



## Port Forwarding Setup

(NB14 Series)

## 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 at the 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.

## Disable SPI

If SPI is enabled all traffic initiated from the WAN will be blocked. This includes DMZ traffic, Virtual Server rules and Access Control settings from the WAN side. For this reason if port forwarding rules are to be used SPI must be disabled.

To disable SPI:

1. Navigate to <http://192.168.1.1> in a web browser using "admin" as both the username and password to login to the router.
2. Select **Advanced Setup > Firewall**.

The screenshot shows the NetComm ADSL Router web interface. The top navigation bar includes the NetComm logo and the text "ADSL Router". Below the logo is a menu with the following items: **Advanced**, Quick Start, Interface Setup, **Advanced Setup**, Access Management, Maintenance, Status, and Help. Under "Advanced Setup", there are sub-menus: Firewall, Routing, NAT, QoS, VLAN, and ADSL. The "Firewall" sub-menu is selected, and the page content shows the following configuration options:

Firewall :  Enabled  Disabled  
SPI :  Enabled  Disabled

(WARNING: If You enabled SPI, all traffics initiated from WAN would be blocked, including DMZ, Virtual Server, and ACL WAN side.)

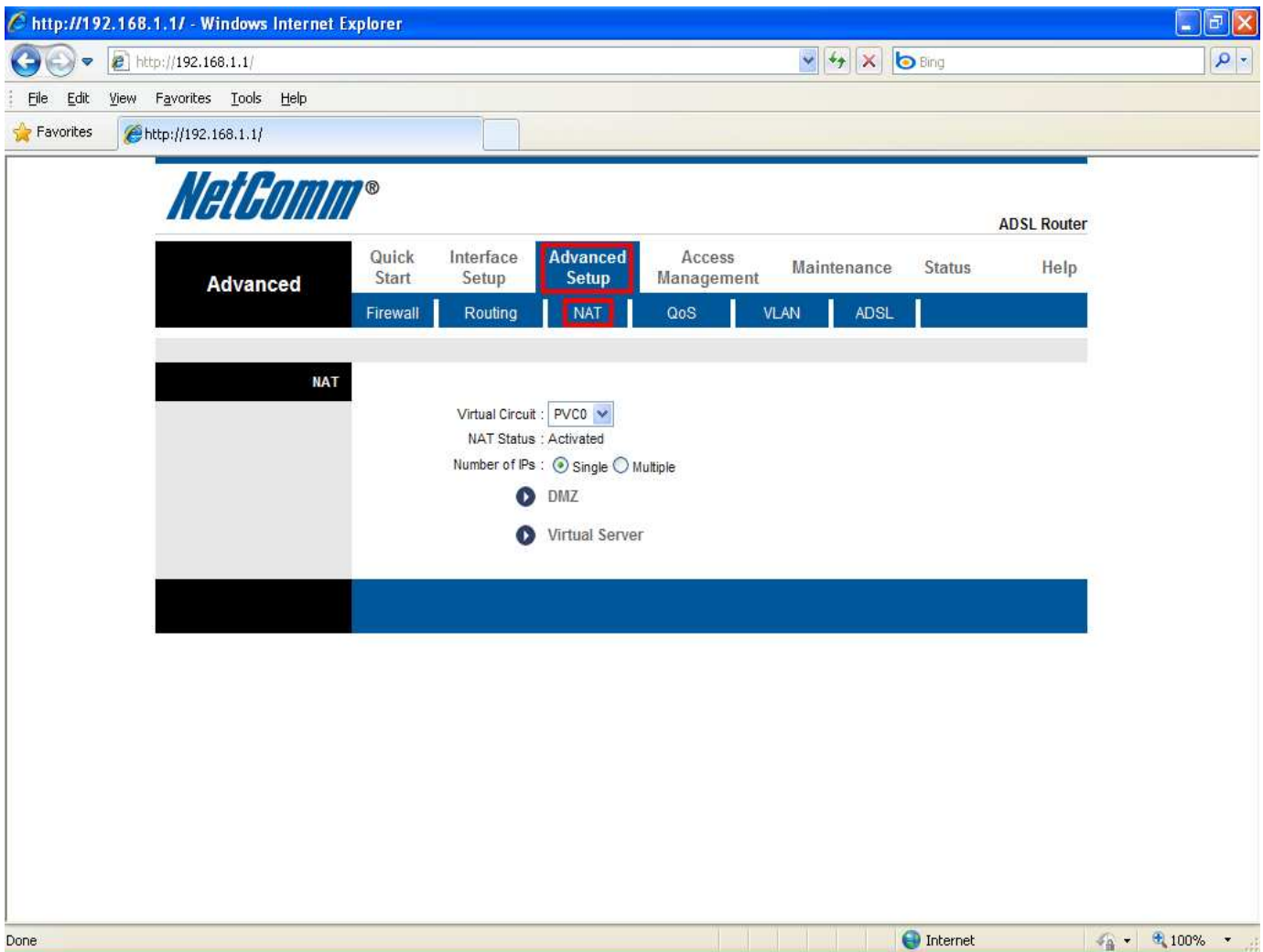
At the bottom of the configuration area, there are two buttons: **SAVE** and **CANCEL**.

