

**The PC-Gateway (Client Version 1.0)**  
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**1. What is it?**

PC-Gateway routes requests and responses between the Internet and client computer, acting as a liaison between them. In addition to making internet connections, PC-Gateway handles the telnet protocol that most telnet servers require. Another way of describing what it does is to say that it watches the port that the client is connected to and when data is sent from the client, it sends it out through a socket on the host computer to the internet, and vice-versa.

**2. Definition of terms used**

The "host" computer is the Win/95 computer that is connected to the internet through a dial-up connection. The "client" computer is the computer that is connected to the host computer with a null modem cable. The client computer can be any type of computer or terminal that has a serial port. A "null modem cable" is a cable that has certain serial lines crossed, designed for a direct computer-to-computer link through their serial ports.

**3. Host requirements**

The host computer must be running Windows 95 and winsock 1.x. Winsock 1.1 is the version that comes with Windows 95. Some Windows 95 users may have upgraded to winsock 2. The way you can tell is to look in the \windows directory for a directory named "ws2bakup". If ws2bakup is there, then the Windows 95 system has been upgraded to winsock 2, and the PC-Gateway will not work. Winsock 2 provides some minor enhancements over winsock 1. There is a way to uninstall winsock 2 and restore winsock 1, but it is beyond the scope of

this documentation to cover how to do this.

The host computer must have a working serial port that the null modem cable can be connected to. You also need a null modem cable, or a regular modem cable with a null modem connector on one end.

#### **4. Client requirements**

Any computer or terminal that has a working serial port can be used as a client. Terminals like VT-100's can be easily configured to work with the PC-Gateway. If you are using a computer as the client, you will also need some type of terminal software, and if possible you should operate the client in 80 column mode.

#### **5. Hardware setup**

This is the easy part. Just connect your null modem cable in to the serial ports of the client and host systems.

#### **6. Software setup**

This part is only a little bit harder than the hardware setup. You must first run the supplied netsetup.exe program on the host system. The purpose of the netsetup program is to ask you some questions about your networking setup and save that information in to a file that the PC-Gateway will use later. You can get this information by running winipcfg.exe or by opening start/settings/control panel/network. When it asks for the directory to save the file in to, just use your /windows directory, or choose the directory that you placed the proxy.exe in to. It will also add one new line in your autoexec.bat file, which sets an environmental variable named "lsock" to point to the directory that you told it to save it's files in to. After this you will need to reboot for the changes to take effect. After rebooting, start a MS-DOS window and cd in to the directory where the PC-Gateway program resides. The name of the file is "proxy.exe". Decide on a port speed that both the client and host can both handle, and also make sure which com port the null modem is connected to. You will use this information as command line parameters when you run the proxy. For instance, if the null modem is connected to com 1 and you want the speed to be set to 19,200, you would type "proxy -baud 19200 -com 1". To get a full listing of all of the supported command line parameters, just type "proxy" all by itself, and a short list will appear.

For the client system, the only thing that you have to decide is what speed you want to set it's serial port to. This speed will have to match the speed that you set the PC-Gateway to.

#### **7. Your first session**

OK, you think that you are finally ready to to use your client system to go online for the first time? Good! The last thing you need to do is to run your terminal program on the client system. If your terminal program has a dial-up menu, you need to make a new entry in it. If it doesn't support a dial-up menu, just skip down to the next paragraph. Now, make a new entry and name it "CTH", and use "14193684413" as the phone number. Now dial that number, and skip the next paragraph.

If your client software doesn't have a dial-up menu, just drop to the terminal screen and type "ATDT14193684413". That string will get sent to the PC-Gateway just as if a dial-up menu had sent it.

If all goes well you will get connected to the bbs in a few seconds. If not, eventually the PC-Gateway will time-out and you can try again later. Some bbses are not mult-user, which means that only one user at a time can be using them.

## 8. What servers can you connect to?

This is where the fun begins! I have supplied a few bbses and lynx servers that you can connect to, as provided in the gateway.cfg file. If you open that file in notepad you will see an entry for the bbs that you connected to in the previous section. You will also see a few other entries. Try them all out. If you want to add a new entry to the gateway.cfg file, all you have to do is to follow the same syntax and format, and make sure that you use an 11 digit phone number. The phone number does not have to be a real one, and only serves as a reference between the terminal program on the client and the PC-Gateway.

The format for a new entry in gateway.cfg is as follows:

1-"PHONE ", every entry must begin with this.

2- telephone number. Once again, this is not a real telephone number, but serves as a way for the terminal's dial-up menu to communicate to the PC\_Gateway which server you really want to connect to.

3- the server's name goes here.

