PLANET
Networking & Communication

User's Manual

802.11n Wall Plug Universal WiFi Repeater

► WNAP-1260

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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 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 or more of the following measures:

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

FCC Caution:

To assure continued compliance, (example-use only shielded interface cables when connecting to computer or peripheral devices) any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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
(2) This Device must accept any interference received, including interference that may cause undesired operation.

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

Federal Communication Commission (FCC) Radiation Exposure Statement

This equipment complies with FCC radiation exposure set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.

CE mark Warning

This is a class B device, in a domestic environment; this product may cause radio interference, in which case the user may be required to take adequate measures.

Energy Saving Note of the Device

This power required device does not support Stand by mode operation.

For energy saving, please remove the device from the power circuit.

Without remove the device, the device will still consuming power from the power circuit. In the view of Saving the Energy and reduce the unnecessary power consuming, it is strongly suggested to switch off or remove the the device if this device is not intended to be active.

R&TTE Compliance Statement

This equipment complies with all the requirements of DIRECTIVE 1999/5/CE OF THE EUROPEAN PARLIAMENT AND THE COUNCIL OF 9 March 1999 on radio equipment and telecommunication terminal Equipment and the mutual recognition of their conformity (R&TTE).

The R&TTE Directive repeals and replaces in the directive 98/13/EEC (Telecommunications Terminal Equipment and Satellite Earth Station Equipment) As of April 8, 2000.

Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

National Restrictions

This device is intended for home and office use in all EU countries (and other countries following the EU directive 1999/5/EC) without any limitation except for the countries mentioned below:

Country	Restriction	Reason/remark
Bulgaria	None	General authorization required for outdoor use and public service
France	Outdoor use limited to 10 mW e.i.r.p. within the band 2454-2483.5 MHz	Military Radiolocation use. Refarming of the 2.4 GHz band has been ongoing in recent years to allow current relaxed regulation. Full implementation planned 2012
Italy	None	If used outside of own premises, general authorization is required
Luxembourg	None	General authorization required for network and service supply(not for spectrum)

Norway	Implemented	This subsection does not apply for the geographical area within a radius of 20 km from the centre of Ny-Ålesund
Russian Federation	None	Only for indoor applications

WEEE Regulation

To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

Revision

User's Manual for PLANET 802.11n Wall Plug Universal WiFi Repeater
Model: WNAP-1260
Rev: 1.0 (May, 2012)
Part No. EM-WNAP-1260_v1.0 (2081-E10450-000)

CONTENTS

Chapter 1. Product Introduction

1.1. Package Contents

The following items should be contained in the package:

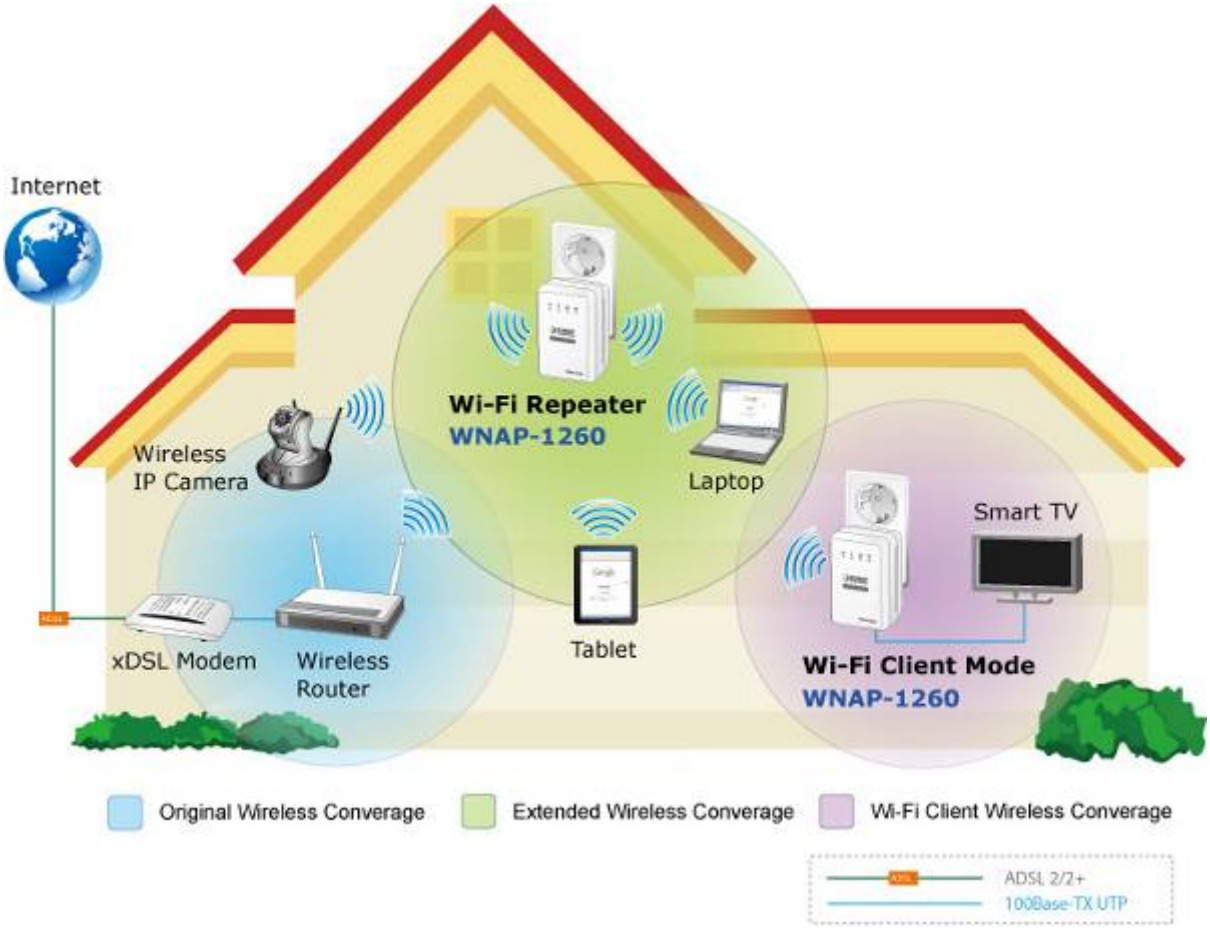
- WNAP-1260 Wall Plug Universal WiFi Repeater
- Ethernet Cable
- Quick Installation Guide
- CD-ROM (User's Manual included)

If there is any item missed or damaged, please contact the seller immediately.

1.2. Product Description

WNAP-1260, a WiFi Repeater, is case-shaped, easy to carry, and easy to install. Its wireless transmission rate is up to 300 Mbps. It is a high-performance and IEEE802.11b/g/n-compatible network access device that can provide reliable and convenient network access service for individual users and SOHO (Small Office, Home Office). It features Web-based GUI, allowing users to easily modify settings to connect the device to ISP (Internet Service Provider) and conveniently perform upgrade using the WEB page.

In addition, WNAP-1260 has a three-way switch on the side panel that enables users to change the device's working mode among **AP**, **Repeater**, and **Client**. In the AP mode, the device functions as a wireless router to achieve wireless connection for the wired LAN. In the Repeater mode, the device provides the URM (Universal Repeater Mode) function for users to expand wireless coverage of the existing AP in a quick and easy way. In the Client mode, the device functions as a wireless network adapter but it can provide a better transmission and connection performance.



Multiple Wireless Network Technologies for Greater Access

PLANET Wall Plug Universal WiFi Repeater, the WNAP-1260 features 802.11n radio with 2T2R antenna technology compliant with 802.11b/g/n standards. Compared with general wireless routers, the WNAP-1260 offers more powerful and flexible capability for business demands to access Internet with true mobility and range extension of wireless network.

More Flexibility and Mobility

With the tiny-sized and wall plug design, the WNAP-1260 is easy to plug to wall outlet for wireless access in any place. It can operate in various environments with the hardware switch modes including AP, Repeater, and Client, which helps to immediately set up a wireless network without software configuration. The wall plug design and operation flexibility make the WNAP-1260 suitable for range extending.

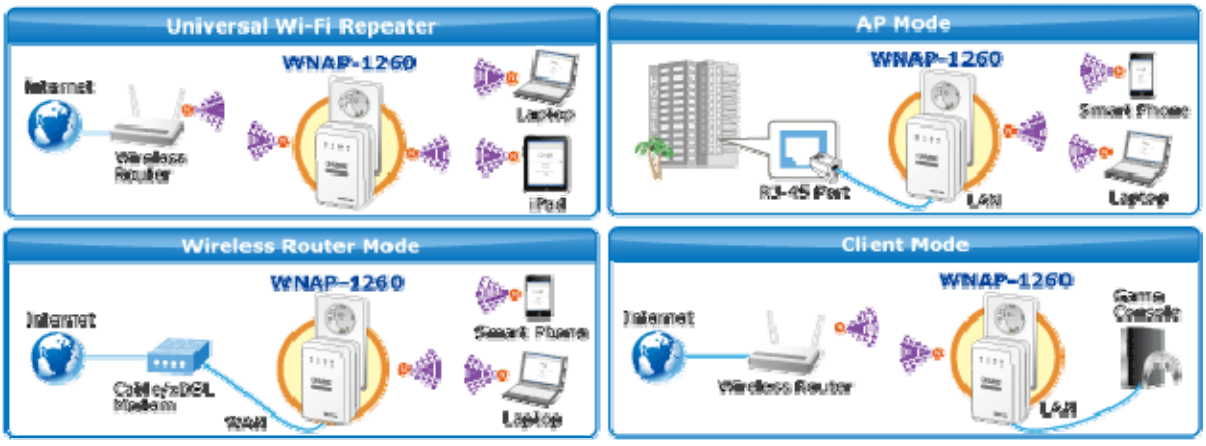


Figure 1-1

One-touch Secure WiFi Extension

In order to simplify security settings for home and SOHO network, the WNAP-1260 supports **W**i-Fi **P**rotected **S**etup (**WPS**) with configuration in PBC and PIN type. Just push the WPS button or key in the PIN code, the secure connection between the WNAP-1260 and the Access Point can be built immediately, which offers users a convenient and fast method to extend a secure wireless network.

Figure 1-2

Wide Range of Wireless Security Support

To secure the wireless communication, the WNAP-1260 supports most up-to-date encryptions including WPA/WPA2-PSK with TKIP/AES. Made to fulfill enterprise and various applications demand, the WNAP-1260 enhances security and management features such as multiple SSID support. It can create up to 5 virtual standalone AP with 5 different SSID according to individual security levels and encryption scheme of various wireless devices.

Internet Broadband Sharing

PLANET Wall Plug Universal WiFi Repeater, WNAP-1260, provides home and SOHO users a reliable and cost effective wireless solution by featuring WAN Internet access and high speed IEEE 802.11n wireless transmission. The WNAP-1260 is equipped with one LAN/WAN port for connection to local network or for wired cable / xDSL service connection. The WNAP-1260 provides more flexible and easier way for users to share an instant wireless network service via range extension wherever at Home, Hotspot, or in public places like transportation, outdoor events, and etc.

Advanced Firewall Security

In the Router mode, the WNAP-1260 supports NAT functions and allows multiple users to access Internet via only one single legal IP. It provides Port Forwarding and DMZ for LAN PC to act as an application server. Furthermore, the advanced firewall by the WNAP-1260 can protect your Intranet clients from unauthorized accesses and various DoS attacks from the Internet. In aspect of the firewall, the WNAP-1260 provides IP/ MAC/ Port/ URL filtering, and prevents possible hackers attack.

