

OPEN



OPEN824RL/RLW Router

Port Forwarding

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Introduction

Purpose

The purpose of this Application Note is to provide step-by-step instructions to set up Port Forwarding on an OPEN824RL or a OPEN824RLW. The procedures cover the following:

- Setup port forwarding using predefined rules
- Setup port forwarding by manually entering ports and protocol numbers

Audience

This Application Note is intended for a technical audience. It is assumed that the reader is familiar with IP Networking and LAN/WAN technologies.

Requirements

- The customer must be able to connect to the OPEN824 from the LAN PC web browser.
- The customer must know the protocol and port of the application that requires ports to be forwarded.
- The computer accepting the forwarded ports must have a static IP address.

Logging Into The OPEN824

step 1 Access the OPEN824 by opening your computer's web browser and typing the following in the *Address* bar: <http://192.168.1.254>

Note: If you have changed the LAN IP address from the default you will need to connect to the new address.

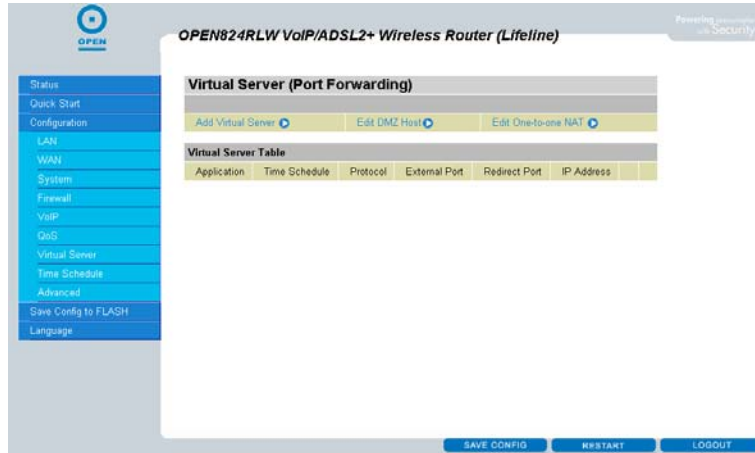
step 2 At the *Connect to...* screen, in the *Username* field, enter **admin**, and in the *Password* field enter **admin**, then click **OK**.



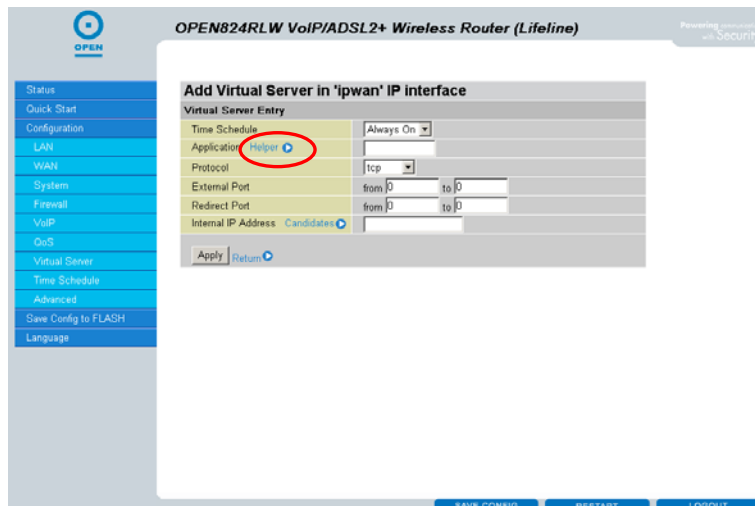
The following appears:

Setup Port Forwarding - *Using predefined entries*

step 1 Select the **Configuration** menu option, then the **Virtual Server** option. The following screen will be displayed.



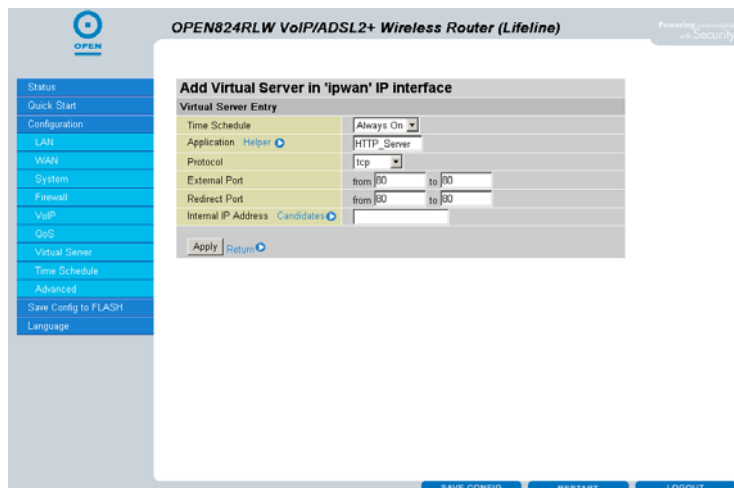
step 2 From the Virtual Server page, select **Add Virtual Server**. The following screen will be displayed.



step 3 From the Add Virtual Server page, select **Helper** link. The following screen will be displayed.

