

VERSALINKTM WIRELESS GATEWAY (MODEL 327W)

USER GUIDE



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1. PRODUCT DESCRIPTION

The Verizon[®] VersaLink[™] Wireless Gateway provides reliable, high-speed, Internet access to your existing small office phone line and is capable of data rates hundreds of times faster than a traditional analog modem. But unlike analog modems, the VersaLink Gateway allows you to use the same phone line for simultaneous voice/fax communications and high-speed Internet access, eliminating the need for dedicated phone lines for voice and data needs. In addition, VersaLink supports a variety of networking interfaces such as Wireless 802.11b/g, ADSL, Ethernet and the following optional features:

- UPLINK/E1: Alternate WAN uplink port
- Layer w/2 QOS with VLAN tagging
- HotSpot
- Simultaneous public/private network support

Hereafter, the Verizon® VersaLink[™] Wireless Gateway will be referred to as "VersaLink," "Router," or "Modem."

2. SAFETY INSTRUCTIONS

- Never install any telephone wiring during a lightning storm.
- Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
- Never touch non-insulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
- Use caution when installing or modifying telephone lines.



Risk of electric shock. Voltages up to 140 Vdc (with reference to ground) may be present on telecommunications circuits.



3. REGULATORY INFORMATION

3.1 FCC Compliance Note

(FCC ID: CH8D90327WXXX-06)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the Federal Communication Commission (FCC) Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to a different circuit from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

WARNING: While this device is in operation, a separation distance of at least 20 cm (8 inches) must be maintained between the radiating antenna and users exposed to the transmitter in order to meet the FCC RF exposure guidelines. Making changes to the antenna or the device is not permitted. Doing so may result in the installed system exceeding RF exposure requirements. This device must not be co-located or operated in conjunction with any other antenna or radio transmitter. Installers and end users must follow the installation instructions provided in this guide.

Modifications made to the product, unless expressly approved, could void the users' rights to operate the equipment.

PART 68 – COMPLIANCE REGISTRATION

This equipment is designated to connect to the telephone network or premises wiring using a compatible modular jack that is Part 68 compliant. A FCC compliant telephone cord and modular plug is provided with the equipment. See the Installation Information section of this User Guide for details.

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instruction for details.

If this terminal equipment (Model 327W) causes harm to the telephone network, the telephone company may request you to disconnect the equipment until the problem is resolved. The telephone company will notify you in advance if temporary discontinuance of service is required. If advance notification is not practical, the telephone company will notify you as soon as possible. You will be advised of your right to file a complaint with the FCC if you believe such action is necessary. If you experience trouble with this equipment (Model 327W), do not try to repair the equipment yourself. The equipment cannot be repaired in the field. Contact Verizon for instructions.

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The telephone company may make changes to their facilities, equipment, operations, or procedures that could affect the operation of this equipment. If this happens, the telephone company will provide advance notice in order for you to make the modifications necessary to maintain uninterrupted service.

If your home has specially wired alarm equipment connected to the telephone line, ensure that the installation of this equipment (Model 327W) does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

This equipment cannot be used on public coin phone service provided by the telephone company. Connection of this equipment to party line service is subject to state tariffs.

3.2 Canada Certification Notice

The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operations and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The department does not guarantee the equipment will operate to the user's satisfaction.

This equipment meets the applicable Industry Canada Terminal Equipment Technical Specification. This is confirmed by the registration number. The abbreviation, IC, before the registration number signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specifications were met. It does not imply that Industry Canada approved the equipment. The Ringer Equivalence Number (REN) is 0.0. The Ringer Equivalence Number that is assigned to each piece of terminal equipment provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed five.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local Telecommunication Company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations. Connection to a party line service is subject to state tariffs. Contact the state public utility commission, public service commission, or corporation commission for information.

If your home has specially wired alarm equipment connected to the telephone line, ensure that the installation of this equipment (Model 327W) does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

If you experience trouble with this equipment (Model 327W), do not try to repair the equipment yourself. The equipment cannot be repaired in the field and must be returned to the manufacturer. Repairs to certified equipment should be coordinated by a representative, and designated by the supplier. Contact Verizon for instructions.

The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed five.

Users should ensure, for their own protection, that the electrical ground connections of the power utility, telephone lines, and internal, metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.



Users should not attempt to make such connections themselves, but should contact the appropriate electrical inspection authority, or electrician, as appropriate.



VersaLink Wireless Gateway (Model 327W)

4. NETWORKING REQUIREMENTS

The following system specifications are required for optimum performance of the Router via 10/100 Base-T Ethernet or USB installations.

Connection Type	Minimum System Requirements
ETHERNET	 Pentium® or equivalent class machines or higher Microsoft® Windows® (Vista™, XP, 2000, ME, NT 4.0, 98 SE)
(UPLINK/E1, E2, E3, E4)	Macintosh® OS X, or Linux installed 64 MB RAM (128 MB recommended) 10 MB of free hard drive space 10/100 Base-T Network Interface Card (NIC) Internet Explorer 5.5 or later or Netscape Navigator 7.x or later Computer Operating System CD-ROM on hand
WIRELESS	 Pentium® or equivalent class or higher machines Microsoft® Windows® (Vista[™],XP, 2000, ME, NT 4.0, 98 SE) or
IEEE 802.11b/g	Macintosh® OS X installed 64 MB RAM (128 MB recommended) 10 MB of free hard drive space Internet Explorer 5.5 or Netscape Navigator 7.x or later An available IEEE 802.11b/g PC adapter Computer Operating System CD-ROM on hand

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5. HARDWARE FEATURES

5.1 LED Indicators

This section explains the LED States and Descriptions. LED indicators are used to verify the unit's operation and status.

LED	State	Description
	Solid Green	Router power is ON.
	OFF	Router power is OFF.
POWER	Solid Red	POST (Power On Self Test), Failure (not bootable) or Device Malfunction. Note: The Power LED should be red no longer than two seconds after the power on self test passes.
E1, E2, E3, E4 (Ethernet LAN)	Solid Green	Powered device is connected to the associated port (includes devices with wake-on LAN capability where slight voltage is supplied to an Ethernet connection). Note: When using the optional uplink port (E1), Ethernet LAN connection is limited to E2, E3, and E4.
-	Flashing Green	10/100 Base-T LAN activity is present (traffic in either direction)
	OFF	Router power is OFF, no cable or no powered device is connected to the associated port.
	Solid Green	Link Established.
WIRELESS	Flashing Green	Wireless LAN activity is present (traffic in either direction).
	OFF	Router power is OFF or No Link.
	Solid Green	Good DSL link.
DSL	Flashing Green	DSL attempting to sync.
DSL	Solid Amber	Modem is in safeboot mode.
	OFF	Router power is OFF.
	Solid Green	Internet link established. With DSL up, the Router has a WAN IP address from IPCP or DHCP; or a static IP is configured; or PPP negotiation has successfully completed (if used) and no traffic is detected.
INTERNET	Flashing Green	IP connection established and IP Traffic is passing through device (in either direction). Note: If the IP or PPP session is dropped due to an idle timeout, the light will remain solid green, if an ADSL connection is still present. If the session is dropped for any other reason, the light is turned OFF. The light will turn red when it attempts to reconnect and DHCP or PPP fails).
	Solid Red	Device attempted to become IP connected and failed (no DHCP response, no PPP response, PPP authentication failed, no IP address from IPCP, etc.).
	OFF	Router power is OFF, Router is in Bridge Mode, or the ADSL connection is not present.

LED States and Descriptions



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5.2 Cable Connectors and Switch Locations

- DSL connector (RJ-11)
- Reset push button
- (4) Ethernet connectors (RJ-45) optional uplink port
- (4) Ethernet connector (RJ-45) with optional UPLINK/E1 uplink port

NOTE: When using the optional UPLINK/E1 jack (when VersaLink is configured for WAN Uplink mode), Ethernet LAN connection is limited to ports E2, E3, and E4. The Uplink feature is optional. If Uplink is not enabled via the Web pages, VersaLink will use DSL as the WAN interface.

- Power connector (DC 12V) barrel
- OFF/ON power switch
- Wireless 802.11b/g SMA connector and antenna



VersaLink Gateway - Rear View

5.3 Connector Descriptions

The following chart displays the Router's connector types.

SYMBOL	BOL NAME TYPE		FUNCTION
	DSL LINE	6-pin (RJ-11) modular jack	Connects to an ADSL-equipped telephone jack or to the DSL connection of a POTS splitter.
	ETHERNET 8-pin (RJ-45) modular jack		Connects the 10/100 Base-T Ethernet device to a PC or Hub.
⊙€+ DC 12V	POWER	Barrel connector	Connects the DC 12V power connector to an AC wall jack.
Wireless	Antenna	SMA connector and antenna	Connects via wireless 802.11 b/g



6. INSTALLING THE HARDWARE

This section explains the hardware installation procedures for connecting to your Router.

6.1 Installation Requirements

To install the VersaLink, you will need the following:

- Active DSL line
- Network Interface Card (NIC) installed in your PC, or
- 802.11 b/g wireless adapter

IMPORTANT: Please wait until you have received notification from your Internet service provider (ISP) that your DSL line has been activated before installing your VersaLink.

6.2 Before you begin

Make sure that your kit contains the following items:

- Verizon VersaLink Wireless Gateway
- Power Supply
- RJ-45 Ethernet cable (straight-through) (yellow)
- RJ-11 Phone cable
- Verizon CD-ROM containing User Guide in PDF format
- Wireless antenna

6.3 Microfilters

ADSL signals must be blocked from reaching each telephone, answering machine, fax machine, computer Modem or any similar conventional device. Failure to do so may degrade telephone voice quality and ADSL performance. Install a microfilter if you desire to use the DSL-equipped line jack for telephone, answering machine, fax machine or other telephone device connections. Microfilter installation requires no tools or telephone rewiring. Just unplug the telephone device from the baseboard or wall mount and snap in a microfilter, next snap in the telephone device. You can purchase microfilters from your local electronics retailer, or contact the original provider of your DSL equipment.

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6.4 Hardware Installations

The following instructions explain how to install your VersaLink Gateway using 10/100 Base-T Ethernet, Wireless, or Ethernet Uplink connections. Before you begin, please read the following notes:

NOTE:

- 1. If your Ethernet card does not auto-negotiate, set it to half duplex. Refer to the Ethernet card manufacturer's instructions for installing and configuring your Ethernet card.
- 2. If you are using VersaLink in conjunction with an Ethernet Hub or Switch, refer to the manufacturer's instructions for proper installation and configuration.
- 3. When using a Microfilter, confirm that the DSL RJ-11 phone cable is connected to the DSL port of the DSL/HPN non-filtered jack.
- 4. It is recommended that you use a surge suppressor to protect equipment attached to the power supply. Use only the power supply provided with your kit.
- 5. Additional Ethernet cables may be required depending on the installation method you are using. Ethernet cables and filters can be purchased at your local computer hardware retailer.
- 6. VersaLink supports simultaneous use of 10/100 Base-T Ethernet and Wireless configurations. To use this installation method, follow the instructions provided in sections 6.4.1 and 6.4.2.

VersaLink supports two modes for WAN access, which are configurable through VersaLink's Web pages: (1) LAN Ethernet port mode and (2) WAN Uplink port mode.

- LAN Ethernet port mode allows you to use VersaLink's DSL port for WAN access (VersaLink's DSL functionality is Enabled). In this mode you should install VersaLink according to the instructions in the following sections:
 - Section 6.4.1, Connecting VersaLink via 10/100 Base-T Ethernet
 - Section 6.4.2, Connecting VersaLink via Wireless
- WAN Uplink port mode allows you to use VersaLink as an Ethernet Gateway (for example, to connect to a cable modem or to another ADSL device that provides WAN access). In WAN Uplink port mode, VersaLink's DSL functionality is Disabled. In this mode you should install VersaLink according to the instructions in section 6.4.3, "Connecting VersaLink via UPLINK/E1."



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6.4.1 Connecting VersaLink via 10/100 Base-T Ethernet

To connect your VersaLink using the 10/100-BaseT Ethernet connection, please follow these steps:

1. Connect the DSL phone cable from the connector marked **DSL** on the rear panel of VersaLink to the telephone line jack (equipped with DSL service) on the wall. Please use the DSL phone cable that was provided with your kit.

IMPORTANT: If you use a microfilter, you must plug the RJ-11 DSL phone cable from the VersaLink into the DSL port of the microfilter.

- Connect the yellow Ethernet cable (provided with your kit) from any one of the four Ethernet jacks marked E1, E2, E3, or E4 on the rear panel of VersaLink to the Ethernet port on your computer. Repeat this step to connect up to three additional PCs to VersaLink; each jack serves as an Ethernet switch.
- 3. Connect the power supply cord to the power connector marked **DC 12V** on the rear panel of the VersaLink. Plug the other end of the power supply into an AC wall socket, and then turn on VersaLink (if it is not already on).
- 4. Check to see if the VersaLink's **POWER** LED is solid green. This indicates that VersaLink is powered on.
- 5. Check to see if the **DSL** LED is solid green. If the **DSL** LED is solid green, the VersaLink is functioning properly.
- 6. Check to see if the **ETHERNET** LED is solid green. Solid green indicates that the Ethernet connection is functioning properly. Check the **ETHERNET** LED for the Ethernet jack you are using on VersaLink.
- 7. After you have logged on to your account and established an Internet connection, as explained later in section 8, check to see if the Router's **INTERNET** LED is solid green. Solid green indicates that an Internet link has been established. (Flashing green indicates the presence of IP traffic.)

Congratulations! You have completed the Ethernet hardware installation. No software installation is required when using only an Ethernet connection. Now proceed to section 7 to access VersaLink's Web pages.

6.4.2 Connecting VersaLink via Wireless

IMPORTANT: If you are connecting to VersaLink via a wireless network adapter, the SSID must be the same for both VersaLink and your PC's wireless network adapter. The default SSID for VersaLink is the serial number of the unit (located below the bar code on the bottom of the modem and also on the shipping carton). Locate and run the utility software provided with your PC's Wireless network adapter and enter the SSID value. The PC's wireless network adapter must be configured with the SSID (in order to communicate with VersaLink) before you begin the account setup and configuration procedures. Later, for privacy you can change the SSID by following the procedures outlined in section 12, "Wireless Settings."

NOTE: Client PCs can use any Wireless 802.11b/g card to communicate with VersaLink. The Wireless card and VersaLink must use the same Wired Equivalent Privacy (WEP) security code type. The factory default for WEP is Enabled. Please be sure that your computer's wireless adapter is configured properly for whichever network setting you use: WEP or WPA. You can access the settings in the advanced properties of the wireless network adapter.

To network VersaLink to computers in your home or office using a wireless installation, you will need to confirm the following:

- 1. Ensure that each PC on your wireless network has an 802.11b/g wireless network adapter installed.
- 2. Ensure that appropriate drivers for your wireless adapter have been installed on each PC.



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- 3. Make sure the wireless antenna is screwed on to the connector on the rear of the modem and firmly locked into place. Then, orient the antenna to appropriate position.
- 4. Connect the DSL phone cable from the connector marked **DSL** on the rear panel of VersaLink to the telephone line jack (equipped with DSL service) on the wall. Please use the DSL phone cable that was provided with your kit.

IMPORTANT: If you use a microfilter, you must plug the RJ-11 DSL phone cable from the VersaLink into the DSL port of the microfilter.

- 5. Connect the yellow Ethernet cable (provided with your kit) from any one of the four Ethernet jacks marked E1, E2, E3, or E4 on the rear panel of VersaLink to the Ethernet port on your computer. Repeat this step to connect up to three additional PCs to VersaLink; each jack serves as an Ethernet switch.
- 6. Connect the power supply cord to the power connector marked **DC 12V** on the rear panel of the VersaLink. Plug the other end of the power supply into an AC wall socket, and then turn on VersaLink (if it is not already on).
- 7. Check to see if VersaLink's **POWER** LED is solid green. This indicates that VersaLink is powered on.
- 8. Check to see if VersaLink's **DSL** LED is solid Green. If the **DSL** LED is solid Green, VersaLink is functioning properly.
- 9. Check to see if the **ETHERNET** LED is solid green. Solid green indicates that the Ethernet connection is functioning properly. Check the **ETHERNET** LED for the Ethernet jack you are using on the VersaLink.
- 10. Check to see if VersaLink's **WIRELESS** LED is solid Green. This means that the Wireless interface is functioning properly.
- 11. After you have logged on to your account and established an Internet connection, as explained later in section 8, check to see if VersaLink's **INTERNET** LED is solid green. Solid green indicates that an Internet link has been established. (Flashing green indicates the presence of IP traffic.)

Congratulations! You have completed the Wireless installation for VersaLink. Now proceed to section 7 to access VersaLink's Web pages.

6.4.3 Connecting VersaLink via UPLINK/E1

The Uplink feature is optional. If you want to install your Router so that it uplinks to another ADSL device, follow the steps outlined below:

1. Connect the attached ADSL device to the ADSL-equipped jack on the wall, using the RJ-11 phone cord that was provided with the kit. If you are using a microfilter at the wall jack, you must connect the RJ-11 DSL phone cable from the DSL port of the ADSL device to the DSL port of the microfilter.

NOTE: The ADSL device to which you are connecting will function as your WAN interface to the Internet. Be sure you have connected the ADSL device appropriately. If needed, refer to the manufacturer's instructions.

2. Connect the yellow Ethernet cable (provided with your kit) from the Ethernet jack marked **UPLINK/E1** on the rear panel of VersaLink to the Ethernet port on the attached ADSL device, and then turn on the power switch of the attached ADSL device (if it is not already on).

NOTE: Later, in VersaLink's Web pages, be sure to select WAN Uplink port mode to allow VersaLink to uplink to the ADSL device. When VersaLink is configured for WAN Uplink port mode, VersaLink's DSL transceiver will not be used. The ADSL device to which VersaLink is connected will be your WAN interface to the Internet. LAN Ethernet port is VersaLink's factory default setting, refer to section 13.2.3 for details.



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- 3. Connect an Ethernet cable from any one of the three Ethernet jacks marked **E2**, **E3**, **or E4** on the rear panel of the VersaLink to the Ethernet port on your computer. Repeat this step to connect up to three additional PCs to VersaLink; each jack serves an Ethernet switch.
- 4. Connect the power supply cord to the power connector marked **DC 12V** on the rear panel of the VersaLink. Plug the other end of the power supply into an AC wall socket, and then turn on the power (if it is not on).
- 5. Check to see if the VersaLink's **POWER** LED is solid green. This indicates that VersaLink is powered on.
- 6. Check to see if the **ETHERNET** LED is solid green. Solid green indicates that the Ethernet connection is functioning properly. Check the **ETHERNET** LED for the Ethernet jack you are using on VersaLink.
- 7. After you have logged on to your account and established an Internet connection, as explained later in section 7, check to see if the VersaLink's **INTERNET** LED is solid green. Solid green indicates that an Internet link has been established. (Flashing green indicates the presence of IP traffic.)

Congratulations! You have completed the UPLINK/E1 installation for VersaLink. No software installation is required when using the UPLINK connection. Now proceed to section 7 to access VersaLink's Web pages.



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7. ACCESSING VERSALINK

7.1 Logging on to VersaLink

This section explains the logon procedures for your VersaLink. This procedure should be used any time you want to access or make changes to VersaLink's configurations or firewall settings.

IMPORTANT: VersaLink is capable of automatically sensing protocol type (DHCP or PPPoE). This process is designed to start after you have connected VersaLink. To access VersaLink, your PC must be configured for DHCP. Refer to your Windows help screen for information on configuring your computer for DHCP. At your PC, click **Start**, then **Help** to access the Windows help screen.

To log on to VersaLink, start your Web browser and type the following IP address in the browser's address bar:

http://192.168.1.1

After you type the IP address, press **Enter** on your keyboard. The following **Modem Secure** screen will appear. Type the default user name (which is **admin**) and the default password (which is **password**) in the fields provided. Click **OK**.

NOTE: Hereafter, the VersaLink Wireless Gateway will be referred to as the "Router" or "Modem."





VersaLink Wireless Gateway (Model 327W)

7.2 Changing the Password

After you have clicked **OK** in the **Modem Secure** screen, the following **User Settings** screen will appear. This screen allows you to change the default administrator name and password to the values of your choice. The password change is required to continue your network logon. If the Router is password protected and you are not an authorized user, you will not be able to change the values in this screen. The Router cannot be configured unless an authorized user is logged in. If necessary, contact your network administrator for further instructions.

IMPORTANT:

- 1. The User Settings screen allows you to use admin as your administrator name (your administrator name can match your user name). However, this screen does not allow you to use "password" as your administrator password. If you enter password in the fields, this screen will not continue the logon. You must enter a different password in order for this screen to take effect. The values in these fields are case sensitive. Once you decide on an administrator name and password, please record them for future reference.
- 2. This feature changes the Administrator's password, not the PPP password.

Type your administrator **User Name** and **Password** in the fields provided. The password fields will be masked for security purposes.

Versal ink Wireless Gatewa File Edk View Pavorites	Tools Help	xplorer EEEE My Network	Firewall Settings	Advanced	System Monitoring		
Main User Settings		General Full Name : User Name (case sensit New Password: Retype New Password;	ive):	ngs ristrator			Type admin or the name of your choice. Type a new password. (Do not type the word password here.)
K Done						v ■ Internet	



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File Edit View Favorites	Tools Help					A.
vei	rizon					(A)
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main User Settings			User Settings	1		
User settings		General				
		Full Name:	Administr	ator		
		User Name (case sensitive):	admin			
		New Password:	•••••			
		Retype New Password:	•••••			
			Apply Cano	el		
<						Internet
C Done						Juncernec

After you have entered the desired values, click **Apply**.

If you clicked **Apply**, the following pop-up screen will appear. Click **OK** to allow the changes to take effect.

Microso	ft Internet Explorer 🛛 🔀
2	Are you sure you want to change the User Name and Password?
	OK Cancel



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If you clicked **OK** in the pop-up screen, the following screen will appear. This is the main page of your Router's Web pages, also referred to in this document as the home page. You can access this page by clicking **Main** in the navigational menu located across the top of the Router's Web pages. Details on this page will explained in the following sections.





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8. CONFIGURING YOUR BROADBAND CONNECTION

To browse the Internet using your Router, you must confirm your DSL connection, set up your account profile, and establish a DHCP or PPP session with your Internet service provider (ISP). The procedures for configuring your Router's connection settings are explained in this section.

8.1 Confirming Your DSL Connection

After you have logged on to the Router and changed your administrator password, as explained in section 7, the following home page will appear. Use this page to determine the status of your DSL and Internet connections.

IMPORTANT: You must have active DSL service before the Router can synchronize with Verizon's equipment.

To determine if the Router has established a DSL link, do any of the following:

- In the **My Modem** panel of the **Main** page, view the **DSL link** field. If the status reads **Not Connected**, you do not have a DSL link. However, if **DSL Link** field displays **Connected** and the **Speed (Down/Up)** field displays numeric values, a DSL link has been established. The values displayed represent the transmission rates of your DSL signal, downstream and upstream. (You may need to wait a brief moment for the Router to report these values.)
- At the front of the Router, check to see if the Router's DSL LED is solid green. Solid green indicates that the Router's DSL connection has been established. (The DSL LED may flash while the connection is being established.) Please wait a brief moment for the Router to connect.





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After confirming your DSL link, DHCP customers can now browse the Internet. However, PPP customers will need to complete further instructions, as explained in the following note.

NOTE: If the Router has established a DSL link and if you are connecting to the Internet via DHCP, you can now browse the Internet by following the instructions provided by Verizon. However, if you are connecting to the Internet via PPP, please proceed to section 8.2 to configure your Router's broadband connection settings. After you have configured the broadband settings and connected to the Internet, view the **My Modem** panel; the **Internet Status** field will display **Connected**.

8.2 Setting Up an Account Profile

Your account profile is used to identify you to Verizon. To begin your account setup, go to the **My Modem** panel in the home page. Next, click the **Not Connected** link.

NOTE: Before you set up your account profile, obtain your **Account ID** and **Account Password** from Verizon. You will use this information when you set up your account parameters.





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If you clicked **Not Connected** in the preceding screen, the following pop-up screen will prompt you for a user name and password. Enter the **User name** and **Password** that you used in the **User Settings** screen, in section 7.2, and then click **OK** to continue.

Connect to 192.	168.1.1 ? 🔀	
	GP	Enter the name used in the
Modem Secure User name:	😰 admin 💌	User Settings screen.
Password:	Remember my password	Enter the password used in the User Settings screen.
	OK Cancel	

If you clicked **OK**, the following **DSL Connection** screen will appear. This screen displays information about your Internet connection and allows you to access the Router's connection settings. If you have not set up your account profile, the **PPP Status** field will display **Down**, indicating that you have not established an Internet connection with Verizon.

Throughout this User Guide, the following icons are used to indicate clicking actions that you can take with your mouse to configure the Router's settings.

Icon	Description
	Details/Edit
	Clicking this icon allows you to either view the details of or edit your Router's settings.
	Add/New
	Clicking this icon allows you to add new entries your Router.
	Delete
	Clicking this icon allows you to delete an entry from your Router.
0	Expand
+	Clicking this icon allows you to expand the page to view additional entries.
	Collapse
_	Clicking this icon allows you to collapse the page.
6	Connect
🙂 connect	Clicking this icon allows you to connect to Verizon
0 disconnect	Disconnect
	Clicking this icon allows you to disconnect from Verizon.



User Guide

<mark>VersaLink Wireless Gateway - /</mark> File Edit View Favorites Tools		ernet Explorer					
verizo	'n						_
Main	Wireless Settings	My Network	Firew. Settin	all gs	Advanced	System Monitoring	
Main Network Status		PPP Connection Profile	DSL	Connection			
Network Connections Broadband Connection		Connection Name	Default (profile used when auto connecting)	PPP Status	Action	Edit	
		My Connection	2	Down	🙂 connect		
		Add					
							Internet

To set up your account profile. Click the **Edit** icon.

- Connection Name: The name of the connection profile your are using for your Internet connection.
- Default: The name of the default profile that is used when the Router auto connects to the ISP.
- **PPP Status:** The status of the PPP connection. Down = no PPP connection, Up = PPP connection is established.
- Action: Click the icon in the Action column to connect to Verizon or to disconnect from Verizon (end your PPP session). If you end your PPP session, this does not end your DSL connection.
- Add: Click the Add link to add additional profiles to your Router.
- Edit: Click the Edit icon for My Connection to set up your connection profile. My Connection is the name of the default connection profile that you will use to connect to Verizon. Then, if you want, you can click Add to add additional connection profiles, and assign one as your default profile.

If you clicked **Edit** in the preceding screen, the following **Edit Connection Profile** screen will appear. Type your account parameters in the fields provided. The following account parameters are required for your Internet connection:

- Connection Name: The Connection Name is a word or phrase that you use to identify your account.
- Account ID: The Account ID is provided by Verizon
- Account Password: The Account Password is provided by Verizon.



nk Wireless Gate						
File Edit View Favorites						
ver	izon					
Main	Wireless	My Network	Firewall	Advanced	System	
	Settings		Settings		Monitoring	J
Main			Edit Connection	n Profile		
Broadband Connection		ionnnection Name:	User provided name	for connection profile.		
	A	ccount ID:	Provided by your ISP	·		
	A	ccount Password:	Provided by your ISP			
	N	AT Profile:	Default 💌			
	c	connection Type:	Always On 💌 The wit	e router always tries to estat h your ISP.	blish a connection	
	т	ime Out Enable:	(Not applicable	when Connection Type is Al	lways On)	
		Minutes for Connection Time Out:	30			
	s	ave Password:	-	ection without prompting for ssword available only in Mar		
			Apply C	ancel		
<						×
						Internet

Next, select the connection type (Manual, On Demand, Always On) that you want to use for your default connection profile.

- Manual: Select this option if you want to manually establish your PPP session.
- **On Demand:** Select this option if you want the Router to automatically reestablish your PPP session on demand anytime your PC requests Internet activity (for example, browsing the Internet, email, etc.). Please note that when you have Internet traffic, this setting may cause a delay.
- Always On: Select this option if you want the Router to automatically establish a PPP session when you log on or if the PPP session goes down. The Router's factory default setting is Always On.

If you enable the Router's timeout feature, the Router will end the PPP session upon reaching the number of minutes you specify for connection timeout. To configure connection timeout, do the following:

1. In the Connection Type field, select either Manual or On Demand as the connection setting.

NOTE: The **Time Out Enable** feature does not apply to **Always On**, only to **On Demand** and **Manual**, and the timeout option will be dimmed if you select **Always On**. The Router's default connection type is **Always On**.

- 2. Next, click the Time Out Enable check box (a check mark will appear in the box).
- 3. Type the number of minutes in the **Minutes for Connection Time Out** box.



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To save your account password, in the **Save Password** field, click the top option button. Clicking this option button allows the Router to make a PPP connection without first prompting you for a password. (By default this option is already selected; the Router will automatically save the account password.) If you want the Router to prompt you for the account password, select **Manual** as the connection type, and then click the bottom option button in the **Save Password** field. (The Router will prompt you for a password only if you have selected **Manual** as the connection type.)

After you have entered the appropriate settings in the **Edit Connection Profile** screen, click **Apply** to allow the settings to take effect. The following **DSL Connection** screen will appear.

