Help Topic Unavailable

This help topic that you requested does not exist in the help file. Please report this problem to Grok.

If you find a typographical or technically incorrect piece information in any NetProxy help topic, you should report it via fax or email (to support@grok.co.uk) in the usual manner.

Thank you for using NetProxy.

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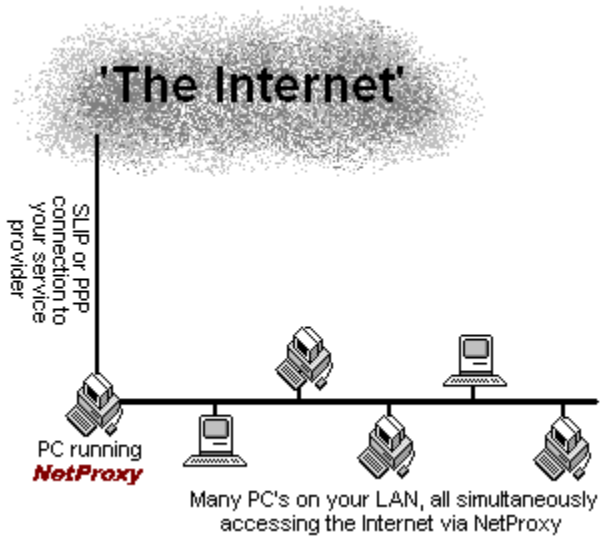
NetProxy

Introduction and Overview

NetProxy is a *multiple-protocol proxy server* and *firewall* system for Windows 95 or Windows NT. It allows (theoretically) any number of users on your LAN to access the Internet via a 'gateway' PC using a single IP connection. Typically, this is a dial-up SLIP or PPP connection to the Internet, but you can use NetProxy to connect your LAN via an ISDN terminal adapter, frame relay, leased line or any other suitable TCP/IP network connection.

The *multiple protocol proxy server* is the part of NetProxy that lets many machines on your LAN share a single IP connection to the Internet and the *firewall* is the part that regulates which Internet sites people on your LAN can connect out to and which sites on the Internet can initiate connections to the machines on your LAN.

Because most Internet applications use the TCP/IP protocol suite to talk to the Internet, you must install TCP/IP on each of the machines on your LAN that you wish to provide Internet access to, and give each machine it's own, unique IP address. The IP addresses you assign do not need to be registered with InterNIC because at no time is any machine on your LAN connected directly to the Internet. The section "Configuring TCP/IP on your LAN workstations" explains how to set up your LAN for use with NetProxy.



A graphical overview of how NetProxy connects your entire LAN to the Internet.

If you have a dial-up modem connection to the Internet, you can configure NetProxy to automatically dial your Internet Service Provider when one of the machines on your LAN tries to connect to the Internet, and drop the line when nobody is using the Internet. This ensures that any telephone or connect time charges are kept to an absolute minimum.

About the Author

NetProxy is designed and developed in England by Chris Cowley.

“I am a professional programmer, typically involved in the development of relational database solutions under MS-DOS and Windows. I have worked on a number of large development projects for major government, pharmaceutical, construction, and retail organisations in the United Kingdom.

The first Internet application that I released was SpikeMail, a shareware Microsoft Mail/Exchange to SMTP gateway for Windows (available from Grok Developments). I began developing SpikeMail as a personal project to improve my knowledge of writing TCP/IP applications using the Winsock API, as well as fulfilling a perceived gap in the market for an affordable SMTP gateway for MS-Mail.

Income generated from SpikeMail and various other pieces of contract programming work has enabled me to develop NetProxy, which I see as a natural extension of the capabilities of SpikeMail – allowing LAN users to use the many facilities of the global Internet such as FTP and the World Wide Web in addition to electronic mail.

If you use NetProxy for longer than the evaluation period, please support future development work by registering.”

Configuring the NetProxy PC

NetProxy is a 32 bit Windows application. It requires the services of either Windows 95, or Windows NT (version 3.51 or later). It will not run under Windows 3 or Windows for Workgroups, even with the Win32S extensions installed. However, the PC's on your LAN that connect to the Internet via NetProxy can be running any operating system that supports TCP/IP. This includes Windows for Workgroups (with the Microsoft Winsock TCP/IP protocol stack), Windows 3.1x (with any one of several commercial or shareware Winsock TCP/IP protocol stacks), IBM OS/2 Warp, any variety of UNIX (of course!), and Apple Macintosh computers.