3. Set **SPI** to disabled and press the **Save** button.

## **Adding a Port Forwarding Rule**

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

1. Navigate to <http://192.168.1.1> in a web browser using admin for both the username and password when prompted.
2. Select "**Advanced Setup**" and then "**NAT**" from the options at the top of the screen.



3. Select "**Virtual Server**" from the options on router configuration page.

http://192.168.1.1/ - Windows Internet Explorer

http://192.168.1.1/

File Edit View Favorites Tools Help

★ Favorites http://192.168.1.1/

## NetComm®

ADSL Router

<b>Advanced</b>	Quick Start	Interface Setup	<b>Advanced Setup</b>	Access Management	Maintenance	Status	Help
	Firewall	Routing	NAT	QoS	VLAN	ADSL	

### NAT

Virtual Circuit : PVC0

NAT Status : Activated

Number of IPs :  Single  Multiple

DMZ

Virtual Server

Done Internet 100%

4. Select a "Rule Index" that has not been previously used. In the example below rule 1 is selected.
5. Select a protocol, the options are TCP, UDP or All. If you are unsure which protocol to use select All as the example below shows.
6. Enter the start port number and the end port number. If it is a single port number to be forwarded use the same value for both the start and end port number. In the example below port 5060, commonly used for VoIP, has been used.
7. Enter the local IP address of the device you wish the port traffic to be directed to.

**NetComm®** ADSL Router

**Advanced** | Quick Start | Interface Setup | **Advanced Setup** | Access Management | Maintenance | Status | Help

Firewall | Routing | NAT | QoS | VLAN | ADSL

**Virtual Server**

Virtual Server for : Single IP Account

Rule Index : 1

Application : -

Protocol : ALL

Start Port Number : 5060

End Port Number : 5060

Local IP Address : 192.168.1.2

Virtual Server Listing

Rule	Application	Protocol	Start Port	End Port	Local IP Address
1	-	-	0	0	0.0.0.0
2	-	-	0	0	0.0.0.0
3	-	-	0	0	0.0.0.0
4	-	-	0	0	0.0.0.0
5	-	-	0	0	0.0.0.0
6	-	-	0	0	0.0.0.0
7	-	-	0	0	0.0.0.0
8	-	-	0	0	0.0.0.0
9	-	-	0	0	0.0.0.0
10	-	-	0	0	0.0.0.0
11	-	-	0	0	0.0.0.0
12	-	-	0	0	0.0.0.0
13	-	-	0	0	0.0.0.0
14	-	-	0	0	0.0.0.0
15	-	-	0	0	0.0.0.0
16	-	-	0	0	0.0.0.0

SAVE DELETE BACK CANCEL

8. Press the Save button at the bottom of the screen.

9. You will now see the port forwarding entry has now been created as can be seen in the example below. All data traffic using port 5060 will now be successfully directed to the device using the local address 192.168.1.2.