VersaLink Wireless Gateway - N File Edit View Favorites Tools		ernet Explorer					
verizo							
Main	Wireless Settings	My Network	Firew Settin	all gs	Advanced	System Monitoring	
Main Network Status		PPP Connection Profile		Connection			
Network Connections Broadband Connection		Connection Name	Default (profile used when auto connecting)	PPP Status	Action	Edit	
		My Connection	Ø	Down	U connect		
<							>
Done							Internet



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8.3 Connecting to the Internet

After you have set up your account profile using the steps explained in section 8.2, you are ready to establish a PPP session (Internet connection) with Verizon. View the **DSL Connection** screen. If the **PPP Status** field displays **Down**, you do not have an Internet connection established. To establish an Internet connection, click **connect**. The **PPP Status** field will briefly display **connecting**; this means that the Router is establishing a PPP session. After Router's establishes a PPP session, the **PPP Status** field will display **Up.** Congratulations! You can now browse the Internet.

NOTE: Whenever the PPP Status displays **Down**, you do not have a PPP session established. If your Router's connection setting is set to **Always On** or **On Demand**, after a brief delay the PPP session will be established automatically, and PPP Status will display **Up**. However, if the connection setting is set to **Manual**, you must click the **connect** button to establish a PPP session. Once the PPP session has been established (PPP Status displays **Up**), you can browse the Internet.

🕘 VersaLink Wireless Gateway - N		ernet Explorer					
Edit View Pavorites Tools							
Main	Wireless Settings	My Network	Firew Settin	all gs	Advanced	System Monitoring	
Main Network Status		PPP Connection Profile		Connection			
Network Connections Broadband Connection		Connection Name	Default (profile used when auto connecting)	PPP Status	Action	Edit	
		My Connection	ø	Up	0 disconnect		
		Add					
C Done							💙 Internet



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8.4 Disconnecting from the Internet

If you have finished browsing the Internet and want to disconnect from your Internet service provider, from the **My Modem** panel in the home page, click the **connected** link (next to Internet Status). The following **DSL Connection** screen will appear. Click **disconnect** to end your PPP session.

VersaLink Wireless Gateway - M File Edit View Favorites Tools		ernet Explorer					
verizo	n						
Main	Wireless Settings	My Network	Firew Settin	all gs	Advanced	System Monitoring	
Main Network Status		PPP Connection Profile		Connection			
Network Connections Broadband Connection		Connection Name	Default (profile used when auto connecting)	PPP Status	Action	Edit	
	'	My Connection	8	Up	0 disconnect		
		Add					
Cone			IIII				>

If you clicked disconnect, the following pop-up screen will appear. Click OK to continue.

IMPORTANT: If you disconnect the PPP session, this will disconnect the Router from the Internet, and Internet access for any device connected to your LAN will be unavailable until the PPP session is reestablished.

Microso	ft Internet Explorer 🛛 🛛 🔀
2	Do you want to disconnect the PPP session?
	OK Cancel



If you clicked **OK** to disconnect your PPP session, after a brief moment, the PPP Status in the **DSL Connection** screen should display **Down**.

Also, at the home page in the **My Modem** panel, the **Internet Status** field will display **Not Connected**. Although your Internet connection is down, your DSL session will not be affected. When you are ready to end your DSL session, simply turn off the Router via the power switch on the Router's rear panel.

My Gateway O Gateway Status Paring Your Gateway is not Ready for Internet Access Mress Imternet Status: Nation Connection Dst. Infe: Connectod Speed (Down/Up): 8064 Kbits/see to Light Kbits/see to Ligh	VersaLink Wireless C File Edit View Favo		net Explorer	My Network	Firewall Settings	Advanced	System Monitoring	
		Gateway St. Pending! Your Gat Not Ready for In Access Broadband Con Internet Status: Noi DSL link: Cor Speed (Down/Up) 806 102 Connection Type: PPF Username: nev IP Address: PPF Quick Link Change Wireless Se Change Login User I Password Enable Applications (Games, Webcams,	atus ternet nection t Connected nected 4 kbits/sec by 4 kbits/sec by 9 dds 2 Down 5 ttings Name &	Computer Name: S Connection Type: G IP Address: 3 Computer Name: H Connection Type: 1 IP Address: 3	ALLE-XP2 Wireless 92.168.1.46 cccess Shared Files IMCGR-XP Ethernet 92.168.1.47			

NOTE: When you are ready to exit the Router's interface, click the **X** (close) in the upper-right corner of the window. Closing the window will not affect your PPP Status (your PPP session will not be disconnected) or your DSL connection. You must click the **disconnect** button to disconnect your PPP session. When you are ready to restore the Router's interface, start your Internet browser and then type **http://192.168.1.1** in the browser's address bar. Next, press **Enter** on your keyboard.



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9. SETTING UP MACINTOSH OS X

This section provides instructions on how to use Macintosh Operating System 10 with the Router. Follow the instructions in this section to create a new network configuration for Macintosh OS X.

NOTE: Macintosh computers must use the Router's Ethernet installation. Refer to section 6, "Installing the Hardware," for details.

9.1 Opening the System Preference Screen

After you have connected the Router to the Ethernet port of your Macintosh, the screen below will appear. Click the "**Apple**" icon in the upper-left corner of the screen and select **System Preferences**.

Ś	Grab	File	Edit	Captu					
A	About This Mac								
C	Get Mac OS X Software								
S	ystem P	referer	nces						
C	ock			•					
L	Location 🕨								
R	ecent Ite	ems		•					
F	orce Qui	it							
S	leep								
R	estart								
S	hut Dow	'n							
L	og Out			企業Q					

9.2 Choosing the Network Preferences

After selecting **System Preferences** from the previous screen, the **following** screen will appear. Click the **Network** icon.





9.3 Creating a New Location

After clicking the Network icon, the Network screen will appear. Select New Location from the Location field.

00			Ne	twork	
, ć		۵		?	
Show All	Displays	Sound	Start	tup Disk	Network
		Location 🖌	Autor	natic	
Configure:	Internal M	lodem	New I	Location	
			Edit L	ocation	
		TCP/IP	PPP	Proxies	Modem

9.4 Naming the New Location

After selecting **New Location** in the **Network** screen, the following screen will appear. In the field labeled **Name your new location:**, change the text from "**Untitled**" to "**Westell**." Click **OK**.

All users of this comp hoose this location i without entering a pa	n the Apple m	

9.5 Selecting the Ethernet Configuration

After clicking **OK** in the preceding screen, the **Network** screen will appear. The **Network** screen shows the settings for the newly created location. From the **Configure** field in the **Network** screen, select **Built-in Ethernet**. Click **Save** to save the settings.

NOTE: Default settings for the Built-in Ethernet configuration are sufficient to operate the Router.



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00 Network i 🗉 0 \bigcirc Sound Show All Displays Startup Disk \$ Location: Westell Configure 🖌 Internal Modem Built-in Ethernet oxies Modem Advanced \$ Configure: Using PPP

9.6 Checking the IP Connection

To verify that the computer is communicating with the Router, follow the instructions below.

- 1. Go to the "Apple" icon in the upper-left corner of the screen and select System Preferences.
- 2. In the System Preferences screen, click the Network icon. The Network screen will appear.
- 3. In the **Configure** field in the **Network** screen, select **Built-in Ethernet**.
- 4. View the IP address field. An IP address that begins with 192.168.1 should appear.

NOTE: The Router's DHCP server provides this IP address. If this IP address is not displayed, check the Router's wiring connection to the PC. If necessary, refer to section 6, "Installing the Hardware," for installation instructions.





9.7 Accessing Your Router

In your Internet Explorer Web browser address bar, type http://dslrouter/. Next, press Enter on your keyboard.

000)					01	WireSpee	d Dual Con	nect			
		×	63	î			4	\sim				
Back	Forward	Stop	Refresh	Home	i Ai	utoFill	Print	Mail				
Address	@ http://	'dsirouter/) go
@ Live	Home Page	🔘 Apple 🌘	Apple Suppor	rt 🔘 .	Apple St	tore	iTools	🔘 Mac OS X	🛞 Microsoft MacTopia	Office for Macintosh	MSN (
!!</td <td></td>												
Fox												

The **Modem Secure** screen will appear. Please proceed to the **Modem Secure** screen in section 7.1 of this User Guide for logon instructions.

Connect to 192.1	68.1.1 🛛 🛛 🔀
	GA
Modem Secure	
User name:	🖸 admin 💌
Password:	
	Remember my password
	OK Cancel



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10. BASIC CONFIGURATION

IMPORTANT: The following sections assume that you have active DSL and Internet service.

VersaLink allows you to make changes to the configurable features of your Router such as account profiles, routing configurations, and firewall settings. The following sections explain each feature and show you how to make changes to the Router's settings. The navigational menu displayed at the top of each page allows you to navigate to the various configuration screens of your Router. Whenever you change the configurable settings of your Router, you must click **Apply** (or **Save** where applicable) to allow the changes to take effect in the Router.

NOTE: If you need help, go to the **Quick Links** section in the home page and then click **Verizon Help**. Clicking this link takes you to Verizon's OnLine Help site where you can find additional information about your DSL Router.

To configure the basic settings in your Router, follow the instructions provided in sections 11 through 14.

NOTE: The menu options displayed will vary according to the configuration you have chosen to use, **LAN Ethernet port** or **WAN Uplink port.** If you are using WAN Uplink port, some menu options will not be available. However, all menu options will be available when the Router is configured for LAN Ethernet port. Instructions on enabling and disabling LAN Ethernet port and WAN Uplink port are explained in the section 13.2.3, "Configuring VersaPort." This document was created with the Router configured for LAN Ethernet port mode.



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11. MAIN (HOME PAGE)

After you have logged on to your Router and established a PPP session with your Internet service provider (ISP), click **Main** in the top navigational menu. The following home page will appear. The home page allows you to view connection information reported by your Router and to quickly access Internet services provided by Verizon. The following sections discuss each panel in the Main page. The Main page will be referred to as the home page throughout this User Guide.





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11.1 My Gateway Panel

In the home page, the **My Modem** panel allows you to view details about your Router's connections and to access the connection settings in your Router. A green check mark displayed in the **Modem Status** check box signals you to Go! You can now browse the Internet. The **Quick Links** section allows you to quickly access Help information related to your Router and information on your Router's configurable settings. The following details are displayed in the **My Modem** panel.

	My Modem
Internet Status	This field displays status of your Internet connection. Click this link to set up new account profiles, edit existing account profiles, and connect to or disconnect from
	Verizon. Additional details about your Router's broadband connection can be found in section 8.2, "Setting Up an Account Profile," of this User Guide.
DSL Link	This field allows you to view the status of your DSL connection.
Speed (Down/Up)	This field displays the transmission rates (in Kbits/sec) of your DSL signal. Down is the rate at which data is transmitted downstream (from the Internet to your computer). Up is the rate at which data is transmitted upstream (from your computer to the Internet).
Connection Type	This field displays the protocol used for your Internet connection, provided by Verizon.
Username	This field displays the username that you used to connect to Verizon. The username and password are provided by Verizon.
Internet IP Address	This is a WAN IP address that has been assigned to your Router by Verizon. You will receive the WAN IP address only after your Router has established an Internet connection with Verizon. (The LAN IP address of your Router is "192.168.1.1" which is assigned to your Router by factory default.)
Change Wireless Settings	Click this link to change the Router's wireless settings.
Change Login User Name & Password	Click this link to change the administrator user name and password.
Enable Applications (games, webcams, IM, etc.)	Click this link to set up a service profile and attach VPN, Gaming, or other NAT services to the profile.
Verizon Help	Click this link to access Verizon's Online Help where you can obtain detailed information about your Router.

11.2 My Network Panel

In the home page, the My Network panel allows you to view information about devices that are connected to your network. If your network provides access to shared files, you can access the files by clicking the **Access Shared Files** link. The following details are displayed in the My Network panel.

My Network				
Computer Name	The ASCII (text) name of the device connected network			
Connection Type	The physical connection used to interface with your Router.			
IP Address	The IP address assigned to your computer by your Router's DHCP server.			
Access Shared Files	Click this link to access shared files from a device on your local network. (The device			
	must have file sharing enabled.) Note: If the device has a firewall turned on, you will			
	not be able to access shared file from the device.			



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In the home page, the Action Zone panel allows quick access to Internet services provided by Verizon. The following details are displayed in the Action Zone panel.

NOTE: The links displayed in the **Action Zone** panel are specific to the services offered by Verizon and will be available only after you have established a PPP session (Internet connection) with Verizon.

Action Zone				
Go to the Internet Now	Click this button to go to the default page of your Web browser. (Clicking this button will take you to the browser's default page. However, if your PPP session is down, you do not have Internet access. To browse the Internet, you must first establish a PPP session with Verizon.) When you are ready to return to the Router's Web interface, type http://192.168.1.1/ in your Internet browser's address bar, and press Enter on your keyboard.			
Verizon	Click the links in this section to access networking services provides by Verizon.			
Shop Westell	Click this button to go to Westell's home page.			
Music	Click this button to go to the Verizon Surround - Music page.			
Video	Click this button to go to the Verizon Surround - Movies page.			



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12. WIRELESS SETTINGS

If you click **Wireless Settings** in the top navigational menu, the following screen will appear. This screen allows you to you configure the Router's wireless connection settings.

Edit View Favorites Tools	Help					_
verizo	n					
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main Wireless Status			Wireless St	atus		
Basic Security Settings		Radio Enabled:	YES			
Advanced Security Settings		SSID:	06B	410749516		
		Channel:	6			
		Security Enabled:	YES			
		WEP 64-bit:	435	9595343		
		4X Support:	Disa	abled		
		SSID Broadcast:	Ena	bled		
		MAC Authentication:	Disa	abled		
		Wireless Mode:	Mixe	ed accepts 802.11b and 802.11g nections		
		Packets Sent:	0			
		Packets Received:	620	903		


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12.1 Basic Security Settings

If you select **Wireless Settings** from the top navigation menu and then select **Basic Security Settings** in the submenu options at the left of the screen, the following screen will appear. Enter the appropriate settings in the fields provided, and then click **Apply** to allow the settings to take effect. The following table explains the details of this feature.

IMPORTANT:

- 1. If you are connecting to VersaLink via a wireless network adapter, the computer's wireless network adapter must be configured with VersaLink's Service Set ID (SSID) in order to communicate with VersaLink; that is, the SSID used in the wireless network adapter must be identical to VersaLink's SSID. The default SSID for VersaLink is the serial number of the unit (located below the bar code on the bottom of the unit and also on the shipping carton). Locate and run the utility software provided with the wireless network adapter, and then enter the identical SSID and security settings displayed in the VersaLink. For privacy, you can change the SSID and security settings to your desired values.
- 2. In order for every computer on your network to connect to your VersaLink wirelessly, confirm that each computer is using the same security settings that you have configured in VersaLink's Basic Security Settings screen. After you have configured all the settings in this screen, please record the settings for future reference.



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			Packets Sent: 0	
Audy	Aydy		VIVIAL	
			Apply	

	Basic Security Settings
Wireless Operation	 Factory Default = On Choose the desired setting. When On is selected, wireless stations (wireless computers or other wireless devices) can connect to the Router, as long as the appropriate settings are configured in the wireless station's network adapter. When Off is selected, computers will not be able to connect to the Router wirelessly.
Network Name (SSID)	Factory Default = 06B410749516 This string, (30 characters or less) is the name of your wireless network. To connect to the Router, the SSID on a computer's wireless card must match the SSID on the Router. You can change the SSID to any name or code you want.
Channel	Factory Default = 6 This is the channel of the frequency band at which the Router communicates. The Router transmits and receives data on this channel. The number of channels to choose from is pre-programmed into the Router. A computer's wireless card does not have to be set to the same channel as the Router; the wireless cards scan all channels, and look for a Router to connect to. Note: In the United States, use channels 1 through 11.
WEP configured	Factory Default = On



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	Click the desired option button. If WEP is selected, the Router will allow you to enter WEP key values for wireless security, and any wireless computer can connect to the Router (as long as its SSID and security settings matches the Router's). If Off is selected, you will not be allowed to enter WEP key values, and wireless traffic will not be encrypted. This maximizes the risk of unauthorized access to your computer.
WEP Key Entry Type	Factory Default = Hex Choose the desired WEP Key EntryType from the drop-down menu. A WEP key is treated as either a string of text (ASCII) characters or a set of hexadecimal (Hex) characters. Possible Responses: Hex (hexadecimal) – Selecting Hex allows you to enter characters from (A-F) or (0-9) as the key code. ASCII (text) – Selecting ASCII allows you to enter characters from (A-Z) or (0-9) as the
WEP Key	key code.Choose the desired WEP Key encryption from the drop-down menu.The WEP key value is used to encrypt your wireless traffic.The Router supports 64/40-bit, 128/104-bit, or 256/232-bit WEP encryption.
Key Code	 Enter the key code values in this field. ASCII: If you are using an ASCII key code, the number of characters entered into this field must be either 5 (for 40/64 bit encryption), 13 (for 128 bit encryption) or 29 (for 256 bit encryption). HEX: If you are using a Hex key code, the number of characters that you can enter into this field must be either 10 (for 40/64 bit encryption), 26 (for 128 bit encryption) or 58 (for 256 bit encryption). The only allowable hexadecimal characters are: A-F and 0-9. Note: Do not use symbols or blank spaces in the key code field.
4x Support	Factory Default = Off Select On to turn on the 4X feature. Select Off to turn off the 4X feature. When On is selected, this feature provides additional algorithms for increased wireless throughput. Note: This feature will only operate with wireless clients that support this feature. Verify with the manufacturer of your wireless client that 4X is supported.
Current Wireless Status	Displays the settings and packet information for your Wireless connection. Settings displayed in this window can be configured through the Basic Security Settings screen or through the Advanced Security Settings screen.



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12.2 Advanced Security Settings

If you select **Wireless Settings** from the top navigational menu and then select **Advanced Security Settings** in the submenu options at the left of the screen, the following screen will appear. The following table explains the details of the Advanced Security Settings screen.

IMPORTANT: Only the advanced user should change the settings in this screen. If you need to reset the Router to factory default settings, press the reset button at the rear of the Router. Or follow the instructions in section 15.2, "Restore Defaults," to restore the Router to factory default settings.

VersaLink Wireless Gateway - File Edit View Favorites Tool	; Help	
Veri c Main	Wireless Settings My Network Settings Advanced System Monitoring	
Main Wireless Status	Advanced Security Settings	
Basic Security Settings Advanced Security Settings	IMPORTANT: Only the advanced, more technical user should use this page. Please select the item that you want to adjust the settings for.	
	Level 1: Securing your wireless traffic as it transmits through the air.	
	 WEP (Recommended) WPA (Allows you to enable a pre-shared key for a home network or more advanced security for an enterprise network.) 	
	Level 2: Stop your Router from broadcasting your Wireless Network Name (SSID).	
	SSID Broadcast (Allows you to prevent users who do not know your SSID name from accessing your Router wirelessly.)	
	Level 3: Limit access to certain wireless devices.	
	Wireless MAC Authentication (Allows you to limit access to your wireless network by allowing only those devices with specific MAC addresses.)	
	802.11b/g Mode (Allows you to limit access to your wireless network based on the type of technology.)	
	Other Advanced Wireless Options	

	Advanced Security Settings
Wireless Security	Factory Default = WEP (recommended)
	WEP – Selecting WEP allows you to enable a WEP key for wireless security. The Router's card supports 64-bit, 128-bit, or 256-bit WEP encryption. If WEP is selected, any station can connect to the Router (as long as its SSID matches the Router's SSID).
	WPA – Selecting WPA allows you to enable a pre-shared key for home network or more advanced security for an enterprise network.
SSID Broadcast	Allows you to prevent unauthorized wireless access to your Router by blocking the Router's SSID on the network. When SSID Broadcast is enabled, any computer or wireless device using the SSID of "ANY" can see the Router. To prevent this from happening, disable SSID broadcast so that only the wireless devices that know your SSID can access your Router.
Wireless MAC Authentication	Allows you to limit access to your wireless network by allowing only devices with specific MAC address to connect to your Router.
802.11b/g Mode	Allows you to limit access to your Router based on technology type. 11b only: Communication with VersaLink is limited to 802.11b 11g only: Communication with VersaLink is limited to 802.11g Mixed Mode: Computers using any of the 802.11b or 802.11g rates can communicate with VersaLink.



12.2.1 Securing the Wireless Traffic

In the Advanced Security Settings screen, select one of the following options to secure your wireless traffic.

- WEP: Selecting this option button allows you to enable a WEP key for wireless security. (WEP is the recommended setting.)
- WPA: Selecting this option button allows you to enable a pre-shared key for a home network or for more advanced security for an enterprise network.

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		A (Allows you to enable a p e network.)	re-shared key for a hom	e network or more advanced	security for an	
	Level 2:	Stop your Router from b	roadcasting your Wire	less Network Name (SSID).	
	SSID Bro wirelessly		event users who do not kr	now your SSID name from ac	cessing your Router	
	Level 3:	Limit access to certain w	vireless devices.			
		MAC Authentication (A with specific MAC addresses		to your wireless network by a	llowing only those	
	802.11b	/g Mode (Allows you to lin	mit access to your wireles	s network based on the type	of technology.)	
	Other Ad	vanced Wireless Options	•			
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12.2.1.1 WEP Security

If you select WEP in the Advanced Security Settings screen, the following screen will be displayed.

NOTE: A WEP key is treated as either a string of text (ASCII) characters or a set of hexadecimal (Hex) characters. The number of text characters must be either 5 (for 40/64 bit encryption), 13 (for 128 bit encryption) or 29 (for 256 bit encryption). The number of Hex characters must be either 10 (for 40/64 bit encryption), 26 (for 128 bit encryption) or 58 (for 256 bit encryption). The only allowable hexadecimal characters are: A-F and 0-9.





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12.2.1.2 WPA Security

If you select **WPA** in the **Advanced Security Settings** screen, the following screen will appear. Enter the appropriate values in the fields, and then click **Apply** to allow the settings to take effect.

NOTE: A WPA key is treated as either a string of text (ASCII) characters or a set of hexadecimal (Hex) characters. The WPA key can be either 8 to 63 text (ASCII) characters or 64 hexadecimal (Hex) characters. The only allowable hexadecimal characters are: 0-9, and A-F.

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		WPA Shared Key: *WPA key: must be 8 to		hexadecimal digits in lengt Seconds	n.	
				pply		

	WPA
Authentication Method	Factory Default = Personal (Pre-Shared Key)
	Personal (Pre-Shared Key) – WPA stations share a pre-shared key (string format) with the
	Router and do not authenticate with the RADIUS server.
	Enterprise 802.1x – WPA stations authenticate with the RADIUS server using EAP-TLS over
	802.1x, a standard for passing extensible authentication protocol (EAP) for authentication
	purposes. EAP is used to communicate authentication information between the supplicant and
	the authentication server. With 802.1x EAP messages are packaged in Ethernet frames, rather
	than using and PPP.
WPA Type	Factory Default = WPA Any
	WPA Any – Allows stations that support WPA, WPA2, or WPA Any to connect to the Router.
	WPA – Allows stations that support WPA v.1 to connect to the Router.
	WPA2 – Allows stations that support WPA v.2 to connect to the Router.
WPA2 Pre-	Factory Default = Disabled
Authentication	To Enable this feature, click the box (a check mark will appear in the box).
WPA Shared Key	The WPA key can be either 8 to 63 text (ASCII) characters or 64 hexadecimal (Hex) characters.
	The only allowable hexadecimal characters are: A-F and 0-9.
Group Key Update	The number of seconds between rekeying the wPA group key. A value of zero means that
Interval (in seconds)	rekeying is disabled.



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After you have entered your values and clicked **Apply** in the **WPA** screen, the following pop-up screen will appear. The pop-up screen indicates that wireless access may be interrupted. Click **OK** to continue.

NOTE: Wireless access to the Router may be interrupted and wireless stations may require reconfiguration.

Microso	ft Internet Explorer 🛛 🔀
2	Wireless access may be interrupted, continue?
	OK Cancel



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12.2.2 SSID Broadcast

If you click the **SSID Broadcast** link in the **Advanced Security Settings** screen, the following screen will be displayed. When SSID Broadcast is enabled, any computer or wireless device using the SSID of "ANY" can see the Router. To prevent this from happening, click the **Disable** option button. This will disable SSID Broadcast so that only the wireless devices that are configured with your SSID can access your Router.

Click the desired option button, and then click **Apply** to allow the settings to take effect. Click **Back** to return to the **Advanced Security Settings** screen.

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12.2.3 Wireless MAC Authentication

If you select the **Wireless MAC authentication** link in the **Advanced Security Settings** screen, the following screen will appear. This screen allows you configure wireless MAC address authentication in the Router. By enabling the **Access List**, you can permit or restrict wireless access to the Router based on specific MAC addresses.

To limit access to the Router using the MAC address of specific wireless devices, follow the steps below:

- 1. Click the **Enable Access List** check box (a check mark will appear in the box).
- 2. Click Apply to save the setting, and then click OK in the pop-up screen.

To add, edit, or delete MAC addresses of wireless devices, click the desired button below the **List** window. For example, to Add a MAC address, click **Add**.

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	If you want to limit access to a c	ertain list of wireless devices: en that appears enter the MAC Add			
	allowed. Then click Save. 2. Repeat the process for ea		o have access to the netw		
	Enable Access List				
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If you clicked Add, the following screen will appear. Enter the desired settings, and then click Apply.

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Traffic	Allowed: When the MAC Filter is enabled, only stations in the MAC Filter Table (which are set
	to "Allowed") will have access to the Router.
	Blocked: This allows a computer to remain in the table, but it is not allowed access to the Router.
MAC Address	The MAC address assigned to the computer that you want to allow access to. (A hardware
	address is assigned to a computer or device by the manufacturer.)
Station Name	The computer name or description that you want to associate with the MAC address. This is an
	optional field that is useful in identifying the station.

The following screen provides an example of values entered into the fields.

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After you have entered your values and clicked **Apply** in the preceding screen, the following pop-up screen will appear. The pop-up screen indicates that wireless access may be interrupted. Click **OK** to continue.

NOTE: Wireless access to the	Router ma	ay be interrupted and wireless stations may re	quire reconfiguration.
	Microso	ft Internet Explorer 🛛 🔀	
	2	Wireless access may be interrupted, continue?	
		OK Cancel	

If you clicked **OK** in the pop-up screen, the following screen will appear. The MAC address has been added to the list of MAC addresses. Confirm that a ckeck mark is displayed **Enable Access List** check box, and then click **Apply**. Repeat this process for each wireless device that you want to add to the list.

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12.2.4 802.11b/g Mode

If you select the **802.11b/g Mode** link in the **Advanced Security Settings** screen, the following screen will be displayed. This screen allows you to limit access to your Router based on technology type. From the drop-down menu, select the desired setting. Then, click **Apply** to allow the settings to take effect.



	11b only: Communication with VersaLink is limited to 802.11b
802.11b/g Mode	11g only: Communication with VersaLink is limited to 802.11g
	Mixed mode: Computers using 802.11b or 802.11g technology can communicate with VersaLink.

2,2,1 002,110/S 1100



12.2.5 Other Advanced Wireless Options

If you select the **Other Advanced Wireless Options** link in the **Advanced Security Settings** screen, the following screen will appear. From the drop-down menus, select the desired settings. Then, click **Apply** to allow the settings to take effect.

🚰 http://10.16.90.5:2420 - Vers	aLink Wireless Gateway -	Microsoft Internet Explorer				_ _ _ ×
<u>Eile E</u> dit <u>V</u> iew F <u>a</u> vorites]	<u>T</u> ools <u>H</u> elp					A
veri	7 0n					
		22	5			
Main	Wireless	My Network	Firewall	Advanced	System	
L	Settings	iny network	Settings	Advanced	Monitoring	
Main			Advanced Wireles	c Options		
Wireless Status			Advanced wireles	s options		
Basic Security Settings		Beacon Interval:	100 ms (range:5	-0 (FF2F)		
Advanced Security Settings						
		Fragmentation Threshol				
		RTS Threshold:	2347 bytes (range	e:0-2347)		
		Preamble Algorithm:	Always Long 💌			
		Slot Time Algorithm:	Local STA's			
		ERP Protection Algorithm	m: Dynamic 💽			
		802.11b Rates(Mbps)				
		N - not supported Y - supported	B ▼ 1 B ▼ 2 B	▼ 5.5 B ▼ 11		
		B - basic supported				
		802.11g Rates(Mbps) N - not supported	Y • 6 Y • 9 Y Y • 24 Y • 36 Y	• 12 Y • 18		
		Y - supported B - basic supported	Y • 24 Y • 36	(<u>•</u> 48 Y <u>•</u> 54		
			Back	Apply		
						-
 http://10.16.90.5:2420/adv_wrlss 	a antions htm#					Internet
Intel://io.io.ao.ac.ac/adv_wriss	s_opaons.nun#					🧿 Internet 👘

	Wireless Advanced Configuration
Beacon Interval	The time interval between beacon frame transmissions. Beacons contain rate and capability information. Beacons received by stations can be used to identify the access points in the area.
Fragmentation Threshold	Any MSDU or MPDU larger than this value will be fragmented into an MPDU of the specified size.
RTS Threshold	RTS/CTS handshaking will be performed for any data or management MPDU containing a number of bytes greater than the threshold. If this value is larger than the MSDU size (typically set by the fragmentation threshold), no handshaking will be performed. A value of zero will enable handshaking for all MPDUs.
Preamble Algorithm	Factory Default = Always Long Possible Responses: Always Long: Transmissions are done using the long preamble algorithm. Always Short: Transmissions are done using the short preamble algorithm. Local STA's: If all associated stations support short preamble, then the short preamble algorithm is used. Otherwise, the long preamble algorithm is used.