The PC on which you wish to run NetProxy must have a correctly configured TCP/IP connection to the Internet. If you currently use the machine on which you have installed NetProxy to access the Internet without problems, then you can safely assume that your dial-up TCP/IP connection is correctly configured.

If you plan to use the dial on demand feature of NetProxy, you should have the Microsoft Dial-Up Scripting Tool installed and configured with a script to automatically connect to your service provider. The Microsoft Dial-Up Scripting Tool is on the Windows 95 CD-ROM, and is also available via anonymous ftp from ftp.microsoft.com or on the world wide web at http://www.microsoft.com/.

Assuming that you have dial up networking configured on your NetProxy PC, you need to install the TCP/IP protocol for your network card and assign it a unique internal IP address so that NetProxy can relay packets of data from the Internet to the workstations on your LAN. To do this follow the steps in section entitled Installing TCP/IP for the Network Interface on your NetProxy PC.

After you have installed TCP/IP on your NetProxy PC, you should configure the services you wish to provide to your LAN users. You may do this by following the instructions in the section entitled Configuring NetProxy Services.

NetProxy

Installing TCP/IP for the Network Interface on your NetProxy PC

To install TCP/IP for the Network card in your NetProxy PC under Windows 95, follow the steps below.

1. Install the TCP/IP protcol for your Network Card

- Run Control Panel and select the 'Network' option.
- Highlight your Network card in the list of network components and click 'Add..'.
- Select 'Protocol' to add a new protocol for your Network card and click 'Add…'.
- Under the 'Manufacturer' list, select Microsoft, and select TCP/IP from the 'Network Protocols' list.
- Click OK to install TCP/IP.

2. Configure the Properties for TCP/IP

IP Address and Subnet Mask:

- Highlight the newly installed protocol.(shown as 'TCP/IP -> Your network adapter name') and click 'Properties' to configure the protocol.
- Under the 'IP Address' tab, select the 'Specify IP address' option and enter **192.168.0.1** for the IP Address, and **255.255.255.0** for the subnet mask. (This assumes that you are using the private, class C, IP address space of **192.168.0**, which we recommend).

DNS configuration

- Select the 'DNS configuration' tab and select the 'Enable DNS' option
- Enter 'gateway' for the host name and leave the domain name blank.
- Add the name of one or more domain name servers under the DNS Server Search Order section. This should be the IP address of the domain name servers belonging to your Internet Service Provider.

Other options

- Ensure that there are no entries listed under the 'installed gateways' option in the 'Gateways' tab. You should leave all other options for TCP/IP at their default settings.
- Click OK to save the settings, and click OK to close the Network settings dialog. You may be prompted to enter your Windows 95 CD-ROM or installation disks, so that Windows can install the necessary components for TCP/IP.

Restarting your computer will complete the installation. Installing TCP/IP under Windows NT is a very similar process (if fact the process should be *identical* under Windows NT 4.0).

NetProxy

Configuring NetProxy Services

NetProxy provides proxy services for the following protocols:-

- **World Wide Web (HTTP Proxy)**

Proxy services for World Wide Web clients such as Netscape Navigator, Mosaic, or Microsoft Internet Explorer.

- **File Transfer Protocol (FTP Gateway)**

An FTP gateway this is compatible with all command-line FTP clients, as well as WS_FTP and CuteFTP.

- **Telnet (Telnet Gateway)**

Telnet gateway compatible with all Telnet clients.

- **Socks Protocol (SOCKS Server)**

The Socks protocol provides proxy services for any socks-capable client. One such client is Netscape Navigator, which uses the Socks protocol for anonymous FTP sessions.

- **Port Mapping (SMTP, POP, NNTP, IRC, etc.)**

Port Mapping is used to configure less complex services such as Electronic Mail, Usenet news, Internet Relay Chat, and many other protocols not covered by specific gateway or proxy services.

In addition to providing the above proxy services, NetProxy provides rules-based firewall services to regulate the traffic to and from your LAN. Also, if you are using NetProxy with a dial-up connection to the Internet, you can use dial on demand to have NetProxy dial your Internet service provider automatically when a user tries to connect to the Internet and to drop the line when there is no traffic.

- **Configuring the NetProxy Firewall**

- **Configuring Dial on Demand**

World Wide Web Proxy Server

The world wide web (WWW) proxy server allows your LAN users to use web clients to access the world wide web.

The configuration tab for the Web proxy server is shown below, click on an area of the picture for more information on each setting.

