i-PhoneNet

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eyeBeam

Softphone Setup

May 2005

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1. Requirements and Installation

System Requirements
This section covers the minimum hardware and software you will need to use with eyeBeam client on a personal computer.

- **Processor**: Pentium III 300 MHz or higher
- **Memory**: 256 MB RAM or higher
- **Operating Systems**: Microsoft® Windows® 2000, XP Home and Professional (sp1)
- **Online Capability**: Wired or wireless broadband Internet connection
- **Sound Card**: Full-duplex, 16-bit
- **Color Setting**: 16 bit (High Color)
- **Other**: Speaker and microphone, or headset

Internet Connectivity

- Any kind of TCP/IP connection including wired and wireless Ethernet or wide area connections (WAN) like xDSL, Frame Relay, full or fractional E1/T1, etc.
- Minimum internet bandwidth connection is 256 kbps. More bandwidth is required if you intend to run other internet applications concurrently using the same access link.

Firewall Settings
i-PhoneNet service works with or without a firewall in place.

If your computer is behind a firewall, certain ports must be opened for eyeBeam to be able to communicate with the i-PhoneNet network. The required ports are listed below

	Feature	Instructions	Remarks
1	RTP & Signaling	Allow inside to outside UDP 2727, 5060, 8000 to 8999	Default Feature

2. Installing eyeBeam (One time process)

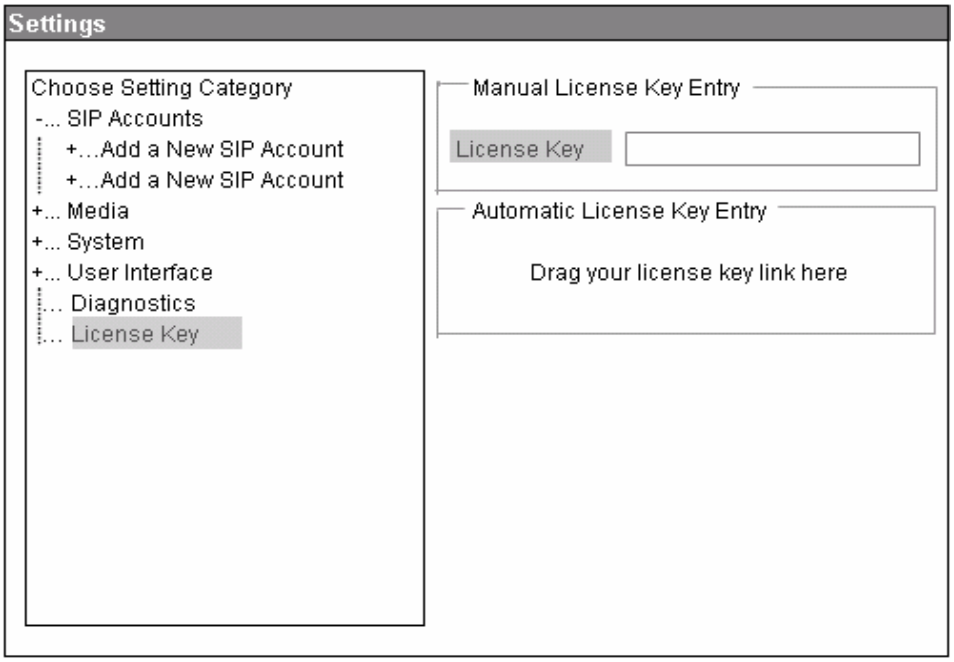
To install eyeBeam

1. Make sure to exit any software applications that use sound, such as CD and media players.
2. Run the **eyeBeam** install program.
3. Follow the instructions at each step, progressing through the InstallShield Wizard until the installation is complete. At the InstallShield Wizard Complete step, click **Finish.**
4. Select **Launch eyeBeam** at the final step of the wizard to start using the softphone for configuration.

   Important: To make and receive calls, you must configure the application to connect to i-PhoneNet network. This information registers you with the network; please note the Login Status line on the **eyeBeam** display.

License Key

eyeBeam will prompt for your license key when you start the program. Copy and paste the license key from the vendor into the field labeled License key.



The Audio Tuning Wizard

The eyeBeam softphone includes an *Audio Tuning Wizard* which allows you to select an available audio device (and video device if applicable) to be used for calling.

The Audio Tuning Wizard will automatically appear the first time you run eyeBeam. It is strongly advised that you complete the wizard to make sure that your audio devices are working properly and are set at the right level. The steps are as follows:

1. Click ***Next*** to begin the wizard.
2. Choose which type of device you would like to configure
3. Choose the appropriate audio devices and mixers to use. Click ***Next*** to advance.
4. Choose 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 your video device, if applicable. Click ***Next*** to advance.
7. Choose your video quality, if applicable. Click ***Next*** to advance.
8. Click ***Finish*** to complete the wizard.

