



# Polycom<sup>®</sup> CX5000 System Deployment Guide

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## Introduction

When you want to meet with people who are geographically separated, video conferencing gives you a greater sense of immediacy than a conventional telephone conference call.

The Polycom CX5000 is a next generation video conferencing system that provides a comprehensive conferencing experience through the use of 360 degree video and active speaker detection.



**Figure 1. A Polycom CX5000 conference in session**

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# Polycom CX5000 Graphical User Interface

This section describes the top-level screens of the Polycom CX5000 graphical user interface (GUI).

---

## Touch Screen


The Touch screen (Figure 2) is the screen that is displayed when the Polycom CX5000 device starts up. This screen contains status indicators (in the upper-right corner), a backspace key to erase previously-entered digits in on-hook dialing (just below the status indicators), and the keypad.

From left to right, the status indicators show whether an external dial pad is connected, whether the Polycom CX5000 device is connected to a computer via USB, whether a phone line is connected to the Polycom CX5000 device, and whether there is an Ethernet connection to the Polycom CX5000 device.



**Figure 2. Touch Screen**

## Informational Screen

The Informational screen (Figure 3) is displayed when you press the Information button  that is to the right of the display panel. Besides the status indicators described in the previous section, the Informational screen contains icons for four additional screens: Tutorial, Diagnostics, Info, and Speed Dial (viewing the icons left to right, and top to bottom).

- **Tutorial** icon - opens the Tutorial screen, which contains a list of four tutorials on various aspects of using the Polycom CX5000 device. The tutorial subjects are: Quick Start, Call Handling, External Dial Pad, and Satellite Microphones.
- **Info** icon - opens the Info screen, which displays the device serial number, and firmware and software versions.
- **Speed Dial** icon - opens the Speed Dial screen, which lists the phone numbers that can be speed-dialed. This list is empty until speed dialing numbers are configured for the device. For more information, see [Pre-Programmed Speed Dials](#).
- **Diagnostics** icon - opens the **Diagnostics screen** (discussed in the next section), which provides information about the health of the Polycom CX5000 device.



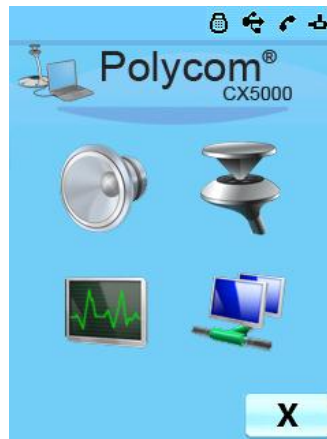
**Figure 3. Informational Screen**

## Diagnostics Screen

The Diagnostics screen (Figure 4) displays four icons that represent the main subsystems of a Polycom CX5000 device. (This screen also displays the previously discussed status indicators.) From left to right and top to bottom, the icons represent audio subsystem diagnostics, video subsystem diagnostics, systems diagnostics, and network subsystem diagnostics.

- **Audio subsystem** - includes audio health (Pass or Fail), whether satellite microphones are connected, the currently most active microphone, and active media.
- **Video subsystem** - includes the camera ID, camera health (Pass or Fail), white balancing settings, lighting frequency, and active media.
- **System** - includes the URL of the update server, the current time, the time of the last update, the time zone, and system health (Pass or Fail).
- **Network subsystem** - includes the IP address for the Polycom CX5000 device, subnet mask, the IP address of the default gateway, and the IP address of the DNS server.

If you encounter problems with a Polycom CX5000 device, the hardware diagnostics screens (audio, video, and system) should be the first place you check.



**Figure 4. Diagnostics Screen**



---

# Device Configuration

This section summarizes the device configuration functionality of Polycom CX5000.

---

## System Requirements for the Polycom CX5000 Device Computer

- Operating system: Windows® XP™ (SP2 or later, 32-bit only), Windows Vista™ (32-bit or 64-bit) or Windows 7 (32-bit or 64-bit)
  - CPU Speed: 2.0 GHz or higher
  - RAM: 2 GB or higher
  - Video card RAM: 128 MB or higher
  - Microsoft® Office InfoPath® 2003 or later (to edit the device configuration)
  - USB 2.0 port
- 

## Installing the Polycom CX5000 Device Management Tool

Before you can configure the Polycom CX5000 device, you must install the Polycom CX5000 Device Management Tool CX5000.msi. You can obtain CX5000.msi from [Polycom CX5000 support page](#).

By default, CX5000.msi installs the End-User License Agreement (EULA) to the %ProgramFiles%\Polycom CX5000\ directory, and creates one directory—Device Management—under this directory.

CX5000.msi copies the following files to the Polycom CX5000\Device Management\ directory:

- **CX5000Manage.exe** - The Polycom CX5000 device configuration tool. The current version of this tool is in English only. Usage of this tool is described below in Using CX5000Manage.exe.
- **DeviceConfig.xsn** - The Office InfoPath template for Polycom CX5000 configuration.
- **DefaultConfig.xml** - An example XML file for configuring the device.

---

## Connecting the Polycom CX5000 Device to the Computer

To configure and manage the Polycom CX5000 device using CX5000Manage.exe, plug the Polycom CX5000 device's USB cable into an available USB port on the computer (Figure 5). USB 2.0 is required.



**Figure 5.** Plug Polycom CX5000 USB cable into a port

- ④ CX5000Manage.exe supports only one Polycom CX5000 device plugged into the computer at a time.

---

## Using CX5000Manage.exe

CX5000Manage.exe is typically used with a switch that specifies one of three modes:

- **image** mode
- **diagnostic** mode
- **configuration** mode

Table 1, Table 2, and Table 3 describe the mode commands and show the syntax for each. Image mode commands are used to update the firmware images of the Polycom CX5000 device's operating system or boot loader, or to download a new configuration. Diagnostic mode commands are used to send diagnostic logs to the image update server. Configuration mode commands are used for a variety of purposes, including resetting the password, setting the device time, and uploading a device configuration to the image update server.

All but two operations prompt the user for the Polycom CX5000 password. The operations that do not require a password are listed here:

```
CX5000Manage.exe -help
CX5000Manage.exe -m:diag -l:flush
```

For clarity, Table 1, Table 2, and Table 3 show only the switches used with CX5000Manage.exe. A complete command must include CX5000Manage or CX5000Manage.exe with the applicable switch, as in the following example:

```
CX5000Manage <switch>
CX5000Manage.exe <switch>
```

**Table 1. Image mode commands**

Switch	Description
-m:img -help	Shows usage and flags of the image mode
-m:img -i:nk -f:<file path to nk.bin> -s:<file path to nk.cat>	Performs a USB image update of Nk.bin, the operating system of the Polycom CX5000 device.
-m:img -i:EB00T -f:<file path to CPUEBOOT.bin> -s:<file path to CPUEBOOT.cat>	Performs a USB image update of Cpueboot.bin, the boot loader of the Polycom CX5000 device.
-m:img -i:config -f:<file path to rtconfig.xml>	Downloads a new configuration file to the Polycom CX5000 device. The device must be rebooted before the new configuration takes effect.

After performing any of the image mode commands you must reboot the Polycom CX5000 device. You can do this by using the CX5000Manage boot command as shown in the following command:


```
CX5000Manage.exe m:cfg -r
```

**Table 2. Diagnostic mode commands**

Switch	Description
-m:diag -help	Shows usage and flags of the diagnostic mode.
-m:diag -l:flush	Flushes diagnostics to the image update server. The exact location will be referenced in future documentation for the Microsoft Office Communications Server 2007 or Microsoft Lync™ Server 2010 Update Service. You will not be prompted for a password for this operation.

