
POLYCOM CMA DESKTOP INSTALLATION AND TROUBLESHOOTING GUIDE



First Nations Education Council

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Igor Aleks

418-842-7672

ialeks@cepn-fnec.com

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1. Introduction :

The Polycom CMA Desktop is a robust and full-featured video communication software client that is deployed and managed by the Polycom CMA Server at the FNEC. The CMA (Converged Management Application) delivers high definition video and voice communication and standards-based content sharing with other CMA desktop clients up through to the largest immersive tele-presence rooms. Users of this service for example, can interconnect to any Videoconference system located across the FNEC network through a high speed Internet connection. Unlike MSN and other mainstream desktop video services, the FNEC CMA service is strictly reserved for member use and can only be accessed by secure login assigned by the FNEC. For more information on Polycom CMA and other Video/audio technologies please visit their website: www.polycom.com .

Hardware and Software Requirements:

Before you start installing and using your CMA Desktop, please read and take into consideration the following essential information:

| Hardware and Software Requirements for CMA | |
|--|---|
| OS | Windows XP Professional with Service Pack 3 Windows Vista Professional with Service Pack 1 or greater Windows 7 |
| CPU | Basic video (Up to QVGA) <ul style="list-style-type: none">• 1.5 GHz Pentium 4• 1.2 GHz Pentium M/AMD Turion or higher Standard video (Up to CIF, People+Content) <ul style="list-style-type: none">• 2.0 GHz P4• 1.4 GHz Pentium M/AMD Turion 2.0 GHz or higher Premium video (Up to VGA, People+Content) <ul style="list-style-type: none">• 3.2 GHz Pentium• Pentium M/AMD Turion 2.0 GHz or higher HD Transmit (Up to 720p) <ul style="list-style-type: none">• Core Duo 3.0 GHz or Higher (720p transmit up to 15 fps)• Quad Core 2.0 GHz or higher HD Receive <ul style="list-style-type: none">• Core Duo 2.0 GHz or higher Note: SSE2 processor extensions are required for all processor types. |

| | |
|---------------------|--|
| RAM | Microsoft Windows XP - 1 GB Microsoft Windows Vista or Windows 7 - 2 GB |
| Video Memory | Minimum 256 MB video RAM recommended for Windows Vista or Windows 7 |
| HD | 33 MB |

The CMA application can be configured to operate at certain video resolutions in order to function properly based on your Internet connection capacity.

| Video Resolutions | | |
|--------------------------|--------------|--------------------------|
| Call Speed | Video | Format Resolution |
| < 64 kbps - 383 kbps | QVGA | 320x240 |
| 384 kbps - 511 kbps | QVGA (HVGA) | 320x480 |
| 512 kbps - 1023 kbps | VGA | 640x480 |
| 1024 - 1920 kbps | 720p (HD) | 1280x720 |

The CMA application requires that the following TCP ports be completely open in order to function. These settings are managed by your network administrator or Internet Service Provider.

| Inbound Ports | |
|-----------------------|---|
| Port | Function |
| 1720 (TCP) | H.323 Signaling |
| 1719 (UDP) | Registration, Admission, and Status (RAS) |
| 3230-3237 (TCP) | Call Signaling |
| 3230 - 3237 (UDP) | Media (RTP/RTCP) |
| Outbound Ports | |
| Port | Function |
| 443 (TCP) | Provisioning, Monitoring, Help Files, HTTPS |
| 389 (TCP) | LDAP |
| 5222 (TCP) | XMPP |

