

CHAPTER 23

Diagnostic Tools

23.1 Introduction

Diagnostic Tools provide a useful way to view or diagnose the status of your Vigor router. Please click the link “**System Management > Diagnostic Tools**” in the Setup Main Menu to enter the following page. More details for each tool will be explained below.

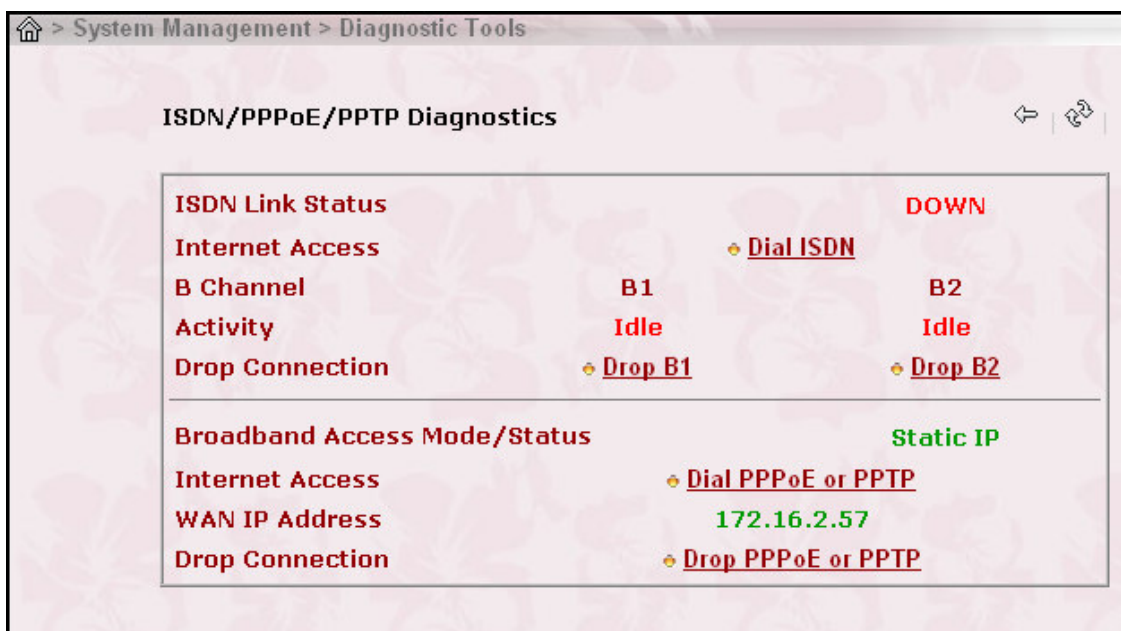



23.2 Descriptions

23.2.1 ISDN/PPPoE / PPTP Diagnostics

Click here to open the following page. The page shown here is for reference only and individual networks will show different results.

The page has been grouped into two subgroups, the upper is for ISDN link status, the lower is for broadband access status.



 **(Refresh):** To obtain the latest information, click here to reload the page.

ISDN Link Status: If the link is active, this field will show **UP**. Otherwise, it shows **DOWN**.

Dial ISDN: Clicking here causes the router to dial to the preset ISP. Click **Internet Access Setup > Dial to a Single ISP** to configure dial-up settings.

Activity: Display the connection name for each B channel. If the B channel is idle, it will show **Idle**.

Drop B1: Click it to disconnect the B1 channel.

Drop B2: Click it to disconnect the B2 channel.

Broadband Access Mode/Status: Display the broadband access mode and status.

If the broadband connection is active, it will show **PPPoE**, **PPTP**, **Static IP**, or **DHCP Client** depending on which access mode is enabled. If the connection is idle, it will show “---”.

