

Prestige 2602HW Series

ADSL VoIP IAD with 802.11g Wireless

Quick Start Guide

Version 3.40

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1 Introducing the Prestige

The Prestige P2602HW ADSL VoIP IAD (Integrated Access Device) combines high-speed ADSL Internet access, a 4-port Ethernet switch, IEEE 802.11g wireless access, and Voice over IP (VoIP) communication capabilities. It is ideal for small networks.

VoIP is the sending of voice signals over the Internet. The Prestige lets you use a traditional analog telephone for VoIP calls. You can call any landline or mobile telephone as well as IP telephones (depending on your VoIP service provider). Calls received from IP telephones work exactly as you would expect from the traditional telephone service. The Prestige uses SIP (Session Initiated Protocol), an internationally recognized standard for implementing VoIP.

The Prestige's web configurator allows easy management and configuration. See your *User's Guide* for more details on all Prestige features.

Procedure to View Your Product's Certifications

1. Go to www.zyxel.com.
2. Select your product from the drop-down list box on the ZyXEL home page to go to that product's page.
3. Select the certification you wish to view from this page.

1.1 Required Information

You should have an Internet account already set up and have been given most of the following information.

| INTERNET ACCOUNT INFORMATION | | |
|--|-----------------------------|------------------------------|
| Your device's WAN IP Address (if given): | _____ | |
| DNS Server IP Address (if given): | Primary _____, | |
| | Secondary _____ | |
| Virtual Path Identifier (VPI): | _____ | |
| Virtual Channel Identifier (VCI): | _____ | |
| Multiplexing (VC-based or LLC-based): | <input type="checkbox"/> VC | <input type="checkbox"/> LLC |
| Encapsulation: (choose one below) | | |

| INTERNET ACCOUNT INFORMATION | |
|------------------------------|---|
| <input type="radio"/> | RFC 1483 |
| <input type="radio"/> | ENET ENCAP Ethernet Encapsulation Gateway IP Address: _____ |
| <input type="radio"/> | PPPoA User Name: _____ Password: _____ |
| <input type="radio"/> | PPPoE Service Name: _____ User Name: _____ Password: _____ |

You should have a voice account already set up. Your VoIP service provider should have given you most of the following information.

Some VoIP service providers automatically configure VoIP settings when the Prestige connects to the Internet, in which case you would not need the following VoIP information.

| VOICE ACCOUNT INFORMATION | |
|---|----------------------------------|
| SIP Number : _____ | SIP Local Port (if given): _____ |
| SIP Server Address (if given): _____ | |
| SIP Server Port (if given): _____ | |
| REGISTER Server Address (if given): _____ | |
| REGISTER Server Port (if given): _____ | |
| SIP Service Domain: _____ | |
| User ID: _____ | Password: _____ |

2 Hardware

2.1 Safety Warnings

For your safety, be sure to read and follow all warning notices and instructions.

- To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cord.
- Do NOT open the device or unit. Opening or removing covers can expose you to dangerous high voltage points or other risks. ONLY qualified service

personnel can service the device. Please contact your vendor for further information.

- Use **ONLY** the dedicated power supply for your device. Connect the power cord or power adaptor to the right supply voltage, that is, 110V AC for North America or 230V AC for Europe.
- Do **NOT** use the device if the power supply is damaged as it might cause electrocution.
- If the power supply is damaged, remove it from the power outlet.
- Do **NOT** attempt to repair the power supply. Contact your local vendor to order a new power supply.
- Place connecting cables carefully so that that no one will step on them or stumble over them. Do **NOT** allow anything to rest on the power cord and do **NOT** locate the product where anyone can walk on the power cord.
- If you wall mount your device, make sure that no electrical, gas or water pipes will be damaged.
- Do **NOT** install nor use your device during a thunderstorm. There may be a remote risk of electric shock from lightning.
- Do **NOT** expose your device to dampness, dust or corrosive liquids.
- Do **NOT** use this product near water, for example, in a wet basement or near a swimming pool.
- Make sure to connect the cables to the correct ports.
- Do **NOT** obstruct the device ventilation slots, as insufficient airflow may harm your device.
- Do **NOT** store things on the device.
- Connect **ONLY** suitable accessories to the device.

2.2 Rear Panel Connections

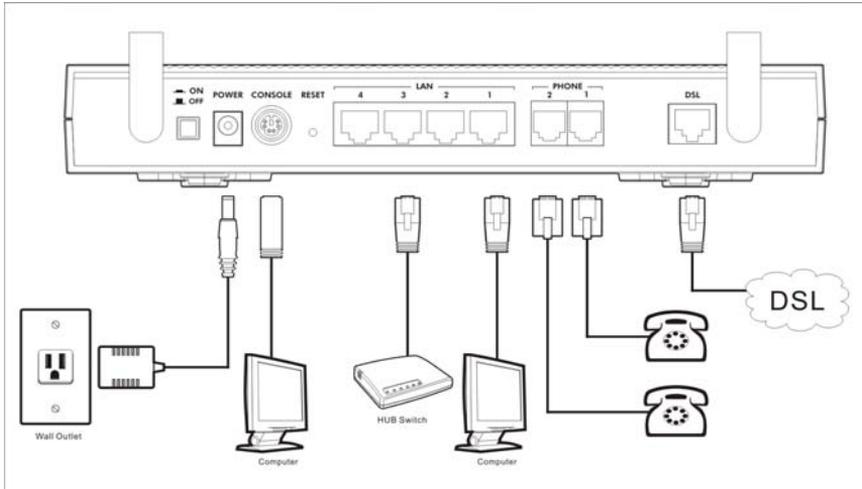


Figure 1 Rear Panel Hardware Connections

Table 1 Rear Panel Description

| LABEL | DESCRIPTION |
|-----------------|--|
| 1. DSL | Connect to a telephone jack using the included telephone wire. |
| 2. LAN 1..4 | Connect to a computer/external hub using an Ethernet cable. |
| 3. PHONE 1~2 | Connect analog telephones to these ports using telephone wire. These are also known as FXS (Foreign Exchange Station) ports. |
| 4. POWER 18V DC | Connect to a power source using only the included power adaptor for your region (see your <i>User's Guide</i>). |

After you've made the connections, connect the power adaptor to a power supply and push in the power button to turn on the Prestige.

The **PWR/SYS** LED blinks while performing system testing and then turns steady on if the testing is successful. A **LAN** LED turns on if a LAN port is properly connected.

Table 1 Rear Panel Description

| LABEL | DESCRIPTION |
|---------|---|
| CONSOLE | <p>Only connect this port if you want to configure the Prestige using the SMT via console port see your User's Guide for details.</p> <p>Use the console port for local device configuration and management. Connect one end of the console cable to the console port of the Prestige and the other end to a serial port (COM1, COM2 or other COM port) on your computer. Your computer should have a terminal emulation communications program (such as HyperTerminal) set to VT100 terminal emulation, no parity, 8 data bits, 1 stop bit, no flow control and 9600 bps port speed.</p> |
| RESET | <p>You only need to use this button if you've forgotten the Prestige's password. It returns the Prestige to the factory defaults (password is 1234, LAN IP address 192.168.1.1 etc.; see your <i>User's Guide</i> for details).</p> |

2.3 Prestige 2602HWL

Use both VoIP and regular phone services with the Prestige 2602HWL's lifeline feature. Make and receive regular phone calls while someone else connected to the Prestige is making VoIP calls.

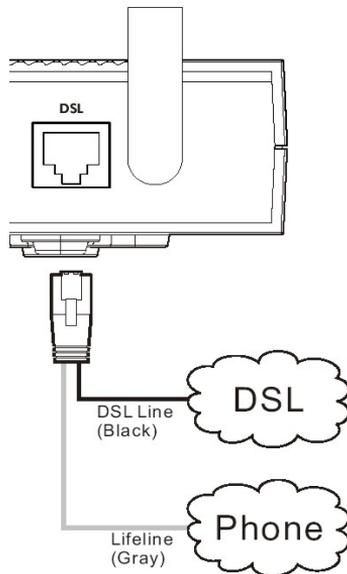


Figure 2 Prestige 2602HWL Phone and DSL Connections

The **DSL** port handles both the ADSL and regular telephone service connections. The phone line port is also known as an FXO (Foreign Exchange Office) port.

