P-334WT

802.11g Wireless Broadband Router with Firewall

Quick Start Guide

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Version 3.60

ZyXEL
Unleash Networking Power

1 Introducing the Prestige

The Prestige is a broadband sharing gateway with a built-in wireless LAN access point and four-port 10/100 Mbps switch that makes it easy for people to set up a small home/office network and share Internet access via a broadband (cable/DSL) modem. Key features of the Prestige include media bandwidth management, an embedded 802.11g wireless LAN security, One-Touch Intelligent Security Technology, firewall, VPN, content filtering, NAT and UPnP. See your *User's Guide* for more details on all Prestige features.

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): First _____, Second _____, Third _____	
Encapsulation:	(select one below):
❍ **Ethernet**	Service Type: _____
	Login Server IP Address: _____
	User Name: _____ Password: _____
❍ **PPTP**	User Name: _____ Password: _____
	Your WAN IP Address: _____ PPTP Server IP Address: _____
	Connection ID (if required): _____
❍ **PPPoE**	(PPPoE) Service Name: _____
	User Name: _____ Password: _____

Procedure to View a Product's Certification(s)

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.

2 Hardware Installation

2.1 Rear Panel

LABEL	DESCRIPTION
LAN 10/100M	Use an Ethernet cable to connect at least one computer for initial Prestige configuration. These ports are auto-negotiating (can connect at 10 or 100Mbps) and auto-sensing (automatically adjust to the type of Ethernet cable you use (straight-through or crossover)).
WAN 10/100M	Connect your cable/DSL modem to this port with the cable that came with your modem.
POWER 12 VAC	Connect the end of the included power adaptor (use only this adapter) to this power socket.
After you've made the connections, connect the power cable to a power supply and look at the front panel LEDs.	
RESET	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. See your *User's Guide* for details).

2.2 Front Panel LEDs

The **PWR** LED blinks while performing system testing and then stays on if the testing is successful. The **LAN**, and **WAN** LEDs turn on if they are properly connected.

LED	STATUS	COLOR	DESCRIPTION
PWR		Off	The Prestige is not receiving power.
	Amber	On	Power to the Prestige is too low
	Green	On	The Prestige is receiving power.
		Blinking	The Prestige is performing testing.
LAN 1- 4		Off	The LAN is not connected.
	Green	On	The Prestige has a successful 10Mb Ethernet connection.
		Blinking	The Prestige is sending/receiving data
	Amber	On	The Prestige has a successful 100Mb Ethernet connection.

LED	STATUS	COLOR	DESCRIPTION
		Blinking	The Prestige is sending/receiving data
WAN		Off	The WAN connection is not ready, or has failed.
	Green	On	The Prestige has a successful 10Mb WAN 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
WLAN		Off	The WLAN connection is not ready, or has failed.
	Green	On	The Prestige has a successful WLAN connection.
		Blinking	The Prestige is sending/receiving data

3 Set Up Your Computer's 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.

> **Skip this section if your computer's IP address is already between 192.168.1.2 and 192.168.1.254 with subnet mask 255.255.255.0.**

Your computer must have a network 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. Refer to the *Setting Up Your Computer's IP Address* appendix for other operating systems.

3.1 Windows 2000/NT/XP

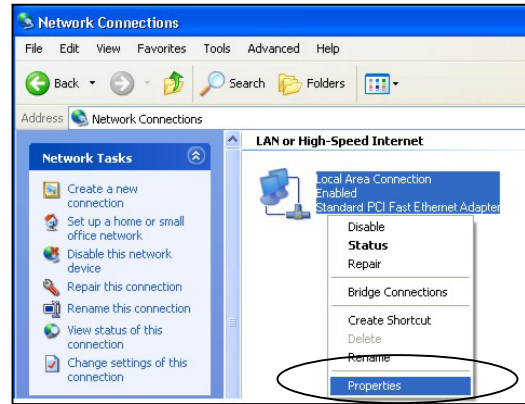The following example figures use the default Windows XP GUI theme.

