



# eyeBeam 1.11 User Guide

**Operations and Configuration Guide to eyeBeam  
CounterPath's Full-Featured Video Softphone**

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# Notice

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# Publication History

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# Interactive Aids and Conventions

The eyeBeam 1.11 User Guide makes use of the following interactive aids and conventions to help readers locate relevant information:

- Command-line input actions, as well as the names of files, classes and directories appear in `Courier` font.
- On-screen information and messages are represented in *Italics*.
- On-screen clickable actions and keyboard actions are represented in ***Bold Italics***.
- Names of menu items appear in **Bold**, with arrows separating parent-child relationships for applicable submenus.
- Cross-references within this document are hyperlinked and indicated by underlined text.
- External hyperlinks are represented by text that is [blue and underlined](#), and are clickable for accessing additional information outside this document.
- Important information is emphasized for users with sentences in SMALL CAPS.

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# 1 Introduction

## 1.1 What is eyeBeam?

eyeBeam is a software telephone with all of the features of traditional business telephones, including hold, transfer, and conferencing. eyeBeam also has video and messaging capabilities.

The following is a partial list of features included in the eyeBeam softphone.

- Instant Messaging with Presence
- Call Record
- Acoustic echo cancellation
- Message waiting indicator
- Audio & video tuning wizard
- Touch tones
- Call forwarding
- 10 party audio & video conferencing
- Speakerphone
- Caller ID
- Call timer
- Mute
- Direct IP calling
- Speed dial
- Hold
- Transfer
- Do not disturb
- Call ignore
- Send to voicemail
- Redial
- Login with up to 10 VoIP service providers
- 6 lines
- Advanced contact list
- List of received, missed and dialed calls
- Keyboard shortcuts for most major functions
- SIP Compliant
- STUN & ICE NAT traversal
- X-Tunnels firewall traversal client\*
- eyeBeam supports the following audio codecs: G.711u, G.711a, GSM, G.729, G.723, iLBC, G.722.2, SPEEX, DVI4, EVRC, L16
- eyeBeam supports the following video codecs: H.263, H.263+, H.264

\* Requires access to X-Tunnels NAT Traversal service – contact the appropriate service provider for details

## 1.2 How does eyeBeam Work?

Instead of making calls over traditional twisted-copper, fiber-optic, cellular or satellite telephone networks, calls made using eyeBeam work over computer networks through an internet service provider or a local area network. This breakthrough in telephony technology is called Voice over Internet Protocol – VoIP, or “Voice over IP.”

Calls made anywhere in the world to similar internet-based telephones are generally free, while calls made to traditional telephone systems can be much cheaper than typical long-distance

charges. Voice quality for conversations using VoIP technologies can greatly exceed traditional telephone services. Note that CounterPath Solutions, Inc. does not provide a telephone service, but instead offers software to use such services. Please refer to [Section 2.1.1](#) of this guide for information about VoIP service providers.

eyeBeam uses open standards, which permit inter-operability between products from all vendors in a given industry. Open standards give consumers a choice, rather than being locked-in to the proprietary solutions of one vendor. CounterPath Solutions plans to use open standards for future VoIP products as well, with hopes that customers will recognize CounterPath's commitment to open standards and excellence in high-quality VoIP softphones.

eyeBeam uses the Session Initiation Protocol (SIP) for session signaling, ITU codec standards for voice and video (G.711, G.723, G.729, H.263, H.264), and the SIMPLE standard for instant messaging (IM) and presence.

## 2 Installation and Setup

### 2.1 Before Installing

This section covers important information that is required before installing the software to use eyeBeam softphones.

#### 2.1.1 Finding a Service Provider

Note: If eyeBeam came as part of a VoIP service package, then this section will not apply. Please refer instead to the documentation from the applicable service provider.

The first step to making calls with VoIP technology is to choose a service provider. There are many VoIP service providers available; refer to a partial list of such service providers at <http://www.sipindex.com/>. NOTE THAT THIS PARTIAL LIST DOES NOT IMPLY COUNTERPATH RECOMMENDATIONS OR ENDORSEMENT OF ANY PROVIDER. CONSUMERS THEMSELVES ARE SUITED BEST TO MAKE SUCH ASSESSMENTS ABOUT VOIP SERVICES.

#### 2.1.2 Getting necessary information from a Service Provider

After choosing a VoIP service provider, eyeBeam users will need further information regarding specific account information. NOTE THAT NOT ALL OF THIS INFORMATION IS REQUIRED, DEPENDING ON THE SERVICE PROVIDER:

User Name \_\_\_\_\_  
Password \_\_\_\_\_  
Authorization User Name\* \_\_\_\_\_  
Domain \_\_\_\_\_  
Proxy address and port\* \_\_\_\_\_  
STUN server address and port\* \_\_\_\_\_  
X-Tunnels server address and port\* \_\_\_\_\_

\* value not used by all service providers

## 2.2 Minimum System Requirements

The following tables outline hardware and software requirements for installing eyeBeam:

### 2.2.1 eyeBeam for Windows

Processor:	Pentium II 300 (or equivalent)
Memory:	128 MB RAM
Operating System:	Windows 2000, XP, 2003 Server, or higher
Connection:	IP network connection (broadband, dialup, local, wireless)
Sound Adapter:	Full-duplex, 16-bit
Other:	Speakers and microphone, or headset

### 2.2.2 eyeBeam for Macintosh

Hardware:	Suggested configuration for Mac OS X version 10.2*
Operating System:	Mac OS X version 10.2 or later

\* Contact [apple.com](http://apple.com) for details

## 2.3 Multi-media Device Requirements

Since eyeBeam is a software application, both speakers and a microphone are required to make calls. Any of the following configurations are acceptable:

- External speakers and microphone
- Dual-jack multimedia headset
- Built-in microphone and speakers
- USB multimedia headset
- USB phone

Calls made with eyeBeam will work without a video camera, but one is necessary to allow other parties to see a caller's image. eyeBeam will work with most modern USB video cameras.

## 2.4 Installing eyeBeam

Installing eyeBeam is straightforward and follows familiar software installation procedure.

### 2.4.1 Windows installation

Follow the instructions below for a Windows installation of eyeBeam:

1. Exit any software applications that use sound such as CD and media players.
2. Run the setup executable file. This file will typically be called `eyebeam-CounterPath-win32-[build number].exe` or something similar. NOTE THAT THE INSTALLATION WIZARD WILL PROMPT USERS TO SHUT DOWN ANY VERSIONS OF EYEBEAM ALREADY RUNNING.
3. Follow the prompts offered by the installation wizard. NOTE THAT USERS MUST ACCEPT THE LICENSE AGREEMENT TERMS TO INSTALL EYEBEAM FOR WINDOWS.
4. Select **Launch eyeBeam** at the final step of the wizard to start using the softphone.
5. Click **Finish** to complete the installation.

### 2.4.2 Macintosh installation

Follow the instructions below for a Macintosh installation of eyeBeam:

1. The download file is an internet-enabled disk image; therefore most browsers should mount the file automatically. If this is not the case, locate and double-click the `.dmg` file after download.
2. Read the license agreement and click **Agree** to proceed. NOTE THAT USERS MUST ACCEPT THE LICENSE AGREEMENT TERMS TO INSTALL EYEBEAM FOR MACINTOSH.
3. Drag the application icon to the folder allocated for installation. This will normally be the `Applications` folder. If the user does not have permission to install to the `Applications` folder, eyeBeam can be installed to another folder of the user's choice.

