

## 5.5 Security

This page is where configures the security features supported by Access Point Client.



The screenshot shows the configuration interface for an 802.11g Wireless LAN Ethernet Adapter. The top banner features the product name and a navigation menu with links: Wizard, Status, Basic Setting, IP Setting, Advanced Setting, Security (highlighted), and Tools. On the left, a green sidebar contains the word "Security" with a small icon. The main content area is titled "Password" and includes the following fields and buttons:

- Administrator id:** A text input field containing the value "admin".
- AP Password New:** A password input field filled with dots.
- Confirm:** A password input field filled with dots.
- At the bottom, there are three buttons: "Apply", "Cancel", and "Help".

**Administrator id:** Allow you change the administrator user id.

**Password:** Allow to change the new login password. Here are the necessary steps:

1. Enter the new password in the “**AP Password New:**” field.
2. Enter the new password again in the “**Confirm**” field.
3. Click “**Apply**”

## 5.6 Tools

Four functions are provided in this page, Backup, Restore Settings, Restore default settings and Firmware Upgrade.



**Backup Settings:** Click on “**Backup**” button, which will open a FileSave Dialog box, where user gets to save all the current settings and configurations to a file.

**Restore Settings:** Click on the “**Browse**” button to open a FileOpen Dialog box, where user gets to select the file, which saves previous settings and configurations. Upon selecting the saved file, click “**Restore**” and complete the restore process when the access point re-operates after it restarts.

**Restore to default settings:** Click on “**Default**” button to restore the access point back to its manufacture default settings.

**Firmware Upgrade:** Click on the “**Browse**” button to open a FileOpen Dialog box, where gets to select the firmware file, which download from the web for the latest version. Upon selecting the firmware file, click “**Upgrade**” and complete the firmware upgrade process when the Access Point re-operates after it restarts.

## 6. Getting Start with Wireless Router

---

### 6.1 Know the 802.11g Wireless Router

#### Ports:

- Power Receptor
- Reset Button
- RJ-45 Ethernet Port (WAN)

#### LEDs:

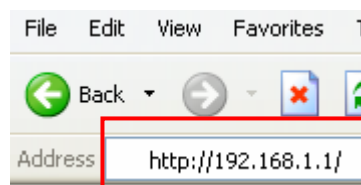
- Power LED: ON when the unit is powered up
- LAN LED: ON indicates LAN connection; BLINK indicates LAN activity
- WLAN LED: ON indicates WLAN is working; BLINK indicates wireless activity.

### 6.2 Connect to the 802.11g Wireless Router

#### 6.2.1 Access the Setting Menu

User 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.

***Note: to configure the settings must through the wireless connection, instead of RJ45 cable.***

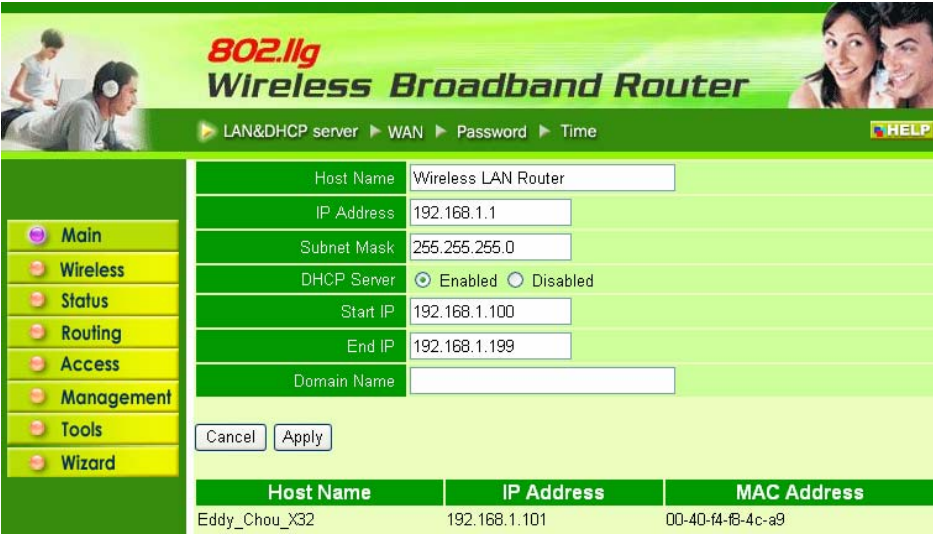


The below window will popup. Please enter the user name and password. Both of the default is “admin”.



A Windows-style dialog box titled "Connect to 192.168.1.1" with a blue header bar. It features a key icon in the top left. The main area is light beige and contains the text "Wireless LAN Router". Below this are two input fields: "User name:" with a dropdown menu showing a person icon, and "Password:" with a text box. A checkbox labeled "Remember my password" is positioned below the password field. At the bottom right are "OK" and "Cancel" buttons.

Now, the main menu screen is popup.



The main configuration interface for an 802.11g Wireless Broadband Router. It has a green header with the brand name "802.11g" and the product name "Wireless Broadband Router". Below the header is a navigation bar with tabs: "LAN&DHCP server", "WAN", "Password", and "Time". A "HELP" button is on the right. On the left is a vertical sidebar with menu items: "Main", "Wireless", "Status", "Routing", "Access", "Management", "Tools", and "Wizard". The main content area is light green and contains configuration fields for "Host Name" (Wireless LAN Router), "IP Address" (192.168.1.1), "Subnet Mask" (255.255.255.0), "DHCP Server" (radio buttons for Enabled/Disabled), "Start IP" (192.168.1.100), "End IP" (192.168.1.199), and "Domain Name". "Cancel" and "Apply" buttons are at the bottom left. At the bottom is a table showing the router's status.

| Host Name     | IP Address    | MAC Address       |
|---------------|---------------|-------------------|
| Eddy_Chou_X32 | 192.168.1.101 | 00-40-f4-b6-4c-a9 |

## 6.2.2 Quick Setup with Wizard

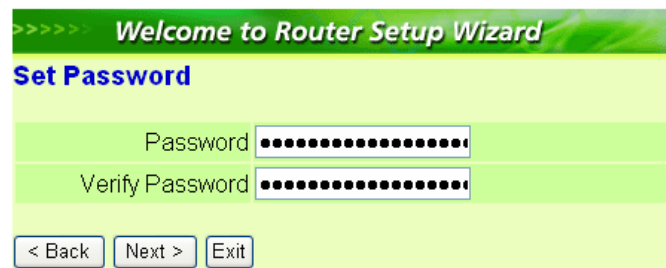
Setup wizard is provided as the part of the web configuration utility. User can simply follow the step-by-step process to get wireless router configuration ready to run in 6 easy steps by clicking on the “**Wizard**” button on the function menu. The following screen will appear. Please click “**Next**”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



The screenshot shows the 'Welcome to Router Setup Wizard' window. It has a green header bar with the title. Below the header, there is a list of six steps: Step 1. Set your new password, Step 2. Choose your time zone, Step 3. Set LAN connection and DHCP server, Step 4. Set internet connection, Step 5. Set wireless LAN connection, and Step 6. Restart. At the bottom, there are two buttons: 'Next >' and 'Exit'. To the right of these buttons is a label 'Display wizard next time?' followed by two radio buttons, 'Yes' (which is selected) and 'No', and an 'Update' button.

### Step 1: Set new Password

User can change the password and then click “**Next**” to continue.



The screenshot shows the 'Set Password' screen within the wizard. It has a green header bar with the title. Below the header, there is a label 'Set Password' in blue. There are two input fields: 'Password' and 'Verify Password', both with masked characters (dots). At the bottom, there are three buttons: '< Back', 'Next >', and 'Exit'.

### Step2: Choose time zone

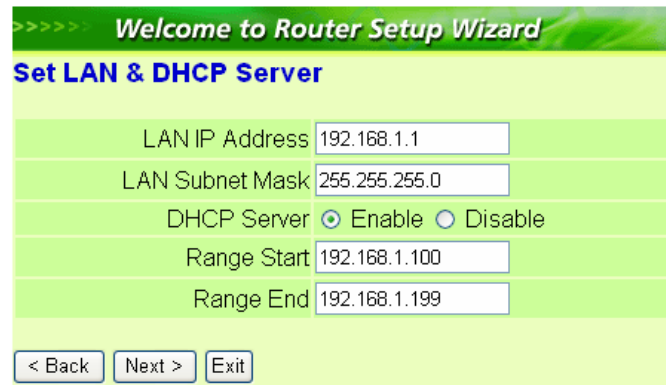
Select properly time zone from the drop down list. Please click “**Next**” to continue.



The screenshot shows the 'Choose Time Zone' screen within the wizard. It has a green header bar with the title. Below the header, there is a label 'Choose Time Zone' in blue. There is a dropdown menu showing '(GMT-08:00) Pacific Time (US & Canada)'. At the bottom, there are three buttons: '< Back', 'Next >', and 'Exit'.

### Step 3: Set LAN connection and DHCP server

Set IP address and mask. The default IP is 192.168.1.1. If user likes 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.



