



WireLess TelNet ProxyServer

Administration Guide

V202 14/04/2015



Table of Contents

- 1 Introduction..... 2
- 2 General Diagram..... 3
- 3 Installation Process..... 4
- 4 WireLess TelNet Proxy Server administration as Windows service 6
- 5 Web administration console 7
- 6 Server configuration..... 11
- 7 Client configuration 14
- 8 Remote Hosts By Wizard (PsHosts.cfg) 16
- 9 Users / passwords (PsUsers.cfg)..... 17
- 10 Certificate (PsCertificate.ppk) 17
- 11 License 18



1 Introduction

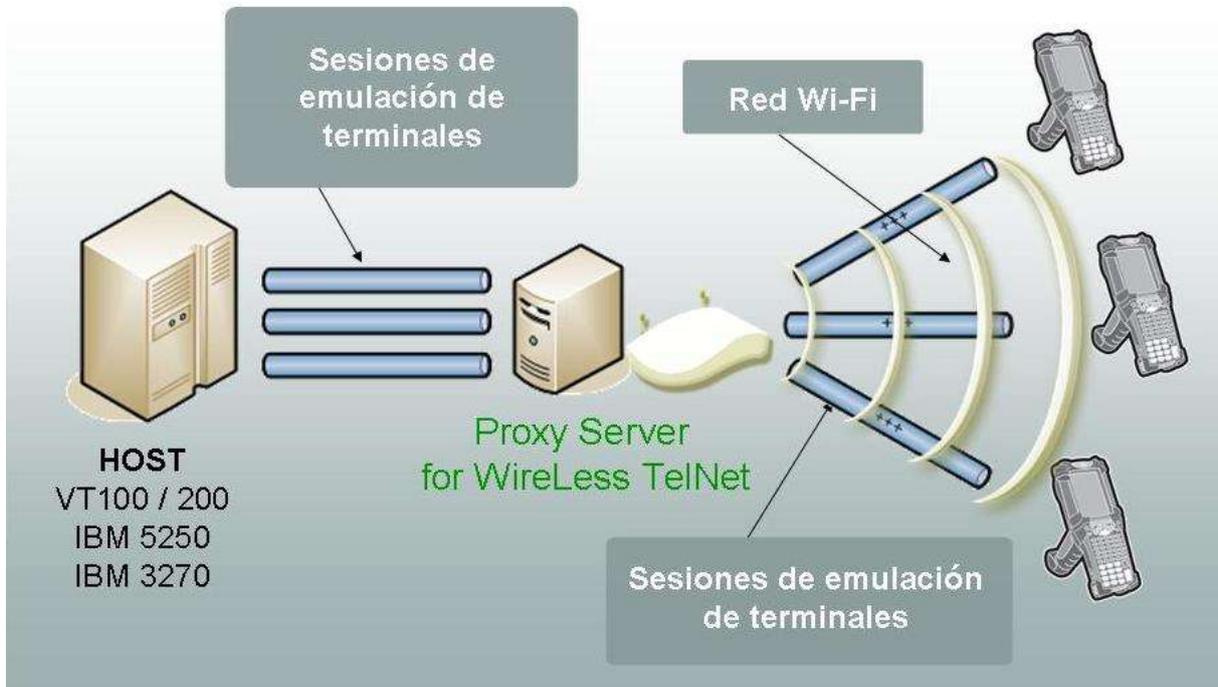
Mobile devices are capable of setting a terminal emulation session (Telnet-VT/Telnet-52/SSH) with a remote server and resetting it correctly even after being suspended or getting out of Access Point coverage area. Even though this function works correctly most of the time, it might happen that the session established with the remote server can't be reset or that you want to redirect all the traffic from the mobile devices towards a central server in order to monitor the activity.

