
Connecting to the Internet from Sydney University Village

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1 Introduction

Firstly, it is important to note that the connection to the Internet is made via the University of Sydney Data Network (SydNet) and there are some limitations on what you can do. These limits are basically the same as when you are using the resources provided in any of the Information Technology Services (ITS) operated Open Access Labs (such as the ones in Carslaw, Education, and Fisher Library).

Firstly, there are no restrictions on services which are provided as part of SydNet. You have free and unlimited access to anything which is part of the University network - generally speaking this is anything ending in .usyd.edu.au, but does include some others.

Next, you must be aware that there are only a couple of things which you can do from your network point - they are Web Surfing and Email. Other services such as IRC, the various messenger services such as AIM, MSN, and ICQ, will not work unless you can use the ITS web proxy (I've been unable to get MSN Messenger working, even though it claims to support HTTP proxy). File Sharing programs such as Kazaa will also not work. The reason for this is that their usage is harder to track than web access and ITS don't have a method for billing at this time.

Lastly, to do Web Surfing of sites external to SydNet, you will need money in your Extro (also known as UniKey) account - this is the username that appears on your enrolment information and you need for logging into MyUni, webmail, etc. You can either do this in person at ITS or via their secure web page if paying by credit card.

2 Setting up your hardware

2.1 Network Interface Card (NIC)

Before you can connect to the Network, you will need to have a NIC installed in your computer. This component is what allows your computer to connect to the rest of the Internet.

To connect to SydNet you will need an Ethernet card - if you don't have one, you can go into any computer store and ask for one. Depending on the age of your computer, you will need either an ISA or PCI card. If your computer is less than 4 years old, then you will more than likely want a PCI type. Expect to pay between \$20 and \$60 for a network card (quality does vary between manufacturers, and so does the price).

If you feel comfortable adding expansion cards yourself, then open up your PC and add the card in one of the available PCI/ISA slots of your motherboard. If this sounds too scary, consider getting someone else to do it for you.

2.2 Connecting the PC to the wall socket

Under your desk next to the telephone outlet you will see a spare socket. This is your network point, and you need to plug a cable between your NIC and this socket. SUV kindly gave you a cable on arrival that is for this purpose.

3 Setting up your Operating System

Each individual Operating System will require a slightly different set of instructions when it comes to setting it up for using SydNet. In each case, there are some basic settings which are true for all of them. If you feel like you can wing it given a few details, then try these on for size:

- IP addresses are allocated dynamically via DHCP
- You don't need to set the DNS servers, this will be done by DHCP
- You may like to add ucc.usyd.edu.au and usyd.edu.au to your list of search domains

If that doesn't make any sense, then see if the more elaborate instructions below are of any more use.

3.1 Microsoft Windows

Depending on what version of Windows you are using, these instructions will vary a little bit. I will try and cover as many versions as possible, but without access to anything but Windows XP I may be a little bit out in the specifics for

your version.

In any case, these sections assume that your NIC is correctly installed.

Windows 95/98

From the *Start* menu, select *Settings* → *Control Panel*. This will open a new window with a number of configuration options. Open the *Network* control panel by double-clicking it.

You will now be presented with a window which has a few things listed on it. Firstly, you will see a box labeled “*The following network components are installed:*”. This box should contain at least an entry for your NIC. It will hopefully also have an option labeled *TCP/IP*.

If not, then you will need to add it (make sure you have your Windows 95/98 CD-ROM handy). To do this, click on the *Add...* button. Follow the following selections – *Protocol* → *Microsoft* → *TCP/IP* and click *OK*. This should install the necessary software on your system.

You now need to select *TCP/IP* and click on the *Properties* button. Make sure that the following settings are checked:

- **IP Address** – Obtain an IP address automatically
- **DNS Configuration** – Disable DNS

All the other settings should work with their default values.

At this point, you will probably need to restart your computer. Click *OK* enough times to close the control panel, and when asked if you would like to restart, say yes. This should be ready to go.

To check that it worked, go to the *Start* menu, and select *Programs* → *MS-DOS prompt*. When you get to your DOS window, type the command `ping extro` and then press your *Enter* key. You should get a response like:

```
C:\WINDOWS\Desktop>ping extro

Pinging extro [129.78.64.1] with 32 bytes of data:

Reply from 129.78.64.1: bytes=32 time=3ms TTL=252
Reply from 129.78.64.1: bytes=32 time=1ms TTL=252
Reply from 129.78.64.1: bytes=32 time=1ms TTL=252
Reply from 129.78.64.1: bytes=32 time=2ms TTL=252

Ping statistics for 129.78.64.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 3ms, Average = 1ms
```

If this has all gone to plan, then you are ready to configure your software (see section 4).

Windows 2000/XP

From the *Start* menu, select *Settings* → *Control Panel*. This will open a new window with a number of configuration options. Open the *Network Connections* control panel by double-clicking it.

In this next window, you should hopefully have an icon which represents your NIC labeled *Local Area Connection*. Click on this icon with your right mouse button, and select *Properties*.

You will now be presented with a window which has a few things listed on it. In the box labeled “*This connection uses the following items:*” select the option “*Internet Protocol (TCP/IP)*” and click on the *Properties* button. Make sure that the following settings are checked:

- Obtain an IP address automatically
- Obtain DNS server address automatically

All the other settings should work with their default values. Click *OK* to close the window, and again on the next window to effect the changes.

