Port Forwarding Setup

(RTA1025W V6)

Port Forwarding

Port forwarding enables programs or devices running on your LAN to communicate with the internet as if they were directly connected.

This is most commonly used for VOIP ATA devices or online gaming (via game console or computer).

Port forwarding works by "forwarding" a specific TCP or UDP port from the modem / router to the computer or device you are using.

You can also restrict which incoming connections will have the rule applied to it. This enables you to specify all incoming connections, from a specific subnet or from an individual IP address.*

Different services and different games all use different TCP or UDP ports.

You will need to consult any information supplied with your service or game in order to find which ports need to be forwarded.

You can only forward a port to **one** location (IP address).

In some cases, this may cause issues when multiple LAN devices (computers, game consoles, or VOIP ATAs) attempt to use online gaming as same time or make multiple VOIP service connections.

In these cases, you would need to use an alternate port for any subsequent connections after the first device.

Please consult your VOIP provider or game manufacturer for assistance with this.

* - If supported by your model of modem / router.

Adding a Port Forwarding Rule

This guide will take you through the steps required to add a port forwarding rule to your modem / router.

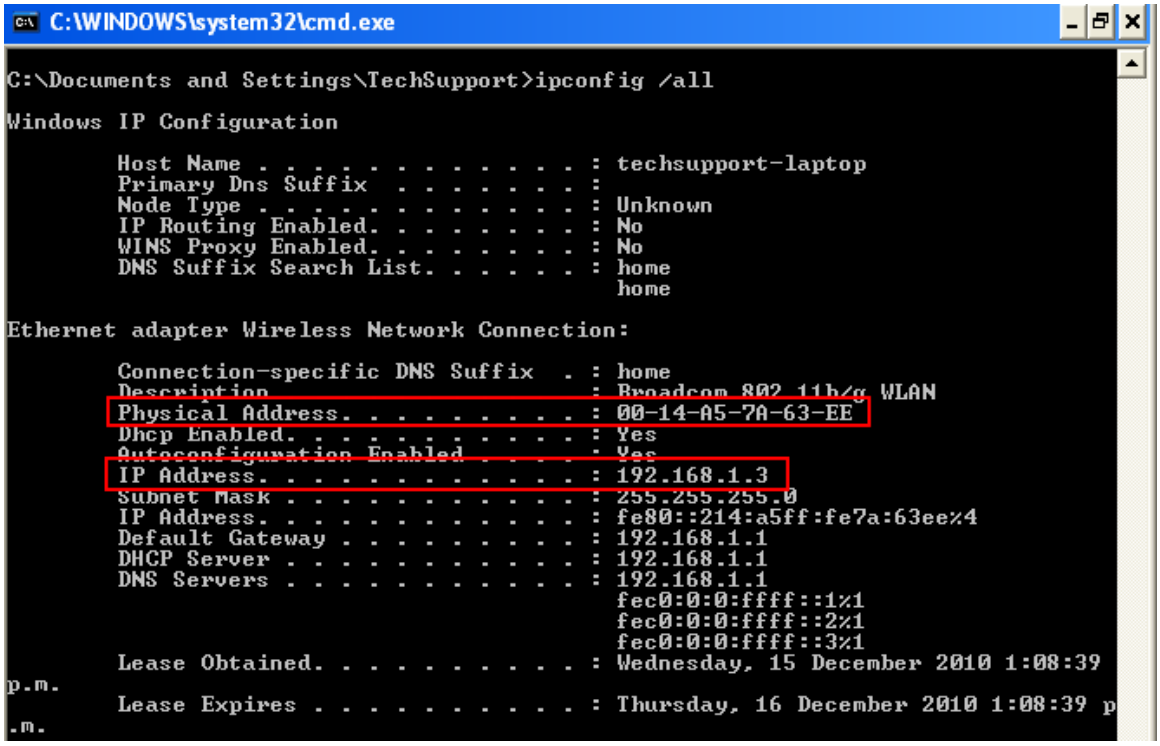
Reserving an IP address

It is recommended you reserve an IP address for the device you wish to port forward to so that the IP address assigned to the device by the router does not change each time the devcie or the router is restarted.

