Personal USB VoIP Gateway
User's Guide

USB Gateway

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Welcome

The Personal VoIP Gateway is an exciting new device that let's you make and receive Skype™ calls using your standard telephone handset.

After you follow the simple installation you will be able to do the following:
- Continue to make and receive regular calls as you normally do
- Make and receive Skype™ calls using your standard telephone
- Forward Skype™ calls to your mobile phone
- Make Skype™ calls from your mobile phone even when you are away from your computer
- Switch between a Skype™ call and a regular phone call
- Make 3-way conference call between PSTN and Skype™
- Manage Skype™ voice mail in regular phone
- Record
- Answering Machine

Please view the readme.txt that is installed with the VoIP Agent. It lists any known issues that may exist.

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Package Contents

The Personal VoIP Gateway package includes the following (note that your particular hardware and cables may look slightly different than shown below).

1. Personal VoIP Gateway

2. USB Cable

3. Telephone Cable

4. CD-ROM-DRIVER

5. User's Manual in CD

6. Quick Start Guide in CD

USB Gateway

Requirements

In order to install the USB Gateway you will need the following:
1. USB Gateway
2. USB cable
3. RJ11 cable
4. Telephone (regular telephone, cordless phone, DECT phone, …)
5. Telephone service (for conf call, 3 way calling and forwarding features)
6. Broadband internet service is recommended
7. PC with the following minimum specifications:
   o Pentium 400MHz or equivalent
   o Windows 2000 or XP
   o Available USB port (1.0, 1.1 or 2.0)
   o Skype™ version 1.1.079 or higher (www.skype.com) must be installed
   o 128MB RAM
   o 10MB available hard disk space
   o CD-ROM drive to install VoIP Agent from the supplied CD-ROM

Note that the USB Gateway must be connected directly to the PC USB port or to an AC Powered USB hub. It CANNOT be installed on a bus powered USB hub.

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USB Gateway Installation

DO NOT CONNECT THE USB GATEWAY TO YOUR COMPUTER UNTIL INSTRUCTED TO DO SO BY THE INSTALLATION WIZARD

The following instructions will guide you to through the process of installing the Personal USB Gateway.

The installation procedure is to:
- Install Skype™ (step 1 below)
- Start the USB Gateway installation (step 2 below)
- Plug in the USB Gateway WHEN INSTRUCTED TO DO SO (step 2 below)
- Verify the installation is OK (step 3 below)
- Connect a telephone handset to the USB Gateway (step 4 below)
- Connect the USB Gateway to the wall jack (step 5 below). Note that this is optional and only required for the forwarding and conferencing features.
- Use your USB Gateway to make and receive Skype™ calls
- Use the USB Gateway as an answering machine

The detailed instructions follow:

STEP 1: If Skype™ is not already installed on your computer, visit http://www.skype.com and follow the instructions there to install Skype™. Verify that Skype™ is working before installing the USB Gateway.

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STEP 2: Insert the supplied CD-ROM into your PC CD-ROM drive. The installation should start automatically. If not, open the installation folder on the CD-ROM and double click on the **setup.exe** program as shown below.
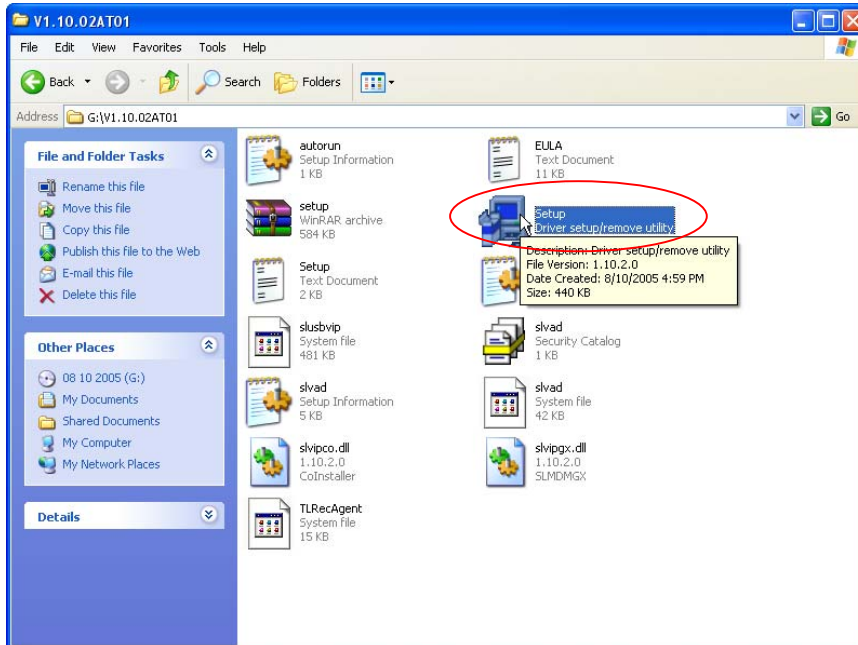
You will see the following popup. Press Yes to proceed or No to cancel.
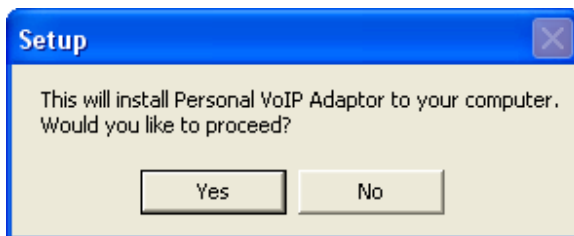
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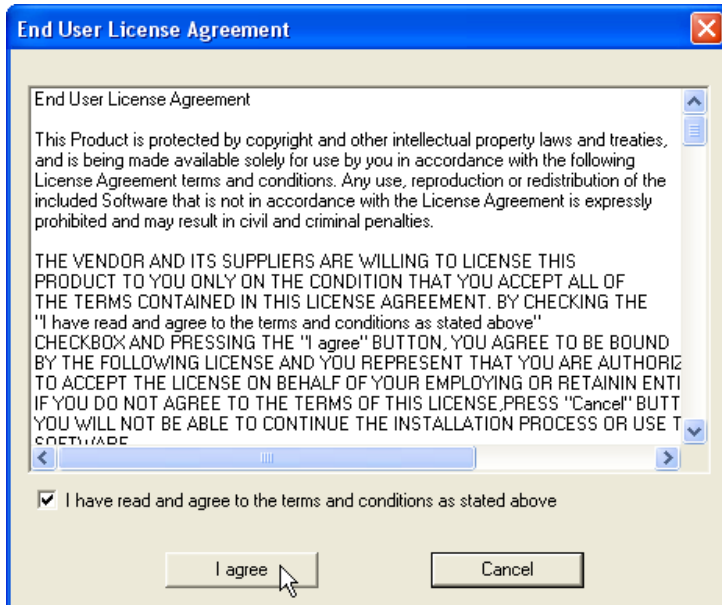You will see the End User License Agreement. Click the "I have read …" checkbox and press the *I Agree* button as shown below.

You will see the following progress bar below indicating that the installation is proceeding.
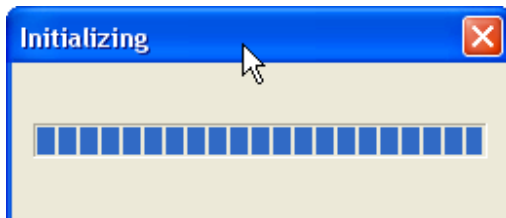
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Wait until you see the following popup and press the OK button.

Connect the USB cable to the USB Gateway USB port as shown below:

The other end of the USB cable must be connected to a USB port on your computer as shown below,

or to an AC Powered USB hub.

The USB Gateway MUST not be connected to a bus powered USB hub.

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You will see the following Windows *New Hardware Found Wizard*.

Select *Install the software automatically (Recommended)* and press the **Next** button.

