

Optus@Home Cable Internet Connection & Sharing using Red Hat 7.2

(Version 1.0, 29-11-2001)

Purpose:

- To be able to Setup your Optus cable connection and share the connection on your home LAN.
- This howto is just one of many that u can use to setup your connection.
- This howto is aimed at people who have a small fully functional LAN setup (via windows or another operating system) and are contemplating or curious about Linux with no prior experience with Linux.
- **There are other ready-made options that are available, e-smith, smoothwall, clarkconnect and others that will accomplish the same purpose and you should explore these options.**
- **Preferably, you will want to install Linux on a separate machine and not on your existing gateway. Therefore, if you encounter any major problems, you can always revert to your windows gateway.**
- **If you decide to use your existing gateway (and not dual-boot, highly recommend that you don't dual boot), please ensure that you backup as Linux will erase all your files.**
- **I have opted not to use the dhcpd/dhcpd method because on a small home LAN, it is easy to setup clients manually.**

Requirements:

- A new(ish) version of a Linux distribution with GNOME or at the least gnomelibs and gnome core. (This method has been used on Red Hat version 7 and will work with most other popular distributions)
- A computer with two network cards.
- * CPU approximately Pentium II or higher.
- * RAM 32MB or higher.
- * Hard Disk at least 800MB or higher.
- CD-ROM drive
- A Cable Modem fully Setup and Computer Monitor etc.

* Recommendation

Firestarter – A firewall/router tool that can be obtained from

<http://firestarter.sourceforge.net/download.html> (get the rpm version under Binary packages)

<http://firestarter.sourceforge.net/index.html> is the home page for this tool.

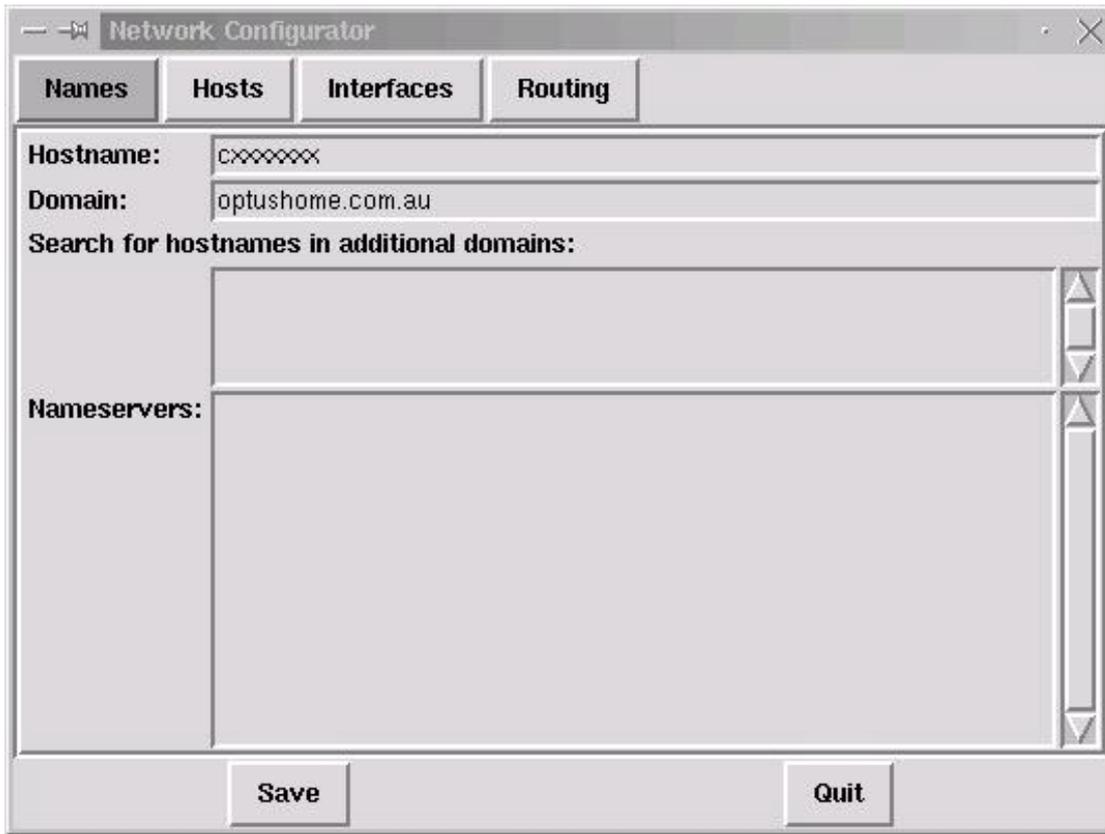
<http://firestarter.sourceforge.net/cgi-bin/faqview.cgi> will answer most of what you need to know.