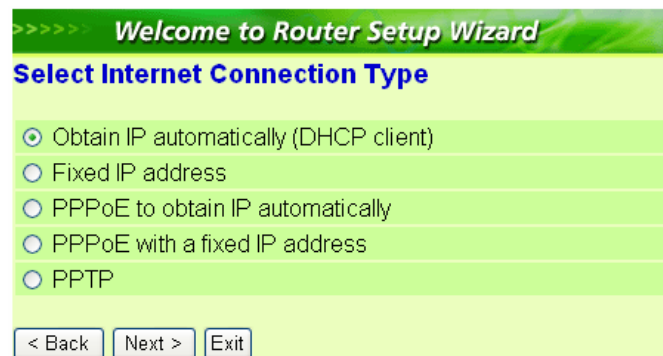
The screenshot shows the 'Set LAN & DHCP Server' screen of the 'Welcome to Router Setup Wizard'. It features a green header with the title and a blue sub-header. Below the sub-header, there are five rows of configuration fields: 'LAN IP Address' (192.168.1.1), 'LAN Subnet Mask' (255.255.255.0), 'DHCP Server' (radio buttons for 'Enable' and 'Disable', with 'Enable' selected), 'Range Start' (192.168.1.100), and 'Range End' (192.168.1.199). At the bottom, there are three buttons: '< Back', 'Next >', and 'Exit'.

### 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.

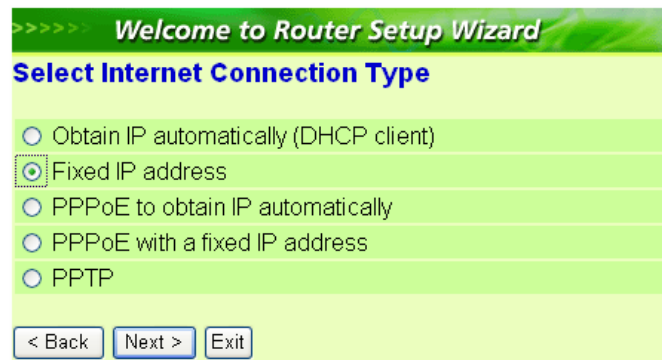
#### Obtain IP automatically (DHCP client):

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



The screenshot shows the 'Select Internet Connection Type' screen of the 'Welcome to Router Setup Wizard'. It features a green header with the title and a blue sub-header. Below the sub-header, there are five rows of radio button options: 'Obtain IP automatically (DHCP client)' (selected), 'Fixed IP address', 'PPPoE to obtain IP automatically', 'PPPoE with a fixed IP address', and 'PPTP'. At the bottom, there are three buttons: '< Back', 'Next >', and 'Exit'.

## Fixed IP Address:



>>>>> Welcome to Router Setup Wizard

**Select Internet Connection Type**

☐ Obtain IP automatically (DHCP client)

☒ Fixed IP address

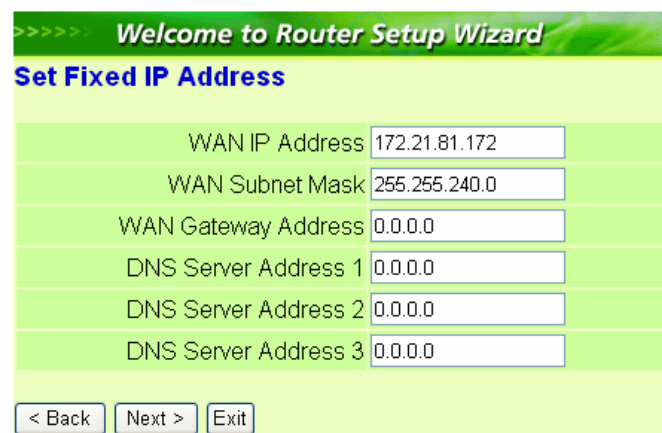
☐ PPPoE to obtain IP automatically

☐ PPPoE with a fixed IP address

☐ PPTP

< Back Next > Exit

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



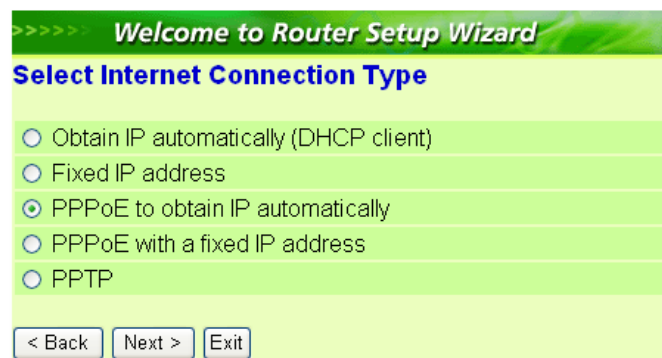
>>>>> Welcome to Router Setup Wizard

**Set Fixed IP Address**

|                      |               |
|----------------------|---------------|
| WAN IP Address       | 172.21.81.172 |
| WAN Subnet Mask      | 255.255.240.0 |
| WAN Gateway Address  | 0.0.0.0       |
| DNS Server Address 1 | 0.0.0.0       |
| DNS Server Address 2 | 0.0.0.0       |
| DNS Server Address 3 | 0.0.0.0       |

< Back Next > Exit

## PPPoE to obtain IP automatically:



>>>>> Welcome to Router Setup Wizard

**Select Internet Connection Type**

☐ Obtain IP automatically (DHCP client)

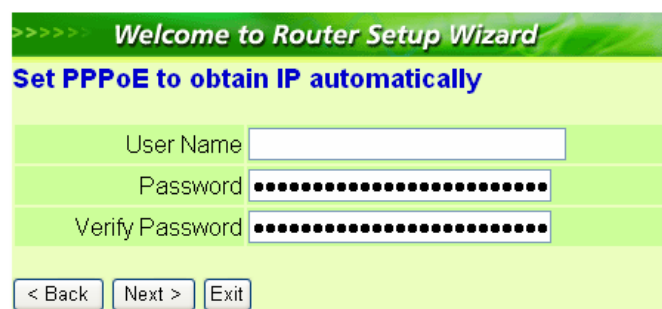
☐ Fixed IP address

☒ PPPoE to obtain IP automatically

☐ PPPoE with a fixed IP address

☐ PPTP

< Back Next > Exit



>>>>> Welcome to Router Setup Wizard

**Set PPPoE to obtain IP automatically**

|                 |       |
|-----------------|-------|
| User Name       |       |
| Password        | ..... |
| Verify Password | ..... |

< Back Next > Exit

### PPPoE with a fixed IP address:

>>>>> **Welcome to 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

>>>>> **Welcome to Router Setup Wizard**

**Set PPPoe with a fixed IP Address**

User Name

Password

Verify Password

IP Address

< Back   Next >   Exit

### PPTP:

>>>>> **Welcome to 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

>>>>> **Welcome to Router Setup Wizard**

**Set PPTP Client**

My IP

Subnet Mask

Gateway

Server IP

PPTP Account

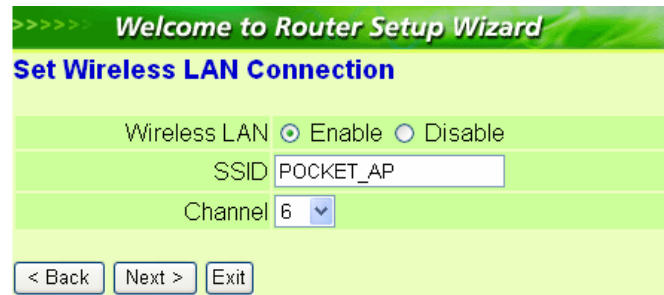
PPTP Password

Retype Password

< Back   Next >   Exit

### Step 5: Set Wireless LAN connection

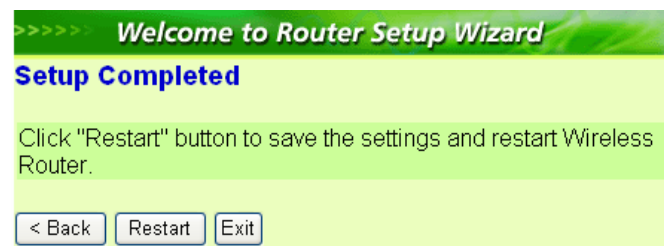
Click “**enable**” to enable wireless LAN. If user enables the wireless LAN, type the SSID in the text box and select a communications channel. The SSID and channel must be the same as wireless devices attempting communication to the router.



The screenshot shows the 'Set Wireless LAN Connection' screen of the 'Welcome to Router Setup Wizard'. It features a green header with the title. Below the title, there are three sections: 'Wireless LAN' with radio buttons for 'Enable' (selected) and 'Disable'; 'SSID' with a text box containing 'POCKET\_AP'; and 'Channel' with a dropdown menu set to '6'. At the bottom, there are three buttons: '< Back', 'Next >', and 'Exit'.

### Step 6: Setup Completed

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 user does not want to make any changes, please click “**exit**” to quit without any changes. User also can go back to modify the setting by clicking “**Back**”.



The screenshot shows the 'Setup Completed' screen of the 'Welcome to Router Setup Wizard'. It features a green header with the title. Below the title, there is a text box that says 'Click "Restart" button to save the settings and restart Wireless Router.' At the bottom, there are three buttons: '< Back', 'Restart', and 'Exit'.

# 7. Configuration Wireless Router through WEB Browser

---

## 7.1 LAN Setting

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

### 7.1.1 LAN & DHCP Server

This page enables 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.