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The installation will continue and you will see the following screen.
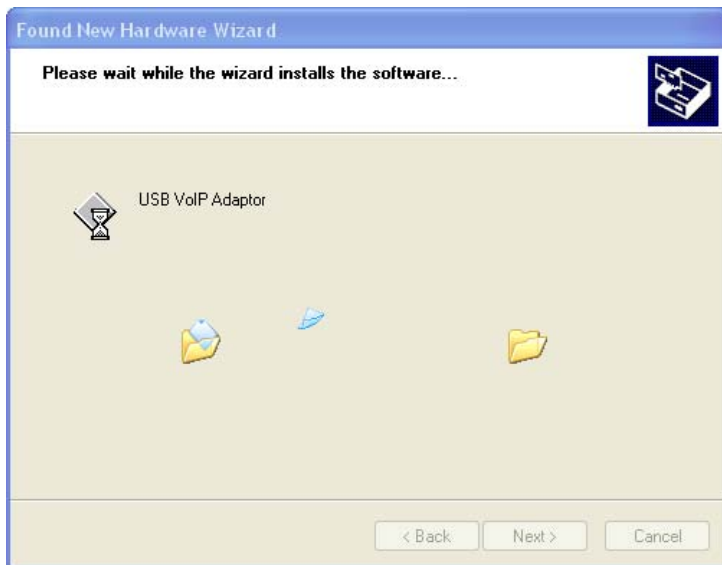
When you see the following screen, press the **Finish** button.
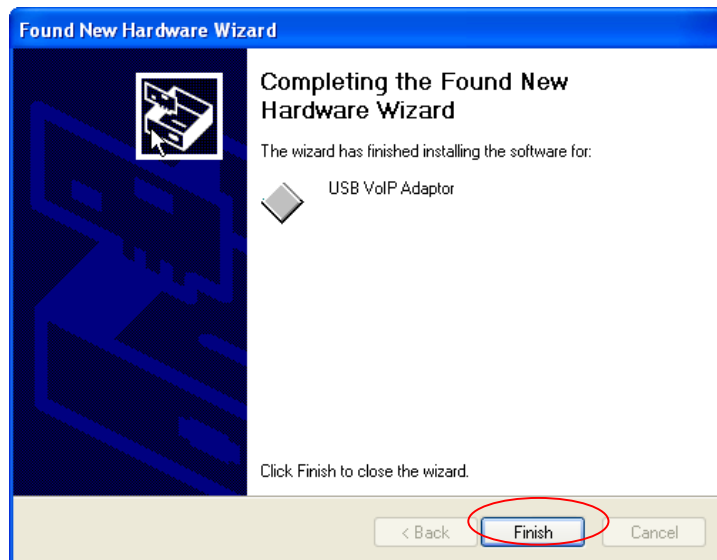
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Then you will see the following Windows *New Hardware Found Wizard* screen.

Select *Install the software automatically (Recommended)* and press the **Next** button.

The installation will continue and you will see the following screen.
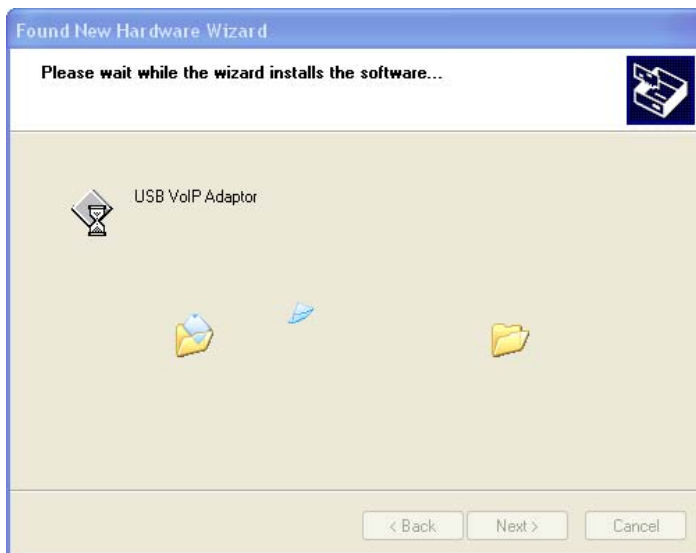
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When you see the following screen, press the **Continue Anyway** button.

When you will see the following screen, select the option, "*allow this program to use Skype*" and press the **OK** button.
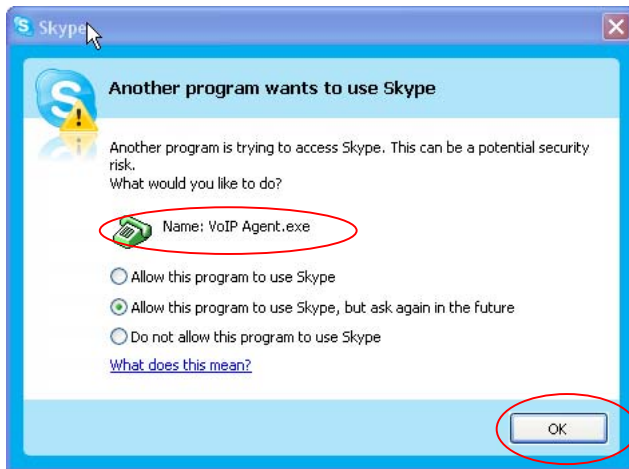
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When you see the following screen, press the **Finish** button.
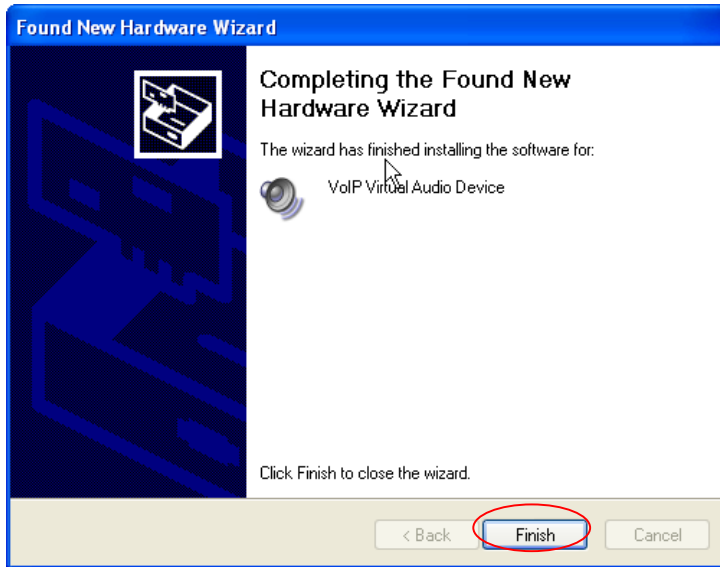
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STEP 3: When the installation completes you should see the following message appear near your system tray and a new telephone icon (circled in red below) in your system tray as shown below.

The telephone icon indicates that the VoIP Agent is installed and running and that you can start making calls via Skype™ and the USB Gateway.

You will see a new program group named USB VOIP PERSIONAL GATEWAY, accessed from the Start button -> All Programs as shown below.
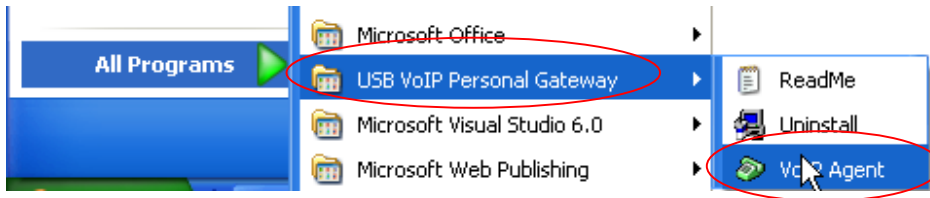
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STEP 4: Connect a standard telephone handset to the USB GATEWAY **phone** jack using a telephone cable as shown below

STEP 5: Connect a telephone cable between the USB GATEWAY **line** jack and a wall jack as shown below. Note that this is only required for making regular phone calls or for forwarding Skype calls to your mobile (or other off-site) phone or for toll bypass applications.