Before we begin:

- **Ensure that you do not use any default firewalls with the distribution that you use.**
- **Install GNOME as either your default windows manager or gnomelibs and gnomecore (if you plan to use KDE).**
- Keep your hardware simple; the Linux gateway does not need any thing fancy.
- **Download the Firestarter tool and print any relevant information from the third link above.**
- **If you have a windows cable gateway, type the command winipcfg (expand for all details) or ipconfig /all from a command prompt. Note down the dns server ip addresses and the connection-specific dns suffix.**
- Stay calm, this guide does not make any guarantees that it will be all smooth sailing. :)

Procedure:

Even before connecting the cable to the modem, you need to ensure that both your network adapters have been detected and setup. To do this, open a console prompt and type the command: **netcfg**



The cxxxxxxx hostname is the name given to you by your Optus installer (Due to new changes to the Optus@Home network you are not required to have this as your hostname, you may choose anything you wish). Add the domain as above.

Click the **Hosts** button and make it look like this:

Note: To make a change, simply click the edit button from here on in each illustration



The name firewall can be anything.

Click the **Interfaces** button:



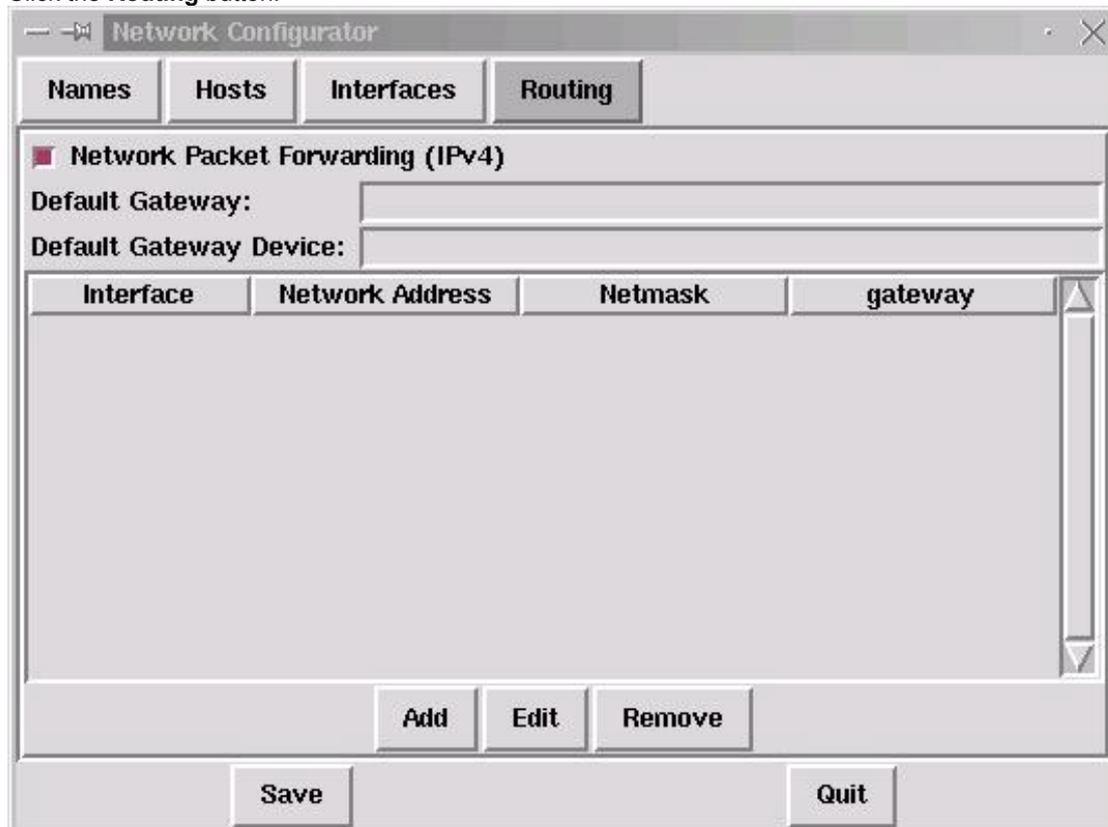
Edit eth0 and eth1 to look like the above.

eth0 is your external adapter connected to your modem
eth1 is your internal adapter

****** IMPORTANT ******

If you do not see the two adapters eth0 and eth1 then you have a problem. You need to sort this out before u proceed. **Stop and have a look at the last page.**

Click the **Routing** button:



You are almost done and ready to connect.