## 2.5 Uninstalling eyeBeam

To uninstall an existing version of eyeBeam, follow the steps given below:

### 2.5.1 Uninstalling the Windows version

1. Launch the Windows Control Panel
2. Select **Add or Remove Programs**
3. Select the appropriate version of eyeBeam and click **Change/Remove** (or **Add/Remove**)

## 2.5.2 Uninstalling the Macintosh version

1. Click on the eyeBeam icon and hold it down
2. Drag the icon to the Trash.

## 2.6 Starting eyeBeam

Users can start eyeBeam for Windows and Macintosh by following the steps given below:

### 2.6.1 Starting eyeBeam for Windows

1. Click the **Start** button.
2. Select **Programs** (**All Programs** on some systems)
3. Select the eyeBeam folder (or the folder specified upon install).
4. Click the eyeBeam icon.

NOTE THAT USERS CAN ALSO LAUNCH EYEBEAM BY DOUBLE-CLICKING ON THE APPROPRIATE DESKTOP SHORTCUT ICON.

### 2.6.2 Starting eyeBeam for Macintosh

1. Open the folder containing the appropriate version of eyeBeam.
2. Double-click the eyeBeam icon.

### 2.6.3 License key

When starting eyeBeam for the first time, users will be prompted for a product-specific license key. Copy and paste this vendor-provided key into the on-screen field labeled *License Key*.

## 2.7 The Tuning Wizard

The eyeBeam software includes a Tuning Wizard that allows users to select available audio and video devices for use during calls. For example, with an installed USB web cam connected to a computer, the Tuning Wizard can help users select this device for softphone calls.

The Tuning Wizard appears automatically the first time a user runs eyeBeam. Users are advised to complete the wizard to ensure that all devices are working properly and are set at the proper level. NOTE THAT THE TUNING WIZARD WILL ONLY APPEAR ON ITS OWN THE FIRST TIME A USER STARTS EYEBEAM. USERS WILL HAVE TO LAUNCH THE WIZARD MANUALLY EACH TIME AFTER THAT (RIGHT-CLICK ON THE DISPLAY SCREEN TO ACCESS A CONTEXT MENU FROM WHICH THE TUNING WIZARD CAN BE LAUNCHED).

Follow the steps below to complete the Tuning Wizard:

1. Click *Next* to begin the wizard.
2. Choose which type of device to configure.
3. Choose the correct audio devices and mixers to use. Click *Next* to advance.
4. Adjust the speaker volume to a comfortable level. Click *Next* to advance.
5. Adjust the microphone volume; listen to the playback of the recorded sample and make changes if necessary. Click *Next* to advance.
6. Choose a video device, if applicable. Click *Next* to advance.
7. Choose the desired video quality, if applicable. Click *Next* to advance.
8. Click *Finish* to complete the wizard.

# 3 Using the Softphone

## 3.1 The Dial Pad

The eyeBeam softphone provides an easy-to-use dial pad as the main user interface, which allows for quick access to both basic and advanced calling features.

Refer to Figure 1 below for an illustration of the eyeBeam user interface.

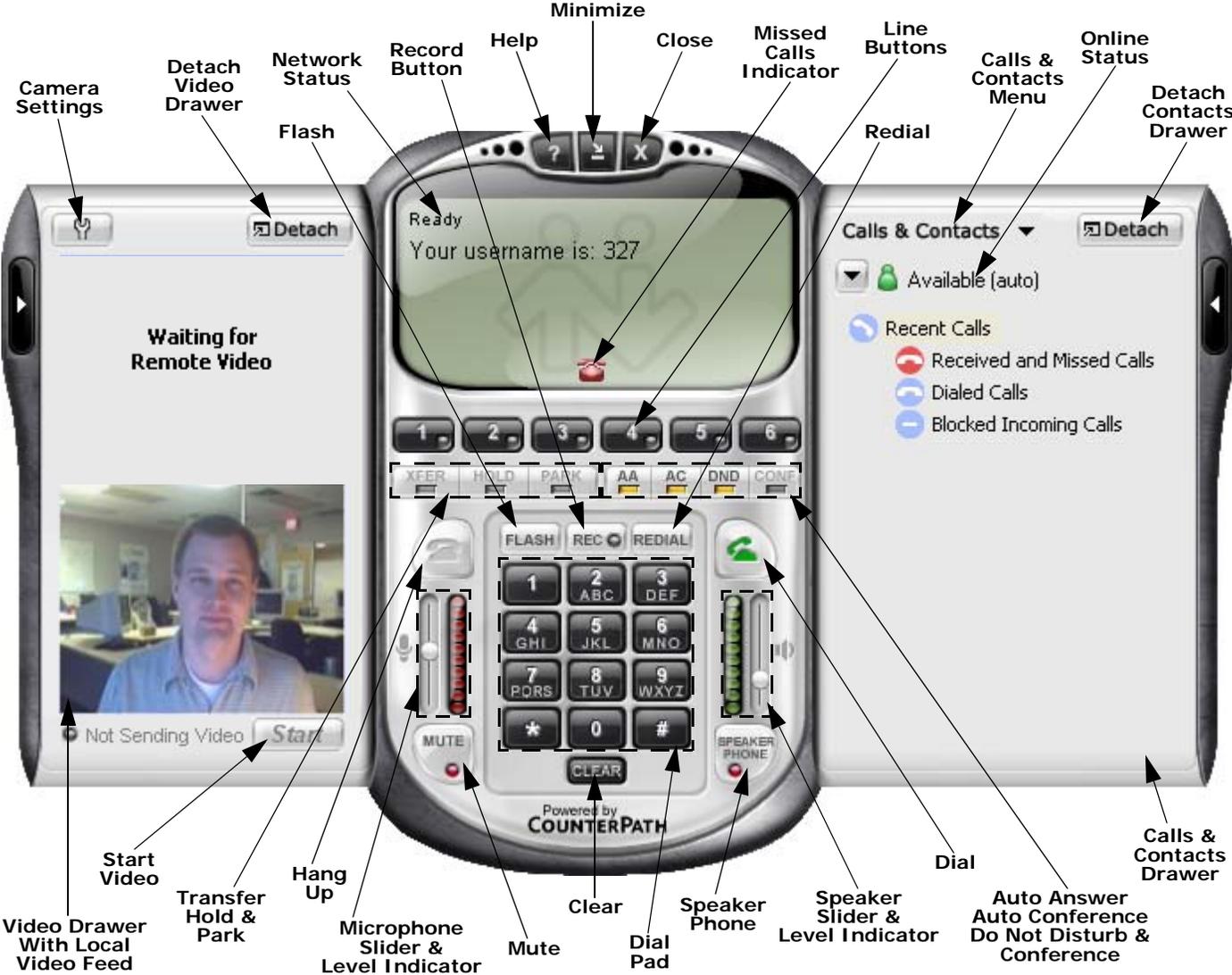


Figure 1 - The eyeBeam User Interface

## 3.2 Before Making a Call

### 3.2.1 Things to keep in mind

Making calls with eyeBeam is simple; there are, however, some differences between a softphone and a traditional telephone that of which the user should be aware:

1. A softphone is a computer application that must be running to make or receive calls.
2. Softphone software must login to the network before making or receiving calls. This procedure may take a few seconds as the softphone contacts the user's service provider network. Once the softphone's call status reads *Logged in – Enter Phone Number* the user is ready to make or receive calls.
3. Since calls are transmitted over the internet, service quality may drop due to network congestion. Although eyeBeam includes advanced signal processing features to mask the effect of such congestion, decreased voice quality may be noticeable during poor network conditions. Most broadband connections provide adequate bandwidth for high-quality voice & video. Users experiencing poor audio or video quality during their calls can refer to [Appendix A: eyeBeam Troubleshooting](#).