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You final configuration should resemble the following.
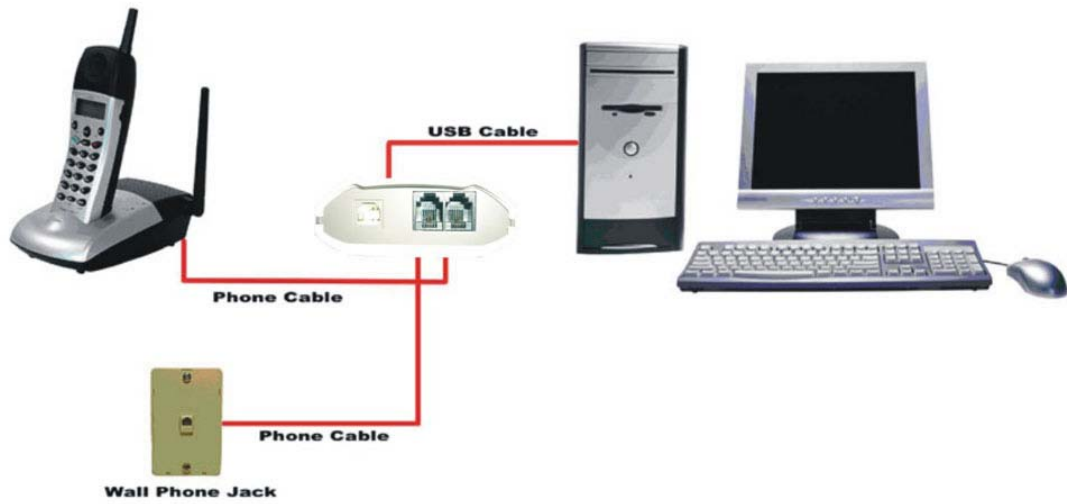
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Enabling USB GATEWAY

In order to use USB GATEWAY and it's features, (1) the USB Gateway must be plugged into the PC, (2) a telephone handset must be plugged into the USB Gateway, (3) the USB Gateway must be connected to the telephone wall jack[1] and (4) the VOIP agent must be running (see green telephone in the Windows System Tray).

(note 1 – this is only required for making regular phone calls or for forwarding Skype calls to your mobile (or other off-site) phone or for toll bypass applications)

If the VOIP Agent is not running (i.e. no green telephone in the system tray), make sure the USB Gateway is connected to the PC and start the VoIP Agent as shown below (Start -> All Programs -> USB VoIP Persional Gateway -> VoIP Agent):
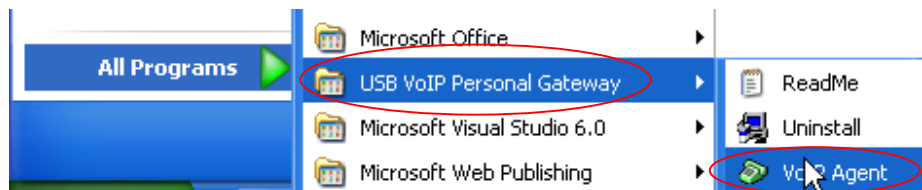
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You may see the following screen, select the option, "*allow this program to use Skype*" and press the **OK** button.
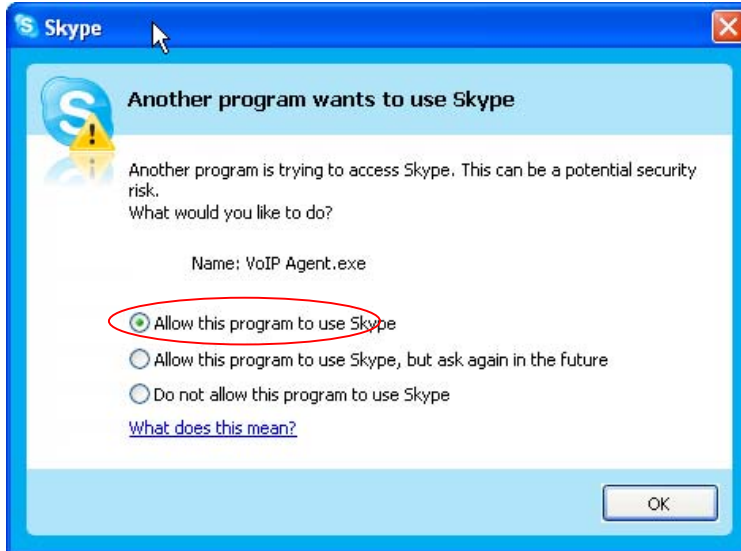
You should now see the VOIP agent in the Windows System Tray as shown below.

You are now ready to use the USB Gateway.

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USB GATEWAY States

When the USB Gateway is installed and the software is installed properly, then you will see a green phone in the system tray as shown below.
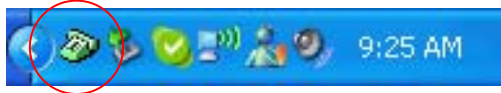
If the VoIP agent is running and the USB Gateway is removed or Skype is not running, then the telephone will be red as shown below.
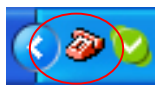
During an incoming or outgoing Skype call, the telephone handset will jiggle as shown below, indicating an VoIP call is being initiated.

When the VoIP agent is not running, there is no phone in the system tray.

USB Gateway LEDs

The USB Gateway typically has 3 LEDs as illustrated below. Note that the colors or number of LEDs on your USB Gateway may be different.
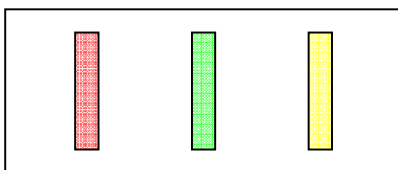
- When the USB Gateway is installed and the software is installed properly, then the power LED will be lit red indicating the USB Gateway is receiving power.
- The PSTN LED indicates a PSTN call
- The VoIP LED indicates a VoIP call

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Testing USB Gateway

Skype provides a useful feature to test your connection. It is called Echo123. If you send "callme" in a chat with echo123, the echo123 service will call you and let you leave a message which will be played back to you. This will help you verify that the USB Gateway, VoIP Agent and the telephone are all connected and installed properly.