- 1.** The P2602HWL includes a v-shaped cable with one black wire and one gray wire. Connect the end where the wires join to the P2602HWL's **DSL** port.
- 2.** Connect the black wire to the "modem" jack on a telephone or ISDN splitter (not included).
- 3.** Connect the gray wire to the splitter's "phone" jack or a telephone wall jack.
 - ▶ If you are using T-ISDN (UR-2), connect the gray wire to the (included) UR-2 to TAE connector before connecting it to the telephone splitter's "phone" jack or a telephone wall jack.
- 4.** Connect the splitter's "line" jack to a telephone (or ISDN) wall jack.

2.4 Front Panel LEDs

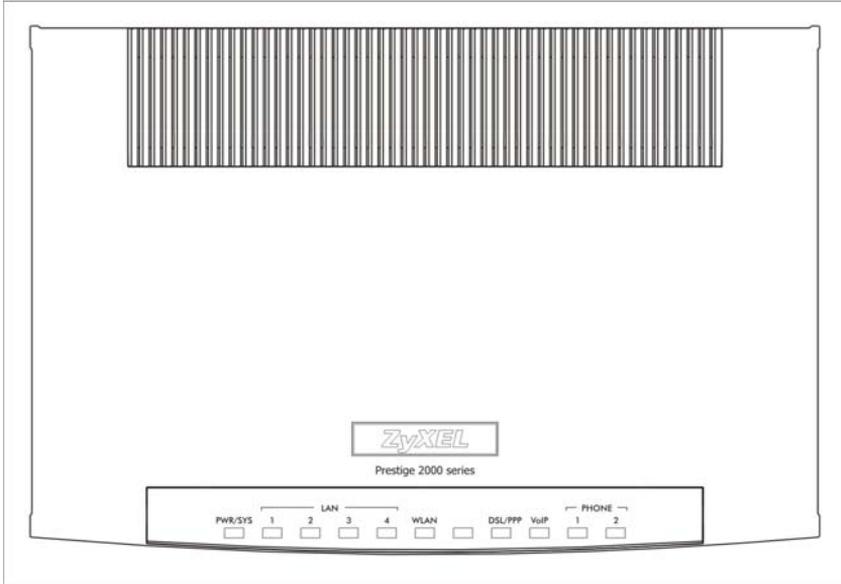


Figure 3 Front Panel

Table 2 Front Panel LED Descriptions

| LED | COLOR | STATUS | DESCRIPTION |
|----------|-------|----------|---|
| PWR/ SYS | Green | On | The Prestige is receiving power and functioning properly. |
| | | Blinking | The Prestige is rebooting. |
| | Red | On | Power to the Prestige is too low. |
| | | Blinking | The Prestige is receiving power but not functioning properly. |
| | | Off | The system is not ready or has malfunctioned. |

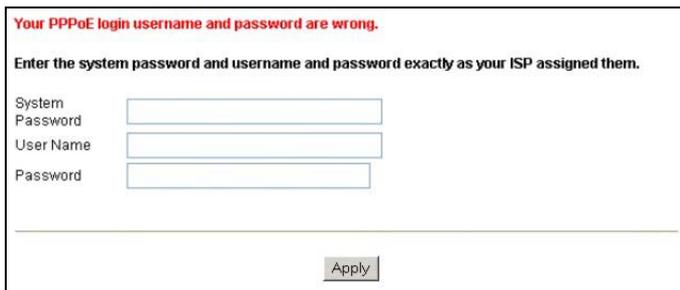
Table 2 Front Panel LED Descriptions

| LED | COLOR | STATUS | DESCRIPTION |
|-----------|-------|---------------|---|
| LAN 1.. 4 | Green | On | Successful 10Mb Ethernet connection. |
| | | Blinking | The Prestige is sending/receiving data. |
| | Amber | On | The Prestige has a successful 100Mb Ethernet connection. |
| | | Blinking | The Prestige is sending/receiving data. |
| | | Off | The LAN is not connected. |
| WLAN | Green | On | The Prestige is ready, but not sending/receiving data through the wireless LAN. |
| | | Blinking | The Prestige is sending/receiving data through the wireless LAN. |
| | | Off | The wireless LAN is not ready or has failed. |
| DSL/ PPP | Green | Fast Blinking | The Prestige is sending/receiving non-PPP data. |
| | | Slow Blinking | The Prestige is initializing the DSL line. |
| | | On | The DSL link is up. |
| | Amber | On | The connection to the PPPoE server is up. |
| | | Blinking | The Prestige is sending/receiving PPP data. |
| | | Off | The DSL link is down. |
| VoIP | Green | On | The VoIP SIP registration is OK. |
| | | Blinking | The Prestige is sending/receiving VoIP traffic. |
| | | Off | The VoIP SIP registration failed. |
| Phone 1-2 | Green | On | The telephone(s) connected to this port is (are) in use. |
| | | Blinking | The telephone(s) connected to this port is (are) ringing. |
| | | Off | The telephone(s) connected to this port is (are) not in use. |

3 Internet Access With Zero Configuration

With the Prestige's Zero Configuration, you can access the Internet easily. Simply connect a computer to the Prestige and access the Internet without changing the network settings (such as the IP address and subnet mask) of the computer.

- Step 1.** Make the hardware connections and turn on the Prestige (refer to the *Rear Panel Connections* section).
- Step 2.** Wait until the **DSL/PPP** LED turns steady on. Launch your web browser and navigate to a web site (for example, www.zyxel.com). The Prestige automatically detects and configures your Internet connection. This may take about two minutes.
- Step 3.** If you have a PPPoE or PPPoA connection type, a screen displays prompting you to enter your Internet account username and/or password. Enter the username, password and/or service name exactly as provided by your ISP. Click **Apply**.



Your PPPoE login username and password are wrong.

Enter the system password and username and password exactly as your ISP assigned them.

System Password

User Name

Password

You should be able to access the Internet. Otherwise, follow the on-screen instructions to solve the problem(s). Refer to the rest of this guide or the *User's Guide* to manually configure your Prestige for Internet connection and other advanced settings.

4 Setting Up Your Computer's IP Address

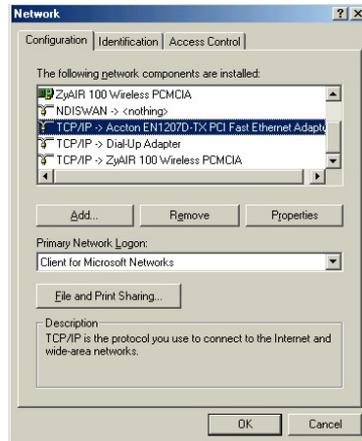
Skip this section if your computer is already set up to accept a dynamic IP address (this is the default setting for most new computers) or has a static private IP address.

The Prestige is already set up to assign your computer an IP address. Use this section to set up your computer to receive an IP address or assign it a static IP address in the 192.168.1.2 to 192.168.1.254 range with a subnet mask of 255.255.255.0. This is necessary to ensure that your computer can communicate with your Prestige.

Your computer must have an Ethernet card and TCP/IP installed. TCP/IP should already be installed on computers using Windows NT/2000/XP, Macintosh OS 7 and later operating systems.

4.1 Windows 95/98/Me

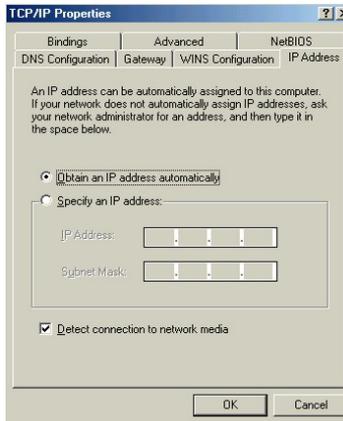
1. Click **Start, Settings, Control Panel** and double-click the **Network** icon to open the **Network** window.
2. The **Network** window **Configuration** tab displays a list of installed components. You need a network adapter, the TCP/IP protocol and Client for Microsoft Networks.
3. In the **Network** window **Configuration** tab, select your network adapter's TCP/IP entry and click **Properties**.