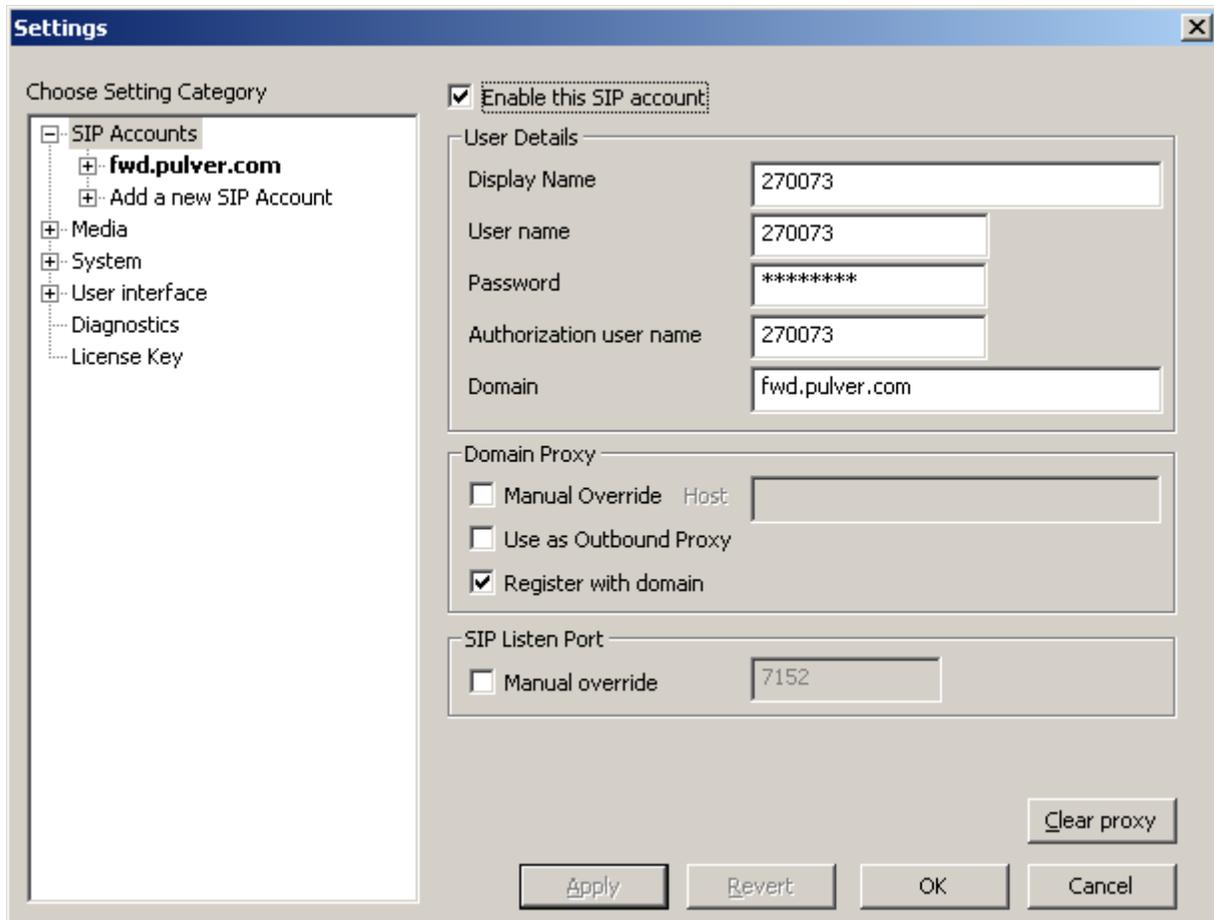
### 3.2.2 Logging in to a Service Provider

Upon eyeBeam start-up, when the dial pad first appears on-screen, users should see the messages *Initializing*, *Performing DNS Lookup*, followed by *Discovering Firewall...* in the call status screen. This normal eyeBeam behavior indicates that the softphone is discovering the user's network environment.

After discovering the appropriate network environment, users might see the message *Awaiting proxy login information*. This indicates that the user needs to enter VoIP service provider information—described in [Section 2.1.2](#)—to enable the softphone to login to the network.

eyeBeam allows users to configure a softphone to use more than one service provider. Setting up the softphone for multiple providers is covered in [Section 5.4.1](#).

Shown below is the eyeBeam settings dialog, which allows users to enter and/or edit settings for softphones. This dialog can be launched at any time by right-clicking on the main display window and choosing **Settings**, and is arranged as a tree with expandable branches similar to Windows Explorer. When finished entering a group of settings, the user can click **OK** to save changes and close the dialog.



**Figure 2 - VoIP Service Provider Information**

Complete the following fields to login to the service provider's network. NOTE THAT NOT ALL OF THESE FIELDS ARE REQUIRED, DEPENDING ON THE SERVICE PROVIDER.

- Enable this SIP account → Checked
- Display Name → *User name. This field is required.*
- User name → [from the VoIP service provider] (*often a "phone number"*)
- Authorization User name → [from the VoIP service provider]\*
- Password → [from the VoIP service provider]
- Domain → [from the VoIP service provider]

\* Value not used by all Service Providers

The remaining fields are not usually required by services providers, but may be useful depending on the user's local network configuration. Refer to an appropriate local network administrator if these fields are required for the proper use of eyeBeam.

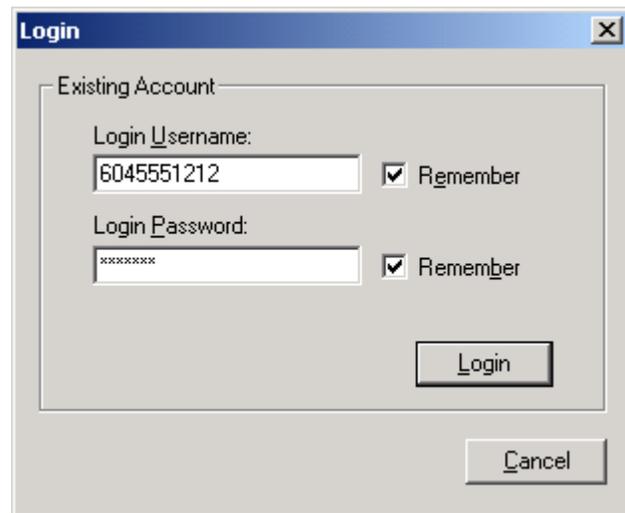
When finished entering all of the information, click **OK** to save the settings. If all required information is saved, the softphone will attempt to login to the service provider's network, indicated by a *Logging in ...* message in the call status screen.

**Important:** When the message *Logged in – Enter Phone Number* appears in the call status screen then eyeBeam is ready to make and receive calls. If users see the message *Login failed! Contact Network Admin* then they failed to login successfully and will not be able to make or receive calls. For such cases refer to [Appendix A: eyeBeam Troubleshooting](#) of this document, which includes troubleshooting tips for this and other potential softphone problems.

Some versions of eyeBeam come preset with appropriate service provider network information. For these versions, users may see a login dialog upon start-up that will prompt for a *username* (or *phone number*) and *password*—as shown in Figure 3 below.

The login dialog included with some versions of eyeBeam allows users to login to the appropriate service provider network by entering a username (or phone number) and password.

Users can click the **Remember** check boxes to the right of the input fields if they do not wish to re-enter login information upon each eyeBeam startup.



**Figure 3 - Login Dialog**

### 3.3 Placing a Call

As mentioned in the previous section, eyeBeam becomes ready to make or receive calls once users see the message *Logged in – Enter Phone Number* in the call status screen.

There are several ways to enter a phone number in eyeBeam. Users can click the digits of eyeBeam's on-screen numeric keypad, or they can enter the numbers/letters directly from their computer's alphanumeric keyboard.

Notice that as users begin entering a number, Line 1 becomes automatically selected as the line in use for that call—as shown in Figure 4 to the right.

If at any point users enter erroneous digits, clicking the *Clear* button within the dial pad or pressing *Backspace* on the computer keyboard will allow for corrections.