Application	Protocol	Port Number
<input type="radio"/> FTP	TCP	21
<input type="radio"/> SSH	TCP	22
<input type="radio"/> TELNET	TCP	23
<input type="radio"/> SMTP	TCP	25
<input type="radio"/> HTTP_Server	TCP	80
<input type="radio"/> POP3	TCP	110
<input type="radio"/> NTP	UDP	123
<input type="radio"/> SNMP	UDP	161
<input type="radio"/> HTTPS	TCP	443
<input type="radio"/> IKE	UDP	500
<input type="radio"/> syslog	UDP	514
<input type="radio"/> T.120	TCP	1503
<input type="radio"/> L2TP	UDP	1701

step 4 Select the Application you would like to forward, this will immediately update the port and protocol information into the Virtual Server Entry page. The following example is for a Web Server. If the port you require to forward is not displayed in the previous list, you will need to manually enter the details as shown in *Manually entering port and protocol* section of this document.



step 5 From the Add Virtual Server page, select **Candidates**. The following screen will be displayed.

Active PC in LAN	
IP Address	MAC Address
<input type="radio"/> 192.168.1.99	00:0b:cd:97:46:bd

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step 6 Select the IP Address of the computer accepting connections on the forwarded port. This will update Internal IP Address field on the Virtual Server page as the following example shows. If the IP Address is not displayed in the list, it can be manually entered in the Internal IP Address field.

The screenshot shows the 'Add Virtual Server in 'ipwan' IP Interface' configuration page. The 'Internal IP Address' field is populated with '192.168.1.99'. The 'Application' is set to 'HTTP_Server' and the 'Protocol' is 'tcp'. The 'External Port' and 'Redirect Port' are both set to '80'. The 'Time Schedule' is 'Always On'. The 'Apply' button is highlighted.

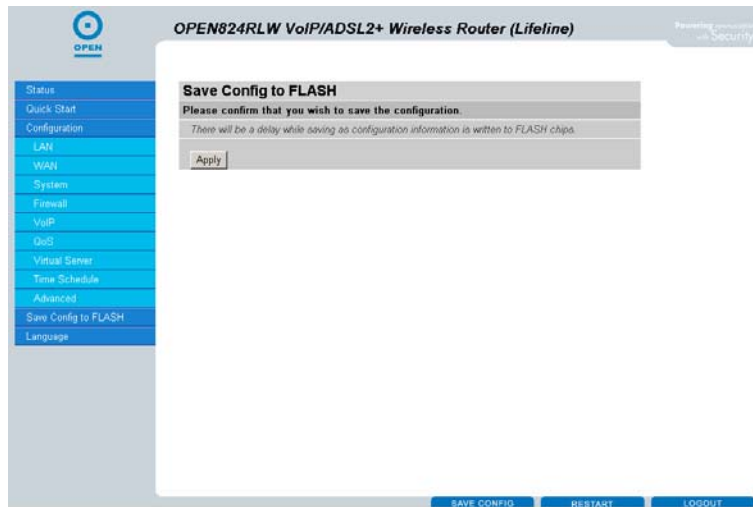
Field	Value
Time Schedule	Always On
Application	HTTP_Server
Protocol	tcp
External Port	from 80 to 80
Redirect Port	from 80 to 80
Internal IP Address	192.168.1.99

step 7 Click the **Apply** button. The rule is added to the port forwarding virtual server table as displayed below.

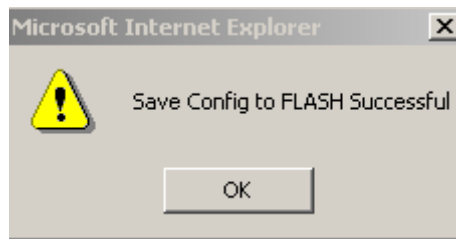
The screenshot shows the 'Virtual Server (Port Forwarding)' table. The table contains one entry for the 'HTTP_Server' rule.

Application	Time Schedule	Protocol	External Port	Redirect Port	IP Address		
HTTP_Server	Always On	tcp	80 - 80	80 - 80	192.168.1.99	Edit	Delete

step 8 Repeat Steps 2 through to 6 to forward another port. Once all the required ports have been forwarded Save the configuration by selecting Save Config to FLASH from the menu and then click apply.

