Air Live®
Powered by OvisLink Corp.

Air4G

Wireless-N 4G/3G Broadband Router

User's Manual

www.airlive.com

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This product contains some codes from GPL. In compliance with GPL agreement, AirLive will publish the GPL codes on our website. Please go to www.airlive.com and go to the "Support → GPL" menu to download source code.

FCC 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 radio interference in a commercial environment. This equipment can generate, use and radiate radio frequency energy and, if not installed and used in accordance with the instructions in this manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause interference, in which case the user, at his own expense, will be required to take whatever measures are necessary to correct the interference.

CE Declaration of Conformity

This equipment complies with the requirements relating to electromagnetic compatibility.

Table of contents

1 Introduction

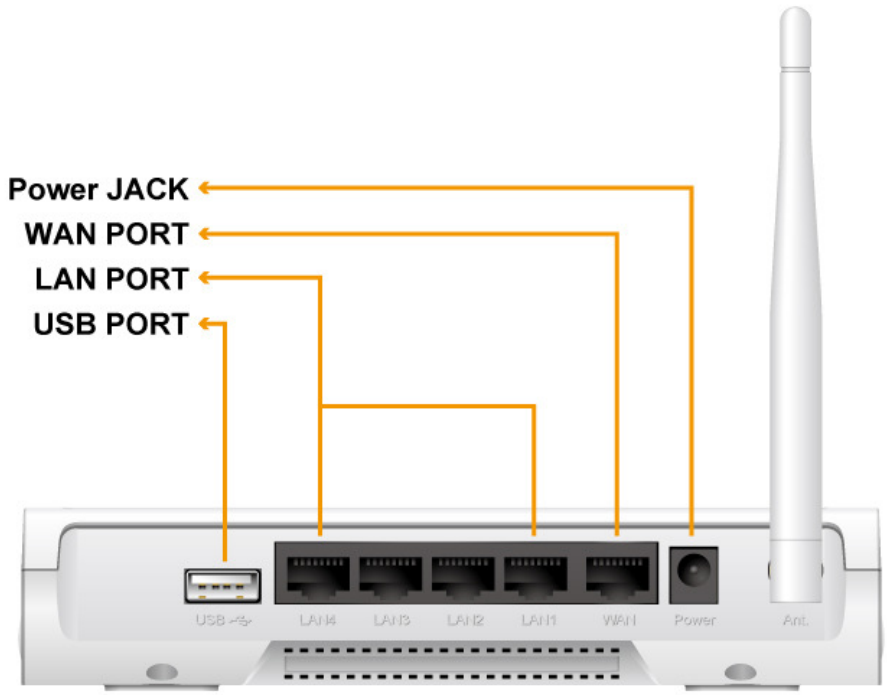
The Air4G is a high-performance tool that supports wireless networking at home, work, or in a public place. The Air4G supports a USB 3G/4G modem card, either WCDMA, EVDO,LTE and even HSDPA as well, and supports wireless data transfers up to 150Mbps, and wired data transfers up to 100 Mbps. TheAir4G is compatible with industry security features.

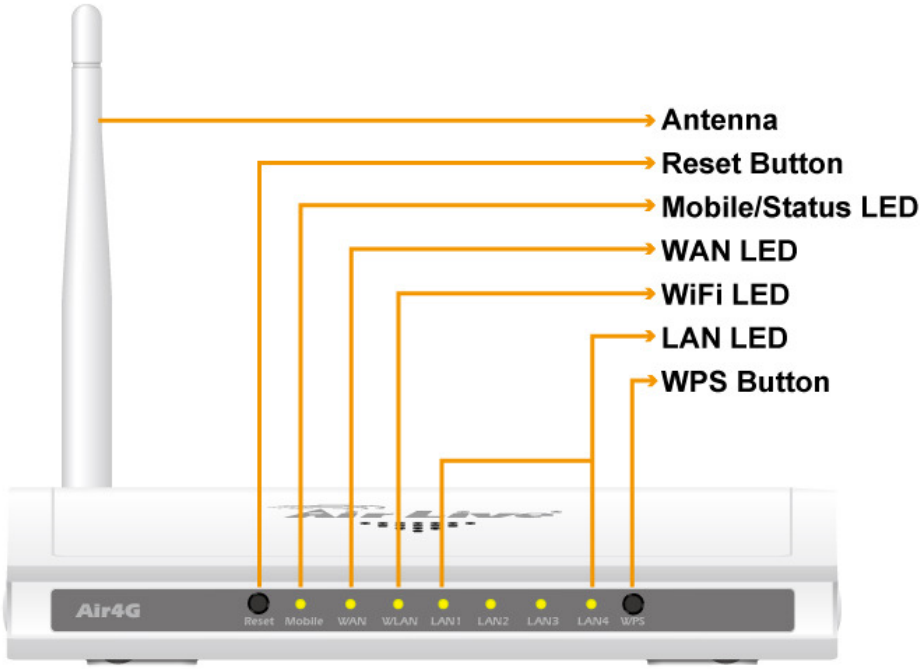
1.1 Packing List

1. Air4G
2. Power adapter (5V,2A)
3. Installation CD
4. Quick Setup Guide

1.2 Hardware Installation

A. Hardware configuration



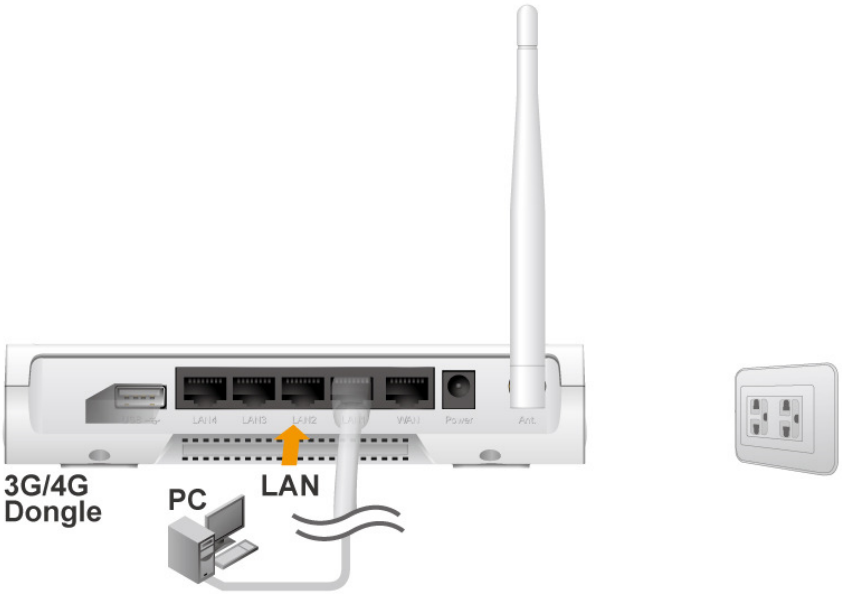


B. Installation Steps

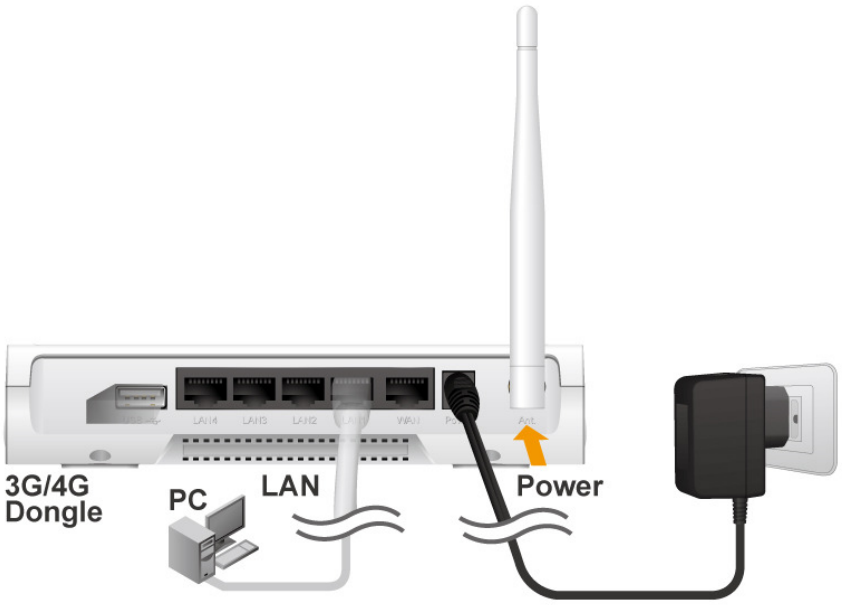
Note: ***DO NOT*** connect the router to power before performing the installation steps below.

Step 1. Plug a USB modem into USB port.

Step 2. Insert RJ45 cable into LAN Port on the back panel of the router. Then plug the other end of into computer.



Step 3. Plug the power jack into the receptor on the back panel of the router. Then plug the other end into a wall outlet or power strip.



2 Getting Started with Easy Setup Utility

There are two approaches for you to set up the Air4G quickly and easily. One is through executing the provided Windows Easy Setup Utility on your PC, and the other is through browsing the device web pages and configuration.

2.1 Easy Setup by Windows Utility

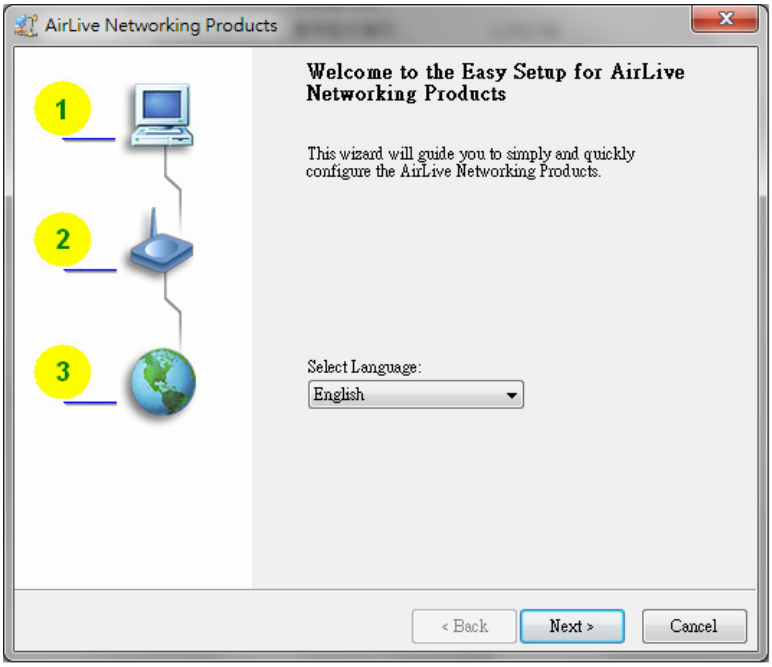
Windows Utility

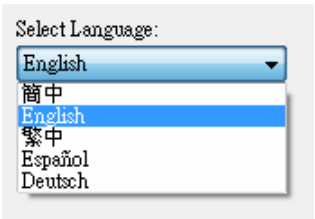
Step 1.

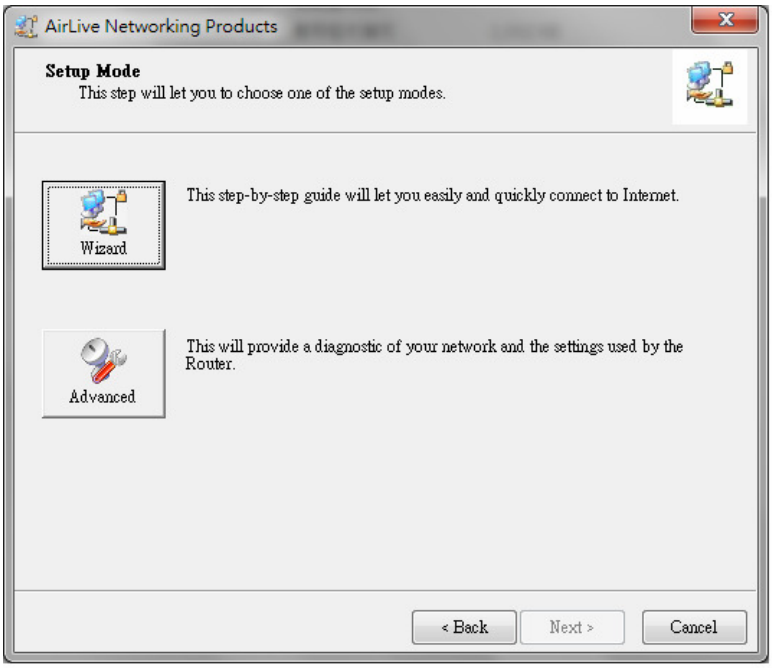
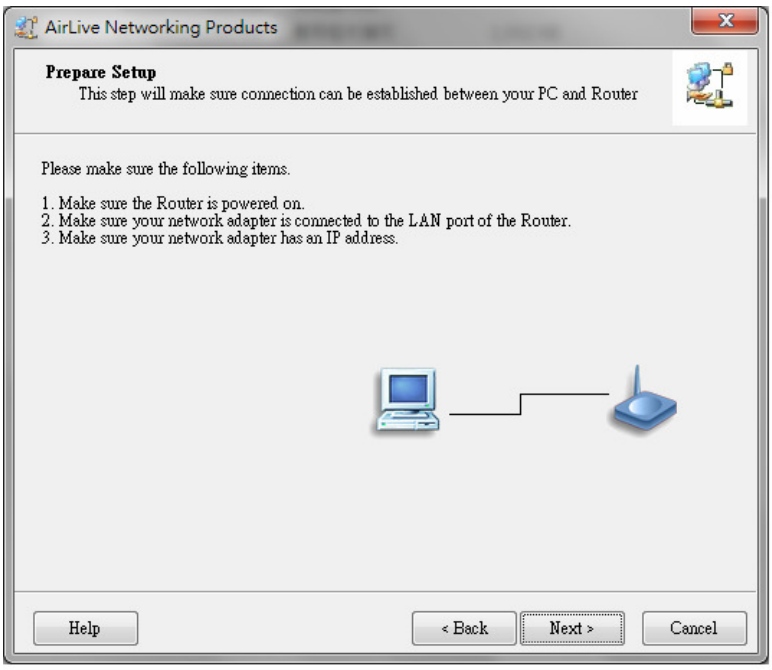
Install the Easy Setup Utility from the provided CD then follow the steps to configure the device.

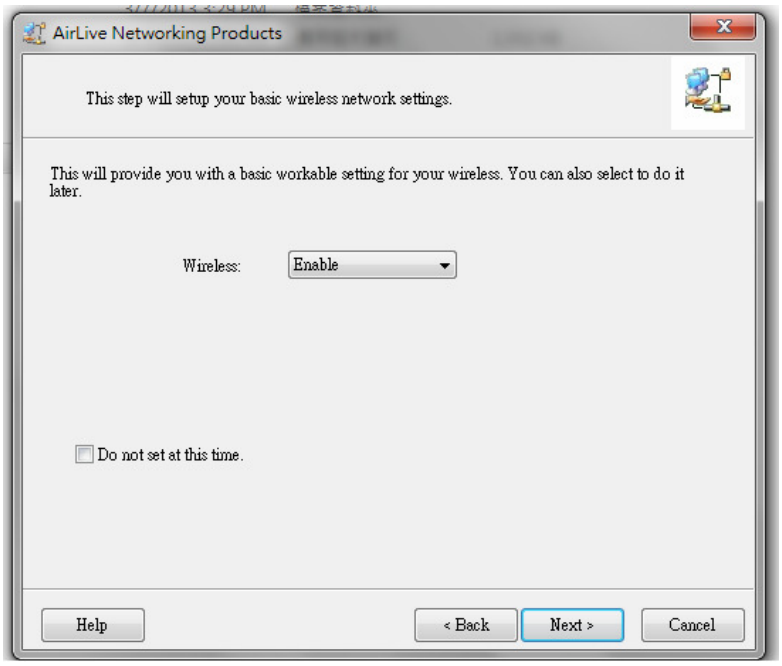
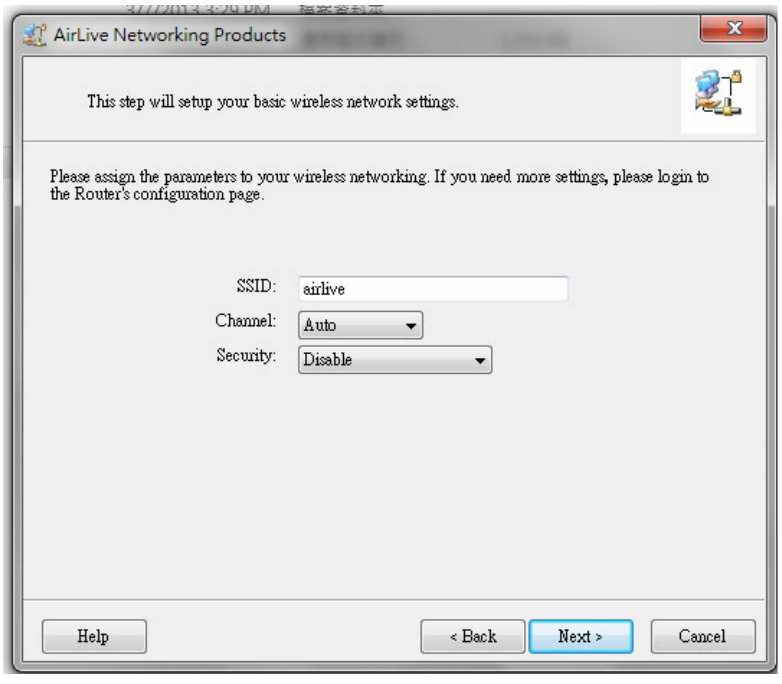
Step 2.

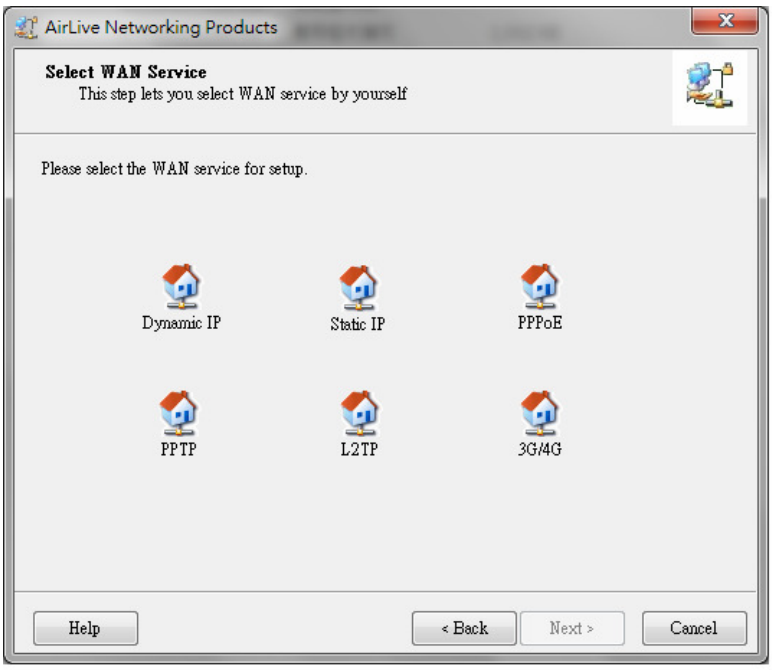
Select Language then click "**Next**" to continue.

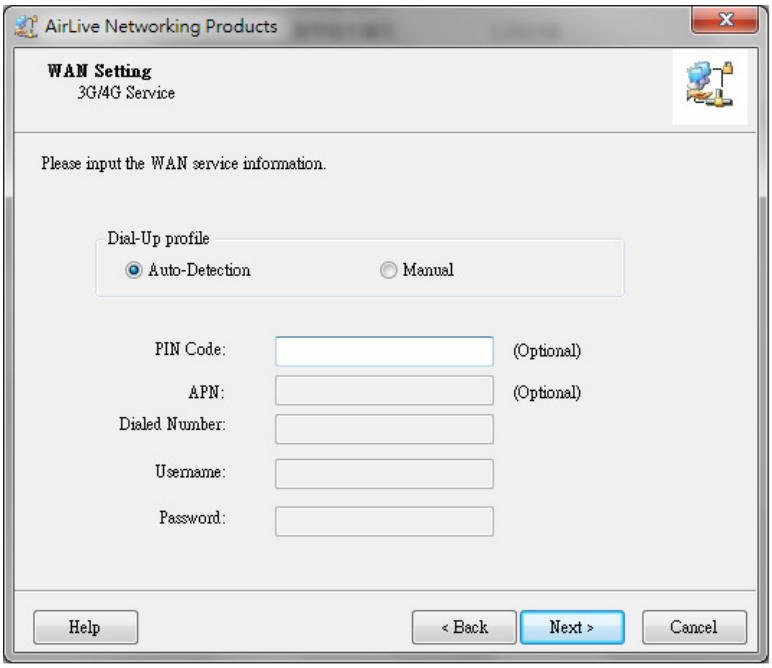
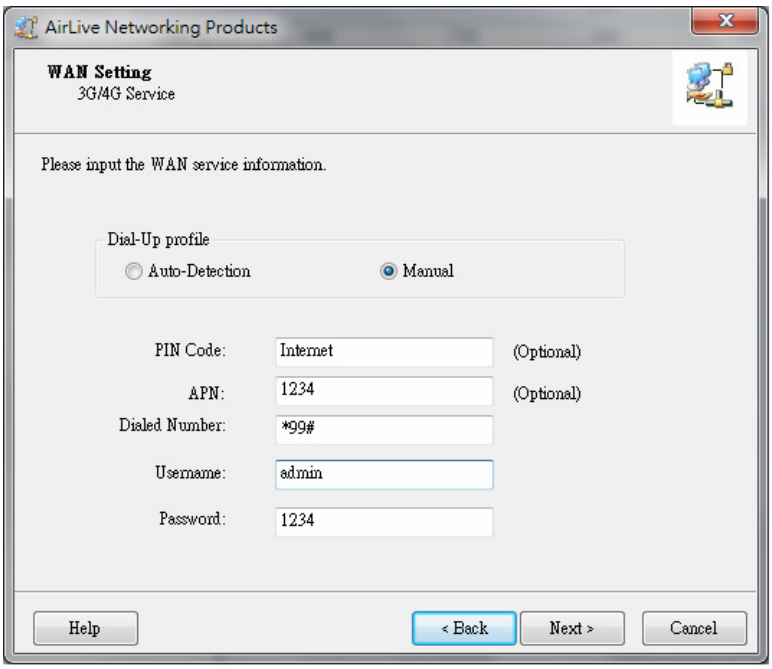


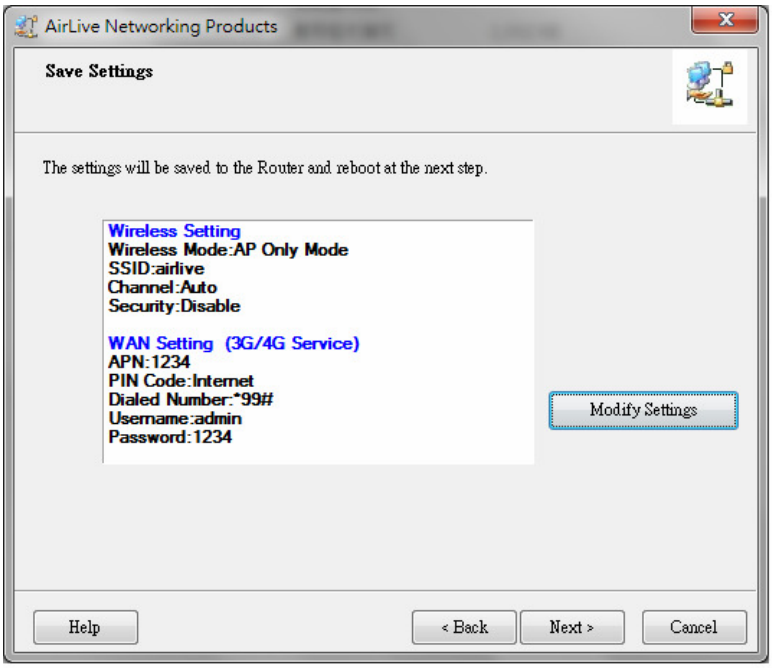
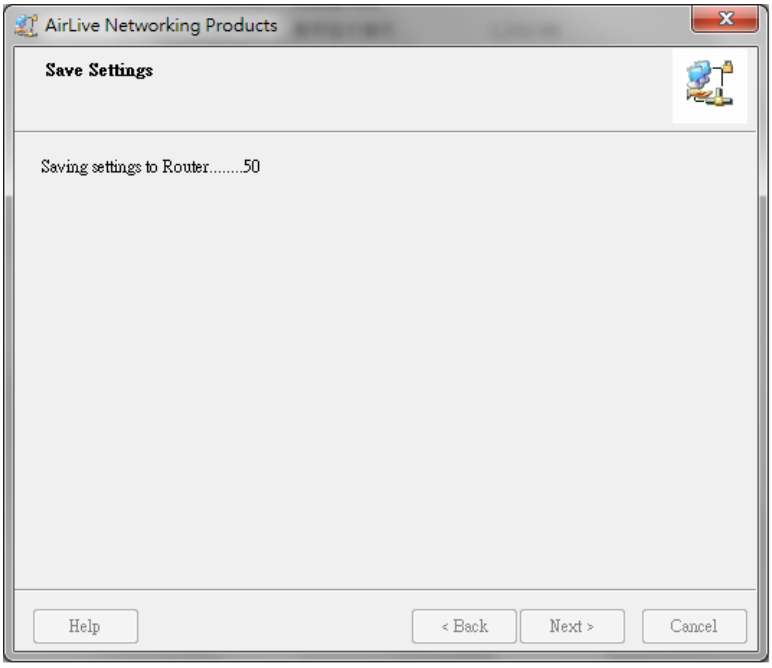