Facing this problem, SofToGo introduces "WireLess TelNet Proxy Server", which consists on a software that functions as intermediary between mobile devices - which execute a "WireLess TelNet" version 4 client or subsequent- and remote servers. "WireLess TelNet Proxy Server" includes the following features:

- **Simple installation:** After installed, the software is immediately incorporated as a Windows Service that is automatically started when starting the PC.
- **Ease of use:** "Proxy Server WireLess TelNet" is able to be used right after installation.
- **Customized service:** For those users that want more detailed control of the server configuration, this application includes a group of options such as the port where connection requests from terminals will be listened to or the reject criteria of incoming connection requests, among others.
- **Remote administration through a web browser:** This product has a web server in order to provide a simple and handy administration tool.
- **Auto-Discovery** by wizard allowing to have no configured addresses in the PDA clients.
- **Load Balancing** with Proxy redundancy.
- **Secure SSH** like options with : Server authentication by certificates-fingerprint, user/password login, full ciphered data (Aes 256).

2 General Diagram

The following scheme resumes "WireLess TelNet Proxy Server" installation topology.



Terminals get connected to one or several Access Points through a Wi-Fi network. Access Points get connected to Proxy Server, which gets connected to hosts, which can be part of a LAN or accessible through a bigger network such as the Internet.

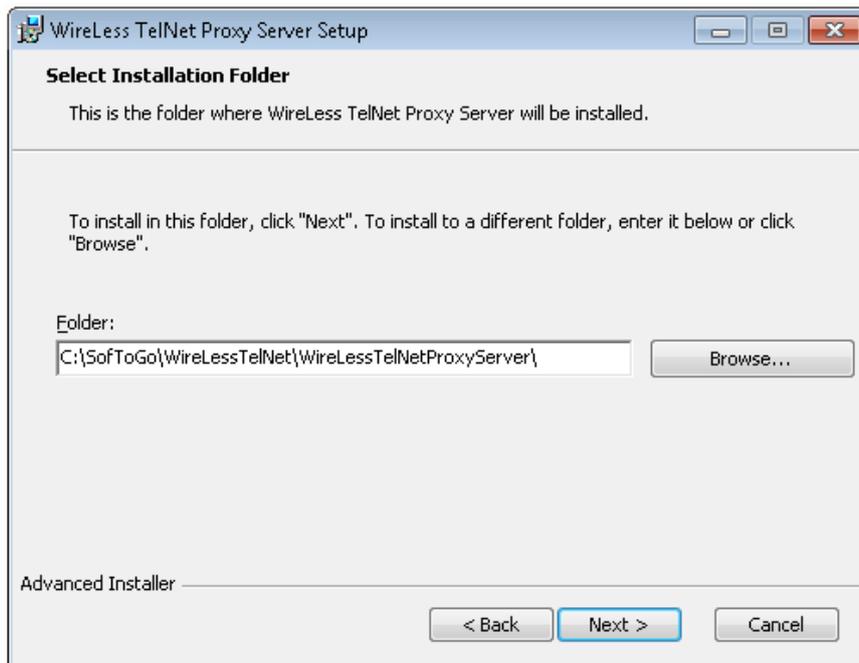
3 Installation Process

In order to install "WireLess TelNet Proxy Server", execute the application "WTnPs_V200.exe", that will display the following screen:

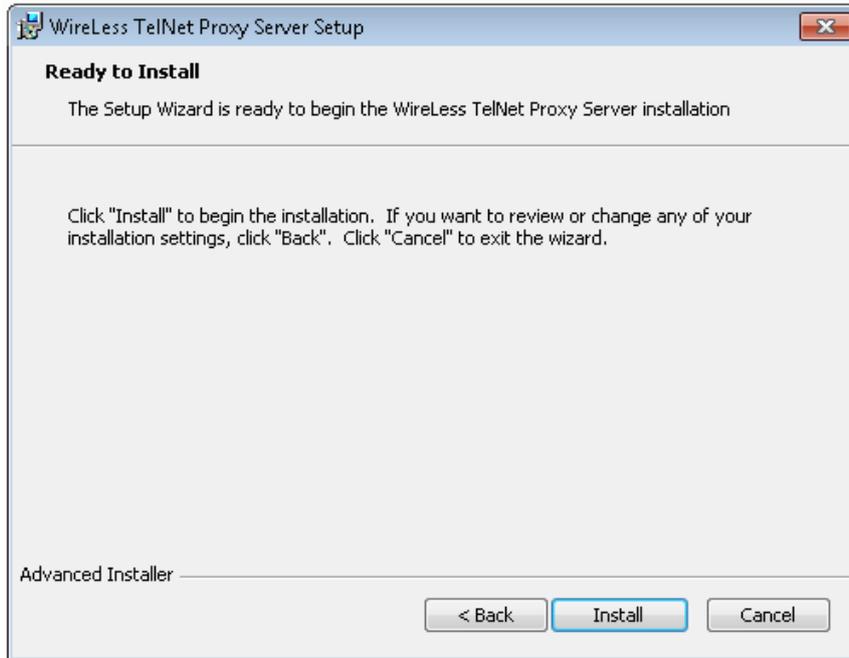


Press "Next".

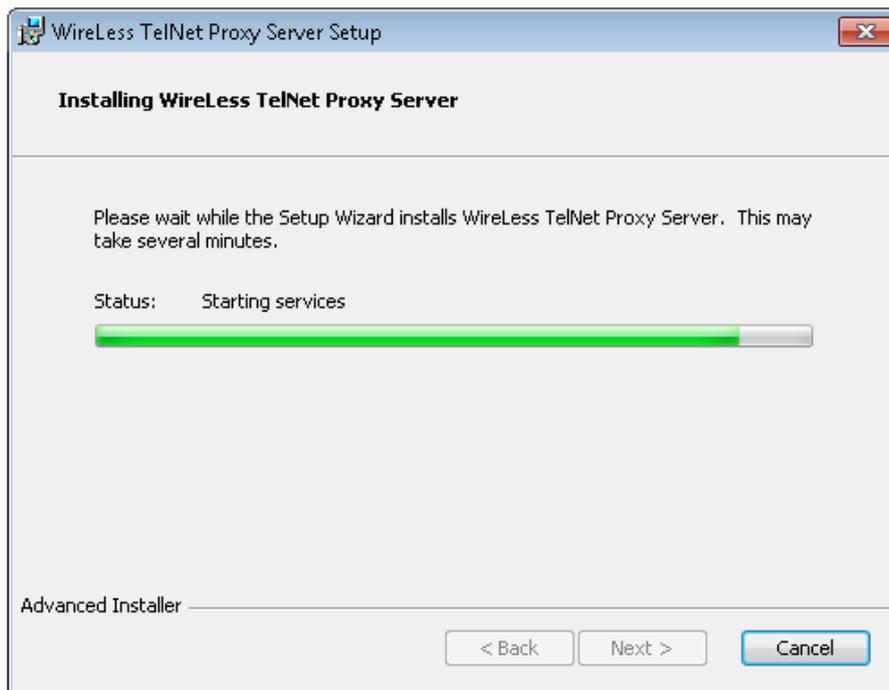
The next windows allow you to choose where you want to install ProxyServer.



Now, You are ready to install, press Install for starting installation.



Wait for the end of installation.



