Encore 802.11n Wireless Router

User Manual

FCC Certifications

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

-Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

CE Mark Warning

This equipment complies with the requirements relating to electromagnetic compatibility, EN 55022 class B for ITE, the essential protection requirement of Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

Company has an on-going policy of upgrading its products and it may be possible that information in this document is not up-to-date. Please check with your local distributors for the latest information. No part of this document can be copied or reproduced in any form without written consent from the company.

Trademarks:

All trade names and trademarks are the properties of their respective companies.

Table of Contents

Unpacking Information

Thank you for purchasing Encore 802.11n Wireless Router. Before you start, please check all the contents of this package.

The product package should include the following:

1. **One Wireless Router**
2. **One power adapter**
3. **One User Manual (CD)**
4. **One detachable antenna**

Introduction To Wireless Router

General Description

The Encore 802.11n Wireless Router is compatible with IEEE802.11n standard, which supports data rate up to 300 Mbps in 2.4 GHz band, which is also compatible with IEEE 802.11g/b wireless devices. The router allows multiple users to share one broadband connection, as well as secures your private network. With its built-in 4-port switch and wireless AP, LAN users can share files, printers, or playing network games all at a blazing speed.

To provide a secure wireless network, this router supports wireless data encryption with 64/128-bit WEP, WPA and WPA2. Network Address Translation (NAT) Firewall is also support to shield your communications and network from hackers and wireless eavesdroppers.

The Wireless Router built-in with 4-port 10/100Mbps Fast Ethernet Switch is the latest generation of Wireless router product for Home/Office and SOHO users. This full-feature and self-contained compact Wireless Router will be fully for broadband access in both of LAN and Wireless environment. This device has been specifically designed to provide LAN and Wireless users the most cost-effective method with multiple accesses to the Internet at the cost of a single public IP address（IP Sharing） and enjoy the true Plug-and-Play installation. Moreover, the built-in 4-port 10/100Mbps switch lets users plug the network cable into the device without buying additional switch.

This device is also an Access Point. It has a built-in wireless LAN. Users can connect to Internet using wireless network interfaces anywhere within the range of its radio transmission. It’s ideal for SOHO users who require instant and convenient access to Internet without the restriction of connecting cables.

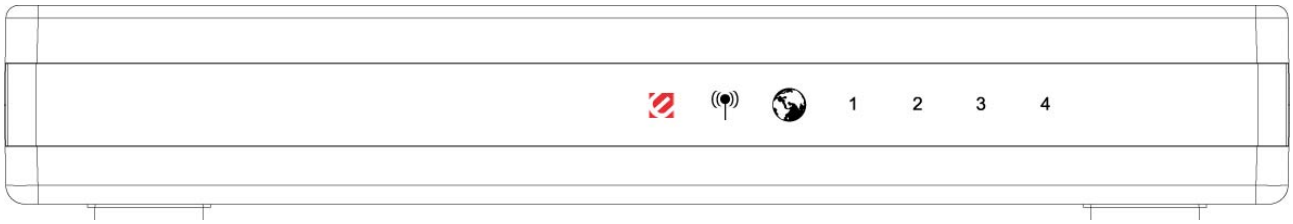
Key Features

The switch provides the following key features:

- Compatible with IEEE 802.11n, 802.11g/b wireless standards.
- Provides three 802.11n/g/b wireless Reverse SMA detachable antennas
- High speed transfer data rate up to 300Mbps
- Supports wireless data encryption with 64/128-bit WEP, WPA and WPA2
- Supports authentication for wireless connectivity based on ESSID
- Supports Multiple BSSID.
- Provides MAC access control and hidden SSID function
- WDS supported with WEP, TKIP and AES encryption
- Channel: USA 11, Europe 13
- Supports NAT IP Sharing
- Supports WAN connection type-Static IP, PPPoE, PPTP, & DHCP client
- SPI Anti-DoS Firewall; Virtual DMZ; DNS relay; UPnP
- Provides DHCP server and client
- Supports ALG for FTP, NetMeeting, DDNS (DynDNS, TZO)
- Supports QoS:WMM
- Supports firmware upgrade function via Web
- Supports system log
- Certifications: FCC Class B, CE Mark, VCCI Class B

The Front Panel

The front panel of the Wireless Router:



LED Definitions

- Status LED

  The LED will be dark for a few seconds when the system is started. After that, the LED will blink periodically to show the Wireless Router is working normally. If the LED stays green/dark that means the system failed, you need to contact your agent or try to reboot the system.

- WLAN LED

  I. When Wireless AP is ready for data transmitting and receiving, it is steady green.
  II. When the data is transmitting or receiving, it is blinking green.

- LAN LEDs

  Every port has an Act/Link LED. Steady green (link state) indicates that the port has good linkage to its associated devices. Flashing green indicates that the port is receiving or transmitting data between its associated devices.

- WAN LED

  The LED stays light (green) means the WAN port has good linkage to its associated devices.

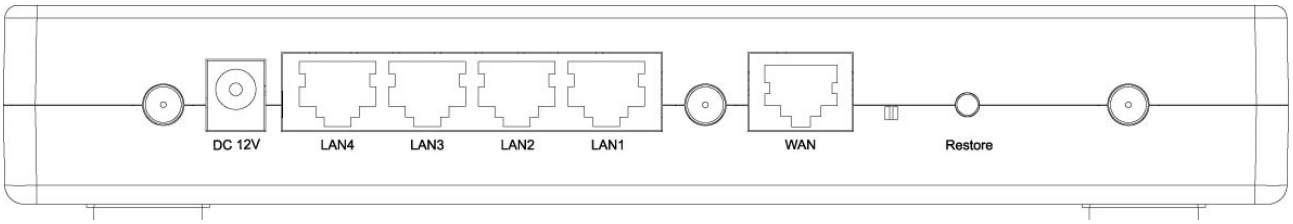
  The LED will blink green when there is traffic transverse the port.

- Setup Button

  We provide this setup button to help users connecting this router to Internet quickly.

The Rear Panel

The rear panel of the Wireless Router is shown below.



Power Connection

Plug the circle end of the power adapter firmly into the rear panel of the Wireless Router, and the other end put into an electric service outlet then the system is ready.

Placement

- **Desktop Option**

1. The Router has one plastic stand that can be divided into two parts.
2. Combine one part of stand with the side of router.
3. Do the same with the second part.
4. Place the Router.

Restore Default Button

1. Push the button for more than 5 seconds and then release it, the system will return to factory default setting. In the meantime, system rewrites flash to default value and Status LED halts for a while. Approximately 60 seconds later, the Status LED blinks green periodically, now the whole system parameters have returned to factory default value. If the process has been interrupted by any reason (power off…), the system will fail. Before performing the process, ensure a safe operating environment please!

2. To reboot the Router, press the button for 2-5 seconds and then release it, and all the setting won't be erased. Wait for the Router to complete the reboot, and then you can start to use it.

Warning： Incomplete factory setting recovery procedure will cause the Wireless Router malfunction ! If you are unfortunately in this situation, do not try to repair it by yourself. Consult your local distributor for help!

Installing And Using Wireless Router

This Chapter provides a step-by-step guide to the installation and configuration of the Wireless Router. We suggest you go over the whole chapter and then do more advanced operation.

Network configuration setup

Steps to build up the network:

- Connect the ADSL or Cable modem to the Ethernet WAN port on the back of the Wireless Router by using the UTP cable.
- Connect the phone line from the wall socket to the line-in port on the ADSL modem, or the coaxial cable to the line-in port on the Cable modem.
- Plug-in the power adapter to the modem and turn on the power. Install the Ethernet card into the computer by referring to the User Guide that came with the card.
- Connect the computer to the Wireless Router by using standard twisted-pair Ethernet cable from the computer's Ethernet card to an 10/100Mbps Ethernet port on the back of the Wireless Router.
- Plug-in the power adapter to the Router and the other side to the wall outlet.

Computer configuration setup

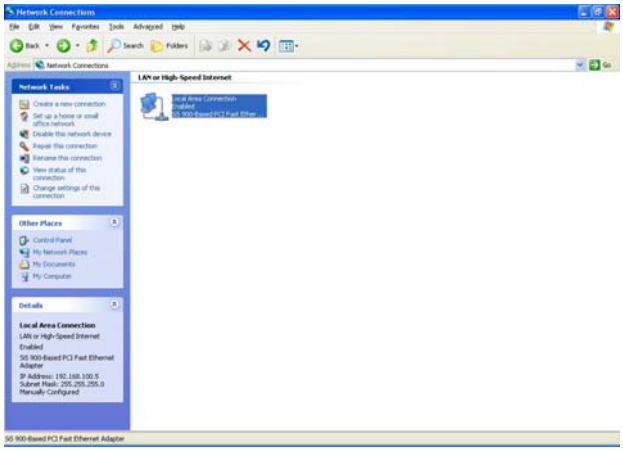
In order to communicate with this Wireless Router, you have to configure the IP addresses of your computer to be compatible with the device. The router supports DHCP server and it is enabled as default. Users that configure your IP address as **"Obtain an IP address automatically"** may skip the following IP configuration instruction.

Note:

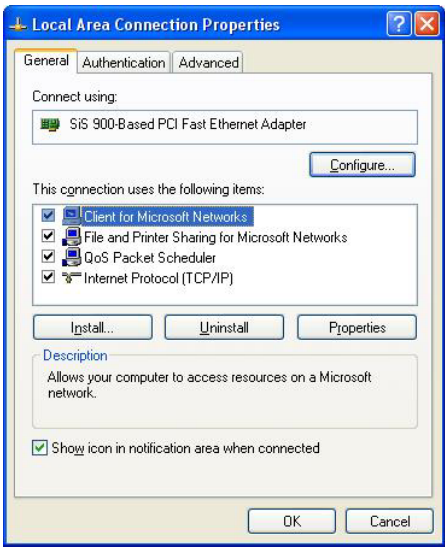
1. The default network setting of the device:
   IP address: 192.168.1.1
   Subnet Mask: 255.255.255.0
   DHCP Server: enabled
2. In the following TCP/IP configuration guide, the IP address "192.168.1.2 " is assumed to be your IP address if you want to specify IP addresses manually. Please **DO NOT** choose "192.168.1.1" for the IP address (192.168.1.1) has been set as the default IP for this device.
3. The following TCP/IP configuration guide uses windows XP as the presumed operation system.

Procedures to configure IP addresses for your computer

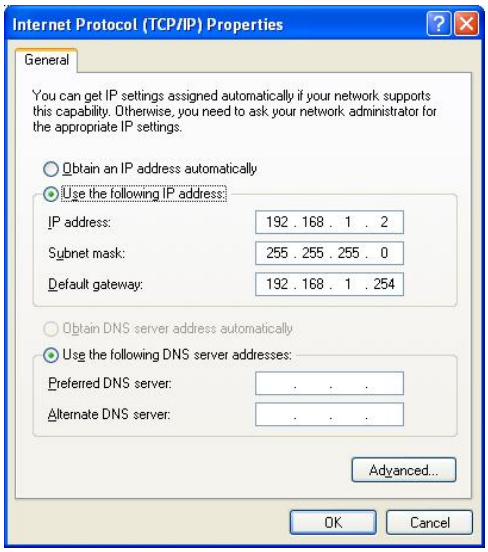
1. If you are in Classic Start menu view, click **Start > Settings > Control Panel > Network Connections**. If you are in Start menu view, click **Start > Control Panel > Network Connections.**
2. Double click **Local Area Connection**.



3. Choose **Internet Protocol (TCP/IP)** and click **Properties**.



4. You may choose “Obtain an IP address automatically”(recommend) to get IP address automatically or choose “Use the following IP address” to specify IP addresses manually. Please click the **OK** button after your configuration.



Management

Wireless Router configuration setup

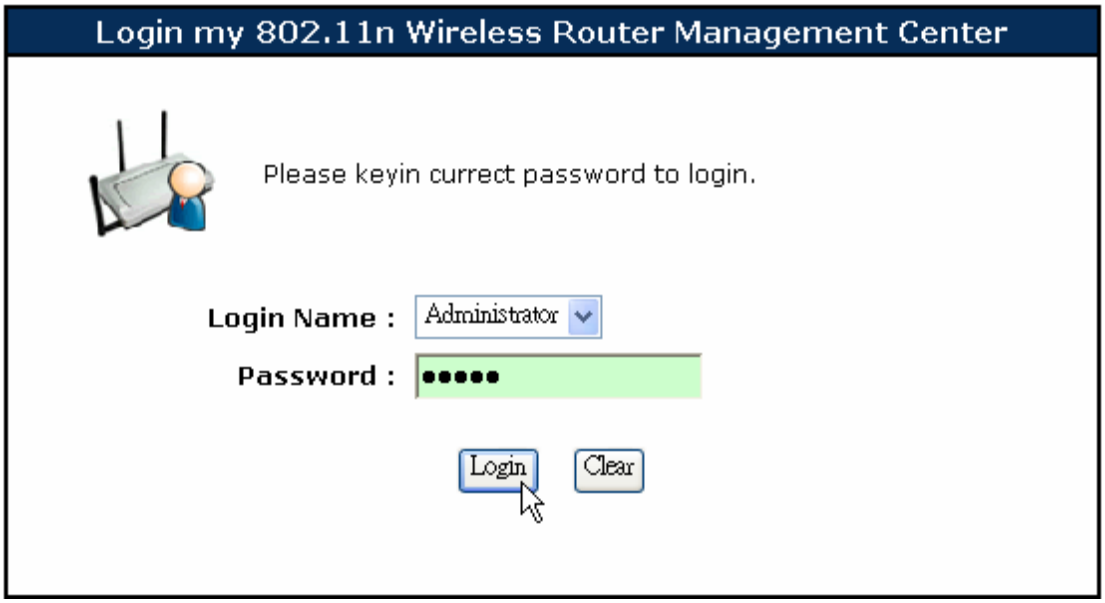
In order to make the whole network operate successfully, it is necessary to configure the Wireless Router through your computer has a WEB browser installed. Please follow up the steps listed below.

1. Double click the Internet WEB browser icon on your desktop screen (Netscape Communicator 4.0 and Internet Explorer 3.0 or update version)

2. Type 192.168.1.1 into the URL WEB address location and press Enter.

3. The Login Name and Password Required window appears.

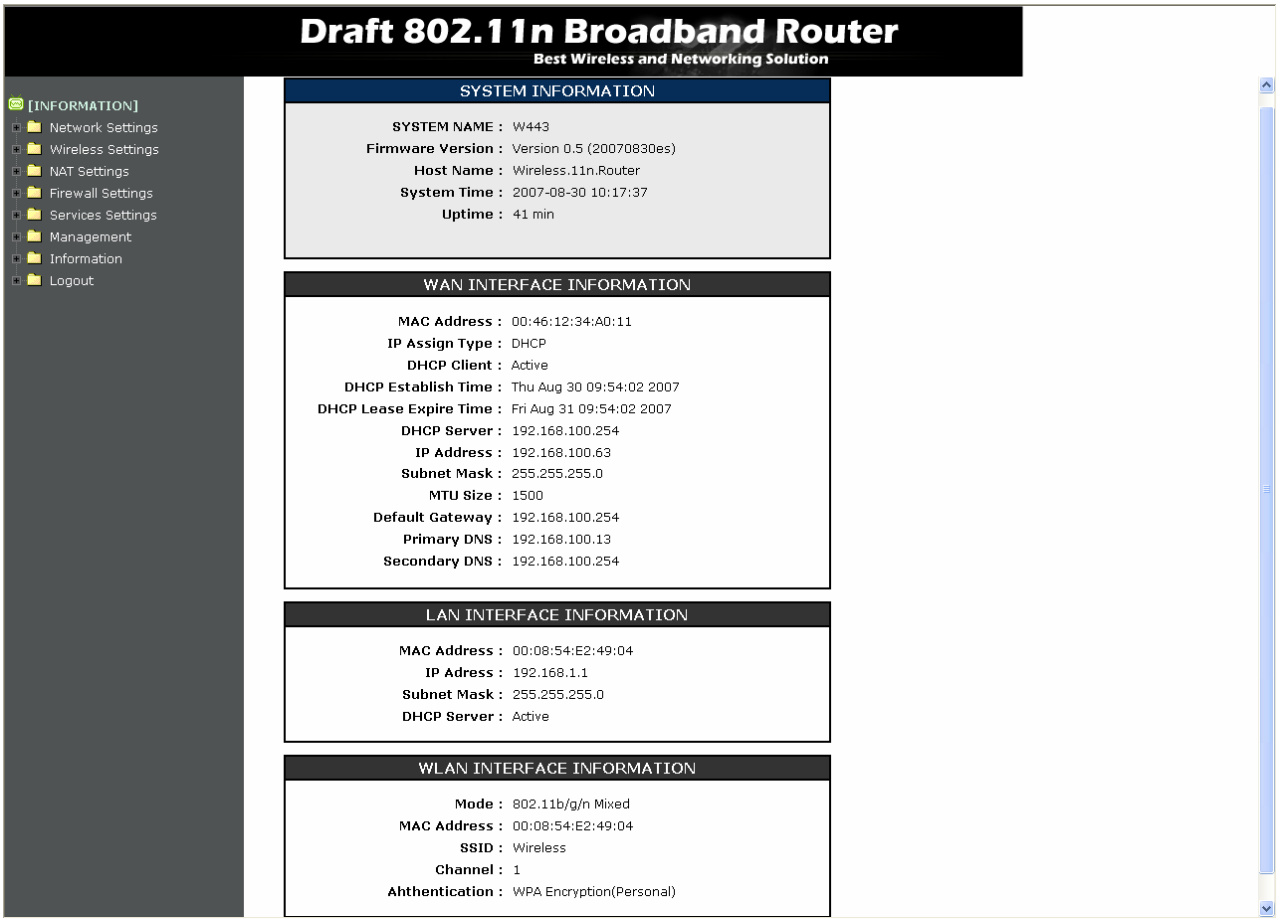
   - Select **Administrator** in the Login Name drop list (default value).
   - Enter **admin** in the Password location (default value).
   - Click **Login** button.



