



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

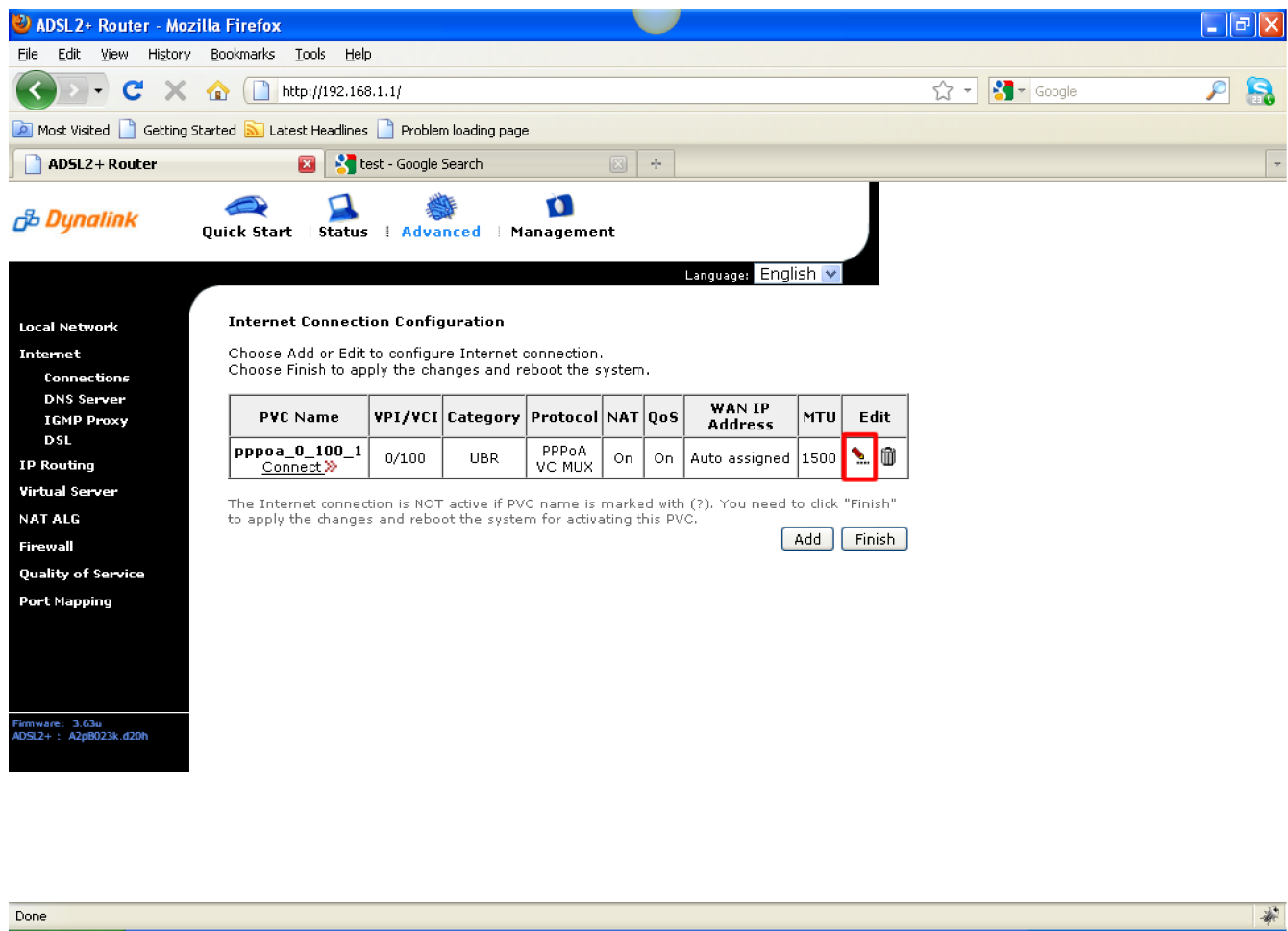
When using a separate firewall to protect your network, half bridge mode will allow the firewall to appear on the internet using the publicly accessible IP address assigned by your ISP. This configuration lets the dedicated firewall/server have full control of the inbound and outbound traffic and is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

RTA1025W Half Bridge Mode Setup Guide

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.

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Firmware: 3.63u
ADSL2+ : Azp8023k.d20h

Configure Internet Connection -- ATM PVC

Please enter VPI and VCI numbers for the Internet connection which is provided by your ISP.

