
PROLINK

Hurricane 9000

1-port ADSL Modem/Router

User's Manual

Version 2.0



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Important Notice

For not unlimited users, please remember to switch off the router when the internet is not in use, OR set "Disconenct Timeout" on the router.

Section One - Introduction

The Hurricane 9000 provides Full rate (ANSI and G.DMT) as well as G.lite ADSL standards line support, and can be connected to PC through Ethernet or USB . This product supports bridge feature set for the integration of ADSL service into corporate or home LAN and WAN.

1.1 System Requirements

Before connecting the Hurricane 9000 to your PC, make sure your system is equipped with the Ethernet NIC card or USB port and TCP/IP protocol.

1.2 Features Summary

ADSL Compliance

Compliant with ADSL standards:

- ANSI T1.413 Issue 2, ITU G.dmt (G.992.1) and G.lite (G.992.2).
- ADSL over POTS (Annex A) and ADSL over ISDN (Annex B)
- DMT modulation and demodulation
- Full-rate adaptive modem
- Maximum downstream rate of 8 Mbps
- Maximum upstream rate of 1 Mbps
- Tone detection for low power mode
- Supports splitterless ADSL implementation
- Supports Dying Gasp (optional)

ATM Protocols

- WAN mode support: PPP over ATM and over Ethernet. (RFC 2364/2516)
- LAN mode support: bridged/routed Ethernet over ATM (RFC 1483) and Classical IP over ATM (RFC 1577)
- ATM Forum UNI 3.1/4.0 PVC
- Up to 8 VCs (Virtual Circuits)
- ATM SAR (Segmentation and Reassembly)
- ATM AAL5 (Adaption Layer type 5)
- OAM F4/F5

Bridge Mode

Ethernet to ADSL self-learning Transparent Bridging (IEEE 802.1D)
Supports up to 128 MAC learning addresses-

Router Mode

IP routing
RIPv2

Static routing

DHCP (Dynamic Host Configuration Protocol) Server and Client

NAPT (Network Address and Port Translation)

NAT (Network Address Translation)

ICMP (Internet Control Message Protocol)

Simultaneous USB and Ethernet operation-

Security

User authentication for PPP

PAP (Password Authentication Protocol)

CHAP (Challenge Authentication Protocol)

Password protected system management

Ethernet interface

Compliant with IEEE 802.3 standard

10/100 Mbps auto selection

1 x LAN port (Cable Type Auto-detecting)

USB host interface

Compliant with USB Specification, Revision 1.1

USB full speed (12 Mbps)

Vendor specific descriptors

HTTP Web-based management

Firmware upgrade via FTP

Customizable Web pages

WAN and LAN side connection statistics

Configuration of static routes and Routing table

Configuration of NAT/NAPT

Password protected access

Selection of Bridge or Router Mode

PPP user ID and password

Configuration of VCs (Virtual Circuits)

Section Two - Connect the Modem/Router

2.1 This Package contents

1. One ADSL Router modem
2. One RJ-45 straight cable
3. One RJ-11 telephone cable
4. One USB cable
5. 9/12V Power Adaptor
6. User's Manual & CD

For any missing items, Please contact your dealer immediately.

1.



5



2



3



6



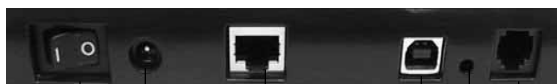
4



2.2 Product View



LAN LED TX/RX LED LINK LED POWER LED



Power Switch

Power Connector

RJ45 LAN Jack

RJ11 Line Jack

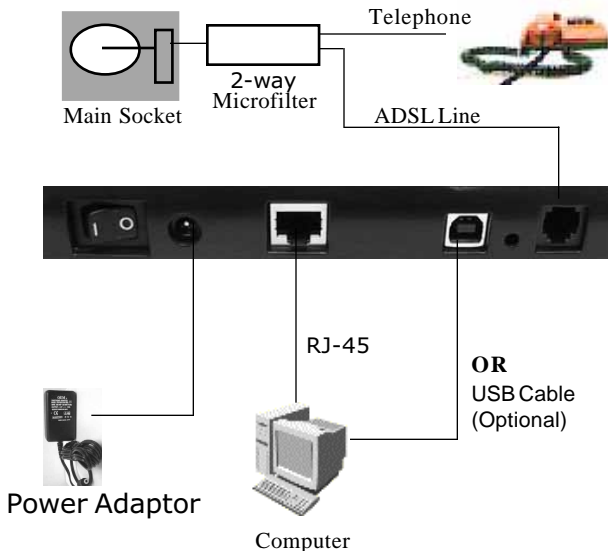
**Reset Button
(Set to factory Default)**

USB Connector

2.3 Hardware Installation

The following steps instruct you to install the Hurricane 9000 for one computer. For more than one computer, please refer to 2.4 Network Connection.

1. Plug the end of the Ethernet cable into the LAN Jack of the Hurricane 9000.
2. Plug the other end of the Ethernet cable into your computer's RJ45 Jack of Ethernet card.
3. Connect the Power adaptor to the Power Connector.
4. Plug the telephone cable into the Line Jack .
5. Plug the other end of the telephone cable into
 - i) a Main Socket .
 - ii) **OR** the Jack of the two-way Microfilter labeled **DSL**.

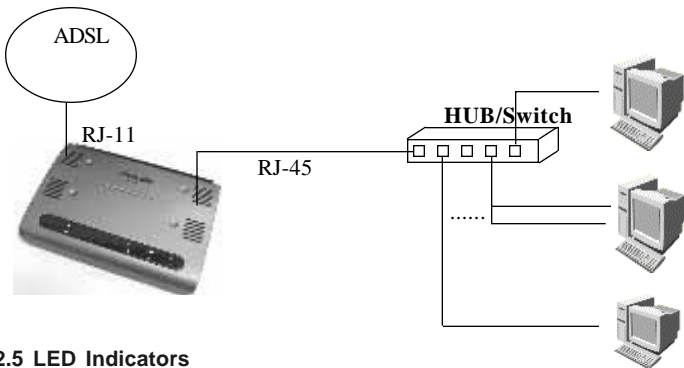


2.4 Network Connections

2.4.1 for One PC



2.4.2 for more than one PC



2.5 LED Indicators

The ADSL Router modem features LED indicators on the front panel that report modem status:

POWER	Red	Power Light / Steady when power is on.
LINK	Green	WAN Link / Steady during ADSL line status is showtime.
TX/RX	Green	WAN Activity / Blinking when transmitting/receiving data.
LAN	Green	LAN Link / Blinking during LAN Activity.