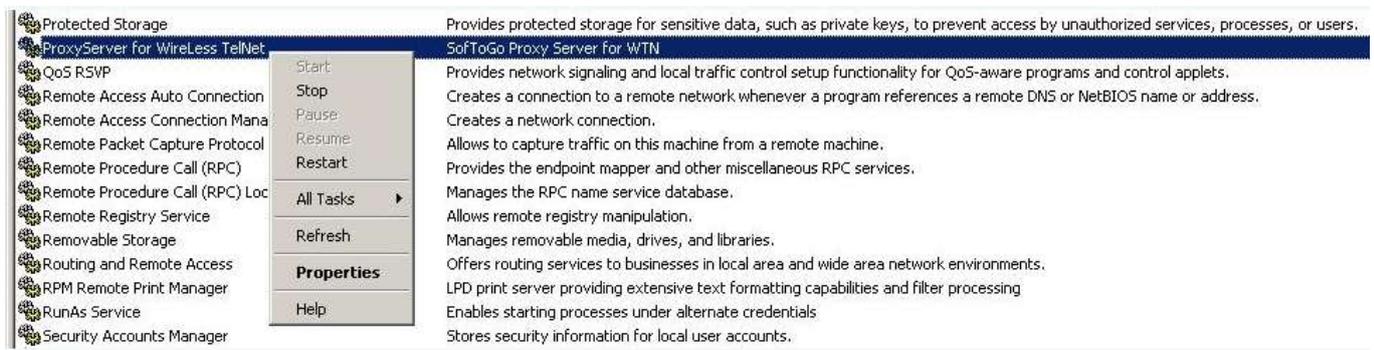
End of installation.

4 WireLess TelNet Proxy Server administration as Windows service

The administration process for "WireLess TelNet Proxy Server" is performed through the Windows Services panel, that can be accessed through **Start -> Settings -> Control Panel -> Administrative Tools -> Services**.

When the product is installed, it gets automatically registered on the system services list. From that moment, "WireLess TelNet Proxy Server" can be administrated as any other Windows Service, which means it can be started, stopped, or restarted. To perform one of these options, select "WireLess TelNet Proxy Server" from the Windows services list and make a click with the right button.

The system will show a screen similar to the one displayed below, where you'll be able to choose the option you want to perform:



5 Web administration console

"WireLess TelNet Proxy Server" includes an integrated web administration console, which allows to monitor the current sessions between terminals and remote servers. There's a shortcut to the web administration console -which will automatically open a web browser- inside the "WireLess TelNet" group on Start menu. This shortcut is only valid for those servers that are listening on the default port (45031). In other case, the console can be accessed via a web browser by writing the name of the host where "WireLess TelNet Proxy Server" is being executed, followed by the character ':' and the number of the port set for listening connection requests. For example, if "WireLess TelNet Proxy Server" is executing on a host named "spark", and the integrated web server is listening to requests on port number 45031, the administration console can be reached at the following address: <http://spark:45031>.

When opening the web administration console, a login screen is displayed, where you must enter the administrator's username and the associated password, as on the following example:



The screenshot shows a web browser window with the following elements:

- Top left: [softogo]
- Header: Proxy Server for WTeINet
- Form fields: Username and Password
- Button: Login
- Footer: © 2007 SofToGo

If the login process is successful, the system displays the main administration screen, where the server status and other relevant information is displayed. The green circle located on the left superior corner indicates that the server is active for listening to new connection requests from terminals:



The screenshot shows the administration interface for the Proxy Server for WTelNet. At the top left is the [softogo] logo. Below it is a green header with the text "Proxy Server for WTelNet". A grey bar contains a "Refresh" button on the left and a "Logout" button on the right. The main content area features a "Server status" section with a green circle icon. Below the icon, the following information is displayed: "Start time: Fri Sep 21 11:17:17 2007", "Server version: ProxyServer for WireLess TelNet V1.0", "Number of sessions: 0", "Windows sessions: 0/1", and "DOS sessions: 0/1". To the right of this information is a button labeled "Block incoming connections". At the bottom of the page is a green footer with the text "© 2007 SofToGo".

The server can be configured for keeping the current sessions active, while denying the access to new ones. In order to activate this option, press "Block incoming connections".

The green circle will immediately turn into red, indicating the new status of the server:



This screenshot is identical in layout to the previous one, but the "Server status" icon is now a red circle. Additionally, the button to the right of the status information is now labeled "Allow incoming connections". All other text and elements remain the same.