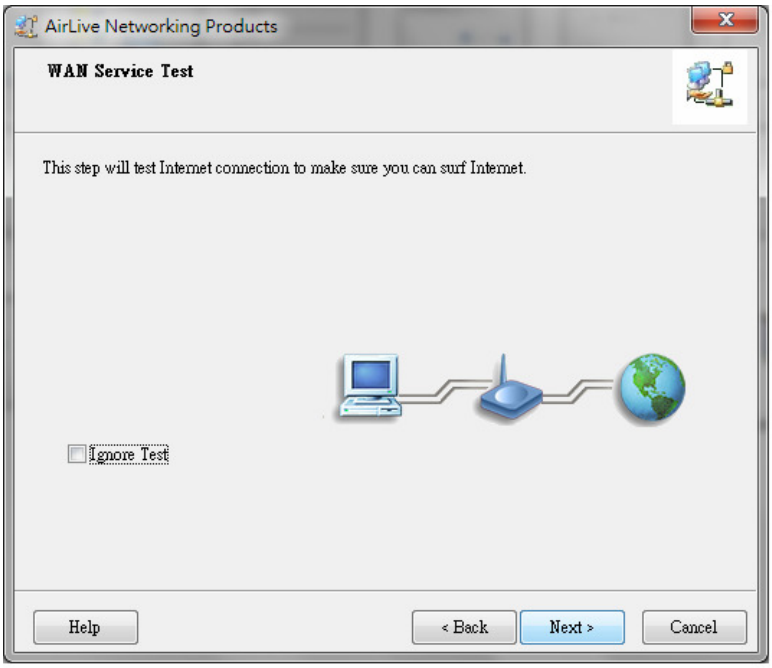
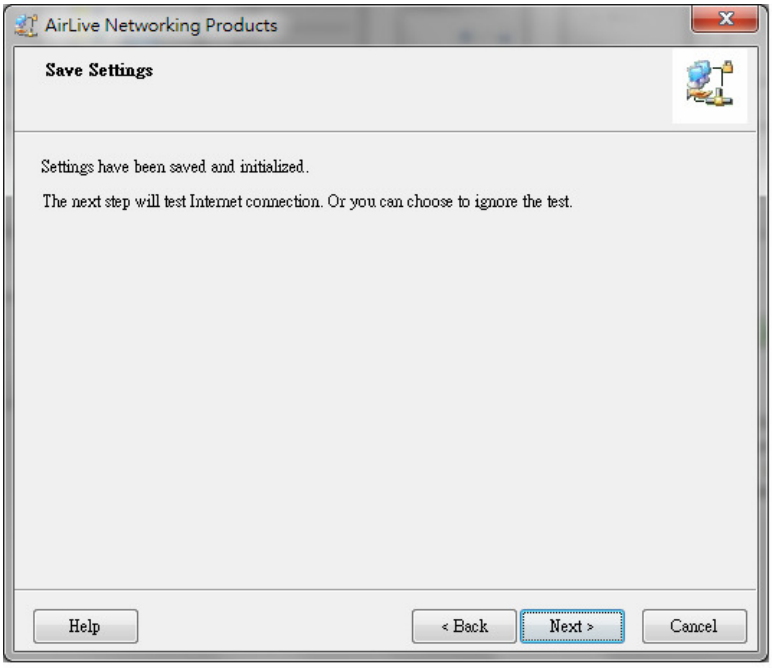
Step 3. Then click the "**Wizard**" to continue.	
Step 4. Click "**Next**" to continue.	

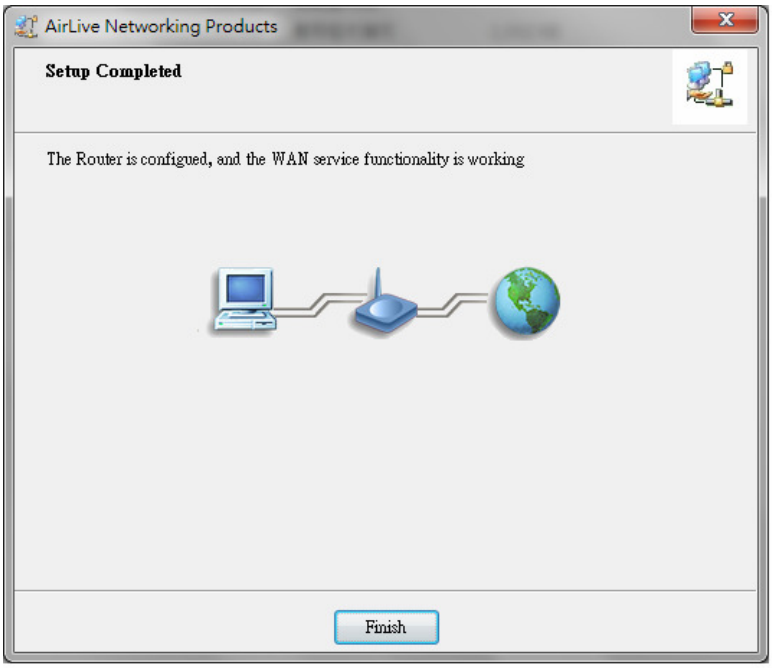
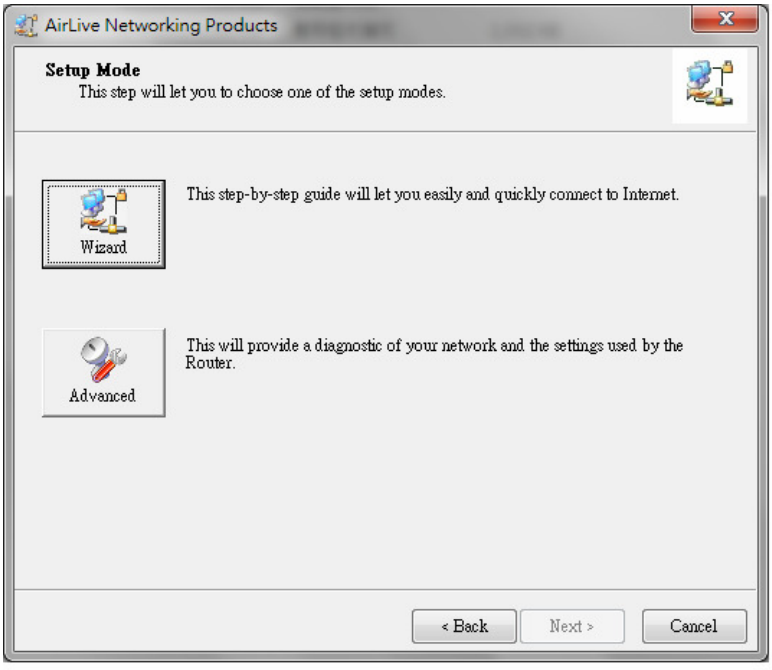
Step 5. Select Wireless "**Enable**", and then click "**Next**" to continue.	
Step 6. Enter SSID, Channel and Security options, and then click "**Next**" to continue.	

Step 7. Click" **Let me select WAN service by myself**" to select WAN service manually.	
Step 8. Select "**3G/4G**" Service by clicking 3G/4G icon to continue.	

Step 9. Select "**Auto-Detection**" and the Utility will try to detect and configure the required 3G/4G service settings automatically. Click "**Next**" to continue.	
Step 10. Or you can select "**Manual**" and manually fill in the required 3G/4G service settings provided by your ISP. Click "**Next**" to continue.	

Step 11. Click "**Next**" to save your setting.	
Step 12. The Air4G is rebooted to make your entire configuration take effect.	

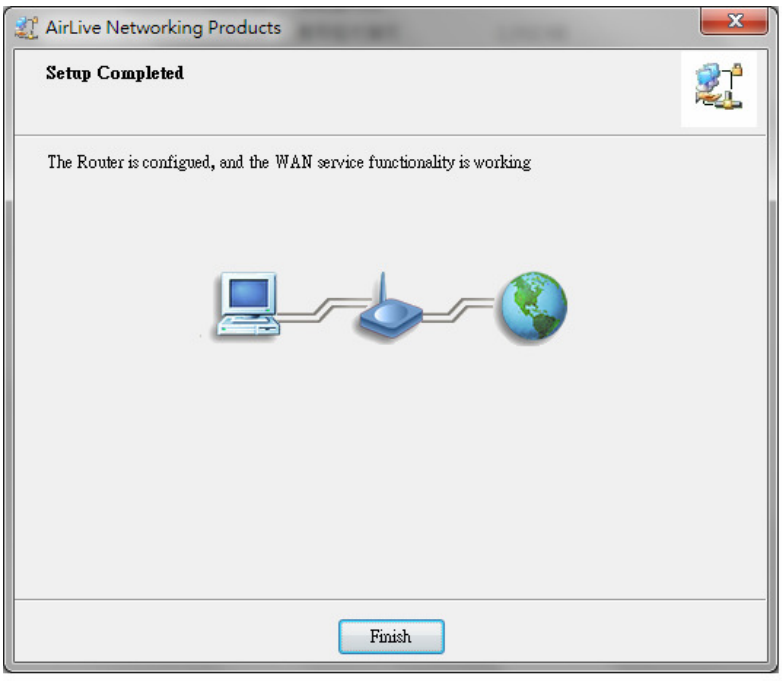
Step 13： Click “**Next**” to test the Internet connection or you can ignore test.	
Step 14： Click “**Next**” to test WAN Networking service.	

Step 15 : Click "**Finish**" to complete the setting.	
Step16: After configured, you can also click the "**Advanced**" icon to diagnostic your network. .	

Step17:

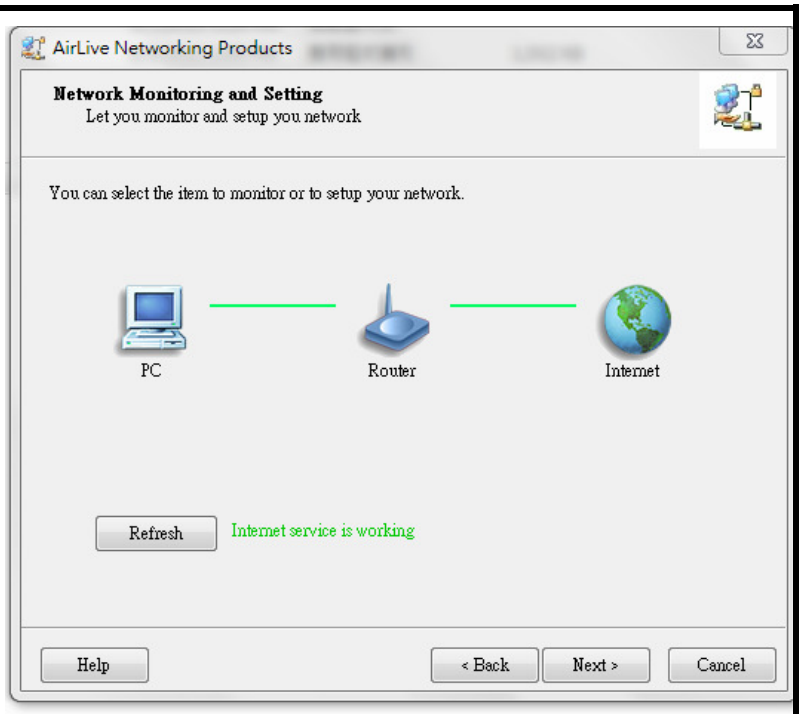
Click the "**Refresh**" icon to diagnostic your network.

Click "**Next**" to continue.

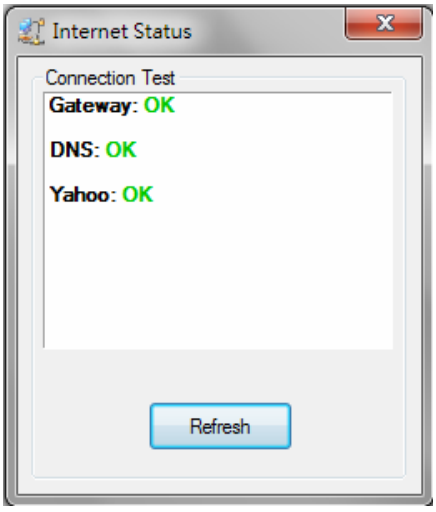


Step18:

Click the "**Internet**" icon to test the Internet connection.

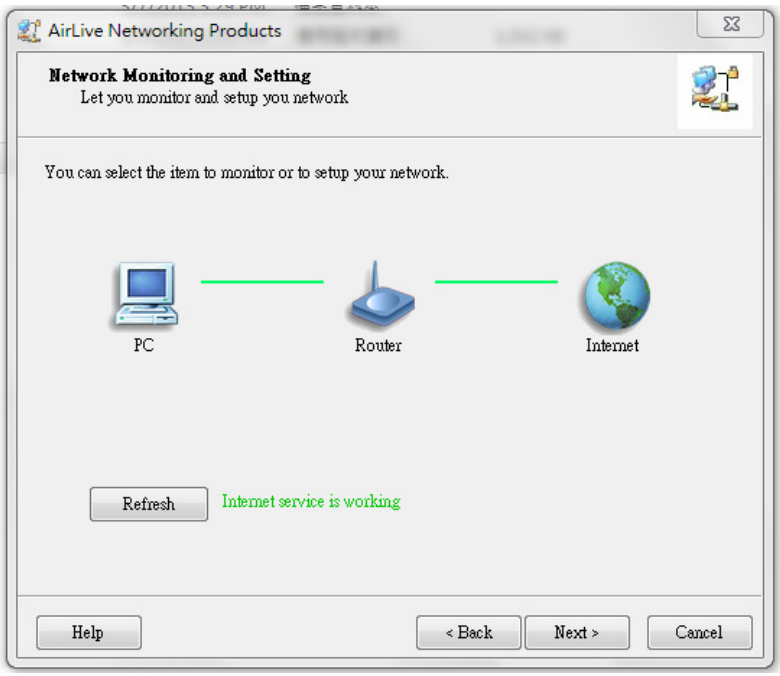


Internet Status:

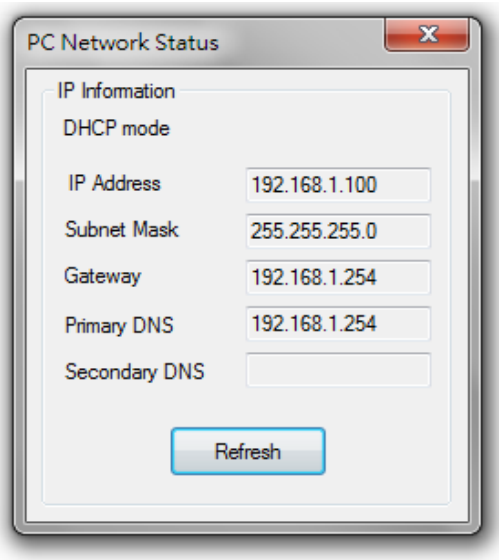


Step19:

Click the "**PC**" icon to check the PC Network Status.



PC Network Status:



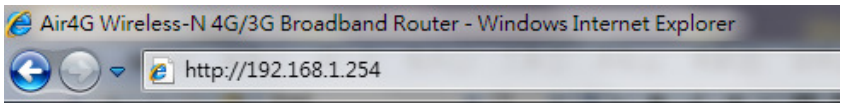
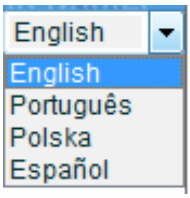
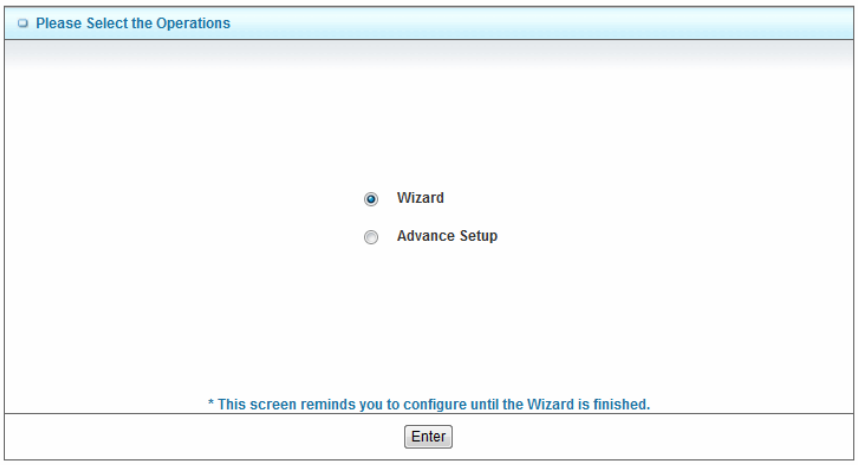
Step 20:

Click the "**Router**" icon; it will direct to Air4G's web UI.

Direct to web UI.

2.2 Easy Setup by Configuring Web Pages

You can also browse web UI to configure the device.

Browse to Activate the Setup Wizard	
Type in the IP Address (http://192.168.1.254)	
Type in the default password "**admin**" in the System Password and then click '**login**' button.	
Select your language.	
Select "**Wizard**" for basic settings with simple way.	

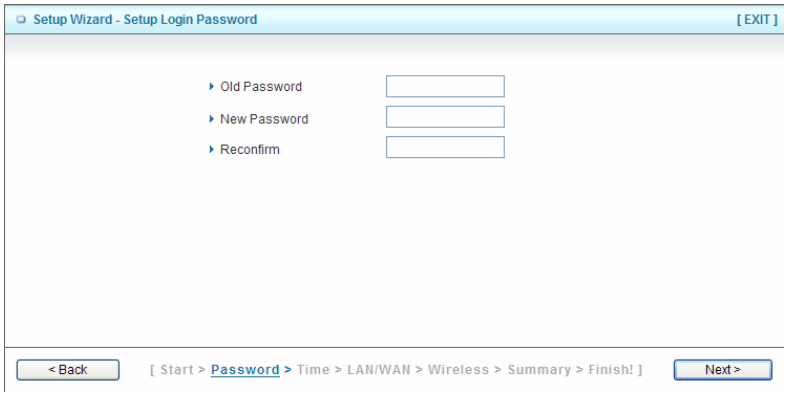
Press “**Next**” to start the Setup Wizard.

Configure with the Setup Wizard

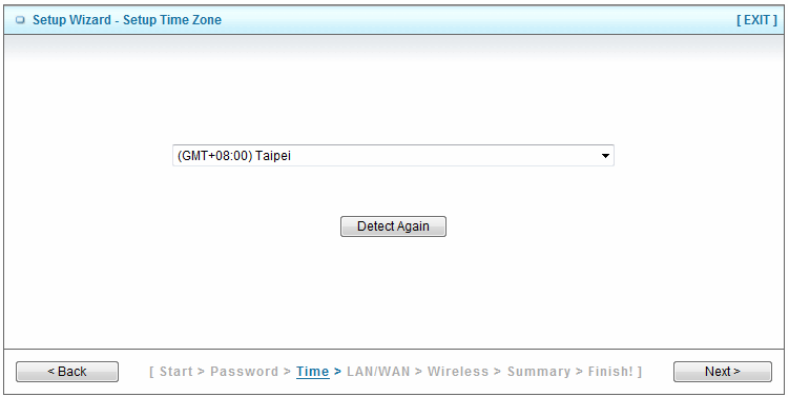
Step 1. Setup Login Password

Change System Password.

(Default：**admin**)



Step 2. Select Time Zone



Step 3. Select WAN Type

Choose Auto-Detecting or Manually to set WAN Type.

Step 4. Select WAN Type

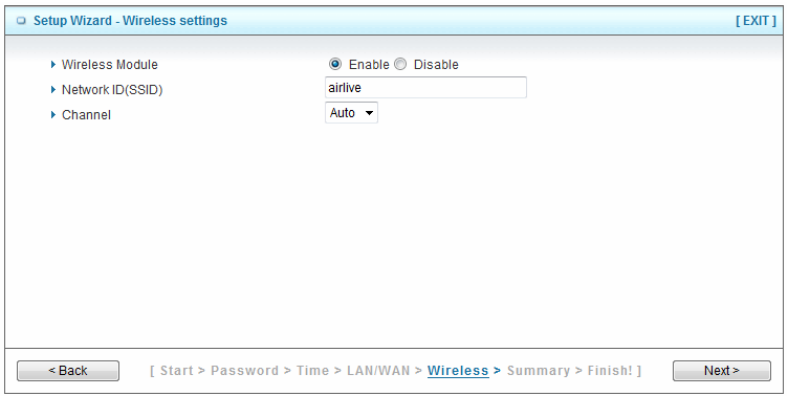
If you want to use 3G/4G service as the main internet access, please set the WAN interface as "**Wireless WAN**" and the WAN type as "**3G/4G**".

Step 5. 3G/4G Mode

Select Auto-Detection then click "**Next**" to continue.

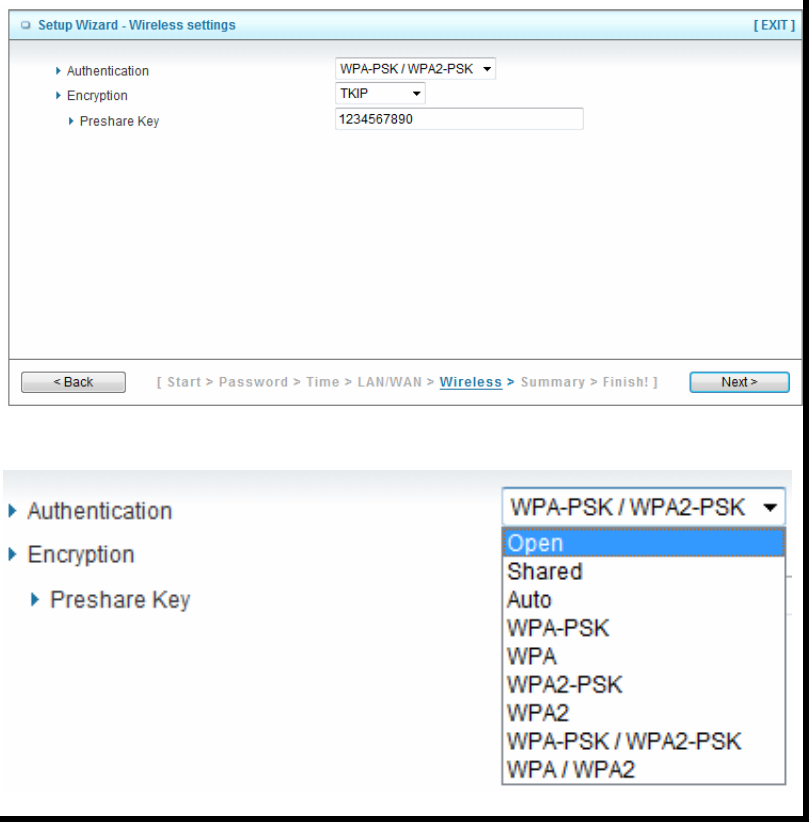
Step 6. Wireless Settings

Setup your Wireless Network: SSID and Channel.



Step 7. Wireless Settings

Setup your Encryption Key here, then click" **Next**" to continue.



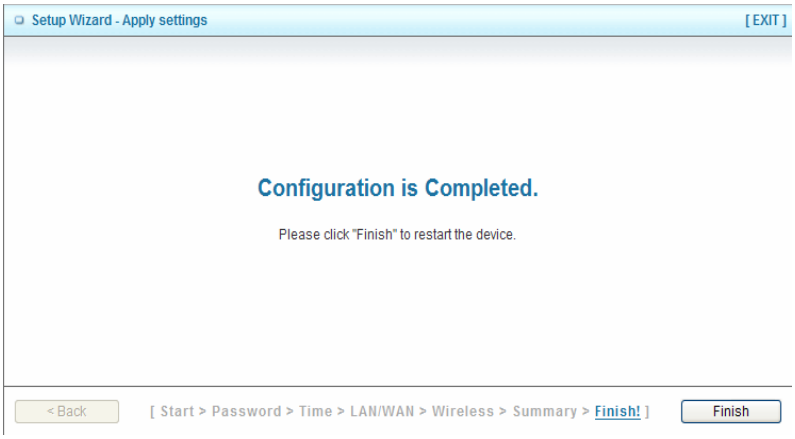
Step 8.

Confirm your Setting.

Click **Apply Settings** to complete the setting.