The screenshot shows the configuration interface for a wireless router. The title bar reads "802.11g Wireless Broadband Router". Below the title, there are navigation tabs: "LAN&DHCP server", "WAN", "Password", and "Time". A "HELP" button is also present. On the left, a sidebar contains a menu with options: Main, Wireless, Status, Routing, Access, Management, Tools, and Wizard. The main content area is for configuring the LAN & DHCP server. It includes fields for Host Name (Wireless LAN Router), IP Address (192.168.1.1), Subnet Mask (255.255.255.0), DHCP Server (Enabled/Disabled), Start IP (192.168.1.100), End IP (192.168.1.199), and Domain Name. There are "Cancel" and "Apply" buttons. At the bottom, a table lists DHCP client computers.

| Host Name     | IP Address    | MAC Address       |
|---------------|---------------|-------------------|
| Eddy_Chou_X32 | 192.168.1.101 | 00-40-f4-b3-4c-a9 |

**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.

## 7.1.2 WAN

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

802.11g  
Wireless Broadband Router

► LAN&DHCP server ► WAN ► Password ► Time

HELP

Main  
Wireless  
Status  
Routing  
Access  
Management  
Tools  
Wizard

Connection Type: DHCP Client or Fixed IP

Obtain IP Automatically  
Specify IP

WAN IP

IP Address: 172.21.81.172  
Subnet Mask: 255.255.240.0  
Default Gateway: 0.0.0.0

DNS 1: 0.0.0.0  
DNS 2: 0.0.0.0  
DNS 3: 0.0.0.0

MAC Address: 00 - 06 - 05 - 04 - 12 - 12  
Clone MAC Address

Cancel Apply

**Connection Type:** Select the connection type, either DHCP client, Fixed IP, PPPoE or PPTP from the drop-down list.

### **Obtain IP automatically (DHCP client):**

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

The screenshot shows the WAN configuration page of an 802.11g Wireless Broadband Router. The left sidebar contains a menu with options: Main, Wireless, Status, Routing, Access, Management, Tools, and Wizard. The main content area is titled 'WAN' and shows the 'Connection Type' dropdown set to 'DHCP Client or Fixed IP'. Under this, there are two radio buttons: 'Obtain IP Automatically' (selected) and 'Specify IP'. To the right of these are input fields for 'IP Address' (172.21.81.129), 'Subnet Mask' (255.255.240.0), and 'Default Gateway' (0.0.0.0). Below these are three input fields for 'DNS 1', 'DNS 2', and 'DNS 3', all set to 0.0.0.0. At the bottom, there is a 'MAC Address' field with a 'Clone MAC Address' button. The bottom of the page has 'Cancel' and 'Apply' buttons.

**MAC Address:** Some ISP allows the specific MAC address of the PC to access the Internet only, you need to fill in the specific MAC address into the MAC Address field manually, or using the “Clone MAC Address” button to clone the MAC address of the PC into the MAC Address field automatically.

### **Fixed IP Address:**

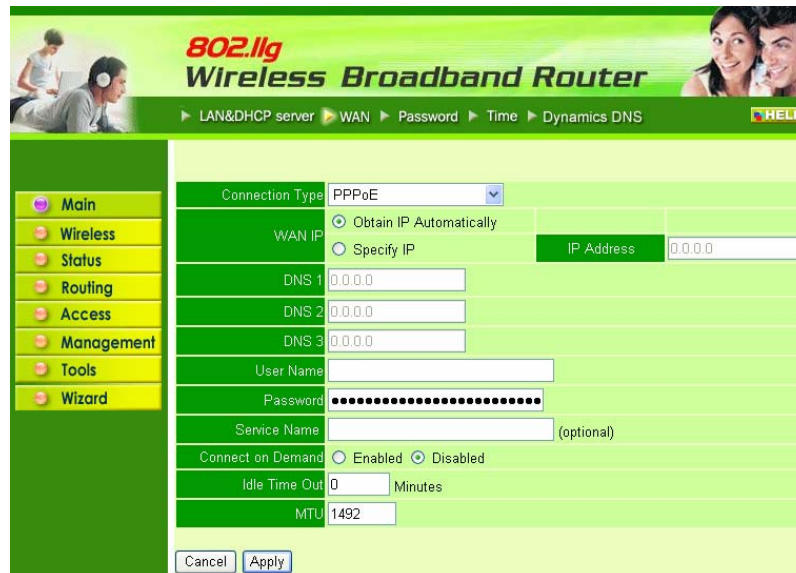
If the Internet Service Providers assign a fixed IP address, choose this option and enter the assigned IP address, subnet mask, gateway IP and DNS IP addresses for your Broadband Router.

This screenshot is identical to the one above, showing the WAN configuration page of the 802.11g Wireless Broadband Router. The 'Obtain IP Automatically' radio button is selected, and the 'Specify IP' option is not active. The input fields for IP Address, Subnet Mask, Default Gateway, and DNS addresses are visible.

**MAC Address:** Some ISP allows the specific MAC address of the PC to access the Internet only, you need to fill in the specific MAC address into the MAC Address field manually, or using the “Clone MAC Address” button to clone the MAC address of the PC into the MAC Address field automatically.

### **PPPoE to obtain IP automatically:**

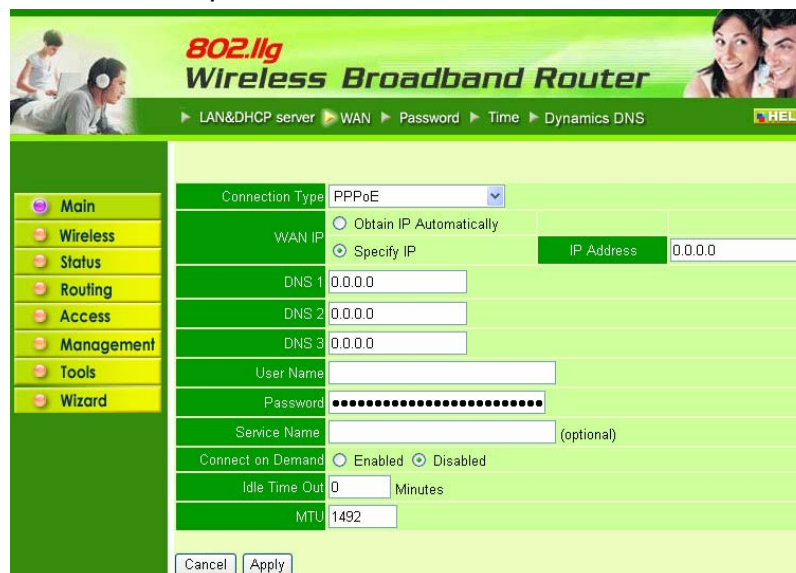
If connected to the Internet using a PPPoE (Dial-up xDSL) Modem, the ISP will provide a Password and User Name, and then the ISP uses PPPoE. Choose this option and enter the required information.



The screenshot shows the configuration page for a 802.11g Wireless Broadband Router. The left sidebar contains a menu with options: Main, Wireless, Status, Routing, Access, Management, Tools, and Wizard. The main content area is titled 'WAN' and shows the 'Connection Type' set to 'PPPoE'. Under 'WAN IP', the 'Obtain IP Automatically' radio button is selected. The 'IP Address' field is set to '0.0.0.0'. Other fields include DNS 1, DNS 2, and DNS 3, all set to '0.0.0.0'. The 'User Name' and 'Password' fields are empty. The 'Service Name' field is optional and empty. The 'Connect on Demand' section has 'Enabled' and 'Disabled' radio buttons, with 'Disabled' selected. The 'Idle Time Out' is set to '0' minutes. The 'MTU' is set to '1492'. At the bottom, there are 'Cancel' and 'Apply' buttons.

### **PPPoE with a fixed IP address:**

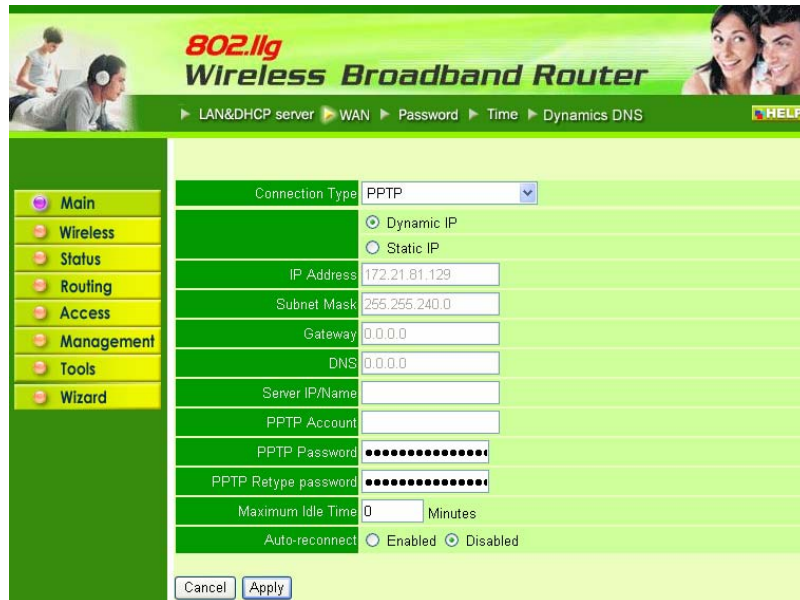
If connected to the Internet using a PPPoE (Dial-up xDSL) Modem, the ISP will provide a Password, User Name and a Fixed IP Address, choose this option and enter the required information.