4. The Graphic User Interface

After the password authorization, the Information page shows up as the home page of the Graphic User interface. You may click on each folder on left column of each page to get access to each configuration page.

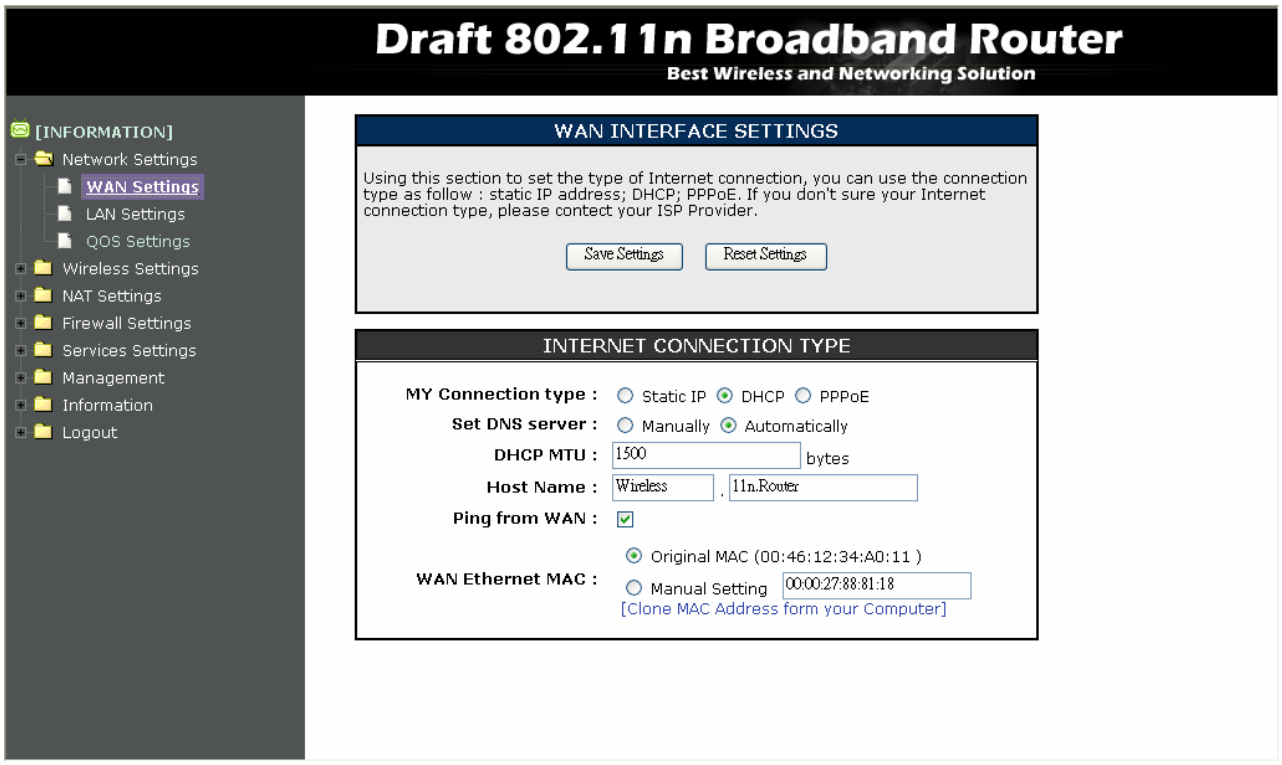
Note: Please note that you should click the **Save Settings** button to apply your configuration to this device. You can also restore the default settings by clicking the **Reset Settings** button.



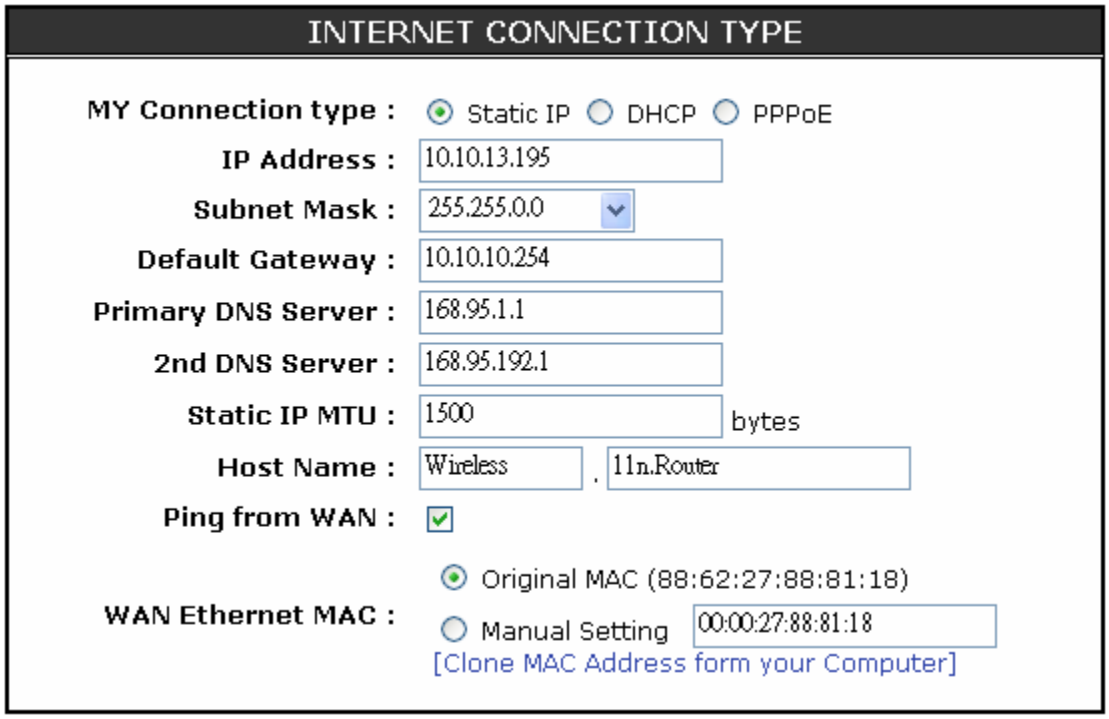
Network Setting

WAN Interface Setup

This page allows users to configure those parameters for connecting to Internet. You may select the WAN Access Type from the “My Connection type” column and configure parameters for each mode.



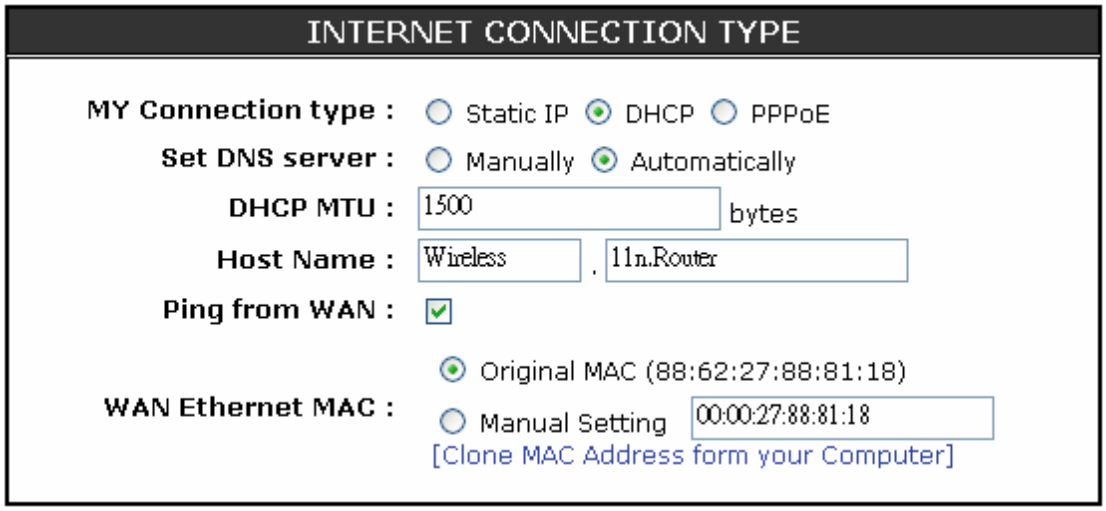
Static IP Mode



Items	Information
IP Address, Subnet Mask and Default Gateway	Fill in the IP address, Subnet Mask and Default Gateway that provided by your Internet Service Provider (ISP).
Primary and 2nd DNS server	To specify the Domain Name Server (DNS). Enter the DNS provided by your ISP in 1st and 2nd server.
Static IP MTU	To enable the Maximum Transmission Unit of Router setup. Any packet over this number will be chopped up into suitable size before sending. Larger number will enhance the transmission performance. Enter the MTU number in the blank to set the limitation (default 1500bytes).
Host Name	Name of this device.
Ping from WAN	Mark the check box to enable others detecting this device from WAN, and clear the checkbox to disable.
WAN Ethernet MAC	Select to use the following MAC as the MAC while serving Internet: Original MAC: the MAC of the device. Manual Settings: the MAC of your computer. Click on the words in the bracket to clone your computer MAC in the blank. You can also change the MAC numbers if you need.

* Please click on the **Save Settings** button or the **Reset Settings** button on the above table to save/reset the configurations.

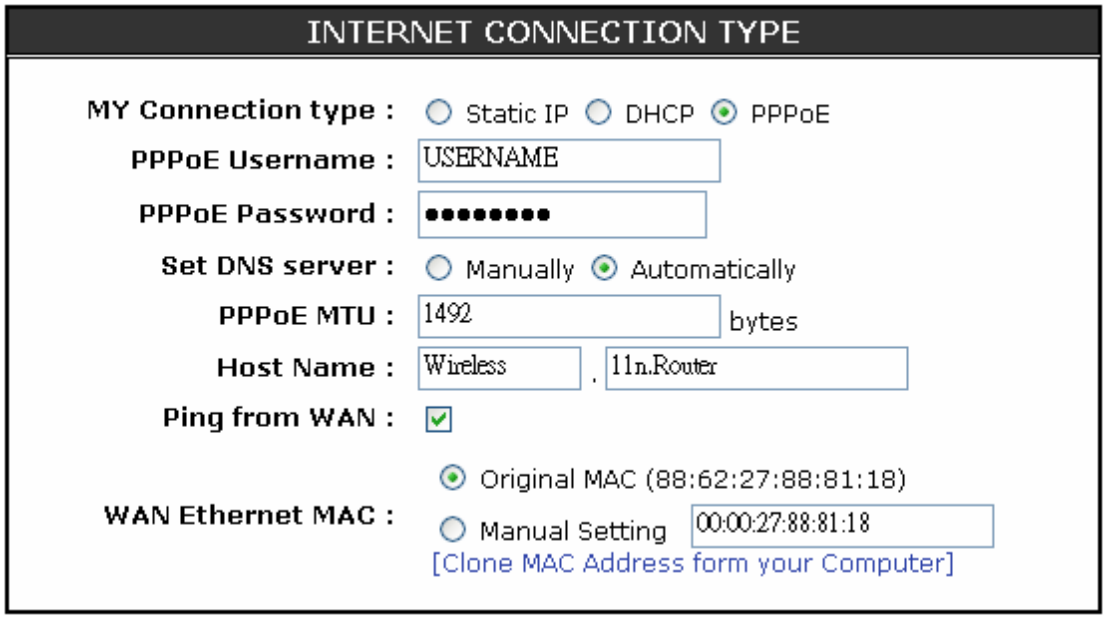
DHCP Client Mode



Items	Information
Set DNS server	If your DNS provide by ISP is dynamic, choose "Automatically", if not choose "Manually" and enter the DNS provided by your ISP in DNS 1, 2.
DHCP MTU	To enable the Maximum Transmission Unit of Router setup. Any packet over this number will be chopped up into suitable size before sending. Larger number will enhance the transmission performance. Enter your MTU number in the text-box to set the limitation (default 1500bytes).
Host Name	Name of this device.
Ping from WAN	Mark the check box to enable others detecting this device from WAN, and clear the checkbox to disable.
WAN Ethernet MAC	Select to use the following MAC as the MAC while serving Internet: Original MAC: the MAC of the device. Manual Settings: the MAC of your computer. Click on the words in the bracket to clone your computer MAC in the blank. You can also change the MAC numbers if you need.

* Please click on the **Save Settings** button or the **Reset Settings** button on the above table to save/reset the configurations.

PPPoE Mode

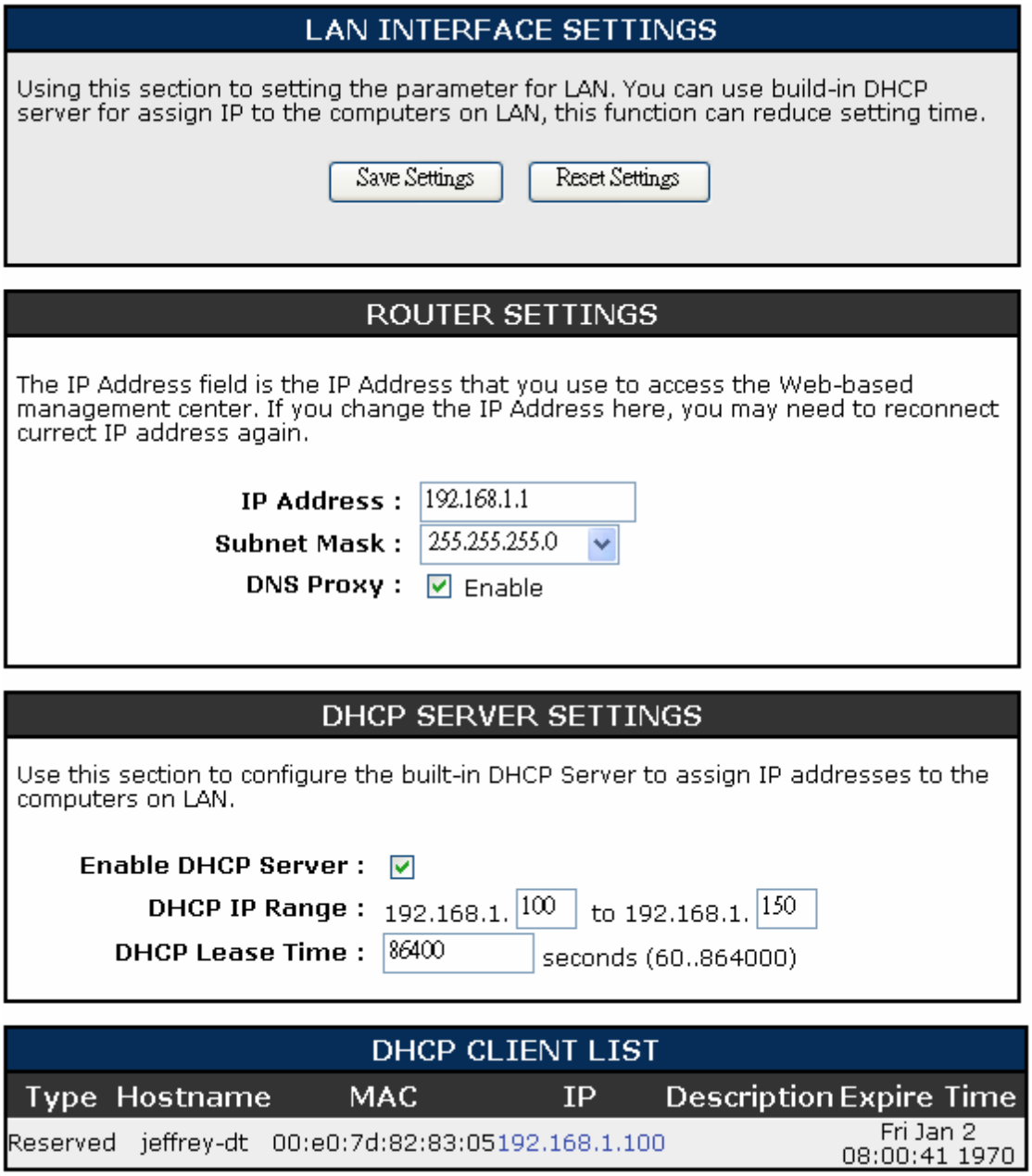


Items	Information
PPPoE Username and Password	Fill in the User Name and Password that provided by your ISP. The default username/password is USERNAME/PASSWORD.
Set DNS server	If your DNS provide by ISP is dynamic, choose “Automatically”, if not, choose “Manually” and enter the DNS provided by your ISP in DNS 1, 2.
PPPoE MTU	To enable the Maximum Transmission Unit of Router setup. Any packet over this number will be chopped up into suitable size before sending. Larger number will enhance the transmission performance. Enter your MTU number in the text-box to set the limitation (default 1492 bytes).
Host Name	Name of this device.
Ping form WAN	Mark the check box to enable others detecting this device from WAN, and clear the checkbox to disable.
WAN Ethernet MAC	Select to use the following MAC as the MAC while serving Internet: Original MAC: the MAC of the device. Manual Settings: the MAC of your computer. Click on the words in the bracket to clone your computer MAC in the blank. You can also change the MAC numbers if you need.