**Table 3. Configuration mode commands**

Switch	Description
-m:cfg -help	Shows usage and flags of the configuration mode
-m:cfg -t:now	Sets the time of the Polycom CX5000 device with the time on the computer.
-m:cfg -r	Reboots the device.
-m:cfg -p	Sets the password for the device. The factory default password is <b>78491</b> .
-m:cfg -q:cfgparseresult	Queries the parser result after a new configuration is downloaded to the device.
-m:cfg -f:rtconfig.xml	Uploads the Polycom CX5000 device configuration file to a server share on the Office Communications Server 2007 or Microsoft Lync Server 2010 Update Service.

 The factory-set default password is **78491**.

## Configuring the Polycom CX5000 Device

Before applying new settings to a Polycom CX5000 device, ensure you have a supported version of Microsoft Office InfoPath installed.

### To apply new settings to a Polycom CX5000 device

1. In the %ProgramFiles%\Polycom CX5000\DeviceManagement\ directory, double-click DeviceConfig.xsn to launch the InfoPath form. Figure 6 shows a portion of this form.

**Form1 - Microsoft Office InfoPath**

File Edit View Insert Format Tools Table Help

Verdana 10 B I U

**Polycom® CX5000**

**Room**

Room name:

Room size: 7-11 people (Medium) ▼

Table size: 10' x 5' (3.05 m x 1.52 m) ▼

Lighting: Normal ▼

Notes 1:

Notes 2:

Notes 3:

**Network**

Device name:

DHCP enabled: ☒

IP address:

Subnet mask:

Default gateway:

Preferred DNS server:

Alternate DNS server:

**Figure 6. InfoPath Form**

2. After you change the settings to suit your particular installation, save the configuration (as RTConfig.xml, for example) to the same directory as CX5000Manage.exe. The section following this procedure provides details of the InfoPath configuration form.
3. Open a command prompt, change the directory to the %ProgramFiles%\Polycom CX5000\DeviceManagement\ directory, and type the following command line:

```
CX5000Manage.exe -m:img -i:config -f:RTConfig.xml
```

4. Check for any XML parsing errors by running this command:

```
CX5000Manage.exe -m:cfg -q:cfgparseresult
```

5. If there are no errors, proceed to the next step. Otherwise fix the errors and repeat from step 3.
6. Reboot the device by running this command line:

```
CX5000Manage.exe -m:cfg -r
```

The following tables provide details about the configuration changes that you can make in the InfoPath configuration user interface:

**Table 4. Room Settings**

Field	Description	Factory default
Room name	A text description (at most 63 characters) for the conference room.	(empty string)
Room size	The approximate comfortable seating capacity of the conference room. There are three options:  1 – 6 people (Small) 7 – 11 people (Medium) 12 or more people (Large)	7 – 11 people (Medium)
Table size	The approximate size of the table in the conference room. There are three options:  5' (1.52 m) Round 10' x 5' (3.05 m x 1.52 m) 20' x 5' (6.10 m x 1.52 m)	10' x 5' (3.05 m x 1.52 m)
Lighting	A description of the lighting brightness in the conference room. There are three options:  Normal Dark Light	Normal
Notes 1:, Notes 2:, Notes 3:	Custom fields (at most 63 characters each) that the administrator can use to tag the devices.	(empty string)

The values of Room size and Lighting are not currently used by the firmware.

**Table 5. Network Settings**

Field	Description	Factory default
Device name	A friendly name (at most 63 characters) for the device. Used in the diagnostics log for tagging the device. This is not the host name for the device.	(empty string)
DHCP enabled	Determines whether Dynamic Host Control Protocol (DHCP) is enabled. The options are checked (DHCP is enabled) and unchecked (DHCP is disabled).  A check in this field corresponds to a value of "true" for the DHCPEnabled attribute in DefaultConfig.xml. If unchecked, the DHCPEnabled attribute has a value of "false".	Checked
IP Address	When DHCP is disabled, enter the IP address in xxx.xxx.xxx format	(empty string)
Subnet mask	When DHCP is disabled, enter the subnet mask in xxx.xxx.xxx format	(empty string)
Default gateway	When DHCP is disabled, enter the IP address of the default gateway in xxx.xxx.xxx format	(empty string)
Preferred DNS server	When DHCP is disabled, enter the IP address of the preferred DNS server in xxx.xxx.xxx format	(empty string)
Alternate DNS server	When DHCP is disabled, enter the IP address of the alternate DNS server in xxx.xxx.xxx format	(empty string)

**Table 6. Time Settings**

Field	Description	Factory default
Time zone	Time zone for the device	Set to time zone of the country in which the device is sold. For devices sold in the U.S. and Canada, the default time zone is Eastern standard time. See Table 15 for country-specific settings.
Automatically adjust clock for daylight saving	Checked or unchecked  Reserved	Checked

**Table 7. LCD Display Settings**

Field	Description	Factory default
Display language	Brazilian Portuguese Dutch English French German Italian Japanese Korean Simplified Chinese Spanish Traditional Chinese	Default language is determined by the country in which the device is sold. See Table 15 for country-specific settings.
Screen saver text	Reserved	(empty string)

**Table 8. Telephony Settings**

Field	Description	Factory default
Phone number	Phone number for the Polycom CX5000 device	(empty string)
Flash timing	10 ms through 990 ms, in 10 ms increments	Default settings for the target country's recommended regulatory compliance agency See Table 15 for country-specific settings
Ignore dial tone when dialing	On or Off Reserved	Off

**Table 9. Pre-Programmed Speed Dials**

Field	Description	Factory default
Name	Short name (at most 63 characters) of the number in the speed dial	(empty string)
Number	Telephone number (at most 63 characters)	(empty string)

By default, the form shows one speed dial entry. You can use the form to add and program four additional speed dials.

**Table 10. Software Updates Settings**

Field	Description	Factory default
Automatically update using the image update server	Checked or unchecked. If checked, automatic image updates are enabled.	Checked
Exclude configuration file from automatic update	Checked or unchecked. If checked, the configuration file is excluded from automatic update.	Unchecked
Update time	Time of day at half hour intervals	3:30 AM local time
Update interval	Every day Every Sunday Every Monday Every Tuesday Every Wednesday Every Thursday Every Friday Every Saturday	Every day
Server	Name of the update server	Ucupdates
Port	Port for device-server communication	80
Uniform resource identifier path	URI path on the server with which to communicate.	(empty string)

**Table 11. Logging Settings**

Field	Description	Factory default
Log to server	Checked or unchecked. If checked, diagnostic log data is sent to the server.	Checked
Upload time	Time of day at half hour intervals	3:00 AM local time
Update interval	Every hour Every day Every Sunday Every Monday Every Tuesday Every Wednesday Every Thursday Every Friday Every Saturday	Every hour
Maximum log size in memory	Configurable size of memory reserved for the log.	1024 KB



Field	Description	Factory default
	It is recommended that you leave this set to 1024 KB.	
Server	Name of the update server	Ucupdates
Port	Port for device-server communication	80
Uniform resource identifier path	URI path on the server to communicate with.	(empty string)

**Table 12. Power Management Settings**

Field	Description	Factory default
Turn off LCD backlight	<p>Amount of time (in minutes) after which the device's LCD backlighting is turned off, when there is no activity.</p> <p>After one minute</p> <p>After five minutes</p> <p>After 10 minutes</p> <p>After 20 minutes</p> <p>After 30 minutes</p> <p>After 45 minutes</p> <p>After 60 minutes</p> <p>After 120 minutes</p> <p>After 180 minutes</p> <p>After 240 minutes</p> <p>After 300 minutes</p>	After five minutes