If Proxy Server is back again accepting incoming connection requests and a terminal establishes a connection with it, the web based administrator will display a screen similar to the following one:

The screenshot shows the 'Proxy Server for WTelNet' web interface. At the top, there is a green header with the 'softogo' logo and the title 'Proxy Server for WTelNet'. Below the header, there are 'Refresh' and 'Logout' buttons. The main content area is titled 'Server status' and displays the following information:

- Start time: Fri Sep 21 11:17:17 2007
- Server version: ProxyServer for WireLess TelNet V1.0
- Number of sessions: 1
- Windows sessions: 1/1
- DOS sessions: 0/1

There is a 'Block incoming connections' button. Below this is a table titled 'Sessions' with the following columns: Session ID, User name, Status, Origin IP, Target server, Inactivity time, Packets received, and Reconnections. The table contains one row with the following data:

Session ID	User name	Status	Origin IP	Target server	Inactivity time	Packets received	Reconnections
1		ACTIVE	10.10.10.70:1120	gollum:23	00:00:01	9	0

There is a 'Close sessions' button below the table. At the bottom of the page, there is a green footer with the text '© 2007 SofToGo'.

To refresh the list, press "**Refresh**".

To get more details about a session, select the telescope icon, which will display a screen like the following:

The screenshot shows the 'Proxy Server for WTelNet' web interface displaying session details. At the top, there is a green header with the 'softogo' logo and the title 'Proxy Server for WTelNet'. Below the header, there are 'Refresh' and 'Logout' buttons. The main content area is titled 'Session detail' and displays the following information:

- Session ID: 1
- Origin IP: 10.10.10.70
- Origin port: 1120
- Target IP: gollum
- Target port: 23
- Identification:
- Service requested: Telnet-WIN
- Number of reconnections: 0
- Start hour: Fri Sep 21 11:26:44 2007
- Bytes received from client: 343
- Bytes received from server: 1282
- Bytes sent to client: 1464
- Bytes sent to server: 15

At the bottom of the page, there is a green footer with the text '© 2007 SofToGo'.

To return to main page, press "**Return**".

You can force the termination process of established sessions by selecting them and clicking the "**Close sessions**" button at the bottom of the table:

[softogo]

Proxy Server for WTelNet

Refresh Logout

Server status

Start time: Fri Sep 21 11:17:17 2007
Server version: ProxyServer for WireLess TelNet V1.0
Number of sessions: 1
Windows sessions: 1/1
DOS sessions: 0/1

Block incoming connections

Sessions								
Session ID	User name	Status	Origin IP	Target server	Inactivity time	Packets received	Reconnections	
<input checked="" type="checkbox"/>	1		ACTIVE	10.10.10.70:1120	golbum23	00:00:47	9	0

Close sessions

© 2007 SofToGo

To logout from the current administration session, press the "**Logout**" button and the login screen will appear again.

6 Server configuration

"WireLess TelNet Proxy Server" has a configuration file: "**PsConfig.cfg**", which contains a group of parameters that define how the application works.

You can access this file through **Start ->Programs ->WireLess TelNet -> Proxy Server -> Configuration**.

Modifications to this file can be made with IniEditor. The configuration file is read when starting the service, so you must restart the service for the modifications to come into effect.

ProxyServerListenPort = (Integer number higher than 1024 and lower than 65536)

Defines the port number where the server will listen connection requests from terminals. If this option is not defined, the port **45621** will be set by default. WARNING: Do not select a port number used by another application nor the one that corresponds to **WebServerListenPort**.

WebServerListenPort = (Integer number higher than 1024 and lower than 65536)

Defines the port number where will be located the web server provided by the administration console. If this option is not defined, the port **45031** will be set by default. WARNING: Do not select a port number used by another application nor the one that corresponds to **ProxyServerListenPort**.