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Slot Time Algorithm	Factory Default = Local STA's
	Possible Responses:
	Always Off: Transmissions are done using a 20 usec slot time.
	Always ON: Transmissions are done using a usec slot time (SST).
	Local STA's: If all associated stations support SST, then the 9 usec slot time is
	used. Otherwise, the 20 uses slot time is used.
	Enhanced Dynamic: Similar to Local STA's, with the following extension: If
	associated stations that do not support SST do not transmit for a period of time, the
	9 usec slot time is used.
ERP Protection Algorithm	Factory Default = Dynamic
	Possible Responses:
	Always Off: ERP is not used
	Always ON: ERP is used.
	Local STA's: If there are any associated stations than do not support ERP, a protection algorithm is used to prevent contention.
	Dynamic: Similar to local STA's with the following extension: The ERP protection setting is also dependent on Beacon frames from overlapping BSS. IF Beacon
	frames are received that indicate ERP is not supported, then a protection algorithm
	is used.
	Enhanced Dynamic: Similar to Dynamic with the following extension: If associated
	stations that do not support ERP do not transmit for a period of time, then protection algorithm is not used.
802.11b Rates (Mbps)	These are the allowable communication rates that VersaLink will attempt to use.
802.11g Rates (Mbps)	The rates are also broadcast within the connection protocol as the rates supported
502.115 Kutos (110ps)	by VersaLink.



User Guide

13. MY NETWORK

This section discusses details about your Router's network.

13.1 Network Status

To view your Router's network settings, from the top navigational menu, select **My Network**. Next, click **Network Status** in the submenu at the left of the screen. The following screen will appear. This screen displays information about the devices connected to your local area network (LAN).

VersaLink Wireless Gateway - I File Edit View Favorites Tools		Explorer				
verizo	n					~
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main Network Status Network Connections	Cc IP IP MA Cc IP IP IP	LLE-XP2 Innection type: Wirele Address: 192.16 Address Allocation: Static IC Address: 00:03: ICGR-XP Innection type: Ethern Address: 192.16 Address Allocation: DHCP	ss 18.1.46 IP c9:4f:12:66 et .8.1.47	Access Shared Files View Device Details Rename Device Delete Device Enable Application Access Shared Files View Device Details Rename Device Delete Device Enable Application	Connected Devices The second	
) http://192.168.1.1/network_status.htr	n#	III.			🥐 Internet	>

	My Network					
Connection Type	The physical connection used to interface with your Router.					
IP Address	Address The IP address assigned to your computer.					
IP Address Allocation	The method by which your computer receives its IP address.					
MAC Address The Media Access Controller; the hardware address assigned to the deviced by the manufacturer.						
Connected Devices	The interfaces used to connect to your Router to the computer.					
	Ethernet: Displays the number of devices that are connected to the Router via Ethernet 10/100 BaseT connection.					
	Wireless: Displays the number of devices that are connected to the Router wirelessly.					
	USB: Displays the number of devices that are connected to the Router via USB connection.					
	Note: If you have computers on your network that are not being displayed, check the					
	firewall setting on the PCs to ensure that the firewall is disabled.					



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13.1.1 Access Shared Files

In the **My Network** panel, click the **Access Shared Files** link to access files from a device on your local network. (The device from which you will access files must have file sharing enabled.) If the device has a firewall turned on, you will not be able to access shared files from the device.

💈 D-3238-1714 (Hmcgr-xp) - Mi	crosoft Internet Explorer	
File Edit View Favorites Tool		N N
Network Tasks Image: Comparison of the comparison of t	Protess and Faxes	🤔 Scheduler Tasks
Other Places 🙁		
Westell Entire Network Wr Computer Mr Documents Printers and Faxes		
Details 😵		
2 objects		

13.1.2 View Device Details

In the **My Network** panel, click the **View Device Details** link to view details about your device. After you have finished viewing this screen, click **Close** to return to the My Network page.

VersaLink Wireless Gatew File Edit View Favorites	1 Contract (1997)	plorer				-0
veri	on					
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main Host Information		This scre	Device In een provides a detaile	f ormation ed breakdown for this device		
		Devi	ce:	HMCGR-XP		
		IP A	ddress:	192.168.1.47		
		Subr	net Mask:	255.255.255.0		
		MAC	Address:	00:07:e9:3e:2f:e4		
		Netw	ork Connection:	Ethernet		
		Leas	е Туре:	Dynamic		
		Wind Folde	lows Shared ers:	\\HMCGR-XP		
			Cla	se		
		Ш				
one					Internet	



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13.1.3 Rename Device

In the **My Network** panel, click the **Rename Device** link to rename a device on your network. In the following screen, type the desired name in the **New Name** box, and then (if desired) select an icon from the **New Icon** dropdown menu to assign a different icon to this device. Next, click the **Rename Device** button to allow the changes to take effect. Click **Back** to return to the **My Network** panel.

🕙 VersaLink Wireless Gateway	- Microsoft Internet	Explorer				
File Edit View Favorites To	ools Help					A
veriz	on					<
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main Rename Device		This Page allows you to cha	Rename Dev nge the name of this devic		your network	
		Current Device Name:	HMCGR-XP			
		New Name:	HMCGR-XP			
		To assign an icon to th New Icon:	is device, select from the of Computer Router Computer Network Storage R VOP Adapter Printer Camera Media Adapter Basic	Irop-down box below and cl	ick Apply	

13.1.4 Delete Device

In the **My Network** panel, click the **Delete Device** link to remove a device from your network. Click the **Clear** button next to the device that you want to remove from your network, or click **Clear All** to remove all devices from your network.

ernet Explorer				
My Network	Firewall Settings	Advanced	System Monitoring	
	Delete Device			
Name / Detault Name	Clear All	MAL Address	Action	
		My Network Firewall Settings Delete Device Name / Default Name	My Network Firewall Settings Advanced Delete Device Name / Default Name Type / Default Type MAC Address	My Network Firewall Firewall Settings Advanced System Monitoring Delete Device Name / Default Name Type / Default Type MAC Address Action



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13.1.5 Enable Application

In the **My Network** panel, click the **Enable Application** link to set up applications for your service profile. This feature enables applications (Games, Webcams, IM & Others) by opening a tunnel between remote (Internet) computers and a specific device port inside your local area network (LAN). Details on this screen will be discussed later in section 14.3, "Port Forwarding."

VersaLink Wireless Gateway - File Edit View Favorites Tools	1					
verizo	on					<u>_</u>
Main	Wireless Settings My	Network	Firewall Settings	Advanced	System Monitoring	
Main General Port Forwarding DMZ Host Remote Administration Static NAT		applications(Games, Web computers and a specific de ult 💌	e ort Forwardin cams, IM & Others) avice port inside yo New Edi	- by opening a tunnel between ur local area network(LAN).	remote(Internet)	
Security Log	Name	Mode		Host Device	Action	
	IPSEC ALG	Client	Dynamic		in 🗇 🙀	
	Add				8	
<u> </u>					🕥 Internet	



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13.2 Network Connections

To edit your connection settings, from the top navigational menu select **My Network**. Next, select **Network Connections** in the submenu options at the left of the screen; the following screen will be displayed. This screen allows you to access your Router's connection settings and your local area network (LAN) settings. The following sections discuss the details of this screen.

- To access the Router's Broadband connection settings, in the **Network Connections** screen click the **Broadband Connection (DSL)** link. The **Basic DSL Configuration** screen will appear. Refer to section 13.2.1 for details about this feature.
- To access the Router's LAN settings, in the **Network Connections** screen click the **LAN** link. The **Private LAN** screen will appear. Refer to section 15.15 for details about this feature.
- To access the Router's Wireless settings, in the Network Connections screen, click the Wireless Access Point link. Refer to section 12.1 for details about this feature.
- To access the Router's Uplink settings, in the Network Connections screen, click the VersaPort (Ethernet 1) link. Refer to section 13.2.3 to section for details about this feature.

VersaLink Wireless Gateway - File Edit View Favorites Tool		Explorer				
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main Network Status			Network Conr	nections		
Network Connections		Name		Status	Action	
	- •	Broadband Connection (DS	-)	DSL Connected		
	÷.	LAN				
	j.	Wireless Access Point		Enabled	-	
	÷.	VersaPort (Ethernet 1)		LAN port		
C Done					🔹 🖉 Interne	>



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13.2.1 Basic DSL Configuration

If you clicked the **Broadband Connection (DSL)** link in the **Network Connections** screen, the following screen will appear. This screen displays the virtual connection (VC) settings and the account information needed to authenticate your Internet connection. A virtual connection identifies a connection through the service provider's ATM network to Verizon. Unlike physical hardware connections, virtual connections are defined by data. The VPI/VCI and account parameters are provided by Verizon.

IMPORTANT: You should not change the VPI/VCI settings unless instructed by Verizon.

If you change any settings in this screen, click **Apply** to allow the settings to take effect. To access the Advanced DSL Configuration screen, click the **Advanced** button.

🗿 ProLine DSL Modem - Microsoft Int	ternet Explorer				
File Edit View Favorites Tools F	Help				💏
verizon					2
T	22			1	
Main	My Network	Firewall Settings	Advanced	System Monitoring	
	-				
Main		Basic DS	L Configuration		
Network Status	1. Configure the	VC			
Broadband Connection	Provided by your Ir	iternet service provider, a VC	(virtual connection) identifies a ci	onnection through the	
	service provider's A				
	VPI: VCI: 0 35				
		_			
	2. Enter your PPI	P User Name and Password	l.		
	Provided by your Ir	ternet service provider, used	to authenticate your Internet con	nection.	
	Account ID:	username@yourisp.net			
	Account Passw	ord: ••••••			
		Apply Can	cel Advanced >>		
🙆 Done					🔮 Internet

Basic DSL Configuration				
VPI	Displays the VPI (Virtual Path Indicator) value for a particular VC, which is defined by Verizon.			
VCI	Displays the VCI (Virtual Channel Indicator) value for a particular VC, which is defined by Verizon.			
Account ID	The accound ID is provided by Verizon.			
Account Password	The account password is provided by Verizon.			



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13.2.2 Advanced DSL Configuration

If you clicked **Advanced** in the preceding screen, the following **Advanced DSL Configuration** screen will appear. Depending on the connection settings you want to edit, you can:

- Click the Edit icon adjacent to My Connection to edit your connection profile settings.
- Click the New icon 🚟 (or click Add) to add a new connection profile.
- Click the Edit icon in the VCs section to edit your virtual connection (VC) settings.

13.2.2.1 Editing VC Protocol Settings

The following sections discuss your virtual connection (VC) settings. A virtual connection (VC) identifies a connection through the service provider's ATM network to Verizon.

IMPORTANT:

- 1. The screens displayed in the following sections reflect the Router when it is configured for LAN Ethernet port mode, which is the Router's factory default setting. For details on configuring the Router's VC settings while in WAN Uplink port mode, refer to section 13.2.3, "Configuring VersaPort."
- 2. You should not change the VC settings unless instructed by Verizon.

If you change any settings in this screen, you must click **Apply** to allow the settings to take effect. To expand the VCs list, click the expand icon 🖃 located below **Status**.

oLine DSL Modem - Microsoft Inte Edit View Favorites Tools He							
verizon							
Main	My Network	Firewall Settings		Advance	d	System Monitoring	
Main Network Status Network Connections	PPP Connection Profil Connection Name			BL Configuratio	DN Action	Edit	
Broadband Connection		(profile use auto conne	ed when ecting)				
	My Connection Add	8	l	Jp	0 disconnect		
	VCs						
	Status	VPI	AC:		Protocol	Edit	
	Enabled +	0	35	PPPoE		-	
	Bridge Broadcast:	🗹 Enabled	ł				
	Bridge Multicast:	🗹 Enabled	ł				
	Spanning Tree Protocol:	🗌 Disable	d				
		Apply	Can	icel Basic	<<		
	(
ne							



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	VC Settings					
Status	Allows you to enable or disable your VC (Virtual Connection). This field must					
Status	display "Enable" in order to allow edits to the VC settings.					
VPI	Displays the VPI (Virtual Path Indicator) value for a particular VC, which is					
VII	defined by your Service Provider.					
VCI	Displays the VCI (Virtual Channel Indicator) value for a particular VC, which					
	is defined by your Service Provider.					
Protocol	Displays the Protocol for each VC, which is specified by your Service					
	Provider.					
	Possible Responses:					
NOTE: The configuration	PPPoA = Point to Point Protocol over ATM (Asynchronous Transfer Mode)					
specified by your Service	PPPoE = Point to Point Protocol over Ethernet					
Provider will determine which	Bridge = Bridge Protocol					
Protocols are available to you.	Classical IPoA = Internet Protocol over ATM (Asynchronous Transfer Mode).					
	This is an ATM encapsulation of the IP protocol.					
Bridge Broadcast	Factory Default = Enabled (box contains a check mark)					
	When this setting is enabled, the Router will allow Broadcast IP packets					
	to/from the WAN.					
	When this setting is disabled (box is cleared), the Router will block Broadcast					
	IP packets to/from the WAN.					
	Bridge Broadcast is only valid if one of the Virtual Channels is configured for					
	Bridge mode.					
Bridge Multicast	Factory Default = Enabled					
	When this setting is disabled, the Router will block Multicast IP packets					
	to/from the WAN.					
	When this setting is enabled, the Router will allow Multicast IP packets					
	to/from the WAN.					
	Bridge Multicast is only valid if one of the Virtual Channels is configured for					
C . T D / 1	Bridge mode.					
Spanning Tree Protocol	Factory Default = Disabled					
	Spanning Tree Protocol is a link management protocol that provides path					
	redundancy while preventing undesirable loops in the network. For Ethernet					
	network to function properly, only one active path can exist between two					
	stations.					
	When enabled, two bridges are used to interconnect the same two computer					
	network segments. Spanning Tree Protocol will allow the bridges to exchange					
	information so that only one of them will handle a given message that is being					
	sent between two computers within the network.					



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If you clicked the expand icon in the preceding screen, the following screen will appear. When you are ready to collapse the VCs list, click the collapse icon \Box .

NOTE:

1. A VC's Status field must display Enabled before you can edit its VC settings.

2. The actual values displayed in the following screen may vary, depending on the network connection established. If you have questions about the settings in this screen, please contact Verizon.

To edit a VC setting, click the edit icon adjacent to the "Enabled" VC protocol that you want to edit.

Main	My Network	Firewall Settings		Advance	d	System Monitoring
ain etwork Status	PPP Connection Profile		anced [OSL Configuratio	on	
Network Connections Broadband Connection	Connection Name	Defau (profile use auto conne	d when	PPP Status	Action	Edit
Broadband Connection	My Connection	Ø		Up	0 disconnect	
	VCs					
	Status	VPI			Protocol	Edit
	Enabled	0	35	PPPoE		9
	Disabled	0	36	Bridge		-
	Disabled	0	37	Bridge		-
	Disabled	0	38	Bridge		
	Disabled	0	39 40	Bridge		
	Disabled	0	40	Bridge		 ₽
	-	U	41	bridge		
	Bridge Broadcast:					
	Bridge Multicast:	v				
	Spanning Tree Protocol:					



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The following table explains the settings in the VC 1 Configuration screen. If you change any VC settings in this screen, click Apply to save the settings.

NOTE: If you experience problems, reset the Router via the hardware reset button at the rear of the Router. Or follow the instructions in section 15.2, "Restore Defaults," to restore the Router to factory default settings. After the Router has been reset, the values in the screens will display the factory default settings, and any settings that you have previously configured will be discarded.

ProLine DSL Modern - Microsoft Int le Edit View Favorites Tools F					
veri <mark>7</mark> on					
Main	My Network	Firewall Settings	Advanced	System Monitoring	
Main			/C 1 Configuration		
Broadband Connection		VC Status:	Enabled		
		VPI:	0		
		VCI:	35		
		PCR:	100		
		QoS:	UBR 💌		
		Protocol:	PPPoE 💌		
		PPPoE Settings			
		IP Address:	0.0.0.0		
		Gateway:	0.0.0.0		
		DNS Primary:	0.0.0.0		
		DNS Secondary:	0.0.0.0		
		MRU Negotiation:	Disabled		
		LCP Echo Disable:	Not activated		
		LCP Echo Failures:	6 Must be between 1 and 30		
		LCP Echo Duration:	60 Must be between 5 and 300 sec	onds	
		LCP Echo Retry Duration:	10 Must be between 5 and 300 sec	onds	
		Tunneling:	✓ Enabled		
			Apply Cancel		
ne				1.1	Internet

	VC 1 Configuration
VPI	This field allows you to change your VPI (Virtual Path Indicator) value for a
	particular VC, which is defined by your Service Provider.
VCI	This field allows you to change your VCI (Virtual Channel Indicator) value for a
	particular VC, which is defined by your Service Provider.
PCR	Factory Default = 100%
	Peak Cell Rate (PCR)-The maximum rate at which cells can be transmitted across a
	virtual circuit, specified in cells per second and defined by the interval between the
	transmission of the last bit of one cell and the first bit of the next.
	This value is a percentage of the current data rate.
	100 allows this VC to use 100% of the available bandwidth.
	80 allows this VC to use 80% of the available bandwidth.
QoS	Quality of Service, which is determined by your Service Provider.
	Possible Responses:
	CBR = Constant Bit Rate
	UBR = Unspecified Bit Rate
	VBR = Variable Bit Rate
Protocol	The Protocol for each VC, which is specified by your Service Provider.
	Possible Responses:
	PPPoA = Point to Point Protocol over ATM (Asynchronous Transfer Mode)
	PPPoE = Point to Point Protocol over Ethernet
	Bridge = Bridge Protocol
	Classical IPoA = Internet Protocol over ATM (Asynchronous Transfer Mode). This
	is an ATM encapsulation of the IP protocol.
20. 200505 D	



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Status	The protocol status.
	PPPoE / PPPoA Settings
IP Address	Displays the IP network address that your Router is on.
Gateway	Displays the Router's IP address
DNS Primary	Provided by Verizon
DNS Secondary	Provided by Verizon
MRU Negotiation	Factory Default = Disabled
	If Enabled, the Maximum Received Unit (MRU) would enforce MRU negotiations.
	Note: Enable this option only at your Internets provider's request.
LCP Echo Disable	Factory Default = Disabled
	If checked, this option will disable the modem LCP Echo transmissions.
LCP Echo Failures	Indicates number of continuous LCP echo non-responses received before the PPP
	session is terminated.
LCP Echo Duration	The interval between LCP Echo transmissions with responses.
LCP Echo Retry Duration	The interval between LCP Echo after no response.
Tunneling	Factory Default = Enable
	If Enabled, this option allows PPP traffic to be bridged to the WAN. This feature
	allows you to use a PPPoE shim on the host computer to connect to the Internet
	Service Provider, by bypassing the Router's capability to do this.
	Note: Tunneling is available in PPPoE mode only.
	Address, Gateway, DNS Primary, and DNS Secondary are all "Override of the value
	ection," They default to "0.0.0," in which case the override is ignored. It is
recommended that you do n	ot change the values unless your Internet service provider instructs you to do so.

13.2.2.2 Configuring the Router's Protocol Settings for PPPoE or PPPoA

To configure the Router's protocol settings for PPPoE or PPPoA, access to the VC 1 Configuration screen, as explained earlier in section 13.2.2.1 "Editing VC Protocol Settings." At the VC 1 Configuration screen, select PPPoE or PPPoA from the Protocol drop-down menu.

verizo	n			
Main	My Network	Firewall Settings	Advanced	System Monitoring
Main		,	/C 1 Configuration	
Broadband Connection	, vo	C Status:	Enabled	
	VF	PI:	0	
	ve	CI:	35	
	PC	DR:	100	
	Q	oS:	UBR 💌	
	Pr	rotocol:	PPPoE 🖌	
		PPoE Settings	PPPoA PPPoE Bridge	
		Address:	Bridge Classical IPoA	
		ateway:	0.0.0.0	
	DI	NS Primary:	0.0.0.0	
	DI	NS Secondary:	0.0.0.0	
	M	RU Negotiation:	Disabled	
	LC	CP Echo Disable:	Not activated	
	LC	CP Echo Failures:	6 Must be between 1 and 30	
	LC	CP Echo Duration:	60 Must be between 5 and 300 seco	inds
	LC	CP Echo Retry Duration:	10 Must be between 5 and 300 seco	inds
	Tu	unneling:	Enabled	
			Apply Cancel	



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For example, the following VC 1 Configuration screen displays **PPPoA** as the selected Protocol. The PPPoA and PPPoE screens have identical configuration options with the exception of the Tunneling feature. Tunneling is available only for PPPoE protocol and is not displayed when the Router is configured for PPPoA protocol. After you have made the appropriate changes to VC 1 Configuration screen, click Apply to continue.

ProLine DSL Modem - Microsoft In	ternet Explorer				
File Edit View Favorites Tools I					A1
verizon					
Main	My Network	Firewall Settings	Advanced	System Monitoring	
Main			VC 1 Configuration		
Broadband Connection	ve	C Status:	Enabled		
	VF	PI:	0		
	v	DI:	35		
	PC	CR:	100		
	Q	oS:	UBR 💌		
	Pr	otocol:	PPPoA 💌		
	PF	PoA Settings			
	IP	Address:	0.0.0.0		
	G	ateway:	0.0.0.0		
	Dr	NS Primary:	0.0.0.0		
	Dr	NS Secondary:	0.0.0.0		
	ME	RU Negotiation:	Disabled		
	LC	P Echo Disable:	Not activated		
	LC	CP Echo Failures:	6 Must be between 1 and 30		
	LC	CP Echo Duration:	60 Must be between 5 and 300 secon	ds	
	LC	CP Echo Retry Duration:	10 Must be between 5 and 300 second	ds	
			Apply Cancel		
< [Ш		>
ど Dane					Internet

If you clicked **Apply** in the preceding screen, the following pop-up screen will appear. The Router must be reset to allow the new configuration to take effect. Click **OK** to continue.



If you clicked **OK**, the following screen will appear. After a brief delay, the home page will be displayed. Confirm that you have a DSL link and that your PPP Status displays **UP**. (If necessary, click the **connect** button to establish a PPP session).





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13.2.2.3 Configuring the Router's Protocol Settings for Bridge

To configure the Router's protocol settings for Bridge, access to the VC 1 Configuration screen, as explained earlier in section 13.2.2.1, "Editing VC Protocol Settings." At the VC 1 Configuration screen, select Bridge from the **Protocol** drop-down menu. The following screen will appear. Bridge settings are described in the following table.

ProLine DSL Modem - Microsoft I File Edit View Favorites Tools					
verizo	n				
Main	My Network	Firewall Settings	Advanced	System Monitoring	
Main Broadband Connection		vc	1 Configuration		
	VC : VPI:	Status:	Enabled		
	VCI		35		
	PCR QoS		100 UBR 💌		
		ocol: ge Mode:	Bridge		
			pply Cancel		
					,
Done					Internet



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Protocol	Mode	Description
	Bridge	A bridge is a layer 2 device that connects two segments of the same LAN that use the same protocol such as Ethernet. The modem does not have a WAN IP address in this mode. The client PC will typically get an IP address from a DHCP server in the network or the IP address can be assigned to the client PC statically.
Bridge	Routed Bridge	Routed Bridged Encapsulation (RBE) is the process by which a bridged segment is terminated on a routed interface. Specifically, the Router is routing on an IEEE 802.3 or Ethernet header carried over RFC 1483 bridged ATM. RBE was developed to address the known RFC1483 bridging issues, including broadcast storms and security. The modem will get a WAN IP address through DHCP or can be assigned statically. NAT will use the global address assigned to the modem.
	Proxy Bridge	Proxy Bridge is the process in which the modem acts as a proxy ARP agent for a local public subnet. The modem will be assigned an IP address from within that public subnet. The modem will direct all traffic to a Router, which is configured statically. The Router's address must not reside within Router's assigned public subnet. All traffic will be sent via the Router's MAC address. The LAN may also have a private NAT'ed network. NAT will use the global address assigned to the modem.

To configure the Router's Bridge settings, follow these steps at the VC 1 Configuration screen:

- 1. Select **Bridge** in the **Protocol** drop-down menu.
- 2. Select the desired Bridge mode from **Bridge Mode** drop-down menu.
- 3. Enter the desired values in the fields provided (if requested).
- 4. Click **Apply** to save your settings.
- 5. Click **OK** in the pop-up screen to reset the Router.



13.2.2.3.1 Bridge Protocol— Bridge Mode

For example, if you select **Bridge** as the Protocol, and then select **Bridge** from the **Bridge Mode** drop-down menu, the following screen will appear.

IMPORTANT: If you configure the Router to use Bridge protocol and Bridge Mode, you must disable the Router's DHCP server. By disabling the DHCP server and using Bridge protocol (Bridge mode), you will allow the computer to receive its IP address directly from the ISP's DHCP server, not from the Router's DHCP server. For instructions on disabling the Router's DHCP server, see section 15.14, "IP Address Distribution." After you have disabled the Router's DHCP server, you must reboot the computer to allow the change to take effect.

ProLine DSL Modem - Microsoft Inte File Edit View Favorites Tools He Verizon					
Main	My Network	Firewall Settings	Advanced	System Monitoring	
Main Broadband Connection			1 Configuration		
	VC : VPI:		Enabled		
	VCI		35		
	PCR		100		
	QoS		UBR 💌		
		ocol:	Bridge 🔽		
	Bha	ge Mode: Ap	Bridge V Bridge Routed Bridge Proxy Bridge el		
	C.				

The following screen shows that Bridge has been selected in the Bridge Mode drop-down menu. Click Apply.

verizon					
Main	My Network	Settings	Advanced	System Monitoring	
Main Broadband Connection		VC Status: VPI: VCI: PCR: QoS: Protocol: Bridge Mode:	VC 1 Configuration		
			Apply Cancel		



User Guide

	VC 1 – B	ridge Protocol (Bridge Mode)					
VC Status	The protocol status						
VPI		you to change your VPI (Virtual Path Indicator) value for a					
		ch is defined by your Service Provider.					
VCI		you to change your VCI (Virtual Channel Indicator) value for a					
		ch is defined by your Service Provider.					
PCR	Factory Default =						
1 011		CR)-The maximum rate at which cells can be transmitted across a					
		cified in cells per second and defined by the interval between the					
		transmission of the last bit of one cell and the first bit of the next.					
	This value is a perce	This value is a percentage of the current data rate.					
		100 allows this VC to use 100% of the available bandwidth.					
	80 allows this VC	to use 80% of the available bandwidth.					
QoS	Quality of Service,	which is determined by your Service Provider.					
-	Possible Response	S:					
	CBR = Constant B	it Rate					
	UBR = Unspecifie	d Bit Rate					
	VBR = Variable B						
Protocol		ach VC, which is specified by your Service Provider.					
	Possible Responses:						
		PPPoA = Point to Point Protocol over ATM (Asynchronous Transfer Mode)					
	PPPoE = Point to Point Protocol over Ethernet						
	Bridge = Bridge Protocol						
	Classical IPoA = Internet Protocol over ATM (Asynchronous Transfer Mode). This is						
	an ATM encapsula	an ATM encapsulation of the IP protocol.					
	Bridge	A bridge is a layer 2 device that connects two segments of the same LAN that use the same protocol such as Ethernet. The modem does not have a WAN IP address in this mode. The client PC will typically get an IP address from a DHCP server in the network or the IP address can be assigned to the client PC statically.					
Bridge Mode	Routed Bridge	Routed Bridged Encapsulation (RBE) is the process by which a bridged segment is terminated on a routed interface. Specifically, the Router is routing on an IEEE 802.3 or Ethernet header carried over RFC 1483 bridged ATM. RBE was developed to address the known RFC1483 bridging issues, including broadcast storms and security. The modem will get a WAN IP address through DHCF or can be assigned statically. NAT will use the global address assigned to the modem.					
	Proxy Bridge	Proxy Bridge is the process in which the modem acts as a proxy ARP agent for a local public subnet. The modem will be assigned an IP address from within that public subnet. The modem will direct all traffic to a Router, which is configured statically. The Router's address must not reside within Router's assigned public subnet. All traffic will be sent via the Router's MAC address. The LAN may also have a private NAT'ed network. NAT will use the global address assigned to the modem.					



User Guide

If you clicked **Apply** in the preceding screen, the following pop-up screen will appear. The Router must be reset to allow the new configuration to take effect. Click **OK** to continue.



If you clicked **OK**, the following screen will appear. After a brief delay, the home page will be displayed.

Content in the second s		
Pie Edit View Pavorites Tools Help		*
		6
verizon		
	Resetting Modem Please Walt	
	The modern is resetting in order for the requested changes to take effect. Your page will be reloaded shortly.	

