a call:</p> <ul style="list-style-type: none"> Elapsed Time - Displays the amount of time in the call. Local Time - Displays the local time on the screen during a call. Off - Time is not displayed. |


Customizing the Home Screen

The administrator can customize the system functionality according to users' need, skill levels, and environments. The table below provides a group of screen customization examples.

| User Type | Screen Design |
|---|---------------|
| <p>Infrequent Users (Kiosk Mode)</p> <p>Provide a simple workspace so no training is needed:</p> <ul style="list-style-type: none"> Access to pre-defined numbers with one button click Instructions on screen | |
| <p>New Users</p> <p>Provide more options but keep it simple:</p> <ul style="list-style-type: none"> Dialing entry field Directory numbers Recent Calls | |
| <p>Advanced Users</p> <p>Provide additional options for advanced video conferencing users:</p> <ul style="list-style-type: none"> Call Quality (bandwidth) User Settings, Diagnostics, and System Information Speed Dial list of frequently called sites Alerts | |

To design the home screen:

- 1 Go to **System > Admin Settings > General Settings > Home Screen Settings**.
- 2 Configure these settings on the Home Screen Settings screen:

| Setting | Description |
|--------------------------------|---|
| Dialing Display | Specifies which dialing option to display: <ul style="list-style-type: none"> ▪ Dialing Entry Field - Allows users to enter numbers manually. ▪ Display Marquee - Displays text in the dialing entry field. Can be used to display user instructions. Users cannot enter numbers manually when this option is selected. ▪ None - Removes the dialing entry field from the screen. |
| Enter Marquee Text | Specifies the text to display when the Dialing Display is set to Display Marquee . |
| Contact List | Specifies whether to display the contact list on home screen. |
| Call Quality | Allows users to select the bandwidth for calls from the Place a Call screen. |
| H.323 Extension (E.164) | Allows users to enter extensions on the home screen. |
| Directory | Allows users to access the directory. |
| System | Allows users to access the System screen, which includes User Settings, Diagnostics, and System Information. If you remove the System button, you can still access the System screen by navigating to the home screen, pressing  Help on the remote control, and selecting System . |

- 3 Select  and configure these settings:

| Setting | Description |
|----------------------------|--|
| System Name | Specifies whether to display the name of the system on the home screen above the PIP window. |
| Local Date and Time | Specifies whether to display the local date and time on the home screen. |
| Do Not Disturb Icon | Allows users to set the system to automatically accept or ignore incoming calls using the Do Not Disturb button on the home screen. |
| Call Detail Report | Specifies whether to generate a report of all calls made with the system. When selected, all calls can be viewed through the Polycom QDX 6000 web interface and downloaded as a .csv file. Note: If this setting is disabled, applications such as the Polycom Global Management System will not be able to retrieve Call Detail Report (CDR) records. |

| Setting | Description |
|---------------------|--|
| Recent Calls | Specifies whether to display the Recent Calls button on the home screen. The Recent Calls screen lists the site number or name, the date and time, and whether the call was incoming or outgoing. Note: If the Call Detail Report option is not selected, the Recent Calls option is not available. |



- 4 Select  and configure these settings:

| Setting | Description |
|---------------------------|---|
| Sites | Allows users to access any pre-defined sites from a My Contacts/Speed Dial list on the home screen. |
| Last Number Dialed | Specifies whether to display the last number dialed or clear the dialing field on the home screen. |

Displaying Speed Dial Sites

Sites configured for speed dial are displayed on the home screen.

To configure speed dial sites:

- 1 Make sure that the site information is entered in the directory.
- 2 Go to **System > Admin Settings > General Settings > Home Screen Settings**.
- 3 Select  two times and enable **Sites**.
- 4 Select  to access the Sites screen.
- 5 Select **Add** and choose the sites to add from the directory.
- 6 Select either **Speed Dial** or **Contacts** as the name you want to appear on the button.

Adding Marquee Text

You can create marquee text to display in the dialing entry field on the home screen. You can create context-specific instructions for your users or, if the home screen has Site buttons, the marquee text can provide information that helps users choose which site to call.

To enter marquee text in the Polycom QDX 6000 system interface:

- 1 Go to **System > Admin Settings > General Settings > Home Screen Settings**.
- 2 In **Dialing Display**, select **Display Marquee** and enter the text.

You can also add marquee text through the Polycom QDX 6000 web interface. For some languages such as Russian, Korean, Japanese, Simplified Chinese, and Traditional Chinese, you must use the Polycom QDX 6000 web interface to add marquee text.

To enter the marquee text using the Polycom QDX 6000 Web interface:

- 1 On a computer, open a Web browser.
- 2 In the browser address line, enter the system's IP address, for example, `http://10.11.12.13`, to go to the Polycom QDX 6000 Web interface.
- 3 Enter the user name and administrator's password, if a password has been established.
- 4 Click **Admin Settings > General Settings > Home Screen Settings** and enter:
 - Dialing Display - Set to **Display Marquee**.
 - Enter Marquee Text - Type the text to display on the home screen.
- 5 Click **Update**.

Screen Savers

Adding Screen Saver Text

You can customize the Polycom QDX 6000 system to display text when the system is in sleep mode. For instance, you can display on-screen instructions to assist users with what steps they should take next.



Output upon Screen Saver Activation on the Monitors screen must be set to **Black** if you want to display screen saver text.

To enter screen saver text:

- 1 On a computer, open a web browser.
- 2 In the browser address line, enter the system's IP address, for example, `http://10.11.12.13`, to go to the Polycom QDX 6000 web interface.
- 3 Enter the user name and administrator's password, if a password has been established.
- 4 Click **Utilities > Screen Saver** and enter:
 - **Screen Saver Text** — Appears as scrolling text when the system is in sleep mode. You can use this scrolling text to provide instructions or next steps for users of the system.
 - **Logo Screen Text** — Appears underneath the logo before the system goes into sleep mode.
- 5 Click **Update**.

Adding a Screen Saver Logo

You can customize the Polycom QDX 6000 system to display your own logo instead of the Polycom logo.

To upload a screen saver logo:

- 1 On a computer, open a web browser.
- 2 In the browser address line, enter the system's IP address, for example, `http://10.11.12.13`, to go to the Polycom QDX 6000 web interface.
- 3 Enter the user name and administrator's password, if a password has been established.
- 4 Click **Utilities > Screen Saver**, click **Next**, and follow the onscreen instructions for uploading a logo file.

Security

Configuring Security Options

To set passwords and security options:

- 1 Go to **System > Admin Settings > General Settings > Security**.
- 2 Configure these settings on the Security screen:

| Setting | Description |
|--|---|
| Security Mode | Specifies whether the system uses Security Mode, which prevents unsecured access to the system. Every time you enable Security Mode, you must configure a new password for the system. |
| Use Room Password for Remote Access | Specifies whether the room password and remote access password are the same. |
| Room Password | Enter or change the room password. When the room password is set, you must enter it to configure the system Admin Settings using the remote control. The room password must not contain spaces. |
| Remote Access Password | Enter or change the remote access password. When the remote access password is set, you must enter it to upgrade the software or manage the system from a computer. The remote access password must not contain spaces. |

3 Select  and configure these settings:

| Setting | Description |
|--------------------------------------|--|
| Enable Remote Access | <p>Specifies whether to allow remote access to the system by:</p> <ul style="list-style-type: none"> ▪ Web ▪ Telnet ▪ SNMP <p>You may select any of these or any combination of them.</p> <p>Note: The system restarts if you change the remote access settings. This setting does not deactivate the associated port, only the application.</p> |
| AES encryption | <p>Specifies whether to encrypt calls with other sites that support AES encryption. If the far site does not have AES encryption enabled, the call connects without encryption.</p> |
| Allow Access to User Settings | <p>Specifies whether the User Settings screen is accessible to users via the System screen.</p> <p>Select this option if you want to allow users to change limited environmental settings.</p> |
| Allow Video Display on Web | <p>Specifies whether to allow viewing of the room where the system is located, or video of calls in which the system participates, using the Polycom QDX 6000 web interface.</p> <p>Note: This feature activates both near site and far site video displays in Web Director.</p> |
| Web Access Port (http) | <p>Specifies the port to use when accessing the system using the Polycom QDX 6000 web interface.</p> <p>If you change this from the default (port 80), specify a port number of 1025 or higher, and make sure the port is not already in use. You will need to include the port number with the IP address when you use the Polycom QDX 6000 web interface to access the system. This makes unauthorized access more difficult.</p> <p>Note: The system restarts if you change the web access port.</p> |

Setting the Room and Remote Access Passwords

You can set the room password to restrict who can configure system Admin Settings using the remote control. You can set the remote access password to restrict who can upgrade the Polycom QDX 6000 system software or perform other remote management from a computer.

