2.4GHz Wireless Broadband Router

USER MANUAL

Contents

1. Overview

1.1 Product Feature

? Compliance with IEEE 802.11g and 802.11b standards

? Highly efficient design mechanism to provide unbeatable performance

? Strong network security with WEP and 802.1X encryption

? Achieving data rate up to 54Mbps for 802.11g and 11Mps for 802.11b with wide range coverage; high performance to deliver up to 54Mbps raw data rate for 802.11g

? Quick and easy setup with Web-based management utility

1.2 System Requirements

? Windows 98, 98SE, Millennium Edition (ME), 2000 and XP operating systems

? Microsoft Internet Explorer 5.5 or higher

? DSL/ Cable Modem Broadband Internet connection and ISP account

? PCs equipped with 10Mbps or 10/100 Mbps Ethernet connection to support TCP/IP protocol

? One CD-ROM drive

1.3 Applications

? Home SOHO networking for device sharing and wireless multimedia

? Wireless office provides a wider range for home and SOHO Ethernet

? Enables wireless building-to-building data communication

? Built-in infrastructure mode

? Router provides ideal solution for:

? Difficult-to-wire environments

? Temporary LANs for scenarios such as trade-exhibitions and meetings

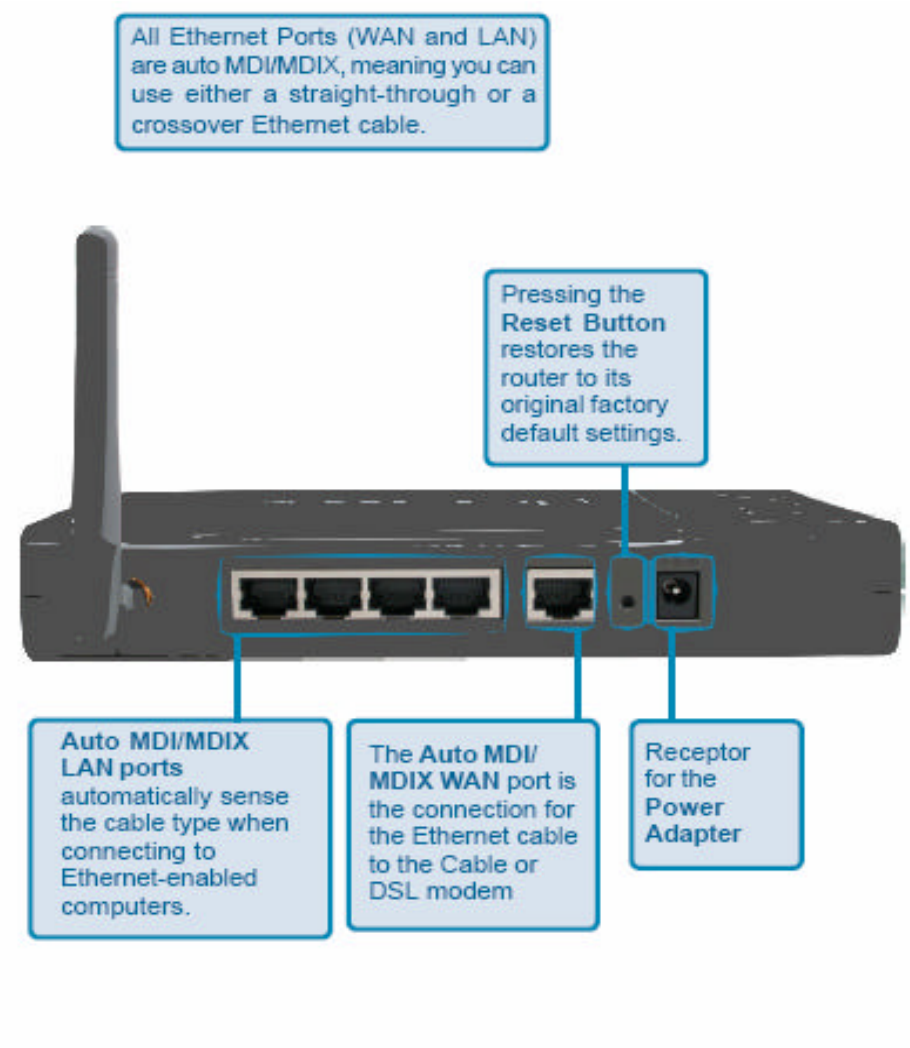
? Enables LAN adaptability to frequently changing environments

? Enables remote access to corporate network information, for example e-mail and the company home page

2. Getting Start

2.1 Know the 54Mbps Wireless Router

Ports:



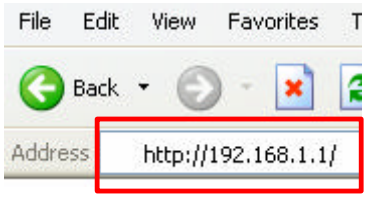
LEDs:

LED	Color	Status	Description
Power	Green	On	Indicates proper connection to power supply.
		OFF	The unit is not receiving power
Status	Green	On	Indicates that the device is connected to the WLAN.
WAN	On		Indicates connection to the WAN port
		Blinking	Data transmission.
WLAN	On		Link is established
	On	Blinking	Packet transmit or receive activity
	Off	—	No Link activity
LAN	On		Indicates connection is established.
	On	Blinking	Data transmissions
	Off	—	No LAN connections

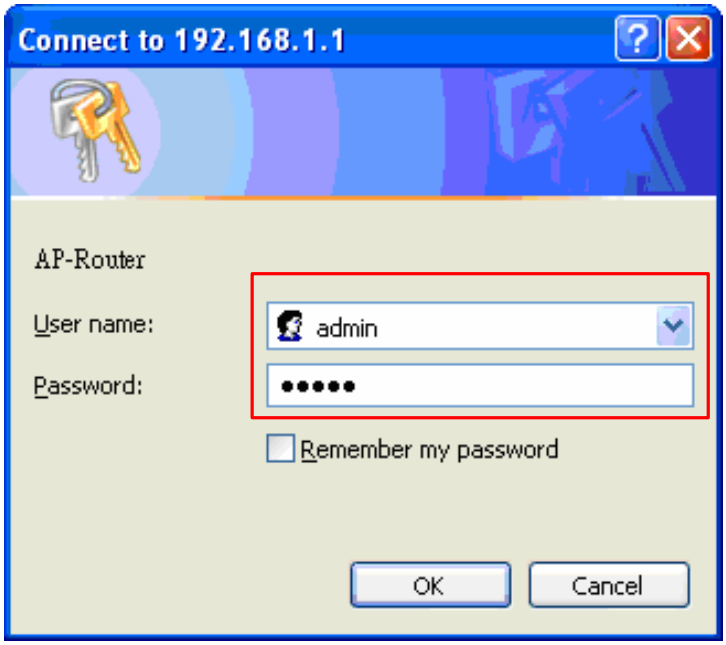
2.2 Connect to the 54Mbps Wireless Router

2.2.1 Access the Setting Menu

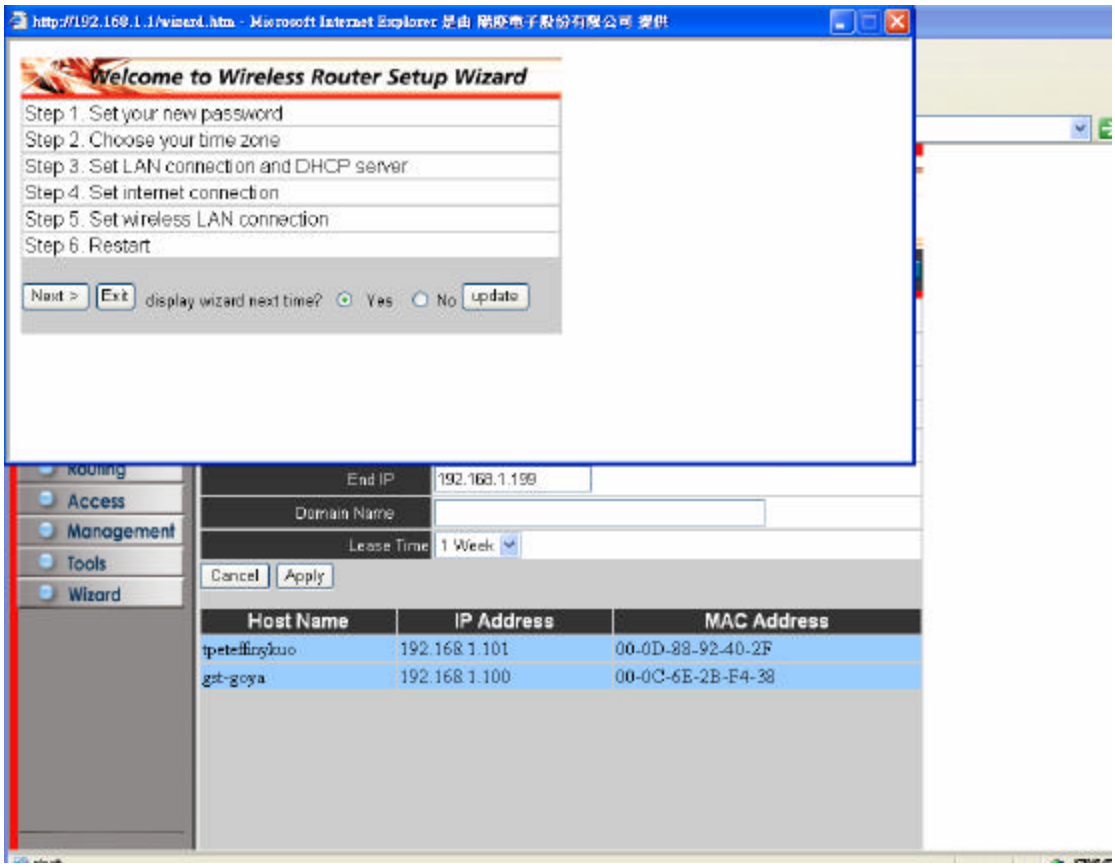
You could start to access the configuration menu anytime by opening a web browser window by typing the IP address of this wireless router. The default IP is 192.168.1.1.



The below window will popup. Please enter the user name and password. Both of the default is “admin”.