* Please click on the **Save Settings** button or the **Reset Settings** button on the above table to save/reset the configurations.

LAN Interface Setup

To set up the configuration of LAN interface, private IP of you router LAN port and subnet mask for your LAN segment.



Router Settings

Items	Information
IP address	The IP of your Router LAN port (default 192.168.1.1).
Subnet Mask	Subnet Mask of you LAN (default 255.255.255.0).
DNS Proxy	DNS proxy takes DNS queries from the local network and forwards them to an Internet DNS. Mark the check box to enable DNS Proxy function or clear to disable.

* Please click on the **Save Settings** button or the **Reset Settings** button on the above table to save/reset the configurations.

DHCP Server Settings

Items	Information
Enable DHCP Server	To give your LAN Client an IP, you have to enable DHCP server. If not, manual setting up your client IP is necessary when you want to use the router as your client's default gateway.
DHCP IP Range	Specify the DHCP Client IP address range default (100~150).
DHCP Lease Time	The time for the device to recycle and give out DHCP IP (default 86400).

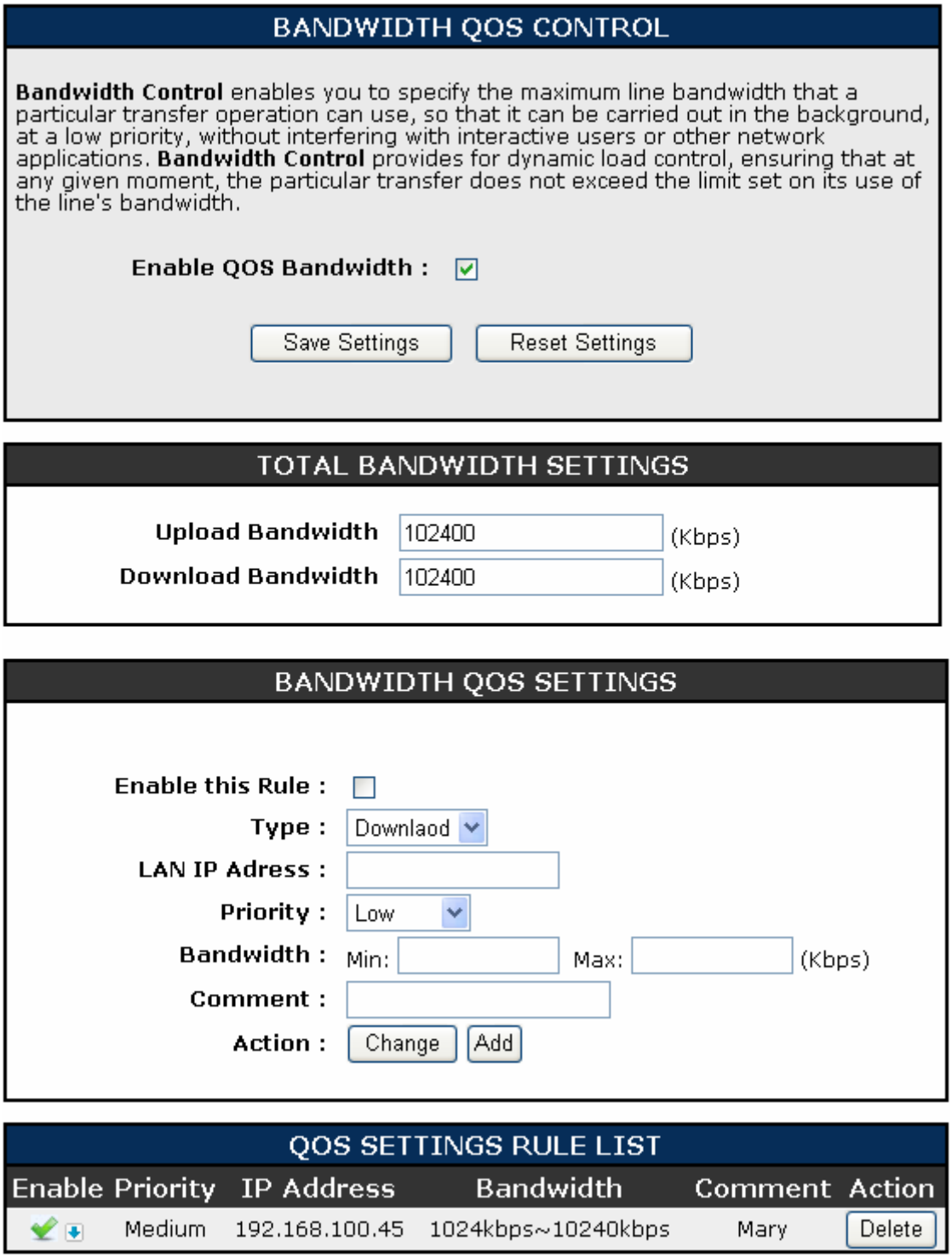
* Please click on the **Save Settings** button or the **Reset Settings** button on the above table to save/reset the configurations.

DHCP Server Settings

The information of type, hostname, MAC, IP, description and expire time of the DHCP clients that have connected with this device.

QoS Settings

The QoS (Quality of Service) Settings page provides different priority to different users or data flows.



Total Bandwidth Settings

You can setup the total upload/ download bandwidth manually (default 102400).

Bandwidth QoS Settings

Items	Information
Enable this Rule	Mark to enable the configuration, and clear to disable.
Type	Select the type of download or upload.
LAN IP Address	Fill in the MAC address that you are going to control.
Priority	Select the transmission priority of low, medium, high, or highest.
Bandwidth	Fill in the minimum and maximum bandwidth.
Comment	Give a definition to the LAN IP Address.
Action	After configuring the above settings, click **Add** to add a new list in the following MAC Access Control List. The **Change** button can be used to change the configuration.

* Please click on the **Save Settings** button or the **Reset Settings** button on the above table to save/reset the configurations.

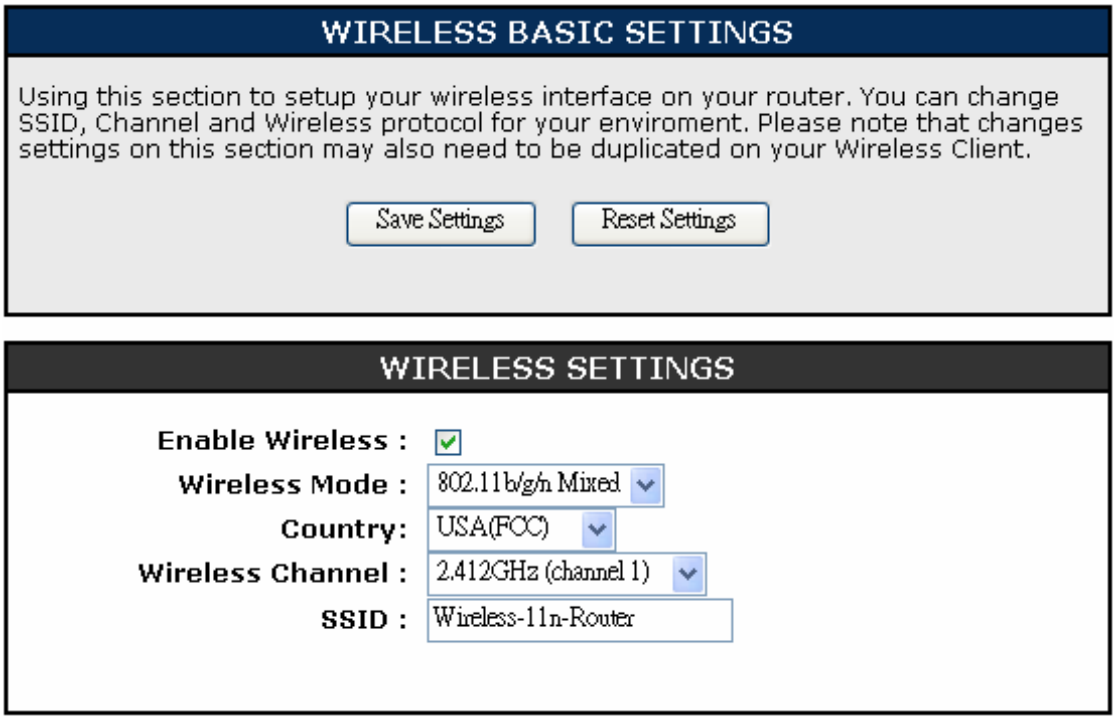
Bandwidth QoS Settings

Lists the Bandwidth QoS Settings you have added before. Click on the list to change configuration, or the **Delete** button to delete the list.

Wireless Settings

Basic Settings

You can set up the configuration of your Wireless and monitor the Wireless Clients associate with your AP.

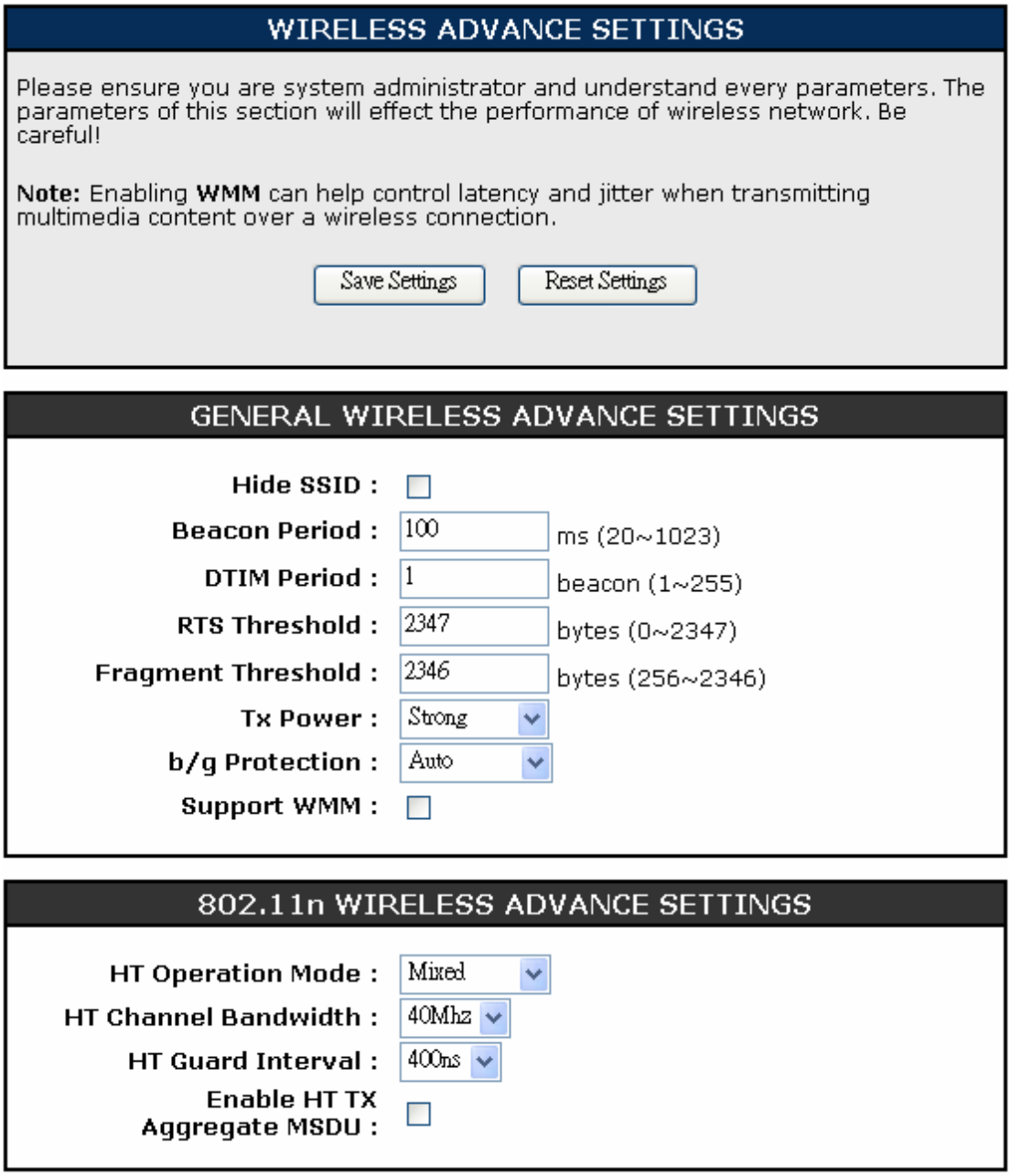


Items	Information
Enable Wireless	Mark the checkbox to enable Wireless interface or uncheck to disable.
Wireless Mode	To select a band for this device to match 802.11g/b/n mixed, 802.11g/b mixed, 802.11b, 802.11g, or 802.11n.
Country	Select the region you live.
Wireless Channel	Select a channel for the wireless network of this device.
SSID	Service set identifier for the name of the wireless network.

* Please click on the **Save Settings** button or the **Reset Settings** button on the above table to save/reset the configurations.

Advanced Settings

You can set advanced wireless LAN parameters of this router. We recommend not changing these parameters unless you know what changes will be there on this router.



General Wireless Advance Settings

Items	Information
Hide SSID	Mark to disable SSID from broadcasting. As default, this device broadcasts its SSID to allow every wireless station located within the coverage of this wireless router to discover this wireless router easily.
Beacon Period	The period of time a beacon is broadcasted (default 100ms).
DTIM Period	The beacon of a Delivery Traffic Indication Message is broadcasted (default 1 beacon).
RTS Threshold	If the packet size is smaller than the Request To Send threshold, the wireless router will not send this packet by using the RTS/CTS mechanism (default 2347 bytes).
Fragment Threshold	Specifies the maximum size of packet during the data transition. A higher value brings a better performance (default 2346 bytes)
Tx Power	Select the Transmission Power of very weak, weak, medium, and strong according to your demand.
g/b Protection	Allows the adapters search for 802.11g/b singles only. Select “Auto” to turns it on or off automatically, select “Always On” to support protection or select “Always Off” to disable this function.
Support WMM	To enable/disable Wi-Fi Multimedia function.

* Please click on the **Save Settings** button or the **Reset Settings** button on the above table to save/reset the configurations.