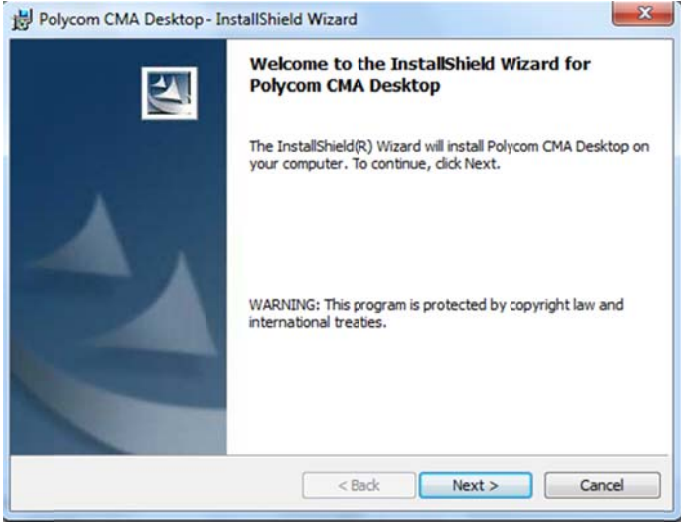
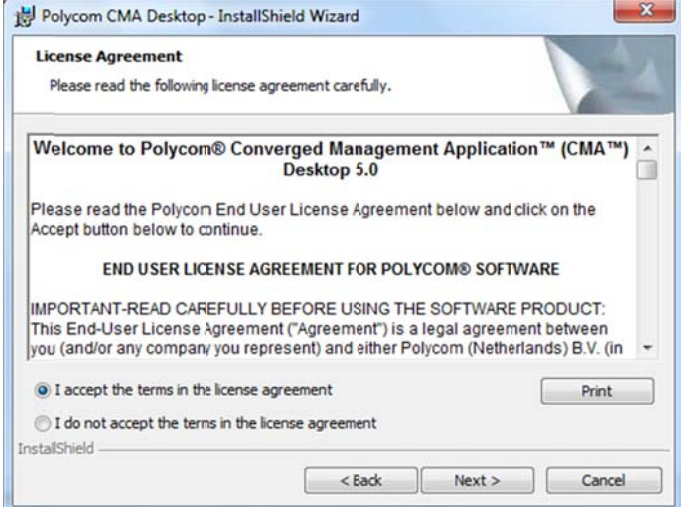
2. Polycom CMA Desktop installation

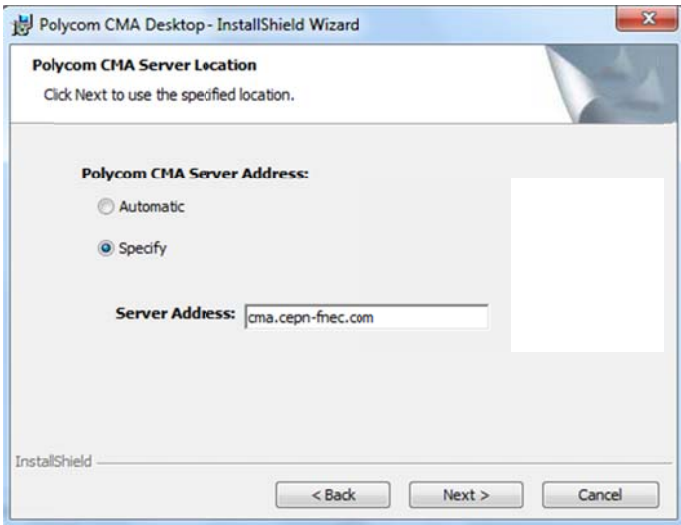
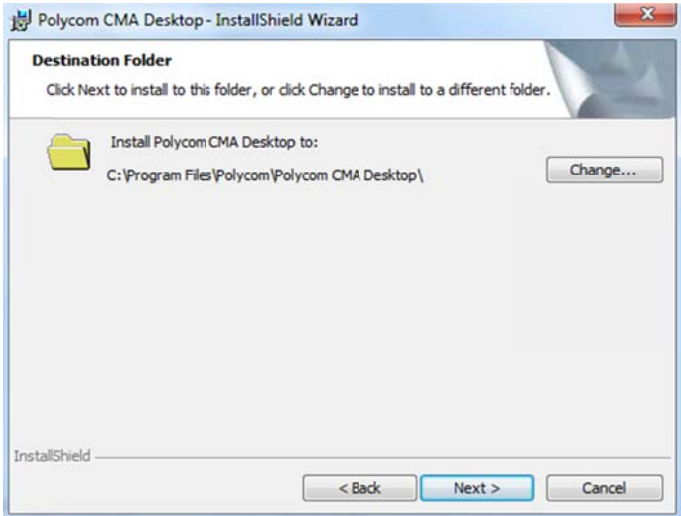