To do this you must know the MAC address of the device. In this example we wish to create a port forwarding rule for the wireless network card of a computer. To find the MAC address:

1. Click **Start** > **All programs** > **Accessories** > **Command prompt**.

2. Enter '**ipconfig /all**' (without quotes) and press enter.

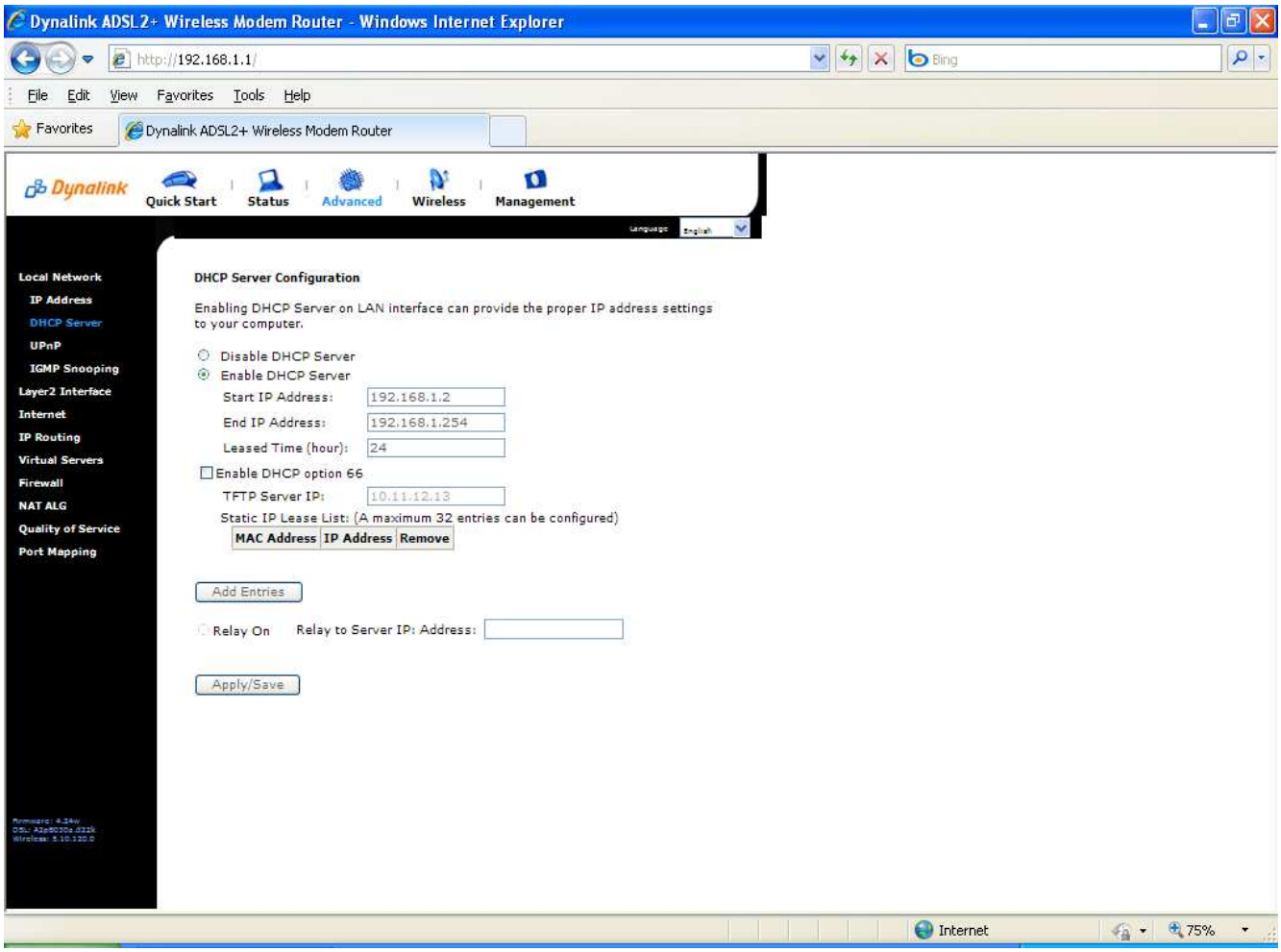


3. The physical address is the MAC address of the Wireless Network Card. You will need this MAC address to reserve an IP address for the device.