Note that as users enter a phone number they may see suggestions for completing that number (as shown in Figure 4). To enter the rest of the number as suggested, hit the *Tab* key on the computer keyboard to fill in the remaining digits.



Figure 4 - Dialing a Number

When finished entering a number, click the green *Dial* button within the on-screen dial pad or press *Enter* on the computer keyboard.

Like a traditional telephone, users will hear a ringing tone as eyeBeam tries to access the remote party; with a softphone, users will also see the message *Ringing* in the call status screen. When the remote party answers, users will see the message *Call Established* in the call status screen.

Users can also place a call by clicking on an available on-screen line button and dialing the appropriate number. Call conferencing is covered in [Section 4.1](#) of this document.

**Important:** When users place a call by simply dialing the number of the other party, they will most likely be using their default service provider for the call. eyeBeam allows users to have multiple service providers configured to place calls over a variety of networks.

To place a call via a service provider other than the default, users need to choose the desired provider (also called the proxy) before entering the number to dial. Making calls using multiple providers is covered in [Section 5.4.1](#).

Users can also dial a number by entering a valid SIP URL such as: *username@domain.aaa*

## 3.4 Ending a Call

As with traditional phones, softphone calls are brought to a close when either the eyeBeam user or the other party hangs up.

Users can end an active call by clicking the **Hangup** button within the on-screen dial pad. When a call has ended the message *Hung up* will appear in the call status screen.

After a call has ended, details of the call (such as the length of the call and the caller ID) will remain in the call display. To clear the display, click the **Clear** button.

## 3.5 Redial

To redial a number, click the **Redial** button within the on-screen dial pad.

## 3.6 Answering a Call

eyeBeam must be running to answer incoming calls. As users receive a new call, a ring tone will sound over the computer's configured speaker device. Users will hear the softphone ringing from whatever device (e.g. headset/USB phone) they configured within the Tuning Wizard (refer to [Section 2.7](#) for information about the Tuning Wizard).

If the softphone is hidden behind another window or minimized, the application will come into focus as the incoming call arrives.

Incoming calls will be indicated in the call display as shown in Figure 5 to the right.

Calls will arrive on Line 1 by default, and are indicated by a flashing light on the line button.

Users can choose to ignore calls by clicking the *Ignore* button found within the call status screen below the caller ID of the incoming call.



Figure 5 - Incoming Call

As a call arrives, click the *Dial* button (or press *Enter* on the computer keyboard) to answer. Users can also click the appropriate flashing line button to answer the incoming call.

### 3.7 Placing a Call on Hold

While engaged with a call, users can place that call on hold by either clicking the corresponding line button or by selecting another line altogether. The on-hold line's button will flash to indicate that its corresponding call has been placed on hold. To resume a call that is on hold, select the line again by clicking on the appropriate button.

### 3.8 Dial Pad Controls

As described below, the eyeBeam dial pad includes several controls which allow users to customize their softphone experience:

#### 3.8.1 Microphone and speaker adjustment

The eyeBeam dial pad includes microphone and speaker sliders as shown in Figure 1. Simply click on the slider and drag it up or down to increase or decrease the desired level.

Users may also mute the softphone so that the other party cannot hear what is being spoken. Press the *MUTE* button at the bottom-left of the dial pad to mute the phone. Press the button once more to take the phone off mute.

## 3.8.2 Codec selection

eyeBeam allows users to select which audio codec(s) to use for calls. Audio codecs describe the format by which audio streams are compressed for transmission over networks. While some codecs require less bandwidth than others, lower bandwidth often exhibits lower voice quality.

Users can enable codecs or change their properties by navigating to **Media -> Audio -> Advanced -> Codecs** in the **Settings** menu (right-click to access the **Settings** menu).

With only one codec enabled, all calls made will use that particular audio compression format. The G.729 codec consumes the lowest bandwidth, whereas the G.722.2 codec requires the most bandwidth but provides the best voice quality.

## 3.9 Context Menu

eyeBeam includes a context menu which allows users quick access to the following features:

- Tuning Wizard
- Privacy Management
- Settings Dialog
- Sip Account Status
- Diagnostic Log
- About Dialog

To launch the dial pad context menu, right-click (or **Control**-click for Mac users) anywhere over the on-screen dial pad.



**Figure 6 - Dial Pad Context Menu**

The Diagnostic Log contains important network and protocol information that may be useful for trouble-shooting various issues. For more on this see [Appendix A: eyeBeam Troubleshooting](#).

### 3.9.1 The Privacy Management window

The Privacy Management window allows users to customize the way in which contacts can reach them. Right-click the main eyeBeam window and choose **Privacy Management**.



## 3.10 Window Controls

At the top of the dial pad are the help, minimize, and close buttons (see Figure 1). Depending on the version running, the behavior of these buttons will vary as described below:

### 3.10.1 Window controls within eyeBeam for Windows

As expected, the minimize button will send the application to the Windows system tray. eyeBeam users will still be able to receive calls when the softphone is minimized. The close button will shut down the application altogether; users will not be able to receive calls after closing the application. NOTE THAT THIS BEHAVIOR IS DIFFERENT FROM PREVIOUS VERSIONS OF EYEBEAM SOFTPHONES.

### 3.10.2 Window controls within eyeBeam for Mac

As with other Mac OS X applications, the minimize button will send eyeBeam to the Dock. Like the Windows version, the close button shuts down the application in one step.

To hide the Mac version of eyeBeam, select ***Hide eyeBeam*** from the Application menu item labeled **eyeBeam** in the familiar Mac OS X menu bar. eyeBeam and all of its windows will become invisible, although its icon will remain in the Dock. Click on the icon in the dock to reveal eyeBeam once again. NOTE THAT WHEN THE PHONE IS HIDDEN, THE DOCK ICON WILL “BOUNCE” WITH THE *RING!* MESSAGE SUPERIMPOSED TO SIGNAL AN INCOMING CALL.

## 3.11 Help

Clicking the help button at the top of the dial pad will open the CounterPath Softphone Support Forum, where users can post any issue regarding the use of a softphone and receive help from other users and members of the CounterPath support team. NOTE THAT CO-BRANDED VERSIONS OF EYEBEAM MAY LINK TO THE SERVICE PROVIDER’S HELP SITE INSTEAD.

## 4 Extended Calling Features

Along with basic calling functionality, eyeBeam also includes many advanced features found in traditional business phones. These features include call conferencing and call transfer, each of which is covered in the following subsections:

### 4.1 Call Conferencing

eyeBeam allows users to establish a conference call which will let more than two parties to converse at once. Each party in the conference call can hear and speak to every other participant.

#### 4.1.1 Starting a conference call

Users may host a conference by calling the other parties involved, or by allowing them to arrange the call themselves. For example, users can create a simple three-way call by following the steps below:

1. With an active call on one of the lines, place the call on hold by either:
  - selecting another line and dialing a third party, or
  - accepting an incoming call from a third party by clicking the line on which the call arrives.

NOTE THAT EITHER OPERATION PLACES THE ORIGINAL PARTY ON HOLD.
2. After informing the arriving participant about the three-way call, click the **CONF** button (see Figure 1) to include all parties in the conversation.
3. To end a three-way call, click the **CONF** button again to place both parties on hold. At this point no participants can speak to one another.
4. Users can then talk to each party individually by selecting the appropriate line.

#### 4.1.2 Adding another party to the conference

To add another party to an existing conference call, complete the following steps:

1. Place the conference on hold by clicking the **CONF** button.
2. Invite another party to the conference on hold by either:
  - selecting the line of an incoming call, or
  - selecting an available line to initiate a call to an outside party.

NOTE THAT USERS SPEAK TO THE OUTSIDE PARTY WHILE THE CONFERENCE IS ON HOLD.
3. After advising the outside party that they will soon be part of a conference call, click the **CONF** button once more to re-establish the conference.