To set or change the room password:

- 1 Go to **System > Admin Settings > General Settings > Security**.
- 2 Enter or change the password.

The default room password is the 16-digit system serial number.

To set or change the remote access password:

- 1 Go to **System > Admin Settings > General Settings > Security**.
- 2 Clear the **Use Room Password for Remote Access** option if it is selected. By default, the remote access password is the same as the room

password.

- 3 Enter a Remote Access password.

To access Admin Settings using the Polycom QDX 6000 web interface when a remote access password is set, enter "admin" for the user name.

To use the same password for both local and remote access:

- 1 Go to **System > Admin Settings > General Settings > Security**.
- 2 Select **Use Room Password for Remote Access**.

To reset a forgotten password:

- 1 Get the system's serial number from the system or from the System Information screen.
- 2 Go to **System > Diagnostics > Reset System**.



If Security Mode is enabled, the room password is required to access the Reset System screen.


- 3 Enter the system's serial number and select **Delete System Settings**.
- 4 Select **Reset System**.

After the system resets, it leads you through the setup wizard. You can enter a new password when you set up the system.

Managing User Access to Settings and Features

You can allow users to change common user preferences by providing access to the User Settings screen.

To allow users to customize the workspace:

- 1 Go to **System > Admin Settings > General Settings > Security > **.
- 2 Select the **Allow Access to User Settings** option to make the **User Settings** button available to users on the System screen.

User Settings contains the following options, which can also be configured by administrators on the Admin Settings screens:

- Backlight Compensation
- Far Control of Near Camera
- Auto Answer Point-to-Point Video
- Mute Auto-Answer Calls
- PIP
- Keypad Audio Confirmation

- Far Site Name Display Time
- Allow Video Display on Web

Configuring Security Mode

You can configure Polycom QDX 6000 systems to use Security Mode, which provides secure access to the system. Security Mode utilizes TLS, HTTPS, AES, digital signatures, and other security protocols, algorithms, and mechanisms to put the system into a secure mode. These protocols encrypt management communication over IP, preventing access by unauthorized users.

Every time you enable **Security Mode**, you must configure a new password for the system. The password cannot be blank and it cannot be the default value (serial number).

To configure the system to use Security Mode:

- 1 Go to **System > Admin Settings > General Settings > Security**.
- 2 Enable **Security Mode**.

When you change this setting, the Polycom QDX 6000 system restarts. Every time a Polycom QDX 6000 system is powered on or restarts in Security Mode, it verifies that the system software is authentic Polycom software.



Points to note about Security Mode:

- SNMP access is not available in Security Mode.
- Global Management System and *ReadiManager*® SE200 are not compatible with Polycom QDX 6000 systems in Security Mode.
- If **Security Mode** is enabled, you must enter the room password to go to the Rest System screen (**System > Diagnostics > Reset System**).


To access a Polycom QDX 6000 system in security mode using the Polycom QDX 6000 Web interface:

- 1 Enter the IP address of the system using secure HTTPS access, for example, `https://10.11.12.13`.
- 2 Click **Yes** in the security dialogs that appear. This access uses port 443.
- 3 To access Admin Settings using the Polycom QDX 6000 web interface when a remote access password is set, enter “admin” for the user name.

Enabling AES Encryption

AES encryption is a standard feature on all Polycom QDX 6000 systems. When it is enabled, the system automatically encrypts calls to other systems that have AES encryption enabled.

To enable AES encryption:

- 1 Go to **System > Admin Settings > General Settings > Security > **.
- 2 Select **AES Encryption**.

Managing the System Remotely

You can configure, manage, and monitor the system from a computer using the system's Web interface. You can also use SNMP.

- The Polycom QDX 6000 Web Interface requires only a Web browser.
- SNMP requires network management software on your network management station.

Using the Polycom QDX 6000 Web Interface

You can use the Polycom QDX 6000 Web interface to perform most of the calling and configuration tasks you can perform on the local system.

Accessing the Polycom QDX 6000 Web Interface

To configure your browser to use the Polycom QDX 6000 Web interface:

- 1 Be sure that you use Microsoft Internet Explorer 6.0 or later as your Web browser and that you have Java 1.2 or later installed.
- 2 Configure the browser to allow cookies.

To access the system using the Polycom QDX 6000 Web interface:

- 1 On a computer, open a web browser.
- 2 In the browser address line, enter the system's host name or IP address, for example, `http://10.11.12.13`, to go to the Polycom QDX 6000 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.

- 3 If prompted, enter admin as the user name, and enter the remote access password.

Monitoring a Rooms or Call with the Polycom QDX 6000 Web Interface

The monitoring feature within the Polycom QDX 6000 web interface allows administrators of Polycom QDX 6000 systems to view a call or the room where the system is installed. For security reasons, this feature can only be enabled on the local system by an administrator.

To enable room and call monitoring:

- 1 Go to **System > Admin Settings > General Settings > Security**.
- 2 Select  and enable **Allow Video Display on Web** to allow the room or call to be viewed remotely.

To view a room or call:

- 1 On a computer, open a web browser.
- 2 In the browser address line, enter the system's IP address, for example, `http://10.11.12.13`, to go to the Polycom QDX 6000 web interface.
- 3 Go to **Utilities > Web Director**.
- 4 Perform any of the following tasks:
 - Place or end a call
 - View near and far sites
 - Change camera sources
 - Adjust camera position
 - Zoom cameras
 - Adjust system volume settings
 - Mute and unmute the microphones
 - Switch the PIP layout.
 - Preset camera position

You can view near and far sites without opening Web Director by selecting **Tools > Remote Monitoring**.

Managing System Profiles with the Polycom QDX 6000 Web Interface

Administrators managing systems that support multiple applications can change system settings quickly and easily using profiles. You can store a Polycom QDX 6000 system profile on a computer as a .csv file using the Polycom QDX 6000 web interface. There is no limit to the number of profiles you can save.

The following settings are included in a profile:


- Home screen settings
- User access levels
- Icon selections
- Option keys
- System behaviors

Passwords are not included when you store a profile.




Polycom recommends using profiles only as a way to back up system settings. Attempting to edit a stored profile or upload it to more than one system on the network can result in instability or unexpected results.

To store a profile:

- 1 On a computer, open a web browser.
- 2 In the browser address line, enter the system's IP address, for example, `http://10.11.12.13`, to go to the Polycom QDX 6000 web interface.
- 3 Go to **Utilities > Profile Center**.
- 4 Click **QDX 6000**  **PC** to download the .csv file from the Polycom QDX 6000 system.
- 5 Save the file to a location on your computer.

To upload a profile:

- 1 Reset the Polycom QDX 6000 system to restore default settings. For more information, refer to *Reset System*.
- 2 On a computer, open a web browser.
- 3 In the browser address line, enter the system's IP address, for example, `http://10.11.12.13`, to go to the Polycom QDX 6000 web interface.
- 4 Go to **Utilities > Profile Center**.
- 5 Click **Browse** and browse to the location of the .csv file on your computer.
- 6 Click **PC**  **QDX 6000** to upload the .csv file to your system.

Sending a Message

If you are experiencing difficulties with connectivity or audio, you may want to send a message to the system that you are managing.

Only the near site can see the message; it is not broadcast to all the sites in the call.

To send a message via the Polycom QDX 6000 Web interface:

- 1 On a computer, open a web browser.
- 2 In the browser address line, enter the system's IP address, for example, `http://10.11.12.13`, to go to the Polycom QDX 6000 web interface.
- 3 If prompted, enter admin as the user name, and enter the admin password.
- 4 Go to **Diagnostics > Send a Message**.
- 5 In the **Send a Message** page, enter a message (up to 100 characters in length), then click **Send**.