4. Click the **IP Address** tab.

-If your IP address is dynamic, select **Obtain an IP address automatically**.

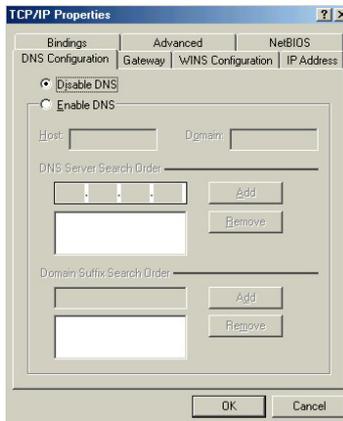
-If you have a static IP address, select **Specify an IP address** and type your information into the **IP Address** and **Subnet Mask** fields.



5. Click the **DNS Configuration** tab.

-If you do not know your DNS information, select **Disable DNS**.

-If you know your DNS information, select **Enable DNS** and type the information in the fields below (you may not need to fill them all in).

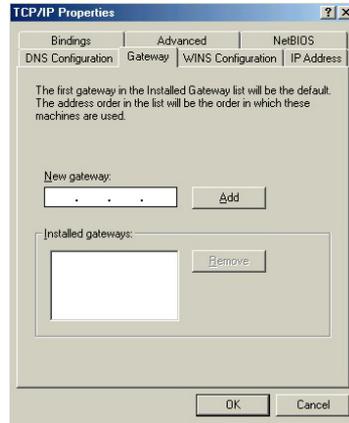


6. Click the **Gateway** tab.

-If you do not know your gateway's IP address, remove previously installed

gateways.

-If you have a gateway IP address, type it in the **New gateway field** and click **Add**.



7. Click **OK** to save and close the **TCP/IP Properties** window.
8. Click **OK** to close the **Network** window. Insert the Windows CD if prompted.
9. Turn on your Prestige and restart your computer when prompted.

Verifying Your Computer's IP Address

1. Click **Start** and then **Run**.
2. In the **Run** window, type "winipcfg" and then click **OK** to open the **IP Configuration** window.
3. Select your network adapter. You should see your computer's IP address, subnet mask and default gateway.

4.2 Windows 2000/NT/XP

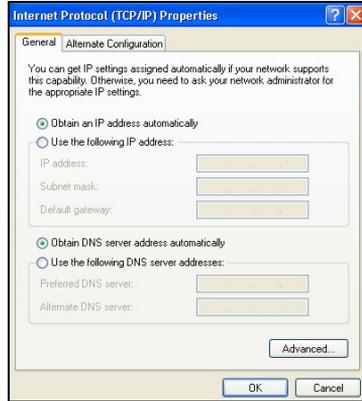
1. In Windows XP, click **start, Control Panel**. In Windows 2000/NT, click **Start, Settings, Control Panel**.
2. In Windows XP, click **Network Connections**.
In Windows 2000/NT, click **Network and Dial-up Connections**.
3. Right-click **Local Area Connection** and then click **Properties**.
4. Select **Internet Protocol (TCP/IP)** (under the **General** tab in Win XP) and click **Properties**.

- The **Internet Protocol TCP/IP Properties** screen opens (the **General** tab in Windows XP).

- To have your computer assigned a dynamic IP address, click **Obtain an IP address automatically**.

If you know your DNS sever IP address(es), type them in the **Preferred DNS server** and/or **Alternate DNS server** fields.

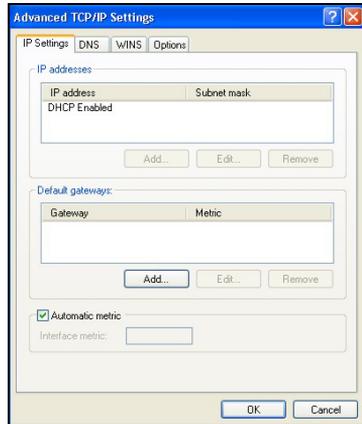
-To configure a static IP address, click **Use the following IP Address** and fill in the **IP address** (choose one from 192.168.1.2 to 192.168.1.254), **Subnet mask** (255.255.255.0), and **Default gateway** (192.168.1.1) fields.



Then enter your DNS server IP address(es) in the **Preferred DNS server** and/or **Alternate DNS server** fields.

If you have more than two DNS servers, click **Advanced**, the **DNS** tab and then configure them using **Add**.

- Click **Advanced**. Remove any previously installed gateways in the **IP Settings** tab and click **OK** to go back to the **Internet Protocol TCP/IP Properties** screen.



- Click **OK** to close the **Internet Protocol (TCP/IP) Properties** window.
- Click **OK** to close the **Local Area Connection Properties** window.

4.3 Checking/Updating Your Computer's IP Address

1. In the computer, click **Start, (All) Programs, Accessories** and then **Command Prompt**.
2. In the **Command Prompt** window, type "ipconfig" and then press **ENTER** to verify that your computer's IP address is in the correct range (192.168.1.2 to 192.168.1.254) with subnet mask 255.255.255.0. This is necessary in order to communicate with the Prestige.

Refer to your *User's Guide* for detailed IP address configuration for other Windows and Macintosh computer operating systems.

4.4 Testing the Connection to the Prestige

1. Click **Start, (All) Programs, Accessories** and then **Command Prompt**.
2. In the **Command Prompt** window, type "ping" followed by a space and the IP address of the Prestige (192.168.1.1 is the default).
3. Press **ENTER** and the following screen displays.

```
C:\>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time=10ms TTL=254
Reply from 192.168.1.1: bytes=32 time<10ms TTL=254
Reply from 192.168.1.1: bytes=32 time<10ms TTL=254
Reply from 192.168.1.1: bytes=32 time<10ms TTL=254

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 10ms, Average = 2ms
```

Your computer can now communicate with the Prestige using the LAN port.

5 Configuring Your Prestige

The web configurator is an HTML-based management interface that allows easy Prestige setup and management via Internet browser. Use Internet Explorer 6.0 and later or Netscape Navigator 7.0 and later versions with JavaScript enabled. Recommended screen resolution is 1024 by 768 pixels.

This *Quick Start Guide* shows you how to use the web configurator only. See your *User's Guide* for background information on all Prestige features and SMT (System Management Terminal) configuration.

5.1 Accessing Your Prestige Via Web Configurator

Even though you can connect to the Prestige wirelessly, it is recommended that you connect your computer to a LAN port for initial configuration.

1. Launch your web browser. Enter “192.168.1.1” as the web site address.

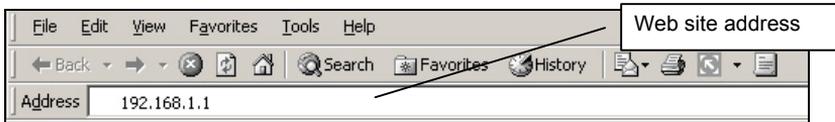


Figure 4 Entering Prestige LAN IP Address in Internet Explorer

2. An **Enter Network Password** window displays. Enter the user name (“admin” is the default), password (“1234” is the default). Click **Login** to proceed to a screen asking you to change your password. Click **Reset** to revert to the default password in the password field

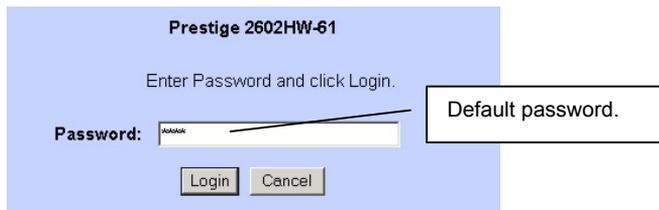


Figure 5 Web Configurator: Password Screen

3. It is highly recommended you change the default password! Enter a new password, retype it to confirm and click **Apply**; alternatively click **Ignore** to proceed to the main menu if you do not want to change the password now.