### 4.1.3 Removing a party from the conference

To remove a party from an existing conference call, complete the following steps:

1. Place the conference on hold by clicking the **CONF** button.
2. Select the line of the participant who wishes to leave the conference.
3. Say goodbye to the party then click the **Hangup** button.
4. Click the **CONF** button once more to re-establish the conference.

NOTE THAT A PARTY MAY LEAVE THE CONFERENCE ON THEIR OWN BY HANGING-UP. THEIR LINE WILL THEN BE INDICATED AS INACTIVE AND THE REST OF THE CONFERENCE WILL BE UNAFFECTED.

### 4.1.4 Multiple conference hosts

An eyeBeam conference call may include up to seven individuals – the conference host plus a participant on each of the six lines. Users can establish multiple conference hosts if they wish to “daisy chain” together a conference call with more than seven participants.

For example, one person may host six other parties (to occupy all of its available lines) with one of those parties being a conference of their own containing six other parties. This would bring the total number in the aggregate conference call to twelve.

In theory, such “daisy chains” would allow for an unlimited number of parties in a conference call; in a real scenario, however, the number of participants would be limited by bandwidth constraints at each of the conference host’s machines, causing audio quality to degrade more and more as new participants are added. For this reason, conference participants are advised to select lower bandwidth codecs such as G.729 to preserve audio quality during large conference calls.

### 4.1.5 Adding a party to the conference from the Contact Drawer

Users can also add a person from their Contact list to a conference call by right-clicking their name in the Contact drawer and selecting **Conference in [party’s name]**

## 4.2 Call Transfer

The eyeBeam softphone allows users to transfer an active call to a third party. The softphone allows two different types of call transfer: unattended and attended.

## 4.2.1 Unattended call transfer

Also called a “blind” call transfer, this type occurs when a user initiates a transfer without informing the third party that a call is coming their way. Follow the steps below to perform an unattended call transfer:

1. With an active call in progress, inform the person on the other end that they are about to be transferred to a third party, then click the **XFER** button (see Figure 1).
2. Dial the number to which the call is to be transferred.
3. Click the **XFER** button again to connect the original party to the third party.

When a transfer is complete, the remaining two parties will be speaking to each other and both will have ended their call with the transferor. Both lines corresponding to the other two parties will become free for use on the transferor’s softphone.

## 4.2.2 Attended call transfer

Also known as a “supervised” call transfer, this type occurs when—before making the transfer—a user first calls to inform the third party that a transferred call is coming their way. Follow the steps below to perform an attended call transfer:

1. With an active call in progress, select an available line with which to call the third party (selecting a new line will put the original call on hold).
2. Inform the third party that they are about to receive a call, then press the **XFER** button (see Figure 1).
3. Select the line associated with the original party to connect them to the third party.

When a transfer is complete, the remaining two parties will be speaking to each other and both will have ended their call with the transferor. Both lines corresponding to the other two parties will become free for use on the transferor’s softphone.

## 4.3 Call Forwarding

Users can set their eyeBeam softphone to forward incoming calls to a desired URL—which could be either another SIP User Agent, phone number or a voicemail address. Follow the steps below to set an existing SIP account in eyeBeam to forward to another URL:

1. Access the **Settings** dialog by either pressing **F8** or by right-clicking and choosing **Settings...**
2. Select **SIP Accounts** -> [**SIP account to forward**] -> **Advanced**
3. Under *Forward Settings*, select **Fowarding** -> **Go to forward URL** (or **Go to voicemail URL** for SIP accounts that support voicemail)
4. In the *Forward URL* field, enter the SIP URL or phone number to which the selected SIP account should forward calls
5. Click **OK**

## 4.4 Do Not Disturb

eyeBeam allows users to set their softphone to a *Do Not Disturb* mode. When the softphone is set to this mode all incoming calls will be sent to voicemail or given a “busy” indication. NOTE THAT DETAILED EXPRESSIONS OF THIS FEATURE ARE DEPENDENT UPON THE USER’S SERVICE PROVIDER NETWORK.

Do Not Disturb is toggled on/off by clicking the on-screen **DND** button.

## 4.5 Auto-Answer

eyeBeam allows users to set their softphone to Auto-Answer mode. When the softphone is set to this mode eyeBeam answers the call automatically after a wait time that can be changed from the **System** item found in the **Settings** menu.

Auto-Answer is toggled on/off by clicking the on-screen **AA** button.

NOTE THAT THIS FEATURE CAN BE COMBINED WITH *AUTO-CONFERENCE* DESCRIBED BELOW.

## 4.6 Auto-Conference

eyeBeam includes an Auto-Conference feature which can be enabled or disabled by clicking on the **AC** button. When combined with the Auto-Answer feature described above, eyeBeam can control the way participants get added to a conference. The different levels of control for managing a conference are shown in Table 1 below:

**Table 1: Conference Management**

Level of Control	Conference Process
<i>AA off / AC off</i> Manual conference	Conference Host manually accepts calls and adds each to conference – <i>see Section 4.1.2</i>
<i>AA on / AC off</i> Auto-answer, manual add to conference	eyeBeam automatically answers calls and the conference host manually adds each to conference
<i>AA off / AC on</i> Individual answer, auto add to conference	Conference host answers each call and each is automatically added to conference
<i>AA on / AC on</i> Conference Server Mode	eyeBeam acts as a fully automated conference server answering each incoming call and adding them to the conference

## 4.7 Flash

The Flash button on eyeBeam works the same way as flash on a traditional telephone. Clicking the hang-up button quickly on a traditional telephone performs the same task. Such actions are used sometimes to transfer calls or initiate three-way calling. Note that this functionality depends on the user's service provider.

To flash, click the *Flash* button within the on-screen dial pad.

- If the user is in an active call, clicking *Flash* will provide a new line
- If the user clicks *Flash* while receiving a call, the softphone will “pick up”
- If a line is on hold, clicking *Flash* will allow the eyeBeam user to speak with that person

## 4.8 Speakerphone

eyeBeam can work as a speakerphone as well. If a user normally speaks with a headset, they will require a second sound device—such as sound card or USB device—to use eyeBeam as a speakerphone. Run the Tuning Wizard (see [Section 2.7](#)) to set up a speakerphone sound device.

To activate the speakerphone, click the *Speakerphone* button. To de-activate the speakerphone, click *Speakerphone* again.

## 4.9 Call Record

eyeBeam can record calls. Perform the following steps to set the folder in which recorded calls are to be stored:

1. Open the **Settings** dialog
2. Choose the *Media* branch
3. Under **Folder for Media Files**, click the *Choose Directory* button
4. Choose the desired directory and click **OK**

To record a call, click the *REC* button at any time during the call. Click the button again to stop recording. Recordings will be saved as AVI files.

## 5 The Drawers & Settings Menu

As with similar features on cell phones, eyeBeam allows users to store a list of contacts in a virtual phone book. The softphone also includes a settings dialog, which provides access to a variety of relevant settings.

### 5.1 The Contact Drawer

To bring up the eyeBeam Contact Drawer, click the black button toward the extreme right edge of the softphone application.

To add a new contact, access the **Calls & Contacts** menu, then choose *Add A New Contact*. Enter the name, phone number or SIP URL.

Contacts can be grouped together. To create a new group, access the **Calls & Contacts** menu, then choose *Add a New Group*. This will create a new item in the contact list, which the user can rename at any time thereafter. To rename an existing group, right-click the group and choose *Rename Group*.

To move a contact to a group, simply drag the contact to that group.

To dial a contact's phone directly from the Contact Drawer, right-click the contact's name and choose *Place a Call*. If there is more than one number for this contact, eyeBeam will show a list of numbers from which to choose.