FTP Gateway

The FTP gateway allows your LAN users to use FTP clients to access FTP servers on the Internet.

The configuration tab for the FTP gateway is shown below, click on an area of the picture for more information on each setting.

The NetProxy FTP gateway uses the PASV command to allow passive transfers to and from remote FTP servers. Almost all FTP servers support the PASV command, but it is conceivable that you may come across an FTP server that does not support passive mode transfers. In this event your FTP client will be told by NetProxy that the PASV command is not supported on the remote server, what your FTP client does with this information depends upon how well it was written.

Telnet Gateway

The Telnet gateway allows your LAN users to use Telnet clients to communicate with hosts on the Internet.

The configuration tab for the Telnet gateway is shown below, click on an area of the picture for more information on each setting.

The troubleshooting section answers some frequently asked questions relating to the Telnet gateway.

Socks Server

The socks server allows your LAN users to use any client software that supports the socks protocol. The socks protocol exists to provide transparent proxy services to clients, and is all-encompassing in the services it can provide.

The configuration tab for the socks server is shown below, click on an area of the picture for more information on each setting.

The NetProxy socks server supports version 4 of the socks protocol. In order for this to work with client software, you must have domain name services available on your LAN. For this reason, NetProxy has a DNS forwarding option under the socks tab that acts as a gateway between your LAN and a remote DNS server on the Internet. Future versions of NetProxy may provide support for version 5 of the Socks protocol, making the use of DNS services for socks v5-capable clients redundant.

NetProxy does not support the Socks BIND command. This is intentional, as the use of the socks BIND command provides a potential security loophole that remote users could exploit to gain access to machines on your LAN.

Netscape Navigator can be configured to use the socks protocol for a variety of services, including FTP and Gopher.

Port Mapping

Port mapping allows you to map TCP ports on your NetProxy PC to ports on remote hosts on the Internet. This enables your LAN users to access a wide variety of services such as electronic mail (SMTP and POP), usenet news (NNTP) and Internet Relay Chat (IRC).

If you are unfamiliar with the concept of ports in TCP/IP, and which ports are used for which services, you might like to read our Port Mapping Primer, which gives a more detailed explanation of the port mapping options in NetProxy.

The configuration tab for port mapping is shown below, click on an area of the picture for more information on each setting.

Configuring the NetProxy Firewall

NetProxy includes firewall functionality that serves two main purposes:-

1) To define which hosts can connect to NetProxy. Typically, you would allow only the hosts on your own LAN to connect to NetProxy, but in certain circumstances (if you receive your mail using SMTP, or wish to run a web server or FTP server on a PC on your LAN, for example) you may want to allow certain hosts on the Internet to connect through NetProxy to reach one of the PC's on your LAN.

2) To define which remote hosts NetProxy will allow outbound connections to. Typically, you would allow connections to any remote host on the Internet, but you may wish to deny your users access to certain sites.

The security issues of running NetProxy are uncomplicated and are not analogous to directly connecting your LAN to the Internet using a dedicated router and InterNIC assigned IP addresses for the simple reason that **at no time are any of the computers on your LAN actually connected to the Internet!!** NetProxy just makes it look like they are. For example, there is no risk of outside hosts sending routing information to you LAN to facilitate IP address spoofing. Neither is there any possibility of outside hosts sending broadcast packets or using the ICMP protocol to probe hosts on your LAN. To other hosts on the Internet, your site will look like a single PC running multiple instances of web browsers, news readers, FTP clients or whatever.

Unless you have any special requirements (such as running an SMTP daemon on your LAN), we recommend that you set up the firewall as described below. This will provide the maximum level of security to the machines on your LAN (this assumes you are using the private class C address space of 192.168.0, which we recommend):-

Incoming	**Outgoing**
Deny all, except: 192.168.0.*	Allow all

The above settings ensure that the only hosts that can initiate a connection to NetProxy are the hosts on your LAN (i.e. only hosts in the 192.168.0.* address range), and that these hosts can connect to any site on the Internet.