4. You should now see the web configurator **Site Map** screen.
 - Click **Wizard Setup** to begin a series of screens to configure your Prestige for the first time.
 - Click a link under **Advanced Setup** to configure advanced Prestige features.
 - Click a link under **Maintenance** to see Prestige performance statistics, upload firmware and back up, restore or upload a configuration file.

- Click **Logout** in the navigation panel when you have finished a Prestige management session.

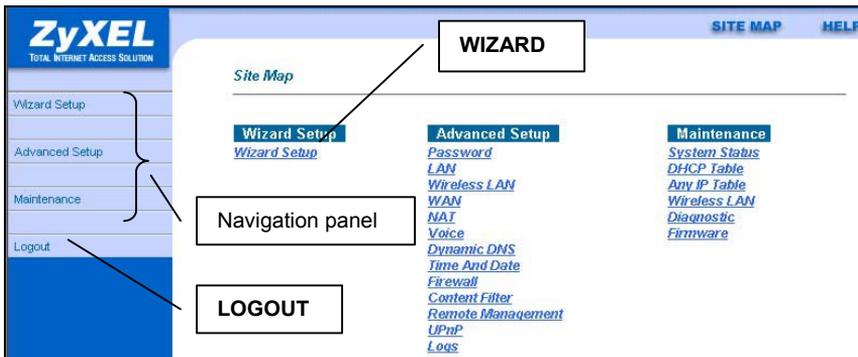


Figure 6 Web Configurator: Site Map Screen

The Prestige automatically logs you out if the management session is idle for five minutes. Log back in if this happens.

5.2 Common Screen Command Buttons

This table shows common command buttons found on many web configurator screens.

| | |
|--------------|--|
| Back | Click Back to return to the previous screen. |
| Apply | Click Apply to save your changes back to the Prestige. |
| Reset/Cancel | Click Reset or Cancel to begin configuring this screen afresh. |

5.3 Using the Wizard for Initial Configuration

Use the Wizard Setup screens to configure the Prestige’s Internet access and VoIP settings with information from *1.1 Required Information*. Your ISP may have already configured some of the fields in the wizard screens for you.

1. In the **Site Map** screen, click **Wizard Setup** to display the first wizard screen.

Wizard Setup - ISP Parameters for Internet Access

Mode Routing ▾

Encapsulation PPPoA ▾

Multiplex LLC ▾

Virtual Circuit ID

 VPI 8

 VCI 35

Next

Figure 7 Wizard Screen 1

From the **Mode** drop-down list box, select **Routing** (default) if your ISP allows multiple computers to share an Internet account. Otherwise select **Bridge**.

Select the encapsulation type your ISP uses from the **Encapsulation** drop-down list box. Choices vary depending on what you select in the **Mode** field.

Select the multiplexing method used by your ISP from the **Multiplex** drop-down list box.

Enter the correct Virtual Path Identifier (VPI) and Virtual Channel Identifier (VCI) numbers supplied by your ISP in the **VPI** and **VCI** fields. These fields may already be configured.

Click **Next**.

2. The second wizard screen varies depending on what mode and encapsulation type you use. All screens shown are with routing mode. Configure the fields and click **Next** to continue.

Wizard Setup - ISP Parameters for Internet Access

Service Name

User Name

Password

IP Address

Obtain an IP Address Automatically

Static IP Address

Connection

Connect on Demand: Max Idle Timeout Secs

Nailed-Up Connection

Network Address Translation

▼

If your ISP provides the name of your PPPoE service provider, enter it in the **Service Name** field.

Enter the user name and password *exactly* as your ISP assigned them.

Select **Obtain an IP Address Automatically** if you have a dynamic IP address; otherwise select **Static IP Address** and type your ISP assigned IP address in the text box below.

Select **Connect on Demand** when you don't want the connection up all the time and specify an idle time-out period (in seconds) in the **Max. Idle Timeout** field.

Figure 8 Internet Connection with PPPoE

Select **Nailed-Up Connection** when you want your connection up all the time. The Prestige will try to bring up the connection automatically if it is disconnected

From the **Network Address Translation** drop-down list box, select **SUA Only**, **Full Feature** or **None**. Refer to the *Network Address Translation* section for more information.

Wizard Setup - ISP Parameters for Internet Access

IP Address

Network Address Translation

▼

Enter the IP address given by your ISP in the **IP Address** field.

The IP Address field is not available for bridge mode.

Refer to *Figure 8* for description of the **Network Address Translation** field.

Figure 9 Internet Connection with RFC 1483

Wizard Setup - ISP Parameters for Internet Access

IP Address

Obtain an IP Address Automatically
 Static IP Address

IP Address
Subnet Mask
ENET ENCAP Gateway

Network Address Translation

In the **ENET ENCAP Gateway** field, enter the gateway IP address given by your ISP.

Refer to *Figure 8* for other field descriptions.

Figure 10 Internet Connection with ENET ENCAP

Wizard Setup - ISP Parameters for Internet Access

User Name
Password

IP Address

Obtain an IP Address Automatically
 Static IP Address

Connection

Connect on Demand: Max Idle Timeout Secs
 Nailed-Up Connection

Network Address Translation

Refer to *Figure 8* for field descriptions.

The IP Address and Network Address Translation fields are *not* available for bridge mode.

Figure 11 Internet Connection with PPPoA

3. Use this screen to configure the voice settings (for the Prestige’s SIP account one) with the information in the *Voice Account Information* table.

Your VoIP service provider may automatically configure VoIP settings when the Prestige connects to the Internet. If so, you only need to configure the authentication user ID and password in this screen.

A SIP account's Uniform Resource Identifier (URI) identifies the SIP account in a way similar to the way an e-mail address identifies an e-mail account. It is also known as a SIP identity or address. The format of a SIP identity is SIP-Number@SIP-Service-Domain.

A SIP number is the part of the SIP URI that comes before the "@" symbol. For example, if 1122334455@VoIP-provider.com was your SIP URI, "1122334455" would be your SIP number.

A SIP service domain is the domain name that comes after the @ symbol in a SIP URI. For example, if 1122334455@VoIP-provider.com was your SIP URI, "VoIP-provider.com" is the SIP service domain.

Figure 12 Voice Configuration

Enter the SIP service domain name.

In the **User ID** and **Password** fields, type the username and associated password exactly as they were given to you.

Enter your SIP number in the **SIP Number** field.

If you were given a **SIP Local Port** number, enter it; otherwise leave it set to the default.

Type the IP address of the VoIP service provider's SIP server in the **SIP Server Address** field. If you were given a **SIP Server Port** number, enter it; otherwise leave it set to the default.

If your VoIP service provider gave you a registrar server address and port, enter them in the **REGISTER Server Address** and **REGISTER Server Port** fields. If not, enter the address and port from the **SIP Server Address** and **SIP Server Port** fields again here.

Select **Send Caller ID** to show identification information when you make VoIP calls.

Phone 1 and **Phone 2** correspond to the Prestige's physical **PHONE 1** and **2** ports, respectively. Select whether you want to apply this SIP account to **Phone 1**, **Phone 2** or both. If you later apply another SIP account to both phones, you will not know which SIP account you are using when you place a call.

4. Verify the settings in the screen shown next. To change the LAN information on the Prestige, click **Change LAN Configurations**. Otherwise click **Save Settings** to save the configuration and skip to step 6.

Wizard Setup - ISP Parameters for Internet Access

WAN Information:
Mode: **Routing**
Encapsulation: **RFC 1483**
Multiplexing: **LLC**
VPI/VCI: **8/35**
IP Address : **0.0.0.0**
Network Address Translation: **SUA Only**

Voice Information:
Active : **Yes**
SIP Number: **ChangeMe**
SIP Local Port: **5060**
SIP Server Address: **192.168.1.33**
SIP Server Port: **5060**
REGISTER Server Address: **192.168.1.33**
REGISTER Server Port: **5060**
SIP Service Domain: **192.168.1.33**
Authentication User-ID: **ChangeMe**
Authentication Password: *********
Caller ID: **Send Caller ID**

LAN Information:
IP Address: **192.168.1.1**
IP Mask: **255.255.255.0**
DHCP: **ON**
Client IP Pool Starting Address: **192.168.1.33**
Size of Client IP Pool: **32**

Change LAN Configuration

Save Settings

Figure 13 Wizard Screen 4

5. If you want to change your Prestige LAN settings, click **Change LAN Configuration** to display the screen as shown next.