1. Click **start** (**Start** in Windows 2000/NT), **Settings**, **Control Panel**.

2. In the Control Panel, double-click Network Connections (Network and Dial-up Connections in Windows 2000/NT).
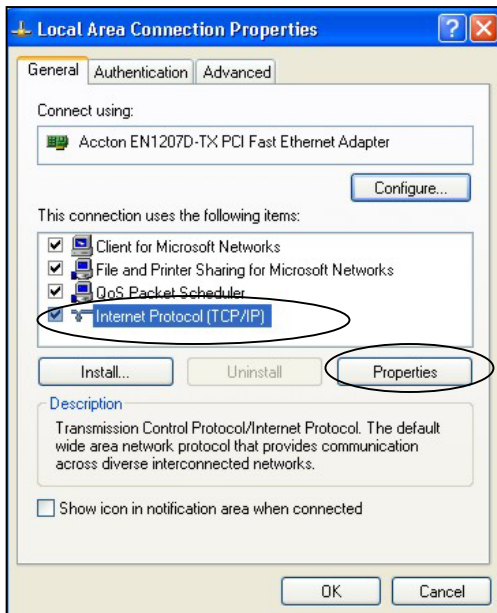

Control Panel

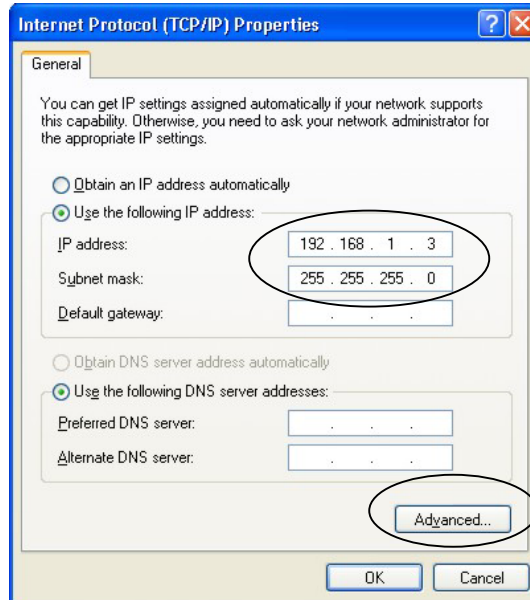3. Right-click Local Area Connection and then Properties.

Network Connection

4. Select Internet Protocol (TCP/IP) and then click **Properties**.

Local Area Connection Properties

5. Select **Use the following IP Address** and fill in an **IP address** (between 192.168.1.3 and 192.168.1.254).
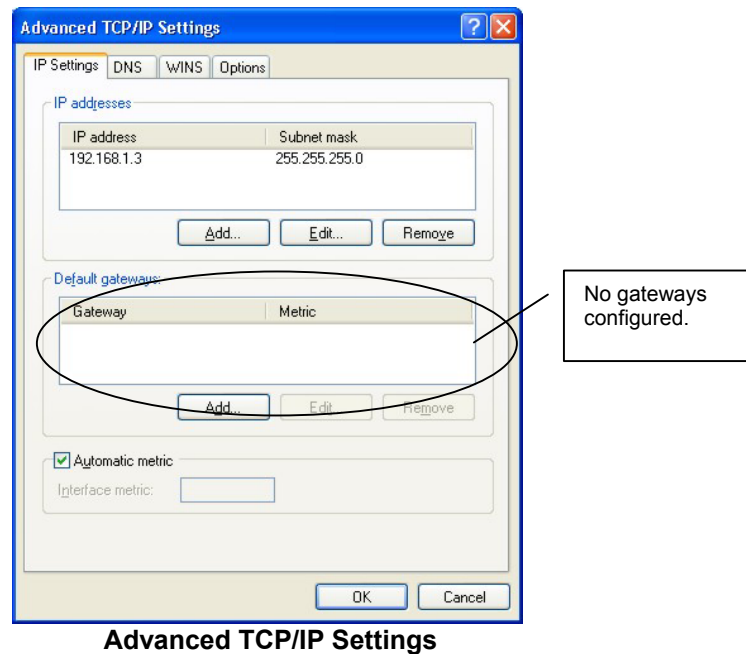6. Type 255.255.255.0 as the **Subnet mask**.
7. Click **Advanced**.[1]

Internet Protocol Properties

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

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[1] See the appendices for information on configuring DNS server addresses.

Advanced TCP/IP Settings

9. Click **OK** to close the Internet Protocol (TCP/IP) Properties window.
10. Click **Close** (**OK** in Windows 2000/NT) to close the Local Area Connection Properties window.
11. Close the **Network Connections** window (Network and Dial-up Connections in Windows 2000/NT).