If you run an SMTP daemon on one of the PC's behind your firewall, then the following settings for the firewall may be appropriate (this assumes that your service provider delivers your mail from either one of two hosts, with the IP addresses 158.152.1.73 and 158.152.1.74):-

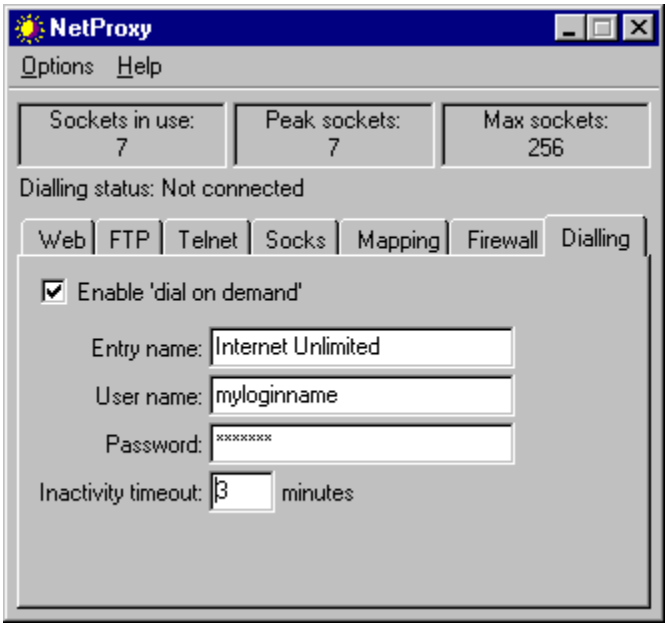
Incoming	**Outgoing**
Deny all, except: 192.168.0.* 158.152.1.73 158.152.1.74	Allow all.

The above settings, in addition to allowing incoming connections from the machines on your LAN, also allow the two mail delivery machines to deliver mail to a machine on your LAN. Note that you also have to set up port mapping on port 25 (the SMTP port) for this to work.

Configuring Dial on Demand

If you are using NetProxy with a dial-up modem connection to your Internet Service Provider, you can configure NetProxy to dial your service provider whenever anyone on your LAN attempts to connect to a site on the Internet. NetProxy will also drop the line when nobody is connected to the Internet.

The dial on demand tab in NetProxy is shown below, click an area of the picture for more information on each setting.



Installing TCP/IP on Your LAN Workstations

Once you have configured NetProxy, you must install the TCP/IP network protocol on each of the workstations on your LAN that you wish to provide Internet access to, and provide a unique IP address for each workstation.

The workstations on your LAN do not need to run Windows 95 or Windows NT, they can run any operating system that supports TCP/IP. This includes Windows for Workgroups 3.11, Windows 3.1, IBM OS/2 Warp, any variety of UNIX and many other operating platforms.

We recommend that you use the private, class C IP address space of **192.168.0** for your network. This range of addresses are reserved for private use and are guaranteed never to exist on the global Internet, so there is no requirement to register the addresses with InterNIC.

If you have followed the instructions for setting up NetProxy, you should have already assigned the IP address of **192.168.0.1** to the NetProxy PC. Therefore the first workstation that is to use NetProxy should be given the address **192.168.0.2**, the second **192.168.0.3** and so on up to **192.168.0.254** (the address **192.168.0.255** is reserved for network broadcasts). The network mask for this address space is **255.255.255.0**.

To configure a PC running Windows 95 or Windows NT Workstation v4.0, do the following:-

- Run control panel and select the 'Network' icon.
- In the network Window, select the 'Add…' button, select 'protocol' to add a new protocol for your network card and click 'Add…'.
- In the Manufacturers listbox, select 'Microsoft' and in the network protocols listbox, select 'TCP/IP' and click OK.

Next, alter the properties for the TCP/IP protocol as follows:-

- Under the *IP Address* tab, select '*Specify an IP address'* and type the next available IP address (for the first PC, this will be **192.168.0.2**), and type **255.255.255.0** in the *subnet mask* box.
- Under the *DNS configuration* tab, select *'Enable DNS'* and add a DNS server entry containing the IP address of the NetProxy PC (this should be **192.168.0.1**).

All other settings for TCP/IP should be left at the defaults (there should be no installed gateways, and WINS resolution should be disabled).

Now, all you have to do is configure your client software to use the NetProxy gateway services.

Configuring you Client Software to Use NetProxy

Each piece of client software that is used on your LAN workstations needs to be configured to use NetProxy instead of trying to directly connect to hosts on the Internet. Unfortunately, each piece of software has a different way of doing this, but in this section we show you how to configure the most popular packages.