Before you reboot, install the Firestarter package mentioned on page 1.

From their FAQ:

If you got the RPM binary version, type "rpm -Uvh firestarter*" in a console to install it (**you will need to be in the directory where this package resides**). Make sure you are in the directory you downloaded firestarter to and that you are logged in as root. Alternatively, you can use a graphical RPM manager like GnoRPM.

Once installed, check your gnome menu to ensure an icon exist.

Connect the cable to your modem and reboot. Watch the screen as it scrolls by. If all goes well you should see:

```
Loading... eth0      [ok]
Loading... eth1      [ok]
```

Once you have logged in, from a console prompt type the command:

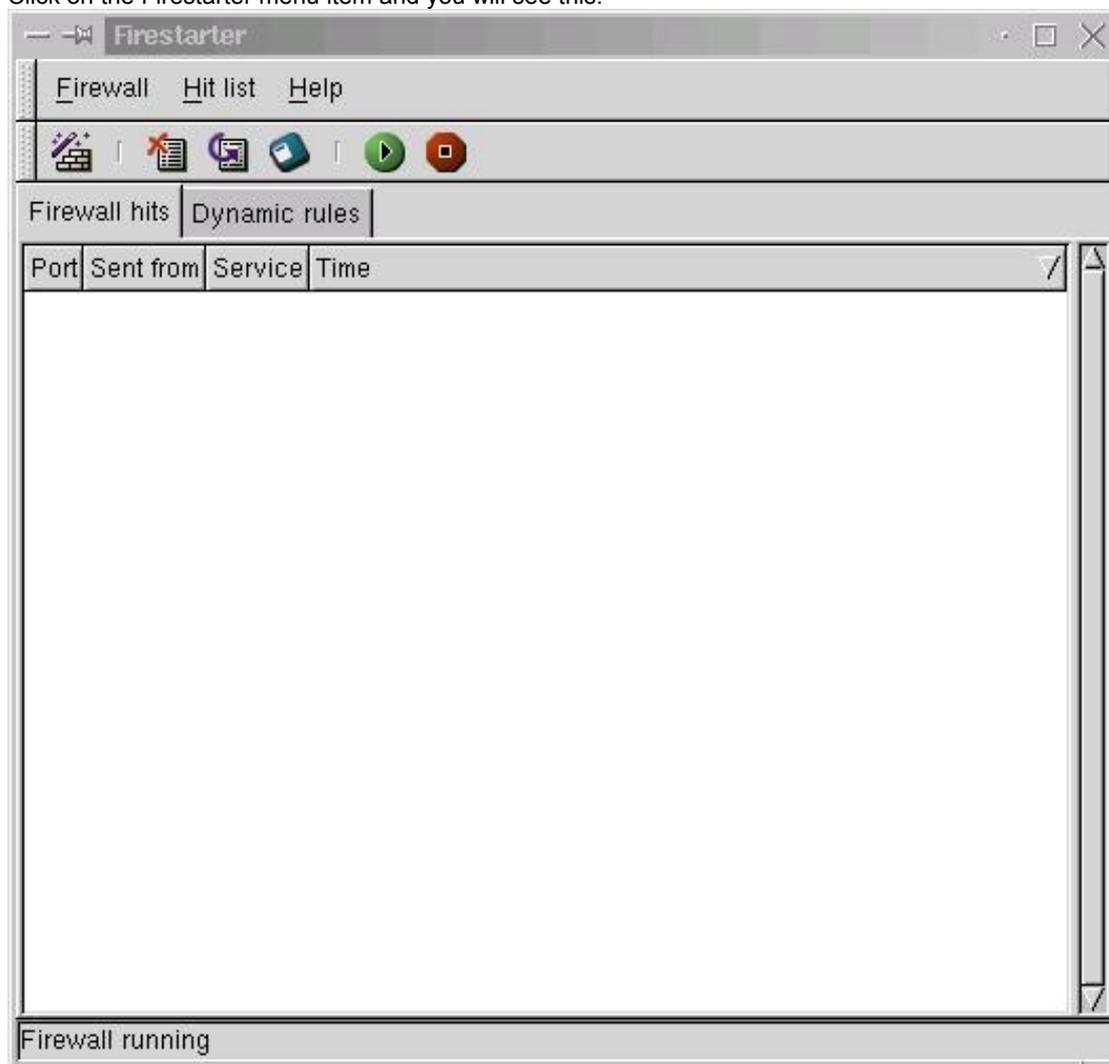
ifconfig

You should see three adapters displayed with their statistics. eth0, eth1 and lo.

Next, we will setup Firestarter.

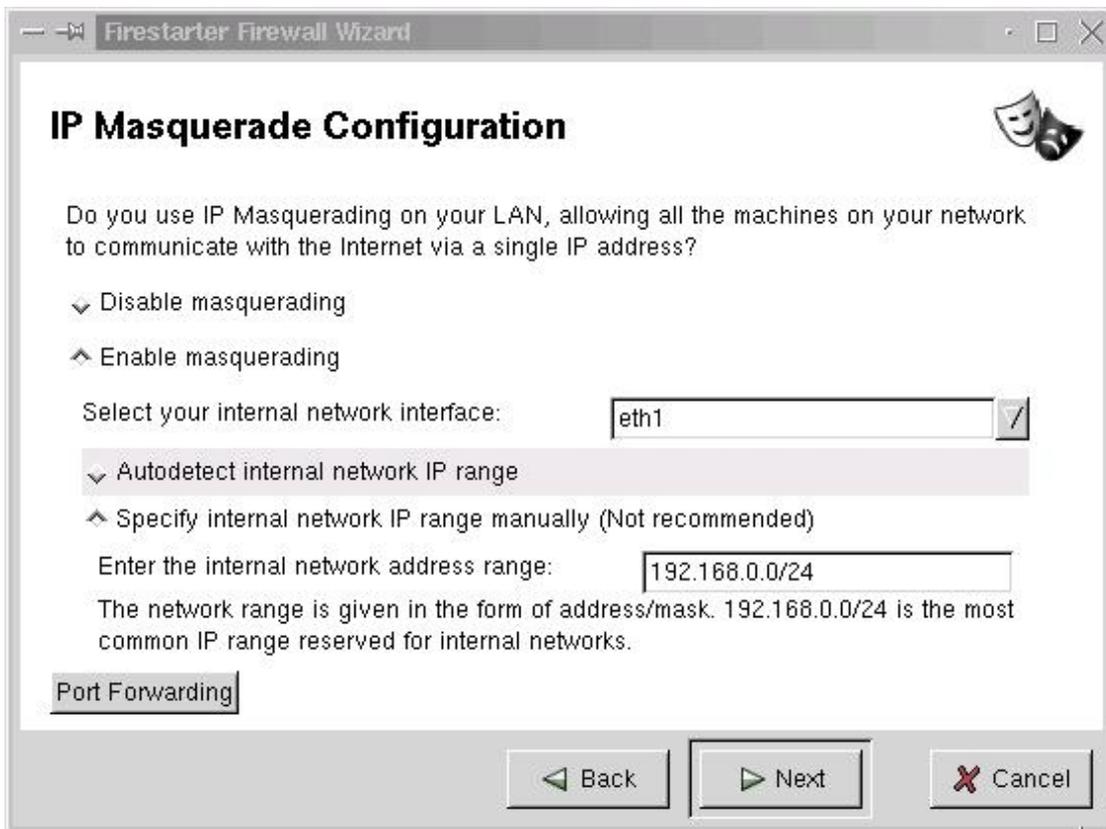
Firestarter Setup:

Click on the Firestarter menu item and you will see this:

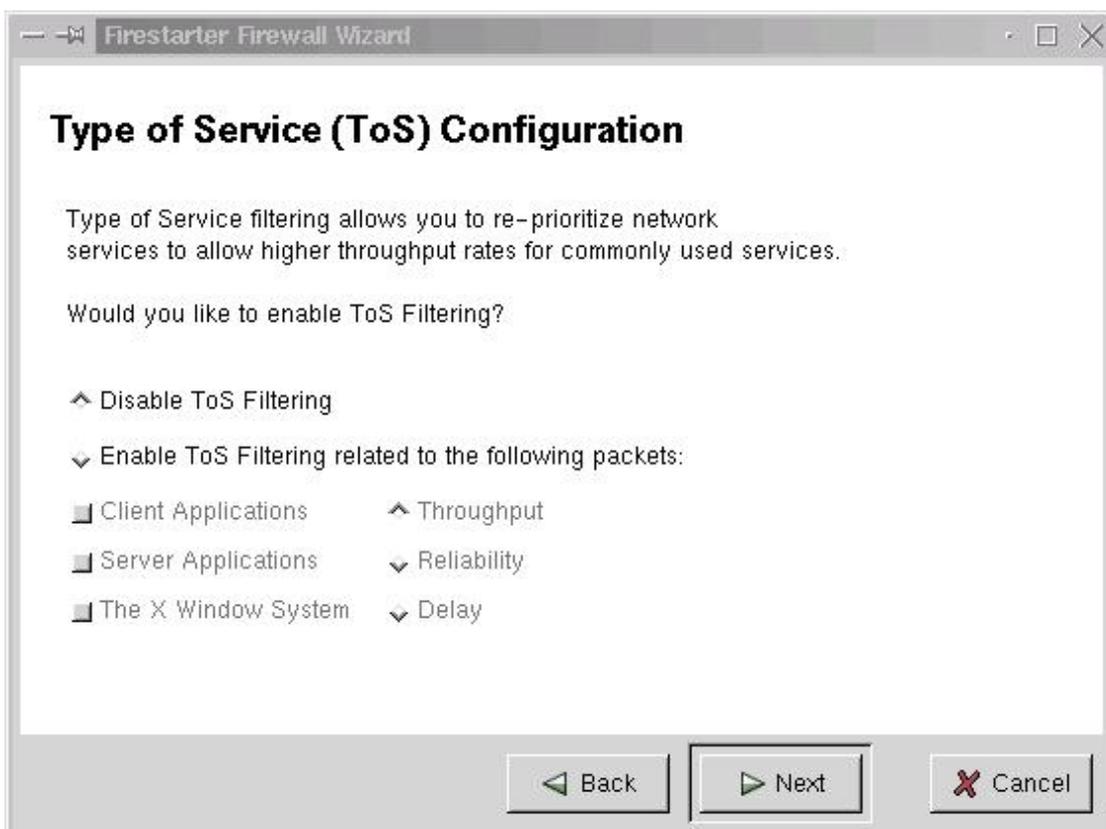


Click the first button, which is the wizard, click next. Select eth0 as your external adapter, select start on boot and select ip by dhcp.

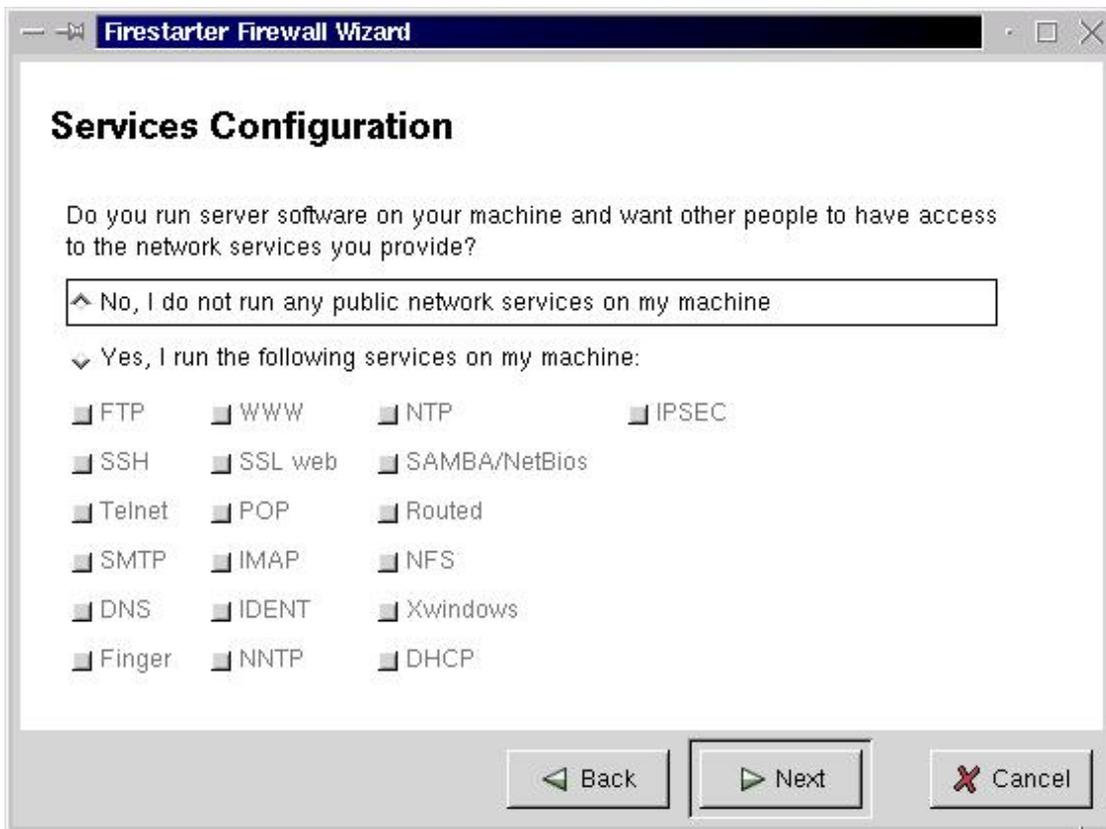
Click next.



