

net-phone and net-phone lite
Version 1.5
User manual



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net-phone Installation and User Guide

This guide will help you install and use net-phone and net-phone lite on your computer. It takes you through installing the software, using the Windows interface and USB handset and understanding the information in the net-phone on-screen display.

The [troubleshooting guide](#) will help you solve any problems you may have when installing and using net-phone or net-phone lite.

What is net-phone?

net-phone is a Session Internet Protocol (SIP) software-only phone which allows you to make telephone calls using your computer. Calls can be made over the internet to other SIP users such as those connected to Free World Dialup or to the regular PSTN (Public Switched Telephone Network) via a suitable gateway.

It can be used to form part of an office telephone system, with an iPBX (Internet-based Private Branch Exchange) or Soft-Switch such as net-pbx.

net-phone comes complete with net-usbphone – a USB handset that gives you the natural comfort of using a traditional-style phone handset to make and receive calls*.

The handset has a keypad, volume control and several function buttons just as on a normal telephone.

* Does not include net-phone lite

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Installation

Important note about installing net-phone and net-phone lite

- net-phone: Install the software on the CD-ROM **before** plugging in the net-usbphone handset. If you have plugged in the handset first, read the [troubleshooting guide](#) on how to select the correct drivers for the handset. The keypad on the handset will not work without the correct drivers.
- net-phone and net-phone lite: Please **disable any spyware detection programs** while installing net-phone or net-phone lite, as these programs can interfere with the installation and cause it to fail.

net-phone

Insert the CD-ROM in your computer's CD drive. The CD should start automatically. If it does not, browse to your CD drive from My Computer or Windows Explorer and run the setup program by double clicking on 'setup'.

net-phone lite

Download net-phone lite from www.net-voice.net. Double click the downloaded file to run the setup program. Close the setup program when the software has finished installing.

Starting net-phone

When the software is installed you will have a new entry in your Windows start menu for net-phone and a shortcut on your desktop.

Double click the shortcut or click the entry in the start menu to run net-phone. If you have not previously used net-phone, it will start with no configuration information and no registration information. Windows XP users will have a User ID set to their Windows login name.

You are now ready to configure net-phone and start making calls.

Configuring net-phone

Using the net-usbphone handset for audio

To use the net-usbphone handset as the microphone and speaker for net-phone:

- Open net-phone
- Click the Preferences menu
- Select the Change Preferences option. The following dialog box appears:

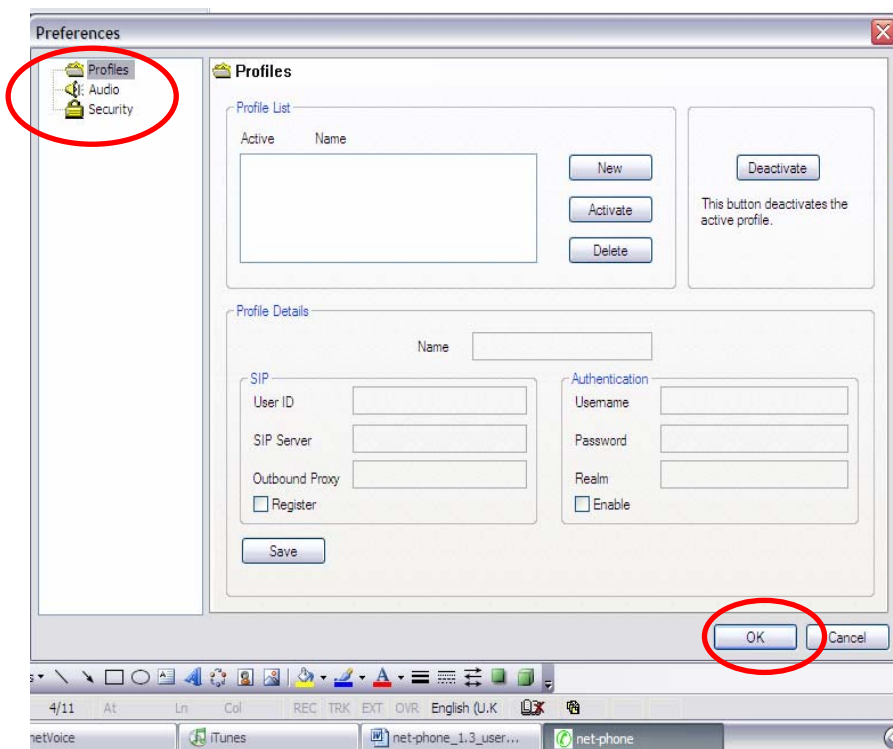


Figure 1 - preferences dialogue

- In the Audio section, click Audio Tuning.
- The tuning wizard will start. Choose the VoIPvoice USB Phone as the device for both the speakers and microphone.
- The wizard will guide you through testing the audio set-up.
- Click OK in the Preferences dialog box to save your settings.