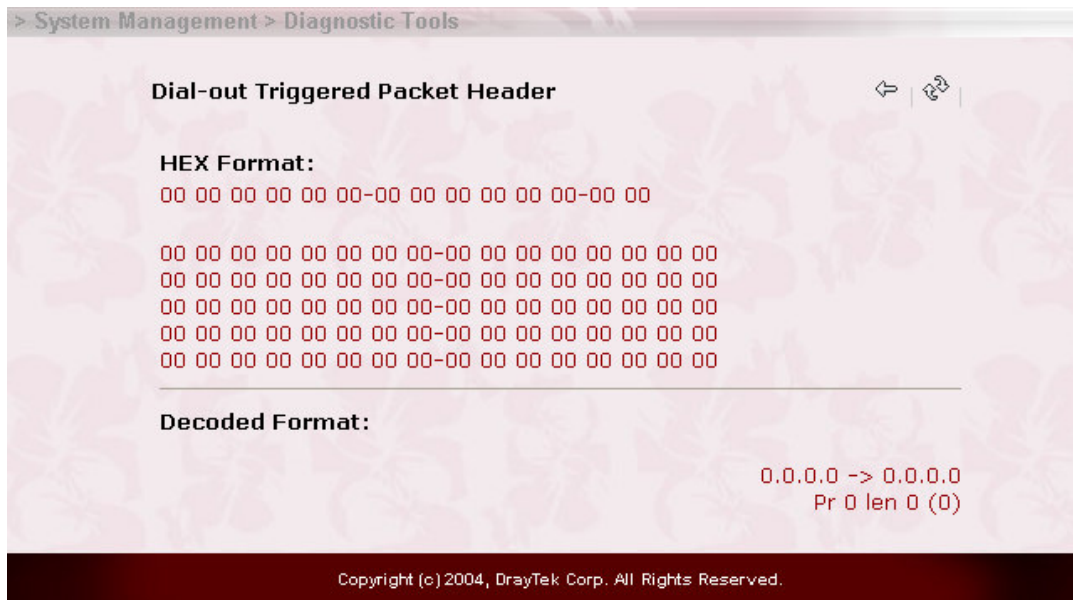
WAN IP Address: The WAN IP address for the active connection.

Dial PPPoE or PPTP: Click it to force the router to establish a PPPoE or PPTP connection.

Drop PPPoE or PPTP: Click it to force the router to disconnect the current active PPPoE or PPTP connection.

23.2.2 Triggered Dial-out Packet Header

Triggered Dial-out Packet Header shows the last IP packet header that triggered the router to dial out.



(Refresh): Click to reload the page.

23.2.3 View Routing Table

Click **View Routing Table** to view the routing table of your Vigor router.

The table provides current IP routing information held in the router. In the left of each routing rule, you will see a key. These keys are defined as follows.

C --- Directly connected.

S --- Static route.

R --- RIP.

***** --- Default route.

~ --- Routes for private routing domain.

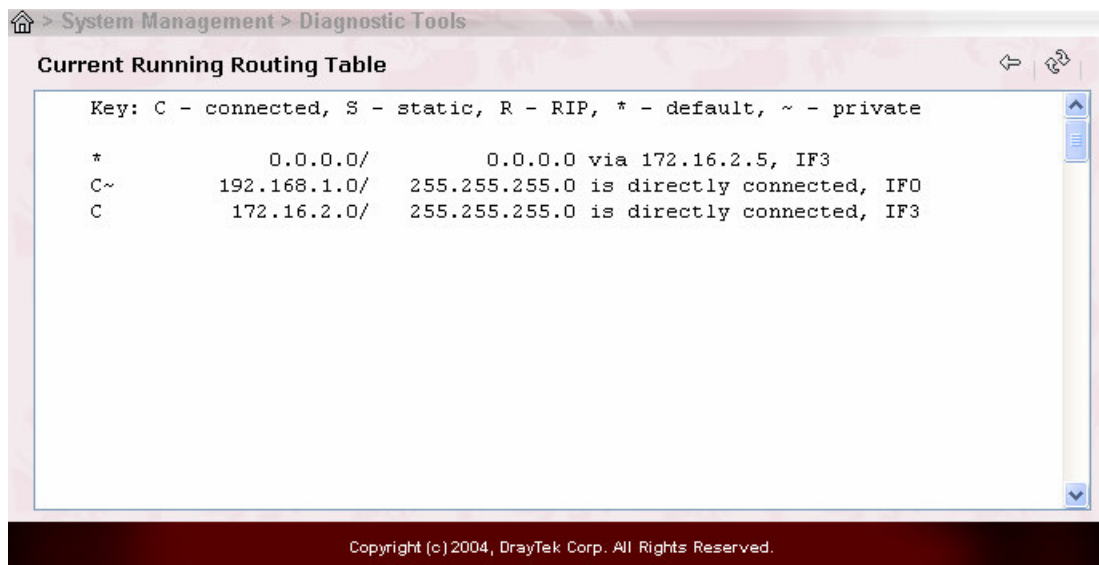
In the right of each routing rule, you will see an interface identifier which are defined as follows.