VPI: 0 (0-255)

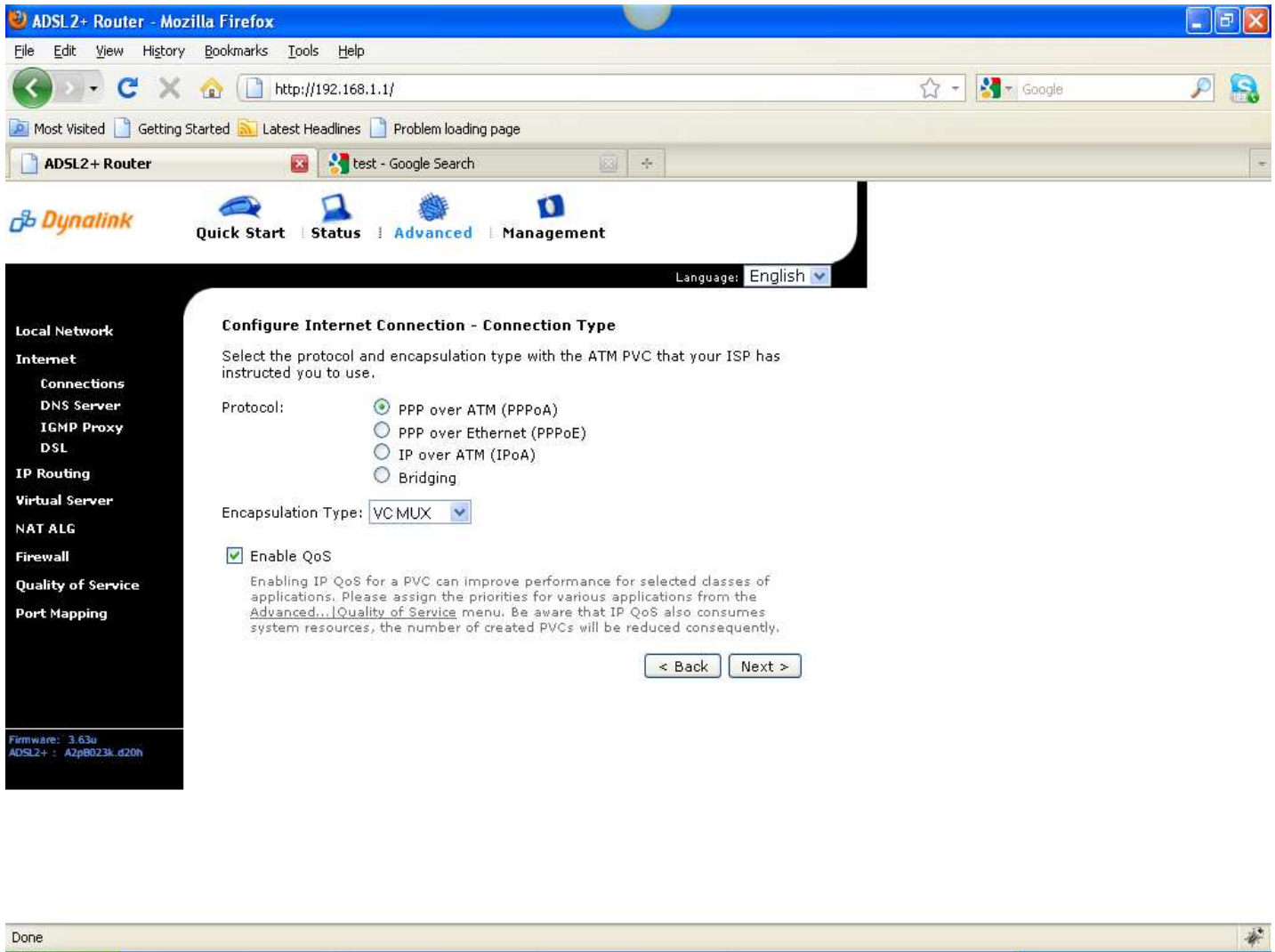
VCI: 100 (32-65535)

Service Category: UBR Without PCR

< Back Next >

Done

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.

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Configure Internet Connection - WAN IP Settings

Enter information provided to you by your ISP to configure the WAN IP settings.

☒ Obtain an IP address automatically

☐ Use the following IP address:

WAN IP Address: 0.0.0.0

☐ Enable NAT

☒ PPP IP extension

☒ Add Default Route

MTU: 1500 (default: 1500)

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Firmware: 3.63u
ADSL2+ : A2p8023k_d20h

13. Press the **Next** button.

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

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ADSL2+ : A2p8023k.d20h

Configure Internet Connection - PPP User Name and Password

In order to establish the Internet connection, please enter PPP user name and password that your ISP has provided.

PPP User Name :

PPP Password:

Session established by:

- ☒ Always On
- ☐ Dial on Demand
- ☐ Disconnect if no activity for minutes
- ☐ Manually Connect
- ☐ Disconnect if no activity for minutes

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Done

15. Press the **Next** button.

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

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Firmware: 3.63a
ADSL2+ : A2p8023k.d20h

This Internet Connection -- Summary

Make sure that the settings below match the settings provided by your ISP.

