Half Bridge Mode Setup Guide

(RTA1025W)

About Half Bridge Mode

When the PPP Half Bridge is enabled the modem essentially becomes invisible. The WAN IP address from the ISP is passed straight through the modem to the local client PC. Only one PC is able to access the Internet using half bridge mode as NAT is disabled.

Half bridge mode can only be used when a single IP address has been assigned by the ISP, it is not suitable for services that provide multiple IP addresses. Half bridge mode is used when the use of NAT or NAPT is not desired and there is a single computer attached to the modem. When the half-bridged modem is used in conjunction with a router handling DHCP, only then can multiple computers connect to the internet.

Half Bridge Mode Uses

When using a separate firewall to protect your network, half bridge mode will allow the firewall to appear on the internet using the publicly accessible IP address assigned by your ISP. This configuration lets the dedicated firewall/server have full control of the inbound and outbound traffic and is the primary purpose for this mode.

Security Consideration

When NAT is disabled a network server/ computer is more vulnerable to attack from the internet so extra care should be given to security. A dedicated firewall and up-to-date anti virus software should be employed as a basic requirement. Regular operating system security updates should also be applied to all network pcs and servers.

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1. Navigate to http://192.168.1.1 in a web browser.

2. Enter '**admin**' as both the username and password and click Ok.

3. Select **Advanced** > **Internet** > **Connections**.
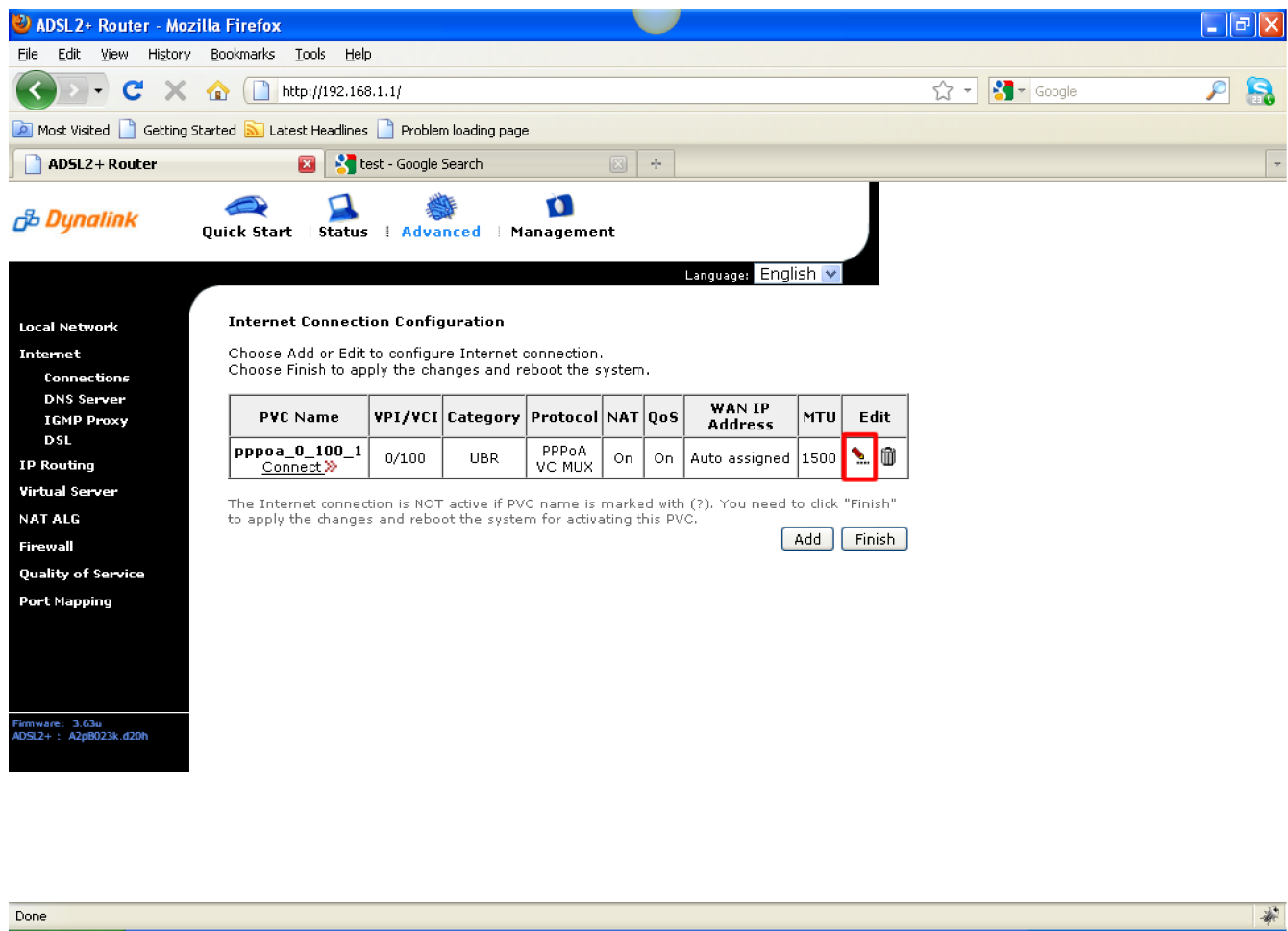
4. Select the **Edit** icon at the right hand side of the current connection as highlighted above.