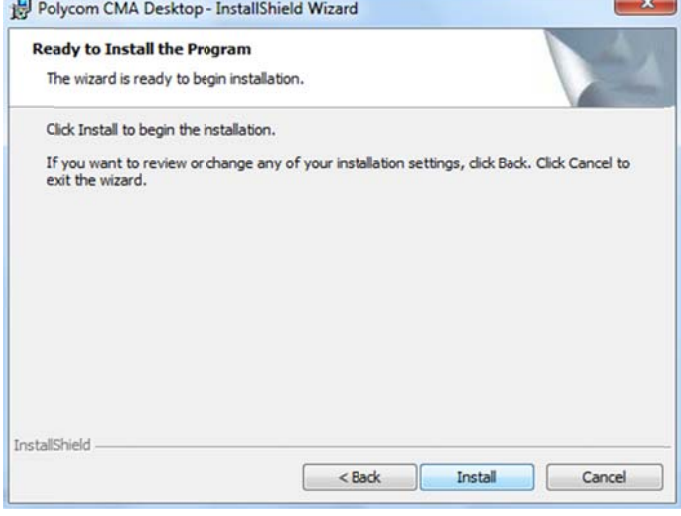
2.1. In your Internet browser, open the hyperlink:

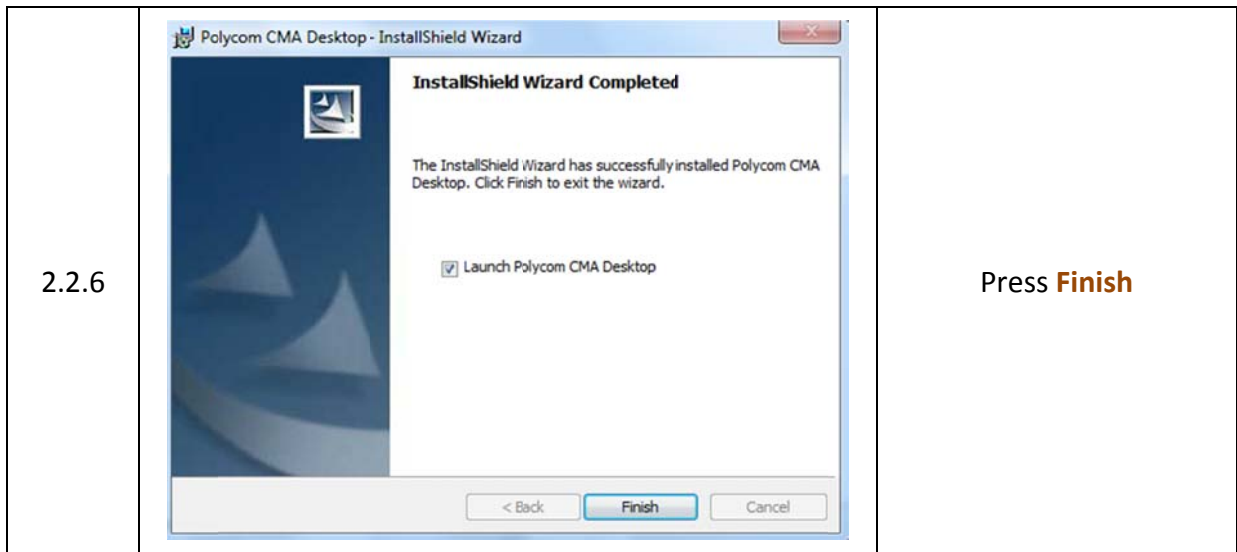
<http://www.cepn-fnec.com/cma>

Continue to click on the link to download the newest CMA version for your OS. That will be a file of *.msi* type (for example, *Polycom_CMA_Desktop_5_1.msi*).

2.2. Start the installation as administrator by right clicking the downloaded file and choosing "Run as Administrator" (after that you may be asked to enter the administrator password). Here you see the following steps:

| N | Screenshot | Description |
|-------|---|--|
| 2.2.1 |  | Press Next |
| 2.2.2 |  | Accept the license agreement and press Next |