13.2.2.3.2 Bridge Protocol—Routed Bridge Mode

If you select **Bridge** as the Protocol, and then select **Routed Bridge** from the **Bridge Mode** drop-down menu, the following screen will appear. Enter the desired values in the fields provided, and then click **Apply**.

verizon					
Main	My Network	Firewall Settings	Advanced	System Monitoring	
Main			VC 1 Configuration		
Broadband Connection		VC Status:	Enabled		
		VPI:	D		
		VCI:	35		
		PCR:	100		
		QoS:	UBR 🗸		
		Protocol: Bridge Mode:	Bridge v Routed Bridge v		
		bridge mode.	BIOLOGIALIZZA V		
		DHCP Client			
		O Obtain addresses auto	omatically (enable DHCP Client)		
		 Use the following stati 	ic addresses (disable DHCP Client)		
		IP Address	0.0.0.0		
		Subnet	255.255.255.255		
		Gateway	0.0.0		
		DNS Primary			
		DNS Secondary			
			Apply Cancel		
	<u> </u>				2

	VC 1 – Bridge Protocol (Routed Bridge Mode)
DHCP Client	Allows you to either Enable or Disable the DHCP Client.
	Select (enable DHCP Client) to obtain IP address automatically.
	Select (disable DHCP Client) to use the static IP address that you enter into fields provided.
IP Address	The IP network address that your Router is on.
Subnet Mask	The subnet mask, which determines if an IP address belongs to your local network.
Gateway	The Router's IP gateway address.
DNS Primary	This value is provided by Verizon.
DNS Secondary	This value is provided by Verizon.



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13.2.2.3.3 Bridge Protocol—Proxy Bridge Mode

If you select **Bridge** as the Protocol, and then select **Proxy Bridge** from the **Bridge Mode** drop-down menu, the following screen will appear. Enter the desired values in the fields provided, and then click **Apply**.

ProLine DSL Modem - Microsoft I					- 02
File Edit View Favorites Tools	нер				
verizor	2				
			0		
NI	21	55		1	
Main	My Network	Firewall Settings	Advanced	System Monitoring	
					,
				Ĵ	
Main		v	C 1 Configuration		
Broadband Connection		VC Status:	Enabled		
		VPI:	0		
		VCI:	35		
		PCR:	100		
		QoS:	UBR 🗸		
		Protocol:	Bridge 🗸		
		Bridge Mode:	Proxy Bridge 🔽		
		Proxy Bridge Settings			
		Gateway:	0.0.0.0		
		DNS Primary:	0.0.0.0		
		DNS Secondary:	0.0.0.0		
			Apply Cancel		

VC 1 – Bridge Protocol (Proxy Bridge Mode)				
Gateway	Displays the Router's IP address.			
DNS Primary Provided by your Service Provider.				
DNS Secondary				

If you clicked **Apply** in the preceding screen, the following pop-up screen will appear. The Router must be reset to allow the new configuration to take effect. Click **OK** to continue.

Microso	Microsoft Internet Explorer 🛛 🗙		
2	The modem must be reset in order for the new configuration to take affect. Do you wish to reset now?		
	OK Cancel		

If you clicked **OK**, the following screen will appear. After a brief delay, the home page will be displayed.





User Guide

13.2.2.4 Configuring the Router's Protocol Settings for Classical IPoA

To configure your protocol settings for Classical IPoA, access to the VC 1 Configuration screen, as explained earlier in section 13.2.2.1 "Editing VC Protocol Settings." At the VC 1 Configuration screen, select Classical IPoA from the **Protocol** drop-down menu. The following screen will appear. Enter the appropriate values in the fields provided and then click **Apply**.

ProLine DSL Modem - Microsoft In File Edit View Favorites Tools					
verizon					
Main	My Network	Firewall Settings	Advanced	System Monitoring	
Main		vc	1 Configuration		
Broadband Connection	VC s	itatus:	Enabled		
	VPI:		0		
	VCI:		35		
	PCR		100		
	QoS		UBR 💌		
	Proto	ocol:	Classical IPoA 🐱		
	Clas	sical IPoA Settings			
		ddress:	0.0.0.0		
	Subr	net Mask:	255.255.255.255		
	DNS	Primary:	0.0.0.0		
	DNS	Secondary:	0.0.0.0		
		A	pply Cancel		
					3

VC 1 Configuration (Classical IPoA)				
VC Status	The protocol status is Enabled.			
VPI	This field allows you to change your VPI (Virtual Path Indicator) value for a			
	particular VC, which is defined by your Service Provider.			
VCI	This field allows you to change your VCI (Virtual Channel Indicator) value for a			
	particular VC, which is defined by your Service Provider.			
PCR	Factory Default = 100%			
	Peak Cell Rate (PCR)-The maximum rate at which cells can be transmitted across a			
	virtual circuit, specified in cells per second and defined by the interval between the			
	transmission of the last bit of one cell and the first bit of the next.			
	This value is a percentage of the current data rate.			
	100 allows this VC to use 100% of the available bandwidth.			
	80 allows this VC to use 80% of the available bandwidth.			
QoS	Quality of Service, which is determined by your Service Provider.			



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	Possible Responses:	
	CBR = Constant Bit Rate	
	UBR = Unspecified Bit Rate	
	VBR = Variable Bit Rate	
Protocol	The Protocol for each VC, which is specified by your Service Provider.	
	Possible Responses:	
	PPPoA = Point to Point Protocol over ATM (Asynchronous Transfer Mode)	
	PPPoE = Point to Point Protocol over Ethernet	
	Bridge = Bridge Protocol	
	Classical IPoA = Internet Protocol over ATM (Asynchronous Transfer Mode). This	
	is an ATM encapsulation of the IP protocol.	
VC Status	The protocol status is Enabled.	
IP Address	Displays the IP network address that your modem is on.	
Subnet Mask	Displays the subnet mask, which determines if an IP address belongs to your local	
	network.	
DNS Primary	Provided by your Service Provider.	
DNS Secondary	Provided by your Service Provider.	

If you clicked **Apply** in the preceding screen, the following pop-up screen will appear. The Router must be reset to allow the new configuration to take effect. Click **OK** to continue.

Microsoft Internet Explorer			
2	The modem must be reset in order for the new configuration to take affect. Do you wish to reset now?		
	OK Cancel		

If you clicked **OK**, the following screen will appear. After a brief delay, the home page will be displayed.





User Guide

13.2.3 Configuring VersaPort (LAN Ethernet/WAN Uplink)

If you clicked the **VersaPort (Ethernet 1)** link in the **Network Connections** screen, the following screen will appear. This screen allows you to select how the UPLINK/E1 port on the rear of the Router will be used.

Select one of the following modes from the drop-down menu:

- LAN Ethernet port: This mode allows you to use the Router's DSL port for WAN access (the Router's DSL functionality is enabled).
- WAN Uplink port. This mode allows you to use the Router as an Ethernet Gateway (for example, connecting to a cable modem or to another ADSL device that provides WAN access). In WAN Uplink mode, the Router's DSL functionality is disabled.

NOTE: The menu options displayed will vary according to the configuration you have chosen to use, LAN Ethernet port or WAN Uplink port. If you are using WAN Uplink port, some menu options will not be available. However, all menu options will be available when the Router is enabled for LAN Ethernet port. Instructions on enabling and disabling LAN Ethernet port and WAN Uplink port are explained in the following sections. This document was created with the Router configured for LAN Ethernet port.




VersaLink Wireless Gateway (Model 327W)

13.2.3.1 Enabling LAN Ethernet Port—Disabling WAN Uplink Port

If you selected LAN Ethernet port in the VersaPort screen, this will enable the Router's DSL transceiver, and the Router will use its DSL port as the WAN interface. This configuration will disable the WAN Uplink port (UPLINK/E1 on the rear of the Router).

- When LAN Ethernet port is selected, the DSL port on the rear of the Router is enabled and is the WAN interface to the Internet.
- When **WAN Uplink port** is selected, the **UPLINK/E1** port on the rear of the Router is enabled and is the WAN uplink to another ADSL device through which you will make your Internet connection.

Remember, you must click Apply to allow the settings to take effect in the Router.

NOTE:

- 1. When using the optional UPLINK/E1 port, Ethernet LAN connection is limited to E2, E3, and E4. The WAN Uplink feature is optional and, if it is disabled, the Router will use DSL only as the WAN interface.
- 2. Some menu options are unavailable when the Router is configured for **WAN Uplink port.** However, all of the Router's menu options are displayed when the Router is configured for **LAN Ethernet port**. 3. The Router's factory default setting is **LAN Ethernet port**.
- 4. If WAN Uplink is not enabled in the .ini file, the Router will use DSL only as the WAN interface.

🕙 VersaLink Wireless Gateway - Mi	crosoft Internet	Explorer				
File Edit View Favorites Tools	Help					.
veri <mark>zor</mark> Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main Network Status Network Connections Broadband Connection	Sele will	ect how YersaPort be used:	Versa	Port VersaPort (Ethernet 1) is curre a fourth ethernet LAN port	ntly configured as	
			Apply	Cancel		
<						>
🔇					🧐 Internet	



If you selected **LAN Ethernet port** in the **VersaPort** screen, the following pop-up screen will be displayed. The Router must be reset to allow the new configuration to take effect. Click **OK** to continue.

Microso	ft Internet Explorer 🛛 🔀
2	The modem must be reset in order for the new configuration to take affect. Do you wish to reset now?
	OK Cancel

If you clicked **OK**, the following screen will appear. After a brief delay, the home page will be displayed. Confirm that you have a DSL link and that your PPP Status displays **UP**. (If necessary, click the **connect** button to establish a PPP session).





VersaLink Wireless Gateway (Model 327W)

13.2.3.2 Enabling WAN Uplink Port—Disabling LAN Ethernet Port

If you selected **WAN Uplink port** in the **VersaPort** screen, this will disable the Router's DSL transceiver and the DSL port. This configuration allows the port labeled **UPLINK/E1** on the rear of the Router to become the WAN interface port. Then, you can use **UPLINK/E1** to uplink to another ADSL device, through which you can connect to the Internet.

- When LAN Ethernet port is selected, the DSL port on the rear of the Router is enabled and is the WAN interface to the Internet.
- When **WAN Uplink port** is selected, the **UPLINK/E1** port on the rear of the Router is enabled and is the WAN uplink to another ADSL device through which you will make your Internet connection.

Remember, you must click **Apply** to allow the settings to take effect in the Router.

NOTE:

- 1. When using the optional UPLINK/E1 port, Ethernet LAN connection is limited to E2, E3, and E4. The UPLINK feature is optional and, if it is disabled, the Router will use DSL only as the WAN interface.
- 2. All of the Router's menu options are displayed when the Router is configured for LAN Ethernet port. However, some menu options are unavailable when the Router is configured for WAN Uplink port. The sections explained throughout this document will indicate when a menu item is unavailable.
- 3. The Router's factory default setting is LAN Ethernet port.
- 4. If UPLINK is not enabled in the .ini file, the Router will use DSL only.

If you selected **WAN Uplink port**, the following pop-up screen will be displayed. The Router must be reset to allow the new configuration to take effect. Click **OK** to continue.



If you clicked **OK**, the following screen will appear. After a brief delay, the home page will be displayed. Remember, when WAN Uplink port is configured, the Router will not have a DSL link.





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13.2.3.3 Editing the VC Protocol Settings for WAN Uplink Port

After you have configured the Router for **WAN Uplink port**, in the preceding steps, select **My Network** from the top navigational menu, and then select **Network Connections** from the menu options at the left of the screen. The following screen will appear.

To edit the Uplink settings, do the following:

• To enable Spanning Tree Protocol, click the adjacent check box (a check mark will appear in the box). Then click **Apply** to allow the setting to take effect.

NOTE: Spanning Tree Protocol is a link management protocol that provides path redundancy while preventing undesirable loops in the network. For Ethernet network to function properly, only one active path can exist between two stations. When Spanning Tree Protocol is enabled, two bridges are used to interconnect the same two computer network segments. Spanning Tree Protocol will allow the bridges to exchange information so that only one of them will handle a given message that is being sent between two computers within the network. Spanning Tree cannot be enabled if VLAN is enabled. Details on VLAN will be discussed later in this User Guide.

• To edit the Uplink Settings, select the desired protocol from the Protocol drop-down menu.

NOTE: If you experience any problems, reset the Router by pressing the reset button on the rear of the Router. Or follow the instructions in section 15.2, "Restore Defaults," to restore the Router to factory default settings. The actual information displayed in this screen may vary, depending on network connection established.

<mark>/ersaLink Wireless Gateway</mark> ile Edit View Favorites To		Explorer				
veriz	on					
Main	Wireless Settings	My Network	Firewa Setting			System Monitoring
Main Network Status			Ve	rsaPort		
Network Connections Broadband Connection	will	ect how YersaPort be used:	WAN uplink port	 VersaPort (Et the broadban 	thernet 1) is currently id port.	configured as
		Connection Profile Connection Name	Default (profile used when auto connecting)	PPP Status	Action	Edit
	My C	Connection	2	Down	🙂 connect	
	Add					2
	Upli	nk Settings				
	Prot	ocol:	PPPoE	~		
	Ð					
	Spar	nning Tree Protocol:		Disabled		
			Apply	Cancel		



VersaLink Wireless Gatewav (Model 327W)

13.2.3.3.1 Configuring the WAN Uplink Protocol Settings for PPPoE

NOTE: The instructions in this section refer to the Router configured for WAN Uplink mode. Be sure that you have selected **WAN Uplink port** from the drop-down menu in the **VersaPort** screen.

To set the Uplink protocol to PPPoE, from the **Protocol** drop-down menu, select **PPPoE**.

NOTE: PPPoE is the factory default setting for WAN Uplink port.

Versal ink Wireless Gateway - M File Edit View Favorites Tools		ixplorer					
verizo	n						
Main	Wireless Settings	My Network	Firew. Settin	all gs	Advanced	System Monitoring	
Main Network Status			v	ersaPort			
Network Connections Broadband Connection	Sele will	ct how VersaPort be used:	WAN uplink port	VersaPort (the broadba	Ethernet 1) is currently ind port.	configured as	
	рер і	Connection Profile					
	Co	onnection Name	Default (profile used when auto connecting)	PPP Status	Action	Edit	
	My C	onnection	R.	Down	🙂 connect	-	
	Add					8	
	Uplin	k Settings					
	Proto	col:	PPPo				
			Route	dIP			
	Span	ning Tree Protocol:		Disabled			
			Apply	Cancel			
<						Internet	>

If you selected **PPPoE**, the following screen will be displayed. Next, click the expand button

to expand the page.

veri	on					
Main	Wireless Settings	Wy Network	Firew Settin		Sidvanced	System Monitoring
Main Network Status			v	ersaPort		
Network Connections		Select how VersaPort will be used:	WAN uplink port	VersaPort (El the broadbar	thernet 1) is currently nd port.	configured as
Broadband Connectio		PPP Connection Profile				
		Connection Name	Default (profile used when auto connecting)	PPP Status	Action	Edit
		My Connection	ø	Down	🔟 connect	=
		Add				
		Uplink Settings				
		Protocol:	PPPo	E		
		•				
		Spanning Tree Protocol:		Disabled		
			Apply	Cancel		



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If you clicked the expand button, the following screen will appear. This screen allows you to configure the desired PPPoE settings for WAN Uplink port.

At the VersaPort screen, do the following:

- 1. Confirm that **PPPoE** is selected in the **Protocol** drop-down menu.
- 2. Enter the appropriate values in the **PPPoE Settings** fields.
- 3. Set the desired Tunneling setting (to enable the setting, click the box to place a check mark in the box) or to disabled the setting, click to clear the box). By default, Tunneling is Enabled.
- 4. Set the desired Spanning Tree setting (to enable the setting, click the box to place a check mark in the box) or to disabled the setting, click to clear the box). By default, Spanning Tree is Disabled.
- 5. Click **Apply** to allow the settings to take effect.
- 6. Click **OK** in the pop-up screen to allow the Router to be reset and the new configuration to take effect.

VersaLink Wireless Gateway - Mie	crosoft Inter	net Explorer			
File Edit View Favorites Tools	Help				
verizon					
		22			Carl Carl
Main Main	Wireless	My Network	Firewall	Advanced	System
Main	Settings	Hy Network	Settings	Auvanceu	Monitoring
Main			VersaP	ort	
Network Status					
Network Connections		Select how VersaPort will be used:	WAN uplink port 💌	VersaPort (Ethernet 1) is currently the broadband port.	/ configured as
Broadband Connection					
		Routed Bridge Connection Connection Name	Connection Status	Action	Edit
		My Connection	Down		
		Uplink Settings			
		Protocol:	PPPoE 💌		
		-			
		PPPoE Settings			
		IP Address:	0.0.0		
	C C	Gateway:	0.0.0		
		DNS Primary:	0.0.0		
		DNS Secondary:	0.0.0.0		
		MRU Negotiation:	Disable	d	
	l l	LCP Echo Disable:	Not acti	vated	
		LCP Echo Failures:		ust be between 1 and 30	
		LCP Echo Duration:		ist be between 5 and 300 seconds	
		LCP Echo Retry Duration:		ist be between 5 and 300 seconds	
		Tunneling:	Enabled		
		Consists Two Dustant's			
		Spanning Tree Protocol:	Disable	a	
			Analy	Canad	
			Apply	Cancel	
					🔮 Internet

Uplink Settings (PPPoE protocol)				
DHCP Client	Selecting a option button allows you to either Enable or Disable the DHCP Client.			
	Click the top option button labeled (enable DHCP Client) to allow the Router to obtain			
	an IP address automatically from your service provider.			
	Click the bottom option button labeled (disable DHCP Client) to allow the Router to			



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	accept static IP address information. Then, manually enter the IP values into the fields.
	Obtain these values from Verizon.
IP Address	The IP network address that your Router is on.
Gateway	The Router's IP gateway address.
DNS Primary	Provided by Verizon.
DNS Secondary	Provided by Verizon.
MRU Negotiation	Factory Default = Disabled
	If Enabled, the Maximum Received Unit (MRU) would enforce MRU negotiations.
	Note: Enable this option only at your Internet Service Provider's request.
LCP Echo Disable	Factory Default = Enable
	If checked, this option will disable the modem LCP Echo transmissions.
LCP Echo Failures	Indicates number of continuous LCP echo non-responses received before the PPP
	session is terminated.
LCP Echo Duration	The interval between LCP Echo transmissions with responses.
LCP Echo Retry Duration	The interval between LCP. Echo after no response.
Tunneling	Factory Default = Enabled
-	To disable Tunneling, click the box to clear the check mark.
	When Enabled, this option allows PPP traffic to be bridged to the WAN. This feature
	allows you to use a PPPoE shim on the host computer to connect to the Internet
	Service Provider, by bypassing the Router's capability to do this.
	Note: Tunneling is available in PPPoE mode only.
Spanning Tree Protocol	Factory Default = Disabled
1	To enable Spanning Tree Protocol, click the box. A check mark will appear in the box.
Note: The values for the IP	Address, Gateway, DNS Primary, and DNS Secondary are all "Override of the values
	nection," They default to "0.0.0.0," in which case the override is ignored. It is
	ot change the values unless your service provider instructs you to change them.



VersaLink Wireless Gateway (Model 327W)

13.2.3.3.2 Configuring the WAN Uplink Protocol Settings for Routed IP

NOTE: The instructions in this section refer to the Router when it is configured for WAN Uplink mode. In the **VersaPort** screen, be sure that you have selected **WAN Uplink port** from drop-down menu.

To set the Uplink protocol to Routed IP, from the Protocol drop-down menu, select Routed IP.

VersaLink Wireless Gateway - M File Edit View Favorites Tools		ernet Explorer				
veri	<u>n</u>		12			
Main	Wireless	My Network	Firewall	Advanced	System Monitoring	
	Settings	,	Settings		Monitoring	
Main Network Status			VersaP	ort		
Network Connections		Select how YersaPort will be used:	WAN uplink port 💌	VersaPort (Ethernet 1) is current the broadband port.	ly configured as	
Broadband Connection		Routed Bridge Connection				
		Connection Name	Connection Status	Action	Edit	
		My Connection	Down		⇒	
		Uplink Settings				
		Protocol:	PPPoE V			
		•	PPPoE Routed IP			
		Spanning Tree Protocol:	🗌 Disable	ed		
			Apply	Cancel		
< Done					🔮 Internet	>
a can					Tricemec	

If you selected **Routed IP**, the following screen will be displayed. Next, click the expand button

to expand the page.

VersaLink Wireless Gateway -		Explorer				
File Edit View Favorites Tools	s Help					4
verizo	on					
	162		1.14	0		
ETP	2			A		
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
			,			
Main						
			VersaPo	ort		
Network Status	I –					
Network Connections	Sel	ect how VersaPort be used:	WAN uplink port 💌	VersaPort (Ethernet 1) is currently the broadband port.	y configured as	
Broadband Connection	Baul	ed Bridge Connection				
L		Connection Name	Connection Status	Action	Edit	
	My C	Connection	Down		-	
		nk Settings				
	Prote	col:	Routed IP 💌			
		ning Tree Protocol:				
	Spar	ining free Protocol:	Disabled			
			Apply	Cancel		
			Appry -			
Done					💣 Internet	



If you clicked the expand button, the following screen will appear. This screen allows you to configure the desired Routed IP settings for WAN Uplink port.

At the **VersaPort** screen, do the following:

- 1. Confirm that **Routed IP** is selected in the **Protocol** drop-down menu.
- 2. Enter the appropriate values in the **DHCP Client** fields.
- 3. Set the desired Spanning Tree setting. By default, Spanning Tree is Disabled.
- 4. Click **Apply** to allow the settings to take effect.
- 5. Click **OK** in the pop-up screen to allow the Router to be reset and the new configuration to take effect.

veriz	on				
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring
Main Network Status			VersaPor	t	
Network Connections		Select how VersaPort will be used:	WAN uplink port Ve	rsaPort (Ethernet 1) is curre e broadband port.	ntly configured as
Broadband Connection		Routed Bridge Connectio	D		
	-	Connection Name	Connection Status	Action	Edit
		My Connection	Down		9
		Uplink Settings			
		Protocol:	Routed IP 💌		
		0			
		DHCP Client			
			natically (enable DHCP Client)		
		 Use the following static IP Address 	addresses (disable DHCP Client)		
		Subnet	255.255.255.255		_
		Gateway	200.200.200.200		-
		DNS Primary	0.0.0.0		
		DNS Primary	0.0.0.0		-
		CAS Secondary	00.00		_
		Spanning Tree Protocol:	Disabled		
			Apply Ca	ancel	

	Uplink Settings (Routed IP protocol)						
DHCP Client	Selecting a option button allows you to either Enable or Disable the DHCP Client.						
	Click the top option button labeled (enable DHCP Client) to allow the Router to obtain an IP						
	address automatically from your service provider.						
	Click the bottom option button labeled (disable DHCP Client) to allow the Router to accept						
	static IP address information. Then manually enter the IP values into the fields. Obtain these						
	values from your service provider.						
IP Address	The IP network address that your Router is on.						
Subnet Mask	The subnet mask, which determines if an IP address belongs to your local network.						
Gateway	The Router's IP gateway address.						
DNS Primary	Provided by Verizon.						
DNS Secondary	Provided by Verizon.						
Spanning Tree	Factory Default = Disabled						
Protocol	To enable Spanning Tree Protocol, click the box. A check mark will appear in the box.						
Note: The values for	the IP Address, Gateway, DNS Primary, and DNS Secondary are all "Override of the values						
obtained from the PPP connection," They default to "0.0.0.0," in which case the override is ignored. It is							
recommended that ye	ou do not change the values unless your service provider instructs you to change them.						

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14. FIREWALL SETTINGS

14.1 General Firewall Security Settings

This section explains how to configure your Router's firewall security features. The Router's firewall security settings allow you reduce the risk of unauthorized access to your network by prohibiting certain types of inbound and outbound network traffic and by allowing you to configure specific firewall rules.

IMPORTANT: If you need help, click **Main** in the top navigational menu to go to the home page. In the **Quick Links** section of the home page, click **Verizon Help**. Clicking this link takes you to Verizon's OnLine Help site, where you can access additional information about your DSL Router.

To change your firewall security level, click the option button next to the desired security setting. Next, click **Apply** to allow the changes to take effect.

IMPORTANT: It is recommended that you do not change the settings in this **User Defined Firewall Rules** screen. If you need to reset your Router to factory default settings, push the reset button on the rear of the Router. Or follow the instructions in section 15.2, "Restore Defaults," to restore the Router to factory default settings. The factory default security level for your Router is **No Security (None)**.





User Guide

	General Firewall Settings
Maximum Security	High security level only allows basic Internet functionality. Only Mail, News, Web,
(High)	FTP, and IPSEC are allowed. All other traffic is prohibited.
Typical Security	Like High security, Medium security only allows basic Internet functionality by
(Medium)	default. However, Medium security allows customization through NAT configuration
	so that you can enable the traffic that you want to pass.
Minimum Security	Low security setting will allow all traffic except for known attacks. With Low
(Low)	security, your Router is visible to other computers on the Internet.
No Security	Factory Default = No Security (None)
(None)	The Firewall is disabled. (All traffic is passed)
Custom Security	Custom is a security option that allows you to edit the firewall configuration directly.
(Custom)	Note: Only the most advanced users should try this.

14.2 Editing Firewall Security Rules

To edit the firewall security rules for the setting you selected in the **General** screen, click **Edit** to go to the **User Defined Firewall Rules** screen.

IMPORTANT: It is recommended that you do not change the settings in this screen. If you need to reset your Router to factory default settings, push the reset button on the rear of the Router. Or follow the instructions in section 15.2, "Restore Defaults," to restore the Router to factory default settings.

The information displayed in this screen depends on the firewall security setting you have selected. You can change the security parameters on your Inbound and Outbound firewall rules by selecting the desired option button. If you select the **Inbound** option button, this will restrict inbound traffic from the WAN to the LAN. If you select the **Outbound** option button, this will restrict outbound traffic from the LAN to WAN.

NOTE: If you selected **No Security** in the **General** screen, no rules will be displayed in the **User Defined Firewall Rules** screen. You must first select, High, Medium, Low, or Custom and then click **Apply** in the **General** screen if you want to view or edit firewall rules. If you need help, click **Main** in the top navigational menu to go to the home page, and then click **Verizon Help** to access Online Help for your DSL Router.



After you have edited your firewall rules, clicked **Save**. The settings will be saved to flash (a temporary storage area in your Router). Next, click **Apply** to apply the settings to your Router. The Router's security level will automatically switch to **Custom Security**.



After you have clicked **Apply** in the **User Defined Firewall Rules** screen, click **Back** to return to the **General** screen. In the **General** screen, the **Custom Security** option button will be selected (as shown below), indicating that your Router is using a customized firewall security setting.





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14.3 Port Forwarding

To access the Port Forwarding screen, from the top navigational menu, select **Firewall Settings.** Then select **Port Forwarding** from the menu options at the left of the screen. A warning screen will display the following message:

Any changes made in this section may affect your device's performance and configuration. Do you want to proceed?

Click Yes to proceed.

VersaLink Wireless Gateway	- Microsoft Internet E	xplorer				
File Edit View Favorites To	ols Help					1
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veriz	on					
	<u>(0)</u>	9				
Main	Wireless	My Network	Firewall	Advanced	System Monitoring	
	Settings	in in iteration	Settings	navancea	Monitoring	
Main			Warning!!			
<u> </u>		Any changes made in this			onfiguration.	
			Do you want to pro	ceed?		
			Yes	No		
<						×
s Done					🔮 Int	

If you clicked **Yes**, in the preceding warning screen, the following **Port Forwarding** screen will be displayed. This feature enables applications (Games, Webcams, IM & Others) by opening a tunnel between remote (Internet) computers and a specific device port inside your local area network (LAN).

The Port Forwarding screen allows you to do the following:

- Edit connection profiles, create new connection profiles
- Configure port forwarding services: predefined, customized, and port forwarding/port triggering services

VersaLink Wireless Gateway - Fie Edit View Favorites Too Veri	ls Help	er				
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main General Port Forwarding DMZ Host Remote Administration Static NAT	This feature en	hables applications(Games, computers and a specif Default v		ng)) by opening a tunnel between re our local area network(LAN). dit	mote(Internet)	
Security Log	Name	Mode		Host Device	Action	
	IPSEC ALG	Client	Dynamic		🖻 🚔	
	Add					
						J
		Ш				
one					Internet	



User Guide

14.3.1 Editing a Connection Profile

Port Forwarding services can be added to connection profiles. To edit an existing profile, and then later add port forwarding services to the profile, follow the instructions in this section.

To edit a connection profile, in the **Port Forwarding** screen, click the **Current Profile** drop-down menu, and then select the name of the profile that you want to edit. Next, click **Edit** .

🕙 VersaLink Wireless Gateway - Mi	icrosoft Internet Explorer					
File Edit View Favorites Tools	Help					
Veri or Main)	Network	Settings	Advanced	System Monitoring	
Main General Port Forwarding DMZ Host Remote Administration Static NAT	This feature enables a co Current Profile: Defaul	applications(Games, Web mputers and a specific d	Port Forwarding cams, IM & Others) evice port inside you New Edit	by opening a tunnel between rer r local area network(LAN).	note(Internet)	
Security Log	Name	Mode		Host Device	Action	
	IPSEC ALG	Client	Dynamic		🖈 👼	
	Add				2	
<					1	>
C Done					Internet	<u></u>

If you have selected a profile and clicked **Edit**, the following screen will appear. In the following example, "Default" has been selected from the **Current Profile** drop-down menu displayed in the preceding screen. This is the profile name that will be edited.

VersaLink Wireless Gatew		orer			
File Edit View Favorites	Tools Help				
ver	i zon				
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring
Main Port Forwarding Edit Profile	Profile Name	: Default	Edit Service Pr	rofile Cancel	
Cone		III			Internet



User Guide

Type the name of your choice in the field provided. Click **Apply** to allow the change to take effect. The name you entered should now be displayed in the **Current Profile** drop-down menu. Notice that "Default" is no longer displayed.

