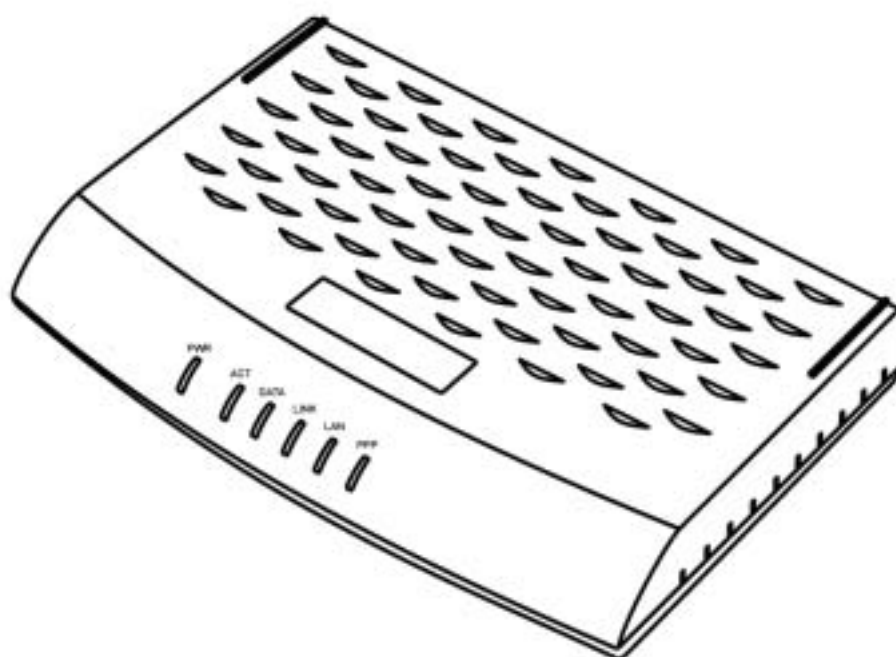




# ADSL 201ER

User's Manual



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# Important Safeguards

Please read and understand all instructions.

Follow all warnings and instructions marked on the product.

## Environment

- ※ The VisionNet 201ER is intended for in-house stationary use (desktop or wall-mounted).
- ※ The maximum ambient temperature may not exceed 40°C (104°F) external to the housing.
- ※ The VisionNet 201ER must not be mounted in a location exposed to direct heat or excessive solar or radiation.
- ※ The VisionNet 201ER should not be exposed to heat trap conditions and must not be subjected to water or condensation.
- ※ The VisionNet 201ER must be installed in a Pollution Degree 2 environment.

## Cleaning

Unplug the 201ER from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.

## Water and Moisture

Do not use the 201ER near water (near a bathtub, wash bowl, kitchen sink, laundry tub, in a wet basement or near a swimming pool).

## Power Sources

The 201ER should be operated only from the type of power source indicated on the marking labels. If you are not sure of type of power supply to your home, consult technical support or your local power company.

The main socket outlet should be near the equipment and easily accessible.

The router equipment is not intended to be connected to an IT-type power system.

## Power Cord Protection

Do not allow anything to rest on the power cord. Do not locate this product where the cord will be subject to persons walking on it.

## Overloading

Do not overload wall (mains) outlets and extension cords as this can result in fire or electric shock.

## Servicing

To reduce the risk of electric shock, do not disassemble this product. None of its parts are user replaceable; therefore, no reason exists to access the interior. Opening or removing the cover may expose you to dangerous voltages or other risks. In addition, incorrect reassembly can cause electric shock when the appliance is subsequently used.

If service or repair work is required, take it to qualified service personnel.

## Damage Requiring Service

Unplug the product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- ※ If liquid has been spilled into the product.
- ※ If the product has been exposed to rain or water.
- ※ If the product does not operate normally when following the operating instructions.
- ※ If the product has been dropped and damaged.
- ※ If the product exhibits a distinct change in performance.

## Modem / Telephone Use

Avoid using a modem/telephone during an electrical storm. There may be a remote risk of electric shock from lightning.

Do not use the telephone to report a gas leak in the vicinity of the leak.

If telephone service is required on the same line and for optimum ADSL performance, distributed filters must be installed. Depending on your ADSL configuration and type of filters, installation may be required by qualified service personnel. Consult your telephone company or ADSL service provider for instructions.

# FCC Information

## Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates 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 receiver.
- ※ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ※ Consult the dealer or an experienced radio/TV technician for help.

### Notice:

Any change or modification not expressly approved by the Guarantee of the equipment authorization could void the user's authority to operate the equipment.

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.

The class B digital apparatus meets all requirements of the Canadian Interference - Causing Equipment Regulation.

Cet appareil numérique de la class B respecte toutes les exigences du règlement sur le matériel brouilleur du Canada.

## Protection of the telephone network statement

This equipment complies with Part 68 of the FCC Rules. On the solder side (back side) of this equipment is a label that contains, among other information, the FCC Registration Number and Ringer Equivalence Number (REN) for this equipment. You must, upon request, provide this information to your telephone company.

This equipment uses RJ11 jacks.

An FCC compliant telephone cord and modular plug are provided with this equipment. This equipment is designed to be connected to the telephone network or premises wiring using a compatible modular jack, which is part 68 compliant. See installation instructions for details.

The REN is useful to determine the quality of devices you may connect to your telephone line and still have all those devices ring when your telephone number is called. In most, but not all areas, the sum of all the REN's of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices you may connect to your line, as determined by the REN, you should contact your local telephone company to determine the maximum REN for your calling area.

If your telephone equipment causes harm to the telephone network, the Telephone company may discontinue your service temporarily. If possible, they will notify you in advance. You will be informed of your right to file a complaint with the FCC.

Your telephone company may make changes in its facilities, equipment, operations or procedures that would affect the proper functioning of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.

If you experience trouble with this equipment, please contact the site on the back of this guide for information on obtaining service or repairs. The Telephone Company may ask that you disconnect this equipment from the network until the problem has been corrected or until you are sure that the equipment is not malfunctioning.

No user serviceable parts are contained in this equipment.

This equipment may not be used in coin service provided by the telephone company. Connection to party lines is subject to state tariffs.

# Preparing to Install

## 1. Introduction

The VisionNet ADSL 201ER router has an integrated ADSL (Asymmetric Digital Subscriber Line) modem which enables high speed Internet access from your Ethernet local area network (LAN). The 201ER brings high-speed connections to home users, small offices and telecommuters.

The ADSL 201ER is designed to “plug and play”. Setup of the 201ER is as simple as connecting it to a PC that is equipped with an Ethernet adapter card and then connecting it to an ADSL outlet.

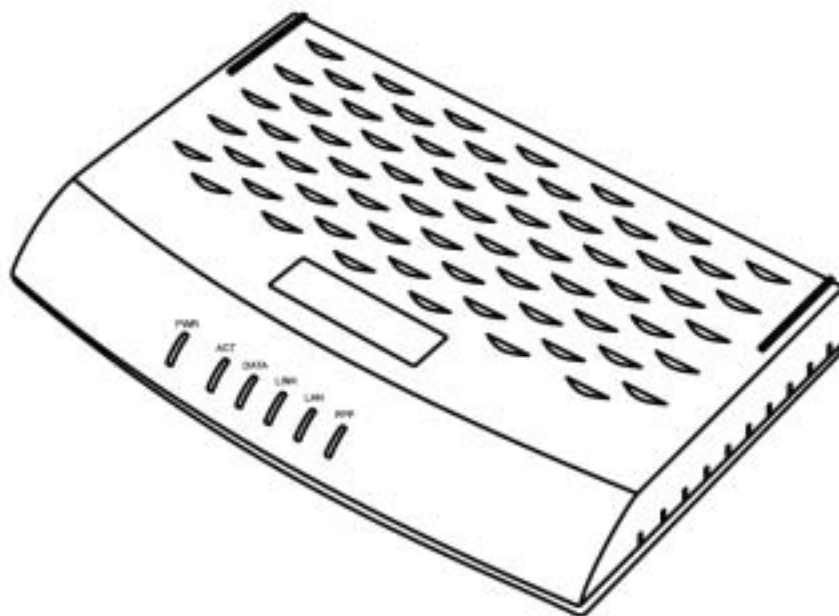
## 2. System Requirements

Does your PC have an acceptable configuration?

Your PC must meet the following minimum requirements:

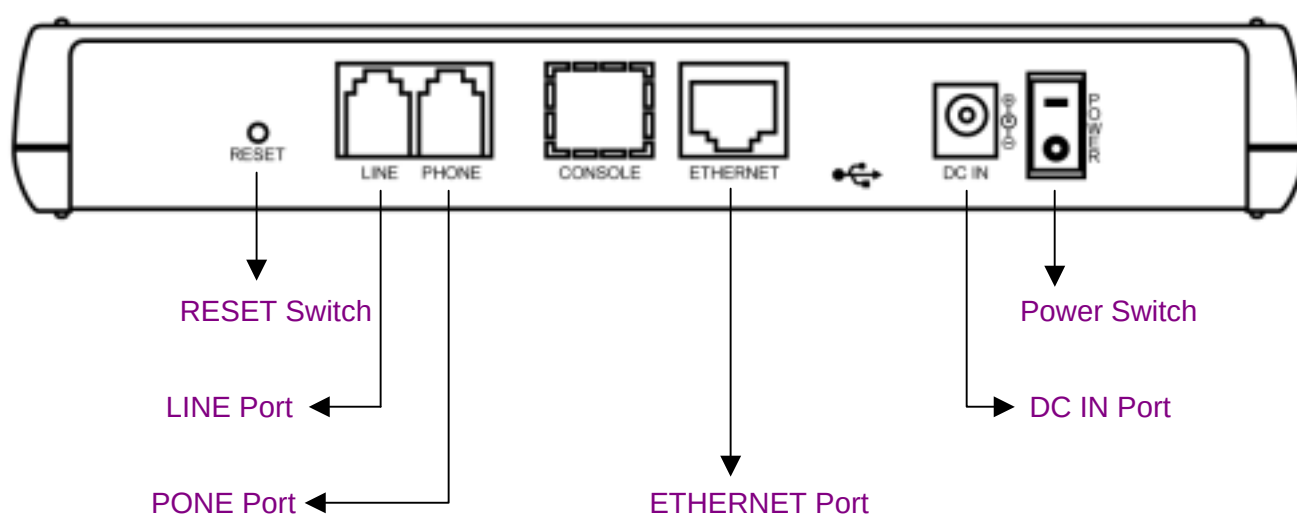
- √ OS Platform with TCP/IP support
- √ 10 or 100 BT Ethernet port
- √ 32 Mb RAM or more

### 3. Front Panel



< Front Panel of the VisionNet ADSL 201ER >

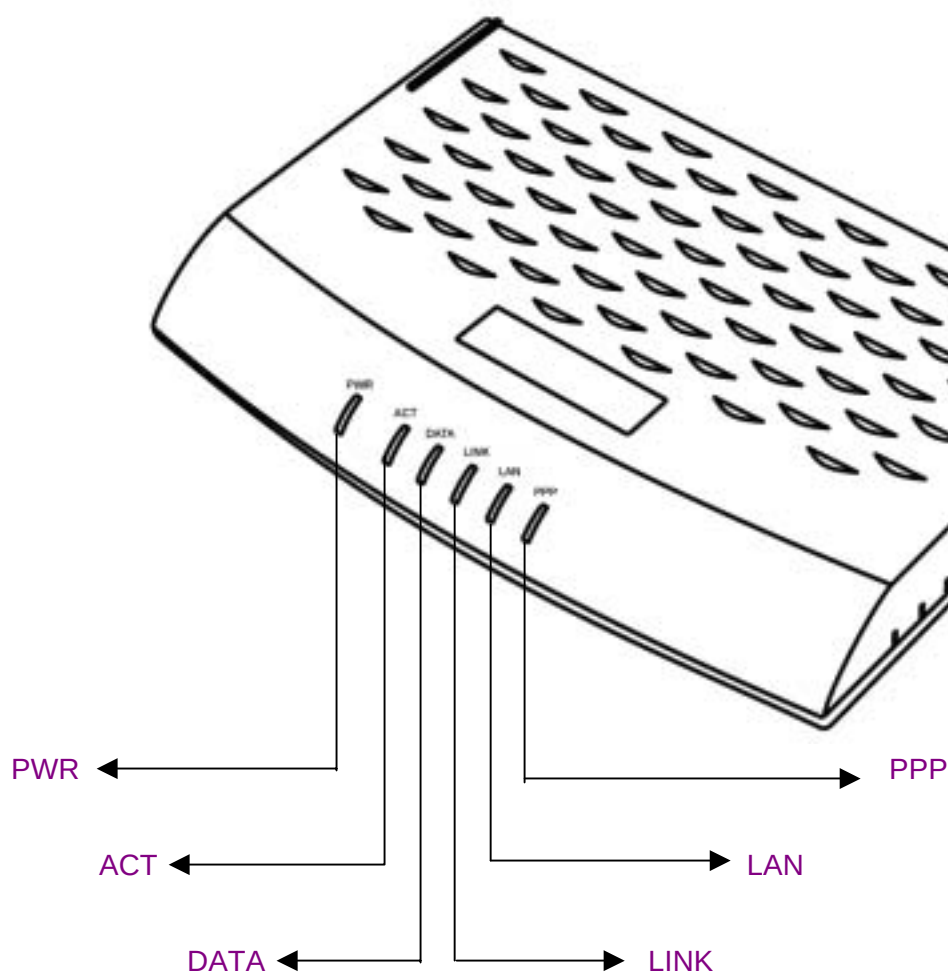
### 4. Rear Panel



< Rear Panel of the VisionNet ADSL 201ER >

## 5. LEDs

The following table explains the functions of the LEDs located on the Front Panel:



| LEDs | Color | Status                | Meaning                                                                                      |
|------|-------|-----------------------|----------------------------------------------------------------------------------------------|
| PWR  | Red   | - Solid<br>- Off      | - Power Detected<br>- Power Off                                                              |
| ACT  | Green | - Solid<br>- Flashing | - Device passed self test<br>- Device failed self test                                       |
| DATA | Green | - Flashing            | - Data is transmitted to the ADSL line                                                       |
| LINK | Green | - Flashing<br>- Solid | - Trying to connect the ADSL line<br>- ADSL line has synchronized with your service provider |
| LAN  | Green | - Flashing<br>- Solid | - Data is transmitted or received to the LAN side<br>- Ethernet interface is active          |
| PPP  | Green | - Solid<br>- Off      | - PPP connection<br>- PPP disconnection                                                      |

\* Note: The PPP LED will only work when PPPoE or PPPoA encapsulation is selected

# Installation

## 1. Parts Included

Check for the following contents of your package.

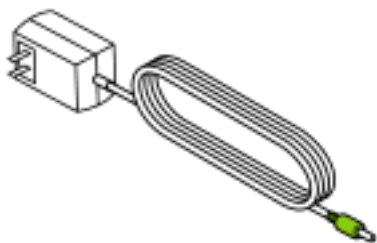
- √ 1. VisionNet 201ER
- √ 2. Power Adapter
- √ 3. RJ-11 Ethernet Cable
- √ 4. CD ROM (Manual)
- √ 5. Quick Start Guide
- √ 6. RJ-45 Ethernet Cable

\* Note: External in-line, wall mount filters, and two-way adaptor are sold separately.  
If you did not a filter kit, your package will not contain the items mentioned above.

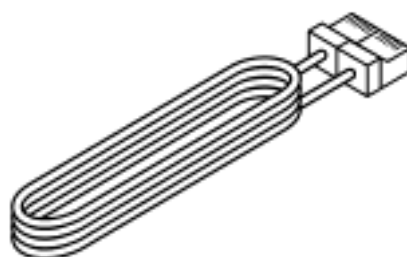
1



2



3



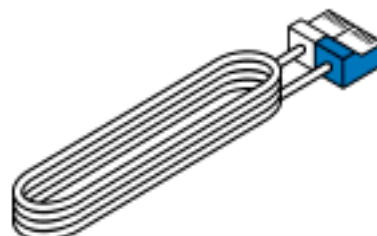
4



5

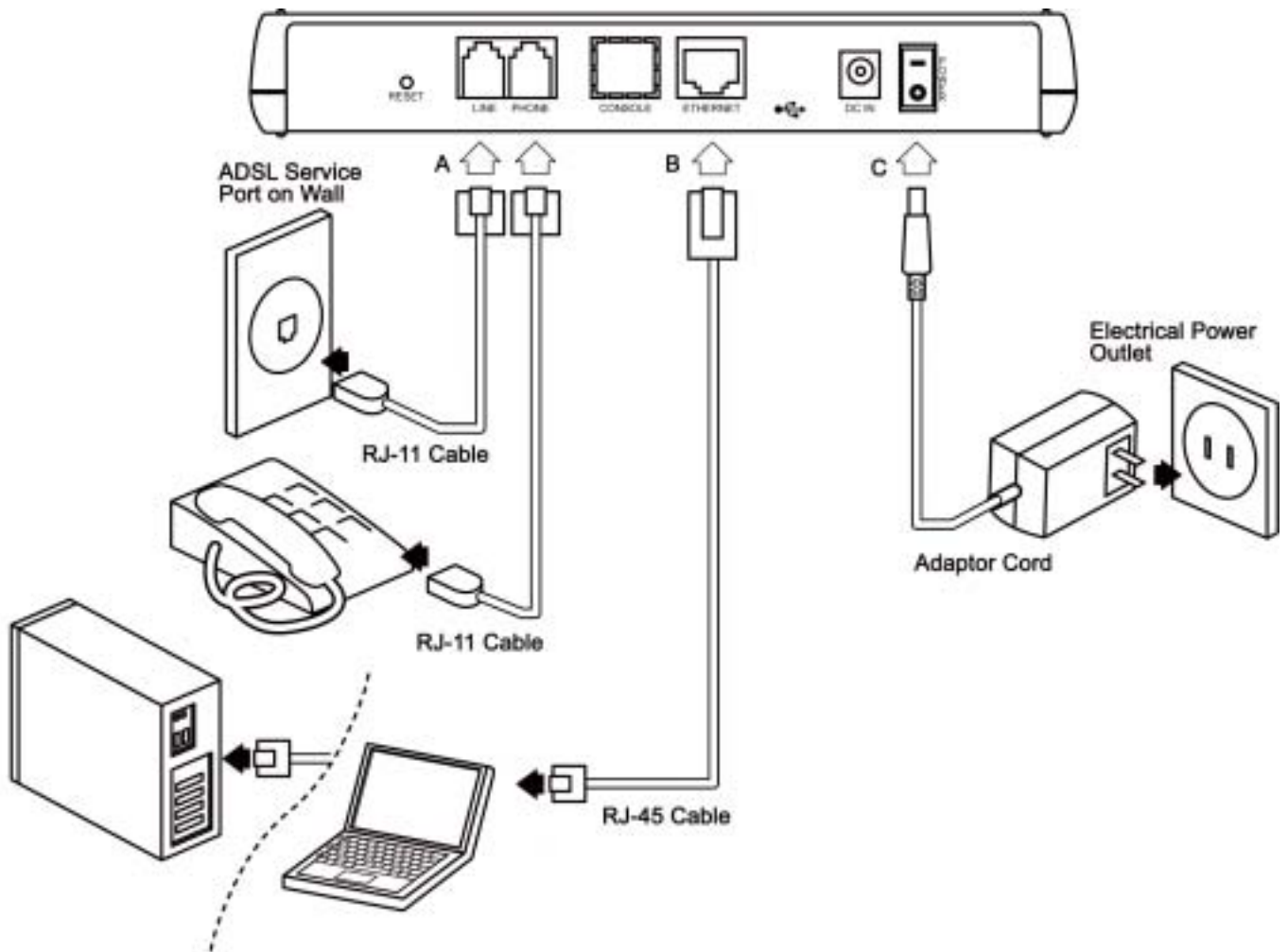


6



If you are missing any of the above items, please contact the sales office where you purchased your unit or your ADSL service provider.