Add Echo123 to your Skype contact list from the Skype Tools menu -> Add to Contact List entry as shown below:
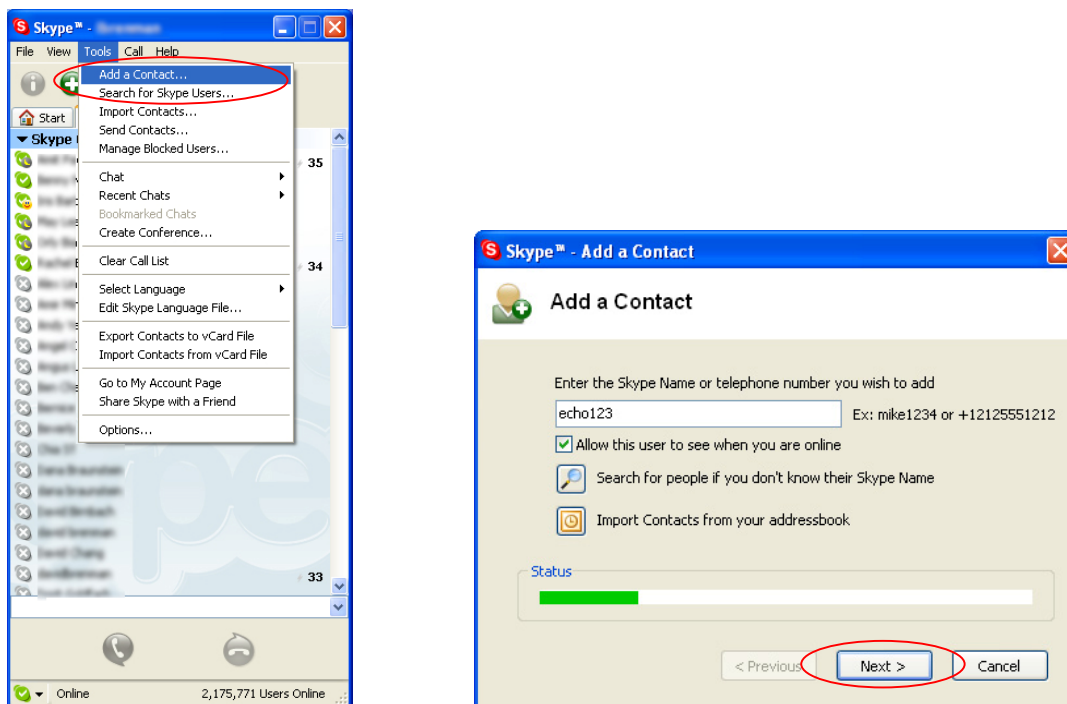
When Echo123 is added, click on the chat button as shown below.
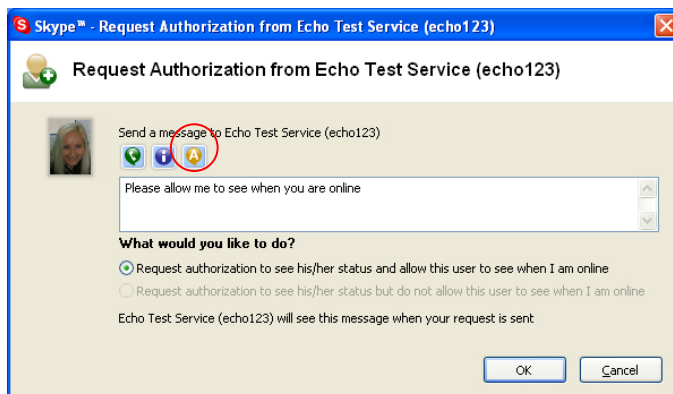
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You will see the following chat screen and you should enter "callme" and press the Enter key on your keyboard.
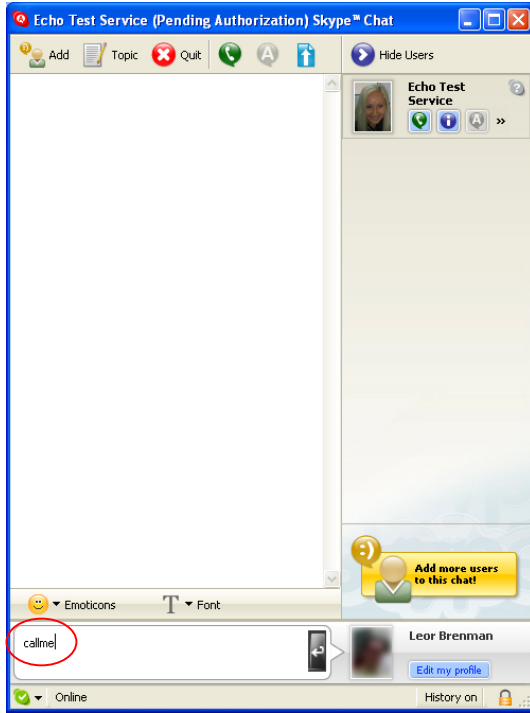
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Within 10-20 seconds, you should see the following screen, and the telephone connected to the USB Gateway should ring. Pick up the handset and follow the instructions. The Echo Test Service will ask you to leave a message which will be played back immediately. This will help you verify that the USB Gateway, VoIP Agent and the telephone handset are all connected and installed properly.
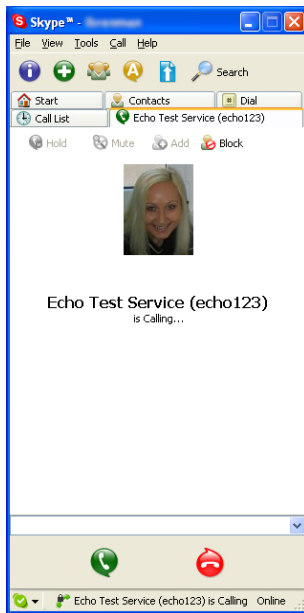
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When the test concludes you can press OK on the following screen.
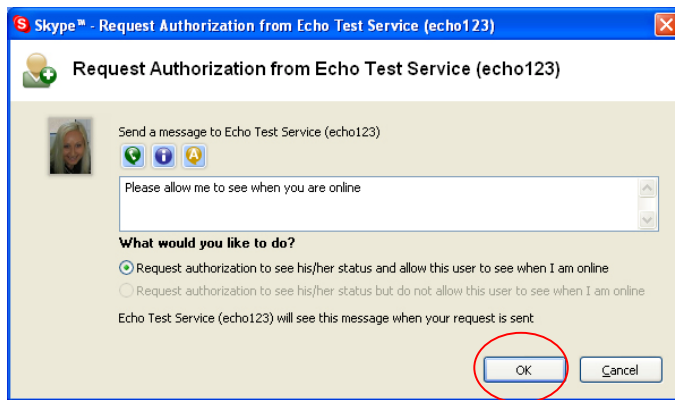
and then press Finish on the following screen.
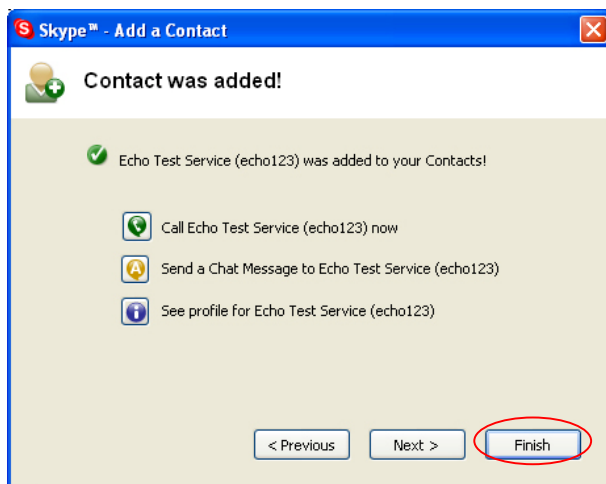
Making and Receiving Calls

You can continue to use the telephone handset connected to the USB Gateway to make and receive standard telephone calls as you used without any change. To make a standard phone call, just pick up the handset and dial as you normally would. To answer (receive) a standard phone call just pick up the handset when the phone rings.

When you receive an incoming Skype™ call, the handset connected to the USB Gateway will ring. If you handset supports Alphanumeric Caller ID, then the Skype username will be displayed on the handset's screen where the standard caller ID information is displayed. To answer the call, just pick up the handset and speak as you normally would. To end the call, simply hang up the handset as you normally would.

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If you have SkypeOut™, you can use the USB Gateway connected handset to make SkypeOut™ calls by picking up the handset, pressing ##, to indicate to the USB Gateway that this is not a standard call but a Skype call, dialing as per the SkypeOut™ recommended dialing sequence, *00 + country code + telephone number* (e.g. 001 617 555 1212) and pressing the asterisk (*) key.

In order to make a call to a Skype™ contact, you will need to use the Skype™ program to assign a speed dial (as described in the next section) to each person you would like to call from the USB Gateway connected handset. Then simply pick up the handset, press ##, to indicate to the USB Gateway that this is not a standard call but a Skype call, you will hear a new dial-tone, press the speed dial number (e.g. 22) and then press the asterisk (*) key.

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Setting Skype Speed Dial

This section describes how to setup speed dials in Skype™. This is required in order to use a USB Gateway connected handset to dial to a Skype™ contact. It is not required for making SkypeOut™ calls using a USB Gateway connected handset.

Step 1: Right click on the desired contact as shown below and select *Assign Speed-Dial*:
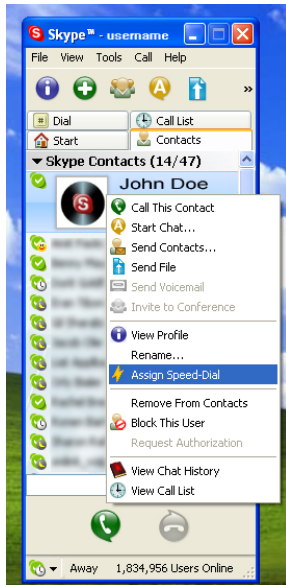
Step 2: Enter the desired speed dial number (e.g. 22) as shown below and press the **OK** button.

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Step 3: You will now see an indication that the Skype™ contact has a speed dial associated with them as shown below.
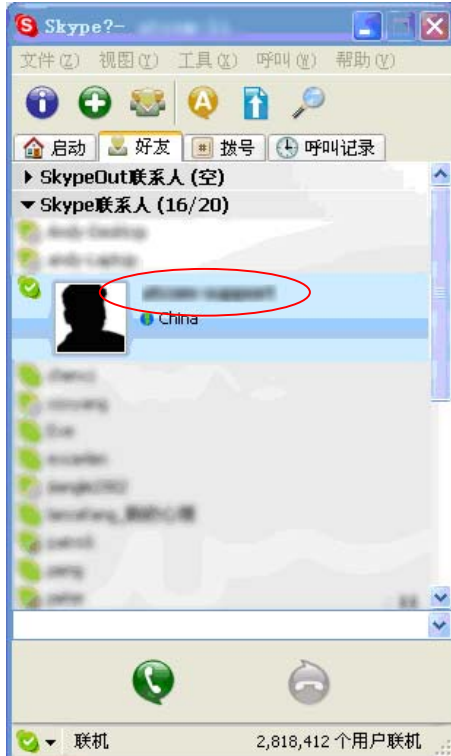
USB Gateway

Switching Between VoIP and Regular Calls

While on a regular phone call you may receive a Skype™ call or while on a Skype™ call you may receive a regular call. The USB Gateway will indicate an incoming call with an audible tone and you can switch between the two and back and forth by pressing #1.