Easy Setup Anytime Anywhere

The WNAP-1260 provides a total solution for home and business users. With the High Speed 802.11n wireless technology, the WNAP-1260 is easy to integrate the wireless devices with existing wired network.

1.3. Product Features

- **Industrial Compliant Wireless LAN & LAN**
  - Compliant with IEEE 802.11n wireless technology capable of up to 300Mbps data rate
  - Backward compatible with 802.11b/g standard
  - Equipped with 10/100Mbps RJ-45 Ports for LAN/ WAN, Auto MDI/ MDI-X supported

- **Fixed-network Broadband Router**
  - Supported connection types: Dynamic IP/ Static IP / PPPoE / PPTP / L2TP
  - Support Static Routing, IGMP Proxy
  - Support multiple sessions SIP ALG, IPSec, L2TP and PPTP VPN pass-through
  - Support DMZ, Port Forwarding and Port Triggering for various networking applications
  - Support DHCP Server, UPnP, Planet Dynamic DNS

- **Wireless Network Range Extender**
  - Multiple Wireless Modes: AP, WDS, Repeater, Universal Repeater, Client
  - Support Multiple SSID to allow users to access different networks through a single AP
  - Support WMM (Wi-Fi Multimedia), Wireless QoS
  - Support IAPP (Inter Access Point Protocol), Wireless Roaming

- **Secure Network Connection**
  - Advanced security: 64/128-bit WEP, WPA/WPA2, WPA-PSK/WPA2-PSK(TKIP/AES)
  - Built-in NAT firewall features, with SPI function to protect against DoS attacks.
  - Support IP/ MAC/ URL/ DNS Filtering

- **Easy Installation & Management**
  - Web-based UI and Quick Setup Wizard for easy configuration
  - Remote Management allows configuration from a remote site
  - System status monitoring includes DHCP Client and Associated Client list

- **Flexible Usage & Compact Design**
  - Built-in Power Supply & Wall-Plug design
  - Hardware switchable operation modes: AP / Repeater / Client
  - Easy Sync by One-touch Wi-Fi Protected Setup (WPS)

1.4. Product Specification

Product	**WNAP-1260** **300Mbps 802.11n Wall Plug Universal WiFi Repeater**	
Hardware Specification		
Interface	LAN/WAN	1 x 10/100Mbps Auto MDI/MDI-X RJ45 port
Antenna	Gain:	2 x Internal 2dBi Antenna
	Orientation:	Horizontal and Vertical
Button/Switch	Mode Selection Switch (AP / Repeater / Client) WPS Button Reset button *Push about 3~6 seconds to reset to factory default settings	
LED Indicators	PWR, WPS, Ethernet, WLAN	
Power Consumption	On-state: 2.1W Low power state: 1.5W	
Material	Plastic	
Dimension	75 x 55 x 40 mm (L x W x H)	
Weight	80g (gross weight)	
Wireless interface Specification		
Standard	Compliance with IEEE 802.11b/g/n	
Frequency Band	2.4~2.4835GHz	
Extend Frequency	DSSS	
Modulation Type	DBPSK, DQPSK, QPSK, CCK and OFDM (BPSK/QPSK/16-QAM/ 64-QAM)	
Data Transmission Rates	11n (40MHz): 270/243/216/162/108/81/54/27Mbps 135/121.5/108/81/54/40.5/27/13.5Mbps (Dynamic) 11n (20MHz): 130/117/104/78/52/39/26/13Mbps 65/58.5/52/39/26/19.5/13/6.5Mbps (Dynamic) 11g: 54/48/36/24/18/12/9/6Mbps (Dynamic) 11b: 11/5.5/2/1Mbps (Dynamic)	
Transmission Distance	Indoor up to 100m outdoor up to 300m (it is limited to the environment)	
Channel	America/ FCC: 2.412~2.462GHz (11 Channels) Europe/ ETSI: 2.412~2.472GHz (13 Channels) Japan/ TELEC: 2.412~2.484GHz (14 Channels)	
Channel Width	20/ 40MHz	
Max. RF Power	11b: 17±1.5dBm 11g: 14±1.5dBm 11n (20MHz): 14±1.5dBm 11n (40MHz): 14±1.5dBm	
Receive Sensitivity	11b: -92dBm @ 1Mbps; -85dBm @ 11Mbps, PER < 8% 11g: -88dBm @ 6Mbps; -73dBm @ 54Mbps, PER <10% 11n: -90dBm @ MCS8; -70dBm @ MCS15, PER <10%	

Software Features	
Operation Mode	AP/Router Repeater Client (Switchable by H/W)
Wireless Mode	AP, Client, WDS PTP, WDS PTMP, Repeater (WDS+AP), Universal Repeater (AP+Client)
Encryption Security	WEP (64/128-bit) encryption security WPA / WPA2 (TKIP/AES) WPA-PSK / WPA2-PSK (TKIP/AES)
Wireless Security	Provide wireless LAN ACL (Access Control List) filtering
	Wireless MAC address filtering up to 16 entries
	Support WPS (Wi-Fi Protected Setup)
	Enable / Disable SSID Broadcast
Wireless Advanced	WMM(Wi-Fi Multimedia): 802.11e Wireless QoS
	Multiple SSID: up to 4
	Wireless Isolation: Enable it to isolate each connected wireless clients, to let them cannot access mutually.
	IAPP(Inter Access Point Protocol): 802.11f Wireless Roaming
	Provide Wireless Statistics
Max. Clients	Wire: 253 Wireless: 32
Internet Connection Type	Shares data and Internet access for users, supporting following internet access: ■ Dynamic IP ■ Static IP ■ PPPoE ■ PPTP ■ L2TP
Firewall	NAT firewall with SPI (Stateful Packet Inspection)
	Built-in NAT server supporting Port Forwarding, Port Triggering, and DMZ
	Built-in firewall with IP address / MAC address/ Port/ URL filtering
	Support ICMP-FLOOD, UDP-FLOOD, TCP-SYN-FLOOD filter, DoS protection
Routing Protocol	Static Routing
VPN Pass-through	SIP ALG, PPTP, L2TP, IPSec
LAN	Built-in DHCP server supporting static IP address distributing
	Support UPnP, Dynamic DNS
	Support IGMP Proxy
System Management	Web-based (HTTP) management interface
	SNTP time synchronize
	Easy firmware upgrade

Standards Conformance	
IEEE Standards	IEEE 802.11n (2T2R, up to 300Mbps) IEEE 802.11g IEEE 802.11b IEEE 802.11i IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX IEEE 802.3x Flow Control
Others Protocols and Standards	CSMA/CA, CSMA/CD, TCP/IP, DHCP, ICMP, NAT, PPPoE, SNTP

Chapter 2. Hardware Interface

2.1. Overview

Top View | Left Side View | Bottom Side View

Figure 2-1

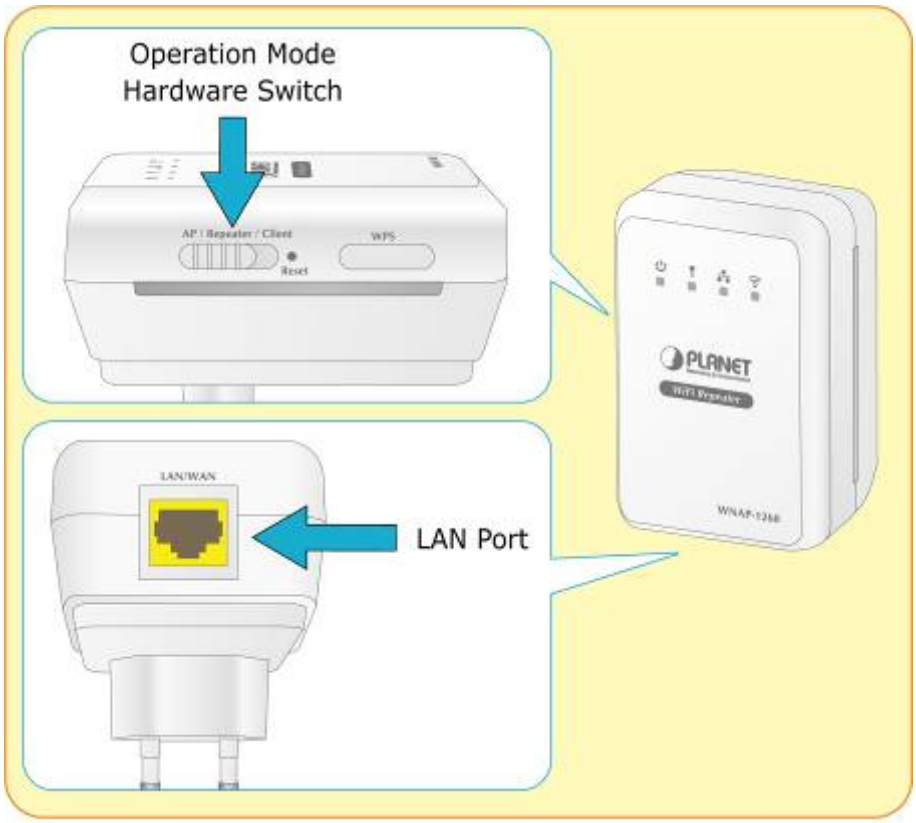


Figure 2-2

2.2. Front Panel and LED Indications

The LEDs on the top panel indicate the instant status of **System power**, **WPS**, **Wireless data activity**, **Ethernet port links and data activity**, and help monitor and troubleshoot when needed. Figure 2-3 and Table 2-1 show the LED indications of the WNAP-1260.

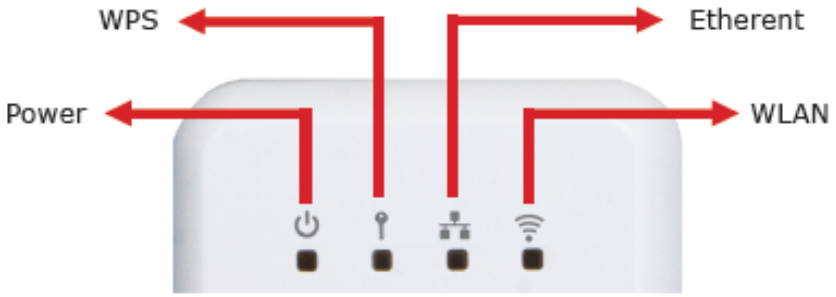


Figure 2-3

LED Definition

LED	COLOR	STATE	FUNCTION
Power	Green	On	The device is working normally.
	Red	On	The system is in the process of self-inspection or fails the self-inspection. Or it is in the process of software upgrade.
WPS	Green	Off	The WPS session is down.
		On	The WPS indicator keeps on for 5 minutes after WPS (Wi-Fi Protected Setup) connection succeeds.
		Quick blink	A terminal is attempting to connect to the WNAP-1260 through WPS but fails.
		Quick blink with a certain interval	Multiple terminals are connecting to the WNAP-1260 through WPS at the same time. WPS sessions conflict.
		Slow blink	The WPS session is up.
Ethernet	Green	Off	The Ethernet port is in the non-communication state.
		On	The Ethernet port is in the communication state.
		Blink	The Ethernet port is transmitting and receiving data.
WLAN	Green	Off	The WLAN connection is in the non-communication state.
		On	The WLAN connection is in the communication state.
		Blink	Data is being transmitted and received in the WLAN.