## 2. Connecting the Hardware



< Connect the Hardware >

- A. Connect one end of the RJ-11 telephone cable to the VisionNet 201ER's LINE port and the other end to the ADSL service port (wall jack).
- B. Connect the RJ-45 Ethernet cable to the LAN port of the VisionNet 201ER and the other end to the PC's Ethernet port.
- C. Plug the coaxial jack from the electric power supply adapter into the VisionNet 201ER's DC IN port and the other end to the main outlet. Turn on the power switch.

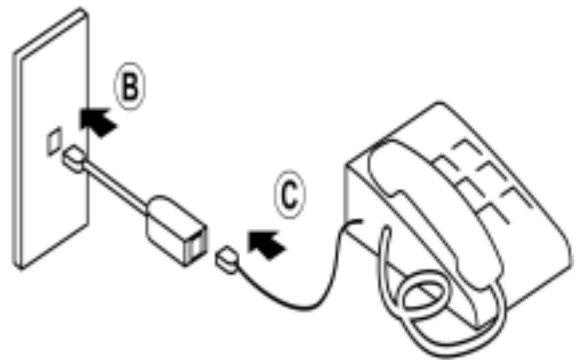
### 3. Verifying Connections

- a. If the POWER LED on the VisionNet 201ER is not solid RED...
  - √ Verify that the power adapter is plugged securely into the electric outlet.
  - √ Verify that the power switch is placed in the “On” position.
- b. If the LAN LED on the VisionNet 201ER is not solid GREEN...
  - √ Verify that the RJ-45 connection is secure on both the PC Ethernet port and RJ-45 port on the VisionNet 201ER.
- c. If the ADSL LED on the VisionNet 201ER is not solid GREEN within 2 minutes...
  - √ Check the RJ-11 connection on the LINE port of the VisionNet 201ER. Make sure that the RJ-11 is securely connected to the LINE port on the VisionNet 201ER from the ADSL wall jack.

### 4. Question and Answer (Q &A)

**Q1:** Why do I need a filter on the telephone line attached to the ADSL service?

**A1:** Converting your regular phone into a Digital Subscriber Line (DSL) can cause audible noises (high pitched tones and static) when you try to talk on the phone without a filter. You will need to install a filter on each telephone or device that shares the DSL line to eliminate this noise; phones or devices that share the same telephone number as your ADSL service. Other devices where a filter should be placed include answering machines and fax machines. The filters will enable both Internet access and normal phone use at the same time.



**Q2:** How do I connect the filter?

**A2:** Place the filter in jacks that share the same telephone number with the activated ADSL line.

**Q3:** When is a two-way adapter required?

**A3:** If your 201ER shares a jack with another telephone, you will need to install a two-way adapter. A two-way adapter is not a filter; it merely allows two lines to connect into one jack. Plug the two-way adapter into the wall jack, plug an in-line filter into one of the two jacks on the two-way adaptor, and then connect your telephone to the filter. The remaining jack on the two-way adaptor is used to connect the 201ER to your ADSL service (a filter should not be used when connecting to your modem).

**Q4:** Unable to access the Internet.

**A4:**

- (1) Check first if the **LAN LED** on the front panel of 201ER is ON. When the **LAN LED** is not illuminated, check if Ethernet cable is securely connected from the S-707 LAN connectors located on the rear panel to the PC's LAN card.
- (2) When the **LINK LED** is not solid green within 2 minutes, check your telephone line connection between wall jack providing the ADSL signal to the Line port on the modem.
- (3) If both the LAN and Sync lights are ON, verify the settings of your PC. The 201ER will automatically provide you an IP, Gateway, and DNS addresses. To check this setting on your Windows based PC, Click Start - Settings - Network - TCP/IP - Properties in sequence and verify that the IP address is set to "**obtain an IP and DNS address Automatically**" and the Gateway field should be blank.

**Q5:** The PWR LED is not ON.

**A5:**

- (1) Verify the power switch on the back of the 201ER is in the ON position.
- (2) Verify the connection is secure in the back of the unit and from the power source.
- (3) Verify that you are using the power supply provided with the 201ER.
- (4) If the above items have been verified, please contact your service provider.

# Configuration Settings

If your service provider has configured your 201ER for the service, **do not change these settings unless instructed by your service provider.**

All configuration and management for the 201ER is done via a Web browser. You can change the 201ER settings with a web browser such as Microsoft Internet Explorer or Netscape Navigator.

If you purchased a 201ER Router modem, please refer to this section.

In router mode, the 201ER default configuration enables the Dynamic Host Configuration Protocol (DHCP) server. The DHCP server is a network protocol that enables the 201ER to automatically assign an IP address to individual computers attached to your 201ER LAN interface.

The following describes how to access your 201ER by setting your PC as a DHCP client. You may also access your 201ER by statically assigning an IP address to your PC. If you choose this method, the IP address configured in your PC must be in the same subnet as the 201ER.

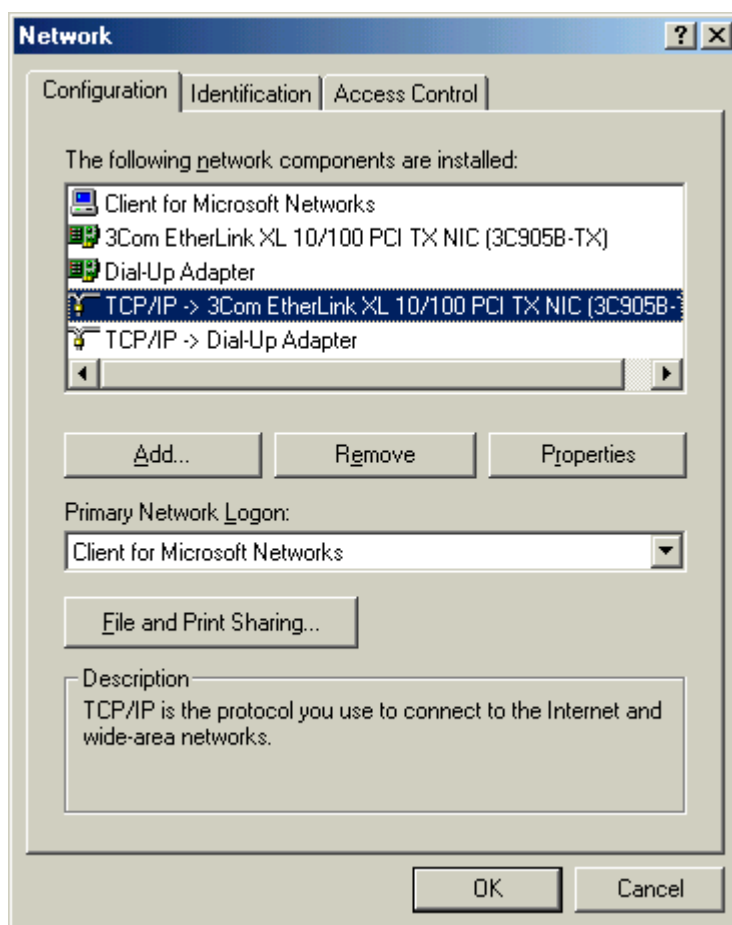
## 1. Configuring Your PC to Access the 201ER

If your PC has DHCP client enabled, simply power on your 201ER before starting your PC. The Ethernet adapter will be assigned an IP address from the DHCP sever. You may also use Window programs **winipcfg.exe** or **ipconfig.exe** to release the old address and renew to request a new address.

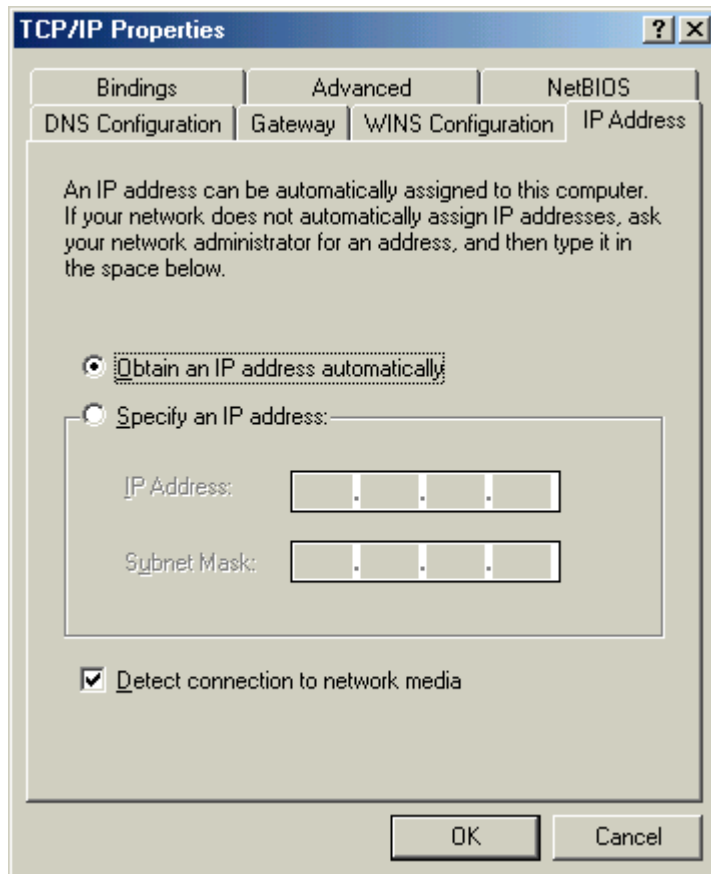
If you want to configure your PC to enable DHCP client, configure your LAN IP address to obtain an IP address automatically. The following steps describe how to configure a Windows based device to obtain an IP address automatically. (Please consult your OS user's manual if you have a non-Windows based device).

※ Win 95 / Win 98 / Win 98SE / Win Me

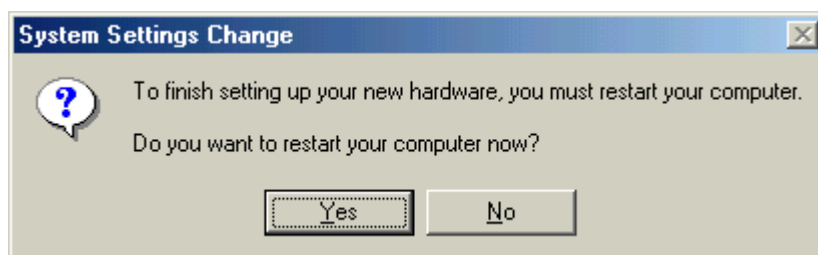
- a. Right-click the **Network Neighborhood** icon and select **Properties**.
- b. When the **Network** window appears, select the Configuration tab, then select **TCP/IP-->NIC (Network Interface Card)**. Click the **Properties** button.



c. The **TCP/IP Properties** window will appear. Select the **IP Address** tab. Select **Obtain an IP address automatically**, then click **OK**.

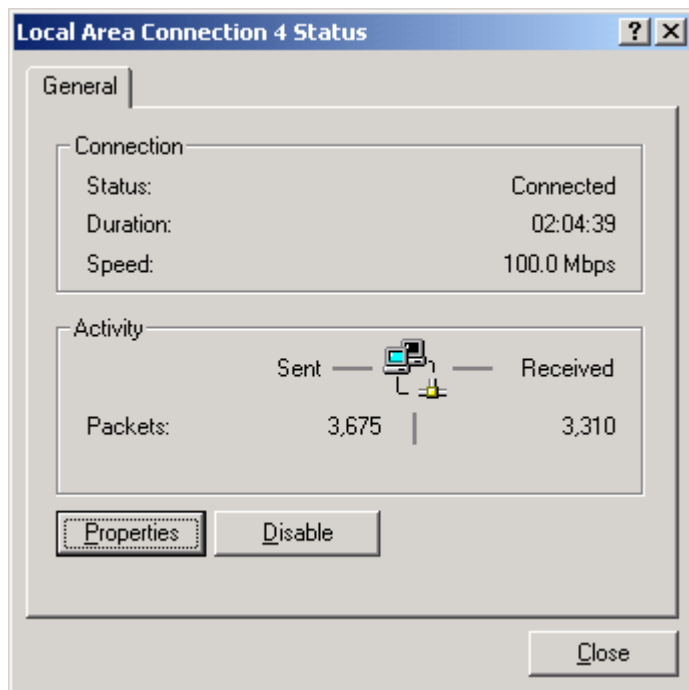


d. You will be asked to restart your computer to complete the settings. Click **Yes** to restart your computer.

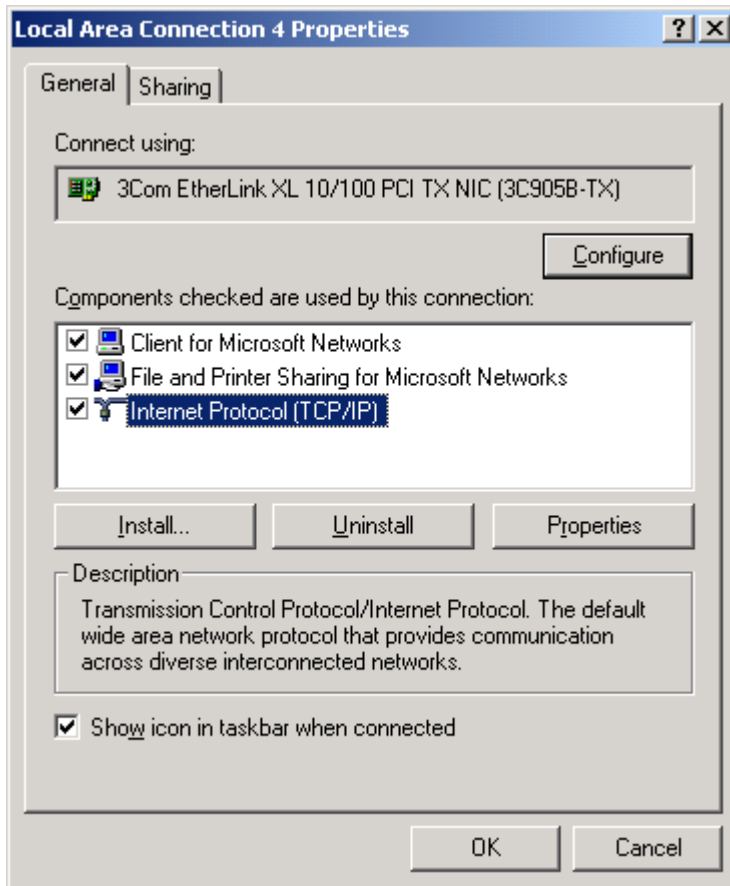


## ❖ Win 2000

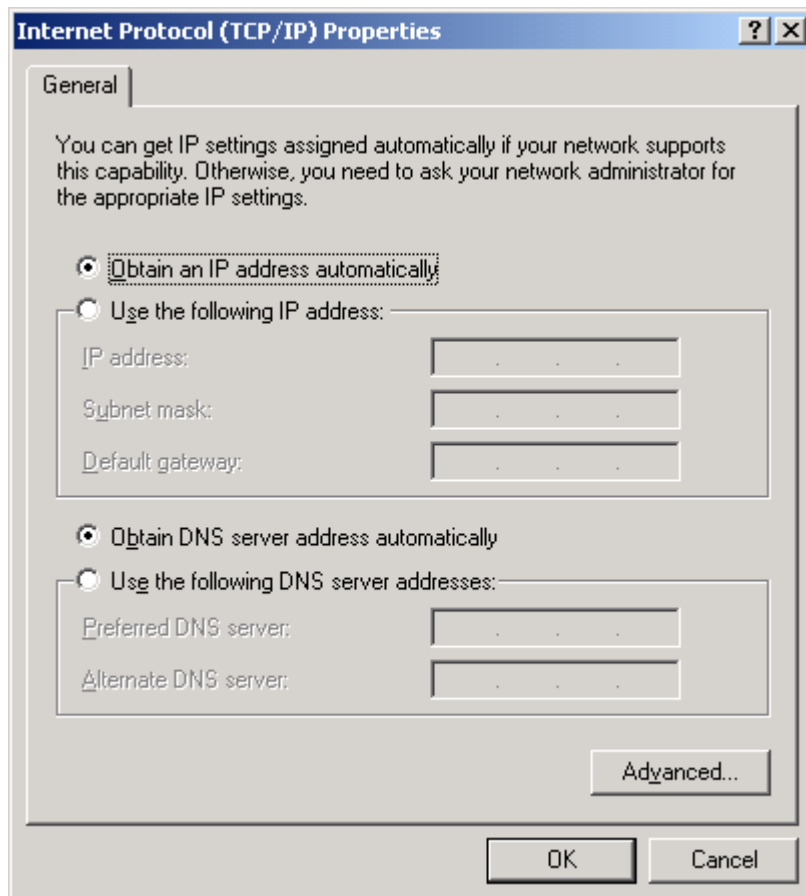
- Right-click the **Network Neighborhood** icon and select **Properties**.
- The **Network and Dial-up Connections** window appears. Double click on the **Local Area Connection** icon for TCP/IP network adapter.
- The **Local Area Connection Status** window appears. Click the **Properties** button.



d. The **Local Area Connection Properties** window appears. Select **Internet Protocol (TCP/IP)**, then click the **Properties** button.

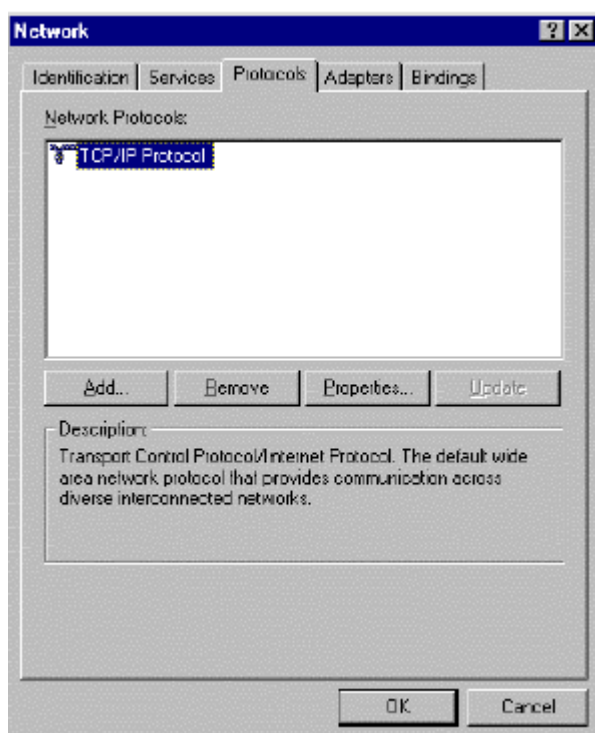


e. The **Internet Protocol (TCP/IP) Properties** window will appear. Select **Obtain an IP address automatically**, then click the **OK** button and complete the settings.

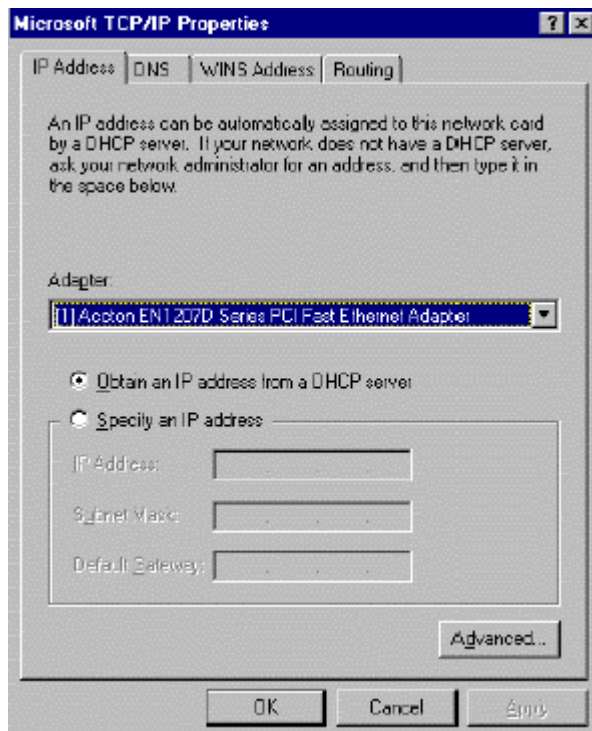


## ❌ Win NT4.0

- a. Right-click the **Network Neighborhood** icon and select **Properties**.
- b. The **Network** window appears. Select the **Protocols** tab, scroll down the network protocols window and select **TCP/IP Protocol**. Click the **Properties** button.