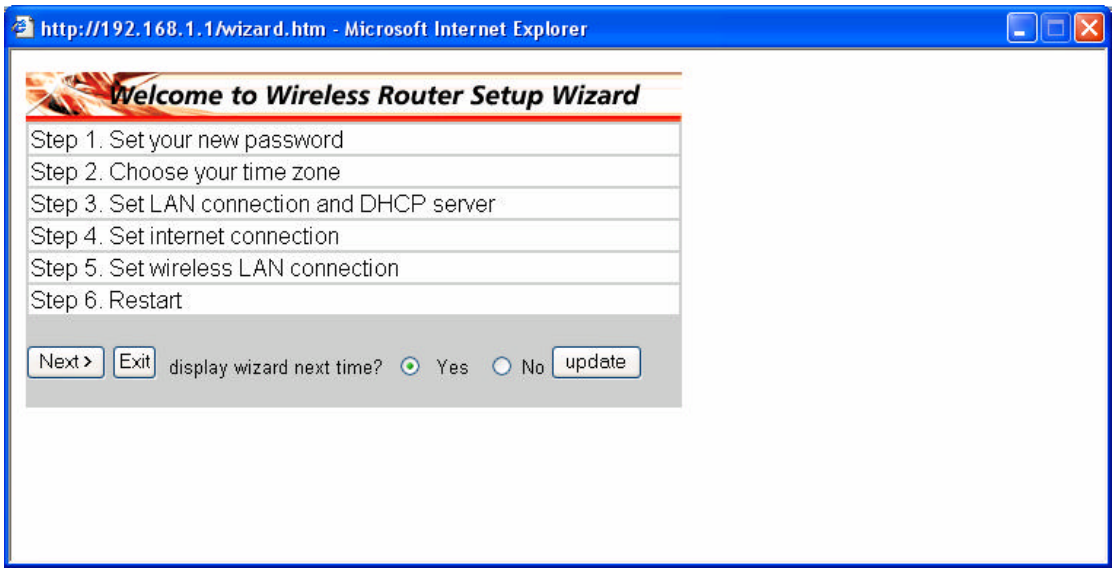


Now, the main menu screen is popup.



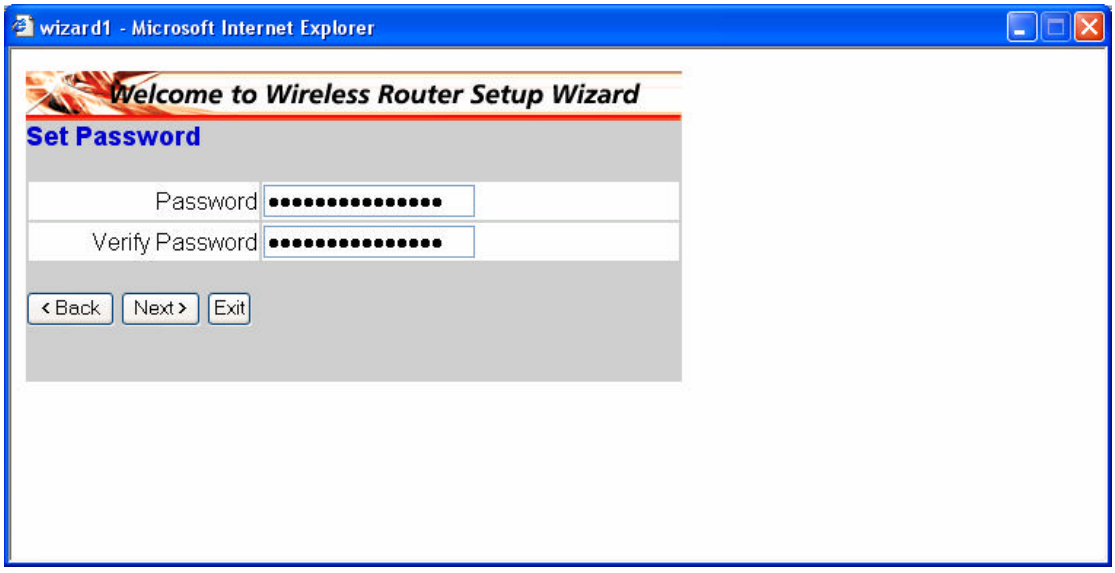
2.2.2 Quick Setup with Wizard

Setup wizard is provided as the part of the web configuration utility. You can simply follow the step-by-step process to get your wireless router configuration ready to run in 6 easy steps by clicking on the "**Wizard**" button on the function menu. The following screen will appear. Please click "**Next**" to continue.



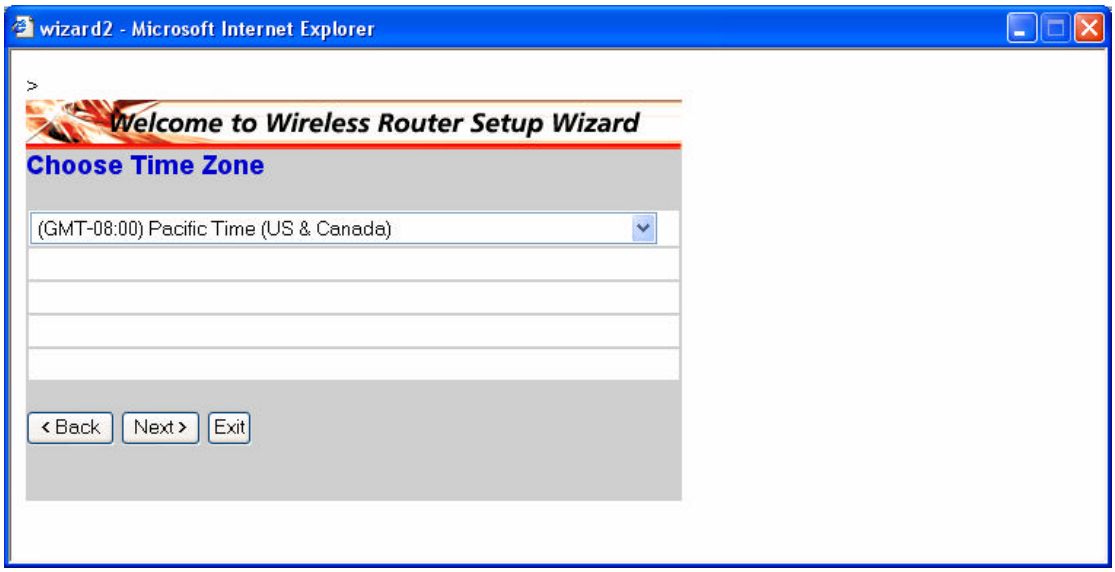
Step 1: Set your new Password

You can change the password as you like and then click "**Next"** to continue.



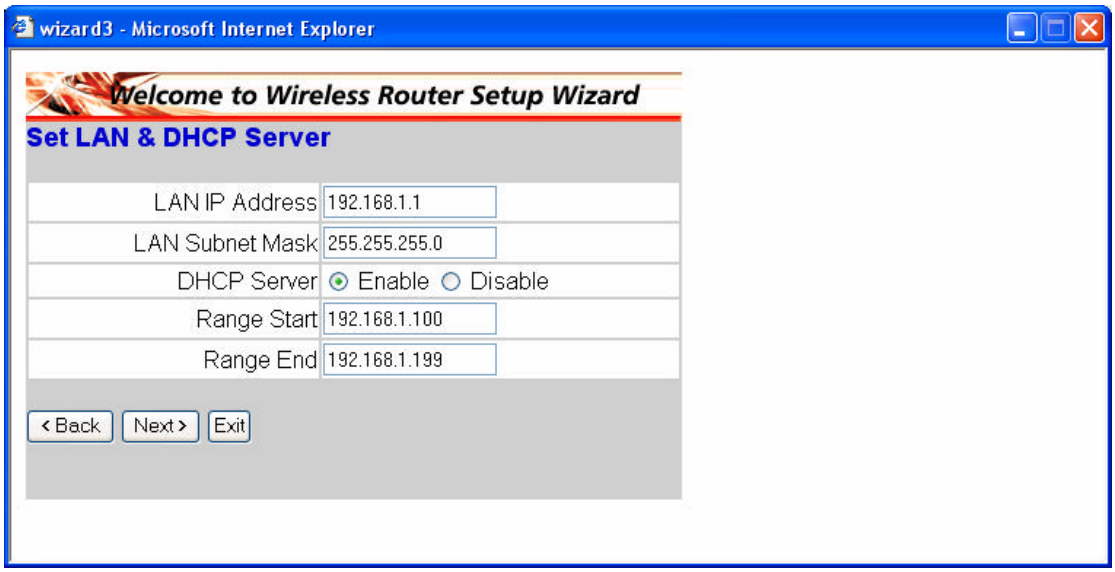
Step2: Choose your time zone

Select your time zone from the drop down list. Please click "**Next"** to continue.



Step 3: Set LAN connection and DHCP server

Set your IP address and mask. The default IP is 192.168.1.1. If you like to enable DHCP, please click "**Enabled**". DHCP enabled is able to automatically assign IP addresses. Please assign the range of IP addresses in the fields of **"Range start"** and **"Range end"**. Please click "**Next"** to continue.