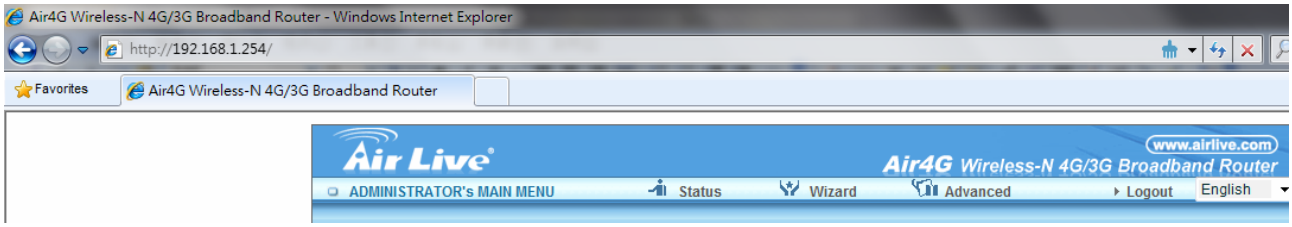
Step 9.

Click **Finish** to complete it.



3 Making Configuration

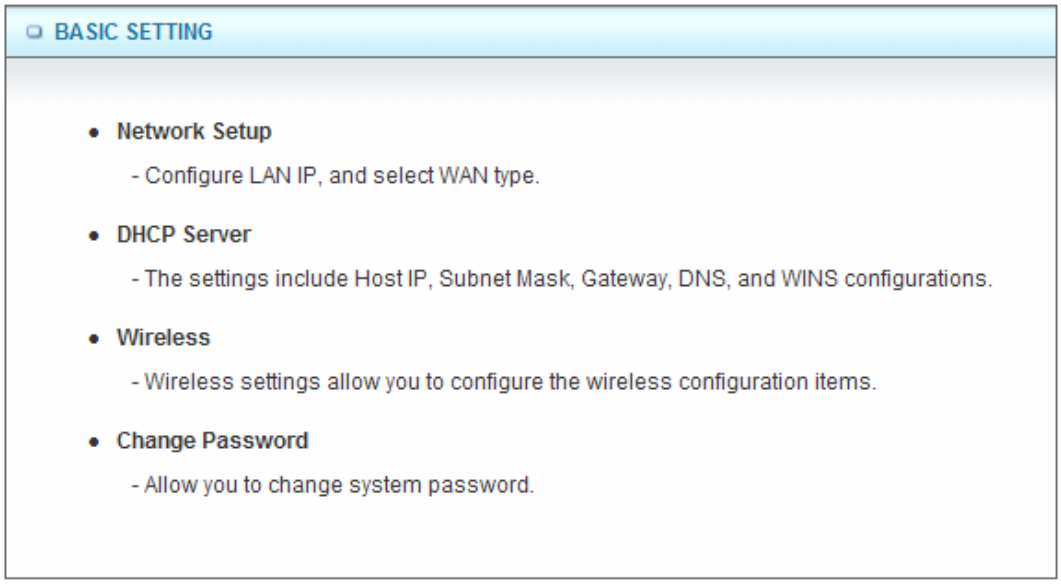
Whenever you want to configure your network or this device, you can access the Configuration Menu by opening the web-browser and typing in the IP Address of the device. The default IP Address is **192.168.1.254**.



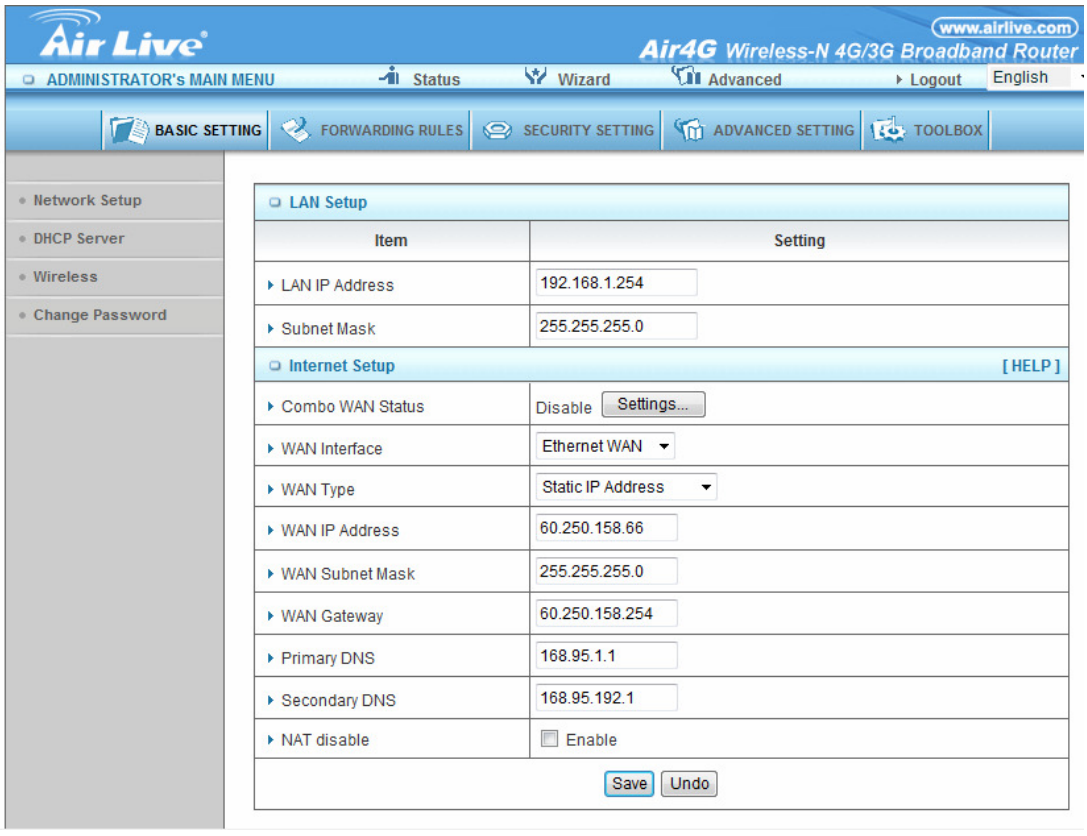
Enter the default password "**admin**" in the System Password and then click '**login**' button.

Then, you can browse the "**Advanced**" configuration pages for configuring this device.

3.1 Basic Setting



3.1.1.Network Setup



LAN Setup

LAN Setup	
Item	Setting
LAN IP Address	192.168.1.254
Subnet Mask	255.255.255.0

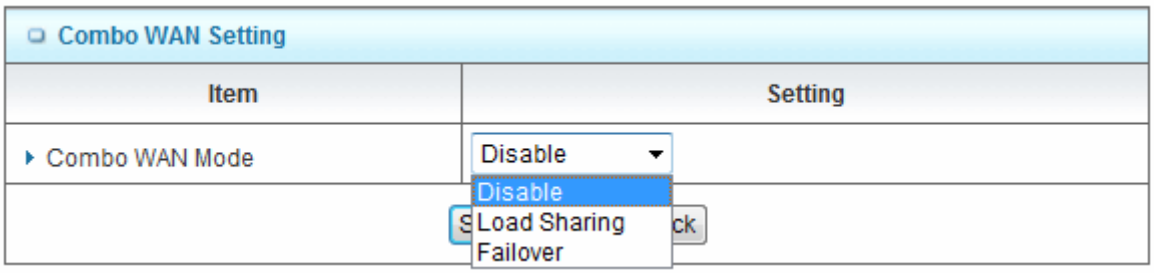
1. **LAN IP Address:** The local IP address of this device. The computers on your network must use the LAN IP address of this device as their Default Gateway. You can change it if necessary.
2. **Subnet Mask:** Input your Subnet mask. (All devices in the network must have the same subnet mask.) The default subnet mask is 255.255.255.0.

Internet Setup

Internet Setup	[HELP]
Combo WAN Status	Disable Settings...
WAN Interface	Ethernet WAN
WAN Type	Static IP Address
WAN IP Address	60.250.158.66
WAN Subnet Mask	255.255.255.0
WAN Gateway	60.250.158.254
Primary DNS	168.95.1.1
Secondary DNS	168.95.192.1
NAT disable	Enable
Save Undo	

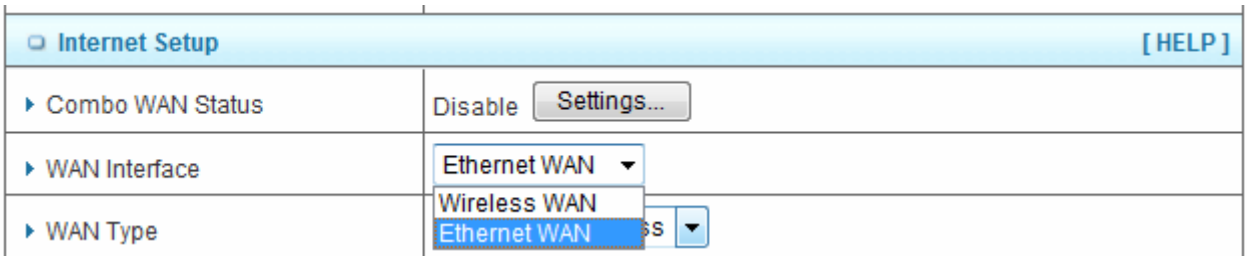
1. **Combo WAN Status:** Click on "**Settings**" there are three options: Disable, Load Sharing and Failover.

Combo WAN Status	Disable Settings...



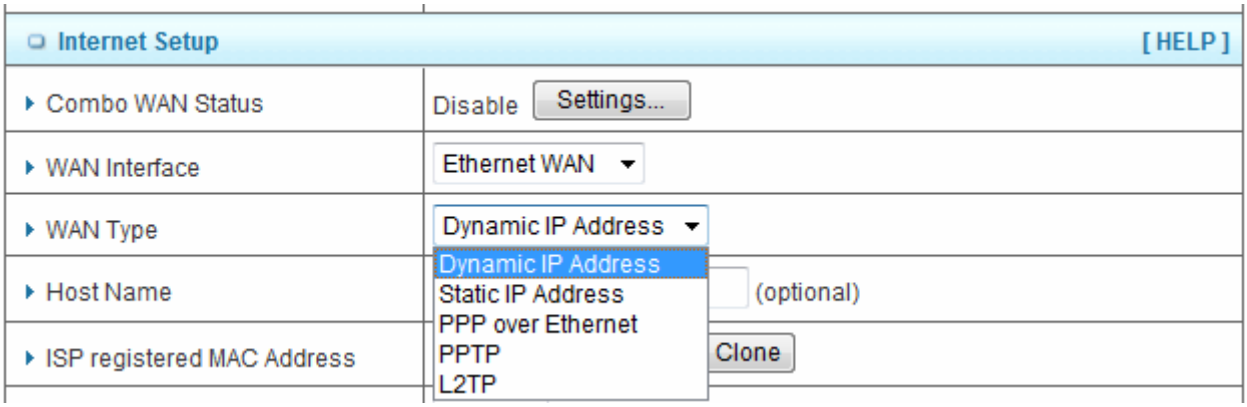
- **Load sharing:** Outbound load balancing is supported. When enabled, the system will allocate traffic between Ethernet WAN and Wireless WAN dynamically according to designed algorithms based on the Bandwidth.
- **Failover:** When both WAN interfaces are available, Ethernet WAN traffic will be routed to Wireless WAN when Ethernet WAN connection is down. When Ethernet WAN connection is up, the route traffic will be connected back to Ethernet WAN automatically

2. **WAN Interface:** Select "**Ethernet WAN**" or "**Wireless WAN**" to continue.

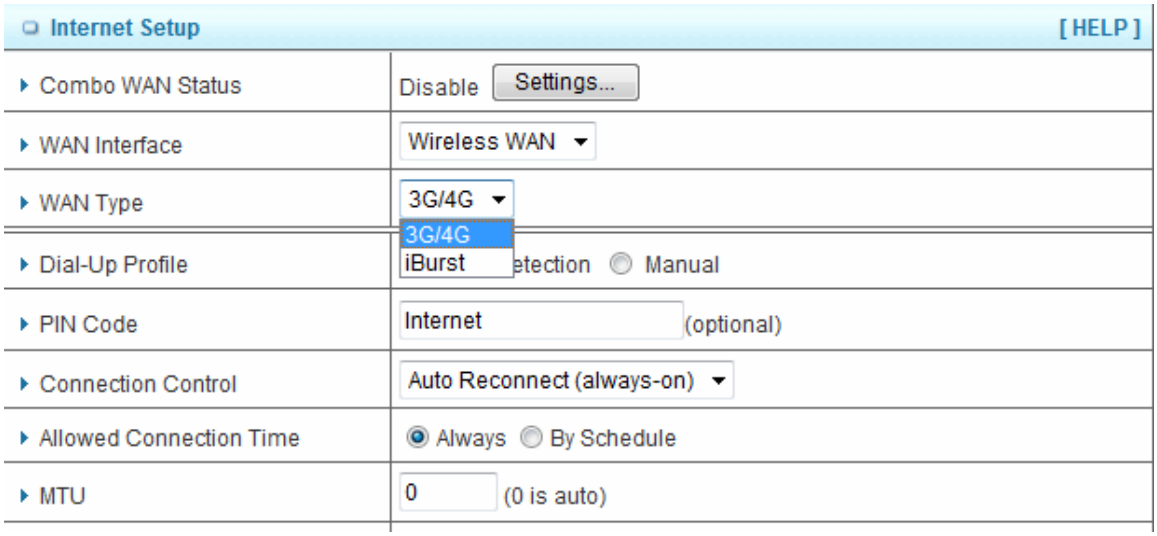


3. **WAN Type**: It depends what you select WAN Interface.

(1) If you select "**Ethernet WAN**", there are several WAN connection types of your ISP: Dynamic IP Address, Static IP Address, and PPP over Ethernet, PPTP and L2TP.



(2) If you select "**Wireless WAN**", there are 3G/4G and iBurst to choose.



A. 3G/4G

Internet Setup	[HELP]
Combo WAN Status	Disable Settings...
WAN Interface	Wireless WAN
WAN Type	3G/4G
Dial-Up Profile	Auto-Detection Manual
Country	Albania
Telecom	Vodafone
3G/4G Network	WCDMA/HSPA
APN	1234 (optional)
PIN Code	Internet (optional)
Dialed Number	*99#
Account	admin (optional)
Password	••••• (optional)
Authentication	Auto PAP CHAP
Primary DNS	(optional)
Secondary DNS	(optional)
Connection Control	Auto Reconnect (always-on)
Allowed Connection Time	Always By Schedule
MTU	0 (0 is auto)
Keep Alive	Disable LCP Echo Request Interval 10 seconds Max Failure Time 3 times Ping Remote Host Host IP Interval 60 seconds
Save Undo	

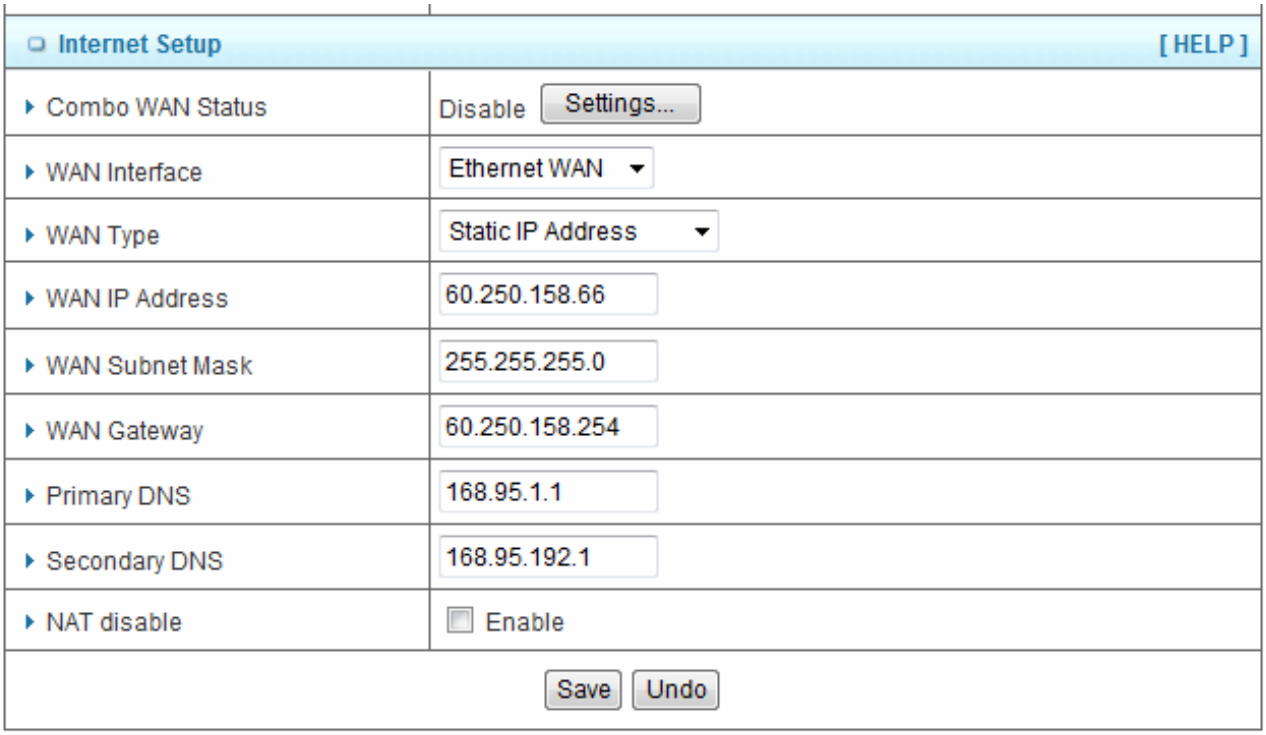
For 3G/4G WAN Networking. The WAN fields may not be necessary for your connection. The information on this page will only be used when your service provider requires you to enter a User Name and Password to connect with the 3G/4G network.

Please refer to your documentation or service provider for additional information.

1. **Dial-Up Profile**: Select “Auto-Detection” or “Manual” to continue. If “Auto-Detection” is selected, the device will try to configure some ISP specific dial-up parameters automatically according to the **Country**, **Telecom**, and **3G/4G Network** information you entered.
2. **Country**: Select your country.
3. **Telecom**: Select your telecom.
4. **3G/4G Network**: Select the 3G/4G Network
5. **APN**: Enter the APN for your PC card here.(Optional)
6. **Pin Code**: Enter the Pin Code for your SIM card. (Optional)
7. **Dial-Number**: This field should not be altered except when required by your service provider.
8. **Account**: Enter the new User Name for your PC card here, you can contact to your ISP to get it. (Optional)
9. **Password**: Enter the new Password for your PC card here, you can contact to your ISP to get it. (Optional)
10. **Authentication**: Choose your authentication.
11. **Primary DNS**: This feature allows you to assign a Primary DNS Server, contact to your ISP to get it. (Optional)
12. **Secondary DNS**: This feature allows you to assign a Secondary DNS Server, you can contact to your ISP to get it. (Optional)
13. **Connection Control**: Select your connection control. There are 3 modes to select:
    - **(1) Connect-on-demand:** The device will link up with ISP when the clients send outgoing packets.
    - **(2) Auto Reconnect (Always-on):** The device will link with ISP until the connection is established.
    - **(3) Manually**: The device will not make the link until someone clicks the connect-button in the Status-page.
14. **Keep Alive**: This feature must collocate with the function "**Auto**" of "**Auto Connect**". Enable it to keep the connection always be established.

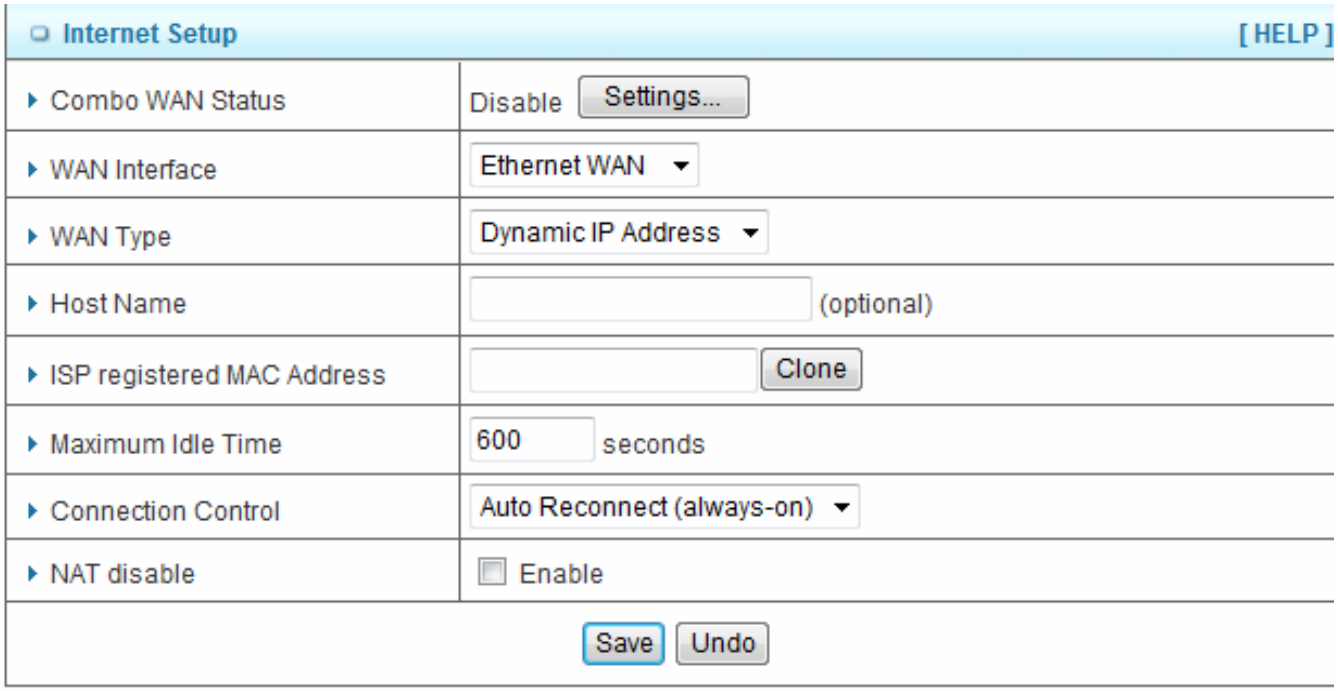
15. **LCP Echo Request**: Enter the time interval and the maximum failure count. The device will constantly send out the LCP packets for keeping the connection alive.
16. **Ping Remote Host**: Enter the Remote host IP and the time interval to send the ping packets for keeping the connection alive.

B. Static IP Address:



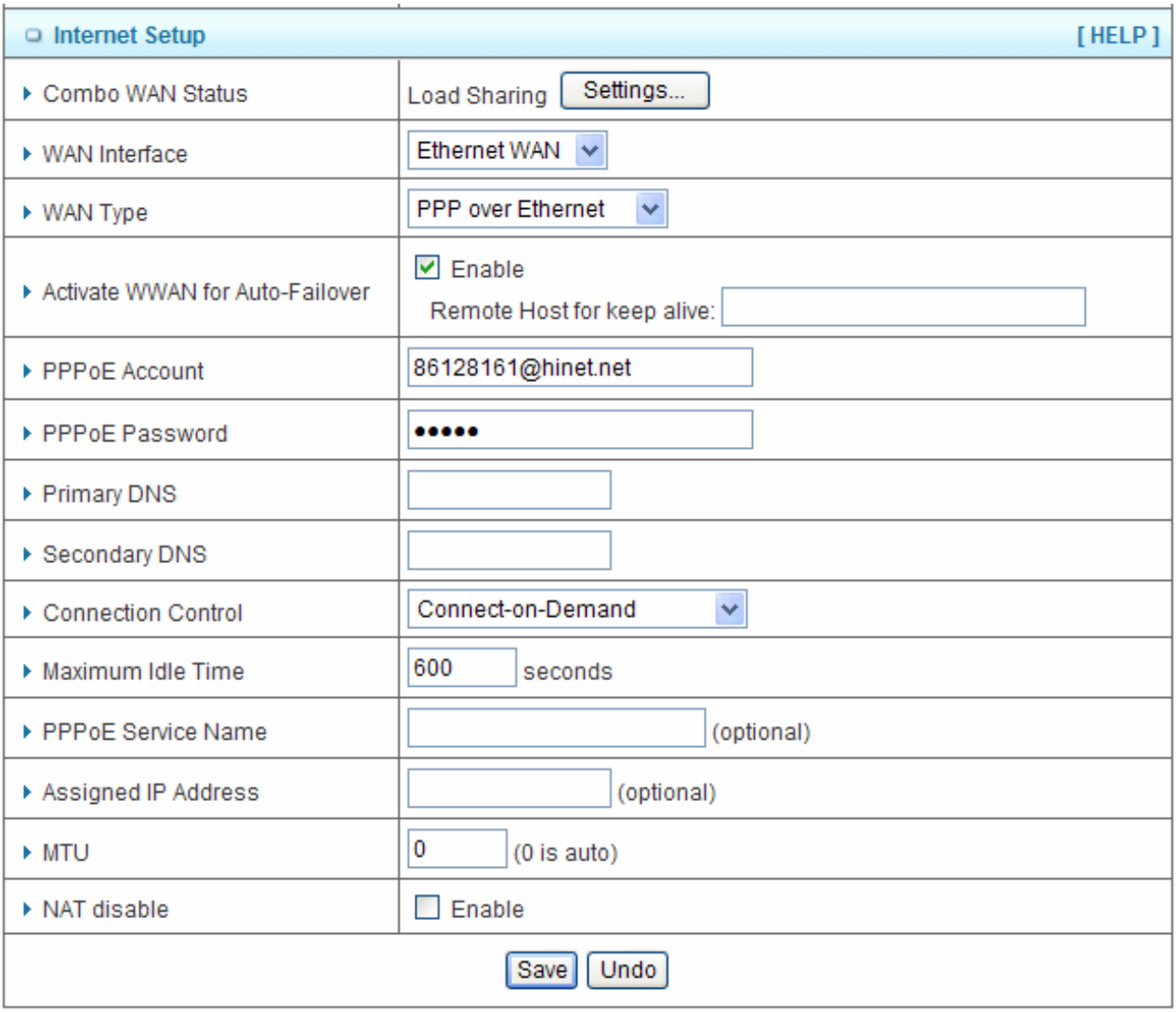
1. **Activate WWAN for Auto-Failover**: With this function enabled, when the Ethernet WAN connection is broken, the device will automatically activate the WWAN connection and keep you connected to internet with the alternative WWAN broadband service. Meanwhile, if the device detected that the Ethernet WAN connection is recovered, your broadband connection will be switched to use the Ethernet WAN service.
2. **WAN IP Address, Subnet Mask, Gateway, Primary and Secondary DNS**: Enter the proper settings provided by your ISP.