3.2 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 static IP address is in the correct subnet (in the range between 192.168.1.2 and 192.168.1.254 if using the default Prestige LAN IP address). Alternatively, to have the Prestige assign your computer a new IP address (from the IP pool), make sure your Prestige is turned on, type "ipconfig/renew" and then press **ENTER**.

3.3 Testing the Connection to the Prestige

1. Click Start, (All) Programs, Accessories and then Command Prompt.
2. In the **Command Prompt** window, type "ping 192.168.1.1" followed by a space and the IP address of the Prestige (192.168.1.2 is the default).

3. Press **ENTER**. 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

C:\>
```

Your computer can now communicate with the Prestige via the **ETHERNET** port.

4 Configuring Your Prestige

Choose one of these methods to access and configure the Prestige. This *Quick Start Guide shows* you how to use the web configurator setup wizard and bandwidth management wizard only. See your *User's Guide* for background information on all Prestige features and SMT configuration. Click the web configurator online help for screen-specific web help.

➢   Web Configurator

➢   SMT (System Management Terminal). Access the SMT via LAN or WAN using Telnet.

4.1 Accessing Your Prestige Via Web Configurator

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

2.   The default password ("1234") is already in the password field (in non-readable format). 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.
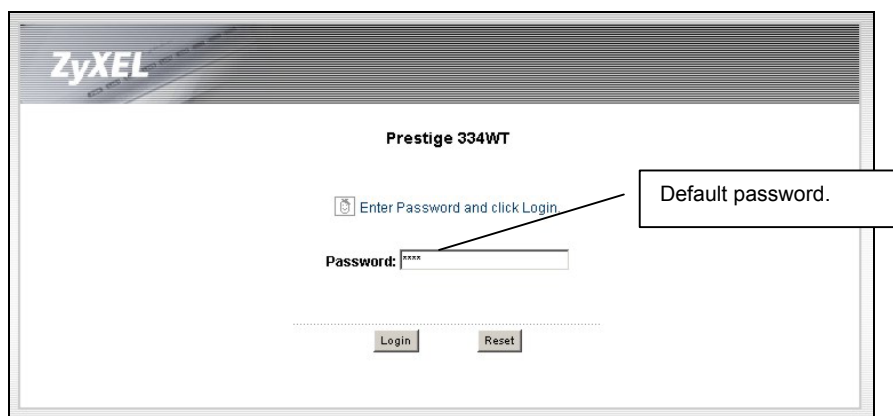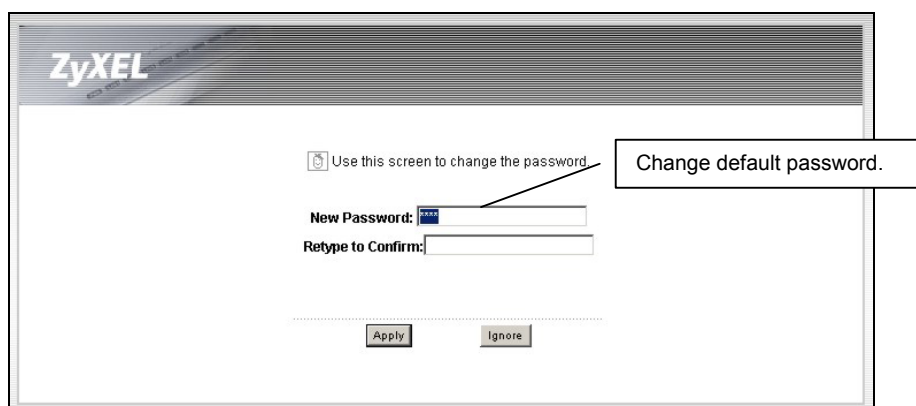
3. It is highly recommended you change the default password! Enter a new password, retype it to confirm and click **Apply**; alternatively click **Ignore** to proceed to the main menu if you do not want to change the password now.


If you do not change the password, the following screen appears every time you log in.

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4. You should now see the web configurator **MAIN MENU** screen.

➢ Click **WIZARD** to begin a series of screens to help you configure your Prestige for the first time.

➢ Click the **BM SETUP** to begin a series of screens to help you configure media bandwidth management on your Prestige.

➢ Click a link under **MAIN MENU** in the navigation panel to configure that Prestige feature.

> ➢ Click **MAINTENANCE** in the navigation panel to see Prestige performance statistics, upload firmware and back up, restore or upload a configuration file.

> ➢ Click **LOGOUT** when you have finished a Prestige management session. The Prestige automatically logs you out if it is left idle for five minutes; press **ENTER** to display the **Login** screen again and then log back in. This idle timeout timer is one of the many Prestige features that you may edit using the web configurator.