Web Browsers

Netscape Navigator

To configure Netscape Navigator to use NetProxy, select 'Network Preferences…' from the Options menu in Netscape. Select the 'Proxies' tab and the 'manual proxy configuration' option. Click 'view…' to view the current settings and alter them to:-

FTP Proxy:		Port: 0
Gopher Proxy:		Port: 0
HTTP Proxy:	192.168.0.1	Port: 8080
Security Proxy:		Port: 0
WAIS Proxy:		Port: 0
SOCKS Host:	192.168.0.1	Port: 1080

Netscape Navigator will use the SOCKS protocol for FTP, Gopher and WAIS. **Do not enter anything for the FTP Proxy.**

Microsoft Internet Explorer

To configure Internet Explorer to use NetProxy, select the 'Internet' option in Control Panel. Select the 'Advanced' tab and check the 'Use proxy server' checkbox. Enter the IP address (usually **192.168.0.1**) and port number (usually 8080) for the web proxy sever on your NetProxy PC. Select OK to save the new settings.

FTP Clients

WS_FTP and WS_FTP32

You can use John Junod's WS_FTP and WS_FTP32 clients with NetProxy. To do this, select the profile of the host that you wish to connect to in the 'Session Profile' dialog. Click the 'Advanced' button and put a checkmark next to the 'use firewall' option. Enter the IP address of your NetProxy PC (usually **192.168.0.1**) in the host name field and enter the port number of the FTP gateway (usually port 21) in the port field. Set the firewall type to 'USER with no logon'.

Command line FTP clients.

To use a command-line based FTP client, such as the DOS-based FTP.EXE supplied by Microsoft with both Windows 95 and Windows NT, simply ftp to your NetProxy PC and enter your username as 'username@remote.ftp.host'. A sample ftp session is shown below:-

```
C:\>ftp 192.168.0.1
Connected to 192.168.0.1.
220 Welcome to the NetProxy FTP gateway at spike.grok.co.uk
User (spike:(none)): anonymous@sunsite.doc.ic.ac.uk
331 Guest login ok, send your complete e-mail address as password.
Password:
230-                The Archive  --  SunSITE Northern Europe
230-                ======================================
230-
230-   SunSITE Northern Europe is located at the Department of Computing,
230-   Imperial College, London and is running on a SPARCserver 1000 (with
230-   8 CPUs and 61 GB of RAID5 disk space) kindly donated by Sun Microsystems.
ftp>
```

Telnet Clients

You can use any Telnet client with NetProxy. Rather than telnetting directly to the destination host, telnet to the NetProxy PC (this is **192.168.0.1** if you followed our installation guidelines). Then, when you see the 'NetProxy>' prompt, type 'open hostname' where hostname is the name or IP address of the host on the Internet that you wish to telnet to. Ensure that you have the Telnet Gateway enabled in Netproxy.

News Readers

You can use any news reader with NetProxy. Your news reader will have a configurable option that lets you specify the name or IP address of the news server that you wish to connect to. Simply use the IP address assigned to your NetProxy PC (this is **192.168.0.1** if you followed our installation guidelines). Ensure that you have a port mapping configured in NetProxy for port 119 (NNTP).

Mail Programs

You can use any Internet mail program with NetProxy. You mail program will have a configurable option that lets you specify the name or IP address of the SMTP host that you wish to use for sending mail. Specify the IP address assigned to your NetProxy PC (this is **192.168.0.1** if you followed our installation guidelines). There will also be a configurable option that lets you specify the name or IP address of the POP3 host that you wish to use for receiving mail. Specify the IP address assigned to your Netproxy PC (this is **192.168.0.1** if you followed our installation guidelines). Ensure that you have port mappings configured in NetProxy for port 25 (SMTP) and port 110 (POP3).

Grok Developments Ltd

NetProxy is distributed by Grok Developments Limited. Grok offers a range of consultancy and development services relating to the Internet and to general database applications. These services include (but are not limited to):-

- Design, specification and development of custom TCP/IP client and server applications for use on the Internet and corporate Intranets.

- Documentation (including hypertext documentation such as Windows Help files, and HTML documents).

- Consultancy and support for existing DOS and Windows based applications.

We have a great deal of experience in developing applications for Microsoft Windows and MS-DOS using C, C++, Visual Basic, and Visual Basic for Applications. We can also develop custom CGI scripts for web servers using Perl.

Please contact us if you would like any more information about our products and services.

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Port Mapping Primer

By Chris Cowley, Grok Developments Ltd.