The screenshot shows the configuration page for a 802.11g Wireless Broadband Router. The left sidebar contains a menu with options: Main, Wireless, Status, Routing, Access, Management, Tools, and Wizard. The main content area is titled 'WAN' and shows the 'Connection Type' set to 'PPPoE'. Under 'WAN IP', the 'Specify IP' radio button is selected. The 'IP Address' field is set to '0.0.0.0'. Other fields include DNS 1, DNS 2, and DNS 3, all set to '0.0.0.0'. The 'User Name' and 'Password' fields are empty. The 'Service Name' field is optional and empty. The 'Connect on Demand' section has 'Enabled' and 'Disabled' radio buttons, with 'Disabled' selected. The 'Idle Time Out' is set to '0' minutes. The 'MTU' is set to '1492'. At the bottom, there are 'Cancel' and 'Apply' buttons.

### **PPTP:**

If connected to the Internet using a (PPTP) xDSL Modem, enter the your IP Address, Subnet Mask, Gateway, Server IP, PPTP Account and PPTP Password, Your Subnet Mask required by your ISP in the appropriate fields. If your ISP has provided you with a Connection ID, enter it in the Connection ID field, otherwise, leave it zero.



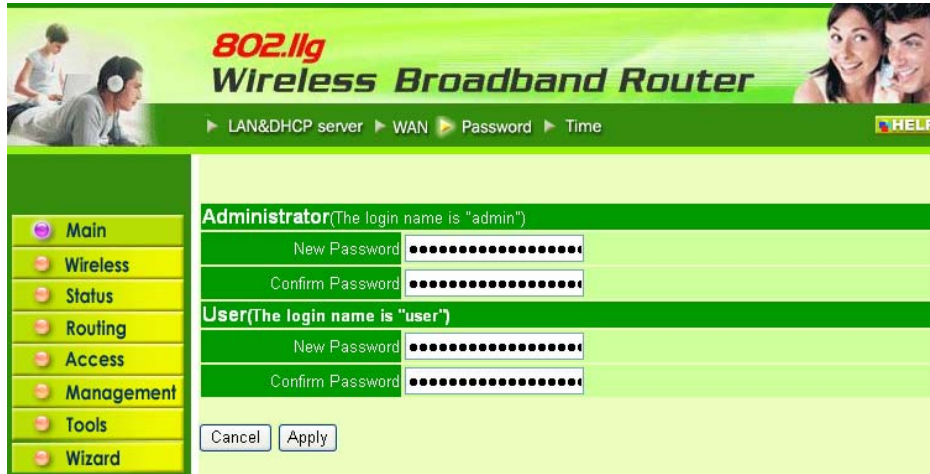
The screenshot displays the configuration interface for an 802.11g Wireless Broadband Router. The top banner features the router's logo and navigation links: LAN&DHCP server, WAN, Password, Time, Dynamics DNS, and a HELP icon. A left sidebar contains a menu with options: Main, Wireless, Status, Routing, Access, Management, Tools, and Wizard. The main configuration area is titled 'Connection Type' and is set to 'PPTP'. Below this, there are two radio buttons for 'Dynamic IP' (selected) and 'Static IP'. The 'IP Address' field is populated with '172.21.81.129', and the 'Subnet Mask' field is '255.255.240.0'. The 'Gateway' and 'DNS' fields are both set to '0.0.0.0'. The 'Server IP/Name' field is empty. The 'PPTP Account' field is empty, and the 'PPTP Password' and 'PPTP Retype password' fields are masked with dots. The 'Maximum Idle Time' is set to '0' minutes. The 'Auto-reconnect' option has 'Enabled' selected and 'Disabled' unselected. At the bottom of the form are 'Cancel' and 'Apply' buttons.

|                      |                                                                                |
|----------------------|--------------------------------------------------------------------------------|
| Connection Type      | PPTP                                                                           |
|                      | <input checked="" type="radio"/> Dynamic IP<br><input type="radio"/> Static IP |
| IP Address           | 172.21.81.129                                                                  |
| Subnet Mask          | 255.255.240.0                                                                  |
| Gateway              | 0.0.0.0                                                                        |
| DNS                  | 0.0.0.0                                                                        |
| Server IP/Name       |                                                                                |
| PPTP Account         |                                                                                |
| PPTP Password        | .....                                                                          |
| PPTP Retype password | .....                                                                          |
| Maximum Idle Time    | 0 Minutes                                                                      |
| Auto-reconnect       | <input type="radio"/> Enabled <input checked="" type="radio"/> Disabled        |

Cancel Apply

### 7.1.3 Password

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



The screenshot shows the web interface of an 802.11g Wireless Broadband Router. The title bar at the top reads "802.11g Wireless Broadband Router" and includes navigation links for "LAN&DHCP server", "WAN", "Password", and "Time", along with a "HELP" button. On the left is a vertical menu with options: Main, Wireless, Status, Routing, Access, Management, Tools, and Wizard. The main content area is titled "Password" and contains two sections: "Administrator(The login name is 'admin')" and "User(The login name is 'user')". Each section has "New Password" and "Confirm Password" input fields. At the bottom are "Cancel" and "Apply" buttons.

**Administrator:** Login with the Administrator allow you to change settings of the WLAN Router, type the password the Administrator will use to log in to the system. The password must be typed again for confirmation.

**User:** Login with the User only allow you to browser the settings of the WLAN Router, type the password the User will use to log in to the system. The password must be typed again for confirmation.

## 7.1.4 Time

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

The screenshot shows the configuration interface for an 802.11g Wireless Broadband Router. The top banner features the router's name and a navigation bar with links: LAN&DHCP server, WAN, Password, and Time (which is highlighted). A 'HELP' button is also present. On the left, a sidebar contains a menu with icons and labels: Main, Wireless, Status, Routing, Access, Management, Tools, and Wizard. The main content area is titled 'Time' and contains the following settings:

- Local Time:** Jul/31/2006 11:40:08
- Time Zone:** A drop-down menu showing '(GMT+08:00) Beijing, Hong Kong, Singapore, Taipei'.
- Default NTP server:** pool.ntp.org
- Set the time:** Fields for Year (2006), Month (Jul), Day (31), Hour (11), Minute (40), and Second (08), followed by a 'Set Time' button.
- Daylight Saving:** Radio buttons for 'Enabled' and 'Disabled' (selected). Below are fields for Start (Jan, 01) and End (Jan, 01).

At the bottom of the configuration area are 'Cancel' and 'Apply' buttons.

**Local Time:** Displays the local time and date.

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

**Default NTP server:** Specific a NTP server address or domain name to update the standard time form NTP server automatically.

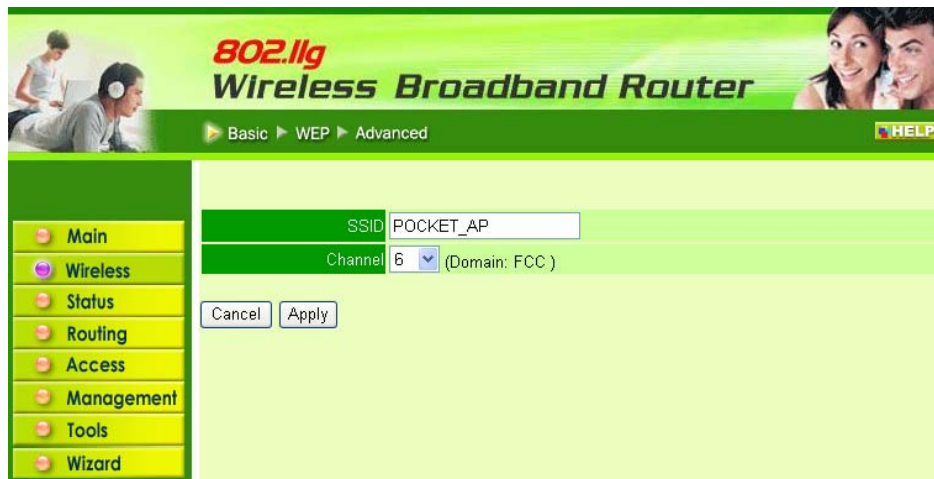
**Daylight Saving:** Enable or disable daylight saving time. When enabled, select the start and end date for daylight saving time.

## 7.2 Wireless

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

### 7.2.1 Basic

This page allows enabling and disabling the wireless LAN function, creating a SSID, and selecting the channel for wireless communications.



The screenshot shows the configuration interface for an 802.11g Wireless Broadband Router. The top banner features the text "802.11g Wireless Broadband Router" and a "HELP" button. Below the banner is a navigation bar with "Basic", "WEP", and "Advanced" tabs, with "Basic" being the active tab. On the left is a vertical menu with icons and labels for "Main", "Wireless", "Status", "Routing", "Access", "Management", "Tools", and "Wizard". The "Wireless" option is highlighted. The main content area has a light green background and contains two input fields: "SSID" with the text "POCKET\_AP" and "Channel" with a dropdown menu showing "6" and the text "(Domain: FCC )". Below these fields are "Cancel" and "Apply" buttons.