NOTE: If you reset your Router to factory default settings, the default profile "Default" will be displayed, and any previously configured settings will be lost.

VersaLink Wireless Gateway File Edit View Favorites To Veriz	ols Help	orer			
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring
Main Port Forwarding Edit Profile	Profile Name	: Profile 1	Edit Service Pr	ofile Cancel	
Cone					🔰 🔊 Internet



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14.3.2 Creating a New Connection Profile

If you desire to create a new profile, and then later add port forwarding services to the new profile, follow the instructions in this section.

To create a new connection profile, in the **Port Forwarding** screen, click the **Current Profile** drop-down menu, and then select **A New Service Profile #1.** Click the **New** button to continue.

🗿 VersaLink Wireless Gateway - M						🛛
File Edit View Favorites Tools						
Main	Wireless Settings M	y Network	Firewall Settings	Advanced	System Monitoring	
Main General Port Forwarding DM2 Host Remote Administration Static NAT	Current Profile: Del Def A N A N	s applications(Games, We computers and a specific ault	Port Forwardir beams, IM & Others device port inside yo Edit	1g) by opening a tunnel betwe uur local area network(LAN)	en remote(Internet)	
Security Log	Name	Mode		Host Device	Action	
	IPSEC ALG Add	Client	Dynamic			I
< Done	<u> </u>				🗳 Internet	×

If you clicked the **New** button, the following screen will appear. Type the profile name of your choice in the field, and then click **Apply** to allow the change to take effect.

VersaLink Wireless Gatew	ay - Microsoft Internet Exp	lorer			
File Edit View Favorites	Tools Help				
veri Main	ON Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring
Main Port Forwarding Edit Profile	Profile Nam	e: A New Service Profile #1	Edit Service Pr	ofile	
3					
E Done					Internet



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For example, "My First Service Profile" is the name that has been entered in the Profile Name field. Click Apply.



If you clicked **Apply**, the following screen will be displayed. The **Current Profile** field now displays the profile name that you entered.

4	VersaLink Wir	eless Gatev	vay - M	icrosoft Internet Ex	plorer			[
:	File Edit View	Favorites	Tools	Help					
ſ	Mai	ver	i _o	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
	Main General Port Forw DMZ Host Remote Ad Static NAT	a rding ministration		This featur Current Profile	computers and a	Port Forwar imes, Webcams, IM & Oth specific device port inside Delete	ding ers) by opening a tunnel betv e your local area network(LAR Edit	veen remote(Internet) N).	
	Security Lo	g		Nam	ne Mo	de	Host Device	Action	
	<u>د </u>		_	IPSEC ALG	Client	Dynamic		🖻 💂	
Z				Add				2	
< ক্রী	Done		_		111			Internet	>
e	Dune							Unternet	



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14.3.3 Configuring Port Forwarding Services

Port Forwarding Services contain specific service settings. The service can then be associated with connection profiles, allowing you to customize profiles for specific users. For example, if you want to attach specific services to a profile or if you want to set up a different connection setting for a profile. You can create new service profiles and customize them to your preference.

Your Router contains a list of predefined Port Forwarding services, and you can select any service from this list. By selecting your specific service and setting up a profile, you will ensure that the appropriate ports on your Router are open and that the required application traffic can pass through your local area network (LAN). For a list of supported services, go to section 17, "Port Forwarding Services."

NOTE: You can create up to four service profiles and attach an unlimited number of services to each profile. The current profile labeled "Default" is the factory default profile.

VersaLink Wireless Gateway		rer			
File Edit View Favorites To	ools Help				
veri	on				
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring
Main General Port Forwarding	This feature e	nables applications(Gam computers and a s	Port Forward es, Webcams, IM & Other pecific device port inside	ing 's) by opening a tunnel between rei your local area network(LAN).	mote(Internet)
DMZ Host Remote Administration Static NAT	Current Profile:	Default	Edit		
Security Log	Name	Mode	•	Host Device	Action
	IPSEC ALG	Client	Dynamic		🖻 🙀
	Add				<u> </u>
Mathematical Strength	.htm?currentNatProfileId=0#				Internet



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14.3.3.1 Adding Port Forwarding Services to a Profile

To add a predefined service to a profile, in the **Port Forwarding** screen, click the **Current Profile** drop-down menu, and then select the name of the profile to which you want to add services. Next, click **Add**.

🗿 VersaLink Wireless Gateway -	Microsoft Internet Explo	rer				
File Edit View Favorites Too	ls Help					
verizo	on					
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main			Port Forward	ling		
General Port Forwarding	This feature e	nables applications(Gam computers and a s	es, Webcams, IM & Othe ecific device port inside	rs) by opening a tunnel betv your local area network(LAP	een remote(Internet) I).	
DMZ Host	Current Profile:	Default	/			
Remote Administration			Edit			
Static NAT						
Security Log	Name	Mode		Host Device	Action	
	IPSEC ALG	Client	Dynamic		🖻 👼	
	Add					
<						
http://192.168.1.1/port_forwarding.http://192.168.11/port_forwarding.http://192.168.11/port_forwarding.http://192.168.11/port_forwarding.http://192.168.11/port_forwarding.http://192.168.11/port_forwarding.http://192.168.11/port_forwarding.http://192.168.11/port_forwarding.http://192.168.11/po	ntm?currentNatProfileId=0#				Internet	

If you clicked **Add**, the following **New Port Forwarding Rule** screen will appear. Using this screen, you can do any of the following:

- Add a predefined service to a profile
- Create a customized service
- Edit an existing service profile
- Delete an existing profile

VersaLink Wireless Gateway File Edit View Favorites Top					
; File Eult, Welly Payonites To	us nap				^
veriz	on				
Main	Wireless Settings My Network	Firewall Settings	Advanced	System Monitoring	
Main Port Forwarding	Falla	New Port Forwardi	-		
	1. Select an existing Service or Select a Service		Create Edit	Delete	
	2. Select how the service will be	activated			
	OHost		l traffic to a particular PC or		
	 Dynamic 		sed on specific outbound tra	affic.	
	3. For Hosted Service, Select a P Select a Discovered LAN device:		nually enter a LAN IP:		
		Apply Can	cel		
<					>
Done				Internet	



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14.3.3.2 Adding a Predefined Port Forwarding Service to a Profile

To add a predefined port forwarding service to a profile, in the **New Port Forwarding Rule** screen, perform the following steps:

1. Select the desired service from the **Select a Service** drop-down menu. After you have selected a service, it will appear in the window.

🛎 VersaLink Wireless Gateway -	Microsoft Internet	Explorer				
File Edit View Favorites Tools	s Help					
verizo	on					
		21				
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Į	seconds		settings		Monitoring	
Main Port Forwarding		Follow the	New Port Forwardir	2		
	1. Select an	existing Service or crea	te a new one			
	Select a Servio		~	Create Edit	Delete	
	Aliens vs. Pred Anacto Unline Age of Empires America Unline Asheron's Call Baldur's Gate 1 Batter Black and Whi Buddy Phone Bungie net, My Calista IP Phon Citrix Metafram Dark Reign 2	L Instant Messenger alor II: The Conquerors the the th, Myth II Server e s lient and Server) Land Warrior	bles inbound traffic bas	traffic to a particular PC on ed on specific outbound tra ually enter a LAN IP:		
<	GameSpy Onlin Ghost Recon	le	¥			>
🔊					🔮 Internet	

- 2. Select the option button that describes how you want the service to be activated.
 - **Host:** Allows the unsolicited inbound traffic to a particular PC on the LAN
 - Dynamic: Enables inbound traffic based on specific outbound traffic
- 3. Select the desired IP address from the drop-down menu or manually enter the IP address of the device that you want to host the service.
- 4. Click **Apply** to allow the settings to take effect.

NOTE: If you click **Cancel** in the **New Port Forwarding Rule** screen, the service you will be displayed; however, it will not be assigned to a device on the LAN. You must click **Apply** to allow the settings to take effect.



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If you clicked **Apply**, the following screen will be displayed. In this example, the screen shows that service "America Online" has been added to the "Default" profile.

- To add additional predefined services, in the **Port Forwarding** screen, first select the desired profile from the **Current Profile** drop-down menu. Next, click **Add** and then repeat the preceding steps 1 through 4.
- To view the details of a service you have added, in the Action field click the details icon
- To delete a service from your list of active services, at the **Port Forwarding** screen, click the delete icon **R** next to the service that you want to delete. The selected service will be deleted from the Router's list of active services.

VersaLink Wireless Gateway	- Microsoft Internet Explo	rer			
File Edit View Favorites To	ols Help				
veriz	on				
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring
Main General	This feature e	nables applications(Ga	Port Forward	ling rs) by opening a tunnel betwe your local area network(LAN)	een remote(Internet)
Port Forwarding DMZ Host Remote Administration	Current Profile:	Default	Edit		
Static NAT			Loit		
Security Log	Name		Mode	Host Device	Action
	America Online	Port Forward	ing	salle-xp2	🗁 🙀
	IPSEC ALG	Client		Dynamic	🗁 🔫
	Add				2

If you click the details icon in the preceding screen, the following screen will be displayed. Click **Cancel** when you are ready to return to the **Port Forwarding** screen.

VersaLink Wireless Gateway File Edit View Favorites T		ixplorer				
Veri Main	ON Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main Port Forwarding		Ser		ils a Online rwarding		
	Entry 1	Protocol TCP	Global Po 5190		Local Port(s) 5190	
			Cancel			



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14.3.3.3 Creating a Customized Port Forwarding Service

To create a customized port forwarding service, click Add in the Port Forwarding screen.

🗿 VersaLink Wireless Gateway - M		er			
File Edit View Favorites Tools	Help				
verizo					
Ven O	1				3
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring
Main			Port Forward	ing	
General Port Forwarding	This feature en	ables applications(Gam computers and a s	nes, Webcams, IM & Other pecific device port inside	s) by opening a tunnel betwee your local area network(LAN).	en remote(Internet)
DMZ Host	Current Profile:	Default	~		
Remote Administration			Edit		
Static NAT					
Security Log	Name	Mod	e	Host Device	Action
	IPSEC ALG	Client	Dynamic		🖻 👼
	Add				2
	e				
< _		111			>
ê					Internet

If you clicked Add, the following screen will be displayed. Click Create.

🗿 VersaLink Wireless Gateway - N	Aicrosoft Internet E	xplorer				
File Edit View Favorites Tools	Help					<u></u>
						~
veri70	n					
		1	L (*			
	Wireless		Firewall		System	
Main	Settings	My Network	Settings	Advanced	System Monitoring	J
Main			New Port Forward	ing Rule		
Port Forwarding		Follow t	the steps below to set up a se	ervice on your device.		
	1. Salact an	existing Service or cre	asta a nom ono			
	Select a Servic			Create Edit	Delete	
	2. Select how	the service will be ac	tivated			
		⊖ Host	Allows unsolicited inboun	d traffic to a particular PC o	n the LAN.	
		 Dynamic 		ased on specific outbound tr	affic.	
		l Service, Select a PC (
	Select a Disco	vered LAN device:	salle-xp2 💟 Or ma	anually enter a LAN IP:		
			Apply Can	icel		
<			m			>
🖉 Done						Internet



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If you clicked **Create**, the following **Create Port Forwarding Service** screen will appear. Using this screen, you can create port forwarding and port triggering services for your Router. The following sections explain how to customize these services in your Router.

- **Port Forwarding Ranges of Ports**: This option allows you to forward a range of WAN ports to an IP address on the LAN.
- **Trigger Ports:** This option allows you to forward a range of ports to an IP address on the LAN only after specific outbound traffic.

VersaLink Wireless Gateway File Edit View Favorites Ti		olorer				
veriz	on					
	(m)		Ha	N		
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
	second	_	second		Homeoring	
Main		Crea	ate Port Forwardir	ig Service		
Port Forwarding		Follow the steps be	low to define a new custo	om port forwarding servi	ce.	
	1. Enter a nam	e for the custom service:				
	2. Constitution	port forwarding entry bas				
	 Port Forwar 			ores.		
	3. Define the fi	rst rule:				
	Protocol	Global PortStart	Global I	PortEnd	Base HostPort	
			Apply Cano	el		

14.3.3.3.1 Creating a Service Based on Specific Port Forwarding Ports

The Port Forwarding feature allows you to forward a range of WAN ports to an IP address on the LAN. You can set up a port forwarding entry based on your specific ports.

IMPORTANT: Using various Internet applications depends on the Router's firewall settings. Make sure that the Router's firewall is set to Medium Security or lower to take advantage of all the port forwarding features. Firewall settings take precedence over port forwarding services configured in the Router. For example, if the firewall is set to Medium Security, this will block ICMP packets even if the ICMP service is enabled. If a port forwarding service is not working, try setting the firewall to a lower setting.

To create a port forwarding service based on specific port forwarding ports, at the **Create Port Forwarding Service** screen, do the following:

- 1. Type the name of the custom service that you are creating in the field provided. This will be the name of the port forwarding service for which you are configuring specific Port Forwarding rules.
- 2. Click the **Port Forwarding** option button.
- 3. Select the desired protocol from the **Protocol** drop-down menu.
- 4. Enter the desired Global Port Start, Global Port End, and Base Host Port values in the fields provided, as shown in the example below.
- 5. Click **Apply** to allow the changes to take effect.



NOTE: If you clicked **Cancel** in the **Create Port Forwarding Service** screen, the service you created will be displayed; however, it will not be activated in your Router. You must click **Apply** to allow the settings to take effect.

VersaLink Wireless Gatewa File Edit View Favorites		orer				
File Edit View Favorites	roois neip					
veri	on					
		2	L (3			
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
L	settings	_	secongs		Monitorning	
Main		Crea	ate Port Forwardii	na Service		
Port Forwarding			ow to define a new cust	-	rvice.	
	1. Enter a name	for the custom service:				
	My First Port Forward	Service				
	2. Specify the p	ort forwarding entry bas	ed on your specific r	orts:		
	 Port Forward 					
	3. Define the fir Protocol	st rule: Global PortStart	Global	PortEnd	Base HostPort	
		22	24	r or centa	23	
			Apply Can	cel		
<						>
🕙 Done						Internet

Port Forwarding Service					
Protocol	TCP – Transmission Control Protocol				
11010001	UDP – User Datagram Protocol				
Global Port Start	The WAN-side TCP/UDP start port.				
Global Port End	The WAN-side TCP/UDP end port.				
Base Host Port	The port on the WAN that will host the port forwarding service selected. Base Host Port is				
	the first port that will be used for a specific service when configured for a range of ports.				



🙆 VersaLink Wireless Gateway - M	icrosoft Interne	t Explorer					
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veri <mark>zo</mark>	n						
	1		9 E	12	(M)		
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Main	Wireless Settings	My Net	work Fii Se	rewall ttings	Advanced	System Monitoring	
	_						′
Main							
				rvice Details			
Port Forwarding			Service Name *N Type	ly First Port Forwa Port Forward			
	Entry	Protocol	Global Port Start	Global Port End	Base Host Port	Action	
	1	TCP	22	24	23		
	Add						
				Done			

If you clicked Apply, the following Service Details screen will be displayed. Click Done.

6. Return to the **New Port Forwarding Rule** screen and, from the drop-down menu, select the name of the service that you created in Step 1 (the name will appear at the bottom of the list under **User Defined Services**).

🗿 VersaLink Wireless Gateway - I	Microsoft Internet E	xplorer				
File Edit View Favorites Tools	; Help					
verizo	on					
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main Port Forwarding	1My First Post F Quickines 4Me Quickines 4Me Audush 2 Bandowi San Bandowi San Simulari Sam Simulari Sam Sim Simulari Sam Simulari Sam Simulari Sam Simulari Sam S	existing Service or creat availad Service af Audio Topue Spear ase Station en Protocol (SIP) ell statleet Command II Statleet	v sussilicited inbound traffic bables inbound traffic ba	Create Edit Create Edit traffic to a particular PC c used on specific outbound to nually enter a LAN IP:	in the LAN.	
	'My First Port Fi		■			

- 7. Select how the service will be activated.
 - Host allows unsolicited inbound traffic to a particular PC on the LAN.
 - Dynamic enables inbound traffic based on specific outbound traffic.
- 8. Select the IP address of the device that will host the service (select a device from the **Select a Discovered LAN device** drop-down menu or type an IP address in the field provided).
- 9. Click Apply to allow the service to be added to the Router's list of active services.



If you clicked **Apply**, the following screen will appear. The Port Forwarding service has been added to the list of active services. To add additional port forwarding services to your Router, repeat steps 1 through 9.

verizo	n					
Main	My Network	Firewall Settings	Advanc	ed r	System Ionitoring	
Main General Port Forwarding DMZ Host Remote Administration Static NAT	This feature enables a cor Current Profile: Defaut	pplications(Games, Webcams, mputers and a specific device p	Orwarding IM & Others) by opp ort inside your loca	aning a tunnel between re I area network(LAN).	emote(Internet)	
Security Log	Name		Mode	Host Device	Action	
	IPSEC ALG	Client		Dynamic	🖻 💂	
	*My Port Forwarding Servi	ice Port Fo	rwarding	hmcgr-xp	🖻 💂	
	Add					J



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14.3.3.3.2 Creating a Service Based on Specific Port Triggering Ports

The Trigger Ports feature allows you to forward a range of ports to an IP address on the LAN only after specific outbound traffic. You can set up a port triggering entry based on your specific ports.

IMPORTANT: Using various Internet applications depends on the Router's firewall settings. Make sure that the Router's firewall is set to Medium Security or lower to take advantage of all the port forwarding features. Firewall settings take precedence over port forwarding services configured in the Router. For example, if the firewall is set to Medium Security, this will block ICMP packets even if the ICMP service is enabled. If a port forwarding service is not working, try setting the firewall to a lower setting.

To create a port forwarding service based on specific port triggering ports, at the **Create Port Forwarding Service** screen, do the following:

1. Click the **Port Triggering** option button. (By factory default, the **Port Forwarding** option button will be selected.)

VersaLink Wireless Gateway - M		lorer				
File Edit View Favorites Tools	Help					~
verizo	n					
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
	(
Main		Creat	e Port Forwardin	g Service		
Port Forwarding		Follow the steps below	v to define a new custo	m port forwarding ser	vice.	
	1. Enter a name	e for the custom service:				-
	2 Caracify the a	ort forwarding entry base				
	 Port Forwar 			JFG:		
	3. Define the fi	st rule:				
	Protocol	Global PortStart	Global F	ortEnd	Base HostPort	
	TCP 💌					
			Apply Cano	ei		
	·					
						✓
C Done						Internet .:



VersaLink Wireless Gateway		prer				
veriz						
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main Port Forwarding			Create Port Triggerin	-	rvice.	
	1. Enter a name	for the custom servi	ce:			
	2. Specify the po O Port Forward		based on your specific p iggering	orts:		
	3. Define the firs		eal Port End L	ocal Port Start	Local Port End	
	When outbound	traffic is detected in the	e 'Trigger' Port, Port Forwar	ding is enabled throug	h the range of 'Global' Ports	
			Apply Can	cel		J
t Done						Internet

If you clicked the **Port Triggering** option button in the preceding screen, the following **Create Port Triggering Service** screen will be displayed.

- 2. Type the name of the custom service that you are creating in the field provided. This will be the name of the port forwarding service for which you are configuring specific Port Triggering rules.
- 3. Enter the desired Global Port Start, Global Port End, Local Port Start, and Local Port End values in the fields provided, as shown in the example below.
- 4. Click **Apply** to allow the changes to take effect.

NOTE: If you clicked **Cancel** in the **Create Port Triggering Service** screen, the values you entered will be displayed; however, they will not be active in your Router. You must click **Apply** to allow the settings to take effect.



VersaLink Wireless Gateway (Model 327W)

	way - Microsoft Internet Explorer					3
it View Favorites	Tools Help				// /	a
						=
ver	rizon					
	۲		Firewall			
Main	Settings	ly Network	Settings Adva	nced System Monitoring	9	
		Create P	ort Triggering Service			
Forwarding		Follow the steps below to d	define a new custom port forwar	ding service.		
	1. Enter a name for t	he custom service:				
	My Port Triggering Service					
					_	
	 Specify the port for Port Forwarding 	•rwarding entry based on • Port Triggering	your specific ports:			
	- Forces and any	C Fort Higgshing				
	3. Define the first ru	le:				
	Global Port Star					
	2	12	2	12		
	when outbound tram	c is aetected in the Trigger i	Port, Port Forwarding is enabled	through the range of Global Po	0/75	
		Ap	ply Cancel			
					×	

	Port Triggering Service					
Global Port Start	The WAN side TCP/UDP start port.					
Global Port End	The WAN side TCP/UDP end port.					
Local Port Start	The local LAN side TCP/UDP start port.					
Local Port End	The local LAN side TCP/UDP end port.					

After you clicked Apply, the following Service Details screen will be displayed. Click Done.

🗿 VersaLink Wireless Gateway	- Microsoft Inter	net Explorer					
File Edit View Favorites To	ols Help						
veriz	on						
		21		5 5	A		
Main	Wireless Settings	My Netw	ork F	irewall ettings	Advanced	System Monitoring	
<u></u>				-		-	
Main				ervice Details			
Port Forwarding			Service Name Type	*My Port Triggerin Trigger Po	ng Service rts		
	Entry	Global Port Start	Global Port End	Local Port Start	Local Start End	Action	
	1	2	12	2	12		
	Add						
				Done			
< Done			III				Internet .:



User Guide

5. Return to the **New Port Forwarding Rule** screen and, from the **Select a Service** drop-down menu, select the name of the service that you created in Step 2 (the name will appear at the bottom of the list under User **Defined Services**).

VersaLink Wireless Gatew File Edit View Favorites	2	xplorer				
ver	izon		514			
Main	Wireless	My Network	Firewall	Advanced	System Monitoring	
L	Settings		Settings		Monitoring	
Main Port Forwarding		Follow th	New Port Forwardi e steps below to set up a se	-		
	1. Select an	existing Service or crea	ite a new one			
	Select a Servic Quake 2	9	~	Create Edit	Delete	
	2 Quake 3 Rainbow Six & F	loque Spear	•			
	Real Audio Rodger Wilco B			l traffic to a particular PC o used on specific outbound tr		
	Serious Sam ShoutCast Serv Session Initiatio	N Protocol (SIP)	LAN	ised on specific outbound tr	ame.	
	SIP ALG SMTP Client	(11)	op2 🔽 Or ma	nually enter a LAN IP:		
	SMTP Host SSH Secure Sh Starcraft	el				
	Starfleet Comma	nd Starfleet Command II				
	Teinet UBI Online Ultima Online		Apply Can	cel		
	Unreal Tournam	Service				
	VNC, Virtual Ne Westwood Onlin	work Computing ie, C&C Tiberian Sun & Dune 201	10			
	XBox Live Yahoo Messeng	er Chat				
	Yahoo Messeng User Defined Se		-			
	"My First Port Fo	rward Service				
<	"My Port Trigger	ing Service	× .			>
E) Done					🔮 Int	

6. After you have selected the service, click **Apply** to allow the service to be added to the Router's list of active services.

If you clicked **Apply**, the following screen will appear. The Port Triggering service has been added to the list of active services. To add additional port triggering services to your Router, repeat steps 1 through 6.

🔄 VersaLink Wireless Gateway		xplorer				
File Edit View Favorites Too	ols Help					
veriz	on					
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main General Port Forwarding	This feat	ure enables applications(Ga computers and a	Port Forwardi mes, Webcams, IM & Other specific device port inside y	ng s) by opening a tunnel betw our local area network(LAN	en remote(Internet)	
DMZ Host Remote Administration Static NAT	Current Profi	le: Default	Edit			
Security Log	Na	me	Mode	Host Device	e Action	
	IPSEC ALG		Client	Dynamic	🔄 🙀	
	*My Port Tric	ggering Service	Trigger Ports	Dynamic	🗁 🙀	
	Add				2	
< 1						>
http://192.169.1.1/port_forwarding	http?currentNatDrofileId=f				inter inter	



User Guide

14.3.3.4 Deleting a Port Forwarding Service

If you have created a port forwarding or port triggering service and have added it to your Router's list of active services, at the **Port Forwarding** screen you can do one of the following:

- Click the delete icon 🕱 adjacent to the service you want to delete.
- Click the details icon adjacent to the service you want to view.

Edit View Favorites Too	ls Help					
veri	on					
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main			Port Forwarding			
General Port Forwarding	This feat	ure enables applications(Gai computers and a	nes, Webcarns, IM & Others) b specific device port inside your	y opening a tunnel between local area network(LAN).	remote(Internet)	
DMZ Host	Current Prof	ile: Default	~			
Remote Administration			Edit			
Static NAT						
Security Log	Na	me	Mode	Host Device	Action	
	IPSEC ALG		Client	Dynamic	in 19 🖓	
	*My Port Tri	ggering Service	Trigger Ports	Dynamic	🖻 🗮	
	Add				2	



User Guide

14.4 DMZ Host—Single IP Address Passthrough

In the **Firewall Settings** screen, select **DMZ Host** from the submenu options displayed at the left of the screen. A warning screen will display the following message:

Any changes made in this section may affect your device's performance and configuration. Do you want to proceed?

Click Yes to proceed.

🗿 VersaLink Wireless Gate		xplorer				
File Edit View Favorites	: Tools Help					A
ve	ri on					
	Wireless	22	S Firewall	3	System	
Main	Settings	My Network	Settings	Advanced	Monitoring	
Main			Warning!!			
		Any changes made in this	section may affect your d	evices performance and co	nfiguration.	
			Do you want to pro	ceed?		
			Yes	No		
<			III			> >
🕘 Done					🥑 Inter	rnet 🤤

14.4.1 Enabling DMZ Host

If you clicked **Yes**, in the preceding warning screen, the following **DMZ Host** screen will be displayed. The demilitarized zone (DMZ) feature allows you to select one device on the LAN that will share the WAN-assigned IP address. By enabling DMZ, the selected device becomes visible on the Internet. Network Address Translation (NAT) and Firewall rules do not apply to the device configured for DMZ. If you are using Bridge protocol, you will not be able to configure DMZ Host in the Router.

IMPORTANT:

- 1. Before you configure DMZ Host, configure your PC settings to obtain an IP address from VersaLink automatically. If needed, refer to your computer's Windows help screen for instructions.
- 2. If you have previously enabled Public LAN, you will need to disable Public LAN and enable the DHCP for Private LAN and the Private LAN settings before you configure DMZ Host.
- 3. DMZ Host and Static NAT are mutually exclusive features. Before you enable DMZ Host, confirm that Static NAT is disabled. If needed, refer to section 14.6.2 for details on disabling Static NAT.



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To configure DMZ Host, in the **DMZ Host** screen, select a device from the drop-down menu. The selected device will share your WAN IP address. Next, click **Enable** to allow the setting to take effect.

E: The actual device nam	Microsoft Internet E		name display	red in this scr	een.	
File Edit View Favorites Tool						
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main General Port Forwarding DM2 Host Remote Administration Static NAT Security Log		Please sele	DMZ Host ect which LAN device will she WAN IP Address : 10 SALLENP2 DMZ Host is currently	are your Public IP Address. 9.16.90.5		
			Enable C	Cancel		
K Done						Internet

If you clicked **Enable** in the preceding screen, the following pop-up screen will appear. The Router must be reset to allow the new configuration to take effect. Click **OK** to continue.



If you clicked **OK**, the following screen will appear. After a brief delay, the home page will be displayed. Confirm that you have a DSL link and that your PPP Status displays **UP**. (If necessary, click the **Connect** button to establish a PPP session).





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To confirm that DMZ Host has been enabled, select **Firewall Settings** in the top navigational menu, and then click **DMZ Host** in the submenu options at the left of the screen. Next, click **Yes** in the warning screen. The following **DMZ Host** screen will be displayed. This screen shows that DMZ Host is currently enabled for the selected device.

VersaLink Wireless Gateway File Edit View Favorites To		xplorer				
veriz	on					
Main	Wireless Settings	Wy Network	Firewall Settings	Advanced	System Monitoring	
Main General			DMZ Host			
Port Forwarding DMZ Host Remote Administration			WAN IP Address : 10. DMZ Host is currently en hmcgr-xp.			
Static NAT Security Log			Disable C	ancel		
<						
Done						nternet

IMPORTANT: After you enable DMZ Host, you will need to reboot your computer.

14.4.2 Disabling DMZ Host

To disable DMZ Host (if it has been previously enabled), click **Disable** in the DMZ Host screen.

VersaLink Wireless Gateway -	Microsoft Internet E	xplorer				
File Edit View Favorites Too	ls Help					
veriz	on					<
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main General			DMZ Host			
Port Forwarding DMZ Host Remote Administration			WAN IP Address : 10 DMZ Host is currently e hmcgr-xp.			
Static NAT Security Log			Disable C	Cancel		
<						
Done						iternet



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If you clicked **Disable**, the following screen will be displayed. Click **OK** to continue.

Microsof	it Internet Explorer 🛛 🛛 🗙
2	Warning: Since your PC was previously configured for DMZ Host the modem will automatically reboot. After the reboot you may need to release and renew your IP address to communicate with the modem. Disable DMZ Host?
	OK Cancel

If you clicked **OK**, the following pop-up screen will appear. The Router must be reset to allow the new configuration to take effect. Click **OK** to continue.