Table 2-1

2.3. Rear / Side Panel and Interface Description

Rear Panel

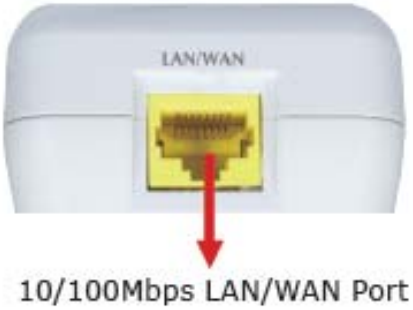


Figure 2-4

Side Panel

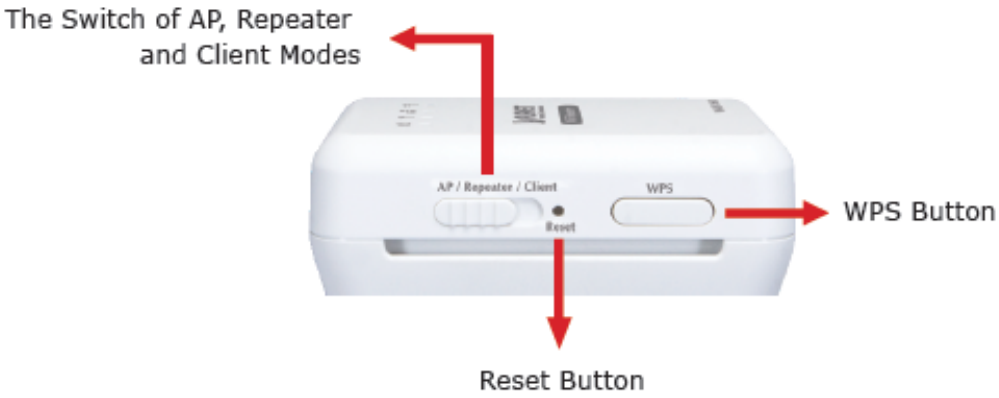


Figure 2-5

Object	Description
WAN / LAN	If WNAP-1260 is set to the **Router mode**, the interface is a **WAN** interface which connects WNAP-1260 to WAN or uplink network devices. If WNAP-1260 is set to the **Repeater / Client mode**, the interface is an **LAN** interface.
Reset	Press the Reset button gently for 3-6 seconds and then release it. The system restores to the factory default settings.
AP / Repeater / Client	It is used for setting WNAP-1260 to the AP, Repeater, or Client mode. **AP mode**—including the Bridge and router modes **Repeater mode**—to expand wireless network coverage **Client mode**—equivalent to a wireless network adapter
WPS	For enabling WPS PBC mode. For more information, refer to WPS descriptions for each mode.

Table 2-2

Chapter 3. Operation Mode Introduction

3.1. Wireless Universal Repeater / WDS Mode

In the Wireless Universal Repeater / WDS mode, WNAP-1260 expands wireless coverage of the existing AP. Computers can connect to WNAP-1260 in either a wired or wireless way.

■ Operation Mode Switch - Repeater Mode

■ Typical Application

In the Wireless Universal Repeater / WDS mode, WNAP-1260 extends the coverage of AP, even if your AP/Router doesn't have WDS function.

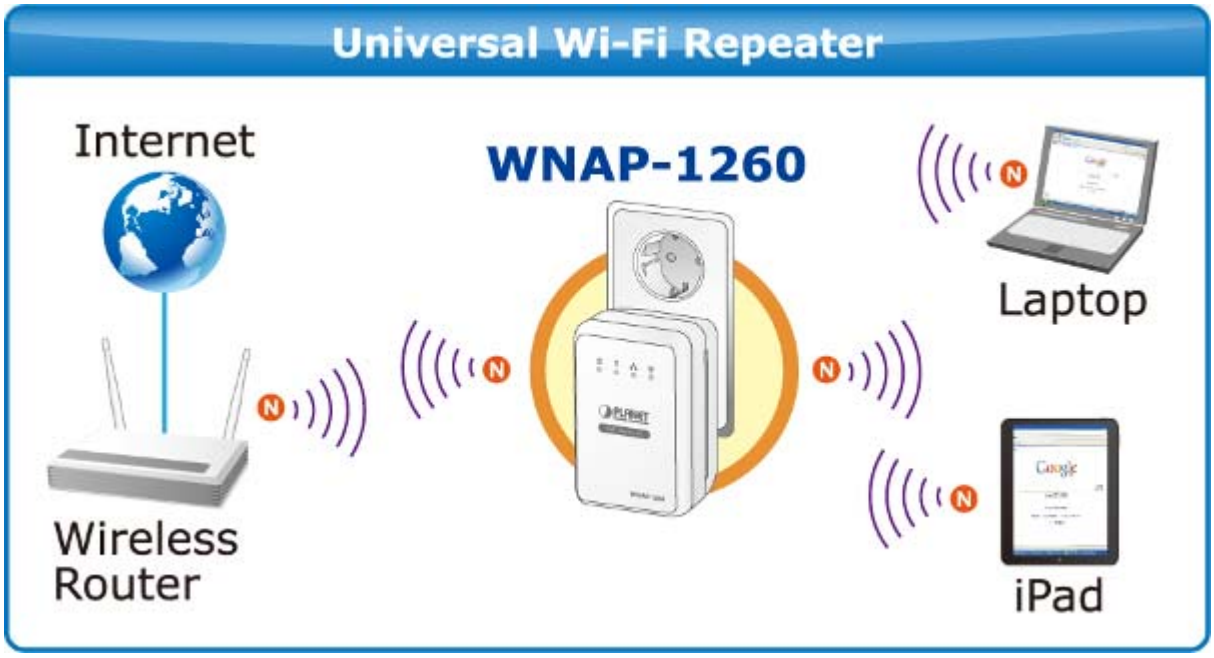


Figure 3-1

3.2. AP Mode

In the AP (Access Point) mode, WNAP-1260 works as a wireless router to achieve wireless connection for the wired LAN.

■ Operation Mode Switch – AP Mode

■ Typical Application

In AP Mode, the **NAT** (Network Address Translation) function and DHCP server are both disabled, and all wireless clients obtain the IP address from the network device connected with LAN port of the WNAP-1260. They can certainly assign the IP address for themselves as well in the Control Panel of Windows. The WNAP-1260 is supposed to bridge to the Ethernet directly by UTP cable.

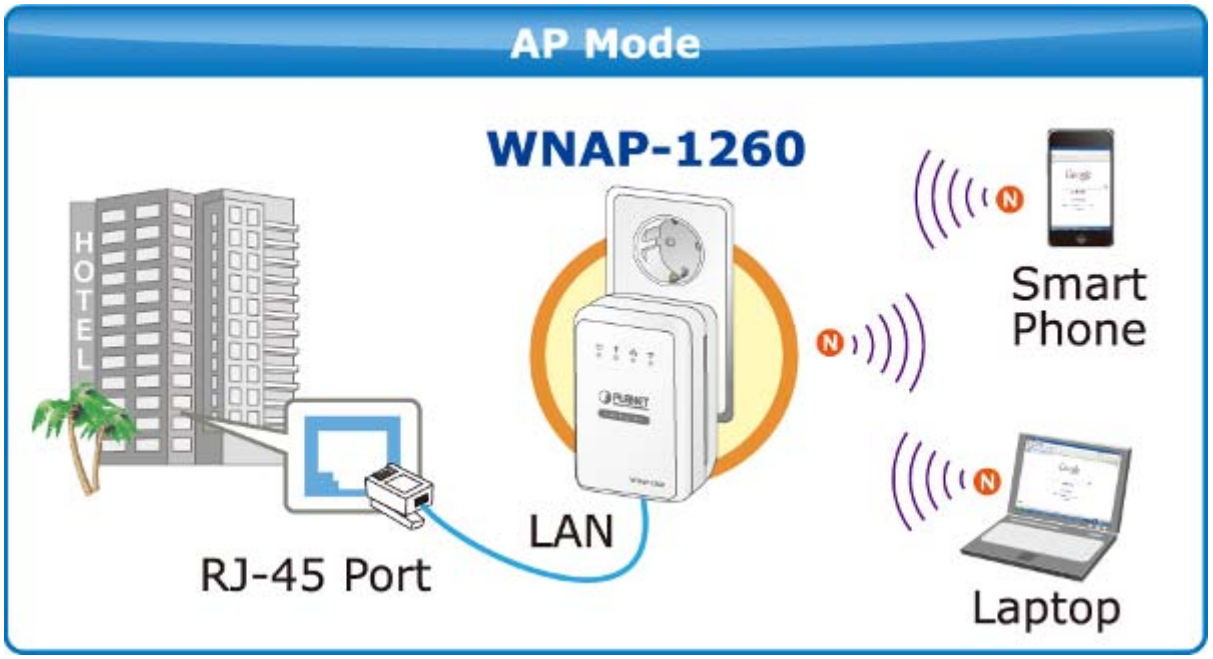


Figure 3-2

3.3. Router Mode

In the Router mode, WNAP-1260 works as a domestic gateway.

■ Operation Mode Switch – Router Mode

■ Typical Application

In Router Mode, the NAT (Network Address Translation) function and DHCP server are both enabled, and all wireless clients share the same public IP assigned by ISP through WAN port of the WNAP-1260. The WNAP-1260 is supposed to connect with the Cable / xDSL Modem by UTP cable.

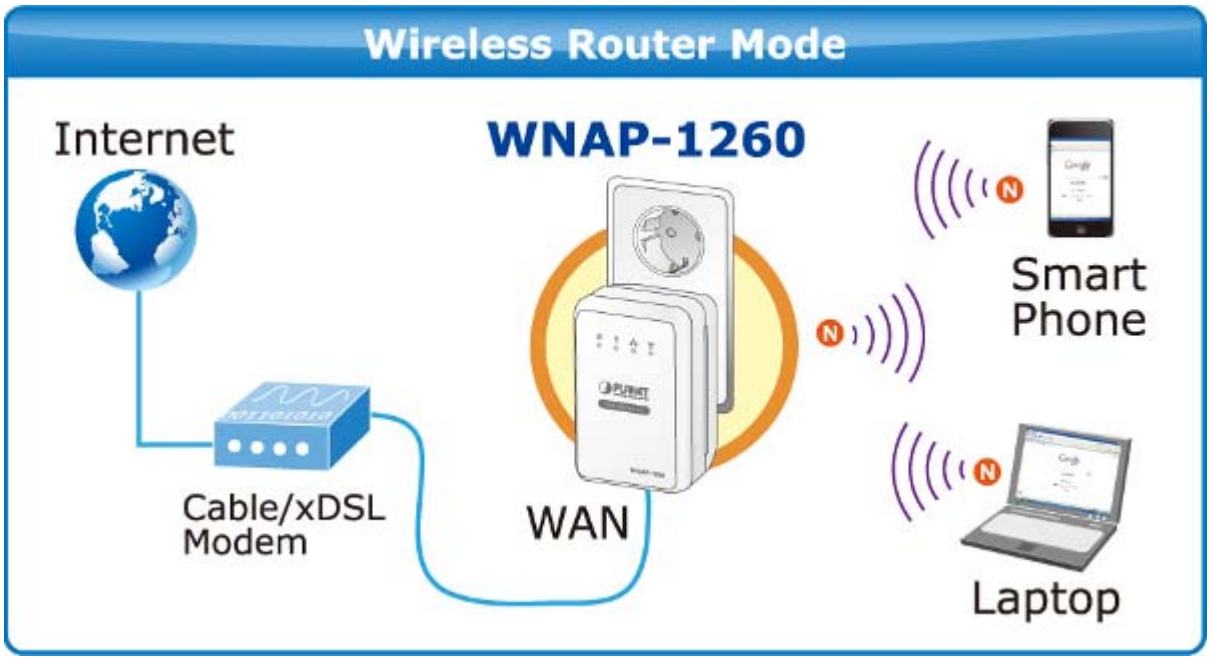


Figure 3-3

3.4. Client Mode

In the Client mode, WNAP-1260 provides Internet access for a set-top box or a computer with a network adapter.

