

i-PhoneNet

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PDA Softphone Setup

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1. System Requirements

The following system specifications are the minimum required for the proper operation of X-Pro for PocketPC:

- Microsoft Windows PocketPC 2002, or higher
- 206 MHz Intel ARM processor or equivalent
- 32 MB memory
- Integrated audio
- Headset or ear phones (recommended)
- Wireless broadband network adapter and internet connection. Minimum bandwidth connection is 128K. More bandwidth is required if you intend to run data 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 open for X-Pro to be able to communicate with 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 the Softphone

1. Download the X-Pro Softphone program into the PC or notebook.
2. Connect the PDA to the PC. Execute the Active Sync program and setup as a Guest Partnership
3. From the PC, execute the downloaded Softphone program. This will install the Softphone into the PDA automatically.
4. Disconnect the Active Sync and reboot the PDA.

3. Configuring the PDA

1. Start X-Pro Softphone
2. From Main Screen, Select **Options > System Settings > SIP PROXIES**

Set the following fields.

| Field | Default Values | Remark |
|---------------------|---|-----------------|
| Enabled | Yes | |
| Display Name | Not required | |
| Username | “SP_*****” were ***** is your i-PhoneNet number | e.g SP_68381234 |
| Auth User | 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. | e.g. marytan |
| Password | 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. | |
| Domain | 203.126.17.242 | |
| SIP Proxy | 203.126.17.242 | |

Enabled box

3. Select **Options > System Settings > Network**

Disable STUN box

4. Select **Options> Advance Settings > SIP Settings**

Use port
Register :

5. Select **Options > Advance Settings > Audio Settings**

Enable Echo Suppression
 High Echo Sensitivity
 Disable voice activation

Hold in Jitter :
VAD Level :

6. Select **Options > Advance Settings > Miscellaneous**

Adjust the Ring volume

Notes:

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.

3. Quick User Guide

Placing a Call

1. You can make a call by using the PDA keyboard to dial the phone numbers.
2. To dial a phone number, click the numbers on the dial pad. Then click the Call button represented by the green (off-hook) phone icon.
3. You will note the Caller ID display line shows the actual number and domain being dialed. X-Pro status line displays the *Trying/session in progress* message while the system processes the call.
4. Once the call is established, X-Pro starts timing the call and the status line displays the *Connected Message*. When the caller answers, just speak into the microphone of the PDA.
5. When you need to redial or to hang up, click the Hang-up button represented by a red (on hook) phone icon.
6. To edit a phone number while dialing, click on the blue left arrow (→) at the bottom of the screen.

Incoming Call

When your PDA receives a call, you will hear a ringing tone. Simultaneously, the LINE button will began flashing and the Caller ID (if subscribed) will be displayed on the status line. There is also an ignore message displayed. Click on this message if you wish to ignore the call. Answer the call by clicking on the green (off hook) phone icon.

Placing a Call on Hold

While your call is 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 flashing 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 same LINE button again.

Ending a Call

To end a call, simply click the Hang Up button represented by a red (on hook) phone icon.

4. Troubleshooting

The section describes some common remedies in case you experience difficulties while using **X-Pro**.

Login Timeout / Login Failed

If a *Login Timed Out* or *Login Failed* error message appears, make sure the username and password are entered correctly in X-Pro's configuration settings.

This error may also occur due to network problems. Check the network connection of the PocketPC device (e.g. by browsing the internet).

Networking problems

There are several possible networking problems (e.g. faulty LAN cable, switch, router, servers or even internet link failure, etc) not related to the X-Pro softphone application that may nonetheless prevent X-Pro from functioning.

General

This guide assumes that internet connections are working normally. If this is not the case, please contact the appropriate ISP (Internet Service Provider).

PocketPC ActiveSync

For proper X-Pro functionality, ActiveSync must be reconfigured to use a wireless connection instead of a USB connection. When ActiveSync is configured to use a USB connection, the device may cause issues that prevent X-Pro from reaching the i-PhoneNet system.

To disable USB ActiveSync:

1. Run USB ActiveSync at least once
2. Click the **Start** button, select **ActiveSync**
3. Select **Tools -> Options**
4. Check the box labelled **Sync with this PC during manual Sync**
5. Click the **Options** button
6. Uncheck the box labelled **Enable PC Sync Using This Connection: USB**
7. Click **OK**

Firewall and NAT issues

If a PocketPC device is behind a firewall, certain ports must be open for X-Pro to communicate with i-PhoneNet system.

Please refer to appropriate firewall documentation for help on opening ports. Default ports are listed in table of Section 1 – System Requirements.

Remember that port forwarding is not required on a NAT.

Multiple X-Pro clients behind one NAT

X-Pro uses X-NAT to assign random ports to each client behind a given NAT. No manual configuration should be required, although additional open ports may be required on an appropriate firewall. Consult your firewall administrator if necessary.

Audio problems

This guide assumes that audio devices are working normally.

There are several factors that may affect sound quality when using X-Pro, including the quality of the network connection, network device, PocketPC default settings and headset/microphone combinations.

Message waiting and unable to answer new calls

If the message waiting indicator is displayed, users will be unable to answer incoming calls even when the X-Pro application makes a ringing sound. Clear the messages waiting to reset the interface for receiving new calls.

Conference recording mode not working for PocketPC microphone

Try setting the device to "short recording" mode.

Sound pops and has loud points during voice transmission

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

Poor sound quality

Poor or scratchy sound quality is a symptom of a network connection problem or network adapter malfunction. Ensure that the latest drivers are installed for the network adapter.

There may be packet loss on the IP network. Check network performance, latency, and throughput. A 200-millisecond round trip latency as determined from a ping should deliver good quality audio (ask an ISP about using ping).

Audio feedback

If experiencing significant audio feedback, try increasing the setting of the VAD (Voice Activity Detection) level.

There is an echo

If experiencing an echo during a voice conversation, try using a headset or ear phones with the PocketPC device running X-Pro (the other party might also try the same).

One-way audio

If a firewall restricts incoming connections, check with your firewall administrator.

Poor incoming voice quality

If experiencing poor incoming voice quality, try selecting **Options -> Settings -> Audio Settings** and then adjust the slider bar marked **Incoming voice delay tolerance**.

Poor outgoing voice quality

If experiencing poor outgoing voice quality, try selecting **Options -> Settings -> Miscellaneous** and then check the **Enable outburst control** checkbox.

END