**Table 13. Advanced Settings**

Field	Description	Factory default
Active speaker detection algorithm	<p>The device will use either audio only or both audio and video to detect the current speaker. The options are:</p> <p>Use audio only</p> <p>Use audio and video</p>	Use audio and video
Active speaker switching frequency	Reserved	Default
White balance setting	Auto or Manual	Auto
Light temperature	<p>If white balance setting is Manual, then the light temperature will be used.</p> <p>Incandescent – 2800 K</p> <p>Cool white fluorescent – 4100 K</p>	N/A

Field	Description	Factory default
	Daylight/sunlight – 6500 K	
Lighting frequency	<p>The lighting frequency can be set to the following values:</p> <p>Auto</p> <p>50 Hz</p> <p>60 Hz</p> <p>The lighting frequency setting should match the AC power frequency of the deployment location to ensure good video quality. If it is set to Auto, the device will attempt to detect the frequency from the power source. Automatic detection results may vary due to variance in the circuit at the time of detection.</p>	<p>The default lighting frequency is determined by the country in which the product is sold. See Table 15 for country-specific settings.</p> <p>For deployment in Japan, check the AC power frequency at the location, and ensure that Lighting frequency is set accordingly.</p>

**Table 14. Debugging Settings**

Field	Description	Factory default
Audio debug logging	Enable verbose audio debug logging. On or Off.	Off
Video debug logging	Toggle verbose video debug logging. On or Off.	Off
System debug logging	Toggle verbose system debug logging. On or Off.	Off

**Table 15. Default Settings for Individual Countries**

Country	LCD Display Settings – Display Language (see Table 1)	Time Settings – Time Zone (see Table 6)	Telephony Settings – Flash Timing (see Table 8)	Advanced Settings – Lighting Frequency (see Table 13)
Argentina	Spanish	GMT-3	300 ms	50 Hz
Australia	English	GMT +10	100 ms	50 Hz
Austria	German	GMT +1	100 ms	50 Hz
Belgium	English	GMT +1	100 ms	50 Hz
Brazil	Brazilian Portuguese	GMT - 3	300 ms	60 Hz
Bulgaria	English	GMT + 2	100 ms	50 Hz
Canada	English	GMT - 5	700 ms	60 Hz
China	Simplified Chinese	GMT+8	100 ms	50 Hz
Costa Rica	Spanish	GMT-6	700 ms	60 Hz
Cyprus	English	GMT**	100 ms	50 Hz

Country	LCD Display Settings – Display Language (see Table 1)	Time Settings – Time Zone (see Table 6)	Telephony Settings – Flash Timing (see Table 8)	Advanced Settings – Lighting Frequency (see Table 13)
Czech Republic	English	GMT + 1	100 ms	50 Hz
Denmark	English	GMT + 1	100 ms	50 Hz
Estonia	English	GMT + 2	100 ms	50 Hz
Finland	English	GMT + 2	100 ms	50 Hz
France	French	GMT + 1	100 ms	50 Hz
Germany	German	GMT + 1	100 ms	50 Hz
Greece	English	GMT + 2	100 ms	50 Hz
Hong Kong	English	GMT + 8	550 ms	50 Hz
Hungary	English	GMT + 1	100 ms	50 Hz
Iceland	English	GMT + 1**	100 ms	50 Hz
India	English	GMT + 5.5	300 ms	50 Hz
Ireland	English	GMT 0	100 ms	50 Hz
Israel	English	GMT+2	100 ms	50 Hz
Italy	Italian	GMT + 1	100 ms	50 Hz
Japan	Japanese	GMT + 9	700 ms	Auto*
Latvia	English	GMT + 2	100 ms	50 Hz
Liechtenstein	English	GMT + 1	100 ms	50 Hz
Lithuania	English	GMT + 2	100 ms	50 Hz
Luxembourg	English	GMT + 1	100 ms	50 Hz
Malaysia	English	GMT+8	550 ms	50 Hz
Malta	English	GMT**	100 ms	50 Hz
Mexico	Spanish	GMT - 6	100 ms	60 Hz
Netherlands	Dutch	GMT + 1	100 ms	50 Hz
New Zealand	English	GMT + 12	100 ms	50 Hz
Norway	English	GMT + 1	100 ms	50 Hz

Country	LCD Display Settings – Display Language (see Table 1)	Time Settings – Time Zone (see Table 6)	Telephony Settings – Flash Timing (see Table 8)	Advanced Settings – Lighting Frequency (see Table 13)
Poland	English	GMT + 1	100 ms	50 Hz
Portugal	Brazilian Portuguese	GMT 0	100 ms	50 Hz
Romania	English	GMT + 2	100 ms	50 Hz
Russia	English	GMT+3	100 ms	50 Hz
Slovakia	English	GMT + 1	100 ms	50 Hz
Slovenia	English	GMT + 1	100 ms	50 Hz
Singapore	English	GMT +8	550 ms	50 Hz
South Africa	English	GMT + 2	100 ms	50 Hz
South Korea	Korean	GMT + 9	700 ms	60 Hz
Spain	Spanish	GMT +1	100 ms	50 Hz
Sweden	English	GMT +1	100 ms	50 Hz
Switzerland	German	GMT +1	100 ms	50 Hz
Taiwan	Traditional Chinese	GMT +8	700 ms	60 Hz
Thailand	English	GMT + 7	550 ms	50 Hz
United Arab Emirates	English	GMT**	100 ms	50 Hz
United Kingdom	English	GMT 0	100 ms	50 Hz
United States	English	GMT - 5	700 ms	60 Hz

\* For deployment in Japan, check the AC power frequency at the location, and ensure the lighting frequency is set accordingly.

\*\* Default settings may differ from actual country time zone and may be reconfigured as needed. Refer to [“Configuring the Polycom CX500 Device”](#) for guidance.

## Common Configuration Tasks

This section provides information on a number of common tasks that can be performed. For each command, it is assumed that you have opened a command prompt window, and that the current directory is %ProgramFiles%\Polycom CX5000\Device Management\.

### Set the Time

The following command uses the computer's time to reset the time on the Polycom CX5000 device:

```
CX5000Manage.exe -m:cfg -t:now
```

### Change the Display Language

1. Double-click DeviceConfig.xsn to launch the InfoPath form.
2. In the **LCD Display** section of the InfoPath form, change the **Display language** setting to the appropriate value.
3. Save the file (as RTConfig.xml, for example) to the directory that contains CX5000Manage.exe.
4. Open a command prompt and run the following command:

```
CX5000Manage.exe -m:img -i:config -f:RTConfig.xml
```

5. Check for any XML parsing errors using the following command:

```
CX5000Manage.exe -m:cfg -q:cfgparseresult
```

6. If there is no error, proceed to the next step. Otherwise, fix the errors and repeat from step 3.
7. Reboot the device using the following command:

```
CX5000Manage.exe -m:cfg -r
```

### Change the Time Zone

1. Double-click DeviceConfig.xsn to launch the InfoPath form.
2. In the **Time** section of the InfoPath form, change the **Time zone** setting to the appropriate time zone.
3. Save the file (as RTConfig.xml, for example) to the directory that contains CX5000Manage.exe.
4. In a command prompt, run the following command:

```
CX5000Manage.exe -m:img -i:config -f:RTConfig.xml
```

5. Check for any XML parsing errors using the following command:

```
CX5000Manage.exe -m:cfg -q:cfgparseresult
```

6. If there are no errors, proceed to the next step. Otherwise, fix the errors and repeat from step 3.
7. Reboot the device using the following command:

```
CX5000Manage.exe -m:cfg -r
```

### Get the Device's Current Configuration

1. Open a command prompt and run the following command:

```
CX5000Manage.exe -m:cfg -f:RTconfig.xml
```

2. The device configuration file will be uploaded to a server share on the Office Communications Server 2007 or Microsoft Lync Server 2010 Update Service.