Section Three - Configure the PCs

3.1 Configure your PC.

The instructions in this section will help you to configure each computer to communicate with the Router.

To do this, you need to configure your PC's network settings to obtain an IP address automatically from the DHCP of the router. Computers use IP addresses to communicate with each other across a network, such as the Internet.

For Windows 98/ME

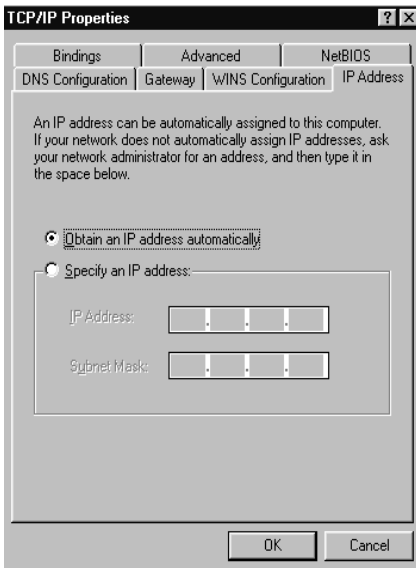
1. Go to the Network screen by clicking the **Start** button. Click **Settings** and then **Control Panel**. From there, double-click the **Network** icon.

2. On the Configuration tab, select the TCP/IP line for the applicable Ethernet adapter. Then, click the Properties button.

3. Click the **IP Address** tab. Select **Obtain an IP address automatically**.

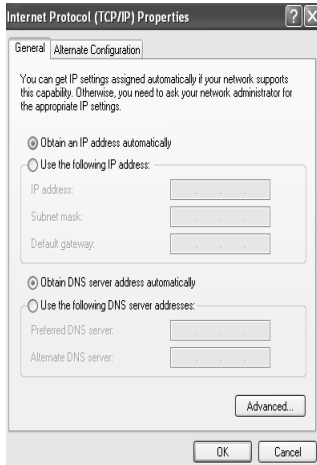
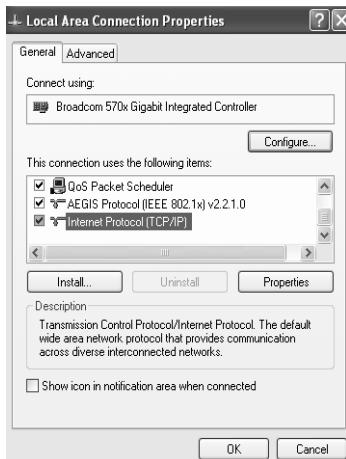
4. Click the **Gateway** tab, and verify that the Installed Gateway field is blank. Click the OK button.

5. Click the **OK** button again. Click the Yes button to restart your computer.



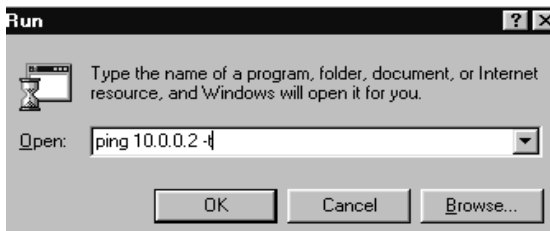
For Windows XP/2k

1. Go to the Network screen by clicking the **Start** button. Click **Control Panel**. From there, double-click the **Network Connections** icon.
2. Under LAN or High-Speed Internet, Right-Click **Local Area Connection** icon, select Properties.
3. Select **Internet Protocol (TCP/IP)**, click Properties.
4. Select **Obtain an IP address automatically**, click **OK**
5. Click the **OK** button again.



3.2 Verify the link between your PC and Router

- From start > Run
- Enter ping 10.0.0.2 -t and click OK
- If the connection has been established, You will receive reply from the router.
- If you receive "Request timed out", that means the link has not been established, pls. check the network cable and IP address. (or try to restart your PC)



Notes:

- Under MS-DOS mode, you can type **ipconfig** to check your IP address. (to renew IP: ipconfig /renew)
- You may have to disable the proxy settings on your Internet browser .
Tools>Internet Options>Connection>LAN settings>Disable Proxy Server
- Make sure that your browser is set to connect directly .

For Internet Explorer, click **Tools, Internet Options**, and then the **Connection** tab. Make sure that Internet Explorer is set to **Never dial a connection**.

For Netscape Navigator, click **Edit, Preferences, Advanced**, and **Proxy**. Make sure that Netscape Navigator is set to **Direct connection to the Internet**.

Section Four Web-Based Management

4.1. Login

- 1) Open Internet Explorer /Netscape , type <http://10.0.0.2>
- 2) The system will ask for administrator's username and password when restarting or configuring. It is illustrated in the following figure.

Default username: **admin**
password: **password**



The image shows a login dialog box with a light gray background. At the top, the text "Realm: Home Gateway" is displayed. Below this, there are two input fields: "User Name" with the text "admin" entered, and "Password" with a blue mask. Below the password field, there is a checked checkbox labeled "Save this password in your password list". At the bottom right, there are two buttons: "OK" and "Cancel".

4.2 Setup Hurricane 9000

Click WAN under configuration, Slect Adapter: PVC0, press Submit Button.