■ Operation Mode Switch – Client Mode

■ Typical Application

In Client Mode, the WNAP-1260 is supposed to act as a wireless station for the PC. Users can site survey the available local AP and choose someone to connect with.

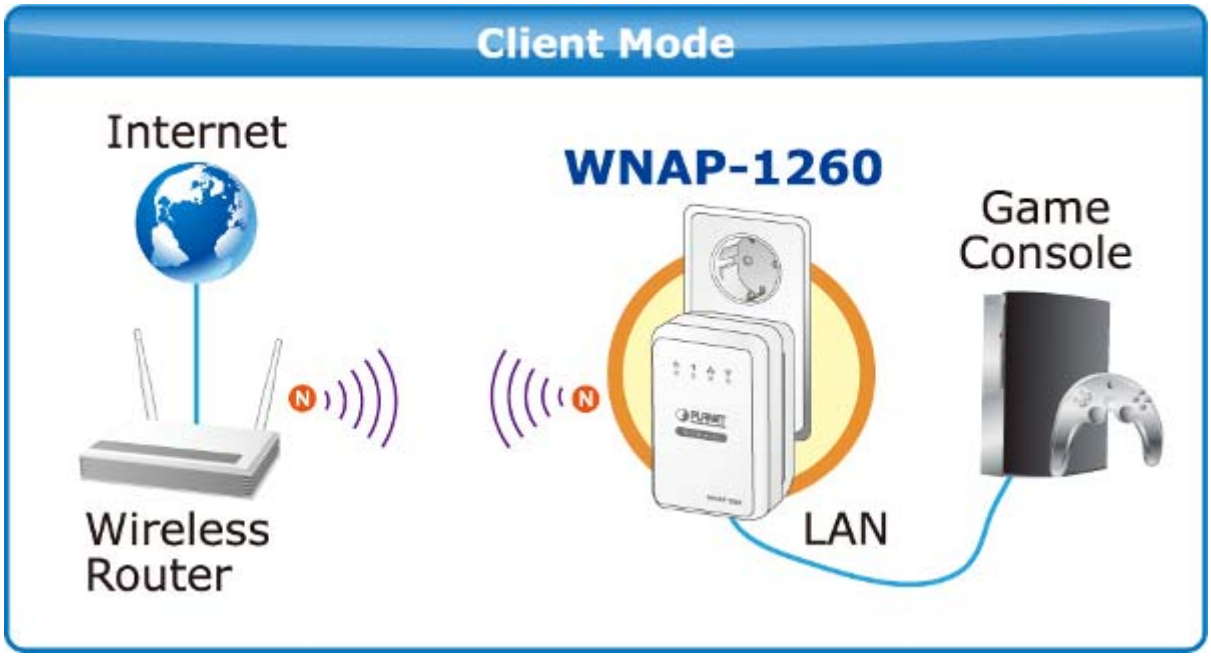


Figure 3-4

Chapter 4. Installation Guide

4.1. System Requirements

Before installing the device, please ensure that the following items are available:

- PCs with a working Ethernet Adapter and an Ethernet cable with RJ-45 connectors
- PC of subscribers running Windows 98/ME, NT4.0, 2000 / XP, Windows Vista / Win 7, MAC OS 9 or later, Linux, UNIX or other platform compatible with **TCP / IP** protocols
- Above PC installed with WEB Browser
- Broadband Internet Access Service (Cable / xDSL / Ethernet connection; for Router mode only)
- One Cable / xDSL Modem that has an RJ-45 connector (not necessary if the WNAP-1260 is connected directly to the Ethernet.)

It is recommended to use Internet Explorer 7.0 or above to access the WNAP-1260.

4.2. Before You Begin

Before you install the device, please pay attention to the following items:

- The Ethernet cables that are used to connect the device to a computer, hub, router, or switch should be less than 100 meters.
- Do not place this device on an uneven or unstable surface. Do not put this device on the ground.
- Keep the device clean. Prevent the device from direct sunlight. Avoid any metal in the device.
- Place the device in the center of the area to optimize the wireless coverage.

4.3. Operation Range

The operation range of WNAP-1260 WiFi repeater depends on the actual environment. The path and effect of signal transmission vary with the deployment in a house or an office. For example, the outdoor straight transmission distance for a certain device can reach 300 meters and the indoor transmission distance can reach 100 meters.

4.4. Manual Network Setup – TCP / IP Configuration

The default IP address of the WNAP-1260 is **192.168.1.253,** and the default Subnet Mask is **255.255.255.0**. These values can be changed as you desire in the web UI of the WNAP-1260. In this section, we use all the default values for description.

No matter you want to configure the WNAP-1260 via wired or wireless connection, the PC need to be assigned an IP address first. Before you connect the local PC to the WNAP-1260 via wired or wireless connection, please configure the IP address for your PC in the following two ways first.

- **Obtain an IP address automatically**
- **Configure the IP address manually**

The following sections will introduce how to install and configure the TCP / IP correctly in **Windows 7**. First, make sure your Ethernet Adapter is working, and refer to the Ethernet adapter's manual if needed.

4.4.1. Obtain an IP Address Automatically

If you are sure the DHCP server of WNAP-1260 is enabled (the default setting of Router Mode), you can set up the TCP/IP Protocol in "**Obtain an IP address automatically**" mode on your PC. And then the WNAP-1260 built-in DHCP server will assign an IP address to the PC automatically.

1) On the Windows taskbar, click the **Start** button, point to **Control Panel,** and then click it.

2) Under the **Network and Internet** icon, click on the **View network status and tasks.** And then click **Change adapter settings**.

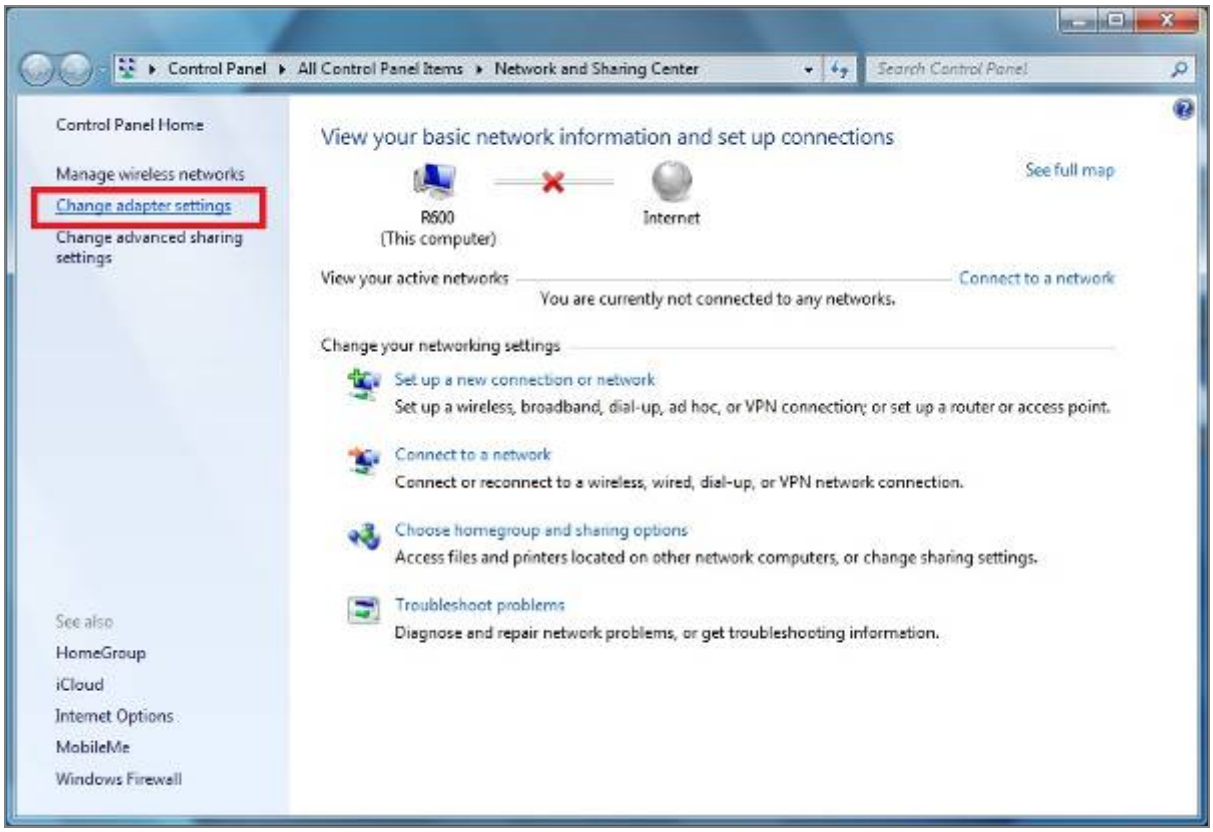


Figure 4-1

3) Right-click on the **Wireless Network Connection,** and select **Properties** in the appearing window.

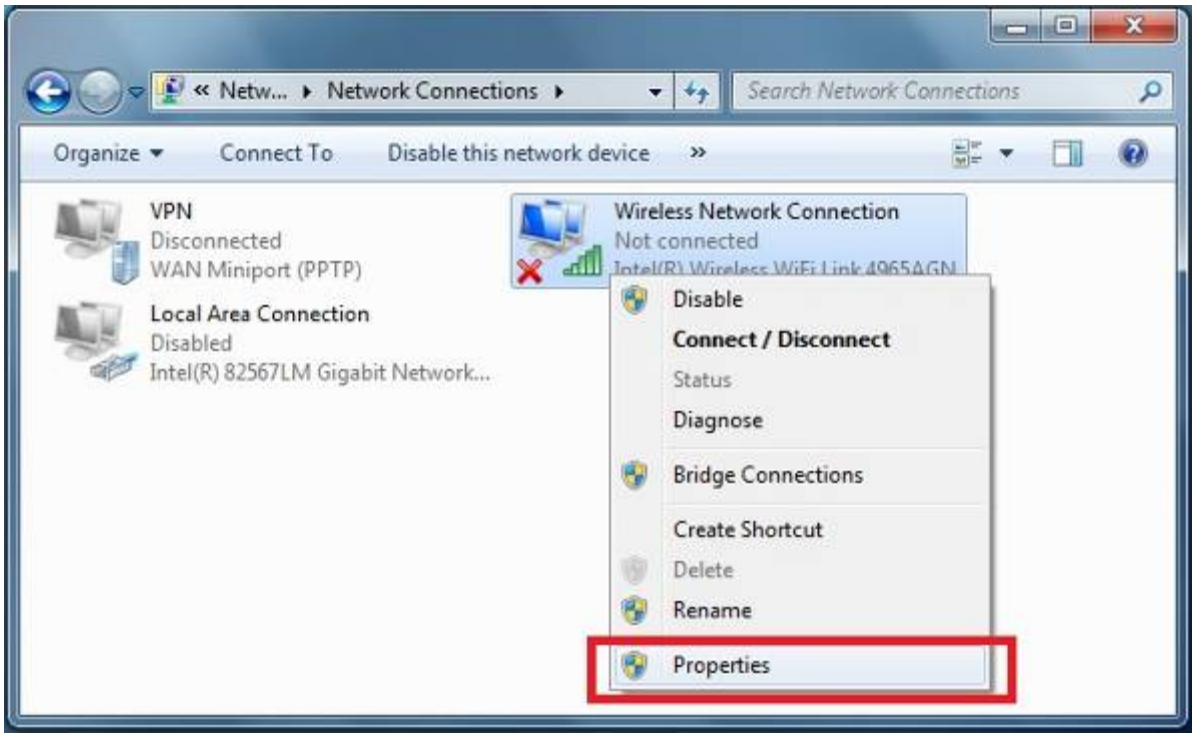


Figure 4-2

4) In the prompt window shown below, double click on the **Internet Protocol Version 4 (TCP/IPv4)**.