The message is displayed for 15 seconds on the screen of the system that you are managing.

Setting Up SNMP

The Polycom QDX 6000 system sends Simple Network Management Protocol (SNMP) reports to indicate various conditions.

To configure the Polycom QDX 6000 system for SNMP management:

- 1 Access the SNMP configuration screen either in the Polycom QDX 6000 web interface or on the Polycom QDX 6000 system. In the Polycom QDX 6000 Web interface, go to **Admin Settings > Global Services > SNMP**. On the Polycom QDX 6000 system, go to **System > Admin Settings > Global Service > SNMP**.
- 2 Configure these settings on the SNMP screen:

| Setting | Description |
|----------------------------|---|
| Enable SNMP | Allows administrators to manage the system remotely using SNMP. |
| Read-Only Community | Specifies the SNMP management community in which you want to enable this system. The default community is Public. Note: Polycom does not support SNMP write operations for configuration and provisioning; the read-only community string is used for both read operations and outgoing SNMP traps. |
| Contact Name | Specifies the name of the person responsible for remote management of this system. |
| Location Name | Specifies the location of the system. |
| System Description | Specifies the type of video conferencing device. |

Statistics and Diagnostics

The Polycom QDX 6000 system provides various screens that allow you to review information about calls made by the system and to review network usage and performance.

Accessing the Diagnostics Screens

The Diagnostics screens are available on the system and in the Polycom QDX 6000 web interface.


To access the Diagnostics screens on the system:

- Go to **System > Diagnostics**.


To access the Diagnostics screens from the Polycom QDX 6000 Web interface:

- 1 On a computer, open a web browser.
- 2 In the browser address line, enter the system's IP address, for example, `http://10.11.12.13`, to go to the Polycom QDX 6000 Web interface.
- 3 If prompted, enter `admin` as the user name, and enter the admin password.
- 4 Click **Diagnostics** from any page in the Polycom QDX 6000 web interface.

System Status

| Diagnostic Screen | Description |
|-------------------|--|
| System Status | <p>Displays system status information, including auto-answer point to point, remote control battery, time server, Global Directory, IP network and gatekeeper. For an explanation of any of the status items, select the item and press  Help on the remote.</p> <p>When there is a change in system status or a potential problem, you see an alert at the bottom of the Place a Call screen.</p> |

Call statistics

| Diagnostic Screen | Description |
|-------------------------------------|---|
| Call Status (system only) | Displays call type, data speed, and number dialed for the current call. You can highlight the spheres on this screen to see the number dialed, the relevant status code, and details of any errors. |
| Call statistics | <p>Displays information about the call in progress. View Call Statistics during a call by pressing  Help on the remote.</p> <p>Call Statistics (1)</p> <ul style="list-style-type: none"> ▪ Call speed (transmit and receive) ▪ Video protocol, annexes, and format in use (transmit and receive). ▪ Audio protocol in use (transmit and receive) ▪ Number of packets lost and percentage packet loss (transmit and receive) in IP calls ▪ Encryption type, key exchange algorithm type, and key exchange check code (if the encryption option is enabled and the call is encrypted) ▪ Far site details and call type <p>Call Statistics (2)</p> <ul style="list-style-type: none"> ▪ Audio and video data rates specified (transmit and receive) ▪ Video data rate and frame rate in use (transmit and receive) ▪ Video packet loss and jitter in IP calls ▪ Audio packet loss and jitter in IP calls ▪ Video FEC error ▪ Far site details and call type |
| Content Statistics (system only) | The Content Statistics screen shows statistics for content shared during a call. |
| Call Summary | <p>Displays calling information, such as:</p> <ul style="list-style-type: none"> ▪ Duration of the last call ▪ Total number of calls placed and received ▪ Number and total time of IP calls |

Network

| Diagnostic Screen | Description |
|-------------------|---|
| Near End Loop | <p>Tests the internal audio encoders and decoders, the external microphones and speakers, the internal video encoders and decoders, and the external cameras and monitors.</p> <p>Monitor 1 displays the video and plays the audio that would be sent to the far site in a call.</p> <p>This test is not available when you are in a call.</p> |
| PING | <p>Tests whether the system can establish contact with a far-site IP address that you specify.</p> <p>PING returns abbreviated Internet Control Message Protocol results. It returns H.323 information only if the far site is configured for H.323.</p> <p>If the test is successful, the Polycom QDX 6000 system displays a message indicating that the IP address under test is available.</p> |
| Trace Route | <p>Tests the routing path between the local system and the IP address entered.</p> <p>If the test is successful, the Polycom QDX 6000 system lists the hops between the system and the IP address you entered.</p> |

Video

| Diagnostic Screen | Description |
|-------------------|---|
| Video Diagnostics | <p>Tests the color settings of your monitor for optimum picture quality.</p> <p>If the color bars generated during the test are not clear, or the colors do not look correct, the monitor needs to be adjusted.</p> |

Audio

| Diagnostic Screen | Description |
|-------------------|---|
| Speaker Test | <p>Tests the audio cable connections. A 473 Hz audio tone indicates that the local audio connections are correct.</p> <p>If you run the test from the system during a call, the far site will also hear the tone.</p> <p>If you run the test from the Polycom QDX 6000 Web interface during a call, the people at the site you are testing will hear the tone, but you will not.</p> |
| Audio meter | <p>Measures the strength of audio signals from microphone(s), far-site audio, VCR audio, and any device connected to the audio line in.</p> <ul style="list-style-type: none"> ▪ To check the microphone(s), speak into the microphone. ▪ To check far-site audio, ask a participant at the far site to speak or call a phone in the far-site room to hear it ring. ▪ To check a VCR or DVD, connect it to the VCR inputs and play the VCR or DVD to test the audio. <p>The Audio Meters indicate peak signal levels. Set signal levels so that you see peaks between +3dB and +7dB with normal speech and program material. Occasional peaks of +12 dB to +16 dB with loud transient noises are considered acceptable. A meter reading of +20dB corresponds to 0dBFS in the Polycom QDX 6000 system audio. A signal at this level is likely clipping the audio system.</p> <p>Meters function only when the associated input is enabled.</p> <p>Note: Some audio settings are unavailable when a SoundStructure digital mixer is connected to the Polycom QDX 6000 system.</p> |

Reset System

| Diagnostic Screen | Description |
|-------------------|--|
| Reset System | <p>Restore the Polycom QDX 6000 system to the factory settings.</p> <p>Note: If Security Mode is enabled, you must enter the room password to reset the system.</p> <p>When you reset the system using the remote control, the system's user interface allows you to:</p> <ul style="list-style-type: none"> ▪ Keep your system settings (such as system name and network configuration) or restore factory settings. ▪ Keep or delete the directory stored on the system. <p>You may wish to download the CDR and CDR archive before you reset the system. For more information, refer to <i>Call Detail Report (CDR)</i>.</p> |

Recent Calls

When the **Call Detail Report** setting is enabled, Recent Calls shows a list of up to 99 calls made by the system. It includes the following information:

- Site name or number
- Date and time
- Call in or out


The Recent Calls list shows incoming and outgoing calls that connect, as well as outgoing calls that do not connect.

If Do Not Disturb has been enabled, any incoming calls attempted by other sites will not be listed.

The home screen can be configured to include Recent Calls. For more information about including the Recent Calls list on the home screen, see *Customizing the Home Screen*.

To view the Recent Calls screen:

- Go to **System > Admin Settings > Network > Recent Calls**.

You can see more details about any call by highlighting an entry and pressing  **Help** on the remote. Information includes the far site's number and name, and the type, speed (bandwidth), and duration of the call.

If you need even more detail about calls, you can view or download the Call Detail Report (CDR) from the Polycom QDX 6000 Web interface.

Call Detail Report (CDR)

When enabled, the Call Detail Report (CDR) provides the system's call history. You can view the CDR from the Polycom QDX 6000 web interface.

Every call that connects is added to the CDR, whether it is a call that you make or that you receive. If a call does not connect, the report shows the reason.

The CDR does not include incoming calls that the Polycom QDX 6000 system does not answer, so if calls were missed while Do Not Disturb was enabled, details will not be included in the CDR.

