

jetSpeed 520



ADSL

ADSL Router with USB and Ethernet Interfaces



INTRACOM

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1 GETTING STARTED

1.1 OVERVIEW

jetSpeed 520 is a multi-mode **ADSL Router**, compliant with:

- ANSI T1.413 Issue 2
- ITU G.992.1 (G.dmt)
- G.992.2 (G.lite)

jetSpeed 520 provides high-speed Internet access via one WAN port over ATM over ADSL and also connects to the corporate network via one 10/100BaseT Ethernet port and one USB port. jetSpeed 520 allows service providers to deploy ADSL rapidly over existing wire infrastructure (POTS or ISDN line).

Features

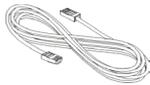
- High Speed Asymmetrical Data Transmission on a Single Twisted Copper Pair
- Full rate operation up to 8Mbps downstream and up to 1Mbps upstream. G.lite operation up to 1.5Mbps downstream rate and 512Kbps upstream rate
- One 10/100BaseT Ethernet Port and one USB Port for PC connection
- DHCP server supported for easy LAN IP address management
- Supports PPPoE (RFC2516), PPP (RFC2364) and IP (RFC 2225/RFC1577) over ATM over ADSL
- RFC2684 (RFC1483) Bridged/Routed for both LLC/VC MUX
- Allows LAN users to access Internet through Network Address Translation (NAT, IP sharing) simultaneously
- Local OAM&P through command line interface via RJ-45 Ethernet port or RS-232 Craft port (optional)
- Configuration and management via local Telnet and web browser through the Ethernet interface and remotely through ADSL interface
- Supports applications such as TFTP, DHCP, Telnet, HTTP and FTP
- Firmware upgradeable through TFTP
- Interoperability complies with TR-48, U-R2

1.2 PACKAGING

This package consists of the following items:



jetSpeed 520 ADSL Device Unit



RJ-45 Cable (Ethernet Cable)



RJ-11 Cable (Telephone Cable)



USB Cable



AC Adapter



CD-ROM includes User's Manual and USB Driver



Line Filter



Splitter

Line filters for jetSpeed 520 or a central splitter for jetSpeed 520i and an additional RJ-11 Cable

1.3 APPEARANCE

1.3.1 FRONT PANEL



Fig. 1-1

	LABEL	LED STATUS	COLOR	DESCRIPTION
1	LAN	ON	Green	Ethernet port is connected
2	USB	ON	Green	USB port is connected
3	PWR	ON	Green	Power supply is connected
4	WAN	Blinking	Green	Synchronization with DSLAM
		ON	Green	ADSL link is ready
5	ALM	Blinking	Red	Booting up
		ON	Red	Error

Table 1-1

1.3.2 REAR PANEL

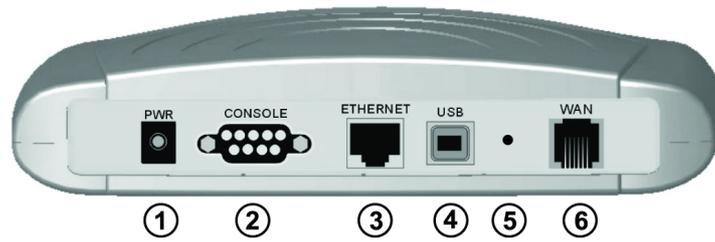


Fig. 1-2

	LABEL	DESCRIPTION
1	PWR	Power jack; connect to a power adapter
2	CONSOLE	Serial port; connect to an ASCII data terminal
3	ETHERNET	RJ-45 port; connect to a PC or LAN
4	USB	USB port; connect to a PC
5	RESET	Resets jetSpeed 520 to its factory default settings
6	WAN	RJ-11port; connect to the ADSL outlet

Table 1-2

1.4 HARDWARE INSTALLATION

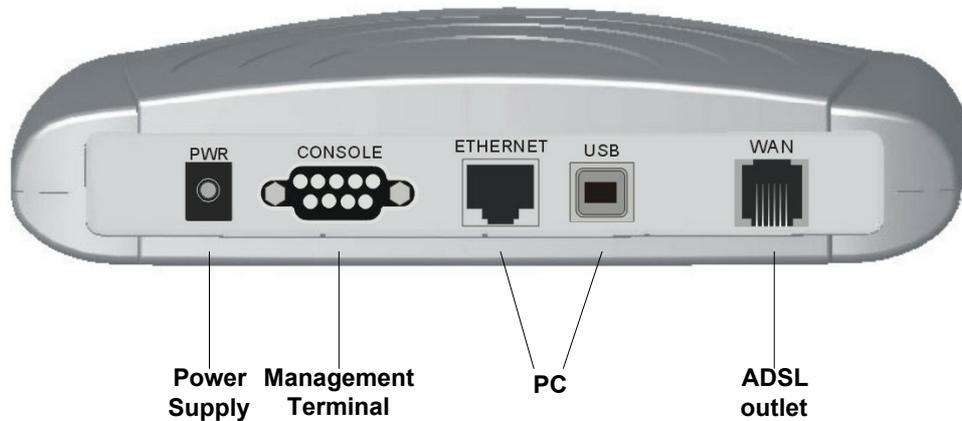


Fig. 1-3

Step	Action
1.	Connect one end of the ADSL cable to the WAN port of jetSpeed 520 and the other end to the ADSL wall outlet.
2.	In case jetSpeed 520 is installed, connect the telephone devices in any socket placing a microfilter. In case jetSpeed 520i is installed, connect the telephone devices to the "TEL" output of the central splitter.
3.	Use a RJ-45 cable to connect one end to the Ethernet port of the jetSpeed 520 and the other end to the LAN or a PC with an Ethernet adapter installed. You may also connect a USB cable from the USB port to a PC.
4.	Use a 9-pin RS-232 cable to connect the Console port to a serial port of a terminal such as PC with data terminal emulation software (Hyper Terminal) installed, in order for local management.
5.	Plug in the AC adapter to the AC power socket and the other end into the PWR inlet of the jetSpeed 520.

NOTE: Be sure to use a RJ-45 crossover cable while connecting to a hub.

1.5 MANAGEMENT

jetSpeed 520 supports simple, flexible and easy-to-operate methods for management purposes. jetSpeed 520 can be managed via the following paths:

- **Console port:** Use a RS-232 cable for connecting jetSpeed 520 to a terminal or a PC running a terminal emulation program, such as Hyper Terminal. (For further details, see paragraph 1.8 Console Setup)
- **Local Ethernet Port (Telnet):** Connect the Ethernet port to your local network or to directly to a PC. From the command window type "telnet 192.168.1.1".
- **Local Ethernet Port (Web Browser):** Connect the Ethernet port to your local network or directly to a PC. Start the web browser and enter default local Ethernet IP address "**192.168.1.1**" on the address bar.
- **Remote Management:** While jetSpeed 520 is running, you can remotely type "telnet <wan address>" from a workstation, which is connected to a ADSL network or in general on the Internet.

NOTE: As operating an ADSL device requires technical know-how and experience. It is recommended that only qualified technical staffs manage the jetSpeed 520. Therefore, a password authentication is required when you enter the web interface. To obtain the password, see paragraph 1.6 Default Values.

1.6 DEFAULT VALUES

jetSpeed 520 is pre-configured with the following parameters:

Default Mode: Bridge	User Name: admin
	Password: admin
Bridge Mode Setting	WAN and ADSL
Ethernet (local) IP: 192.168.1.1	Local Line Code: Auto
USB Interface (local) IP: 192.168.2.1	
Subnet Mask: 255.255.255.0	Trellis Mode: Enable
Full Duplex: Auto	FDM Mode: Fdm
Protocol: RFC1483, Bridge Mode	Coding Gain: Auto
VPI/VCI: 8/35	Transmit Power Atten:
0dB	
Class (QoS): UBR	
Spanning Tree: Disable	
Packet Filter: Any	
Router Mode Setting	DHCP Server: Enabled
Ethernet (local) IP: 192.168.1.1	DNS Relay: Enabled
USB Interface (local) IP: 192.168.2.1	
Subnet Mask: 255.255.255.0	

You may also re-load the default parameters by rebooting the router into the Default configuration from the web browser.

NOTE: The User Name and Password are case-sensitive

1.7 SOFTWARE UPGRADE

You may easily upgrade the jetSpeed 520 embedded software by obtaining the firmware image file from the service provider then following the steps:

Step	Action
1.	Extract the ZIP file for updated firmware (if it is compressed).
2.	Connect jetSpeed 520 via one of the 2 local ports (Ethernet, USB) or remote ADSL link. Make sure that the jetSpeed 520 IP address and your terminal is properly configured, then you can successfully “ping” jetSpeed 520. The default local IP address is 192.168.1.1.
3.	Under DOS prompt, execute FTP command “open <IP address of jetSpeed 520>”, then input user name and password.
4.	Execute upload command “put tepatch.bin”. This upgrading process might last as long as 60 seconds.
5.	Finally, reboot jetSpeed 520 with new software.

NOTE: The jetSpeed 520 software may also be upgraded through the web interface. See paragraph 2.3.7 Admin, Image Upgrade.

NOTE: Strictly maintain stable power to the jetSpeed 520 while upgrading its software. If the power fails during the upgrading process, contents in the memory could be destroyed and the system may hang. In such a case, you must call the dealer or system integrator for repairs.

1.8 CONSOLE SETUP

Connect the RS-232 console port to an ASCII data terminal or a PC with Widows serial Terminal mode of VT-100 (Hyper Terminal). To start the Hyper-terminal, follow the steps below:

Step	Action
1.	Start "Hyper-terminal" program.
2.	On Windows 98 or Windows NT, click on the Start button → Programs → Accessories → Hyper Terminal Group → Double Click " Hypertrm.exe " → Enter Connection Name → Select Icon → Click on the OK button
3.	Select COM port to communicate with the jetSpeed 520. Choose direct to COM1 or COM2 and click on the OK button.
4.	Set Port Properties according to the next table:

PORT PROPERTIES AREA	PORT PROPERTY	VALUE
Port Setting	Bit per second	38400
	Data bits	8
	Stop bits	2
	Parity bits	None
	Flow Control	None
Settings	Function, arrow and ctrl keys act as Windows keys	
	Emulation	Auto-detect
	Back-scroll buffer lines	500
ASCII Setup	Echo typed characters locally	
	Line delay	0 milliseconds
	Character line feeds incoming line ends	Enable

Table 1-3

2 WEB INTERFACE MANAGEMENT

2.1 OVERVIEW

jetSpeed 520 provides the capability on operating the ADSL function through the web GUI environment. It provides much easier way to configure and manage the Bridge/Router function to accommodate into your personal or business needs. The web GUI operation gives the advantage of quick configuration and easy access. The following section will describe the detailed settings on various ADSL configurations.

2.2 PREPARATION

To start the Web Management, proceed as follows:

Step	Action
1.	Open the Web Browser in any of each PC.
2.	Type in the IP Address http://192.168.1.1 for Ethernet and http://192.168.2.1 for USB connection in the address bar.
3.	Click Enter to enter the Web management page.

NOTE: jetSpeed 520 IP and PC's IP should be under in the same subnet.

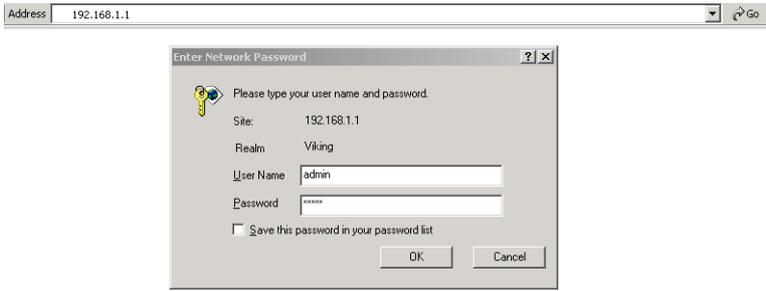
For example: jetSpeed 520 IP: 192.168.1.1

PC IP: 192.168.1.2

NOTE: A DHCP server running on the jetSpeed 520 will provide you with the necessary IP settings. This procedure will be done automatically and completely transparently to the user.

2.3 LOGIN

The window **Enter Network Password** pops up while starting the configuration.

Step	Action
1.	<p>With the window open, type admin for both the User Name and the Password. You can also change the User Name and Password or add new users. (For further details, see paragraph 2.3.7 Admin, User Config)</p> 
2.	Click OK to start the web management Operation.

After you log into the web interface, you will notice that it is divided into seven different sections or tabs. From this point on, each tab is described in detail along with instructions for configuration. The seven tabs are:

- Home
- LAN
- WAN
- Bridging
- Routing
- Services
- Admin

2.3.1 HOME

After logging in, the first tab that is displayed is the **Home** tab. Under this tab, the **System View** page is displayed. This page displays a summary of the interfaces and their settings.

Device		DSL	
Model:	Titanium	Operational Status:	Startup Handshake
H/W Version:	810012	Last State:	0x0
S/W Version:	3.08XAF0.V1R/1.38.021206a	DSL Version:	T93.3.23
Serial Number:	*****	Standard:	Multimode
Mode:	Routing And Bridging	Up	Down
Up Time:	0:3:1	Speed	Latency
Time:	Thu Jan 01 00:03:01 1970	0 Kbps	-
Time Zone:	GMT	Speed	Latency
Daylight Saving Time:	OFF	0 Kbps	-
Name:	-		
Domain Name:	-		

WAN Interfaces							
Interface	Encapsulation	IP Address	Mask	Gateway	Lower Interface	VPI/VCI	Status
eo0-0	Bridged	0.0.0.0	0.0.0.0	0.0.0.0	aal5-0	8/35	

LAN Interface							
Interface	Mac Address	IP Address	Mask	Lower Interface	Speed	Duplex	Status
eth-0	00:01:38:0C:C1:B8	192.168.1.1	255.255.255.0	-	Auto	Auto	

Services Summary							
Interface	NAT	IP Filter	RIP	DHCP Relay	DHCP Client	DHCP Server	IGMP
eth-0	✓ inside	✗	✗	✗	✗	✗	✗
eo0-0	✓ outside	✗	✗	✗	✗	✗	✗

This page is divided into five sections. The table below describes each section:

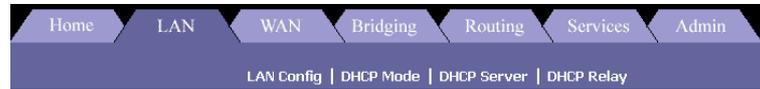
SECTION NAME	DESCRIPTION
Device	Displays model name, hardware/software version, device mode, uptime, current time, time zone, daylight savings time and domain name.
DSL	Displays operation status, last state, DSL version and DSL standard.
WAN Interface	Displays the WAN interface name, encapsulation type, IP address, subnet mask, lower interface, VPI/VCI values and operational status.
LAN Interface	Displays the LAN interface name, MAC address, IP address, subnet mask, lower interface, transmission speed, duplex type and operational status.
Services Summary	Displays the interface name and enabled/disabled features, such as: NAT, IP filter, RIP, DHCP relay, DHCP client, DHCP server and IGMP.