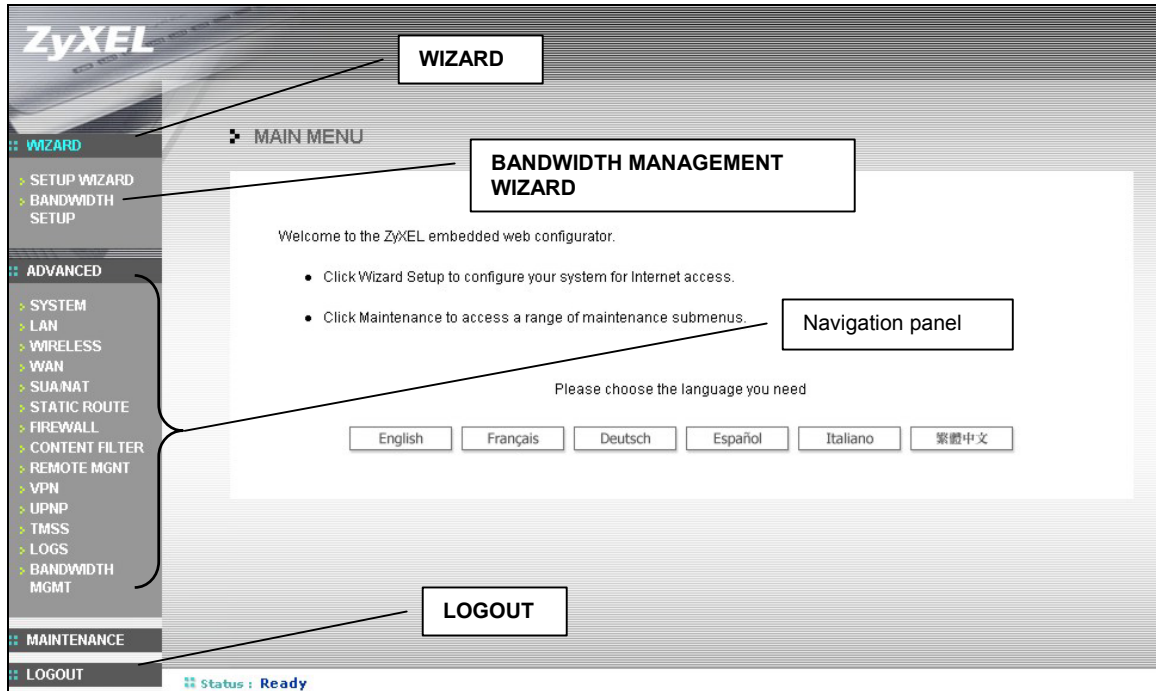
4.2 Internet Access Using the Wizard

The wizard consists of a series of screens to help you configure your Prestige for wireless stations to access your wired LAN.

Use the following buttons to navigate the Wizard:

Back	Click **Back** to return to the previous screen.
Next	Click **Next** to continue to the next screen.

No configuration changes will be saved to the Prestige until you click **Finish**.

1.   Click **Wizard Setup** in the main menu to display the first wizard screen.

System Name is a unique name to identify the Prestige in an Ethernet network. Enter a descriptive name.

The **Domain Name** entry is what is propagated to the DHCP clients on the LAN. If you leave this blank, the domain name obtained by DHCP from the ISP is used.

Click **Next** to continue.

2.   Use the second wizard screen to set up the wireless LAN.

Name(SSID) is a unique name to identify the Prestige in the wireless LAN. Enter a descriptive name.

The range of radio frequencies used by IEEE 802.11b/g wireless devices is called a channel.

Select a channel ID that is not already in use by a neighboring device.

Click **None**, **Basic(WEP)** or **Extend(WPA-PSK)** from the drop-down list box as the level of wireless security.
Choose **None** to have no wireless LAN security configured. If you do not enable any wireless security on your Prestige, your network is accessible to any wireless networking device that is within range.
Choose **Basic(WEP)** security if you want to configure **WEP Encryption** parameters.
Choose **Extend(WPA-PSK)** security to configure a **Pre-Shared Key**. Choose this option only if your wireless clients support WPA-PSK.
The third screen varies depending on which security level you select.

The wireless stations and Prestige must use the same SSID, channel ID and WPA-PSK (if WPA-PSK is enabled), WEP encryption key (if WEP is enabled) for wireless communication.

3.   Choose **Basic(WEP)** security in the previous screen to setup WEP Encryption parameters.
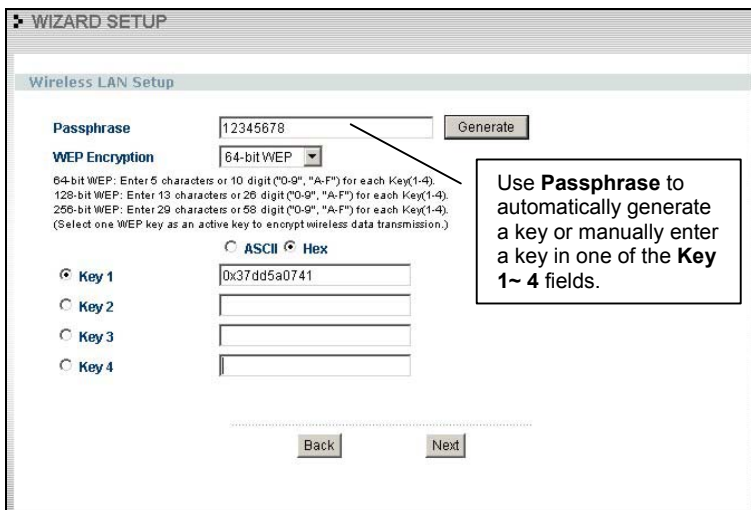
WEP (Wired Equivalent Privacy) encrypts data frames before transmitting over the wireless network.
The higher the WEP Encryption, the higher the security but the slower the throughput.

Select **64-bit**, **128-bit** or **256-bit** from the **WEP Encryption** drop-down list.
Select one of the **Key** radio buttons to use as the WEP key.

You can generate or manually enter a WEP key by either:

Entering a **Passphrase** (up to 32 printable characters) and clicking **Generate**. The Prestige automatically generates a WEP key.
Or
Entering a manual key in a **Key** field and selecting **ASCII** or **Hex** WEP key input method.

4.   Choose **Extend(WPA-PSK)** security in the second wizard screen to set up a **Pre-Shared Key**.
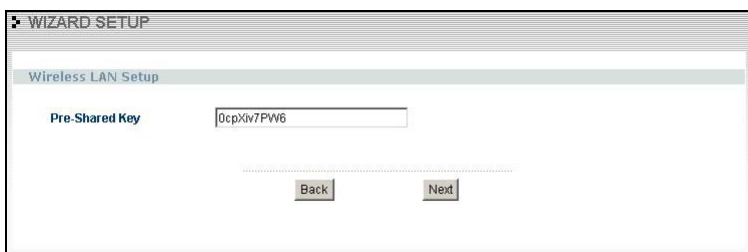
Pre-Shared Key