To view and download the CDR via the Polycom QDX 6000 web interface:

- 1 On a PC, open a web browser.
- 2 In the browser address line, enter the system's IP address, for example, `http://10.11.12.13`, to go to the Polycom QDX 6000 Web interface.
- 3 If prompted, enter `admin` as the user name, and enter the admin password.
- 4 Click **Utilities > Call Detail Report** to view the details of the file.
- 5 Click **Save** and then specify a location on your computer to save the file.

Information in the CDR

The following table describes the data fields in the CDR.

| Data | Description |
|--|---|
| Start Date | The call start date, in the format dd/mm/yyyy. |
| Start Time | The call start time, in the 24-hour format hh:mm:ss. |
| End Date | The call end date. |
| End Time | The call end time. |
| Call Duration | The length of the call. |
| Remote System Name | The far site's system name. |
| Call Field Number 1 | For outgoing calls — The number dialed from the first call field, not necessarily the transport address. For incoming calls — The caller ID information from the first number received from a far site. |
| Call Field Number 2 (If applicable for call) | For outgoing calls — The number dialed from the second call field, not necessarily the transport address. For incoming calls — The caller ID information from the first number received from a far site. |
| Transport Type | The type of call — H.323 (IP) |
| Call Rate | The bandwidth negotiated with the far site. |
| System Manufacturer | The name of the system manufacturer, model, and software version, if they can be determined. |
| Call Direction | In — For calls received Out — For calls placed from the system |
| Conference ID | A number given to each conference. |
| Call ID | Identifies individual calls within the same conference. |
| Endpoint Alias | The alias of the far site. |
| Endpoint Additional Alias | An additional alias of the far site. |
| Endpoint Type | Endpoint, gateway, or MCU. |
| Endpoint Transport Address | The actual address of the far site (not necessarily the address dialed). |
| Audio Protocol (Tx) | The audio protocol transmitted to the far site, such as G.728 or G.722.1. |
| Audio Protocol (Rx) | The audio protocol received from the far site, such as G.728 or G.722. |

| Data | Description |
|-------------------------------------|---|
| Video Protocol (Tx) | The video protocol transmitted to the far site, such as H.263 or H.264. |
| Video Protocol (Rx) | The video protocol received from the far site, such as H.261 or H.263. |
| Video Format (Tx) | The video format transmitted to the far site, such as CIF or SIF. |
| Video Format (Rx) | The video format received from the far site, such as CIF or SIF. |
| Disconnect Reason | Reason for the call to disconnect |
| Average Percent of Packet Loss (Tx) | The combined average of the percentage of both audio and video packets transmitted that were lost during the 5 seconds preceding the moment at which a sample was taken. This value does not report a cumulative average for the entire H.323 call. However, it does report an average of the sampled values. |
| Average Percent of Packet Loss (Rx) | The combined average of the percentage of both audio and video packets received that were lost during the 5 seconds preceding the moment at which a sample was taken. This value does not report a cumulative average for the entire H.323 call. However, it does report an average of the sampled values. |
| Average Packets Lost (Tx) | The number of packets transmitted that were lost during an H.323 call |
| Average Packets Lost (Rx) | The number of packets from the far site that were lost during an H.323 call |
| Average Latency (Tx) | The average latency of packets transmitted during an H.323 call based on round-trip delay, calculated from sample tests done once per minute. |
| Average Latency (Rx) | The average latency of packets received during an H.323 call based on round-trip delay, calculated from sample tests done once per minute. |
| Maximum Latency (Tx) | The maximum latency for packets transmitted during an H.323 call based on round-trip delay, calculated from sample tests done once per minute. |
| Maximum Latency (Rx) | The maximum latency for packets received during an H.323 call based on round-trip delay, calculated from sample tests done once per minute. |
| Average Jitter (Tx) | The average jitter of packets transmitted during an H.323 call, calculated from sample tests done once per minute. |
| Average Jitter (Rx) | The average jitter of packets received during an H.323 call, calculated from sample tests done once per minute. |
| Maximum Jitter (Tx) | The maximum jitter of packets transmitted during an H.323 call, calculated from sample tests done once per minute. |
| Maximum Jitter (Rx) | The maximum jitter of packets received during an H.323 call, calculated from sample tests done once per minute. |

Call Detail Report Archives

Calls are added to the CDR until the file size reaches 50 KB, which is equivalent to about 150 calls. The system then automatically archives the CDR and creates a new CDR file. If an archive is already present, the new archive overwrites it.

The CDR starts with Row 1, but the conference numbers continue from the file most recently archived. Conference numbering restarts at 1 after the system assigns the conference number 100,000.

To view and download a CDR archive via the Polycom QDX 6000 Web interface:

- 1 On a PC, open a web browser.
- 2 In the browser address line, enter the system's IP address, for example, `http://10.11.12.13`, to go to the Polycom QDX 6000 Web interface.
- 3 If prompted, enter `admin` as the user name, and enter the admin password.
- 4 Click **Utilities > Call Detail Report** to view the details of this file.
- 5 Click **Save Archive** and then specify a location on your computer to save the file.

System Logs

You can use the Polycom QDX 6000 web interface to view or download system logs.

Viewing System Logs

To view the system logs:

- 1 On a PC, open a web browser.
- 2 In the browser address line, enter the system's IP address, for example, `http://10.11.12.13`, to go to the Polycom QDX 6000 Web interface.
- 3 If prompted, enter `admin` as the user name, and enter the admin password.
- 4 Click **Diagnostics > System Log > View Logs**.

You can view current logs or archived logs. You can also filter what information is displayed.



Setting a filter only changes the display in the current web interface section. Setting a filter does not affect which messages are logged. filters are not saved for other web interface sessions.

Downloading System Logs

The support information package contains logs, configuration settings, and other diagnostic information.

To download a system log via the Polycom QDX 6000 Web interface:

- 1 On a PC, open a web browser.
- 2 In the browser address line, enter the system's IP address, for example, `http://10.11.12.13`, to go to the Polycom QDX 6000 web interface.
- 3 If prompted, enter admin as the user name, and enter the admin password.
- 4 Click **Diagnostics > System Log > Download Logs**.
- 5 Click **Download support information package/System log/Error log** and then specify a location on your computer to save the file.

System Log Settings

To configure system log settings via the Polycom QDX 6000 Web interface:

- 1 On a PC, open a web browser.
- 2 In the browser address line, enter the system's IP address, for example, `http://10.11.12.13`, to go to the Polycom QDX 6000 web interface.
- 3 If prompted, enter admin as the user name, and enter the admin password.
- 4 Click **Diagnostics > System Log > System Log Settings**.
- 5 Configure these settings:


| Setting | Description |
|-------------------------------|--|
| Log Level | Sets the minimum log level of messages stored in the Polycom QDX 6000 system flash memory. DEBUG logs all messages. WARNING logs the fewest number of messages. Polycom recommends leaving this setting at the default value of DEBUG. |
| Remote Logging Enabled | Specifies whether remote logging is enabled. Enabling this setting causes the Polycom QDX 6000 system to send each log message to the specified server in addition to logging it locally. The system immediately begins forwarding its log messages when you click Update . Encryption is not supported for remote logging, so Polycom recommends remote logging only for secure, local networks. |
| Remote Log Server | Specifies the domain name or IP address of the syslog server. The server must support the standard syslog protocol (RFC 3164). |
| Enable H.323 Trace | Logs additional H.323 connectivity information. |

Troubleshooting

Placing a Test Call

When you finish configuring the system, you can use one of the sample numbers in the directory to test your setup.

To place a test call:

- 1 On the Place a Call screen, select **Directory**.
- 2 Select **Group**.
- 3 Select **All** and highlight a number.
- 4 Press  **Call** on the remote control or keypad.

You can also find a list of worldwide numbers that you can use to test your Polycom QDX 6000 system at www.polycom.com/videtest.

If you have trouble making video calls:

- Make sure the number you dialed is correct, then try the call again.
- To find out if the problem exists in your system, ask the person you were trying to reach to call you instead.
- Find out if the system you are calling has its power turned on and is functioning properly.