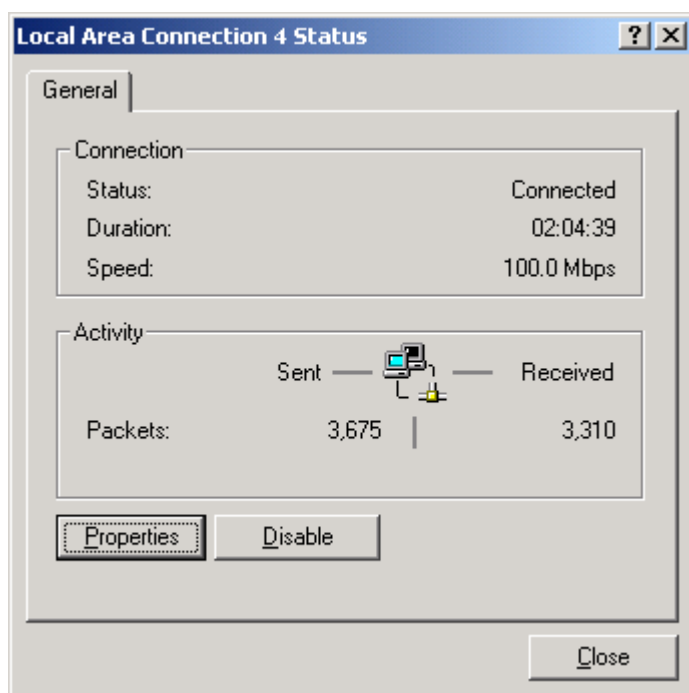


- c. The **Microsoft TCP/IP Properties** window appears. Select the **IP Address** tab then choose the **Obtain an IP address from a DHCP server** option. Click the **OK** button and complete the settings.

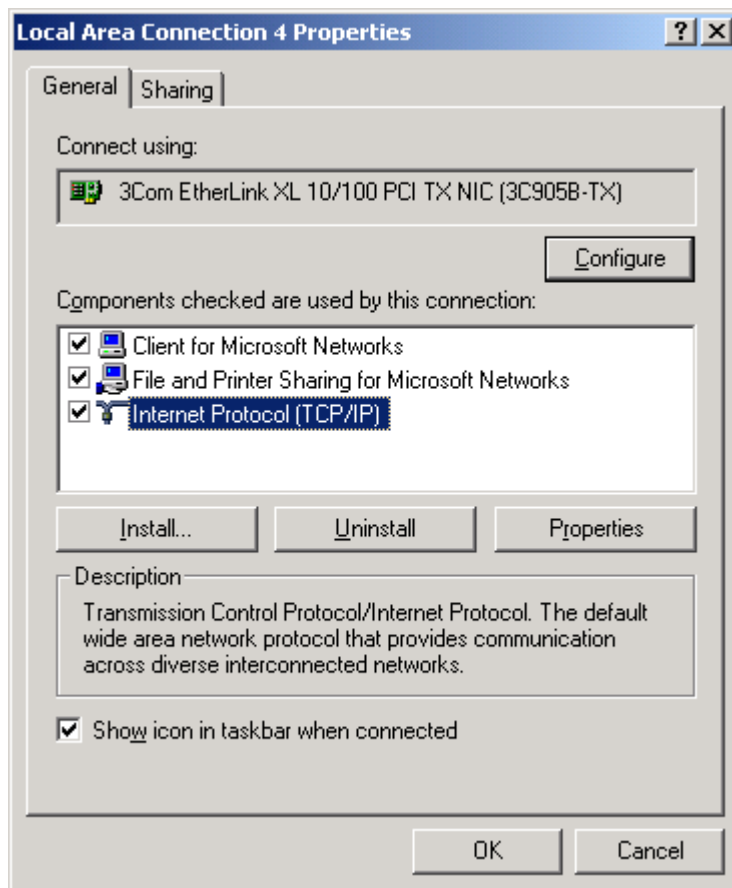


## ❌ Win XP

- From the **Start** menu on the tool bar, select **Control Panel**, then double click on the **Network Connections** icon.
- The **Network Connections** window appears. Right-click on the **Local Area Connection** for TCP/IP network adapter and select **Properties**.



- c. The **Local Area Connection Properties** window appears. Click on **Internet Protocol (TCP/IP)**, then click on **Properties**.



- d. The **Internet Protocol (TCP/IP) Properties** window will appear. Select **Obtain an IP address automatically**, then click the **OK** button and complete the settings.

The screenshot shows the 'Internet Protocol (TCP/IP) Properties' window with the 'General' tab selected. The window title bar includes a question mark icon and a close button. The 'General' tab contains a text box explaining that IP settings can be assigned automatically if the network supports it, or manually by asking the network administrator. There are two main sections: one for IP address settings and one for DNS server settings. In the IP address section, the radio button for 'Obtain an IP address automatically' is selected. Below it, the 'Use the following IP address' option is unselected, and its corresponding input fields for IP address, subnet mask, and default gateway are empty. In the DNS section, the radio button for 'Obtain DNS server address automatically' is selected. Below it, the 'Use the following DNS server addresses' option is unselected, and its corresponding input fields for preferred and alternate DNS servers are empty. At the bottom right of the main content area is an 'Advanced...' button. At the very bottom of the window are 'OK' and 'Cancel' buttons.

**Internet Protocol (TCP/IP) Properties** ? X

**General**

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

☒ Obtain an IP address automatically

☐ Use the following IP address:

IP address:

Subnet mask:

Default gateway:

☒ Obtain DNS server address automatically

☐ Use the following DNS server addresses:

Preferred DNS server:

Alternate DNS server:

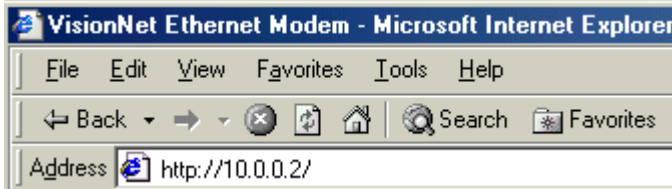
Advanced...

OK Cancel

## 2. Accessing the 201ER

Follow these instructions to open a connection to the 201ER.

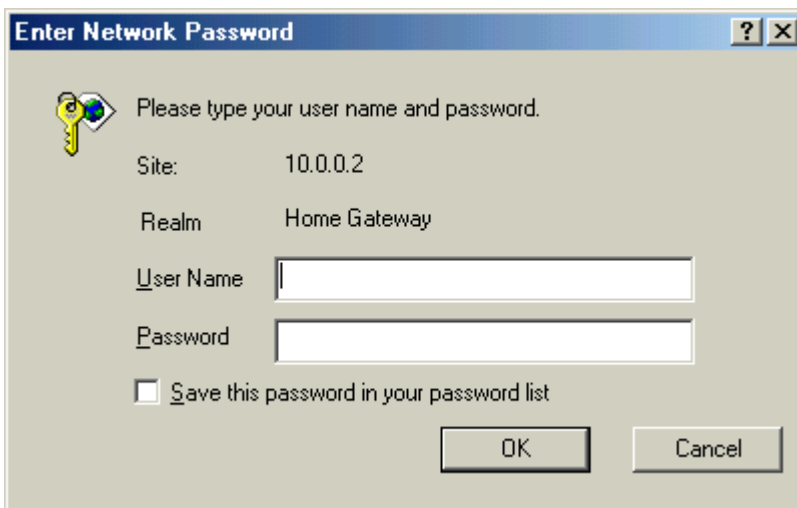
A. Start your web browser (i.e. Internet Explorer or Netscape) and enter **10.0.0.2** in the browsers address field. **10.0.0.2** is the factory default for the 201ER LAN IP address. If you change the LAN IP address, you must enter your new IP address in the browser's address field.



B. The **Enter Network Password** window appears. Type your user name and password to access the main page of the 201ER. The 201ER provides two levels of access: **User** and **Administration**.

For User level access, the **Username** is "user" and the **Password** is "password". If you choose to login as a User, you can only view settings.

For Administration level access, the **Username** is "admin" and the **Password** is "visionnet". If you choose to login as an Administrator, you have full access to the 201ER.



If you cannot access the 201ER menu, check the following:

- ★ Your PC has not received an IP address from the 201ER. Your PC should have received a 10.0.0.X address. Try to release and renew your IP address on your PC.
- ★ You have not received an IP address from the 201ER. If you are using WIN95/98, click on Start - Run and type "winipcfg" and click on the release button and then the renew button. If you are using WIN2000/NT/XP, click on Start - Run and type "cmd". This will open a dos window and type "ipconfig /renew". In both cases, the Default Gateway should be the address of your 201ER.
- ★ Hit the Reset button located on the back of the unit. This will set your 201ER back to factory defaults, and then try the step mentioned above.

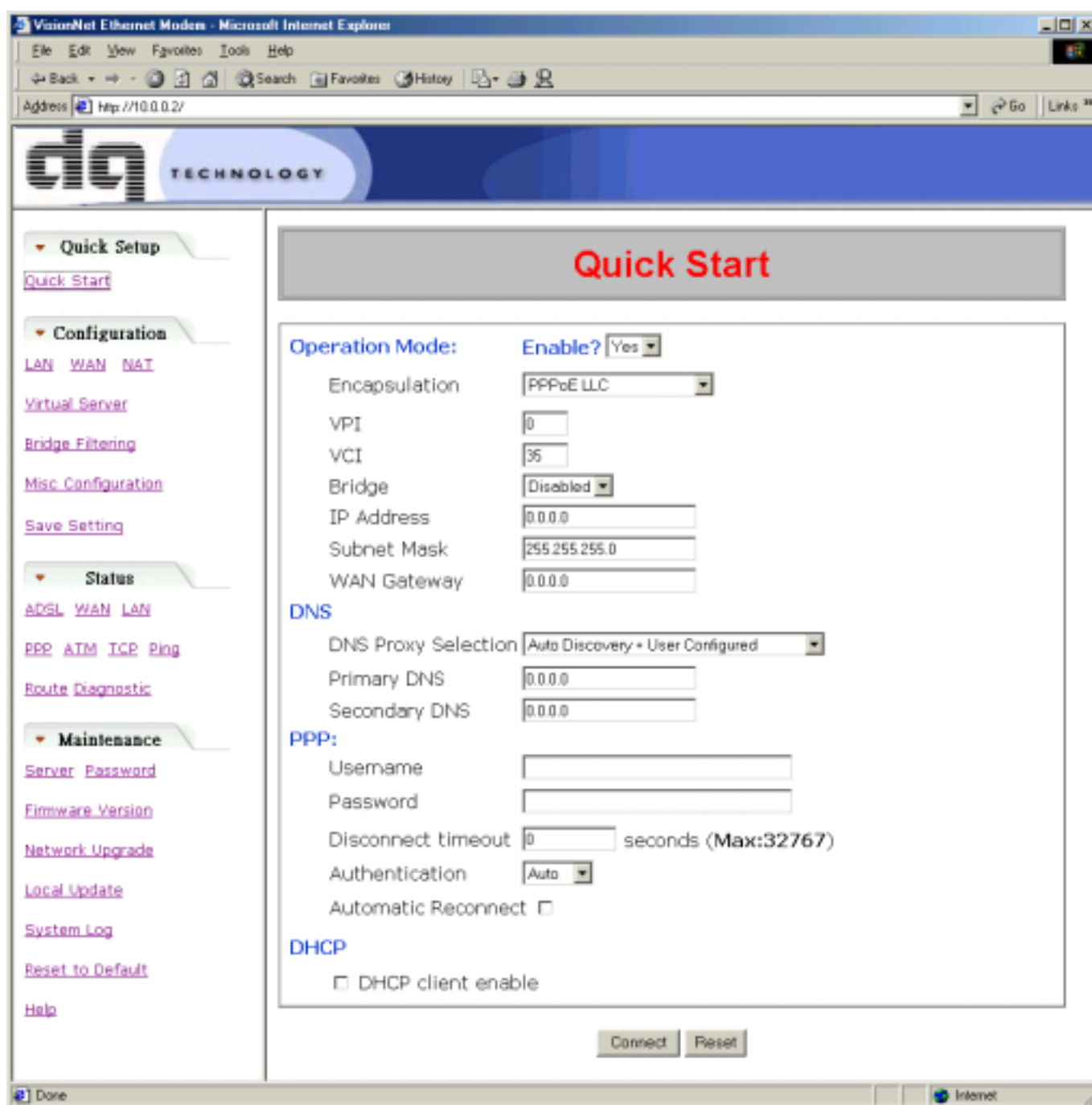
C. The Main Page appears first when you use a web browser to access the 201ER. The menu on the left contains four menu items: **Quick Setup, Configuration, Status and Maintenance**.

### 3. Quick Setup

The **Quick Setup** page is an easy way to set up the 201ER by entering basic configuration information. You will need to know your ISP's required configuration. If this information was not provided, please contact your ISP. Some DSL service providers may require different settings from the default configuration. Please contact your service provider or network administrator if you have questions or need help.

- a. Click the **Quick Start** option and the following will appear.

The screenshot shows a web browser window titled "VisionNet Ethernet Modem - Microsoft Internet Explorer". The address bar shows "http://10.0.0.2/". The page has a blue header with the "dq TECHNOLOGY" logo. On the left is a navigation menu with sections: "Quick Setup" (containing "Quick Start"), "Configuration" (containing "LAN", "WAN", "NAT", "Virtual Server", "Bridge Filtering", "Misc Configuration", "Save Setting"), "States" (containing "ADSL", "WAN", "LAN", "PPP", "ATM", "TCP", "Ping", "Route Diagnostic"), and "Maintenance" (containing "Server Password", "Firmware Version", "Network Upgrade", "Local Update", "System Log", "Reset to Default", "Help"). The main content area is titled "Quick Start" in red. It contains several configuration sections: "Operation Mode:" with an "Enable?" dropdown set to "Yes"; "Encapsulation" set to "PPPoE LLC"; "VPI" set to "0"; "VCI" set to "35"; "Bridge" set to "Disabled"; "IP Address" set to "0.0.0.0"; "Subnet Mask" set to "255.255.255.0"; and "WAN Gateway" set to "0.0.0.0". The "DNS" section has "DNS Proxy Selection" set to "Auto Discovery + User Configured", "Primary DNS" set to "0.0.0.0", and "Secondary DNS" set to "0.0.0.0". The "PPP:" section has "Username" and "Password" text boxes, "Disconnect timeout" set to "0" seconds (with a note "(Max:32767)"), "Authentication" set to "Auto", and "Automatic Reconnect" as an unchecked checkbox. The "DHCP" section has an unchecked checkbox for "DHCP client enable". At the bottom right are "Connect" and "Reset" buttons. The browser status bar at the bottom shows "Done" and "Internet".



- b. In the **Enable** bar, select **Yes** to enable your settings. This should always be enabled.
- c. In the **ENCAPSULATION** bar, use the drop-down menu to select the encapsulation method (see options below) supplied by your ISP.
- d. When you have completed your configuration, click **Connect**. You can click **Reset** to bring back the last setting; this function can only be used before you click **Connect**.

### ► 1483 Bridged IP LLC / VC-Mux

1. Type the VPI and VCI provided by your ISP.
2. Set the BRIDGE bar to Disabled.
3. Type the IP Address, Subnet Mask and WAN Gateway provided by your ISP.
4. In the DNS section, type Primary DNS and Secondary DNS provided by your ISP.
5. Click Connect to finish quick setup.

### ► PPPoA LLC / VC-Mux , PPPoE LLC / VC-Mux

1. Type the VPI and VCI provided by your ISP.
2. Set the BRIDGE bar to Disabled.
3. In the PPP section, type the User Name and Password provided by your ISP.
4. Click Connect to finish quick setup.

### ► 1483 Routed IP LLC / VC-Mux , Classical IP over ATM

1. Type the VPI and VCI provided by your ISP.
2. Set the BRIDGE bar to Disabled.
3. Type the IP Address, Subnet Mask and WAN Gateway provided by your ISP.
4. In the DNS section, type the Primary DNS and Secondary DNS provided by your ISP.
5. Click Connect to finish quick setup.

### Definitions

**VPI:** The number of the Virtual Path Identifier in the VPI field.

**VCI:** The number of the Virtual Circuit Identifier in the VCI field.

#### **IP Address:**

This is the IP address of the WAN interface of the selected virtual circuit (provided by your ISP). When using PPPoE or PPPoA, this field is not used.

#### **WAN Gateway:**

The WAN Default Gateway is provided by your ISP, which is the host IP address that transfers your data to the Internet. When using PPPoE and PPPoA, this field is not used.

#### **DNS Proxy Selection**

There are four options to choose from:

### Auto Discovery + User Configured

This option will automatically discover your DNS server if provided by your ISP. In most all PPP and DHCP client configurations, the ISP will download the DNS addresses as part of the auto negotiation. If these DNS addresses were not provided, you can configure them manually. This option will first look for auto-discovery DNS and then look at the DNS defined in the 201ER.

### Use Auto Discovery DNS Servers Only

This option will automatically discover your DNS server if provided by your ISP. In most all PPP and DHCP client configurations, the ISP will download the DNS addresses as part of the auto negotiation.

### Use User Defined DNS Servers Only

You must enter the DNS addresses in the Primary and Secondary fields.

### Disable DNS Proxy

The 201ER will not resolve DNS request. You must enter the DNS values in your TCP/IP properties in your PC.

### Primary DNS / Secondary DNS:

The Primary DNS and Secondary DNS are provided by your ISP. In PPPoE and PPPoA, the DNS addresses are usually negotiated automatically.

### Disconnect timeout:

This value will disconnect your PPP session if there is no WAN (Internet) activity.

### Authentication:

You can use PAP (Password Authentication Protocol) or CHAP (Challenge Handshake Authentication Protocol) to authenticate the client. PAP and CHAP are the methods of authentication using PPP. When you select “AUTO”, the 201ER will automatically detect PAP, CHAP or both.

### Automatic Reconnect:

The auto-reconnect will automatically reconnect the PPP session when it goes down.

### DHCP:

If your ISP uses DHCP Client for dynamically assigned IP Address, the DHCP client enable field must be checked.

## 4. System Configuration

This section describes the 201ER configuration interfaces. Options to host servers and utilize gaming applications is also described below.

### ► LAN Page

a. Click LAN option in the Configuration menu and you will see the following screen.

- b. The factory default is set as shown on the screen.
- c. If you want to change the setting for the LAN interface, enter a valid IP address.
- d. When finished, please click Submit. You can click Reset to bring back the last setting; this function can only be used before you click Submit.

Note1: Both the IP Address for the Ethernet interface on your 201ER and IP Address for LAN card on your PC must be the same Subnet. If you re-configure the IP Address for the Ethernet Interface on your 201ER, you also need to check or reconfigure your PC's LAN IP Address as the same Subnet to access the 201ER.

Note2: If you change the LAN IP address, you must change the Start and End IP address in the DHCP server fields (if DHCP Server is required). After you restart the 201ER, you must restart your PC. Your Ethernet adapter will be assigned an IP address automatically. After you renew your address, enter your new IP address in the address field of your browser.

## Definitions

### IP Address:

The IP address of the 201ER LAN interface is sometimes referred to as the LAN default gateway.

### Subnet Mask:

The range of the Subnet mask in use for the LAN connected to the Ethernet port. The default is 255.0.0.0.