4. To reserve an IP address for the device on the router navigate to http://192.168.1.1 in a web browser.

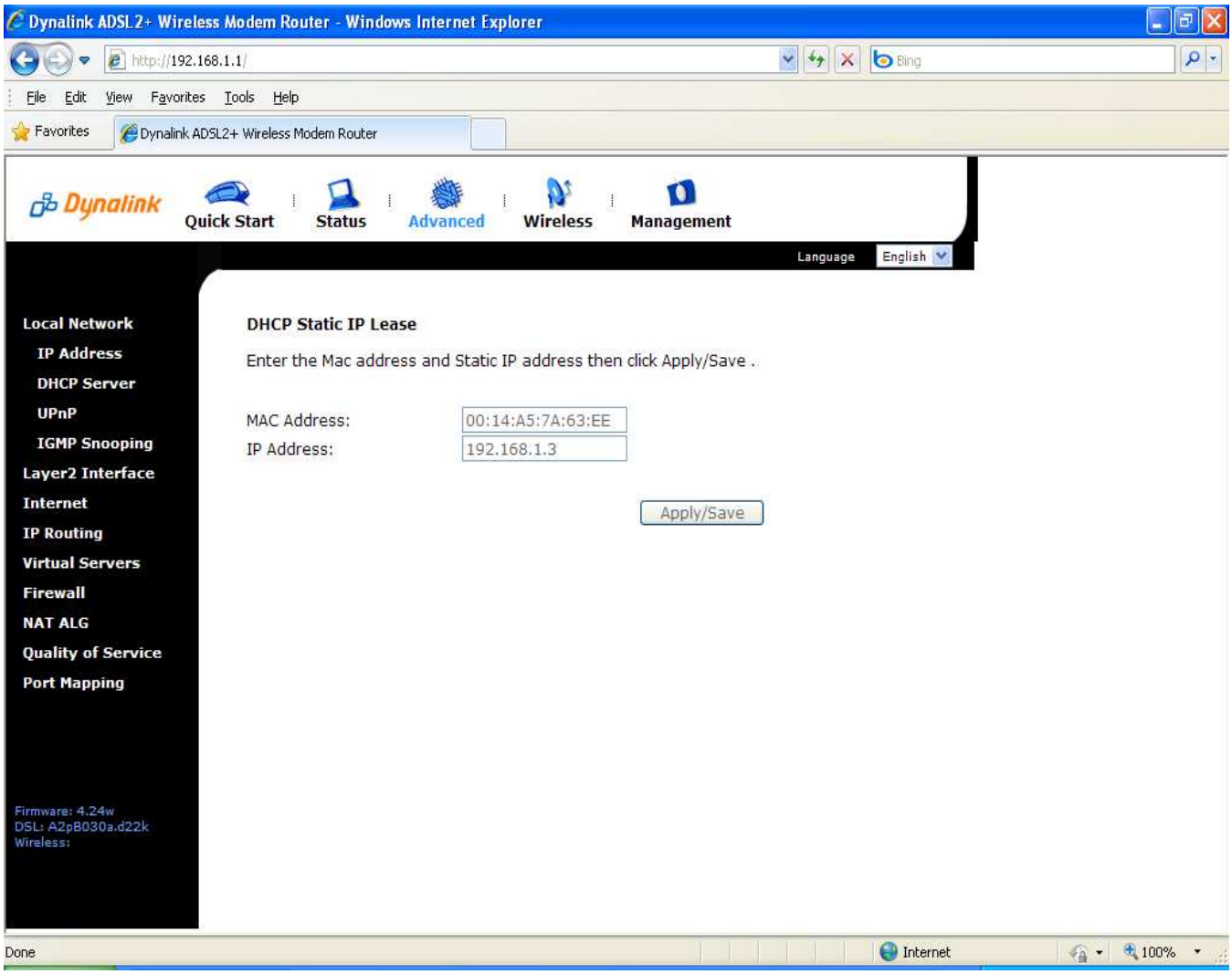
5. Enter '**admin**' (without quotes) for both the **username** and **password** and click **Ok**.