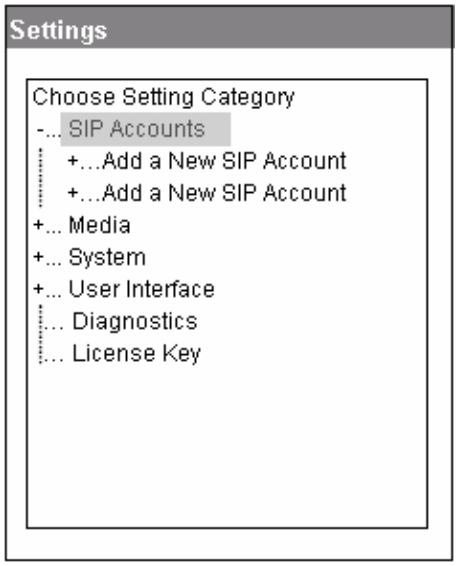
Note: The Audio Tuning Wizard will automatically appear the first time you start eyeBeam. You will have to launch the wizard manually each time after that.

3. eyeBeam Soft Phone Setup

There are some settings that you need to configure on the softphone to work with i-PhoneNet. You need to configure the following steps manually

Configuring the SIP Account

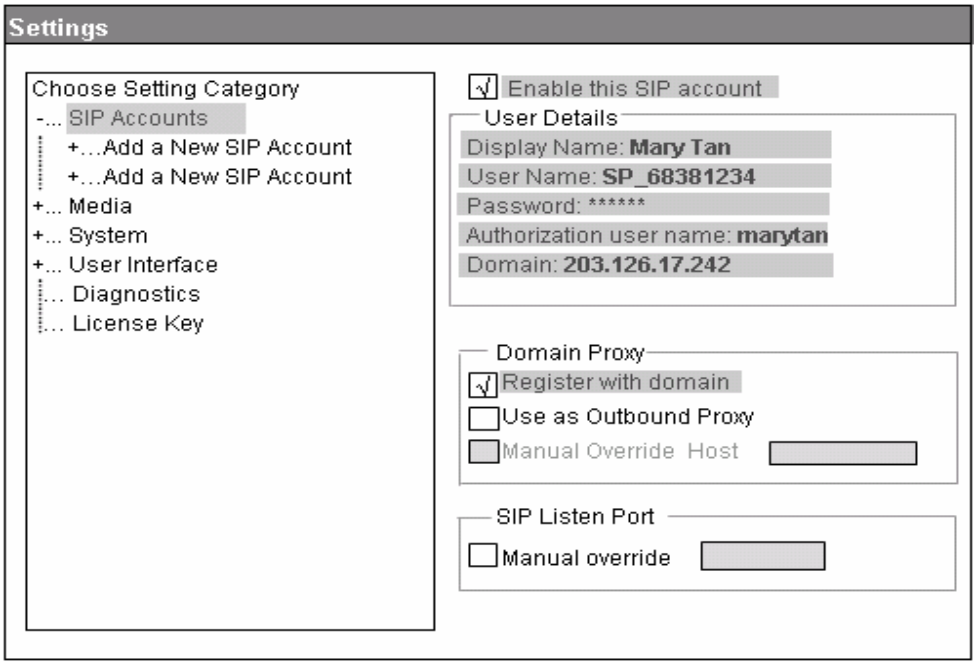
1. Start eyeBeam client
2. Right-click on the main display window, and select ***Settings***
3. Select ***SIP Accounts***



4. Set the following fields:

Field	*Default Values*	*Remark*
Enabled this SIP account	*Yes*	
Display Name.	Not required	
User name	"**SP_**********" were ******** is your i-PhoneNet number	e.g **SP_68381234**
Password	Same as the "Authentication User Name" under "Utilities" in the i-PhoneNet web portal. The default value is your web portal log-in UserID excluding the domain name if you had not changed the "Authentication User Name" under "Utilities" in the i-PhoneNet web portal previously.	
Authorization user name	For first time i-PhoneNet subscribers (both analog & IP phone) and existing subscribers with analog lines, the Password is derived using the web portal password convention as for the default Web Portal password. For existing IP phone line subscribers, the password is the same as the "Authentication Password" under "Utilities" in the i-PhoneNet web portal. If you forget your password, please refer to 1608 to reset it. Please also see Authentication User and Password below.	e.g. marytan
Domain	203.126.17.242	
Enabled Register with domain	*Yes*	

Please note that the "**Authorization User**" and "**Password**" is the same as the "Authentication User Name" and "Authentication Password" under "Utilities" in the i-PhoneNet web portal. If you change the "Authentication User Name" and "Authentication Password", you should also change the "**Authorization User**" and "**Password**" in the softphone. To reset your Authentication Password, please call 1608. However, please note that your IP phone will also be reset. For Cisco 7905 users, SingTel will have to reset the IP phone manually and subscriber has to coordinate with SingTel for the password reset



4. Quick User Guide

You can start eyeBeam in the familiar ways for Windows as described below.