While on a regular phone call, if you receive a Skype call, you can see the Skype username on your telephone (if it has alphanumeric CLID display).

3 way Conference Call Between VoIP and Regular Calls

While on a regular phone call you may receive a Skype™ call or while on a Skype™ call you may receive or make a regular call. The USB Gateway will indicate an incoming call with an audible tone and you can conference in the additional caller by pressing #2. For example: During your skype call and there comes an audible tone indicate that you have incoming PSTN call, so you can press #1 to switch to the PSTN to talk and then press #2 to make 3-way conference call

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Forwarding Calls

The USB Gateway can be configured to forward incoming Skype™ calls to another telephone number, such as your mobile phone. It can also forward incoming telephone calls to a Skype™ or SkypeOut™ call. Right click on the Skype Agent (green telephone in the Windows System Tray) and select configure as shown below.
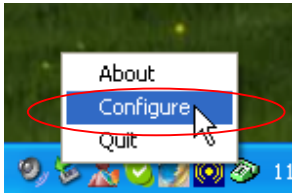
You will see the USB Gateway configuration screen as shown below.
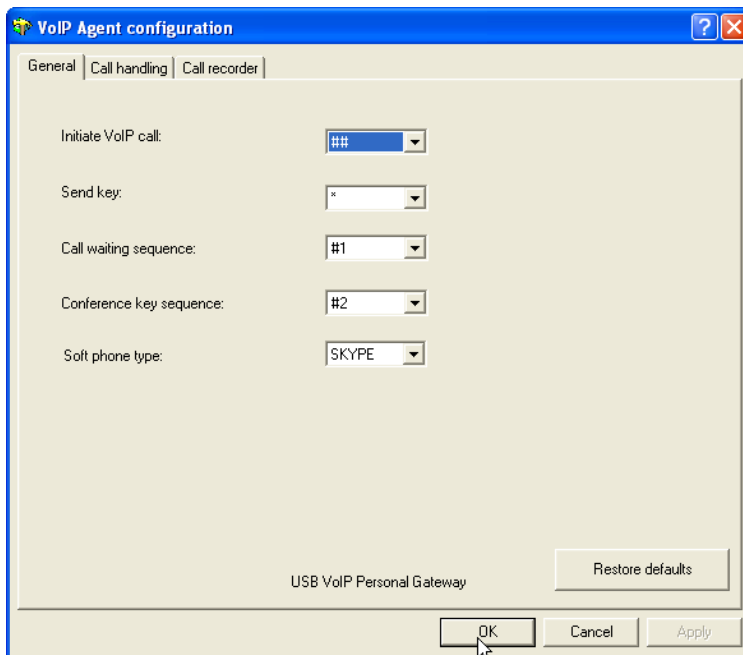
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Press the Call Handling tab to see the Call Forward parameters as shown below.
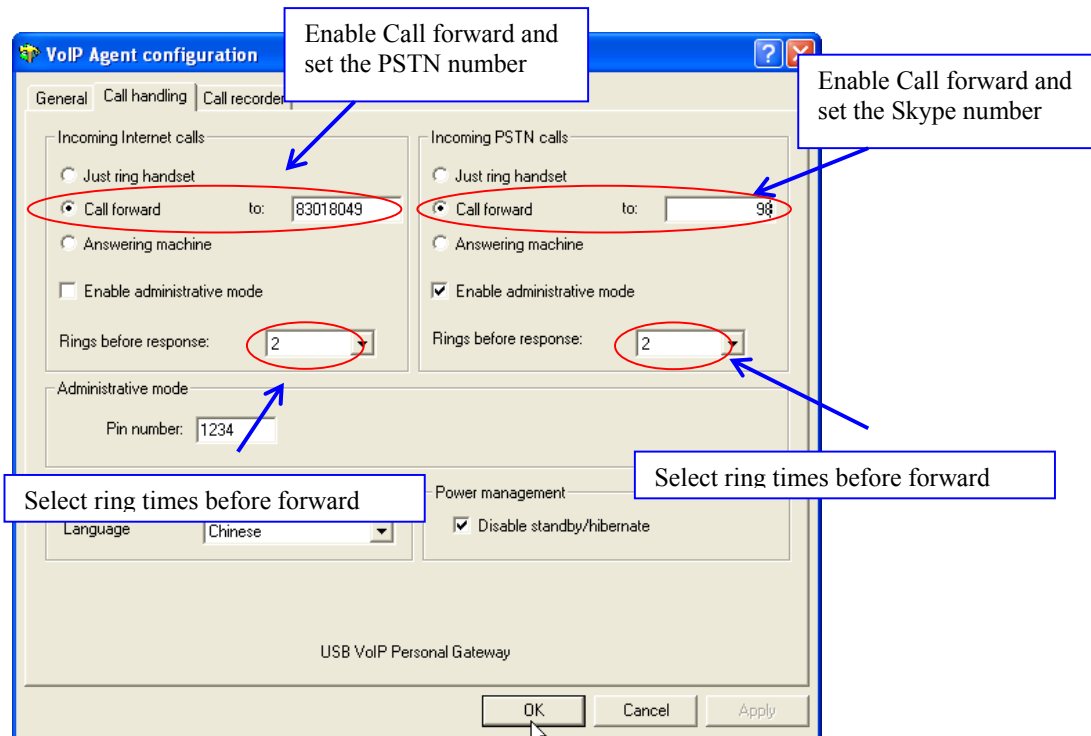
In order to forward incoming Skype™ calls to a telephone number such as your mobile phone, change the *Incoming Internet Calls* settings as follows:

- Select the Call Forward as shown above
- Select the number of rings before the forwarding takes place.
- Then key in the telephone that should be dialed on the telephone line and press the Apply and/or Quit button. Enter the telephone exactly as you would dial it if you were to pick up a telephone directly connected to the phone line. (Note: If you are on a PBX, you may need to press a digit to get an outside line (i.e. 9). In this case you would enter 9,,,16175551212.)

In order to forward incoming regular calls to a VoIP call, such as through SkypeOut™ or to a Skype account, enter speed dial number (e.g. 77) associated with the Skype User without the * key (as shown above).or enter the SkypeOut™ number (e.g. 0016175551212). Change the *Incoming PSTN Calls* as below:

- Select the Call Forward option as shown above
- Select the number of rings before the forwarding takes place as shown below.
- Then key in the skype speed dial number or SkypeOut number that should be dialed and press the Apply and/or Quit button as shown below.

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Answering Machine (PSTN & VoIP) Support

1   USB VoIP Gateway has an integrated answering machine (implemented in software on the PC).
2   USB VoIP Gateway can be configured to answer incoming VoIP call using its answering machine after a configurable number of rings.
3   USB VoIP Gateway can be configured to answer incoming PSTN call using its answering machine after a configurable number of rings.
4   The USB VoIP Gateway comes with a default greeting message.
5   The user may record his own greeting message (either locally using the handset or remotely through administrative remote mode).
6   When the use has voicemails (either on the local answering machine or on the VoIP network voicemail) USB VoIP Gateway would play a special dial tone under VoIP mode to indicate the waiting messages.
7   The VoIP Dial tone when there are no message is a continuous tone The VoIP dial tone when there are new message/s is a continuous tone with 'beep-beep' abruptions every 3 seconds.
8   The user may access the local answering machine system to configure it or to listen to his voice message through an Interactive Voice Response System. Through the response system the user may also access the soft phone (VoIP network) voice mail – than he may continue per the description in following section.

    More details about the IVR (Interactive Voice Response) system can be found in appendix A below.