Table 2-1

Step	Action												
1.	Click on the interface name to add, change or remove any of the interface settings.												
2.	<p>Click on the Modify button to set the device date, time, time zone and other related settings. Click on the Submit button when completed.</p> <div data-bbox="571 573 1209 936" style="border: 1px solid black; padding: 10px; background-color: #e6e6fa;"><p style="text-align: center;">System - Modify</p><p style="text-align: center;">System Parameters</p><table border="1" style="width: 100%;"><tr><td style="width: 30%;"><i>Date:</i></td><td><input type="checkbox"/> Jan 1 1970</td></tr><tr><td><i>Time:</i></td><td><input type="checkbox"/> 0 : 8 : 54</td></tr><tr><td><i>Time Zone:</i></td><td>GMT +0000 Greenwich Mean</td></tr><tr><td><i>Daylight Saving Time:</i></td><td><input type="radio"/> ON <input checked="" type="radio"/> OFF</td></tr><tr><td><i>Name:</i></td><td><input type="text"/></td></tr><tr><td><i>Domain Name:</i></td><td><input type="text"/></td></tr></table><p style="text-align: center;"><input type="button" value="Submit"/> <input type="button" value="Cancel"/> <input type="button" value="Help"/></p></div>	<i>Date:</i>	<input type="checkbox"/> Jan 1 1970	<i>Time:</i>	<input type="checkbox"/> 0 : 8 : 54	<i>Time Zone:</i>	GMT +0000 Greenwich Mean	<i>Daylight Saving Time:</i>	<input type="radio"/> ON <input checked="" type="radio"/> OFF	<i>Name:</i>	<input type="text"/>	<i>Domain Name:</i>	<input type="text"/>
<i>Date:</i>	<input type="checkbox"/> Jan 1 1970												
<i>Time:</i>	<input type="checkbox"/> 0 : 8 : 54												
<i>Time Zone:</i>	GMT +0000 Greenwich Mean												
<i>Daylight Saving Time:</i>	<input type="radio"/> ON <input checked="" type="radio"/> OFF												
<i>Name:</i>	<input type="text"/>												
<i>Domain Name:</i>	<input type="text"/>												

2.3.2 LAN

Click on the **LAN** tab to view its sub-menu's and configure the LAN settings.



The four sub-menu's are:

- LAN Config
- DHCP Mode
- DHCP Server
- DHCP Relay

Each sub-menu is described below.

LAN Config

Click on the **LAN Config** link to change the LAN IP address/ subnet mask, decide where the LAN is getting its IP address from and enable or disable IGMP.

to set the LAN configuration, which determines how your device is identified

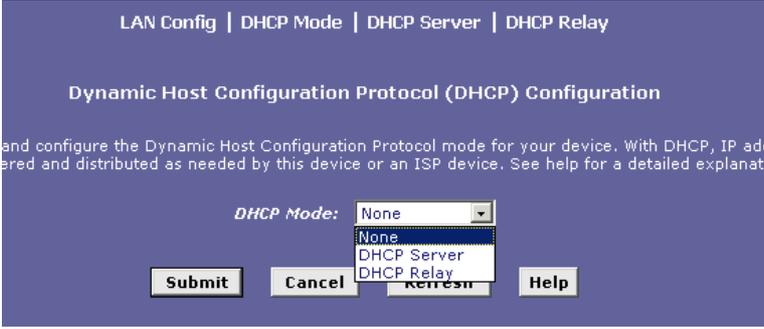
LAN Configuration	
<i>System Mode:</i>	Routing And Bridging
<i>Get LAN Address:</i>	<input checked="" type="radio"/> Manual <input type="radio"/> External DHCP Server <input type="radio"/> Internal DHCP Server
<i>LAN IP Address:</i>	<input type="text" value="192"/> <input type="text" value="168"/> <input type="text" value="1"/> <input type="text" value="1"/>
<i>LAN Network Mask:</i>	<input type="text" value="255"/> <input type="text" value="255"/> <input type="text" value="255"/> <input type="text" value="0"/>
<i>IGMP:</i>	<input type="radio"/> Enable <input checked="" type="radio"/> Disable

Submit Cancel Refresh Help

Follow the steps below in order to set up the LAN:

Step	Action
1.	In the Get LAN Address area: <ul style="list-style-type: none"> – Select Manual if you would like to enter your own IP address. – Select External DHCP Server if a DHCP server other than this device assigns the IP addresses. – Select Internal DHCP Server if you would like this device to assign the IP addresses.
2.	In the LAN IP Address area, enter the LAN IP address into these text boxes.
3.	In the LAN Network Mask area, enter the subnet mask of the LAN IP address into these text boxes.
4.	Depending on your ISP's settings choose to enable or disable IGMP, in the IGMP area.
5.	Click on the Submit button when completed.

DHCP Mode

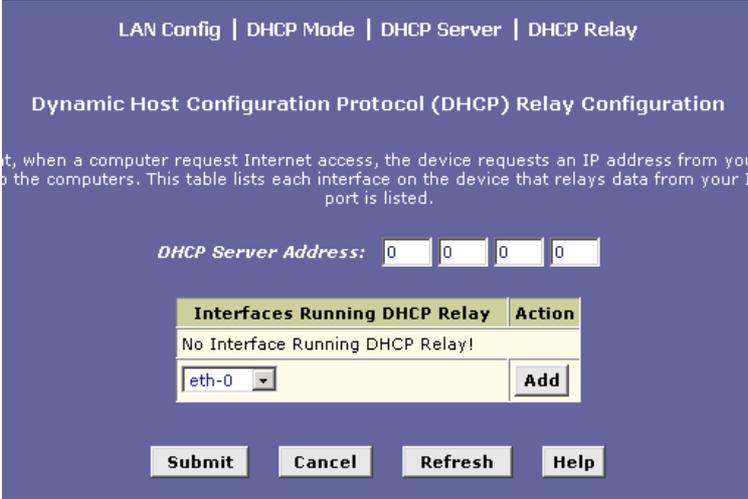
Step	Action
1.	Click on the DHCP Mode link to select a DHCP setting. 
2.	From the drop down list, select DHCP Server , DHCP Relay or None .
3.	Click on the Submit button when completed.

NOTE: jetSpeed 520 DHCP feature is by default selected to operate as DHCP server.

DHCP Server

Step	Action												
<p>1.</p>	<p>Click on the DHCP Server link to view the DHCP Server settings. The table displays the DHCP server settings: Start IP, End IP, Domain Name, Gateway Address and Status.</p> <div data-bbox="517 631 1264 981" style="border: 1px solid black; padding: 10px; background-color: #f0f0f0; margin: 10px auto; width: fit-content;"> <p style="text-align: center;">LAN Config DHCP Mode DHCP Server DHCP Relay</p> <p style="text-align: center;">Dynamic Host Configuration Protocol (DHCP) Server Configuration</p> <p style="font-size: small;">page if you are using the device as a DHCP server. This page lists the IP address pools available to computers on your network. The device distributes numbers in the pool to devices on your network as they request Internet access.</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 20%;">Start IP Address</th> <th style="width: 20%;">End IP Address</th> <th style="width: 20%;">Domain Name</th> <th style="width: 20%;">Gateway Address</th> <th style="width: 10%;">Status</th> <th style="width: 10%;">Action(s)</th> </tr> </thead> <tbody> <tr> <td colspan="6">No DHCP Server Pool!</td> </tr> </tbody> </table> <p style="text-align: center; margin-top: 10px;"> <input type="button" value="Add"/> <input type="button" value="Address Table"/> <input type="button" value="Refresh"/> <input type="button" value="Help"/> </p> </div>	Start IP Address	End IP Address	Domain Name	Gateway Address	Status	Action(s)	No DHCP Server Pool!					
Start IP Address	End IP Address	Domain Name	Gateway Address	Status	Action(s)								
No DHCP Server Pool!													
<p>2.</p>	<p>Click on the Add button to enable a DHCP server and fill in the IP information based on your settings.</p>												

DHCP Relay

Step	Action
<p>1.</p>	<p>Click on the DHCP Relay link to view the DHCP Relay settings.</p> 
<p>2.</p>	<p>Fill in the DHCP server IP address in the text boxes and select an interface name from the drop down list.</p>
<p>3.</p>	<p>Click on the Add button to complete the DHCP Relay configuration.</p>

2.3.3 WAN

Click on the **WAN** tab to view its sub-menu's and configure the WAN settings.

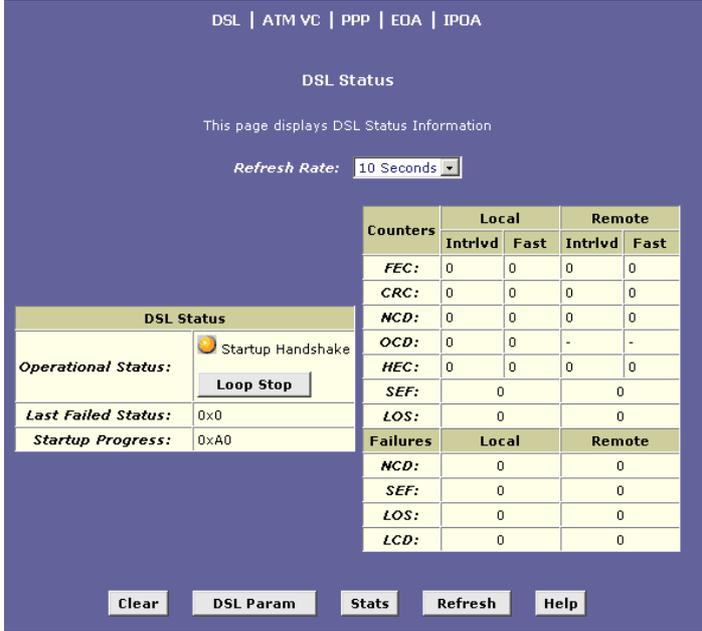


The five sub-menu's are:

- DSL
- ATM VC
- PPP
- EoA
- IPoA

Each sub-menu is described below.

DSL

Step	Action
<p>1.</p>	<p>Click on the DSL link to view the DSL status.</p> 
<p>2.</p>	<p>Click on the DSL Param button to view the DSL parameters and the Stats button to view the DSL statistics. Both the DSL Parameters and DSL Statistics are described below.</p>
<p>3.</p>	<p>Click on the Clear button to clear and refresh the DSL status. You may also change the page refresh rate by selecting a different time period from the Refresh Rate drop down list.</p>

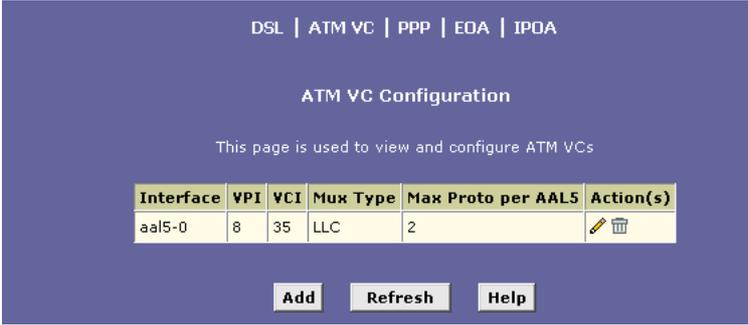
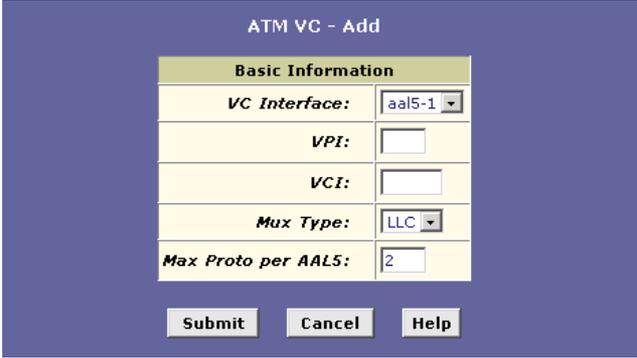
DSL Parameters

