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# CHAPTER 18

## Diagnostic Tools

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### 18.1 Introduction

Diagnostic Tools provide useful tools to view or diagnose the router. Click **Diagnostic Tools** to enter the following page. More details for each tool will be explained below.



### 18.2 Descriptions

#### 18.2.1 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.

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> System Management> Diagnostic Tools << Main Menu

PPPoE/PPPoA Diagnostics << Back | Refresh

Broadband Access Mode/Status	PPPoE
Internet Access	>> Dial PPPoE/PPPoA
WAN IP Address	61.230.203.36
Drop Connection	>> Drop PPPoE/PPPoA

**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.

### 18.2.2 Triggered Dial-out Packet Header

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

> System Management> Diagnostic Tools << Main Menu

Dial-out Triggered Packet Header << Back | Refresh

**HEX Format:**  
00 00 00 00 00 00-00 00 00 00 00 00-00 00  
  
00 00 00 00 00 00 00 00-00 00 00 00 00 00 00 00  
00 00 00 00 00 00 00 00-00 00 00 00 00 00 00 00  
00 00 00 00 00 00 00 00-00 00 00 00 00 00 00 00  
00 00 00 00 00 00 00 00-00 00 00 00 00 00 00 00

**Decoded Format:**  
0.0.0.0 -> 0.0.0.0  
Pr 0 len 0 (0)

### 18.2.3 View Routing Table

Click **View Routing Table** to view the router's routing table.

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:

**C** --- Directly connected.

**S** --- Static route.

**R** --- RIP.

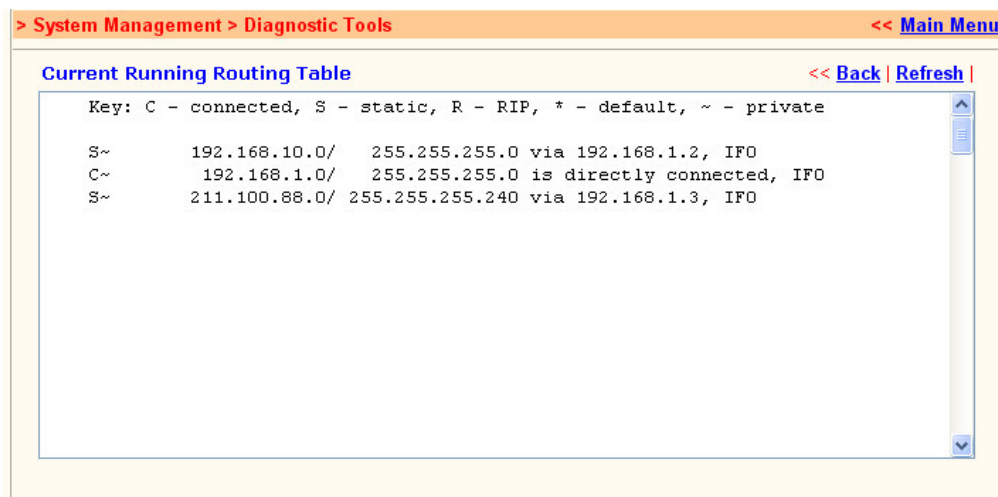
**\*** --- Default route.