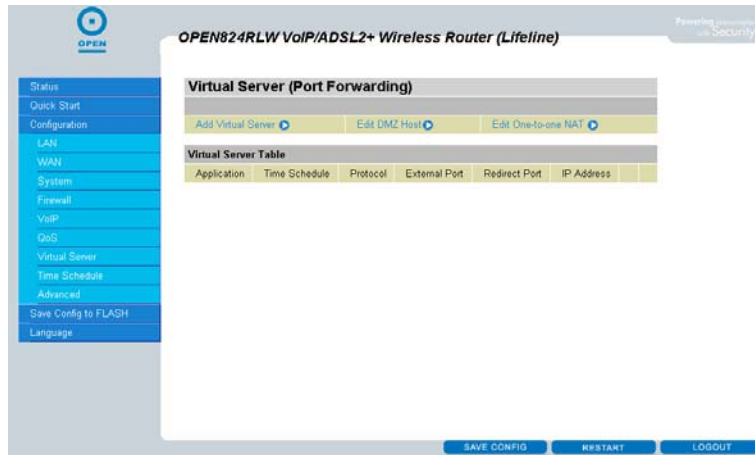


step 9 Click OK to confirm Config has been successfully saved.

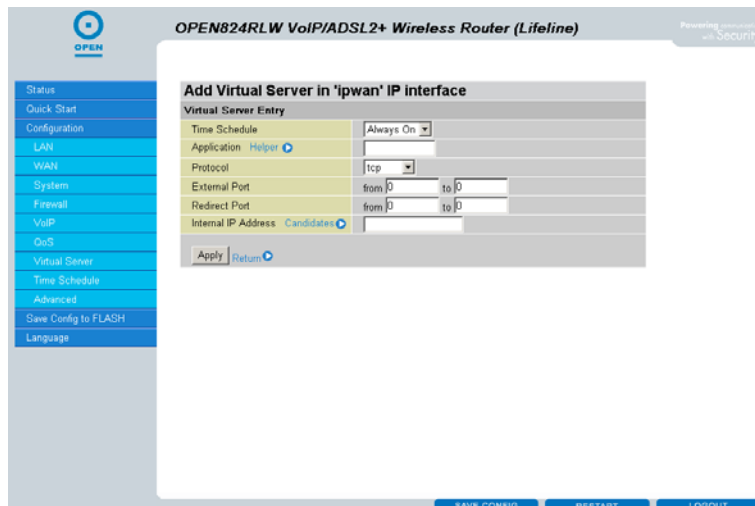


Setup Port Forwarding - *Manually entering port and protocol*

step 1 Select the **Configuration** menu option, then the **Virtual Server** option. The following screen will be displayed.



step 2 From the Virtual Server page, select **Add Virtual Server**. The following screen will be displayed.



In the **Virtual Server Entry** page, enter the following;

- In the **Application** field, enter a unique name.
- In the **Protocol** drop down field select the required protocol from the drop down list.
- In the **External Port from** field, enter the port number **or** the first port number in the port range.
- In the **External Port to** field, enter the port number **or** the last port number in the port range.

Note. If you are only forwarding one port then the same port number is entered in from and to.

- In the **Redirect Port from** field, enter the port number **or** the first port number in the redirected port range.

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- In the **Redirect Port to** field, enter the port number **or** the last port number in the redirected port range.
- In the **Internal IP Address** field, enter the IP address of the server hosting the application.
- Select Apply

The screenshot shows the 'Add Virtual Server in 'ipwan' IP Interface' configuration page. The form includes the following fields:

- Time Schedule: Always On
- Application: http
- Protocol: tcp
- External Port: from 6881 to 6881
- Redirect Port: from 6881 to 6881
- Internal IP Address: 192.168.1.100

Buttons at the bottom include 'Apply', 'Return', 'SAVE CONFIG', 'RESTART', and 'LOGOUT'.

You can forward a single port or a range of ports. You can redirect the incoming port to a different port on the inside server.

Ensure when forwarding external port ranges that there is an equivalent number of redirected ports. Virtual Server entries will not be accepted if this screen is incorrectly completed. Check the error log for details. (Status -> Error Log)

step 3 If the rule has been entered correctly it will appear in the Virtual Server Table as shown.

The screenshot shows the 'Virtual Server (Port Forwarding)' configuration page. It includes a 'Virtual Server Table' with the following data:

Application	Time Schedule	Protocol	External Port	Redirect Port	IP Address		
http	Always On	tcp	6880 - 690	780 - 790	192.168.1.99	Edit	Delete
torrent	Always On	tcp	6881 - 6881	6881 - 6881	192.168.1.100	Edit	Delete
FTP	Always On	tcp	21 - 21	21 - 21	192.168.1.99	Edit	Delete

step 4 Repeat Step 2 to forward another port. Once all the required ports have been forwarded Save the configuration by selecting Save Config to FLASH from the menu and then click apply.

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step 5 Click OK to confirm Config has been successfully saved.