Enabling Basic Mode

Basic Mode is a limited operating mode that uses H.261 for video and G.711 for audio. It provides administrators with a workaround for interoperability issues that cannot be solved using other methods. The **Basic Mode** setting stays in effect until you change it.



Basic Mode disables many system features such as the content sharing, far end camera control, and advanced audio and video algorithms. Use Basic Mode only when calling systems that fail to operate properly with these advanced features.

To enable Basic Mode in the Polycom QDX 6000 system interface:

- 1 Go to **System > Admin Settings > Network > Call Preference**.
- 2 Select **Enable Basic Mode**.

To enable Basic Mode using the Polycom QDX 6000 Web interface:

- 1 On a computer, open a web browser.
- 2 In the browser address line, enter the system's IP address, for example, <http://10.11.12.13>, to go to the Polycom QDX 6000 web interface.
- 3 Go to **Admin Settings > Network > Call Preference**.
- 4 Select **Enable Basic Mode**.

General Troubleshooting

This section presents problems, likely causes, and corrective actions. It is organized by category to help you troubleshoot any issue.

- *Power and Start-up*
- *Controls*
- *Access to Screens and Systems*
- *Calling*
- *Displays*
- *Cameras*
- *Audio*
- *Error Indications*



Power and Start-up

| Symptom | Problem | Corrective Action |
|--|---|---|
| The system does not start or respond in any way. | The power switch is off. | Turn on the power switches for the system and all equipment connected to it. |
| | The power cord is not connected. | Make sure that the system's power cord is in place, and that it is connected to a power outlet. |
| | The power outlet is not active, or the system's power supply is not operating properly. | If you connect the system's power cord to a power strip, be sure the power strip is connected to a power outlet and its power switch is on. Check the power outlet by unplugging the system and plugging in a lamp, radio, or other small appliance. If it does not operate, the outlet is not active - connect the system to a different outlet. If it does not operate, the outlet is not active - connect the system to a different outlet. If the outlet is active, the problem could be in the system's power supply. |


Controls

| Symptom | Problem | Corrective Action |
|--|--|---|
| The system does not respond to the remote control. | No, low, or dead batteries in the remote control. | Install three AAA batteries in the remote control. |
| | The batteries are installed incorrectly in the remote control. | Insert the batteries in the correct +/- position. |
| | The room lights operate in the 38 Khz range and interfere with the remote control signals. | Turn off the lights in the room and try the remote control again. |
| | The infrared sensor is not receiving signals from the remote control. | To check the remote control: Point the remote control directly at the system or camera and press a button. If the light on the system flashes, the remote control works properly. Make sure you are pointing the remote control at the infrared sensor on the front of the system or the camera. |
| | The external infrared sensor is not operating properly. | Check the connections between the rear panel, cable adapter, and infrared sensor cable. |


Access to Screens and Systems



| Symptom | Problem | Corrective Action |
|---|---|---|
| Cannot navigate to Admin screens — System button is not displayed. | The home screen is not configured to display the System button. | <p>Press the  Help button on the remote and select System at the end of the help message, or access the system remotely using the Polycom QDX 6000 Web interface, Telnet or SNMP.</p> <p>From the Polycom QDX 6000 Web interface, you can add the System button back to the home screen.</p> <ol style="list-style-type: none"> 1) Click Admin Settings > General Settings > Home Screen Settings and select System. 2) Click Update to make the change take effect. |
| Cannot navigate to Admin screens without a password. | The system administrator has set a password, or the default password was not deleted. | <p>Enter the password</p> <p>The default password is the system's serial number.</p> |
| Cannot access the system remotely. | The system does not allow remote access. | <p>On the system, go to System > Admin Settings > General Settings > Security >  and enable access.</p> |
| | The system or your computer is not connected to the LAN. | <p>Check the LAN cable to the LAN port on the rear of the system.</p> <p>Check the LAN cable to your computer.</p> |
| | The LAN cable to the system or to your computer is bad. | <p>Replace the appropriate LAN cable.</p> <p>To verify this, check the lights on the system. There should be a steady green light indicating a connection to the LAN, and a flashing orange light indicating LAN traffic if the cable is good.</p> |
| | DHCP Client is ON and no DHCP server is available. | Contact your network administrator. |
| | There is a firewall between your computer and your system. | Contact your network administrator. |
| | Your computer is on a different network and there is not connectivity between the networks. | Place your computer and system on the same subnet. If this corrects the problem, check your router configuration. If it does not, contact your network service provider. |
| | The system is in Security Mode , which requires secure access. | Use secure modes of access. For more information, refer to <i>Configuring Security Mode</i> . |
| Cannot manage the system remotely. | You have not entered the correct password. | <p>Enter the correct user name and remote access password.</p> <p>Note: For Web access, the user name is admin, and the default password is the unit's serial number.</p> |
| | Too many managers are logged into the system. | Only five system managers are allowed at any one time. To log everyone out, restart your system. |

Calling

| Symptom | Problem | Corrective Action |
|--|--|--|
| Error message occurs when placing an IP (H.323) call. | The system is not connected to the LAN. | Verify that the LAN cable is connected properly. |
| | The system's LAN cable is bad. | Replace the system's LAN cable. |
| | The far site is not connected. | Use the PING test (System > Diagnostics > Network > PING) to determine whether the far site is accessible to your system. If the test fails, the far site system is unavailable. |
| | The system is not configured correctly for the network. | Check your IP configuration. |
| | The IP Gateway/Gatekeeper is not operating or is not configured correctly. | Contact the gatekeeper/gateway administrator. |
| | Calls do not connect. | Use the PING test (System > Diagnostics > Network > PING) to determine whether the far site is an H.323 device. If it is not an H.323 device and you are sure the IP address is correct, it is likely that address is not on your network. This is especially true with the addresses beginning with 10., 168.254, 172.16 through 172.31, or 192.168, which are private networking addresses. |
| | If you are unable to place calls to known sites on your network, a gatekeeper might be blocking calls from unregistered systems. | Register with the gatekeeper. |
| | The network interface module is not connected properly. | Check the cables to the network interface module. |
| Cannot select the desired speeds for BONDING calls from the speed selection. | Speeds do not show when selecting the speed icon. | <ol style="list-style-type: none"> Go to System > Admin Settings > Network > Call Preference and select  to go to the Call Speeds screen. Select the desired call speeds. |

Displays


| Symptom | Problem | Corrective Action |
|---|---|--|
| Screen is blank; start music plays and Polycom logo appears briefly. | The system is starting. This is normal. | No action required. |
| Picture is blank on the main monitor. | The system goes to "sleep" after a period of inactivity. | The system is sleeping. The system wakes up on any action from the remote control or on an incoming call. |
| | The monitor is not connected correctly to the system. | Verify that the monitor is connected correctly according to the manufacturer's instructions and the system setting up guide you received with the system. |
| The monitor screen remains blank when you use the remote control or keypad. | The monitor's power cord is not plugged in. | Connect the monitor's power cord and then power on the monitor. |
| | The monitor is powered off. | Power on the monitor. |
| | The monitor is not connected correctly to the system. | Verify that the monitor is connected correctly according to the manufacturer's instructions and the system setting up guide you received with the system. |
| The call connects but you cannot see or hear people at the far site although they can see and hear you. | The system is configured for use with a NAT but is not behind a NAT. | Go to System > Admin Settings > Network > IP > Firewall and ensure that NAT Configuration is Off . |
| When using multiple monitors, you don't see what you expect on each monitor. | Monitors are not enabled. | Enable the connected monitors on the System > Admin Settings > Monitors > Monitors screen. |
| | Monitors are not connected to the correct video outputs. | Verify that the monitors are connected correctly according to the system setting up guide you received with the system. |
| When using two monitors, the same picture is seen on the first and second monitors. | You are the only participant in a call placed through an external MCU. | MCUs generally loop the first participant back to it. Wait for others to join the conference. |
| | The system is performing a Near End Loop test. | Press  on the remote to end the test. |
| The people at the far site cannot see you. | You have selected a camera that is not connected. | Select the main camera. |
| Video is in black and white. | The monitor cable is not connected properly. | Verify that the monitor is connected correctly according to the manufacturer's instructions and the system setting up guide you received with the system. |
| | The monitor cable is bad. | Replace the cable. |
| The people at your site show up in silhouette in the PIP. | The camera is pointing toward a source of bright light, such as a window. | If it is practical to do so, have the call participants sit in a location where there is no light source behind them. Otherwise, go to System > Admin Settings > Cameras to select Backlight Compensation. |