Address <http://10.0.0.2/doc/index.htm>

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Select Adapter:
 Adapter: **Pvc0**

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WAN Configuration (Pvc 0)

Virtual Circuit: **Enabled**
 Bridge: **Disabled**
 IGMP: **Disabled**
 Encapsulation: **PPPoE LLC**

ATM
 VPI:
 VCI:
 Service Category: **UBR**
 Peak Cell Rate: kbps
 Sustainable Cell Rate: kbps
 Max Burst Size:

DHCP Client: **Disabled**
 Host Name:

MAC Spoofing: **Disabled**
 Mac Address:

Static IP Settings
 IP Address:
 Subnet Mask:
 Gateway:

PPP [Advanced PPP configuration](#)
 Service Name:
 Username: **prolink@stingnet**
 Password:
 Disconnect Timeout: minutes (**Max:32/67**)

[PPP Disconnect Timer Config](#)
 MRU:
 MTU:
 MSS:
 Lcp Echo Interval: seconds
 Lcp Echo Maximum:
 Consecutive Failure:

Authentication: **Auto**
 Automatic Reconnect:

Settings need to be saved to Flash and the system needs to be rebooted for changes to take effect.

[Save Configuration](#)

Encapsulation: PPPoA, PPPoE, 1483 router, IPoA and 1483 Bridge.
Please select one according to your local ISP designation.
(e.g. **Singapore/Indonesia:** PPPoA VCMUX; **Malaysia/Thailand:** PPPoELLC)

VPI/VCI: ATM VC of local ADSL Internet Service Provider.
(e.g. Singapore: VPI/VCI=0/100; Malaysia: VPI/VCI=0/35; Indonesia: VPI/VCI=1/33; SriLanka: VPI/VCI=8/35; Thailand: VPI/VCI=1/32)

Username and Password: the user name and password will be provided by your ISP when applying for PPP ADSL service.

You can leave others settings by default.

Press **Submit** button, then Click **Save Configuration**, select Save and Reboot.

Save settings and reboot.

Save & Reboot

Reboot modem without saving settings.

Reboot Only

Disconnect Timeout: The Disconnect Timeout allows users to set the specific period of time to disconnect from the ISP. The default is 0, which means never disconnect from the ISP.

Static WAN IP Configuration (Optional)

If you are using 1483 Routed IP or Classical IP over ATM, please enter the IP address, Subnet Mask and Gateway (Provided by your local ISP)

4.3 Status and Advanced Settings

4.3.1 WAN/LAN Status.

The **WAN/LAN Status** page shows the WAN , LAN interface status.

Address <http://10.0.0.2/doc/index.htm> Go Links Best of the Web

PROLINK

Home Page
Firmware Version: **R403-1**

WAN

IP Address	Subnet Mask	MAC Address
------------	-------------	-------------

LAN

IP Address	Subnet Mask	MAC Address
10.0.0.2	255.0.0.0	02:30:CD:00:07:D3

Total Number of Lan Interfaces: 1
Number of ethernet devices connected to the DHCP server: 0
Ethernet Link Status: UP
USB Link Status: DOWN

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4.3.2 PPP Status.

The **PPP Status** page shows the status of PPP for each PVC Connect and Disconnect allows users to manually **connect/disconnect** the PPP connection for one PVC.

Address <http://10.0.0.2/doc/index.htm> Go Links Best of the Web Channel Guide

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PPP

#	Connection Name	Interface	Mode	Status	Pkts Sent	Pkts Rcvd	Bytes Sent	Bytes Rcvd
1	PPPoPvc 0	Pvc 0	PPPoE	Not Connected	N/A	N/A	N/A	N/A
2	simple ppp session 1	Pvc 1	Disabled	Not Connected	N/A	N/A	N/A	N/A
3	simple ppp session 3	Pvc 3	Disabled	Not Connected	N/A	N/A	N/A	N/A
4	simple ppp session 4	Pvc 4	Disabled	Not Connected	N/A	N/A	N/A	N/A
5	simple ppp session 5	Pvc 5	Disabled	Not Connected	N/A	N/A	N/A	N/A
6	simple ppp session 6	Pvc 6	Disabled	Not Connected	N/A	N/A	N/A	N/A
7	simple ppp session 7	Pvc 7	Disabled	Not Connected	N/A	N/A	N/A	N/A

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4.3.3 ADSL Status.

The **ADSL Status** page shows the ADSL physical layer status.

Address <http://10.0.0.2/doc/index.htm> Links

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ADSL STATUS

Showtime Firmware Version: **3.30**

Line State: **SHOWTIME**

Modulation: **G.dmt**

Annex Mode: **ANNEX_A**

Startup Attempts: **1**

Max Tx Power: **-38 dBm/Hz**

CO Vendor: **ALCATEL_NETWORK**

Elapsed Time: **0 days 0 hours 11 minutes 54 seconds**

	Downstream	Upstream	
SNR Margin	22.1	25.0	dB
Line Attenuation	52.4	31.5	dB
Errored Seconds	0	0	
Loss of Signal	0	0	
Loss of Frame	0	0	
CRC Errors	0	0	
Data Rate	1536	448	kbps

4.3.4 LAN Configuration.

The LAN page allows user to set the configuration for the LAN port.

Address http://10.0.0.2/doc/index.htm

LAN Configuration

IP Address

Subnet Mask

DHCP Server

DHCP address pool selection

User Defined Start Address

User Defined End Address

DHCP Gateway Selection

User Defined Gateway Address

Lease Time days hours minutes seconds

User Mode

Ethernet Mode Setting

Settings need to be saved to Flash and the system needs to be rebooted for changes to take effect.

IP Address/Subnet: LAN address and subnet mask of the router. It can be specified if you need. (e.g. 192.168.0.1/255.255.255.0)

DHCP Server

System Allocated: The DHCP address pool is based on LAN port IP address plus 12 IP addresses. For example, the LAN IP address is 10.0.0.2; the DHCP address pool is at the range of 10.0.0.3 to 10.0.0.14

User Defined: The DHCP address pool is at the range of User Defined Start Address and User Defined End Address Address. The maximum pool size can be 253 IP addresses: 255 total IP addresses - 1 broadcast address - 1 LAN port IP address.