Type a pre-shared key to have a more secure wireless connection than WEP encryption.

Type from 8 to 31 case-sensitive ASCII characters.

You can set up the most secure wireless connection by configuring WPA in the advanced wireless screen. You need to configure a RADIUS server to do this.

5.   This wizard screen has three variations depending on what encapsulation type you use. Use the information in *Internet Account Information* to fill in fields.

Choose **Ethernet** when the WAN port is used as a regular Ethernet. Choose from **Standard**, **Telia Login** or a RoadRunner version. You'll need **User Name**, **Password** and **Login Server IP Address** for some Roadrunner versions.

PPPoE or Point-to-Point Protocol over Ethernet (**PPP over Ethernet**) also functions as a dial-up connection. Therefore you'll also need a username and password and possibly the PPPoE service name.

Your ISP will give you all needed information.

Choose **PPTP** if your service provider uses a DSL terminator with PPTP login. The Prestige must have a static IP address in this case. You'll also need a login name, associated password, the DSL terminator IP address and possibly a connection ID.

Click **Next** to continue.

6. This is the fourth wizard screen you need to configure. Fill in the fields and click **Next** to go to the last wizard screen.

WAN IP Address Assignment

Select **Get automatically from ISP** if your ISP did not assign you a fixed IP address.

Select **Use fixed IP address** to give the Prestige a fixed, unique IP address. The fixed IP address should be in the same subnet as your broadband modem or router.

Enter a **Subnet Mask** appropriate to your network and the **Gateway IP Address** of the neighboring device, if you know it. If you do not, leave the Gateway IP Address field as **0.0.0.0**.

DNS Server Address Assignment

Select **From ISP** if your ISP dynamically assigns DNS server information (and the Prestige's WAN IP address). The field to the right displays the (read-only) DNS server IP address that the ISP assigns. If you chose **From ISP**, but the Prestige has a fixed WAN IP address, **From ISP** changes to **None** after you click **Next**. If you chose **From ISP** for the second or third DNS server, but the ISP does not provide a second or third IP address, **From ISP** changes to **None** after you click **Next**.

Select **User-Defined** if you have the IP address of a DNS server. Enter the DNS server's IP address in the field to the right. If you chose **User-Defined**, but leave the IP address set to 0.0.0.0, **User-Defined** changes to **None** after you click **Next**. If you set a second choice to **User-Defined**, and enter the same IP address, the second **User-Defined** changes to **None** after you click **Next**.