To facilitate the use of 'single-host' TCP/IP services such as SMTP and POP3 (for email) and NNTP (for usenet news), NetProxy has a facility called *port mapping*, which is accessed via the 'mapping' tab in the main window. This section describes what ports are, why you might want to map them, and how to map them in NetProxy. I apologise if it's completely unreadable, any suggestions for improvements will be graciously accepted.

What are ports?

The Internet has application protocols for commonly used applications such as FTP, Telnet and the world-wide-web. On the Internet, these common applications use something called a *well-known port assignment* to identify the nature of the data being sent or received.

Just as PC programs use port *LPT1* to send data to a printer and *COM1* to talk to a modem, Internet programs use a variety of protocol ports for specific Internet applications. For example, the *well-known port assignment* for sending email is port number 25. The *well-known port assignment* for sending and reading usenet news is port number 119.

What is port mapping?

Using port mapping, you can configure your NetProxy PC to forward any data it receives on a particular port number to another computer on the Internet. For example if your Internet service provider has a usenet news server on a computer called 'news.serviceprovider.com', it will be listening for incoming news connections on port 119. If you set up NetProxy to forward any data it receives on *it's* port 119 to port 119 on 'news.serviceprovider.com', then your NetProxy PC will appear as if it is a news server. You just have to set up the newsreader software on your LAN workstations to send and retrieve news articles from your NetProxy PC and NetProxy will forward the data to and from your service providers' news server as necessary.

The most frequently-used well-known port numbers are shown below:-

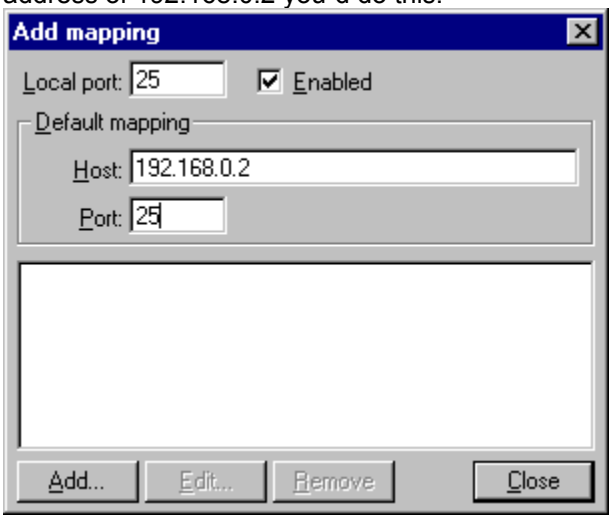
Protocol	*Port Num.*
File Transfer Protocol (ftp)	21
Telnet	23
Simple Mail Transfer Protocol (smtp)	25
Finger	79
HyperText Transfer Protocol (http)	80
Post Office Protocol v3 (pop3)	110
Network News Transfer Protocol (nntp)	119
Internet Relay Chat (irc)	6667

In addition to mapping the ports on your NetProxy PC to a default remote computer, you can map a port to a different remote computer depending upon the IP address of the computer that is initiating the connection. What use is this? Well, for instance, if you run an SMTP server on one of the computers on your LAN, you'd want NetProxy to map all incoming SMTP data from the Internet through to it so that it could process the incoming mail. But, when someone on your LAN sends outgoing Internet email, you'd want NetProxy to map the connection to your service provider's mailhost for delivery to the appropriate destination on the Internet. NetProxy needs to map the SMTP port to a different place depending on which computer is sending the data.

How do you set up port mapping in NetProxy?

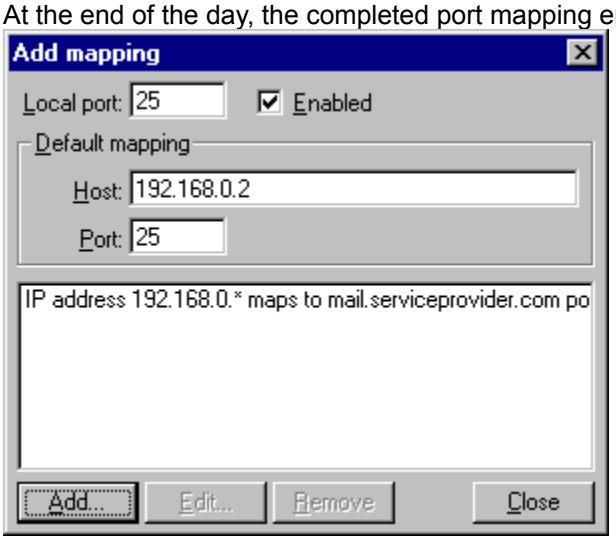
To configure NetProxy for the scenario described in the previous paragraph, you would specify the IP address of the PC running your SMTP server as the default host for incoming connections on port 25