Wizard Setup - ISP Parameters for Internet Access

| | |
|---------------------------------|--|
| LAN IP Address | <input type="text" value="192.168.1.1"/> |
| LAN Subnet Mask | <input type="text" value="255.255.255.0"/> |
| DHCP | |
| DHCP Server | <input type="text" value="ON"/> |
| Client IP Pool Starting Address | <input type="text" value="192.168.1.33"/> |
| Size of Client IP Pool | <input type="text" value="32"/> |
| Primary DNS Server | <input type="text" value="0.0.0.0"/> |
| Secondary DNS Server | <input type="text" value="0.0.0.0"/> |

Enter the IP address of your Prestige in dotted decimal notation in the **LAN IP Address** field. For example, 192.168.1.1 (factory default).

If you change the Prestige's LAN IP address, you must use the new IP address if you want to access the web configurator again.

Enter a subnet mask in dotted decimal notation in the **LAN Subnet Mask** field.

Figure 14 Wizard: LAN Configuration

From the **DHCP Server** drop-down list box, select **On** to allow your Prestige to assign IP addresses, an IP default gateway and DNS servers to computer systems that support the DHCP client. Select **Off** to disable DHCP server.

When DHCP server is used, set the following items:

Specify the first of the contiguous addresses in the IP address pool in the **Client IP Pool Starting Address** field.

Specify the size or count of the IP address pool in the **Size of Client IP Pool** field.

Enter the IP address(es) of the DNS server(s) in the **Primary DNS Server** and/or **Secondary DNS Server** fields.

6. The Prestige automatically tests the connection to the computer(s) connected to the LAN ports. To test the connection from the Prestige to the ISP and the registrations of your SIP account, click **Start Diagnose**. Otherwise click **Return to Main Menu** to go back to the **Site Map** screen.

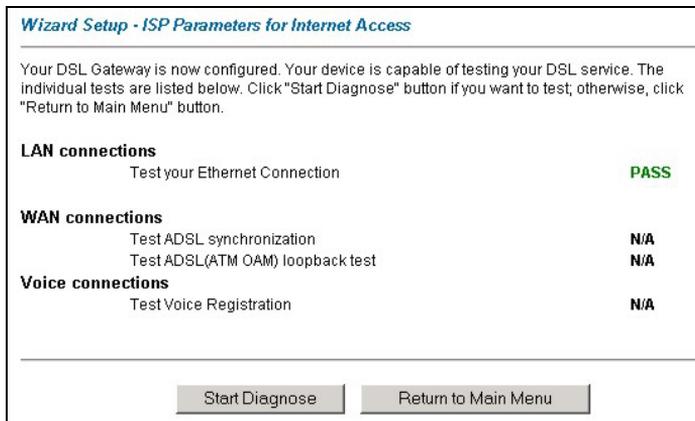


Figure 15 Wizard Screen 4

5.4 Test Your Internet Connection

Launch your web browser and navigate to www.zyxel.com. Internet access is just the beginning. Refer to the *User's Guide* for more detailed information on the complete range of Prestige features. If you cannot access the Internet, open the web configurator again to confirm that the Internet settings you configured in the Wizard Setup are correct.

6 Advanced Configuration

This section shows how to configure some of the advanced features of the Prestige.

6.1 Wireless LAN Setup

A wireless LAN (WLAN) provides a flexible data communications system that you can use to access various services (the Internet, email, printer services, etc.) on the wired network without additional expensive network cabling infrastructure. In effect, a wireless LAN environment provides you the freedom to stay connected to the wired network while moving in the coverage area.

To configure wireless settings, click **Advanced Setup**, **Wireless LAN** and then click **Wireless**.

Figure 16 Wireless LAN: Wireless

The following table describes the fields in this screen.

Table 3 Wireless LAN: Wireless

| LABEL | DESCRIPTION |
|---------------------|---|
| Enable Wireless LAN | The wireless LAN is turned off by default, before you enable the wireless LAN you should configure some security by setting MAC filters and/or 802.1x security; otherwise your wireless LAN will be vulnerable upon enabling it. Select the check box to enable the wireless LAN. |
| ESSID | (Extended Service Set IDentity) The ESSID is a unique name to identify the Prestige in the wireless LAN. Wireless clients associating to an Access Point (the Prestige) must have the same ESSID. Enter a descriptive name (up to 32 printable 7-bit ASCII characters). |

Table 3 Wireless LAN: Wireless

| LABEL | DESCRIPTION |
|-------------------------|---|
| Hide ESSID | <p>Select Yes to hide the ESSID so a wireless client cannot obtain the ESSID through passive scanning. Select No to make the ESSID visible so a wireless client can obtain the ESSID through passive scanning.</p> |
| Channel ID | <p>The radio frequency used by IEEE 802.11b wireless devices is called a channel. Select a channel from the drop-down list box.</p> |
| RTS/CTS Threshold | <p>Select this option to enable the RTS (Request To Send)/CTS (Clear To Send) threshold to minimize collisions. Enter a value between 0 and 2432. The default is 2432.</p> <p>Request To Send is the threshold (number of bytes) for enabling the RTS/CTS handshake. Data with its frame size larger than this value will perform the RTS/CTS handshake. Setting this attribute to be larger than the maximum MSDU (MAC Service Data Unit) size turns off the RTS/CTS handshake.</p> |
| Fragmentation Threshold | <p>Fragmentation Threshold is the maximum data fragment size that can be sent.</p> |
| WEP Encryption | <p>WEP (Wired Equivalent Privacy) encrypts data frames before transmitting them over the wireless network.</p> <p>Select Disable allows all wireless computers to communicate with the access points without any data encryption.</p> <p>Select 64-bit WEP, 128-bit WEP or 256-bit WEP and then configure the keys in the fields provided to activate data encryption.</p> |
| Key 1 to Key 4 | <p>The WEP keys are used to encrypt data. Both the Prestige and the wireless clients must use the same WEP key for data transmission.</p> <p>If you chose 64-bit WEP, then enter any 5 ASCII characters or 10 hexadecimal characters ("0-9", "A-F"). If you chose 128-bit WEP, then enter 13 ASCII characters or 26 hexadecimal characters ("0-9", "A-F"). If you chose 256-bit WEP, then enter 29 ASCII characters or 58 hexadecimal characters ("0-9", "A-F").</p> <p>You must configure all four keys, but only one key can be activated at any one time. The default key is key 1.</p> |

The wireless clients and Prestige must use the same ESSID, channel ID and WEP encryption key (if WEP is enabled) for wireless communication.

6.2 Wireless LAN Security Setup

For added security, set your Prestige to check the MAC address of the wireless client device against a list of allowed or denied MAC addresses.

To set up the MAC address list for wireless LAN, click **Advanced Setup** in the navigation panel, **Wireless LAN** and then click the **MAC Filter** link.

Be careful not to list your computer's MAC address and set the Action field to Deny Association when managing the Prestige via a wireless connection. This would lock you out.