IF0 --- Local LAN interface.

IF1 --- ISDN B1 channel.

IF2 --- ISDN B2 channel.

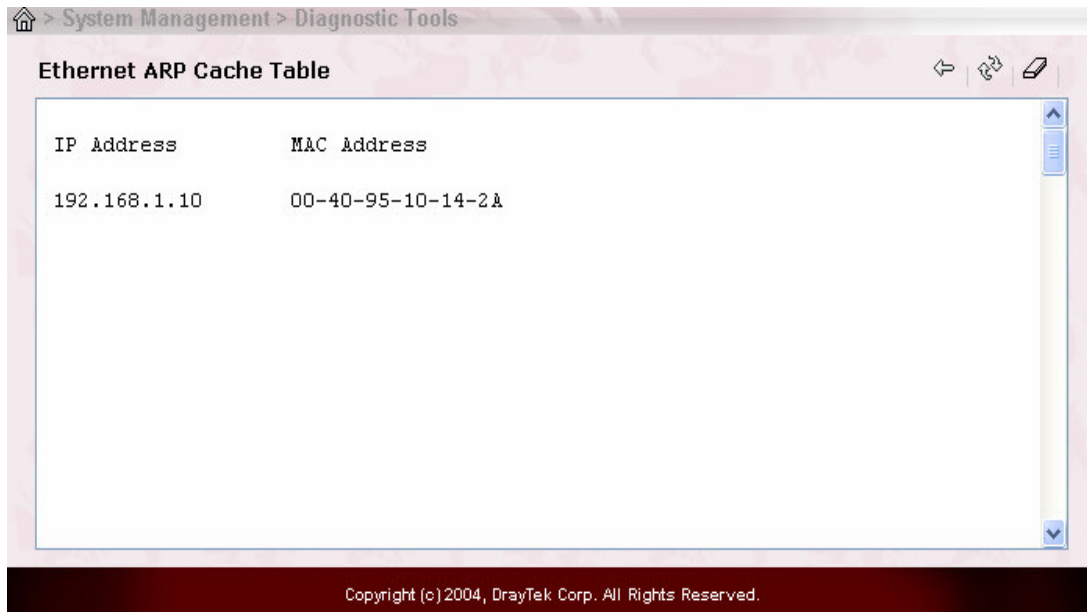
IF3 --- WAN interface.




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23.2.4 View ARP Cache Table

Click **View ARP Cache Table** to view the content of the ARP (Address Resolution Protocol) cache held in the router. The table shows a mapping between an Ethernet hardware address (MAC Address) and an IP address.



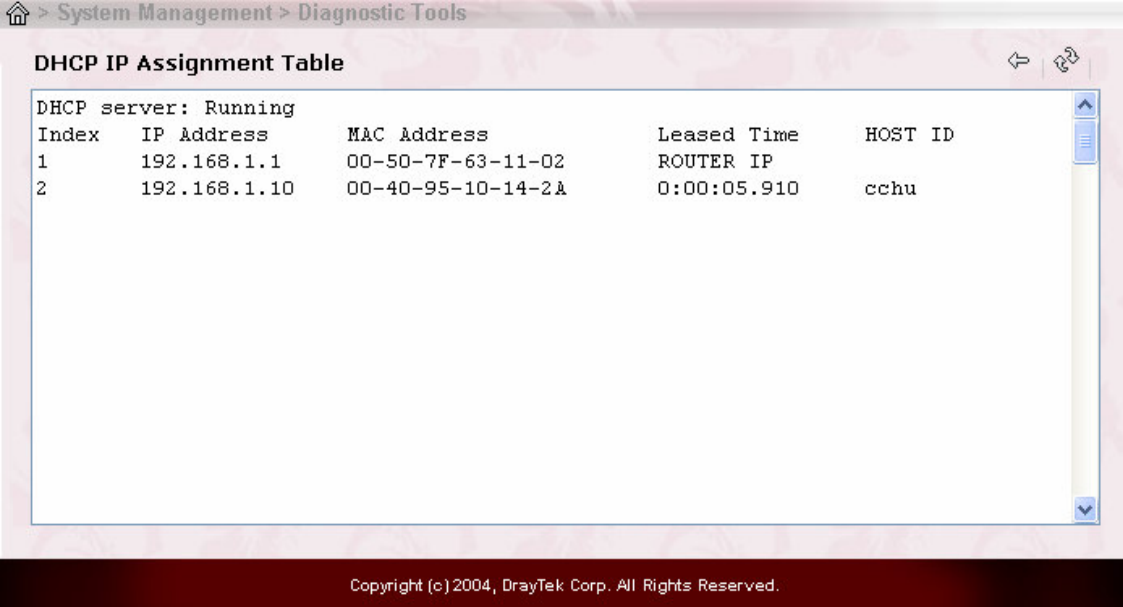
IP Address	MAC Address
192.168.1.10	00-40-95-10-14-2A