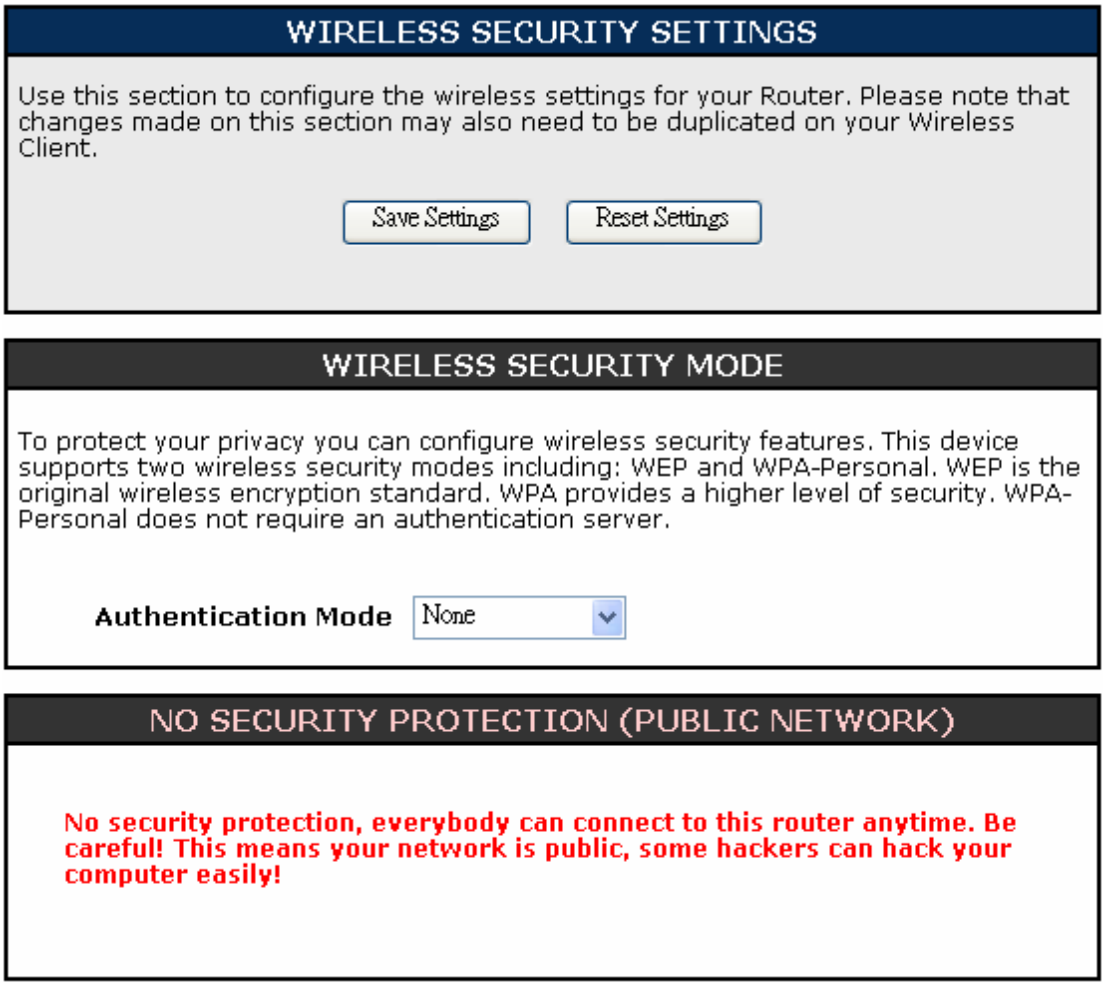
802.11n Wireless advance Settings

Items	Information
HT Operation Mode	Select the mixed or green field mode as the Hyper Throughput operation mode.
HT Channel Bandwidth	Select the 40MHz or 20MHz as the channel bandwidth.
HT Guard Interval	Select 400ns or 800ns as the interval time.
Enable HT TX Aggregate MSDU	Mark to enable Hyper Throughput TX Aggregate MAC Service Data Unit, and clear to disable.

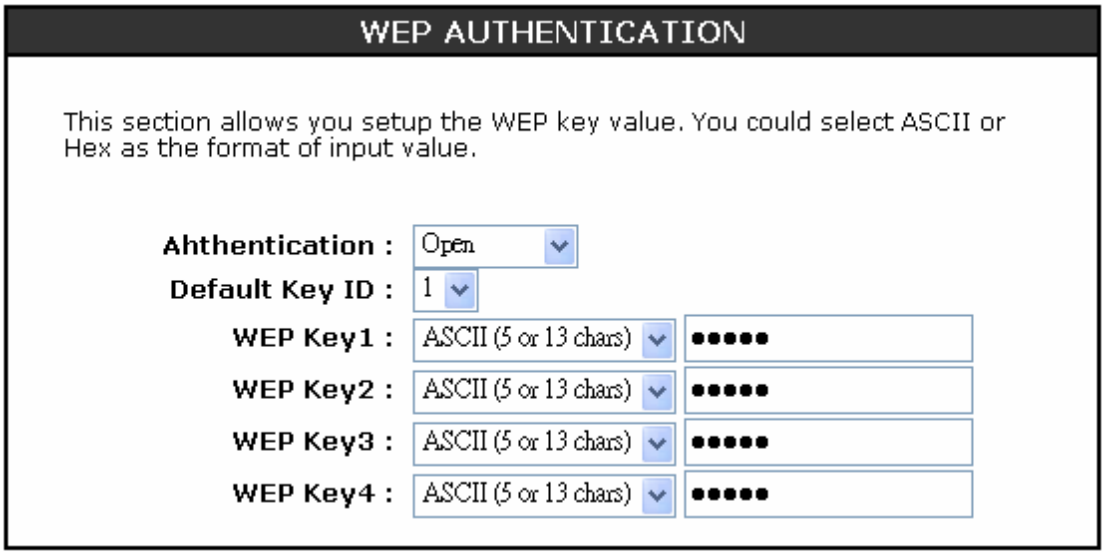
* Please click on the **Save Settings** button or the **Reset Settings** button on the above table to save/reset the configurations.

Security Settings

The Security function protects your wireless network from invasion. We provide WEP and WPA encryption to secure your wireless network. As default, the authentication is configured as safe mode. Please select None/WEP/WPA (Personal) in the drop list. If you select none, any data will be transmitted without encryption and any station can access the router.



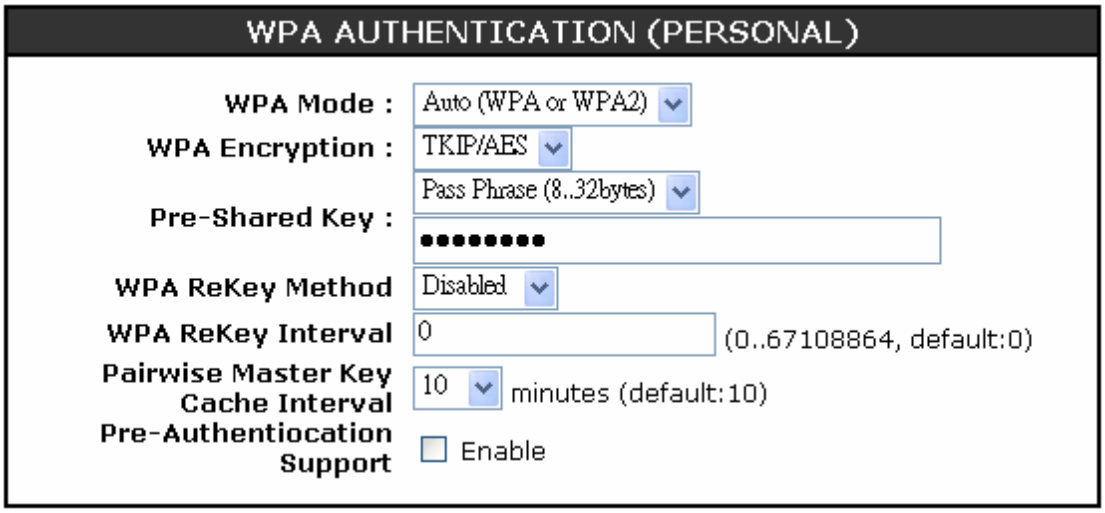
WEP Configuration



Items	Information
Authentication	Open: Wireless AP can associate with this wireless router without WEP encryption. Shared Key: Wireless AP can associate with this wireless router only with WEP encryption.
Default Key ID	Select to use the WEP key value of 1,2,3 or 4 as in the following settings.
WEP Key 1, 2, 3 and 4	Select ASCII or Hex to setup the key value (default 012345).

* Please click on the **Save Settings** button or the **Reset Settings** button on the above table to save/reset the configurations.

WPA Configuration

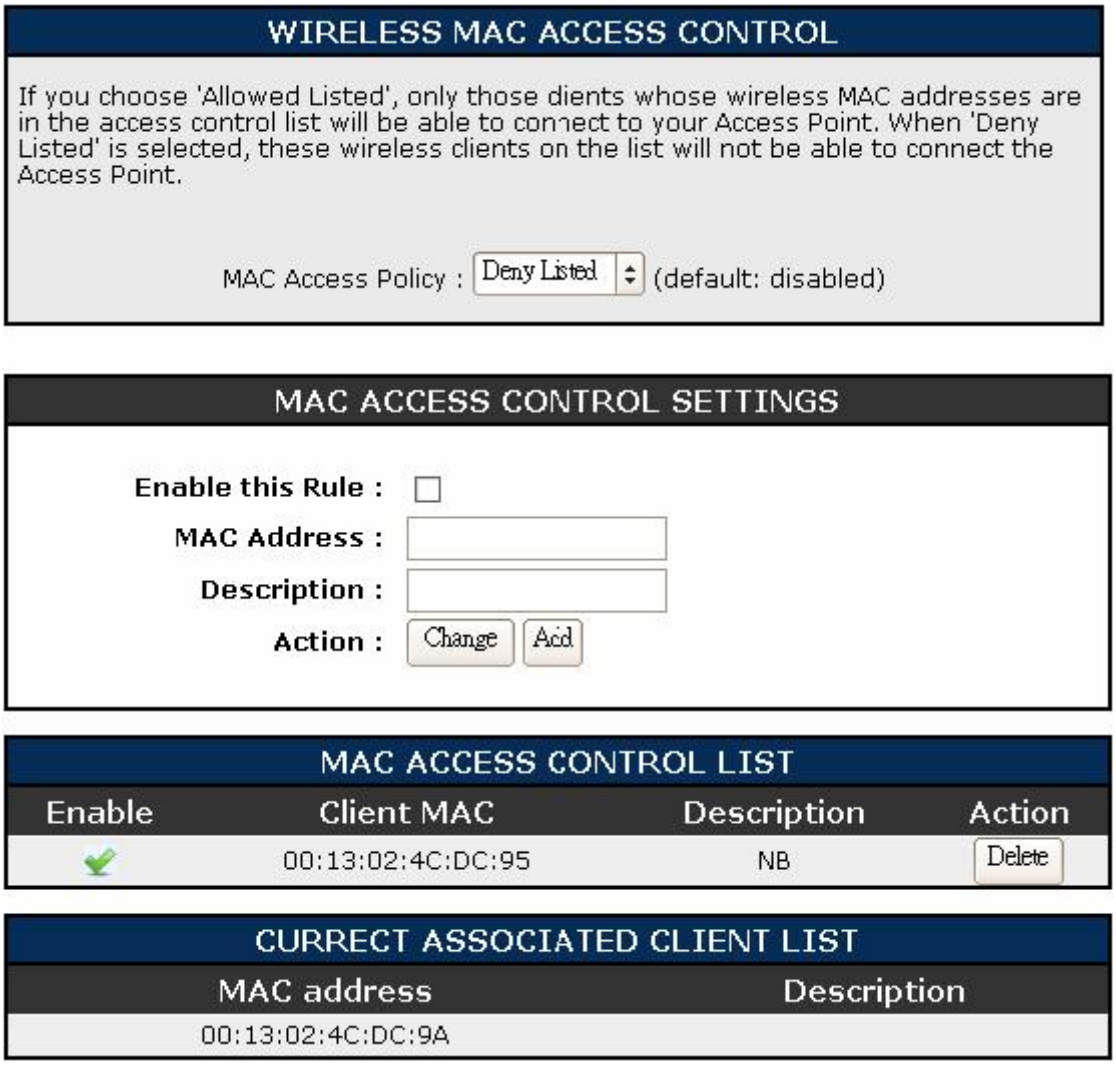


Items	Information
WPA Mode	Select the option in the drop list to enable modes of auto, WPA only, or WPA2 only.
WPA Encryption	Select TKIP / AES, TKIP or AES as WPA encryption.
Pre-Shared Key	Select the key format of Pass Phrase or Hex. Enter the Pre-Shared Key according to the key format you select (default 01234567).
WPA ReKey Method	To enable/disable WPA rekey method by time or by packet.
WPA ReKey Interval	Enter the numbers to setup the WPA rekey interval.
Pairwise Master Key Cache Interval	Select 1, 5, 10, 20, 30, 60, or 120 minuets as the cache interval time.
Pre-Authentication Support	Mark this checkbox to enable pre-authentication function, and clear to disable.

* Please click on the **Save Settings** button or the **Reset Settings** button on the above table to save/reset the configurations.

Access Control

To restrict the Number of Access authentication of Stations, set up the control list in this page. You may select “Allow Listed” to allow those allowed MAC addresses or select “Deny Listed” to ban those MAC addresses from accessing to this device.



MAC Access Control Settings

Items	Information
Enable this Rule	Mark to enable the configuration, and clear to disable.
MAC Address	Fill in the MAC address that you are going to control.
Description	Give a definition to the MAC Address.
Action	After configuring the above settings, click **Add** to add a new list in the following MAC Access Control List. The **Change** button can be used to change the configuration.

* Please click on the **Save Settings** button or the **Reset Settings** button on the above table to save/reset the configurations.

MAC Access Control List

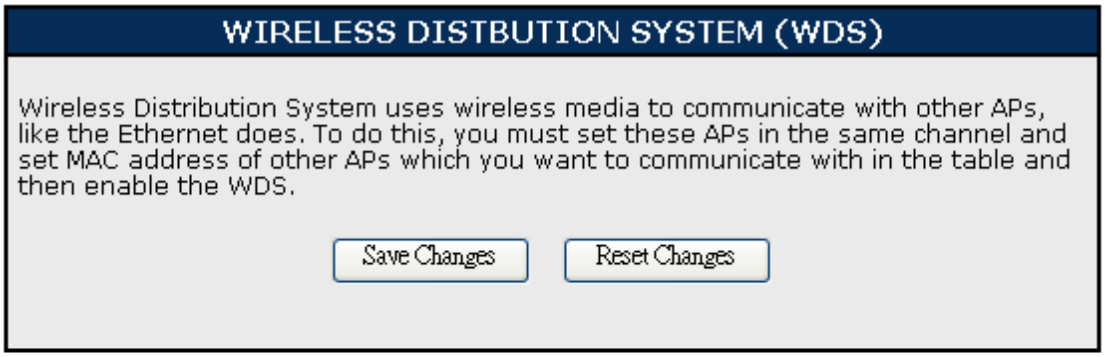
Lists the MAC Access Control Settings you have added before. Click on the list to change configuration, or the **Delete** button to delete the list.

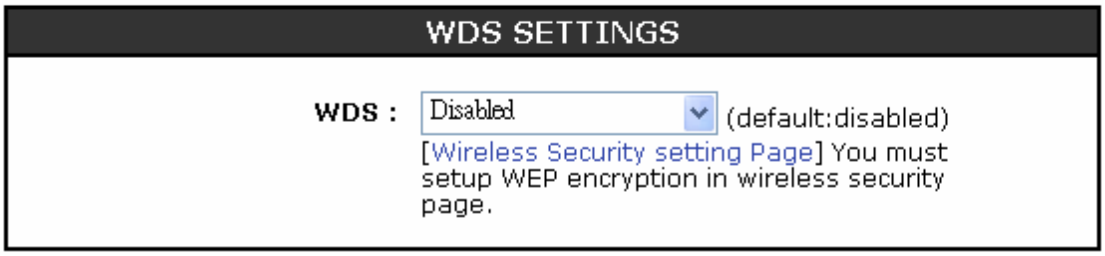
Current Associated Client List

Lists the current associated client connected to this device. Click on the list to add it into the MAC Access Control List then to do more configurations on it.

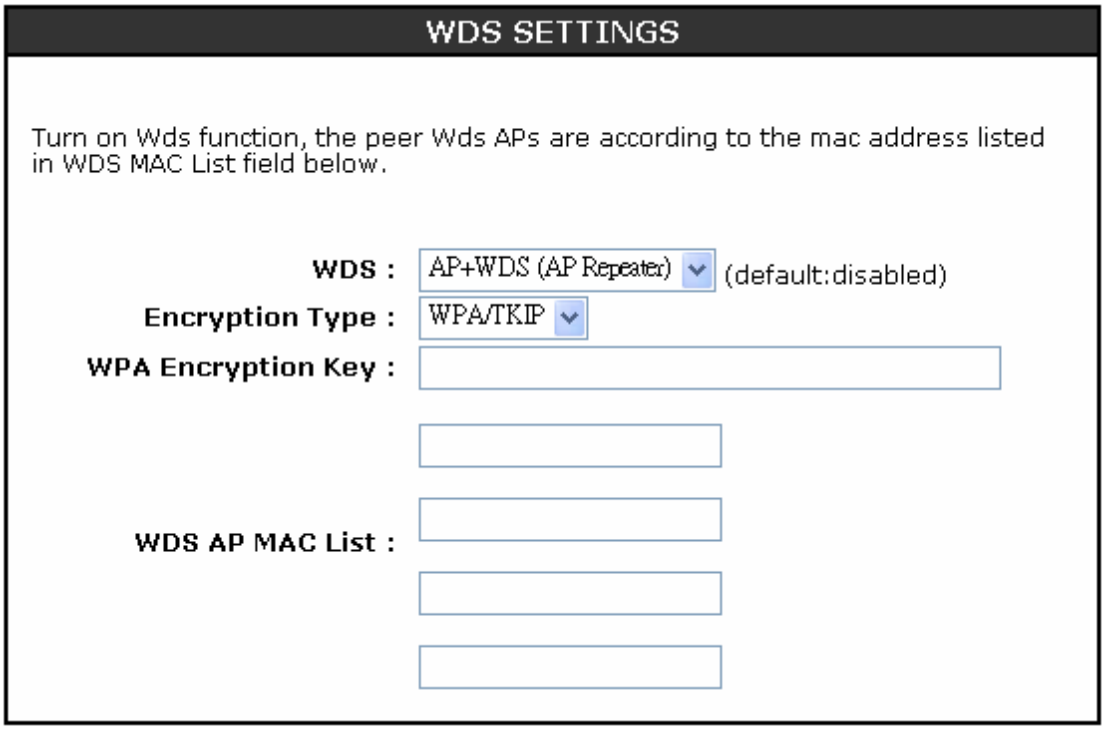
WDS Settings

Wireless Distribution System allows the router to communicate with other APs wirelessly. To make it work, you must ensure that these APs and the Router are in the same Channel and add these APs MAC Address and Comment values into the WDS list.