To check things are working, go to the *Start* menu, and select *Programs* → *Accessories* → *Command Prompt*. When you get to your DOS window, type the command `ping extro` and then press your *Enter* key. You should get a response like:

```
C:\Documents and Settings\Gary Reynolds>ping extro

Pinging extro [129.78.64.1] with 32 bytes of data:

Reply from 129.78.64.1: bytes=32 time<1ms TTL=252
Reply from 129.78.64.1: bytes=32 time<1ms TTL=252
Reply from 129.78.64.1: bytes=32 time<1ms TTL=252
Reply from 129.78.64.1: bytes=32 time<1ms TTL=252

Ping statistics for 129.78.64.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

If this has all gone to plan, then you are ready to configure your software (see section 4).

3.2 Macintosh

Unlike with Windows, Apple have kept their Network configuration pretty much the same for quite some time now. With the exception of a couple of naming differences, these instructions (for MacOS X) will be very similar on earlier versions. I don't have a machine to test, but have provided what I think they are called from my memory – if I'm wrong let me know so I can update this guide.

MacOS X

From the *Apple* menu, select *Location* → *Network Preferences...* Make sure you are updating the settings for the *Ethernet Adapter*, and not the *Internal Modem*. In the *TCP/IP* tab, make sure the setting is “*Using DHCP*” and that you enter `ucc.usyd.edu.au` and `usyd.edu.au` on two lines in the *Search Domains* field. Now go to the *Proxies* tab, and set the *Web Proxy (HTTP)* option to on with value `www-cache0.usyd.edu.au` on port 8080.

From the *System Prefs* menu, select *Quit System Prefs* to activate the changes.

To check things are working, go to *Finder* and choose *New Finder Window* from the *File* menu. Open up your Hard Disk, and then open *Applications* → *Utilities* → *Terminal* by double-clicking on it. When you get to the Unix shell, type the command `ping -c4 extro` and then press your *Enter* key. You should get a response like:

```
[pc-34:~] garyr% ping -c4 extro
PING extro.ucc.usyd.edu.au (129.78.64.1): 56 data bytes
64 bytes from 129.78.64.1: icmp_seq=0 ttl=252 time=0.582 ms
64 bytes from 129.78.64.1: icmp_seq=1 ttl=252 time=0.429 ms
64 bytes from 129.78.64.1: icmp_seq=2 ttl=252 time=0.467 ms
64 bytes from 129.78.64.1: icmp_seq=3 ttl=252 time=0.429 ms

--- extro.ucc.usyd.edu.au ping statistics ---
4 packets transmitted, 4 packets received, 0% packet loss
round-trip min/avg/max = 0.429/0.476/0.582 ms
```

If this has all gone to plan, then you are ready to configure your software (see section 4).

MacOS Classic (8.0 to 9.2)

From the *Apple* menu, select *Control Panels* → *TCP/IP*. Make sure that it is set to use the “*Built in Ethernet*” rather than “*PPP*”. Next, make sure the setting is *DHCP*. You should set the search domains to `ucc.usyd.edu.au` and `usyd.edu.au` (one per line).

You should now be ready to move onto the next step.

4 Setting up your Software

Now that we have connectivity to the rest of SydNet, we need to configure your other programs properly so that they can use the network.

4.1 Web Browser

ITS have implemented a proxy which you must use to connect to the Internet. Depending on which browser you plan on using, you will configure it slightly differently.

Netscape and Mozilla

To set your proxy in Netscape and Mozilla, from the *Edit* menu select *Preferences...* – this will open a window with a range of options. Click the + symbol next to *Advanced* and then select *Proxies*.

Here you have three options. You should select *Automatic proxy configuration URL:* and enter `http://www.usyd.edu.au/proxy.pac` into the box provided. Click *OK* to close the window and effect the changes.

Try and type a non-USyd website into the location bar, for example `http://slashdot.org/` and you should be prompted for your Extro username and password. Enter these, and provided you have funds in your account for web access the page should load.

Microsoft Internet Explorer

Unfortunately, the clever folks at Microsoft move the configuration options around in every release of Internet Explorer. So, check in all menus for a option called either *Internet Options...* or *Options...* and choose it.

From here on, it is fairly common ground. Select the *Connections* tab, and in the section *Local Area Network (LAN) settings* click the button labeled *LAN Settings...*

In this new window, specify *Use automatic configuration script* and specify <http://www.usyd.edu.au/proxy.pac> into the box provided. Click *OK* to close both the window and effect the changes.

Try and type a non-USyd website into the location bar, for example <http://slashdot.org/> and you should be prompted for your Extro username and password. Enter these, and provided you have funds in your account for web access the page should load.

4.2 Email

Bearing in mind that you can only utilise the University mail servers, then you are possibly best left using the webmail interface which is at <https://www-mail.usyd.edu.au/> and can be accessed for free. If you prefer to use other webmail services such as Yahoo or Hotmail, then you can probably ignore this section.

4.3 Newsgroups

Most users don't use newsgroups, but they can be very good places for discussion on a variety of topics. If you want to setup a news server in your mail program, use the following settings:

- **Server Address** – news.usyd.edu.au
- **Port** – 119 (default)

It is customary to disguise your email address by adding some extra segments to prevent spammers from getting your mail address from the newsgroup postings. Personally I reverse my email address, to be au.asn.touch@gary. You may like to do the same.

5 Assistance in connecting to the network

During Orientation weekly IT information sessions are conducted. Residents may attend these sessions for further information on how to connect to the network. The details of the IT information sessions are listed in the SUV Orientation Passport.

6 Disclaimer

The information in this document is provided in good faith to assist residents to connect to the University of Sydney network. If a resident does not find that they are able to successfully connect to the network then they are advised to seek professional assistance. Likewise, if a resident is unsure of hardware requirements such as purchasing a Network Interface Card or installing a NIC they are advised to seek professional assistance. While we believe the information in this guide to be correct, the information is not officially endorsed by Sydney University Village or The University of Sydney. Sydney University Village cannot accept any responsibility for residents using this guide. Residents are advised to also refer to the sections in the Rules of the Village that cover the use of computers and the network.