To close the Contact Drawer, click the same button at the right edge of the application. Users can detach the Contact Drawer from the softphone by clicking *Detach*, and can click *Reattach* to reattach a detached Contact Drawer to the softphone.

Right-click a contact to dial them or add them to a conference

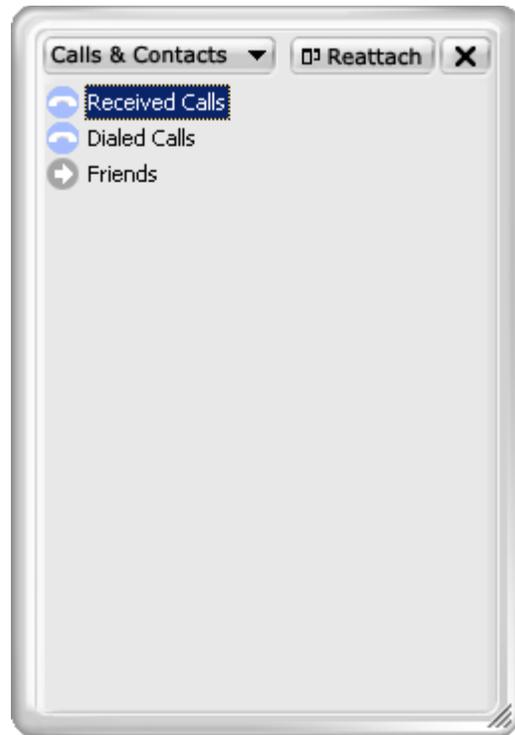
Users can drag a contact to any other group

Users can drag a contact to a Line or to the main display window to call them

To rename a group click the group name and wait one second

Click **X** at the upper-right corner to close and reattach the Contact Drawer to the Dial Pad

Drag a contact to an in-use Line to add them to a conference



**Figure 8 - The Contact Drawer**

### 5.1.1 Recent calls

As users make and receive phone calls, eyeBeam stores them in a list of recent calls. Click the ***Received Calls*** item in the Contact Drawer to view recent calls received.

Click the ***Dialed Calls*** or ***Received Calls*** item in the Contact Drawer to display a comprehensive list of calls.

Right-click any item to show its context menu. Using this context menu, users can do the following:

- Phone back the contact
- Mark the call as unanswered
- Delete the call from the list
- Add the caller to the user's contact list

## 5.1.2 Importing contacts

Select this option to import a list of contacts from another CounterPath client into the eyeBeam phone book.

Access the **Calls & Contacts** menu of the Contact Drawer, then choose *Import Contacts*. Find the appropriate CSV file on the client computer and click **OK**.

NOTE THAT USERS MUST FIRST EXPORT THEIR LIST OF CONTACTS FROM THEIR COUNTERPATH CLIENT TO A CSV (COMMA SEPARATED VALUE) FILE. PLEASE REFER TO THE APPLICABLE COUNTERPATH CLIENT DOCUMENTATION FOR INFORMATION ABOUT HOW TO DO THIS.

## 5.1.3 Exporting contacts

Users may also export all contacts stored in their eyeBeam phone book into a CSV file that can be imported later into an e-mail client.

To do this, select the *Export Contacts* menu item from the **Calls & Contacts** menu in the Contact Drawer. eyeBeam will prompt the user to specify the name and location of the CSV file containing their contact list.

NOTE THAT THE USER MUST REFER TO ANY APPROPRIATE E-MAIL CLIENT DOCUMENTATION FOR INSTRUCTIONS ON HOW TO IMPORT A CSV FILE CONTAINING A CONTACT LIST.

## 5.2 Instant Messaging

To send an instant message to a contact, right-click the contact, and choose *Send an Instant Message*.



**Figure 9 - The Instant Message Window**

Type a message in the bottom text area, then click *Send* on the right to send the message. Click the blue phone icon near the top of the IM screen to call the person for a voice conversation. Click the green icon to add them to the contact manager. Click the icon with the red circle to ban the person. A banned person will not be able to send any phone calls or instant messages to the user who banned them, and they will not be able to ascertain whether or not the user is online. Users can un-ban people previously banned using the **Privacy Management** window. Click the *X* icon to close the Instant Message window.

### 5.3 The Video Drawer

To bring up the eyeBeam Video Drawer click on the black button toward the extreme left edge of the softphone application.

To start video, click the **Start Video** button at the top of the screen. NOTE THAT NOT ALL VOIP SERVICE PROVIDERS ALLOW VIDEO.

Users will see their own image at the bottom and image(s) of the other party/parties at the top.

To configure a video camera, click the **Video Tools** button. The options available depend on the type of camera being used. For more information, please refer to the appropriate camera manufacturer's documentation.

Users can close, detach, and reattach the Video Drawer in the same manner as they would for the Contact Drawer.



Figure 10 - The Video Drawer

## 5.4 The Settings Dialog

Right-click on the eyeBeam softphone to bring up the context menu, then choose **Settings** to access eyeBeam's settings dialogs.

### 5.4.1 SIP accounts

Click **Add a new SIP Account** to add a new account

Enable this SIP account: Check this box to enable this SIP account.

Display Name: This is the value that will show on the call display window of many phones.

User name: This value is assigned to the user by their VoIP service provider. REQUIRED.

- Password: This value is assigned to the user by their VoIP service provider.
- Authorization user name: May be required by the service provider. The value is often blank, or the same as the user name.
- Domain: The domain name for the user's service provider.
- Domain Proxy Host: The fully-qualified domain name or IP address of the SIP proxy.
- Use as Outbound Proxy: Check this box to use the domain proxy host as an outbound proxy. Often an outbound proxy is used for call accounting and may be used to traverse firewalls.
- Register with domain: Check this box if users must register with their SIP proxy to receive inbound calls.
- SIP Listen Port: Set this value to specify the UDP port on which to listen for SIP messages.
- Clear Proxy button: Click this button to clear any information in the current dialog.

### Using dialing prefixes to access different SIP proxy accounts

When following the instructions provided in this section to configure a new SIP account, eyeBeam users can also designate an associated dialing prefix to use for making calls through that specific SIP account. To access a specific SIP account, enter the appropriate prefix before entering the desired number to call; to view or change the dialing prefix, access the **Settings** menu and complete these steps:

Expand the **Add a New SIP Account** sub-menu

1. Click on *Advanced*
2. Locate the *Dialing plan* input option and either:
  - use the displayed prefix to access the specific SIP account
  - change the prefix to one more acceptable for accessing the specific SIP account

#### 5.4.2 Firewall/NAT

- Send internal IP: Some firewall proxies require the user's internal IP address.

- STUN server: Set this value to enable eyeBeam to override the STUN host. The STUN protocol is the preferred protocol for detecting firewall and NAT status.
- Firewall Proxy: Set the DNS name or IP address of the firewall proxy of the user's local network.
- Enable ICE: Check this box to enable ICE. ICE is a protocol for detecting the shortest network path during a voice conversation, which can help overcome some problems with endpoints behind the same firewall.

### 5.4.3 Server-side storage

Use this dialog to indicate where to store contact information. Use either Local, or the information provided by the VoIP service provider.

### 5.4.4 Presence

Presence allows other users to see a user's online status, and for users to see that of others.

Use the information provided by the VoIP service provider.

### 5.4.5 XTunnels

X-Tunnels is a protocol to tunnel voice packets across firewalls.

- Use XTunnels: Set to *Never* to disable XTunnels. Set to *Default* or *Always* to enable XTunnels.
- Use SIP Credentials: Check this box to use the same username and password as the user's SIP account.
  - Username: Enter the appropriate XTunnels username if different from the user's SIP account.
  - Password: Enter a specific XTunnels password if different from the user's SIP account.
- XTunnels server: Enter the DNS name or IP address of the XTunnels server (if required).
- Protocol Version: Check this value with the VoIP service provider.
- Enable data encryption: Check this box to encrypt the voice and data traffic.