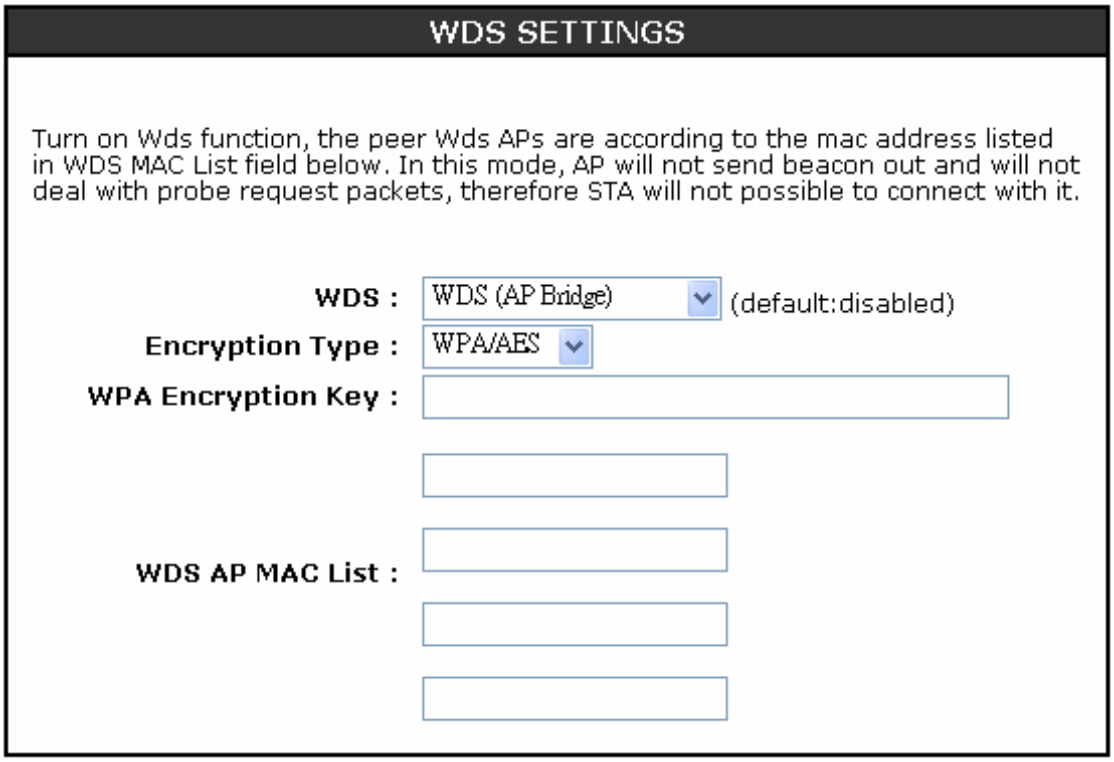




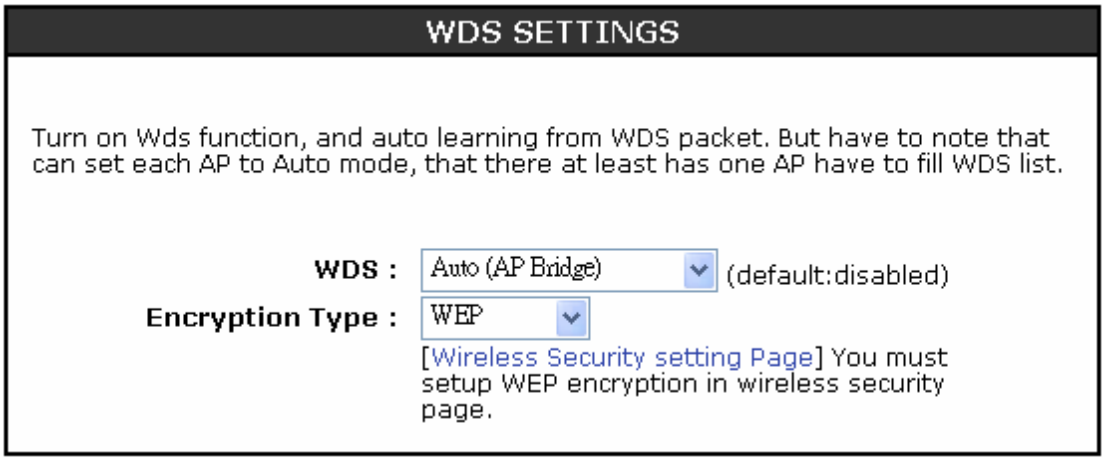
AP+WDS (AP Repeater)



WDS (AP Bridge)



Auto (AP Bridge)

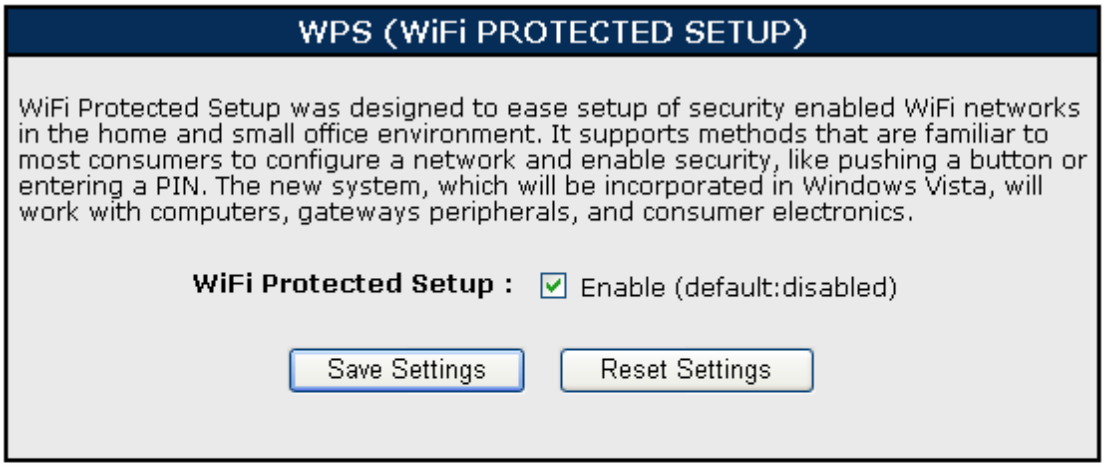


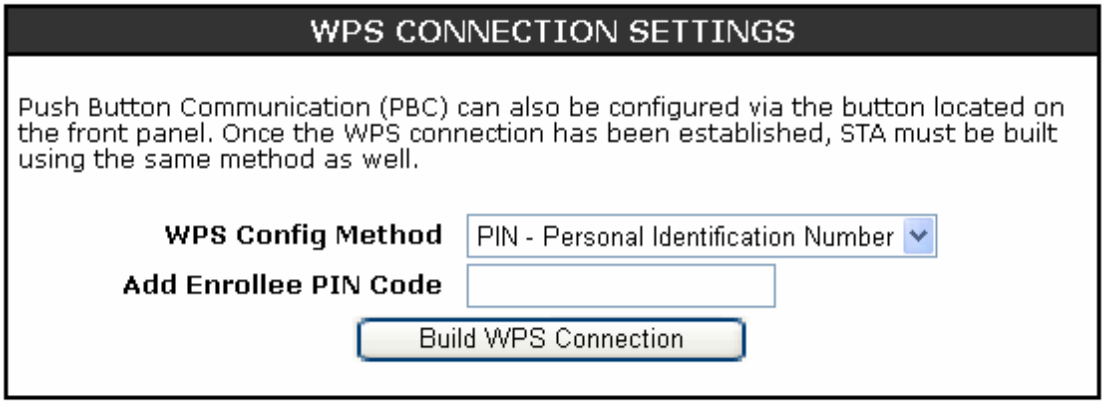
Items	Information
WDS	Select the option in the drop list to enable AP+WDS (AP Repeater), WDS (AP Bridge) or Auto (AP Bridge) as WDS format.
Encryption Type	Select the option in the drop list to enable WEP, WPA/TKIP, and WPA/AES encryption types. If you select None, any data will be transmitted without encryption and any station can access the router.
WPA Encryption Key	For encryption type of WPA/TKIP and WPA/AES, you have to fill in the WPA encryption key. Please use Pass Phrase (8~32bytes) key format.
WDS AP MAC List	For encryption type of WPA/TKIP and WPA/AES, you have to fill in the WDS AP MAC. You can fill up to 4 sets of WDS AP MAC lists.

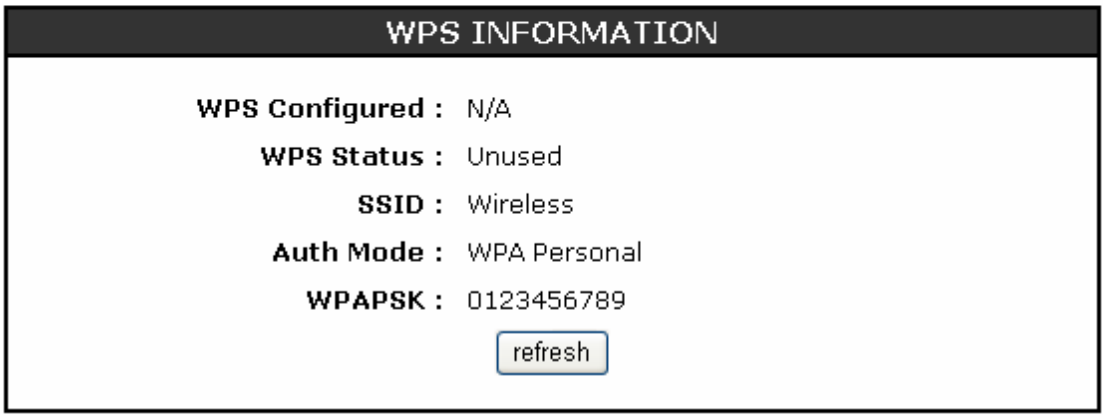
* Please click on the **Save Settings** button or the **Reset Settings** button on the above table to save/reset the configurations.

WPS Settings

Wireless Distribution System allows the router to communicate with other APs wirelessly. To make it work, you must ensure that these APs and the Router are in the same Channel and add these APs MAC Address and Comment values into the WDS list.







WPS Connection Settings

Items	Information
WPS Config Method	PIN method (Personal Identification Number): read the PIN from either a sticker on the new STA or a display. PBC method (Push Button Communication): in which the user simply has to push a button, either an actual or virtual one, on both the AP and the new STA.
Add Enrollee PIN Code	Fill in the PIN code to enrollee device. Click on **Build WPS Connection** button to execute.

* Please click on the **Save Settings** button or the **Reset Settings** button on the above table to save/reset the configurations.

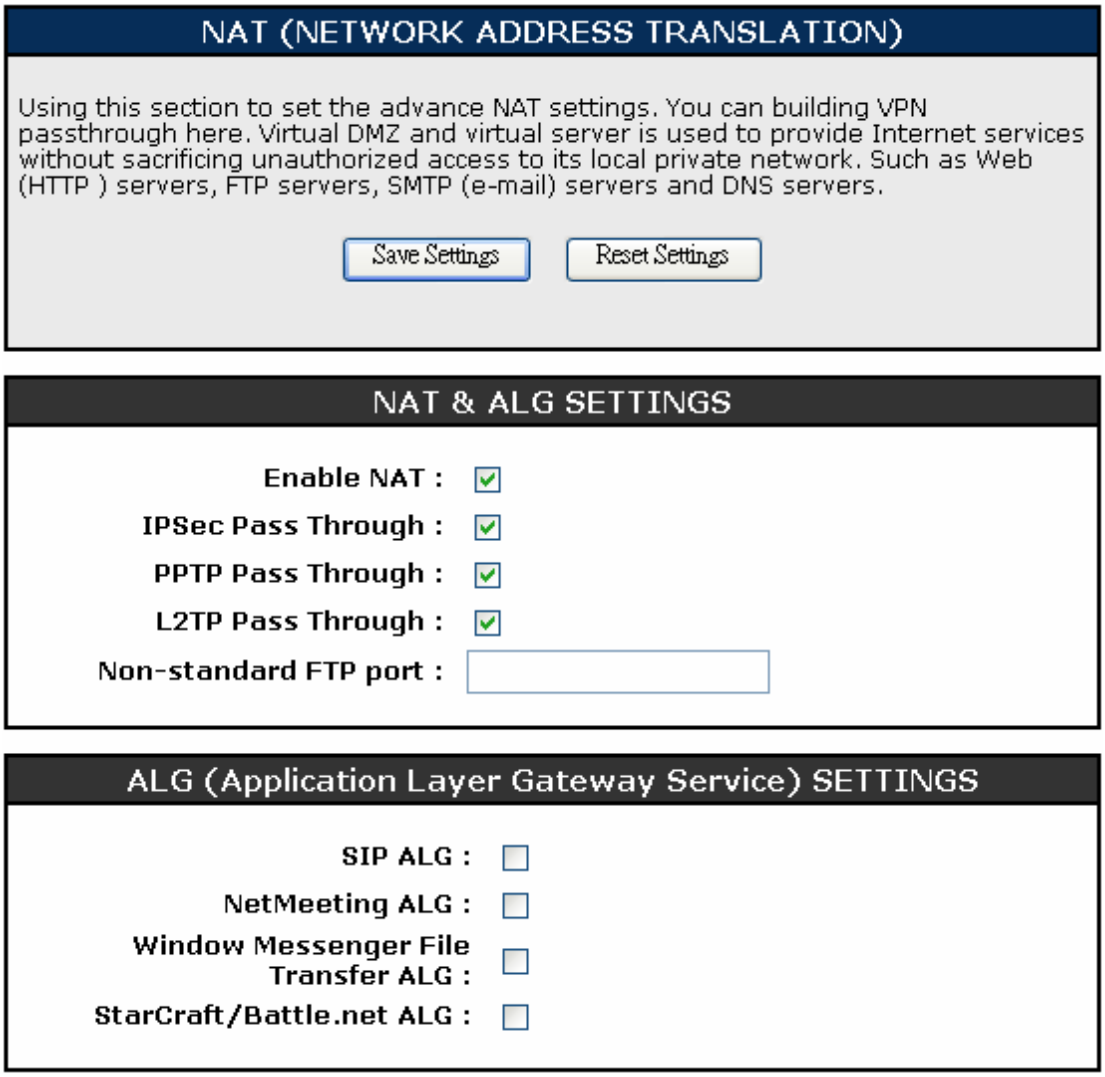
WPS Information

Shows the information of WPA configured, status, SSID, authentication mode, and pre-shared key. Click on **Refresh** button to refresh the information.

NAT Settings

NAT Settings

NAT (Network Address Translation) involves re-writing the source and/or destination addresses of IP packets as they pass through a Router or firewall. NAT enable multiple hosts on a private network to access the Internet using a single public IP address.



NAT & ALG Settings

Click on the checkbox to enable NAT function, IPSec (IP Security), PPTP (point-to-point tunneling protocol), and L2TP (layer 2 tunneling protocol) pass through on Virtual Private Network (VPN), or clear to disable. Fill in the port number in the Non-standard FTP port blank if you need.