Below is about how to set answering machine to work:
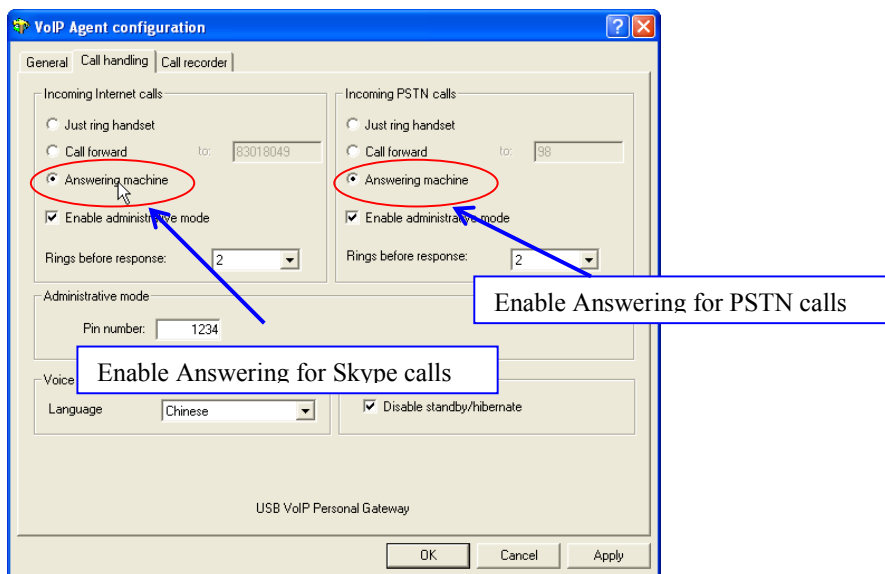
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Toll Bypass

Toll bypass is similar to forwarding, except the incoming caller press the * key, and follow the IVR to dials out an arbitrary number instead of fixed forwarding as described in the previous section.

There are two common scenarios for this. You can call in from your mobile phone to the computer that the USB Gateway is connected to and make a low cost SkypeOut international call. This is useful if you are in the same geographical location as USB Gateway and want to make international calls.

The second common scenario is you Skype to the computer that the USB Gateway is connected to and make a low cost local call over the PSTN line. This is useful if you are traveling abroad and want to make a low cost local call (in the geographical location that the USB Gateway is in).

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Forward PSTN call to Skype

In order to enable toll bypass of incoming PSTN calls, change the *Incoming PSTN Calls* settings as follows:

- Check the Enable administrative mode.
- Set your password and press apply as shown below
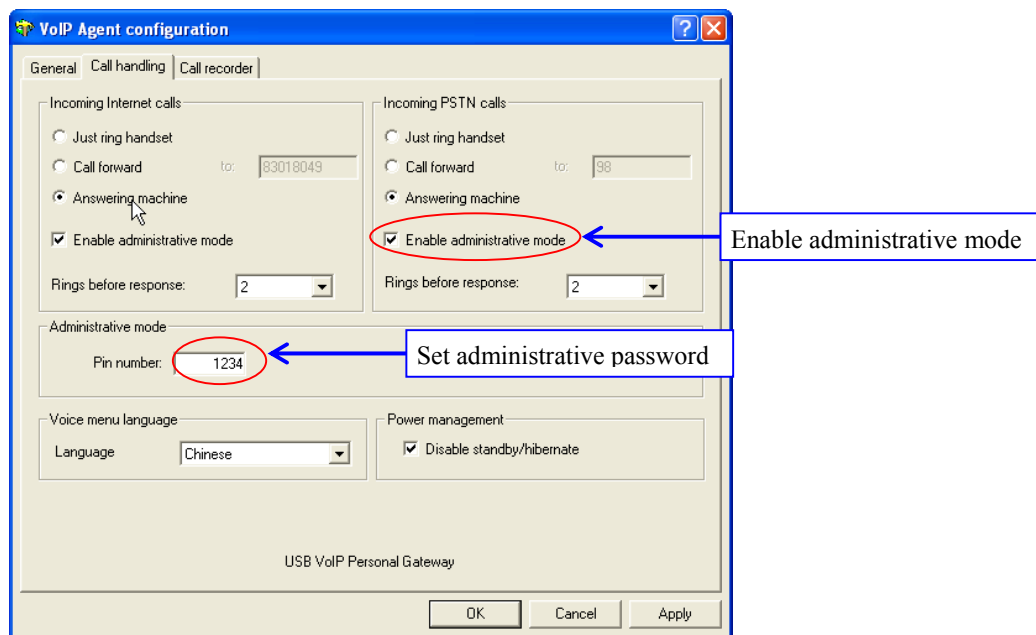
When you call your telephone line from mobile, and then press *. Then the IVR will guide you to implement the forward function.

For example: you want to forward your call to your skype friend (you set his speed dial number to 77). You have select the "answering machine" and "Enable administrative mode" and set the "pin number" with "1234", then you use your mobile to call the landline connect to the USB phone gateway, press * when you hear the answering machine voice. Then the call will go to the IVR menu, then press the pin number and the forward number according to the IVR. Details about the IVR flow please see the Appendix A

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Forward Skype call to PSTN

In order perform toll bypass on an incoming Skype call, Enable administrative mode in the *Incoming Internet Calls* section. Set as following

- Check the Enable administrative mode.
- Set your pin number as shown below
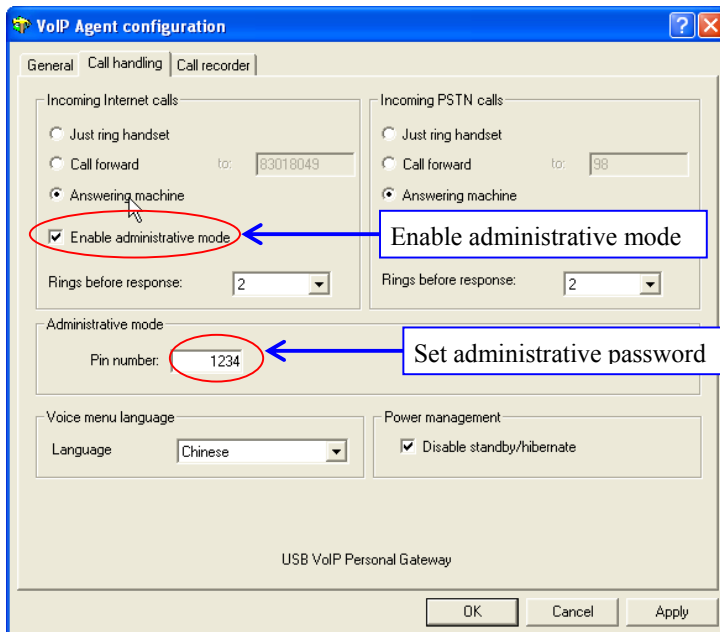
When you call USB Gateway from skype, and no one answer the call. After preset ring times, you will hear the voice for the answering machine or call forward, then press * to enter the IVR menu (see Appendix A for more detail), and follow the IVR to implement the forward function

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Manage Skype Voice mail

1   When the user has VoIP voicemail and there are new messages the USB VoIP Gateway would play a special dial tone to indicate the waiting VoIP messages. The VoIP Dial tone when there are no message is a continuous tone The VoIP dial tone when there are new message/s is a continuous tone with 'beep-beep' abruptions every 3 seconds.

2   User may access the voice mail through the voice response system (first enter answering machine system, than selecting VoIP network voice mail.

3   When in VoIP voice mail mode:
   ✍ First message starts playing immediately.
   ✍ Following the message we would play 'Ting' as indication for end of message.
   ✍ During the message and for a period of 5 seconds following the message the user may:
      • Press '1' to replay the message
      • Press '2' to delete current message move to next
      • Press '3' to keep current message move to next
      • Press '9' to delete all messages
   ✍ If the user hadn't pressed any key within 5 seconds following the message it would be as if he pressed '3' e.g. keeping the message moving to next message.
   ✍ After playing the last message in the voice mail a special 'beep-beep-beep' sound indicates end of voice mail.