**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.

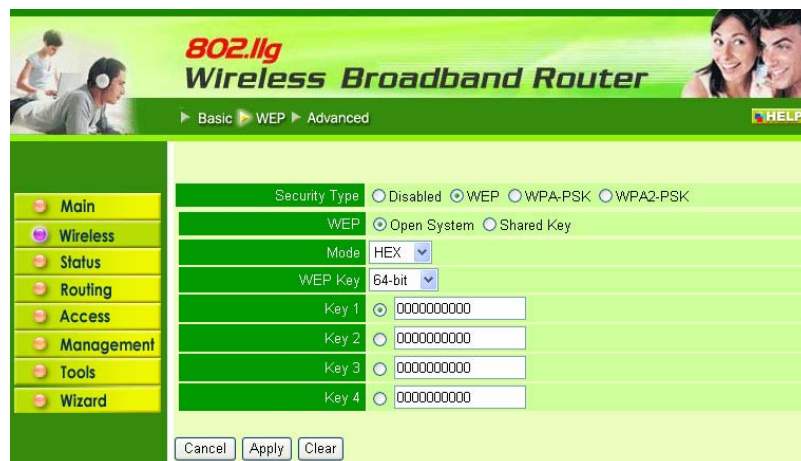
**Channel:** Select a transmission channel for wireless communications. The channel of any wireless device must match the channel selected here in order for the wireless device to access the LAN and WAN via the router.

## 7.2.2 WEP

The authentication type default is set to disable. There are four options: Disable, WEP, WPA-PSK, and WPA2-PSK.



### WEP Encryption



**WEP Type:** 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.

**Mode:** Select the key mode in ASCII or HEX

**WEP Key:** Select the level of encryption from the drop-down list. The router supports, 64- and 128-bit encryption.

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

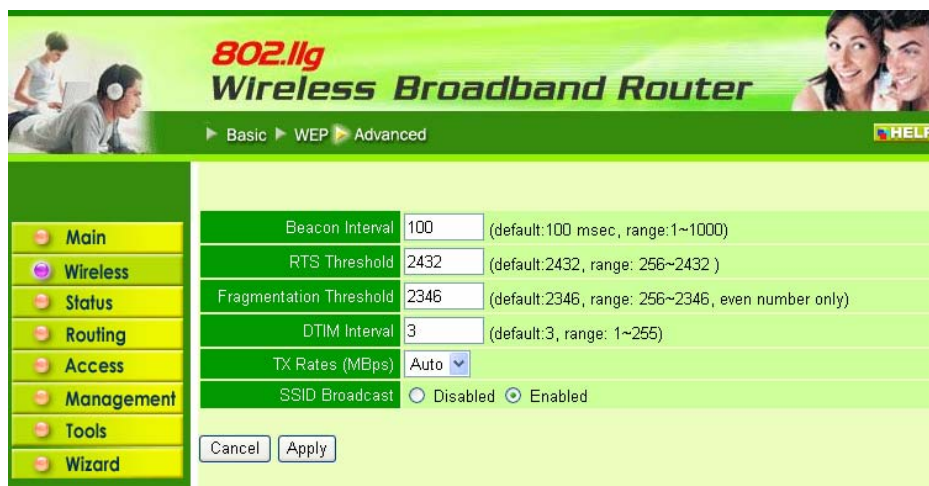
## WPA-PSK / WPA2-PSK



**Passphrase:** Set the PSK key in the Passphrase field. The length should be 8 characters at least.

### 7.2.3 Advanced

This screen leads to configure advanced wireless functions.



**Beacon Interval:** Type the beacon interval in the text box. User 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 2346 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. User 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.

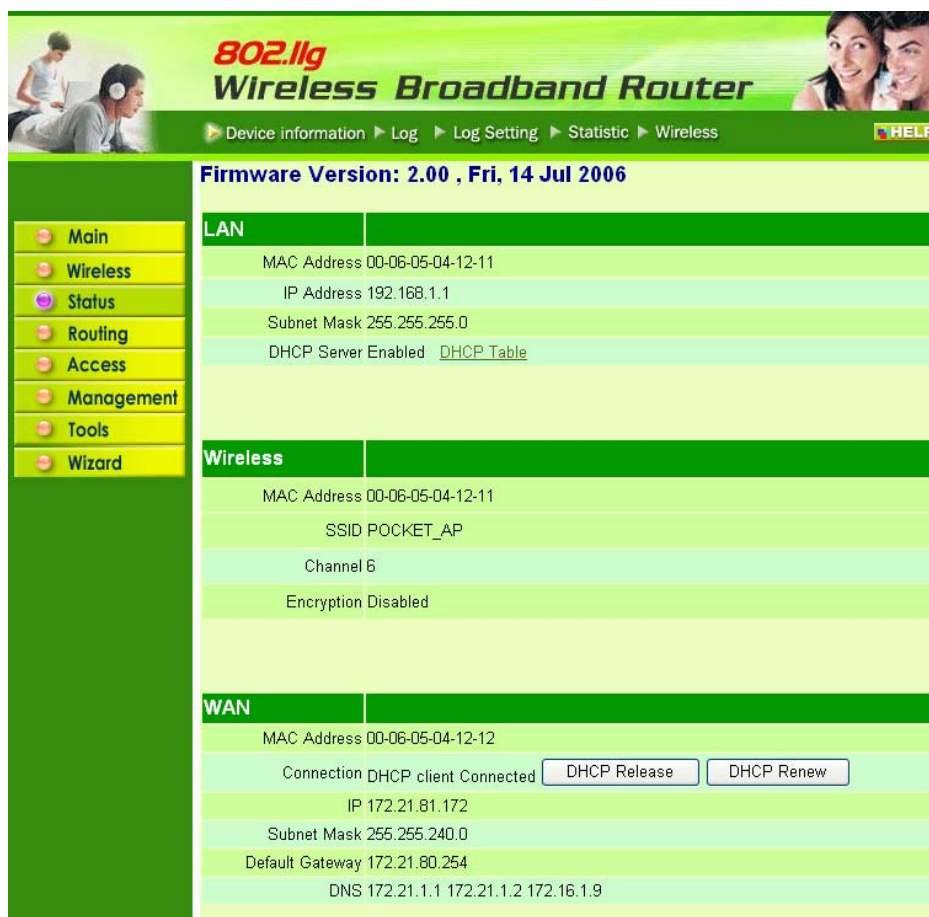
**SSID Broadcast:** While SSID Broadcast is enabled, all wireless clients will be able to communicate with the access point. For secure purpose, user may want to disable SSID broadcast to allow only those wireless clients with the AP SSID to communicate with the access point

## 7.3 Status

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

### 7.3.1 Device Information

This screen leads 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 the 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.

### 7.3.2 Log

This screen leads to view a running log of router system statistics, events, and activities. The log displays up to 200 entries. Older entries are overwritten by new entries. The Log screen commands are as follows:

Click "**First Page**" to view the first page of the log

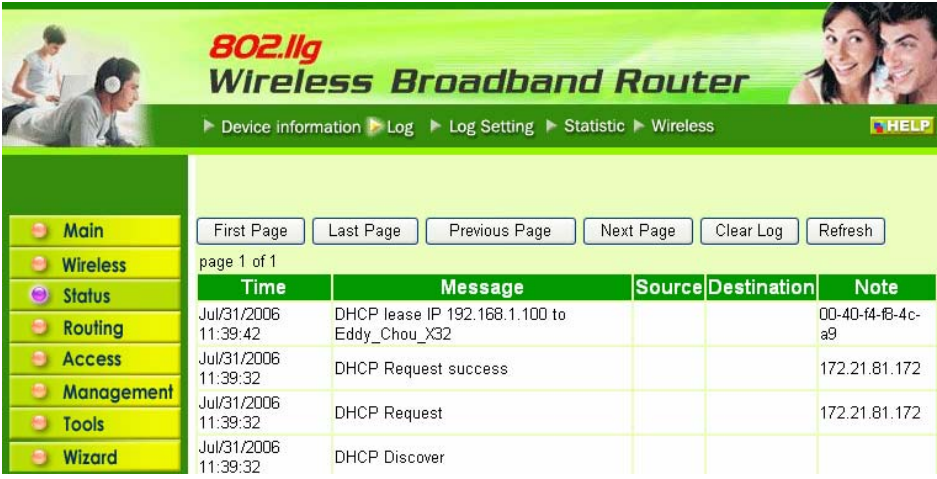
Click "**Last Page**" to view the final page of the log

Click "**Previous Page**" to view the page just before the current page

Click "**Next Page**" to view the page just after the current page

Click "**Clear Log**" to delete the contents of the log and begin a new log

Click "**Refresh**" to renew log statistics



| Time                 | Message                                      | Source | Destination | Note              |
|----------------------|----------------------------------------------|--------|-------------|-------------------|
| Jul/31/2006 11:39:42 | DHCP lease IP 192.168.1.100 to Eddy_Chou_X32 |        |             | 00-40-f4-f8-4c-a9 |
| Jul/31/2006 11:39:32 | DHCP Request success                         |        |             | 172.21.81.172     |
| Jul/31/2006 11:39:32 | DHCP Request                                 |        |             | 172.21.81.172     |
| Jul/31/2006 11:39:32 | DHCP Discover                                |        |             |                   |

**Time:** Displays the time and date that the log entry was created.

**Message:** Displays summary information about the log entry.

**Source:** Displays the source of the communication.

**Destination:** Displays the destination of the communication.

**Note:** Displays the IP address of the communication

### 7.3.3 Log Setting

This screen leads to set router logging parameters.

The screenshot shows the 'Log Setting' page of an 802.11g Wireless Broadband Router. The page features a green header with the router's name and a navigation bar with links: Device information, Log, Log Setting (active), Statistic, and Wireless. A left sidebar contains a menu with icons and labels: Main, Wireless, Status, Routing, Access, Management, Tools, and Wizard. The main content area is divided into sections for configuring logging. It includes text input fields for 'SMTP Server', 'Send to' (labeled as 'Email Address'), and 'Syslog Server' (pre-filled with '0.0.0.0'). Below these fields is a 'Log Type' section with four checkboxes: 'System Activity' (checked), 'Attacks' (checked), 'Dropped Packets' (unchecked), and 'Notice' (checked). At the bottom of the form are 'Cancel' and 'Apply' buttons, and an 'Email Log Now' button next to the 'Email Address' field.