Wireless LAN- MAC Filter

Active

Action

| MAC Address | | | |
|-------------|--|----|--|
| 1 | <input type="text" value="00:00:00:00:00:00"/> | 2 | <input type="text" value="00:00:00:00:00:00"/> |
| 3 | <input type="text" value="00:00:00:00:00:00"/> | 4 | <input type="text" value="00:00:00:00:00:00"/> |
| 5 | <input type="text" value="00:00:00:00:00:00"/> | 6 | <input type="text" value="00:00:00:00:00:00"/> |
| 7 | <input type="text" value="00:00:00:00:00:00"/> | 8 | <input type="text" value="00:00:00:00:00:00"/> |
| 9 | <input type="text" value="00:00:00:00:00:00"/> | 10 | <input type="text" value="00:00:00:00:00:00"/> |
| 11 | <input type="text" value="00:00:00:00:00:00"/> | 12 | <input type="text" value="00:00:00:00:00:00"/> |
| 13 | <input type="text" value="00:00:00:00:00:00"/> | 14 | <input type="text" value="00:00:00:00:00:00"/> |
| 15 | <input type="text" value="00:00:00:00:00:00"/> | 16 | <input type="text" value="00:00:00:00:00:00"/> |
| 17 | <input type="text" value="00:00:00:00:00:00"/> | 18 | <input type="text" value="00:00:00:00:00:00"/> |
| 19 | <input type="text" value="00:00:00:00:00:00"/> | 20 | <input type="text" value="00:00:00:00:00:00"/> |
| 21 | <input type="text" value="00:00:00:00:00:00"/> | 22 | <input type="text" value="00:00:00:00:00:00"/> |
| 23 | <input type="text" value="00:00:00:00:00:00"/> | 24 | <input type="text" value="00:00:00:00:00:00"/> |
| 25 | <input type="text" value="00:00:00:00:00:00"/> | 26 | <input type="text" value="00:00:00:00:00:00"/> |
| 27 | <input type="text" value="00:00:00:00:00:00"/> | 28 | <input type="text" value="00:00:00:00:00:00"/> |
| 29 | <input type="text" value="00:00:00:00:00:00"/> | 30 | <input type="text" value="00:00:00:00:00:00"/> |
| 31 | <input type="text" value="00:00:00:00:00:00"/> | 32 | <input type="text" value="00:00:00:00:00:00"/> |

Figure 17 Wireless LAN: MAC Address Filter

The following table describes the fields in this screen.

Table 4 Wireless LAN: MAC Address Filter

| LABEL | DESCRIPTION |
|--------|--|
| Active | Select Yes from the drop down list box to enable MAC address filtering. |

Table 4 Wireless LAN: MAC Address Filter

| LABEL | DESCRIPTION |
|-------------|--|
| Action | <p>Define the filter action for the list of MAC addresses in the MAC Address table.</p> <p>Select Deny Association to block access to the router, MAC addresses not listed will be allowed to access the router</p> <p>Select Allow Association to permit access to the router, MAC addresses not listed will be denied access to the router.</p> |
| MAC Address | <p>Enter the MAC addresses (in XX:XX:XX:XX:XX:XX format) of the wireless station that are allowed or denied access to the Prestige in these address fields.</p> |

6.3 802.1x and WPA Overview

Wi-Fi Protected Access (WPA) is a subset of the IEEE 802.11i security specification draft. Key differences between WPA and WEP are user authentication and improved data encryption. WPA applies IEEE 802.1x and Extensible Authentication Protocol (EAP) to authenticate wireless clients using an external RADIUS database. You can't use the Prestige's local user database for WPA authentication purposes since the local user database uses MD5 EAP, which cannot be used to generate keys.

WPA improves data encryption by using Temporal Key Integrity Protocol (TKIP), Message Integrity Check (MIC) and IEEE 802.1x. Temporal Key Integrity Protocol (TKIP) uses 128-bit keys that are dynamically generated and distributed by the authentication server. It includes a per-packet key mixing function, a Message Integrity Check (MIC) named Michael, an extended initialization vector (IV) with sequencing rules, and a re-keying mechanism.

To change your Prestige's authentication settings, click the **Wireless LAN** link under **Advanced Setup** and then the **802.1x/WPA** tab. The screen varies by the wireless port control and key management protocol you select.

6.4 Network Address Translation Overview

NAT (Network Address Translation - NAT, RFC 1631) is the translation of the IP address of a host in a packet. For example, the source address of an outgoing packet, used within one network is changed to a different IP address known within another network.

If you have a single public IP address then select **SUA Only** in the **NAT-Mode** screen (see *Figure 18*). If you have multiple public IP addresses then you may use full feature mapping types (see the *User's Guide* for more details).

NAT supports five types of IP/port mapping. They are:

1. **One-to-One:** One-to-one mode maps one local IP address to one global IP address. Note that port numbers do not change for One-to-one NAT mapping type.
2. **Many-to-One:** Many-to-One mode maps multiple local IP addresses to one global IP address.
3. **Many-to-Many Overload:** Many-to-Many Overload mode maps multiple local IP addresses to shared global IP addresses.
4. **Many-to-Many No Overload:** Many-to-Many No Overload mode maps each local IP address to unique global IP addresses.
5. **Server:** This type allows you to specify inside servers of different services behind the NAT to be accessible to the outside world.

6.5 Configuring SUA Server

An SUA server set is a list of inside (behind NAT on the LAN) servers, for example, web or FTP, that you can make visible to the outside world even though SUA makes your whole inside network appear as a single computer to the outside world.

1. From the main screen click **Advanced Setup** and then **NAT** to open the **NAT-Mode** screen. Select **SUA Only**.



Figure 18 NAT: Mode

2. Click **Edit Details**.

NAT - Edit SUA/NAT Server Set

| | Start Port No. | End Port No. | IP Address |
|----|----------------|--------------|------------|
| 1 | All ports | All ports | 0.0.0.0 |
| 2 | 0 | 0 | 0.0.0.0 |
| 3 | 0 | 0 | 0.0.0.0 |
| 4 | 0 | 0 | 0.0.0.0 |
| 5 | 0 | 0 | 0.0.0.0 |
| 6 | 0 | 0 | 0.0.0.0 |
| 7 | 0 | 0 | 0.0.0.0 |
| 8 | 0 | 0 | 0.0.0.0 |
| 9 | 0 | 0 | 0.0.0.0 |
| 10 | 0 | 0 | 0.0.0.0 |
| 11 | 0 | 0 | 0.0.0.0 |
| 12 | 0 | 0 | 0.0.0.0 |

Save Reset

Figure 19 SUA/NAT Server

The following table describes the labels in this screen.

Table 5 SUA/NAT Server

| LABEL | DESCRIPTION |
|----------------|--|
| Start Port No. | Type a port number in this field. To forward only one port, type the port number again in the End Port field. To forward a series of ports, type the start port number here and the end port number in the End Port field. |
| End Port No. | Type a port number in this field. To forward only one port, type the port number in the Start Port field above and then type it again in this field. To forward a series of ports, type the last port number in a series that begins with the port number in the Start Port field above. |
| IP Address | Enter the inside IP address of the server here. |

6.6 Firewall Overview

The Prestige firewall is a stateful inspection firewall and is designed to protect against Denial of Service attacks when activated. The Prestige's purpose is to allow a private Local Area Network (LAN) to be securely connected to the Internet. The Prestige can be used to prevent theft, destruction and modification of data, as well as log events, which may be important to the security of your network. The Prestige also has packet-filtering capabilities.

When activated, the firewall allows all traffic to the Internet that originates from the LAN, and blocks all traffic to the LAN that originates from the Internet. In other words the Prestige will:

- Allow all sessions originating from the LAN to the WAN
- Deny all sessions originating from the WAN to the LAN

Local Network to Internet Set rules are local network to Internet firewall rules. The default is to forward all traffic from your local network to the Internet.

The following figure illustrates a Prestige firewall application.

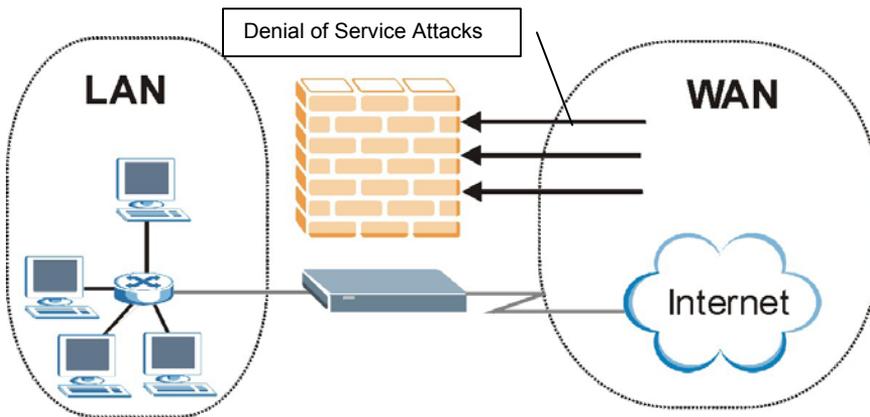


Figure 20 Prestige Firewall Application

6.7 Enabling the Firewall with Default Policy

From the main screen, click **Firewall** and then **Default Policy** to display the following screen. Activate the firewall by selecting the **Firewall Enabled** check box as seen in the following screen.