Microsoft Internet Explorer						
2	The modem must be reset in order for the new configuration to take affe Do you wish to reset now?					
	OK Cancel					

If you clicked **OK**, the following screen will appear. After a brief delay, the home page will be displayed. Confirm that you have a DSL link and that your PPP Status displays **UP**. (If necessary, click the **Connect** button to establish a PPP session).

Resetting Modem - Microsoft Internet Explorer	
File Edit View Favorites Tools Help	A
verizon	
Resetting Modem Please Wait	
The modes is much a bound for	
The modern is resetting in order for the requested changes to take effect. Your page will be relaaded shortly.	

IMPORTANT: After you disable DMZ Host, you will need to reboot your computer.



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14.5 Remote Administration

In the **Firewall Settings** screen, select **Remote Administration** from the submenu options displayed at the left of the screen. A warning screen will display the following message:

Any changes made in this section may affect your device's performance and configuration. Do you want to proceed?

Click Yes to proceed.

VersaLink Wireless Gatewa	ay - Microsoft Internet E	ixplorer						
File Edit View Favorites	Tools Help					<i>N</i>		
veri	on							
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring			
Main Warning!! Any changes made in this section may affect your devices performance and configuration. Do you want to proceed?								
				No				
C Done					🔮 Ini	ternet		

If you clicked **Yes** in the warning screen, the following **Remote Administration** screen will appear. Follow the steps below to configure Remote Administration in your Router.

NOTE: The User Name and Password should be at least 4 characters long and should not exceed 32 characters. Do not type a blank space or asterisks. The user name and password are case sensitive.

- 1. Type the administrator's User Name. (By default **admin** appears in this field; however, you can change this value, if desired).
- 2. Type the administrator's Password.
- 3. Enter the number of minutes after which you want remote access to time out.
- 4. Click the Enable Remote Access box (a check mark will appear in the box).
- 5. Click **Apply** to allow the settings to take effect.


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VersaLink Wireless Gatewa	ay - Microsoft Internet Exp	lorer				
File Edit View Favorites	Tools Help					
veri	on					<u>^</u>
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main			Remote Administ	tration		
General Port Forwarding DMZ Host		With Remote Administr	Attentio	n < will be at risk from outside	attacks.	
Remote Administratio		R	temote access is curren	tly disabled.	_	=
Static NAT		User Name		admin		
Security Log		Password				
		Timeout		20		
		Disable Timeout				
		Enable Remote Acce	55			
		Remote URL:		http://10.16.90.5:2420/	1	
			Apply Ca	ncel		
						_
						~
Cone			111			nternet .

	Remote Administration					
User Name	User Name Enter the user name in this field.					
Password	Enter your password in this field.					
Timeout	Default = 20 minutes					
	Enter the number of minutes after which remote access will be deactivated. (It will					
	also be deactivated if the Router is reset to factory defaults).					
Disable Timeout	Click this box (a check mark will appear) to activate the Disable Timeout feature.					
	This means that once you enable Remote Access, it will remain on until you reset					
	the Router to factory defaults. This function overrides any timeout values.					
	Deselect the box to deactivate this feature.					
Enable Remote Access	Click this box (a check mark will appear) to enable Remote Access.					
	Deselect the box to disable this feature.					
Remote URL	Displays the URL of the remote management device (VersaLink).					



The following screen shows a check mark in the Enable Remote Access box, and displays the following message:

Remote access is currently enabled. After 20 minutes of inactivity, or on reboot, remote access will be automatically disabled.

After 20 minutes of inactivity or on reboot, Remote Access will be automatically disabled. To manually disable Remote Access, click the **Enable Remote Access** box to clear the check mark. Then click **Apply** to allow the change to take effect.

VersaLink Wireless Gatewa File Edit View Favorites	·	xplorer				
veri	7 0n					^
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main			Remote Adminis	stration		
General Port Forwarding DMZ Host		With Remote Administra	Attention enabled, your netwo	on 'k will be at risk from outside	e attack <i>s</i> .	
Remote Administration		Remote access is cu reboot, re	urrently enabled. After mote access will be au	· 20 minutes of inactivity itomatically disabled.	y, or on	
Security Log		User Name		admin		
C. C		Password		••••		
		Timeout		20		
		Disable Timeout				
		Enable Remote Acces	55			
		Remote URL:		http://10.16.90.5:2420	1/	
			Apply C.	ancel		
<						>
Done					🙂 Inte	ernet



14.6 Static NAT

In the **Firewall Settings** screen, select **Static NAT** from the submenu options displayed at the left of the screen. A warning screen will display the following message:

Any changes made in this section may affect your device's performance and configuration. Do you want to proceed?

Click Yes to proceed.

VersaLink Wireless Gatewa	y - Microsoft Internet E	xplorer				
File Edit View Favorites	Tools Help					A.
veri	<u>70n</u>					
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main		Any changes made in this	Do you want to pro		nfiguration.	
<						>
🙋 Done					🥩 Int	ernet 🦽

14.6.1 Enabling Static NAT

If you clicked **Yes** in the warning screen, the following **Static NAT** screen will appear. The **Static NAT** screen allows you to configure your Router to work with the special NAT services. When the Router is configured for Static NAT, any unsolicited packets arriving at the WAN will be forwarded to the selected device. This feature can be used when you want to host a server for a specific application.

IMPORTANT:

Static NAT and DMZ Host are mutually exclusive features. Before you enable static NAT, confirm that DMZ Host is disabled. If needed, refer to section 14.4.2 for details on disabling DMZ Host.

To enable Static NAT, select a device from the **Static NAT Device** drop-down menu, or enter the IP address of the device to which you want to assign Static NAT. Next, click **Enable**.



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VersaLink Wireless Gatewa File Edit View Favorites		ixplorer				
veri	70n					
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main General			Static NA	ſ		
Port Forwarding DMZ Host Remote Administration Static NAT Security Log		Set up an :	IP address to be your d Static NAT Device HM	efault NAT destination. CGRXP 🗸		
			or specify IP Address All unsolicited inbound trafi to the above dev Note: Static IAT and DM mutually exclusive fe	ce. Z Host are		
			Enable Disable	Cancel		
Done			Ш			Internet

The following screen shows that Static NAT has been enabled for the device you selected.

🗿 VersaLink Wireless Gatev	way - Microsoft Internet I	xplorer				
File Edit View Favorites	Tools Help					**
ver	i <mark>, on</mark>		1.45			<u></u>
ETB	e	<u>T</u>	- *			
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main General			Static NA	١T		
Port Forwarding			Enabled for 192.1(68 1 47		
DMZ Host		Set up an		default NAT destination.		a
Remote Administration	_		Static NAT Device S/	ALLE-XP2 🗸		
Security Log	_		Static NAT Device			
Security Ebg			or specify			
			IP Address			
			All unsolicited inbound tra to the above de			
			Note: Static NAT and Di mutually exclusive t	MZ Host are features.		
			Enable Disable	Cancel		
						J I
						v
<			ш			>
🕘 Done						Internet



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14.6.2 Disabling Static NAT

To disable Static NAT (if it has been previously enabled), click **Disable** in the **Static NAT** screen.

Versal.ink Wireless Gatewa File Edit View Favorites	·	ixplorer				
veri	7 on			~		
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main General			Static NA	ΑT		
Port Forwarding DMZ Host Remote Administration		Set up an	Enabled for 192.1 IP address to be your	68.1.47 default NAT destination		3
Static NAT Security Log			Static NAT Device S	ALLE-XP2 💌		
			IP Address			
			All unsolicited inbound tra to the above de Note: Static NAT and D mutually exclusive i	vice. MZ Host are		
			Enable Disable	Cancel		
C Done						Internet



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14.7 Security Log

In the **Firewall Settings** screen, select **Security Log** from the submenu options displayed at the left of the screen. A warning screen will display the following message:

Any changes made in this section may affect your device's performance and configuration. Do you want to proceed?

Click Yes to proceed.

VersaLink Wireless Gatewa	ny - Microsoft Internet E	xplorer				
File Edit View Favorites	Tools Help					<i></i>
						<u>^</u>
veri	7 0n					
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
			-			
Main			Warning!!			
		Any changes made in this	section may affect your d	evices performance and co	onfiguration.	
			Do you want to pre	oceed?		
			Yes	No		
<			10			× ×
E Done					🔮 Inte	ernet 🛒

If you clicked **Yes** in the warning screen, the following **Security Log** screen will appear. This screen alerts you of noteworthy information sent to VersaLink from the Internet. The screen can contain 1000 entries, but a maximum of 50 entries are displayed at a time. Once 1000 entries have been logged, the oldest entry is removed to make space for the new entries as they occur.

🗿 Ver	saLink Wireless Gate	way - Microsoft Internet	Explorer					
File	Edit View Favorites	Tools Help						
	Ven	vir on Wireless	Ny Network	J Firewall	Advanced	System Monitorin		<
		Settings		Settings		Monitorin	ig .	
	Main General Port Forwarding DMZ Host Remote Administration			Security Log Settings Refresh ess the Refresh button to up	Printable F	ormat		
	Static NAT		Time Direction	Rule/Reaso	n Alert	Details		
	Security Log		Time Direction	Kule/Reaso	n Alert	Details		
				Page 1				
<				11				>
ど Don	e						🥥 Internet	



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	Security Log
Close	Clicking this button closes the security log screen.
Clear log	Clicking this button removes all entries from the log.
Settings	Clicking this button opens a new window that contains configuration settings for selecting the information that you want logged.
Printable/savable format	Clicking this button opens a new window that contains a list of all the logged packets that can be saved or printed. You can send a copy of the Firewall log to a designated printer.
Refresh	Clicking this button updates the screen so that it displays the most current data.
Time	Displays the time that the packet was sent.
Direction/Source	Displays the direction of transmission.
Rule/Reason	Displays the internal rule that caused the logged event. The internal rule is set up under Firewall rules.
Alert	Displays a description of the logged event.
Details	Displays details about logged event.

If you clicked **Settings** in the preceding **Security Log** screen, the following **Firewall Log Settings** screen will appear. This screen allows you to configure firewall remote logging. Remote logging allows the firewall logs to be sent to a machine running a syslog server.

NOTE: The syslog server must be configured to isten on udp port 514, which is usually the default port. In order for the logs to be saved to the syslog server, the server should be configured to save the logs to a file. Some of the free syslog servers available on the Internet are kiwisyslog, MT_syslog and 3Csyslog.

To configure Remote Logging, do the following:

- 1. Select the desired firewall log settings from the drop-down menus.
- 2. Click the Enable check box below Remote Logging (a check mark will appear in the box).
- 3. Type the IP address of the syslog server in the Remote IP Address field.
- 4. Click **Apply** to allow the settings to take effect.

VersaLink Wireless Gateway File Edit View Favorites T		(plorer				
veri						^
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main General			Firewall Log Set	tings		
Security Log		Log Allowed T	raffic	Disabled 💌]	
Security Log Settings		Log Blocked T		Disabled 💌		
Security and Security			ecified In Rules	Enabled 🛩		
		Log Administr	ative Access	Disabled 💌		
			Remote Loggi	ing		
		Enable:				
		Remote IP Ad		192.168.1.47		
۲.						~
E Done					🔮 Ini	



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15. ADVANCED

The following sections discuss the advanced features of your Router, such as IP address distribution, firmware upgrades, etc.

IMPORTANT: This section assumes that you have active DSL and Internet service.

If you select Advanced in the top navigational menu, a warning screen will display the following message:

Any changes made in this section may affect your device's performance and configuration. Do you want to proceed?

Click Yes to proceed.

🕙 VersaLink Wireless Gat	teway - Microsoft Internet	Explorer				
File Edit View Favorite	es Tools Help					**
Ve	erizon Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main		Any changes made in this	Warning!! : section may affect your d Do you want to pro	evices performance and co	nfiguration.	
				No		
<			ш			>
🙆 Done					🌍 Int	ernet 🔡



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If you clicked **Yes** in the warning screen, the following screen will appear. The **Advanced** screen allows you to access various configurable features in your Router. To access a feature, click the link of the feature that you want to access. The features shown in this page will be discussed in the following sections.

🗿 VersaLink Wireless Gateway - I					
File Edit View Favorites Tools	s Help				A*
verizo	on				
Main	Wireless Settings My	Network Settings		System Monitoring	
Main Advanced		Adv	anced		
	Diagnostics	DNS Server	Configuration File	Firmware Upgrade	3
	Restore Defaults Reboot Gateway Users			8	
	Quality of Service(Q Remote Administrati ATM Loopback	on	J	Routing IP Address Distribution Private LAN	
	Detect WAN Configu	ration		Public LAN VLAN Configuration RIP Configuration	
<		10			×
ê				🔮 Ir	iternet

15.1 Diagnostics

In the **Advanced** screen, click **Diagnostics.** The following screen will appear. Using this screen, you can run the following diagnostics tests:

- To run a DNS test, type the appropriate host name in the field provided, and then click test.
- To run a PING test, type the appropriate IP address or host name in the field provided, and then click test.
- To run a Trace Route, type the appropriate IP address or host name in the field provided, and then click **trace.**
- To run a full diagnostic test on your Router, click Test All.



Wy Network	Firewall Settings Ac Diagnostics Connection / Status DSI: Connection up	Vanced System Monitor	mg
	Settings AL	Vanced System Monitor	ma
	Connection / Status		
	PPPoE: Session up PPP: Connection up		
	Test Description / Test Results Sta Self Test PING ISP's Router	tus	
Host Name	DNS	Test	
IP Address:	PING		
IP Address / www.westell.com Host Name		Test	
Trace Route		Trace	
	Test All Cancel		
	Host Name IP Address: IP Address / www.westell.com Host Name	Self Test PING ISP's Router DNS Host Name IP Address: PING IP Address / www.westell.com Trace Route	Self Test PING ISP's Router

If you want to PING using the System Self Test screen (diagnostics page) shown above, enter your DNS or IP address in the fields provided and click on the test button. The System Self Test will run a diagnostic test that executes independent of firewall security settings. See the following table for test descriptions and possible responses.

If you want to PING using the MS-DOS (shell) window, first you will need to check your firewall security setting. (If you PING via DOS shell you are susceptible to firewall rules, as this PING is dependent on VersaLink's firewall settings.) If your firewall is set to Medium or High, you will not be able to PING. You must set your firewall security setting to Low or None.

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opposing



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VersaLink Wireless Gatewav (Model 327W)

Possible Responses: Connection Up: VersaLink has established a connection No Connection: There is no PPP connection Initiating Connection: The PPP connection process has been initiated Connection Halted: A successful PPP connection was halted Cannot Connect: A PPP connection could not be made because of a PPPoE session failure. Authorization Failure: The user name or password is incorrect. Link Control Protocol Failed: Reestablish the session (from the home page). Test Description / Test Results Self Test Performs an integrity check of certain internal components of VersaLink. PING ISP's Performs an IP network check (i.e., an IP Ping) of the service provider's VersaLink. This test verifies that VersaLink can exchange IP traffic with an entity on the other side of the DSL line. Router Possible Responses: Success: VersaLink has detected an IP Remote Router connection. No Response: The IP Remote Router does not answer the IP Ping. Could not test: The test could not be executed due to Router settings. Check your DSL link or your PPP session. You must have both a DSL link and a PPP connection established to execute a PING. DNS Performs a test to try to resolve the name of a particular host. The host name is entered in the input box. Possible Responses: Success: VersaLink has successfully obtained the resolved address. The IP address is shown below the host name input box. No Response: VersaLink has failed to obtain the resolved address. Host not found: The DNS Server was unable to find an address for the given host name. No data, enter host name: No host name is specified. Could not test: The test could not be executed due to VersaLink settings. Check your DSL link or your PPP session. You must have both a DSL link and a PPP connection established to execute a PING. IP Address IP Address of the Host Name. PING Performs an IP connectivity check to a remote computer either within or beyond the service provider's network. You can PING a remote computer via the IP address or the DNS address. If your PING fails, try a different IP or DNS address. (via IP Address or Host Name) Possible Responses: Success: The Remote Host computer was detected. No Response: There was no response to the Ping from the remote computer. No name or address to PING: No host name or IP address was specified. Could not test: The test could not be executed due to Router settings. Check your DSL link or your PPP session. You must have both a DSL link and a PPP connection established to execute a PING. Trace Route Determines the route taken to destination by sending Internet Control Message Protocol (ICMP) echo packets with varying IP Time-To-Live (TTL) values to the destination. Trace Route is used to determine where the packet is stopped on the network.



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15.2 Restore Defaults

In the Advanced screen, click Restore Defaults. This screen allows you to restore the Router to its factory default settings. To restore the Router, click the Restore Defaults button.

IMPORTANT: If you click **Restore Defaults**, any settings that you have configured in the Router will be erased, and any data that the Router has reported will be lost.

Ve File	_	_	Gatewa avorites	_	osoft Internet	t Explore	r							_ 🗆 🗶
	Earc	Den 1	Vei											×
		Main			Wireless Settings		My Network		Firewall Settings	Ac	dvanced	Sy Mon	stem itoring	
	Main Restore Defaults					Restore Defaults Attention Restoring your router to default settings will erase the current router configuration.								
							For Restoring yo		o default setting: Restore Defaults	s click the "I Close	_	ts" button.		
														×
🔹 🔊	ne												Interne	•t //

If you clicked **Restore Defaults**, the following screen will appear. Please wait a brief moment while the Router resets.

🚰 Resetting Modem .	Microsoft Internet Explorer	
File Edit View Fa	avorites Tools Help	
		~
	verizon	
	Venzon	
	Resetting Modem Please Wait	
	, ,	
	The modem is resetting in order for	
	The modern is resetting in order for the requested changes to take effect. Your page will be reloaded shortly.	
L		ļ



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After the Router has reset, the **Router Secure** screen will be displayed. Follow the instructions explained in section 7.1, "Logging on to the Router," to log on to your Router.

15.3 Reboot Gateway

In the Advanced screen, click **Reboot Gateway.** This screen allows you to reboot your Router without losing any customized settings that you have made in the Router. Click **OK** to reboot your Router.

🕙 VersaLink Wireless Gateway	- Microsoft Internet E	xplorer				
File Edit View Favorites To	ols Help					A.
veriz	on					
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main Reboot Gateway		Are you s	Restart ure you want to reboot yo			
			OK Canc			
٢						×
🕘 http://192.168.1.1/restart.htm#						Internet



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15.4 Users

In the **Advanced** screen, click **Users**. The following **User Settings** screen allows you to change the administrator's user name and password. Type the desired values in the fields provided, and then click **Apply** to allow the settings to take effect. Refer to section 7.2, "Changing the Password," for details on this feature.

NOTE:

- 1. If the Router is password protected and you are not an authorized user, you will not be able to change the values in this screen. (The Router cannot be configured unless an authorized user is logged on.) Contact your network administrator for further instructions.
- 2. The values typed in the password fields will be masked for security purposes.
- 3. This feature changes the Administrator's password, not the PPP password.

VersaLink Wireless Gatew File Edit View Favorites		¢plorer					
veri	i - on						~
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring		
Main			User Setting	js			
User Settings		General					
		Full Name:	Adminis	strator			
		User Name (case sensiti	ve):				
		New Password:					
		Retype New Password:					
			Apply Car	ncel			
						-	
							~
K							>
http://192.168.1.1/edit_user_se	ttings.htm#					🧿 Internet	

	User Settings						
Full Name	Displays the Administrator name. This field will be dimmed and unavailable for changes.						
User Name	Type the Administrators user name. (This field is case sensitive.)						
New Password	Type the administrator's new password.						
Retype New Password	Confirm the administrator's new password						



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15.5 QOS

In the Advanced screen, click QOS. This screen allows you to configure Quality of Service parameters in the Router. Select the desired Quality of Service settings, and then click Apply to allow the setting to take effect.

ver	i <mark>zon</mark>					
Main	Wireless Settings	Wy Network	Firewall Settings	Advanced	System Monitoring	
Main Advanced			QOS ality Of Service Parameter:	; are for advanced users on	y.	
	General S					
	Enable QO: Turbo TCP					
	QoS Filter I					
				(K-4 (DE)		
	QoS Classi		100	iffort (BE)		
		mation Rate (%)				
		Information Rate (%)	0			
	Peak Burst		1000			
	Committed	Burst Size (ms)	1000			
	Max Queue		300			
		easurements:	Parma	lary 1: 0 ms 💌		
	Latency Bo		Bound	Jary 1:0 ms 💌		
		reshold (ms) ation Settings:	U			
		itation Enable				
	IP Fragmer		244	*		
			Apply Reset	Cancel		



15.6 Remote Administration

In the **Advanced** screen, click **Remote Administration**. This screen allows you to configure your Router so that it can be accessed remotely via a URL. Configure this feature to allow maintenance or troubleshooting for your Router.

WARNING: With Remote Administration enabled, your network will be at risk from outside attacks.

To enable Remote Administration, do the following:

- 1. Type the desired user name.
- 2. Type the desired password.

NOTE: The password should be at least 4 characters long and should not exceed 32 characters. Do not type a blank space or asterisks in the **Password** field. The password is case sensitive.

3. Enter the number of minutes after which remote access will disconnect, if it is idle.

NOTE: If you click the **Disable Timeout** check box (a check mark will appear in the box), this will override the preceding timeout minutes, and remote access will remain activated once you enable it.

- 4. Click the Enable Remote Access check box (a check mark will appear in the box).
- 5. Click **Apply** to allow the settings to take effect.

🗿 VersaLink Wireless Gateway	- Microsoft Internet E	xplorer				
File Edit View Favorites To	ools Help					//
veriz	on Maria		58			
	Wireless	22	Firewall		System	
Main	Settings	My Network	Settings	Advanced	Monitoring	
Main General Port Forwarding DMZ Host		With Remote Administra	Remote Adminis		attacks.	
Remote Administration		R	emote access is currer	itly disabled.	_	
Static NAT						
Security Log		User Name		admin		
		Password				
		Timeout		20		
		Disable Timeout				
		Enable Remote Acce	55			
		Remote URL:		http://10.16.90.5:2420/		
			Apply Ca	ncel		
			100			
🕘 Done					🌍 Ir	iternet



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	Remote Administration
User Name	Default = admin
	The name used for the Remote Administration session. The only valid characters are (a-
	z, A-Z, 0-9). The user name must be at least 6 characters and must not exceed 12
	characters long.
Password	The password used for the remote administration session. Do not use spaces or double-
	quotes in the password field. The user name must be at least 6 characters and must not
	exceed 12 characters long.
Timeout	Default = 20 minutes
	The interval (in minutes) after which the remote access will disconnect, if it is idle.
Disable Timeout	Default = deactivated
	To activate the Disable Timeout feature, click this box (a check mark will appear).
	Clear the box to deactivate this feature.
Enable Remote Access	Default = deactivated
	Click this box (a check mark will appear) to activate Enable Remote Access.
	Clear the box to deactivate this feature.
Remote URL	Displays the URL for the remote access session.

15.7 ATM Loopback

In the Advanced screen, click ATM Loopback. If you change the setting in this screen, you must click Save to allow the settings to take effect.

NOTE: When the **Enable ATM 0/21** box is checked, this feature enables Alcatel 0/21 loopback. If the box does not display a check mark, this feature is disabled. It is recommended that you do not change this setting.

le Edit View Favorites	Tools Help						
Ver	i On	Ny Network	Firewall	Advanced	System		
	Settings	,twork	Settings	HAVAILEU	Monitoring		
Main ATM Loopback		ATM Loopback This setting enables Alcatel 0/21 loopback. Changing this setting is not recommended.					
	Enable A	FM 0/21 Loopback					
			Save Clos	e		J	
ne			inu -			Internet	

Enable ATM 0/21 Loopback	Factory Default = Enabled
	This option enables the 0/21 loopback, which is used by Verizon.
	Note: It is recommended that you do not that you change this setting.



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If you changed the ATM Loopback settings and clicked **Save** in the preceding screen, the following screen will be displayed. Click **OK** to continue.



If you clicked **OK** in the preceding screen, the following pop-up screen will appear. The Router must be reset to allow the new configuration to take effect. Click **OK** to continue.

Microso	ft Internet Explorer 🛛 🗙
2	The modem must be reset in order for the new configuration to take affect. Do you wish to reset now?
	OK Cancel

If you clicked **OK**, the following screen will appear. After a brief delay, the home page will be displayed. Confirm that you have a DSL link and that your PPP Status displays **UP**.

3 Resetting Modem - Microsoft Internet Explorer	
File Edit View Favorites Tools Help	A.
	<u>^</u>
veriron	
Resetting Modem Please Wait	
The modern is receiving in order for the requested characts to be effect. Two paper is the model of model.	
a) une	🥥 internet



15.8 Detect WAN Configuration

In the Advanced screen, click Detect WAN Configuration. This screen displays the details of your WAN connection.

NOTE: If you have not established and DSL connection with Verizon's equipment and have not established an Internet connection with Verizon, the Router will report **Detection Disabled**. Confirm that you have Internet connection with Verizon. If problems persist, contact Verizon.

To check your WAN connection, click detect configuration. The Router will be reset.

🗿 VersaLink Wireless Gateway - M	licrosoft In	ternet Explorer				
File Edit View Favorites Tools	Help					A.
verizo	n					
Main	Wireles: Settings		Firewall Settings	Advanced	System Monitoring	
Main Detect WAN Configuration			Detect WAN Config Results	guration		
	DH	ICP Results	DHCR	Server Not Present		
		PoE Results		Server Discovered		
	La	st VC Tested (VPI / VCI)	0 / 35			
		detect configuration	-	Enable Continuou	is Ratries	
<			10			>
http://192.168.1.1/wan_autodisc.htm#					🔮 Ir	nternet 🚲

If no connection is detected, the following screen will appear. Click **Enable Continuous Retries**. The Router will automatically continue to check the WAN connection. After a WAN connection is detected, the Router will report the results.

VersaLink Wireless Gateway File Edit View Favorites To		kplorer				
Main	Wireless Settings	Wy Network	Firewall Settings	Advanced	System Monitoring	
Main Detect WAN Configuration	n		Detect WAN Config Status	guration		
	Please Con	nect a DSL Line		Enable Continuo	us Retries	
 http://192.168.1.1/wan_autodisc.hl 	tm#					internet .:



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If you clicked **Enable Continuous Retries**, the following pop-up screen will appear. Click **OK** to continue.



If you clicked **OK**, the following screen will appear. If want to disable continuous retries, click **Disable Continuous Retries.**

🗿 VersaLink Wireless Gateway - I	Microsoft Int	ernet Explorer				
File Edit View Favorites Tools	; Help					
verizo	on					
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main Detect WAN Configuration			Detect WAN Confi Results	guration		
	Det	ection In Progress				
			Disable Continuous	Retries		
<						→ >
Downloading picture http://192.168.1.	1/firewall.jpg				🌒 Ini	ernet 🧮



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15.9 DNS Server

In the **Advanced** screen, click **DNS Server**. The following screen will appear. Your Router contains a built-in DNS server. When an IP address is assigned, the Router will interrogate the new device for a machine name using several well-known networking protocols. Any names learned will dynamically be added to the DNS server's table of local hosts.

Do any of the following:

- To rename the Domain Name, type a domain in the **Domain Name** field and then click **Set**.
- To add a host name, click Add DNS Entry

VersaLink Wireless Gateway -		lorer					
File Edit View Favorites Took							
Main	Wireless Settings	My Network	Firewall Settings	Advanced		System Monitoring	
Main DNS Server		Domain Name	DNS Server		Set		
		Host Name	IP Address		Action		
		dslrouter	192.168.1.1		Set		3
		deviceweb	192.168.1.1		R		
		SmartDevice	192.168.1.1		-₩		
		Add DNS Entry			2		
		Discovered Local De	vices				
			lost Name	IP A	ddress		
		No Discovered Device	s				
			Cancel				
							×
<							>
Cone Done						🥥 Internet	

Domain Name	This field allows you to enter a Domain Name for your Router
	To add a Domain Name, in the field under User Assigned DNS, type in your new
NOTE: Some ISP's may	domain name and click Set.
require the name for	
identification purposes.	
Host Name	This field allows you to enter a HOST name for Router.
	To add a new Host name, in the field under Static Host Assignment, type in the Host
	Name and the IP address and click Set.
IP Address	Displays the IP address that is assigned to the Host Name.
	Discover Local Devices
This field displays a list of	the computers on the LAN that were assigned a DHCP Address. The DNS name and
IP address entry of each dis	scovered device is displayed. (The values in this field will be displayed barring any
propagation delays. If 'No	Discovered Devices' is displayed, manually refresh the screen.)



If you clicked **ADD DNS Entry**, the following screen will appear. Type the **Host Name** and **IP Address** in the fields provided. Then, click **Apply** to continue.

🕘 VersaLi	ink Wirel	ess Gatewa	ay - Micro	osoft Intern	et Explore							
File Edi	it View	Favorites	Tools He	łp								*
		veri	on									
	Main		w	/ireless ettings		My Network	Firewall Settings		Advanced	System Monitoring		
Mair	n 6 Server						DNS E	ntry				
			_			Host Name:	[
						IP Address:		0.0.0.0				
							Apply	Cancel				
<												>
Done											Internet	.:

For example, the following screen shows appropriate DNS values in the fields. Click Apply.