**SMTP Server:** Type the SMTP server address for the email that the log will be sent to in the next field.

**Send to:** Type an email address for the log to be sent to. Click “**Email Log Now**” to immediately send the current log.

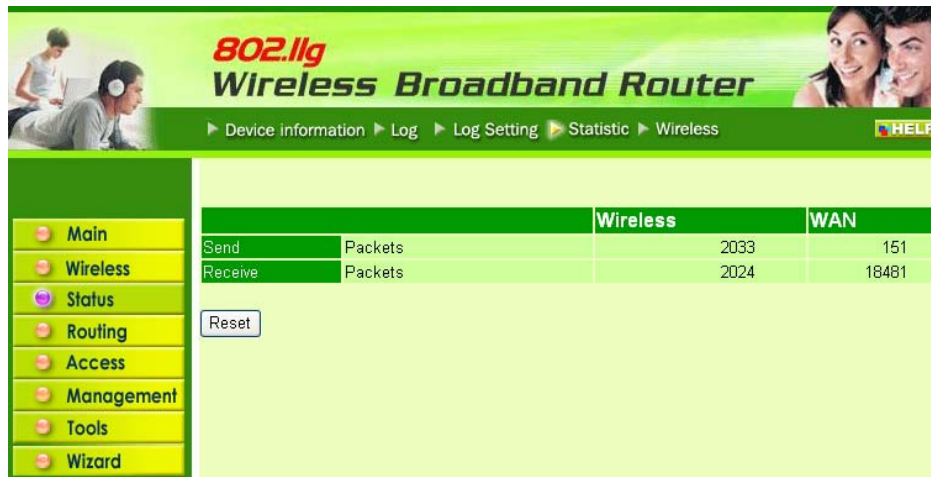
**Syslog Server:** Type the IP address of the Syslog Server if user wants the router to listen and receive incoming Syslog messages.

**Log Type:** Select what items will be included in the log:

- **System Activity:** Displays information related to router operation.
- **Attacks:** Displays information about any malicious activity on the network.
- **Dropped Packets:** Displays information about packets that have not been transferred successfully.
- **Notice:** Displays important notices by the system administrator.

### 7.3.4 Statistic

This screen displays a table that shows the rate of packet transmission via the router Wireless and WAN ports (in bytes per second).



The screenshot shows the web interface of an 802.11g Wireless Broadband Router. The top banner features the router's name and a navigation bar with links: Device information, Log, Log Setting, Statistic, and Wireless. A left sidebar contains menu items: Main, Wireless, Status, Routing, Access, Management, Tools, and Wizard. The main content area displays a table with packet transmission statistics for Wireless and WAN ports.

|         |         | Wireless | WAN   |
|---------|---------|----------|-------|
| Send    | Packets | 2033     | 151   |
| Receive | Packets | 2024     | 18481 |

Below the table is a "Reset" button.

Click “Reset” to erase all statistics and begin logging statistics again.

### 7.3.5 Wireless

This screen leads to view information about wireless devices that are connected to the wireless router.



The screenshot shows the web interface of an 802.11g Wireless Broadband Router, specifically the Wireless page. The layout is identical to the previous screenshot, but the main content area displays a table with information about connected wireless devices.

| Connected Time       | MAC Address       |
|----------------------|-------------------|
| Jul/31/2006 11:41:59 | 00-40-f4-b6-4c-a9 |

**Connected Time:** When the wireless device has been connected to the the router.

**MAC Address:** Displays the devices wireless LAN interface MAC address.

## 7.4 Routing

This selection leads to set how the router forwards data: Static and Dynamic. Routing Table enables user to view the information created by the router that displays the network interconnection topology.

### 7.4.1 Static

It enables user to set parameters by which the router forwards data to its destination if network has a static IP address.

The screenshot shows the configuration interface for a router. At the top, there's a banner with the text "802.11g Wireless Broadband Router" and a "HELP" button. Below the banner, there are tabs for "Static", "Dynamic", and "Routing Table", with "Static" being the active tab. On the left side, there's a vertical menu with buttons for "Main", "Wireless", "Status", "Routing" (which is highlighted), "Access", "Management", "Tools", and "Wizard". The main content area has several input fields: "Network Address", "Network Mask", "Gateway Address", "Interface" (a dropdown menu currently showing "LAN"), and "Metric". Below these fields are four buttons: "Add", "Update", "Delete", and "New". At the bottom, there's a table with five columns: "Network Address", "Mask", "Gateway", "Interface", and "Metric".

**Network Address:** Type the static IP address which network uses to access the Internet. ISP or network administrator provides this information.

**Network Mask:** Type the network (subnet) mask for network. If user does not type a value here, the network mask defaults to 255.255.255.255. ISP or network administrator provides this information.

**Gateway Address:** Type the gateway address for network. ISP or network administrator provides this information.

**Interface:** Select which interface, WAN or LAN, used to connect to the Internet.

**Metric:** Select which metric to apply to this configuration.

**Add:** Click to add the configuration to the static IP address table at the bottom of the page.

**Update:** Select one of the entries in the static IP address table at the bottom of the page and, after changing parameters, click "**Update**" to confirm the changes.

**Delete:** Select one of the entries in the static IP address table at the bottom of the page and click "**Delete**" to remove the entry.

**New:** Click "**New**" to clear the text boxes and add required information to create a new entry.

## 7.4.2 Dynamic

This screen leads to set NAT parameters.

The screenshot shows the configuration interface for an 802.11g Wireless Broadband Router. The top banner features the router's name and a navigation bar with 'Static', 'Dynamic', and 'Routing Table' tabs. A sidebar on the left contains a menu with options: Main, Wireless, Status, Routing (highlighted), Access, Management, Tools, and Wizard. The main content area is titled 'Dynamic' and contains three rows of radio button settings: 'NAT' with 'Enabled' (selected) and 'Disabled'; 'Transmit' with 'Disabled' (selected), 'RIP 1', and 'RIP 2'; and 'Receive' with 'Disabled' (selected), 'RIP 1', and 'RIP 2'. At the bottom of the settings are 'Cancel' and 'Apply' buttons.

**NAT:** Click the radio buttons to enable or disable NAT.

**Transmit:** Click the radio buttons to set the desired transmit parameters, disabled, RIP 1, or RIP 2.

**Receive:** Click the radio buttons to set the desired transmit parameters, disabled, RIP 1, or RIP 2

### 7.4.3 Routing Table

This screen leads to view the routing table for the router. The routing table is a database created by the router that displays the network interconnection topology.



**Network Address:** Displays the network IP address of the connected node.

**Network Mask:** Displays the network (subnet) mask of the connected node.

**Gateway Address:** Displays the gateway address of the connected node.

**Interface:** Displays whether the node is connected via a WAN or LAN.

**Metric:** Displays the metric of the connected node.

**Type:** Displays whether the node has a static or dynamic IP address

## 7.5 Access

This page leads to define access restrictions, set up protocol and IP filters, create virtual servers, define access for special applications such as games, and set firewall rules.

### 7.5.1 MAC Filters

Allow or deny Internet access to users within the LAN based upon the MAC address of their network interface. Click the radio button next to “**Disabled**” to disable the MAC filter.

**802.11g Wireless Broadband Router**

Mac Filter Protocol Filter IP filter Virtual Server Special AP DMZ Firewall Rule **HELP**

Main Wireless Status Routing **Access** Management Tools Wizard

**MAC Filter**

☒ Disabled MAC Filters  
☐ Only **allow** computers with MAC address listed below to access the network  
☐ Only **deny** computers with MAC address listed below to access the network

Apply

**MAC Table**

Name   
MAC Address  -  -  -  -

Add Update Delete Clear

| Name | MAC Address |
|------|-------------|
|------|-------------|

**Disable:** Once the function of MAC filter is disabled, those listed in the MAC Table are allowed Internet access.

**Enable:** All users are allowed Internet access except those users in the MAC Table are deny Internet access.

**MAC Table:** Use this section to create a user profile which Internet access is denied or allowed. The user profiles are listed in the table at the bottom of the page. (**Note:** Click anywhere in the item. Once the line is selected, the fields automatically load the item's parameters, which user edited.)

**Name:** Type the name of the user to be permitted/denied access.

**MAC Address:** Type the MAC address of the user's network interface.

**Add:** Click to add the user to the list at the bottom of the page.

**Update:** Click to update information for the user, if user has changed any of the fields.

**Delete:** Select a user from the table at the bottom of the list and click “**Delete**” to remove the user profile.

**New:** Click “**New**” to erase all fields and enter new information.

## 7.5.2 Protocol Filter

This screen enables user to allow and deny access based upon a communications protocol list the user creates. The protocol filter profiles are listed in the table at the bottom of the page.

*Note: When selecting items in the table at the bottom, click anywhere in the item. The line is selected, and the fields automatically load the item's parameters, which user can edit:*

**802.11g Wireless Broadband Router**

Mac Filter Protocol Filter IP filter Virtual Server Special AP DMZ Firewall Rule **HELP**

Main Wireless Status Routing Access Management Tools Wizard

**Protocol Filter**

☐ Disable List

☒ **Enable List** : Deny to access internet from LAN.