6. Select **Advanced** > **Local Network** > **DHCP Server**.



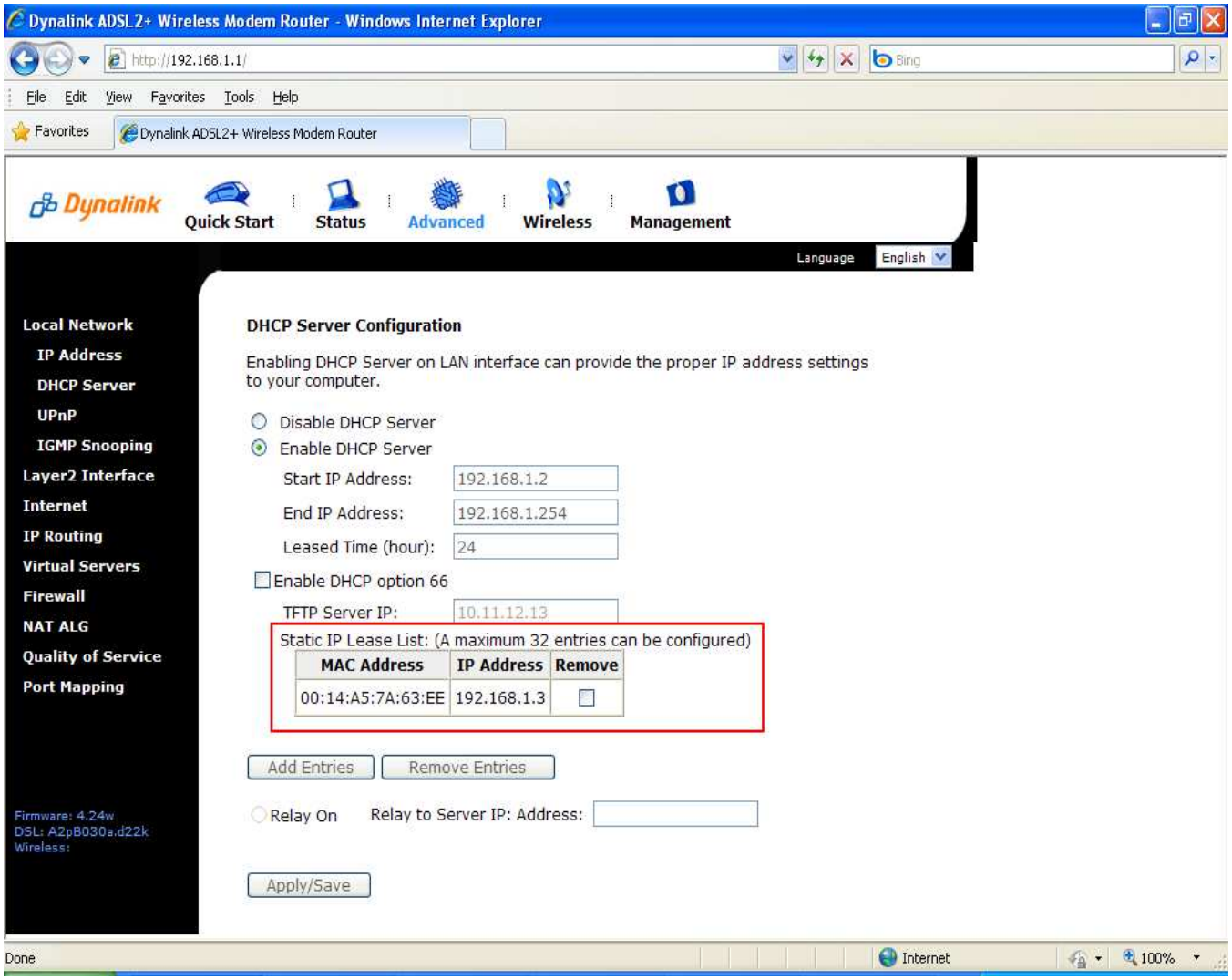
7. Select the **Add Entries** button for the Static IP Lease List.

8. Enter the **MAC address** and the **IP