AdminUsername = (String)

Defines the username associated to the administrator, i. e. the user authorized to access the web administration console. This line is **MANDATORY** and must have a valid value. Otherwise, "WireLess TelNet Proxy Server" won't be started.

AdminPassword = (String)

Defines the password associated to the administrator, i. e. the user authorized to access the web administration console. This line is **MANDATORY** and must have a valid value. Otherwise, "WireLess TelNet Proxy Server" won't be started.

ProxyMode = (1=PlainText/2=Secure)

In PlainText mode, the data is not ciphered.

In Secure mode, the data is ciphered (AES256).

DoFingerprint= (yes/no)

If no, the server is not verified (a signature is not joined to certificate).

if yes a digital signature is joined to certificate (Public Key) to verify the server and obtain a fingerprint.

AllowV1Connections= (yes/no)

For backward compatibility only. If this option is set, the ProxyServer can accept V1 (Legacy) V2 (New) protocol.

Otherwise, it accepts V2 protocol only.

AllowAnonymousLogin= (yes/no)

If set, the users can connect to ProxyServer without giving a valid username and password (existing in the PsUsers.cfg file).

ReplaceSameIP = (yes/no)

If this option is set, all connection requests from a terminal replaces on the list the one that matching source IP and destination IP.

ReplaceSameOwner = (yes/no)

If this option is set, all connection requests from a terminal replaces on the list the one that has matching username (Owner).

ReplaceSameHostName = (yes/no)

If this option is set, all connection requests from a terminal replaces on the list the one that has matching computer name (HostName).

ReplaceSameMuid = (yes/no)

If this option is set, all connection requests from a terminal replaces on the list the one that has matching the unique identifier (MUID).

TrafficLogDo = (yes/no)

Defines if the server generates a log file with the content of each session that is started. Default value is "no". The name of these files follows this rule:

TrafficLogFilename + User ID + (IP origen/Owner) + CTP/STP + "." + TrafficLogFileExtension.

"TrafficLogFilename" and "TrafficLogFileExtension" are parameters of the configuration file that will be explained later. "User ID" is a number provided by the proxy server that identifies the terminal from the rest. "Owner" is the name defined for the owner on the terminal configuration. "CTP" and "STP" identify if the log file belongs to the communication between the terminal and the proxy server (CTP) or to the communication between the remote server and the proxy server (STP).

TrafficLogFilename = (String)

Defines the prefix of the log files generated by each session started with the terminals. This parameter will be ignored if **DumpTrafficLog="no"** or if it has been erased from the configuration file.

TrafficLogFileExtension = (String)

Defines the extension of the log files generated by each session started with the terminals. The value associated to this parameter will be ignored if **TrafficLogDo="no"** or if it has been erased from the configuration file.

TrafficLogNaming= (NONE/IP/OWNER)

Defines if the names of the log files must end with the IP address of the terminal (IP option), the owner's name (OWNER option) or none (NONE option).

TraceDir=.

Absolute root path for trace files. This name is completed with the date (YYMMDD) in order to create a daily folder which contains the logs of the day.

TraceName=History

Root of the name of the log file. The name will be completed with the "Task Number" for each client that logs on the server, creating a "WSServerXXX.log" file for each client connection. This file contains the actions performed by the client.

TraceLevel=50

Default "log level". Level 0 (zero) keeps the least information log. Level 99 keeps the most detailed information. This value may be dynamically modified by the administrator.

Level 10 logs main actions and fatal errors.

Level 50 logs warnings.

Level 99 keeps full trace of all events. This option should dramatically slow the server performance and generate large log files. Do not use this level in normal working mode.

TraceDays=10

Top number of daily log folders that will be stored on the PC. After this number is reached the folders are automatically deleted.

7 Client configuration

The WireLess TelNet PDA client must be configured in order to use "WireLess TelNet Proxy Server" (see 6.VI [SESSION_X] section

on http://www.sof2go.net/man/wtn/wtnce52/en/Cha_6_Frame.htm for WtN5250, or

on http://www.sof2go.net/man/wtn/wtncevt/en/Cha_6_Frame.htm for WtNVT).