Apply

**Edit protocol Filter in List**

Enable ☐ Enable ☐ Disabled

Name

Protocol TCP

Port Range  -

Add Update Delete New

|                          | Name          | Protocol | Range |
|--------------------------|---------------|----------|-------|
| <input type="checkbox"/> | Filter FTP    | TCP      | 20-21 |
| <input type="checkbox"/> | Filter HTTP   | TCP      | 80    |
| <input type="checkbox"/> | Filter HTTPS  | TCP      | 443   |
| <input type="checkbox"/> | Filter DNS    | UDP      | 53    |
| <input type="checkbox"/> | Filter SMTP   | TCP      | 25    |
| <input type="checkbox"/> | Filter POP3   | TCP      | 110   |
| <input type="checkbox"/> | Filter Telnet | TCP      | 23    |

**Enable:** Click to enable or disable the Protocol filter.

**Name:** Type the name of the user to be denied access.

**Protocol:** Select a protocol (TCP or UDP) to use for the virtual server.

**Port Range:** Type the port range of the protocol.

**Add:** Click to add the protocol filter to the table at the bottom of the screen.

**Update:** Click to update information for the protocol filter if user have selected a list item and have made changes.

**Delete:** Select a list item and click Delete to remove the item from the list.

**New:** Click "New" to erase all fields and enter new information.

### 7.5.3 IP Filter

This screen enables user to define a minimum and maximum IP address range filter; all IP addresses falling in the range are not allowed Internet access. The IP filter profiles are listed in the table at the bottom of the page. (Note: Click anywhere in the item. Once the line is selected, the fields automatically load the item's parameters, which user can edit.)

The screenshot shows the IP Filter configuration interface for an 802.11g Wireless Broadband Router. The interface includes a navigation menu on the left with options like Main, Wireless, Status, Routing, Access (selected), Management, Tools, and Wizard. The main area contains settings for enabling the filter, defining IP ranges (Range Start and Range End), and buttons for Add, Update, Delete, and Clear. A table at the bottom is partially visible with columns for Start and End IP addresses.

**Enable:** Click to enable or disable the IP address filter.

**Range Start:** Type the minimum address for the IP range. IP addresses falling between this value and the Range End are not allowed to access the Internet.

**Range End:** Type the minimum address for the IP range. IP addresses falling between this value and the Range Start are not allowed to access the Internet.

**Add:** Click to add the IP range to the table at the bottom of the screen.

**Update:** Click to update information for the range if user has selected a list item and have made changes.

**Delete:** Select a list item and click “Delete” to remove the item from the list.

**New:** Click “New” to erase all fields and enter new information.

## 7.5.4 Virtual Server

This screen leads to create a virtual server via the router. If the router is set as a virtual server, remote users requesting Web or FTP services through the WAN are directed to local servers in the LAN. The router redirects the request via the protocol and port numbers to the correct LAN server. The Virtual Server profiles are listed in the table at the bottom of the page.

**Note:** When selecting items in the table at the bottom, click anywhere in the item. The line is selected, and the fields automatically load the item's parameters, which user edited.

|                          | Name                  | Protocol    | LAN Server |
|--------------------------|-----------------------|-------------|------------|
| <input type="checkbox"/> | Virtual Server FTP    | TCP 21/21   | 0.0.0.0    |
| <input type="checkbox"/> | Virtual Server HTTP   | TCP 80/80   | 0.0.0.0    |
| <input type="checkbox"/> | Virtual Server HTTPS  | TCP 443/443 | 0.0.0.0    |
| <input type="checkbox"/> | Virtual Server DNS    | UDP 53/53   | 0.0.0.0    |
| <input type="checkbox"/> | Virtual Server SMTP   | TCP 25/25   | 0.0.0.0    |
| <input type="checkbox"/> | Virtual Server POP3   | TCP 110/110 | 0.0.0.0    |
| <input type="checkbox"/> | Virtual Server Telnet | TCP 23/23   | 0.0.0.0    |

**Enable:** Click to enable or disable the virtual server.

**Name:** Type a descriptive name for the virtual server.

**Protocol:** Select the protocol (TCP or UDP) used for the virtual server.

**Private Port:** Type the port number of the computer on the LAN that is being used to act as a virtual server.

**Public Port:** Type the port number on the WAN that will be used to provide access to the virtual server.

**LAN Server:** Type the LAN IP address that will be assigned to the virtual server.

**Add:** Click to add the virtual server to the table at the bottom of the screen.

**Update:** Click to update information for the virtual server if user has selected a list item and have made changes.

**Delete:** Select a list item and click “Delete” to remove the item from the list.

**New:** Click “New” to erase all fields and enter new information.

## 7.5.5 Special AP

This screen leads to specify special applications, such as games, that require multiple connections that are inhibited by NAT. The special applications profiles are listed in the table at the bottom of the page.

**Note:** When selecting items in the table at the bottom, click anywhere in the item. The line is selected, and the fields automatically load the item's parameters, which user edited.

|                          | Name            | Trigger Port Range | Incoming Port                           |
|--------------------------|-----------------|--------------------|-----------------------------------------|
| <input type="checkbox"/> | Battle.net      | 6112               | 6112                                    |
| <input type="checkbox"/> | Dialpad         | 7175               | 51200-51201,51210                       |
| <input type="checkbox"/> | ICU II          | 2019               | 2000-2038,2050-2051,2069,2085,3010-3030 |
| <input type="checkbox"/> | MSN Gaming Zone | 47624              | 2300-2400,28800-29000                   |
| <input type="checkbox"/> | PC-to-Phone     | 12053              | 12120,12122,24150-24220                 |
| <input type="checkbox"/> | Quick Time 4    | 554                | 6970-6999                               |

**Enable:** Click to enable or disable the application profile. When enabled, users will be able to connect to the application via the router WAN connection. Click Disabled on a profile to prevent users from accessing the application on the WAN.

**Name:** Type a descriptive name for the application.

**Trigger:** Defines the outgoing communication that determines whether the user has legitimate access to the application.

- **Protocol:** Select the protocol (TCP, UDP, or ICMP) that can be used to access the application.
- **Port Range:** Type the port range that can be used to access the application in the text boxes.

**Incoming:** Defines which incoming communications users are permitted to connect with.

- **Protocol:** Select the protocol (TCP, UDP, or ICMP) that can be used by the incoming communication.
- **Port:** Type the port number that can be used for the incoming communication.

**Add:** Click to add the special application profile to the table at the bottom of the screen.

**Update:** Click to update information for the special application if user has selected a list item and have made changes.

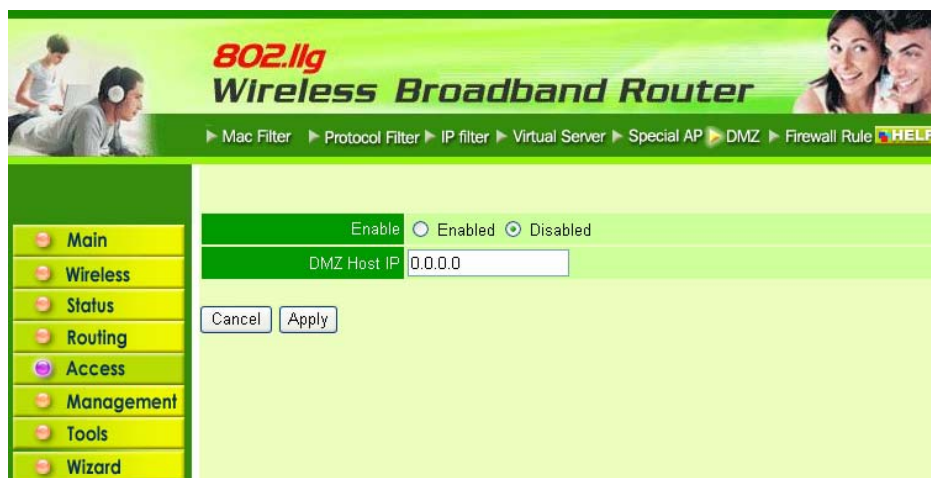
**Delete:** Select a list item and click “**Delete**” to remove the item from the list.

**New:** Click “**New**” to erase all fields and enter new information.

## 7.5.6 DMZ

This screen leads to create a DMZ for those computers that cannot access Internet applications properly through the router and associated security settings.

**Note:** Any clients added to the DMZ exposes the clients to security risks such as viruses and unauthorized access.



**Enable:** Click to enable or disable the DMZ.

**DMZ Host IP:** Type a host IP address for the DMZ. The computer with this IP address acts as a DMZ host with unlimited Internet access.

**Apply:** Click to save the settings.

## 7.5.7 Firewall Rule

This screen leads to set up the firewall. The router provides basic firewall functions, by filtering all the packets that enter the router using a set of rules. The rules are in an order sequence list--the lower the rule number, the higher the priority the rule has.

| Action  | Timeout | Name                   | Source  | Destination     | Protocol |
|---------|---------|------------------------|---------|-----------------|----------|
| ✓ Allow | 65535   | Allow to Ping WAN port | WAN,*   | LAN,192.168.1.1 | ICMP,8   |
| ✓ Deny  | 65535   | Default                | *,*     | LAN,*,*         | *,*      |
| ✓ Allow | 65535   | Default                | LAN,*,* | *,*             | *,*      |

**Enable:** Click to enable or disable the firewall rule profile.

**Name:** Type a descriptive name for the firewall rule profile.

**Action:** Select whether to allow or deny packets that conform to the rule.

**Inactive Timeout:** Type the number of seconds of network inactivity that elapses before the router refuses the incoming packet.