Please note:

- Windows 2000 Pro users should choose 'USB Audio Device' in the wizard if there is no option for 'VoIPvoice USB Phone'.
- Using the audio tuning wizard may result in your Windows audio settings being changed. They can be changed back to use the correct

audio device in the Windows Control Panel, accessed from the Start Menu.

- net-phone lite can use USB handsets for audio when making calls, but the handset keypad will not work.

Enabling echo cancellation

In the Preferences menu, open the Change Preferences dialog box. In the Audio section, check the Echo Cancellation check box. This stops echo feedback between the handset's earpiece and mouthpiece.

Configuring SIP profiles

A SIP profile is the collection of settings related to logging in to a SIP service such as Free World Dialup or an IPBX/Soft-switch. net-phone supports multiple profiles*: you can store settings for 5 different services and switch between them as required. To configure a profile, click Change Preferences in the Settings menu and select Profiles. This displays the dialog below:

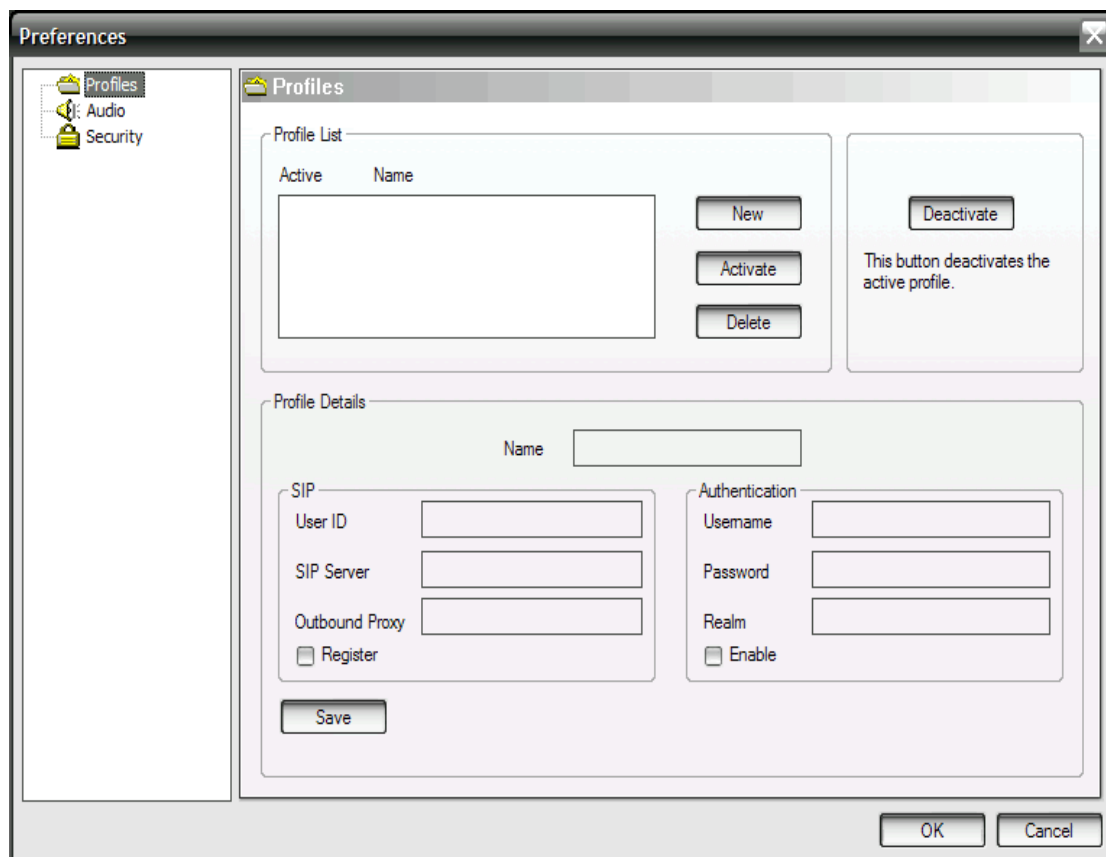


Figure 2 – Profiles dialog

- Click New in the Profile List to add a new profile.