VersaLink Wireless Gatew		plorer				
File Edit View Favorites	Tools Help					<u></u>
ver	i <mark>,</mark> on					
T	<u></u>	21	25	<u> </u>	1	
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
-						
Main DNS Server			DNS Ent	-v		
		Host Name:	Му	Modem]	
		IP Address:	192	168.1.1		
			Apply	Cancel		
						×
<u><</u>		<u> </u>				>
🕘 Done					🥥 Interne	.c



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If you clicked **Apply**, the following screen will be displayed. This screen shows that the **Host Name** and **IP Address** have been added to the DNS server. If you want to delete a DNS entry, click the delete icon Rest to the Host Name and IP address that you want to delete.

VersaLink Wireless Gateway - N File Edit View Favorites Tools	lorer				
veri o Main	My Network	Firewall Settings	Advanced	System Monitoring	<u> </u>
Main DNS Server	Domain Name	DNS Server		Set	
	Host Name	IP Addres	s A	ction	
	dslrouter	192.168.1.1		Set	=
	deviceweb	192.168.1.1		R	
	smartdevice	192.168.1.1		R	
	my modem	192.168.1.1		R	
	Add DNS Entry				
	Discovered Local Do	evices			
		lost Name	IP Addres	55	
	No Discovered Device	s			
		Cancel			
					~
	111			a Internet	>
 ▲ Done 	ili.			Internet	>



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15.10 Configuration File

In the Advanced screen, click Configuration File. This screen allows you to save and load configuration files, which are used to back up and restore the Router's current configuration.

NOTE: Backup settings are stored in a separate area of flash, not to an external backup source.

Do one of the following:

- Click Save Configuration File to back up the Router's current configuration.
- Click Load Configuration File to load a previously backed up configuration file.

IMPORTANT: Loading a previously backed up configuration file will overwrite the Router's current configuration, and any data the Router has reported will be lost.

VersaLink Wireless Gateway - Mid File Edit View Favorites Tools		Explorer				
verizon						
Main	Wireless Settings	Wy Network	Firewall Settings	Advanced	System Monitoring	
Main Configuration File	To take To take Note: La	the Router's Configuration File tore the Router's current config Back up of the Router's cur Save Configuration File La previously backed up co bading a previously backed up to Load Configuration File	uration. rrent configuration, cli Infiguration file, click ti	configuration files, which a ck the "Save Configurat he "Load Configuration	ion File" button. File" button.	
			Cancel			
Cone					🗿 Interne	>



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15.11 Firmware Upgrade

In the **Advanced** screen, click **Firmware Upgrade**. This screen is used to update the firmware that controls the operation of your Router. The updated firmware may be loaded from a CD-ROM, from a file stored on a local hard drive within your network, or from an update file stored on an Internet server.

IMPORTANT: The configurable settings of your Router may be erased during the upgrade process.

Do any of the following:

- Click change to edit the path of the firmware update file. The path will appear in the Check at URL field.
- Click **check for web updates** to retrieve the firmware update file and display any available update information. You must be connected to the Internet to use this option. **NOTE:** If you click **check for web updates** and the page returns "bug information not available," this indicates that the firmware update file is not available.
- Click **update from web now** to download the firmware update file and to automatically update the Router firmware if an update is available and applicable. You must be connected to the Internet to use this option.
- Click **upgrade now** to retrieve the firmware update file from a local hard drive or CD-ROM on your Network. Internet connection is not required for this option.

Upgrade Software - Microso File Edit View Favorites						
veri	on					
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main Firmware Upgrade		Contact Verizon for upgrade	Firmware Upg			
		Upgrade From the Inter		des/model327W/D99-327W/17-00	Lemi	
		Update Status Unkr Current Version: Newer Version: Status:	Change			
		Issues/Errata: bug informatio	on not available	~		
		Check for	web updates	Update from web now	-	
		Upgrade From a Compu Select an update network.	d firmware file from the co	mputer's hard drive or CD o	in the	
			Cancel			
Done					🗳 Interne	•



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If you clicked Upgrade Now, the following screen will appear.

IMPORTANT: Once the transfer has started, do not turn off your Router's power, and do not navigate to other Web pages until the upload has completed.



Click **Browse** and then navigate to the location of the upgrade file; the path will appear in the window. Next, click **Upload file** to begin the upload to your Router.

IMPORTANT: Once the transfer has started, do not turn off your Router's power, and do not navigate to other Web pages until the upload has completed.





After the Router has been reset, the home page will appear. Confirm that you have a DSL link and that the PPP Status displays **UP.** (If necessary, click **Connect** to establish your PPP session.)

After the upload has completed, the following screen will appear. Please wait a brief moment while your Router is being reset.



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15.12 Universal Plug and Play

In the Advanced screen, click Universal Plug and Play. This feature advertises the presence of your Router on the LAN.

To enable UPnP in your Router, do the following:

- 1. Click the **UPnP Enable** box (a check mark will appear in the box).
- 2. Click Apply to allow the change to take effect.
- 3. Click **OK** in the pop-up screen to reset the Router.

NOTE: By factory default UPnP is disabled. If you have previously enabled UPnP and now want to disable it, click the **UPnP Enable** box to remove the check mark, and then click **Apply**.

VersaLink Wireless Gateway File Edit View Favorites To		plorer				
veriz	on					
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main Universal Plug and Play	Settings:	Universal Plug an	Universal Plug Ar d Play advertises the prese	Id Play nce of this device on the LAN	ı.	
	UPnP Enable		Apply Can	cel		
Cone		111			🔮 Internet	.:



15.13 Routing

In the Advanced screen, click Routing. The Routing table maintains the routes or paths of where specific types of data shall be routed across a network.

To add a new static route in the Router, click New Route.

veri	on								
Main	Wireless Settings	My Network	Firewa Setting	11 5	Advanced		S Mo	ystem nitoring	
Main Routing	• This page	provides the ability to a		outing					
	Routing Tal	ble							
	Interface	Destination	Gateway	Netmask	Metric	Rip	Туре	Action	
	mainPPP	0.0.0.0	10.16.90.5	0.0.0.0	0	N/A	Network		
	lo0	10.16.90.5	127.0.0.1	0.0.0.0	0	N/A	Host		
	lo0	127.0.0.1	127.0.0.1	0.0.0.0	0	N/A	Host		
	eth0	192.168.1.0	192.168.1.1	255.255.255.0	0	N/A	Network		
	lo0	192.168.1.1	127.0.0.1	0.0.0	0	N/A	Host		
	eth0	239.255.255.250	192.168.1.1	0.0.0	0	N/A	Host		
	New Route								

	Routing
IP Interfaces	The list of active interfaces on the Router and their IP and Subnet mask address.
	eth0 is the local LAN interface.
	lo0 is the loopback interface.
	mainPPP is the WAN interface
Destination	The IP address or subnet of the Route.
Gateway	Indicates were to send the packet if it matches this route.
Netmask	If the Route is a Network route, Subnet Mask is used to specify the subnet address.
Incullask	If the Route is a Host route, then the Host Route check box should be selected.
Metric	The RIP metric to be assigned to this route if and when it is advertised using RIP.
RIP	Indicates whether a static route should be advertised via RIP.
Туре	Indicates the type of route: Network route or Host route.



 VersaLink Wireless Gateway - Microsoft In
 File Edit View Favorites Tools Help veri<mark>o</mark>n Ż Firewall Settings T **E** Wireless Settings System Monitoring Advanced Main My Network Destination Address 0.0.0.0 OR 🔲 Host Route Subnet Mask: 0.0.0.0 Gateway: None LAN Gateway Address 0 NEVER V Metric: RIP Config: Save To Moder Bac Internet

If you clicked **New Route**, the following screen will appear. Enter the appropriate values in the fields, and then click **Apply**.

15.14 IP Address Distribution

In the **Advanced** screen, click **IP Address Distribution.** The following screen will appear. IP Address Distribution allows you to configure the Router's DHCP server to automatically assign IP address to local devices connected to your LAN.

🕙 VersaLink Wireless Gateway - Mi	crosoft Inte	rnet Explorer				
File Edit View Favorites Tools	Help					
verizor	,					<
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main IP Address Distribution		Service	IP Address Distr	ibution		
		IP Address Distribution:	Private LAN 🗸			Э
		Private LAN DHCP Settings				
		Start IP Address:	192.168.1.15			
		End IP Address:	192.168.1.47			
		DHCP Lease Time:	1 : 0	: 0 : 0		
		A A	pply Reset	Cancel		
						~
<						>
🕘 Done					🌍 Internet	



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	IP Address Distribution
IP Address	Factory Default = Private LAN
Distribution	This setting allows VersaLink to automatically assign IP addresses to local devices
	connected to the LAN.
	Off = DHCP Server is disabled
	Private LAN = DHCP addresses will be issued from the Private LAN DHCP server.
Start IP Address	Factory Default = 192.168.1.15
	This field displays the first IP address that the DHCP server will provide. The DHCP
	Start Address must be within the IP address and lower than the DHCP End Address.
	You can use any number from 0 to 254 in this address.
End IP Address	Factory Default = 192.168.1.47
	This field displays the last IP address that the DHCP server will provide. The DHCP
	End Address must be within the IP address and higher than the DHCP Start Address.
	You can use any number from 0 to 254 in this address.
DHCP Lease Time	Factory Default = 01:00:00:00
	Displays the amount of time the provided addresses will be valid, after which the DHCP
	client will usually resubmit a request.
	Note: This value must be greater than 10 seconds. Seconds must be between 0 and 59,
	minutes must be between 0 and 59, and hours must be between 0 and 23.

By default Private LAN is already enabled. To disable the Private LAN DHCP server, select **Off** from the **IP Address Distribution** drop-down menu.

🗿 VersaLink Wireless Gateway - M		rnet Explorer				- 🗆 🛛
File Edit View Favorites Tools	Help					~
verizo	n					
Main	Wireless	My Network	Firewall	Advanced	System	
L	Settings	,	Settings		Monitoring	
Main						
IP Address Distribution			IP Address Distr	ibution		
		Service				
		IP Address Distribution:	Private LAN 👻			
			Off Private LAN			
		Private LAN DHCP Settings				
		Start IP Address:	192.168.1.15			
		End IP Address:	192.168.1.47			
		DHCP Lease Time:	1 : 0	: 0 : 0		
			Apply Reset	Cancel		
<			ш.			>
🙆 Done					💙 Interne	



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If you selected **Off**, the following screen will appear. Click **Apply** to save the settings. If you click **Reset**, the screen will refresh, and the previously saved settings will remain active.

IMPORTANT:

- 1. Whenever you change the settings in a screen, the screen will display the changes; however, you must click **Apply** to allow the changes to take effect in the Router. (**Private LAN** is the default for **DHCP Server**.)
- 2. After you disable the Private LAN DHCP server, reboot your computer to allow the changes to take effect.

a 1	/ersaLink Wi	reless Gatew	ay - Micr	osoft Inte	rnet Explorer						
F	ile Edit Vie	w Favorites	Tools H	elp							-
		ver	i <mark>zon</mark>								~
	Ma	in	¥	Vireless settings	My Network		Firewall Settings	Advanced	System Monitorin	g	
	Main IP Addre	ss Distributi	on		Service	IP	Address Dis	tribution			
						Apply	Reset	Cancel			
<											>
۵)one									🤨 Internet	



15.15 Private LAN—Configuring NAT

In the Advanced screen, click Private LAN. The following screen will appear. Private LAN allows you to set up a network behind your Router.

If you change the settings in this screen, click **Apply.** If you click **Reset**, the screen will refresh and the previously saved settings will remain active.

IMPORTANT: Whenever you change the settings in a screen, the screen will display the changes; however, you must click **Apply** to allow the changes to take effect in the Router. (**Private LAN** is the default setting for VersaLink.)

VersaLink Wireless Gateway - Microsoft Internet Explosit	orer			×
File Edit View Favorites Tools Help			<i>.</i>	1
verizon				^
Main Wireless Settings	My Network Se	rewall Advanced	System Monitoring	
Main Private LAN		Private LAN		
	Private LAN DHCP Server Enable			
	Private LAN Enable			
	Modem IP Address	192.168.1.1		
	Subnet Mask	255.255.255.0		
	Private LAN DHCP Settings			
	DHCP Start Address	192.168.1.15		
	DHCP End Address	192.168.1.47		
	DHCP Lease Time	1 : 0 : 0 : 0		
		Days Hours Minutes S	econds	
	Apply	Reset Back		
				~
< Done			Internet	

	Private LAN
Private LAN DHCP Server Enable	Default = Enabled
	If this box contains a check mark, this enables DHCP addresses to be
	served from the Private LAN pool.
Private LAN Enable	Default = Enabled
	If this box contains a check mark, this enables the addresses from the
	Private LAN to use the NAT interface.
Modem IP Address	Displays the Router's IP address.
Subnet Mask	Displays the Subnet Mask, which determines what portion of an IP
	address is controlled by the network and which portion is controlled by the
	host.
DHCP Start Address	Displays the first IP address that the DHCP server will provide.
DHCP End Address	Displays the last IP address that the DHCP server will provide.
DHCP Lease Time	Displays the amount of time the provided addresses will be valid, after
	which the DHCP client will usually resubmit a request.



Note: The DHCP Lease Time value must be greater than 10 seconds. The default = 01:00:00:00. Seconds must be between 0 and 59, minutes must be between 0 and 59, and hours must be between 0 and 23.

If the settings you have entered in the **Private LAN Configuration** screen are incorrect, the following warning messages may be displayed in pop-up screens. If this occurs, check the settings in the **Private LAN Configuration** screen.

Warning Message	Check Private LAN DHCP Settings
Start Address is not part of the Subnet	Check the value in the DHCP Start Address field
End Address is not part of the Subnet	Check the value in the DHCP End Address field
End Address is below the Start Address	Check the value in the DHCP End Address field
Lease time must be greater than 10 seconds	Check the values in the DHCP Lease Time fields
Seconds must be between 0 and 59	Check the Seconds value in the DHCP Lease Time field
Minutes must be between 0 and 59	Check the Minutes value in the DHCP Lease Time field
Hours must be between 0 and 23	Check the Hours value in the DHCP Lease Time field

15.16 Public LAN—Multiple IP Address Passthrough

In the **Advanced** screen, click **Private LAN**. The following screen will appear. The Public LAN feature allows VersaLink to use LAN IP addresses that are accessible from the WAN. Public LAN allows your computer to have global address ability.

NOTE: To utilize the Public LAN feature in your VersaLink, Verizon must support Public LAN and Static IP. If you have questions about the feature, contact Verizon for details.

If you change the settings in this screen, click **Apply.** If you click **Reset**, the screen will refresh and the previously saved settings will remain active.

IMPORTANT: Whenever you change the Private LAN settings, the screen will display the changes; however, you must click **Apply** to allow the changes to take effect in the Router. (**Private LAN** is the default setting for VersaLink.)

To enable Public LAN, click the Public LAN DHCP Server Enable box (a check mark will appear in the box).

ver	on					
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main			Publi	c LAN		
Public LAN		Public LAN DHCP Serv	er Enable			
		Public LAN Enable				
		Public LAN IP Address		192.168.2.1		
		Public LAN Subnet Ma	sk	255.255.255.0		
			Apply R(eset Back		



User Guide

Public LAN		
Public LAN DHCP Server Enable	Default = Disabled (deselected)	
	If this box contains a check mark, this enables DHCP addresses to be	
	served from the Public LAN pool.	
Public LAN Enable	Default = Disabled (deselected)	
	If this box contains a check mark, this enables the addresses from the	
	Public LAN to bypass the NAT interface.	
Public LAN IP Address	Provides a Public IP Address if the service provider does not	
	automatically provide one.	
Public LAN Subnet Mask	Provides a Public Subnet Mask if the service provider does not	
	automatically provide one.	

If you clicked the **Public LAN DHCP Server Enable** box, the following screen will appear. Click the **Public LAN Enable** box (a check mark will appear in the box).

NOTE: By enabling the Public LAN DHCP Server, you automatically disable the Router's Private LAN DHCP Server. (**Private LAN DHCP** is the default setting for VersaLink.)





User Guide

If you clicked the **Public LAN Enable** box, the following screen will appear. After you have made changes to this screen, click **Apply** to allow the settings to take effect.

VersaLink Wireless Gateway - Microsoft Inte	net Explorer		
File Edit View Favorites Tools Help			
Main Wireless Settings	Wy Network Settings	Advanced	System Monitoring
Main Public LAN	Public	LAN	
	Public LAN DHCP Server Enable	✓	
	Public LAN Enable		
	Public LAN IP Address	192.168.2.1	
	Public LAN Subnet Mask	255.255.255.0	
	Public LAN DHCP Settings		
	DHCP Start Address	192.168.2.15	3
	DHCP End Address	192.168.2.215	
	DHCP Lease Time	1 : 0 : 0 : 0	
		Days Hours Minutes Seconds	
	Apply Re	set Back	
<	ш		× >
街 Done			🥥 Internet

If the settings you have entered in the **Public LAN Configuration** screen are incorrect, the following warning messages may be appear in pop-up screens. If this occurs, check the **Public LAN Configuration** settings.

Warning Message	Check Public LAN DHCP Settings	
Start Address is not part of the Subnet	Check the value in the DHCP Start Address field	
End Address is not part of the Subnet	Check the value in the DHCP End Address field	
End Address is below the Start Address	Check the value in the DHCP End Address field	
Lease time must be greater than 10 seconds	Check the values in the DHCP Lease Time fields	
Seconds must be between 0 and 59	Check the Seconds field at DHCP Lease Time	
Minutes must be between 0 and 59	Check the Minutes field at DHCP Lease Time	
Hours must be between 0 and 23	Check the Hours field at DHCP Lease Time	
Note: The DHCP Lease Time value must be greater than 10 seconds. The default = 01:00:00:00. Seconds must be		
between 0 and 59, minutes must be between 0 and 59, and hours must be between 0 and 23.		

If you clicked **Apply** in the preceding screen, the following pop-up screen will appear. The Router must be reset to allow the new configuration to take effect. Click **OK** to continue.

Microsoft Internet Explorer	
2	The modem must be reset in order for the new configuration to take affect. Do you wish to reset now?
	OK Cancel


User Guide

verizon			
	Resetting Modem Plea The modem is resetting i the requested changes to Your page will be reload		
	Your page will be reload	ed shortly.	

If you clicked **OK**, the following screen will appear. After a brief delay, the home page will appear. Confirm that you have a DSL link and that your PPP Status displays **UP**.

15.17 VLAN Configuration

In the Advanced screen, click VLAN Configuration. The following screen will appear. When VLAN is enabled, the Router will assign VLAN tags to individual data ports on the Router. Enter the desired values, and then click Apply to allow the settings to take effect.

VersaLink Wireless Gatew	vay - Microsoft Internet E	xplorer				
File Edit View Favorites	Tools Help					2
						~
ver	izon					
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main VLAN Configuration			VLAN Configu	ration		
		Vlan Enable:	Disabled			
		LAN Port:	Ethernet Port 1 💌			
		VLAN ID: VLAN Priority:	1 v 3 v			
		Outgoing VLAN Tag:	Remove V			
			Apply Ca	ancel		
						~
<						>
🕘 Done					🌍 Internet	



User Guide

	VLAN Configuration
VLAN Enable	Factory Default = Disabled
	If this box is checked, VLAN will be Enabled (activated). This will allow
	VLAN tagging to occur according to the data port's configuration.
LAN Port	This allows you to select the LAN port that you wish to configure.
	Possible Responses:
	Ethernet Port 1
	Ethernet Port 2
	Ethernet Port 3
	Ethernet Port 4
	USB Port
	WLAN Port
VLAN ID	This allows you to assign a VLAN ID to the port.
	Possible Responses:
	1 through 8
VLAN Priority	This allows you to set the VLAN priority for the port.
	Possible Responses:
	0 through 7
Outgoing VLAN Tag	This allows you to keep or remove the VLAN tag on the port when data is
	outgoing.

If you clicked **Apply** in the preceding screen, the following pop-up screen will appear. The Router must be reset to allow the new configuration to take effect. Click **OK** to continue.

Microso	ft Internet Explorer 🛛 🛛
2	The modem must be reset in order for the new configuration to take affect. Do you wish to reset now?
	OK Cancel

If you clicked **OK**, the following screen will appear. After a brief delay, the home page will be displayed. Confirm that you have a DSL link and that your PPP Status displays **UP**.

Resetting Modem - Microsoft Internet Explorer Ho Edit Vew Pavortes Tools Heb	
verizon	
Resetting Modern Please Wait	
The modern is resetting in order for the requested changes to take effect. Your page will be reloaded shortly.	
t our page will be reloaded shoroy.	
🖄 Done	Internet



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15.18 RIP Configuration

In the Advanced screen, click RIP Configuration. The following screen will appear.

RIP (Routing Interface Protocol) is a dynamic inter-network routing protocol primarily used in interior routing environments. A dynamic routing protocol, as opposed to a static routing protocol, automatically discovers routes and builds routing tables.

If you change any settings in this screen, click **Save** to save the settings. If you click **Reset**, this screen will refresh and display the previously saved RIP settings.

VersaLink Wireless Gatewa	ay - Microsoft Internet	ixplorer				
File Edit View Favorites	Tools Help					
veri	<u>70n</u>					
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main Rip Configuration			Rip Configurat	tion		
	RIP Globa					
	Interface '	Type:	LAN			
	Receive: Transmit:		RIPv2			
		nentication Mode:	None			
			Advanced			
	Default Ga	teway				
	Border Ga	teway Filtering				
	RIP Timer	Rate	1			
	RIP Suppl	r Interval	30			
	RIP Expire	Time	180			
	RIP Garba	ge Collection Time	300			
			Save Reset	Close		
Done		Ш			🥐 Internet	>

RIP Configuration				
RIP Global Enable	Factory Default = Disabled			
	If this box is checked, RIP will be Enabled (activated).			
LAN: Select this if you are configuring RIP for the LAN side.				
Interface Type	WAN: Select this if you are configuring RIP for the WAN side. (WAN side is			
	receive only.)			
Receive	The version of RIP to be accepted.			
	Possible Responses:			
	None			
	RIPv1			



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	RIPv2
	RIPv1 or RIPv2
Transmit	The version of RIP to be transmitted. (WAN side RIP never transmits)
	Possible Responses:
	None
	RIPv1
	RIPv1 Compatible
	RIPv2
RIPv2 Authentication Mode	If using RIP V2, you must select the type of authentication to use.
	Possible Responses:
	None
	Clear Text
	MD5 (If MD5 authentication, the password)
	Advanced
Default Gateway	Factory Default = Disabled
	If this box is check (Enabled), this feature will determine whether the modem
	advertises itself as the default Gateway (i.e., the default route)
Border Gateway Filtering	Factory Default = Enabled
	If this box is cleared (Disabled), the modem will not summarize subnets into a
	single route before advertising.
RIP Timer Rate	Indicates how often to update the local routing table.
RIP Supply Interval	Indicates how often to advertise routes to neighbors.
RIP Expire Time	Indicates how long routes received from neighbors become invalid, if no refresh
-	of the route is received.
RIP Garbage Collection Time	Indicates how long to advertise invalid routes after they have expired.

After you have enabled RIP and clicked **Save**, the following pop-up screen will be displayed. Click **OK** to save and configure RIP.





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16. SYSTEM MONITORING

If you click System Monitoring in the top navigational menu, a warning screen will display the following message:

Any changes made in this section may affect your device's performance and configuration. Do you want to proceed?

Click Yes to proceed.

🕘 VersaLink Wireless Gatewa	ay - Microsoft Internet E	xplorer				
File Edit View Favorites	Tools Help					A.
veri	on					
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main		Any changes made in this	Do you want to pr	levices performance and co	unfiguration.	
<						>
Done					3 I	nternet



User Guide

16.1 Gateway Status

If you clicked **Yes** in the warning screen, the following **Gateway Status** screen will appear. This screen allows you to view details about your Router.

🛃 Vers	saLink Wireless Gateway - h	licrosoft Interi	net Explorer				
File	Edit View Favorites Tools	Help					1
							^
	verizo	n					
				8. 1	8		
	TD			>	<u></u>		
	Main	Wireless	My Network	Firewall	Advanced	System Monitoring	
		Settings		Settings		Monitoring	
6							
	Main			Gatewa	ıy Status		
	Gateway Status			040010			
			Software Version:		VER:4.04.00.00		
	Advanced Status		Transceiver Revision:		6.2.0.211		
		^	Model Name:		D90-327W17-06		
			Serial Number:		06B410749516		
			Broadband Connection Status:		UP		
			Broadband IP Address:		10.16.90.5		
			Broadband MAC Address:		00:18:3a:1e:11:88		
			Broadband Connection Type:		PPP		
			Active Status:		00:35:50		
			Configuration:		096-900173-00 A		
<							>
🙆 Done						🔮 Internet	
e vune	•						

	Gateway Status				
Software Version	VersaLink's software version.				
Transceiver Revision	VersaLink's transceiver version.				
Model Name	VersaLink manufacturer's model name.				
Serial Number	VersaLink's serial number.				
Broadband Connection Status	The status of your Internet connection.				
	Up = Internet connection established				
	Down = No Internet connection established				
Broadband IP Address	VersaLink's WAN IP Address, assigned or provided by Verizon.				
Broadband MAC Address	Media Access Controller (MAC) i.e., hardware address of this device, assigned				
	by the manufacturer.				
Broadband Connection Type	The protocol used to establish an Internet connection with Verizon.				
Active Status	The duration that VersaLink has been in use (measured in hours: minutes:				
	seconds).				
Configuration	Proprietary configuration number for VersaLink.				



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16.2 Advanced Status

If you select **System Monitoring** in the top navigational menu, and then click **Advanced Status** in the menu options at the left of the screen, a warning screen will display the following message:

Any changes made in this section may affect your device's performance and configuration. Do you want to proceed?

Click Yes to proceed.



If you clicked **Yes**, in the **Warning** screen, the following screen will appear. From this screen, you can access various logging and monitoring information recorded by your Router. Click the desired link to go to that screen.

NOTE: Only advanced users should use these features. If you need to reset the Router to factory default settings, press the reset button on the rear of the Router. Or follow the instructions in section 15.2, "Restore Defaults," to restore the Router to factory default settings.





User Guide

16.2.1 System Logging

VersaLink Wireless Gateway - Micros File Edit View Favorites Tools Help veri on My Network Firewall Settings Advanced Wireless Settings Main System Log System Log Printable Form ress the **Refresh** button to update the data ne: 16:9:41 Date: January 31, 200 Logs Select a log... 💌 •

In the Advanced Status screen, click System Logging. The following screen will be displayed.

At the Logs drop-down menu, do any of the following:

- Select All to list both Connection and System logs.
- Select **Connection** to list all events related to connection activity (any traffic on the USB, Ethernet, or DSL ports).
- Select System to list all events related to system activity (Time, Errors, Boot Information, etc.)

Verticity	VersaLink Wireless Gateway File Edit View Favorites Toc		plorer				
Nain Wireless Wy Network Firewall Settings Advanced System Min	veriz	on					
System Log	Main	Wireless Settings		Firewall Settings	Advanced	System Monitoring	
Current Time: 16:9:41 Date: January 31, 2007			Close CI			sh	
Geter a training of the second							
		Logs		Select Al	a log		
				System			
Done Done Done	<						>



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If you selected **All** from the **Logs** drop-down menu, the following screen will appear. You may need to scroll down to the bottom of the logs screen to view all the logged events. After you have viewed the logs, do any of the following:

- Click **Close** to close the logs page and to return to the Advanced Status screen.
- Click **Clear Log** to clear the logs screen.
- Click **Printable Format** to save a copy of the logs to a location on your computer.
- Click **Refresh** to update the logs screen so that it displays the most current information.

🗿 VersaLink Wireless Gateway - M	icrosoft Inte	rnet Explorer				
File Edit View Favorites Tools	Help					A
verizo	n					
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main System Log		Close	System Lo	g ole Format Refre	sh	
			Press the Refresh button to	undate the data	_	
			Current Time: 16:10:4 Date:			
		Logs	Selec	t a log 💌		
		All Entrie	es			
		EVENTS Events are listed starting WED JAN 31 17:02:56 2007 DHCP Server - shutdown WED JAN 31 16:50:17 2007	<pre> Up PPPOE PPPOE Local 0 days, 0 hrs: 3 y from the most recent. a</pre>	*****		
		WED JAN 31 16:46:48 2007	cent (first 20 chars:)			
		WED JAN 31 16:46:48 2007	e following events are tr		, 4 VALUE CHANGE	
		CWMP: TCP Connected, 5 WED JAN 31 16:34:03 2007	SSL Connection Succeeded,	Auth Type = None		
<)	>
😂 Done					🤣 II	nternet



User Guide

To save a copy of the logs to a location on your computer, in the **System Log** page, click **Printable Format.** The following screen will appear. Click **File > Save As** from the menu options, and then save the file to the desired location.

🚰 Diagnostic Log - Microsoft Internet Explorer	
Ele Edit View Favorites Tools Help	
<u>New</u> Open Ctrl+O	Address Links »
Edit with Microsoft Office Word	<u> </u>
<u>Save As</u>	
Page Setup	
Proge Setogy Print Ctrl+P	
Print Preglew	
Send Import and Export	
Work Offline	
Ose Up	
Connection Type PPPoE	
Time set from Local	
Time since last boot 4 days, 20 hrs: 23 mins: 33 secs	
Time since fast boot 4 days, 20 mis. 25 mins. 55 secs	
EVENTS	
Events are listed starting from the most recent.	
MON JAN 22 18:14:44 2007 DHCP Server - shutdown	
MON JAN 22 18:04:32 2007	
DHCP Server - shutdown	
MON JAN 22 18:03:59 2007 DHCP Server - shutdown	
MON JAN 22 18:01:32 2007	
DHCP Server - shutdown	
MON JAN 22 17:30:30 2007 DHCP Server - shutdown	
MON JAN 22 17:30:22 2007	
DHCP Server - shutdown	
	-
Saves this document as a file.	