Lease time: The Lease time is the amount of time of a network user will be allowed to connect with DHCP server. If all fields are 0, the allocated IP addresses will be effective forever.

User mode: Under the Single User mode, the DHCP server only allocates one IP address to local PC. Under the Multiple User mode, the DHCP server allocates the IP addresses specified by the DHCP address pool.

4.3.5 PPP Configuration

The **ppp** page allows user to set the session name for PVCs.

The screenshot shows the ProLink web interface for PPP Configuration. The address bar displays 'http://10.0.0.2/doc/index.htm'. The left sidebar contains a navigation menu with categories: Status (WAN, PPP, ADSL), Configuration (WAN, LAN, PPP, NAT, Virtual Server, Bridge Filtering, DNS Configuration, Save Settings/Reboot), and Admin Privilege (LCP Status, WAN Status, ATM Status, ADSL Configuration, Profile Table, Learned MAC Table, RIP Configuration, NTP Configuration, Admin Password, System Log, Firmware Update). The main content area is titled 'PPP Configuration' and contains the following fields:

Session Name	<input type="text"/>
PVC	<input type="text" value="0"/>
Service Name (PPPoE only)	<input type="text"/>
Account to Use	<input type="text" value="Single ppp-account Pvc 0"/>
Disconnect Timeout	<input type="text" value="0"/> minutes (Max:32767)
	PPP Disconnect Timer Config
MRU	<input type="text" value="1492"/>
MTU	<input type="text" value="1492"/>
MSS	<input type="text" value="1432"/>
LCP Echo Interval	<input type="text" value="10"/>
Lcp Echo Maximum Consecutive Failure	<input type="text" value="6"/>
Authentication	<input type="text" value="Auto"/>
<input type="checkbox"/> Automatic Reconnect	

At the bottom of the form are buttons for 'Add/Modify', 'Submit', and 'Print'.

Showtime Firmware Version: This field displays the Conexant ADSL data pump firmware version number.

ADSL Line Status: This field displays the ADSL connection process and status.

ADSL Modulation: This field displays the ADSL modulation status for G.dmt or T1.413.

ADSL Annex Mode: This field displays the ADSL annex modes for Annex A or Annex B.

ADSL Startup Attempts: This field displays the ADSL connection attempts after loss of showtime.

ADSL Max Tx Power: This field displays the transmit output power level of the CPE.

ADSL CO Vendor: This field displays the Central Office DSLAM vendor name, if available.

Elapsed Time: This field displays the time of the modem has been in operation.

SNR Margin: Amount of increased noise that can be tolerated while maintaining the designed BER (bit error rate). The SNR Margin is set by Central Office DSLAM. If the SNR Margin is increased, bit error rate performance will improve, but the data rate will decrease. Conversely, if the SNR Margin is decreased, bit error rate performance will decrease, but the data rate will increase.

Line Attenuation: Attenuation is the decrease in magnitude of the ADSL line signal between the transmitter (Central Office DSLAM) and the receiver (Client ADSL Modem), measured in dB. It is measured by calculating the difference in dB between the signal power level received at the Client ADSL modem and the reference signal power level transmitted from the Central Office DSLAM.

4.3.6 NAT Configuration

The **NAT** page allows users to set the configuration for the Network Address Translation.

Address <http://10.0.0.2/docIndex.htm> Go Links No

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NAT Configuration

NAT

Mode

Session Name	User's IP	Action
<input type="text"/>	<input type="text"/>	<input type="text" value="Add"/>

#	Session Name	User's IP
Number of NAT Configurations: 0		

[Session Name Configuration](#)

Settings need to be saved to Flash and the system needs to be rebooted for changes to take effect.

Available Sessions

#	Session Name	Interface
Number of Sessions: 0		

NAT Configuration

The NAT option only maps single WAN IP address to the local PC IP address. It is peer-to-peer mapping. (1x1) For each PVC, only one local PC IP address can be associated with each WAN PVC. Click the link Session Name Configuration to add the session name for each PVC.

Q: Since only one PVC is mapped to one local PC IP address, why can I input more than one IP address for one NAT session?

A: Even though you can, only the first IP address of each session takes effect.

NAPT Configuration

The NAPT option maps the IP address and UDP/TCP port ID of the WAN PVC to the IP address and UDP/TCP port ID of the local PCs. (1xN). It is the multiple-mapping mechanism. More than one local PC can be associated with one WAN PVC.

Dynamic NAPT: The default setting is **Dynamic NAPT**. It provides dynamic Network Address Translation capability between LAN and multiple WAN connections, and the LAN traffic is routed to appropriate WAN connections based on the destination IP addresses and Route Table. This eliminates the need for the static NAT session configuration between multiple LAN clients and multiple WAN connections. When the Dynamic NAPT is chosen, there is no need to configure the NAT Session and NAT Session Name Configuration.

4.3.7 Virtual Server

The **Virtual Server (Port Forwarding)** page allows users to set the configuration of Virtual Server. If any specific local PCs need to be mapped to the UDP/TCP port on WAN side, please input the mappings here.

For Example,

If you want to forward FTP to your 10.0.0.20 server (set to static IP):
 Public Port Start: **21**, Public Port End: **21**, Private Port: **21** Port Type: TCP
 Host IP Address: 10.0.0.20

Customized Application	Port	TCP	UDP
Web server	80	Yes	Yes
FTP server	21	Yes	No
SMTP (outgoing)	25	Yes	Yes
POP3 (incoming)	110	Yes	Yes

4.3.8 Bridge Filtering

The **Bridge Filtering** page allows users to set the configuration of IP filtering.