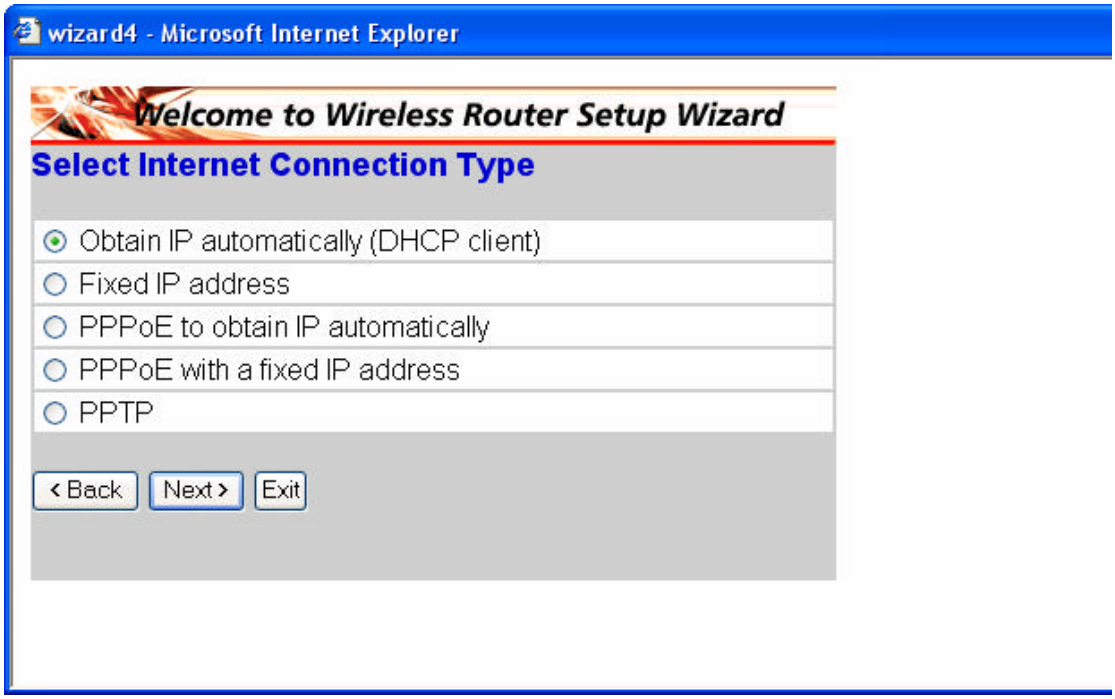


Step 4: Set Internet connection

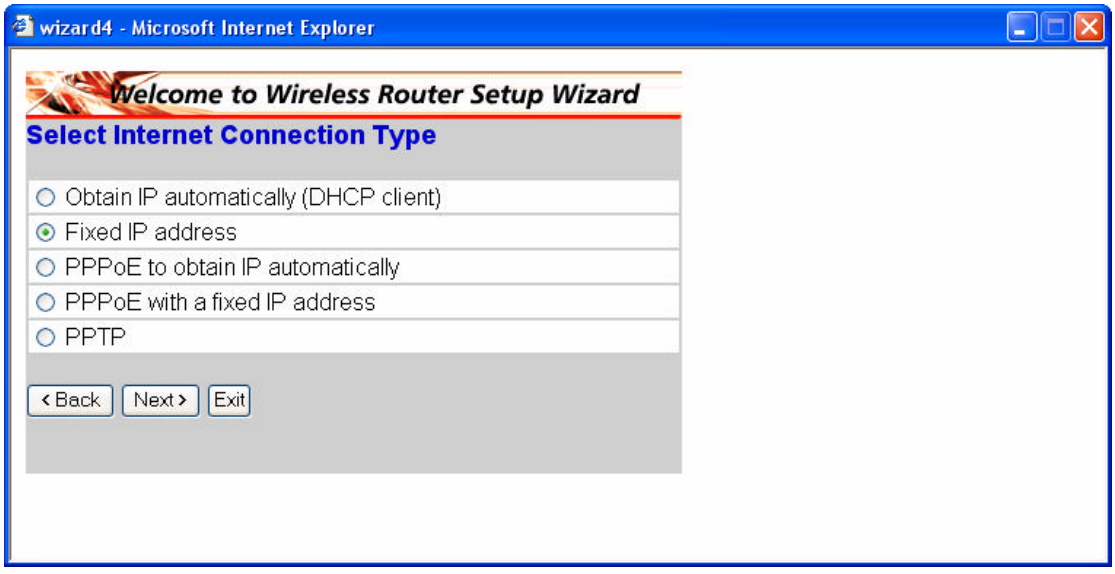
Select how the router will set up the Internet connection: Obtained IP automatically; Fixed IP address; PPPoE to obtain IP automatically; PPPoE with a fixed IP address; PPTP.

Obtain IP automatically (DHCP client):

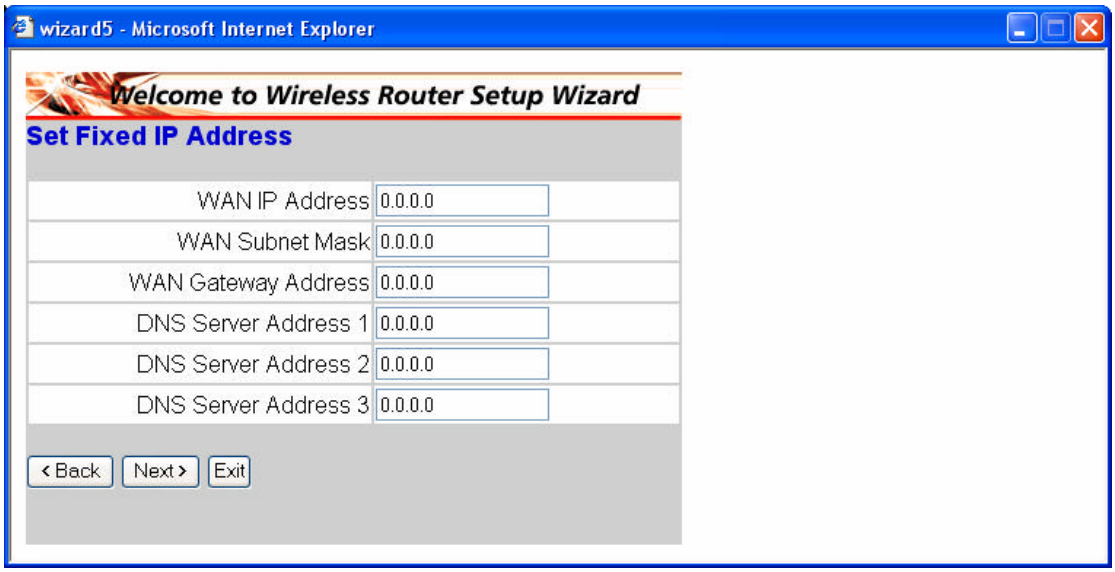
If you have enabled DHCP server, choose "Obtain IP automatically (DHCP client)" to have the router assign IP addresses automatically.



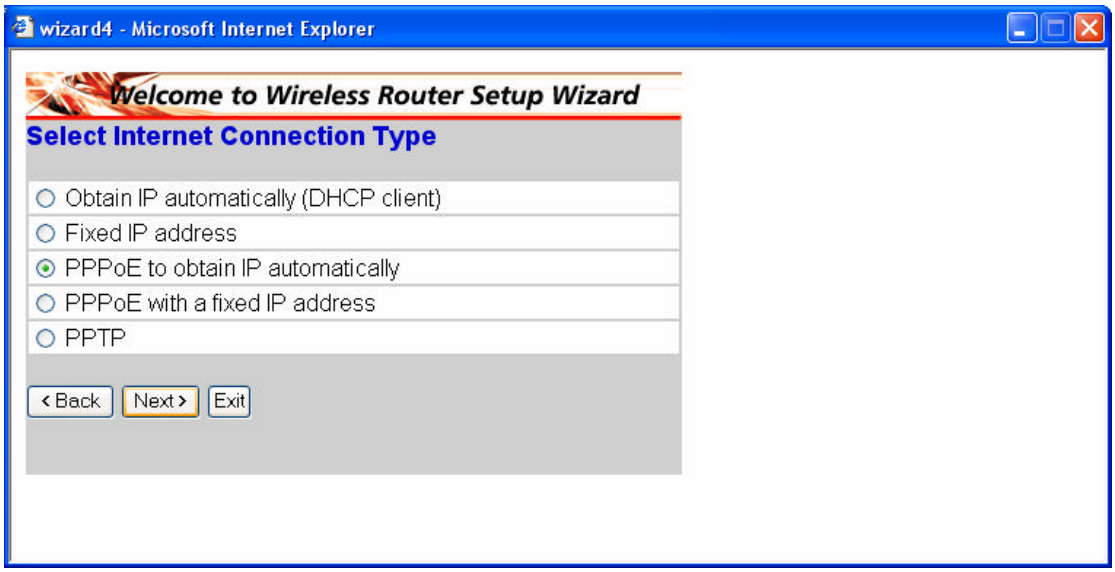
Fixed IP Address:

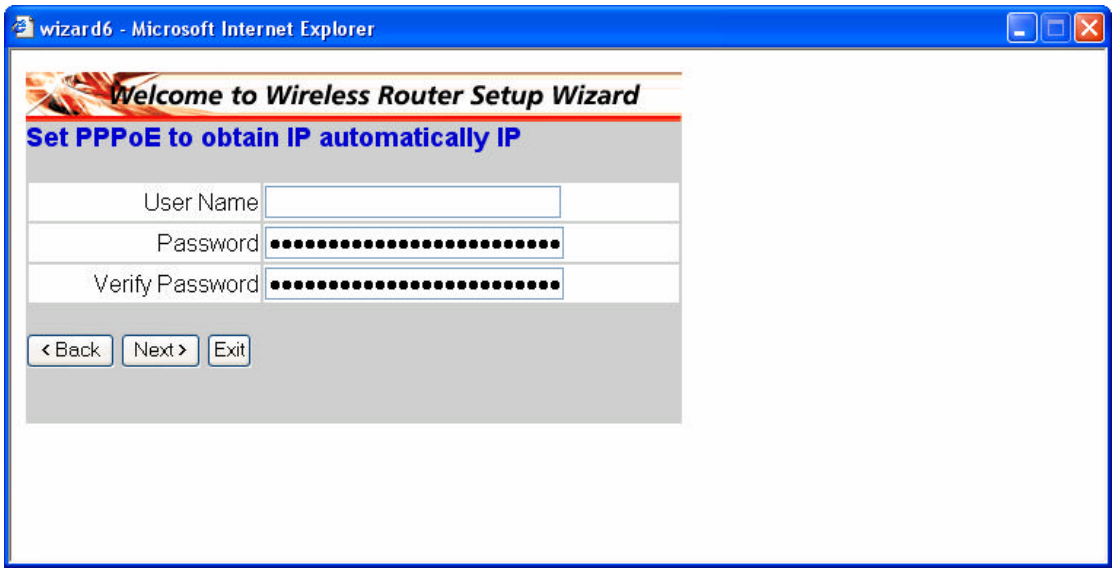


If Fixed IP address is assigned, the below screen will pop up. Please set the WAN address and DNS server.

