Port Forwarding Overview

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 remotely accessing DVR/NVR Controller, IP Cameras, Web Server or online gaming (via game console or computer).

Port forwarding works by “forwarding” a specific TCP or UDP port from the NF10WV to the computer or device you are using.

Prerequisite

Prior to setting the port forwarding function you must know which ports need to be opened. If you are not sure, contact the application vendor or developer.

Add a Port Forwarding Rule

Open NF10WV Web interface

1. Open a web browser (such as Internet Explorer, Google Chrome or Firefox), type http://192.168.20.1 into the address bar and press Enter.

2. At the login screen, type admin into both the User Name and the Password fields and click OK.
Set up a Virtual Server

1. From the **Advanced Setup** menu, open the **NAT** sub-menu and then select **Virtual Servers**.

2. The **NAT – Virtual Servers Setup** screen will open:

   ![Port Forwarding Setup Guide](image)

3. Click the **Add** button to add a port forwarding rule.

4. The **NAT – Virtual Servers** screen will open:

   ![Port Forwarding Setup Guide](image)

5. Select the correct Interface in the **Use Interface** field as a misconfiguration will end up failing to forward anything.

   The correct interface can be checked from **Device Info > WAN**.

   If you have multiple entries, choose one with an available IPv4 address.
The **Service Name** drop down list has a predefined list of port forwarding for many services and games. If you can find your desired service listed, select the item in the drop-down list and check ☑ **Select a Service**.

A sample configuration for “Age of Empires” is shown, above.

**Important** – If you found an appropriate service in the **Service Name** drop down list, then you can skip steps 7, 11 and 12, below.

If you could not find one, you may create your own defined port forwarding rule, select the ☑ **Custom Service** button and enter a unique name for the port forwarding rule.

A sample configuration for allowing Remote desktop and custom application access toward a single private IP is as follows:

8. Tick ☑ **Enable LAN Loopback**.

9. In either case you must enter the Private IP address of the computer or device you wish to port forward to in the **Server IP Address** field.

   This will be a local IP address in the subnet 192.168.20.xx (by default); where xx can be equal to 2 to 254.

10. Open the **Status** drop down list and select **Enable**.

11. Enter the port number or port range into the **External Port Start** and **External Port End** fields.

   If you only want to open one port, then enter the same number in **Start** and **End** port fields, but if you want to open range of ports, then enter the start number in **Port Start** field and end number in **Port End** field.
Note that the Internal Port Start and Internal Port End fields will automatically populate with the same port numbers.

12 Select the Protocol to be used for the port forwarding rule: TCP, UDP or TCP/UDP both

13 Click the Apply/Save button.

14 The port forwarding rule will now be added to the list.

This example created in this user guide description is displayed in the bottom row, below.

15 Click on Save/Apply button to save the changes.

Port forwarding is now configured.

You may also Enable/Disable, Add/Remove any rule and apply the changes from this window.

Please note

We recommend that you set a Static IP address on the end device, instead of obtaining one automatically, to make sure that the request is forwarded to the appropriate machine every individual time.

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 will 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.

Similarly, remote access and the webserver must have unique port numbers. For example, you cannot host a web server accessible through port 80 of your public IP and enable remote http administration of the NF10WV through port 80, you must provide both with unique port numbers.

Note also that ports 22456 to 32456 are reserved for RTP protocol in VOIP services. Do not use any of these ports for any other service.