Step	Action																																																																																																
<p>1.</p>	<p>Click on the DSL Param button to view the DSL parameters. Another window will then display the DSL parameters, which may be different due to the type and speed of the network.</p> <div data-bbox="580 571 1201 972" data-label="Image"> <p>The screenshot shows a window titled "DSL Parameter" with a table of parameters and status. The table is divided into two main sections: "DSL Parameters and Status" and "Config Data".</p> <table border="1"> <thead> <tr> <th colspan="2">DSL Parameters and Status</th> <th colspan="4">Config Data</th> </tr> <tr> <th colspan="2"></th> <th colspan="2">Up</th> <th colspan="2">Down</th> </tr> <tr> <th colspan="2"></th> <th>Intrlvd</th> <th>Fast</th> <th>Intrlvd</th> <th>Fast</th> </tr> </thead> <tbody> <tr> <td>Vendor ID:</td> <td>0039</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Revision Number:</td> <td>T93.3.23</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Serial Number:</td> <td>*****</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Local Tx Power:</td> <td>0.0 dB</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Remote Tx Power:</td> <td>0.0 dB</td> <td>ASO(kbps):</td> <td>-</td> <td>-</td> <td>8064</td> </tr> <tr> <td>Local Line Atten.:</td> <td>30.0 dB</td> <td>ASI(kbps):</td> <td>-</td> <td>-</td> <td>0</td> </tr> <tr> <td>Remote Line Atten.:</td> <td>2.5 dB</td> <td>LSO(kbps):</td> <td>1024</td> <td>0</td> <td>-</td> </tr> <tr> <td>Local SNR Margin:</td> <td>13.0 dB</td> <td>LSI(kbps):</td> <td>0</td> <td>0</td> <td>-</td> </tr> <tr> <td>Remote SNR Margin:</td> <td>10.0 dB</td> <td>RValue:</td> <td>16</td> <td>0</td> <td>2</td> </tr> <tr> <td>Self Test:</td> <td>Passed</td> <td>SValue:</td> <td>4</td> <td></td> <td>1</td> </tr> <tr> <td>DSL Standard:</td> <td>T1.413</td> <td>DValue:</td> <td>8</td> <td></td> <td>64</td> </tr> <tr> <td>Trellis Coding:</td> <td>Enable</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Framing Structure:</td> <td>Framing-3</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>At the bottom of the window, there are three buttons: Close, Refresh, and Help.</p> </div>	DSL Parameters and Status		Config Data						Up		Down				Intrlvd	Fast	Intrlvd	Fast	Vendor ID:	0039					Revision Number:	T93.3.23					Serial Number:	*****					Local Tx Power:	0.0 dB					Remote Tx Power:	0.0 dB	ASO(kbps):	-	-	8064	Local Line Atten.:	30.0 dB	ASI(kbps):	-	-	0	Remote Line Atten.:	2.5 dB	LSO(kbps):	1024	0	-	Local SNR Margin:	13.0 dB	LSI(kbps):	0	0	-	Remote SNR Margin:	10.0 dB	RValue:	16	0	2	Self Test:	Passed	SValue:	4		1	DSL Standard:	T1.413	DValue:	8		64	Trellis Coding:	Enable					Framing Structure:	Framing-3				
DSL Parameters and Status		Config Data																																																																																															
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Remote Tx Power:	0.0 dB	ASO(kbps):	-	-	8064																																																																																												
Local Line Atten.:	30.0 dB	ASI(kbps):	-	-	0																																																																																												
Remote Line Atten.:	2.5 dB	LSO(kbps):	1024	0	-																																																																																												
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Remote SNR Margin:	10.0 dB	RValue:	16	0	2																																																																																												
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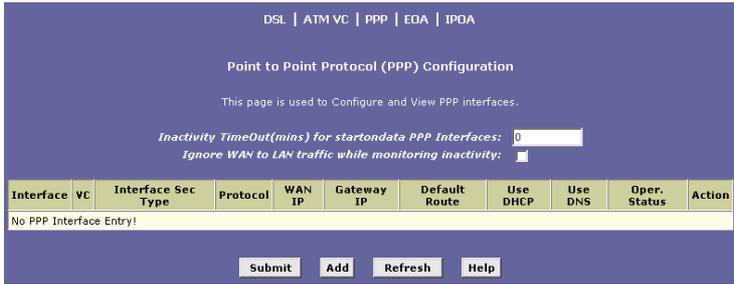
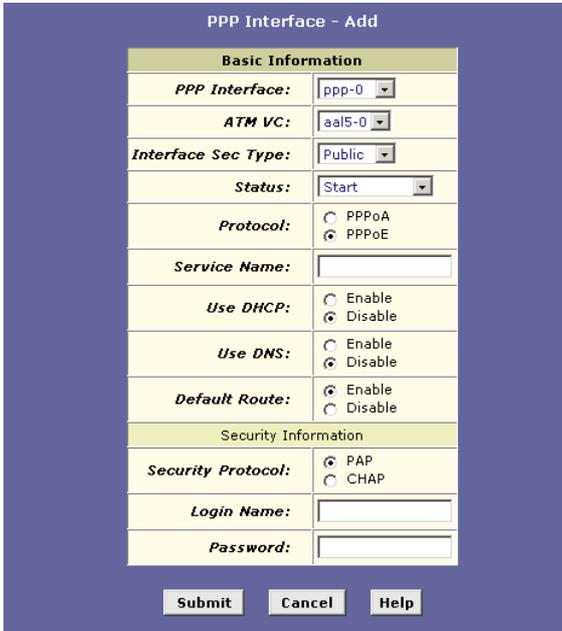
DSL Stats

Step	Action																																				
1.	<p>Click on the Stats button to view the DSL status. Another window will then display the DSL status, which may be different due to the type and speed of the network.</p> <div data-bbox="571 568 1209 1397" style="border: 1px solid black; padding: 10px; background-color: #e6e6fa;"> <p style="text-align: center;">DSL Statistics</p> <p style="text-align: center;"><i>No. of 15 Min. Valid Data Intervals: 1</i> <i>No. of 15 Min. Invalid Data Intervals: 0</i></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #d9ead3;"> <th colspan="2" style="text-align: left;">Current 15-Min Interval Statistics</th> </tr> </thead> <tbody> <tr><td style="text-align: left;"><i>Elapsed Time(MM:SS):</i></td><td style="text-align: right;">6:58</td></tr> <tr><td style="text-align: left;"><i>Errored Seconds:</i></td><td style="text-align: right;">5</td></tr> <tr><td style="text-align: left;"><i>Severely Errored Seconds:</i></td><td style="text-align: right;">0</td></tr> <tr><td style="text-align: left;"><i>Unavailable Seconds:</i></td><td style="text-align: right;">0</td></tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #d9ead3;"> <th colspan="2" style="text-align: left;">Current Day Statistics</th> </tr> </thead> <tbody> <tr><td style="text-align: left;"><i>Elapsed Time(HH:MM:SS):</i></td><td style="text-align: right;">0:21:58</td></tr> <tr><td style="text-align: left;"><i>Errored Seconds:</i></td><td style="text-align: right;">17</td></tr> <tr><td style="text-align: left;"><i>Severely Errored Seconds:</i></td><td style="text-align: right;">0</td></tr> <tr><td style="text-align: left;"><i>Unavailable Seconds:</i></td><td style="text-align: right;">0</td></tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #d9ead3;"> <th colspan="2" style="text-align: left;">Previous Day Statistics</th> </tr> </thead> <tbody> <tr><td style="text-align: left;"><i>Monitored Time(HH:MM:SS):</i></td><td style="text-align: right;">0:0:0</td></tr> <tr><td style="text-align: left;"><i>Errored Seconds:</i></td><td style="text-align: right;">0</td></tr> <tr><td style="text-align: left;"><i>Severely Errored Seconds:</i></td><td style="text-align: right;">0</td></tr> <tr><td style="text-align: left;"><i>Unavailable Seconds:</i></td><td style="text-align: right;">0</td></tr> </tbody> </table> <p style="text-align: center; margin-top: 10px;">Detailed Interval Statistic (Past 24 hrs)</p> <table style="width: 100%; text-align: center;"> <tr> <td style="border: 1px solid black; padding: 2px;">1-4</td> <td style="border: 1px solid black; padding: 2px;">5-8</td> <td style="border: 1px solid black; padding: 2px;">9-12</td> <td style="border: 1px solid black; padding: 2px;">13-16</td> <td style="border: 1px solid black; padding: 2px;">17-20</td> <td style="border: 1px solid black; padding: 2px;">21-24</td> </tr> </table> <p style="text-align: center; margin-top: 10px;"> <input type="button" value="Close"/> <input type="button" value="Refresh"/> <input type="button" value="Help"/> </p> </div>	Current 15-Min Interval Statistics		<i>Elapsed Time(MM:SS):</i>	6:58	<i>Errored Seconds:</i>	5	<i>Severely Errored Seconds:</i>	0	<i>Unavailable Seconds:</i>	0	Current Day Statistics		<i>Elapsed Time(HH:MM:SS):</i>	0:21:58	<i>Errored Seconds:</i>	17	<i>Severely Errored Seconds:</i>	0	<i>Unavailable Seconds:</i>	0	Previous Day Statistics		<i>Monitored Time(HH:MM:SS):</i>	0:0:0	<i>Errored Seconds:</i>	0	<i>Severely Errored Seconds:</i>	0	<i>Unavailable Seconds:</i>	0	1-4	5-8	9-12	13-16	17-20	21-24
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2.	<p>Click on the Close button to close the window or click on the Refresh button to refresh the status.</p>																																				

ATM VC

Step	Action
1.	<p>Click on the ATM VC link to view the ATM VC table. This table displays the interface name, VPI/VCI values, Mux type and maximum protocols per AAL5.</p> 
2.	<p>Click on the trash can icon to delete the current interface or edit the current interface by clicking on the pencil icon.</p>
3.	<p>Click on the Add button to another interface.</p>
4.	<p>After you click on the Add button, another window will pop-up. First select a VC interface from the drop down list.</p> 
5.	<p>Enter the VPI, VCI values into the text box. Select a Mux type from the drop down list and then enter the number of protocols per AAL5 in the text box.</p>
6.	<p>Click on the Submit button when completed.</p>

Point-to-Point Protocol (PPP)

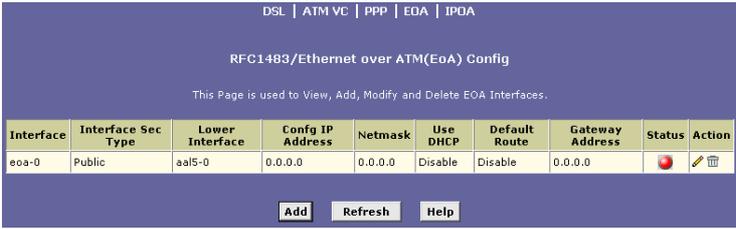
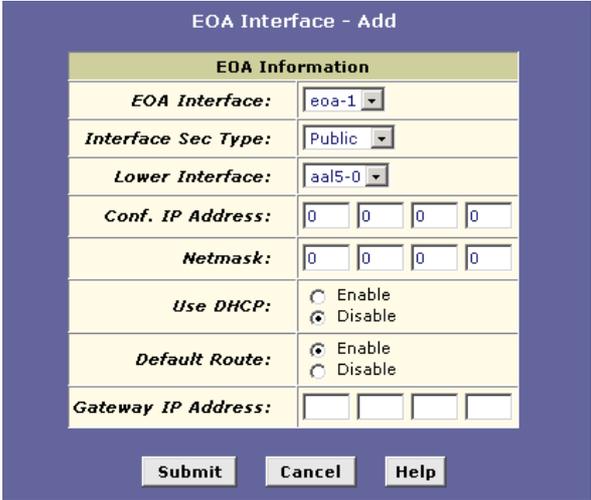
Step	Action
1.	<p>Click on the PPP link to view the PPP configuration table. This table displays PPP information such as: interface name, interface type, protocol, WAN IP, gateway IP, default route, DHCP, DNS and operation status.</p> 
2.	Click on the trash can icon to delete the current interface or edit the current interface by clicking on the pencil icon.
3.	Click on the Add button to another interface.
4.	<p>After you click on the Add button, another window will pop-up.</p> 

The following is a list of field names and their descriptions. After filling in the table, click on the **Submit** button when completed.

FIELD NAME	DESCRIPTION
PPP Interface	Select an interface name from the drop down list.
ATM VC	Select an ATM VC from the drop down list.
Interface Sec Type	Select between public, private or DMZ.
Status	Select start, stop or start on data.
Protocol	Select between PPPoA and PPPoE.
Service Name	Enter a name for this service in the text box.
Use DHCP	Select between enable and disable.
Use DNS	Select between enable and disable.
Default Route	Select between enable and disable.
Security Protocol	Select between PAP or CHAP.
Login Name	Enter the username for this service.
Password	Enter the password for this service.

Table 2-2

Ethernet over ATM (EoA)

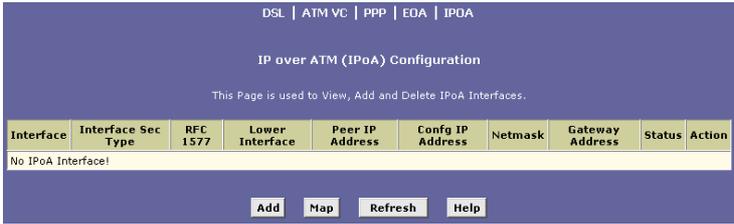
Step	Action
1.	<p>Click on the EOA link to view the RFC1483/EoA configuration table. This table displays EoA information such as: interface name, interface security type, lower interface, config IP, network IP, DHCP, default route, gateway IP and status.</p> 
2.	Click on the trash can icon to delete the current interface or edit the current interface by clicking on the pencil icon.
3.	Click on the Add button to add another interface.
4.	<p>After you click on the Add button, another window will pop-up.</p> 

The following is a list of field names and their descriptions. After filling in the table, click on the **Submit** button when completed.

FIELD NAME	DESCRIPTION
EoA Interface	Select an interface name from the drop down list.
Interface Sec Type	Select between public, private or DMZ.
Lower Interface	Select a lower interface name from the drop down list.
Conf IP Address	Enter the LAN IP address here.
Netmask	Enter the subnet mask here.
Use DHCP	Select between enable or disable.
Default Route	Select between enable or disable.
Gateway IP Address	Enter the gateway IP address here.

Table 2-3

IP over ATM (IPoA)

Step	Action
1.	<p>Click on the IPoA link to view the IP over ATM configuration table. This table displays IPoA information such as: interface name, interface security type, lower interface, config IP, network IP, subnet mask gateway IP and status.</p> 
2.	Click on the trash can icon to delete the current interface or edit the current interface by clicking on the pencil icon.
3.	Click on the Add button to add another interface.
4.	After you click on the Add button, another window will pop-up.

The following is a list of field names and their descriptions. After filling in the table, click on the **Submit** button when completed.

FIELD NAME	DESCRIPTION
IPoA Interface	Select an interface name from the drop down list.
Conf IP Address	Enter the LAN IP address here.
Interface Sec Type	Select a lower interface name from the drop down list.
Netmask	Enter the subnet mask here.
RFC 1577	Select between Yes or No to use RFC 1577.
Use DHCP	Select between enable or disable.
Default Route	Select between enable or disable.
Gateway IP Address	Enter the gateway IP address here.

Table 2-4

2.3.4 BRIDGING

Click on the **Bridging** tab to view its sub-menu's and configure the bridge settings.