| | | |
|-------|--|--|
| 2.2.3 |  <p>Polycom CMA Desktop - InstallShield Wizard</p> <p>Polycom CMA Server Location Click Next to use the specified location.</p> <p>Polycom CMA Server Address:</p> <p><input type="radio"/> Automatic</p> <p><input checked="" type="radio"/> Specify</p> <p>Server Address: <input type="text" value="cma.cepn-fnec.com"/></p> <p>InstallShield</p> <p>< Back Next > Cancel</p> | Specify the name of the CEPN CMA server: cma.cepn-fnec.com and then press Next |
| 2.2.4 |  <p>Polycom CMA Desktop - InstallShield Wizard</p> <p>Destination Folder Click Next to install to this folder, or click Change to install to a different folder.</p> <p> Install Polycom CMA Desktop to: C:\Program Files\Polycom\Polycom CMA Desktop\ <input data-bbox="945 835 1058 861" type="button" value="Change..."/></p> <p>InstallShield</p> <p>< Back Next > Cancel</p> | Press Next |
| 2.2.5 |  <p>Polycom CMA Desktop - InstallShield Wizard</p> <p>Ready to Install the Program The wizard is ready to begin installation.</p> <p>Click Install to begin the installation.</p> <p>If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.</p> <p>InstallShield</p> <p>< Back Install Cancel</p> | Press Install |



3. Polycom CMA Desktop- Starting CMA for the first time:

After the installation is complete, the CMA Desktop will be launched and you will be prompted to use your Windows user name and password. You should answer “**No**” (see the image 3.1).

Next, you need to enter your CMA credentials – username and password, which is provided by the FNEC. **If your OS is Windows XP or Windows Vista, you should insert *local* before your username. Example: *local\JSmith*.** Also, choose “Save your password” option (see the image 3.2).

In most cases, this is the end of the initial CMA Desktop configuration and you can start using it by pressing the “**Sign in**” button. If the configuration is correct, after a short connection period, you won’t see any message in the information field (see the image 3.3). If this is a case, you can proceed with connection tests. Otherwise, please refer immediately to the troubleshooting procedures described in this document.

Test your CMA:

To test the communication, you can use CMA addresses of any of your colleagues or you can communicate using the FNEC Technology Videoconference address **206.188.105.18**.

To inquire how to place a call, please refer to the **Polycom CMA Desktop User Guide**.

