



GETTING YOU CONNECTED

For more technical support:

☎ Call **1800 066 594**

🌐 telstra.com/business/nbn

Configuration tips for BYO routers on the
National Broadband Network (NBN)

USING YOUR OWN ROUTER ON THE NBN

Thanks for choosing Telstra to provide your services on the National Broadband Network (NBN). As you're probably aware, not all ADSL routers can work on the NBN. So if you're using your own router that wasn't purchased as part of your Telstra Business Broadband on the NBN service, please refer to the equipment manufacturer's guide or seek assistance from a qualified network specialist.

The information contained below is of a general nature to assist your network integrator.

If you're using your own router:

- Your router must support WAN on an Ethernet port. If not, you could consider purchasing a business router from Telstra
- Use Ethernet full duplex with auto-negotiation on. This ensures it signals to UNI-D that it's full duplex capable, to avoid duplex mismatch
- Be operating as a router with a single Mac address assigned to the port – and not configured as a bridge or hub
- Be able to support NAT
- Use DHCPv4 to request the IP address. This is essential to create the IP session on our service edge. The DHCP response will contain DNS information, as well as the allocated static address
- The network will return both IPv4 and IPv6 assigned address information
- Be configured to transmit all upstream data untagged. Not use 802.1p priority or VLAN tagging as this will be ignored (subject to change)
- Be configured to mark all upstream traffic to DSCP 0 (zero)

- Ensure the L2 maximum frame size (also known as Maximum Transfer Unit or MTU) of no larger than 1500 octets
- Shape upstream traffic to the Speed Level of the service purchased (e.g. Speed Level 2, being 5MB on the service for 25/5)

Please note we might:

- Try to remotely connect to your router
- Suspend or disconnect the service if the device is interfering with the service or the network
- Attempt to communicate with the device in normal operation and assurance scenarios
- Require changes to device configuration or additional device capability
- Remotely configure or upgrade the firmware of the device
- Occasionally make life cycle and service improvement changes that invalidate some device settings

Other important notes:

- There is no user name or realm authentication requirement
- As there is no authentication required on access due to DHCP, the UNI-D needs to be secure to limit any possible illegal use
- It is possible to access the internet via a PC or Host directly this differs to PPPoE
- The DHCPv4 request will also contain the Netmask, Gateway and DNS. You may substitute your preferred DNS

HOW TO CONFIGURE YOUR ROUTER TO CONNECT TO THE NBN

1

To continue using your existing CPE, you'll need to refer to your original user instructions. If that's not possible, you may be able to find instructions on the manufacturer's website.

2

If you're unable to locate your user instructions, the following guidelines may help you configure your router to successfully operate on the NBN.

Got a graphical user interface (GUI)-based device?

Open your internet browser and enter the device's default IP address into the address bar. This will give you access to the device's user interface.

Don't know the default device IP address?

Just follow the steps below:

- Click Start
- Click Run
- Type CMD into the Open field
- Type ipconfig at the prompt
- Skip to Step 6 if you have a command line driven device (e.g. Cisco® 1941)

3

You may be presented with a screen prompting you to log in to your device.

It's good to know:

- Different devices will have different default log-in details
- Check the device's serial number sticker or user guide for a quick reference

4

In some instances, the router set-up may need you to disable the ADSL interface.

Disabling the ADSL interface enables the WAN port.

5

When the WAN port is enabled, you may see a number of different settings or options. If you're not sure, use the default settings. Unlike ADSL, Telstra Business Broadband on the NBN doesn't require a username and password to authenticate.

Each service is provided with a static IP address via a DHCP that's used to connect you to the internet.

6

Here's a basic interface configuration for the WAN port and NAT addressing required for a Cisco 1900 series router:

```
Config. part
enable
configure terminal
interface GigabitEthernet0/0
ip address dhcp
ip nat outside
ip virtual-reassembly
duplex auto
speed auto
no shut
```

If your IP addresses are changing you must update any configured settings and features that used the previous IP address provided by the ADSL network and interface.

Such settings include, but are not limited to, Default Route and NAT Destination.

Please note: the need for NAT support in the router is only applicable to IPv4

As an example, the following URL links to Cisco's basic configuration guide for the 1900 series routers:

<http://www.cisco.com/c/en/us/support/routers/1900-series-integrated-services-routers-isr/tsd-products-support-configure.html>

Need help? Call **1800 066 594** or visit telstra.com/business/nbn