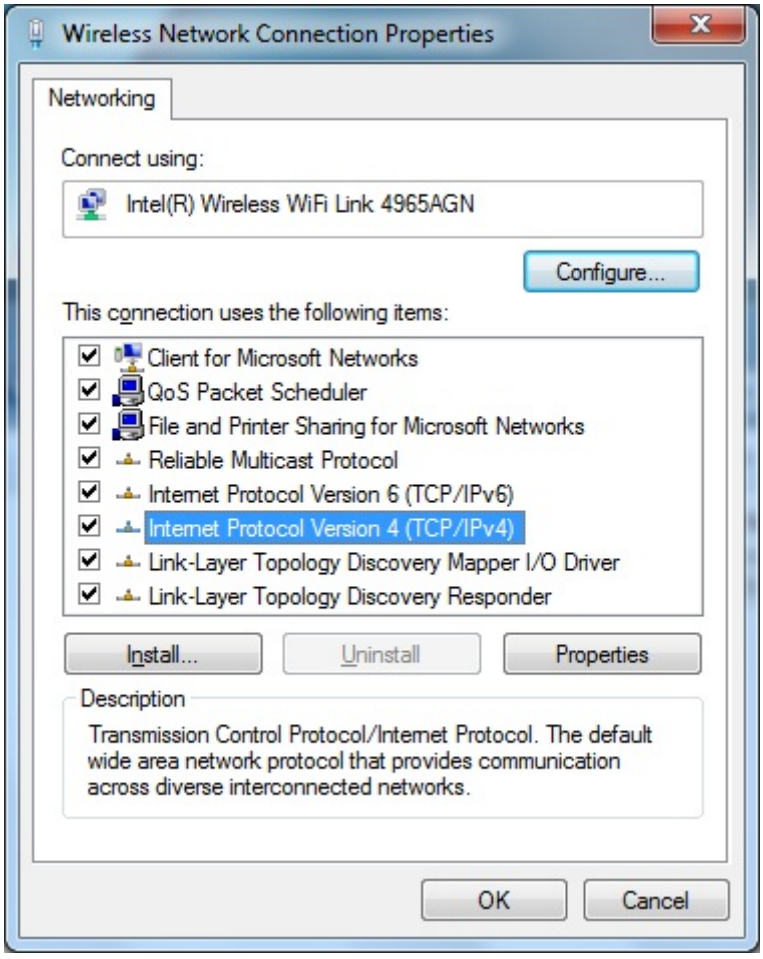


Figure 4-3

5) Choose **Obtain an IP address automatically**, and **Obtain DNS server address automatically** as shown in the figure below. Then click **OK** to save your settings.

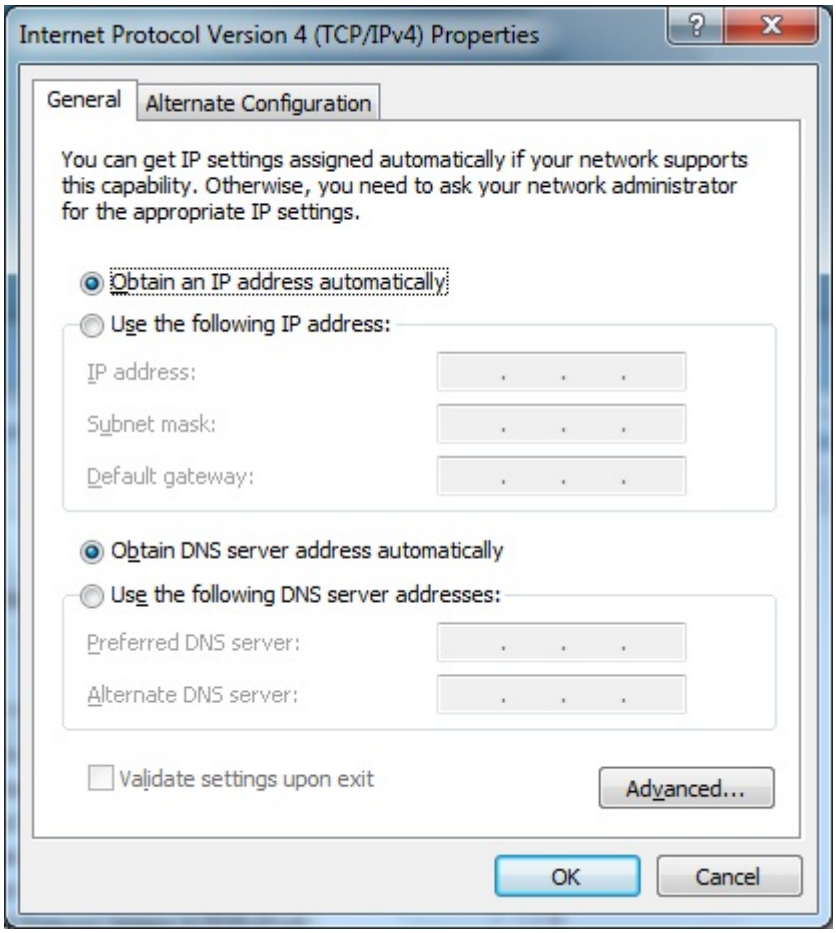


Figure 4-4

4.4.2. Configure the IP address manually

If you are sure the DHCP server of WNAP-1260 is disabled (the default setting of AP Mode and Client Mode), you can configure the IP address manually. The IP address of your PC should be 192.168.1.xxx (the same subnet of the IP address of WNAP-1260, and "xxx" is any number from 1 to 254), Subnet Mask is 255.255.255.0, and the Gateway is 192.168.1.253 (The default IP address of WNAP-1260)

1) Continue the settings from the last figure, select **Use the following IP address** radio button.

2) If the LAN IP address of the WNAP-1260 is 192.168.1.253, enter IP address **192.168.1.x** (x is from 1 to 254), and Subnet mask 255.255.255.0.

3) Enter the LAN IP address of the WNAP-1260 (the default IP is 192.168.1.253) into the Default gateway field.

4) Select Use the following DNS server addresses radio button. In the Preferred DNS Server field, you can enter the DNS server IP address provided by your local ISP. Then click OK to save your settings.

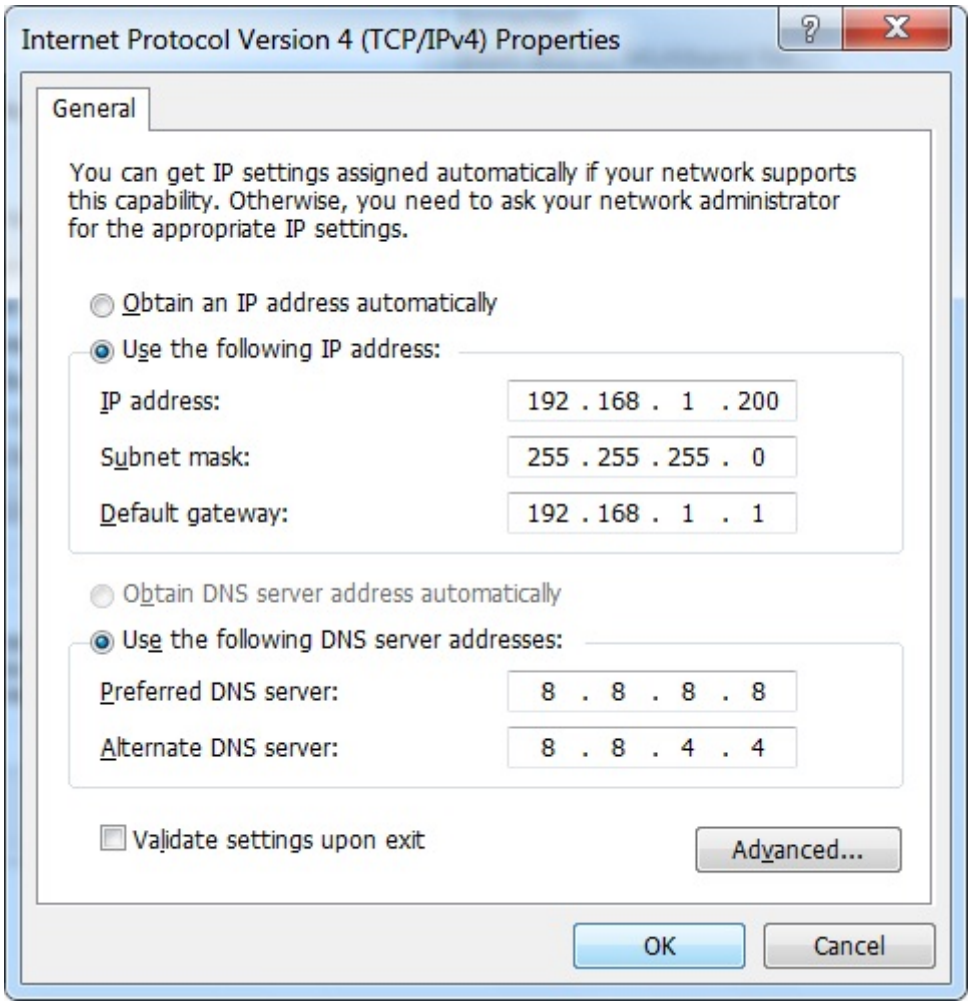
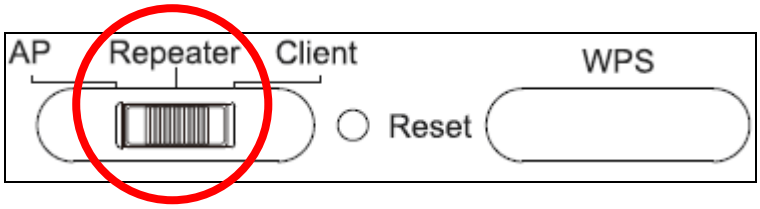

Internet Protocol Version 4 (TCP/IPv4) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address: 192 . 168 . 1 . 200
Subnet mask: 255 . 255 . 255 . 0
Default gateway: 192 . 168 . 1 . 1
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server: 8 . 8 . 8 . 8
Alternate DNS server: 8 . 8 . 4 . 4
Validate settings upon exit
Advanced...
OK
Cancel

Figure 4-5

4.5. Hardware Installation

STEP 1: Make sure the operation mode by hardware switch is **Repeater Mode** (Default Setting).



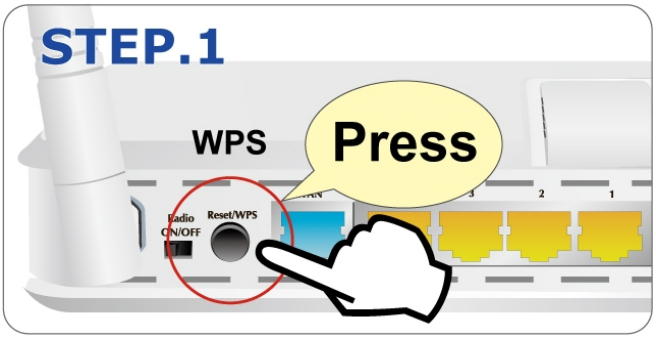
STEP 2: Plug WNAP-1260 into the wall outlet, and wait about 40 seconds for WNAP-1260 to boot up.