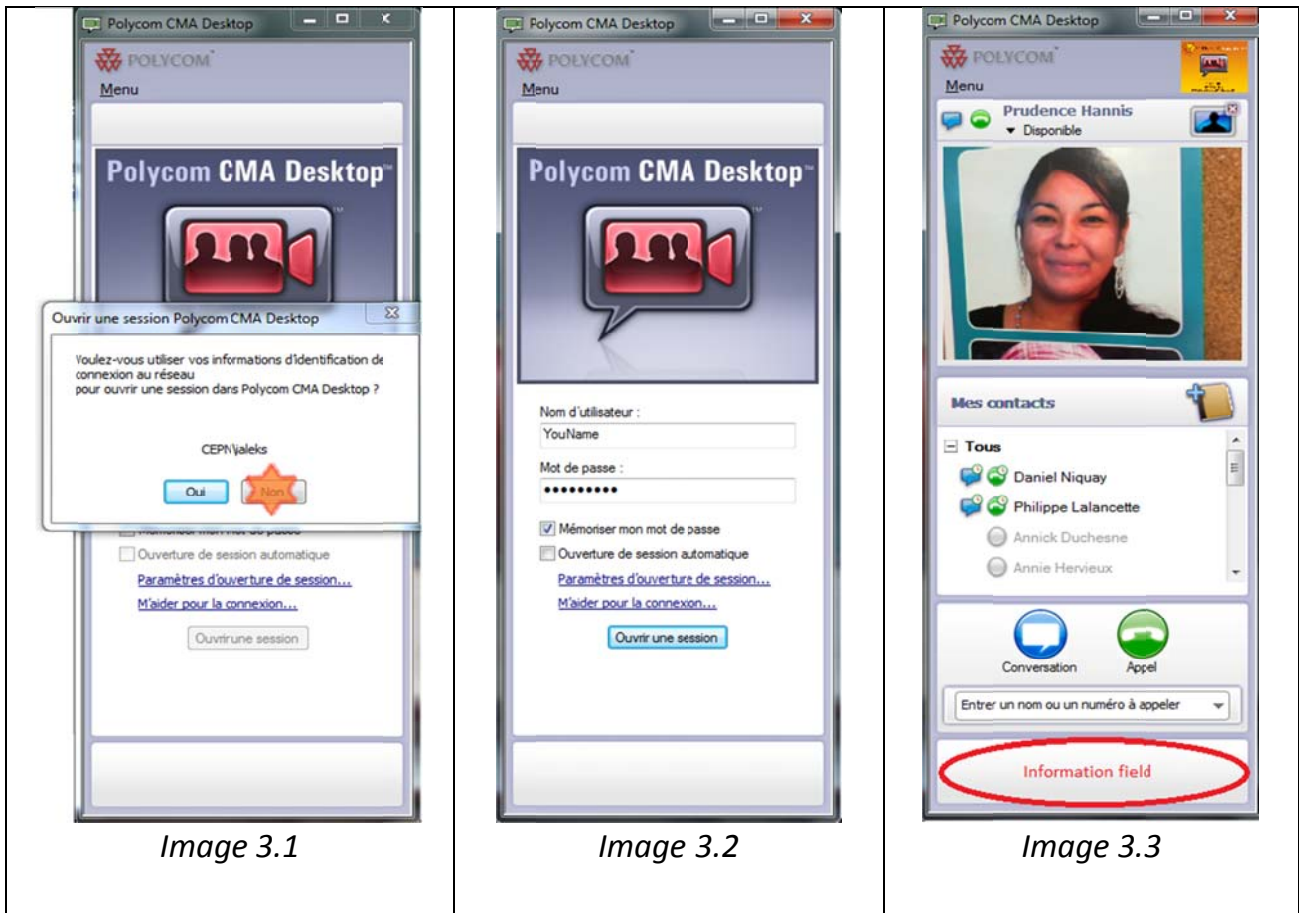


Image 3.1

Image 3.2

Image 3.3

4. Troubleshooting

4.1. If you see any notifications in the information field of your CMA Desktop, after having accomplished the sign-in process (see image 3.3), this is an indication that your CMA is not working properly.

To get more information about solving technical problems, click  .

Depending on the message(s) being reported by the application, you can apply the following corrective actions:

| N | Message | Corrective action |
|-------|--|--|
| 4.1.1 | Network connection is unavailable. | Ensure that your network cable is securely connected to your system. Ensure that your network adapter is installed and configured correctly. |
| 4.1.2 | Unable to connect to server. | Ensure that the provisioning server address (<i>cm.a.cepn-fnec.com</i>) is entered correctly. To do this, click Menu and then choose Preferences > Sign In . |
| 4.1.3 | Polycom CMA Desktop is not registered to the media server. | The ports TCP 1720, 3230-3237, 5222 and UDP 1719, 3230-3237 are to be opened. It might be necessary to configure your Windows Firewall or your home router. If |

| | | |
|-------|---|--|
| 4.1.4 | Polycom CMA Desktop is not registered to the presence server. | you use the enterprise network or you are not the one who manages your home network – contact your system administrator to make necessary adjustments. |
| 4.1.5 | The system CPU speed is not fast enough to support video calls. | Ensure that your processor is at least a Pentium 4 at 1.5 GHz or a Pentium M at 1.2 GHz. |
| | | Make sure that the system is running on AC power. |
| 4.1.6 | The selected camera is not available. | Close other CPU-intensive applications. Polycom CMA Desktop should detect the processor speed change within a few minutes. |
| | | Ensure that your camera is securely connected to your system. |
| | | Close other applications that are using the camera, or release the camera from within the other application. |
| | | If more than one camera is installed, go to Preferences > Video , and select a different camera. |

4.2. If you are not receiving video, try the following:

- If you are using a laptop, ensure that it is connected to a power source. Running on battery power can reduce the laptop's performance, resulting in poor video quality or no video.
- Ensure that your camera is connected to a USB port on your computer and not to a USB hub connected to the computer.
- Check the CMA Video Preferences:

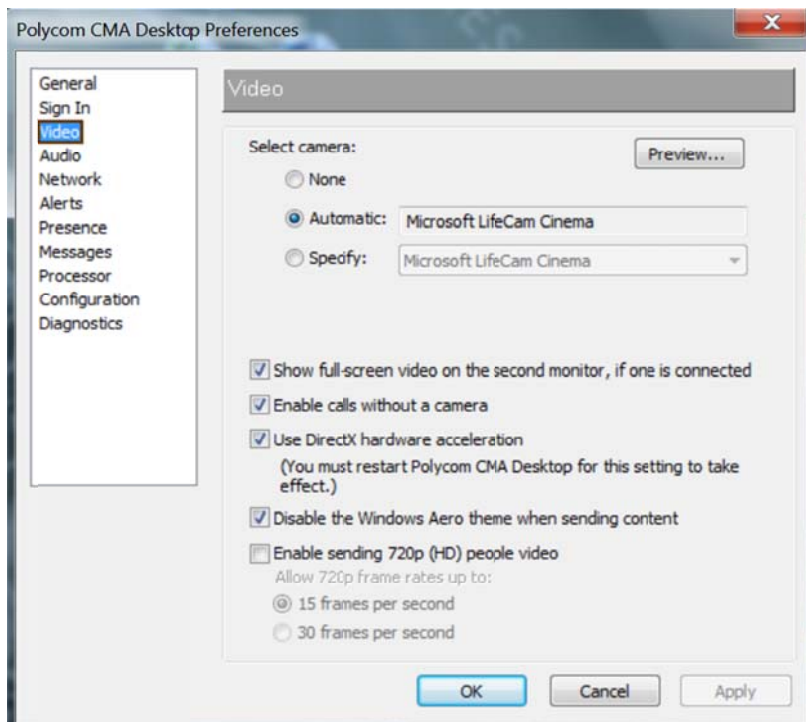


Image 4.1

4.2 (continued)

In the “Automatic” field, your active camera must be selected. If this is not the case, check “Specify” and choose your camera from the list. If your camera is not in the list – close the CMA Desktop and reinstall your camera. After that, repeat the steps below.

- Check your camera drivers. Ensure that you are using the latest software drivers for your camera. Refer to the camera manufacturer’s web site for more information. Using the operating system’s default camera drivers with your camera may result in problems with the video. To avoid this problem, install the latest drivers provided by your camera’s manufacturer.
- Check your video card.
- If you are using Windows Vista or Windows 7, verify that your system has at least 256 MB of video memory.
- You may need to add Polycom CMA Desktop to your Windows firewall exception list. To do this, from the Windows desktop, click **Start** and choose **Control Panel > Windows Firewall**. On the Exceptions tab, click **Add Program**. Browse to **c:\Program Files\Polycom\Polycom CMA Desktop\lvvsys.exe** and click **Open**. Browse to **c:\Program Files\Polycom\Polycom CMA Desktop\Polycom CMA Desktop.exe** and click **Open**. If you are using a third-party personal firewall on your computer, you may need to follow similar steps with that software. Consult your firewall documentation for more information.

4.3. If your video on the CMA screen is of poor quality, try the following:

- If you are using a wireless LAN connection, try using a wired LAN connection.
- Ensure that you have chosen the right internet connection speed. To verify it, go to the Menu-Preferences-Network and check the necessary option: See Image 4.2
- Try setting Polycom CMA Desktop to allocate system resources for best performance. To do this, go to **Preferences > Processor**. In the **Allocate system resources for best performance** field, choose **Polycom CMA Desktop**.
- Try enabling hardware acceleration. To do this, follow these steps: go to **Preferences > Video** (see image 4.1). Enable **Use DirectX hardware acceleration**. Exit from the Polycom CMA Desktop application, and then restart the application. Note: that hardware acceleration does not take effect until you restart the Polycom CMA Desktop application.