C. Dynamic IP Address:



1. **Activate WWAN for Auto-Failover**: With this function enabled, when the Ethernet WAN connection is broken, the device will automatically activate the WWAN connection and keep you connected to internet with the alternative WWAN broadband service. Meanwhile, if the device detected that the Ethernet WAN connection is recovered, your broadband connection will be switched to use the Ethernet WAN service.
2. **Host Name**: Optional, required by some ISPs, for example, @Home.
3. **Connection Control**: There are 3 modes to select:
   - **(1) Connect-on-demand:** The device will link up with ISP when the clients send outgoing packets.]
   - **(2) Auto Reconnect (Always-on)**: The device will link with ISP until the connection is established.
   - **(3) Manually:** The device will not make the link until someone clicks the connect-button in the Status-page.

D. PPP over Ethernet



1. **Activate WWAN for Auto-Failover**: With this function enabled, when the Ethernet WAN connection is broken, the device will automatically activate the WWAN connection and keep you connected to internet with the alternative WWAN broadband service. Meanwhile, if the device detected that the Ethernet WAN connection is recovered, your broadband connection will be switched to use the Ethernet WAN service
2. **PPPoE Account** and **Password**: The account and password your ISP assigned to you. For security, this field appears blank. If you don't want to change the password, leave it blank.
3. **Connection Control**: There are 3 modes to select:

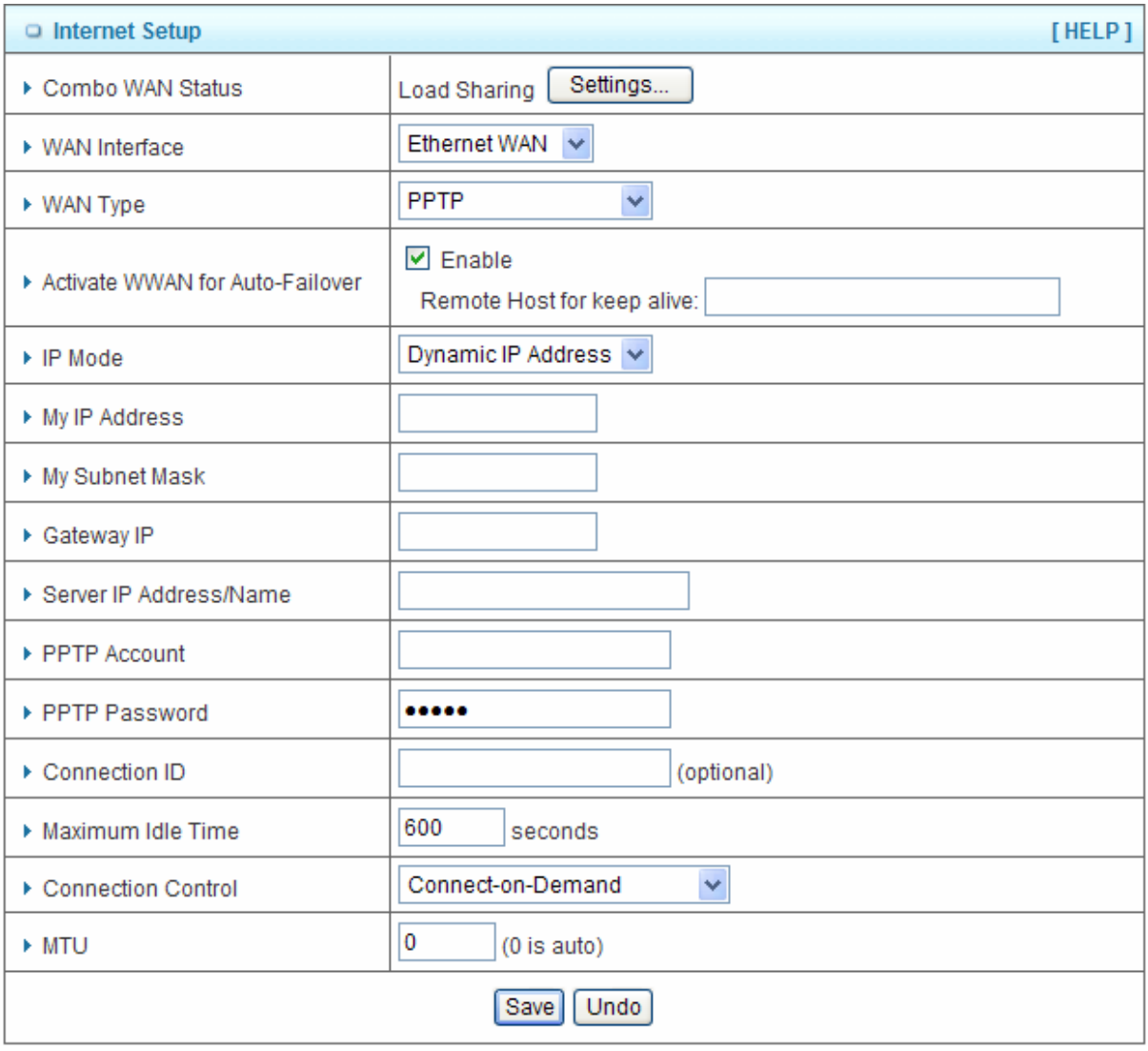
   (1) Connect-on-demand: The device will link up with ISP when the clients send outgoing packets.

(2) **Auto Reconnect (Always-on):** The device will link with ISP until the connection is established.

(3) **Manually:** The device will not make the link until someone clicks the connect-button in the Status-page.

4. **Maximum Idle Time**: the amount of time of inactivity before disconnecting your PPPoE session. Set it to zero or enable “Auto-reconnect” to disable this feature.
5. **PPPoE Service Name**: Optional. Input the service name if your ISP requires it. Otherwise, leave it blank.
6. **Maximum Transmission Unit (MTU):** Most ISP offers MTU value to users. The default MTU value is 0 (auto).

E. PPTP



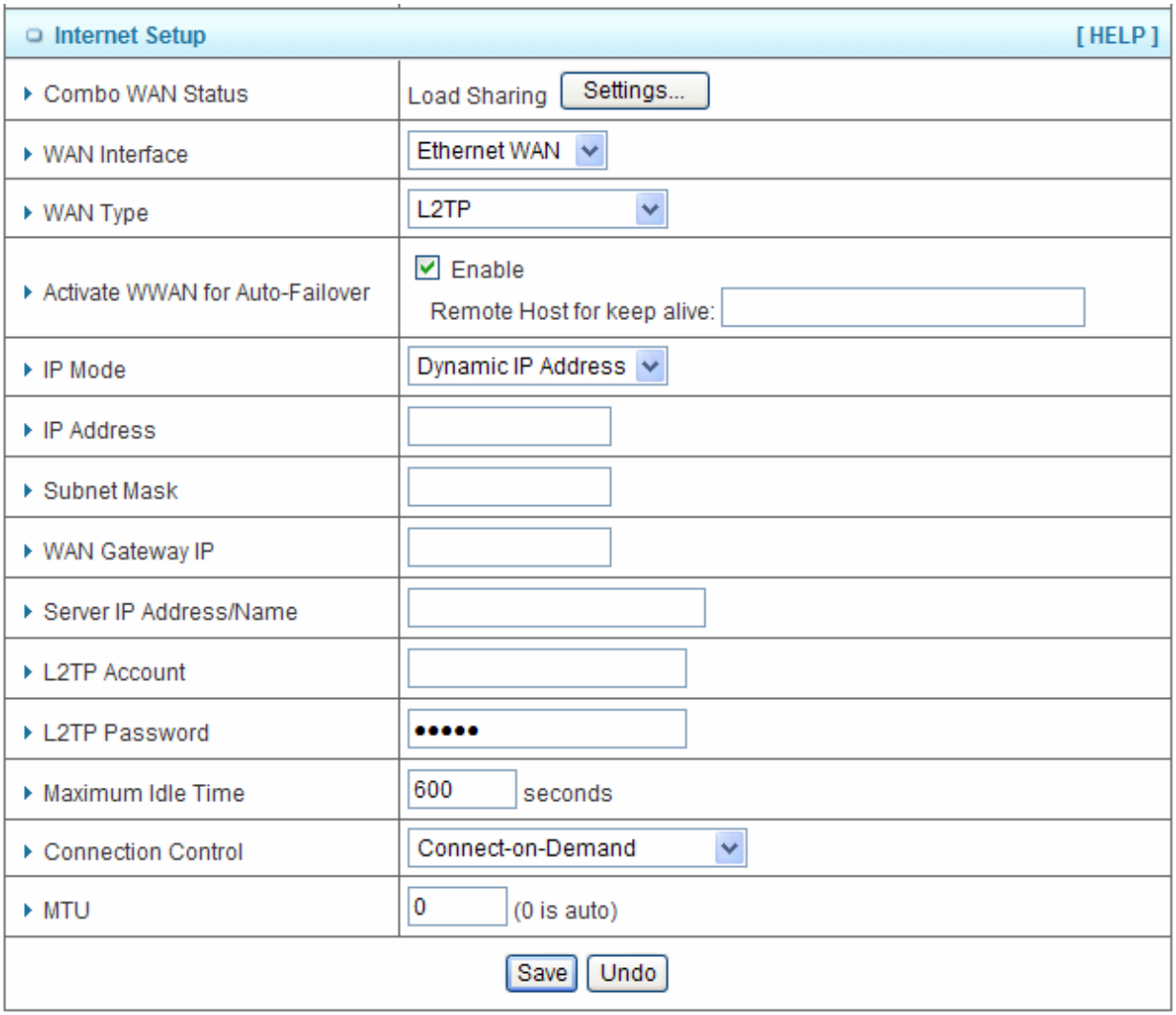
1. **Activate WWAN for Auto-Failover**: With this function enabled, when the Ethernet WAN connection is broken, the device will automatically activate the WWAN connection and keep you connected to internet with the alternative WWAN broadband service. Meanwhile, if the device detected that the Ethernet WAN connection is recovered, your broadband connection will be switched to use the Ethernet WAN service
2. **IP Mode**: Please check the IP mode your ISP assigned, and select “Static IP Address” or “Dynamic IP Address”.
3. **My IP Address** and **My Subnet Mask**: The private IP address and subnet mask your ISP assigned to you.
4. **Gateway IP** and **Server IP Address/Name**: The IP address of the PPTP server and designated Gateway provided by your ISP.
5. **PPTP Account** and **Password**: The account and password your ISP assigned to you. If you don't want to change the password, keep it blank.
6. **Connection ID**: Optional. Input the connection ID if your ISP requires it.
7. **Maximum Idle Time**: the time of no activity to disconnect your PPTP session. Set it to zero or enable “Auto-reconnect” to disable this feature. If Auto-reconnect is enabled, this device will connect with ISP automatically after system is restarted or connection is dropped.
8. **Connection Control**: There are 3 modes to select:

   (1) Connect-on-demand: The device will link up with ISP when the clients send outgoing packets.

   (2) Auto Reconnect (Always-on): The device will link with ISP until the connection is established.

   (3) Manually: The device will not make the link until someone clicks the connect-button in the Status-page.
9. **Maximum Transmission Unit (MTU)**: Most ISP offers MTU value to users. The default MTU value is 0 (auto).

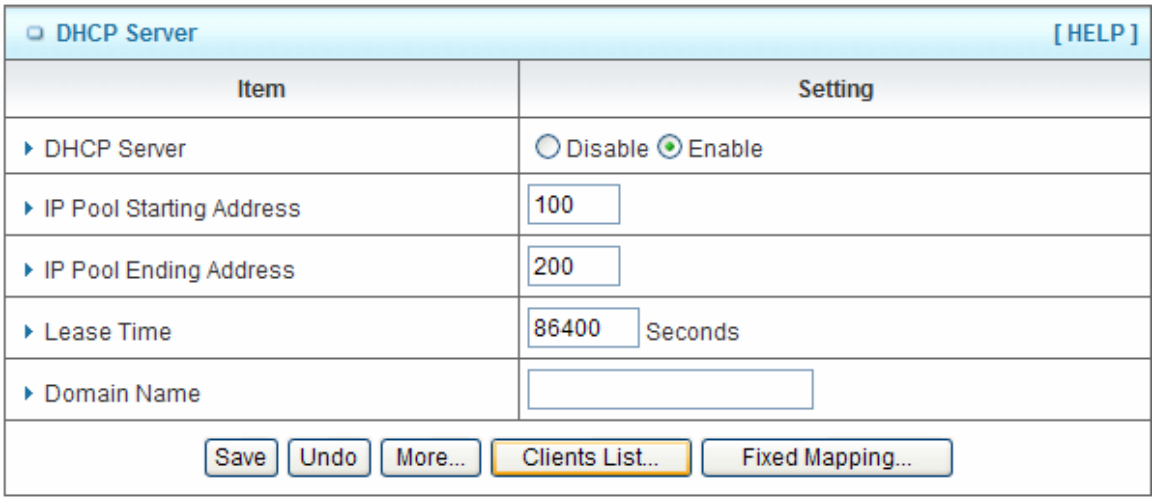
F. L2TP

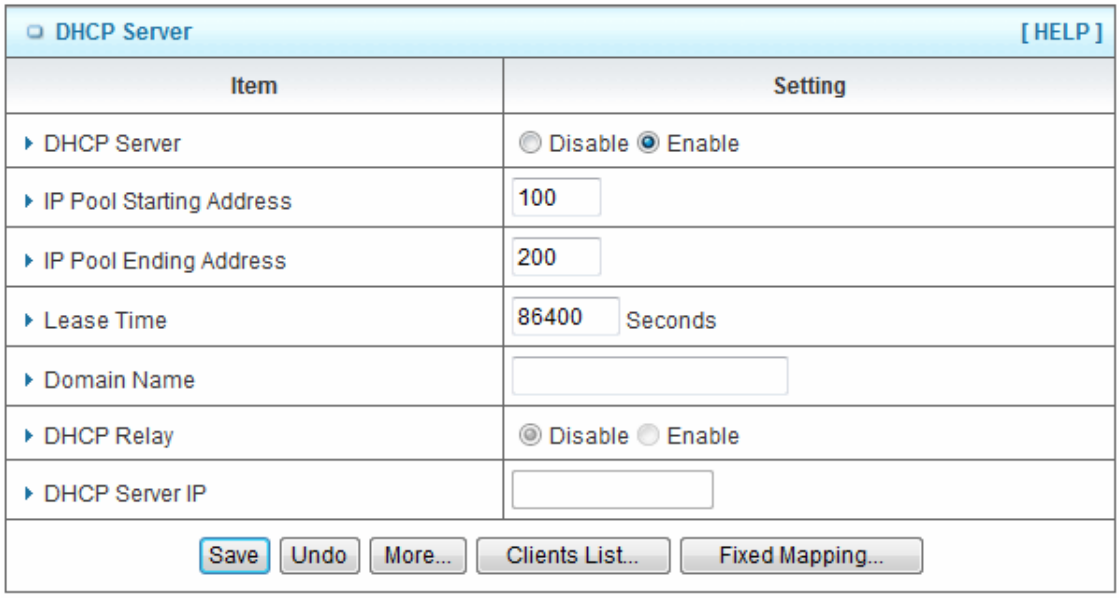


1. **Activate WWAN for Auto-Failover**: With this function enabled, when the Ethernet WAN connection is broken, the device will automatically activate the WWAN connection and keep you connected to internet with the alternative WWAN broadband service. Meanwhile, if the device detected that the Ethernet WAN connection is recovered, your broadband connection will be switched to use the Ethernet WAN service
2. **IP Mode**: Please check the IP mode your ISP assigned, and select “Static IP Address” or “Dynamic IP Address”.
3. **My IP Address** and **My Subnet Mask**: The private IP address and subnet mask your ISP assigned to you.
4. **Gateway IP** and **Server IP Address/Name**: The IP address of the L2TP server and designated Gateway provided by your ISP.

5. **L2TP Account** and **Password**: The account and password your ISP assigned to you. If you don't want to change the password, keep it blank.
6. **Connection ID**: Optional. Input the connection ID if your ISP requires it.
7. **Maximum Idle Time**: The time of no activity to disconnect your L2TP session. Set it to zero or enable “Auto-reconnect” to disable this feature. If Auto-reconnect is enabled, this device will connect with ISP automatically, after system is restarted or connection is dropped.
8. **Connection Control**: There are 3 modes to select:
   (1) **Connect-on-demand**: The device will link up with ISP when the clients send outgoing packets.
   (2) **Auto Reconnect (Always-on):** The device will link with ISP until the connection is established.
   (3) **Manually:** The device will not make the link until someone clicks the connect-button in the Status-page.
9. **Maximum Transmission Unit (MTU)**: Most ISP offers MTU value to users. The default MTU value is 0 (auto).

3.1.2. DHCP Server



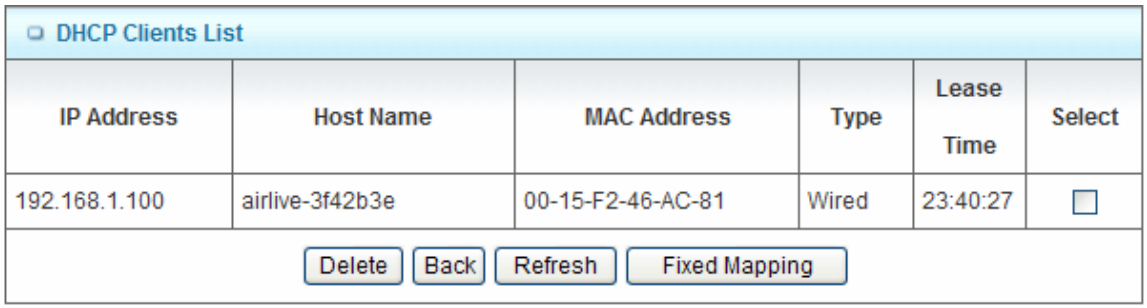


1. **DHCP Server:** Choose either **Disable** or **Enable**. If you enable the DHCP Server function, the following settings will be effective.
2. **IP Pool Starting/Ending Address:** Whenever there is a request, the DHCP server will automatically allocate an unused IP address from the IP address pool to the requesting computer. You must specify the starting / ending address of the IP address pool.
3. **Lease Time:** DHCP lease time to the DHCP client.
4. **Domain Name:** Optional, this information will be passed to the clients.

   Press **"More>>"** and you can find more settings
5. **Primary DNS/Secondary DNS:** Optional. This feature allows you to assign a DNS Servers
6. **Primary WINS/Secondary WINS:** Optional. This feature allows you to assign a WINS Servers
7. **Gateway:** Optional. Gateway Address would be the IP address of an alternate Gateway. This function enables you to assign another gateway to your PC, when DHCP server offers an IP to your PC.

Click on "Save" to store your settings or click "Undo" to give up the changes.

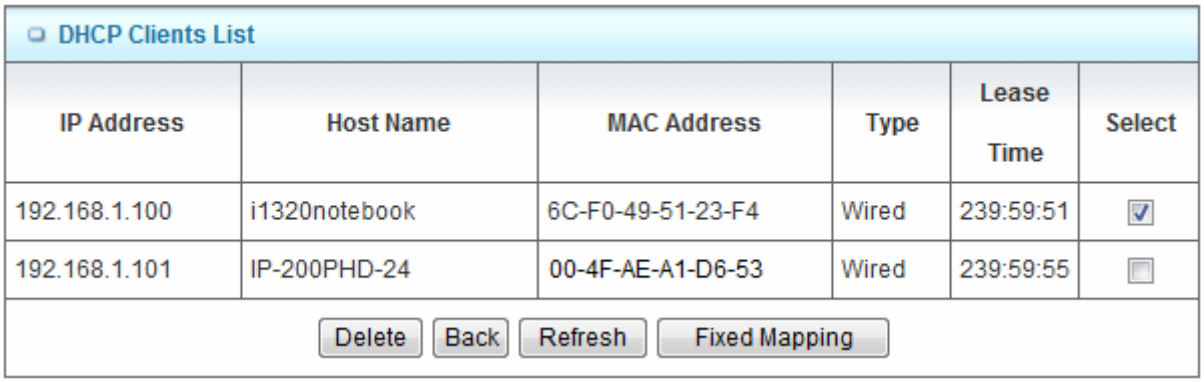
Press "**Clients List**" and the list of DHCP clients will be shown consequently.



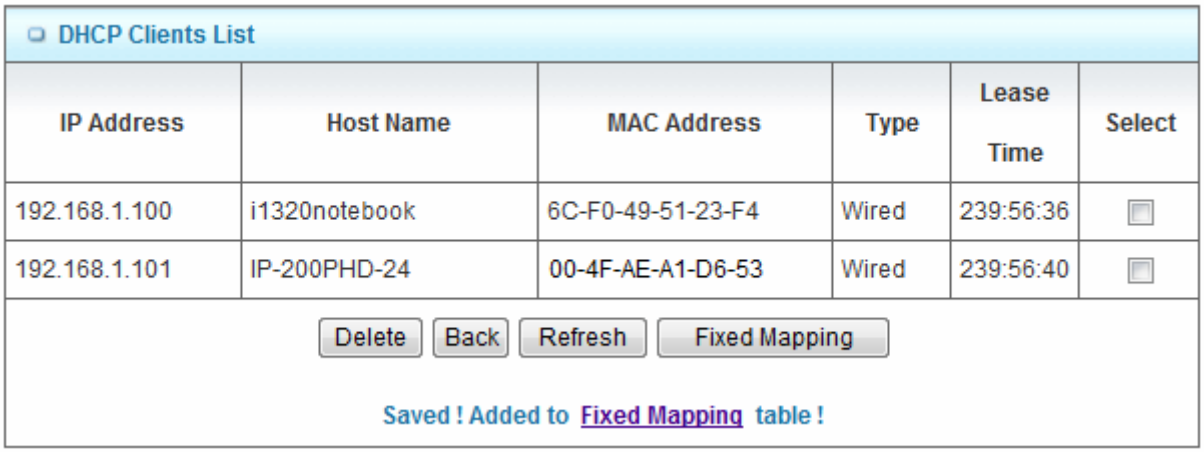
Press "**Fixed Mapping**" and the DHCP Server will reserve the special IP for designated MAC address.

For example:

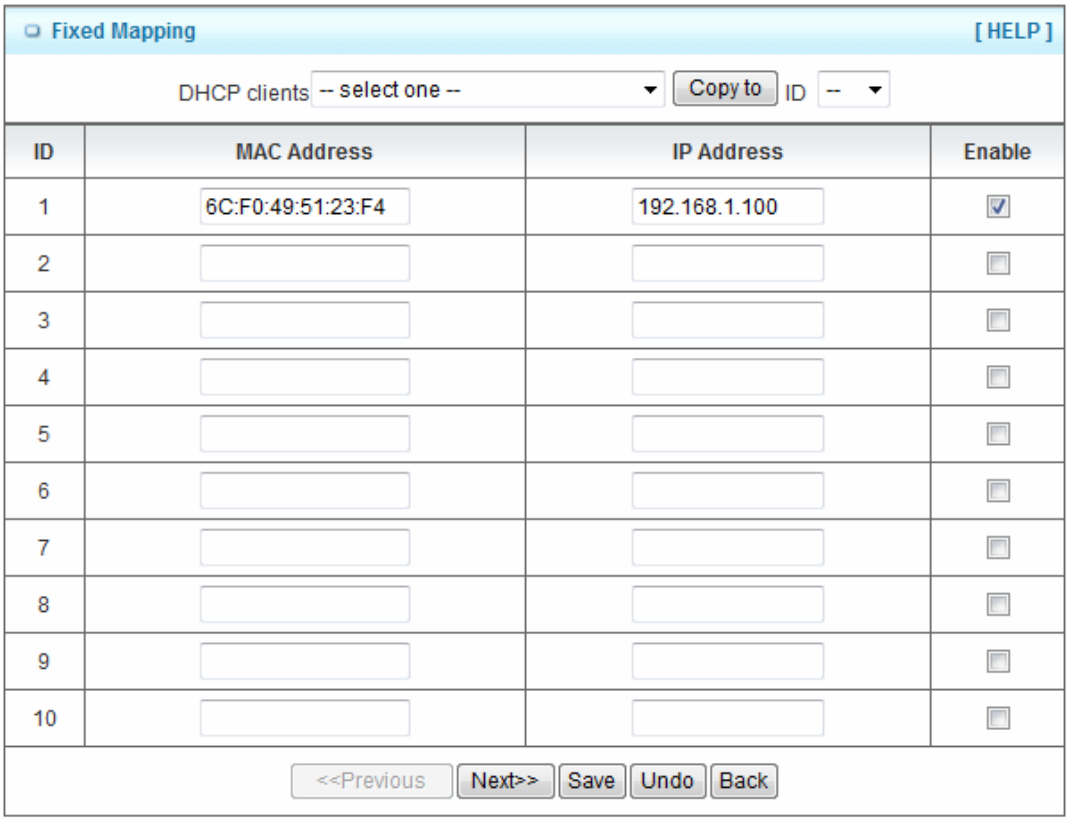
- On the DHCP Clients List, please first select which client you wish to add to fix mapping, then click on "**Fixed Mapping**" button.