| Symptom | Problem | Corrective Action |
|--|---|--|
| Video from your site is too dark or too light in the PIP. | Lighting at your site has changed within the past few minutes. During calls, the camera adjusts for the lighting at five-minute intervals. | Pan the camera. It adjusts for the lighting whenever it is moved. |
| Edges of picture are cut off when viewing graphics. | Graphics from the far site are displayed on an NTSC monitor. | Use a VGA monitor to display graphics. |
| Call participants cannot see or hear what is being played on the VCR or DVD. | The VCR or DVD is not selected. | Select the VCR (Camera 3): Press  Camera , then press 3. |
| | The VCR or DVD is not set up correctly. | Refer to the manufacturer's instructions to set up the VCR or DVD correctly. |
| Picture is slow or jerky. | The system is receiving video that includes a large amount of motion. | A background with less motion provides a better, smoother video picture. |
| | Too many network line transmission errors. Check the error count on the Diagnostics > Call Statistics screen to verify this. | Try the call again, possibly at a lower network speed. |
| Blue screen in the PIP window. | The VCR input is selected and the VCR is not running. Most VCRs generate a blue screen when the tape is not playing. | Select a different camera or play a tape on the VCR. |
| | The camera selection is incorrect. | Select the appropriate camera: Press  Camera on the remote, then press the number of the camera you wish to use. |
| | No video input. | Check that there is a video source connected to the selected input. |
| | Main camera is not working and Polycom QDX 6000 system displays camera alert. | Restart the Polycom QDX 6000 system. |
| PIP goes out of focus when there is no motion for several minutes. | The camera is pointing at an area with no contrasting features. To focus properly, the camera must be able to detect an edge. | Point the camera to an area with limited objects, at different distances, which are moving. |

Cameras

| Symptom | Problem | Corrective Action |
|------------------------------|--|---|
| Camera does not pan or tilt. | You are attempting to move a camera that does not have pan/tilt/zoom capabilities. | Make sure you have selected a pan/tilt/zoom camera. |

Troubleshooting


| Symptom | Problem | Corrective Action |
|--|--|---|
| | Camera control cable is not connected properly. | Check that the camera is connected according to the manufacturer's instructions and the system setting up guide you received with the system. |
| | The remote control is not working. | To make sure that the remote control can work well: Point the remote control directly at the system or camera and press a key. If the light on the system flashes, the remote control works properly. |
| Camera does not work. | The camera is not connected correctly or its power pack is not plugged in. | Check that the camera is connected according to the manufacturer's instructions and the system setting up guide you received with the system. |
| One site cannot control the other site's camera. | Far-site camera control is not enabled. | Go to System > Admin Settings > Cameras >  and enable Far Control of Near Camera. |
| | One of the systems does not have the far-site camera control capability. | Ask the participants at the far site to aim the camera. |

Audio


| Symptom | Problem | Corrective Action |
|-----------------------|--|--|
| No audio at your site | The far site is muted. | Look for the far site Mute icon. Ask the far site to unmute the microphone. Note: The far site's microphone may be muted even if you do not see a far site Mute icon. |
| | The volume may be turned all the way down on the monitor or external audio system. | Turn up the volume on your monitor or external audio system. Turn up the volume using the remote control or keypad. Check the monitor's or external audio system's volume setting. Then check the system's audio output using the Speaker Test under System > Diagnostics > Audio . You should hear a 473 Hz tone. |
| | The far site's microphones are not placed correctly. | Ensure that each person who speaks is facing a microphone and is close enough to it. |
| | The far site's microphone is not connected or does not have power. | Ask the far site to check the cable to the microphone. |
| | Too many line errors. | Try the call again later. |
| | The monitor's audio inputs are not connected properly. | Check audio output using the Speaker Test screen under System > Diagnostics > Audio . You should hear a 473 Hz tone. Ask someone at the far site to speak into the microphone, and check the Far Site Audio meter on the Audio Meter screen under System > Diagnostics > Audio to determine whether your system is receiving audio. |

| Symptom | Problem | Corrective Action |
|--|--|---|
| | The system's audio outputs are not connected properly. | Check the system's audio connections to the monitor, or to the external audio system if one is connected. Verify that the system is connected to the correct audio connectors on the monitor. |
| The people at the far site cannot hear you. | The people at your site are too far from the microphone. | Move closer to the microphone. |
| | Your system's microphone is muted. | Check your system for one or more of these mute indications: <ul style="list-style-type: none"> ▪ Near site mute icon on the screen. ▪ Polycom microphones: Microphone mute light is red. To unmute the system, press the Mute button on the remote control or keypad. |
| | No power to near site microphone. | Mute the microphone. If the light remains off, there is no power to the microphone. Check that the microphone cable is properly seated. Replace the microphone cable if the people at the far site still cannot hear you. |
| | Your system's microphone is not connected, or is connected incorrectly. | Check to be sure the microphone is installed correctly. Check the Polycom Mic or Line Input meter on the Audio Meter screen under System > Diagnostics > Audio to determine whether your system is sending audio. |
| | Your system's microphone does not work. | Contact your reseller. |
| Not enough volume during a call. | The people at the far site are too far from the microphone. | Ask the people at the far site to move closer to the microphone. |
| | The volume is set too low on the system. | Turn up the volume using the remote control or keypad. |
| | The volume is set too low on the monitor. | Turn up the volume on your monitor or external audio system. |
| Sound effects such as the incoming call ring are too loud or too soft. | The sound effect volume is not set at desired level. | Adjust the sound effect volume on the Audio Settings screen. If you do not want to hear sound effects, set the volume to 0. |
| You can hear yourself on your system's monitor or external audio system. | The far-site microphone is too close to the system's audio speaker. (Far-site systems with separate microphones only). | At the far site, make sure the microphone is placed away from the system's audio speaker. |
| | The far site audio volume may be too loud. | Turn down the audio volume at the far site. |
| | The monitor or external audio system is connected to the VCR audio output. | Verify that all equipment is connected correctly according to the manufacturer's instructions and the system setting up guide you received with the system. |

Troubleshooting

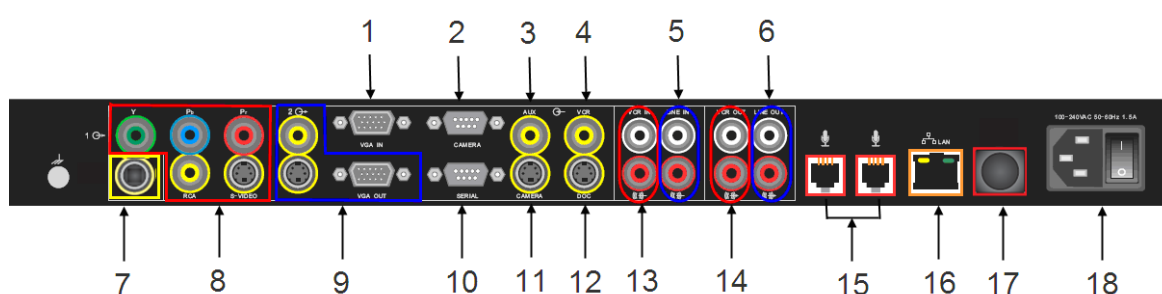
| Symptom | Problem | Corrective Action |
|---|--|---|
| When music is played during the call, it sounds distorted at the other sites. | The music source is not connected to the system. The system's echo cancellation and noise suppression features may interfere with music that the microphone picks up. | Connect the music source to the system's audio input. |
| Stereo audio comes from the wrong speaker. | Speakers are connected incorrectly. | Connect the speaker on the left to the system's white audio output connector, and the speaker on the right to the red audio output connector. |
| Video and audio are not synchronized. | The video quality for the camera in use is set for Sharpness. This setting is for images with no motion. | 1) Go to System > Admin Settings > Cameras >  > Video Quality. 2) Change the Camera Settings to Motion. |
| Voices at the near site sound distorted through the speakers at the near site. | The far site has distorted audio from the far-site speakers. The far site's distorted audio is often caused by overloading the input stage of the far site's audio amplifier. | Ask the far site to reduce their Polycom QDX 6000 system volume control to about 25, and to increase their external audio amplifier volume control to maintain the same loudness. |
| The Audio Meter screen shows a reading for Polycom Mic but no microphone is connected - the system receives local audio from a mixer. | Echo cancellation is in use. The system displays the audio line input level in this case. | This is normal. |