address** of the device you wish to reserve an IP address for. For the MAC address insert a colon ':' between every two characters as shown below.



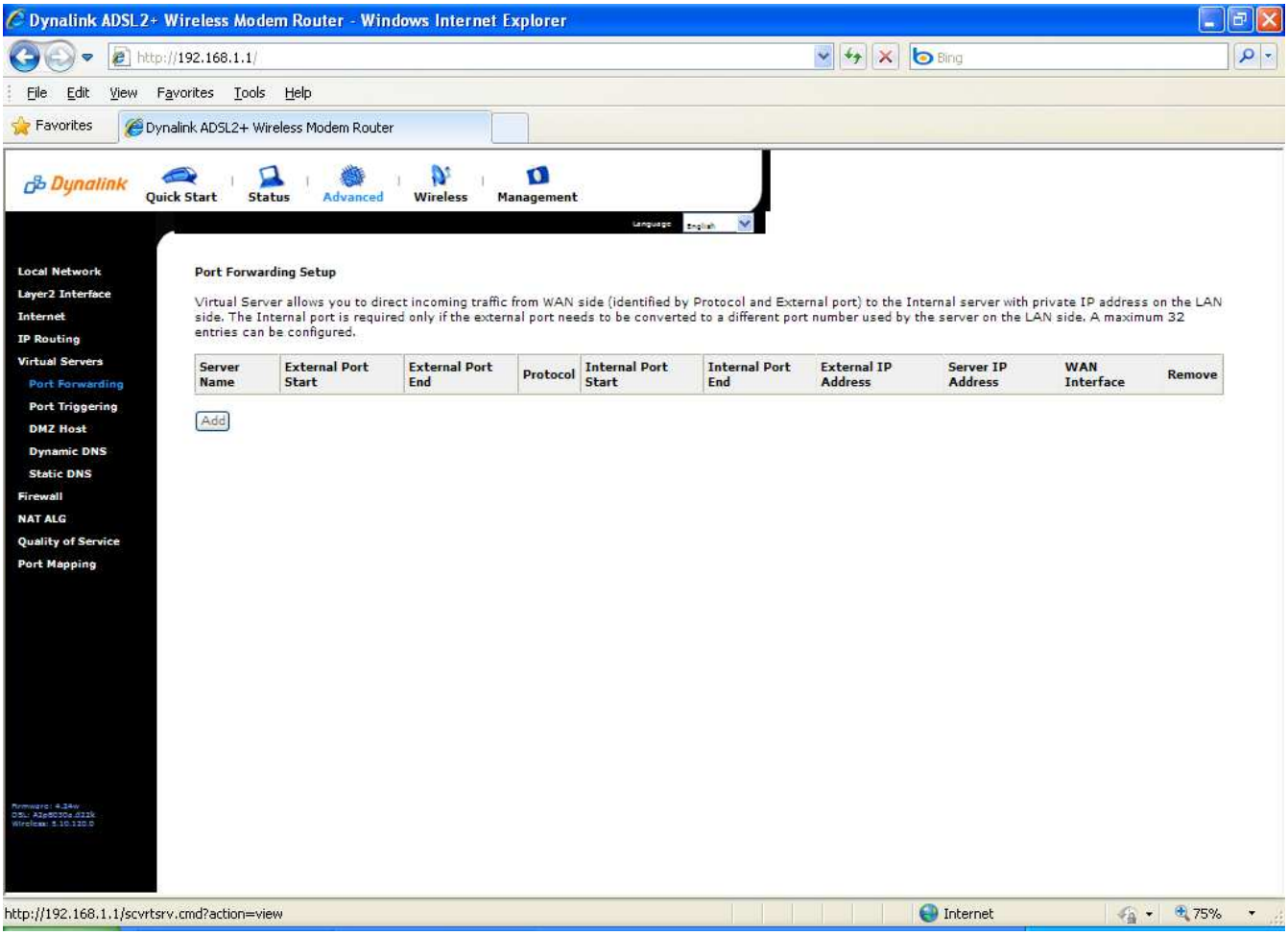
9. Press **Apply/Save**.