### DHCP Server:

Dynamic Host Configuration Protocol (DHCP) is used on a LAN to allow simple device management from workstations. In DHCP Server mode, the 201ER automatically assigns IP settings to a workstation when your device has enabled DHCP client.

### User Defined Start Address/End Address:

You can enable DHCP Server and set the Address ranges from which the addresses are distributed to the DHCP clients on your network. The Start/End address must be in the same subnet as the LAN IP Address.

### Lease Time:

A DHCP lease time is the amount of time that the DHCP server grants to the DHCP client to use a particular IP address. If set to 0 (zero), the DHCP Server will never release assigned IP addresses.

## ► WAN Page

a. Click the **WAN** option in the **Configuration** menu and you will see the following screen.

The screenshot shows the WAN configuration page of a VisionNet Ethernet Modem. The browser window title is "VisionNet Ethernet Modem - Microsoft Internet Explorer provided by DQ Technology". The page has a blue header with the "dq TECHNOLOGY" logo. On the left is a navigation menu with sections: "Quick Setup" (Quick Start), "Configuration" (LAN, WAN, NAT, Virtual Server, Bridge Filtering, Misc. Configuration, Save Setting), "Status" (ADSL, WAN, LAN), "PPP" (ATM, ICR, Ring), "Route Diagnostic", and "Maintenance" (Server, Password, Firmware Version, Network Upgrade, Local Update). The "WAN" option is selected. The main content area is titled "WAN" in red. It contains three sections: "Operation Mode" with fields for Enable? (Yes), Encapsulation (PPPoE LLC), VPI (0), VCI (35), Bridge (Disabled), IP Address (0.0.0.0), Subnet Mask (255.255.255.0), and WAN Gateway (0.0.0.0); "DNS" with fields for DNS Proxy Selection (Auto Discovery + User Configured), Primary DNS (0.0.0.0), and Secondary DNS (0.0.0.0); and "PPP" with fields for Username, Password, Disconnect timeout (0 seconds (Max:32767)), and Authentication (Auto).

| WAN                 |                                                               |
|---------------------|---------------------------------------------------------------|
| Operation Mode:     | Enable? <input type="button" value="Yes"/>                    |
| Encapsulation       | <input type="text" value="PPPoE LLC"/>                        |
| VPI                 | <input type="text" value="0"/>                                |
| VCI                 | <input type="text" value="35"/>                               |
| Bridge              | <input type="text" value="Disabled"/>                         |
| IP Address          | <input type="text" value="0.0.0.0"/>                          |
| Subnet Mask         | <input type="text" value="255.255.255.0"/>                    |
| WAN Gateway         | <input type="text" value="0.0.0.0"/>                          |
| DNS                 |                                                               |
| DNS Proxy Selection | <input type="text" value="Auto Discovery + User Configured"/> |
| Primary DNS         | <input type="text" value="0.0.0.0"/>                          |
| Secondary DNS       | <input type="text" value="0.0.0.0"/>                          |
| PPP                 |                                                               |
| Username            | <input type="text"/>                                          |
| Password            | <input type="text"/>                                          |
| Disconnect timeout  | <input type="text" value="0"/> seconds (Max:32767)            |
| Authentication      | <input type="text" value="Auto"/>                             |

- b. You will see the factory default as shown on screen.
- c. In the **ENCAPSULATION** bar, use the drop-down menu to select the encapsulation method determined by your ISP. You may need to contact your ISP to determine which encapsulation is used in their network.
- d. The 201ER connects and communicates with WAN via ATM. The 201ER has the capability of defining 8 VC's (Virtual Circuit). You can configure ATM parameters for each virtual circuit which do not affect other virtual circuits. The screen that appears depends on the VC you selected.  
In the **ATM Interface** bar, you can set up to eight groups of ATM Interfaces. Choose **Enable** to enable your settings. The default is set to **0**. Do not set 1~7 unless instructed by your ISP.
- e. Enter **VPI** and **VCI** parameters (0, 35 is the most common and is default on the 201ER) provided by your ISP.
- f. Set the **BRIDGE** bar to **Disabled**.  
Enter the **IP Address**, **Subnet Mask** and **WAN Gateway** provided by your ISP if you choose **1483 Bridged IP LLC**, **1483 Bridged IP VC-Mux**, **1483 Routed IP LLC**, **1483 Routed IP VC-Mux** or **Classical IP over ATM**.  
Enter the **Username** and **Password** provided to you by your ISP if you choose **PPPoA VCMux**, **PPPoA LLC**, **PPPoE VC-Mux**, or **PPPoE LLC**.
- g. When finished, click **Submit**. You can click Reset to bring back the last setting; this function can only be used before you click **Submit**.

## Definitions

### VPI:

The number of the Virtual Path Identifier in the VPI field.

### VCI:

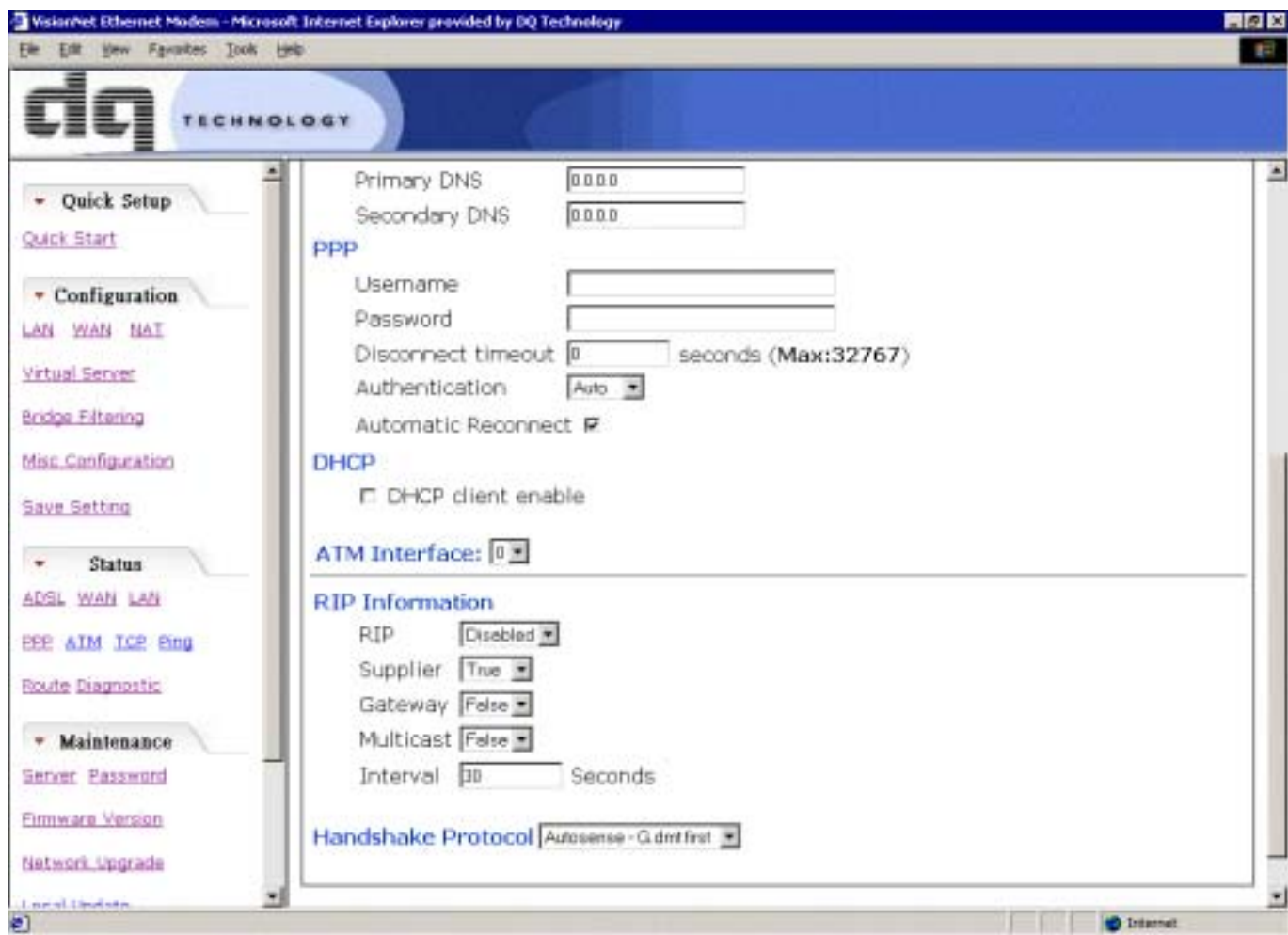
The number of the Virtual Circuit Identifier in the VCI field.

### IP Address:

This is the IP address of the WAN interface of the selected virtual circuit (provided by your ISP). When using PPPoE or PPPoA, this field is not used.

### WAN Gateway:

The WAN Default Gateway is provided by your ISP, which is the host IP address that transfers your data to the Internet. When using PPPoE and PPPoA, this field is not used.



## DNS Proxy Selection

There are four options to choose from:

### Auto Discovery + User Configured

This option will automatically discover your DNS server if provided by your ISP. In most all PPP and DHCP client configurations, your ISP will download the DNS addresses as part of the auto negotiation. If the DNS addresses are not provided, you can configure then manually. This option will first look for auto-discovery DNS and then at the DNS defined in the 201ER.

### Use Auto Discovery DNS Servers Only

This option will automatically discover your DNS server if provided by your ISP. In most all PPP and DHCP client configurations, your ISP will download the DNS addresses as part of the auto negotiation.

### Use User Defined DNS Servers Only

You must enter the DNS addresses in the Primary and Secondary fields.

### Disable DNS Proxy

The 200ER will not resolve DNS requests. You must enter the DNS values in your TCP/IP properties in your PC.

### Primary DNS /Secondary DNS:

The **Primary DNS** and **Secondary DNS** are provided by your ISP. In PPPoE and PPPoA, the DNS addresses are usually negotiated automatically.

### Disconnect timeout:

This value will disconnect your PPP session if there is no WAN (Internet) activity.

### Authentication:

You can use PAP (Password Authentication Protocol) or CHAP (Challenge Handshake Authentication Protocol) to authenticate the client. PAP and CHAP are methods of authentication using PPP. When you select "AUTO", the 201ER will automatically detect PAP,CHAP or both.

### Automatic Reconnect:

The auto-reconnect will automatically reconnect the PPP session when it goes down. If you want to reconnect your PPP session (WAN/Internet), enable **Automatic Reconnect**.

### DHCP:

If your ISP uses DHCP Client for dynamically assigned IP Addresses, the DHCP client enable field must be checked.

### RIP:

Routing Information Protocol version 2 is the protocol used to maintain a map of the network. RIP sends routing-update messages at regular intervals when the network topology changes. When a router receives a routing update that includes changes to an entry, it updates its routing table to reflect the new route. RIP routers maintain only the best route (the route with the lowest metric value) to a destination. Use the pull-down menu to enable or disable RIP.

### Supplier:

RIP advertisements are transmitted in intervals depending on your setting for **Interval**. Select the **True** to enable or **False** to disable this function from the pull-down menu.

### Gateway:

When the value of **Gateway** is **True**, RIP advertisements include a default gateway.

### Multicast:

When the value of **Multicast** is **True**, received broadcast RIP messages are ignored, and received multicast RIP messages are accepted.

### Interval:

Enter the timing of how many seconds you want to transmit RIP messages when you set as **True**. The default interval is **30** seconds.

### Handshake Protocol:

In the **Handshake Protocol** bar, you can use the pull-down menu to select the handshake protocol supplied by your ISP. The factory default is set to **Autosense-G.dmt first**.

Note: The chart below is for your reference and contains the most common setup procedures.  
Please keep in mind that your ISP's configuration may not be the same as below.

## ► NAT Page

a. Click the **NAT** option in the **Configuration** menu and you will see the following screen.

The screenshot shows the VisionNet Ethernet Modem configuration page in Microsoft Internet Explorer. The browser's address bar shows <http://10.0.0.2/>. The page has a blue header with the 'dq TECHNOLOGY' logo. On the left is a navigation menu with sections: 'Quick Setup' (Quick Start), 'Configuration' (LAN, WAN, NAT, Virtual Server, Bridge Filtering, Misc Configuration, Save Setting), 'Status' (ADSL, WAN, LAN, PPP, ATM, TCP, Ping, Route Diagnostic), and 'Maintenance' (Server, Password, Firmware Version). The main content area is titled 'NAT SETTING' in red. It features a dropdown menu set to 'NAPT' with 'NAT' displayed next to it. Below this is a table with columns 'Session Name', 'User's IP', and 'Action'. The 'Action' column contains an 'Add' button. Below the table are 'Submit' and 'Reset' buttons. Further down is another table with columns '#', 'Session Name', and 'User's IP', followed by a link 'Session Name Configuration'. A note states: 'Settings need to be saved to Flash and the system needs to be rebooted for changes to take effect.' At the bottom is a section 'Available Sessions' with a table with columns '#', 'Session Name', and 'Interface'.

b. Network Address Transfer (NAT) can correlate virtual IP/Global IP statically or dynamically.

Use the pull-down menu to choose **NAPT**, **NAT** or **Disabled**. NAPT is set as the default.

If **NAT** is selected, you must define which PC on your LAN can access the Internet on the configuration of the session name, user's IP and session name configuration. NAT is only used when you have configured multiple virtual PVC's.

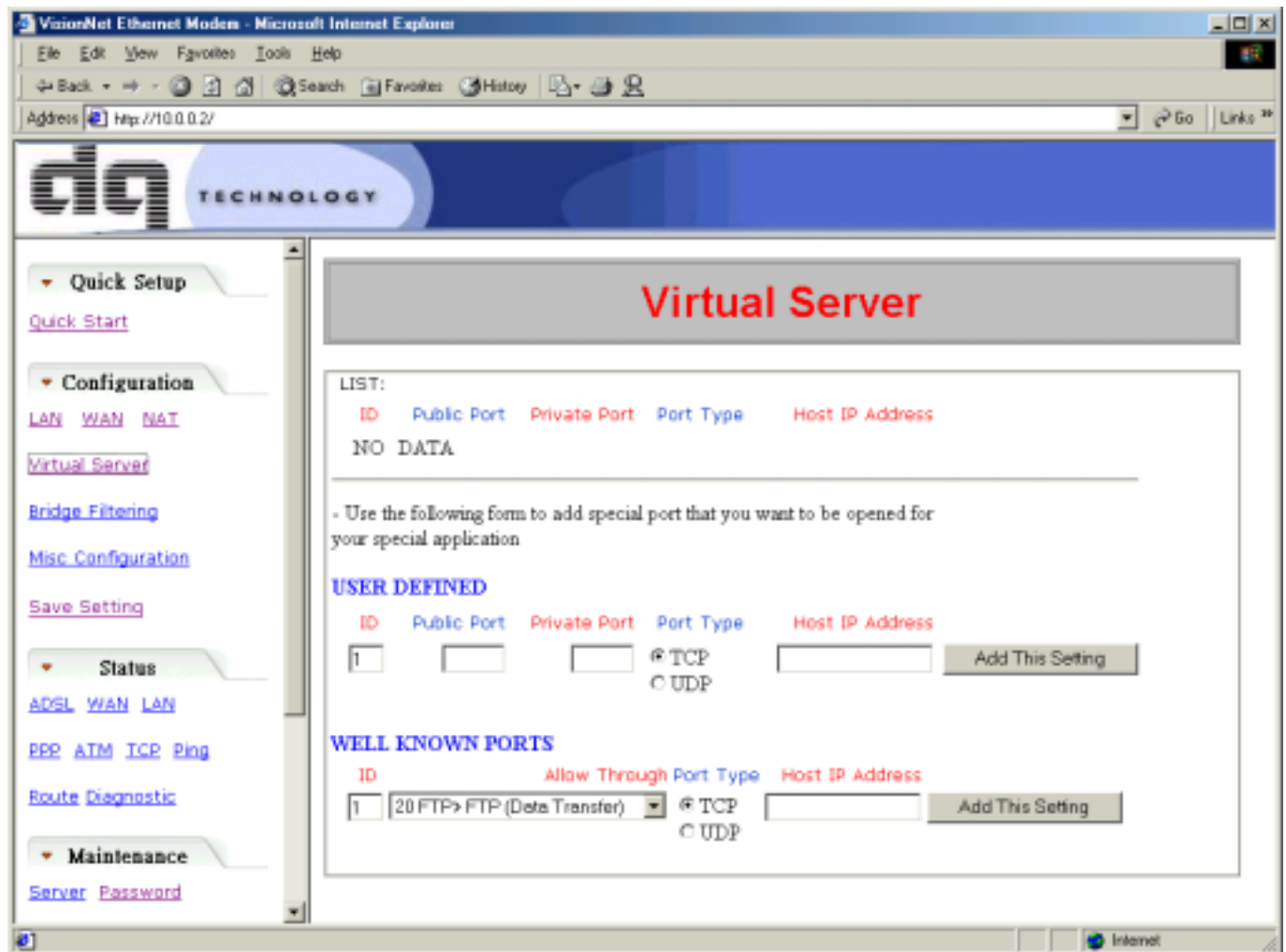
If **NAPT** is selected, all PC's on your LAN can access the Internet simultaneously using 1 IP address. The servers and workstations on your local network are not visible outside your network.

If **Disabled** is selected, you must have routable IP addresses on all LAN devices. These addresses are provided by your ISP.

c. When finished, click **Submit**. You can click **Reset** to bring back the last setting; this function can only be used before you click **Submit**.

## ► Virtual Server Page

a. Click the **Virtual Server** option in the **Configuration** menu and you will see the following screen.



## 🔗 Definitions

### Virtual Server:

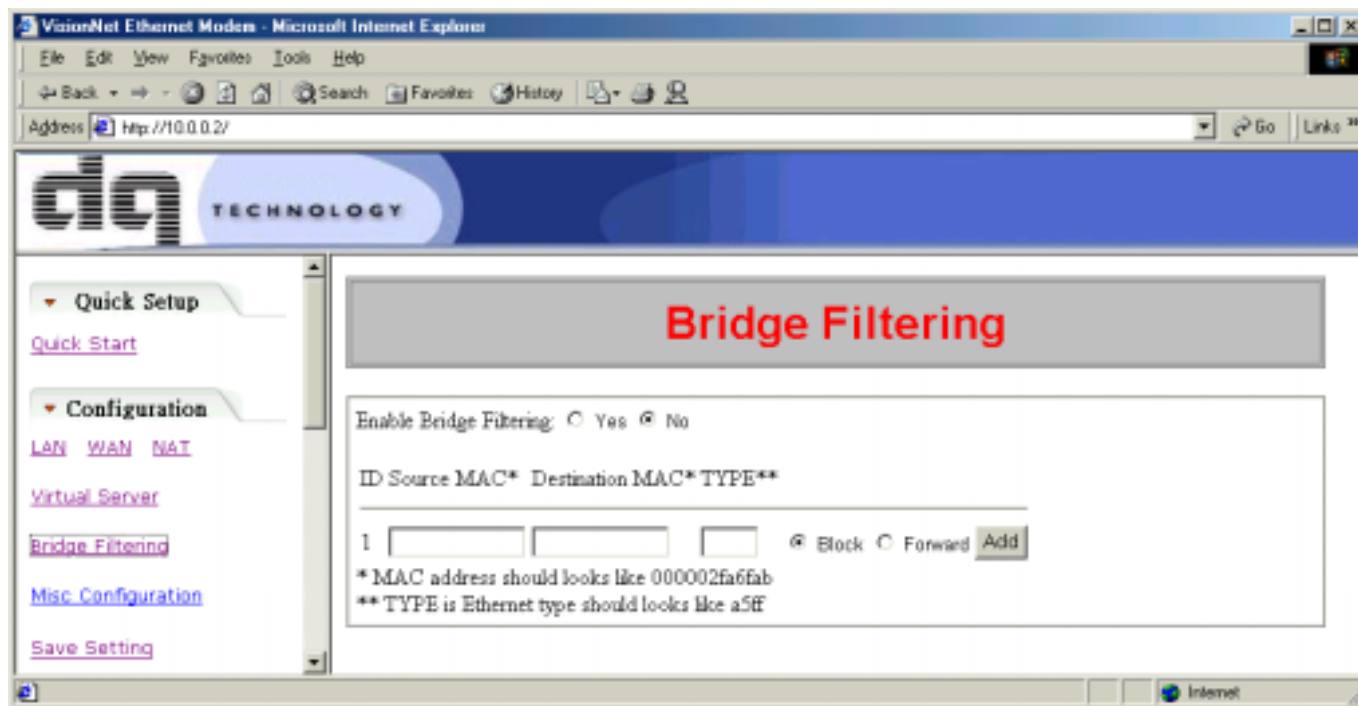
Virtual Server allows you to pass specific types of network traffic through the 201ER's NAT interfaces. For example, you can pass selected types of network traffic such as Telnet requests or HTTP (Web) connections, to a specific host behind the 201ER's LAN side devices.