Address <http://10.0.0.2/doc/index.htm> Go Links Best of the We

Bridge Filtering

Enable Bridge Filtering: Yes No

ID	Src MAC*	Dest MAC*	Type**
1	<input type="text"/>	<input type="text"/>	<input checked="" type="radio"/> Block <input type="radio"/> Forward <input type="button" value="Add"/>

* MAC address. Should look like 000002fa6fab.
 ** Ethernet type. Should look like a5ff.

Number of Bridge Filters 0

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Admin Privilege

Source MAC: When the bridge filtering is enabled, enter the Source MAC address, select Block and click Add. Then all incoming WAN and LAN Ethernet packets matched with this source MAC address will be filtered out. If the Forward is selected, then the packets will be forwarded to the destination PC.

Destination MAC: When the bridge filtering is enabled, enter the Destination MAC address, select Block and click Add. Then all incoming WAN and LAN Ethernet packets matched with this destination MAC address will be filtered out. If the Forward is selected, then the packets will be forwarded to the destination PC.

Type: Enter the hexadecimal number for the Ethernet type field in Ethernet_II packets.

For example,

If you want to block MAC address: 000002fa6fab to access the internet:
 Source MAC: 000002fa6fab Type: 0800

Remark: to check your PC's MAC address, ipconfig /all under DOS mode.
 Type 0800: Internet Protocol, for others, pls. check with your administrator.

4.3.9 DNS Configuration

The **DNS Configuration** page allows users to set the configuration of DNS proxy. It supports the DNS proxy function. For the DHCP requests from local PCs, the DHCP server will set the LAN port IP as the default DNS server. Thus, all DNS query messages will come into LAN port first. The DNS proxy on the ADSL modem recorded the available DNS servers, and forward DNS query messages to one of DNS server.

The screenshot shows the ProLink web-based management interface. The browser address bar displays `http://10.0.0.2/doc/index.htm`. The main content area is titled "DNS Configuration".

DNS Proxy section:

- DNS Proxy: Enabled (dropdown)
- Auto Discovery:
- User Configuration:
- DNS Server: [text input] Add (dropdown)

DNS Server section:

- DNS Server: Disabled (dropdown)
- Url Name: [text input]
- Host Ip: [text input]
- Add (dropdown)

Buttons: Apply, Reset

Summary Tables:

DNS Proxy Setting	
#	DNS Server IP

DNS Server Setting		
#	Url Name (Host.Domain)	Host IP

Settings take effect immediately, no system reboot is required

[Save Configuration](#)

Disable DNS Proxy: The LAN port does not process the DNS query message. For the DHCP requests from local PCs, the DHCP server will set the user-configured preferred DNS sever or alternate DNS server whichever is available as the DNS server. Then all DNS query messages will be directly sent to the DNS servers.

Use Auto Discovered DNS Servers Only: The DNS proxy will store the DNS server IP addresses obtained from DHCP client or PPP into the table. And all DNS query messages will be sent to one of the dynamically obtained DNS servers.

Use User Configured DNS Servers Only: The DNS proxy will use the user-configured preferred DNS server and alternate DNS server. And all DNS query message will be sent to one of DNS servers. Enter the DNS IP in the Preferred DNS Server and Alternate DNS Server fields.

Auto Discovery + User Configured: The DNS proxy's table has all the IP addresses of dynamically obtained and user configured DNS servers.

4.3.10 ADSL Configuration

The **ADSL Configuration** page allows users to set the configuration for ADSL protocols...

Trellis: Trellis Code. By default, it is always enabled.

Handshake Protocol: This is for the ADSL handshake protocol.

Wiring Selection: The wiring selection for the RJ-11.

Bit Swapping: Disable by default.

The screenshot shows the ProLink ADSL Configuration page. On the left is a navigation menu with sections: Status (WAN/LAN, PPP, ADSL), Configuration (WAN, LAN, PPP, NAT, Virtual Server, Bridge Filtering, DNS Configuration, Save Settings/Reboot), and Admin Privilege (TCP Status, WAN Status, ATM Status, Route Table, Learned MAC Table, RIP Configuration, Misc Configuration, Admin Password, System Log, Firmware Update). The main content area is titled 'ADSL Configuration' and contains several dropdown menus: 'User Selected' (set to Annex A), 'Annex A', 'Enabled', 'Autonegotiate - G.dmt first', 'Tip/Ring', and 'Disabled'. These correspond to settings: Annex Mode Config, User Selected Annex Mode, Trellis, Handshake Protocol, Wiring Selection, and Bit Swapping (No system reboot needed). There are 'Submit' and 'Reset' buttons at the bottom of the configuration area. Below the buttons, a note states: 'Settings need to be saved to Flash and the system needs to be rebooted for changes to take effect.'

4.3.11 Route Table

The **Route Table** page displays routing table and allows users to manually enter the routing entry. The interface br0 means the Ethernet/USB interface; lo0 means the loopback interface.

The screenshot shows the ProLink Route Table page. The left navigation menu is identical to the previous page, with 'Route Table' highlighted. The main content area is titled 'Route Table' and contains a table with the following data:

Destination	Netmask	Gateway	Interface
10.0.0.0	255.0.0.0	10.0.0.2	br0
127.0.0.1	255.0.0.0	127.0.0.1	lo0

Below the table is the 'System Default Gateway Configuration' section with radio buttons for 'None', 'Auto' (selected), and 'Specify Interface'. The 'Specify Interface' dropdown is set to 'Ip Ethernet 0'. There is an 'execute' button below this section.

At the bottom is the 'Route Configuration' section with input fields for 'Destination', 'Netmask', and 'Gateway'. The 'Gateway' dropdown is set to 'Ip Ethernet 0'. There are 'Add', 'Submit', and 'Reset' buttons at the bottom.

4.3.12 Learned MAC Table

The **Learned MAC Table** page shows the current learned Bridge MAC table.

The screenshot shows a web browser window with the address `http://10.0.0.2/doc/index.htm`. The page title is "Bridge MAC Table". On the left is a navigation menu for "PROLINK" with sections for Status, Configuration, and Admin Privilege. The main content area contains a table of learned MAC addresses and their expiration times.