 **(Refresh):** Click it to reload the page.

23.2.5 View DHCP Assigned IP Addresses

The facility of **View DHCP Assigned IP Addresses** provides information on IP address assignments. This information is helpful in diagnosing network problems, such as IP address conflicts, etc.

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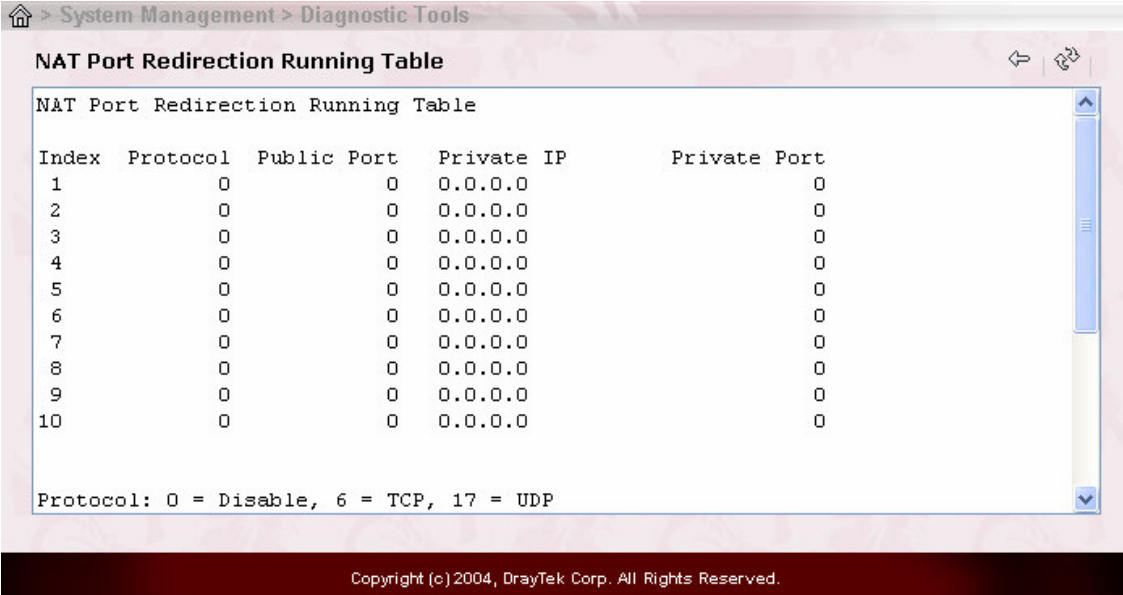
The screenshot shows a web interface for 'Diagnostic Tools' under 'System Management'. It displays a 'DHCP IP Assignment Table' with a status of 'Running'. The table lists two DHCP assignments. The first entry has an index of 1, IP address 192.168.1.1, MAC address 00-50-7F-63-11-02, leased time 'ROUTER IP', and host ID 'cchu'. The second entry has an index of 2, IP address 192.168.1.10, MAC address 00-40-95-10-14-2A, leased time '0:00:05.910', and host ID 'cchu'. The interface includes a home icon, navigation arrows, and a scroll bar on the right.

DHCP IP Assignment Table				
DHCP server: Running				
Index	IP Address	MAC Address	Leased Time	HOST ID
1	192.168.1.1	00-50-7F-63-11-02	ROUTER IP	cchu
2	192.168.1.10	00-40-95-10-14-2A	0:00:05.910	cchu

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23.2.6 View NAT Port Redirection Running Table

If you have configured **Port Redirection** (under **NAT Setup**), click it to verify that your settings are correct for redirecting specific port numbers to specified internal users.