[SESSION_0]

HostIP=83.206.234.188

Remote host IP address or ".NAME" (a dot followed by the name) to use the host name translation (see [Section 8](#) for PsHosts.cfg use).

Sample:

HostIP=83.206.234.188 -> Connects to host 83.206.234.188 through ProxyServer.

HostIP=.1 -> Connects to host denoted by "1" in PsHosts.cfg through ProxyServer.

Port=23

Host port.

ProxyMode=0

0= Do not use ProxyServer.

1= Use ProxyServer in PlainText mode, no ciphered.

2= Use ProxyServer in Secure mode ciphered.

If either client or server asks for Secure mode, this mode is used.

ProxyIP=10.10.10.15

Url/address of the ProxyServer system or "." to use the **auto-discovery wizard** to connect to any ProxyServer.

Sample:

ProxyIP=10.10.10.15 -> Connects directly to host at 10.10.10.15 IP address.

ProxyIP=. -> Look for any ProxyServer in local network and connects to it.

ProxyPort=45621

Proxy port.

ProxyLogon

0-NoLogon, log as anonymous user (ProxyServer MUST be configured to accept anonymous login).

1-Always ask for user/password before each connection.

2-One time only ask for user/password, then remember it.

3-Read user/password from Configuration (ProxyUsrPwd).

ProxyUsrPwd

User and password to provide to ProxyServer. ProxyLogon must be 3 to use this setting.

(USER/PASSWORD)

DoFingerprint

If 'Yes', the server certificate (Public Key) is checked against digital signature to verify the server

identity, then a 'fingerprint' is obtained.

At first connection to this server, the 'fingerprint' (20 hex digits) is shown to user, to be rejected or accepted for subsequent connections.

8 Remote Hosts By Wizard (PsHosts.cfg)

"WireLess TelNet Proxy Server" allows to connect to remote hosts by host name translation.

The system needs:

- A wizard identifier in the PDA allowing translation to host name.
- A configuration file (PsHosts.cfg) containing the wizard names and the associated hosts urls.

How it works:

Configure HostIP option on the PDA as ".NAME" (a dot followed by a name).

If the system receives a host name beginning with a dot, it is processed as a "wizard identifier" instead of processing it as a host name. Then, the ProxyServer looks for this identifier into the **PsHosts.cfg** configuration file to obtain the remote host to connect.

If you have different hosts to connect to, configure them with different identifiers to allow connection to different names.

The PsHosts.cfg file is a text file. Each line contains a wizard identifier and a host name separated by "=". For example: *WizId=HostName*

Sample of PsHosts.cfg:

1=83.206.234.188

2=bbs.montelnet.com

Configure the PDA with ".1" as Telnet host name and ProxyServer will translate the wizard ID "1" as "83.206.234.188".

9 Users / passwords (PsUsers.cfg)

The list of users and passwords are set in a configuration file PsUsers.cfg.

This is a text file containing the user name, a slash separator and the password for this user:

USER/PASSWORD

ME/MYPWD

JOE/123GO.

You can edit this file to add/remove/modify the users and passwords.

This file is read by ProxyServer at start time, so if you modify this file, it is needed to **restart** WireLess TelNet ProxyServer, to read the new file.

10 Certificate (PsCertificate.ppk)

When "WireLess TelNet Proxy Server" is installed a generic certificate is provided.

It should be replaced by a SSH2-RSA certificate with a generator like 'puttygen.exe', and naming it as PsCertificate.ppk to replace the one provided with the installation package.

WARNING: This certificate contains the public and private key. The private key must be totally **confidential** and will not be transmitted in any way.

11 License

"WireLess TelNet Proxy Server" requires a license number. Without license, only one terminal may be connected.