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Record

You can record your call use USB Gateway
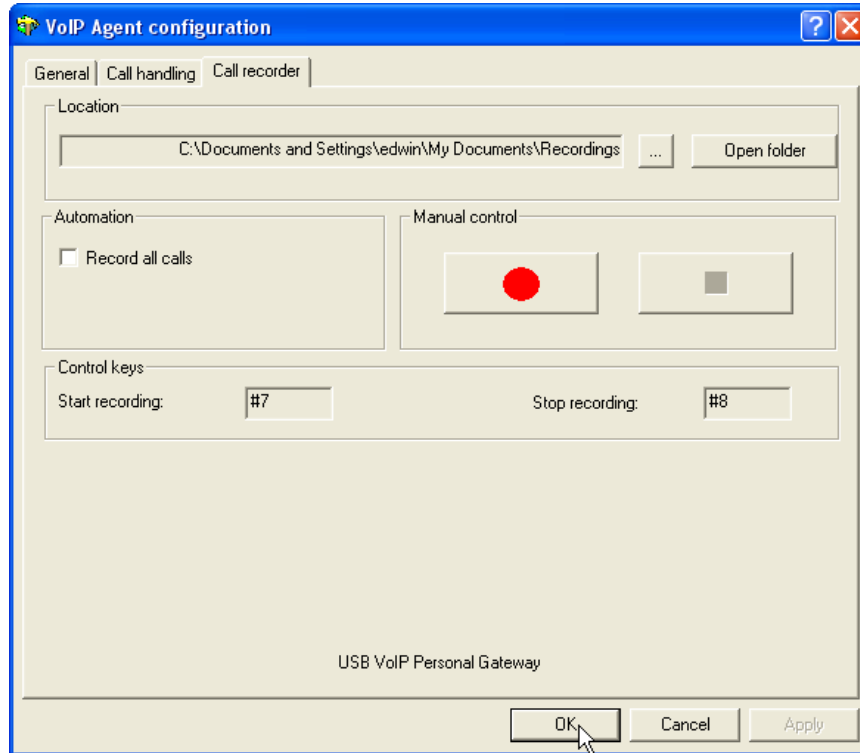
Location: set your record file location here.
Inactive: disable auto record.
Record next call: record next call (trigger that would be reset after call)
Record all calls: Automatic record all calls.

User can manual control the record process by:
- '#7' – start recording
- '#8' – stop recording

✎**Notice: We are not responsible for the usage of record and the corresponding publish content. We encourage you to determine whether this function or your intended use is legal. We do not encourage or condone the use of this record function in violation of applicable laws.**

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Changing the Default Settings

You can change the default settings for sending a call, activating a Skype™ call, switching between a Skype™ call and a regular call (call waiting) and conference calling, by running the USB Gateway configuration.

Right click on the VoIP agent and select Configure as shown below.

You will see the configuration tab as shown below.
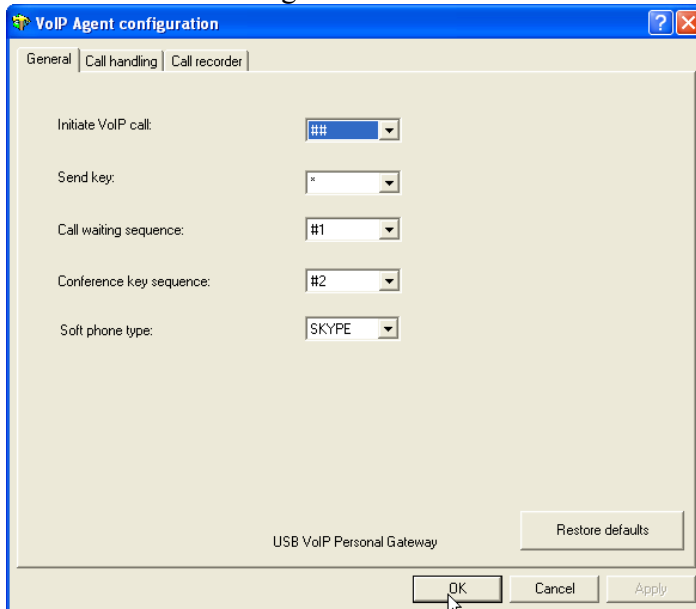
The **Initiate Voip Call** – press these keys to get a VoIP dial-tone. You can now dial a SkypeOut™ call or a Skype™ speed dial call from your telephone handset.

The **Send Ke**y – press this key following the phone number (or speed dial number) when making a VoIP call.

The **Call Waiting Sequence** – press these keys during a call to switch between a VoIP and regular call. For example to switch from a regular telephone call to an incoming Skype™ call or to switch from a Skype™ call to an incoming regular phone call.

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The **Conference Key Sequence** – while on a Skype call and you receive a regular call or while on a regular call and you receive a Skype call, press these keys conference together the two calls.

Press the **Restore Defaults** button if you want to restore all sequences to their factory shipped settings.

Soft phone type: we support QQ besides skype, you can choose the soft phone you want to use.

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Disabling USB Gateway

In order to disable USB Gateway, right click on the VoIP agent in the system tray and select Exit as shown below.
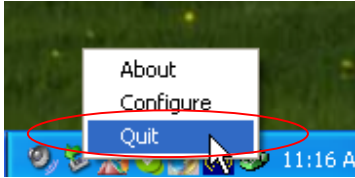
You can now disconnect the USB Gateway from the PC.

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Uninstall

In order to uninstall the USB Gateway, click on the uninstall utility in the USB Gateway program group accessed from the Start button -> All Programs -> USB VoIP Personal Gateway.
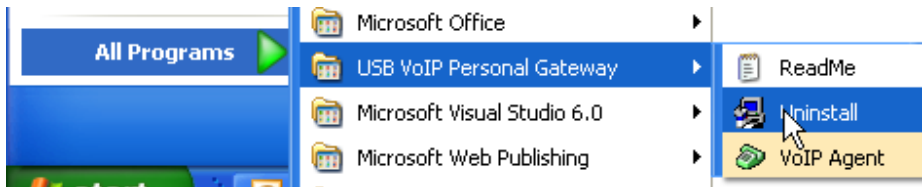
You will see the uninstall indicator as follows.
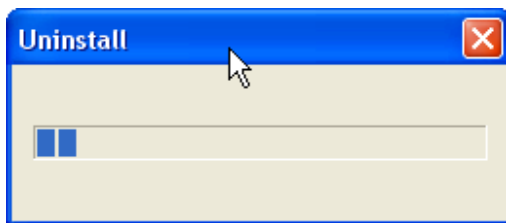
When the uninstall indicator disappears, the un-installation is complete.

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Installing a New Version

When you install a new version of VoIP Agent, at the end you will see a slightly different Skype warning message as shown below. Select "Allow this program to use Skype" and press OK as shown below:
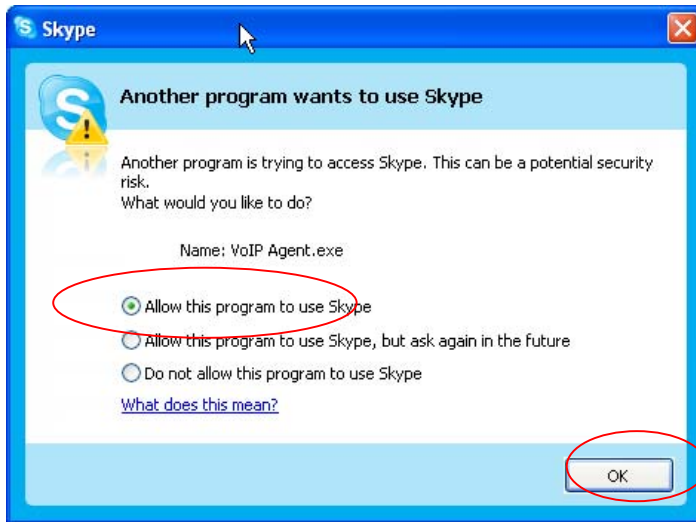
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Troubleshooting

The first step in troubleshooting is to read the readme.txt that appears in the USB Gateway program group. It contains a list of known issues for the current VoIP Agent version.