10. The reserved IP address will be shown for the device in the Static IP Lease List as shown below.



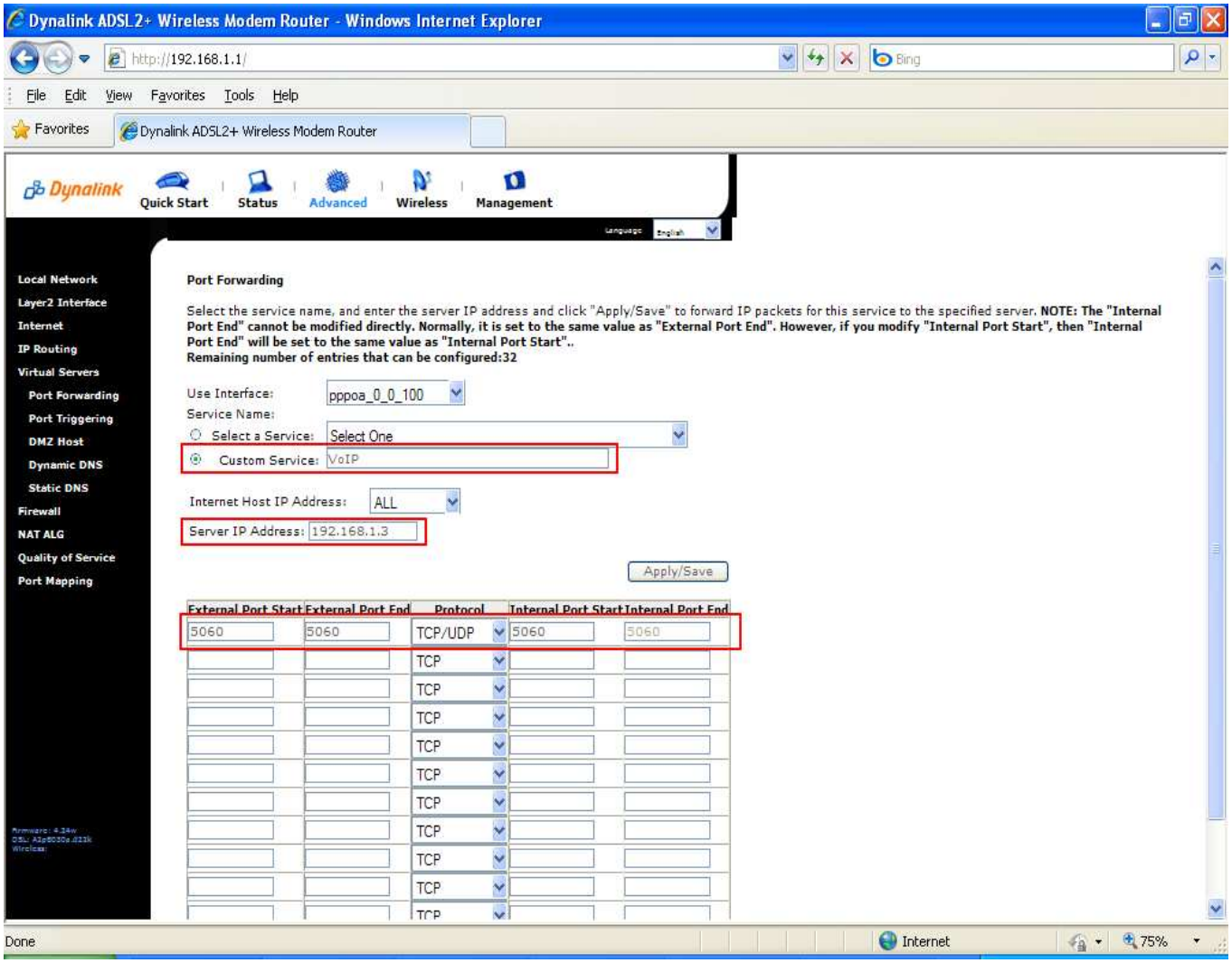
Adding a Port Forwarding Rule

1. Select **Advanced** > **Virtual Servers** > **Port Forwarding**.



2. Press the Add button.

3. To create your own port forwarding rule enter a name for the rule in the **Custom Service** field.
4. Enter the IP address of the local device you wish to port forward to in the **Server IP Address** field.