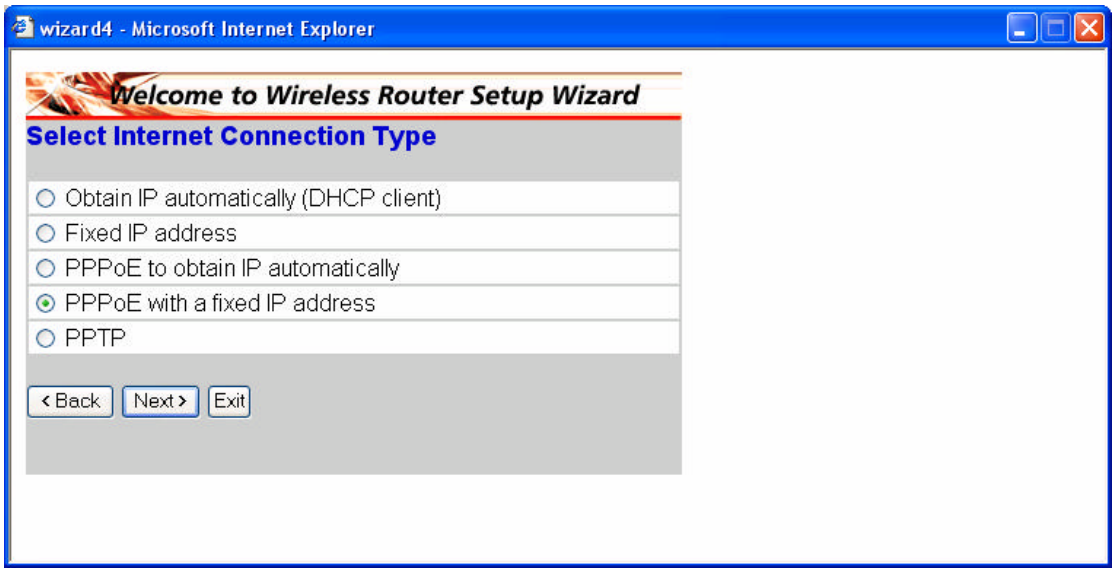


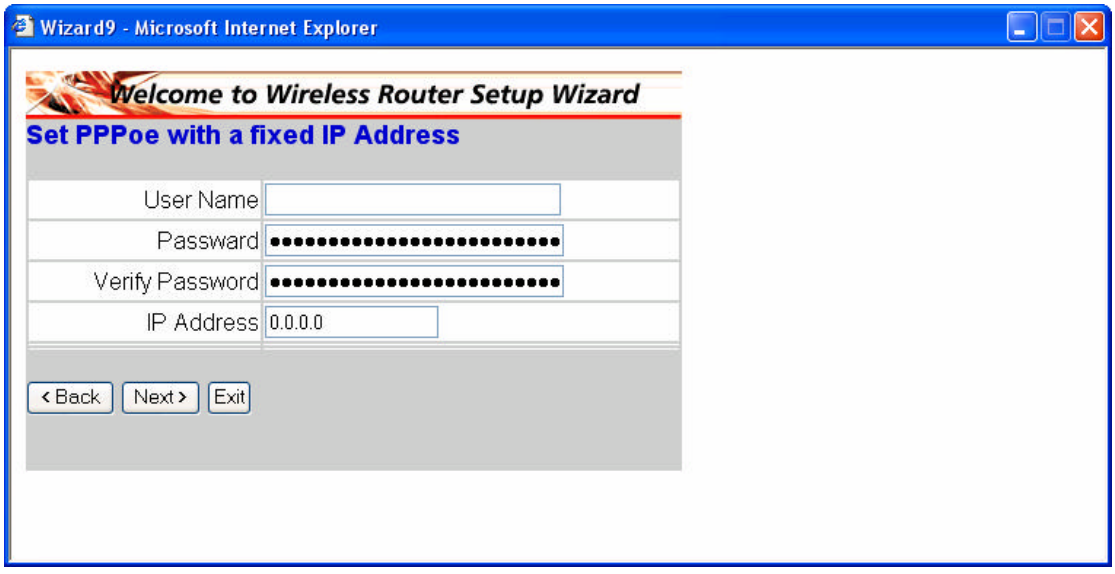
PPPoE to obtain IP automatically:



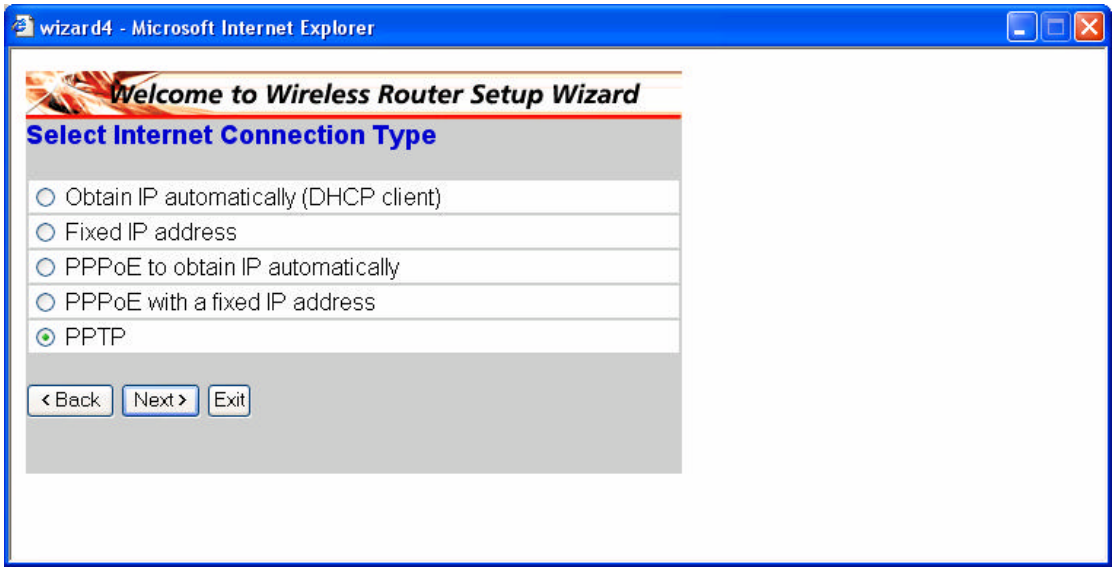


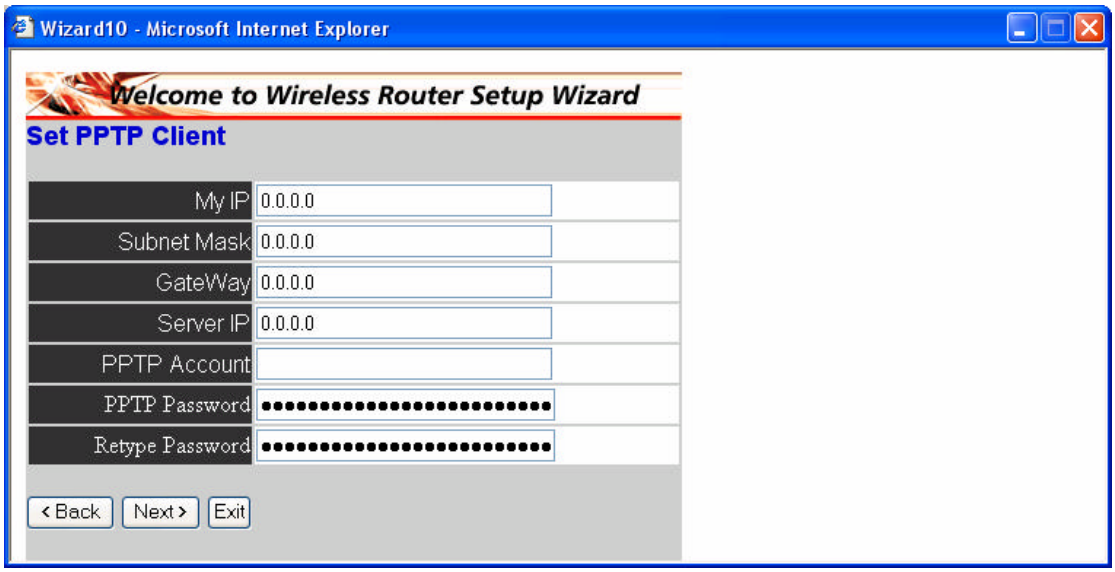
PPPoE with a fixed IP address:





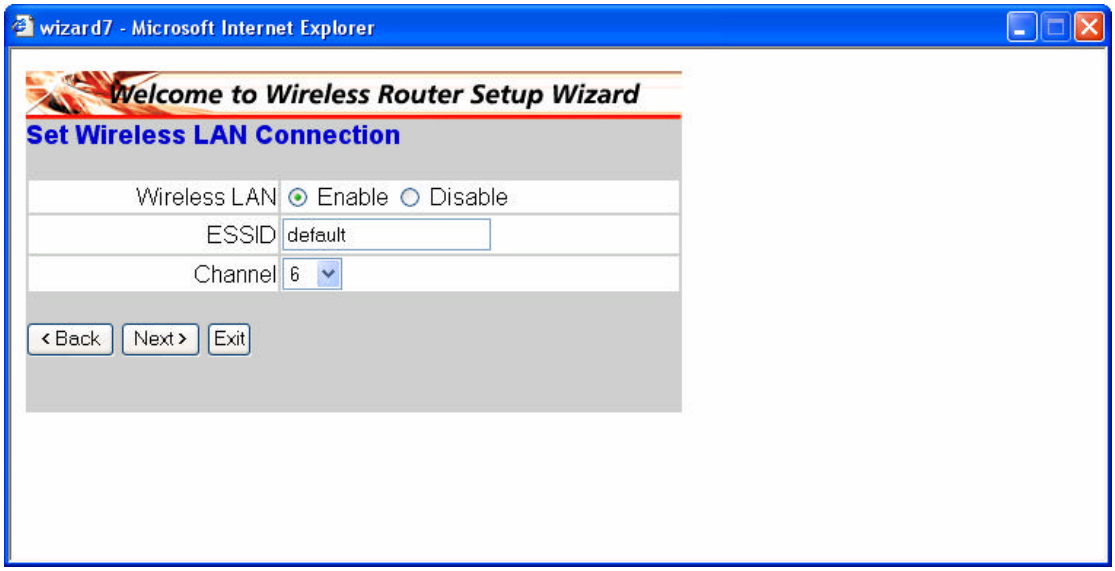
PPTP:


wizard4 - Microsoft Internet Explorer
Welcome to Wireless Router Setup Wizard
Select Internet Connection Type
Obtain IP automatically (DHCP client)
Fixed IP address
PPPoE to obtain IP automatically
PPPoE with a fixed IP address
PPTP
< Back
Next >
Exit