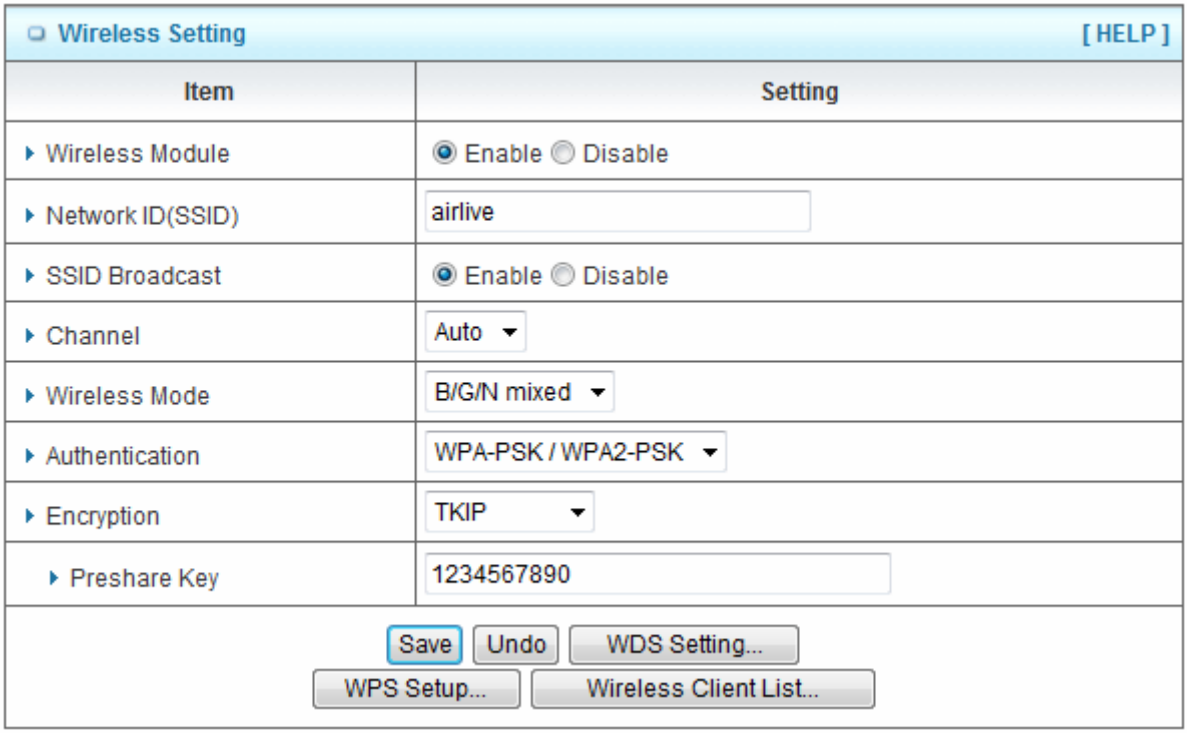
- The setting will be saved, and click on below link of Fixed Mapping.



- The client has added to Fixed Mapping table.



3.1.3. Wireless Settings



Wireless settings allow you to set the wireless configuration items.

1. **Wireless Module:** You can enable or disable wireless function.
2. **Network ID (SSID):** Network ID is used for identifying the Wireless LAN (WLAN). Client stations can roam freely over this device and other Access Points that have the same Network ID. (The factory default setting is “default”)
3. **SSID Broadcast:** The router will broadcast beacons that have some information, including SSID so that wireless clients can know how many AP devices by scanning the network. Therefore, if this setting is configured as “Disable”, the wireless clients can not find the device from beacons.
4. **Channel:** The radio channel number. The permissible channels depend on the Regulatory Domain. The factory default setting is as follow: channel 1~11 for North America. (Channel 1~13 for European (ETSI); channel1~ 14 for Japan).
5. **Wireless Mode:** Choose “**B/G mixed**”, “**B only**”, “**G only**”, “**N only**”, “**G/N mixed**” or “**B/G/N mixed**”. The factory default setting is “B/G/N mixed”.
6. **Authentication mode:** You may select one of authentication to secure your wireless network: Open Shared, Auto, WPA-PSK, WPA, WPA2-PSK, WPA2, WPA-PSK/WPA2-PSK, or WPA /WPA2.

(1) Open: Open system authentication simply consists of two communications. The first is an authentication request by the client that contains the station ID (typically the MAC address). This is followed by an authentication response from the AP/router containing a success or failure message. An example of when a failure may occur is if the client's MAC address is explicitly excluded in the AP/router configuration.

(2) Shared: Shared key authentication relies on the fact that both stations taking part in the authentication process have the same "shared" key or passphrase. The shared key is manually set on both the client station and the AP/router. Three types of shared key authentication are available today for home or small office WLAN environments.

(3) Auto: The AP will Select the Open or Shared by the client's request automatically.

(4) WPA-PSK: Select Encryption and Pre-share Key Mode. If you select HEX, you have to fill in 64 hexadecimal (0, 1, 2…8, 9, A, B…F) digits.If you select ASCII, the length of pre-share key is from 8 to 63.Fill in the key, Ex 12345678

(5) WPA: Check Box was used to switch the function of the WPA. When the WPA function is enabled, the Wireless user must **authenticate** to this router first to use the Network service. RADIUS Server IP address or the 802.1X server's domain-name. Select Encryption and RADIUS Shared Key. If you select HEX, you have to fill in 64 hexadecimal (0, 1, 2…8, 9, A, B…F) digits. If you select ASCII, the length of pre-share key is from 8 to 63. Key value shared by the RADIUS server and this router. This key value is consistent with the key value in the RADIUS server.

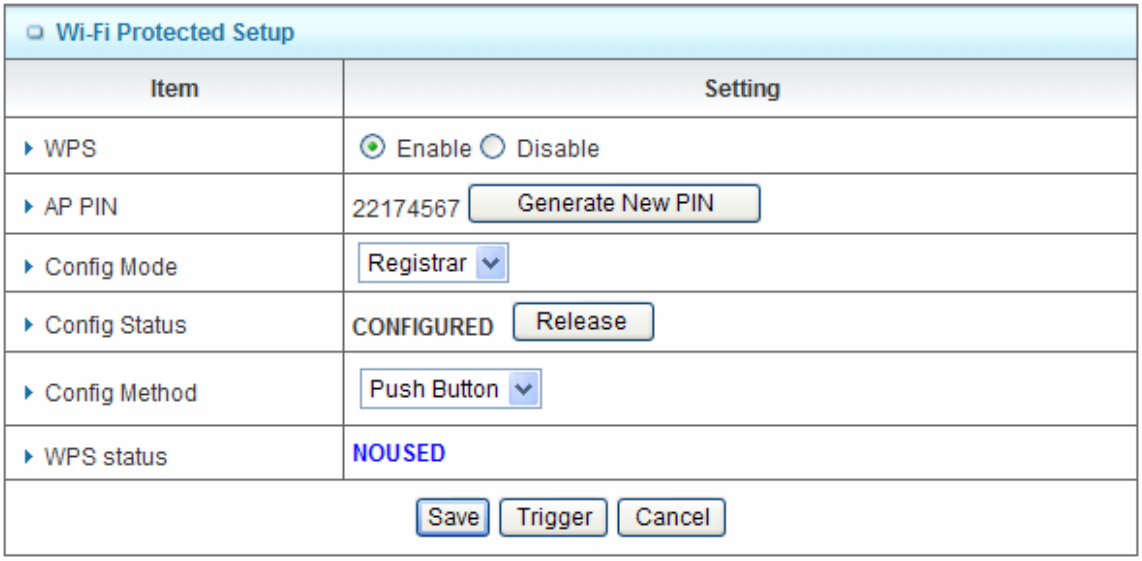
(6) WPA-PSK2: WPA-PSK2 user AES and TKIP for Same the encryption, the others are same the WPA-PSK.

(7) WPA2: WPA2 add uses AES and TKIP for encryption, the others are same the WPA.

(8) WPA-PSK/WPA-PSK2: Another encryption options for WPA-PSK-TKIP and WPA-PSK2-AES, the others are same the WPA-PSK.

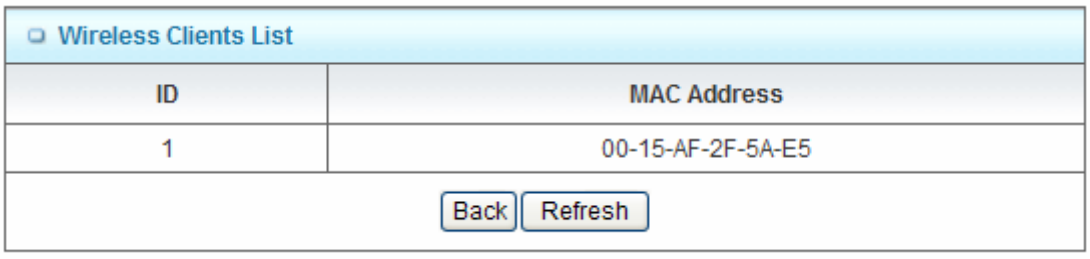
(9) WPA/WPA2: Another encryption options for WPA-TKIP and WPA2-AES, the others are same the WPA.

By pressing **"WPS Setup"**, you can configure and enable the easy setup feature WPS (Wi-Fi Protection Setup) for your wireless network.

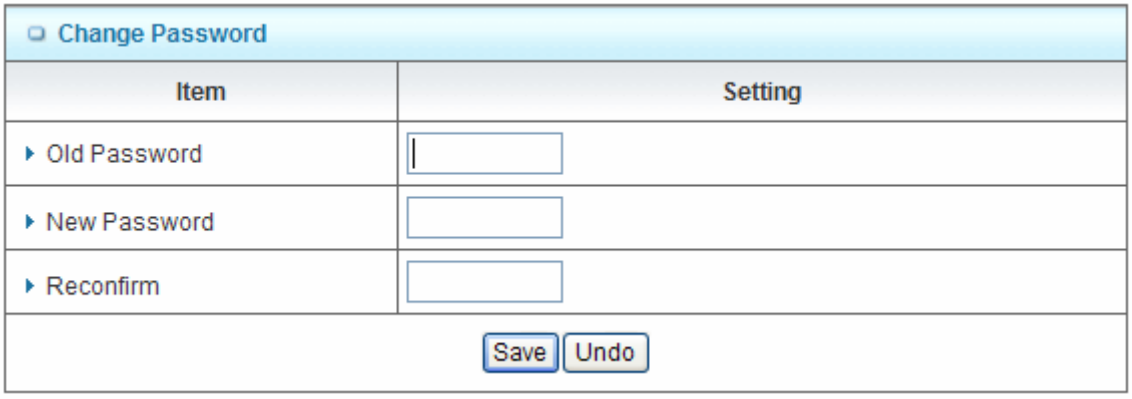


1. **WPS:** You can enable this function by selecting "**Enable**". WPS offers a safe and easy way to allow the wireless clients connected to your wireless network.
2. **AP PIN**: You can press Generate New Pin to get an AP PIN.
3. **Config Mode**: Select your config Mode from "Registrar" or "Enrollee".
4. **Config Status**: It shows the status of your configuration.
5. **Config Method**: You can select the Config Method here from "Pin Code" or "Push Button".
6. **WPS status**: According to your setting, the status will show "Start Process" or "No used"

Press "**Wireless Clients List**" and the list of wireless clients will be shown consequently.



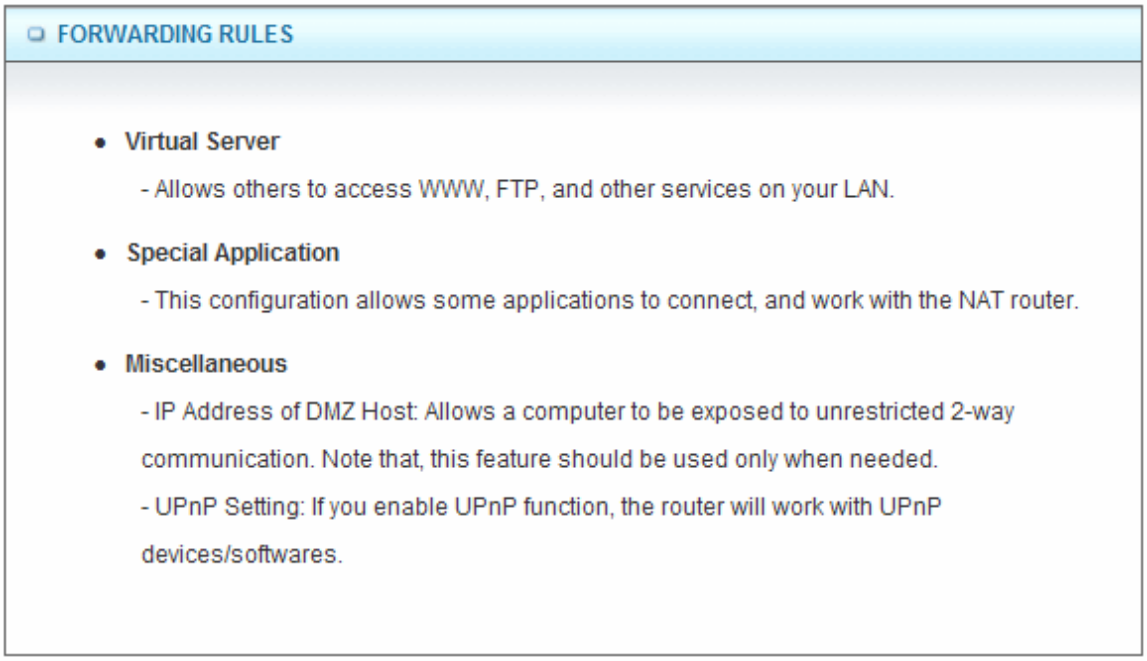
3.1.4. Change Password



You can change the System Password here. We **strongly** recommend you to change the system password for security reason.

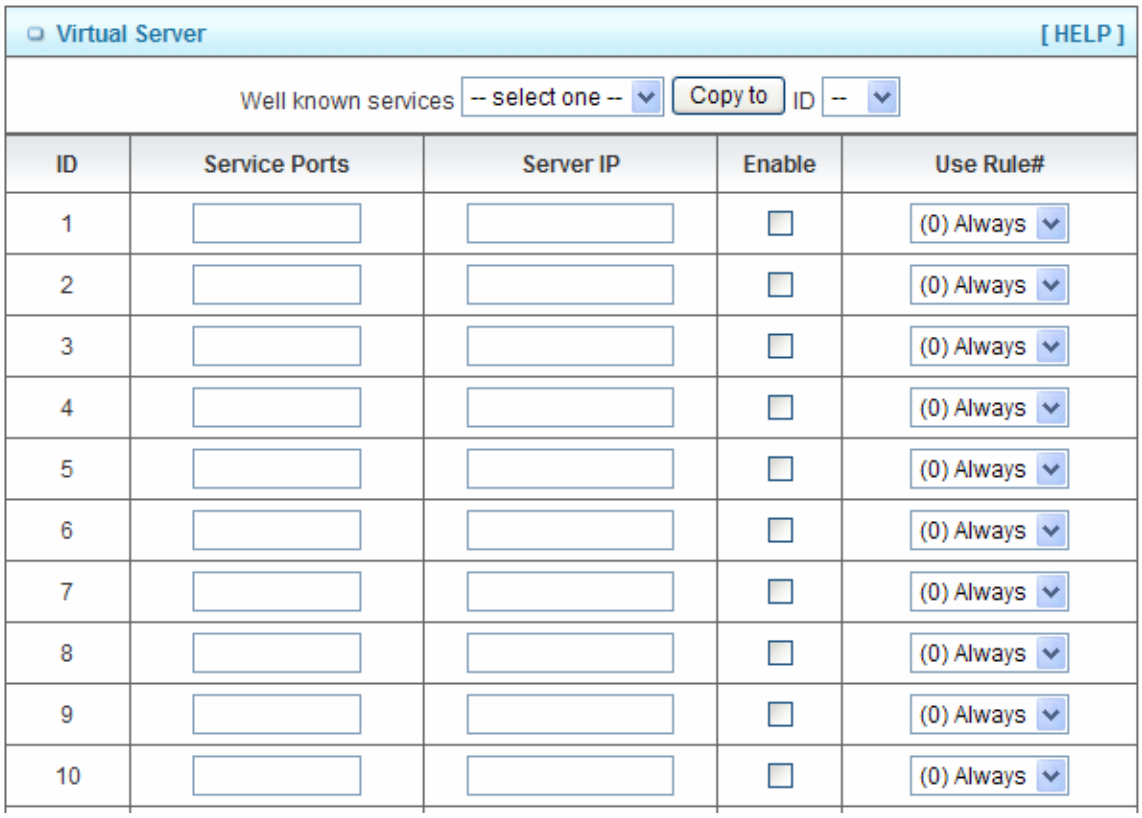
Click on "Save" to store your settings or click "Undo" to give up the changes.

3.2 Forwarding Rules



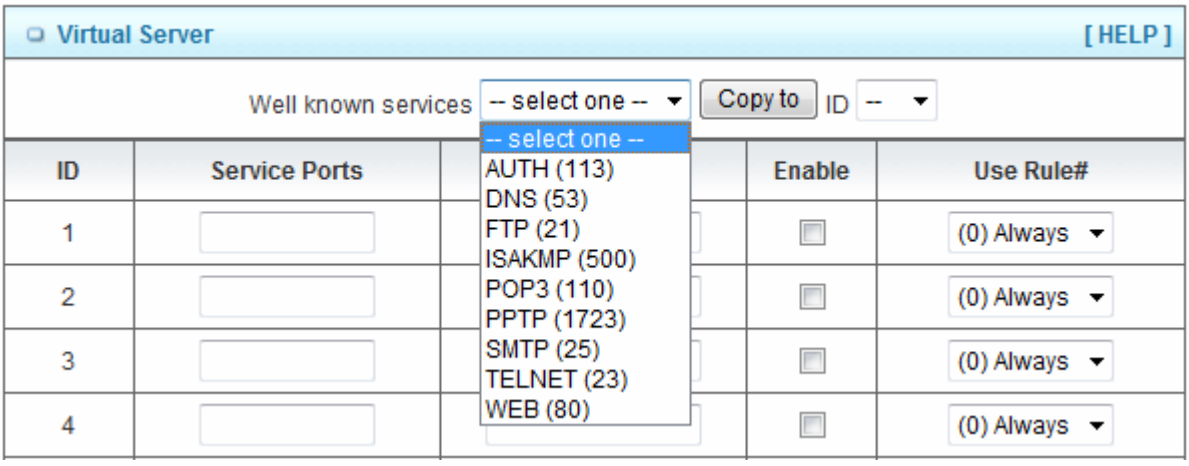
3.2.1. Virtual Server

This product's NAT firewall filters out unrecognized packets to protect your Intranet, so all hosts behind this product are invisible to the outside world. If you wish, you can make some of them accessible by enabling the Virtual Server Mapping.



A virtual server is defined as a **Service Port**, and all requests to this port will be redirected to the computer specified by the **Server IP. Virtual Server** can work with **Scheduling Rules**, and give user more flexibility on Access control. For the details, please refer to **Scheduling Rule**.

There is well known services as below, if your service is not included, please configure it manually.



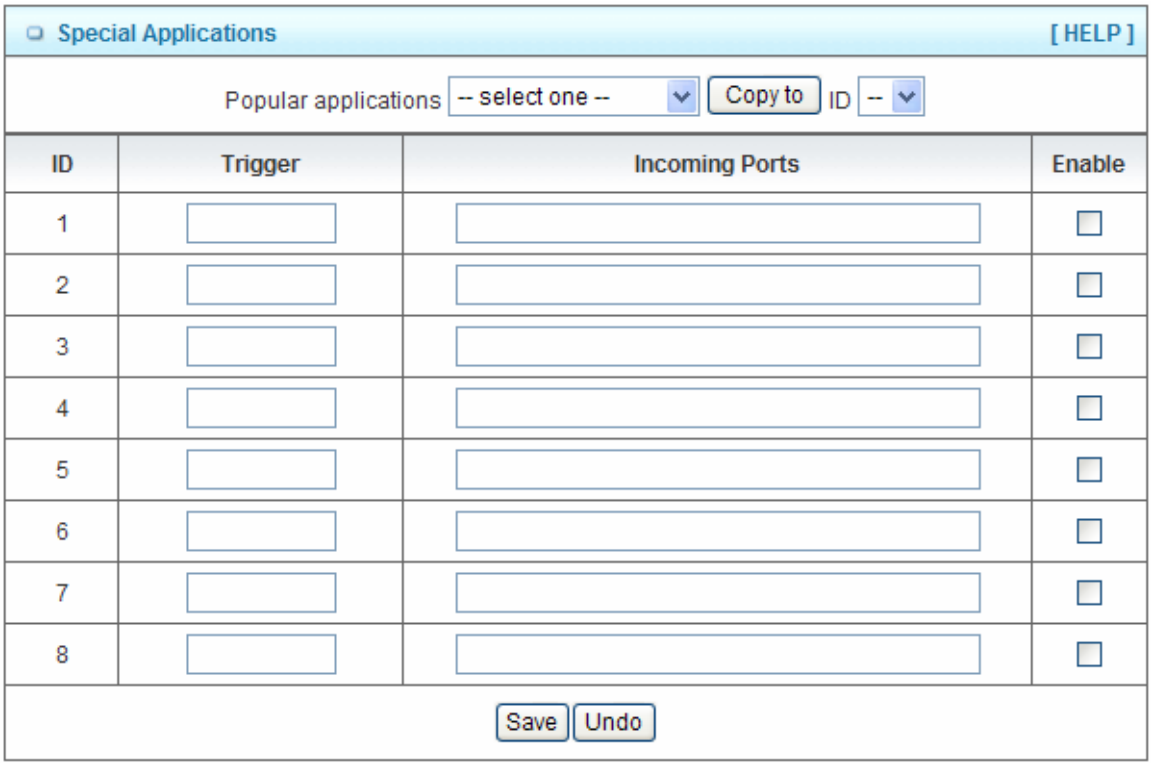
For example, if you have an FTP server (port 21) at 192.168.1.1, a Web server (port 80) at 192.168.1.2, and a PPTP VPN server at 192.168.1.6, then you need to specify the following virtual server mapping table:

Service Port	Server IP	Enable
21	192.168.1.1	V
80	192.168.1.2	V
1723	192.168.1.6	V

Click on "Save" to store your settings or click "Undo" to give up the changes.

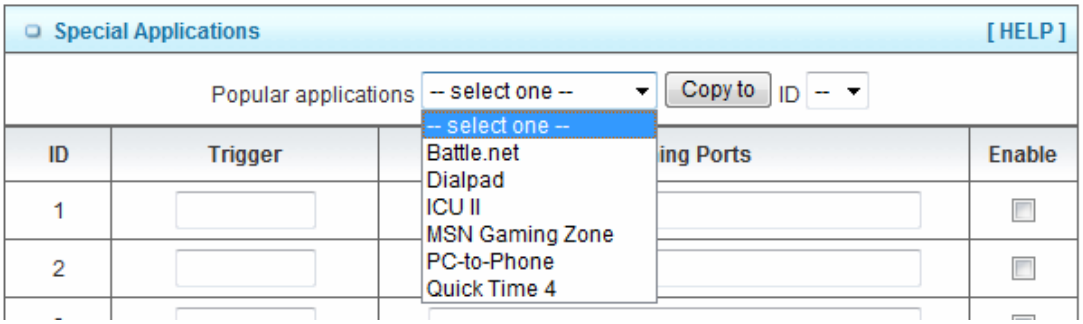
3.2.2.Special AP

Some applications require multiple connections, like Internet games, Video conferencing, Internet telephony, etc. Because of the firewall function, these applications cannot work with a pure NAT router. **The Special Applications** feature allows some of these applications to work with this product. If the mechanism of Special Applications fails to make an application work, try setting your computer as the DMZ host instead.



1. **Trigger:** The outbound port number issued by the application.
2. **Incoming Ports**: When the trigger packet is detected, the inbound packets sent to the specified port numbers are allowed to pass through the firewall.