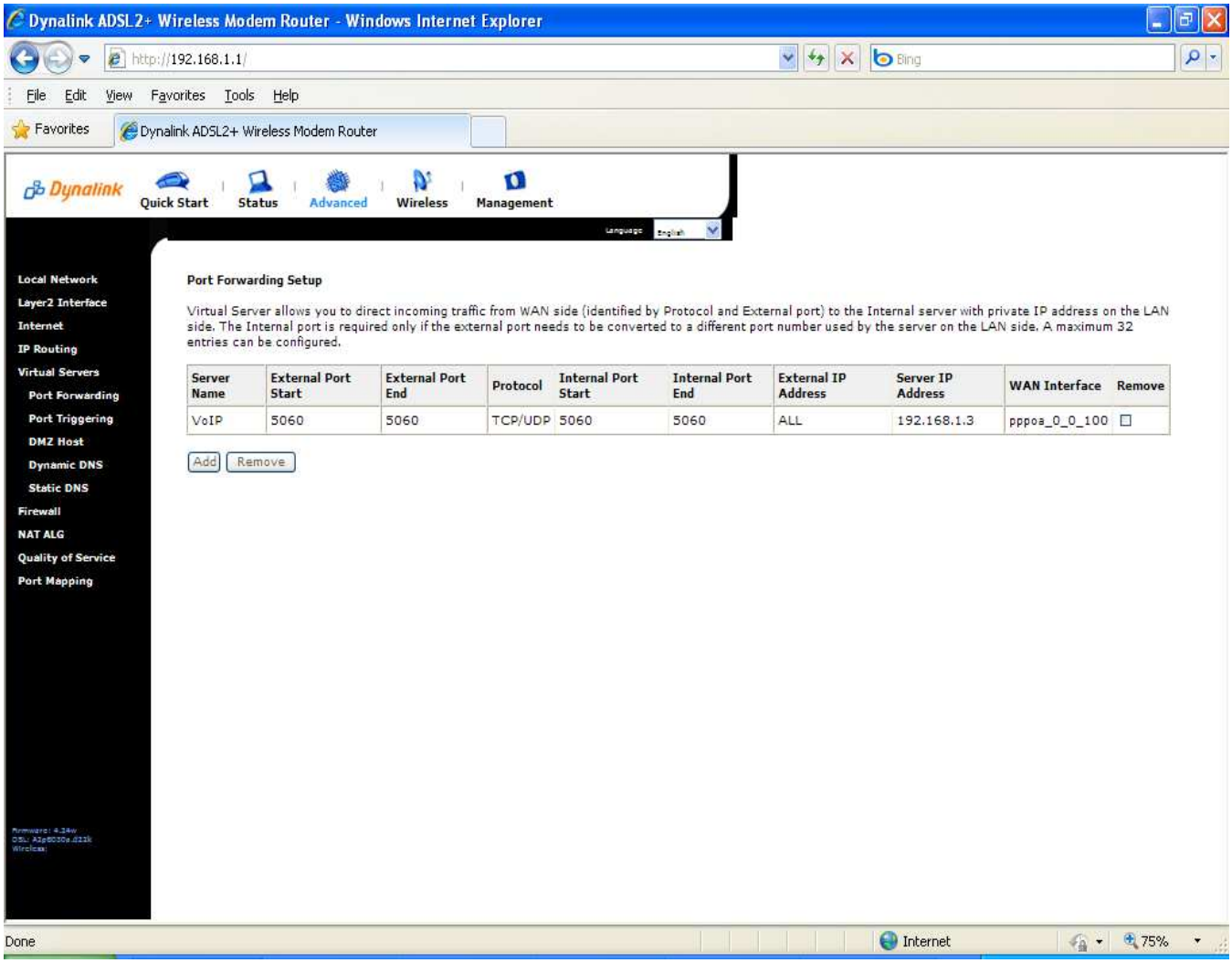


5. Enter the **port number** or **port range** for the port(s) concerned both externally -over the internet, and internally – locally connected to the router.

6. Enter the **protocol**, either TCP or UDP. If you are unsure use the TCP&UDP option.

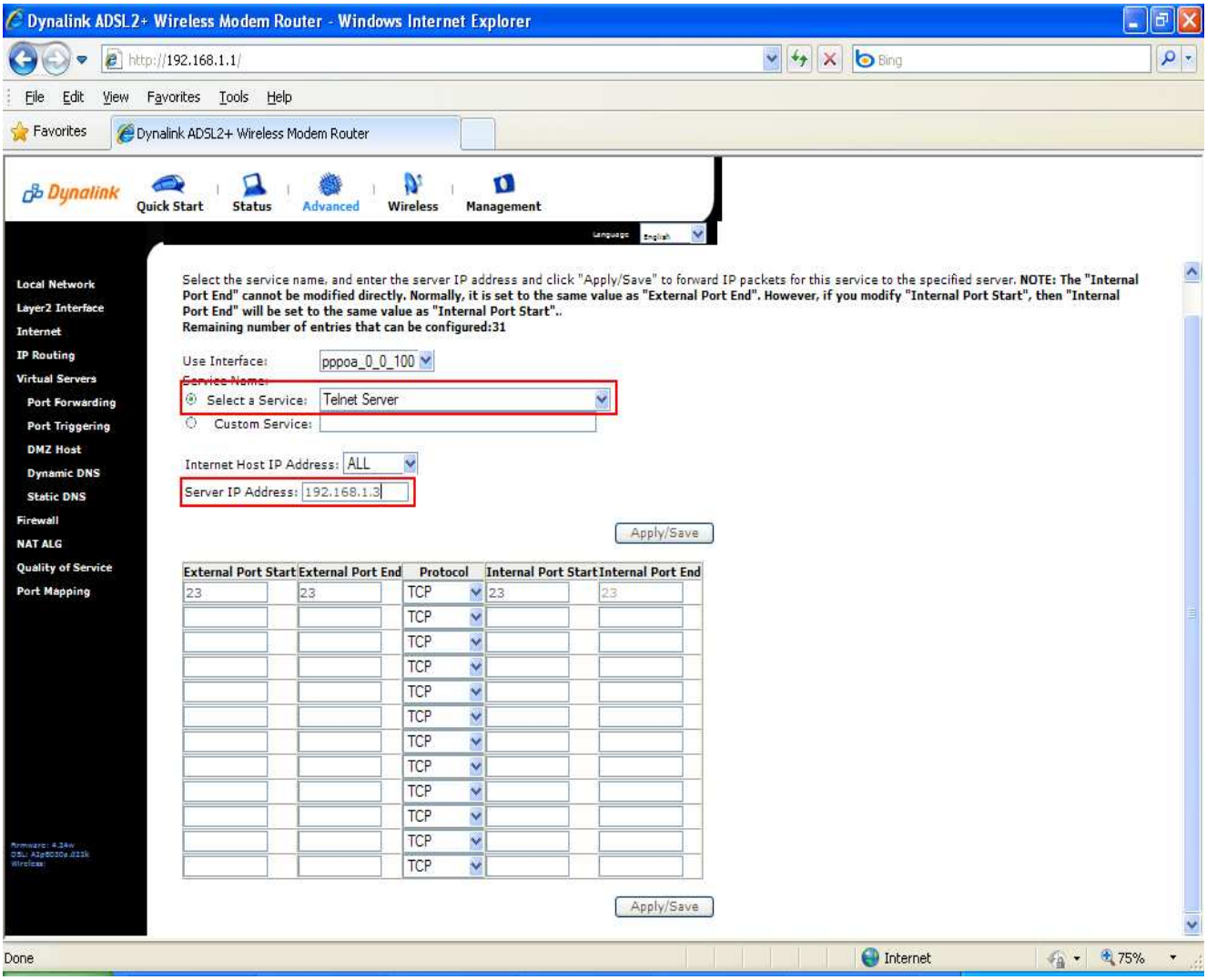
7. Press the **Apply/Save** button.