Wizard10 - Microsoft Internet Explorer
Welcome to Wireless Router Setup Wizard
Set PPTP Client
My IP
0.0.0.0
Subnet Mask
0.0.0.0
GateWay
0.0.0.0
Server IP
0.0.0.0
PPTP Account
PPTP Password
Retype Password
< Back
Next >
Exit

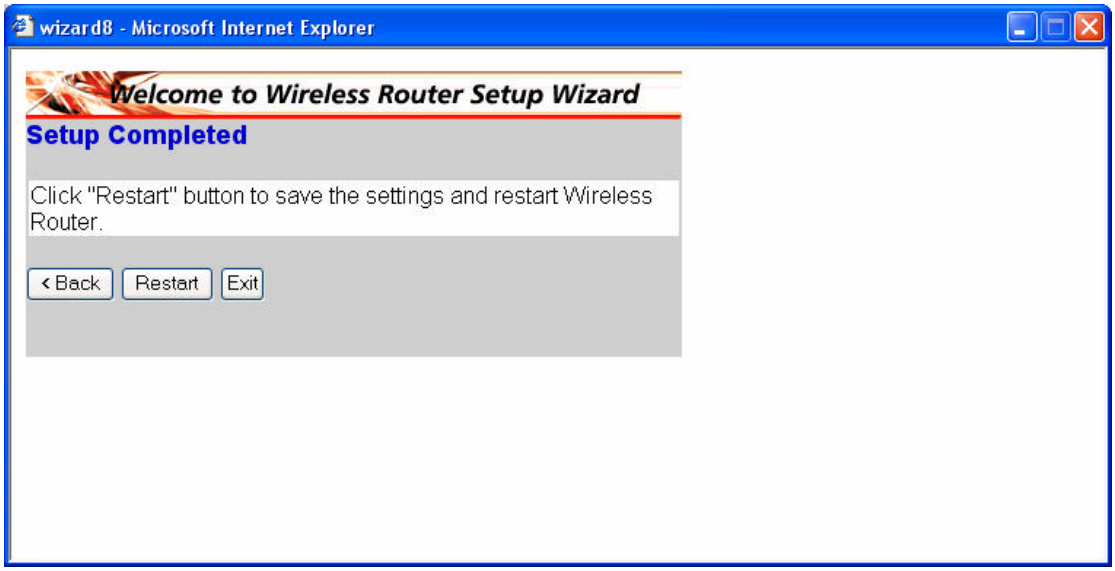
Step 5: Set Wireless LAN connection

Click “enable” to enable wireless LAN. If you enable the wireless LAN, type the SSID in the text box and select a communications channel. The SSID and channel must be the same as wireless devices attempting communication to the router.



Step 6: Restart

The Setup wizard is now completed. The new settings will be effective after the Wireless router restarted. Please click “**Restart**” to reboot the router. If you do not want to make any changes, please click “**exit**” to quit without any changes. You also can go back to modify the setting by clicking “**Back**”.



3. Configuration

3.1 LAN Setting

The screen enables you to configure the LAN & DHCP Server, set WAN parameters, create Administrator and User passwords, and set the local time, time zone, and dynamic DNS.

3.1.1 LAN & DHCP Server

This page enables you to set LAN and DHCP properties, such as the host name, IP address, subnet mask, and domain name. LAN and DHCP profiles are listed in the DHCP table at the bottom of the screen.

Host Name: Type the host name in the text box. The host name is required by some ISPs. The default host name is "AP-Router."

IP Address: This is the IP address of the router. The default IP address is 192.168.1.1.

Subnet Mask: Type the subnet mask for the router in the text box. The default subnet mask is 255.255.255.0.

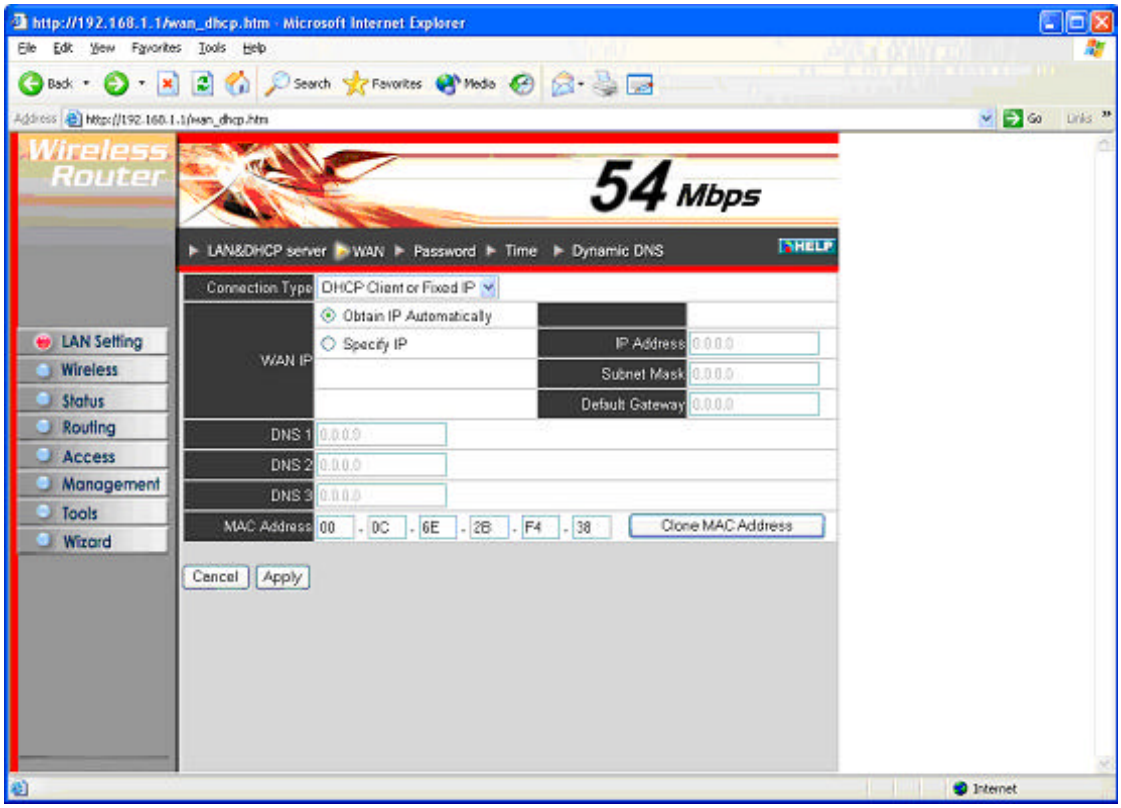
DHCP Server: Enables the DHCP server to allow the router to automatically assign IP addresses to devices connecting to the LAN. DHCP is enabled by default.

All DHCP client computers are listed in the table at the bottom of the screen, providing the host name, IP address, and MAC address of the client.

Start IP: Type an IP address to serve as the start of the IP range that DHCP will use to assign IP addresses to all LAN devices connected to the router.
End IP: Type an IP address to serve as the end of the IP range that DHCP will use to assign IP addresses to all LAN devices connected to the router.
Domain Name: Type the local domain name of the network in the text box. This item is optional.

3.1.2 WAN

This screen enables you to set up the router WAN connection, specify the IP address for the WAN, add DNS numbers, and enter the MAC address.



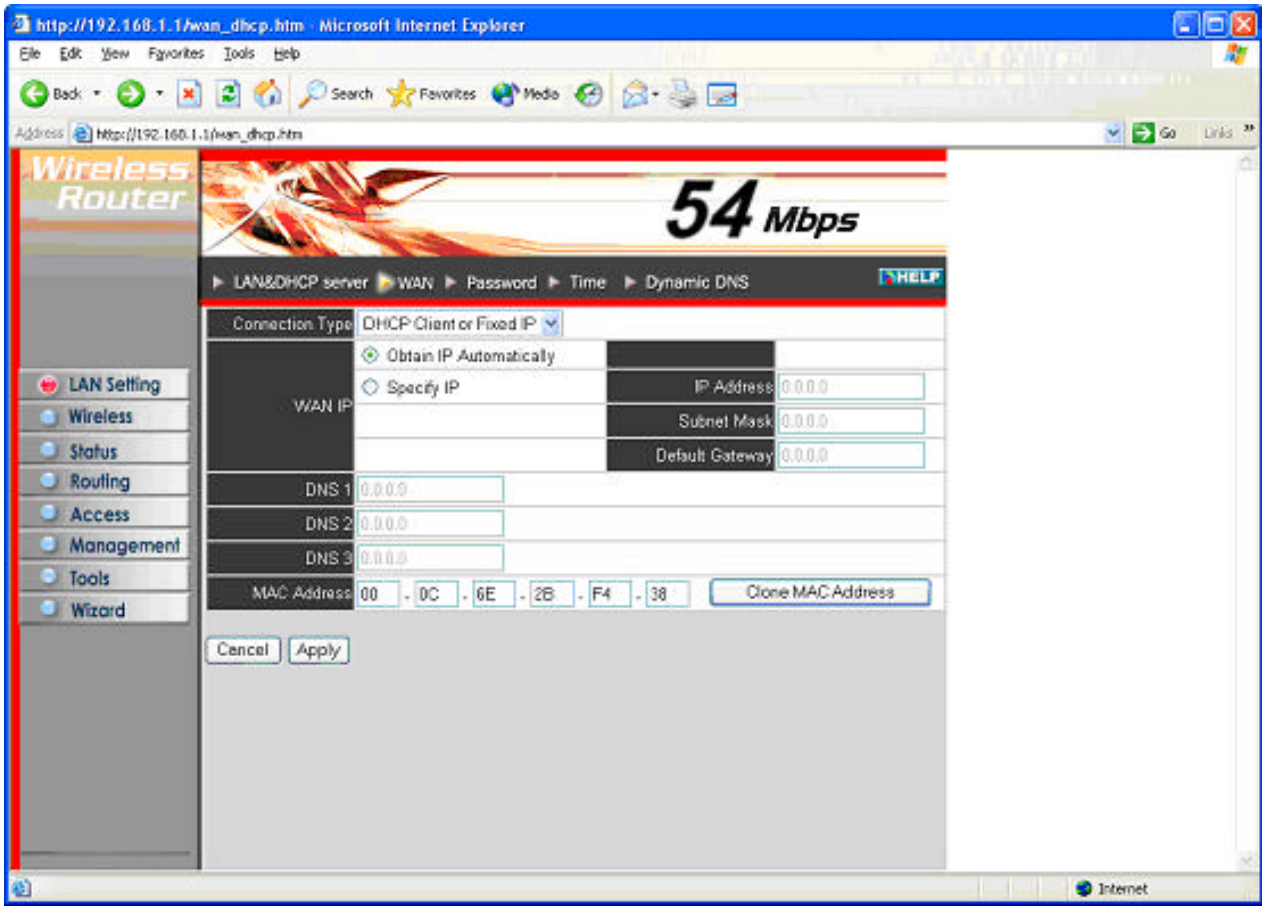
Connection Type: Select the connection type, either DHCP client, Fixed IP or PPPoE from the drop-down list.
WAN IP: Select whether you want to specify an IP address manually, or want DHCP to obtain an IP address automatically. When *Specify IP* is selected, type the IP address, subnet mask, and default gateway in the text boxes. Your ISP will provide you with this information.
DNS 1/2/3: Type up to three DNS numbers in the text boxes. Your ISP will provide you with this information.