* net-phone lite only allows you to create 1 profile

- Enter a Name for the profile. The name can be anything, although the name of the service you are using is a good choice, eg FWD for Free World Dialup. If you leave this field blank, net-phone will use the entry in the SIP Server field.
- Enter the User ID for the service you are configuring. This ID will be given to you by your service provider and will be the contact ID for your phone – usually the phone number you are given. This field is mandatory.
- Enter the SIP Server for the service. Depending on the service, this may be called the SIP Proxy or Registrar. It can be either a URL or an IP address. This field is mandatory.
- Enter the Outbound Proxy if required. Some service providers require you to set this; with others it is optional. See '[Configuring net-phone to use an Outbound Proxy](#)'.
- If the service requires registration, check the Register check box.
- If authentication is required for the service, enter the Username and Password and Realm, if one is given. These will be given to you by your service provider. Check the Enable check box to enable the authentication details within the profile.
- Click Save to save your profile. The profile name is added to the Profile List and can be activated by selecting it and clicking the Activate button.

Activating and deactivating a profile

- To activate a profile from the Preferences dialog, select the profile and click the Activate button. Any previously active profile will be deactivated.
- To deactivate the currently active profile, click the Deactivate button.
- Click OK to exit the dialog.

Deleting a profile

- Select the Change Preferences option from the Setting menu and select Profiles.
- Select the Profile you want to delete from the Profile List. The Profile details are displayed.
- Click Delete to delete the profile.

Changing a profile's details

- Select Change Preferences from the Settings menu, and select Profiles.

- Select the Profile you want to delete in the Profile List. The Profile details are displayed.
- Make the required changes to the fields.
- Click Save to save the changes.

Configuring net-phone to use an Outbound Proxy

Some service providers, such as Free World Dialup, provide an Outbound Proxy which helps to overcome the problems associated with NAT traversal and Firewalls. NATs can block voice traffic and an Outbound Proxy can overcome this problem.

To configure an Outbound Proxy in net-phone:

- Click Change Preferences in the Preferences menu and enter the Outbound Proxy details.
- N.B. An Outbound Proxy often consists of a URL and a Port. To add the port simply enter the URL followed by a colon and then the Port: for example, fwdnat.pulver.com:5082

Using UPnP

net-phone has built-in support for UPnP (Universal Plug 'n' Play). If you are behind a NAT device such as a router that has UPnP enabled, then you do not need to use an Outbound Proxy to overcome NAT problems or any other 3rd party device or software; net-phone will just work across the NAT.

N.B. If you are behind multiple NATs you may experience problems. If using UPnP does not solve the problems, you can configure net-phone to use an Outbound Proxy (see above).

Media Encryption

net-phone* is able to encrypt the media stream in a call. This means you can make a secure voice call and preventing eavesdropping. If this option is enabled, net-phone will always try to use encrypted media for every call it makes. Media will be encrypted if the other party – ie the person you are calling – also supports encryption and has it enabled. net-phone's Status indicator will turn green when an encrypted call is in progress.

To enable Media Encryption, choose the Change Preferences option from the Settings menu and select Security. Check the Secure RTP check box to enable media encryption.

* Excludes net-phone lite

The net-phone interface

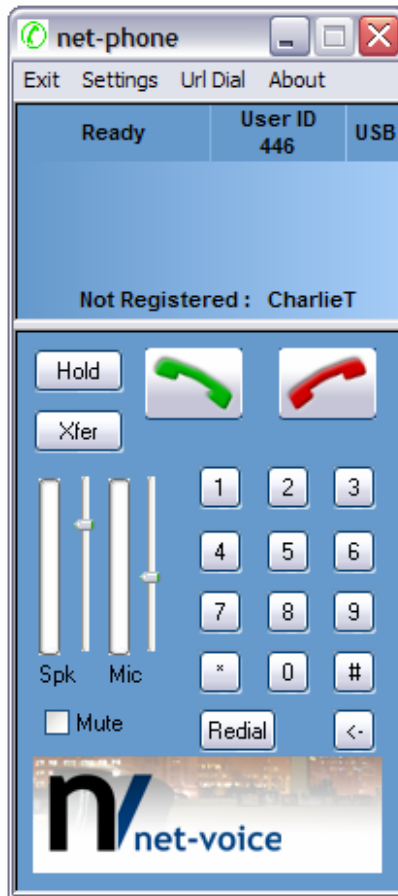


Figure 3 – net-phone main window

net-phone's window has two main parts, divided by a grey bar.

The top part of the window is the information display. This shows status and call information, similar to the display screen on a mobile phone.