Note: If you need to host a Web Server, you must change the HTTP management port in the MISC configuration page to something other than port 80.

- b. Enter an ID number to specify the virtual server. Enter the **Public Port** number which corresponds to the applications port (Ex. Telnet uses port 23). DQ Technology has predefined common applications for ease of configuration.
- c. Enter the **Private Port** number which is the port number you forward to the specified IP address. In most cases, this will be same as the Public Port.
- d. **Type port** identifies the protocol (**TCP** or **UDP**) of the virtual server application.
- e. The **Host IP Address** field identifies the IP address of the server where the ports will be forwarded.
- f. Click **Add This Setting** to save your setting, and you will see your settings show on the list. You can click **Delete This Setting** to delete your setting.

## ► Bridge Filtering Page

a. Click the **Bridge Filtering** option in the **Configuration** menu and you will see the following screen.



b. You can control the flow of packets across the router using this function. Bridge filtering lets you deny or allow packets to cross the network based on the MAC address and position of the address within the packet.

This enables you to restrict or forward messages with a specified address passing through the LAN to WAN. Choose **Yes** in **Enable Bridge Filtering** to enable this function.

c. The 201ER is capable of filtering Ethernet packets based on their source/destination address and protocol type. To restrict certain packets, complete the **ID Source MAC**, **Destination MAC** and **TYPE** field. Enable the **Block** button and click **Add**.

d. If you want to disable bridge filtering mode for one of the local MAC addresses, enable the **Forward** button for the address.

## ► Misc Configuration Page

a. Click the **Misc Configuration** option in the **Configuration** menu and you will see the following screen.

The screenshot shows a web browser window titled "VisionNet Ethernet Modem - Microsoft Internet Explorer". The address bar shows "http://10.0.0.2/". The page has a blue header with the "dq TECHNOLOGY" logo. On the left is a navigation menu with sections: "Quick Setup" (Quick Start), "Configuration" (LAN, WAN, NAT, Virtual Server, Bridge Filtering, Misc Configuration, Save Setting), "Status" (ADSL, WAN, LAN, PPP, ATM, TCP, Ping, Route Diagnostic), and "Maintenance" (Server Password, Firmware Version, Network Upgrade, Local Update, System Log). The "Misc Configuration" page is displayed, featuring a title "Miscellaneous Configuration" in red. It contains several settings, each with a label and a dropdown menu or text input field: DMZ (Disabled), DMZ HOST IP (0.0.0.0), DHCP Relay (Disabled), DHCP Target IP (0.0.0.0), IGMP Proxy (Disabled), DNS Proxy (Enabled), PPP reconnect on WAN access (Disabled), BNA (Disabled), PPP Half Bridge (Disabled), IGMP (Disabled), and ATM Interface (0). At the bottom are "Submit" and "Reset" buttons. A note at the very bottom states: "Settings need to be saved to Flash and the system needs to be rebooted for changes to take effect."

- b. If you want to enable DMZ, make sure the NAT or NAPT function is enabled (please refer to the section describing NAT in this manual). Choose **Enabled** for **DMZ** and fill in the host IP in the **DMZ HOST IP** to enable the DMZ function.
- c. If you want to enable **DHCP Relay**, you must enter the IP address of the DHCP server in the **DHCP Target IP**.
- d. The IGMP Proxy capability allows users anywhere on a downstream network to join an upstream sourced multicast group. **Enable** the **IGMP Proxy** if you want to use this function.
- e. When finished, click **Submit**. You can click **Reset** to bring back the last setting; this function can only be used before you click **Submit**.

## Definitions

### **DMZ:**

DMZ is an acronym for demilitarized zone. It is a common area between two different networks, such as the Internet and a secure private network. When enabled, all traffic initiated from the Internet to the 201ER will be directed to 1 defined IP address on the LAN. Some companies prefer, for security reasons, to use a DMZ to locate secure servers that will be accessed by outside trusted entities instead of placing those servers on their private network. That way they can limit the protocols that can be used to access their private network, but still share information such as sales leads, client records or inventory information. The servers located on the DMZ are more secure than if they were directly on the Internet. DMZ is also used for Internet Gaming applications.

### **DHCP Relay:**

DHCP stands for Dynamic Host Configuration Protocol. In addition to the DHCP server feature, the 201ER is enhanced to support the DHCP relay function. When it is configured as DHCP relay, it is responsible for forwarding the requests and responses negotiated between the DHCP clients and the remote DHCP server.

### **IGMP Proxy:**

The IGMP Proxy mechanism was added to the Unidirectional Link Routing feature to permit hosts that are not directly connected to a downstream router to be able to join a multicast group sourced from an upstream network.

### **DNS Proxy:**

When enabled, the 201ER acts as a DNS server for internal clients. When disabled, the user must enter DNS addresses within the devices TCP/IP properties.

### **PPP Reconnect on WAN Access:**

If you entered a disconnect timeout value in the Quick Start or WAN menu, the PPP session will connect upon a URL request. If the PPP reconnect on WAN access was enabled and you enter a URL, you establish a PPP session.

### **PPP Half Bridge:**

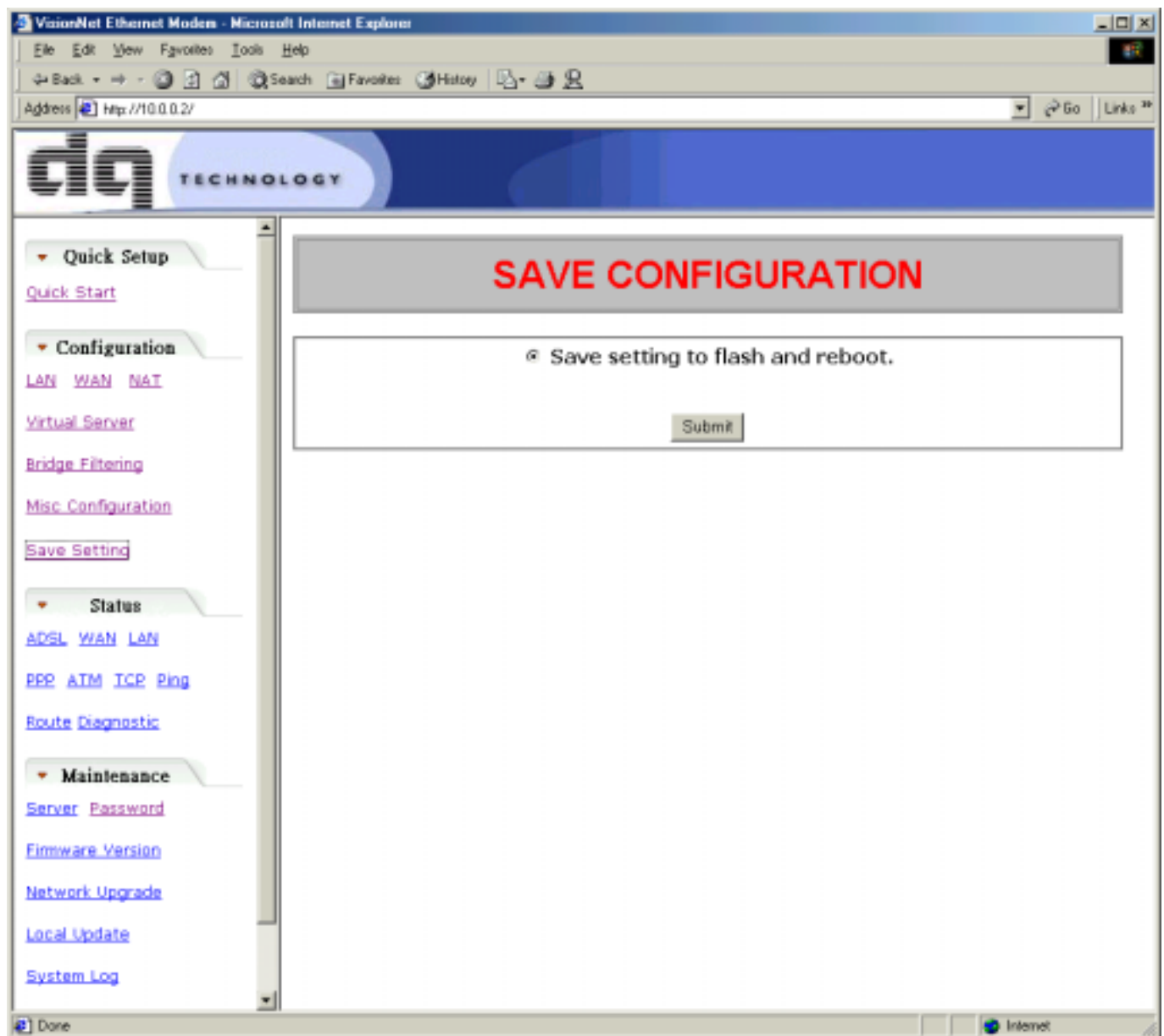
Allows the modem to authenticate to the PPP server and hand off a public IP address to the PC.

### **IGMP:**

Internet Group Management Protocol (IGMP) was primarily designed for hosts on multi-access networks to inform locally attached routers of their group membership information. IGMP allows hosts to communicate their desired group memberships to their local queries router to receive any datagram's sent to this router and targeted to a group with a specific IP multicast address.

## ► Save Setting Page

Click the **Save Setting** option in the **Configuration** menu and you will see the following screen. Click **Submit** to write settings into the 201ER. In order to save changes, you must click on the **Submit** button, which resets your modem.

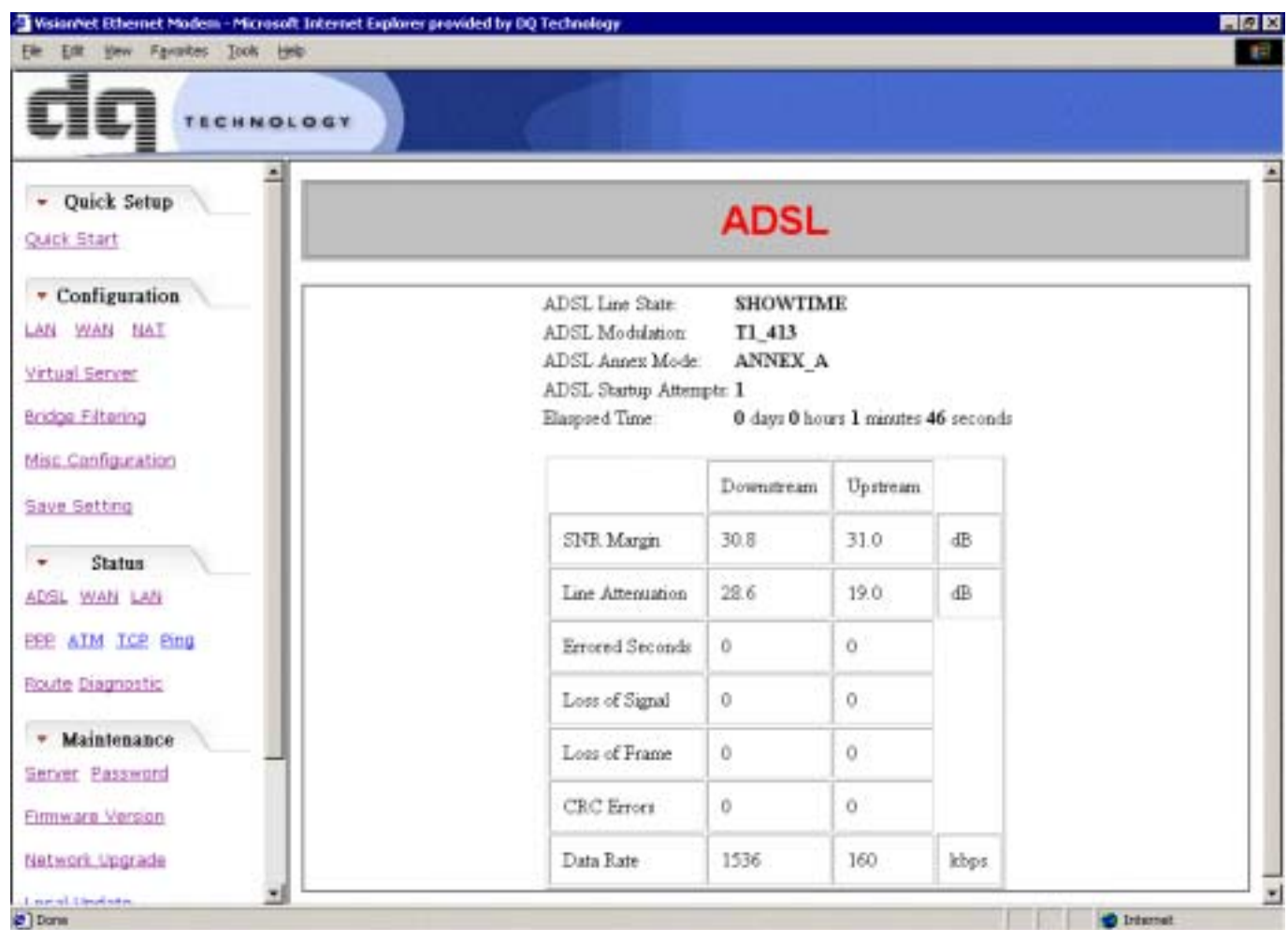


## 5. System Status

This section is used to troubleshoot and diagnose any problems on the 201ER.

### ► ADSL Page

a. Click the **ADSL** option in the Status menu and you will see the following screen.



The screenshot shows the VisionNet Ethernet Modem web interface in Microsoft Internet Explorer. The page title is "VisionNet Ethernet Modem - Microsoft Internet Explorer provided by DQ Technology". The interface has a left sidebar with navigation menus: "Quick Setup" (Quick Start), "Configuration" (LAN, WAN, NAT, Virtual Server, Bridge Filtering, Misc. Configuration, Save Setting), "Status" (ADSL, WAN, LAN, PPPoE, ATM, ICR, Ring, Route Diagnostic), and "Maintenance" (Server, Password, Firmware Version, Network Upgrade). The main content area is titled "ADSL" in red. It displays the following information:

- ADSL Line State: SHOWTIME
- ADSL Modulation: T1\_413
- ADSL Annex Mode: ANNEX\_A
- ADSL Startup Attempts: 1
- Elapsed Time: 0 days 0 hours 1 minutes 46 seconds

|                  | Downstream | Upstream |      |
|------------------|------------|----------|------|
| SNR Margin       | 30.8       | 31.0     | dB   |
| Line Attenuation | 28.6       | 19.0     | dB   |
| Errored Seconds  | 0          | 0        |      |
| Loss of Signal   | 0          | 0        |      |
| Loss of Frame    | 0          | 0        |      |
| CRC Errors       | 0          | 0        |      |
| Data Rate        | 1536       | 160      | kbps |

b. You can see the line rate (Data Rate) on your screen after the ADSL link is established.

c. Click the **ADSL** option in the **Status** menu each time you want to see the most updated line rate or ADSL connect status (the ADSL link must be established first).

## Definitions

### SNR Margin:

Amount of noise (dB loss in SNR) that can be tolerated while maintaining a BER of  $10^{-7}$ .

### Line Attenuation:

Measured in dB's.

### Error Seconds:

The time of a received Reed Solomon codeword for data stream indicating that errors have been corrected in that codeword.

### Loss of Signal:

The receiving pilot tone power, averaged over 100 ms, is 6dB or more below the reference power.

### Loss of Frame:

When the unit receives two consecutive synchronization symbols, the number of tones with a mismatch between the expected and the measured bit pattern is lower than the threshold.

### CRC Errors:

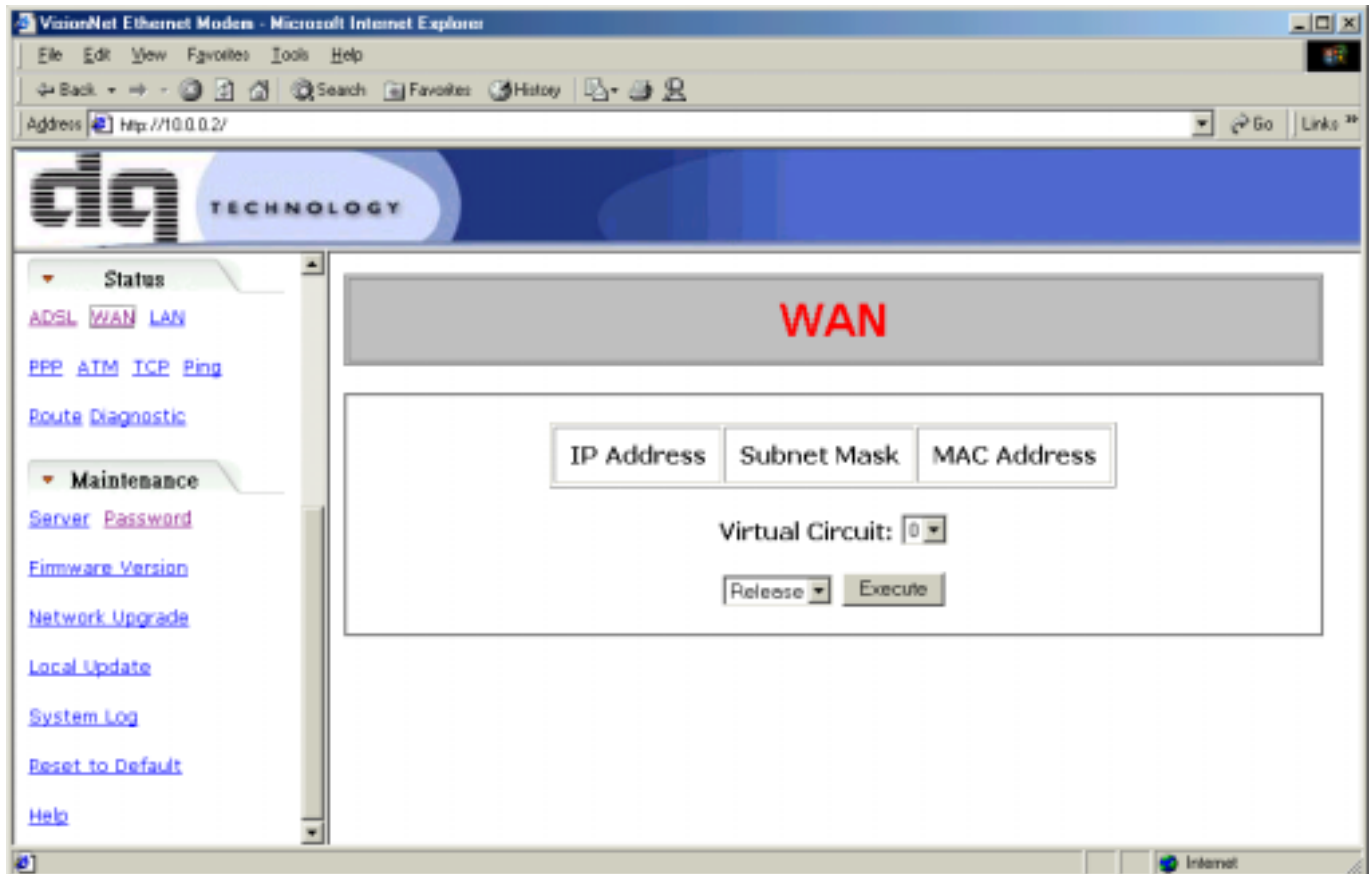
When a received CRC-8 code for the data stream is not identical to the corresponding generated code at a rate of at most 1 per super frame (17ms).