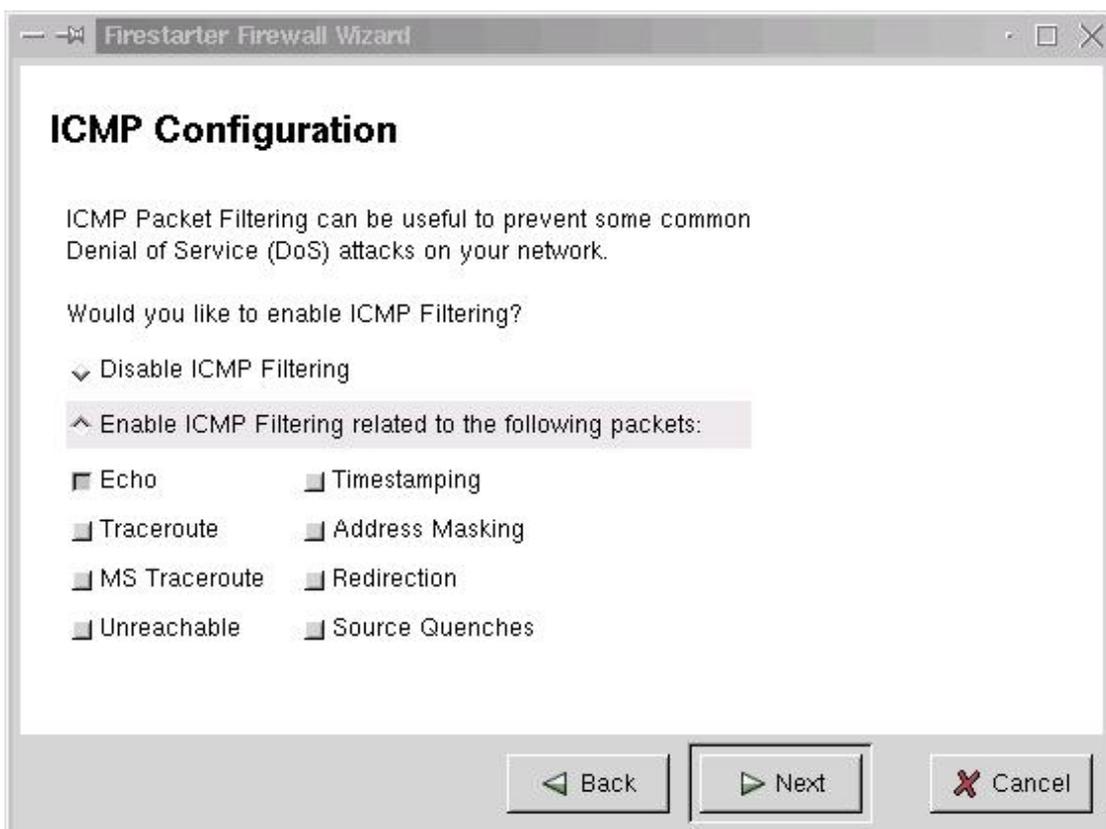
Click next.