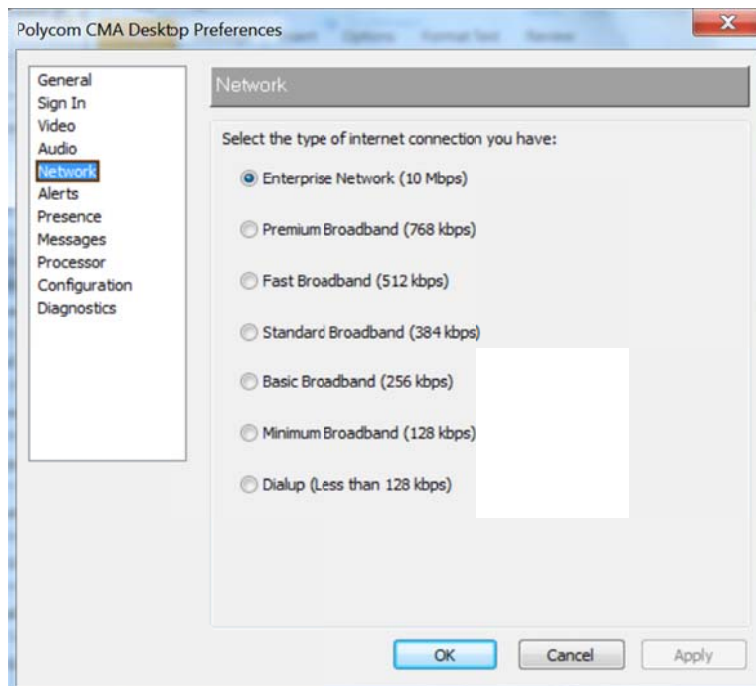


Image 4.2

4.4. If you are not receiving audio, try the following :

- Check the CMA Video Preferences (see *the image 4.3*): Go to **Menu > Preferences > Audio** and verify if the audio input/output devices indicated in the corresponding fields are the same that you are really using.
- You may need to add Polycom CMA Desktop to your Windows firewall exception list. To do this, from the Windows desktop, click **Start** and choose **Control Panel > Windows Firewall**. On the Exceptions tab, click **Add Program**. Browse to **c:\Program Files\Polycom\Polycom CMA Desktop\vvsys.exe** and click **Open**. Browse to **c:\Program Files\Polycom\Polycom CMA Desktop\Polycom CMA Desktop.exe** and click **Open**. If you are using a third-party personal firewall on your computer, you may need to follow similar steps with that software. Consult your firewall documentation for more information.

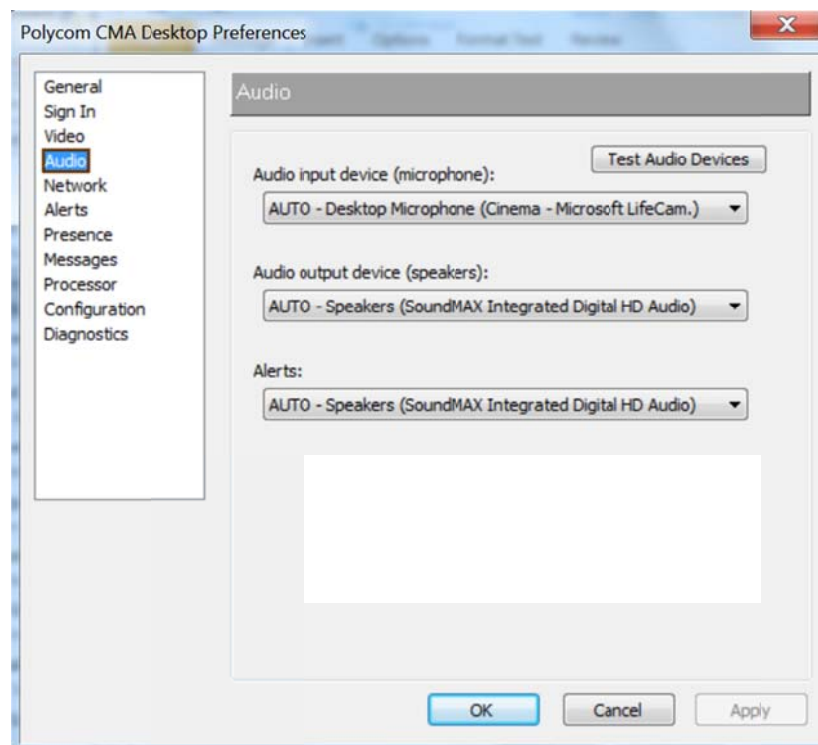


Image 4.3

4.5. Resolving echo or Feedback issues:

- Check your audio device's echo cancellation settings. If your audio device provides its own echo cancellation, be sure to enable it. Refer to the documentation you received with your device.
- Check your volume. For most effective echo cancellation, reduce the volume on your system's speakers, and then adjust the sound using the Polycom CMA Desktop volume controls.

- Place the microphone and speakers as far apart as possible. If you use a laptop's integrated speakers with the laptop's integrated microphone or with a webcam's microphone, connect external speakers to allow you to increase the distance between the microphone and speakers. If you still experience echo, use earphones instead of speakers. You can also use a headset instead of the microphone/speaker combination.