## Update the Firmware Images

The fastest way to update the Polycom CX5000 device is by means of an automatic image update using the image update server. However, if you must update the device in the absence of the update server, you can use the USB image update functionality.

1. Obtain the latest firmware image files from the [Polycom CX5000 support page](#).

Boot loader package—CPUEBOOT.cat and CPUEBOOT.bin

Operating system package—nk.cat and nk.bin

2. To update the boot loader, run the following command at a command prompt:

```
CX5000Manage.exe -m:img -i:EBOOT -f:<file path to CPUEBOOT.bin> -s:<file path to CPUEBOOT.cat>
```

3. To update nk.bin, run the following command at a command prompt:



```
CX5000Manage.exe -m:img -i:nk -f:<file path to nk.bin> -s:<file path to nk.cat>
```

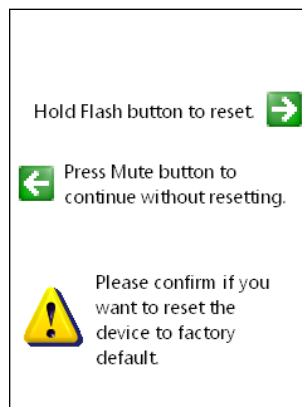
## Reset the Device to Factory Settings

A Polycom CX5000 device stores two copies of its firmware: a **read-only copy** installed at the factory, and an **updateable working copy**. A Polycom CX5000 device ordinarily runs the updateable copy. When a device reset is performed, the working copy is erased. The device then boots the read-only factory firmware. The purpose of the factory firmware copy is to allow the user to update the Polycom CX5000 device with current firmware revisions without having to return the device to the factory.



If you forget your device password or the firmware images have become corrupted (due to a power outage, for example), you can perform a factory reset.

### To perform a factory reset

1. Press and hold down the **On/Off Hook** button .
2. While still holding down the **On/Off Hook** button , press and then release the **Reset** button at the back of the device. You will see a screen that prompts you (Figure 7) to confirm that you want to continue with the reset or to continue without resetting.



**Figure 7. Reset Screen**

3. Press the **Flash/Conference** button  to proceed with the reset, or press the **Mute** button to continue without resetting. Hold the **Flash/Conference** button  until the device LED lights start to blink. If you do not hold this button long enough, the factory reset will not occur and the device will reboot.
4. After you perform a factory reset, apply the latest Polycom CX5000 firmware to the device to ensure the most secure operation and best performance. After a factory reset, you will

need to reapply the device configuration for your device. Failure to apply the latest Polycom CX5000 firmware after a factory reset can result in the device becoming non-compliant with telephony regulations in your country or region. Any liability resulting from failure to apply the latest firmware upgrade is the responsibility of the end user.

### Reset the Device Password

1. As a security best practice, change the device password from its default setting by running the following command line:

```
CX5000Manage.exe -m:cfg -p
```

2. You will be prompted to enter the existing password, enter the new password, and then re-enter the new password. The password consists of ANSI characters, and must be at least one character, but no more than 15 characters.

### Upload the Diagnostics Logs

The following command line flushes diagnostic logs on the Polycom CX5000 device and sends them to the image update server:

```
CX5000Manage.exe -m:diag -l:flush
```

---

## Device Management Best Practices

Do not copy and paste CX5000Manage.exe commands that come in e-mail or from documents. Text from these kinds of documents often contains special characters that can be misinterpreted by CX5000Manage.exe. Typing the command directly into a command prompt is always preferred.

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## Security Best Practices

If you plan to use the Polycom CX5000 Ethernet port for remote configuration of the device, diagnostics logging, or automatic image update, ensure the device is configured properly. If you are not planning to use the Polycom CX5000 Ethernet port for such purposes, do not plug in the Ethernet cable.

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## Deployment Best Practices

This section contains information about characteristics of the conference room in which the Polycom CX5000 device is deployed. For best results, ensure your conference room adheres to these characteristics.

### Acoustical Characteristics

- Reverberation time (RT30): not longer than 300 milliseconds
- Background noise: less than 50 dBA SPL (sound pressure level) of background noise
- For tables larger than 15feet x 10feet, use satellite microphones

### Lighting Characteristics

- No direct sunlight or overhead light shining into the Polycom CX5000 lenses
- Lighting: fluorescent lighting with diffuser or ambient Lighting at 4100K (white color light)
- Wall color: white or other light color
- Lighting level: at least 300 lux

## Miscellaneous Requirements

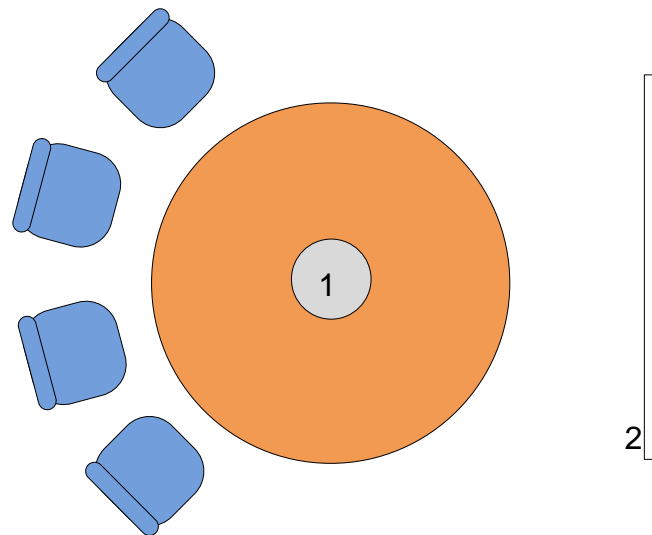
- Maximum room size: 25 feet x 15 feet x 10 feet
- Wired Ethernet to the computer running Microsoft Office Live Meeting, Office Communicator 2007 or Microsoft Lync 2010 client for video conferencing
- No loud projectors or other machines immediately adjacent to the device
- No loud noises (including typing) next to the device
- No clutter around the device to block the microphones
- Do not drag the device by the system cable
- Do not pick up the device by the camera head
- Analog phone line
- Follow the manual for optimal setup
- Power supply for the computer running Office Live Meeting, Office Communicator 2007 or Microsoft Lync 2010 client

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## Deployment Scenarios

This section shows four possible conference room configurations, two using circular tables, and two using rectangular tables. Note that the drawings are not to scale.

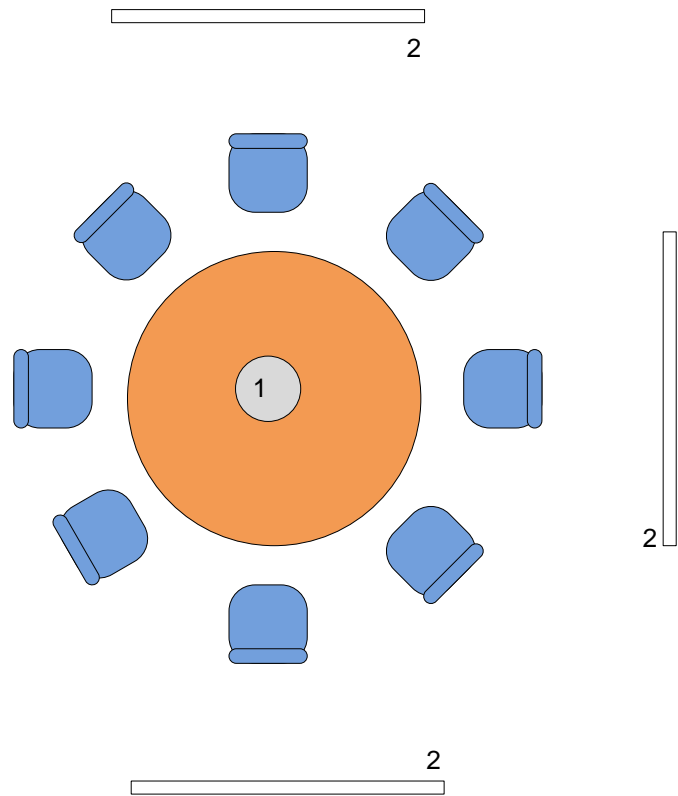
Figure 8 shows a configuration in a small room with the Polycom CX5000 device (1) and one display device (2). The circular table is 5 feet in diameter.