### Data Rate:

When the router is up, these parameters indicate the actual ATM bit rate (without overhead) for the up stream / down stream paths.

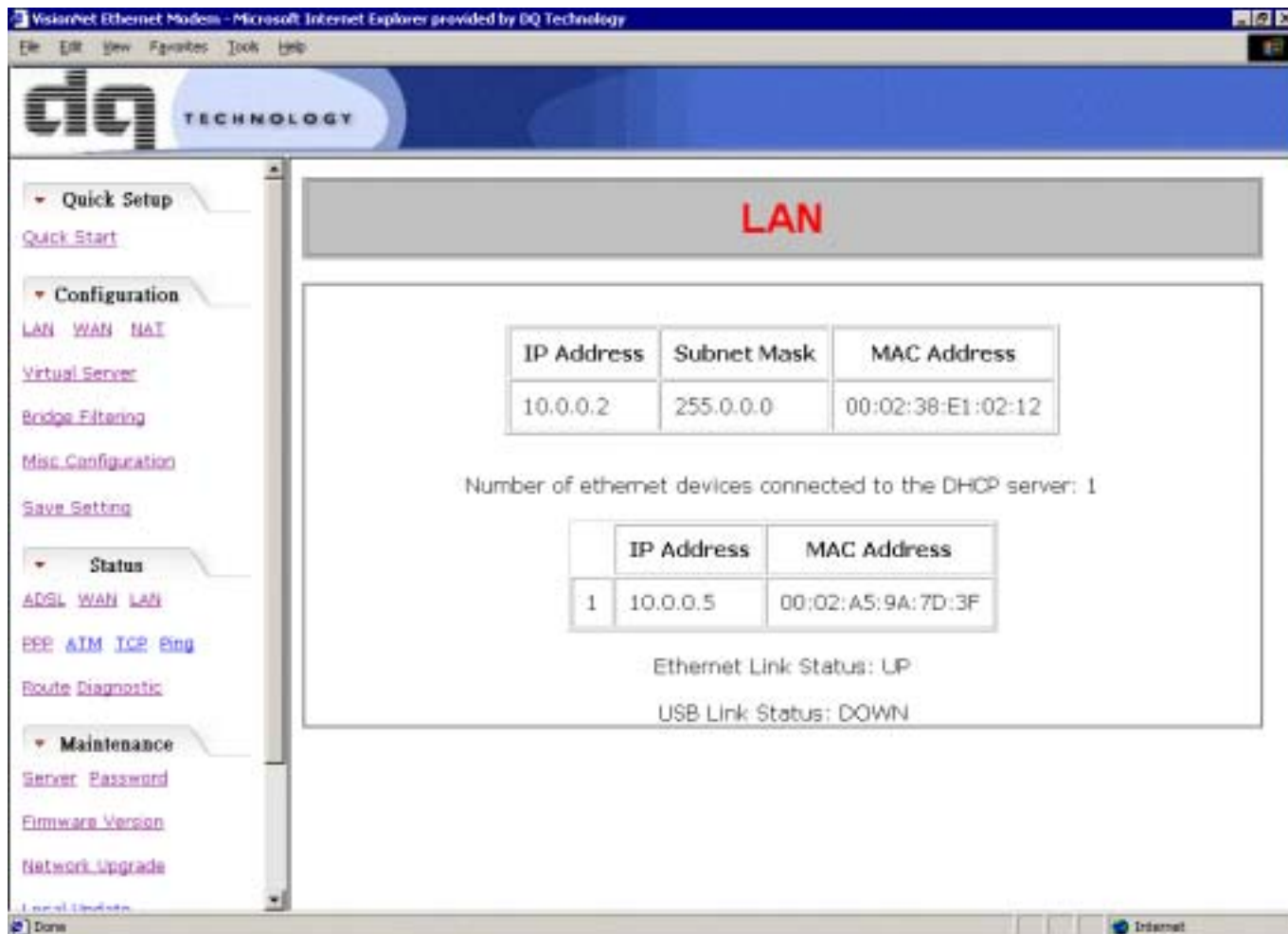
## ► WAN Page

Click the **WAN** option in the **Status** menu to see the following WAN information.



## ► LAN Page

Click the **LAN** option in the **Status** menu to see the following LAN information.



## 👉 Definitions

### MAC Address:

This is the hardware address of the LAN port on the 201ER.

### IP Address:

The IP Address of the LAN port on the 201ER. The default address is 10.0.0.2.

### Subnet Mask:

The range of the Subnet mask in use for the LAN connected to the Ethernet port. Default is 255.0.0.0.

## ► PPP Page

Click the **PPP** option in the **Status** menu to see PPP status.

The screenshot shows the VisionNet Ethernet Modem web interface in Microsoft Internet Explorer. The browser title is "VisionNet Ethernet Modem - Microsoft Internet Explorer provided by DQ Technology". The interface has a blue header with the "dq TECHNOLOGY" logo. A left sidebar contains navigation menus: "Quick Setup" (with "Quick Start"), "Configuration" (with "LAN", "WAN", "NAT", "Virtual Server", "Bridge Filtering", "Misc Configuration", "Save Setting"), "Status" (with "ADSL", "WAN", "LAN", "PPP", "ATM", "ICP", "Ring", "Route Diagnostic"), and "Maintenance" (with "Server Password", "Firmware Version", "Network Upgrade", "Local Upgrade"). The main content area is titled "PPP" in large red letters. Below the title is a table showing PPP status for 8 virtual circuits (VCs). The table has columns: VC, Status, Pkts Sent, Pkts Rcvd, Bytes Sent, and Bytes Rcvd. VC 0 is "Connected" with 325 Pkts Sent, 251 Pkts Rcvd, 93016 Bytes Sent, and 111584 Bytes Rcvd. VCs 1 through 7 are "N/A". Below the table, there is a "Virtual Circuit:" dropdown menu set to "0", and two buttons: "Connect" and "Execute". The browser status bar at the bottom shows "Done" and "Internet".

| VC | Status    | Pkts Sent | Pkts Rcvd | Bytes Sent | Bytes Rcvd |
|----|-----------|-----------|-----------|------------|------------|
| 0  | Connected | 325       | 251       | 93016      | 111584     |
| 1  | N/A       | N/A       | N/A       | N/A        | N/A        |
| 2  | N/A       | N/A       | N/A       | N/A        | N/A        |
| 3  | N/A       | N/A       | N/A       | N/A        | N/A        |
| 4  | N/A       | N/A       | N/A       | N/A        | N/A        |
| 5  | N/A       | N/A       | N/A       | N/A        | N/A        |
| 6  | N/A       | N/A       | N/A       | N/A        | N/A        |
| 7  | N/A       | N/A       | N/A       | N/A        | N/A        |

Virtual Circuit: 0

Connect Execute

## ► ATM Page

Click the **ATM** option in the **Status** menu to see the ATM status.

The screenshot shows a Microsoft Internet Explorer browser window displaying the VisionNet Ethernet Modem web interface. The address bar shows <http://10.0.0.2/>. The page has a blue header with the 'dq TECHNOLOGY' logo. On the left is a navigation menu with sections: Quick Setup, Configuration, States, and Maintenance. The 'States' section is expanded, and 'ATM' is selected. The main content area has a large red 'ATM' title. Below it is a table showing various network statistics, all with a value of 0.

|                    |   |
|--------------------|---|
| Tx Bytes           | 0 |
| Rx Bytes           | 0 |
| Tx Cells           | 0 |
| Rx Cells           | 0 |
| Rx HEC Errors      | 0 |
| Tx Mgmt Cells      | 0 |
| Rx Mgmt Cells      | 0 |
| Tx CLP0 Cells      | 0 |
| Rx CLP0 Cells      | 0 |
| Tx CLP1 Cells      | 0 |
| Rx CLP1 Cells      | 0 |
| Rx Errors          | 0 |
| Tx Errors          | 0 |
| Rx Misrouted Cells | 0 |

## ► TCP Page

Click the **TCP** option in the **Status** menu to see TCP status.



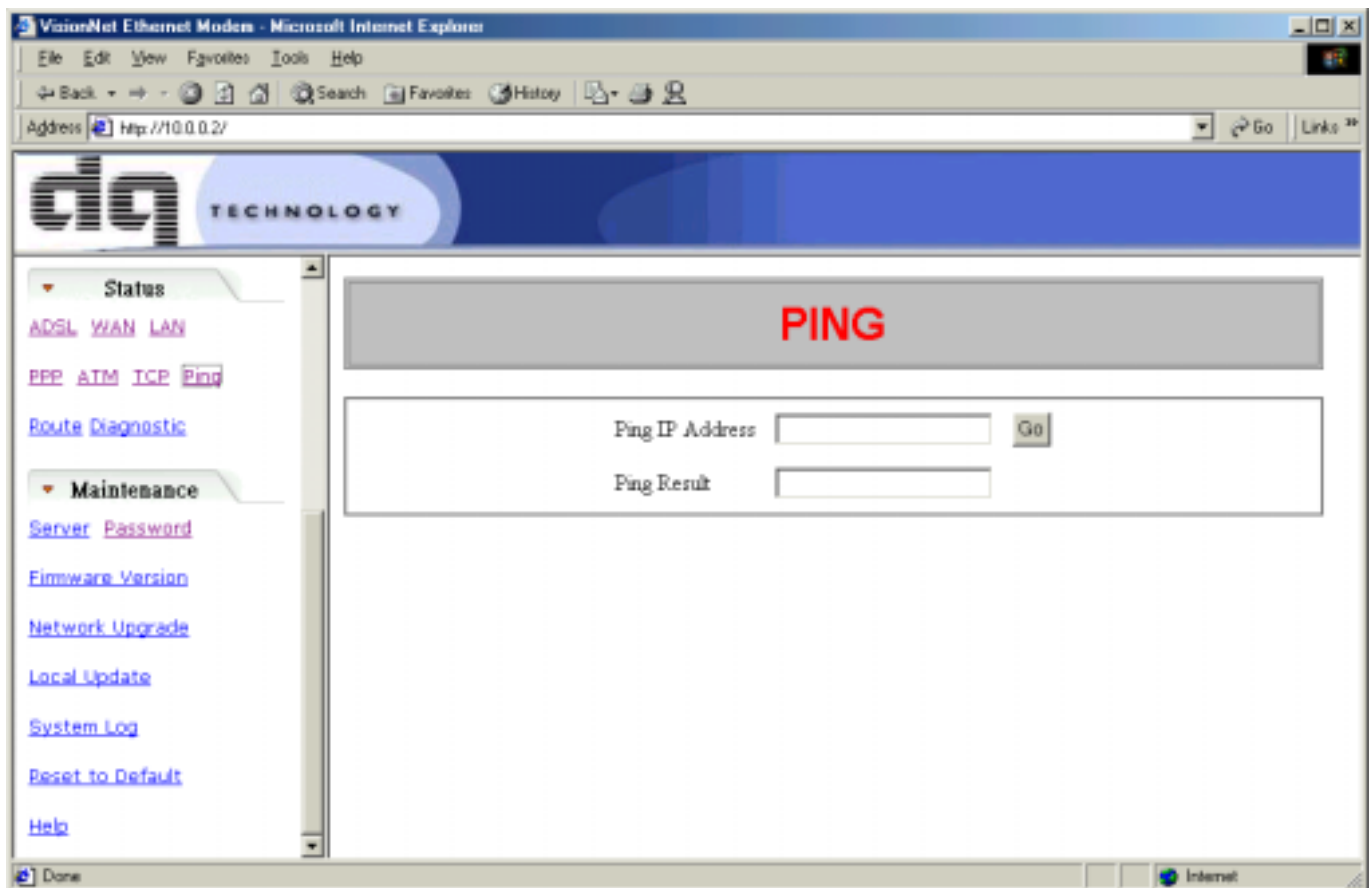
The screenshot shows the VisionNet Ethernet Modem web interface in Microsoft Internet Explorer. The browser's address bar displays <http://10.0.0.2/>. The page features a navigation menu on the left with sections: Quick Setup, Configuration, Status, and Maintenance. The 'Status' section is expanded, and the 'TCP' option is selected. The main content area displays a table of TCP statistics.

| TCP                                     |        |
|-----------------------------------------|--------|
| Total Packets Sent                      | 620    |
| Data Packets Sent                       | 362    |
| Data Bytes Sent                         | 219542 |
| Total Packets Received                  | 522    |
| Packets Received in-sequence            | 85     |
| Bytes Received in-sequence              | 27869  |
| Out of Order Packets                    | 83     |
| Out of Order Bytes                      | 0      |
| Packets discarded for bad checksum      | 0      |
| Packets discarded for bad header offset | 0      |
| Packets discarded because too short     | 0      |
| Connections Initiated                   | 0      |
| Connections Accepted                    | 85     |
| Connections Established                 | 85     |
| Connections Closed                      | 56     |

## ► Ping Page

Click the **Ping** option in the **Status** menu and you will see the following screen.

Enter the IP address in **Ping IP Address** which you want to ping, then click **Go** to see the Ping Result.



## ► Route Page

- a. Click the **Route** option in the **Status** menu to see information for your Route Table. You will see the factory default as shown on screen.

The screenshot shows a web browser window titled "VisionNet Ethernet Modem - Microsoft Internet Explorer". The address bar shows "http://10.0.0.2/". The page has a blue header with the "dq TECHNOLOGY" logo. On the left is a navigation menu with "States" (ADSL, WAN, LAN) and "Maintenance" (Server, Password, Firmware Version, Network Upgrade, Local Update, System Log, Reset to Default, Help). The main content area is titled "ROUTE" in large red letters. Below it is a "Route Table" with the following data:

| Destination | Netmask   | Gateway   | Interface |
|-------------|-----------|-----------|-----------|
| 10.0.0.0    | 255.0.0.0 | 10.0.0.2  | be0       |
| 127.0.0.1   | 255.0.0.0 | 127.0.0.1 | lo0       |

Below the table is a form to add or delete routes with fields for "Destination", "Gateway", and "Netmask", and an "Action" dropdown menu set to "Add". At the bottom are "Submit" and "Reset" buttons.

- b. You can add or delete the Route Table by setting **Destination**, **Gateway** and **Netmask**.  
c. After the routes have been added or deleted, click **Submit**. You can click **Reset** to bring back the last setting; this function can only be used before you click **Submit**.

## 👉 Definitions

### Destination:

The packet's destination address.

### Gateway:

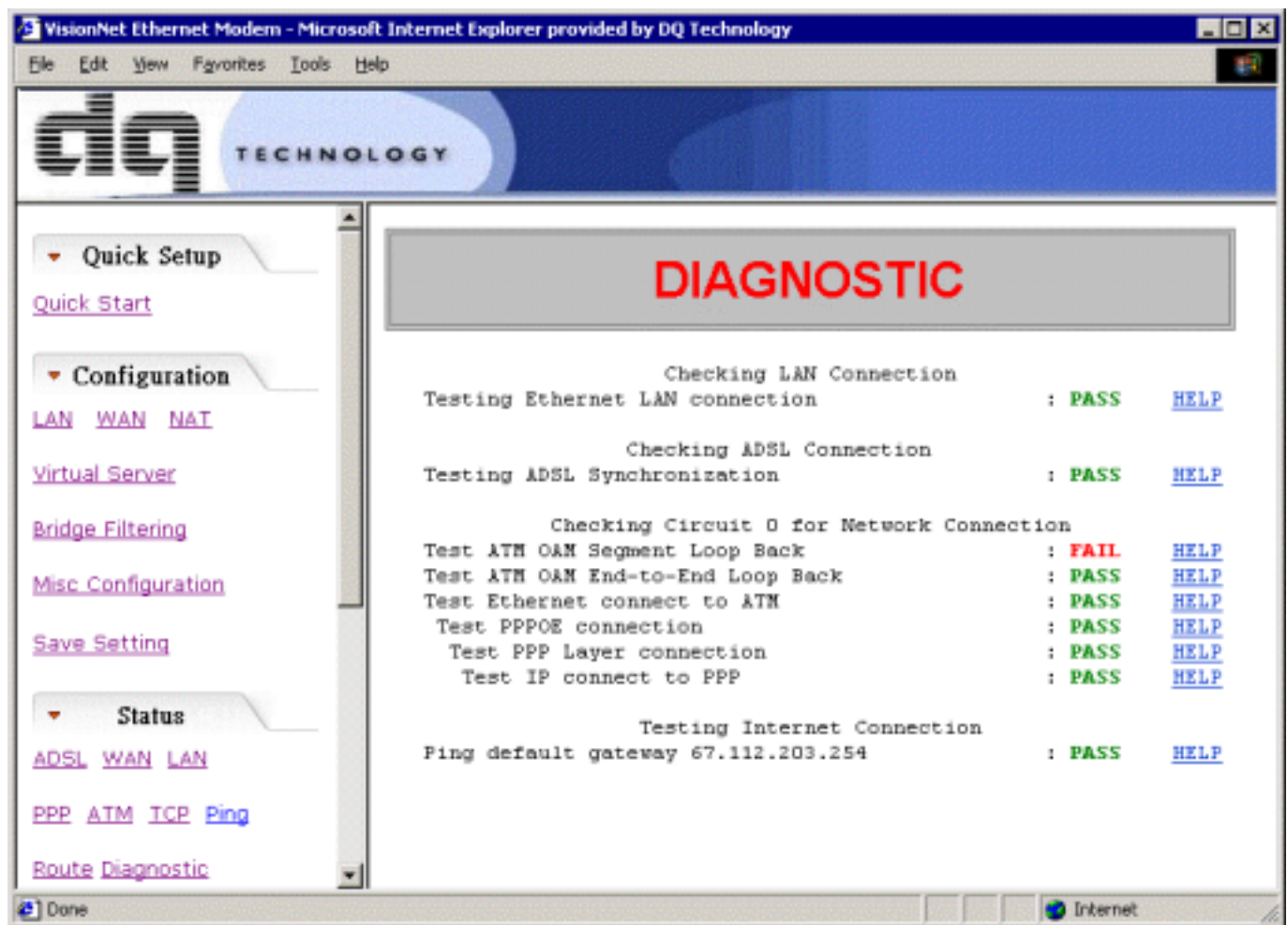
Use the Gateway Address field to specify the IP address of the default IP gateway.

### Netmask:

The range of netmask in use for the LAN connected to the Ethernet port.

## ► Diagnostic Page

Click the **Diagnostic** option in the **Status** menu to see the status of your ADSL connection. The help pages will help identify any problems.