Click next.



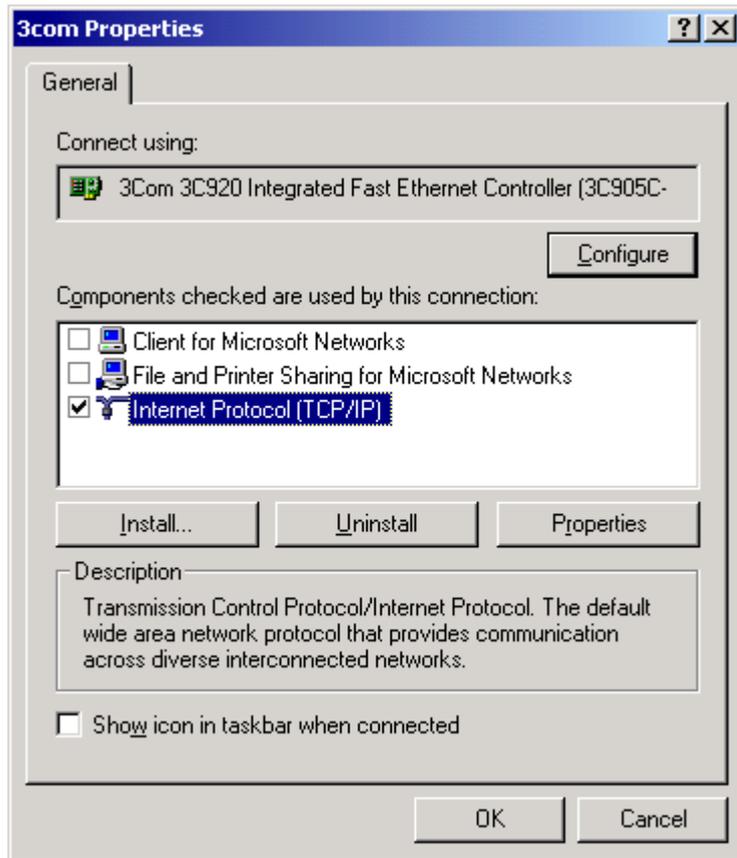
Click next.



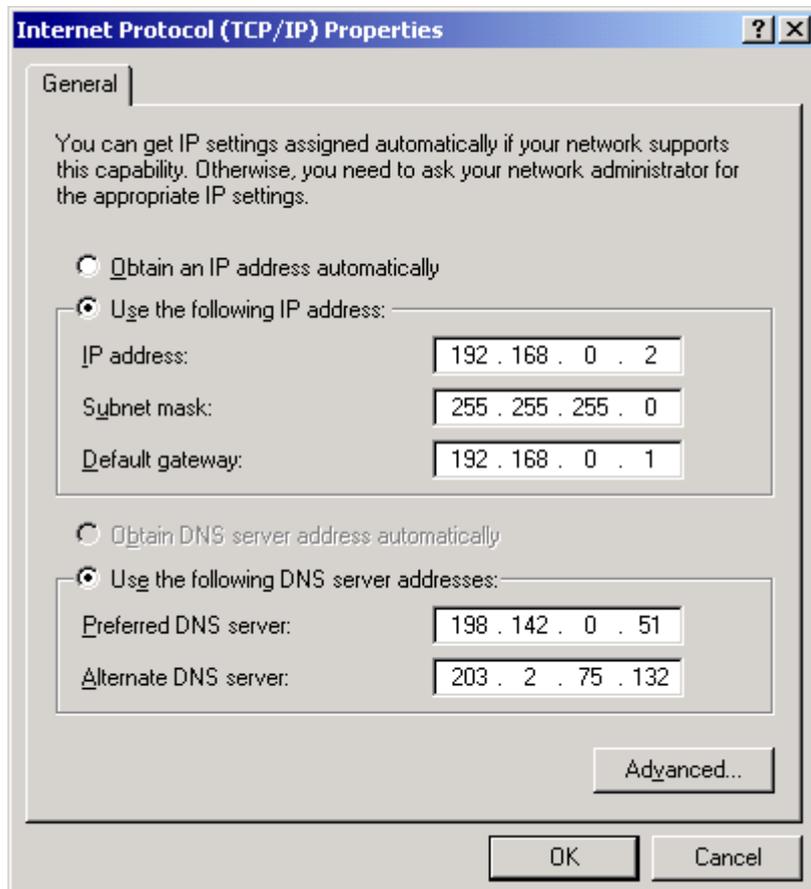
Click next and finish. This gateway is now ready.