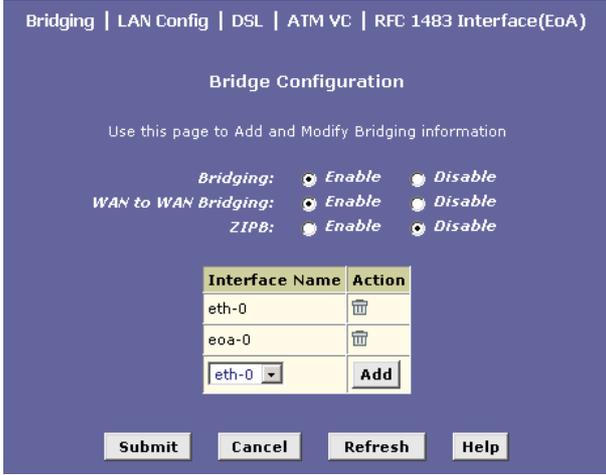


The five sub-menu's are:

- Bridging
- LAN Config
- DSL
- ATM VC
- RFC 1483 Interface (EoA)

The bridging sub-menu is described below. (Each of the other sub-menus is described in the earlier sections).

Bridging

Step	Action
1.	<p>Click on the Bridging link to view the Bridge configuration. This table displays bridge information such as the Interface Name.</p> 
2.	Click on the trash can icon to delete the current interface or edit the current interface by clicking on the pencil icon.
3.	There are three radio buttons on this page. In order to use bridging, you must enable Bridging and WAN to WAN Bridging .
4.	Click on the Submit button when completed.

2.3.5 ROUTING

Click on the **Routing** tab to view its sub-menu's and configure the routing settings.

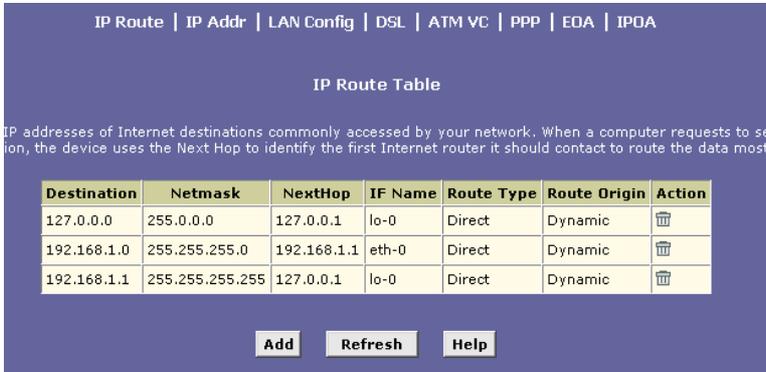
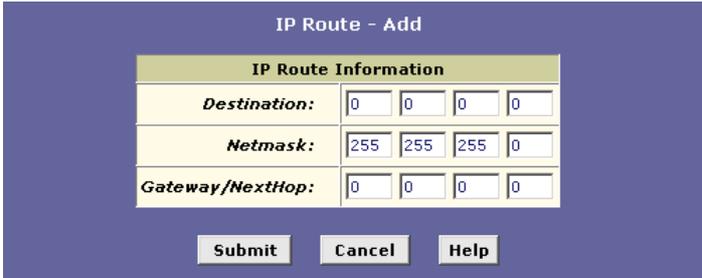


The eight sub-menu's are:

- IP route
- IP address
- LAN Config
- DSL
- ATM VC
- PPP
- EoA
- IPoA

The IP route sub-menu is described below. *(Each of the other sub-menus is described in the earlier sections.)*

IP Route

Step	Action
1.	<p>Click on the IP Route link to view the IP route table. This table displays IP route information such as: destination, net mask, next hop, interface name, route type and route origin. This table lists IP addresses of Internet destinations commonly accessed by your network. When a computer requests to send data to a listed destination, the device uses the Next Hop to identify the first Internet router it should contact to route the data most efficiently.</p> 
2.	<p>After you click on the Add button, another window will pop-up.</p> 

The following is a list of field names and their descriptions. After filling in the table, click on the **Submit** button when completed.

FIELD NAME	DESCRIPTION
Destination	Enter the destination IP address of the router.
Netmask	Enter the subnet mask of the IP address.
Gateway/Next Hop	Enter the IP address of the gateway or the next router hop

Table 2-5

2.3.6 SERVICES

Click on the **Services** tab to view its sub-menu's and configure the service settings.



The six sub-menu's are:

- NAT
- RIP
- Firewall
- IP filter
- DNS
- Blocked Protocols

Each one is described in detail below.

NAT

Step	Action
1.	Click on the NAT link to view the NAT global information table. The table displays the idle times for several protocols; you may change the times and click on the Submit button.
2.	The NAT feature offers three sections. First, click on the Enable radio box, to enable the NAT feature. Then select a NAT option from the drop down list.

The three options are:

- NAT Global Info
- NAT Rule Entry
- NAT translations

Each one is described below:

NAT Global Info

The table displays the idle times for several protocols. You may change the times and click on the **Submit** button.

The screenshot shows the NAT configuration page with the following elements:

- Navigation menu: NAT | RIP | FireWall | IP Filter | DNS | Blocked Protocols
- NAT Options: NAT Global Info (selected)
- Enable/Disable radio buttons: Enable, Disable
- NAT Global Information table:

NAT Global Information	
TCP Idle Timeout(sec):	86400
TCP Close Wait(sec):	60
TCP Def Timeout(sec):	60
UDP Timeout(sec):	300
ICMP Timeout(sec):	5
GRE Timeout(sec):	300
Default Nat Age(sec):	240
NAPT Port Start:	50000
NAPT Port End:	51023

Buttons at the bottom: Submit, Global Stats, Cancel, Refresh, Help

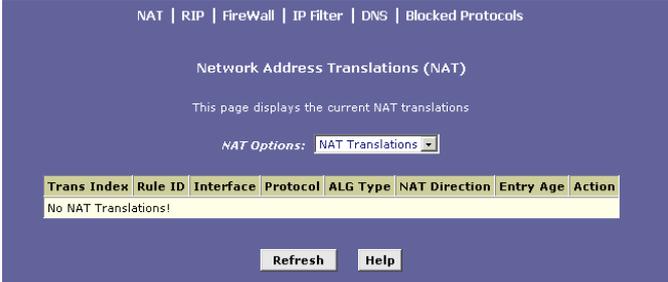
NAT Entry Rule

Step	Action																								
<p>1.</p>	<p>The table displays NAT route configuration. Click on the trash can icon to delete the current rule or click on the Add button to add another rule.</p> <div data-bbox="533 577 1251 902" style="border: 1px solid black; padding: 10px; background-color: #e6e6fa;"> <p style="text-align: center;">NAT RIP FireWall IP Filter DNS Blocked Protocols</p> <p style="text-align: center;">Network Address Translation (NAT) Rule Configuration</p> <p style="text-align: center;">Each row in the table lists a rule for translating addresses. See Help for instructions on creating NAT rules.</p> <p style="text-align: center;">NAT Options: NAT Rule Entry</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr style="background-color: #d3d3d3;"> <th>Rule ID</th> <th>IF Name</th> <th>Rule Flavor</th> <th>Protocol</th> <th>Local IP From</th> <th>Local IP To</th> <th>Action</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>ALL</td> <td>NAPT</td> <td>ANY</td> <td>0.0.0.0</td> <td>255.255.255.255</td> <td> Stats</td> </tr> </tbody> </table> <p style="text-align: center;"> Add Refresh Help </p> </div>	Rule ID	IF Name	Rule Flavor	Protocol	Local IP From	Local IP To	Action	1	ALL	NAPT	ANY	0.0.0.0	255.255.255.255	Stats										
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1	ALL	NAPT	ANY	0.0.0.0	255.255.255.255	Stats																			
<p>2.</p>	<p>After you click on the Add button, another window will pop-up.</p> <div data-bbox="571 1034 1209 1682" style="border: 1px solid black; padding: 10px; background-color: #e6e6fa;"> <p style="text-align: center;">NAT Rule - Add</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #d3d3d3;"> <th colspan="2">NAT Rule Information</th> </tr> </thead> <tbody> <tr> <td><i>Rule Flavor:</i></td> <td>RDR</td> </tr> <tr> <td><i>Rule ID:</i></td> <td><input style="width: 80%;" type="text"/></td> </tr> <tr> <td><i>IF Name:</i></td> <td>ALL</td> </tr> <tr> <td><i>Protocol:</i></td> <td>ANY</td> </tr> <tr> <td><i>Local Address From:</i></td> <td><input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/></td> </tr> <tr> <td><i>Local Address To:</i></td> <td><input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/></td> </tr> <tr> <td><i>Global Address From:</i></td> <td><input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/></td> </tr> <tr> <td><i>Global Address To:</i></td> <td><input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/></td> </tr> <tr> <td><i>Destination Port From:</i></td> <td>Any other port <input style="width: 20px;" type="text"/></td> </tr> <tr> <td><i>Destination Port To:</i></td> <td>Any other port <input style="width: 20px;" type="text"/> 65535</td> </tr> <tr> <td><i>Local Port:</i></td> <td>Any other port <input style="width: 20px;" type="text"/></td> </tr> </tbody> </table> <p style="text-align: center;"> Submit Cancel Help </p> </div>	NAT Rule Information		<i>Rule Flavor:</i>	RDR	<i>Rule ID:</i>	<input style="width: 80%;" type="text"/>	<i>IF Name:</i>	ALL	<i>Protocol:</i>	ANY	<i>Local Address From:</i>	<input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/>	<i>Local Address To:</i>	<input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/>	<i>Global Address From:</i>	<input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/>	<i>Global Address To:</i>	<input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/>	<i>Destination Port From:</i>	Any other port <input style="width: 20px;" type="text"/>	<i>Destination Port To:</i>	Any other port <input style="width: 20px;" type="text"/> 65535	<i>Local Port:</i>	Any other port <input style="width: 20px;" type="text"/>
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<i>Local Port:</i>	Any other port <input style="width: 20px;" type="text"/>																								

FIELD NAME	DESCRIPTION
Rule Flavor	Select a rule from the drop down list.
Rule ID	Enter a rule ID into this text box.
IF Name	Select an interface name from the drop down list.
Protocol	Select a protocol from the drop down list.
Local Address From	Enter a local IP address from where NAT will be used.
Local Address To	Enter a local IP address to where NAT will be used.
Global Address From	Enter an Internet IP address from where NAT will be used.
Global Address To	Enter an Internet IP address to where NAT will be used.
Destination Port From	Select a destination port from the drop down list or enter it into the text box.
Destination Port To	Select a destination port from the drop down list or enter it into the text box.
Local Port	Select a local port from the drop down list or enter it into the text box.

Table 2-6

NAT Translations

Step	Action
1.	<p>The table displays the current NAT translations, if any exist.</p> 
2.	<p>Click on the trash can icon to delete a translation or click on the Refresh button to refresh the page.</p>

RIP

Click on the **RIP** link to view the Routing Information Protocol (RIP) Configuration table. Routers on your LAN communicate with one another using the Routing Information Protocol.

NAT | RIP | FireWall | IP Filter | DNS | Blocked Protocols

Routing Information Protocol (RIP) Configuration

our LAN communicate with one another using the Routing Information Protocol. This table lists any interface on your device that use RIP (typically the LAN interface), and the version of the protocol used.

Enable Disable

Age(seconds): 180

Update Time(seconds): 30

IF Name	Metric	Send Mode	Receive Mode	Action
No Rip Entries!				
eth-0	1	RIP1COMPAT	RIP1	Add

Submit Cancel Global Stats Refresh Help

This table lists any interfaces on your device that use RIP (typically the LAN interface) and the version of the protocol used.

In order to add a RIP configuration, follow the steps below:

Step	Action
1.	First, click on the Enable radio box, to enable the RIP configuration
2.	Select an interface name from the drop down list.
3.	Enter the number of router hops into the metric text box
4.	Select a send mode from the drop down list.
5.	Select a receive mode from the drop down list.
6.	Click on the Add button.
7.	Click on the trash can icon to delete a RIP interface.
8.	Click on the Global Stats icon to view the NAT statistics. This table will open in a new window.

Firewall

Click on the **Firewall** link to view the Firewall Configuration table. The Firewall adds security to your network by protecting it from Internet intruders.

The following is a list of field names and their descriptions. After filling in the table, click on the **Submit** button.

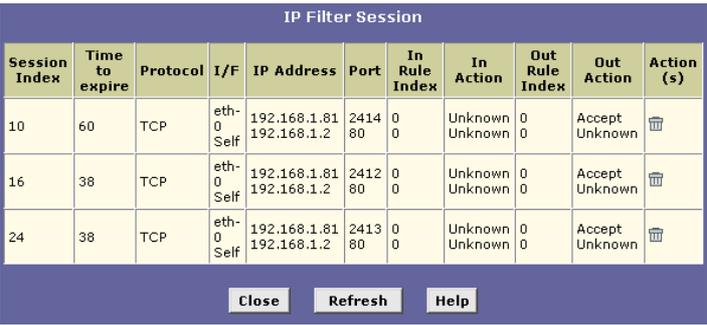
FIELD NAME	DESCRIPTION
Blacklist Status	Select enable or disable blacklist.
Blacklist Period	Enter a time period to hold the blacklist.
Attack Protection	Select enable or disable Attach protection.
DOS Protection	Select enable or disable DoS protection.
Max half open TCP Conn.	Enter the maximum number of TCP connections.
Max ICMP Conn.	Enter the maximum number of ICMP connections.
Max Single Host Conn.	Enter the maximum number of host connections.
Log Destination	Select a destination for the log file.
Email ID of admin	Enter the email addresses of up to three administrators.

Table 2-7

IP Filter

Click on the **IP Filter** link to view the IP Filter Configuration table.

In order to configure the IP filter function, follow the steps below:

Step	Action
1.	Select a security level from the drop down list. The options available are: Low, Medium and High.
2.	Select if you would like to accept or deny the private default action . This will apply the security level to the private domain.
3.	Select if you would like to accept or deny the public default action . This will apply the security level to the public domain.
4.	Select if you would like to accept or deny the DMZ default action . This will apply the security level to the DMZ domain.
5.	Click on the Session to view the IP filter sessions. 
6.	You may delete a session by clicking on the trash can icon.
7.	Click on the Close button to close the window.

8. Click on the **Stats** button to view the IP filter rule statistics. You may click on the **Clear** button to clear the table or click on the **Close** button to close the window.