MAC Address	Expiration
00:10:67:00:6B:56	62
00:80:C8:64:27:DE	100

Below the table, there is an "Aging Timeout" field set to "100" seconds, and "Submit" and "Reset" buttons.

4.3.13 RIP Configuration

The **RIP Configuration** page allows the user to set the configuration for the system wide configuration of RIP. The actual RIP configuration is in the RIP Per Interface Configuration.

The screenshot shows a web browser window with the address `http://10.0.0.2/doc/index.htm`. The page title is "RIP System Wide Configuration". The left navigation menu is the same as in the previous screenshot. The main content area contains configuration options for RIP.

RIP: (Dropdown menu)

Border Gateway: (Dropdown menu)

Supply Interval: Seconds

Expire Timeout: Seconds

Garbage Timeout: Seconds

Advanced Configuration

Settings need to be saved to Flash and the system needs to be rebooted for changes to take effect.

RIP: This field allows the user to Enable or Disable the RIP session. The resulting RIP session will monitor all network interfaces that are currently available for messages from other RIP routers.

Supplier Interval: This field allows the user to enter the Supplier Interval timer in second. This timer specifies how often RIP sends announcements as a RIP Supplier. **(Default = 30 seconds)**

Expire Timeout: This field allows the user to enter the Expire timer in second. This timer specifies the expiration time of a route. When a route has not been updated for more than “expire” period of time, it is removed from the Route Table. This route is invalidated and remains in the internal RIP Route Table. It will be included in the RIP announcements to let other routers know the changes. **(Default = 180 seconds)**

4.3.14 Misc Configuration

The **Miscellaneous Configuration** page allows users to set all the miscellaneous configurations.



Miscellaneous Configuration

HTTP server access

All

Restricted

LAN

WAN Specify IP

Subnet Mask

HTTP server port

HTTP Password Protection

FTP server

Disable WAN side FTP access

TFTP server

Command Line Interface

by Console

by Telnet Disable WAN side access

DMZ

DMZ HOST IP

DHCP

NONE

DHCP Server

DHCP Relay

DHCP Relay Target IP

IGMP Proxy

PPP Half Bridge

PPP Reconnect on WAN Access

Connect PPP when ADSL link is up

HTTP Server Access: This field allows the user to configure the Web pages can be accessed from.

All: When this field is checked, it allows both WAN and LAN access to the Web pages.

Restricted LAN: This field allows the Web pages access from LAN side.

Restricted WAN Specified IP & Subnet Mask: This field allows the Web access from WAN side with a specify IP and subnet mask.

HTTP server port: The HTTP server port can be changed to other secure port number. For example, when it is changed to 1001, the HTTP server address for the LAN side is `http://10.0.0.2:1001`.

FTP server: When it is enabled, the FTP connection can be established from both the LAN and WAN sides.

TFTP server: When it is enabled, it can upgrade the image code with the TFTP client application run at either the LAN or WAN sides.

DMZ: A DMZ (De-Militarized Zone) is added between a protected network and an external network, in order to provide an additional layer of security. When there is a suspected packet coming from WAN, the firewall will forward this packet to the DMZ host.

DMZ Host IP: The IP address of the DMZ host at LAN side.

DHCP Relay: If it is enabled, the DHCP requests from local PCs will forward to the DHCP server runs on WAN side. To have this function working properly, please disable the NAT to run on router mode only, disable the DHCP server on the LAN port, and make sure the routing table has the correct routing entry.

DHCP Target IP: The DHCP server runs on WAN side.

IGMP Proxy: Here is the global setting for IGMP Proxy. If it is enabled, then the enabled IGMP Proxy on WAN PVCs will be working. Otherwise, no WAN PVC can have IGMP Proxy working on it.

PPP reconnect on WAN access:

If it is enabled, the PPP session will be automatically established when there is a packet wants to go out to the WAN.

Q: What is the difference between PPP reconnect on WAN access and the Automatic Reconnect?

A: Some ISPs terminated the PPP session due to the inactivity.

For the PPP reconnect on WAN access, the PPP will be automatically reconnected when an URL is entered in the browser (packet interested in going out to the WAN).

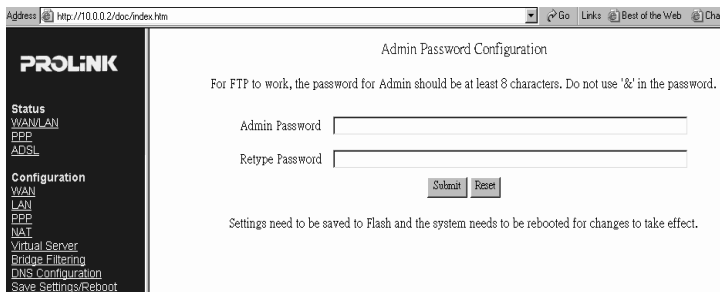
For the Automatic Reconnect, it will reconnect the PPP session whenever it is terminated by ISP.

PPP Half Bridge Mode:

When the PPP Half Bridge is enabled, only one PC is able to access the Internet, and the DHCP server will duplicate the WAN IP address from the ISP to the local client PC. Only the PC with the WAN IP address can access the Internet.

4.3.15 Admin Password

The **Admin Password** page allows users to set the password for administrator.



Address <http://10.0.0.2/doc/index.htm> Go Links Best of the Web Channel Guide

PROLINK

Status
 WAN/LAN
 PPP
 ADSL

Configuration
 WAN
 LAN
 PPP
 NAT
 Virtual Server
 Bridge Filtering
 DNS Configuration
 Save Settings/Reboot

Admin Password Configuration

For FTP to work, the password for Admin should be at least 8 characters. Do not use '&' in the password.

Admin Password

Retype Password

Submit Reset

Settings need to be saved to Flash and the system needs to be rebooted for changes to take effect.

4.3.16 System Log

The System Log page shows the events triggered by the system.