The bottom part is the net-phone keypad, which has:

- green dial and red hang-up buttons
- volume control
- dial digits
- transfer (Xfer) button
- hold button
- net-voice banner, which links you to the net-voice website.

net-phone information display

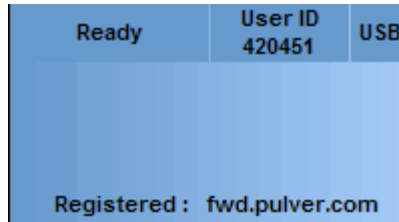


Figure 4 - net-phone's information display

net-phone's information display is split into 3 areas. The top area shows net-phone's current status, the User ID in use and the USB handset status*. The lower area shows registration status, the middle area shows call information.

Current status

The top area shows you what net-phone is currently doing, for example connecting a call or dialling a number. It shows one of the following messages:

- Ready – net-phone is not in use and is ready to make or receive calls.
- Dialling – net-phone is dialling the number you are entering.
- Trying – net-phone is trying to connect the call.
- Ringing – the phone you are calling is ringing.
- In Call – call connected.
- Ended – call ended.

The User ID shows net-phone's current ID. This is the number or name you can be reached on.

The USB handset status has either a blue or red background. Blue means the handset is available; red means it isn't. See the [troubleshooting](#) section if the background is red)*.

* Excludes net-phone lite

Registration status

This is the current status along with the name of the SIP profile, if configured (see [Configuring SIP Profiles](#)). It shows one of the following:

- No Registration Details – proxy server not configured
- Not Registered – registration is disabled for the current proxy server
- Registered – net-phone is registered with the current proxy server
- Registration Error – either the registration details are incorrect or net-phone can't find the proxy server, or the proxy server rejected the registration request. This can happen if you enter the wrong username and password.

Registration errors

If you do see a registration error in the status window you should:

- Carefully check all the settings you have made, including any details given to you by your service provider.
- Make sure you have enabled the correct profile.
- Check that your Internet connection is working.
- If you are using an Outbound Proxy, check that it has been configured correctly. See [Configuring net-phone to use an Outbound Proxy](#).
- If you are not using an Outbound Proxy, check that your NAT allows SIP traffic or that UPnP is enabled – ask your firewall provider for assistance.

If you check all of the above details and still experience a registration error, you should contact your service provider.

Call information

The middle area of the information display shows call information. When making or transferring a call it shows the number being dialled. When you receive a call it shows the ID and address (IP address or domain name) of the caller. It also displays any errors that may occur when making or receiving a call (eg line busy).

Using net-phone

The following sections explain how to make calls using net-phone from both the Windows interface and the handset. If you are using net-phone lite, the handset instructions do not apply.

Making calls

Using the mouse, click the digits for the number to dial then click the green dial button, the # key, or wait a few seconds for net-phone to dial the number.

Using the handset, lift the receiver and dial the required number just as you would with a normal telephone and then press #, the green dial button or wait for net-phone to dial the number.

The net-phone information display shows who you are dialling and the [current status](#) of the call.

Redial

- To redial the last number using the mouse, click the redial button.
- To redial the last number using the handset, pick up the handset and press the redial button.

Ending a call

- Using the mouse, click the red hang-up button to end the call.
- Using the handset, put the receiver back on the base or press the hookswitch button on the handset. This will hang-up (hook-on) the call and then hook-off again, allowing you to make another call.

Adjusting the volume

- During a call you can adjust the volume level for the speaker or the microphone with the mouse by moving the volume level slider on the keypad.
- With the handset, you can adjust the speaker volume using the up/down buttons on the handset base.

Mute

- To mute the microphone using the mouse, click the mute check box on the keypad. Click it again to carry on talking.
- Using the handset, press the mute button on the handset. Press it again to carry on talking.

Receiving calls

You can answer incoming calls by pressing the green dial button on the keypad. If net-phone is running in the system tray, click the icon to bring it to the front and then click the green dial button.

With the handset, simply lift the receiver to answer the call* .

The net-phone information display shows details of who is calling you. If net-phone is running in the system tray, a pop-up balloon will appear to show the caller ID.

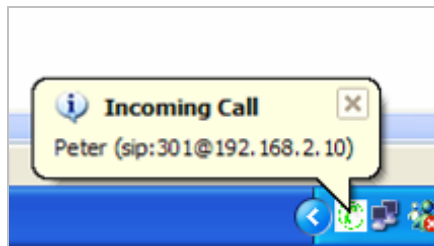


Figure 5 - incoming call alert

Call hold*

A call in progress can be put on hold by the person being called. This prevents audio from being transmitted. To hold a call, click the Hold button on the keypad. Click it again to un-hold the call.