(remember, the port number for SMTP is number 25). If you run your SMTP server on a PC with an IP address of 192.168.0.2 you'd do this:-



Now, before you click the 'close' button, click on the 'Add…' button. This allows you to add a list of exceptions to the default mapping depending on the IP address of the connecting machine. If the name of your service provider's SMTP mailhost was 'mail.serviceprovider.com', you could route the SMTP connections from your LAN to it by adding the following mask:-

At the end of the day, the completed port mapping entry should look something like this:-



This means 'map any incoming connections on port 25 to 192.168.0.2 *apart from* connections from 192.168.0.*, which should be mapped port 25 on mail.serviceprovider.com'.

Summary

Phew! If you understood all of that the first time around you can truly describe yourself as a hardened ‘InterNerd’. If you want a deeper understanding of TCP/IP, there are lots of books (of varying quality) on the subject and, predictably, there is lots of excellent information available about TCP/IP on the Internet. Try looking at the NetProxy home page <http://www.grok.co.uk/netproxy/> for pointers to some useful resources and white papers describing how to configure NetProxy for a variety of situations.

Registering NetProxy

NetProxy is not free software!! You are permitted to use the unregistered version for a period of 30 days for evaluation purposes. If, after this period, you decide you would like to continue to use NetProxy, you are required to submit the registration fee of £188 sterling (which includes value added tax at the current UK VAT rate of 17.5%).

For your convenience, we have included an order form for NetProxy in this help file. Print out the order form, fill in your details and post your order to us together with a cheque, postal order or international money order for £188 (sterling) or $249 (US dollars). We aim to turn around all sales within 3 working days of receipt of payment.

We also accept payment by cheque in US dollars. The US dollar price for the product is $249.

Please contact us for details of volume discounts, or if you would like to become a NetProxy re-seller.

Order Form

Fill in the appropriate details and mail your order to us, or use our on-line ordering service at <http://www.grok.co.uk/netproxy/register.html>

Please supply _____ licence(s) to use NetProxy (one licence is required for each computer that you wish to run a copy of NetProxy on).

Your name:

The name of your organisation:

Your E-Mail address (we will send your registration password to this address)**:**

Your full postal address:

Please tell us if you would like a VAT receipt to be sent to your postal address.

Remember to include a cheque, postal order or international money order for £188 (UK pounds-sterling) or $249 (US dollars) made payable to 'Grok Developments Ltd' with your order.

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E-Mail: sales@grok.co.uk

Your registration password will be sent to you via E-Mail upon receipt of your payment.

NetProxy is an ongoing development. When registering, be sure to tell us of any problems you've had, or any features you would like added to future releases.

Regrettably, we cannot invoice you for NetProxy. Payment terms are strictly cheque with order.

Special-offers may be periodically available. Please check the NetProxy home page at <http://www.grok.co.uk/netproxy/> for the latest pricing information before sending your payment as we cannot back-date any offers after your payment has been received.

Restrictions in the Unregistered version

The version of NetProxy that is freely distributed will work unrestricted for 30 days, after which it displays a timeout message and is disabled. When you send us your registration fee, you will receive a password that removes this restriction.

See the section on registering NetProxy for details of how to obtain a password to remove this restriction.

Troubleshooting

Every effort has been made to ensure that NetProxy is as easy-to-use and reliable as possible. However, it is a large and complicated piece of software and requires a little time and concentration to set up and configure. Below are some possible problems you may encounter and their solutions:-

 When I use the NetProxy telnet gateway, each character I type appears twice. For example, when I type ‘open hostname.com’ my telnet client displays the text ‘ooppeenn hhoossttnnaammee..ccoomm’.

 When you use telnet to connect to remote hosts, it is often the case that the remote host ‘echos’ each keypress to your client for display. If your telnet client is set up to display the keypresses itself, then two characters will be displayed for each keypress (one from the remote host, the other from the client itself). To fix the problem, you must turn off ‘local echo’ in your telnet client. See the documentation for your telnet client for information on how to do this.

 I have the Microsoft Dial-Up Scripting Tool installed on my NetProxy PC and dial-on-demand correctly configured, but NetProxy refuses to initiate a dial-up connection when I use the Internet from some of the PC’s on my LAN.