MAC Address: If required by your ISP, type the MAC address of the router WAN interface in this field.

DNS 1/2/3: Type up to three DNS numbers in the text boxes. Your ISP will provide you with this information.

3.1.3 Password

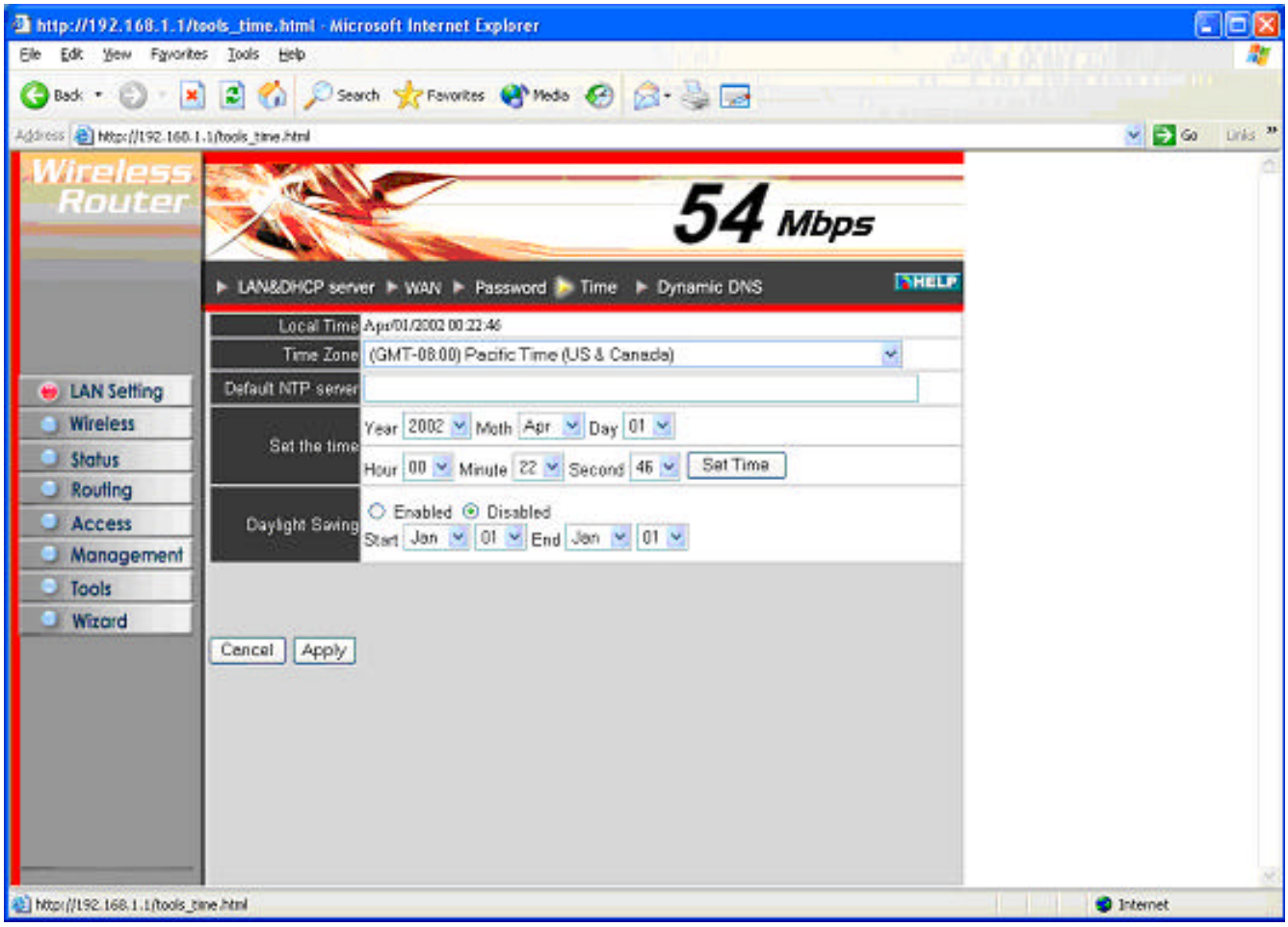
This screen enables you to set administrative and user passwords. These passwords are used to gain access to the router interface.



Administrator: Type the password the Administrator will use to log in to the system. The password must be typed again for confirmation.

3.1.4 Time

This screen enables you to set the time and date for the router's real-time clock, select your time zone, and enable or disable daylight saving.



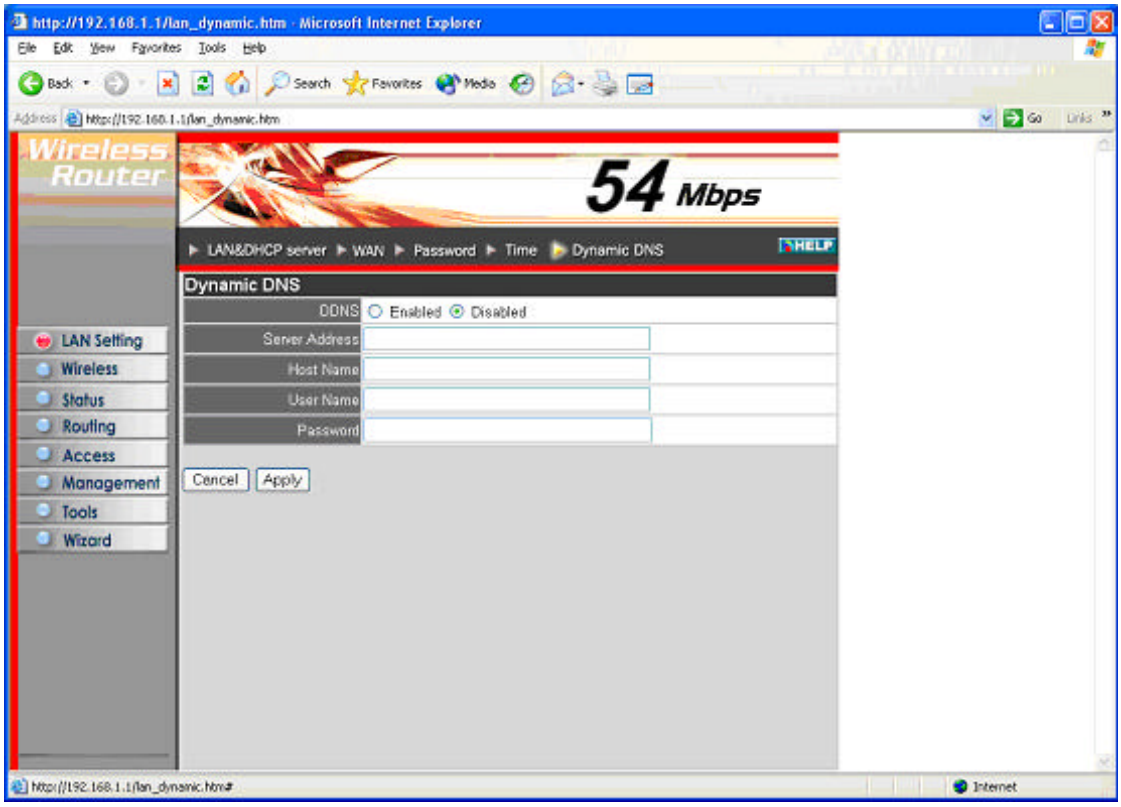
Local Time: Displays the local time and date.

Time Zone: Select your time zone from the drop-down list.

Daylight Saving: Enables you to enable or disable daylight saving time. When enabled, select the start and end date for daylight saving time.

3.1.5 Dynamic DNS

This allows the DDNS server what your current IP address is when you are on-line. You firstly need to register your preferred DNS on the DDNS providers. Then, please fill the related information in the below fields: DDNS server address, Host Name, User Name and Password.

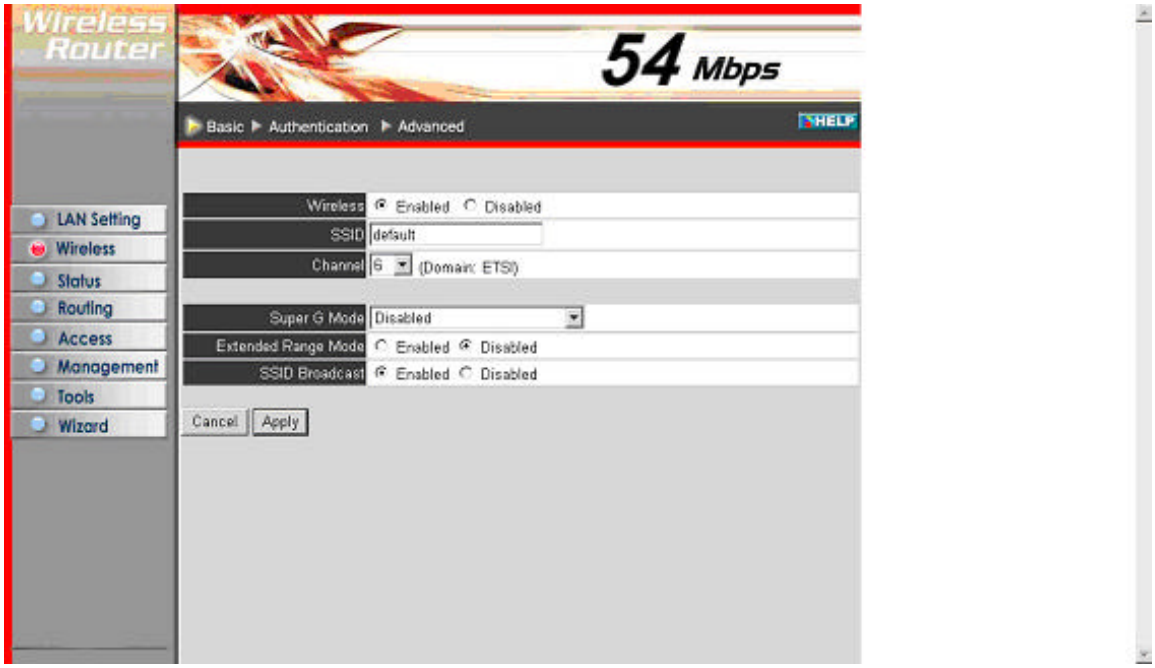


3.2 Wireless

This section enables you to set wireless communications parameters for the router's wireless LAN feature.