**~** --- 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.

**IF3** --- WAN interface.

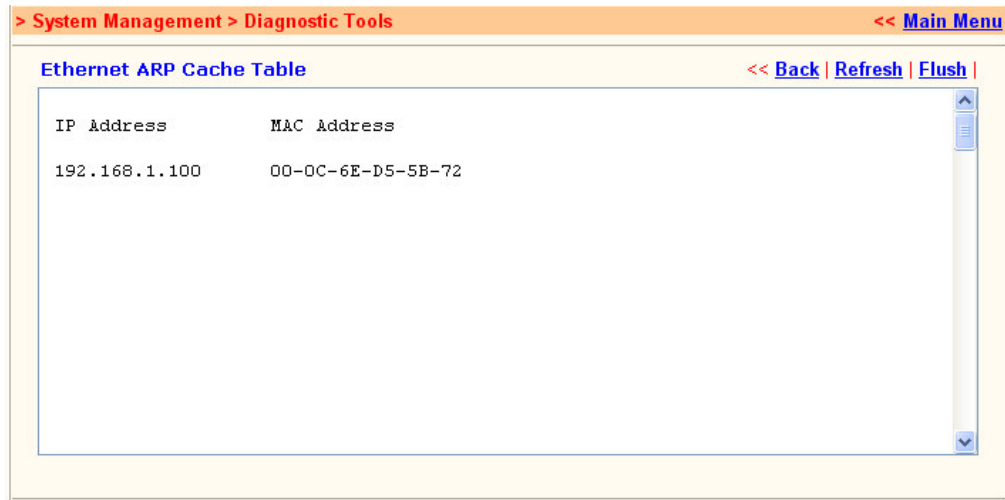


### 18.2.4 View ARP Cache Table

Click **View ARP Cache Table** to view the content of the ARP

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(Address Resolution Protocol) cache held in the router. The table shows a mapping between an Ethernet hardware address (MAC Address) and an IP address.

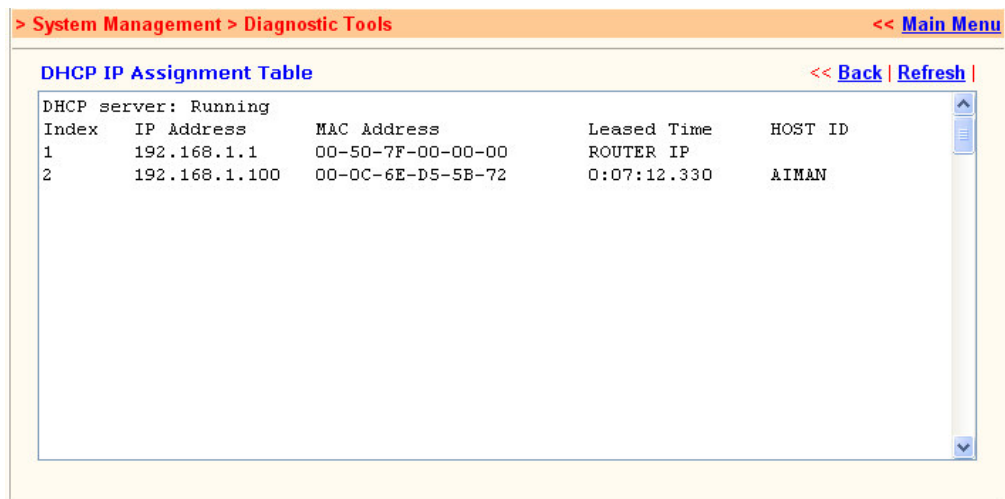


The screenshot shows a web-based interface for network management. At the top, there is a navigation bar with "> System Management > Diagnostic Tools" on the left and "<< Main Menu" on the right. Below this, the title "Ethernet ARP Cache Table" is displayed on the left, and navigation links "<< Back | Refresh | Flush |" are on the right. The main content area contains a table with two columns: "IP Address" and "MAC Address". The table has one data row showing the mapping for IP 192.168.1.100 to MAC 00-0C-6E-D5-5B-72. A vertical scrollbar is visible on the right side of the table.

IP Address	MAC Address
192.168.1.100	00-0C-6E-D5-5B-72

### 18.2.5 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.



The screenshot shows a web-based interface for network management. At the top, there is a navigation bar with "> System Management > Diagnostic Tools" on the left and "<< Main Menu" on the right. Below this, the title "DHCP IP Assignment Table" is displayed on the left, and navigation links "<< Back | Refresh |" are on the right. The main content area contains a table with five columns: "Index", "IP Address", "MAC Address", "Leased Time", and "HOST ID". The table has two data rows. The first row shows index 1, IP 192.168.1.1, MAC 00-50-7F-00-00-00, Leased Time ROUTER IP, and HOST ID. The second row shows index 2, IP 192.168.1.100, MAC 00-0C-6E-D5-5B-72, Leased Time 0:07:12.330, and HOST ID A1MAN. A vertical scrollbar is visible on the right side of the table.