Select **None** if you do not want to configure DNS servers. If you do not configure a system DNS server, you must use IP addresses when configuring VPN, DDNS and the timeserver.

WAN MAC Address

The WAN MAC address field allows users to configure the WAN port's MAC address by either using the factory default or cloning the MAC address from a computer on your LAN. Select **Factory Default** to use the factory assigned default MAC address. Alternatively, select **Spoof this Computer's MAC address - IP Address** and enter the IP address of the computer on the LAN whose MAC address you are cloning.

Click **Next** to continue.

7.   This is the final wizard screen you need to configure. Select the **Yes** radio button and click **Finish** to enable One-Touch Intelligent Security Technology (OTIST).
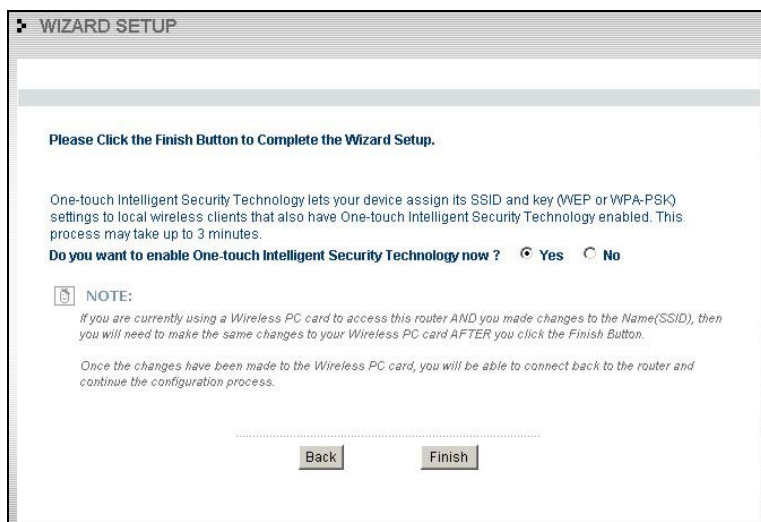
OTIST Security

You can assign the Prestige wireless security settings (SSID and either the WEP or WPA-PSK) to a ZyXEL wireless client that also supports OTIST.

You must enable OTIST on the wireless client to have the Prestige's wireless security settings assigned to it.

Select the **Yes** radio button and click the **Finish** button to proceed with OTIST and complete the wizard setup.

See the *User's Guide* for more information on OTIST.

8. Confirm Your Settings

If you have any Internet Access problems, follow the on-screen instructions.

9. Change the wireless parameter settings in the wireless stations to match those of the Prestige. Refer to the *User's Guide* for your wireless adapter.

4.3 Using the Bandwidth Management Wizard

1. Click **BM SETUP** in the main menu to display the first wizard screen.

Select the **Active** check box to have the Prestige apply bandwidth management to traffic going out through the Prestige's WAN, LAN or WLAN port.

Enter the amount of **Managed Bandwidth** in kbps (2 to 100,000) that you want to allocate for traffic. 20 kbps to 20,000 kbps is recommended. The recommendation is to set this speed to be equal to or less than the speed of the broadband device connected to the WAN port.

For example, set the speed to 1000 Kbps (or less) if the broadband device connected to the WAN port has an upstream speed of 1000 Kbps.
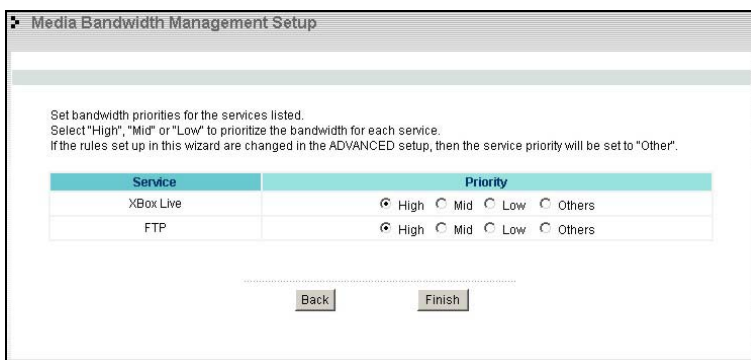
2.   Use the second wizard screen to select the services that you want to apply bandwidth management.

Apply bandwidth management by selecting services from the list provided.

Click **Next** to continue.

3.   The third wizard screen allows you to setup priorities for the services listed.

Select **High**, **Mid** or **Low** priority for each service to have your Prestige limit the bandwidth used by bandwidth-hungry applications (or individuals) by allocating the maximum bandwidth for WAN, LAN and WLAN traffic.
If the rules set up in this wizard are changed in the advanced setup, then the service priority will be set to **Other**.