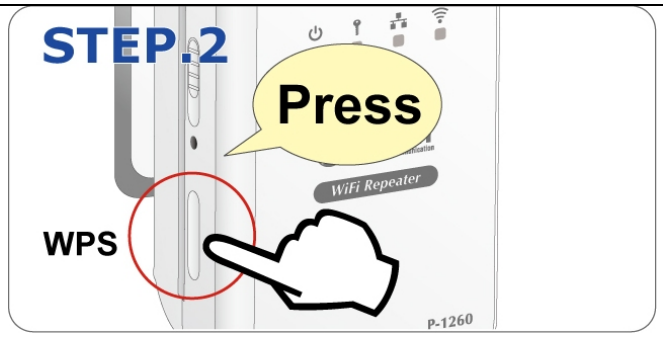
STEP 3: Using WPS Button to establish connection with AP:

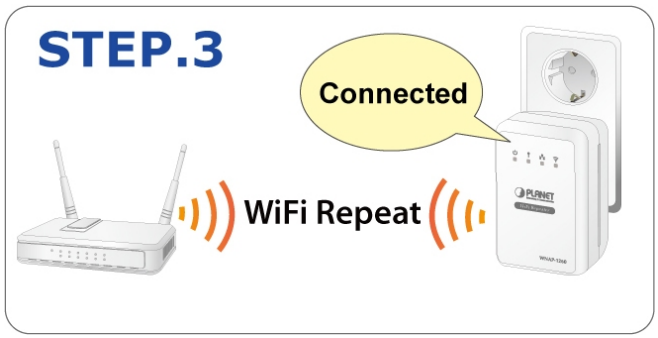
(1) In the existing Wireless Router or AP, push the **WPS Button** within 2 minutes.

(2) In the WNAP-1260, push the **WPS Button** from the side panel within 2 minutes.

(3) Wait for the connection being established. If connection is successfully established, the "**WPS**" LED will light for 5 minutes.







Note

For the first time setup, you can move WNAP-1260 close to the access point you wish to connect, after connection established, you can move WNAP-1260 to the place you wish to use.

4.6. Starting Setup in Web UI

Default SSID: **WiFiRepeater-001**
*Default Wireless Security: **None**

STEP 1: Please use your PC to site survey the wireless signal of WNAP-1260, and connect your PC with it wirelessly.

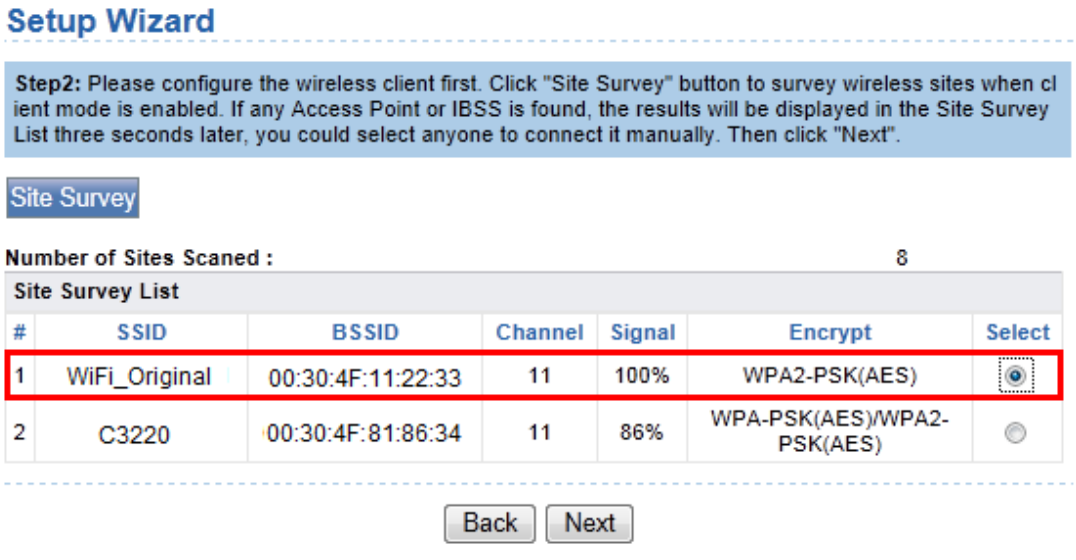
STEP 2:

1. Assign a static IP address to your PC which should be in the same network segment with the WNAP-1260. You may choose from 192.168.1.2 to 192.168.1.254, except the default IP address "192.168.1.253" of WNAP-1260.
2. Open the web browser on your PC, key in the IP address (**http://192.168.1.253**) of the WNAP-1260 in the address bar, and then press enter.
3. The default User name and Password are both "**admin**". Enter them and then click OK.

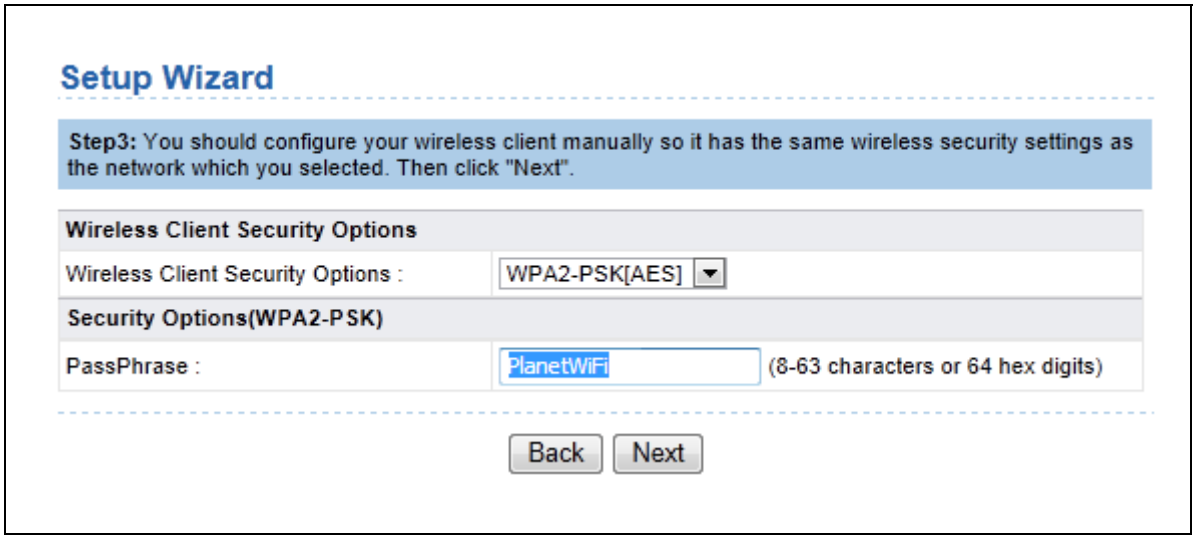
Default IP Address: **192.168.1.253**
Default Username: **admin**
Default Password: **admin**
Default SSID: **WiFiRepeater-001**

STEP 3: When you have successfully logged in, select "**Setup wizard**". You will then be able to select one of two options, choose "**Wireless Universal repeater mode**" and click next to continue.

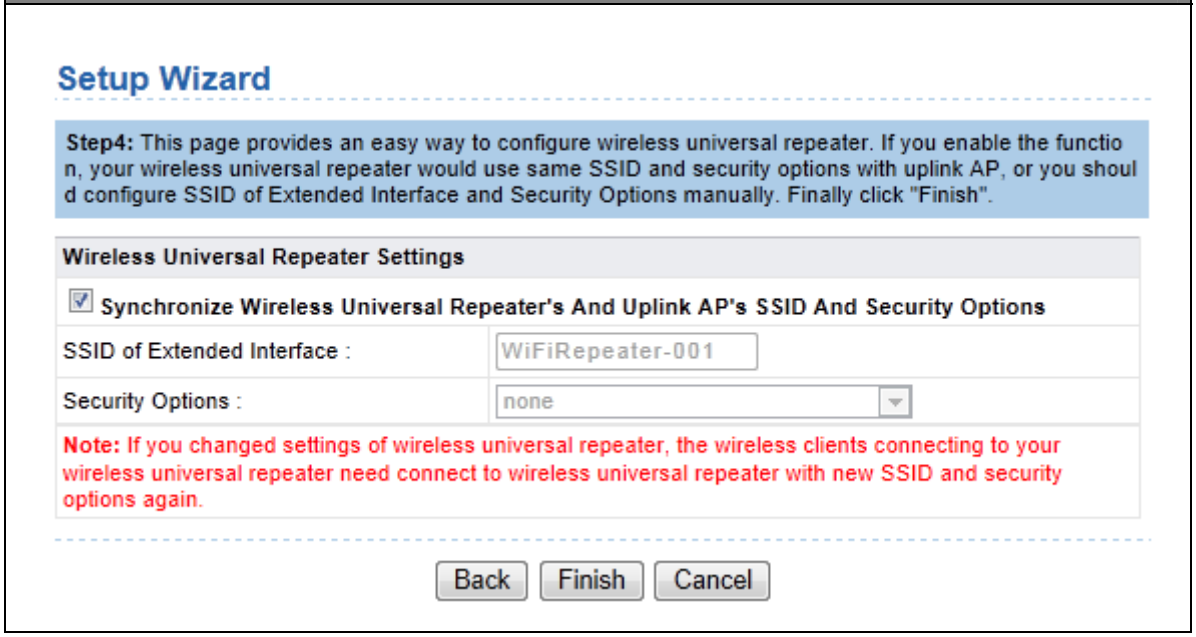
STEP 4: All wireless access points nearby will be displayed on the list. Select it and click 'Next' button to continue.



STEP 5: You'll be prompted to input Uplink Wireless Router /AP's wireless security key, input it in 'KEY' field and click 'Next' to continue.



STEP 6: WNAP-1260 provides the wireless roaming function if you select "**Synchronize Wireless Universal Repeater's And Uplink AP's SSID And Security Options**". Click Finish. Then, the client can communicate with the selected network.



You have already finished the wireless range extension configuration of the WNAP-1260. Now you can use your iPhone, iPad, laptop, and any other Wi-Fi devices to connect with it wirelessly and start to surf the Internet.

If you change the setting of wireless universal repeater through wireless connection, the wireless clients connecting to your WNAP-1260 need connect to WNAP-1260 with new SSID and security options again.

The next chapter will introduce the functions of the web UI.

Chapter 5. Quick Mode Configuration

Mode	Mode Available In the Web	LAN1 (Management IP Address)	LAN2 (DHCP)	DHCP Server	Way of connecting to PC
Repeater	Wireless Universal Repeater (default)	192.168.1.253	Yes	Disable	Ethernet cable /Wireless
	WDS		No		
AP	Bridge (default)	192.168.1.253	No	Disable	Ethernet cable /Wireless
	Router		No	Enable	Wireless only
Client	Client (default)	192.168.1.253	No	Disable	Ethernet cable only

Table 4.1 IP information of AP/Repeater/Client modes of WNAP1260

Step 1 Set the three-way switch on the case of WNAP-1260 to the mode you want.

Step 2 Run the Internet Explorer (IE). Enter the management IP address of ***192.168.1.253*** and press **Enter**. In the login window that is displayed, enter the user name and password (both **admin**), and click **Login**.

Figure 5-1

Step 3 Configure parameters for the mode you selected.

Terminal devices can access the network through WNAP-1260 after you finish configuration by following procedures in the sections below.