3.2.1 Basic

This page allow you to enable and disable the wireless LAN function, create a SSID, and select the channel for wireless communications.



Enable/Disable: Enables and disables wireless LAN via the router.

SSID: Type an SSID in the text box. The SSID of any wireless device must match the SSID typed here in order for the wireless device to access the LAN and WAN via the router.

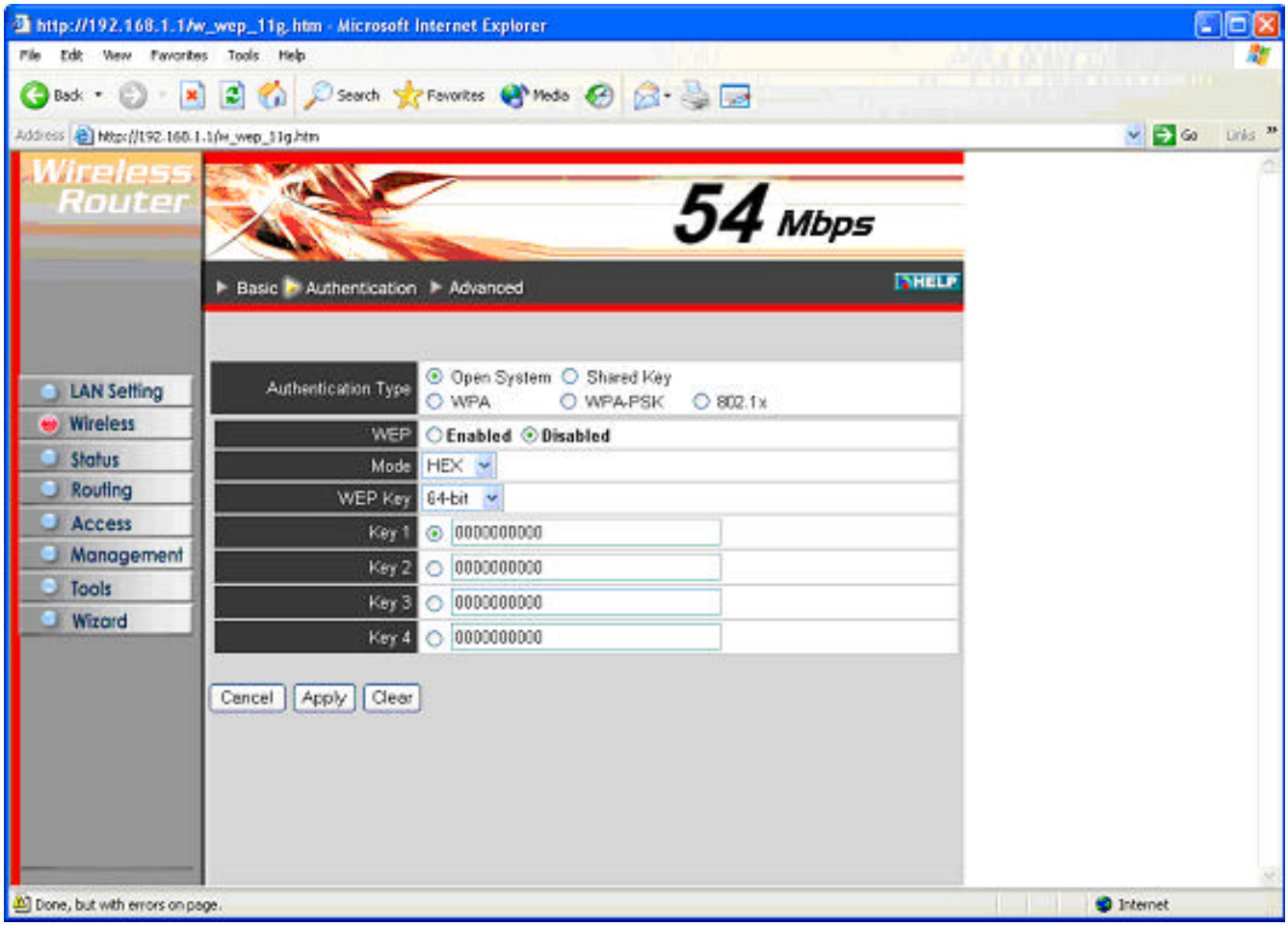
Channel: Select a transmission channel for wireless communications. The channel of any wireless device must match the channel selected here in order for the wireless device to access the LAN and WAN via the router.

Super G mode: Super G mode is disabled by selecting "Disable" from the drop list. If you like to use Super G to enhance the speed, there are three options on Super G mode: Super G without turbo; Super G with Dynamic turbo and Super G with Static turbo. Turbo mode indicates the combination of two channels to enhance the throughput. Super G without turbo indicates that it is on Super G mode without the channel's combination. Dynamic turbo is able to automatically detect if any 'SuperG based' product is available. If no, the connection is via 'normal' G.. Static turbo means it will not go back to 'normal' G once it starts.

Extended Range Mode: Enable and disable wireless LAN via router.

3.2.2 Authentication

This screen enables you to set authentication type for secure wireless communications. Open System allows public access to the router via wireless communications. Shared Key requires the user to set a WEP key to exchange data with other wireless clients that have the same WEP key. This router also support WPA, WPA-PSK and 802.1X.



Authentication Type: The authentication type default is set to open system. There are five options: Open System; Shared Key; WPA; WPA-PKS and 802.1X.

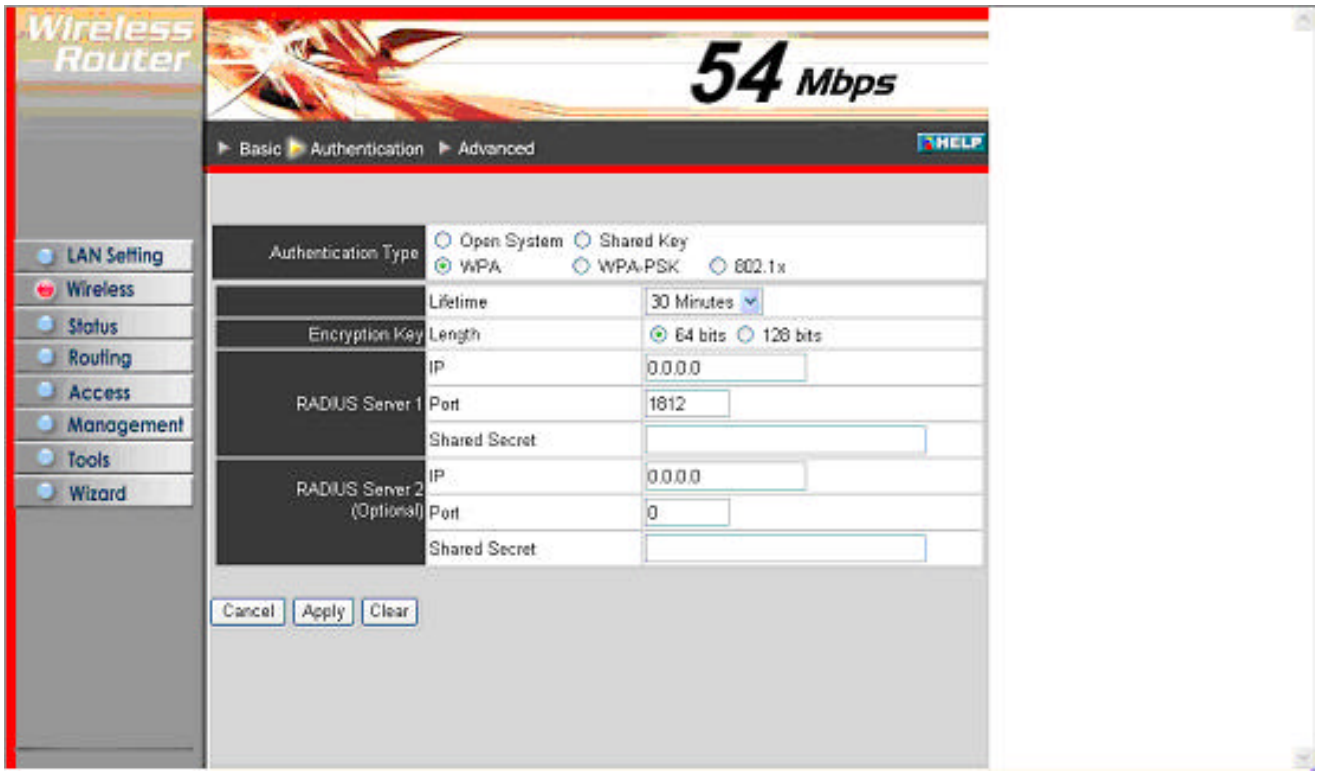
WEP: Enable or Disabled.

Mode: Select the level of encryption you want from the drop-down list. The router supports, 64- and 128-bit encryption.

WEP Key: Select WEP Key - 64 or 128 bits from the drop-down list.

Key 1 ~ Key 4: Enables you to create an encryption scheme for Wireless LAN transmissions. Manually enter a set of values for each key. Select which key you want to use by clicking the radio button next to the key. Click **Clear** to erase key values.

If **WPA** or **802.1X** is selected, the below screen is shown. Please set the length of the encryption key and the parameters for the RADIUS server.