To find out the driver version, right click on the VoIP Agent (green telephone in the system tray) and select About.
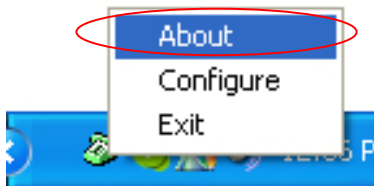
You will see the VoIP Agent About screen below.
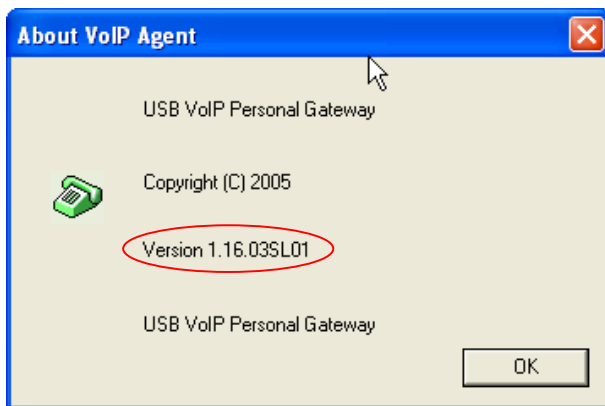
Common Fix

If USB Gateway was working OK and suddenly stops working properly (e.g. stops responding to incoming rings or you cannot get a VoIP dialtone) try the following:

- Quit the VoIP Agent (right click on the green telephone in the System Tray and select Quit)
- Quit the Skype application
- Unplug the USB Gateway
- Wait 30 seconds
- Plug in the USB Gateway
- Start Skype
- Start the VoIP Agent

USB Gateway

Wrong Device Installed

If you insert the USB Gateway on a Windows XP SP2 PC "prior" to installing the software, the adapter will be incorrectly installed as a USB Modem.

Simply proceed to install the VoIP Agent and it will resolve the issue and install the adapter properly.

USB Gateway does not appear to be responding to incoming calls

There are several reasons why USB Gateway may not function.
- USB Gateway may not work properly with some 4 wire (multiline) phones
- Make sure the USB Gateway is connected to the PC and VoIP Agent is running (green phone in the Windows System Tray).
- Make sure the handset is connected to the **phone** jack on the USB Gateway and not the **line** jack
- If the Skype™ application was terminated for any reason while the VoIP agent was running, you will need to exit the VoIP agent and then restart it.
- Some telephone handsets require a battery to be installed in order to ring. If your handset supports a battery, make sure there is a battery installed and that the battery is not depleted.

Cannot hear dial-tone when I pick up the handset connected to the USB Gateway

Check to make sure that the handset is connected to the correct jack on the USB Gateway

USB Gateway

Cannot hear the Skype™ call in telephone handset

Check to make sure that Skype is configured to use the VoIP Virtual Audio device as it's Audio In and Audio Out Sound Device.

This is done as following:

Select Options from the Skype™ Tools Menu as shown below.
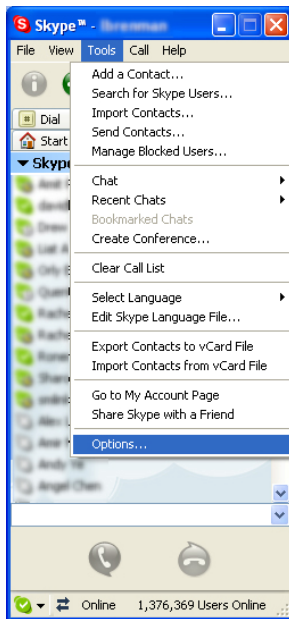
and then select Sound Devices as shown below.

USB Gateway
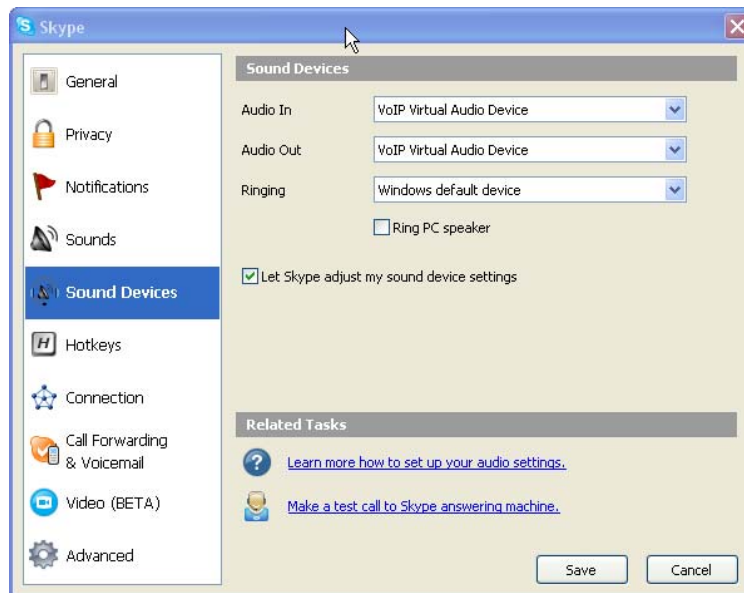
Check the Audio In and Audio Out list boxes and make sure VoIP Virtual Audio device is selected.

Call Forwarding is not working properly

- Make sure that a telephone cable is plugged into the USB Gateway **line** jack and to the wall phone plug
- Try to dial the telephone number as you have entered in the USB Gateway Call Forwarding dialog box
- If you are on a PBX, make sure you have entered enough commas after the 9 (for example) to make sure that USB Gateway waits for the dialtone before dialing the telephone number

USB port power surge

If your connect USB Gateway to USB port with low power supply, your PC will warn the USB port power surge problem. In this case you can try:

- USE AC power supply instead of battery power supply in your laptop.
- Connect USB Gateway to another USB port.
- Remove other USB power hardware.
- USE USB hub with its auxiliary power supply

USB Gateway

Appendix A – IVR Flow Chart

Configured to call-forward ⟹ **CF** | *Your call is being forwarded* → * → **1**
End → Exit IVR [call fwd]

Configured to Answering Machine ⟹ **AMGreet** | *You have reached the TLink answering machine. Please leave your message after the beep* → * → **1**
End → **Beep** → **End** → Exit IVR [Record msg]

1 → **DialPinNbr** | *Please enter your PIN code*
Correct PIN → **2**
Wrong PIN → **WrongPin** | *You have entered a wrong pin code* → **End** → **1**
Wrong PIN more Than max trials → **GoodBye** | *Thank you, the call will disconnect now* → **End** → Exit IVR Disconnect

2 → **PerformTB** | *To make a Toll bypass call, please press 1* → 1 → **PhoneNbr** | *Please dial the telephone number followed by the star key* → Exit IVR [toll bypass]
AMEnter | *To enter the Answering Machine system, please press 2* → 2 → **3** / **6**
Incoming PSTN   **Incoming VoIP**

USB Gateway

Local Handset Access	**VMListen**	*To listen to local voice messages, please press 1*
3	**VMDelete**	*To delete all local voice messages, please press 2*
	VMSoftPhone	*To access the VoIP network voice mail, please press 3*
	AMConfig1	*For Answering Machine configuration, please press 4*

1 → **4**

4 → **5**

3 → Exit IVR [soft-phone VM]

2 →

VMDelConfirm	*All locally recorded messages would be deleted*
confirm	*To confirm please press 1*
cancel	*to cancel please press 2*

1 →

VMDelNot	*All local voice messages have been deleted*

→ **3**

2 → **3**

---

6 →

	VMListen	*To listen to the locally recorded voice messages, please press 1*
	VMDelete	*To delete all locally recorded voice messages, please press 2*
	AMConfig1	*For Answering Machine configuration, please press 4*

1 → **4**

4 → **5**

2 →

VMDelConfirm	*All local voice messages will be deleted*
confirm	*To confirm please press 1*
cancel	*to cancel please press 2*

1 →

VMDelNot	*All locally recorded voice messages deleted*

→ **6**

2 → **6**

USB Gateway

4 → **NoVMsg** | No messages were received → **End** → (3 / 6) **3 - Incoming PSTN** / **6 - Incoming VoIP**

4 → **PlayMsg** | Recorded voice messages will be played back sequentially → **End** → Play message → **End** → **VMOper** | To repeat the current message press 1, To delete the current message press 2, To keep The current message press 3

When no more messages → **NoMoreMsg** | There are no more messages → **End** → (3 / 6) **3 - Incoming PSTN** / **6 - Incoming VoIP**

5 → **AMRecGM** | To record a greeting message, please press 1 → **1** → **AMRecGMInv** | Please record the greeting message after the tone, to stop recording press pound → **Beep** → **End Of Record** → **5**

AMListenGM | To listen to the current greeting message, please press 2 → **2** → Play current greeting → **End** → **5**

AMDefaultGM | To restore the factory default greeting message, please press 3 → **3** → **NoMoreMsg** | Answering machine greeting message restored to factory default → **End** → **5**