IP Filter Rule Statistic	
Rule ID:	1
Number of Packets Matching this Rule:	2347 Packets

Clear Close Refresh Help

9. To add an IP filter rule, click on the **Add** button. The table will pop-up in a new window.

Enable Disable

Basic Information

Rule ID: Action: Accept Deny

Direction: Incoming Outgoing Interface: ALL

In Interface: ALL Log Option: Enable Disable

Security Level: High Medium Low Blacklist Status: Enable Disable

Log Tag:

Start Time (HH MM SS): 00 00 00 End Time (HH MM SS): 23 59 59

Src IP Address: any 0 0 0 0 0 0 0 0 0 0

Dest IP Address: any 0 0 0 0 0 0 0 0 0 0

Protocol: any TCP

Apply Stateful Inspection:

Source Port: any Any other port Any other port

Dest Port: any Any other port Any other port

TCP Flag: All

ICMP Type: any Echo Reply

ICMP Code: any 0

IP Frag Pkt: Yes No Ignore IP Option Pkt: Yes No Ignore

Packet Size: any 0

TOD Rule Status: Enable Disable

Submit Cancel Help

The following is a list of field names and their descriptions. After filling in the table, click on the **Submit** button.

FIELD NAME	DESCRIPTION
Rule ID	Enter a Rule ID.
Direction	Select an <i>incoming</i> or <i>outgoing</i> direction.
In Interface	Select an incoming interface from the drop down list.
Security Level	Select a security level: <i>high</i> , <i>medium</i> or <i>low</i> .
Log Tag	Enter a name for the log.
Start Time	Enter a start time for the IP filter.
Action	Select <i>accept</i> or <i>deny</i> incoming IPs.
Interface	Select an outgoing interface from the drop down list.
Log Option	Select to <i>enable</i> or <i>disable</i> logging.
Blacklist status	Select to <i>enable</i> or <i>disable</i> the blacklist.
End time	Select an end time for the IP filter.
Src IP Address	Enter the source IP address range.
Dest IP Address	Enter the destination IP address range.
Protocol	Select a protocol from the drop down list.
Apply Stateful Inspection	Check this box if you would like to enable <i>Stateful</i> Inspection. If you decide to use Stateful Inspection, you must supply the source/destination port, TCP flag, ICMP type and ICMP code.
IP Frag Pkt	Select <i>Yes</i> , <i>No</i> or <i>Ignore</i> packet fragmenting.
Packet Size	Enter the packer size into the text box or select <i>any</i> from the drop down list.
TOD Rule Status	Select to <i>enable</i> or <i>disable</i> time-out detection.

Table 2-8

Domain Name Service (DNS)

Click on the **DNS** link to view the DNS Configuration table. This page is used for adding and deleting DNS server IP addresses. You may also enable/disable DNS relay from this page.

NAT | RIP | FireWall | IP Filter | DNS | Blocked Protocols

Domain Name Service (DNS) Configuration

for adding and deleting DNS server ip addresses. User can also enable/disable DNS r

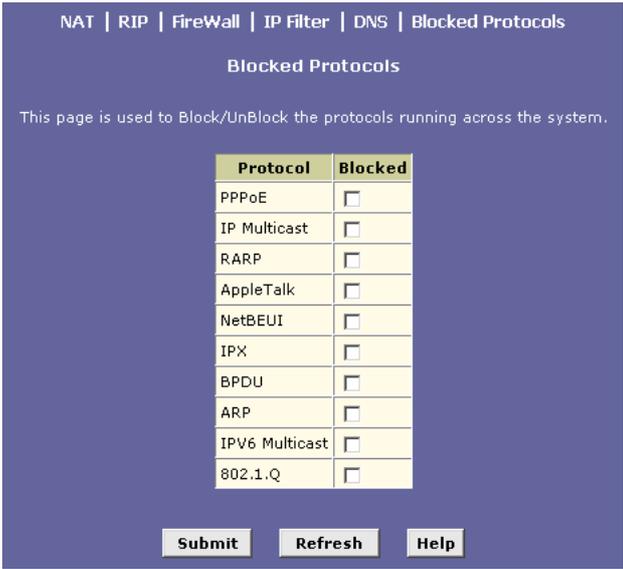
Enable Disable

DNS Server IP Address	Action
No DNS Entries!	
<input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/>	<input type="button" value="Add"/>

In order to add a DNS server IP addresses follow the steps below:

Step	Action
1.	Select the enable radio box to enable the DNS server function.
2.	Enter the IP address of the DNS server and click on the Add button.
3.	You may also delete an IP address by clicking on the trash can icon.

Blocked Protocols

Step	Action																						
1.	<p>Click on the Blocked Protocols link to view the list of protocols. This page is used to block or unblock protocols running across the system.</p>  <table border="1"><thead><tr><th>Protocol</th><th>Blocked</th></tr></thead><tbody><tr><td>PPPoE</td><td><input type="checkbox"/></td></tr><tr><td>IP Multicast</td><td><input type="checkbox"/></td></tr><tr><td>RARP</td><td><input type="checkbox"/></td></tr><tr><td>AppleTalk</td><td><input type="checkbox"/></td></tr><tr><td>NetBEUI</td><td><input type="checkbox"/></td></tr><tr><td>IPX</td><td><input type="checkbox"/></td></tr><tr><td>BPDU</td><td><input type="checkbox"/></td></tr><tr><td>ARP</td><td><input type="checkbox"/></td></tr><tr><td>IPV6 Multicast</td><td><input type="checkbox"/></td></tr><tr><td>802.1.Q</td><td><input type="checkbox"/></td></tr></tbody></table>	Protocol	Blocked	PPPoE	<input type="checkbox"/>	IP Multicast	<input type="checkbox"/>	RARP	<input type="checkbox"/>	AppleTalk	<input type="checkbox"/>	NetBEUI	<input type="checkbox"/>	IPX	<input type="checkbox"/>	BPDU	<input type="checkbox"/>	ARP	<input type="checkbox"/>	IPV6 Multicast	<input type="checkbox"/>	802.1.Q	<input type="checkbox"/>
Protocol	Blocked																						
PPPoE	<input type="checkbox"/>																						
IP Multicast	<input type="checkbox"/>																						
RARP	<input type="checkbox"/>																						
AppleTalk	<input type="checkbox"/>																						
NetBEUI	<input type="checkbox"/>																						
IPX	<input type="checkbox"/>																						
BPDU	<input type="checkbox"/>																						
ARP	<input type="checkbox"/>																						
IPV6 Multicast	<input type="checkbox"/>																						
802.1.Q	<input type="checkbox"/>																						
2.	<p>Check the box if you would like the protocol blocked, un-check the box to allow the protocol.</p>																						
3.	<p>Click on the Submit button when completed.</p>																						

2.3.7 ADMIN

Click on the **Admin** tab to view its sub-menu's and configure the admin settings.



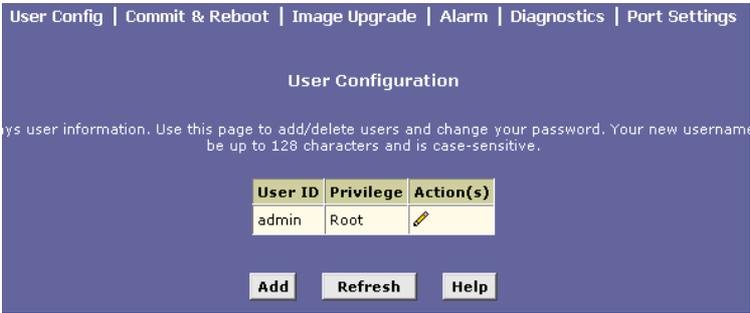
The six sub-menu's are:

- User Config
- Commit & Reboot
- Image Upgrade
- Alarm
- Diagnostics
- Port Settings

Each one is described in detail below.

User Config

Click on the **User Config** link to view the list of users. This page displays user information. Use this page to add/delete users and change your password. Your new username and password can be up to 128 characters and is case-sensitive.

Step	Action
1.	<p>To add a new user click on the Add button or click on the pencil icon to edit the settings of an existing user.</p>  <p>The screenshot shows the 'User Configuration' page with a navigation bar at the top containing 'User Config', 'Commit & Reboot', 'Image Upgrade', 'Alarm', 'Diagnostics', and 'Port Settings'. Below the navigation bar is the title 'User Configuration' and a brief instruction. A table lists user information with columns 'User ID', 'Privilege', and 'Action(s)'. The table contains one entry: 'admin' with 'Root' privilege and a pencil icon. Below the table are three buttons: 'Add', 'Refresh', and 'Help'.</p>
2.	<p>After you click on the Add button, another window will pop-up.</p>  <p>The screenshot shows a 'User Config - Add' pop-up window. It has a title bar 'User Config - Add' and a section titled 'New User Information'. The form contains four fields: 'User ID' with the value 'john', 'Privilege' with radio buttons for 'Root' and 'User' (where 'User' is selected), 'Password' with '*****', and 'Confirm Password' with '*****'. At the bottom are three buttons: 'Submit', 'Cancel', and 'Help'.</p>

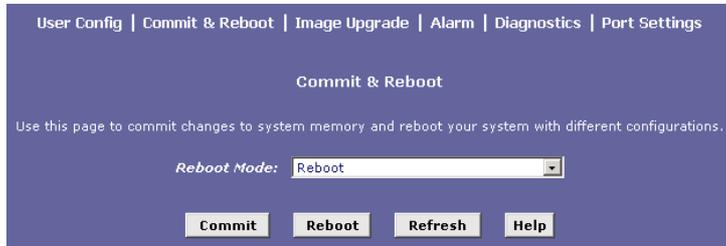
The following information is required in order to create a new user. Click on the **Submit** button when completed.

FIELD NAME	DESCRIPTION
User ID	Enter the username here
Privilege	Select a privilege, <i>root</i> or <i>user</i> .
Password	Enter the password here
Confirm Password	Re-enter the password here

Table 2-9

Commit & Reboot

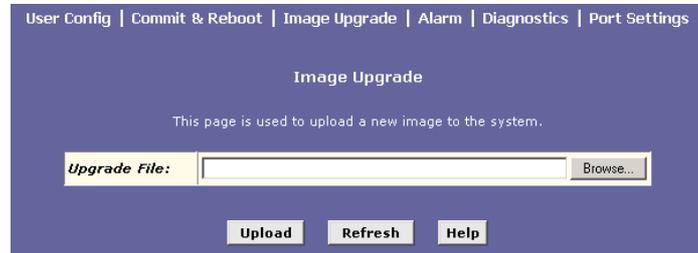
Click on the **Commit & Reboot** link to view the reboot options. This page is used to save the changes into the device's memory and reboot the device using different options.



Step	Action
1.	Click on the Commit button to save the changes.
2.	In order to reboot the device, select an option from the drop down list. The six options are: <ul style="list-style-type: none">– Reboot– Reboot from default configuration– Reboot from backup configuration– Reboot from last configuration– Reboot from clean configuration– Reboot from minimum configuration
3.	Click on the Reboot button.

Image Upgrade

Click on the **Image Upgrade** link to upgrade the software on the modem.

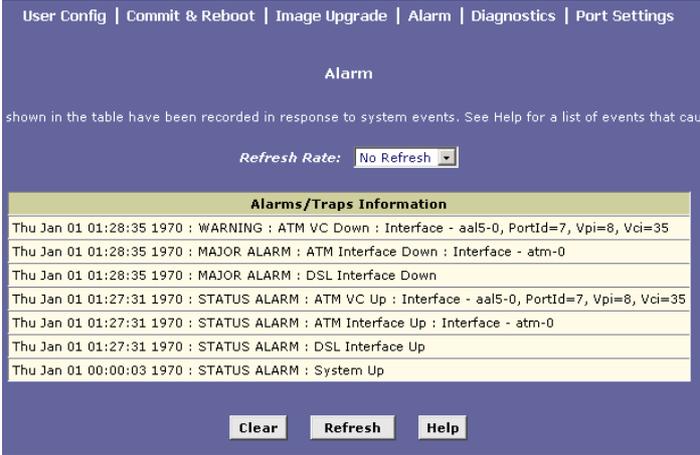


You may easily upgrade jetSpeed 520 embedded software by obtaining the compressed upgrade firmware file from the service provider and then follow the steps:

Step	Action
1.	Click on the Browse button to select the upgrade file (tepatch.bin).
2.	Click on the Upload button to upload the file into the modem. This process may last as long as 60 seconds.

NOTE: The device software may also be upgraded through the DOS prompt. For more details, see 1.7 Software Upgrade.