8. The port forwarding rule will be displayed as in the example below.

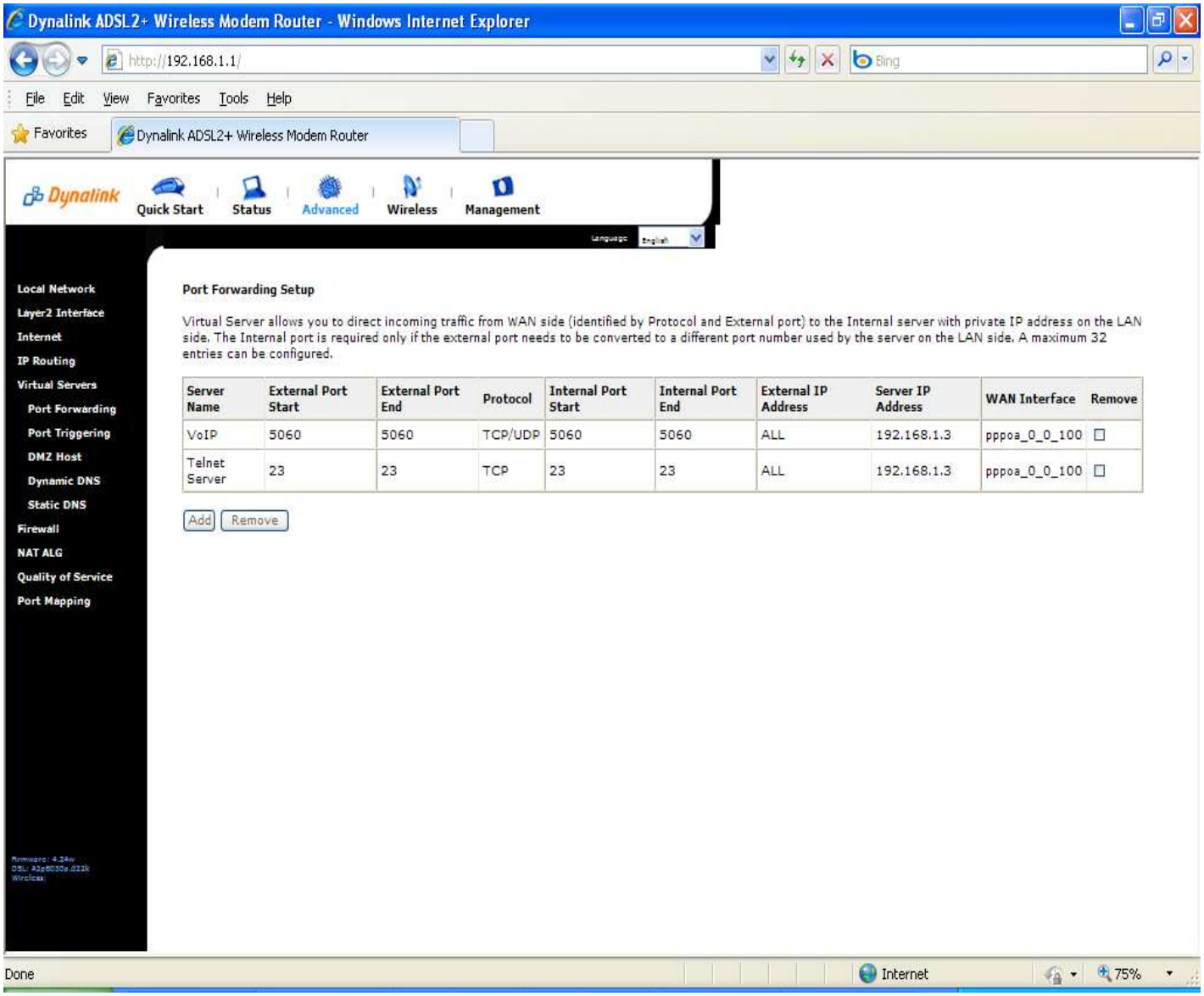


9. There are a number of pre-configured port forwarding rules available using the '**Select a Service**' field.

10. The example below shows the Telnet server port forwarding rule selected. The only requirement is to enter the IP address of the device you wish to port forward to. The port numbers and protocols are automatically entered.



11. On pressing Apply/Save the port forwarding rule will be saved and displayed as shown below.



Please note: Some services require more than one port forwarded. You can do this by specifying a sequential range of ports instead of just one.

For example: 6881-6999.

To do this, you would enter "**6881**" in the "**Port Start**" fields and "**6999**" in the "**Port End**" fields for both the "**External Packet**" and "**Forward to Internal Host**" sections.

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