4- ":xx", where the xx is replaced by the port number that the server is listening to. Normally this is port 23.

Here are some descriptions for the servers that are in the gateway.cfg file:

cth.tzo.com This is a BBS that I run. You should be able to connect to this using a terminal width of either 40 or 80 characters. No terminal emulation is necessary.

freenet.victoria.bc.ca This is a nice BBS in Australia. After connecting to it, hit the ENTER or RETURN key a few times to get it's attention. Supports ANSI, VT-50, and VT-52 terminal emulation, and requires a terminal width of 80 columns.

ukanaix.cc.ukans.edu This is a server that runs lynx. Using lynx allows a text terminal to surf the net in text mode. Choose VT-100 or ANSI at the terminal emulation prompt. At the login prompt type "www" or "lynx". At the password prompt type ENTER or the RETURN key. Use your cursor keys to highlight a link, and press ENTER or RETURN to select a link. Type "HELP" or "?" to get instructions.

telnet.w3.org This server runs a line-mode web browser. No terminal emulation is necessary.

pandapub.isca.uiowa.edu This server runs lynx. It supports ANSI, VT, and teletype terminal translations.

sailor.lib.md.us This server runs lynx. When it prompts you for your terminal emulation, choose VT-100. Even if your terminal only supports ANSI, choosing VT-100 usually produces a usable session.

## 9. Trouble shooting and FAQ

**Problem:** When the client's terminal program tries to dial out, nothing happens except that "Cannot find entry in gateway.cfg" gets printed on the proxy screen.

**Answer:** The dial-out string does not match any entry found in the gateway.cfg file. Check the number that the client is trying to dial and make sure that it matches the desired entry in the gateway.cfg file. Use notepad.exe to do this. Also make sure that the phone number is exactly 11 digits in length.

**Problem:** As soon as I run proxy.exe, everything locks up.

**Answer:** Check what com port you are telling the program to use. If you tell it to use a com port that is already being used, or if the com port you wish to use has an IRQ conflict with another device, a lockup can happen. Another possible cause for a lockup is if the host system is using winsock 2. This software requires winsock 1.

**Problem:** After an internet connection is made, all I get on the client system's screen is garbage.

**Answer:** Check to be sure that the port speed is set the same on both the client and host systems.

**Problem:** After an internet connection is made, I see some text on my client system's screen, but then the other system will not respond to anything I type.

**Answer:** After a connection is made, the telnet protocol begins a negotiation sequence to try and get the best connection and response from the remote system and the system that is connecting. The PC-Gateway probably doesn't understand exactly what the remote server is trying to negotiate, or perhaps the remote system doesn't understand some type of telnet reply that the PC-Gateway has sent to it. In such cases there isn't much you can do. Another possible cause for such a problem is that the remote system is waiting for an ANSI or VT-100 response from your client's terminal program. In such cases you might try switching from ANSI to VT-100 mode in your terminal, or vice-versa.

**Problem:** I already have the APE/SIO2PC cable plugged in. Do I have to keep swapping it with the null modem cable?

**Answer:** It is reported that you can use the APE/SIO2PC cable as a null modem cable if you load rverter.com (if using BobTerm) or rverter.hnd (if using Ice-T) first, before loading the terminal program.

Problem: Ice-T won't dial out when I use it's dialing menu.

Answer: Put a "T" in front of the 11 digit phone number in it's dialing menu. Example- change "12345678901" to "T12345678901"

Problem: Sometimes when I try to connect to a server, it seems to lock up for several minutes.

Answer: The server is either busy or down, and the pc-gateway is experiencing a very long time-out. If you are patient it should time-out eventually.

## 10. Other helpful and interesting links

A list of BBSes can be found at:

[http://bbs.augsburg.edu/~schwartz/ebbs\\_other.html](http://bbs.augsburg.edu/~schwartz/ebbs_other.html)

A helpful page about the TELNET protocol can be found at:

<http://www.pacificcoast.net/telnet.html>

Over 600 Telnettable BBS Listings!

<http://www.thedirectory.org/telnet/>

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A special thanks goes to Marius Diepenhorst in the Netherlands! Without his help and testing this project would never have been possible. He worked very hard to make this project a success.

Thanks Marius!

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Support shareware! If you use and enjoy this program, a \$10.00 donation would be appreciated and help to encourage me to keep on improving it. Please send donations to:

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Please send suggestions, bug reports, etc., to:  
[tomhunt@bright.net](mailto:tomhunt@bright.net)

Visit the PC-Gateway web page at:  
<http://cth.tzo.com/pro/gateway1.html>

Visit the BBS Express! Professional web page at:  
<http://cth.tzo.com/pro/pro1.html>