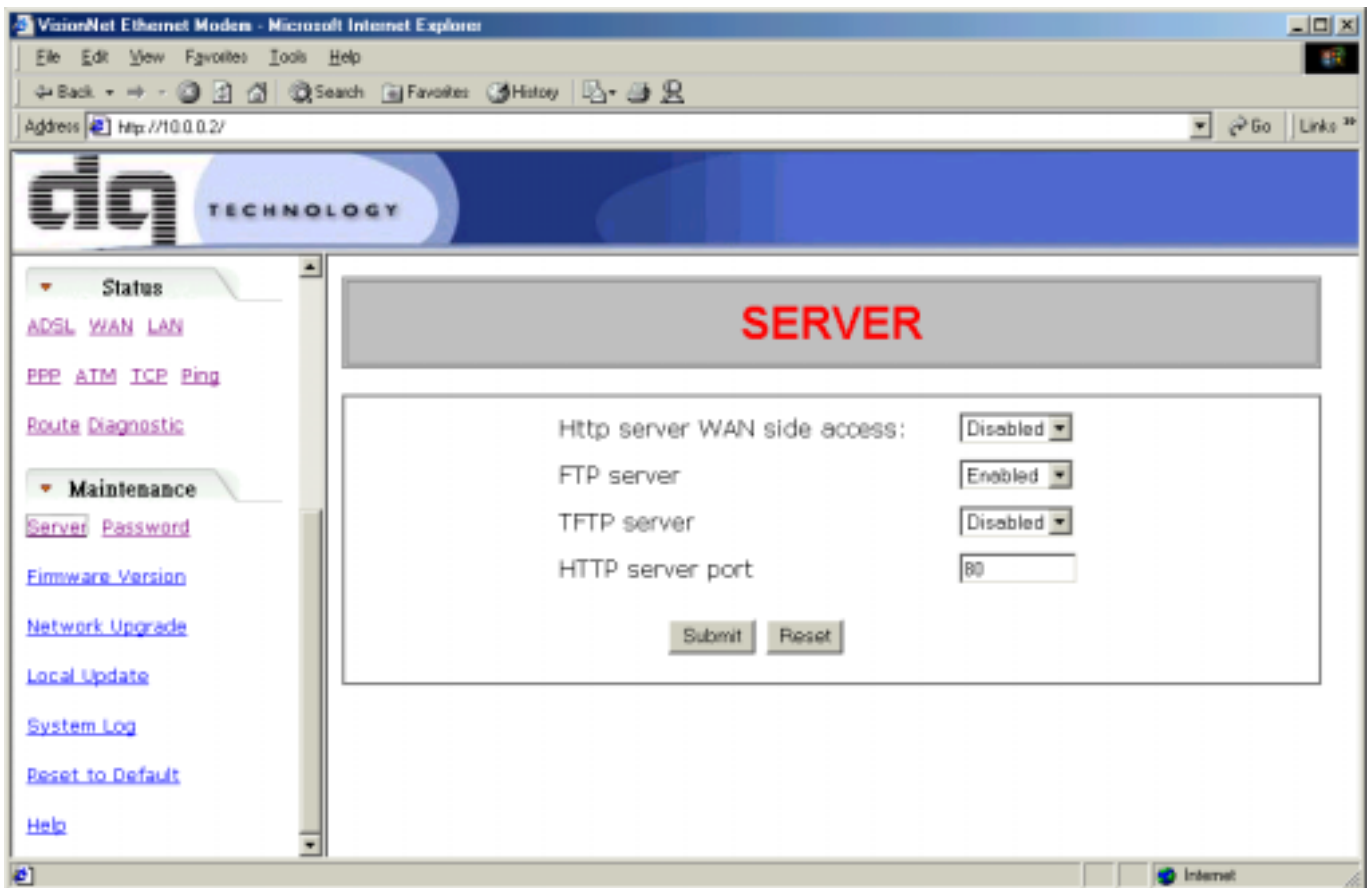


## 6. System Administration

This section is only for administration (Administration level), but the user (User level) can also view the Firmware Version page and Help page.

### ► Server Page

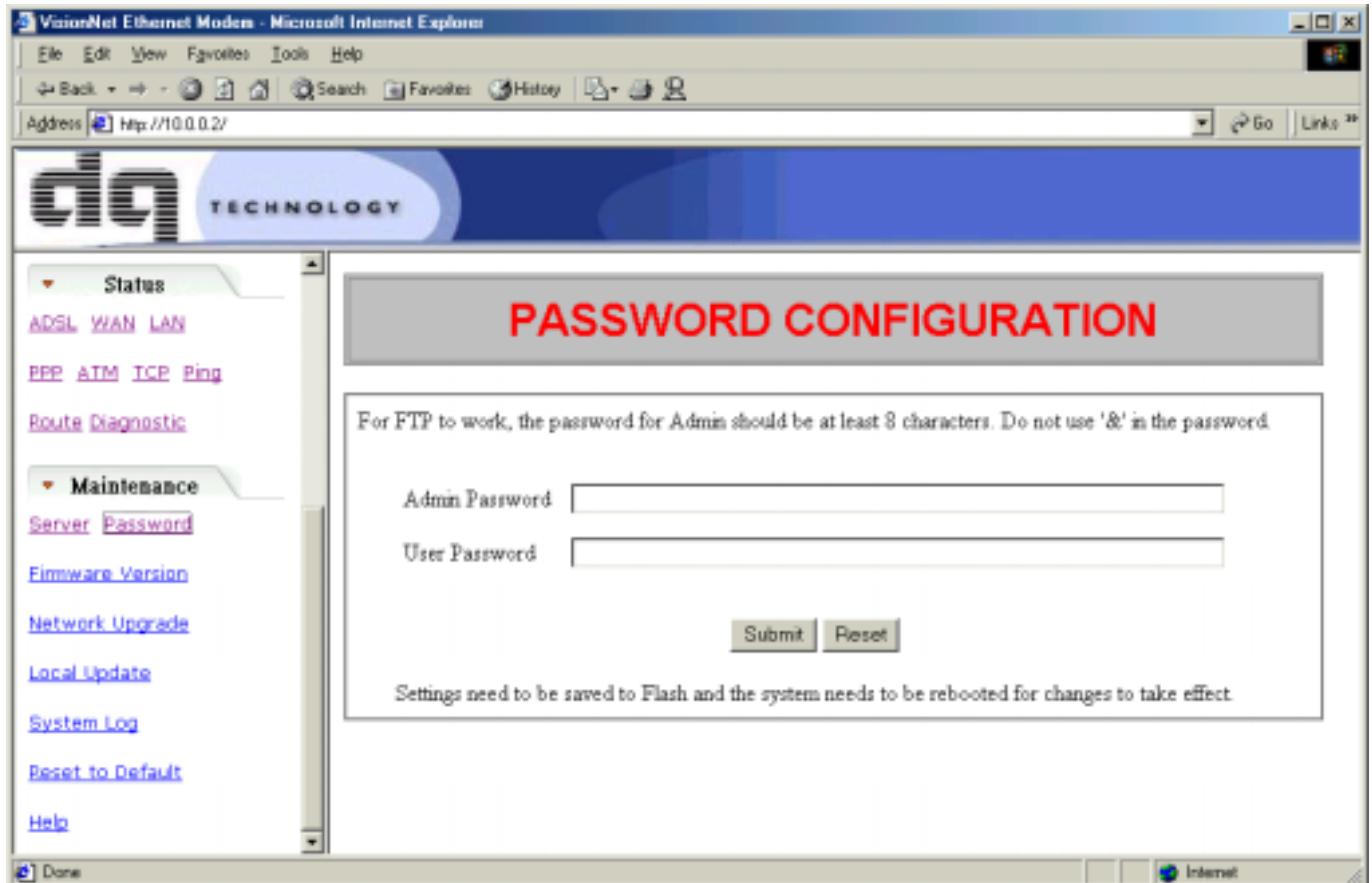
a. Click the **Server** option in the **Maintenance** menu and you will see the following screen.



- b. If you want to allow remote access into the 201ER through a web browser, the **Http server WAN side access** must be **Enabled**.
- c. If you allow the user to access the FTP server on the 201ER, select **Enabled** in the **FTP server**.
- d. The Trivial File Transfer Protocol (TFTP) is a simple, lock-step, file transfer protocol which allows a client to get or put a file onto a remote host. If you wish to allow the user to execute soft code upgrading through TFTP on MS-DOS mode, select **Enabled**.
- e. The 201ER is set Port **80** to access the user interface by default.
- f. When finished, please click **Submit**. You can click **Reset** to bring back the last setting; this function can only be used before you click **Submit**.

## ► Password Page

a. Click the **Password** option in the **Maintenance** menu and you will see the following screen.



The screenshot shows a Microsoft Internet Explorer browser window titled "VisionNet Ethernet Modem - Microsoft Internet Explorer". The address bar displays "http://10.0.0.2/". The page features a blue header with the "dq TECHNOLOGY" logo. On the left, a navigation menu is visible with sections for "States" (containing links for ADSL, WAN, LAN, PPP, ATM, TCP, Ping, and Route Diagnostic) and "Maintenance" (containing links for Server, Password, Firmware Version, Network Upgrade, Local Update, System Log, Reset to Default, and Help). The "Password" link under the "Maintenance" section is highlighted. The main content area is titled "PASSWORD CONFIGURATION" in large red letters. Below this, a text box states: "For FTP to work, the password for Admin should be at least 8 characters. Do not use '&' in the password." There are two input fields: "Admin Password" and "User Password". Below these fields are "Submit" and "Reset" buttons. At the bottom of the form, a note reads: "Settings need to be saved to Flash and the system needs to be rebooted for changes to take effect."

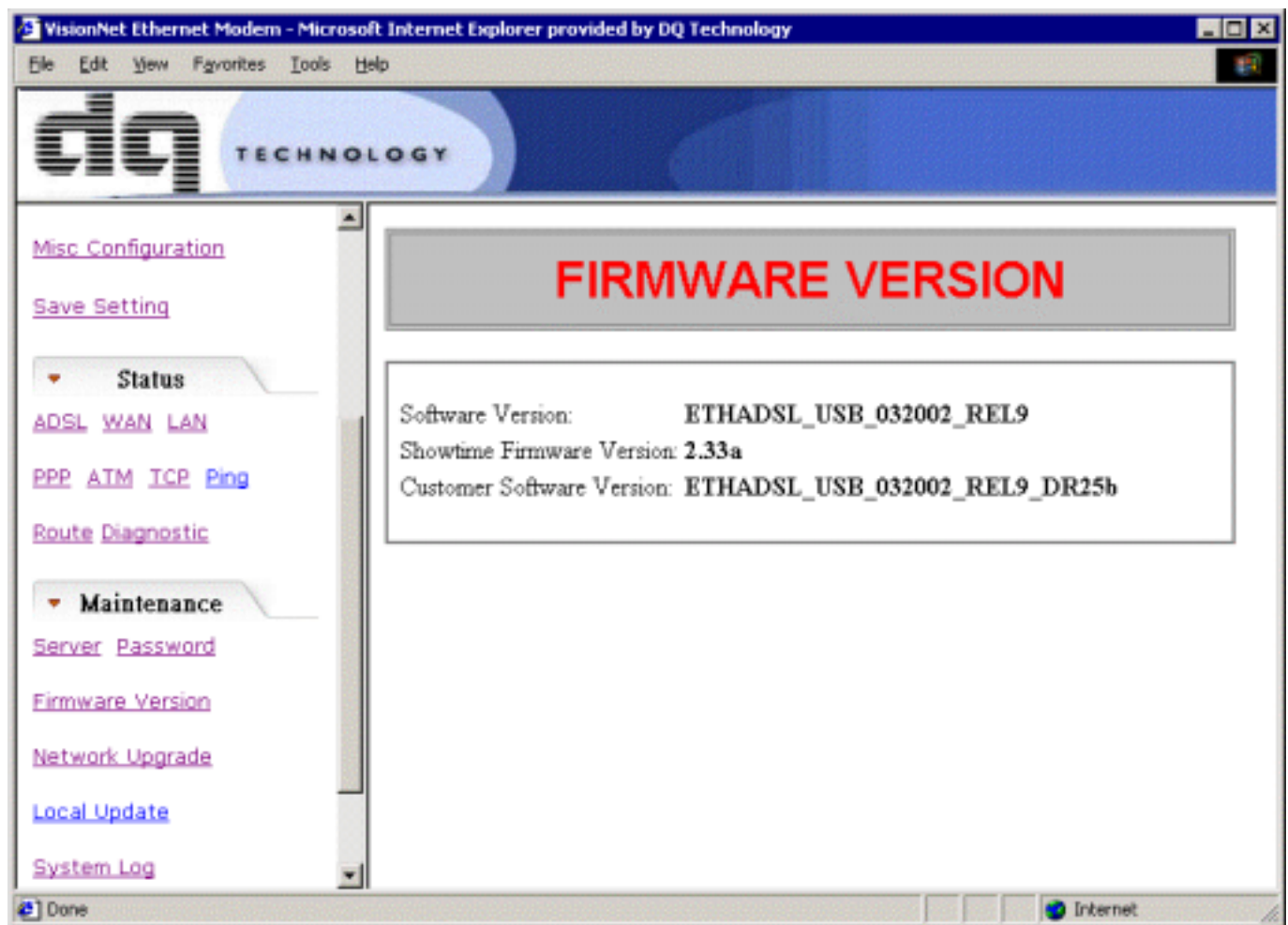
b. You can change the User Password or Admin Password in this page.

The admin password permits full read/write access while the user password permits read access.

c. When finished, click **Submit**. You can click **Reset** to bring back the last setting; this function can only be used before you click **Submit**.

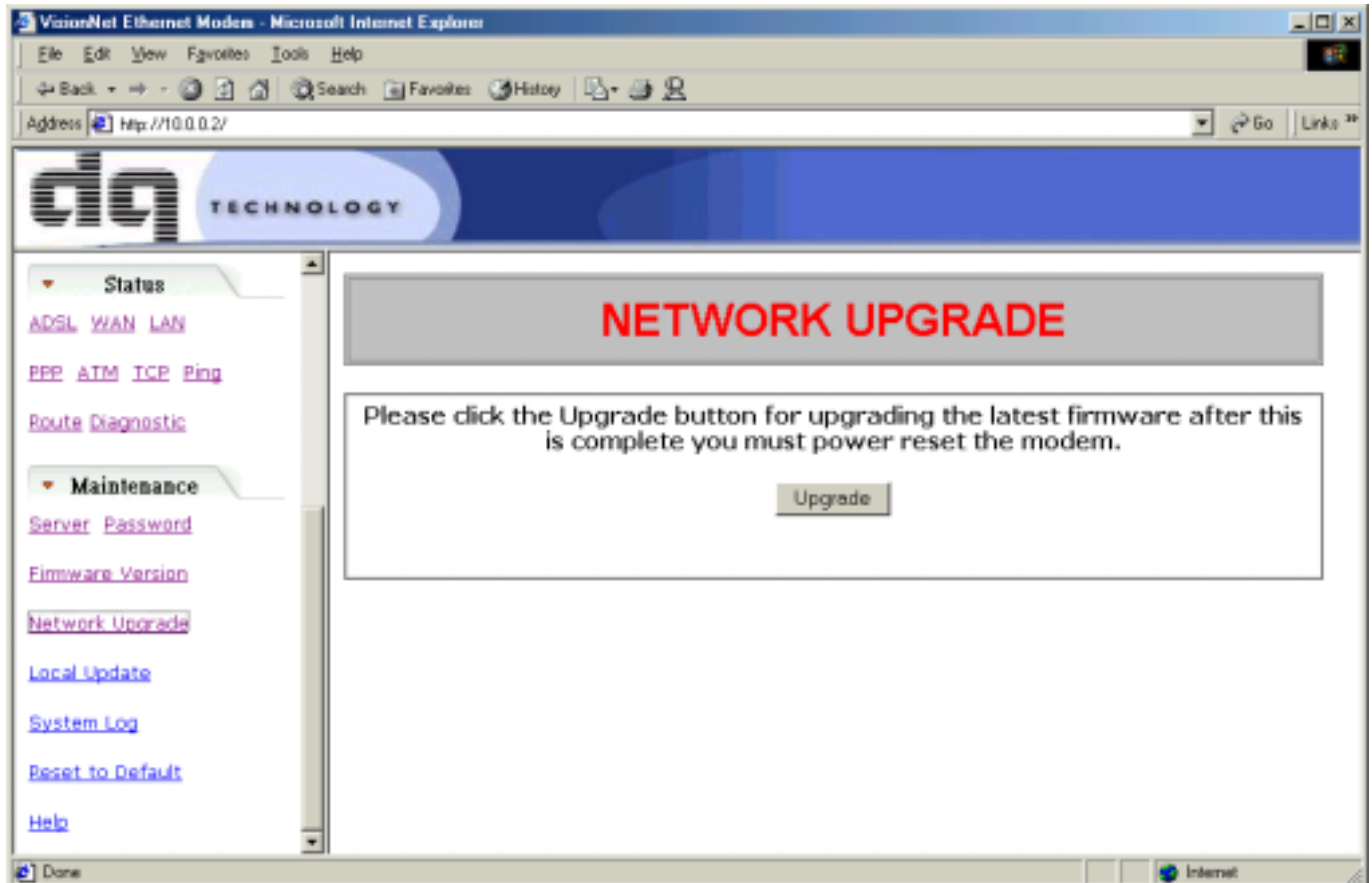
## ► Firmware Version Page

Click the **Firmware Version** option in the **Maintenance** menu to see the software version of your 201ER.



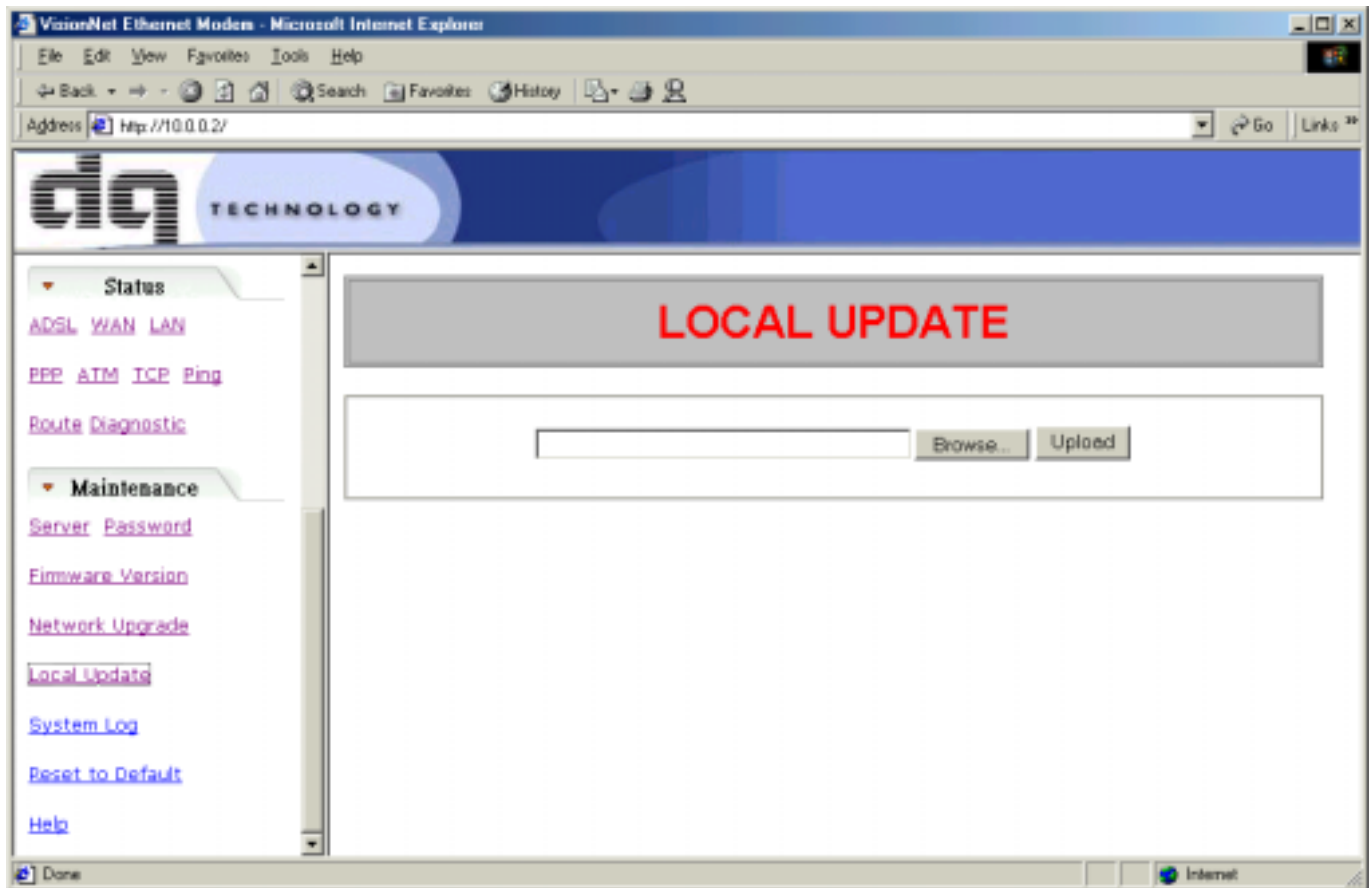
## ► Network Upgrade Page

Click the **Network Upgrade** option in the **Maintenance** menu and you will see the following screen. You can upgrade software from the Internet on this page. When executed, please follow the instructions in the dialog box to complete the upgrade.