Client Configuration:

On the first client PC (in this case I am using Windows 2000 Professional Edition), right click on network neighbourhood, right click on your adapter, select properties:



For Internet access all u need is what I have above. You may also have the other two options selected. Highlight Internet Protocol (TCP/IP) and click properties:

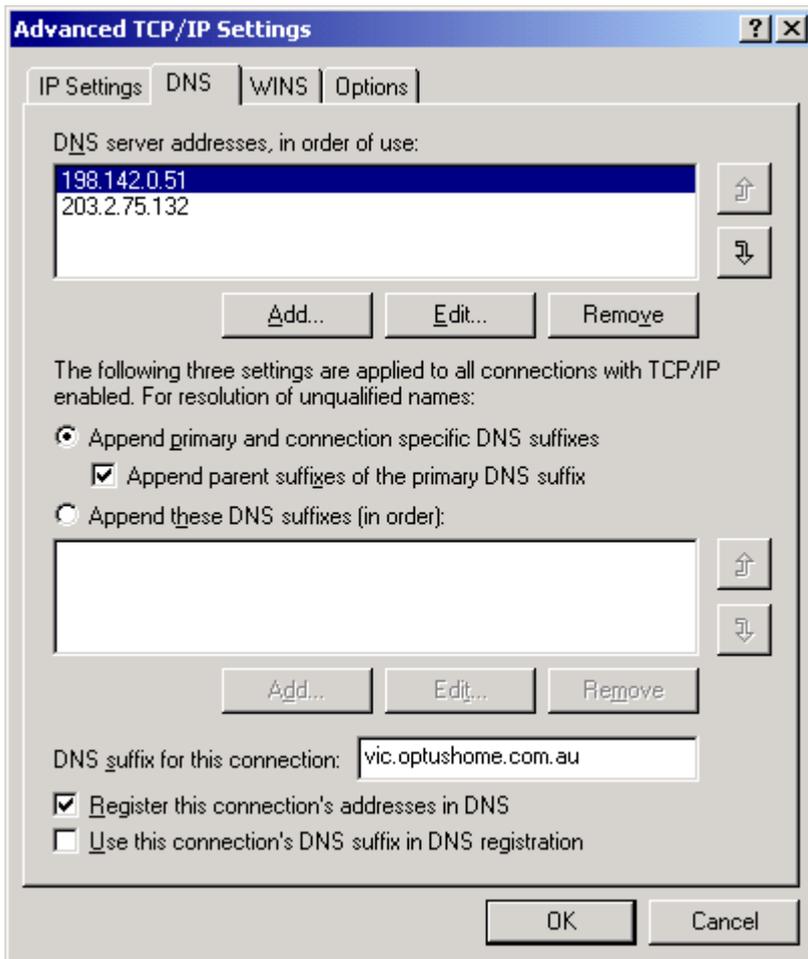


If your not sure of the Preferred DNS servers, look back at page 1 where you noted them down from your windows network. What? you forgot ☺

No problems, go back to the gateway and from a console prompt type:

```
cat /etc/resolv.conf
```

This should give you the details you will need. Click Advanced:



Note: the DNS suffix for this connection should be what you got when u type `cat /etc/resolv.conf`

REBOOT the client PC. Click on your browser and smile ☺

Do the client Configuration Procedure for all the other machines on your network. Remember the first client is 192.168.0.2 the next should be 192.168.0.3 then 192.168.0.4 etc.

You can also look at this link for other windows clients. Remember the DNS servers are not 192.168.0.1 in this case.

www.wpool.com/cablesharing/4.htm

Thanks to Phil Clayton (a.k.a. bukharin)☺ from www.ausforum.com

One last thing, the obstacle usually comes when the network adapters are not detected properly. Take a look at the link below:

<http://www.xmission.com/~howardm/ethernet.html>

I am still fairly new to Linux myself and wrote this with the intention of making it easier. Not sure if it does this, but I sincerely hope it does. ☺

Regards
fat tony

www.ausforum.com

Minor Editing: Martin Andrew (a.k.a. mayhem) from www.linuxathome.net (mayhem@linuxathome.net).