5.1. Repeater Mode Configuration

Step 1 Set the three-way switch on the side panel to **Repeater** after WNAP-1260 is powered on. Log in to the configuration page after the system is started.

Step 2 Click **Setup Wizard** in the navigation bar on the left pane of the page. Select **Wireless Universal Repeater Mode** and click **Next**.

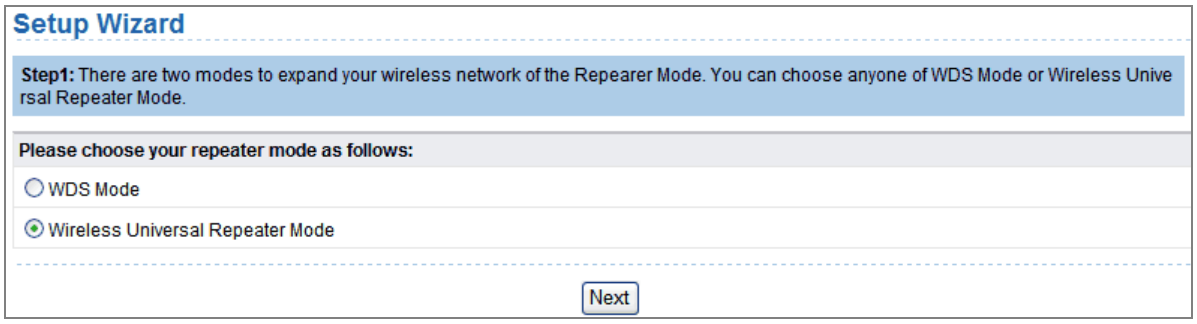


Figure 5-2

Step 3 Click **Site Survey** to search for the wireless network you want to connect. Select a desired network. Click **Next**.

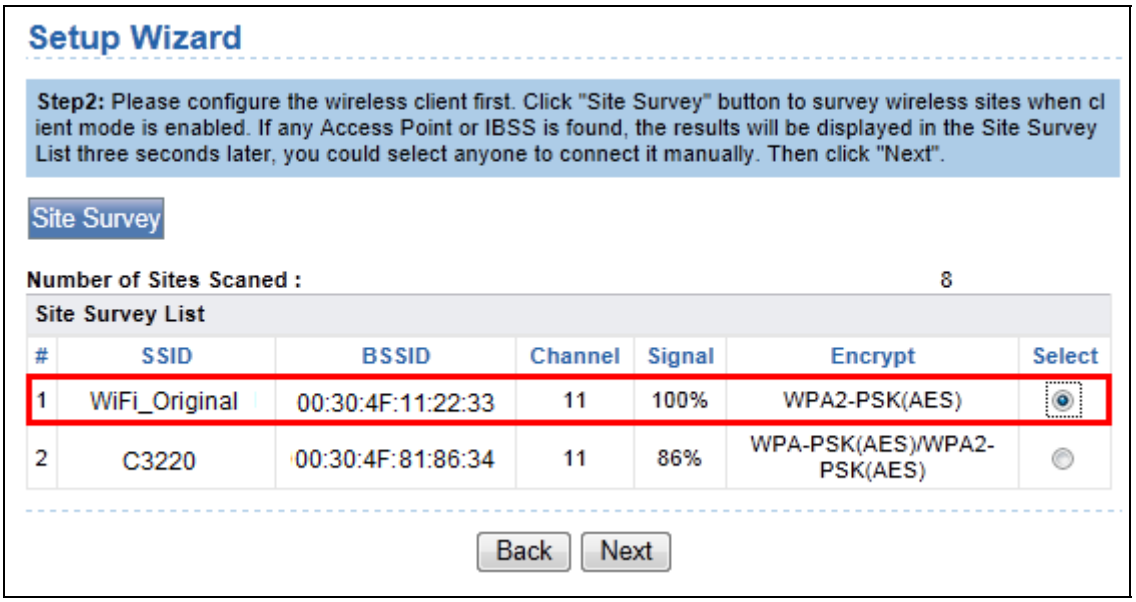


Figure 5-3

Step 4 Configure the repeater with the same security option as its uplink network. (The following figure takes the security option of **WPA2-PSK[AES]** as an example.) Set the encryption password and note it down. Click **Next**.

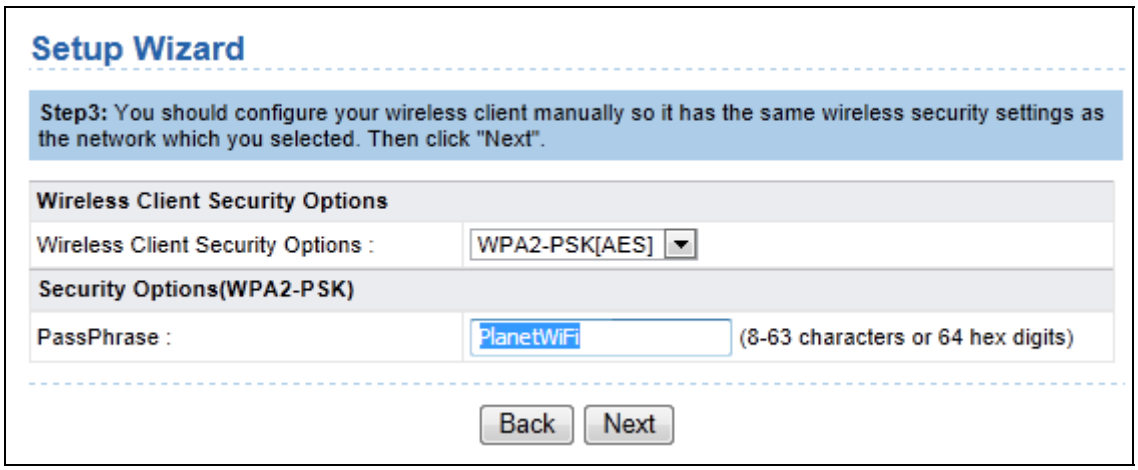


Figure 5-4

Step 5 WNAP-1260 provides the wireless roaming function if you select **Synchronize Wireless Universal Repeater's And Uplink AP's SSID And Security Options**. Otherwise, manually configure the SSID and security options for the repeater. Click **Finish** to complete setup wizard.

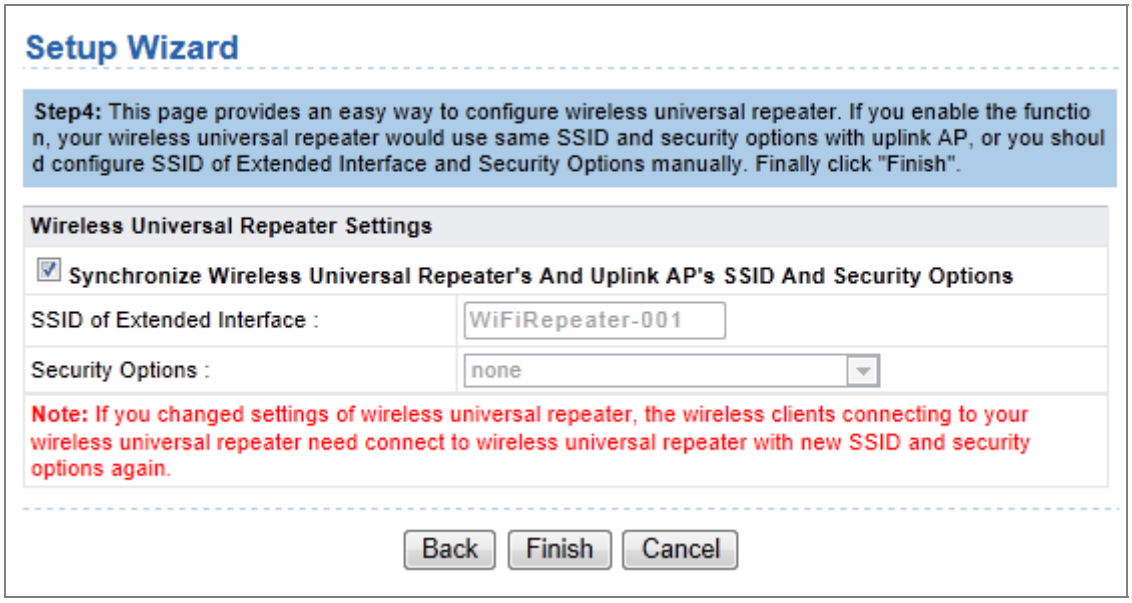


Figure 5-5

5.2. WDS Mode Configuration

5.2.1. Repeater Configuration in the WDS Mode

Step 1 Set the three-way switch on the side panel to **Repeater** after WNAP-1260 is powered on. Log in to the configuration page after the system is started.

Step 2 Click **Setup Wizard** in the navigation bar on the left pane of the page. Select **WDS Mode** and click **Next**. (Note: The WDS function cannot be used if the channel is set to **Auto**) Manually set all WDS devices to the same channel.

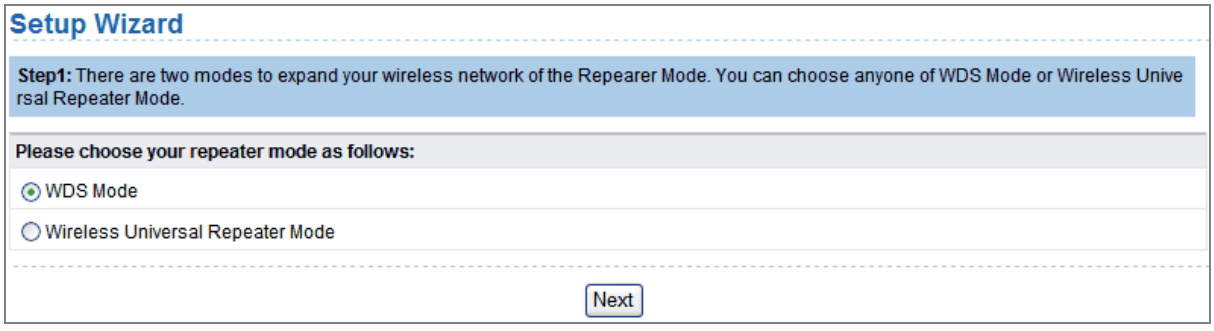


Figure 5-6

Step 3 Set the IP address of the LAN port of the repeater and enter the MAC address of the basic station. Click **Next**.

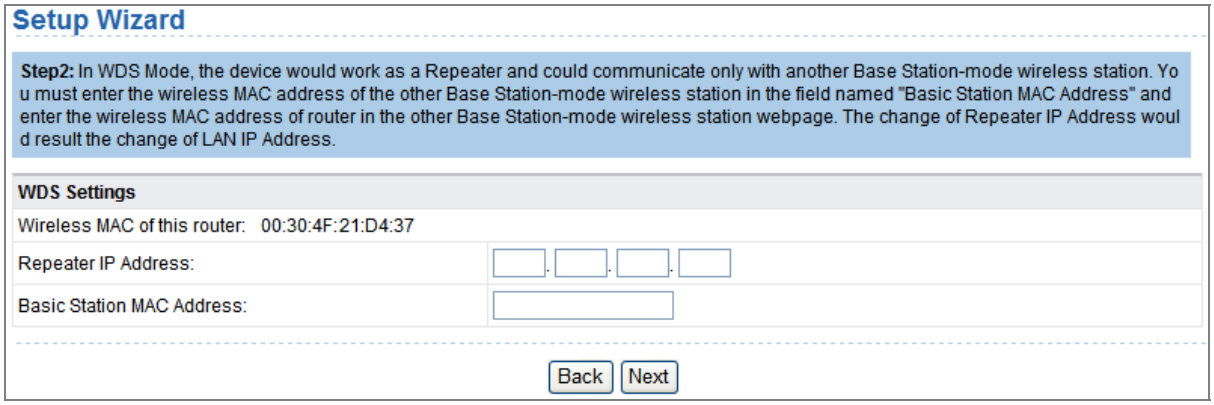


Figure 5-7

Step 4 Set the SSID, channel, and security encryption for the repeater. The channel cannot be set to **Auto**. It is recommended to configure the repeater with the same security option as its base station. Set the encryption password and note it down. Click **Finish** to complete the settings.

