Port Forwarding Setup

(RTA1025W)

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.

1. If you are Port Forwarding to a device other than a computer, you will need to contact the manufacturer of the device to find out what it's IP Address is. You will also need to ensure this IP Address is a Static IP Address.

If you are Port Forwarding to a computer, you will need to set a Static IP Address on your computer. An example of a Static IP Address you can choose is as follows:

- **IP Address:** 192.168.1.20
- **Subnet Mask:** 255.255.255.0
- **Default Gateway:** 192.168.1.1
- **Preferred (Primary) DNS:** 192.168.1.1
- **Alternate (Secondary) DNS:** 4.2.2.2

For instructions on setting a Static IP Address on your computer, please see the following Article:
Networking - Setting a Static IP Address
Please make a note of the IP Address that you have set in the above article before continuing.

Configuring the Modem/Router

First, open your Web Browser (such as Internet Explorer), and enter the following numbers into the Address Bar:
192.168.1.1
If asked to login, the default username and password is "admin" and "admin" without the quotes.

Second, click on Advanced on the top-menu.

Third, click on Virtual Server on the left-menu, and then click on Port Forwarding on the left-menu. You should now see the following:

Press the **Add** button.

You should now see the following:

Add New Port Forwarding Rule

Application Name:

- ○ Pre-defined: Audio/Video ▼   Camerades ▼
- ● User defined: Test

From Internet Host IP Address: ALL ▼

Forward to Internal Host IP Address: 192.168.1.20

By using the rules:

Protocol	External Packet		Forward to Internal Host	
	Port Start	Port End	Port Start	Port End
TCP/UDP ▼	3000	3000	3000	3000
TCP ▼				
TCP ▼				

[< Back] [Apply]

For Application Name, select User Defined. Enter a descriptive name for this port forwarding rule.
In the above example, "Test" is the name for the rule.

Leave From Internet Host IP Address on ALL.

In Forward to Internal Host IP Address, enter the IP Address of the device you are port forwarding to.
In the above example, 192.168.1.20 is the IP Address.

In the above example, we have port forwarded the port 3000, which is in all 4 boxes on the 1st row.
Select the correct protocol type for your ports traffic. If you are unsure what Protocol your port requires, choose TCP/UDP.
Enter the port numbers that you need to open:
If you need to only port forward one port (for example, 3000), enter the same number in all 4 boxes on the 1st row (as shown above)
If you need to port forward a range of ports (for example, 3000-4000), enter the starting number in the Port Start boxes, and enter the ending number into the Port End boxes.
If you need to port forward more than one port (for example, 3000 and 5000), you can make another entry on the next row.

Last, after entering the above details, press the Apply button .

Port Forwarding has now been configured.

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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