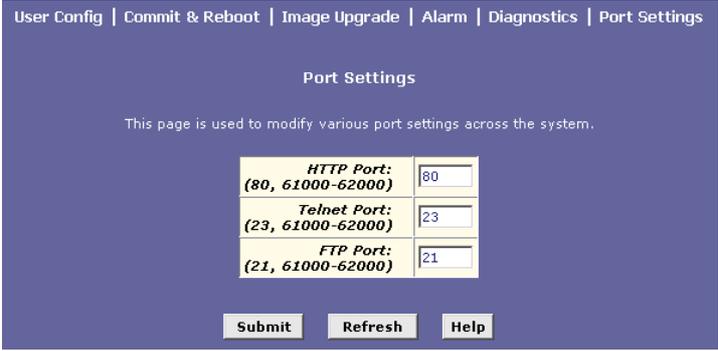
Alarm

Step	Action																
<p>1.</p>	<p>Click on the Alarm link to view the list of alarms. The alarms shown in the table have been recorded in response to system events.</p>  <p>shown in the table have been recorded in response to system events. See Help for a list of events that cau</p> <p>Refresh Rate: <input type="button" value="No Refresh"/></p> <table border="1"> <thead> <tr> <th colspan="2">Alarms/Traps Information</th> </tr> </thead> <tbody> <tr> <td>Thu Jan 01 01:28:35 1970</td> <td>: WARNING : ATM VC Down : Interface - aal5-0, PortId=7, Vpi=8, Vci=35</td> </tr> <tr> <td>Thu Jan 01 01:28:35 1970</td> <td>: MAJOR ALARM : ATM Interface Down : Interface - atm-0</td> </tr> <tr> <td>Thu Jan 01 01:28:35 1970</td> <td>: MAJOR ALARM : DSL Interface Down</td> </tr> <tr> <td>Thu Jan 01 01:27:31 1970</td> <td>: STATUS ALARM : ATM VC Up : Interface - aal5-0, PortId=7, Vpi=8, Vci=35</td> </tr> <tr> <td>Thu Jan 01 01:27:31 1970</td> <td>: STATUS ALARM : ATM Interface Up : Interface - atm-0</td> </tr> <tr> <td>Thu Jan 01 01:27:31 1970</td> <td>: STATUS ALARM : DSL Interface Up</td> </tr> <tr> <td>Thu Jan 01 00:00:03 1970</td> <td>: STATUS ALARM : System Up</td> </tr> </tbody> </table> <p><input type="button" value="Clear"/> <input type="button" value="Refresh"/> <input type="button" value="Help"/></p>	Alarms/Traps Information		Thu Jan 01 01:28:35 1970	: WARNING : ATM VC Down : Interface - aal5-0, PortId=7, Vpi=8, Vci=35	Thu Jan 01 01:28:35 1970	: MAJOR ALARM : ATM Interface Down : Interface - atm-0	Thu Jan 01 01:28:35 1970	: MAJOR ALARM : DSL Interface Down	Thu Jan 01 01:27:31 1970	: STATUS ALARM : ATM VC Up : Interface - aal5-0, PortId=7, Vpi=8, Vci=35	Thu Jan 01 01:27:31 1970	: STATUS ALARM : ATM Interface Up : Interface - atm-0	Thu Jan 01 01:27:31 1970	: STATUS ALARM : DSL Interface Up	Thu Jan 01 00:00:03 1970	: STATUS ALARM : System Up
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Thu Jan 01 01:27:31 1970	: STATUS ALARM : DSL Interface Up																
Thu Jan 01 00:00:03 1970	: STATUS ALARM : System Up																
<p>2.</p>	<p>Click on the Clear button to clear the alarms.</p>																

Diagnostics

Step	Action																																																			
1.	<p>Click on the Diagnostics link to test the device. Results will be displayed as pass, fail or N.A, depending on your settings.</p> <div data-bbox="541 613 1241 1218" style="border: 1px solid black; padding: 5px;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #d9ead3;"> <th colspan="3" style="text-align: center;">Testing Connectivity to modem</th> </tr> </thead> <tbody> <tr> <td>Testing Ethernet connection</td> <td style="text-align: center;">PASS</td> <td style="text-align: center;">Help</td> </tr> <tr> <td>Testing ADSL line for sync</td> <td style="text-align: center;">PASS</td> <td style="text-align: center;">Help</td> </tr> <tr> <td>Testing Ethernet connection to ATM</td> <td style="text-align: center;">PASS</td> <td style="text-align: center;">Help</td> </tr> <tr style="background-color: #d9ead3;"> <th colspan="3" style="text-align: center;">Testing Telco Connectivity</th> </tr> <tr> <td>Testing ATM OAM segment ping</td> <td style="text-align: center;">FAIL</td> <td style="text-align: center;">Help</td> </tr> <tr> <td>Testing ATM OAM end to end ping</td> <td style="text-align: center;">FAIL</td> <td style="text-align: center;">Help</td> </tr> <tr style="background-color: #d9ead3;"> <th colspan="3" style="text-align: center;">Testing ISP Connectivity</th> </tr> <tr> <td>Testing PPPoE server connectivity</td> <td style="text-align: center;">N.A.</td> <td style="text-align: center;">Help</td> </tr> <tr> <td>Testing PPPoE server session</td> <td style="text-align: center;">N.A.</td> <td style="text-align: center;">Help</td> </tr> <tr> <td>Testing authentication with server</td> <td style="text-align: center;">N.A.</td> <td style="text-align: center;">Help</td> </tr> <tr> <td>Validating assigned IP address 0.0.0.0</td> <td style="text-align: center;">N.A.</td> <td style="text-align: center;">Help</td> </tr> <tr style="background-color: #d9ead3;"> <th colspan="3" style="text-align: center;">Testing Internet Connectivity</th> </tr> <tr> <td>Ping default gateway 0.0.0.0</td> <td style="text-align: center;">N.A.</td> <td style="text-align: center;">Help</td> </tr> <tr> <td>Ping Primary Domain Name Server</td> <td style="text-align: center;">N.A.</td> <td style="text-align: center;">Help</td> </tr> <tr> <td>Query DNS for www.globespanvirata.com</td> <td style="text-align: center;">FAIL</td> <td style="text-align: center;">Help</td> </tr> <tr> <td>Ping www.globespanvirata.com</td> <td style="text-align: center;">FAIL</td> <td style="text-align: center;">Help</td> </tr> </tbody> </table> <p style="text-align: center; margin-top: 10px;"> <input type="button" value="Submit"/> <input type="button" value="Help"/> </p> </div>	Testing Connectivity to modem			Testing Ethernet connection	PASS	Help	Testing ADSL line for sync	PASS	Help	Testing Ethernet connection to ATM	PASS	Help	Testing Telco Connectivity			Testing ATM OAM segment ping	FAIL	Help	Testing ATM OAM end to end ping	FAIL	Help	Testing ISP Connectivity			Testing PPPoE server connectivity	N.A.	Help	Testing PPPoE server session	N.A.	Help	Testing authentication with server	N.A.	Help	Validating assigned IP address 0.0.0.0	N.A.	Help	Testing Internet Connectivity			Ping default gateway 0.0.0.0	N.A.	Help	Ping Primary Domain Name Server	N.A.	Help	Query DNS for www.globespanvirata.com	FAIL	Help	Ping www.globespanvirata.com	FAIL	Help
Testing Connectivity to modem																																																				
Testing Ethernet connection	PASS	Help																																																		
Testing ADSL line for sync	PASS	Help																																																		
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Testing ATM OAM end to end ping	FAIL	Help																																																		
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Testing authentication with server	N.A.	Help																																																		
Validating assigned IP address 0.0.0.0	N.A.	Help																																																		
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Ping default gateway 0.0.0.0	N.A.	Help																																																		
Ping Primary Domain Name Server	N.A.	Help																																																		
Query DNS for www.globespanvirata.com	FAIL	Help																																																		
Ping www.globespanvirata.com	FAIL	Help																																																		
2.	Click on the Submit button to begin the diagnostic tests.																																																			

Port Settings

Step	Action
1.	<p>Click on the Port Settings link to change the port settings on the device.</p> 
2.	<p>Change the settings by entering the new value into the text box and click on the Submit button when completed</p>

3 QUICK PROTOCOL SETUP

This chapter provides quick steps on setting up the protocols on this device. From this point on, configuration steps are listed for each of the protocols in their respective sections. The seven sections are:

- RFC 1483 Bridge
- PPPoE Route Configuration
- RFC 1483 + NAT
- PPPoA Route Configuration
- IPoA Route Configuration
- DHCP Configuration
- NAT Configuration

NOTE: The settings/parameters listed in the next few sections only provide an example to setting up the protocols. Contact your ISP for the actual settings.

3.1 RFC 1483 BRIDGE

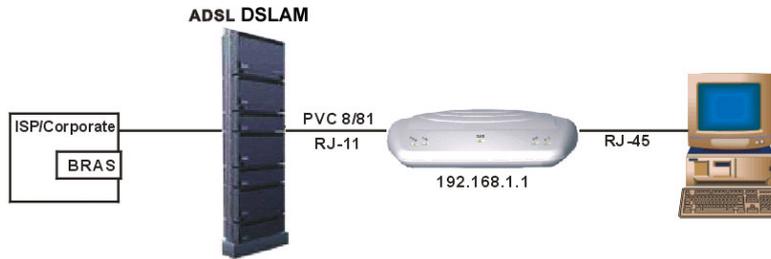


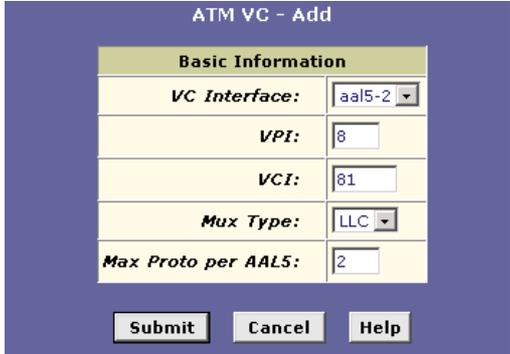
Fig. 3-1

Protocol	RFC1483 Bridge Mode
WAN IP	The ISP assigns the IP address or have an IP address assigned from an external/internal DHCP server.
Modem IP	192.168.1.1 (192.168.2.1 if USB is used)
Gateway IP	None
VPI/VCI	8/81

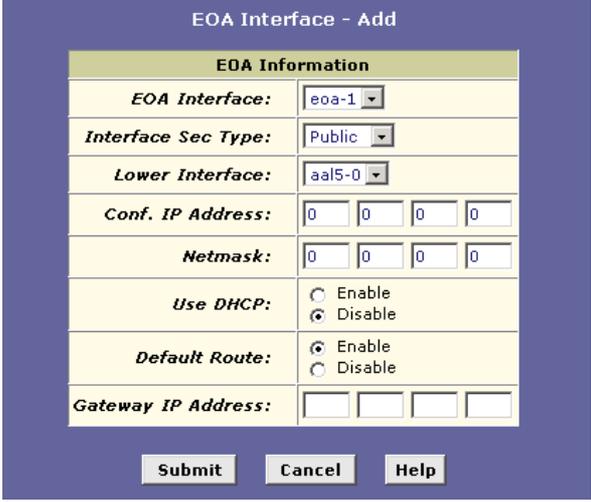
Table 3-1

Step	Action												
1.	<p>Click on the WAN tab to view its sub-menu's and configure the WAN settings, then click on the ATM VC link below it.</p> <p>The screenshot shows a navigation bar with tabs: Home, LAN, WAN, Bridging, Routing, Services, and Admin. Below the tabs, 'DSL ATM VC PPP EDA IPOA' is displayed, with 'ATM VC' highlighted in blue.</p>												
2.	<p>The ATM VC Configuration table appears. Click on the Add button to add a new VPI/VCI setting.</p> <p>The screenshot shows the 'ATM VC Configuration' page. It includes a table with the following data:</p> <table border="1"> <thead> <tr> <th>Interface</th> <th>VPI</th> <th>VCI</th> <th>Mux Type</th> <th>Max Proto per AAL5</th> <th>Action(s)</th> </tr> </thead> <tbody> <tr> <td>aal5-0</td> <td>8</td> <td>35</td> <td>LLC</td> <td>2</td> <td> </td> </tr> </tbody> </table> <p>Below the table are buttons for 'Add', 'Refresh', and 'Help'. The 'Add' button is highlighted in blue.</p>	Interface	VPI	VCI	Mux Type	Max Proto per AAL5	Action(s)	aal5-0	8	35	LLC	2	
Interface	VPI	VCI	Mux Type	Max Proto per AAL5	Action(s)								
aal5-0	8	35	LLC	2									

3. Enter the VPI/VCI values (8/81) into the VPI and VCI text boxes. Then click on the **Submit** button to confirm the changes.

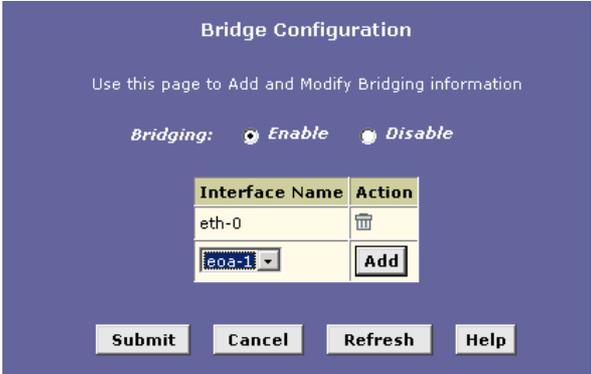

4. Click on the **EoA** link below the **WAN** tab.


5. Enter the IP address and subnet mask based on your ISP settings. The default gateway is not required in RFC 1483 bridge mode. Then click on the **Submit** button to confirm the changes.


6. Click on the **Bridging** tab to view its sub-menu's and configure the bridging settings, then click on the **Bridging** link below it.



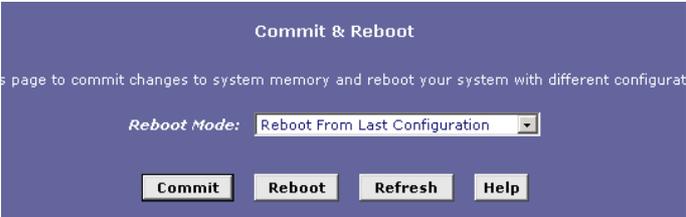
7. Select **EOA-1** from the drop down list and click on the **Add** button. Then click on the **Submit** button to confirm the changes.



The screenshot shows the 'Bridge Configuration' page. At the top, it says 'Use this page to Add and Modify Bridging information'. Below that, there are radio buttons for 'Bridging: Enable' (selected) and 'Disable'. A table lists interfaces: 'eth-0' with a trash icon, and 'eoa-1' with a dropdown arrow and an 'Add' button. At the bottom, there are buttons for 'Submit', 'Cancel', 'Refresh', and 'Help'.
8. Click on the **Admin** tab to view its sub-menu's and configure the bridging settings, then click on the **Commit & Reboot** link below it.

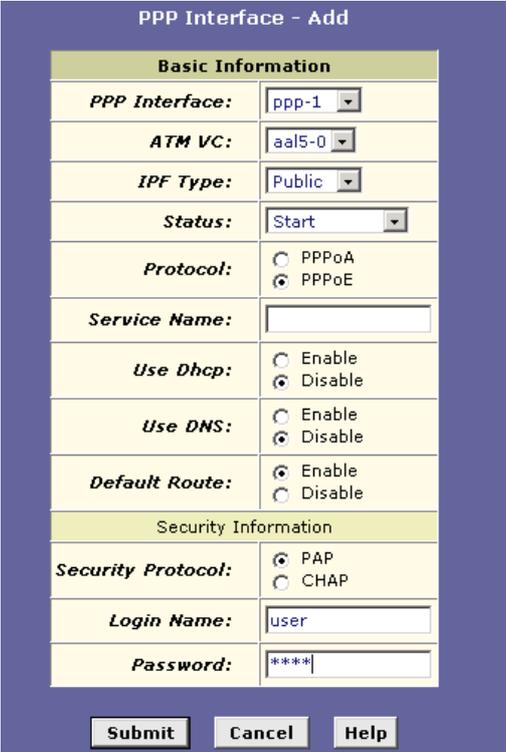


The screenshot shows a navigation bar with tabs: Home, LAN, WAN, Bridging, Routing, Services, and Admin. Below the tabs, there is a secondary menu with links: User Config, Commit & Reboot, Image Upgrade, Alarm, Diagnostics, and Port Settings.
9. Select the **Reboot From Last Configuration** option from the drop down list and the click on the **Commit** and **Reboot** button.