5. Set your **VPI** and **VCI**. For most Australia ISPs the VPI is 8 and VCI 35. For New Zealand ISPs use VPI 0 and VCI 100.

6. Set the **Service Category** as UBR without PCR and press the **Next** button.

7. Leave the **Internet connection Protocol** as set as either PPPoE or PPPoA, IpoA.

8. Enabling **QoS** (Quality of Service) is optional.
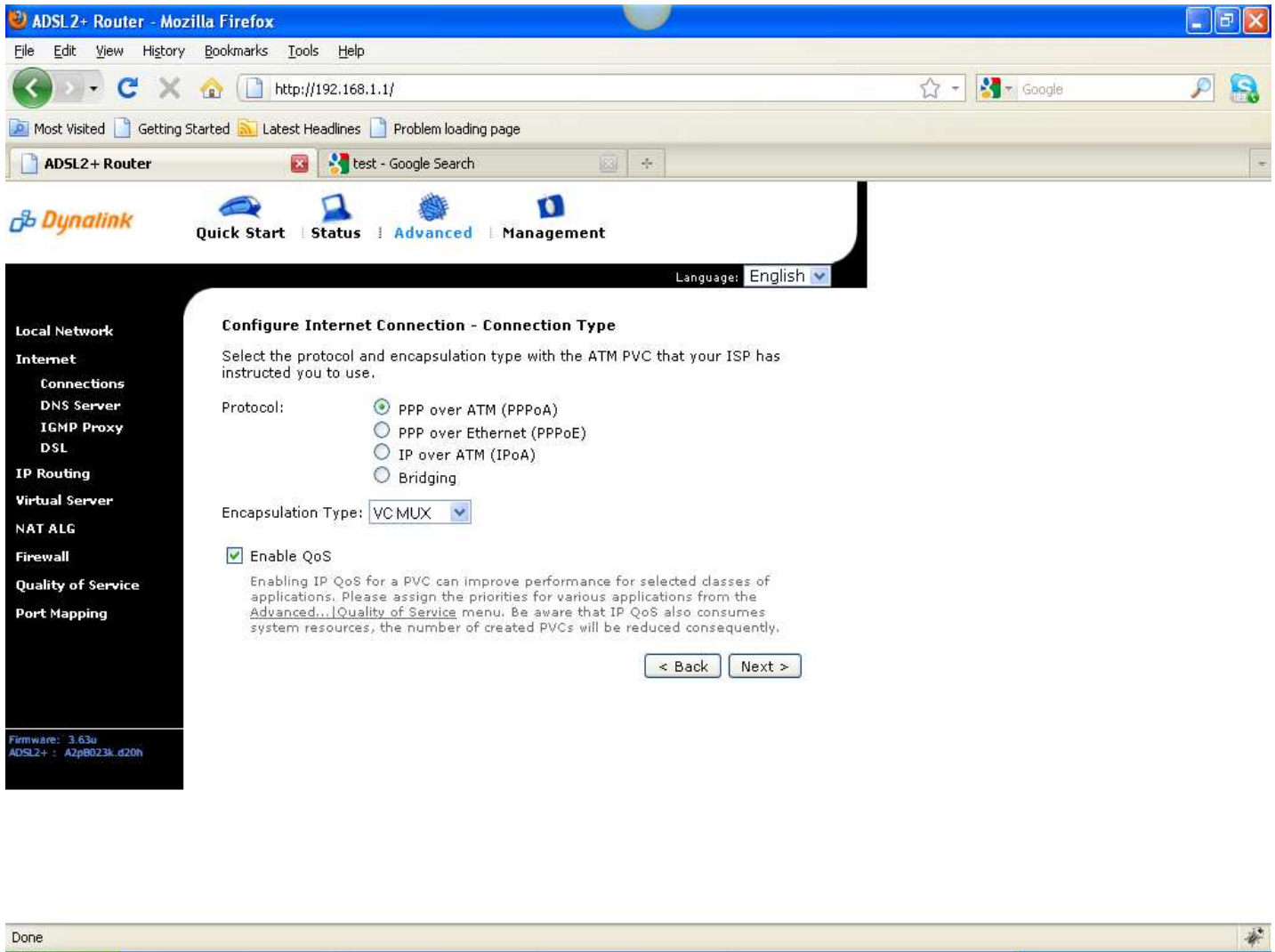
9. Press the **Next** Button.