The **Advanced Media Bandwidth Management** configuration screens allow you to edit set class configurations and edit these rules.
Click **Finish** to save and complete the wizard setup.

4.   This is the final wizard screen.
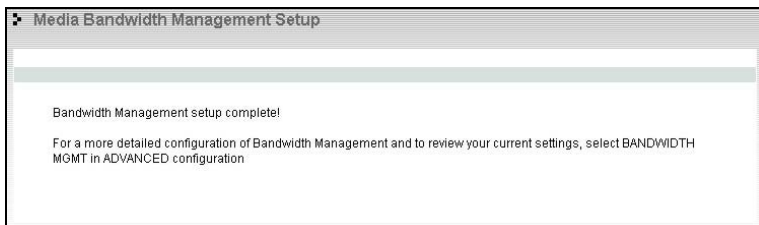
Well done! You have finished configuration of Media Bandwidth Management using the Internet Access Wizard. You may now continue configuring your device.

Click any menu link in the navigation panel to access its configuration screen.

Click **MAINTENANCE** to see your system information, statistics, perform firmware and configuration file maintenance. Click **LOGOUT** to exit the web configurator. This is recommended for security reasons after you finish a management session. You need to log in again with your password after you log out.

4.4 Test Your Internet Connection

Launch your web browser and navigate to www.zyxel.com. You don't need a dial-up program such as Dial Up Networking. Internet access is just the beginning. Refer to the *User's Guide* for more detailed information on the complete range of Prestige features.

5 Troubleshooting

PROBLEM	CORRECTIVE ACTION
None of the LEDs turn on when you turn on the Prestige.	Make sure that you have the correct power adapter connected to the Prestige and plugged in to an appropriate power source. Check all cable connections. If the LEDs still do not turn on, you may have a hardware problem. In this case, you should contact your local vendor.
Cannot access the	Check the cable connection between the Prestige and your computer or hub. Refer to the

PROBLEM	CORRECTIVE ACTION
Prestige from the LAN.	*Rear Panel* section for details.
	Ping the Prestige from a LAN computer. Make sure your computer Ethernet card is installed and functioning properly.
Cannot ping any computer on the LAN.	If the 10/100M LAN LEDs are off, check the cable connections between the Prestige and your LAN computers.
	Verify that the IP address and subnet mask of the Prestige and the LAN computers are in the same IP address range.
Cannot get a WAN IP address from the ISP.	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.
	If the ISP checks the WAN MAC address, you should clone the MAC address from a LAN computer. Click **WAN** and then the **MAC** tab, select **Spoof this Computer's MAC address - IP Address** and enter the IP address of the computer on the LAN whose MAC address you are cloning.
	If the ISP checks the host name, enter your computer's name (refer to the *Wizard Setup* section in the *User's Guide*) in the **System Name** field in the first screen of the **WIZARD**.
	If the ISP checks the user ID, click **WAN** and then the **ISP** tab. Check your service type, user name, and password.
Cannot access the Internet.	Check the Prestige's connection to the cable/DSL device.
	Check whether your cable/DSL device requires a crossover or straight-through cable.
	Click **WAN** to verify your settings.