Firewall - Default Policy

Firewall Enabled

Allow Asymmetrical Route

CAUTION: When Allow Asymmetrical Route is checked, all LAN to LAN and WAN to WAN packets will bypass the Firewall check.

| Packet Direction | Default Action | Log |
|---------------------|--|-------------------------------------|
| LAN to LAN / Router | <input type="radio"/> Block <input checked="" type="radio"/> Forward | <input type="checkbox"/> |
| LAN to WAN | <input type="radio"/> Block <input checked="" type="radio"/> Forward | <input checked="" type="checkbox"/> |
| WAN to LAN | <input checked="" type="radio"/> Block <input type="radio"/> Forward | <input checked="" type="checkbox"/> |
| WAN to WAN / Router | <input checked="" type="radio"/> Block <input type="radio"/> Forward | <input checked="" type="checkbox"/> |

Figure 21 Default Policy

The following table describes the labels in this screen.

Table 6 Firewall: Default Policy

| LABEL | DESCR 'TION |
|--------------------------|---|
| Firewall Enabled | Select this check box to activate the firewall. The Prestige performs access control and protects against Denial of Service (DoS) attacks when the firewall is activated. |
| Allow Asymmetrical Route | Select this check box to have the Prestige firewall permit the use of triangle route topology on the network. See the appendix for more on triangle route topology. |

Table 6 Firewall: Default Policy

| LABEL | DESCRIPTION |
|------------------|---|
| Packet Direction | <p>This is the direction of travel of packets (LAN to LAN/Router, LAN to WAN, WAN to WAN/Route and WAN to LAN).</p> <p>Firewall rules are grouped based on the direction of travel of packets to which they apply. For example, LAN to LAN/Router means packets traveling from a computer/subnet on the LAN to either another computer/subnet on the LAN interface of the Prestige or the Prestige itself.</p> |
| Default Action | <p>Use the radio buttons to select whether to Block (silently discard) or Forward (allow the passage of) packets that are traveling in the selected direction.</p> |
| Log | <p>Select the check box to create a log (when the above action is taken) for packets that are traveling in the selected direction and do not match any of the rules below.</p> |
| Back | <p>Click Back to return to the previous screen.</p> |
| Apply | <p>Click Apply to save your changes back to the Prestige.</p> |
| Cancel | <p>Click Cancel to begin configuring this screen afresh.</p> |

6.8 Procedure for Configuring Firewall Rules

The ordering of your rules is very important as rules are applied in turn.

Click on **Firewall**, then **Rule Summary** to bring up the following screen. This screen is a summary of the existing rules. Note the order in which the rules are listed.

Firewall - Rule Summary

Firewall Rules Storage Space in Use (1%)

0% 100%

Packet Direction: LAN to LAN / Router

Default Policy: Forward, None Log

| Rule | Active | Source IP | Destination IP | Service | Action | Schedule | Log | Alert |
|------|--------|-----------|----------------|----------|---------|----------|---------|-------|
| 1 | Y | Any | Any | Any(UDP) | Forward | No | Disable | No |

Create Rule: Insert new rule before rule number 1

Rules Reorder: Move rule number 0 to rule number 0

Figure 22 Rule Summary

The following table describes the labels in this screen.

Table 7 Rule Summary

| LABEL | DESCRIPTION |
|---|--|
| Firewall Rules Storage Space in Use | This read-only bar shows how much of the Prestige's memory for recording firewall rules it is currently using. When you are using 80% or less of the storage space, the bar is green. When the amount of space used is over 80%, the bar is red. |
| Packet Direction | Use the drop-down list box to select a direction of travel of packets (LAN to LAN/Router, LAN to WAN, WAN to WAN/Router or WAN to LAN) for which you want to configure firewall rules. |
| Default Policy | This field displays the default action and log policy you selected in the Default Rule screen for the packet direction shown in the field above. |
| The following read-only fields summarize the rules you have created that apply to traffic traveling in the selected packet direction. The firewall rules that you configure (summarized below) take priority over the general firewall action settings above. | |

Table 7 Rule Summary

| LABEL | DESCR 'TION |
|----------------|--|
| Rule | <p>This is your firewall rule number. The ordering of your rules is important as rules are applied in turn.</p> <p>Click a rule's number to go to the Firewall Edit Rule screen to configure or edit a firewall rule.</p> |
| Active | <p>This field displays whether a firewall is turned on (Y) or not (N).</p> |
| Source IP | <p>This drop-down list box displays the source addresses or ranges of addresses to which this firewall rule applies. Please note that a blank source or destination address is equivalent to Any.</p> |
| Destination IP | <p>This drop-down list box displays the destination addresses or ranges of addresses to which this firewall rule applies. Please note that a blank source or destination address is equivalent to Any.</p> |
| Service | <p>This drop-down list box displays the services to which this firewall rule applies. Please note that a blank service type is equivalent to Any. See the <i>User's Guide</i> for more information.</p> |
| Action | <p>This is the specified action for that rule, either Block or Forward. Note that Block means the firewall silently discards the packet.</p> |
| Schedule | <p>This field tells you whether a schedule is specified (Yes) or not (No).</p> |
| Log | <p>This field shows you whether a log is created when packets match this rule (Enabled) or not (Disable).</p> |
| Alert | <p>This field tells you whether this rule generates an alert (Yes) or not (No) when the rule is matched.</p> |
| Insert/Append | <p>Type the index number for where you want to put a rule. For example, if you type "6", your new rule becomes number 6 and the previous rule 6 (if there is one) becomes rule 7.</p> <p>Click Insert to add a new firewall rule before the specified index number.</p> <p>Click Append to add a new firewall rule after the specified index number.</p> |
| Move | <p>Type a rule's index number and the number for where you want to put that rule. Click Move to move the rule to the number that you typed. The ordering of your rules is important as they are applied in order of their numbering.</p> |

Table 7 Rule Summary

| LABEL | DESCR 'TION |
|--------------|---|
| Back | Click Back to return to the previous screen. |
| Apply | Click Apply to save your changes back to the Prestige. |
| Cancel | Click Cancel to begin configuring this screen afresh. |

Follow these directions to create a new rule.

1. In the **Rule Summary** screen, type the index number for where you want to put the rule. For example, if you type “6”, your new rule becomes number 6 and the previous rule 6 (if there is one) becomes rule 7.
2. Click **Insert** to display this screen and refer to the following table for information on the labels.

Firewall - Edit Rule 1

Active
 Action for Matched Packets: Block Forward

Source Address:

Address Type: (dropdown)
 Start IP Address:
 End IP Address:
 Subnet Mask:

Source Address List:

Add >> Edit << Delete

Destination Address:

Address Type: (dropdown)
 Start IP Address:
 End IP Address:
 Subnet Mask:

Destination Address List:

Add >> Edit << Delete

Service:

Available Services:

Selected Services:

Add >> Remove

[Available Services](#)

Schedule:

Day to Apply:
 Everyday
 Sun Mon Tue Wed Thu Fri Sat

Time of Day to Apply: (24-Hour Format)
 All day
 Start hour minute End hour minute

Log:
 Log Packet Detail Information.

Alert:
 Send Alert Message to Administrator When Matched.

Back Apply Cancel Delete

Figure 23 Creating/Editing A Firewall Rule

The following table describes the labels in this screen.