The screenshot shows the NetComm ADSL Router configuration interface. The 'Advanced Setup' tab is selected, and the 'Virtual Server' configuration page is displayed. The configuration fields are as follows:

- Virtual Server for: Single IP Account
- Rule Index: 1
- Application: -
- Protocol: ALL
- Start Port Number: 5060
- End Port Number: 5060
- Local IP Address: 192.168.1.2

Below the configuration fields is a 'Virtual Server Listing' table with the following data:

Rule	Application	Protocol	Start Port	End Port	Local IP Address
1	-	ALL	5060	5060	192.168.1.2
2	-	-	0	0	0.0.0.0
3	-	-	0	0	0.0.0.0
4	-	-	0	0	0.0.0.0
5	-	-	0	0	0.0.0.0
6	-	-	0	0	0.0.0.0
7	-	-	0	0	0.0.0.0
8	-	-	0	0	0.0.0.0
9	-	-	0	0	0.0.0.0
10	-	-	0	0	0.0.0.0
11	-	-	0	0	0.0.0.0
12	-	-	0	0	0.0.0.0
13	-	-	0	0	0.0.0.0
14	-	-	0	0	0.0.0.0
15	-	-	0	0	0.0.0.0
16	-	-	0	0	0.0.0.0

At the bottom of the page, there are four buttons: SAVE, DELETE, BACK, and CANCEL.

- The NB14 Series modem / routers also have a number of **built in port forwarding rules** for common applications such as **Telnet, HTTP Server, VNC** and other services. To utilise one of these built in port forwarding rules select the service from the application drop down box.
- As shown in the example below the port number and application name is added automatically.

**Advanced**
Quick Start
Interface Setup
**Advanced Setup**
Access Management
Maintenance
Status
Help

Firewall
Routing
**NAT**
QoS
VLAN
ADSL

**Virtual Server**

Virtual Server for : Single IP Account

Rule Index : 2

Application : TELNET TELNET

Protocol : ALL

Start Port Number : 23

End Port Number : 23

Local IP Address : 192.168.1.2

Virtual Server Listing

Rule	Application	Protocol	Start Port	End Port	Local IP Address
1	-	ALL	5060	5060	192.168.1.2
2	-	-	0	0	0.0.0.0
3	-	-	0	0	0.0.0.0
4	-	-	0	0	0.0.0.0
5	-	-	0	0	0.0.0.0
6	-	-	0	0	0.0.0.0
7	-	-	0	0	0.0.0.0
8	-	-	0	0	0.0.0.0
9	-	-	0	0	0.0.0.0
10	-	-	0	0	0.0.0.0
11	-	-	0	0	0.0.0.0
12	-	-	0	0	0.0.0.0
13	-	-	0	0	0.0.0.0
14	-	-	0	0	0.0.0.0
15	-	-	0	0	0.0.0.0
16	-	-	0	0	0.0.0.0

SAVE
DELETE
BACK
CANCEL

- You then need to select the rule number and press the **Save** button.



13. The example below shows a saved "built in" application.

NetComm® ADSL Router

Advanced | Quick Start | Interface Setup | **Advanced Setup** | Access Management | Maintenance | Status | Help

Firewall | Routing | **NAT** | QoS | VLAN | ADSL

Virtual Server

Virtual Server for : Single IP Account

Rule Index : 1

Application : -

Protocol : ALL

Start Port Number : 5060

End Port Number : 5060

Local IP Address : 192.168.1.2

Virtual Server Listing

Rule	Application	Protocol	Start Port	End Port	Local IP Address
1	-	-	0	0	0.0.0.0
2	TELNET	ALL	23	23	192.168.1.2
3	-	-	0	0	0.0.0.0
4	-	-	0	0	0.0.0.0
5	-	-	0	0	0.0.0.0
6	-	-	0	0	0.0.0.0
7	-	-	0	0	0.0.0.0
8	-	-	0	0	0.0.0.0
9	-	-	0	0	0.0.0.0
10	-	-	0	0	0.0.0.0
11	-	-	0	0	0.0.0.0
12	-	-	0	0	0.0.0.0
13	-	-	0	0	0.0.0.0
14	-	-	0	0	0.0.0.0
15	-	-	0	0	0.0.0.0
16	-	-	0	0	0.0.0.0

SAVE DELETE BACK CANCEL

**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 "Start Port Number" fields and "6999" in the "End Port Number" fields as shown in the example below.