License request form is accessible through **Start -> Programs -> WireLess TelNet -> Proxy Server V2-> License Request.**

The form must be filled and sent to Licence-request@hubone.fr.

* You need to stop and restart the service to get the new licenses on the server.

In order to use "Proxy Server for WireLess TelNet" with many users you must request for a license.

Start **License Request** and the following window will appear:

Screenshot of the SofToGo - WireLess Products License Code V3 window. The window title is "SofToGo - WireLess Products License Code V3". It features a "1/11" indicator, navigation arrows, and the "softogo" logo. The main content area is divided into "On-Line Registration" and "Manual Registration" sections. The "On-Line Registration" section has a "Request Licenses On-Line" button and a "*****" separator. The "Manual Registration" section has a "Request Licenses By e-Mail" button, an "Activation Key" input field, and a "SAVE" button. At the bottom, there is an "Exit" button and a "PC-ID" field containing "Z904F6P06S".

There are two registration modes: on-line or by e-mail.

On-line registration: Type your Registration Code on "**Registration Code**" field.

The Registration Code is a number you are furnished with when purchasing the product. After typing your Registration Code press on "**Request License On-Line**".

If you get an "Activation Key", your license has been activated.

If you enter an invalid code, an error message will appear, indicating that there was a mistake on the license request process.

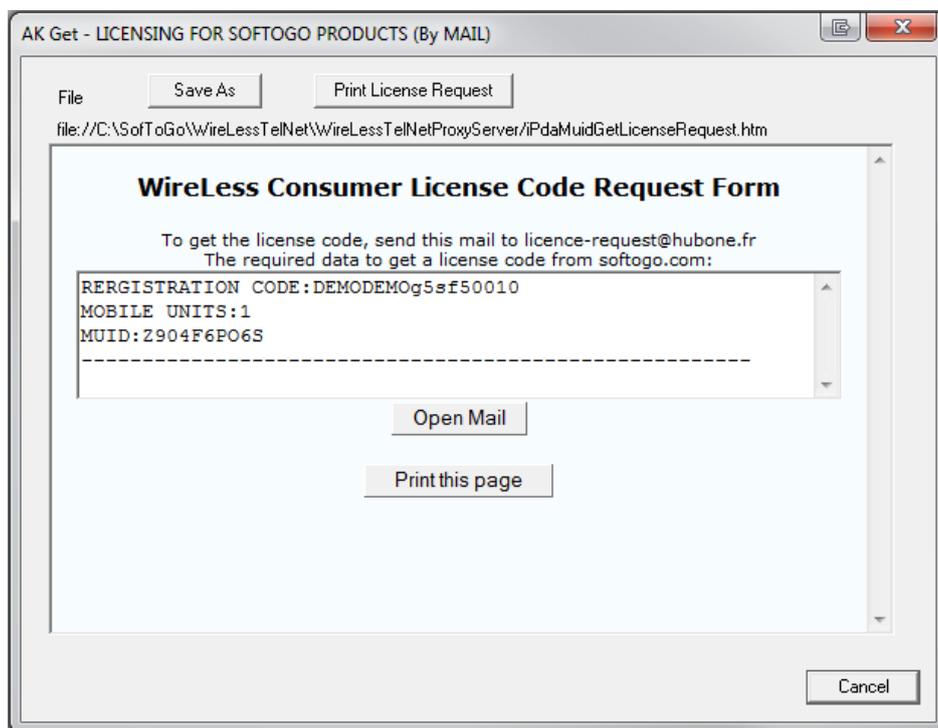


E-mail registration: After typing your Registration Code, press on "Request License by eMail".

A form containing all the necessary data for the license request will appear. **DO NOT MODIFY THIS FORM.**

Press on "**Open Mail**" to send the form to licence-request@hubone.fr.

"**Print this Page**" button allows to print the information.



You will receive an Activation Key. Type it on "Activation Key" field and press on "OK" to validate your new license.