Address <http://10.0.0.2/doc/index.htm> Go Links Best of the Web Channel Guide

PROLINK

Status
 WAN/LAN
 PPP
 ADSL

Configuration
 WAN
 LAN
 PPP
 NAT
 Virtual Server
 Bridge Filtering
 DNS Configuration
 Save Settings/Reboot

Admin Privilege
 TCP Status
 WAN Status
 ATM Status
 ADSL Configuration
 Route Table
 Learned MAC Table
 RIP Configuration
 Misc Configuration
 Admin Password
 System Log

System Log

```

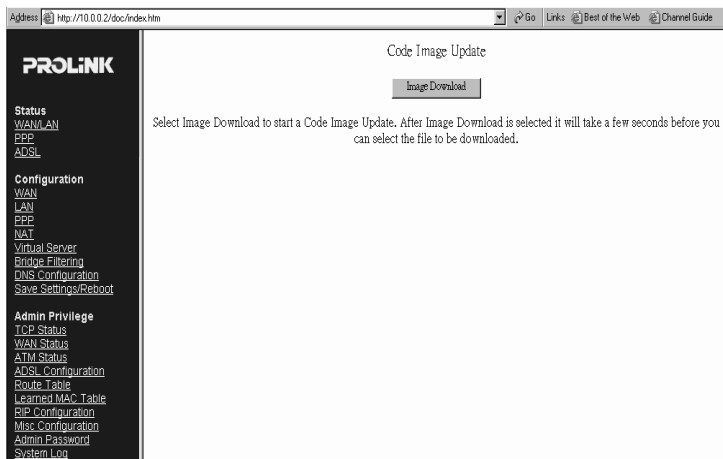
01/01/1970 00:29:27> PPPoE Session is terminated.
01/01/1970 00:29:26> PPPoE Session is down.
01/01/1970 00:29:23> PPPoE LCP terminated at peer's request.
01/01/1970 00:28:52> PPPoE Session is established.
01/01/1970 00:28:52> PPPoE PADM Received. Service-Name: AC-Name:41061070068068-redback512
01/01/1970 00:28:52> PPPoE PADR Sent. Service-Name: AC-Name:41061070068068-redback512
01/01/1970 00:28:52> PPPoE PADI Sent
  
```

Clear Log

If you would like to save the log to a text file, right click here and select "Save Target As ..."

4.3.17 Firmware Update

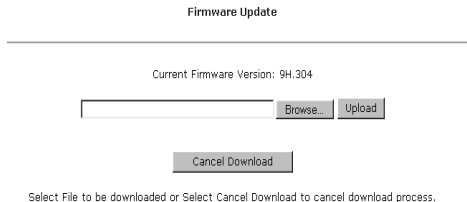
The **Firmware Update** page allows users to upgrade the image code locally.



Please Click on **"Image Download"** button, the following dialog will appear

Browse the location of file, firmware.dlf, and click the Upload to start the update.

If you cancel the Download process, click on "Cancel Download" button.



5. USB Driver Installation (Optional ,for using USB interface)

If there is no LAN card on your computer, you can use USB cable to connect it to your computer.

1. Connect the USB cable from the Hurricane 9000 to the USB port of your computer.
2. Windows (98/ME/2k/XP) will automatically detect " USB Device" message under Add New Hardware Wizard menu, click "Next".
3. Select "Search for the best driver for your device.", click "Next".
4. Direct to drive where you have inserted the USB driver install disk, click "Next".



5. Search to "Prolink 9000 USB Network Interface", click "Next".



6. Search to "Prolink 9000 USB Network adapter", click Next.
7. Click "Finish" and restart your computer.
8. open Internet Brower (e.g. Internet explorer) and type 10.0.0.2 then refer to page 14 to configure the Hurricane 9000.

6. Troubleshooting and FAQs

6.1. I can not get any connection. Power LED and LAN LED light up, but the ADSL LED keeps blinking .

- 1) Ensure that the ADSL line is activated.
- 2) Check that the Telephone cable (RJ-11) is connected to LINE Jack on your router.
- 3) Try to turn off the modem, wait for at least ten seconds, then turn on again.

If the problem still persists, please check with your ADSL Service Provider to confirm the line condition.

6.2. I get 'Request timed out' response when I ping to the router.

- 1) Check whether you can get the IP from your Modem/ Router. (MS-DOS mode, type ipconfig to check your computer's IP, If it's not 10.0.0.X, try to type ipconfig/renew)
- 2) Try to turn off the modem, wait for at least ten seconds, then turn on again.
- 3) Restart your PC for the IP Address to take effect and try to ping again.
- 4) Check the LAN LED whether it lights up. If not, check the cable connection.(if using USB, LAN LED has no light)

6.3. I am not able to get the web configuration screen for the Router. What can I do?

- 1) You may have to disable the proxy settings on your Internet browser.
- 2) Make sure that your browser is set to connect directly .

A. For Internet Explorer, click Tools, Internet Options, and then the Connection tab. Make sure that Internet Explorer is set to **Never dial a connection**.

B. For Netscape Navigator, click Edit, Preferences, Advanced, and Proxy. Make sure that Netscape Navigator is set to **Direct connection to the Internet**.