10. Set **Obtain an IP address automatically** unless directed to enter a static WAN (public) IP address by your ISP.

11. Untick **enable NAT** and tick to enable **PPP IP Extension**.

12. Keep **Add Default Route** enabled. Leave **MTU** as default.

13. Press the **Next** button.

14. Enter your **PPP** (broadband) **username** and **password** and set **Session established by** to Always On.

15. Press the **Next** button.

16. Tick to enable '**Enable this Internet connection**'.

17. Press the **Apply** button.

18. Note the question mark under the **PVC name**. Click on **Finish** to apply the new settings.

19. A message will display that the router is rebooting.
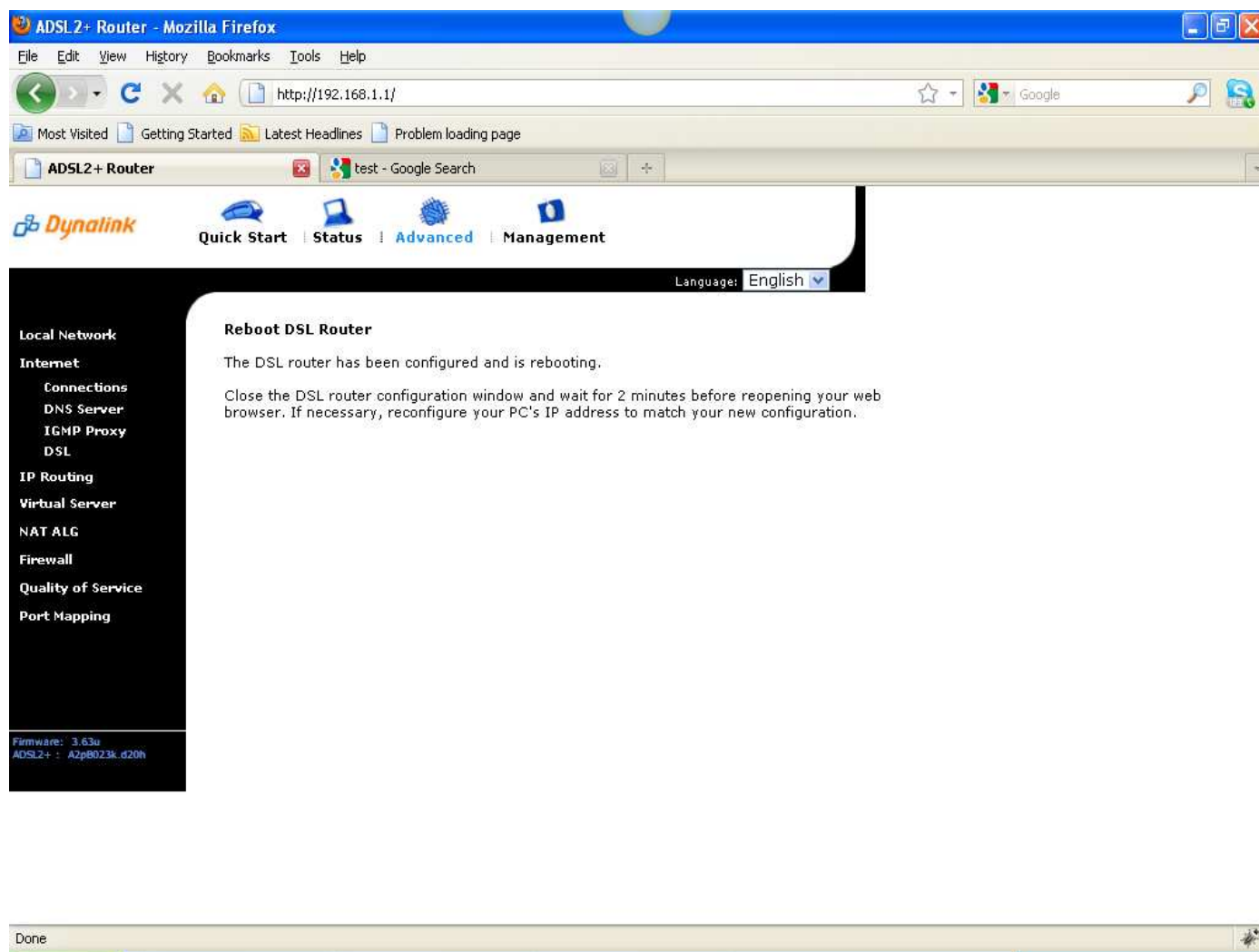
20. Once the modem reboots to verify the modem is in half bridge mode open a **command prompt** (Start > All Programs > Accessories > Command prompt).
21. Type '**ipconfig**' (without quotes) and press enter. The IP address should be a WAN (public) IP address, not the local (private) address such as 192.168.1.2.

```
C:\WINDOWS\system32\cmd.exe

C:\Documents and Settings\Carthnickf Jing>ipconfig

Windows IP Configuration


Ethernet adapter Local Area Connection:

        Connection-specific DNS Suffix  . : home
        IP Address. . . . . . . . . . . . : 121.72.215.19
        Subnet Mask . . . . . . . . . . . : 255.255.255.0
        IP Address. . . . . . . . . . . . : fe80::20f:b0ff:fefa:9257%4
        Default Gateway . . . . . . . . . : 121.72.215.20

Ethernet adapter Wireless Network Connection:

        Media State . . . . . . . . . . . : Media disconnected

Tunnel adapter Teredo Tunneling Pseudo-Interface:

        Connection-specific DNS Suffix  . :
        IP Address. . . . . . . . . . . . : fe80::ffff:ffff:fffd%6
        Default Gateway . . . . . . . . . :

Tunnel adapter 6to4 Tunneling Pseudo-Interface:

        Connection-specific DNS Suffix  . : home
        IP Address. . . . . . . . . . . . : 2002:7948:d713::7948:d713
        Default Gateway . . . . . . . . . : 2002:c058:6301::c058:6301

Tunnel adapter Automatic Tunneling Pseudo-Interface:

        Connection-specific DNS Suffix  . : home
        IP Address. . . . . . . . . . . . : fe80::5efe:121.72.215.19%2
        Default Gateway . . . . . . . . . :

C:\Documents and Settings\Carthnickf Jing>_
```

The modem is now in half bridge mode.