Table 8 Firewall: Edit Rule

| LABEL | DESCRIPTION |
|------------------------------|---|
| Active | Select this option to enable this firewall rule. |
| Action for Matched Packet | Use the radio button to select whether to discard (Block) or allow the passage of (Forward) packets that match this rule. |
| Source/Destination Address | |
| Address Type | Do you want your rule to apply to packets with a particular (single) IP, a range of IP addresses (e.g., 192.168.1.10 to 192.169.1.50), a subnet or any IP address? Select an option from the drop-down list box that includes: Single Address , Range Address , Subnet Address and Any Address . |
| Start IP Address | Enter the single IP address or the starting IP address in a range here. |
| End IP Address | Enter the ending IP address in a range here. |
| Subnet Mask | Enter the subnet mask here, if applicable. |
| Add | Click Add to add a new address to the Source or Destination Address box. You can add multiple addresses, ranges of addresses, and/or subnets. |
| Edit | To edit an existing source or destination address, select it from the box and click Edit . |
| Delete | Highlight an existing source or destination address from the Source or Destination Address box above and click Delete to remove it. |
| Services | |
| Available/ Selected Services | Please see <i>User's Guide</i> for more information on services available. Highlight a service from the Available Services box on the left, then click Add>> to add it to the Selected Services box on the right. To remove a service, highlight it in the Selected Services box on the right, then click Remove . |
| Available Service | Click the Available Services link to bring up the screen that you use to configure a new custom service that is not in the predefined list of services. |

Table 8 Firewall: Edit Rule

| LABEL | DESCRIPTION |
|--|--|
| Schedule | |
| Day to Apply | Select everyday or the day(s) of the week to apply the rule. |
| Time of Day to Apply (24-Hour Format) | Select All Day or enter the start and end times in the hour-minute format to apply the rule. |
| Log | |
| Log Packet Detail Information | This field determines if a log for packets that match the rule is created (Enable) or not (Disable). Go to the Log Settings page and select the Access Control logs category to have the Prestige record these logs. |
| Alert | |
| Send Alert Message to Administrator When Matched | Select the check box to have the Prestige generate an alert when the rule is matched. |
| Back | Click Back to return to the previous screen. |
| Apply | Click Apply to save your customized settings and exit this screen. |
| Cancel | Click Cancel to exit this screen without saving. |
| Delete | Click Delete to remove this firewall rule and return to the Firewall Rule Summary screen. |

6.9 Speed Dial Configuration

Click **Voice** in the navigation panel and then **Speed Dial** to display the following screen.

Speed dial provides (up to 10) shortcuts for dialing frequently used (VoIP) phone numbers.

Voice - Speed Dial

Add New Entry

| Speed Dial | SIP Number | Name | Type | |
|------------|------------|------|---|-----|
| #01 | | | <input checked="" type="radio"/> Use Proxy <input type="radio"/> Non-Proxy (Use IP or URL) | Add |

Speed Dial Phone Book

| Speed Dial | SIP Number | Name | Destination | Delete | Edit |
|------------|------------|------|-------------|--------|------|
| #01 | | | | Delete | Edit |
| #02 | | | | Delete | Edit |
| #03 | | | | Delete | Edit |
| #04 | | | | Delete | Edit |
| #05 | | | | Delete | Edit |
| #06 | | | | Delete | Edit |
| #07 | | | | Delete | Edit |
| #08 | | | | Delete | Edit |
| #09 | | | | Delete | Edit |
| #10 | | | | Delete | Edit |

Push Button to Clear Phone Book

Use the **Add New Entry** section of the screen to edit and save new or existing speed dial phonebook entries.

Select a speed dial key combination from the drop-down list box.

Enter the SIP number of the party that you will call (use the number or text that comes before the @ symbol in a full SIP URI).

Enter a descriptive name to identify the party that you will use this entry to call.

Select **Use Proxy** if calls to this party use your SIP account configured in the VoIP screen.

Select **Non-Proxy (Use IP or URL)** if calls to this party use a different SIP server or go directly to the callee's VoIP phone (peer-to-peer). Enter the SIP server's or the party's IP address or domain name (up to 127 ASCII Extended set characters).

Click **Add** to save the entry in the speed dial phonebook. The speed dial entry displays in the **Speed Dial Phone Book** section of the screen.

The **Speed Dial Phone Book** section of the screen displays the currently saved speed dial entries. You can use these entries to make calls.

Click **Delete** to remove an entry from the speed dial phonebook.

Click **Edit** to change the speed dial entry. The speed dial entry displays in the **Add New Entry** section of the screen where you can edit it.

Click **Clear** to remove all of the entries from the speed dial phonebook.

6.10 Lifeline Configuration (Prestige 2602HWL)

Click **Voice** in the navigation panel and then **Lifeline** to display the following screen. Use this screen to configure the prefix number for dialing a regular call whenever the VoIP service is available.

You can also specify phone numbers that should always use the regular phone service (without having to dial a prefix number). Do this for emergency numbers (like those for contacting police, fire or emergency medical services).

The screenshot shows a configuration window titled "Voice - Life Line". At the top, there is a label "PSTN Pre-fix Number" followed by a single-line text input field. Below this is a section header "Relay to PSTN". Underneath, there are nine numbered input fields, each preceded by a small number from 1 to 9. At the bottom of the window, there are two buttons: "Apply" and "Cancel".

Specify the prefix number for dialing regular calls when the VoIP service is available.

Use the **Relay to PSTN** fields to specify phone numbers to which the Prestige will always send calls through the regular phone service without the need of dialing a prefix number. These numbers must be for phones on the PSTN (not VoIP phones).

Click **Apply** to save your changes back to the Prestige.

7 Making Phone Calls

This section explains how to make VoIP or regular calls (Prestige 2602HWL only).

7.1 Making VoIP Calls

When the **VoIP** LED is on, use a telephone connected to one of the ports to make VoIP calls. Dial a numerical SIP number (like a regular phone number) on your telephone's keypad. For an alphabetical SIP number (like an e-mail address), configure a speed dial entry in the phone book (see section 6.9). Dial the speed dial entry on your telephone's keypad.

7.2 Making Regular Calls (Prestige 2602HWL)

When the **VoIP** LED is on, the VoIP service is available. Dial a prefix number and the phone number to make a regular call. You can find the prefix number in the **Voice Lifeline** screen (see section 6.10). You can also use the **Voice Lifeline** screen to set the

Prestige to automatically use the regular phone service for certain calls (like emergency calls) without the need of a (prefix) number.

When the **VoIP** LED is off, the VoIP service is not available and you can make regular calls without dialing a (prefix) number.

8 Troubleshooting

Table 9 Troubleshooting

| PROBLEM | CORRECTIVE ACTION |
|---|--|
| None of the LEDs turn on when you turn on the Prestige. | <p>Make sure that you have the correct power adaptor connected to the Prestige and plugged in to an appropriate power source. Check all cable connections.</p> <p>If the LEDs still do not turn on, you may have a hardware problem. In this case, you should contact your local vendor.</p> |
| Cannot access the Prestige from the LAN. | <p>Check the cable connection between the Prestige and your computer or hub. Refer to the <i>Rear Panel Connections</i> section for details.</p> <p>Ping the Prestige from a LAN computer. Make sure your computer Ethernet adapter is installed and functioning properly.</p> |
| Cannot ping any computer on the LAN. | <p>If the LAN LEDs are all off, check the cable connections between the Prestige and your LAN computers.</p> <p>Verify that the IP address, subnet mask of the Prestige and the LAN computers are in the same IP address range.</p> |
| Cannot ping any computer on the WLAN | <p>Make sure the WLAN LED is on.</p> <p>Make sure the wireless card on the wireless client is working properly.</p> <p>Check that both the Prestige and wireless client(s) are using the same ESSID, channel and WEP keys (if WEP encryption is activated).</p> |
| Cannot get a WAN IP address from the ISP. | <p>The WAN IP is provided after the ISP verifies the MAC address, host name or user ID. Find out the verification method used by your ISP and configure the corresponding fields.</p> <p>If the ISP checks the user ID, check your service type, user name, and password in the WAN Setup screen.</p> |

Table 9 Troubleshooting

| PROBLEM | CORRECTIVE ACTION |
|---|--|
| Cannot access the Internet. | Verify the Internet connection settings in the WAN Setup screen. Make sure you entered the correct user name and password. For wireless clients, check that both the Prestige and wireless client(s) are using the same ESSID, channel and WEP keys (if WEP encryption is activated). |
| The telephone port doesn't work or there is no dial tone. | Check the telephone connections. Make sure you have the VoIP screen properly configured. |