**Source:** Defines the source of the incoming packet that the rule is applied to.

- **Interface:** Select which interface (WAN or LAN) the rule is applied to.
- **IP Range Start:** Type the start IP address that the rule is applied to.
- **IP Range End:** Type the end IP address that the rule is applied to.

**Destination:** Defines the destination of the incoming packet that the rule is applied to.

- **Interface:** Select which interface (WAN or LAN) the rule is applied to.
- **IP Range Start:** Type the start IP address that the rule is applied to.
- **IP Range End:** Type the end IP address that the rule is applied to.
- **Protocol:** Select the protocol (TCP, UDP, or ICMP) of the destination.
- **Port Range:** Select the port range.

**Add:** Click to add the rule profile to the table at the bottom of the screen.

**Update:** Click to update information for the rule if user has selected a list item and have made changes.

**Delete:** Select a list item and click “**Delete**” to remove the item from the list.

**New:** Click “**New**” to erase all fields and enter new information.

**Priority Up:** Select a rule from the list and click “**Priority Up**” to increase the priority of the rule.

**Priority Down:** Select a rule from the list and click “**Priority Down**” to decrease the priority of the rule.

**Update Priority:** After increasing or decreasing the priority of a rule, click “**Update Priority**” to save the changes.

## 7.6 Management

Management leads to set up Remote Management feature.

### 7.6.1 Remote Management

This screen leads to set up remote management. Using remote management, the router can be configured through the WAN via a Web browser. A user name and password are required to perform remote management.

The screenshot shows the 'Remote Management' configuration page for an 802.11g Wireless Broadband Router. The page has a green header with the router model and a navigation menu on the left. The main area contains settings for HTTP, Ping, UPNP, and Gaming mode.

| Setting                | Value                                                                   |
|------------------------|-------------------------------------------------------------------------|
| HTTP                   | <input type="radio"/> Enable <input checked="" type="radio"/> Disabled  |
| Port                   | 8080                                                                    |
| Remote IP Range        | From * To *                                                             |
| Allow to Ping WAN Port | <input checked="" type="radio"/> Enable <input type="radio"/> Disabled  |
| Remote IP Range        | From * To *                                                             |
| UPNP Enable            | <input checked="" type="radio"/> Enabled <input type="radio"/> Disabled |
| Gaming mode            | <input checked="" type="radio"/> Enabled <input type="radio"/> Disabled |

Buttons: Cancel, Apply

**HTTP:** Enable or Disable user to management the WLAN Router form WAN site, type a range of router IP addresses that can be managed from WAN site

**Allow to Ping WAN Port:** Enable or Disable user to Ping the WLAN Router form WAN site, type a range of router IP addresses that can be pinged from WAN site.

**UPNP Enable:** UPNP is short for Universal Plug and Play that is a networking architecture that provides compatibility among networking equipment, software, and peripherals. The Router is an UPnP enabled router and will only work with other UPnP devices/software. If user does not want to use the UPnP functionality, selecting “Disabled” can disable it.

**Gaming mode:** If user is experiencing difficulties when playing online games or even certain applications that use voice data, user may need to enable Gaming Mode for these applications to work correctly. When not playing games or using these voice applications, it is recommended that Gaming Mode be disabled.

## 7.7 Tools

This page leads to restart the system, save and load different settings as profiles, restore factory default settings, run a setup wizard to configure router settings, upgrade the firmware, and ping remote IP addresses.

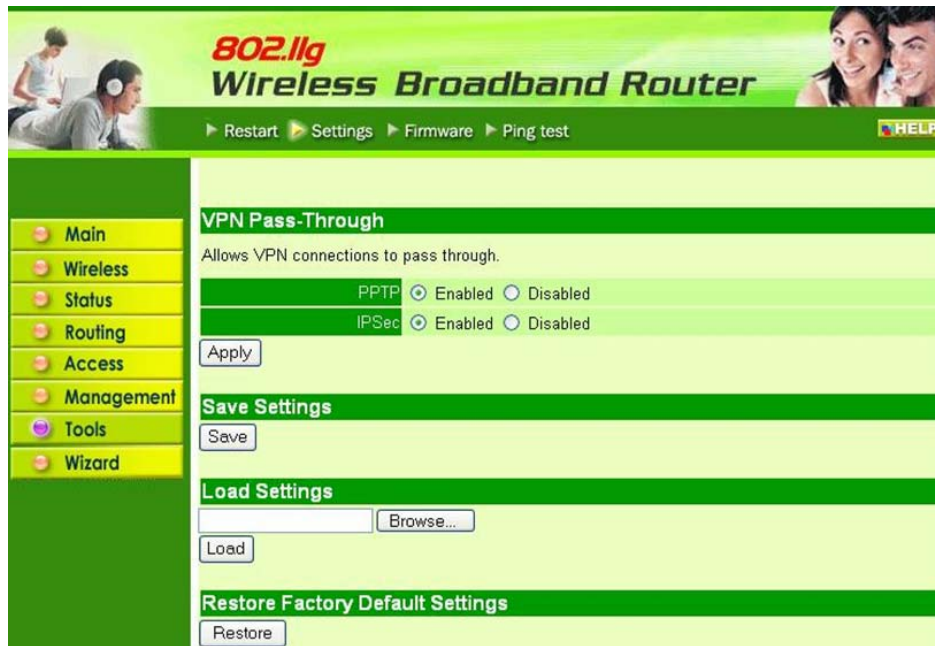
### 7.7.1 Restart

Click “**Restart**” to restart the system in the event the system is not performing correctly.



## 7.7.2 Settings

This screen leads to save settings as a profile and load profiles for different circumstances. User can also load the factory default settings, and run a setup wizard to configure the router and router interface.



**VPN Pass-Through:** Choose enable or disable on the PPTP or IPSec.

**Save Settings:** Click to save the current configuration as a profile that user can load when necessary.

**Load Settings:** Click "**Browse**" and go to the location of a stored profile. Click "**Load**" to load the profile's settings.

**Restore Factory Default Settings:** Click to restore the default settings. All configuration changes user has made will be lost.

### 7.7.3 Firmware

This screen leads to keep the router firmware up to date.



Please follow the below instructions:

1. Download the latest firmware from the manufacturer's Web site, and save it to disk.
2. Click **“Browse”** and go to the location of the downloaded firmware file. Select the file and click **“Upgrade”** to update the firmware to the latest release

### 7.7.4 Ping Test

The ping test is to determine whether an IP address or host is present on the Internet. Type the host name or IP address in the text box and click **“Ping”** to start testing.



# Technical Specifications

| General                    |                                                                                                                                                                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                  | IEEE 802.3u 100BASE-TX Fast Ethernet<br>IEEE 802.11g; IEEE 802.11b                                                                                                                                                                |
| Protocol                   | CSMA/CD                                                                                                                                                                                                                           |
| Radio Technology           | IEEE 802.11g Orthogonal Frequency Division Modulation                                                                                                                                                                             |
| Data Transfer Rate         | 802.11b: 1, 2, 5.5, 11Mbps (auto sense)<br>802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps @802.11g(auto sense)<br>Ethernet: 10Mbps (half duplex), 20Mbps (full-duplex)<br>Fast Ethernet: 100Mbps (half duplex), 200Mbps (full- duplex) |
| Receiver Sensitivity       | 54Mbps: Typical -70dBm @ 10% PER (Packet Error Rate)<br>11Mbps: Typical -85dBm @ 8% PER (Packet Error Rate)                                                                                                                       |
| TX Power                   | 15±2 dBm typically                                                                                                                                                                                                                |
| Network Cables             | 10BASE-T: 2-pair UTP Cat. 3,4,5; EIA/TIA- 568 STP<br>100BASE-TX: 2-pair UTP Cat. 5; EIA/TIA-568 STP                                                                                                                               |
| Frequency Range            | 2400 ~ 2483.5 MHz ISM band                                                                                                                                                                                                        |
| Modulation Schemes         | DBPSK/DQPSK/CCK/OFDM                                                                                                                                                                                                              |
| Security                   | 64/128-bits WEP Encryption; WPA-PSK, WPA2-PSK                                                                                                                                                                                     |
| Channels                   | 1 ~ 11 channels (FCC); 1 ~ 13 channels (ETSI);<br>1 ~ 14 channels (MKK)                                                                                                                                                           |
| Number of Ports            | One Auto-MDIX 10/100Mbps Fast Ethernet port                                                                                                                                                                                       |
| Physical and Environmental |                                                                                                                                                                                                                                   |
| DC inputs                  | DC 5V/1.2A                                                                                                                                                                                                                        |
| Power Consumption          | 3W (Max)                                                                                                                                                                                                                          |
| Temperature                | Operating: 0° ~ 40° C, Storage: -10° ~ 70° C                                                                                                                                                                                      |
| Humidity                   | Operating: 10% ~ 90%, Storage: 5% ~ 90%                                                                                                                                                                                           |
| Dimensions                 | 62 x 81.5 x 18.5 mm (W x H x D) without Antenna                                                                                                                                                                                   |
| EMI:                       | FCC Class B, CE Mark B                                                                                                                                                                                                            |