**Figure 8. Circular table with one display device**

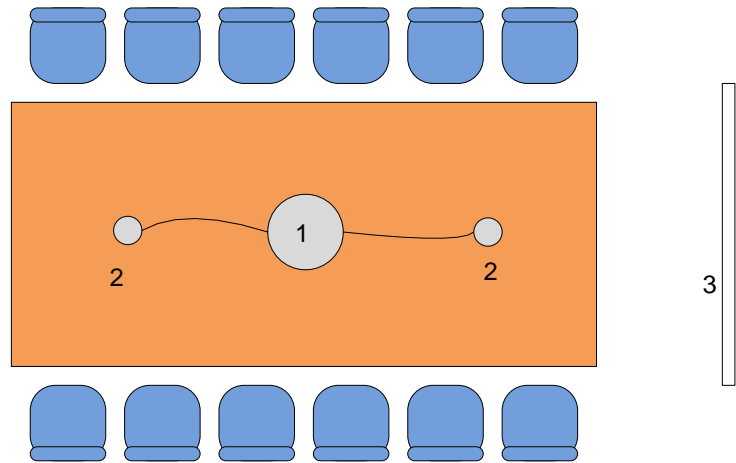


Figure 9 shows a configuration with the Polycom CX5000 device (1) and three display devices (2). The circular table is 5 feet in diameter.



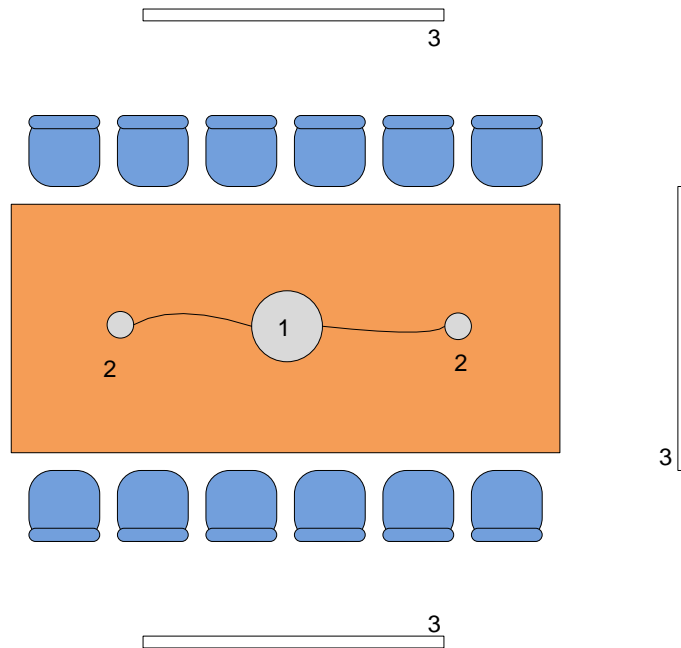
**Figure 9. Circular table with multiple display devices**

Figure 10 shows a configuration with a rectangular table in a conference room capable of holding 12 to 16 people, and one display device (3). The table shown is approximately 5 feet x 10 feet. In this configuration, two satellite microphones (2) are shown connected to the Polycom CX5000 device (1).



**Figure 10. Rectangular table with one display device**

Figure 11 shows a configuration with a rectangular table in a conference room capable of holding 12 to 16 people, and three display devices (3). The table shown is approximately 5 feet x 10 feet. In this configuration, two satellite microphones (2) are shown connected to the Polycom CX5000 device (1).



**Figure 11. Rectangular table with multiple devices**

# Troubleshooting Techniques

This section provides several techniques for solving commonly-occurring problems, and also contains a list of frequently asked questions (FAQ). If you run into problems using a Polycom CX5000 device, the techniques listed here might be of use to you.

## User Troubleshooting Guide

### Video on monitor and projector are different

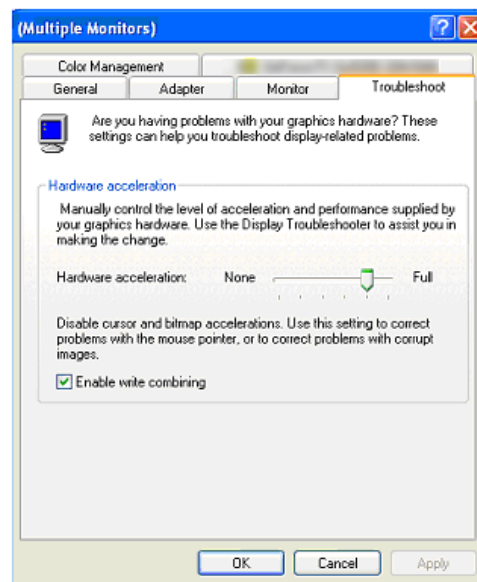
#### *Symptom*

The video on a projector differs from what appears on the computer monitor, switching between the Active Speaker Video and Panoramic Video views.

This is a bug in DirectShow. The procedure below might be able to help you resolve this problem.

#### *Resolution*

1. Click **Start** then **Control Panel**.
2. In Control Panel, double-click **Display**.
3. On the Display Properties page, click the **Settings** tab, then **Advanced**.
4. On the monitor's property page, click the **Troubleshoot** tab.
5. Decrease hardware acceleration one step at a time and see if the problem disappears.



**Figure 12. Hardware Acceleration**

### Video does not start

#### *Symptom*

In an Office Live Meeting, Office Communicator 2007, or Microsoft Lync 2010 session, the Active Speaker Video or Panoramic Video does not start.

#### *Resolution*

- Ensure the video is started.

- If this does not resolve the problem, check the computer to see if there are any other applications that have opened the problematic video stream. For example, in Windows XP, if you have the video preview on for Active Speaker Video, you cannot use the same web cam for your Office Live Meeting, Office Communicator 2007, or Microsoft Lync 2010 video session.

## No audio

### *Symptom*

There is no audio in a VoIP call via computer in Office Live Meeting, Office Communicator 2007 or Microsoft Lync 2010.

### *Resolution*

- Ensure the microphones are not muted.
- If you cannot hear a remote session participant:
  - Check that the remote participant's microphone is not muted.
  - Check that your speaker is not muted.
  - Check that your speaker volume is not at the lowest level.

## Dropped connections

### *Symptom*

Network problems are causing dropped connections.

### *Resolution*


- Reconnect by using the Office Live Meeting, Office Communicator 2007 or Microsoft Lync 2010 user interface.
- If the issue persists, contact your administrator regarding network connectivity.

## No dial tone

### *Symptom*

Public switched telephone network (PSTN) dial tone cannot be heard.