Enable message authentication: Check this box to ensure messages come from the expected source.

## 5.4.6 Media

Use this menu to configure headsets, speaker phones, and USB devices

Folder for Media Files: Set the location to save AVI files for recorded conversations.

Vertically flip AVI video: Check this box if video appears upside-down.

## 5.4.7 Media – Audio

Internal Sampling Rate: Change this value if the user's sound card produces a different sampling rate.

Enable PLC: Packet Loss Concealment (PLC) will improve audio quality during audio packet loss. Check this box to enable.

Automatic Gain Control: Automatic Gain Control (AGC) allows eyeBeam to adjust sound volume for optimal audio listening quality. Check this box to enable this feature.

Device Name: Select the audio device to use as a headset, speakerphone, or USB.

Force sampling rate to X Hz: Try entering different values if the user is having difficulties with their sound card.

Voice Activity Detection: Voice Activity Detection (VAD) allows eyeBeam to detect speech activity. Change these values to alter the sensitivity.

## 5.4.8 Media - Advanced Audio - Codecs

Move codecs to or from the enabled window using the arrow buttons.

NOTE THAT THE OTHER SETTINGS SHOULD NOT BE CHANGED.

## 5.4.9 Advanced Audio – Panic

NOTE THAT THESE SETTINGS SHOULD NOT BE CHANGED.

## 5.4.10 Video

Use this dialog to change video settings. Users may have to set video to the minimum value before making incremental moves up to determine the best video settings for their system.

## 5.4.11 System settings

Use this dialog to change voicemail, auto answer, and auto dial settings.

Auto Dial Enabled: Check this box to enable auto dialing after a certain time span. If the user is unable to dial the number before eyeBeam starts dialing, uncheck this box.

Product Information: Technical Support may ask for this value to identify the appropriate softphone version.

## 5.4.12 Network settings

Auto-detect IP address: If eyeBeam is having difficulty detecting the correct values, uncheck this box and enter the user's local and NAT IP addresses instead. This is often useful when on a VPN.

## 5.4.13 User Interface

Always on top: Check this box to force the user interface on top of all windows at all times.

Launch when Windows starts: Check this box to allow eyebeam to start when the user logs in to Windows.

Letters to digits mode: Check this box to allow dialing by letter (e.g. 1-800-EYE-BEAM to call 1-800-393-2326).

Message: Change the message that others will see when the user is away from their computer.

#### 5.4.14 Diagnostics

Set advanced diagnostics options here. Press **F9** to view the diagnostic log. NOTE THAT THE USER'S TECHNICAL SUPPORT REPRESENTATIVE MAY ASK TO ADJUST VALUES ON THIS DIALOG.

#### 5.4.15 License key

Enter the product license key here. The VoIP service provider or softphone reseller will provide this key to users.

## 6 Application Hot Keys

eyeBeam includes a number of keyboard shortcuts available for many of its functions. A list of these is shown in Table 2 below:

**Table 2: Application Hot Keys**

Function	Keyboard Shortcut
Select Line 1	F1 or Ctrl + 1
Select Line 2	F2 or Ctrl + 2
Select Line 3	F3 or Ctrl + 3
Select Line 4	F4 or Ctrl + 4
Select Line 5	F5 or Ctrl + 5
Select Line 6	F6 or Ctrl + 6
Tuning Wizard	F7 or Ctrl + 7
Settings Dialog	F8 or Ctrl + 8
Diagnostic Window	F9 or Ctrl + 9 (Command-D for Mac)
Toggle Letters-to-Digits	Space bar (Windows only)
Auto complete (number to dial)	Tab
Clear	Backspace
Dial	Enter
Help	Ctrl + F1
Auto-Answer (AA)	Ctrl + a
Contacts (Buddies)	Ctrl + b
Do Not Disturb (DND)	Ctrl + d
Auto-Conference (AC)	Ctrl + f
Hang up	Ctrl + h
Call Ignore	Ctrl + i
Mute	Ctrl + m (Space bar for Mac)
Conference	Ctrl + n
Hold	Ctrl + o
Exit	Ctrl + q
Redial	Ctrl + r
Send to Voice Mail	Ctrl + s
Transfer	Ctrl + t
Paste	Ctrl + v
Inc/Dec Speaker Volume	Up/Down Arrows
Inc/Dec Microphone Volume	Right/Left Arrows

# Appendix A: eyeBeam Troubleshooting

The following is a guide to troubleshooting various issues that may arise when using the eyeBeam softphone. Users may find solutions to common problems explained within.

## Networking Problems

This guide assumes that the user's internet connection is working. If that is not the case, please contact the appropriate internet service provider.

### Login timeout

If the user gets a *Login Timed Out* error message, they may have entered their username or password incorrectly. Double-check these values with the VoIP service provider. Users also may have problems contacting a SIP proxy server. Make sure the user's computer can ping the computers listed in Table 3 below. If the user cannot contact any one of these computers, there may be difficulties with softphone calls.

**Table 3: Relevant Network Hosts**

Computer
SIP Proxy
Outbound SIP Proxy (if applicable)
STUN Server
DNS Server
X-Tunnels Server (if applicable)

Ping is a network utility used to determine if a remote computer is alive and reachable across a network.

### How to ping a computer (Windows):

1. Click the **Start** button
2. Click **Run...**
3. Type `command`
4. Click the **OK** button
5. The Windows Command Prompt will open
6. At the prompt type `ping <computer address>`, where `<computer address>` is the domain name or IP address of one of the computers in the above table.

7. If the result is *could not find host*, or *request timeout*, that computer is not available. Please contact the appropriate VoIP service provider for assistance.

### How to ping a computer (Mac OS X):

1. Launch the *Network Utility* found in the Applications/Utilities folder.
2. Click on *Ping* from the list at the top.
3. Enter the address of the computer and click *Ping*.

## Firewall and NAT issues

If a user computer is behind a firewall, certain ports must be open for eyeBeam to be able to communicate with a VoIP service provider. The required ports are listed below in Table 4. Please refer to applicable firewall documentation for help on opening ports.

**Table 4: Standard Ports**

Port Type and Number	Service
UDP 3478	STUN
UDP 5060	SIP
UDP 8000	RTP
UDP 8001	RTCP

Two additional ports after 8001 are required for each additional line used. For example, if using a second line, UDP ports 8002-3 are used.

If the user computer is behind a firewall from which it is impossible to open such ports, contact the VoIP service provider regarding firewall traversal solutions such as X-Tunnels.

If the firewall restricts incoming connections, the user may need to use an Outbound Proxy to properly receive audio. Ask the VoIP service provider for a Outbound Proxy address and port number, then enter those values into eyeBeam in the following location:

**Settings Menu -> Proxies -> [User's SIP Proxy] -> <Outbound Proxy>:<Port>**

Users must also set the *Use Outbound Proxy* field (found with the above setting) to *Always*.

Port forwarding is not required on a user's NAT.

## Multiple IP addresses on the same computer

If a user's computer has more than one IP address, eyeBeam may have difficulty choosing the correct address for softphone calls. To set the correct IP address manually, configure the following settings as instructed below:

**Settings Menu -> System -> Network -> Auto-Detect IP Address: *Unchecked***

Local IP Address: *[User Computer's IP Address]*

NAT Firewall IP Address: *[IP Address of the user's NAT or firewall]*

Another solution is to disable all but one network adapter until after eyeBeam starts.