The screenshot shows the NetComm ADSL Router configuration interface. The top navigation bar includes 'Advanced' (selected), 'Quick Start', 'Interface Setup', 'Advanced Setup', 'Access Management', 'Maintenance', 'Status', and 'Help'. Under 'Advanced Setup', 'NAT' is selected. The 'Virtual Server' configuration window is open, showing a form for a 'Single IP Account'. The form fields are: Rule Index (3), Application (-), Protocol (ALL), Start Port Number (6881), End Port Number (6999), and Local IP Address (192.168.1.2). Below the form is a 'Virtual Server Listing' table with 16 rows. At the bottom, there are buttons for 'SAVE', 'DELETE', 'BACK', and 'CANCEL'.

ADSL Router

Advanced | Quick Start | Interface Setup | **Advanced Setup** | Access Management | Maintenance | Status | Help

Firewall | Routing | **NAT** | QoS | VLAN | ADSL

Virtual Server

Virtual Server for : Single IP Account

Rule Index : 3

Application : -

Protocol : ALL

Start Port Number : 6881

End Port Number : 6999

Local IP Address : 192.168.1.2

Virtual Server Listing

Rule	Application	Protocol	Start Port	End Port	Local IP Address
1	-	ALL	5060	5060	192.168.1.2
2	TELNET	ALL	23	23	192.168.1.2
3	-	-	0	0	0.0.0.0
4	-	-	0	0	0.0.0.0
5	-	-	0	0	0.0.0.0
6	-	-	0	0	0.0.0.0
7	-	-	0	0	0.0.0.0
8	-	-	0	0	0.0.0.0
9	-	-	0	0	0.0.0.0
10	-	-	0	0	0.0.0.0
11	-	-	0	0	0.0.0.0
12	-	-	0	0	0.0.0.0
13	-	-	0	0	0.0.0.0
14	-	-	0	0	0.0.0.0
15	-	-	0	0	0.0.0.0
16	-	-	0	0	0.0.0.0

SAVE DELETE BACK CANCEL

The screen shot below shows the completed port forwarding rule with a port range of 6881 - 6999.

The screenshot displays the NetComm ADSL Router configuration interface. The top navigation bar includes 'Advanced', 'Quick Start', 'Interface Setup', 'Advanced Setup', 'Access Management', 'Maintenance', 'Status', and 'Help'. The 'Advanced Setup' menu is expanded to show 'Firewall', 'Routing', 'NAT', 'QoS', 'VLAN', and 'ADSL'. The 'Virtual Server' configuration page is active, showing a 'Virtual Server for : Single IP Account' with the following settings: Rule Index: 1, Application: -, Protocol: ALL, Start Port Number: 5060, End Port Number: 5060, and Local IP Address: 192.168.1.2. Below the configuration fields is a 'Virtual Server Listing' table with 16 rows. The third row (Rule 3) is highlighted with a red box, showing a port range from 6881 to 6999. At the bottom of the page are buttons for 'SAVE', 'DELETE', 'BACK', and 'CANCEL'.

NetComm® ADSL Router

Advanced Quick Start Interface Setup **Advanced Setup** Access Management Maintenance Status Help

Firewall Routing NAT QoS VLAN ADSL

Virtual Server

Virtual Server for : Single IP Account

Rule Index : 1

Application : -

Protocol : ALL

Start Port Number : 5060

End Port Number : 5060

Local IP Address : 192.168.1.2

Virtual Server Listing

Rule	Application	Protocol	Start Port	End Port	Local IP Address
1	-	ALL	5060	5060	192.168.1.2
2	TELNET	ALL	23	23	192.168.1.2
3	-	ALL	6881	6999	192.168.1.2
4	-	-	0	0	0.0.0.0
5	-	-	0	0	0.0.0.0
6	-	-	0	0	0.0.0.0
7	-	-	0	0	0.0.0.0
8	-	-	0	0	0.0.0.0
9	-	-	0	0	0.0.0.0
10	-	-	0	0	0.0.0.0
11	-	-	0	0	0.0.0.0
12	-	-	0	0	0.0.0.0
13	-	-	0	0	0.0.0.0
14	-	-	0	0	0.0.0.0
15	-	-	0	0	0.0.0.0
16	-	-	0	0	0.0.0.0

SAVE DELETE BACK CANCEL



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 at the 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.