There is a Popular applications as below, if your application is not included, please configure it manually.



This device provides some predefined settings. Select your application and click "**Copy to**" to add the predefined setting to your list.

Click on "Save" to store your settings or click "Undo" to give up the changes.

3.2.3. Miscellaneous

Miscellaneous Items		[HELP]
Item	Setting	Enable
IP Address of DMZ Host		☐
UPnP setting		☑
Save Undo		

1. **IP Address of DMZ Host**

   DMZ (Demilitarized Zone) Host is a host without the protection of firewall. It allows a computer to be exposed to unrestricted 2-way communication for Internet games, Video conferencing, Internet telephony and other special applications.

2. **UPnP Setting**

   The device supports the UPnP function. If the OS of your client computer supports this function, and you enabled it, like Windows XP, you can see the following icon  when the client computer gets IP from the device.

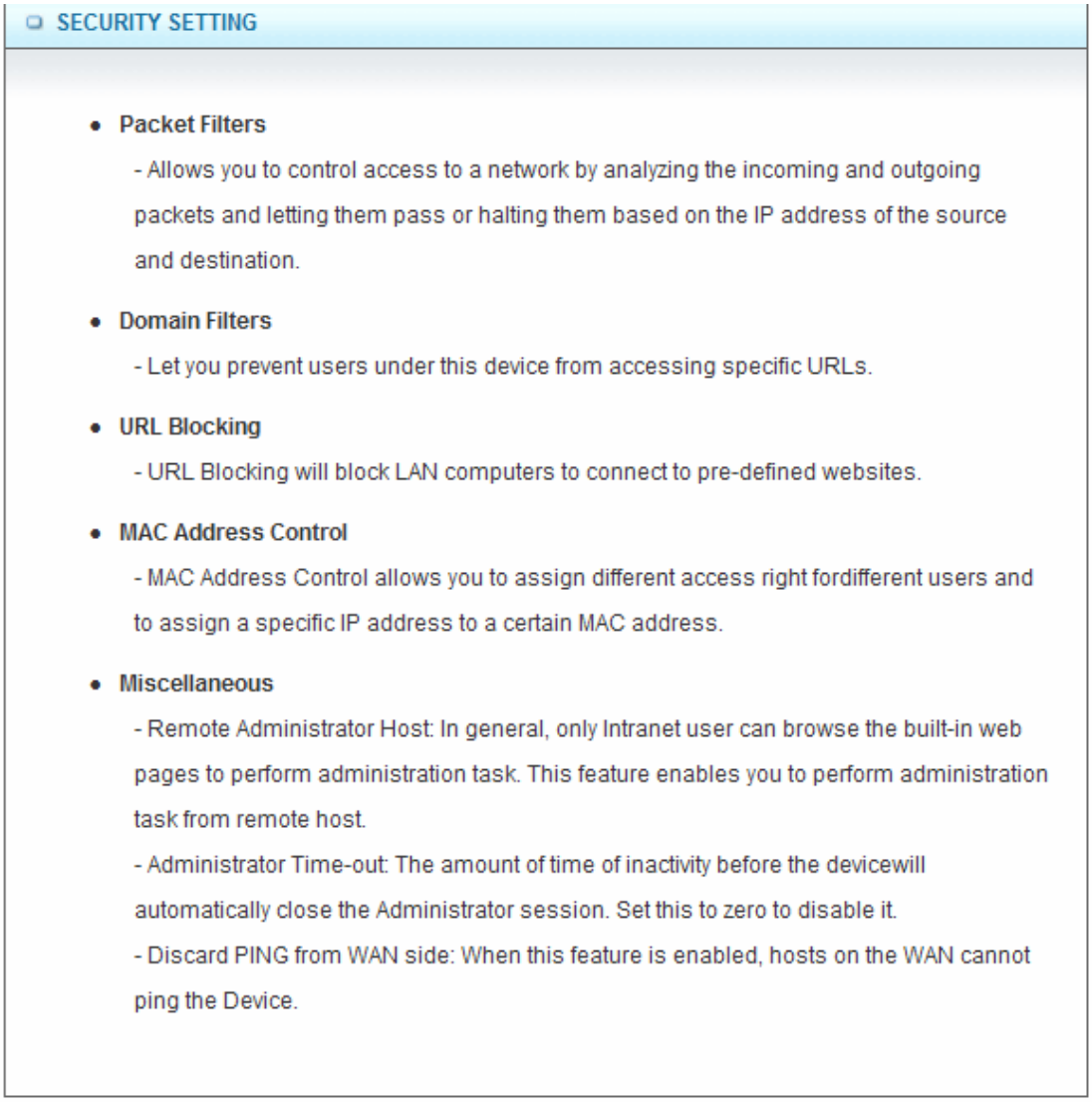
Click on "Save" to store your settings or click "Undo" to give up the changes.

3.2.4.IP CAM

After you plug AirLive IP Camera into PnP Router, please check the IP CAM table list as following.

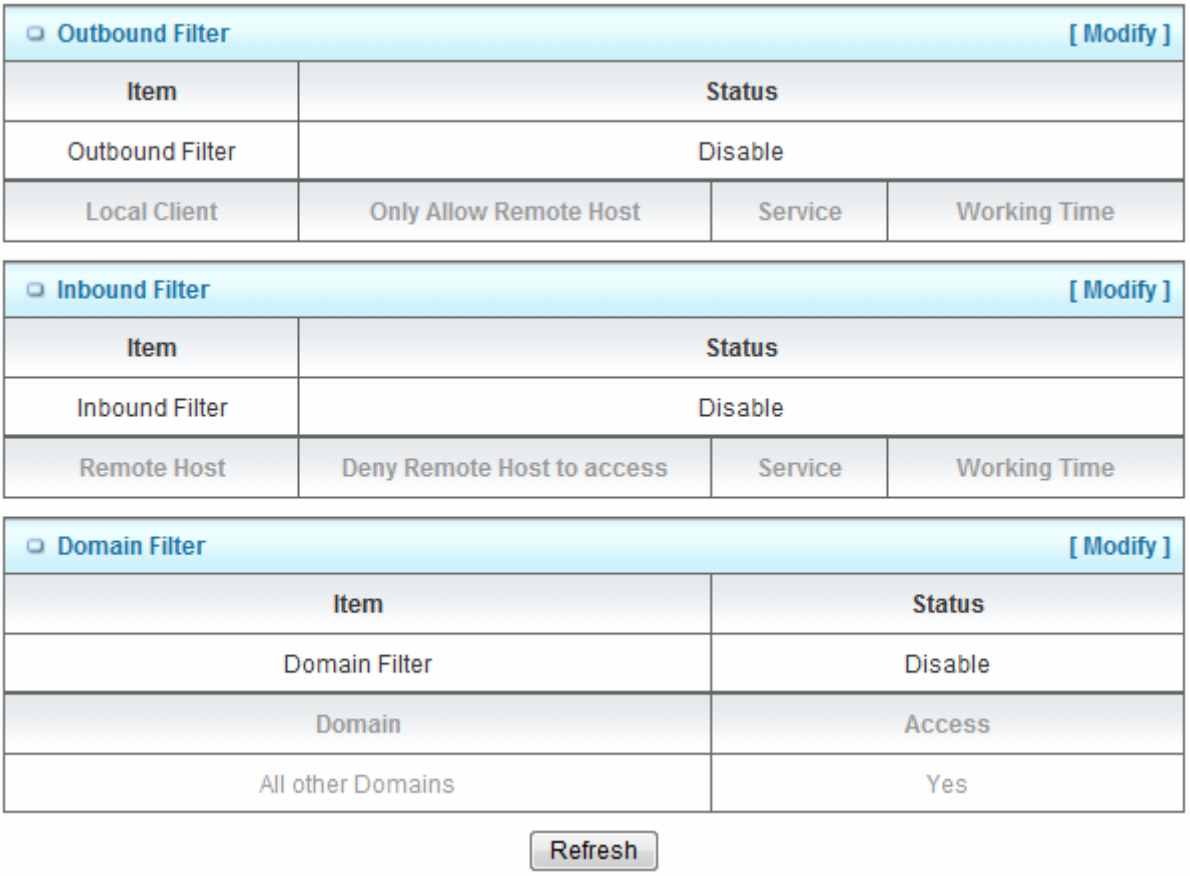
IP CAM List						
IP Address	Port	Host Name	MAC Address	Description	Status	Edit
192.168.1.201	8080	airlive-keithy	00-4F-75-00-00-01	Chamber	●	edit
Save Refresh						

3.3 Security Setting



3.3.1.Status

To view the status of security settings for outbound filter, inbound filter and domain filter.



Outbound Filter [Modify]

Item	Status		
Outbound Filter	Disable		
Local Client	Only Allow Remote Host	Service	Working Time

Inbound Filter [Modify]

Item	Status		
Inbound Filter	Disable		
Remote Host	Deny Remote Host to access	Service	Working Time

Domain Filter [Modify]

Item	Status
Domain Filter	Disable
Domain	Access
All other Domains	Yes

Refresh

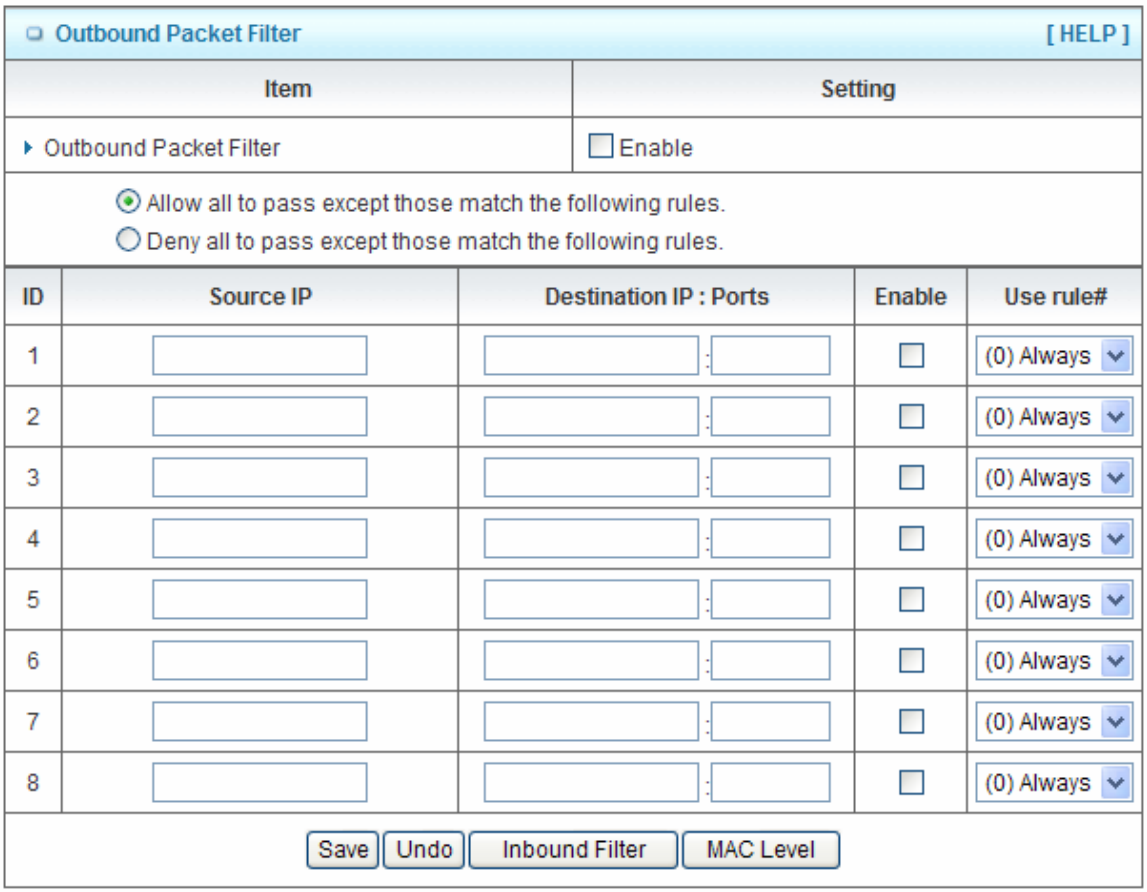
Click on "Refresh" to refresh the webpage.

3.3.2. Packet Filters

Packet Filter includes both outbound filter and inbound filter. And they have same way to setting.

Packet Filter enables you to control what packets are allowed to pass the router. Outbound filter applies on all outbound packets. However, inbound filter applies on packets that destined to Virtual Servers or DMZ host only. You can select one of the two filtering policies:

1. Allow all to pass except those match the specified rules
2. Deny all to pass except those match the specified rules



You can specify 8 rules for each direction: inbound or outbound. For each rule, you can define the following:

- Source IP address
- Source port
- Destination IP address
- Destination port
- Protocol: TCP or UDP or both.
- Use Rule#

For source or destination IP address, you can define a single IP address (4.3.2.1) or a range of IP addresses (4.3.2.1-4.3.2.254). An empty implies all IP addresses.

For source or destination port, you can define a single port (80) or a range of ports (1000-1999). Add prefix "T" or "U" to specify TCP or UDP protocol. For example, T80, U53, U2000-2999, No prefix indicates both TCP and UDP are defined. An empty implies all port addresses. Packet Filter can work with **Scheduling Rules,** and give user more flexibility on Access control. For Detail, please refer to **Scheduling Rule.**

Each rule can be enabled or disabled individually.

Click on "Save" to store your settings or click "Undo" to give up the changes.

3.3.3. Domain Filters

Domain Filter [HELP]

Item	Setting
Domain Filter	Enable
Log DNS Query	Enable
Privilege IP Addresses Range	From To

ID	Domain Suffix	Action	Enable
1		Drop Log	
2		Drop Log	
3		Drop Log	
4		Drop Log	
5		Drop Log	
6		Drop Log	
7		Drop Log	
8		Drop Log	
9		Drop Log	
10	* (all others)	Drop Log	-

Save Undo

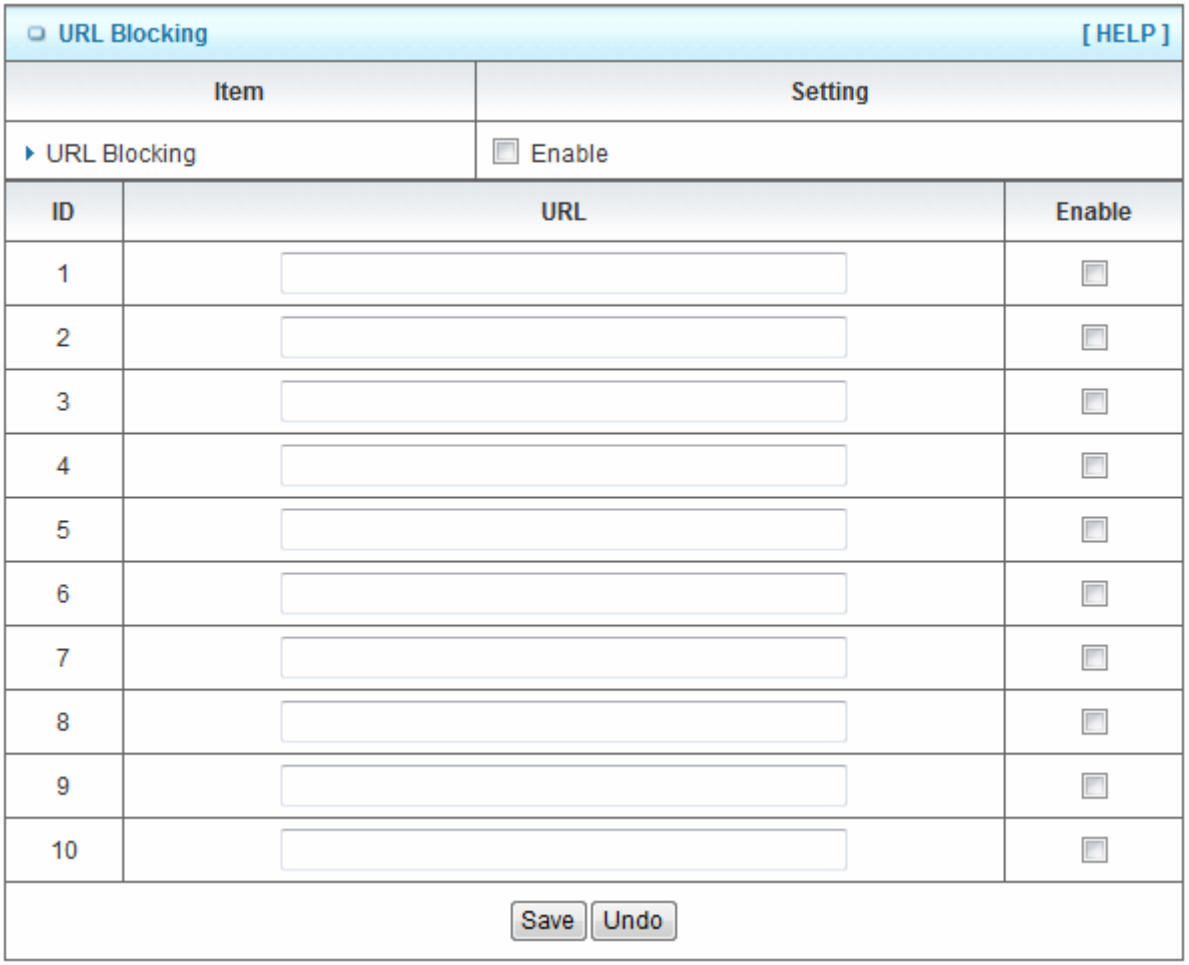
Domain Filter prevents users under this device from accessing specific URLs.

1. **Domain Filter**: Check if you want to enable Domain Filter.
2. **Log DNS Query**: Check if you want to log the action when someone accesses the specific URLs.
3. **Privilege IP Address Range**: Setting a group of hosts and privilege these hosts to access network without restriction.
4. **Domain Suffix**: A suffix of URL can be restricted, for example, "**.com**", "**xxx.com**".
5. **Action**: When someone is accessing the URL met the domain-suffix, what kind of action you want.
   Check "**Drop**" to block the access. Check "**Log**" to log this access.
6. **Enable**: Check to enable each rule.

Click on "Save" to store your settings or click "Undo" to give up the changes.

3.3.4. URL Blocking

URL Blocking will block LAN computers to connect with pre-define Websites. The major difference between **"Domain filter**" and "**URL Blocking**" is Domain filter require user to input suffix (like .com or .org, etc), while URL Blocking require user to input a keyword only. In other words, Domain filter can block specific website, while URL Blocking can block hundreds of websites by simply a **keyword**.

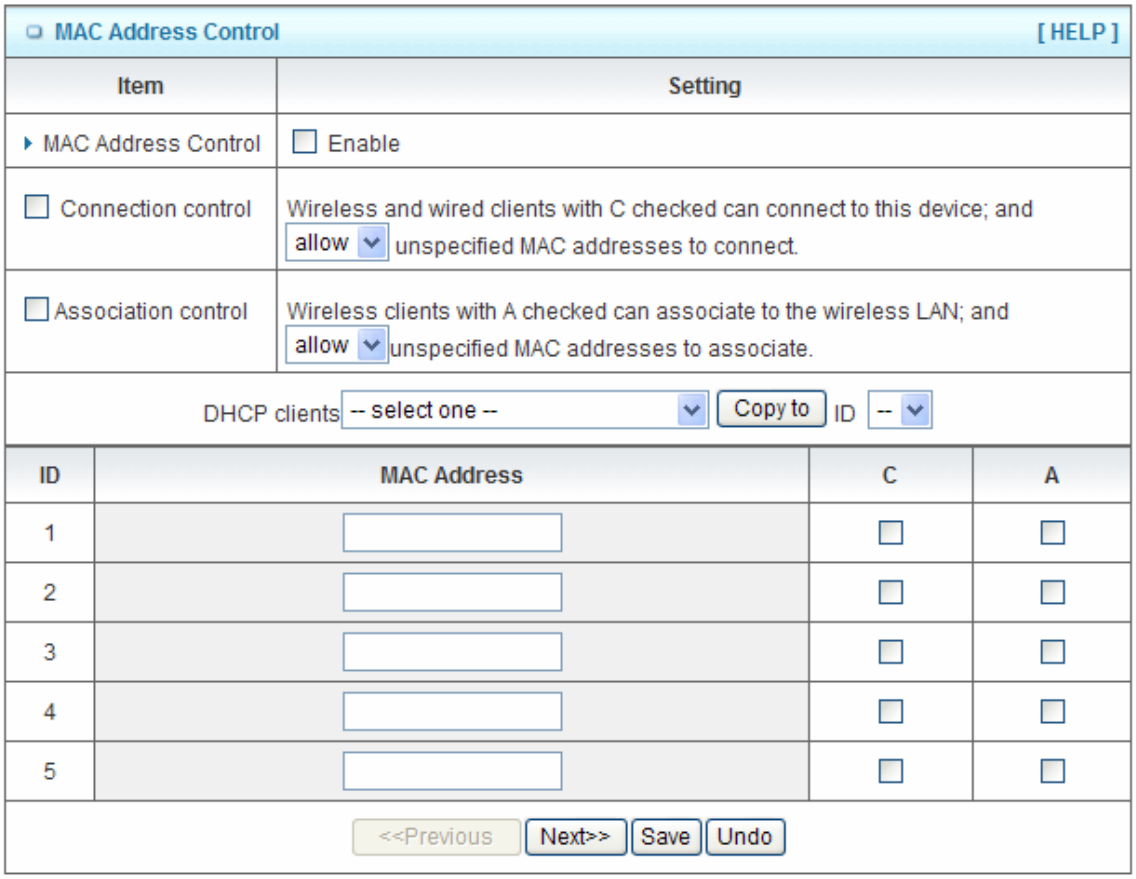


1. **URL Blocking**: Check if you want to enable URL Blocking.
2. **URL**: If any part of the Website's URL matches the pre-defined word, the connection will be blocked.
   For example, you can use pre-defined word "**sex**" to block all websites if their URLs contain pre-defined word "**sex**".
3. **Enable**: Check to enable each rule.

Click on "Save" to store your settings or click "Undo" to give up the changes.

3.3.5. MAC Control

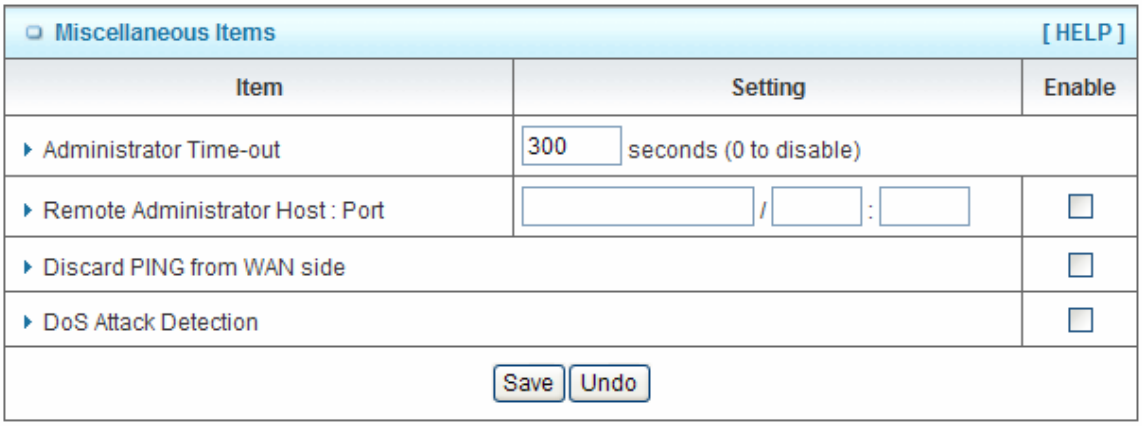
MAC Address Control allows you to assign different access right for different users and to assign a specific IP address to a certain MAC address.



1. **MAC Address Control**: Check "**Enable**" to enable the "**MAC Address Control**". All of the settings in this page will take effect only when "**Enable**" is checked.
2. **Connection control**: Check "**Connection control**" to enable the controlling of which wired and wireless clients can connect with this device. If a client is denied to connect with this device, it means the client can't access to the Internet either. Choose "**allow**" or "**deny**" to allow or deny the clients, whose MAC addresses are not in the "Control table" (please see below), to connect with this device.
3. **Association control**: Check "**Association control**" to enable the controlling of which wireless client can associate to the wireless LAN. If a client is denied to associate to the wireless LAN, it means the client can't send or receive any data via this device. Choose "**allow**" or "deny" to allow or deny the clients, whose MAC addresses are not in the "Control table", to associate to the wireless LAN.

Click on "Save" to store your settings or click "Undo" to give up the changes.