Error Indications

| Symptom | Problem | Corrective Action |
|---|--|---|
| The System Information screen shows "waiting" in the IP Video Number field. | The LAN is not working. | Check the LAN connection. Contact your network administrator. |
| | The DHCP server is not available. | Contact your network administrator to correct the problem with the server or to assign a static IP address. |
| The home screen shows "0.0.0.0" as the system's IP address. | The LAN cable is not connected. | Check the LAN cable connection to the LAN port on the system. |
| | The system was configured for a static IP address of 0.0.0.0. | Go to System > Admin Settings > LAN Properties and correct the IP address settings. |
| | The system is configured for DHCP, and no DHCP server is available or responding on the network. | Contact your network administrator to correct the problem with the server or to assign a static IP address. |
| | The system is partially or incorrectly configured for firewall/NAT operation. | Go to System > Admin Settings > Network > IP > Firewall >  and verify the NAT Public (WAN) Address setting. |
| Low battery icon on the screen. | Low batteries in the remote control. | Replace the batteries in the remote control with three AAA batteries. |


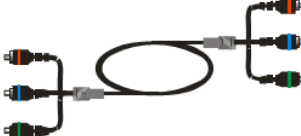

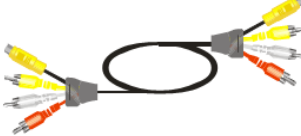


System Back Panel View and Cables

System Back Panel View



| No. | Input or Output | No. | Input or Output |
|-----|--|-----|--|
| 1 | VGA video input | 10 | RS-232 serial port |
| 2 | Camera control interface | 11 | Video input for Main camera |
| 3 | Video input for AUX camera | 12 | Video input for DOC camera |
| 4 | Video input for VCR/DVD devices | 13 | Audio input for VCR/DVD player |
| 5 | Audio input for line audio | 14 | Audio output for VCR/DVD player |
| 6 | Audio output for line audio | 15 | Audio input for microphone |
| 7 | Video output for third monitor (not yet supported) | 16 | LAN port for IP calls, People+Content IP, and Polycom QDX 6000 Web Interface. |
| 8 | Video output for main monitor (YPrPb, RCA, and S-video) | 17 | Audio input for microphone (not yet supported) |
| 9 | Video output for second monitor (RCA, S-video, and VGA) | 18 | Power connector for power supply Power switch |

System Cables

| Cable | Description | Part Number |
|---|--------------|----------------|
|  | LAN Cable | 2457-08343-001 |
|  | YPbPr Cable | 2457-30836-001 |
|  | VGA Cable | 2457-32613-001 |
|  | Quade Cable | 2457-08674-002 |
|  | Power cable | 1456-00286-001 |
|  | Camera Cable | 2457-30821-001 |

Logo Customization

Customizable Logos

You can customize the following logos shown on your Polycom QDX 6000 system in the on screen UI and the web interface:

- Splash screen shown on system startup
- Logo on the top right corner of the home screen
- Screen saver image
- Image on the welcome screen on web interface
- Logo on the top left corner of each page on web interface

Software Needed

To replace the forementioned logos with your own you need the following software:

- Polycom software update package for your Polycom QDX 6000 system. You can find software update packages at www.polycom.com.
- Polycom Endpoints User Customization Tool software, available at www.polycom.com.

Logo File Requirements

You need to prepare your own logo images according to the following specifications:

| Logo Position | Specifications |
|---|--|
| Splash screen shown on system startup | <ul style="list-style-type: none"> ▪ File format: PNG with alpha channel ▪ Image specification: 775 x 480 pixels, 72dpi ▪ File size: < 200 K Bytes |
| Logo on the top right corner of the home screen | <ul style="list-style-type: none"> ▪ File format: PNG with alpha channel ▪ Image specification: 300 x 75 pixels, 72 dpi ▪ File size: < 100 K Bytes |
| Screen saver image | <ul style="list-style-type: none"> ▪ File format: PNG with alpha channel ▪ Image specification: 300 x 75 pixels, 72 dpi ▪ File size: < 87 K Bytes |

| Logo Position | Specifications |
|---|--|
| Screen Image on the welcome screen on web interface | <ul style="list-style-type: none"> ▪ File format: JPG ▪ Image specification: 640 × 480 pixels, 72 dpi ▪ File size: < 200 K Bytes |
| Logo on the top left corner of each page on web interface | <ul style="list-style-type: none"> ▪ File format: PNG ▪ Image specification: 300 × 120 pixels, 72 dpi ▪ File size: < 100 K Bytes |

Creating a Customized Software Update Package

You can use the Polycom Endpoints User Customization Tool to convert a standard Polycom software update package to a customized software update package that replaces the Polycom logo with your own logo.

You can download the Polycom Endpoints User Customization Tool from Polycom web site.

To install the Polycom Endpoints User Customization Tool:

- 1 Download the Polycom Endpoints User Customization Tool from www.polycom.com.
- 2 Unzip the Polycom Endpoints User Customization Tool if needed.

To create a customized software update package:

- 1 Double-click the Polycom Endpoints User Customization Tool icon.
- 2 Specify the path for the Polycom software update package, the new image file you want to use, and the customized package. If you do not specify a new image file for a system image, the current image file will be used.
- 3 Click **Create customized upgrade utility** to create the customized software update package to the path you specified.

Uploading Your Customized Software Update Package

Once you have generated a customized software update package, you can use it to upload your logo images to your Polycom QDX 6000 system. The software update package is a Windows program running on your PC.

To upload your logo images:

- Install the customized software update package. For information about how to upgrade the system software, refer to *Upgrading System Software*.



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

To remove your custom logos:

- Install a standard Polycom software update package.
For more information about upgrading system software, refer to *Upgrading System Software*.

The original product logo will replace your own logo images and all your user settings are retained.

Upgrading System Software

Upgrading System Software by PC

You can upgrade QDX 6000 software through LAN connection using a software update package.

To upgrade the QDX 6000 software:

- 1 Save the latest version of the update package you get from the distributor or the customized update package you created to a folder on your PC.

For information about creating customized system update package, refer to *Logo Customization*.



The PC used for upgrading must reside on the same network as QDX 6000 does.

- 2 Double-click the **.exe** file.
- 3 Enter the IP address of the system you want to update, and then click **Get Endpoint Information**.

After the PC communicates with QDX 6000 successfully, the information about this endpoint will be displayed. Otherwise, you may receive an error message, indicating the network connection failure.

- 4 Click **Upgrade**.



When upgrading your system to a newer version, e.g. from V3.0 to V4.0, a dialogue box will pop-up prompting you to enter the upgrade key.

After upgrading is complete, the system reboots automatically.

Rescue Mode

When a software upgrade is interrupted unexpectedly, the system software on your QDX 6000 may get corrupted and the system will boot to the rescue mode automatically. Under rescue mode, you can reload the system software to restore the system to its normal state. You may also set the system to rescue mode manually.

To set the QDX 6000 to rescue mode manually

- 1 Make sure your QDX 6000 is connected to a DHCP enabled network.
- 2 Press and hold the rescue mode button while switching on the system power, hold it for 5 seconds.



- 3 The system will boot up to a simple screen showing its IP address, which is obtained via DHCP.

To reload system software while QDX 6000 is in rescue mode

- Follow the same procedure as the normal software upgrade described in *Upgrading System Software by PC*.



In rescue mode, after the software upgrade succeeds, you need to restart QDX 6000 manually.