Lifetime: Select the Lifetime of the Encryption Key from 5 Minutes to 1 Day. As soon as the lifetime of the Encryption Key is over, the Encryption Key will be renewed by the Radius server.

Encryption Key: Select the Encryption Key Length Size ranging from 64 to 128 Bits that you would like to use.

RADIUS Server:

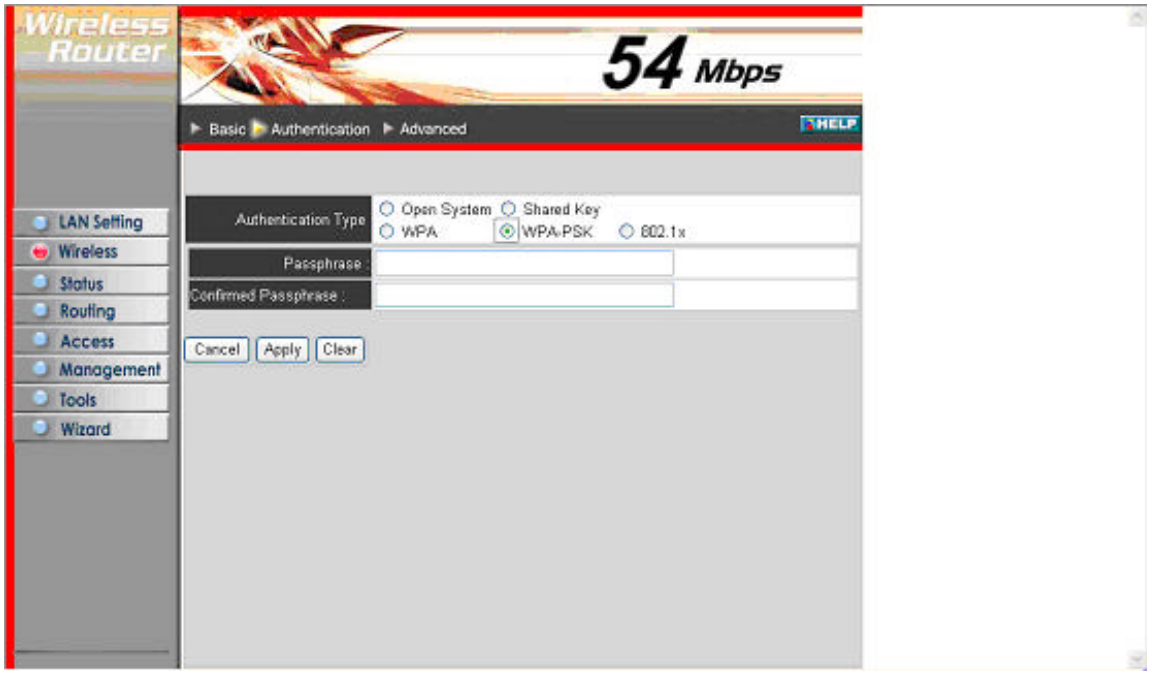
1. Enter the **IP address** of and the **Port** used by the **Primary** Radius Server

   Enter the **Shared Secret**, which is used by the Radius Server.

2. Enter the **IP address** of, **Port** and **Shared Secret** used by the **Secondary** Radius Server.

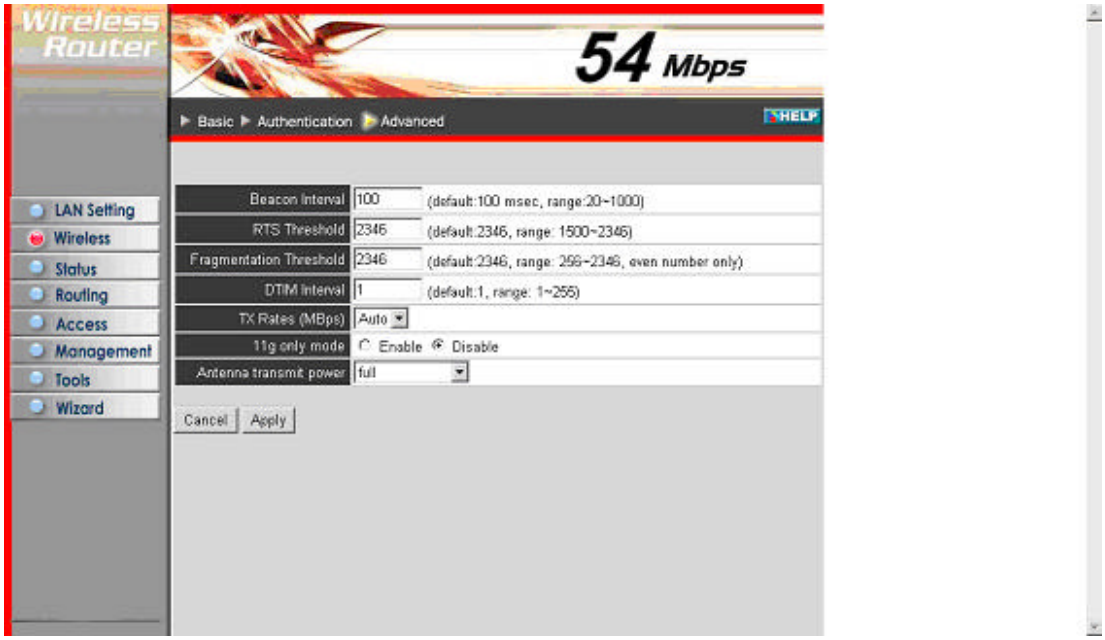
Note: As soon as 802.1X security is enabled, all the wireless client stations that are connected to the Router currently will be disconnected. The wireless clients must be configured manually to authenticate themselves with the Radius server to be reconnected.

If **WPA-PSK** is selected, please set the PSK key in the passphrase field. The length should be 8 characters at least.



3.2.3 Advanced

This screen enables you to configure advanced wireless functions.



Beacon Interval: Type the beacon interval in the text box. You can specify a value from 1 to 1000. The default beacon interval is 100.

RTS Threshold: Type the RTS (Request-To-Send) threshold in the text box. This value stabilizes data flow. If data flow is irregular, choose values between 256 and 2432 until data flow is normalized.

Fragmentation Threshold: Type the fragmentation threshold in the text box. If packet transfer error rates are high, choose values between 256 and 2432 until packet transfer rates are minimized. (***NOTE***: *set this fragmentation threshold value may diminish system performance*.)

DTIM Interval: Type a DTIM (Delivery Traffic Indication Message) interval in the text box. You can specify a value between 1 and 65535. The default value is 3.

TX Rates (MBps): Select one of the wireless communications transfer rates, measured in megabytes per second, based upon the speed of wireless adapters connected to the WLAN.

11g only mode: enable or disable.

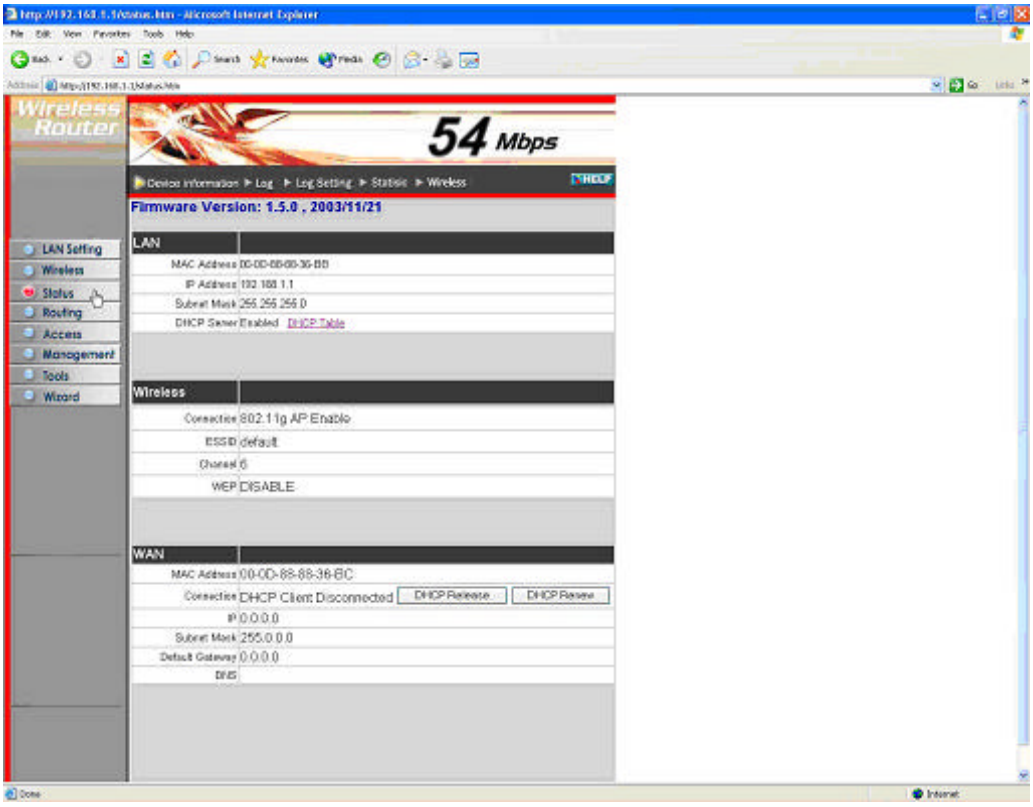
Antenna Transmit Power: Adjust the power of the antenna transmission by selecting from the dropping list.

3.3 Status

This selection enables you to view the status of the router LAN, WAN connections, and view logs and statistics pertaining to connections and packet transfers.

3.3.1 Device Information

This screen enables you to view the router LAN, Wireless and WAN configuration.



Firmware Version: Displays the latest build of the router firmware interface. After updating the firmware in Tools - Firmware, check this to ensure that your firmware was successfully updated.

LAN: This field displays the router's LAN interface MAC address, IP address, subnet mask, and DHCP server status. Click *DHCP Table* to view a list of client stations currently connected to the router LAN interface.

Wireless: Displays the router's wireless connection information, including the router's wireless interface MAC address, the connection status, the SSID status, which channel is being used, and whether WEP is enabled or not.

WAN: This field displays the router's WAN interface MAC address, DHCP client status, IP address, subnet mask, default gateway, and DNS.

Click *DHCP Release* to release all IP addresses assigned to client stations connected to the WAN via the router. Click *DHCP Renew* to reassign IP addresses to client stations connected to the WAN.