3.3.6. Miscellaneous



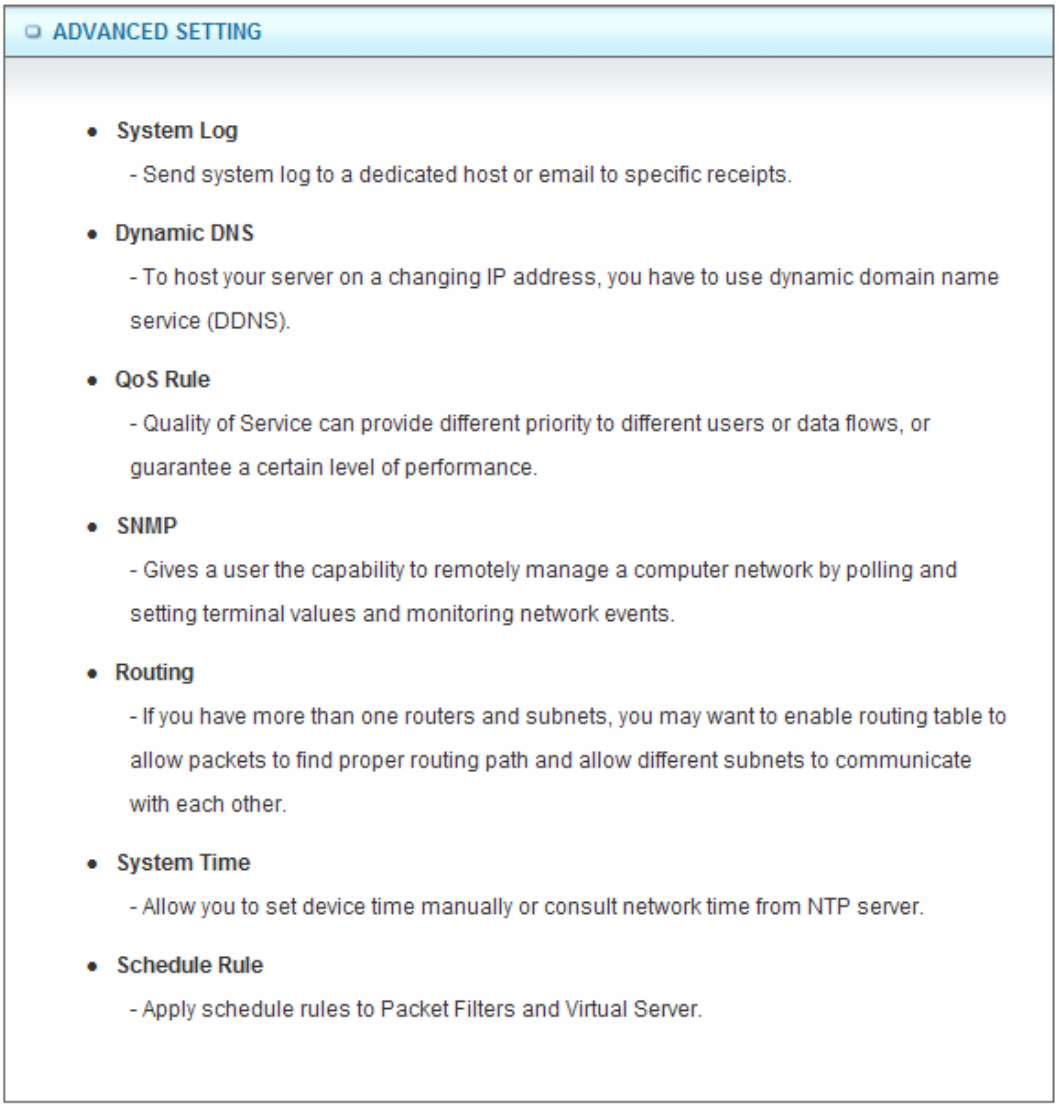
1. **Administrator Time-out**: The time of no activity to logout automatically, you may set it to zero to disable this feature.
2. **Remote Administrator Host/Port:**

   In general, only Intranet user can browse the built-in web pages to perform administration task. This feature enables you to perform administration task from remote host. If this feature is enabled, only the specified IP address can perform remote administration. If the specified IP address is 0.0.0.0, any host can connect with this product to perform administration task. You can use subnet mask bits "/nn" notation to specified a group of trusted IP addresses for example, "10.1.2.0/24".

   NOTE: When Remote Administration is enabled, the web server port will be shifted to 80. You can change web server port to other port, too.
3. **Discard PING from WAN side**: When this feature is enabled, any host on the WAN cannot ping this product.
4. **DoS Attack Detection**: When this feature is enabled, the router will detect and log the DoS attack comes from the Internet. Currently, the router can detect the following DoS attack: SYN Attack, WinNuke, Port Scan, Ping of Death, Land Attack etc.

Click on “Save” to store your settings or click “Undo” to give up the changes.

3.4 Advanced Setting



3.4.1.Status

To view the status of advanced settings for system time, dynamic DNS, routing and Qos.

System Time [Modify]

Item	Status
System Time	Mon, 11 Mar 2013 15:08:07 +0800

Dynamic DNS [Modify]

Item	Status
DDNS	Enable
Provider	DynDNS.org(Dynamic)

Routing [Modify]

Item	Status		
Dynamic Routing	Disable		
Static Routing	Disable		
Destination	Subnet Mask	Gateway	Hop

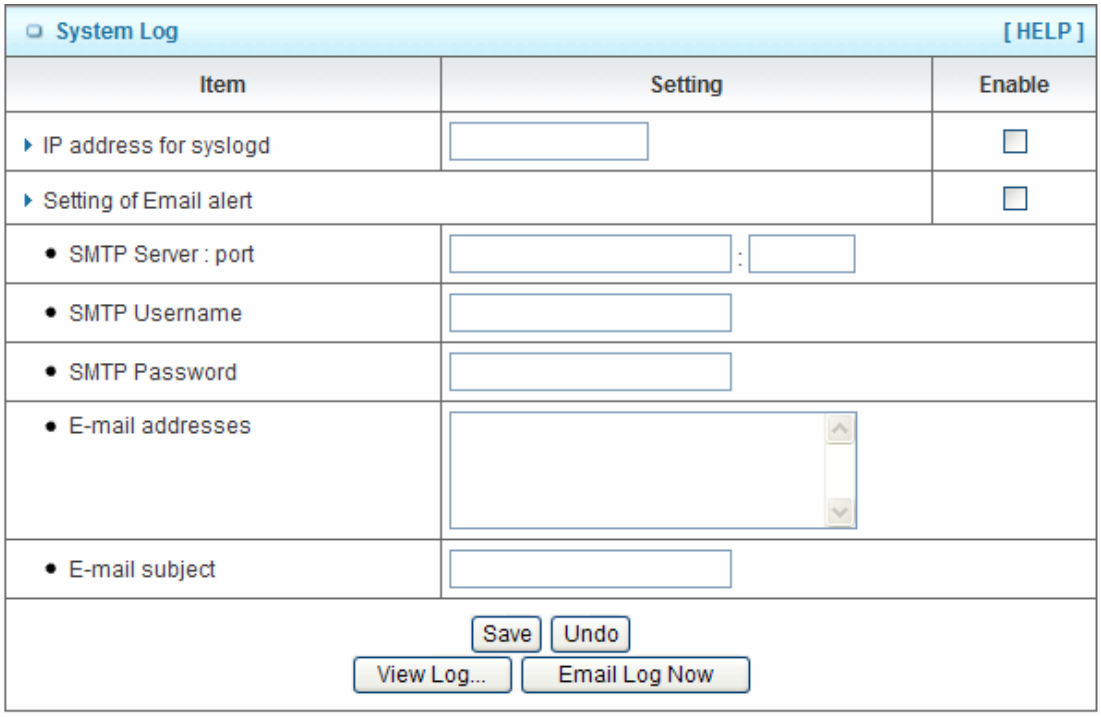
QoS [Modify]

Item	Status			
QoS Control	Disable			
Local Client	Remote Host	Service	Priority	Working Time

Refresh

Click on "Refresh" to refresh the webpage.

3.4.2. System Log



This page supports two methods to export system logs to specific destination by means of syslog (UDP) and SMTP (TCP). The items you have to setup including:

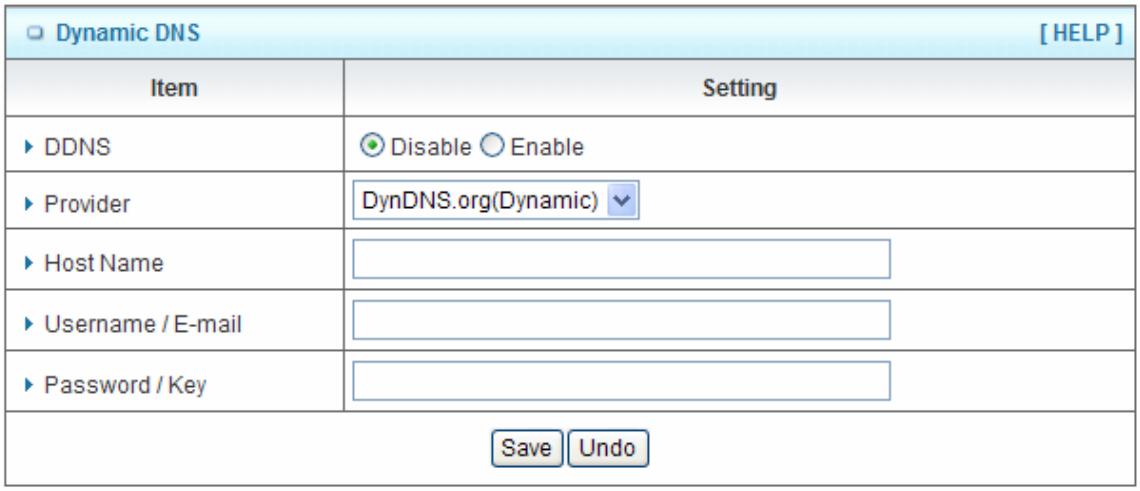
1. **IP Address for Sys log**: Host IP of destination where sys log will be sent to. Check **Enable** to enable this function.
2. **Setting of Email alert**: Enable Email alert (send syslog via email).
3. **SMTP Server IP and Port**: Input the SMTP server IP and port, which are connected with ':'. If you do not specify port number, the default value is 25.
   For example, "mail.your_url.com" or "192.168.1.100:26".
4. **E-mail addresses:** The recipients who will receive these logs, you can assign more than 1 recipient, using ';' or ',' to separate these email addresses.
5. **E-mail Subject**: The subject of email alert, this setting is optional.

Click on "Save" to store your settings or click "Undo" to give up the changes.

3.4.3. Dynamic DNS

To host your server on a changing IP address, you have to use dynamic domain name service (DDNS). So that anyone wishing to reach your host only needs to know the name of it. Dynamic DNS will map the name of your host to your current IP address, which changes each time you connect your Internet service provider.

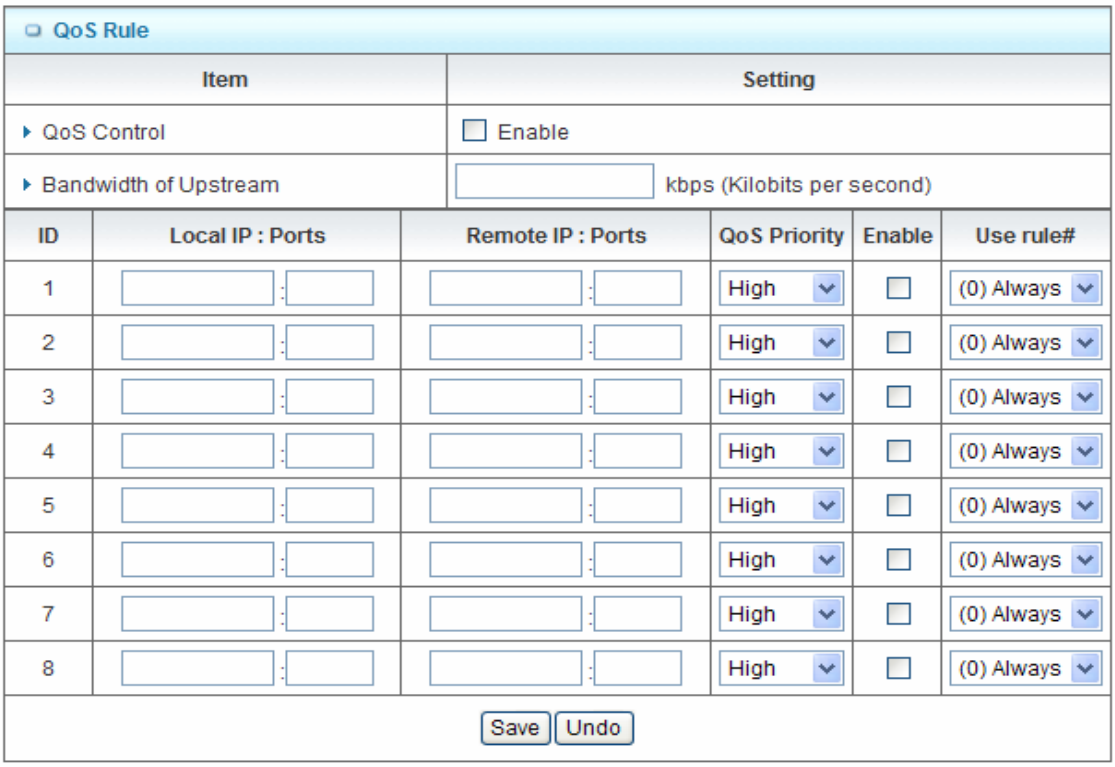
Before you enable **Dynamic DNS**, you need to register an account on one of these Dynamic DNS servers that we list in **Provider** field.



To enable **Dynamic DNS** click the check box next to **Enable** in the **DDNS** field. Next you have to enter the appropriate information about your Dynamic DNS Serve .**Provider**, **Host Name**, **Username**/**E-mail**, and **Password**/**Key**. You can get this information when you register an account on a Dynamic DNS server.

Click on "Save" to store your settings or click "Undo" to give up the changes.

3.4.4. QOS



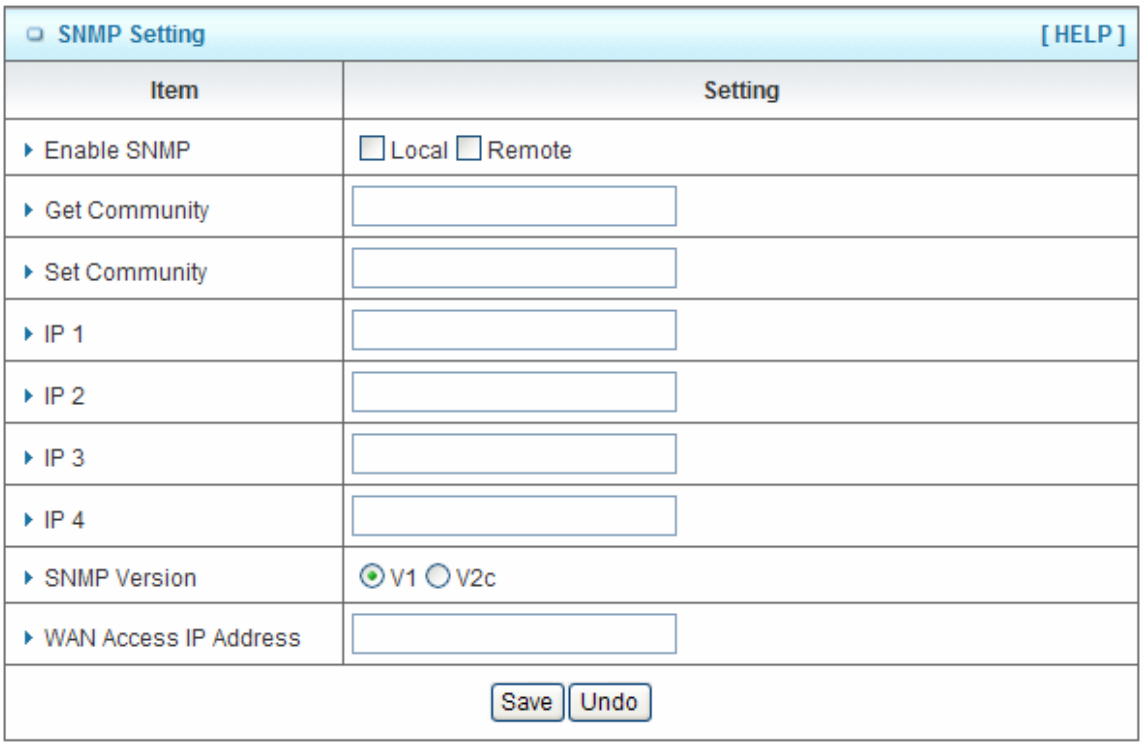
Provide different priority to different users or data flows, or guarantee a certain level of performance.

1. **QOS Control**: Check **Enable** to enable this function.
2. **Bandwidth of Upstream**: Set the limitation of upstream bandwidth
3. **Local IP : Ports**: Define the Local IP address and ports of packets
4. **Remote IP : Ports**: Define the Remote IP address and ports of packets
5. **QoS Priority:** This defines the priority level of the current Policy Configuration. Packets associated with this policy will be serviced based upon the priority level set. For critical applications High or Normal level is recommended. For non-critical applications select a Low level.
6. **Enable**: Check to enable the corresponding QOS rule.
7. **User Rule#**: The QoS rule can work with Scheduling Rule number#. Please refer to the Section 3.1.4.7 Schedule Rule.

Click on "Save" to store your settings or click "Undo" to give up the changes.

3.4.5. SNMP

In brief, SNMP, the Simple Network Management Protocol, is a protocol designed to give a user the capability to remotely manage a computer network by polling and setting terminal values and monitoring network events.

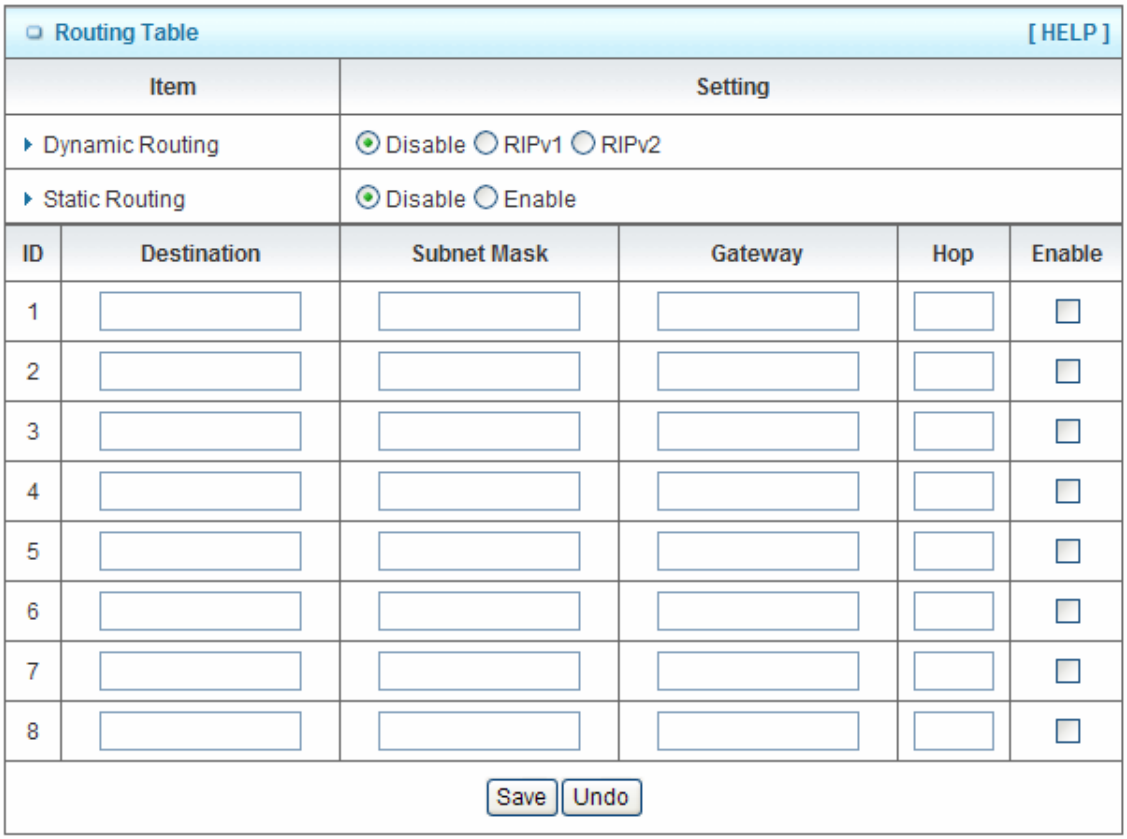


1. **Enable SNMP**: You must check “Local”, “Remote” or both to enable SNMP function. If “Local” is checked, this device will response request from LAN. If “Remote” is checked, this device will response request from WAN.
2. **Get Community**: The community of GetRequest that this device will respond.
3. **Set Community**: The community of SetRequest that this device will accept.
4. **IP 1, IP 2, IP 3, IP 4**: Enter the IP addresses of your SNMP Management PCs. User has to configure to where this device should send SNMP Trap message.
5. **SNMP Version**: Select proper SNMP Version that your SNMP Management software supports.
6. **WAN Access IP Address**: If you want to limit the remote SNMP access to specific computer, please enter the PC’s IP address. The default value is 0.0.0.0, and it means that any internet connected computer can get some information of the device with SNMP protocol.

Click on “Save” to store your settings or click “Undo” to give up the changes.

3.4.6. Routing

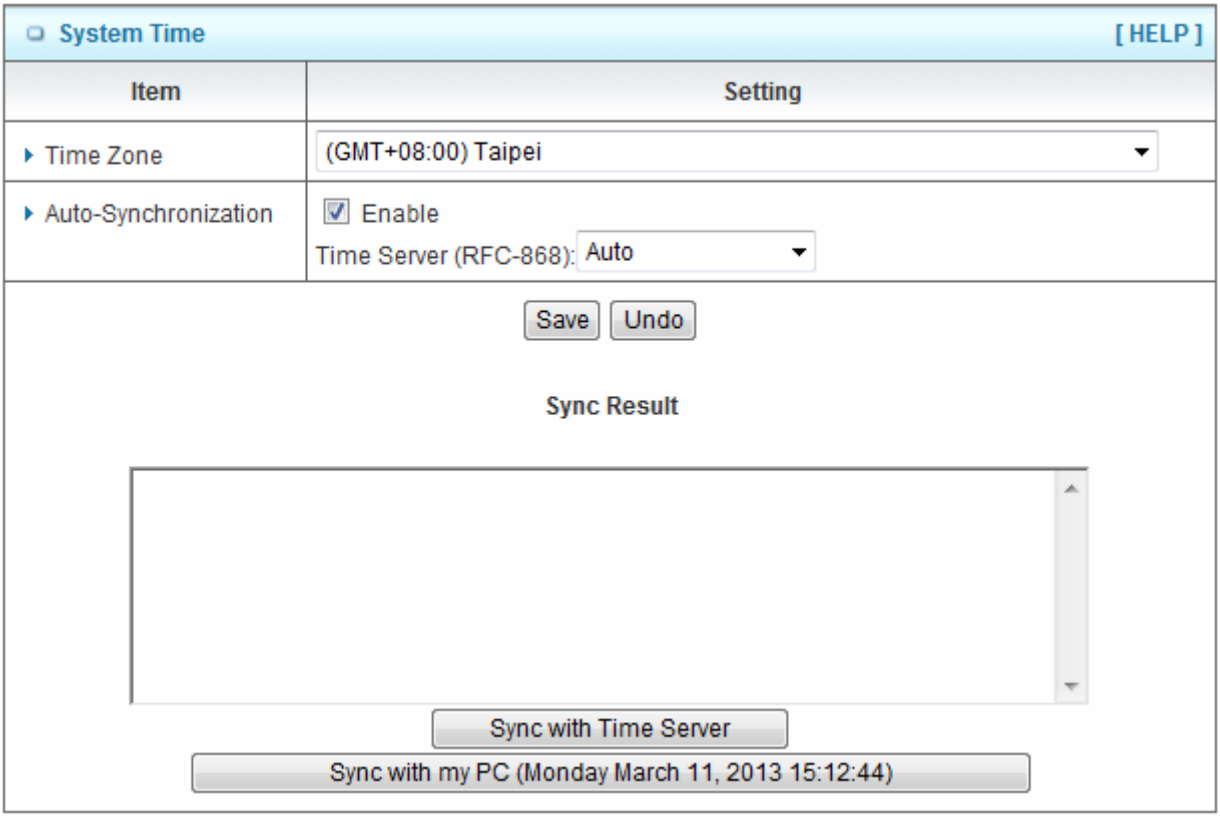
If you have more than one routers and subnets, you will need to enable routing table to allow packets to find proper routing path and allow different subnets to communicate with each other. The routing table allows you to determine which physical interface address to use for outgoing IP data grams.



1. **Dynamic Routing**: Routing Information Protocol (RIP) will exchange information about destinations for computing routes throughout the network. Please select RIPv2 only if you have different subnet in your network. Otherwise, please select RIPv1 if you need this protocol.
2. **Static Routing**: For static routing, you can specify up to 8 routing rules. You can enter the **destination IP address**, **subnet mask**, **gateway**, and **hop** for each routing rule, and then enable or disable the rule by checking or un-checking the Enable checkbox.

Click on "Save" to store your settings or click "Undo" to give up the changes.