### *Resolution*

- Ensure the Polycom CX5000 device has power.
- Ensure the RJ11 jack is connected to an active telephone line (a PSTN analog line). If your PBX uses cadence dial tone, dial the number you want.
- Press the **On/Off Hook** button  to get a dial tone. The LCD lights around the speaker should turn green when a dial tone is detected.

## Dial pad screen does not appear

### *Symptom*

The Polycom CX5000 device has power, but never gets to the dial pad screen.

### *Resolution*

- Reboot the device by unplugging the Power Data Box from the electrical receptacle, and then plugging it back in.
- If the device freezes in the boot-up progress screen, wait for 10 minutes to see if the problem goes away.
- If the problem persists after multiple attempts, contact Polycom Customer Support.

## Device plays beeping sound and red LCD lights flash at startup

### *Symptom*

The Polycom CX5000 device starts up, but plays a beeping sound and shows red LCD lights for a few seconds after the device boots up.

### *Resolution*

- Press the **Info** button, press the **Diagnostics** icon, and then press the **Video** diagnostics icon.
- Check the camera health on the video diagnostics screen. If the status is Fail and the device beeps with flashing red lights, the hardware is damaged. Contact Polycom Customer Support.

## LCD screen is blank

### *Symptom*

The LCD screen on the Polycom CX5000 device is blank.

### *Resolution*

- Check that the device has power.

## General tips

- Do not cover the microphones and speakers.
- Speak towards the device.
- Sit at least 0.5 meter away from the camera head.

---

## Frequently Asked Questions

### ***Why do pictures look blurry in Office Live Meeting? Is the camera out of focus?***

Blurriness in Office Live Meeting video can result from a combination of the codec used by Office Live Meeting and network-introduced packet drops during periods of heavy network traffic.

The Polycom CX5000 device is designed to work with typical conference rooms and does not require additional configuration to get the cameras in focus.

### **To determine whether there are problems with the camera hardware on Windows XP, 32-bit edition:**

1. Capture the blurry image in Office Live Meeting.
2. In My Computer, double-click Polycom CX5000 Active Speaker Video.
3. Compare the images against the blurry image you captured in Office Live Meeting. For best results, the conference room you are in should have sufficient lighting.
4. If the raw video from Polycom CX5000 is clear while the Office Live Meeting video is blurry, busy network conditions are causing packets to be dropped.


### **To determine whether there are problems with the camera hardware on Windows Vista:**

1. Capture the blurry image in Office Live Meeting.
2. Obtain the Graph Edit tool (graphedt.exe) from the latest DirectX SDK from Microsoft.com.
3. Launch **graphedt.exe**.
4. On the Graph menu, click **Insert Filters**. This opens a dialog box that you can use to insert filters for the video devices.

5. Choose both Polycom CX5000 video devices under Video Capture Sources, press **Insert Filters**, and close the dialog box.
6. Ensure you click on the properties and ensure the I420 sources are used.
7. Click **Play** to render video.
8. Compare the images from GraphEdt.exe against the Office Live Meeting images.
9. If the raw video from Polycom CX5000 is clear while the Office Live Meeting video is blurry, busy network conditions are causing packets to be dropped.

***When I connect the Polycom CX5000 power data box to the network, why doesn't the device appear on the network?***

The device is not recognized on the network because it does not have an assigned IP address. After you connect the Polycom CX5000 power data box to the network, you must reboot the Polycom CX5000 device.

To verify that Polycom CX5000 is on the network, press the Information button , then press the Device Diagnostics icon (in the upper right corner of this screen), and then press the **Network Diagnostics** icon (in the lower right corner of this screen). The **IP Address** field should contain a valid IP address.

## Interpreting the Diagnostics Logs

This section describes several CE logging tasks, diagnostics logging, and Watson dump features of Polycom CX5000.

### CE Logging Tasks

Polycom CX5000 writes to the CE Log for hardware functional tests and critical system issues. This section identifies a number of tasks related to the CE log that you can perform.

#### Send the CE Log to the Update Service Server

1. Open a command prompt, and execute the following command line:

```
CX5000Manage.exe -m:diag -l:flush
```

2. This command causes the Polycom CX5000 CE log to be uploaded to a server share on the Office Communications Server 2007 or the Microsoft Lync Server 2010 Update Service. See the Office Communications Server 2007 or the Lync Server 2010 documentation for the location of the file share.
3. The CE log for the device is written to a directory on the share. The directory name is the Product ID of the device.
4. The CE log file name has the form YYYYMMDDHHMMSS-CELOG $n$ .clg, where  $n$  is 0 or 1. An example CE log filename is 20070501170926-CELOG0.clg.

- ④ The file name might change based on the implementation of Office Communications Server 2007 or the Lync Server 2010 Update Service.

#### Interpret the CE Log

You must use Readlog.exe that ships with Microsoft Windows CE Platform Builder to interpret the .clg file. Alternatively, you can send the file to Polycom Customer Support for investigation. For information about Readlog.exe, see <http://msdn2.microsoft.com/en-us/library/ms905162.aspx>.

1. To extract the contents of the .clg file to a text file, use the -v (verbose) print option when you run Readlog.exe. For example, `Readlog.exe -v CE_log_file output_file.txt`.

## 2. The CE log contains the results of the hardware functional tests as well as critical system errors.

The following is an example of the contents of a CE log:

```
0:00:01.523.868 : Raw data 31 (wchar),,,,FIRMWARE REV,,NA,1.0.3528.0
0:00:01.524.306 : Raw data 31 (wchar),,,,FIRMWARE CURRENT REV,,NA,,,
0:00:01.524.769 : Raw data 41 (wchar),,,,FIRMWARE FACTORY REV,,NA,1.0.3528.0,,
0:00:01.525.254 : Raw data 27 (wchar),,,,OS REV,,NA,1.0.3528.0,,
0:00:01.525.674 : Raw data 26 (wchar),,,,POST Version,,NA,1.0,,
0:00:01.526.107 : Raw data 30 (wchar),,,,CPU STATUS,,PASS,0x10000,,
0:00:01.526.557 : Raw data 36 (wchar),,,,ETH0 TEST,,NOT DONE,0xFFFFFFFF,,
0:00:01.527.109 : Raw data 36 (wchar),,,,ETH1 TEST,,NOT DONE,0xFFFFFFFF,,
0:00:01.527.626 : Raw data 36 (wchar),,,,VDSP ENUM STATUS,,PASS,0x30000,,
0:00:01.528.088 : Raw data 36 (wchar),,,,USBF ENUM STATUS,,PASS,0x30001,,
0:00:01.528.539 : Raw data 36 (wchar),,,,USBH ENUM STATUS,,PASS,0x30002,,
0:00:01.528.965 : Raw data 30 (wchar),,,,RTC VERIFY,,PASS,0x40001,,
0:00:01.529.756 : Raw data 35 (wchar),,,,TOUCHCTL VERIFY,,PASS,0x40000,,
0:00:01.530.221 : Raw data 38 (wchar),,,,NORFLASH VERIFY,,FAIL,0xFFFFFFFF,,
0:00:01.530.671 : Raw data 36 (wchar),,,,NANDFLASH VERIFY,,PASS,0x60000,,
0:00:01.531.213 : Raw data 30 (wchar),,,,LCD VERIFY,,PASS,0x70000,,
0:00:01.531.646 : Raw data 30 (wchar),,,,SDRAM TEST,,PASS,0x80000,,
0:00:01.532.087 : Raw data 32 (wchar),,,,System Cable,,PASS,0x90000,,
0:00:01.532.540 : Raw data 39 (wchar),,,,UFN1: Initialize,,PASS,0x00000000,,
0:00:01.532.989 : Raw data 39 (wchar),,,,HCD1: Initialize,,PASS,0x00000000,,
0:00:01.533.518 : Raw data 39 (wchar),,,,HCD3: Initialize,,PASS,0x00000000,,
0:00:01.534.027 : Raw data 53 (wchar),,,,Display Hardware,,PASS,Initialized
Successfully,,
0:00:07.754.119 : Raw data 31 (wchar),,,,PSTN,,FAIL,Initialization,,
0:00:08.737.588 : Raw data 31 (wchar),,,,PSTN,,FAIL,Initialization,,
0:00:08.738.118 : Raw data 33 (wchar),,,,ADSP Microphone Test,,PASS,,
0:00:46.745.599 : Raw data 29 (wchar),,,,Camera ID,,PASS,723308F,,
0:00:46.746.059 : Raw data 22 (wchar),,,,Restarts,,PASS,0,,
0:00:46.746.553 : Raw data 40 (wchar),,,,Video Port,,PASS,0 Frames Dropped,,
0:00:46.747.036 : Raw data 35 (wchar),,,,Camera Video,,PASS,Y Y Y Y Y,,
0:00:46.747.496 : Raw data 29 (wchar),,,,I2C Status,,PASS,OK 0 C,,
0:00:46.747.936 : Raw data 26 (wchar),,,,Calibration,,PASS,OK,,
0:00:46.749.127 : Raw data 28 (wchar),,,,White Balance,,FAIL,NO,,
0:00:46.749.719 : Raw data 19 (wchar),,,,POST,,PASS,OK,,
0:00:46.750.187 : Raw data 27 (wchar),,,,Stack Health,,PASS,OK,,
```