☒ Enable this Internet Connection

Connection Name: pppoe_0_100_1

Internet (WAN) Configuration:

VPI / VCI	0 / 100
Service Category	UBR
Connection Type	PPPoA VC MUX, Always On, IP Extension, QoS On
NAT	Disabled
WAN IP Address	Automatically Assigned
Default Gateway	Automatically Assigned
DNS Server	Automatically Assigned

Click "Apply" to accept these settings.
Click "Back" to make any modifications.

< Back Apply

Done

17. Press the **Apply** button.

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

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Firmware: 3.63u
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Internet Connection Configuration

Choose Add or Edit to configure Internet connection.
Choose Finish to apply the changes and reboot the system.

PVC Name	VPI/VCI	Category	Protocol	NAT	QoS	WAN IP Address	MTU	Edit
pppoa_0_100_1 (?)	0/100	UBR	PPPoA VC MUX	Off	On	Auto assigned	1500	

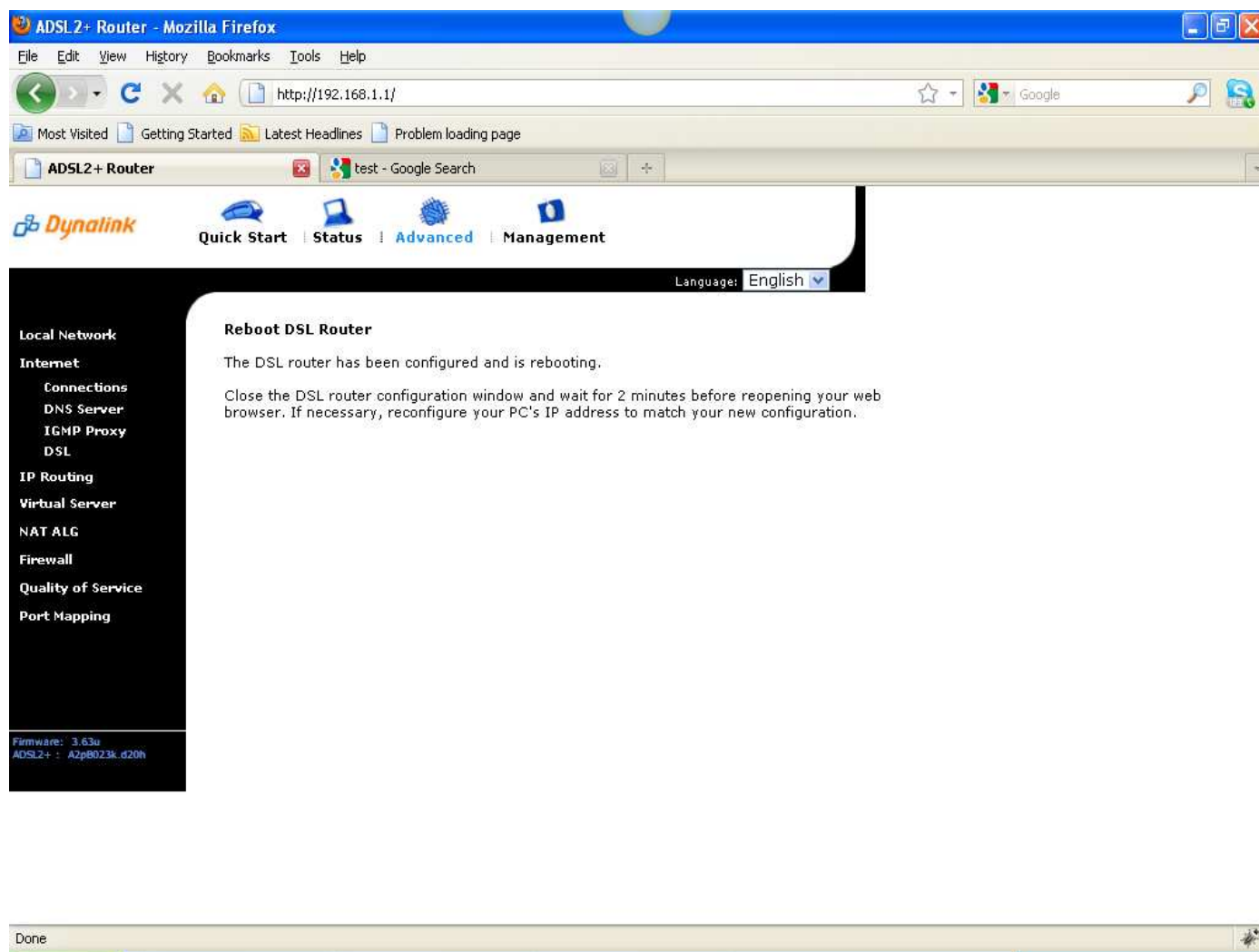
The Internet connection is NOT active if PVC name is marked with (?). You need to click "Finish" to apply the changes and reboot the system for activating this PVC.

Add Finish

WARNING:
Router's settings are changed. New settings are only valid after restarting router.

Done

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:ffffd%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.