## RPort attribute

Some VoIP providers do not support the "rport" signaling attribute. Check with the VoIP service provider for details. To turn off "rport" configure the following setting as instructed below:

**Settings Menu -> Proxies -> [User's Proxy] -> Advanced Options -> Use rport: *Unchecked***

## Audio Problems

This guide assumes that the user computer's sound and video system are working normally, and that the user has run the Tuning Wizard at least once. To run the Tuning Wizard, right-click over the dial pad, and select *Tuning Wizard*.

There are several factors that may affect sound quality when using eyeBeam. These include the quality of the network connection, network device quality, and headset model. Some of the common problems experienced are given below, along with some useful tips on how to minimize their effect:

### Audio contains pops at loud points in voice

Popping sound is a symptom of over-modulation. Ask the other party to decrease their microphone slider and/or adjust the microphone gain.

## Audio contains bothersome background noise

Significant background noise can be due to the level of the silence threshold. Have the other party adjust their silence threshold, which they can do by running the Tuning Wizard covered in [Section 2.7](#).

## Audio sounds choppy in a conference

Poor conference audio may be caused by upload bandwidth limitations. For example, some sites have 1 Mbps download bandwidth, but only 128 kbps upload bandwidth. Under such conditions, try multiple hosts for the conference, or have all participants disconnect and switch to a lesser bandwidth audio compression codec such as G.729.

## Poor sound

Poor or scratchy sound is a symptom of a problem with network connections, or a faulty network card. The following issues could contribute to poor sound quality:

- There may be packet loss on the IP network. Check the network performance, latency, and throughput. A 200-millisecond round trip latency as determined from a ping should deliver good audio quality.
- Older network devices may have performance problems. Make sure to use the latest driver.

## There is an echo there is an echo

The following tips may be useful for reducing echo heard during the conversation:

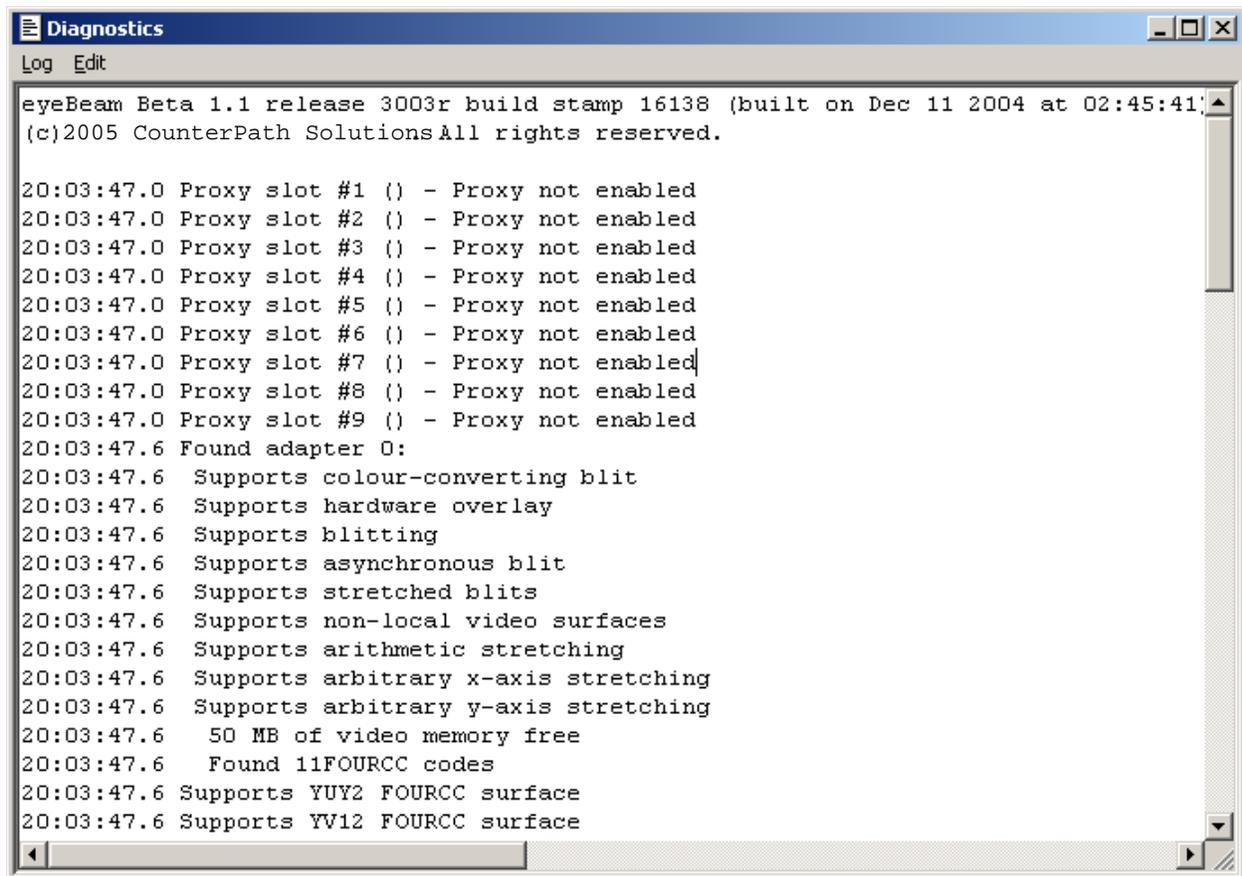
- Try using a headset with plugged into the sound card. Another suggestion is to use a USB-enabled headset, which bypasses system sounds by acting as its own sound device.
- If using a boom type headset, note that some boom headsets can create feedback between the boom microphone and the headset earpiece.
- The microphone balance is not muted in the playback section of Windows audio controls. When configuring sound, examine the volume control setting.
- Echo will occur if the user's microphone can pick up sounds coming from the speakers used for the softphone call (when not using an integrated headset).
- The microphone level might be too high or the amplifier might be turned on in the generic Windows audio controls.

## One-way audio

If a firewall restricts incoming connections, users may get only one-way audio. Configure eyeBeam to use the service provider's Outbound Proxy (if available), as explained under [Firewall and NAT issues](#) earlier in this appendix.

## Diagnostic Log

eyeBeam writes diagnostic information to a log file. Users can view this log file by pressing **F9** on their keyboard. The log is rather cryptic, but when having difficulties with eyeBeam, it may become necessary for the user to e-mail the log to their technical support representative.



```
Diagnosics
Log Edit
eyeBeam Beta 1.1 release 3003r build stamp 16138 (built on Dec 11 2004 at 02:45:41)
(c)2005 CounterPath Solutions All rights reserved.

20:03:47.0 Proxy slot #1 () - Proxy not enabled
20:03:47.0 Proxy slot #2 () - Proxy not enabled
20:03:47.0 Proxy slot #3 () - Proxy not enabled
20:03:47.0 Proxy slot #4 () - Proxy not enabled
20:03:47.0 Proxy slot #5 () - Proxy not enabled
20:03:47.0 Proxy slot #6 () - Proxy not enabled
20:03:47.0 Proxy slot #7 () - Proxy not enabled
20:03:47.0 Proxy slot #8 () - Proxy not enabled
20:03:47.0 Proxy slot #9 () - Proxy not enabled
20:03:47.6 Found adapter 0:
20:03:47.6 Supports colour-converting blit
20:03:47.6 Supports hardware overlay
20:03:47.6 Supports blitting
20:03:47.6 Supports asynchronous blit
20:03:47.6 Supports stretched blits
20:03:47.6 Supports non-local video surfaces
20:03:47.6 Supports arithmetic stretching
20:03:47.6 Supports arbitrary x-axis stretching
20:03:47.6 Supports arbitrary y-axis stretching
20:03:47.6 50 MB of video memory free
20:03:47.6 Found 11FOURCC codes
20:03:47.6 Supports YUY2 FOURCC surface
20:03:47.6 Supports YV12 FOURCC surface
```

Figure 11 - The Diagnostic Log