3.4.7. System Time

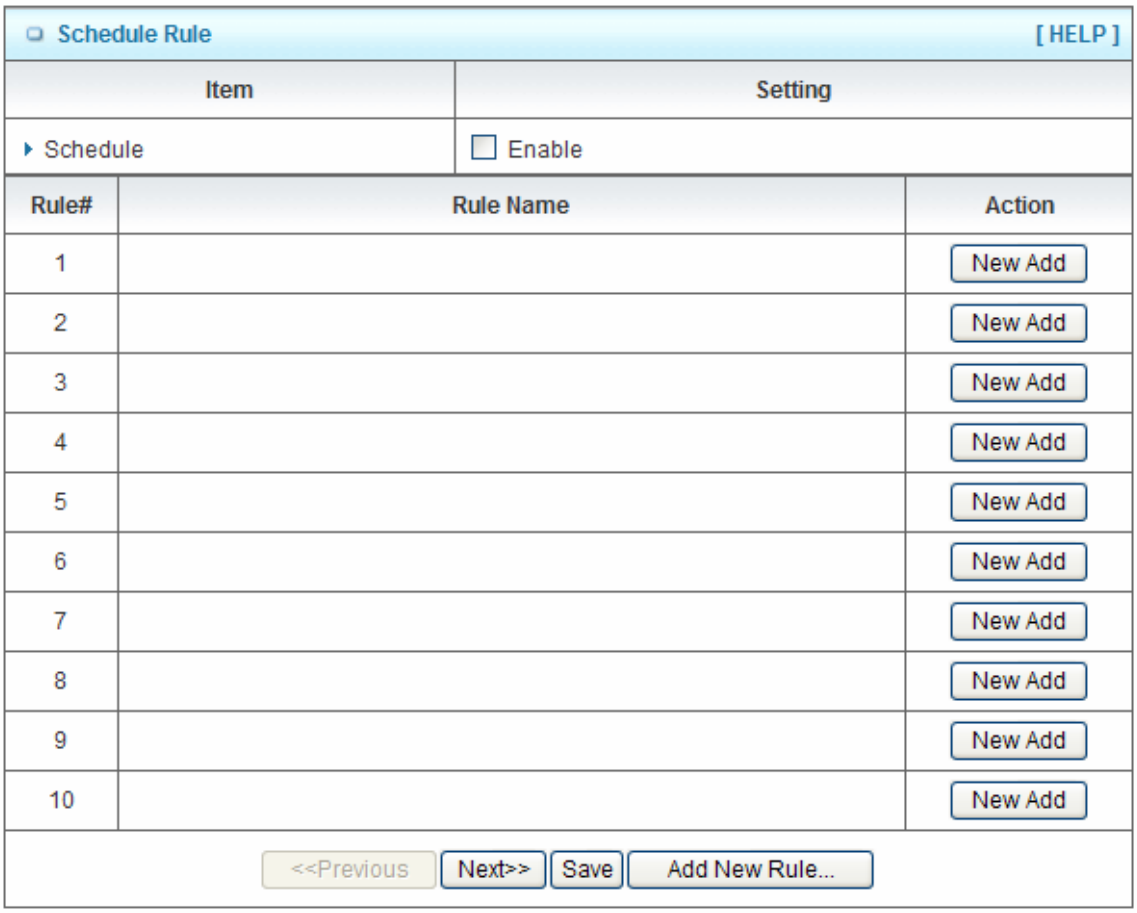


1. **Time Zone**: Select a time zone where this device locates.
2. **Auto-Synchronization**: Check the "Enable" checkbox to enable this function. Besides, you can select a NTP time server to consult UTC time.
3. **Sync with Time Server**: Click on the button if you want to set Date and Time by NTP Protocol manually.
4. **Sync with my PC**: Click on the button if you want to set Date and Time using PC's Date and Time manually.

. **Click on "Save" to store your settings or click "Undo" to give up the changes.**

3.4.8. Scheduling

You can set the schedule time to decide which service will be turned on or off.



1. **Schedule**: Check to enable the schedule rule settings.
2. **Add New Rule**: To create a schedule rule, click the “Add New Rule” button. You can edit the **Name of Rule**, **Policy**, and set the schedule time (**Week day**, **Start Time**, and **End Time**). The following example configures “ftp time” as everyday 14:10 to 16:20.

Schedule Rule Setting [HELP]

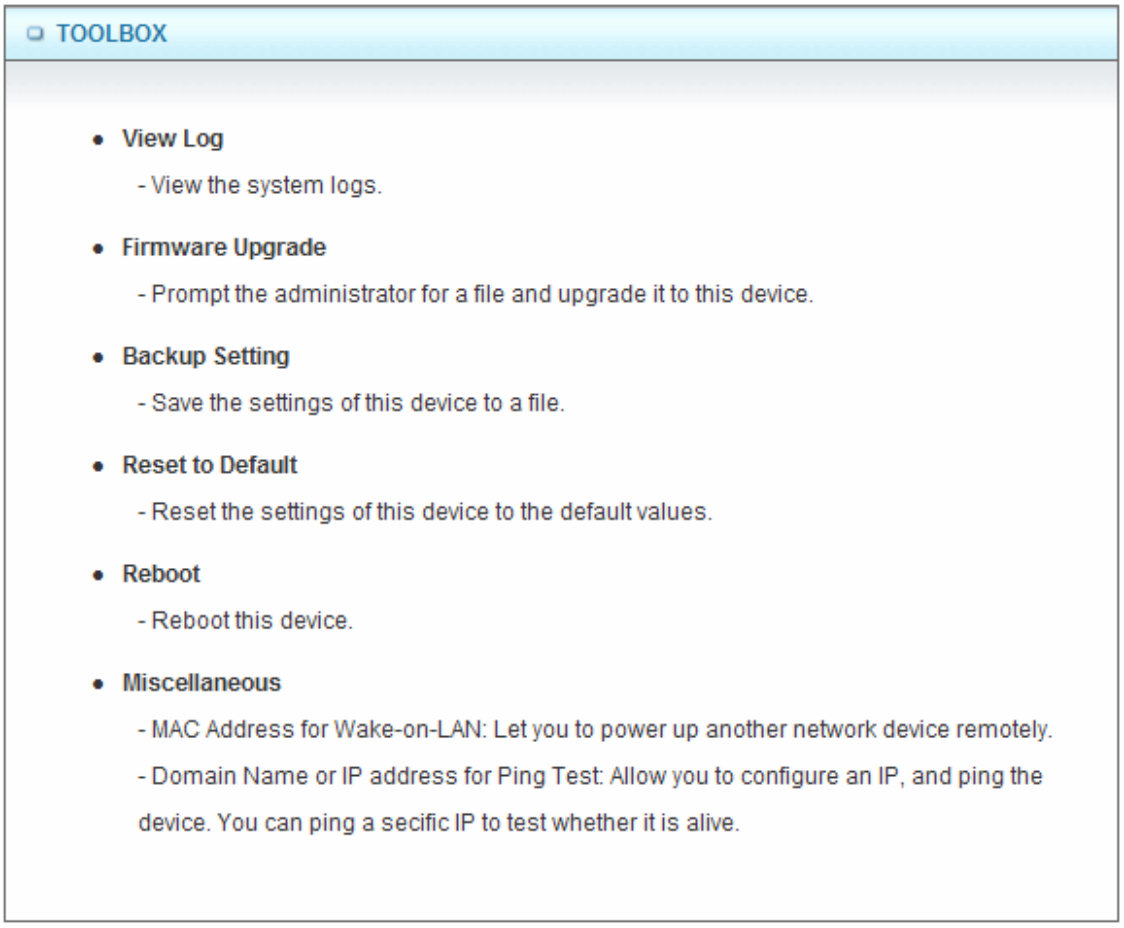
Item	Setting
Name of Rule 1	
Policy	Inactivate except the selected days and hours below.

ID	Week Day	Start Time (hh:mm)	End Time (hh:mm)
1	-- choose one --		
2	-- choose one --		
3	-- choose one --		
4	-- choose one --		
5	-- choose one --		
6	-- choose one --		
7	-- choose one --		
8	-- choose one --		

Save Undo Back

Click on "Save" to store your settings or click "Undo" to give up the changes.

3.5 Tool Box


TOOLBOX
View Log
- View the system logs.
Firmware Upgrade
- Prompt the administrator for a file and upgrade it to this device.
Backup Setting
- Save the settings of this device to a file.
Reset to Default
- Reset the settings of this device to the default values.
Reboot
- Reboot this device.
Miscellaneous
- MAC Address for Wake-on-LAN: Let you to power up another network device remotely.
- Domain Name or IP address for Ping Test: Allow you to configure an IP, and ping the device. You can ping a secific IP to test whether it is alive.

3.5.1. System Info

You can view the System Information and System log, and download/clear the System log, in this page.

System Infomation

Item	Setting
WAN Type	Dynamic IP Address
Display time	Mon, 11 Mar 2013 15:14:04 +0800

System Log

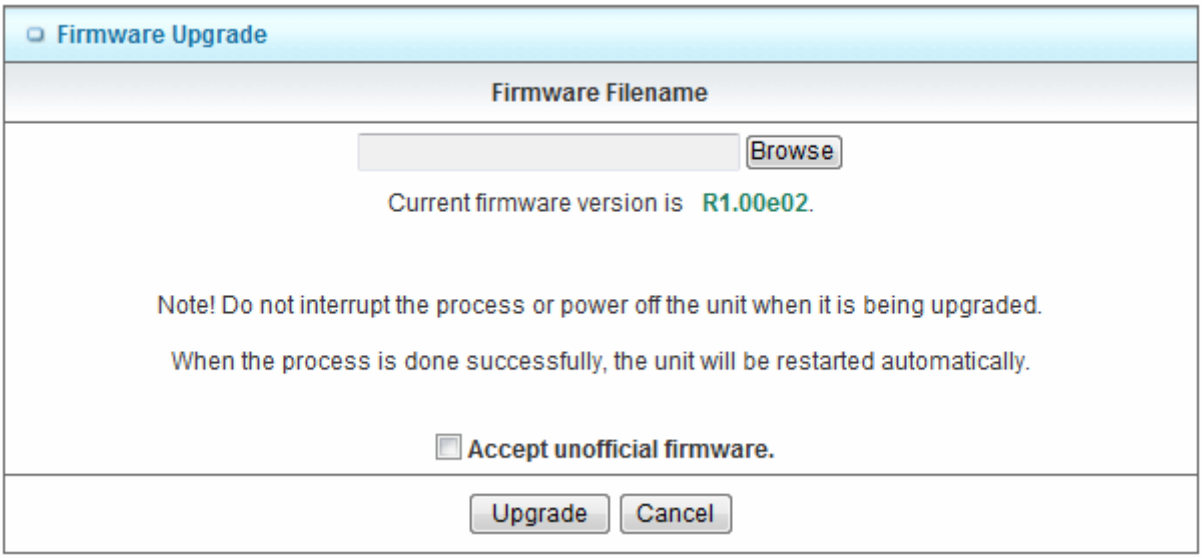
Time	Log
Mar 11 14:51:47	kernel: klogd started: BusyBox v1.3.2 (2013-02-01 19:37:01 CST)
Mar 11 14:51:51	syslog: Failure parsing line 11 of /etc/udhcpd.conf
Mar 11 14:51:51	syslog: Failure parsing line 12 of /etc/udhcpd.conf
Mar 11 14:51:51	syslog: server_config.pool_check = 1
Mar 11 14:51:51	syslog: start = 192.168.1, end = 192.168.1, lan_ip = 192.168.1, interface=br0, ifindex=0
Mar 11 14:51:51	udhcpd[1154]: udhcpd (v0.9.9-pre) started
Mar 11 14:52:00	commander: Init NAT Server ...
Mar 11 14:52:03	commander: Start UPNP Daemon !!
Mar 11 14:52:07	init: Starting pid 2476, console /dev/ttyS1: '/bin/ash'
Mar 11 14:52:08	commander: STOP WANTYPE Dynamic IP Address
Mar 11 14:52:08	commander: START WANTYPE Dynamic IP Address
Mar 11 14:52:09	udhcpc[2623]: udhcpc (v0.9.9-pre) started
Mar 11 14:52:10	commander: Synchronization Time Fail. System would re-sync later
Mar 11 14:52:11	udhcpc[2623]: Lease of 192.168.0.81 obtained, lease time 86400
Mar 11 14:52:15	commander: Restart UPNP Daemon !!

Page: 1/2 (Log Number:20)

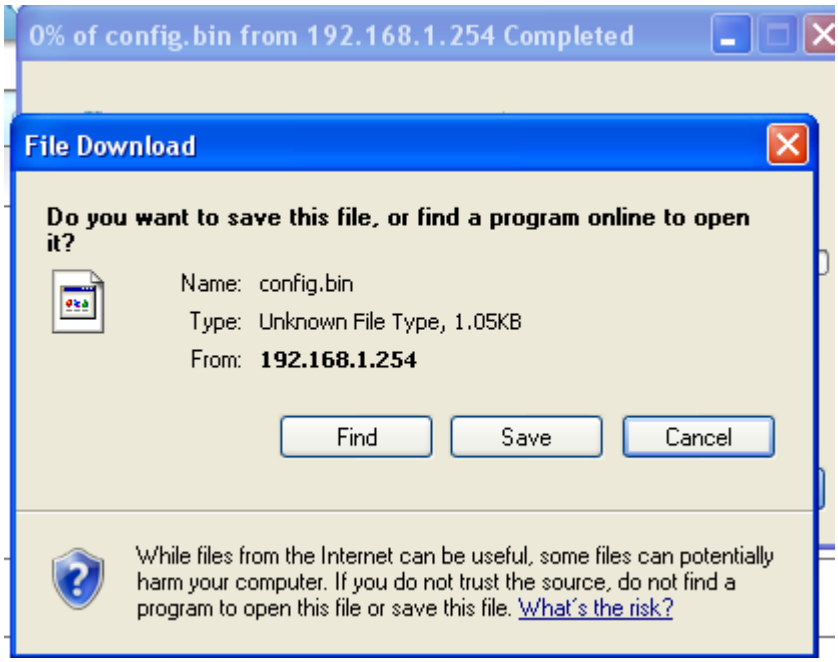
<<Previous | Next>> | First Page | Last Page

Refresh | Download | Clear logs

3.5.2. Firmware Upgrade



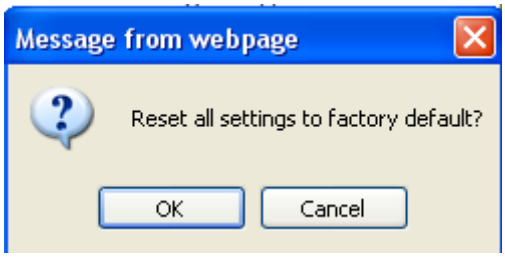
You can upgrade firmware by clicking "**Upgrade**" button.



3.5.3. Backup Setting

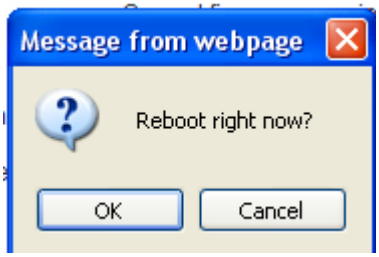
You can backup your settings by clicking the "**Backup Setting**" function item and save it as a bin file. Once you want to restore these settings, please click Firmware Upgrade button and use the bin file you saved.

3.5.4. Reset to Default



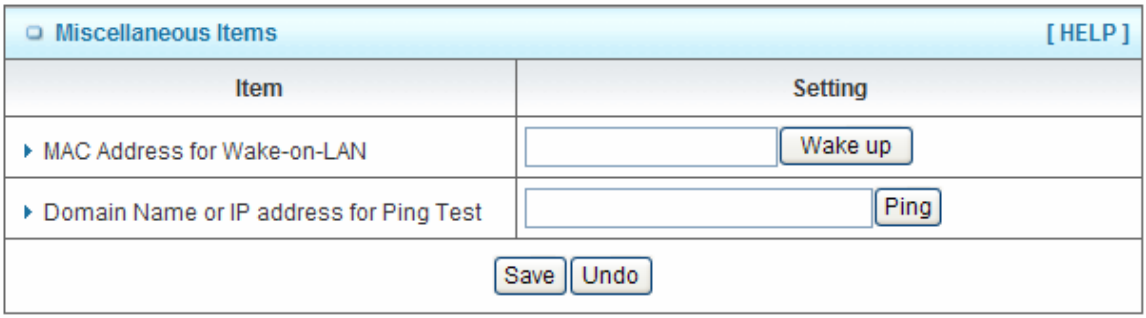
You can also reset this device to factory default settings by clicking the **Reset to default** function item.

3.5.5. Reboot



You can also reboot this device by clicking the **Reboot** function item.

3.5.6. Miscellaneous



1. **Domain Name or IP address for Ping Test**: Allow you to configure an IP, and ping the device. You can ping a specific IP to test whether it is alive.

Click on "Save" to store your settings or click "Undo" to give up the changes.

4 Troubleshooting

This Chapter provides solutions to problems for the installation and operation of theAir4G. You can refer to the following if you are having problems.

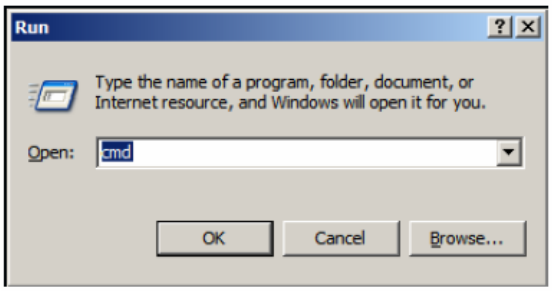
1 Why can't I configure the router even the cable is plugged and the LED is lit?

Do a Ping test to make sure that the WiFi Combo Router is responding.

Note: It is recommended that you use an Ethernet connection to configure it.

Go to **Start > Run**.

1. Type **cmd**.



2. Press **OK.**
3. Type **ipconfig** to get the IP of default gateway.
4. Type "**ping 192.168.1.254".** Assure that you ping the correct IP Address assigned to theAir4G. It will show four replies if you ping correctly.

```
Pinging 192.168.1.254 with 32 bytes of data:

Reply from 192.168.1.254: bytes=32 time<1ms TTL=64
Reply from 192.168.1.254: bytes=32 time<1ms TTL=64
Reply from 192.168.1.254: bytes=32 time<1ms TTL=64
Reply from 192.168.1.254: bytes=32 time<1ms TTL=64
```

Ensure that your Ethernet Adapter is working, and that all network drivers are installed properly. Network adapter names will vary depending on your specific adapter. The installation steps listed below are applicable for all network adapters.

1. Go to **Start > Right click on "My Computer" > Properties**.
2. **Select** the **Hardware Tab**.
3. Click **Device Manager**.
4. Double-click on "**Network Adapters"**.
5. Right-click on **Wireless Card bus Adapter** or **your specific network adapter**.
6. Select **Properties** to ensure that all drivers are installed properly.
7. Look under **Device Status** to see if the device is working properly.

Click "**OK"**.

2 Why can't I configure the router even the cable is plugged and the LED is lit?

Do a **Ping test** to make sure that the WiFi Combo Router is responding.

3 What can I do if my Ethernet connection does not work properly?

I. Make sure the RJ45 cable connect with the router.

II. Ensure that the setting on your Network Interface Card adapter is "**Enabled**".

III. If settings are correct, ensure that you are not using a crossover Ethernet cable, not all Network Interface Cards are MDI/MDIX compatible, and use a patch cable is recommended.

IV. If the connection still doesn't work properly, then you can reset it to default.

4 Problems with 3G/4G connection?

A. What can I do if the 3G/4G connection is failed by Auto detection?

Maybe the device can't recognize your ISP automatically. Please select "Manual" mode, and filling in dial-up settings manually.

B. What can I do if my country and ISP are not in the list?

Please choose "Others" item from the list, and filling in dial-up settings manually.

C. What can I do if my 3G/4G connection is failed even the dongle is plugged?

Please check the following items:

I. Make sure you have inserted a validated SIM card in the 3G/4G data card, and the subscription from ISP is still available

II. If you activate PIN code check feature in SIM card, making sure the PIN code you fill in dial-up page is correct

III. Checking with your ISP to see all dial-up settings are correct

IV. Make sure 3G/4G signal from your ISP is available in your environment

D. What can I do if my router can't recognize my 3G/4G data card even it is plugged?

There might be compatibility issue with some certain 3G/4G cards. Please check the latest compatibility list to see if your 3G/4G card is already supported.

E. What should I insert in APN, PIN Code, Account, Password, Primary DNS, and Secondary DNS?

The device will show this information after you choose country and Telcom. You can also check these values with your ISP.

F. Which 3G/4G network should I select?

It depends on what service your ISP provide. Please check your ISP to know this information.

G. Why my 3G/4G connection is keep dropping?

Please check 3G/4G signal strength from your ISP in your environment is above middle level.

5 Something wrong with the wireless connection?

A. Can't setup a wireless connection?

I. Ensure that the SSID and the encryption settings are exactly the same to the Clients.

II. Move the Air4G and the wireless client into the same room, and then test the wireless connection.

III. Disable all security settings such as **WEP**, and **MAC Address Control**.

IV. Turn off the Air4G and the client, then restart it and then turn on the client again.

V. Ensure that the LEDs are indicating normally. If no, make sure that the AC power and Ethernet cables are firmly connected.

VI. Ensure that the IP Address, subnet mask, gateway and DNS settings are correctly entered for the network.

VII. If you are using other wireless device, home security systems or ceiling fans, lights in your home, your wireless connection may degrade dramatically. Keep your product away from electrical devices that generate RF noise such as microwaves, monitors, electric motors…

B. What can I do if my wireless client can not access the Internet?

I. Out of range: Put the router closer to your client.

II. Wrong SSID or Encryption Key: Check the SSID or Encryption setting.

III. Connect with wrong AP: Ensure that the client is connected with the correct Access Point.

IV. **Right-click** on the **Local Area Connection icon** in the taskbar.

V. Select **View Available Wireless Networks in Wireless Configure**. Ensure you have selected the correct available network.

VI. Reset the Air4G to default setting

C. Why does my wireless connection keep dropping?

I. Antenna Orientation.

II. Try different antenna orientations for the Air4G.

III. Try to keep the antenna at least 6 inches away from the wall or other objects.

IV. Try changing the channel on the Air4G, and your Access Point and Wireless adapter to a different channel to avoid interference.

V. Keep your product away from electrical devices that generate RF noise, like microwaves, monitors, electric motors, etc.

6 What to do if I forgot my encryption key?

1. Go back to "**Advanced**" setting to set up your Encryption key again.
2. Reset the Air4G to default setting.

7	How to reset to default?
I.	Ensure the Air4G is powered on
II.	Find the **Reset** button on the right side
III.	Press the **Reset** button for 8 seconds and then release.
IV.	After the Air4G reboots, it has back to the factory **default** settings.

Appendix A. Spec Summary Table

Hardware Interface	
3G WAN	1 x USB port for 3G/3.5G/4G Dongle
Ethernet WAN	1 x RJ-45 port, 10/100Mbps, auto-MDI/MDIX
Ethernet LAN	4 x RJ-45 port, 10/100Mbps, auto-MDI/MDIX
WPS	1 x WPS button for WPS connection
Reset	1 x Reset Button
WLAN Antenna	R-SMA connector with detachable antenna
LED Indication	Mobile/ WAN / WLAN / LAN1~LAN4
Wireless LAN (WiFi)	IEEE 802.11n compliance
SSID	Broadcast or Hide SSID
Channel	Auto-selection, manually
Output Power	● 11n: 11±1.5dBm ● 11g: 14±1.5dBm ● 11b:13±1.5dBm
Security	WEP, WPA, WPA-PSK, WPA2, WPA2-PSK
Functionality	
3G/4G WAN	PPP (for HSDPA, WCDMA, EVDO and LTE)
Ethernet WAN	PPPoE, DHCP client, Static IP, PPTP, L2TP
WAN Connection	Auto-reconnect, dial-on-demand, manually
NAT	Virtual server, special application, DMZ
SPI Firewall	IP/Service filter, URL blocking, MAC control
DoS Protection	DoS (Deny of Service) detection and protection
Routing Protocol	Static route, dynamic route (RIP v1/v2)
Management	SNMP, UPnP IGD, Syslog
Administration	Web-based UI, remote login, backup/restore setting
Environment	
Temperature	● Operating: 0~40℃ (32 ~ 104℉) **Lab Testing: -5 ~ 45℃ (23 ~ 113℉)* ● Storage: -10~70℃
Humidity	● Operating:10%~90% non-condensing ● Storage: 0~95% non-condensing
Certification	CE/FCC , RoHS

Appendix B. Licensing information

This product includes copyrighted third-party software licensed under the terms of the GNU General Public License. Please refer to the GNU General Public License below to check the detailed terms of this license.

The following parts of this product are subject to the GNU GPL, and those software packages are copyright by their respective authors.

- Linux-2.4.28 system kernel
- busybox_1_00_rc2
- bridge-utils 0.9.5
- dhcpcd-1.3
- ISC DHCP V2 P5
- util-linux 2.12b for fdisk application
- e2fsprogs 1.27
- mini-lpd
- samba 2.2.7a
- syslogd spread from busybox
- wireless tools
- ntpclient of NTP client implementation
- RT61apd for 802.1X application
- vsftpd-2.0.3
- quota-tools 3.13
- GNU Wget

Availability of source code

Please visit our website or contact us to obtain more information.

GNU GENERAL PUBLIC LICENSE

Version 2, June 1991

Preamble

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