The screenshot shows a web interface for 'Diagnostic Tools' under 'System Management'. It displays a 'NAT Port Redirection Running Table'. The table lists 10 entries, all with a protocol of 0, public port of 0, private IP of 0.0.0.0, and private port of 0. A legend at the bottom indicates that Protocol 0 means 'Disable', 6 means 'TCP', and 17 means 'UDP'. The interface includes a home icon, navigation arrows, and a scroll bar on the right.

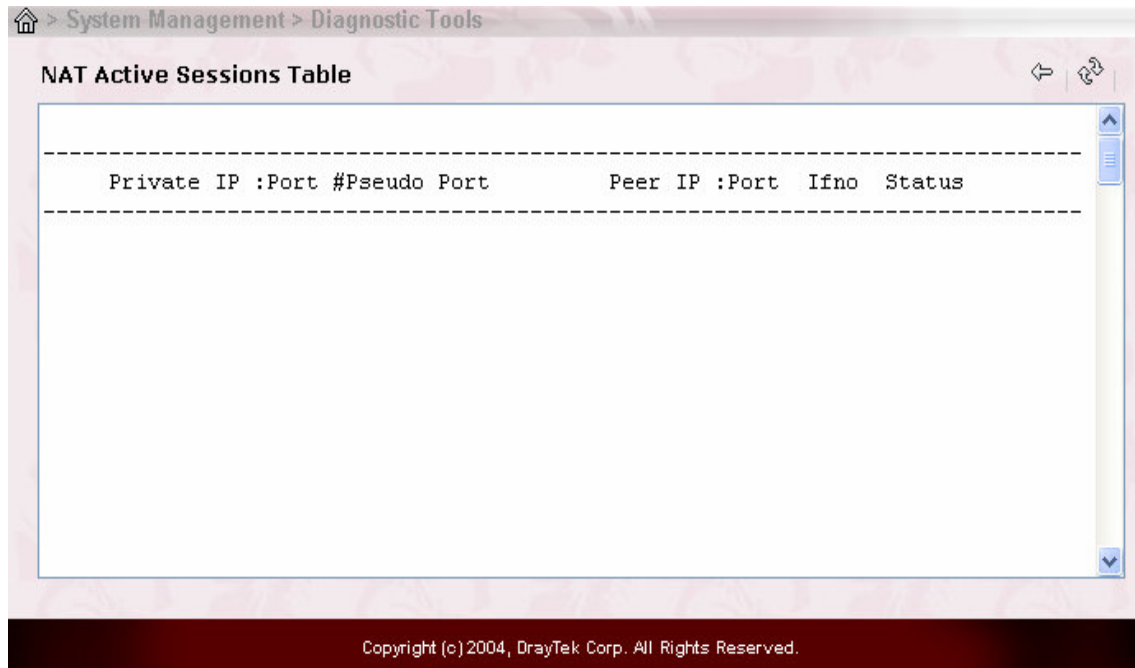
Index	Protocol	Public Port	Private IP	Private Port
1	0	0	0.0.0.0	0
2	0	0	0.0.0.0	0
3	0	0	0.0.0.0	0
4	0	0	0.0.0.0	0
5	0	0	0.0.0.0	0
6	0	0	0.0.0.0	0
7	0	0	0.0.0.0	0
8	0	0	0.0.0.0	0
9	0	0	0.0.0.0	0
10	0	0	0.0.0.0	0

Protocol: 0 = Disable, 6 = TCP, 17 = UDP

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23.2.7 View NAT Active Sessions Table

As the router accesses the Internet through the built-in NAT engine, click **View NAT Active Sessions Table** to see which active outgoing sessions are online.



Private IP :Port	#Pseudo Port	Peer IP :Port	Ifno	Status
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Each line across the screen indicates an active session. The following information is displayed:

Private IP, Port: The internal user's (PC's) IP address and port number.

#Pseudo Port: The public port number.

Peer IP, Port: The peer user's (PC's) IP address and port number.

Ifno: Stands for interface number. The definition is listed below:

- 0 --- LAN interface.
- 1 --- B1 interface.
- 2 --- B2 interface.
- 3 --- WAN interface.