Call transfer*

To transfer a call to another phone, click the Xfer key on the keypad and dial the required telephone number followed by the Xfer key, the dial key or the # key. Once the call has been transferred you can hang up.

Changing and deactivating a profile when net-phone is running*

To change and/or deactivate a profile:

- choose the Profiles option from the Setting menu
- click on the name of the profile you want to activate/deactivate

If net-phone is running in the system tray, right click the net-phone icon and select the Profiles menu. Choose the profile you want to activate/deactivate.

* excludes net-phone lite

Troubleshooting

1. net-phone will not install

If you see the following error when installing net-phone:

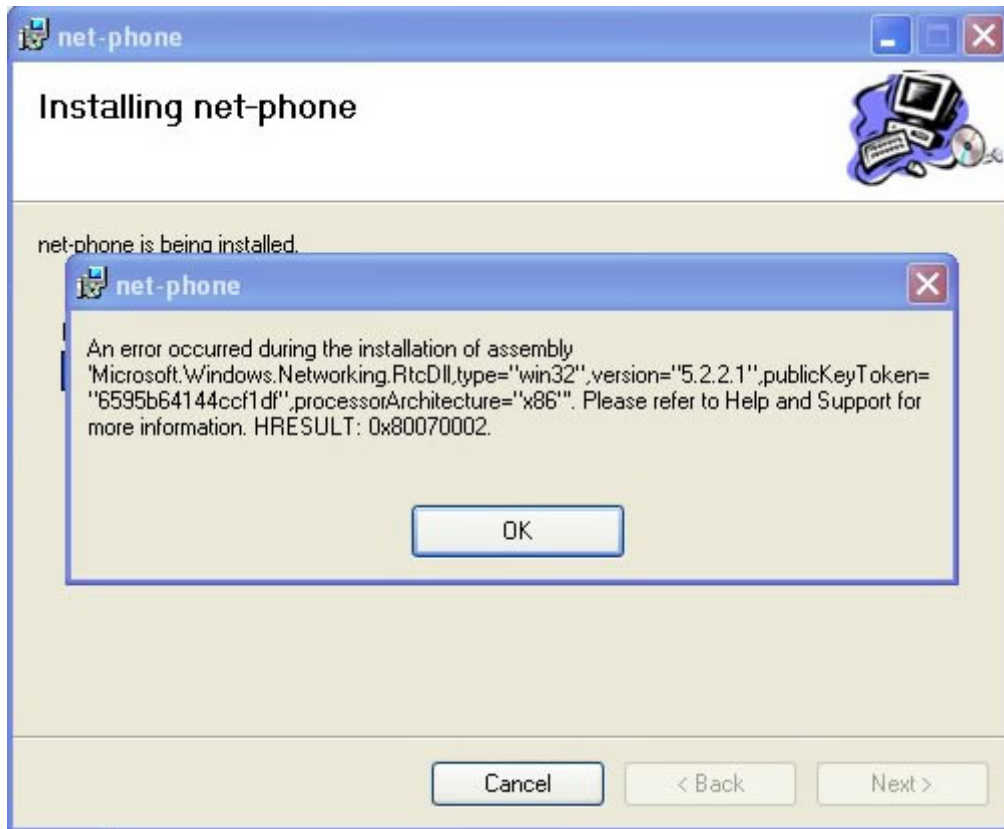


Figure 6 - Error message when installing net-phone

There are 2 possible causes for this error:

1. You do not have enough disk space for the installation. You should free up some space before attempting to install net-phone.
2. You are running a spyware detection program. Please disable all spyware detection programs and begin the installation again.

2. The buttons on the handset don't work:

This is probably because the handset was plugged in to the USB port on your computer before installing net-phone.

Solving the problem:

- To select the correct drivers for the USB handset, go to Control Panel in the Windows start menu and open the System dialog box. Select the hardware tab and click on Device Manager.
- Expand the USB tab and double click on the PDT CyberPhoneK USB Composite Device.
- Select the Driver tab and click Update Driver.
- Select Install from a list or specific location and click next.
- Select the Don't Search option and click next.
- Select PDT CyberPhoneK USB Composite Device and click next.
- The drivers are now updated. Click finish and close the System and Control Panel windows. The buttons on the handset will now work.

3. net-phone uses the computer's microphone and speakers instead of the handset

See the [configuration guide](#) to select the handset as the device to use.

4. USB icon shows up red in the net-phone interface

Check that the handset is correctly plugged in to the computer. If the handset is plugged it may be that the drivers are not set up.

See 'Solving the problem' in point 2 above to set up the drivers.