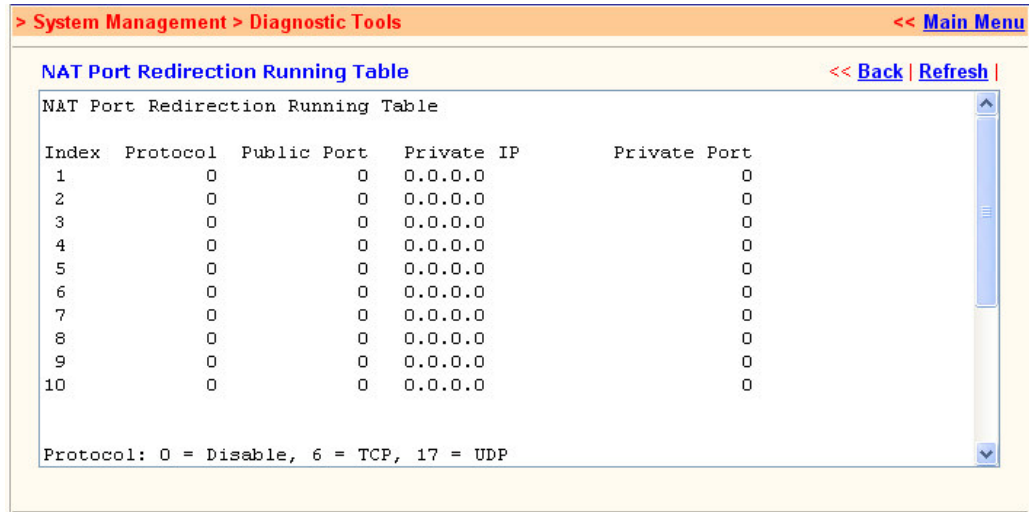
Index	IP Address	MAC Address	Leased Time	HOST ID
1	192.168.1.1	00-50-7F-00-00-00	ROUTER IP	
2	192.168.1.100	00-0C-6E-D5-5B-72	0:07:12.330	A1MAN

### 18.2.6 View NAT Port Redirection Running Table

If you have configured **Port Redirection** (under **NAT Setup**), click

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it to verify that your settings are correct for redirecting specific port numbers to specified internal users.



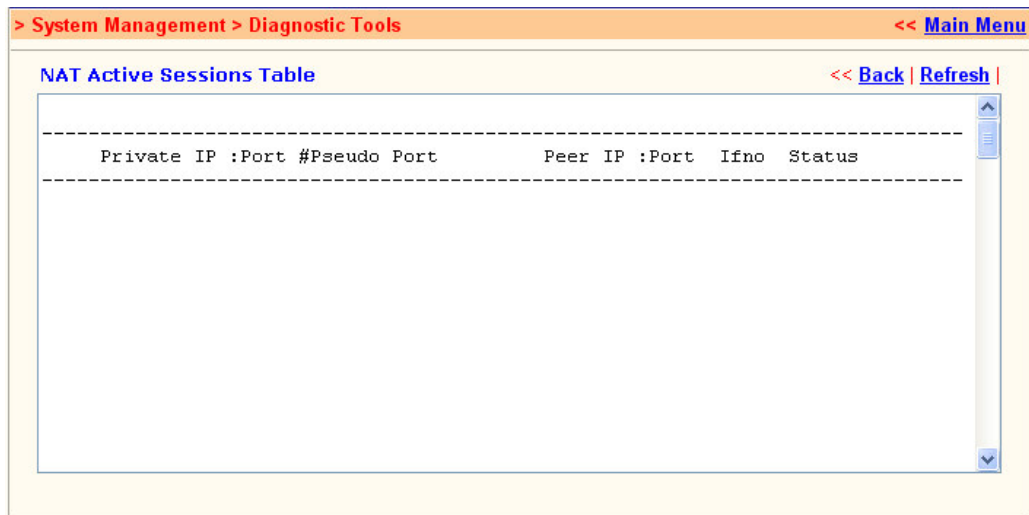
The screenshot shows a web interface for "NAT Port Redirection Running Table". At the top, there is a breadcrumb trail "> System Management > Diagnostic Tools" and a "<< Main Menu" link. Below the title, there are "<< Back" and "Refresh" links. The table itself has five columns: Index, Protocol, Public Port, Private IP, and Private Port. It contains 10 rows of data, all with Protocol 0 and Private IP 0.0.0.0. A legend at the bottom states: "Protocol: 0 = Disable, 6 = TCP, 17 = UDP".

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

### 18.2.7 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.



The screenshot shows a web interface for "NAT Active Sessions Table". At the top, there is a breadcrumb trail "> System Management > Diagnostic Tools" and a "<< Main Menu" link. Below the title, there are "<< Back" and "Refresh" links. The table has five columns: Private IP :Port, #Pseudo Port, Peer IP :Port, Ifno, and Status. The table is currently empty.

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:

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**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.

3 --- WAN interface.