The screenshot shows the 'Commit & Reboot' page. It says 'Use this page to commit changes to system memory and reboot your system with different configurations'. There is a dropdown menu for 'Reboot Mode' with 'Reboot From Last Configuration' selected. At the bottom, there are buttons for 'Commit', 'Reboot', 'Refresh', and 'Help'.

3.2 PPPoE ROUTE CONFIGURATION

Step	Action
1.	<p>Click on the WAN tab to view its sub-menu's and configure the WAN settings, then click on the PPP link below it.</p> 
2.	<p>The PPP Configuration table appears. Click on the Add button to add a new PPPoE setting.</p>  <ul style="list-style-type: none"> - Select an Interface Name: PPP-1 - Select a Protocol: PPPoE - Select Default Route: Disable - Select Security Protocol, PAP or CHAP - Login Name: Enter username here (from ISP) - Password: Enter password here (from ISP)
3.	<p>Click on the Submit button to confirm the changes.</p>

3.3 RFC 1483 + NAT

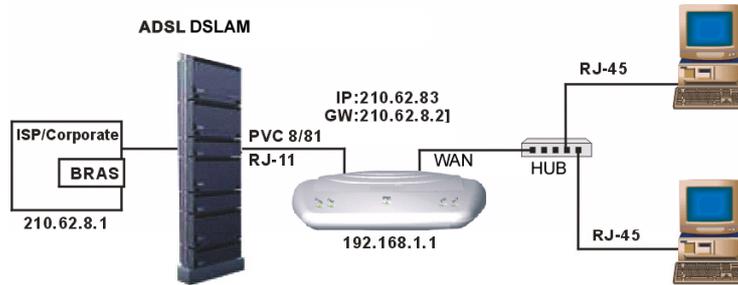


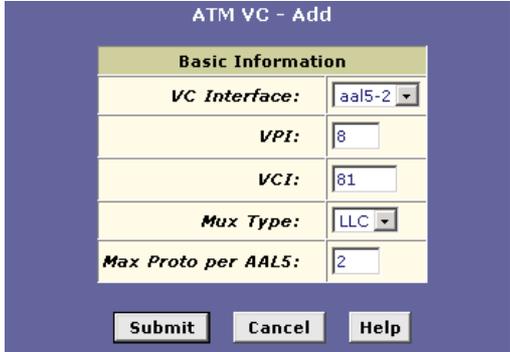
Fig. 3-2

Protocol	RFC1483 Bridge Mode.
WAN IP	The ISP assigns the IP address or have an IP address assigned from an external/internal DHCP server.
Modem IP	192.168.1.1
Gateway IP	None.
VPI/VCI	8/81

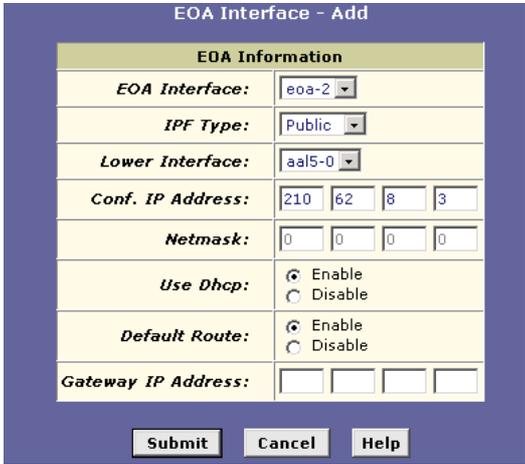
Table 3-2

Step	Action
1.	<p>Click on the WAN tab to view its sub-menu's and configure the WAN settings, then click on the ATM VC link below it.</p>
2.	<p>The ATM VC Configuration table appears. Click on the Add button to add a new VPI/VCI setting.</p>

3. Enter the VPI/VCI values (8/81) into the VPI and VCI text boxes. Then click on the **Submit** button to confirm the changes.


4. Click on the **EoA** link below the **WAN** tab


5. Enter the **IP address** and **subnet mask** based on your ISP settings.
6. Enable **DHCP** and **Default Route** and click on the **Submit** button.


7. Click on the **Services** tab to view its sub-menu's and configure the **NAT** settings, then click on the **NAT** link below it.



8. Select **NAT Entry Rule** from the NAT configuration drop down list. Then click on the **Add** button to add a NAT entry.

NAT Rule Information			
Rule Flavor:	BASIC		
Rule ID:	1		
IF Name:	ALL		
Protocol:	ANY		
Local Address From:	192	168	1 1
Local Address To:	255	255	255 255
Global Address From:	210	62	8 2
Global Address To:	210	62	8 3

Submit Cancel Help

- Select a **Rule Flavor** from the drop down list (Basic)
- **Rule ID**: Enter a number here
- **Local Address From**: Address from where this device will receive IPs
- **Local Address to**: 255.255.255.255 (broadcast) or other
- **Login Name**: Enter username here (from ISP)
- **Global Address From**: Global Address from where this device will receive IPs
- **Global Address To**: Global Address where this device will send its packets

9. Click on the **Submit** button to confirm the changes.

3.4 PPPoA ROUTE CONFIGURATION

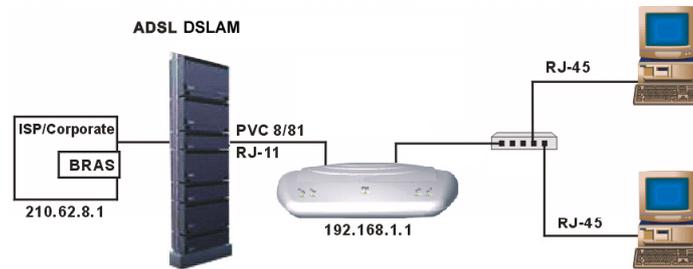


Fig. 3-3

Protocol	PPPoA Route Mode
LAN IP	192.168.1.xxx
Modem IP	192.168.1.1
Gateway IP	Not required
VPI/VCI	8/81
Username	From ISP
Password	From ISP

Table 3-3

Step	Action
1.	<p>Click on the Routing tab to view its sub-menu's and configure the Routing settings, then click on the ATM VC link below it.</p> 
2.	<p>The ATM VC Configuration table appears. Click on the Add button to add a new VPI/VCI setting.</p>

3. Enter the VPI/VCI values (8/81) into the VPI and VCI text boxes. Then click on the **Submit** button to confirm the changes

Basic Information	
VC Interface:	aal5-2
VPI:	8
VCI:	81
Mux Type:	LLC
Max Proto per AAL5:	2

Submit Cancel Help

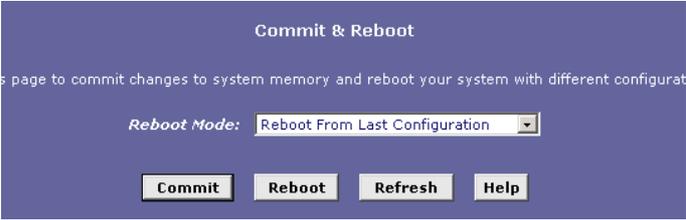
4. Click on the **PPP** link in the **Routing** tab and then click on the **Add** button to add a **PPPoA** configuration.

Basic Information	
PPP Interface:	ppp-1
ATM VC:	aal5-0
IPF Type:	Public
Status:	Start
Protocol:	<input checked="" type="radio"/> PPPoA <input type="radio"/> PPPoE
Service Name:	
Use Dhcp:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Use DNS:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Default Route:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable

Security Information	
Security Protocol:	PAP CHAP
Login Name:	user
Password:	*****

Submit Cancel Help

- **Select an Interface Name:** PPP-1
- **Select a Protocol:** PPPoA
- **Default Route:** Enable
- **Security Protocol:** Select PAP or CHAP

	<ul style="list-style-type: none">– Login Name: Enter username here (from ISP)– Password: Enter password here (from ISP)
5.	Click on the Submit button to confirm the changes.
6.	Click on the Admin tab to view its sub-menu's and configure the bridging settings, then click on the Commit & Reboot link below it. 
7.	Select the Reboot from last configuration option from the drop down list and the click on the Commit and Reboot button. 

3.5 IPoA ROUTE CONFIGURATION

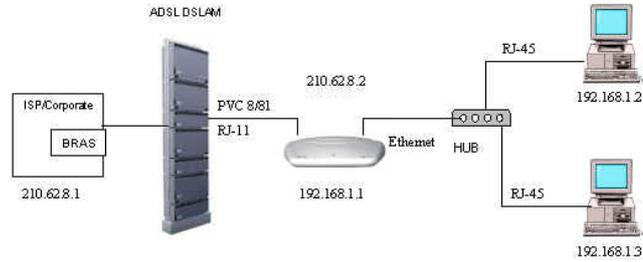


Fig. 3-4

Protocol	IPoA Route Mode
LAN IP	192.168.1.xxx
Modem IP	192.168.1.1
Gateway IP	210.62.8.1
VPI/VCI	8/81
WAN IP	210.62.8.2

Table 3-4

Step	Action
1.	<p>Click on the Routing tab to view its sub-menu's and configure the Routing settings, then click on the ATM VC link below it.</p> 
2.	<p>The ATM VC Configuration table appears. Click on the Add button to add a new VPI/VCI setting.</p>

3. Enter the VPI/VCI values (8/81) into the VPI and VCI text boxes. Then click on the **Submit** button to confirm the changes

ATM VC - Add

Basic Information	
VC Interface:	aal5-2
VPI:	8
VCI:	81
Mux Type:	LLC
Max Proto per AAL5:	2

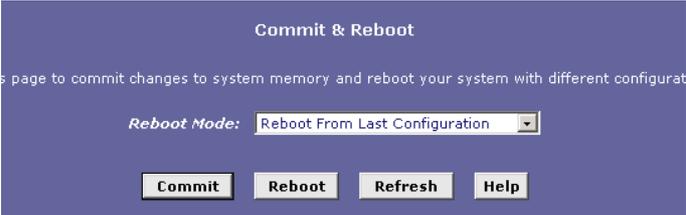
4. Click on the **IPoA** link in the **Routing** tab and then click on the **Add** button to add an **IPoA** configuration.

IPoA Interface - Add

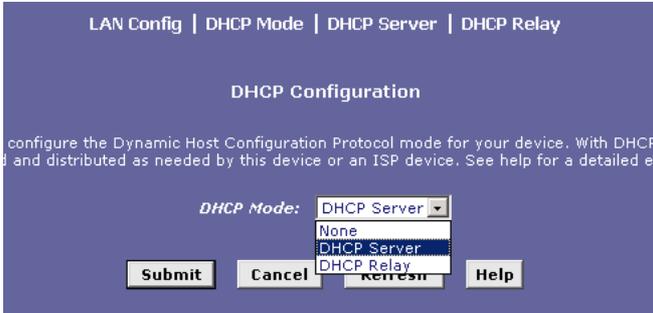
IPoA Information					
IPoA Interface:	ipoa-0				
Conf. IP Address:	210 62 8 1				
IPF Type:	Public				
Netmask:	255 255 255 0				
IPoA Type :	<input type="radio"/> 1577 <input checked="" type="radio"/> Non 1577				
Default Route:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable				
Gateway IP Address:	210 62 8 2				
Lower Interface:	<table border="1"> <thead> <tr> <th>Lower I/F</th> <th>Action</th> </tr> </thead> <tbody> <tr> <td>aal5-0</td> <td><input type="button" value="Add"/></td> </tr> </tbody> </table>	Lower I/F	Action	aal5-0	<input type="button" value="Add"/>
Lower I/F	Action				
aal5-0	<input type="button" value="Add"/>				

 - Select an **Interface Name**: IPoA-0
 - **Conf. IP Address**: From ISP
 - **Net mask**: From ISP
 - **Gateway IP Address**: From ISP
 - **Login Name**: Enter username here (from ISP)
 - **Lower Interface**: Select aal5-0

5. Click on the **Submit** button to confirm the changes.

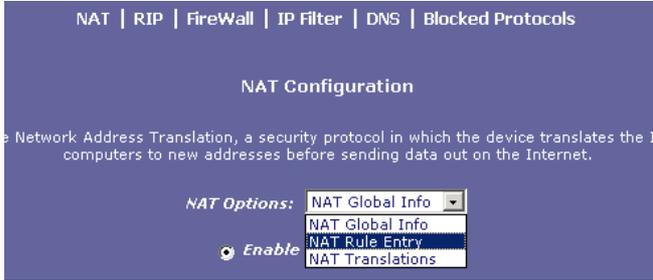
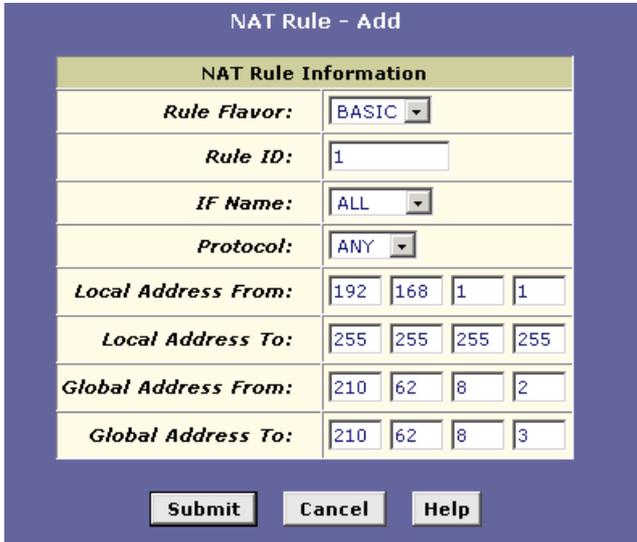
<p>6.</p>	<p>Click on the Admin tab to view its sub-menu's and configure the bridging settings, then click on the Commit & Reboot link below it</p>  <p>The screenshot shows a navigation bar with tabs for Home, LAN, WAN, Bridging, Routing, Services, and Admin. Below the Admin tab, a sub-menu is displayed with options: User Config, Commit & Reboot, Image Upgrade, Alarm, Diagnostics, and Port Settings. The 'Commit & Reboot' option is highlighted.</p>
<p>7.</p>	<p>Select the Reboot from last configuration option from the drop down list and the click on the Commit and Reboot button.</p>  <p>The screenshot shows the 'Commit & Reboot' page. It contains a dropdown menu labeled 'Reboot Mode:' with 'Reboot From Last Configuration' selected. Below the dropdown are four buttons: 'Commit', 'Reboot', 'Refresh', and 'Help'.</p>

3.6 DHCP CONFIGURATION

Step	Action
1.	<p>Click on the LAN tab to view its sub-menu's and configure the LAN settings, then click on the DHCP Mode link below it.</p> 
2.	<p>From the drop down list, select DHCP Server and click on the Submit button.</p> 
3.	<p>Click on the DHCP Server link under the LAN tab and click on the Add button.</p> 

	<p>Ethernet</p> <ul style="list-style-type: none">– Start IP Address: Enter the Start IP Address (192.168.1.2)– End IP Address: Enter the End IP Address (192.168.1.33)– Net mask: Based on IP address (255.255.255.0)– Domain Name: Enter a name here– Gateway IP Address: Enter a Gateway IP Address here <p>USB</p> <ul style="list-style-type: none">– Start IP Address: Enter the Start IP Address (192.168.2.2)– End IP Address: Enter the End IP Address (192.168.2.33)– Net mask: Based on IP address (255.255.255.0)– Domain Name: Enter a name here– Gateway IP Address: Enter a Gateway IP Address here
4.	Click on the Submit button to confirm the changes.
5.	Click on the Admin tab to view its sub-menu's and configure the bridging settings, then click on the Commit & Reboot link below it. 
6.	Select the Reboot from last configuration option from the drop down list and the click on the Commit and Reboot button. 