Regulatory Notices

Important Safeguards

Read and understand the following instructions before using the system:

- Close supervision is necessary when the system is used by or near children. Do not leave unattended while in use.
- Only use electrical extension cords with a current rating at least equal to that of the system.
- Always disconnect the system from power before cleaning and servicing and when not in use.
- Do not spray liquids directly onto the system when cleaning. Always apply the liquid first to a static free cloth.
- Do not immerse the system in any liquid or place any liquids on it.
- Do not disassemble this system. To reduce the risk of shock and to maintain the warranty on the system, a qualified technician must perform service or repair work.
- Connect this appliance to a grounded outlet.
- Only connect the system to surge protected power outlets.
- Keep ventilation openings free of any obstructions.
- If the system or any accessories are installed in an enclosed space such as a cabinet, ensure that the air temperature in the enclosure does not exceed 40°C (104° F). You may need to provide forced cooling to keep the equipment within its operating temperature range.
- Do not use this product near water.
- Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning.

SAVE THESE INSTRUCTIONS.

Electrical Specifications

Polycom QDX 6000: 100-240VAC, 50-60Hz, 1.5A

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LIMITED WARRANTY. Polycom warrants to the end user ("Customer") that the product will be free from defects in workmanship and materials, under normal use and service, for one year, or such longer period as Polycom may announce publicly from time to time for particular products, from the date of purchase from Polycom or its authorized reseller. This warranty covers the product acquired by the consumer including all of its accessories, components, and parts thereto.

Polycom's sole obligation under this express warranty shall be, at Polycom's option and expense, to repair the defective product or part, deliver to Customer an equivalent product or part to replace the defective item, or if neither of the two foregoing options is reasonably available, Polycom may, in its sole discretion, refund to Customer the purchase price paid for the defective product. All products that are replaced will become the property of Polycom. Replacement products or parts may be new or reconditioned. Polycom warrants any replaced or repaired product or part for ninety (90) days from shipment, or the remainder of the initial warranty period, whichever is longer.

Products returned to Polycom must be sent prepaid and packaged appropriately for safe shipment and it is recommended that they be insured or sent by a method that provides for tracking of the package. Responsibility for loss or damage does not transfer to Polycom until the returned item is received by Polycom. The repaired or replaced item will be shipped to Customer, at Polycom's expense, not later than thirty (30) days after Polycom receives the defective product, and Polycom will retain risk of loss or damage until the item is delivered to Customer.

EXCLUSIONS. POLYCOM WILL NOT BE LIABLE UNDER THIS LIMITED WARRANTY IF ITS TESTING AND EXAMINATION DISCLOSE THAT THE ALLEGED DEFECT OR MALFUNCTION IN THE PRODUCT DOES NOT EXIST OR RESULTS FROM:

- FAILURE TO FOLLOW POLYCOM'S INSTALLATION, OPERATION, OR MAINTENANCE INSTRUCTIONS.
- UNAUTHORIZED PRODUCT MODIFICATION OR ALTERATION.
- UNAUTHORIZED USE OF COMMON CARRIER COMMUNICATION SERVICES ACCESSED THROUGH THE PRODUCT.
- ABUSE, MISUSE, NEGLIGENT ACTS OR OMISSIONS OF CUSTOMER AND PERSONS UNDER CUSTOMER'S CONTROL; OR
- ACTS OF THIRD PARTIES, ACTS OF GOD, ACCIDENT, FIRE, LIGHTING, POWER SURGES OR OUTAGES, OR OTHER HAZARDS.

Warranty Information

WARRANTY EXCLUSIVE. IF A POLYCOM PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, CUSTOMER'S SOLE REMEDY FOR BREACH OF THAT WARRANTY SHALL BE REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE PAID, AT POLYCOM'S OPTION. TO THE FULL EXTENT ALLOWED BY LAW, THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, TERMS, OR CONDITIONS, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES, TERMS, OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, SATISFACTORY QUALITY, CORRESPONDENCE WITH DESCRIPTION, AND NON-INFRINGEMENT, ALL OF WHICH ARE EXPRESSLY DISCLAIMED. POLYCOM NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE OR USE OF ITS PRODUCTS.

SUPPORT & SERVICE AGREEMENTS. If you purchased your product from a Polycom Authorized Reseller, contact the Authorized Reseller for information about support and service agreements applicable to your product. For information on Polycom service, go to the Polycom web site www.polycom.com, products and services menu, or call 1-800-765-9266, outside the US call 1-408-526-9000, or your local Polycom Office, as listed on the Polycom Web site.

LIMITATION OF LIABILITY. TO THE FULL EXTENT ALLOWED BY LAW, POLYCOM EXCLUDES FOR ITSELF AND ITS SUPPLIERS ANY LIABILITY, WHETHER BASED IN CONTRACT OR TORT (INCLUDING NEGLIGENCE), FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES OF ANY KIND, OR FOR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS, LOSS OF INFORMATION OR DATA, OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, USE, PERFORMANCE, FAILURE, OR INTERRUPTION OF ITS PRODUCTS, EVEN IF POLYCOM OR ITS AUTHORIZED RESELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, AND LIMITS ITS LIABILITY TO REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE PAID, AT POLYCOM'S OPTION. THIS DISCLAIMER OF LIABILITY FOR DAMAGES WILL NOT BE AFFECTED IF ANY REMEDY PROVIDED HEREIN SHALL FAIL OF ITS ESSENTIAL PURPOSE.

DISCLAIMER. Some countries, states, or provinces do not allow the exclusion or limitation of implied warranties or the limitation of incidental or consequential damages for certain products supplied to consumers or the limitation of liability for personal injury, so the above limitations and exclusions may be limited in their application to you. When the implied warranties are not allowed to be excluded in their entirety, they will be limited to the duration of the applicable written warranty. This warranty gives you specific legal rights which may vary depending on local law.

GOVERNING LAW. This Limited Warranty and Limitation of Liability shall be governed by the laws of the State of California, U.S.A., and by the laws of the United States, excluding their conflicts of laws principles. The United Nations Convention on Contracts for the International Sale of Goods is hereby excluded in its entirety from application to this Limited Warranty and Limitation of Liability.

Regulatory Notices

USA and Canadian Regulatory Notices

This Class [A] digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe [A] est conforme à la norme NMB-003 du Canada

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: This device may not cause harmful interference, and this device must accept any interference received, including interference that may cause undesired operation

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are

Regulatory Notices

designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense

In accordance with part 15 of the FCC rules, the user is cautioned that any changes or modifications not expressly approved by Polycom Inc. could void the user's authority to operate the equipment.

EU Regulatory Notices

This QDX6000 has been marked with the CE mark. This mark indicates compliance with EEC Directives 2006/95/EC and 2004/108/EC. A full copy of the Declaration of Conformity can be obtained from Polycom Ltd, 270 Bath Road, Slough, Berkshire, SL1 4DX, UK.

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

声明

此为A级产品，在生活环境中，该产品可能会造成无线电干扰。在这种情况下，可能需要用户对其干扰采取切实可行的措施。

A 급 기기 (업무용 정보통신기기)

이 기기는 업무용으로 전자파적합등록을 한 기기이오니 판매자 또는 사용자는 이 점을 주의하시기 바라며, 만약 잘못판매 또는 구입하였을 때에는 가정용으로 교환하시기 바랍니다.

WARNING

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Electrical safety advisory

We recommend that you install an AC surge arrester in the AC outlet to which this device is connected. This action will help to avoid damage to the equipment caused by local lightning strikes and other electrical surges.

Underwriters Laboratories Statement

The system is intended to be powered only by the supplied power supply unit.

Special Safety Instructions

Follow existing safety instructions and observe all safeguards as directed.

Installation Instructions

Installation must be performed in accordance with all relevant national wiring rules.

Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on over current protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

Reliable Earthing - Reliable earthing of rack-mounted equipment should be

Regulatory Notices

maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips)."

Plug Acts as Disconnect Device

The socket outlet to which this apparatus is connected must be installed near the equipment and must always be readily accessible.

Lithium coin cell warning

This equipment contains a Lithium coin cell which is not user serviceable. Refer servicing to qualified service personnel only. Do not attempt to open the case of this product.

Caution

Danger of Explosion if Battery is incorrectly replaced.

Replace only with the same or equivalent type

Recommended by the manufacturer.

Dispose of used batteries according to the manufacturer's instructions

ADVARSEL!

Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering.

Udskiftning må kun ske med batteri

af samme fabrikat og type.

Levér det brugte batteri tilbage tilleverandøren.