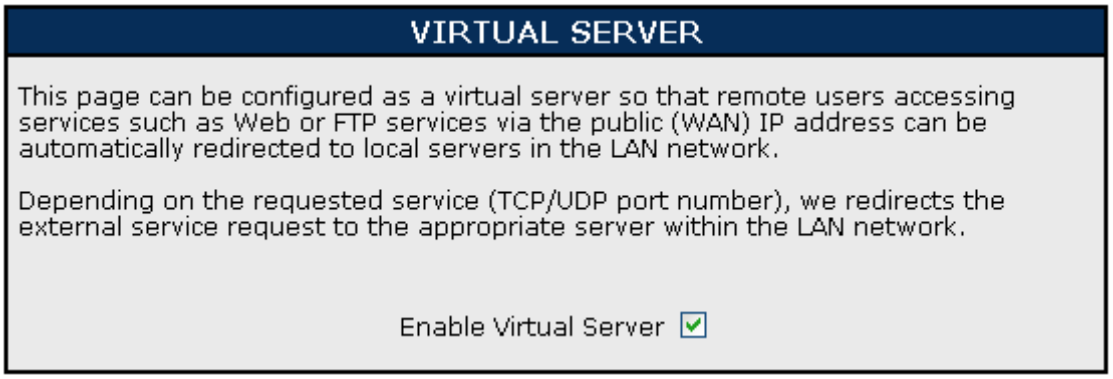
ALG Settings

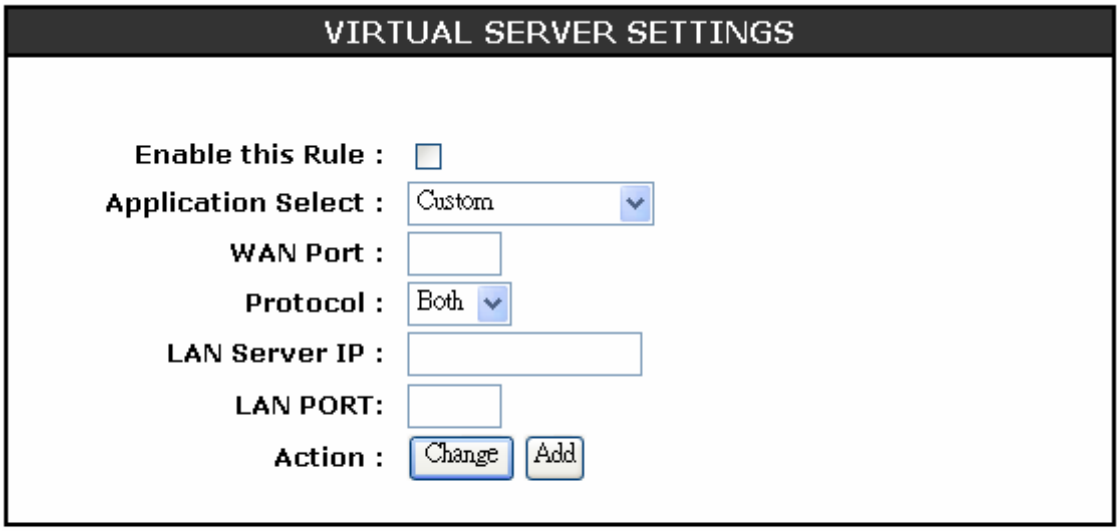
Click on the checkbox to enable SIP (session initiation protocol), NetMeeting, Window Messenger File Transfer, and StarCraft/Battle.net ALG.

* Please click on the **Save Settings** button or the **Reset Settings** button on the above table to save/reset the configurations.

Virtual Server

After marking or clearing the enable checkbox, it takes 5 seconds for this device to refresh the page.





Virtual Server Settings

Items	Information
Enable this Rule	Mark to enable the configuration, and clear to disable.
Application Select	Select an application for your demand.
WAN Port	Fill in the port number of WAN.
Protocol	Select the protocol type of TCP, UDP or Both
LAN Server IP	Fill in the IP of your LAN Server.
LAN Port	Fill in the port number of LAN.
Action	After configure the above settings, click **Add** to add a new list in the following IP Filter Rule List. The **Change** button can be used to change the configuration.

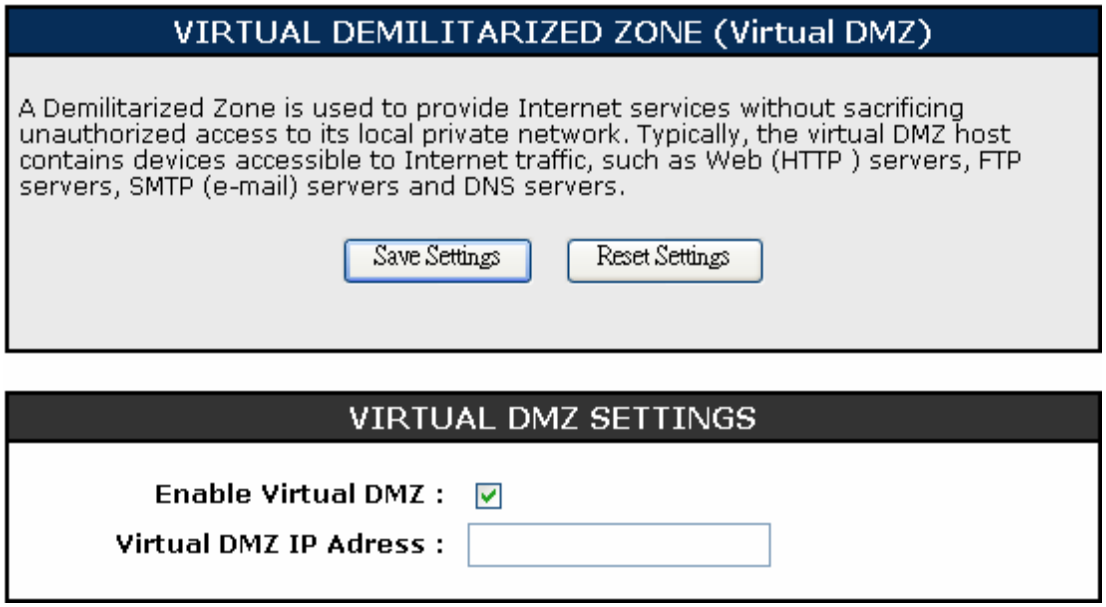
* Please click on the **Save Settings** button or the **Reset Settings** button on the above table to save/reset the configurations.

Virtual Server Mapping List

Lists the Virtual Server Settings you have added before. Click on the list to change configuration, or the **Delete** button to delete the list.

Virtual DMZ

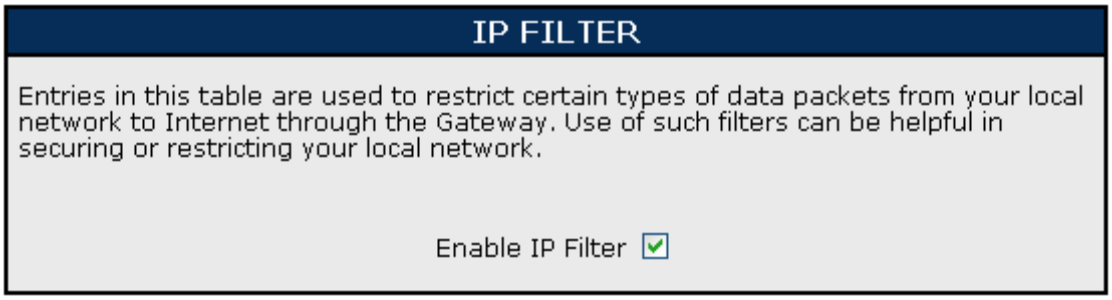
The virtual DMZ (Demilitarized Zone) is used to enable protocols, which need to open ports on the router. The router will forward all unspecified incoming traffic to the host specified in this page. To configure it, mark to enable and then enter the Host IP (private IP address) and click **Save Settings** to enact the setting.

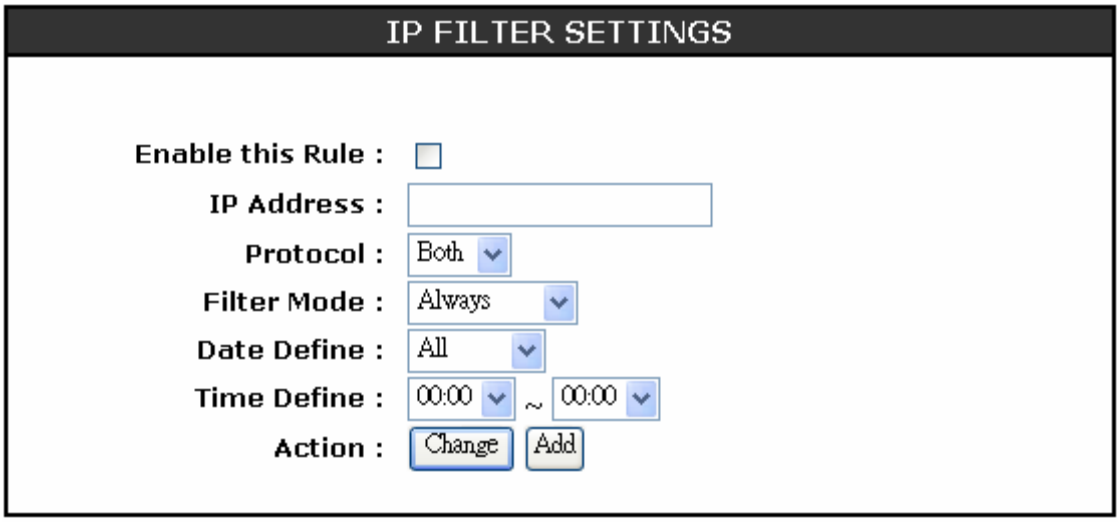


Firewall Settings

IP Filter

The Wireless Router could filter the outgoing packets for security or management consideration. You can set up the filter against the IP addresses to block specific internal users from accessing the Internet. After marking or clearing the enable checkbox, it takes 5 seconds for this device to refresh the page.





IP Filter Settings

Items	Information
Enable this Rule	Mark to enable the configuration, and clear to disable.
IP Address	Fill in the IP address that you are going to filter.
Protocol	Select the protocol type of TCP, UDP or Both
Filter Mode	Select the filter mode of Always or by Schedule
Date Define Time Define	For filter mode of by Schedule, you have to define the filter date and time.
Action	After configure the above settings, click **Add** to add a new list in the following IP Filter Rule List. The **Change** button can be used to change the configuration.

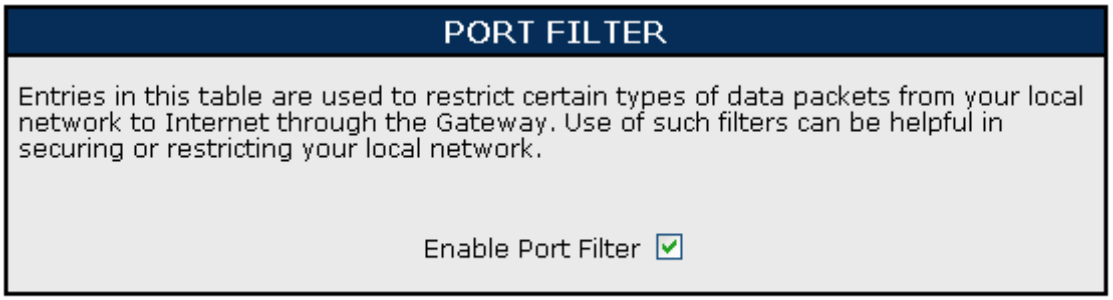
* Please click on the **Save Settings** button or the **Reset Settings** button on the above table to save/reset the configurations.

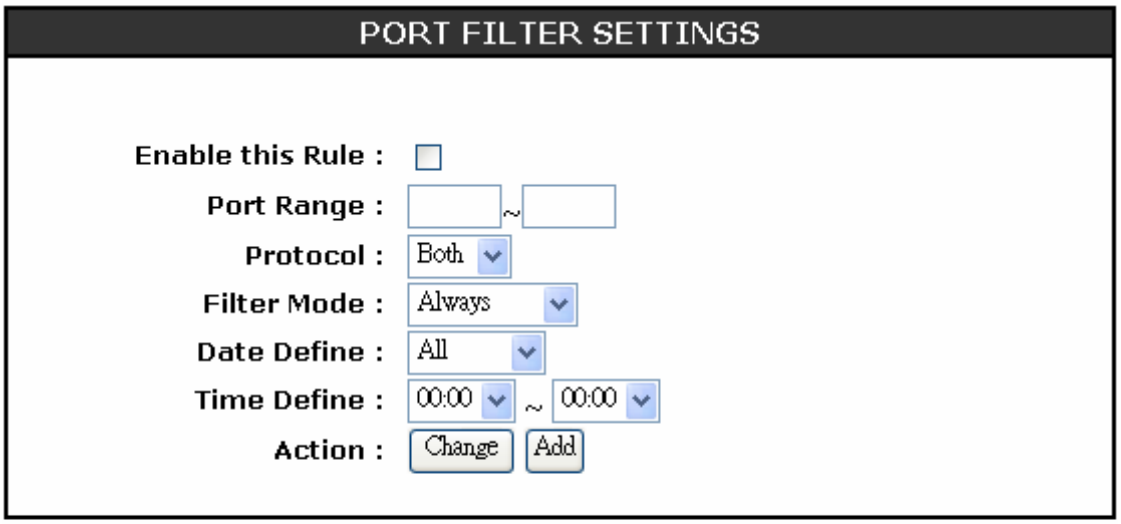
IP Filter Rule List

Lists the IP Filter Settings you have added before. Click on the list to change configuration, or the **Delete** button to delete the list.

Port Filter

The firewall could not only obstruct outside intruders from intruding your system, but also restricting the LAN users. Port filtering restricts certain type of data packets from your LAN to Internet through the router. After marking or clearing the enable checkbox, it takes 5 seconds for this device to refresh the page.





Port Filter Settings

Items	Information
Enable this Rule	Mark to enable the configuration, and clear to disable.
Port Range	Fill in the port range that you are going to filter. The valid numbers are 1~65535.
Protocol	Select the protocol type of TCP, UDP or Both
Filter Mode	Select the filter mode of Always or by Schedule
Date Define **Time Define**	For filter mode of by Schedule, you have to define the filter date and time.
Action	After configure the above settings, click **Add** to add a new list in the following IP Filter Rule List. The **Change** button can be used to change the configuration.

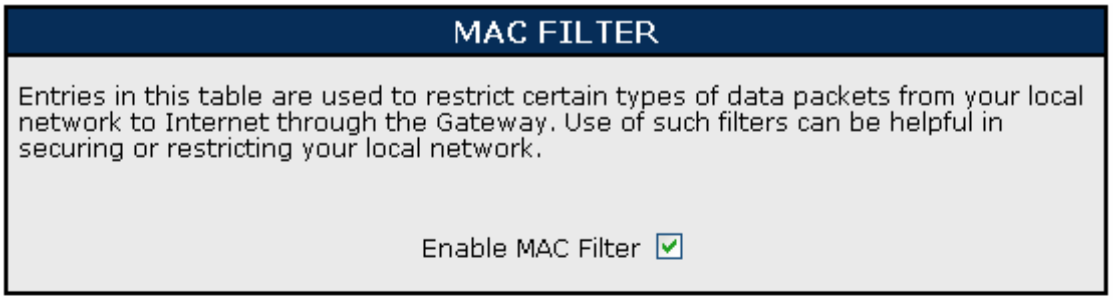
* Please click on the **Save Settings** button or the **Reset Settings** button on the above table to save/reset the configurations.

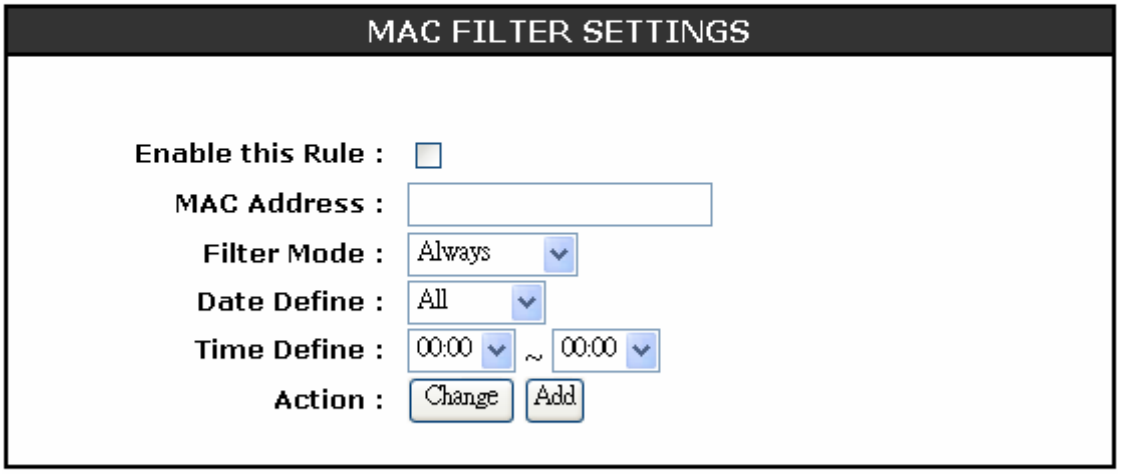
Port Filter Rule List

Lists the Port Filter Settings you have added before. Click on the list to change configuration, or the **Delete** button to delete the list.

MAC Filter

The Wireless Router could filter the outgoing packets for security or management consideration. You can set up the filter against the MAC addresses to block specific internal users from accessing the Internet. After marking or clearing the enable checkbox, it takes 5 seconds for this device to refresh the page.





MAC Filter Settings

Items	Information
Enable this Rule	Mark to enable the configuration, and clear to disable.
MAC Address	Fill in the MAC address that you are going to filter.
Filter Mode	Select the filter mode of Always or by Schedule
Date Define **Time Define**	For filter mode of by Schedule, you have to define the filter date and time.
Action	After configure the above settings, click **Add** to add a new list in the following IP Filter Rule List. The **Change** button can be used to change the configuration.