3.7 NAT CONFIGURATION

Step	Action
1.	<p>Click on the Services tab to view its sub-menu's and configure the NAT settings, then click on the NAT link below it.</p> 
2.	<p>From the NAT Options drop down list, select NAT Rule Entry.</p> 
3.	<p>Click on the Add button to add a new NAT Rule Entry.</p>  <ul style="list-style-type: none"> - Rule Flavor: Select a Rule flavor from the drop down list (Basic) - Rule ID: Enter a number here - Local Address From: Address from where this device will receive IPs - Local Address To: 255.255.255.255 (broadcast) or other

	<ul style="list-style-type: none">- Login Name: Enter username here (from ISP)- Global Address From: Global Address from where this device will receive IPs- Global Address To: Global Address where this device will send its packets
4.	Click on the Submit button to confirm the changes.

4 USB DRIVER INSTALLATION

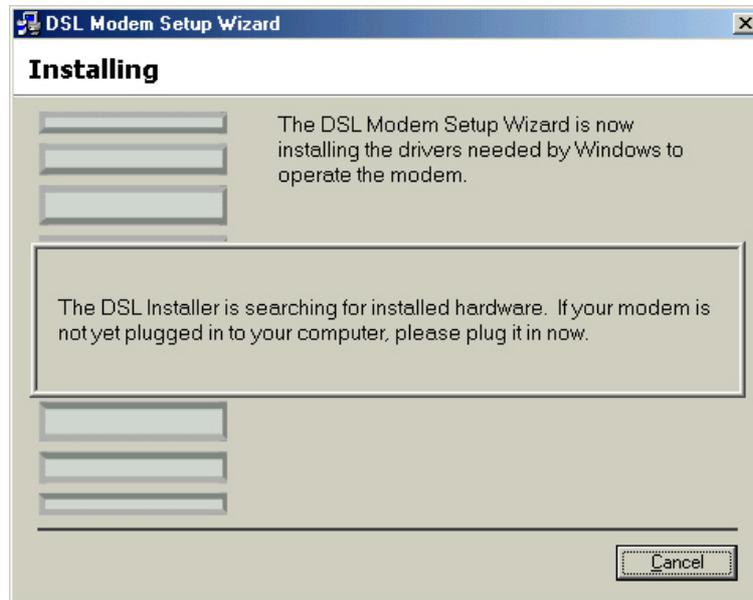
4.1 INSTALLATION

The jetSpeed 520 installation procedure is same for Windows 98 (Second Edition)/ ME/ 2000/ XP.

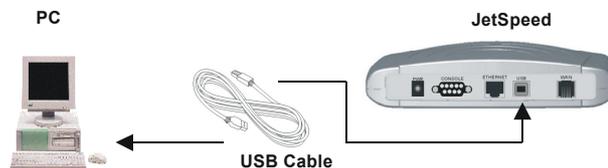
Follow the steps below in order to install the USB driver.

Step	Action
1.	<p>Insert the Installation CD into your CD-ROM drive. The installation begins automatically and the Welcome screen appears.</p> <hr/> <p>NOTE: If the installation does not begin automatically, right click on Start and choose Explore. Then select your CD-ROM drive from the list and double click on the setup.exe file. The installation process begins and the Welcome screen appears.</p> <hr/> 

2. Click on the **Next** button to continue. The **Installing** screen appears.



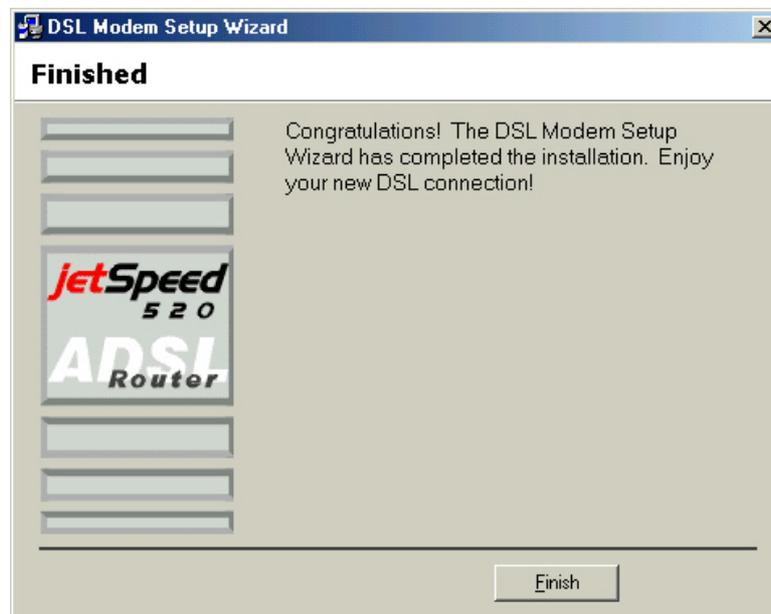
3. The DSL installer prompts you to plug in the USB cable into the device. Plug in the rectangular end of the USB cable in the USB port of your PC and the square end of the USB cable into the port labelled **USB** on the jetSpeed 520.



4. The ADSL installer will continue to install the USB driver. After a few seconds, a new screen will inform you that you must reboot your computer. Click on the **Close** to reboot your computer.



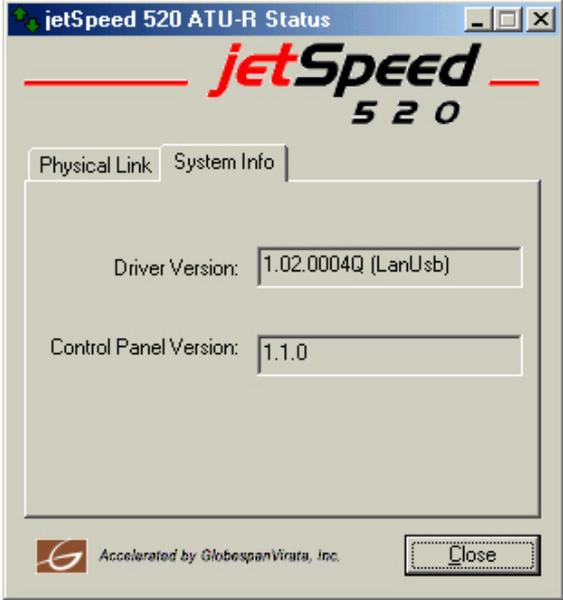
5. As soon as the system starts, the **Finished** screen appears. Click on the **Finish** button to complete the installation.



4.2 ADSL STATUS

In order to view the status of this device you need to run the control panel that is provided with this device.

Step	Action															
1.	<p>To run the control panel click on the Start button > Programs > jetSpeed 520 ADSL Modem > ADSL Status. The following screen appears.</p> <div data-bbox="625 674 1177 1267" data-label="Image"><p>The screenshot shows a window titled "jetSpeed 520 ATU-R Status". It features the "jetSpeed 520" logo at the top. Below the logo are two tabs: "Physical Link" (selected) and "System Info". The "Physical Link" tab displays the following information:</p><table border="1"><tr><td>State:</td><td colspan="2">Connected</td></tr><tr><td></td><td>Transmit</td><td>Receive</td></tr><tr><td>Data Rate (kbps):</td><td>0</td><td>0</td></tr><tr><td>Local Bytes:</td><td>122</td><td>31</td></tr><tr><td>Local Errors:</td><td>0</td><td>0</td></tr></table><p>At the bottom of the window, there is a logo for "Accelerated by GlobespanVirata, Inc." and a "Close" button.</p></div> <p>The Physical Link tab displays the connection state, data rate, bytes transferred and errors.</p>	State:	Connected			Transmit	Receive	Data Rate (kbps):	0	0	Local Bytes:	122	31	Local Errors:	0	0
State:	Connected															
	Transmit	Receive														
Data Rate (kbps):	0	0														
Local Bytes:	122	31														
Local Errors:	0	0														

<p>2.</p>	<p>Click on the System Info tab to view the USB driver and control panel version.</p> 
<p>3.</p>	<p>Click on the Close button when completed.</p>

4.3 UNINSTALLATION

Step	Action
1.	<p>In order to uninstall this device click on the Start button > Programs > DSL Modem > Uninstall. The following message appears.</p> 
2.	<p>Click on the Yes button to confirm the uninstallation. You will then see the following message.</p> 
3.	<p>The above message is to remind you not to unplug the device until the uninstallation is complete. Click on the OK button to continue. The uninstallation will then continue.</p>
4.	<p>The following message will then appear:</p> 

<p>5.</p>	<p>At this point, unplug the modem and then click on the OK button. The Reboot screen appears.</p> 
<p>6.</p>	<p>Select the Yes, reboot the computer now radio box and then click on the Close button. This will then restart you computer. The USB driver is now been successfully uninstalled.</p>

APPENDIX – SPECIFICATIONS

Hardware Specifications

LAN Interface

Supported Interfaces	IEEE 802.3 Ethernet 10/100 BaseT (RJ-45)
	USB, specification 1.1

WAN ADSL Line Interface

Supported Standards	<ul style="list-style-type: none"> • For POTS line ITU G.992.1 (G.dmt) Annex A ITU G.992.2 (G.lite) ANSI T1.413 issue 2 • For ISDN Line ITU G.992.1 (G.dmt) Annex B ETSI TS 101 388 Deutsche Telekom U-R2
Line Impedance	100 Ω
Connection Loop	One Pair (2-wire)
Connector	RJ-11 for Annex A RJ-45 for Annex B
Automatic-rate Adaptation	

Indicators

PWR (Green LED)	Power Status
USB (Green LED)	USB Link Status
LAN (Green LED)	LAN Link Status
WAN (Green LED)	ADSL Data Link Status
ALM (Green LED)	Data Error and Operation Status

OAM&P

Local	RS-232, Telnet via Ethernet or Web management
Remote	Telnet or Web management

Environmental Conditions

Operation Temperature	0°C ~ 45°C
Operation Humidity	5% ~ 95%
Storage Temperature	-20 ~ +85°C
Storage Humidity	5%~95%

Power Requirements

AC Adapter <ul style="list-style-type: none">• Input• Output	230VAC/50Hz 15VAC 1A
Power Consumption	5% ~ 95%

Mechanical Specifications

Width	180 mm
Depth	143 mm
Height	42 mm

Certificates

Certificates	CE CB FCC Part 15 Class B UL
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Software Specifications

ATM

- ATM Cell over ADSL, AAL5
- Supports UBR/GFR, CBR, VBR-rt and VBR-nrt
- VPI Range (0-4095) and VCI range (1-65535)
- Supports up to 8 PVCs (Bridge Mode), 5 PVCs (Router Mode)
- Support OAM F4/F5, AIS, RDI and loopback cells
- Supports Bit Swap
- Payload Encapsulation
 - RFC2684 (RFC1483), multi-protocol over ATM
 - RFC2225 (RFC1577), IPoA
 - RFC2364, PPP over ATM (CHAP and PAP supported)
 - RFC2516, PPPoE (PPP over Ethernet) over ATM

Bridging

- Transparent Bridging (IEEE 802.1D)
- RFC2684 (RFC1483) Bridged
- Spanning Tree Protocol (IEEE 802.1D)
- Supporting IP, IGMP v1/v2 and PPPoE packets filter function

Routing

- Routing Information Protocol (RIP) v1/v2 and Static Routing
- NAT/PAT – RFC1631 (basic firewall support)
- Supports Point-to-Point Protocol (PPP)
- PAP or CHAP for user authentication
- RFC2684 (RFC1483) Routed
- DNS relay

Security

- Raw IP filtering, SPI,
- VPN supports IPsec Pass through, L2TP Client/Server & L2TP/PPTP Pass Through
- DoS(UDP/TCP), Detection of Known Attacks
- Detects port attack
- ID Password Authentication

Configuration and Network Management

- DHCP server for IP management
- FTP, TFTP, Telnet for local or remote management
- TFTP for firmware upgrade
- Web configuration
- SNMP v1 and MIB II (RFC 1213)
- Auto Detect – VCI/VPI Setup
- Auto Detect – PPPoA Setup
- Command Line Interface

DECLARATION OF CONFORMITY

Hereby, INTRACOM S.A. declares that the jetSpeed 520/520i is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

For further information please visit the web page <http://emc.intracom.gr/>

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