A hardware failure can be identified by a FAIL in the following entries:

```
0:00:01.526.107 : Raw data 30 (wchar),,,,CPU STATUS,,FAIL,0x10000,,
0:00:01.527.626 : Raw data 36 (wchar),,,,VDSP ENUM STATUS,,FAIL,0x30000,,
0:00:01.528.088 : Raw data 36 (wchar),,,,USBF ENUM STATUS,,FAIL,0x30001,,
0:00:01.528.539 : Raw data 36 (wchar),,,,USBH ENUM STATUS,,FAIL,0x30002,,
0:00:01.528.965 : Raw data 30 (wchar),,,,RTC VERIFY,,FAIL,0x40001,,
0:00:01.529.756 : Raw data 35 (wchar),,,,TOUCHCTL VERIFY,,FAIL,0x40000,,
0:00:01.530.671 : Raw data 36 (wchar),,,,NANDFLASH VERIFY,,FAIL,0x60000,,
0:00:01.531.213 : Raw data 30 (wchar),,,,LCD VERIFY,,FAIL,0x70000,,
0:00:01.531.646 : Raw data 30 (wchar),,,,SDRAM TEST,,FAIL,0x80000,,
0:00:01.532.087 : Raw data 32 (wchar),,,,System Cable,,FAIL,0x90000,,
0:00:01.532.540 : Raw data 39 (wchar),,,,UFN1: Initialize,,FAIL,0x00000000,,
0:00:01.532.989 : Raw data 39 (wchar),,,,HCD1: Initialize,,FAIL,0x00000000,,
0:00:01.533.518 : Raw data 39 (wchar),,,,HCD3: Initialize,,FAIL,0x00000000,,
0:00:01.534.027 : Raw data 53 (wchar),,,,Display Hardware,,FAIL,Initialization
failed,,
```

- 🔍 The CE logs are not localized because they are needed for debugging by developers.

### Errata in the Polycom CX5000 CE log

The CE log contains a benign erroneous entry, similar to the following:

```
0:00:01.530.221 : Raw data 38 (wchar),,,,NORFLASH VERIFY,,FAIL,0xFFFFFFFF,,
```

The NORFLASH VERIFY test is not run and does not need to be run. In the event of a NOR Flash failure, the Polycom CX5000 device will not boot.

## Diagnostics Logging

If the **Log to the server** field is checked in the **Logging** section of the Polycom CX5000 device configuration, the device writes self-diagnostic data to the Office Communications Server 2007 or the Lync Server 2010 Update Service. For the file name and location of the log, refer to the documentation for Office Communications Server 2007 or the Lync Server 2010 Update Service.

### Diagnostics Log Schema

Table 16 lists the column names and their data types by column number. Data in the diagnostics log is comma-delimited.

**Table 16. Diagnostic Log Schema Names by Column Number**

Column Number	Column Name and Data Type
1	DeviceType (varchar(32))
2	Date Time (datetime)
3	ID (varchar(32)) (Product ID from Polycom CX5000)
4	LoggingType (Error/Health/Debug/POST)
5	Device Name (varchar(32))
6	Component (varchar(32)) (Hardware   System   Video   Audio)
7	SubComponent1 (varchar(32))
8	SubComponent2 (varchar(32))
9	SubComponent3 (varchar(32))
10	Property (varchar(32))
11	Value1 (varchar(64))
12	Value2 (varchar(64))
13	Value3 (varchar(64))
14	Value4 (varchar(64))
15	Value5 (varchar(64))



### Interpreting Diagnostics Logs

The Polycom CX5000 diagnostics logs fall into three LoggingType categories: **POST**, **Health**, and **Image Update**. Power-on self test (POST) diagnostics consist of information generated when the device is powered on. Health diagnostics pertain to the health of the device, with regard to either system performance or resource usage. Image update diagnostics pertain to updating the device firmware.

**LoggingType == POST** Polycom CX5000 powers on and performs a power on self test (POST). Table 17 shows the columns used, along with values that are logged. The three values of Component represent the system, audio digital signal processor, and video digital signal processor.

**Table 17. Columns and Values Used in POST Logging**

Physical Column	Value Logged
Device Type	CX5000
Date Time	Value of [Date Time]
ID	Value of [Product ID]
LoggingType	POST
Device Name	Value of [Device Name]
Component	System   ADSP   VDSP

When Component = System, only the Property, Value2, and Value3 columns are used.

The Property column contains the name of the test. The Value2 column contain the status (PASS | FAIL | NOT DONE | NA). The Value3 column contains the detailed status code. These entries indicate the general health of the system. Note that some entries are reserved for system use.

Table 18 shows the possible values in the Property, Value2, and Value3 columns when the Component value is System.

**Table 18. Properties and Values for POST Logging, Component == System**

Property	Value2	Value3
ADSP Microphone Test	PASS   FAIL	NULL
CPU STATUS	PASS   FAIL	Status code
Display Hardware	PASS   FAIL	Detailed status
ETH0 TEST	NOT DONE	Reserved
ETH1 TEST	NOT DONE	Reserved
FIRMWARE CURRENT REV	NA	Reserved
FIRMWARE FACTORY REV	NA	Revision number for factory default version of EBOOT.bin in the format of 1.0.xxx.x
FIRMWARE REV	NA	Revision number for working version of EBOOT.bin in

Property	Value2	Value3
		the format of 1.0.xxx.x
HCD1: Initialize	PASS   FAIL	Status code
HCD3: Initialize	PASS   FAIL	Status code
LCD VERIFY	PASS   FAIL	Status code
NANDFLASH VERIFY	PASS   FAIL	Status code
NORFLASH VERIFY	NOT DONE	Reserved
OS REV	NA	Revision number for working version nk.bin in the format of 1.0.xxx.x
POST Version	NA	Reserved
PSTN	PASS   FAIL	Initialization
RTC VERIFY	PASS   FAIL	Status code
SDRAM TEST	PASS   FAIL	Status code
System Cable	PASS   FAIL	Status code
TOUCHCTL VERIFY	PASS   FAIL	Status code
UFN1: Initialize	PASS   FAIL	Status code
USBF ENUM STATUS	PASS   FAIL	Status code
USBH ENUM STATUS	PASS   FAIL	Status code
VDSP ENUM STATUS	PASS   FAIL	Status code

When component = VDSP, only the Property, Value2, and Value3 columns are used.