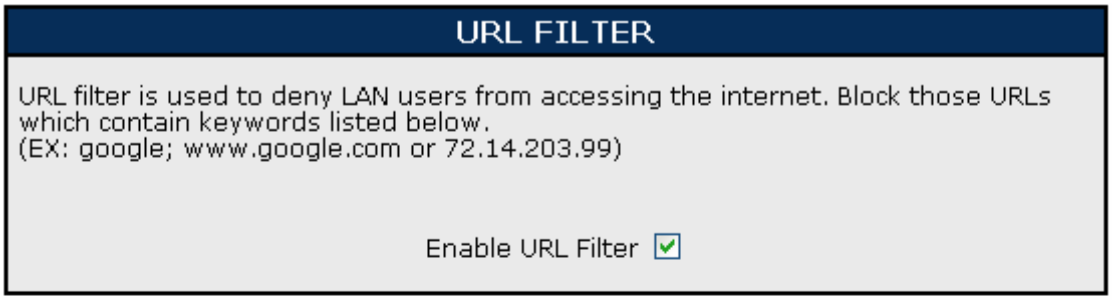
* Please click on the **Save Settings** button or the **Reset Settings** button on the above table to save/reset the configurations.

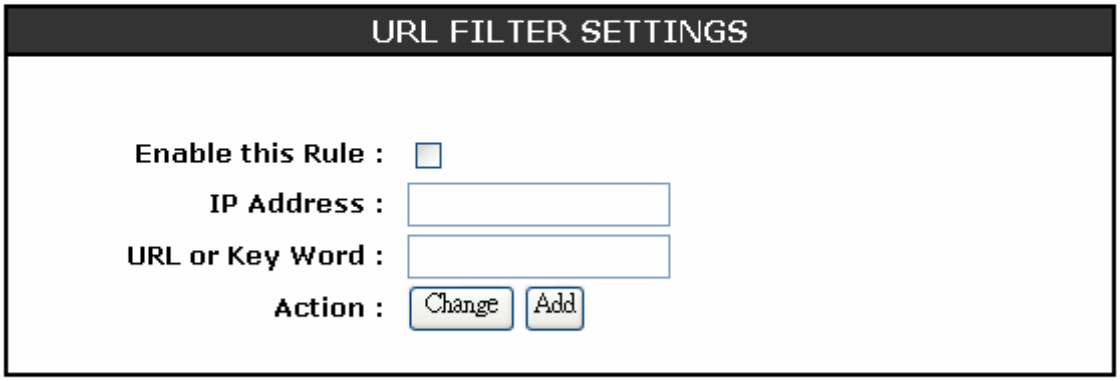
MAC Filter Rule List

Lists the MAC Filter Settings you have added before. Click on the list to change configuration, or the **Delete** button to delete the list.

Website Filter

The Website Filter allows users to prevent certain website from accessing by users in LAN. This filter will block those websites that contain certain keywords. After marking or clearing the enable checkbox, it takes 5 seconds for this device to refresh the page.





Website Filter Settings

Items	Information
Enable this Rule	Mark to enable the configuration, and clear to disable.
IP Address	Fill in the local IP address that you want to restrain it from serving the filtering websites.
Website or Key Word	Fill in the name or keywords of the website to block.
Action	After configure the above settings, click **Add** to add a new list in the following Website Filter Rule List. The **Change** button can be used to change the configuration.

* Please click on the **Save Settings** button or the **Reset Settings** button on the above table to save/reset the configurations.

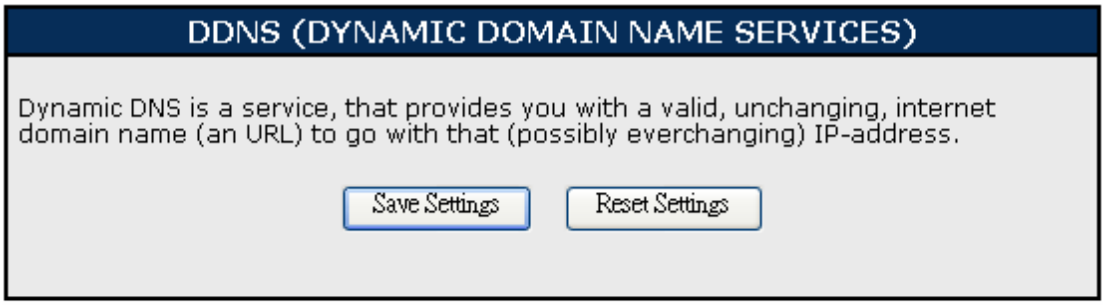
Website Filter Rule List

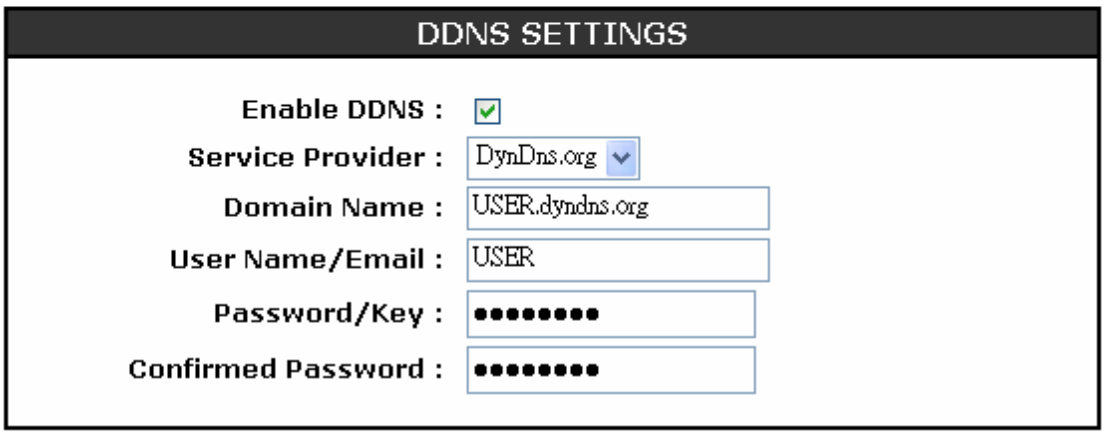
Lists the Website Filter Settings you have added before. Click on the list to change configuration, or the **Delete** button to delete the list.

Services Settings

DDNS Settings

DDNS (Dynamic Domain Name Server) service allows users to connect to this device via a fixed and easy-to–remember hostname.



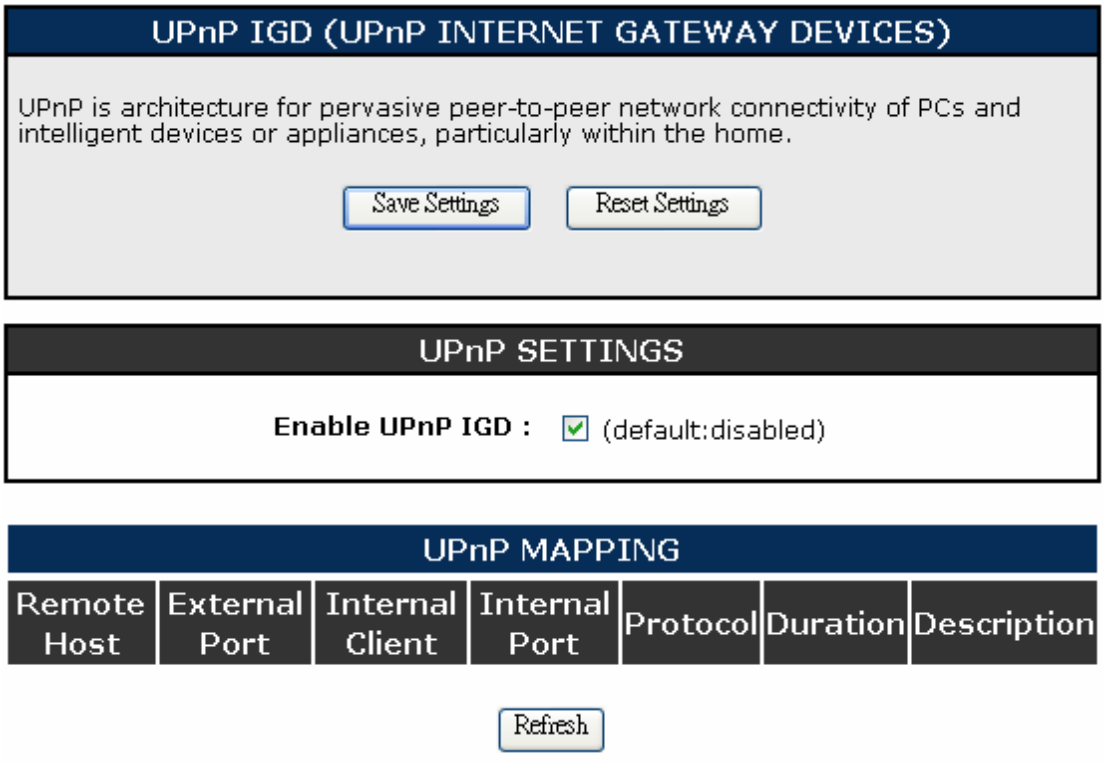


Items	Information
Enable DDNS	Mark to enable the configuration, and clear to disable.
Service Provider	The website that provides DDNS service. Please select DynDns.org, No-IP.com or TZO from the drop list.
Domain Name	The hostname that you have applied for the device.
User Name/Email	DDNS login account. For DynDNS users, please fill in your user name; for No-IP and TZO users, please fill in your email address (default USER).
Password/Key	The password of your DDNS service account (default PASSWORD).
Confirmed Password	Retype the password to confirm.

* Please click on the **Save Settings** button or the **Reset Settings** button on the above table to save/reset the configurations.

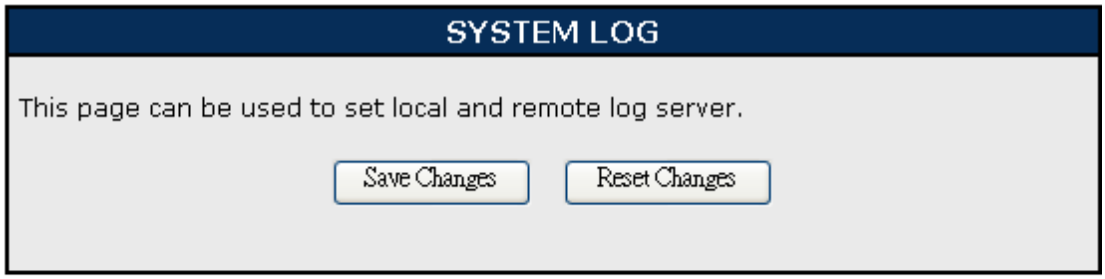
UPnP Settings

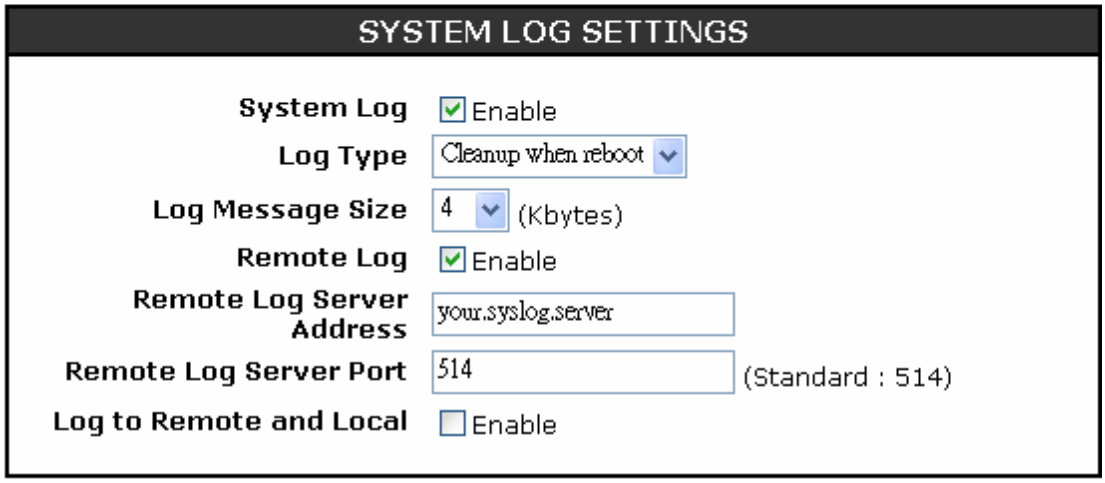
The UPnP (Universal Plug and Play) service allows devices to connect seamlessly and to simplify the implementation of networks in the home (data sharing, communications, and entertainment) and corporate environments. This page allows user to monitor the information of UPnP clients. Mark or clear the checkbox to enable or disable UPnP IGD, and then click **Save Settings** to enact your settings.



System Log Settings

The System Log Settings page shows the information of the current activities on the router.



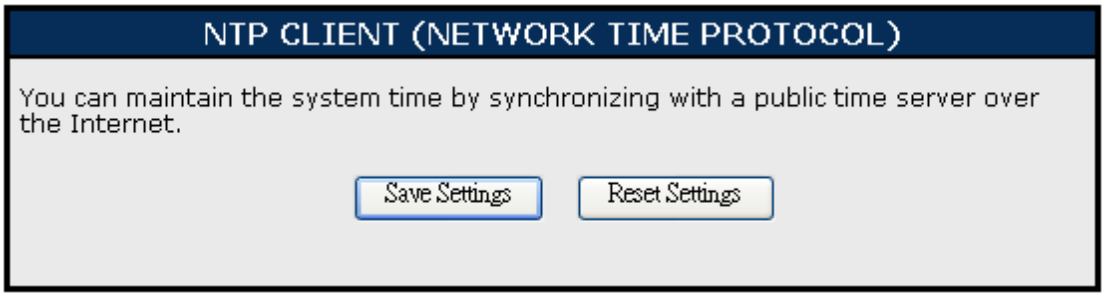


Items	Information
System Log	Mark to enable the configuration, and clear to disable.
Log Type	Select “cleanup when reboot” or “save log message” as the log type.
Log Message Size	Select the log message size of 4, 8, or 32 Kbytes.
Remote Log	Mark to enable the following configuration, and clear to disable.
Remote Log Server Address	Fill in the sever address for remote log.
Remote Log Server Port	Fill in the sever port for remote log.
Log to Remote and Local	To enable/disable log to remote and local

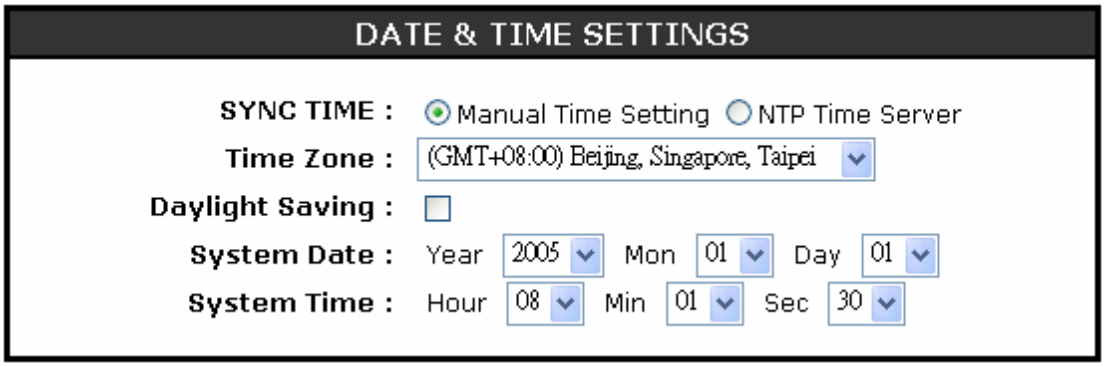
* Please click on the **Save Settings** button or the **Reset Settings** button on the above table to save/reset the configurations.

Date/Time Settings

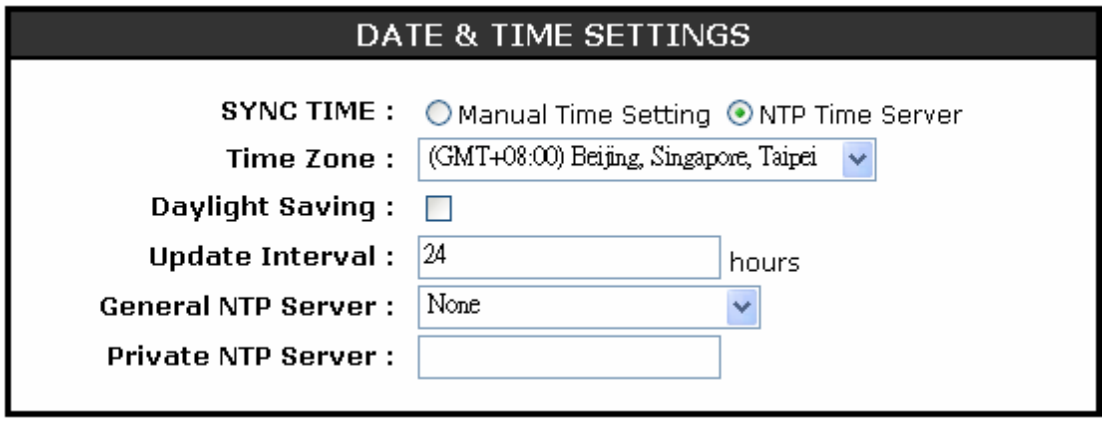
This page allows users to configure the date and time of the router. To specify manually, select the date and time from the drop list and click the **Save Settings** button. To synchronize time from a timeserver, please enter the update interval hour numbers, select an NTP server from the drop list or manually enter a private NTP server and then click the **Save Settings** button. Mark the Daylight Saving checkbox if you want to apply it on system time.