At the **Save Web Page** dialog box, select a destination for your log file from the **Save in** drop-down menu. Next, enter a name for your log file in the field labeled **File name**, and then click **Save** to save the log file.

Save Web Pa	age						? ×
Save jn: 🔂	Diagnostics Log	•	E				
		10.75			94 - 40a		
File <u>n</u> ame:	Log File Name					<u>S</u> ave	
Save as tune:	Web Page, complete (*.htm;*.htm	n		Ŧ		 Cance	
		ŋ	_				
Encoding:	Western European (Windows)			_			



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16.2.2 Full Status/System-wide Monitoring of Connections

In the Advanced Status screen, click Full Status/System-wide Monitoring of Connection. The following screen will be displayed. After viewing the details of your Router's connection, you can do any of the following:

- Click the **Broadband Connection** link to go to the VersaPort page and edit your broadband settings. Refer to section 13.2.3 for additional details on this feature.
- Click the **Network (Home/Office)** link to go to the Private LAN DHCP page and edit your Private LAN DHCP settings. Refer to section 15.15 for additional details on this feature.
- Click **Wireless Access Point** link to go to the Basic Security Settings page and edit your wireless settings. Refer to section 12.1 for additional details on this feature.
- Click the **WAN PPPoE** link to go to the Advanced DSL Configuration page and edit your connection settings. Refer to section 13.2.2 for additional details on this feature.
- Click the **DHCP Server** link to go to the Private LAN page and edit your Private LAN DHCP Server settings. Refer to section 15.14 for additional details on this feature.
- Click the Close button to return to the Advanced Status screen.
- Click the Automatic Refresh Off/On button to turn on or turn off the screen's automatic refresh feature.
- Click the **Refresh** button to manually refresh the screen.

NOTE: When the Automatic Refresh button displays **Automatic Refresh Off**, this means that the auto-refresh feature is turned Off. Click the Automatic Refresh button to turn on automatic refresh. When the button displays **Automatic Refresh On**, the page will refresh automatically.

e Edit View Favorites Tools	Help					
verizo	n					
) Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main Full Status/System wide Monitoring of Connections	NOTE: Only advan	Full Status/Sys	tem wide Monitoring	of Connections		
	Name	Broadband Connection (Ethernet)	Network (Home/Office)	Wireless Access Point	WAN PPPoE	
	Status	Disabled	Enabled	Enabled	Enabled	
	Network	Ethernet	Ethernet	Mixed 802.11b / 802.11g	xDSL	
	Connection Type	PPP	Hardware Ethernet Switch	Wireless Access Point	PPP	
	MAC Address	00:18:3a:1e:11:88	00:18:3a:1e:11:88	00:12:0e:56:26:dd		
	IP Address	10.16.90.5	192.168.1.1	192.168.1.1	10.16.90.5	
	Subnet Mask		255.255.255.0	255.255.255.0		
	IP Address Distribution	WAN	DHCP Server	DHCP Server	WAN	
	Service Name	My Connection			My Connection	
	User Name	username@yourisp.net			username@yourisp.net	
	Received Packets	1041	4939	223628	1041	
	Sent Packets	955	7828	2014	955	
	Time Span				00:40:20	
	Channel			6		
		Close	Automatic Refresh Off	6 Refresh	00:40:20	



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	Full Status/System-wide Monitoring of Connections
Name	A descriptor used to identify the Router's connection type
	Network (Home/Office)-Displays information about the Routers LAN connection
	WAN PPPoE-Displays information about the Router's WAN/Braodband connection
Status	The status of the connection (Enabled/Disabled)
Network	Ethernet- The the interface used to connect the Router to your LAN
	xDSL - The interface used to connect to the Router to the WAN
Connection Type	Hardware Ethernet Port- The physical connection type; the hardware used for the LAN
	connection
	PPP the virtual connection type; the protocol use for WAN/Braodband connection
MAC Address	The Media Access Controller; the hardware address assigned to the deviced by the
	manufacturer
IP Address	The Router's LAN and WAN/Braodband IP Addresses
Subnet Mask	Displays the Router's Subnet Mask, which determines what portion of an IP address is
	controlled by the network and which portion is controlled by the host
IP Address Distribution	The method by which IP address are allocated to devices on your LAN
Service Name	The connection profile name to used to establish your Internet connection
User Name	The user name (Account ID) used to identify you to Verizon and to establish your Internet
	connection, provided by Verizon
Received Packets	The number of packets received in to the Router's LAN and WAN interfaces
Sent Packets	The number of packets sent out from the Router's LAN and WAN interfaces
Time Span	The duration your PPP session has been connected (measured in hours: minutes: seconds)



16.2.3 Traffic Monitoring

In the **Advanced Status** screen, click **Traffic Monitoring.** The following screen will be displayed. After viewing your Router's traffic details, you can do any of the following:

- Click the **ATM** link to go to the Advanced DSL Configuration page and edit your connection settings. Refer to section 13.2.2 for additional details on this feature.
- Click the **Ethernet** link to go to the Private LAN DHCP page and edit your Private LAN DHCP settings. Refer to section 15.15 for additional details on this feature.
- Click the Wireless link to go to the Basic Security Settings page and edit your wireless settings. Refer to section 12.1 for additional details on this feature.
- Click the Close button to return to the Advanced Status screen.
- Click the Automatic Refresh Off/On button to turn on or turn off the screen's automatic refresh feature.
- Click the **Refresh** button to manually refresh the screen.

NOTE: When the Automatic Refresh button displays **Automatic Refresh Off**, this means that the auto-refresh feature is turned off. Click the Automatic Refresh button to turn on automatic refresh. When the button displays **Automatic Refresh On**, the page will refresh automatically.

Main	Wireless Settings My	Network		Firewall Settings		Advance	d	System Monitoring
Main			r	raffic Mo	nitoring			
Traffic Monitoring	Stats	ATM	Ethernet	Ethernet	Ethernet	Ethernet	USB	Wireless
	Packet Information for:	PVC 1	Port 1	Port 2	Port 3	Port 4	Port USB	SSID-06B410749516
	MTU	1540	1500	1500	1500	1500		
	VPI / VCI	0/35						
	In Errors	0	0	0	0	0	0	
	In Discard Packets	0	0	0	0	0		0
	In Non-Unicast Packets	0	0	3	0	0	0	174
	In Unicast Packets	1049	0	5164	0	0	0	231096
	In Octets	1371256	0	655511	0	0		
	Out Errors	3	0	0	0	0	0	
	Out Discard Packets	1801	0	0	0	0		0
	Out Non-Unicast Packet	s 2	0	1866	0	0	0	1897
	Out Unicast Packets	961	0	6307	0	0	0	174
	Out Octets	198411	0	6148056	0	0		
	Interface Description	PPP	EtherPort1	EtherPort2	EtherPort3	EtherPort4	USB	Wireless AP

	Traffic Monitoring
Stats	Represents the statistics for each interface type: ATM, Ethernet, or USB
Packet Information for	The packet information for the interface.



VersaLink Wireless Gatewa	tv (Model 327W) User Guide
VPI/VCI	The VPI/VCI values obtained from Verizon.
In Errors	The number of error packets received on the interface.
In Discard Packets	The number of discarded packets received on the interface.
In Non Unicast Packets	The number of non-Unicast packets received on the interface.
In Unicast Packets	The number of Unicast packets received on the interface.
In Octets	The number of bytes received on the interface.
Out Errors	The number of outbound packets that could not be transmitted due to errors.
Out Discard Packets	The number of outbound packets discarded.
Out Non Unicast Packets	The number of non-Unicast packets transmitted on the interface.
Out Unicast Packets	The number of Unicast packets transmitted on the interface.
Out Octets	The number of bytes transmitted on the interface.
Interface Description	A description field that refers to the interface type.

16.2.4 Remote Logging

In the Advanced Status screen, click Remote Logging. The following screen will be displayed. Remote diagnostics logging allows the diagnostics logs to be sent to a machine running a syslog server.

To save the diagnostics logs, click the Enable box (a check mark will appear in the box). Next, type the IP address of the syslog server in the Remote IP Address field. Click Save to save the settings.

🕘 VersaLink Wireless Gateway - Mi	crosoft Internet Exp	lorer				
File Edit View Favorites Tools	Help					
verizor	1					
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring	
Main Remote Logging		Remote diagnostics log a syslog server. If sav should be enabled and	Remote Logg nging allows the diagnostics ing of the diagnostics logs the IP address of the syste	ging : logs to be sent to a machi is desired, remote diagnost og server must be configure	ne running ics logging sd.	
	Enable	IP Address	1921	68.1.47		
	Kemote	IP Address	132.1	00.1.47		
			Save CI	ose		
<		1111				>
Done					🧐 Internet	



16.2.5 Advanced LAN Statistics

In the Advanced Status screen, click Advanced LAN Statistics. The following screen will be displayed. After you have viewed the details in this page, click Close to return to the Advanced Status screen.

VersaLink Wireless Gatew	vay - Microsoft Intern	et Explorer			
File Edit View Favorites	Tools Help				
ver	izon				
Main	Wireless Settings	My Network	Firewall Settings	Advanced	System Monitoring
Main Advanced LAN Statist	tics		Advanced LA	N Statistics	
L		Connection Rate	(Down/Up):	8064 Kbits/sec by 992 Kbits	:/sec
		Connection Status	In Packets Out Packets	1064 978	
			In Error Packets Out Error Packets	0 3	
		IP Network Address	PPP Primary DNS Secondary DNS	10.16.90.5 10.16.16.8 10.16.16.2	
		Ethernet Status	In Packets Out Packets	5581 8802	
		ATM NetworkAddress	VPI VCI	0 35	
		Firewall Status	Passed Dropped	In: 786 Out: 702 In: 0 Out: 75	
			Connection Ir	nformation	
		Connection Name	Connection Duration	Status Number of Rec	onnects
		My Connection	00:43:36	UP O	
			III.		
Done					Internet

	DSL Connection Information
Connection Rate	This field will let you know if you have a DSL signal and the DSL rate at which you are
	connected.
Connection Status	This field will show how much information was received (IN) or sent (OUT) in packets.
IP Network Address	PPP = An IP address identifies your device on the Internet
	Primary DNS = Provided by your Service Provider
	Secondary DNS = Provided by your Service Provider
Ethernet Status	This field will display your Ethernet information that was received (IN) or sent (OUT) in
	packets on your Ethernet port.
ATM Network Address	This field will display your VPI and VCI values, which are provided by your ISP.
Firewall Status	This field will display your firewall traffic in packets.
	Passed: Monitors information traffic that was successfully received (IN) or transmitted
	(OUT) in packets.
	Dropped: Monitors information traffic that was not successfully received (IN) or
	transmitted (OUT) due to your firewall settings.
	PPP Connection Information
Connection Name	This is from the connection profile that you established in section 8.
Connection Duration	This field will display how long your PPP session has been connected.
Status	This field will display the status of your PPP session.
	UP=Connected
	DOWN=Disconnected
Number of Reconnects	This field will display the number of attempts that were made to establish a PPP session.



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16.2.6 QOS Status

In the Advanced Status screen, click QOS Status. The following screen will be displayed. Click the Clear button to clear all counts and statistics (not just latency counts). Clicking Clear does not affect the Router's configuration. (QOS must be enabled on the Router for this table to be populated.) After you have viewed the details in this page, click Close to return to the Advanced Status screen.

Status					Firewall Settings		Adv	vanced		Syst Monit	tem oring
				Q	QOS S uality Of Ser	Status rvice Metrics					
	Packet Co Queue Nu		ax Queue Size	Total	Dropped	Total Enqu	eued	Current	Depth	Deepe	est Depth
	0		300	Pa	ckets 0	Packe 703	ts	0			6
	1		50		0	0		0			0
	2		50		0	0		C			0
	3		50		0	0		C			0
	4		50 10		0	0		C			0
	6		10		0	283		0			0
	QoS Filter	Statistics									
	Queue Number	Peak Info Rate (%)	Committed	Peak Burst (ms)	Committec Burst (ms)	Total Packets Received	To Mar Pacl	ked Fil	ter	vg DSL Bytes er pkt	Avg pkt rate per second
	0	100	0	1000	1000	0	0		0	0	0
	1	100	0	1000	1000	0	0)	0	0	0
	2	100	0	1000	1000	0	0)	0	0	0
	3	100	0	1000	1000	0	0		0	0	0
	4	100 100	0	1000 1000	1000	0	0		0	0	0
	6	100	0	1000	1000	0			0	0	0
						-			-	-	-
	QoS Laten Queue	Not Tim		10 ms 1	to 20 ms	to 40 m	s to	100 ms to	1000 m	nsto La	arger than
	Number	Stampe	d 10 ms	20 ms	; 40 m	s 100	ms	1000 ms	3000	ms	3000 ms
	0	60 0	643	0	0	0		0	0		0
			v	0	0	0		0	0		0
	2	0	0	0							
			0	0	0	0		0	0		0
	2	0 0 0		0		0		0	0		0 0
	2 3	0	0	0	0						



	QOS Status		
Queue Number Indicates the DiffServ Queue.			
Zueue Fluinoet	Possible Responses:		
	0 = Best Effort (BE)		
	1 = Assured Forwarding 1 (AF1)		
	2 = Assured Forwarding 2 (AF2)		
	3 = Assured Forwarding 2 (AF3)		
	4 = Assured Forwarding 2 (AF4)		
	5 = Expedited Forwarding (EF)		
	6 = Routing Protocols (DiffServ priorities 6 and 7)		
Max Queue Size	The maximum number of packets that can be queued for this priority.		
Total Dropped Packets	Indicates how many packets of this priority have been dropped by QOS due to		
roui Dropped rueneus	lack of buffer space or filtering rules.		
Total Enqueued Packets	Displays the number of packets, destined for the WAN, that have been received.		
Current Depth	Displays the current number of packets of this priority that are queued.		
Deepest Depth	Displays the most number of packets that have been queued at once for this		
Deepest Depth	priority.		
	QOS Filter Statistics		
Queue Number	The DiffServ Queue. (See Queue Number description above.)		
Peak Info. Rate (%)	The maximum allowed rate for this priority, expressed as a percentage of the		
	DSL rate.		
Committed Info Rate (%)	The committed rate for this priority, expressed as a percentage of the DSL rate		
Peak Burst (ms)	Displays the interval in milliseconds for averaging the peak offered rate.		
Committed Burst (ms)	Displays the interval in milliseconds for averaging the committed offered rate.		
Total Packets Received	Displays the total number of packets of this priority that are destined for the		
	LAN.		
Total Marked Packets	Displays the number of packets of this priority that exceeded the committed rate,		
	but not the peak rate, and were marked with a higher drop priority		
Total Filter Packet Drops	Displays the number of packets of this priority that exceeded the peak rate and		
	that were, therefore, dropped.		
Avg. DSL Bytes Per Packet	Displays the average size of packets for this priority, including all overhead.		
Avg. Packet Rate Per second	Displays the average rate (in packets per seconds) for this priority.		
	QOS Latency Counts		
Queue Number	The DiffServ Queue. (See Queue Number description above.)		
Not Time Stamped	The packets with no incoming time stamp. (Often these are generated internal to		
	the modem.)		
A ms to B ms	The number of packets of this priority whose time in the modem fell between A		
	and B milliseconds. (Time is measured from the point the packet arrives at the		
	modem's processor until is passed to the ATM hardware for transmission.)		
	Possible ranges are (A ms to B ms):		
	0 ms to 10 ms		
	10 ms to 20 ms		
	20 ms to 40 ms		
	40 ms to 100 ms		
	100 ms to 1000 ms		
	1000 ms to 3000 ms		
	Larger than 3000 ms		



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16.2.7 Transceiver Statistics

In the Advanced Status screen, click Transceiver Statistics. The following screen will be displayed. After you have viewed the details in this page, click Close to return to the Advanced Status screen.

ver	izon				
Main	Wireless	My Network	Firewall	Advanced	System Monitoring
main	Settings	My Network	Settings	Advanced	Monitoring
Main		т	ransceiver Statistics		
Transceiver Stats		Transceiver Revision:	6.2.0.211		
		Vendor ID Code:	4		
		Line Mode:	T1.413 Mode		
		Data Path:	Fast		
		Transceiver Information	Downstream Path	Upstream Path	
		DSL Speed (Kbits/Sec)	8064	992	
		Margin (dB)	13.5	7.0	
		Line Attenuation (dB)	3.0	3.5	
		Transmit Power (dBm)	6.9	11.9	_
			Close		

Transceiver Statistics		
Transceiver Revision	The transceiver software version number.	
Vendor ID Code	The CPE Vendor's ID code for their chipset.	
Line Mode	The operational mode. Modes supported are No Mode, Multi Mode, T1.413	
	Mode, G.DMT Mode, and G.LITE Mode.	
Data Path	The data path used (either Fast or Interleaved).	
Transceiver Information-Down Stream/Up Stream Path		
DSL Speed (Kbits/Sec)	The transmission rate that is provided by your service provider.	
SNR Margin (dB)	The Signal-to-Noise Ratio (S/N) where 0 db = 1×10^{-7} , which inhibits your DSL	
	speed.	
Line Attenuation (dB)	The DSL line loss.	
Transmit Power (dBm)	The transmitted signal strength.	



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17. PORT FORWARDING SERVICES

For your convenience, VersaLink supports protocols for Applications, Games, and VPN-specific programs. The following chart provides port/protocol information for the supported services.

NOTE: To configure the Router for a service or application, follow the steps in section 14.3.3, "Configuring Port Forwarding Services," of this User Guide.

Applications/Games/VPN Support		
Application/Game	Port/Protocol	
Aliens vs. Predator	80 UDP, 2300 UDP, 8000-8999 UDP	
Age of Empires II: The	6073 UDP, 47624 TCP, 2300-2400 TCP/UDP	
Conquerors	This service will open up ports for both traffic directions.	
Americas Army	TCP - 20045	
	UDP – 1716 to 1718, 8777, 27900	
America Online	5190 TCP/UDP	
Anarchy Online	TCP/UDP - 7012,7013, 7500 - 7505	
AOL Instant Messenger	4099 TCP, 5190 TCP	
Asheron's Call	9000-9013 UDP, 28800-29000 TCP	
Battlecom	2300-2400 TCP/UDP, 47624 TCP/UDP	
Battlefield 1942	UDP - 14567, 22000, 23000 to 23009, 27900, 28900	
Black and White	2611-2612 TCP, 6667 TCP, 6500 UDP, 27900 UDP	
Blizzard Battle.net (Diablo II)	4000 TCP, 6112 TCP/UDP	
Buddy Phone	700, 701 UDP	
Bungie.net, Myth, Myth II Server	3453 TCP	
Calista IP Phone	3000 UDP, 5190 TCP	
Citrix Metaframe	1494 TCP	
Client POP/IMAP	110 TCP	
Client SMTP	25 TCP	
Counter Strike	27015 TCP/UDP, 27016 TCP/UDP	
Dark Reign 2	26214 TCP/UDP	
Delta Force (Client and Server)	3568 UDP, 3100-3999 TCP/UDP	
Delta Force 2	3568-3569 UDP	
DeltaForce: Land Warrior	UDP 53	
	TCP 21	
	TCP 7430	
	TCP 80	
	UDP 1029	
	UDP 1144	
	UDP 65436	
	UDP 17478	
DNS	53 UDP	
Elite Force	2600 UDP, 27500 UDP, 27910 UDP, 27960 UDP	
Everquest	1024-7000 TCP/UDP	
F-16, Mig 29	3863 UDP	
F-22 Lightning 3	4660-4670 TCP/UDP, 3875 UDP, 4533-4534 UDP, 4660-4670 UDP	
F-22 Raptor	3874-3875 UDP	
Fighter Ace II	50000-50100 TCP/UDP	
Fighter Ace II for DX play	50000-50100 TCP/UDP, 47624 TCP, 2300-2400 TCP/UDP	
FTP	20 TCP, 21 TCP	



Com Sur Ouling	UDP 3783	
GameSpy Online		
	UDP 6515	
	TCP 6667	
	UDP 12203	
	TCP/UDP 13139	
	UDP 27900	
	UDP 28900	
	UDP 29900	
	UDP 29901	
Ghost Recon	TCP 80	
	UDP 1038	
	UDP 1032	
	UDP 53	
	UDP 2347	
	UDP 2346	
GNUtella	6346 TCP/UDP, 1214 TCP	
Half Life Server	27005 UDP(client only)	
	27015 UDP	
Heretic II Server	28910 TCP	
Hexen II	26900 (+1) each player needs their own port. Increment by one for	
	each person.	
Hotline Server	5500, 5503 TCP 5499 UDP	
HTTPS	443 TCP/UDP	
ICMP Echo	4 ICMP	
ICQ OLD	4000 UDP, 20000-20019 TCP	
ICQ 2001b	4099 TCP, 5190 TCP	
ICUII Client	2000-2038 TCP, 2050-2051 TCP, 2069 TCP, 2085 TCP, 3010-3030	
ICOII Chem	TCP	
ICUII Client Version 4.xx	1024-5000 TCP, 2050-2051 TCP, 2069 TCP, 2085 TCP, 3010-3030	
ICOII Chent Version 4.xx	TCP, 2000-2038 TCP6700-6702 TCP, 2089 TCP, 2089 TCP, 3010-3050	
IMAD	119 TCP/UDP	
IMAP		
IMAP v.3	220 TCP/UDP	
Internet Phone	22555 UDP	
IPSEC ALG	IPSEC ALG	
IPSEC ESP	PROTOCOL 50	
IPSEC IKE	500 UDP	
Ivisit	9943 UDP, 56768 UDP	
JKII:JO (Jedi Knight II: Jedi	UDP - 28070 (default)	
Outcast)	UDP- 27000 to 29000	
KALI, Doom & Doom II	2213 UDP, 6666 UDP (EACH PC USING KALI MUST USE A	
	DIFFERENT PORT NUMBER STARTING WITH 2213 + 1)	
KaZaA	1214 TCP/UDP	
Limewire	6346 TCP/UDP, 1214 TCP	
Medal Of Honor: Allied Assault	TCP 80	
	UDP 53	
	UDP 2093	
	UDP 12201	
	TCP 12300	
	UDP 2135	
	UDP 2139	
	TCP/UDP 28900	
mIRC Chat	6660-6669 TCP	
Motorhead Server	16000 TCP/UDP, 16010-16030 TCP/UDP	



MSN Game Zone	6667 TCP, 28800-29000 TCP
MSN Game Zone (DX 7 & 8 play)	6667 TCP, 6073 TCP, 28800-29000 TCP, 47624 TCP, 2300-2400
MSN Game Zone (DX / & 8 play)	TCP/UDP This service will open up ports for both traffic directions.
MSN Messenger	6891-6900 TCP, 1863 TCP/UDP, 5190 UDP, 6901 TCP/UDP
Napster	6699 TCP
Need for Speed 3, Hot Pursuit	1030 TCP
Need for Speed 9, Hot Fursh	9442 UDP
Net2Phone	
	6801 UDP
NNTP	119 TCP/UDP
Operation FlashPoint	47624 UDP, 6073 UDP, 2300-2400 TCP/UDP, 2234 TCP
Outlaws	5310 TCP/UDP
Pal Talk	2090-2091 TCP/UDP, 2095 TCP, 5001 TCP, 8200-8700 TCP/UDP,
	1025-2500 UDP
pcAnywhere host	5631 TCP, 5632 UDP, 22 UDP
Phone Free	1034-1035 TCP/UDP, 9900-9901 UDP, 2644 TCP, 8000 TCP
Quake 2	27910 UDP
Quake 3	27660 UDP
	Each computer playing QuakeIII must use a different port number,
	starting at 27660 and incrementing by 1. You'll also need to do the
	following:
	1. Right click on the QIII icon
	2. Choose "Properties"
	3. In the Target field you'll see a line like "C:\Program Files\Quake
	III Arena\quake3.exe"
	4. Add the Quake III net_port command to specify a unique
	communication port for each system. The complete field should look
	like this: "C:\Program Files\Quake III Arena\quake3.exe" +set
	net_port 27660
	5. Click OK.
	6. Repeat for each system behind the NAT, adding one to the
	net_port selected (27660,27661,27662)
Quicktime 4/Real Audio	6970-32000 UDP, 554 TCP/UDP
Rainbow Six & Rogue Spear	2346 TCP
RealOne Player	TCP - 554, 7070 to 7071
	UDP - 6970 to 7170
Real Audio	6970-7170 UDP
Return To Castle Wolfenstein	Default -27960 TCP/UDP
	UDP - 27950 to 27980
Roger Wilco	TCP/UDP 3782
	UDP 3783 (BaseStation)
SIP ALG	SIP ALG
ShoutCast Server	8000-8005 TCP
Spinner Radio/Netscape Music	TCP - 554
SSH Secure Shell	22 TCP/UDP
Starcraft	2346 TCP
Starfleet Command	2300-2400 TCP/UDP, 47624 TCP/UDP
SOF/SOFII (Soldier of Fortune /	UDP - 28910 to 28915
Soldier of Fortune II)	
Telnet	23 TCP
Tiberian Sun & Dune 2000	1140-1234, 4000 TCP/UDP
Tribes2	TCP - 15104, 15204, 15206, 6660 to 6699
	UDP - 27999 to 28002
Ultima Online	5001-5010 TCP, 7775-7777 TCP, 8800-8900 TCP, 9999 UDP, 7875



	UDP	
Unreal Tournament server	7777 (default gameplay port)	
	7778 (server query port)	
	7779,7779+ are allocated dynamically for each helper UdpLink	
	objects, including UdpServerUplin objects. Try starting with 7779-	
	7781 and add ports if needed.	
	27900 server query, if master server uplink is enabled. Home master	
	servers use other ports like 27500.	
	Port 8080 is for UT Server Admin. In the [UWeb.WebServer]	
	section of the server.ini file, set the ListenPort to 8080 and	
	ServerName to the IP assigned to the Gateway from Verizon.	
USENET News Service	143 TCP	
VNC, Virtual Network Computing	5500 TCP, 5800 TCP, 5900 TCP	
Westwood Online, C&C	4000 TCP/UDP, 1140-1234 TCP/UDP	
World Wide Web (HTTP)	80 TCP	
	443 TCP (SSL)	
	8008 or 8080 TCP (PROXY)	
Xbox Live	88 TCP/UDP, 3074 TCP/UDP	
Yahoo Messenger Chat	5000-5001 TCP	
Yahoo Messenger Phone	5055 UDP	
NAT/VPN Support		
IPSec Encryption	IPSec using AH can not be supported through NAT. IPSec using	
	ESP and L2TP can be supported via an ALG	
L2TP	IPSec using ESP and L2TP can be supported via an ALG.	
РРТР	Works through NAT.	



VersaLink Wireless Gatewav (Model 327W)

18. TECHNICAL SUPPORT INFORMATION

Contact your Internet service provider for technical support.

19. PRODUCT SPECIFICATIONS

System Requirements for 10/100 Base-T/Ethernet

- Pentium[®] or equivalent class machines or higher
- Microsoft[®] Windows[®] (Vista[™], XP, 2000, ME, NT 4.0, 98 SE) Macintosh[®] OS X, or Linux installed
- 64 MB RAM (128 MB recommended)
- 10 MB of free hard drive space
- 10/100 Base-T Network Interface Card (NIC)
- Internet Explorer 5.5 or higher or Netscape Navigator 7.x or higher
- Computer Operating System CD-ROM

System Requirements for Wireless

- Pentium[®] or equivalent class machines or higher
- Microsoft® Windows® (Vista[™], XP, 2000, ME, 98 SE) installed
- 64 MB RAM (128 MB recommended)
- 10 MB of free hard drive space
- USB Version 1.1 or higher compliant bus
- Internet Explorer 5.5 or higher or Netscape Navigator 7.x or higher
- Computer operating system CD-ROM
- IEEE 802.11b/g PC adapter

LEDs

- Power
- E1, E2, E3, E4
- Wireless
- USB
- DSL
- Internet

Connectors

- DSL: 6-pin RJ-11 modular jack-DSL
- Ethernet: 8-pin RJ-45 modular jack
- Power: Barrel connector

Power

- Power Supply: External 120 VAC (10%) to 12 VDC wall-mount power supply
- Power Consumption: Less than 8 watts typical, from 120 VAC

Dimensions

- Height: 1.0 in. (2.54 cm)
- Width: 8.25 in (20.9 cm)
- Depth: 6.25 in. (15.8 cm)

Weight

• Approx. 1 lb (0.45 kg)

Environmental

- Ambient Operating Temperature: +32 to +104°F (0 to +40°C)
- Relative Humidity: 5 to 95%, non-condensing

EMC/Safety/Regulatory Certifications

- FCC Part 15, Class B
- ANSI/UL Standard 60950-1
- CAN/CSA Standard C22.2 No. 60950-01 First Edition dated
- UL, CSA, ACTA 968-A-3
- Industry Canada CS03



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VersaLink Wireless Gateway (Model 327W)

21. PUBLICATION INFORMATION

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