## ► Local Update Page

- a. Click the **Local Update** option in the **Maintenance** menu and you will see the following screen.  
You can upgrade software from this page.

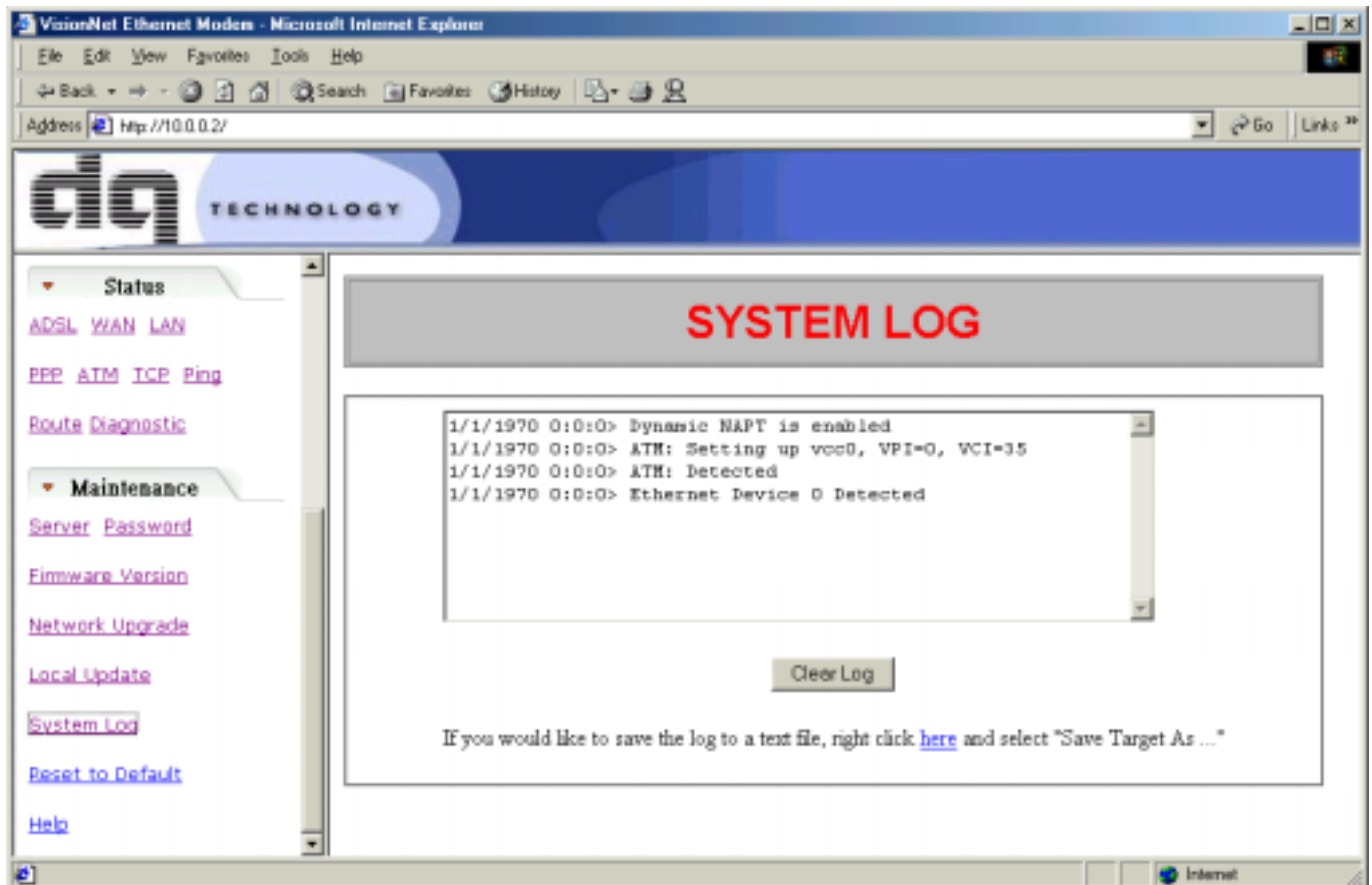


- b. A current version of the 201ER software package must reside either on your hard disk or on a floppy disk, and should be loaded on your PC. Click the **Browse** button next to passive software version and locate the new software package on either your hard disk or floppy.
- c. When the correct package is selected, click the **Upload** button. At this time, the software package will be transferred from your PC to the 201ER.

## ► System Log Page

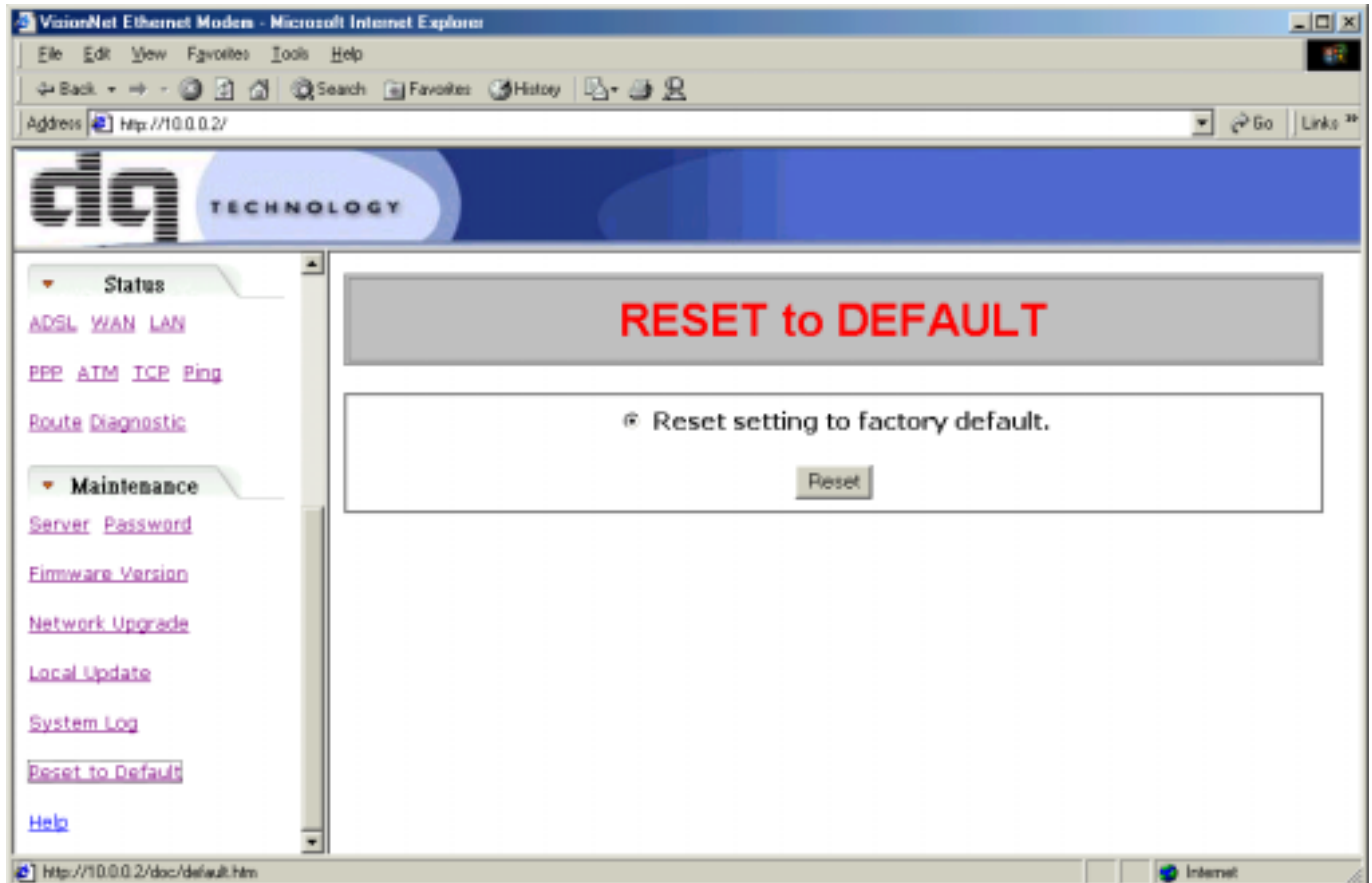
Click the **System Log** option in the **Maintenance** menu and you will see the following screen.

You can see the router's connected status on this page. Please contact your service provider if you have any questions regarding log file messages.



## ► Reset to Default Page

a. Click the **Reset to Default** option in the **Maintenance** menu and you will see the following screen.



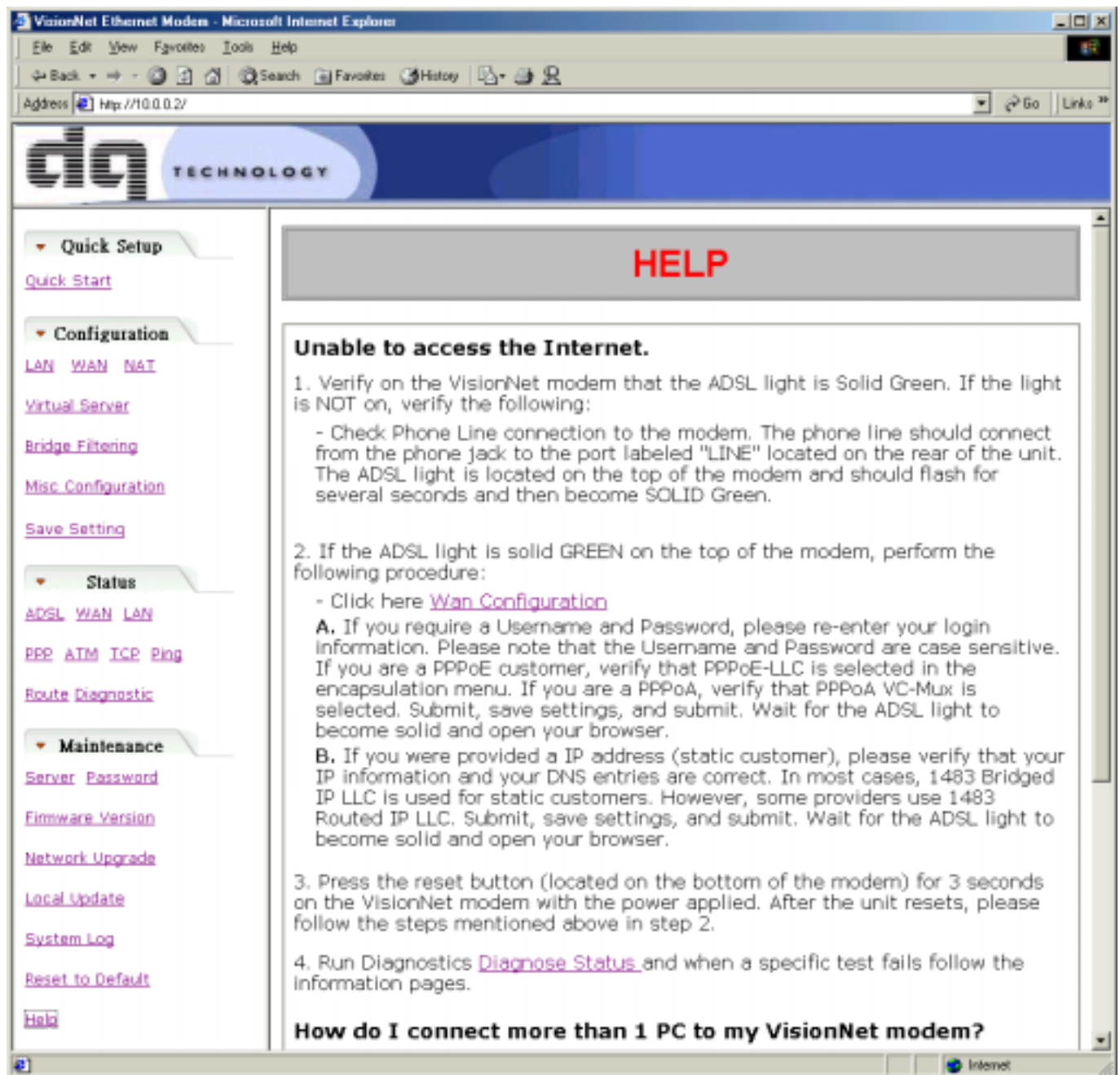
b. You can reset the device to factory default from this page. Note that all the previous settings of the 201ER will be set back to factory default, so you need to re-configure the 201ER.

c. Click **Reset** and the 201ER will reset settings to factory default and reboot.

## ► Help Page

Click the **Help** option in the **Maintenance** menu and you will see the following screen.

If you have question or need help, you may refer to the Help page.



# Appendix

If you use 1483 Bridged/Routed IP encapsulation and disabled NAT/NAPT, you will need to configure the IP address of your PC to a static address provided by your ISP.

Follow these instructions according to what operating system you use.

## ► Windows 95, 98, 98SE and Me

1. From the **Start** menu on the tool bar, select **Settings**, then **Control Panel**. Double-click on the **Network** icon.
2. The **Network** window appears. Select the **Configuration** tab, scroll down the installed network components window and find your TCP/IP-->NIC (Network Interface Card). Click the **Properties** button.
3. The **TCP/IP Properties** window appears. Select the **IP Address** tab and select the **Specify an IP Address** option. Enter the **IP Address** and **Subnet Mask** settings supplied by your ISP.  
Select the **Gateway** tab to setup a new gateway and enter the setting (supplied by your ISP) in the **New gateway** section. Click **Add**. Select the **DNS Configuration** tab and choose the **Enable DNS** option. You need to have available the **Host**, **Domain** and **DNS** settings supplied by your ISP. Now enter your host name into **Host**, enter your domain name into **Domain** and enter DNS number into **DNS Server Search Order** box. Click **Add**. If you have more than one DNS numbers, repeat this step.
4. After setting all the necessary TCP/IP Properties, click **OK**.
5. The **Network** window appears. Click **OK**.
6. The **System Setting Change** window appears. You will be asked if you want to restart your computer. Click **Yes**.

## ► Windows 2000

1. Double-click **My Computer**, then **Control Panel**, and then **Network and Dial-up Connections**.
2. The **Network and Dial-up Connections** window appears. Right-click on the **Local Area Connection** for TCP/IP network adapter and select **Properties**.
3. The **Local Area Connection Properties** window appears. Click on **Internet Protocol (TCP/IP)**, and then click on **Properties**.
4. The **Internet Protocol (TCP/IP) Properties** window appears. Under the **General** tab, enable **Use the following IP address** and the default settings for IP configurations will turn from gray to clear. Enter the **IP address**, **Subnet mask** and **Default gateway** supplied by your ISP.  
If your ISP provides a DNS address, please enter it into the **Preferred DNS server** box. Click **OK**.
5. The previous **General** tab window appears. Click **OK**.
6. The **Network and Dial-up Connection** window appears. Close this window and complete your configurations.

## ► Windows NT4.0

1. From the Start menu on the tool bar, select **Settings\_Control Panel**. Double click on the **Network** icon.
2. The **Network** window appears. Select the **Protocols** tab and click on **TCP/IP Protocol**. Click on **Properties**.
3. The **Microsoft TCP/IP Properties** window appears.  
Select the **IP Address** tab and then choose the **Specify an IP Address** option. Enter the **IP Address**, **Subnet Mask** and **Default Gateway** settings supplied by your ISP.  
Select the **DNS** tab. You need to have available the **Host, Domain** and **DNS** settings supplied by your ISP. Enter your host name into **Host Name**, enter your domain name into Domain and enter DNS number into the **DNS Server Search** Order box. Click **Add**.  
If you have more than one DNS number, repeat this step.
4. After setting all the necessary TCP/IP Properties, click **OK**.
5. The **Network** window appears. Click **OK** and complete your configurations.

## ► Windows XP

1. From the **Start** menu on the tool bar, select **Control Panel**, then double-click on the **Network Connections** icon.
2. The **Network Connections** window appears. Right-click on the **Local Area Connection** for TCP/IP network adapter and select **Properties**.
3. The **Local Area Connection Properties** window appears. Click on **Internet Protocol (TCP/IP)**, then click on **Properties**.
4. The **Internet Protocol (TCP/IP) Properties** window appears. Under the **General** tab, enable **Use the following IP address** and the default settings for IP configurations will turn from gray to clear. Enter the **IP address**, **Subnet mask** and **Default gateway** supplied by your ISP.  
If your ISP provided the DNS number, enter it into the **Preferred DNS server** box. Click **OK**.
5. The previous **General** tab window appears. Click **OK**.
6. The **Network Connections** window appears. Close this window and complete your configurations.

# Warranty Information

DQ Technology warrants that all products are free from defective material and workmanship and, subject to the conditions set forth below, agrees to repair or replace any part of a product that proves defective by reason of improper workmanship or materials without charge for parts and labor.

The VisionNet 201ER is warranted for five years on data drives and on all other parts from the date of original purchase.

If a product does not perform as warranted herein, owner's sole remedy shall be repair or replacement as provided below.

In no event will DQ Technology be liable for damages, lost revenue, lost wages, lost saving or any other incidental or consequential damages arising from purchase, use, or inability to use this product, even if DQ Technology has been advised of the possibility of such damages.

Any defective product should be returned to your local DQ Technology dealer or distributor, along with a copy of your sales slip, the product serial number (if applicable) and a detailed description of the problem you are experiencing.

No express or implied warranty is made for DQ Technology products damaged by accident, abuse, misuse, natural or personal disaster, or any unauthorized disassembly, repair or modification.

If you experience any difficulty during the installation process or subsequent use of a DQ Technology product, please contact DQ Technology's technical support department at 1-866-286-XDSL (9375) or e-mail [techctr@dqusa.com](mailto:techctr@dqusa.com).

# INDUSTRY CANADA (IC) NOTICE

**NOTICE:** The industry Canada (IC) label identifies certified equipment. This certification means that the equipment meets telecommunications network protective, operational 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.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using acceptable method of connection. The customer should be aware that compliance with the above conditions might not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by a user to this equipment, or equipment malfunctions, may give the telephone communications company cause to request the user to disconnect the equipment.

User 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.

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

**NOTICE:** The Ringer Equivalence Number (REN) assigned to each terminal device 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 5.

# Technical Support and Modem Returns

To Our Valued Customer:

In our continuing effort to provide excellent customer and technical support and ensure your quick connection to the Internet, we ask that you do the following if you experience connection problems:

1. Call your Internet service provider (ISP) to verify activation of your DSL service.  
You may want to ask your provider if there are issues with your DSL line provider (typically your phone company) that you should be aware.
2. After verifying from your ISP and/or DSL line provider that there are no issues with your DSL service, call DQ Technology's technical support staff at 1-866-286-XDSL (9375).

These basic steps are necessary to get you connected quickly and inexpensively.

If after troubleshooting your modem, DQ Technology's technical support staff determines the modem is defective and cannot be made to work properly, a Return Merchandise Authorization number (RMA) will be issued for the return of the modem.

## **AN RMA NUMBER IS REQUIRED PRIOR TO RETURNING ANY PRODUCT.**

Unfortunately, if you return a modem without a valid RMA, you will be charged a restocking fee and handling fee.

As all our products are backed by an industry leading 5 year limited warranty (see manual), DQ Technology will promptly ship a new or repaired modem to you once we receive the defective modem. Credit is not given for returned modems.

***Thank you for choosing DQ Technology!***