Manual Time Setting



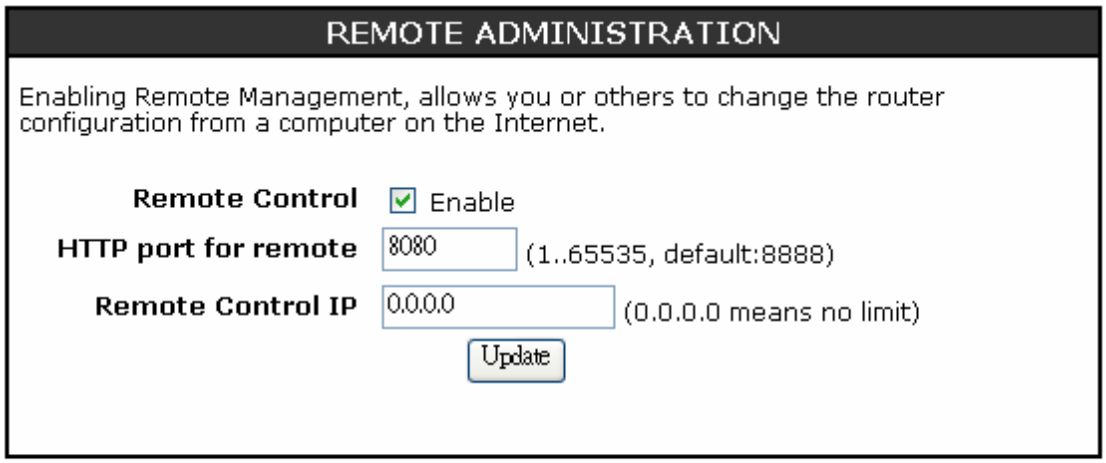
NTP Time Server

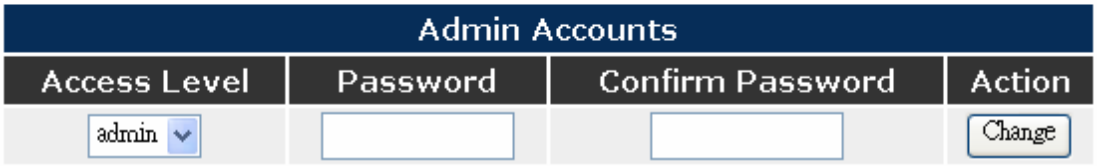


Management

Admin Account

The admin account is the account for accessing this configuration interface. In this page, you can reset the password of the admin account and setup a designated IP to remote control this device.





Remote Administration

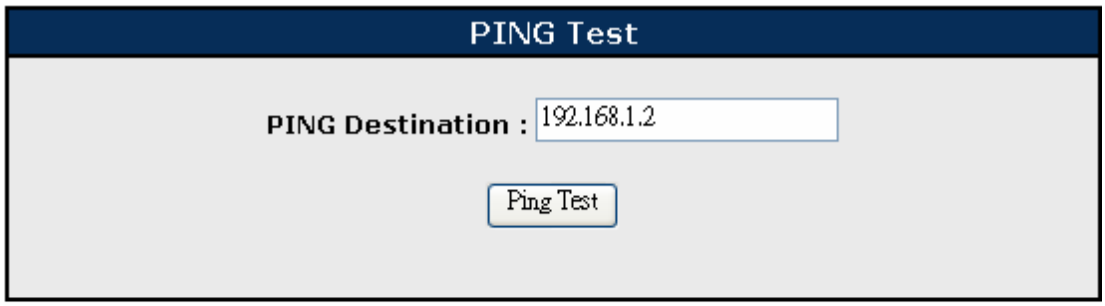
Items	Information
Remote Control	Mark this checkbox to allow remote PC accessing the configuration interface of this router.
HTTP port for remote	The HTTP port for accessing this management interface (default 8080).
Remote Control IP	The permitted IP for accessing. The default IP 0.0.0.0 allows all IP addresses form accessing.
Update button	Click on this button to update your setting.

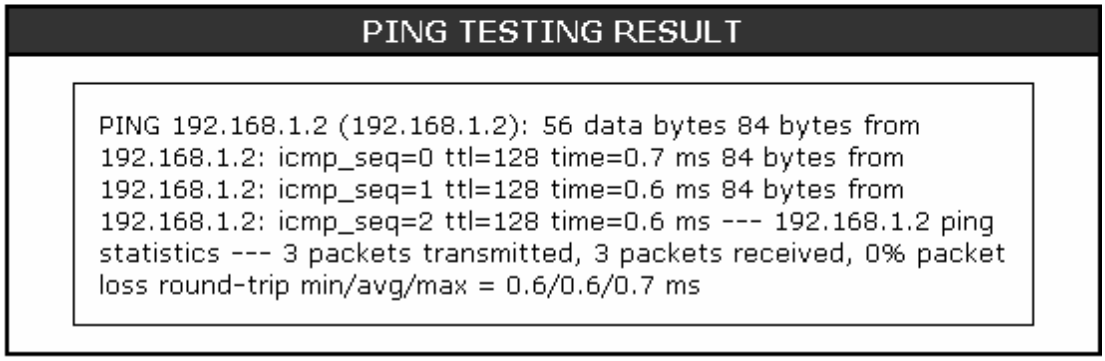
Admin Accounts

Items	Information
Access Level	Select an access level of admin or guest.
Password	The new password for the admin account
Confirm Password	Fill in the new password again
Action	Click **Change** button to apply the new password.

Ping Test

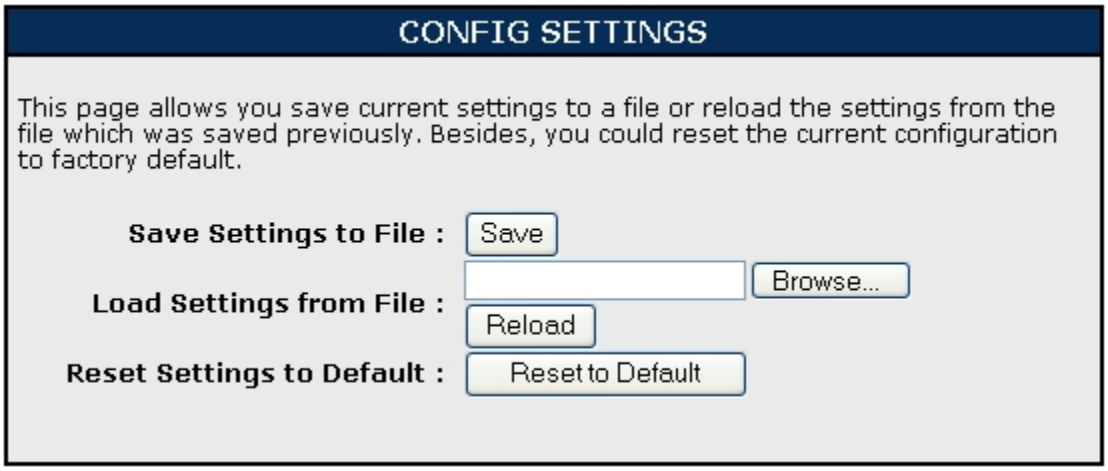
The Ping Test page allows the administrator to test the connecting status of Internet. Fill in the IP then click on the **Ping Test** button to view the result information.





Config

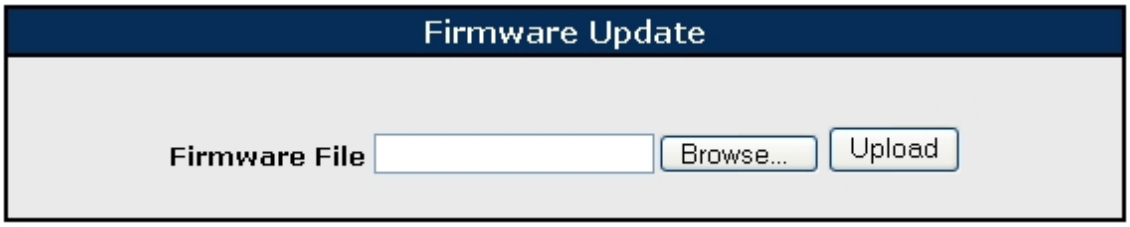
The Config page allows users to backup and download the configuration status of the device or restore the factory default configuration.



Items	Information
Save Settings to File	Click on the **Save** button to save settings.
Load Settings from File	Click **Browse** to select the file and then click **Reload** to start the process. Please wait for it to complete.
Reset Settings to Default	Click **Reset to Default** to start the process and it will be completed till the status LED starts blinking.

Firmware Upgrade

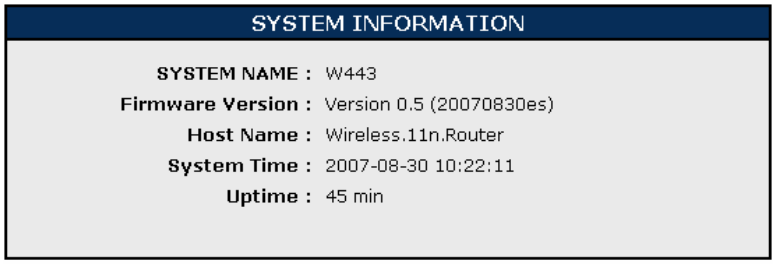
Sometimes a new firmware may be issued to upgrade the system of this device. You could upgrade the firmware you got in this page. To upgrade the firmware, please click on the **Browse** button, locate the firmware in your computer and then click the **Upload** button to execute.

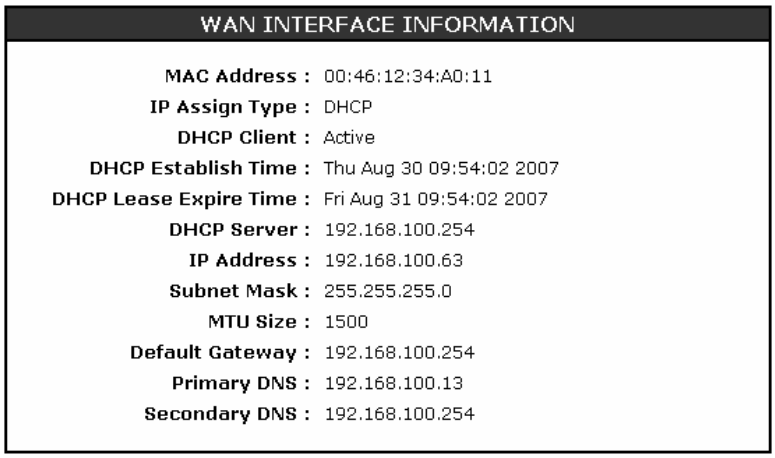


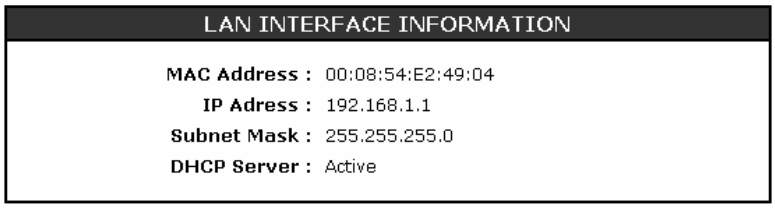
Information

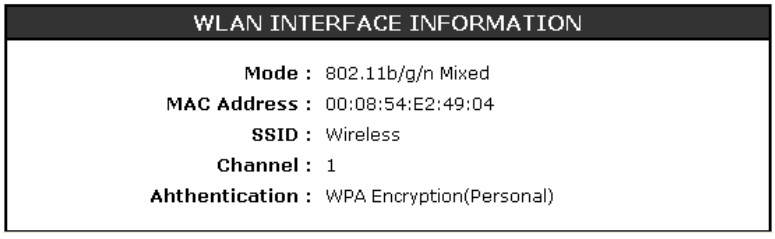
System Information

This information page shows the current settings of this device. You could check if the parameters match your configuration.









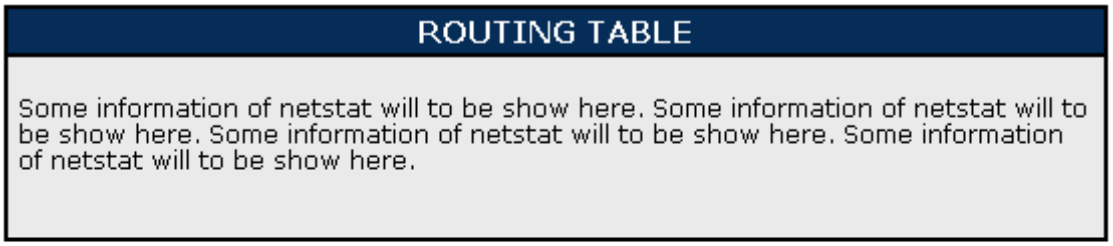
Packet Statistics

This page allows users to get information of data transferring condition, and monitor the status and performance of this router including interface, receiving/sending packets, and receiving/sending errors.

Interface	Recv Pkts	Send Pkts	Recv Errs	Send Errs
br0	1961	1709	0	0
eth0	2	54	0	0
eth1	1961	1698	0	0
lo	47	47	0	0

Routing Table

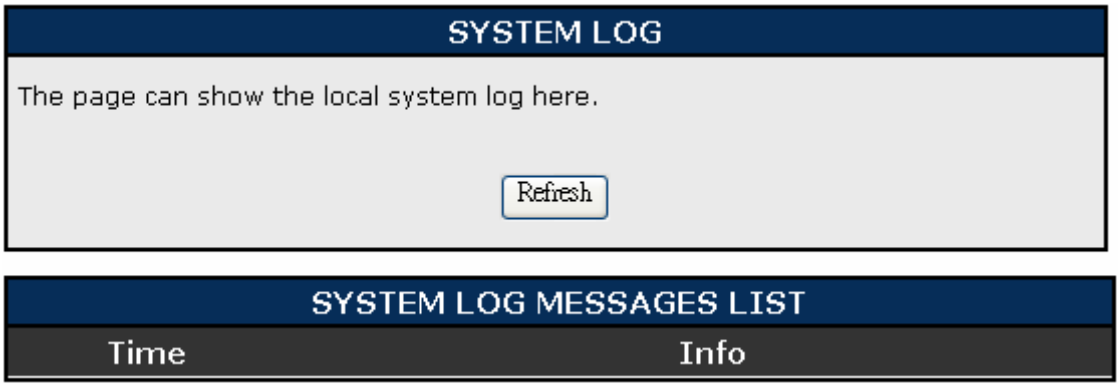
This page shows the routing table in this router. Users can get connecting information including destination, gateway, net mask, flags, metric, ref, use and interface.



Destination	Gateway	Netmask	Flags	Metric	Ref	Use	Iface
192.168.1.0	0.0.0.0	255.255.255.0	U	0	0	0	br0
10.10.0.0	0.0.0.0	255.255.0.0	U	0	0	0	eth0
0.0.0.0	10.10.10.254	0.0.0.0	UG	0	0	0	eth0

System Log

This page shows the system log information. Click the **Refresh** button to refresh the list.



Logout

Logout

Click the **Logout** button to log out the admin account from this system

Reboot

Click the reboot button to restart this system. This may cost 1 minute to restart the system. Please wait upon restarting.

Product Specifications

Standard	IEEE 802.11n IEEE 802.11g, IEEE 802.11b, IEEE 802.3, IEEE 802.3u
Interface	LAN: 4 port 10/100Mbps Ethernet, RJ-45 WAN: One RJ45 port 3* 802.11n/g/b wireless reverse SMA detachable antenna
WAN Connection	Ethernet 10/100 Mbps
Cable Connections	RJ-45 (10BASE-T): Category 3,4,5 UTP RJ-45 (100BASE-TX): Category 5 UTP
Transmission Mode	Auto-Negotiation (Full-duplex, Half-duplex)
LED indications	1*Power, 1*WAN, 4*LAN, 1*WLAN
Security	64/128-bit WEP, WPA, WPA2
Receiver Sensitivity	11Mbps-91dBm, 54Mbps-78dBm, 300mbps -69dBm
Transmit Power	11Mbps 19dBm, 54Mbps 16dBm, 11n 20MHz and 11n 40MHz 16dBm
Range Coverage	Indoor 35~100 meters Outdoor 100~300meters.
Emission	FCC CLASS B, CE
Operating Temperature	00 ~ 400C (320 ~ 1040F)
Operating Humidity	10% - 90% RH non-condensing
Power Supply	External Power Adapter, 12VDC/ 1A