 Some Internet client applications do DNS lookups, which they expect to be resolved before they will talk to the Internet. Enable the *DNS forwarding* option under the ***socks*** tab in NetProxy and ensure that you have the ‘DNS server’ options on your NetProxy PC and LAN workstations configured exactly as described in this help file.

If you are still experiencing problems, e-mail *netproxy-support@grok.co.uk* or *fax* us with a full, clear, description of the problem(including details of your Winsock protocol stack, the name of your Internet service provider, and the hardware you are using).

We cannot promise to answer technical queries from unregistered users of NetProxy, but we will try our best.

Technical Information

NetProxy is a 32-bit Windows application written partly in Visual Basic, and partly in C++. A number of OLE custom controls contain functionality for interfacing VB with the Winsock v1.1 API and various other supporting routines.

Dedication

For Lucy.

Local **A**rea **N**etwork

A group of interconnected computers, usually at a single location.

Serial **L**ine **I**nternet **P**rotocol

SLIP is a protocol used for implementing TCP/IP over serial communications links (such as a modem line). If you connect to your service provider using a modem, your computer uses either the SLIP or PPP protocol to send and receive data.

Point to **P**oint **P**rotocol

PPP is a protocol used for remote communication between hosts or networks. If you connect to your service provider using a modem or ISDN line, your computer uses the PPP protocol to send and receive data.

Integrated **S**ervices **D**igital **N**etwork

ISDN lines are digital telephone lines. Unlike normal analogue telephone lines, ISDN does not suffer from line noise. ISDN calls are connected very quickly (typically under 1 second), and support speeds of up to 64Kbps per ‘channel’. You can often multiplex two or more ISDN channels to obtain bandwidth of 128Kbps or more.

The **Inter**net **N**etwork **I**nformation **C**entre is based in the USA and is run by AT&T Corp. and Network Solutions, Inc.

InterNIC is currently responsible for managing the IP address space and domain names for the majority of the global Internet. IP address space management is gradually being decentralised, with different organisations managing the address space for certain geographical regions. For example, European addresses are now managed by RIPE.

You can contact InterNIC at <http://www.internic.net/>

Enables or disables the web proxy server.

Defines the TCP port on the NetProxy PC that is to be used for the web proxy server. When setting up a web client to use the web proxy server, you must specify this port number. Typically, port 8080 or 80 is used for web proxy servers.

Use NetProxy's own internal web proxy server rather than forward web proxy requests to a remote web proxy server on the Internet.

Use a remote web proxy server. This is the preferred option if you have access to a caching proxy server on the Internet. You must specify the host name and port number of the web proxy server to use.

Specifies the name of a remote web proxy server to which NetProxy should forward web proxy requests from your LAN.

Specifies the TCP port number to which NetProxy should forward web proxy requests from your LAN.

Enables or disables the FTP gateway.

Defines the TCP port on the NetProxy PC that is to be used for the FTP gateway. When setting up an FTP client to use the gateway, you must specify this port number. Typically, port 21 is used for FTP.

Enables or disables the Telnet gateway.

Defines the TCP port on the NetProxy PC that is to be used for the Telnet gateway. When setting up a Telnet client to use the gateway, you must specify this port number. Typically, port 23 is used – this is the port that telnet clients will connect to by default.

Enables or disables the socks server.

Defines the TCP port on the NetProxy PC that is to be used for the Socks server. When setting up a Socks-capable client to use the gateway, you must specify this port number. Typically, port 1080 is used.

Enables the *Domain Name Service* forwarding facilities. This is required unless you only ever use the socks protocol to connect to hosts by IP address, rather than by host name.

Specifies the IP address of a remote DNS host to which NetProxy should forward DNS requests. This is usually the IP address of a domain name server belonging to your Internet service provider.

A list of currently mapped ports, and the default host and port to which they are mapped.

Add a new port mapping.

Edit the details of the currently selected port map.

Removes the currently selected port map. Any users that are using the port map that you remove will be disconnected.

Enables or disables dial on demand.

The ‘Dial-up Networking’ entry name for your Internet Service Provider. This must exactly match an entry that has been created in Microsoft Dial-Up Networking.

The username for logging into your Internet Service Provider. The username is passed to the Dial-Up Networking sub-system for login verification.

The password for logging into your Internet Service Provider. The password is passed to the Dial-Up Networking sub-system for login verification.

The number of minutes of inactivity that must occur before NetProxy disconnects from your Internet Service Provider.