The Property column contains the name of the test. The Value2 column contains the status (PASS | FAIL | NOT DONE | NA). The Value3 column contains the detailed status code. These entries indicate the general health of the video subsystem.

Table 19 shows the possible values in the Property, Value2, and Value3 columns when the Component value is VDSP.

**Table 19. Properties and Values for POST Logging, Component == VDSP**

Property	Value2	Value3
Calibration	PASS   FAIL	OK   FAIL
Camera ID	PASS   FAIL	The camera ID
Camera Video	PASS   FAIL	XXXXX The health of each of the five cameras. X can be Y or N,

Property	Value2	Value3
		with Y = Pass and N = Fail
I2C Status	PASS   FAIL	OK   FAIL
POST	PASS   FAIL	OK   FAIL
Restarts	PASS   FAIL	Number of restarts since boot
Stack Health	PASS   FAIL	OK   FAIL
Video Port	PASS   FAIL	X Frames Dropped.
White Balance	PASS   FAIL	YES   NO (Expect yes)

When Component = ADSP, only the Property, Value2, and Value3 columns are used.

The Property column contains the name of the test. The Value2 column contains the status (PASS | FAIL | NOT DONE | NA). The Value3 column contains the detailed status code. These entries indicate the general health of the initialization phase of the audio sub-system.

Table 20 shows the possible values in the Property, Value2, and Value3 columns when the Component value is ADSP.

**Table 20. Property and Values for POST Logging, Component == ADSP**

Property	Value2	Value3
ADSP FBAB POST	PASS   FAIL	Detailed status

**Logging Type == Health** There are two types of health logging: system performance and usage. This section discusses system performance logging. Usage logging is discussed in the next section.

System performance refers to memory usage, system uptime, and health of the audio digital signal processor.

Table 21 shows the columns used and values logged in health logging.

**Table 21. Columns and Values Used in System Performance Logging**

Physical Column	Value Logged
DeviceType	CX5000
Date Time	Value of [Date Time]
ID	Value of [Product ID]
LoggingType	Health
Device Name	Value of [Device Name]

For performance logging, only the Component, Subcomponent, Property, and Value1 columns are used.

0 shows the possible values of these columns for System (either memory usage or uptime) and for audio digital signal processor (ADSP) health.

**Table 22. Possible Values for Component, Subcomponent, Property, and Value1 Columns**

Component	Subcomponent	Property	Value1
System	Name of exe that the property applies.	MemoryUsage	Usage in bytes
System	NULL	Uptime	Up time since boot.
ADSP	NULL	ADSP HEALTH	nI2CStatus:<#> : nSPIErrorCounts: <#> : nSPILastError: <#> : nI2SReadGlitchCount: <#> : nI2SWriteGlitchCount: <#> :

This section discusses usage logging. Table 23 shows the columns and values used when LoggingType == Health and Property == Usage.

**Table 23. Columns Used in Usage Logging**

Physical Column	Value Logged
DeviceType	CX5000
Date Time	Value of [Date Time]
ID	Value of [Product ID]
LoggingType	Health
Device Name	Value of [Device Name]

Table 24 shows the columns and values used in usage logging. This type of usage logging uses the Component, Property, Value1, Value2, Value3, Value4, and Value5 columns. The Value3 value is the session type, which can be one of PcAudio, PcVideo, or PstnCall. When VoIP is used with Polycom CX5000, a PcAudio usage entry is logged with the start time and end time. When video streams are used in Polycom CX5000, a PcVideo usage entry is logged with the start time and end time. When Polycom CX5000 is used as an analog phone, a PstnCall usage entry is logged with the start time, end time, originating phone number (configured in the Polycom CX5000 device configuration), and the first digit of the dialed phone number.

**Table 24. Values Used in Usage Logging When Component == System**

Component	Property	Value1	Value2	Value3	Value4	Value 5
System	Usage	Start time	End time	PcAudio	Null	
System	Usage	Start time	End time	PcVideo	Null	
System	Usage	Start time	End time	PstnCall	Phone number of the originating Polycom CX5000	First digit of dialed number

**Logging Type == Image Update**

- ④ To create a report on usage, import the diagnostics log into a database and create a view of all records where Component = System and Property = Usage.

Table 25 shows the columns used and values logged when LoggingType == Image Update.

**Table 25. Columns and Values Used in Image UpdateLogging**

Physical Column	Value Logged
DeviceType	CX5000
Date Time	Value of [Date Time]
ID	Value of [Product ID]
LoggingType	Image Update
Component	System
SubComponent1	<NULL>
SubComponent2	<NULL>
SubComponent3	<NULL>
Property	Version
Value1	Value of [EBOOT Version]
Value2	Value of [Nk.bin Timestamp]
Value3	Value of [Config Timestamp]
Value4	Value of [Last Update Time]
Value5	Value of [Image Update Success/Fail]

### Watson Dumps

If the **Log to the server** field is checked in the **Logging** section of the Polycom CX5000 device configuration, the device automatically logs to the same server in case of a crash. The dump files are in kdump format. IT Pros can submit these logs to CSS to file bug reports. The dump files can be read using Windows CE Dump Viewer. For more information, see

<http://www.microsoft.com/downloads/details.aspx?FamilyID=76B18828-09E4-4A87-A8E4-A06F2352B754&displaylang=en>.

The Watson logs path on the server is under the \RTLogs\DiagLogs\ directory. The Watson log files encode the device serial number, the date, and the software revision number in the following naming convention: <Device Serial Number>-YYYY-MM-DDHHMMSS-WATSON-1.0.<Device Software Revision Number>.0.kdump. An example Watson log file is 78491-322-0002937-00652-2007-06-08151023-WATSON-1.0.3626.0.kdump.

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## Known Tools Issues

- CX5000Manage.exe does not support more than one Polycom CX5000 device connected to a computer or laptop.
- CX5000Manage.exe does not exit if the USB cable is unplugged during a firmware image update. To exit CX5000Manage.exe in this situation, press CTRL+ C.
- The CE log cannot be read on the Office Communications Server 2007 or Microsoft Lync Server 2010 Update Service server. ReadLog.exe must be present on the server in order to read these logs. For more information, see [Interpret the CE Log](#).

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## Regulatory Information

Regulatory information for the countries in which the Polycom CX5000 is approved for use can be found in the Polycom CX5000 Regulatory Manual, which is shipped with the Polycom CX5000 product and is also available online at

<http://support.polycom.com/PolycomService/support/us/support/voice/index.html>

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## Support

### Polycom® Customer Support

(800) POLYCOM (765-9266)

<http://support.polycom.com/PolycomService/home/home.htm>

### Online Documentation

<http://support.polycom.com/PolycomService/support/us/support/video/index.html>

 Type *CX5000* to search the Knowledge Base. *Polycom CX5000System Release Notes*

- *Polycom CX5000 System Setup Guide*
- *Polycom CX5000 System Deployment Guide* (this document)
- *Quick Tips for Using the Polycom CX5000 System*
- *Polycom CX5000 System Users Guide*
- *Polycom CX5000 System Regulatory Information*

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## Safety Notices

### IMPORTANT SAFETY INSTRUCTIONS

When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, to include the following:

- Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
- Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
- Do not use the telephone to report a gas leak in the vicinity of the leak.

### SAVE THESE INSTRUCTIONS