Starting eyeBeam for Windows

1. Click the ***Start*** button.
2. Select *Programs.*
3. Select the eyeBeam folder (or the folder specified upon install).
4. Click the eyeBeam icon.
   You can also launch eyeBeam by double-clicking on the short-cut icon on your desktop.

Place a Call

1. With eyeBeam you can make calls by dialing on the dial pad, by using the speed dial list, or by using the computer keyboard.
2. At the dial pad, enter a phone number by clicking on the dial pad number buttons or by typing directly on your PC keyboard. Click the ***Call*** button, or press ***Enter*.**
3. You will note the ***Caller ID*** display line shows the actual number and domain being dialed.
4. eyeBeam status line displays the *Trying* message while the system processes the number you dialed and contacts the phone dialed.
5. Once the system establishes contact, eyeBeam starts timing the call and the status line displays the *Connected M*essage. Once the call starts, just speak into the microphone.
6. When you're ready to hang up, click ***Hang-up***. While dialing, you may need to clear a phone number from the display. This is done clicking on the ***Clear*** button found above the dial pad.

Answer a Call

When your computer receives a call, you will hear a ringing sound. Simultaneously, the line 1 button will began flashing and the Caller ID (if you have subscribed) will display the identification of the calling party.

Redial the Last Number

To perform a redial, click on the ***Redial*** button on the dial pad

Placing a Call on Hold

While you're on a call in progress, you can place a call on hold simply by selecting another ***Line*** button. The active call is automatically placed on hold and the ***Line*** button flashes to indicate the call is on hold. To resume the call, re-select the line button where the active call is located. Alternatively, you may place a call on hold by clicking its ***Line*** button and resume the call by selecting the ***Line*** button again.

Ending a Call

As with traditional phones, a call is brought to a close when either you or the person you are talking to actively ends the call. To end a call, simply click the red ***Hang Up*** button at the left of the dial pad.

eyeBeam also supports other features, please refers the list of features from eyebeam User's Guide from XTEN.

5. Troubleshooting

This section describes some common remedies in case you experience difficulties while using **eyeBeam.**

Sound Quality Issues
There are several potential factors that can affect sound quality that are not controlled by the soft phone. These include the quality of the network connection, LAN/WAN card quality, headset model, and the distance between the soft phone and a wireless access point.

Sound has pops at loud points in voice
Popping sound is a symptom of a problem with over modulation. Ask the party to decrease the microphone slider and/or adjust the microphone gain.

Sound has bothersome background noise
Significant background noises and sound is a symptom of a problem with the setting of the silence threshold. Have the party click on the microphone icon. Both a silence threshold slider (triangular icon to the right of the microphone meter) and meters for the microphone volume and the speaker volume will appear. The silence threshold should be set approximately 10% above the ambient noise as shown on the microphone meter.

Poor Sound
Poor or scratchy sound is a symptom of a problem with your network connection, network performance, or network card and access point drivers.

1. If you're using **a wireless internet connection**, you may be out of range of an access point.
2. **Radio Frequency (RF)** interference originating from multiple access points on similar channels or other devices nearby can cause sound quality problems. To prevent this, you or your network administrator must configure access points so they are separated by at least five channels. Be careful when setting up the eyebeam softphone not in lab areas where there tends to be higher RF interference.
3. There may be **packet loss on the IP network**. Check the network performance, latency, and throughput. 200 millisecond round trip latency as determined from a ping should deliver good quality audio.
4. **Network cards or access points** may have performance problems. Make sure you are using the latest drivers

There is an Echo

1. Try using a headset with your sound card. Another suggestion is to use a USB-enabled headset which bypasses system sounds because it acts as a sound device. However, if you have network problems (such as an access point that is being used at or beyond its capacity), installing a USB-enabled headset will not help, and you or your network administrator needs to troubleshoot the network.
2. Are you using a boom type headset? It has been noted that some boom headsets that sit on the ear can create feedback between the boom microphone and the headset.
3. You may be too close in distance to the person you're speaking to. If you're too close you will hear both the voice being delivered from their microphone, and your microphone picking up the person's voice in the same room or down a hallway. Together, it sounds like an echo.
4. The microphone balance is not muted in the playback section of Windows audio controls. When you are configuring sound, you may need to examine the volume control setting.
5. You, as the caller will hear echo if your microphone can pick up your speaker sounds, such as when not using a headset.
6. Microphone level may be too high or amplifier is turned on in the generic Windows audio controls.

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