

Diagnostics Test on RV215W

Objective

The article explains how to do diagnostics test on RV215W, covering both network tools and port mirroring. The *Network Tools* page allows a user to do some basic troubleshooting like ping or trace an IP address, perform a Domain Name Server (DNS) lookup, or capture and trace packets. This is useful for troubleshooting, such as when you try to figure out if a certain router is connected to the RV, if it can be accessed, and to verify the configurations on the router.

Port Mirroring is a process used to monitor network traffic. It is also used to debug and analyze network data or packet error for a network. It monitors the network packets from one of the ports in a router and sends a copy of that network packets to another port from where the network is monitored.

Note: The Diagnostics Test requires a Internet connection.

Applicable Devices

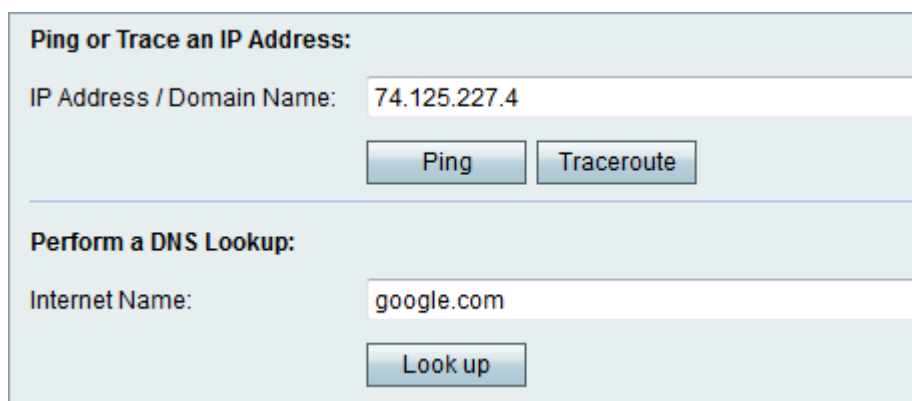
- RV215W

Software Version

- 1.1.0.5

Network Tools

Step 1. Log in to the web configuration utility, choose **Administration > Diagnostics > Network Tools**. The *Network Tools* page opens:



The screenshot shows a web interface for network diagnostics. It is divided into two main sections. The first section is titled "Ping or Trace an IP Address:" and contains a text input field labeled "IP Address / Domain Name:" with the value "74.125.227.4". Below this field are two buttons: "Ping" and "Traceroute". The second section is titled "Perform a DNS Lookup:" and contains a text input field labeled "Internet Name:" with the value "google.com". Below this field is a button labeled "Look up".

Step 2. Enter the desired IP address or domain name in the IP Address/Domain Name field.

Ping Test

Ping Test is used to test the connectivity between the router and another device on the network connected to this router. Ping test sends Internet Control Message Protocol (ICMP) echo request packets from the host to the target host. The results of the test include status, packets transmitted/ received/ loss and round trip time.

Step 1. Click **Ping**.

Ping
Result
PING 74.125.227.4 (74.125.227.4): 64 data bytes
72 bytes from 74.125.227.4: seq=1 ttl=53 time=1020.301 ms
--- 74.125.227.4 ping statistics ---
3 packets transmitted, 1 packets received, 66% packet loss
round-trip min/avg/max = 1020.301/1020.301/1020.301 ms

- The Ping result is displayed. Click **Close**.

Traceroute

Traceroute displays all the routers present between the destination IP address and the active device. Up to 30 "hops" (intermediate routers) between this router and the destination will be displayed.

Step 1. Click **Traceroute**.

Traceroute
Result
traceroute to 74.125.227.4 (74.125.227.4), 30 hops max, 40 byte packets
1 2.729 ms 1.460 ms 7.163 ms 156.26.30.11
2 9.207 ms 9.539 ms 3.721 ms 192.168.0.3
3 * * * 192.168.0.3 Request timed out.
4 9.871 ms 9.486 ms 5.327 ms 156.26.248.241
5 3.757 ms 9.648 ms 3.648 ms 164.113.216.65
6 12.277 ms 9.805 ms 12.678 ms 164.113.193.38
7 12.565 ms 16.489 ms 19.689 ms 164.113.193.42
8 15.737 ms 12.541 ms 9.835 ms 164.113.192.42
9 19.883 ms 19.661 ms 20.101 ms 64.57.21.125
10 28.978 ms 19.646 ms 19.770 ms 72.14.222.118
11 19.333 ms 19.632 ms 19.677 ms 72.14.233.65
12 29.386 ms 19.656 ms 24.918 ms 216.239.47.54
13 24.110 ms 19.969 ms 22.324 ms 74.125.227.4
Trace complete

- The Traceroute result is displayed. Click **Close**.

DNS Lookup

DNS Name Look-up is used to retrieve the IP address for the given host name.

Ping or Trace an IP Address:



IP Address / Domain Name:

Perform a DNS Lookup:

Internet Name:

Step 1. Enter the domain name to perform a DNS lookup in the Internet Name field.

Step 2. Click **Look up**.

Look up	
Result	
Server:	
Address 1:	
Name:	google.com
Address 1:	2001:4860:4002:800::1000
Address 2:	74.125.227.0 dfw06s03-in-f0.1e100.net
Address 3:	74.125.227.1 dfw06s03-in-f1.1e100.net
Address 4:	74.125.227.2 dfw06s03-in-f2.1e100.net
Address 5:	74.125.227.3 dfw06s03-in-f3.1e100.net
Address 6:	74.125.227.4 dfw06s03-in-f4.1e100.net
Address 7:	74.125.227.5 dfw06s03-in-f5.1e100.net
Address 8:	74.125.227.6 dfw06s03-in-f6.1e100.net
Address 9:	74.125.227.7 dfw06s03-in-f7.1e100.net
Address 10:	74.125.227.8 dfw06s03-in-f8.1e100.net
Address 11:	74.125.227.9 dfw06s03-in-f9.1e100.net
Address 12:	74.125.227.14 dfw06s03-in-f14.1e100.net

- The DNS result is displayed. Click **Close**.

Port Mirroring

Step 1. Log in to the web configuration utility, choose **Administration > Diagnostics > Port Mirroring**. The *Port Mirroring* page opens:

Mirror Configuration		
Port	Mirror Source	
0 (WAN Port)	<input checked="" type="checkbox"/>	
1	<input type="checkbox"/>	
2	<input checked="" type="checkbox"/>	
3	<input type="checkbox"/>	
4	<input type="checkbox"/>	
Mirror Port		3 ▼

Step 2. Check the desired **Mirror Source** port from the available ports. This is the port on which the network port is monitored.

Step 3. Choose the desired port from the Mirror Port drop-down list. This is the port on which the network traffic is analyzed.

Step 4. Click **Save**.