6.4. How to set a static IP address on a PC?

The Router, by default, assigns an IP address range of 10.0.0.3 to 10.0.0.14 using the DHCP server on the Router. To set a static IP address, you can only use the ranges 10.0.0.15 to 10.0.0.254 , Each PC or network device that uses TCP/IP must have a unique address to identify itself in a network. If the IP address is not unique to a network, Windows will generate an IP conflict error message. You can assign a static IP address to a PC by performing the following steps:

For Windows 95, 98, and Me:

- A.** Click **Start**, choose **Settings**, and open the **Control Panel**. Then, doubleclick **Network**.
- B.** In The following network components are installed box, select the **TCP/IP** line associated with your Ethernet adapter. If you only have one Ethernet adapter installed, you will only see one TCP/IP line with no association to an Ethernet adapter. Highlight it and click the **Properties** button.
- C.** In the TCP/IP properties window, select the **IP address** tab, and select **Specify an IP address**. Enter an **IP address** that is not used by any other computer on the network connected to the Router. You can only use an IP address in the ranges 10.0.0.15 to 10.0.0.254, Subnet Mask:255.0.0.0. Make sure that each IP address is unique for each PC or network device.
- D.** Click the **Gateway** tab, and in the New Gateway prompt, enter **10.0.0.2**, which is the default IP address of the Router. Click the **Add** button to accept the entry.
- E.** Click the **DNS** tab, and make sure the **DNS Enabled** option is selected. Enter the **Host** and let **Domain** names (e.g., John for Host and home for Domain). Enter the **DNS entry** provided by your ISP. If your ISP has not provided the DNS IP address,(e.g. 165.21.83.88) contact your ISP to get that information or go to its website for the information.
- F.** Click the **OK** button in the TCP/IP properties window, and click **Close** or the **OK** button for the Network window.
- G.** Restart the computer.

For Windows 2000/XP:

- A.** Click **Start**, choose **Settings**, and open the **Control Panel**. Double-click **Network and Dial-Up Connections**.

- B.** Right-click the **Local Area Connection** that is associated with the Ethernet adapter you are using, and select the **Properties** option.
- C.** In the Components checked are used by this connection box, highlight **Internet Protocol (TCP/IP)**, and click the **Properties** button. Select **Use the following IP address** option.
- D.** Enter an **IP address** that is not used by any other computer on the network connected to the Router. You can only use an IP address in the ranges 10.0.0.15 to 10.0.0.254.
- E.** Enter the Subnet Mask, **255.0.0.0**.
- F.** Enter the Default Gateway, **10.0.0.2** (The Router's default IP address.)
- G.** Toward the bottom of the window, select **Use the following DNS server addresses**, and enter the **Preferred DNS server IP Address** and **Alternative DNS server IP Address**. Contact your ISP to find this information. (e.g. 165.21.83.88)
- H.** Click the **OK** button in the Internet Protocol (TCP/IP) Properties window, and click the **OK** button in the Local Area Connection Properties window.

For Windows NT 4.0:

- A.** Click **Start**, choose **Settings**, and open the **Control Panel**. Double-click the **Network** icon.
- B.** Click the **Protocol** tab, and double-click **TCP/IP Protocol**.
- C.** When the window appears, make sure you have selected the correct **Adapter** for your Ethernet adapter.
- D.** Select **Specify an IP address**, and enter an **IP address** that is not used by any other computer on the network connected to the Router. You can only use an IP address in the ranges 10.0.0.15 to 10.0.0.254.
- E.** Enter the Subnet Mask, **255.0.0.0**.
- F.** Enter the Default Gateway, **10.0.0.2** (Router's default IP address).
- G.** Click the **DNS** tab, and enter the **Host** and **Domain** names (e.g., John for Host and home for Domain). Under DNS Service Search Order, click the **Add** button. Enter the **DNS IP address** in the DNS Server field,(e.g. 165.21.83.88) and click the **Add** button. Repeat this action for all DNS IP addresses given by yourISP.
- H.** Click the **OK** button in the TCP/IP Protocol Properties window, and click the **Close** button in the Network window.
- I.** Restart the computer.

6.5. How to set up online game hosting or use other Internet applications?

If you want to play online games or use Internet applications, most will work without doing any port forwarding or DMZ hosting. There may be cases when you want to host an online game or Internet application. This would require that you set up the Router to deliver incoming packets or data to a specific computer. This also applies to the Internet applications you are using. The best way to get the information on what port services to use is to go to the website of the online game or application you want to use. (refer to page18 **Port Forwarding**)

If you are having difficulties getting any Internet game, server, or application to function properly, consider exposing one PC to the Internet using DeMilitarized Zone (DMZ) hosting. (refer to page21 **DMZ** setting)

6.6. How to reset the Router to the factory default settings?

Hold the Reset button for up to 5 seconds and then release it. This will return the password, forwarding, and other settings on the Router to the factory default settings. In other words, the Router will revert to its original factory configuration.

6.7: If the PPP is disconnected after the Disconnect Timeout and how can I reconnect it?

A: You have to go to the PPP Status under Admin Privileged column, choose the correct PVC and Connect option, and then click Execute to restart a new PPP session.

B. OR you can enable **PPP reconnect on WAN access** under Misc Configuration, the PPP will be automatically reconnected when an URL is entered in the browser (packet interested in going out to the WAN).

6.8 Power LED and LAN LED light up, but the ADSL Link LED keeps off.

A. If you clicked firmware update>>download image file previously, please remember to click **Cancel** button under Firmware Update.

B. Please contact modem vendor for servicing.

6.9 Does Hurricane 9000 series support VPN ?

Yes. It can support VPN pass-through. But some VPN servers don't allow IP: 10.0.0.X to log on, please try to change the default LAN IP from 10.0.0.2 to **192.168.1.1**

PROLiNK TECHNICAL SUPPORT

At PROLiNK, we are committed to give you the best products as well as the best technical support for installation of ADSL Bridge/Router. If there is virus in your system, we may provide suggestions like where you can find the solution to clean the virus, but we are unable to assist you until the virus is cleaned.

Service Centre

Singapore

Tel: (65)62965455

Fax: (65)63925455

URL: www.fida.com

Email: support@fida.com

Address: Blk 105 Boon Keng Rd #06-13, Singapore 339776

Operating Hours: Mon-Fri :0900-1745 hrs Sat : 0900-1300 hrs

Malaysia

Tel: (603) 8024 9151

Fax: (603) 8024 9161

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29 Jalan USJ 1/31 47600 Subang Jaya Selangor Darul Ehsan Malaysia.

Operating Hours: Mon-Fri: 0900-1730 hrs Sat: 0900-1300 hrs