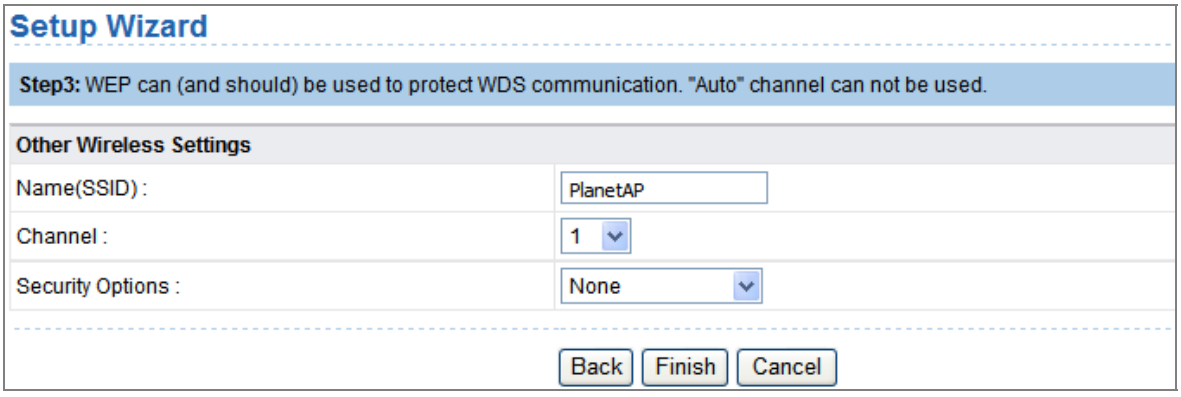


Figure 5-8

5.2.2. Central Base Station Configuration in the WDS Mode

Step 1 Set WNAP-1260 to the **Router mode**. (Set the three-way switch on the side panel to **AP)**

Step 2 Click **Mode Settings** and select **Router Mode**. (The default mode is **Bridge Mode**.)

Step 3 Choose **Wireless Settings** > **WDS Function**, select **Enable WDS Function**

Step 4 Enter the MAC address of the Repeater

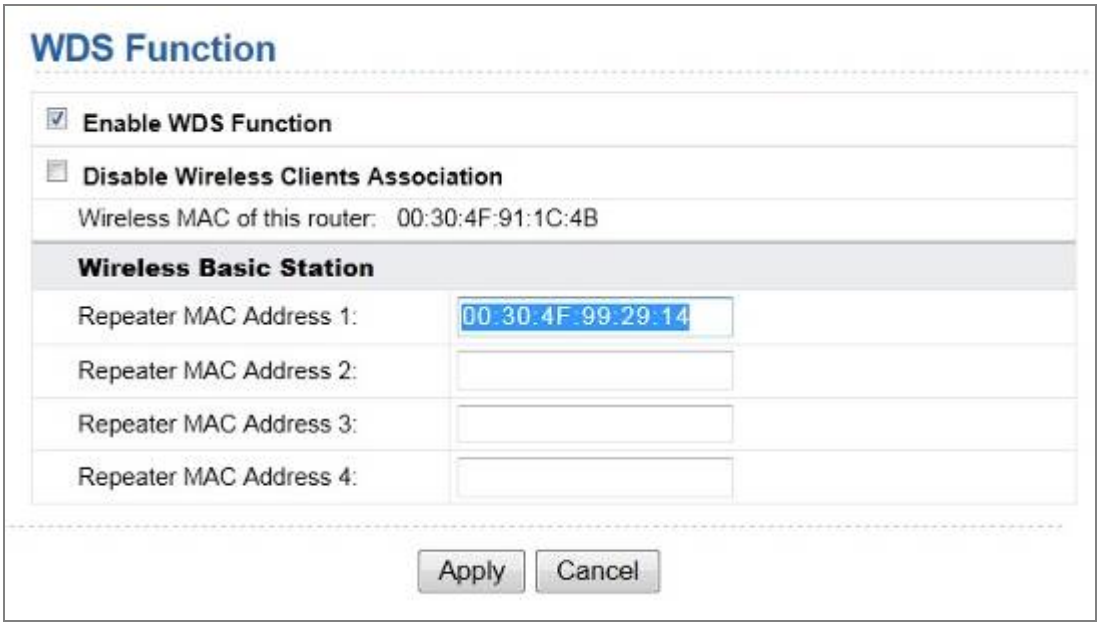


Figure 5-9

Note: One basic station can connect to a maximum of 4 repeaters

5.2.3. WDS Application

The following figure shows a wireless network for Humans Resource Department (marked as A in the figure), Finance Department (marked as B), and Marketing Department (marked as C) in an enterprise.

If the three departments share one wireless router, signals searched by computers may be rather weak or even no signals are available. However, if each of the three departments uses a wireless router, we can use WDS to connect the three routers to provide perfect wireless coverage for the whole areas.

Figure 5-10

Configure the three routers in this way:

Wireless router B functions as the wireless basic station; wireless routers A and C connect to wireless router B by using WDS.

(1) Configuring wireless router B as the wireless basic station

Step 1 Log in to the Web management page of wireless router B. Choose **Wireless Settings** > **Wireless Basic Settings** and set the SSID, channel, and wireless encryption information. Write down the SSID, channel, and wireless encryption information that are required when you are configuring wirelss router A and C.

Step 2 Choose **Wireless Settings** > **WDS Function** and enable the WDS function. Enter MAC addresses of repeaters (that is, wireless routers A and C in this example). Click **Apply** to save the settings.

(2) Configuring wireless router A

Do as follows to establish WDS connection between wireless routers A and B:

Step 1 Set wireless router A with the same channel and encryption information as wireless router B.

Step 2 Choose **Wireless Settings** > **WDS Function** and enable the WDS function. Set the IP address of wireless router B different from that of wireless router B to avoid IP address conflict (for example, change the IP address to 192.168.100.20 in the LAN Interface Settings page and log in to the Web management page again).

Step 3 Enter the MAC address of the wireless basic station.

Step 4 Click **Apply** to save the settings.

Then, WDS connection is established between wireless routers A and B.

(3) Configuring wireless router C

Configure wireless router C in the same way as wireless router A. Note that the IP address of the LAN interface must be changed to an IP address that does not conflict with IP addresses of existing computers or devices in the network.

5.3. Bridge Mode Configuration

Step 1 Set the three-way switch on the side panel to **AP** after WNAP-1260 is powered on. Log in to the configuration page after the system is started.

Step 2 Click **Setup Wizard** in the navigation bar on the left pane of the page. Set the SSID and encryption password and note them down. Click **Finish** to complete the settings.

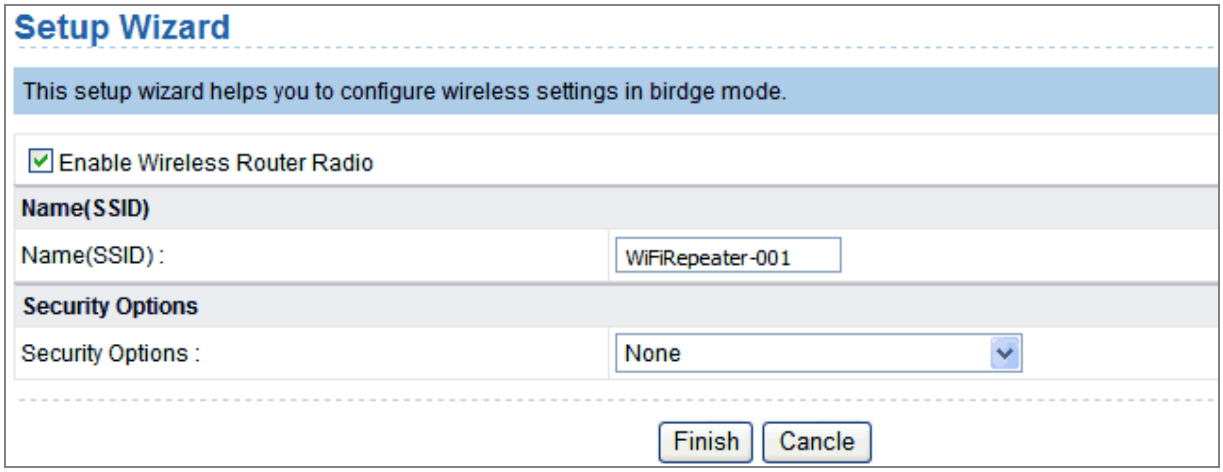


Figure 5-11

5.4. Router Mode Configuration

Step 1 Set the three-way switch on the side panel to **AP** after WNAP-1260 is powered on. Log in to the configuration page after the system is started.

Step 2 Click **Mode Settings** and select **Router Mode**. (The default mode is **Bridge Mode**.)

Step 3 Connect your PC to WNAP-1260 using a wireless network adapter after WNAP-1260 is restarted successfully. Log in to the configuration page. Click **Setup Wizard** in the navigation bar on the left pane of the page. Select **Yes** and click **Next**. WNAP-1260 will automatically detect the broadband type.

Step 4 WNAP-1260 can detect three types of broadband: DHCP, Static IP, and PPPoE. Perform configurations according to the broadband type you are using.

Parameter configuration for DHCP

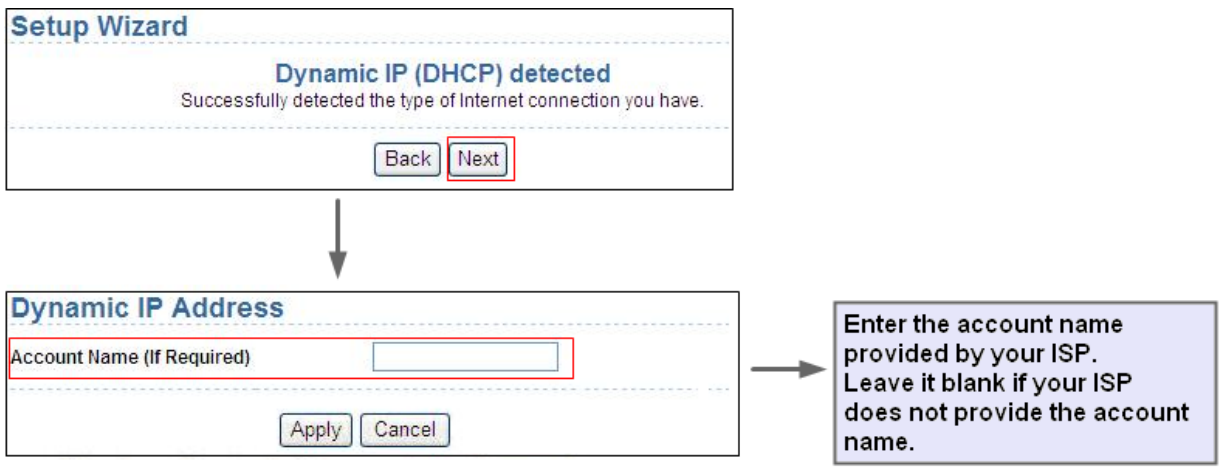


Figure 5-12

Parameter configuration for static IP

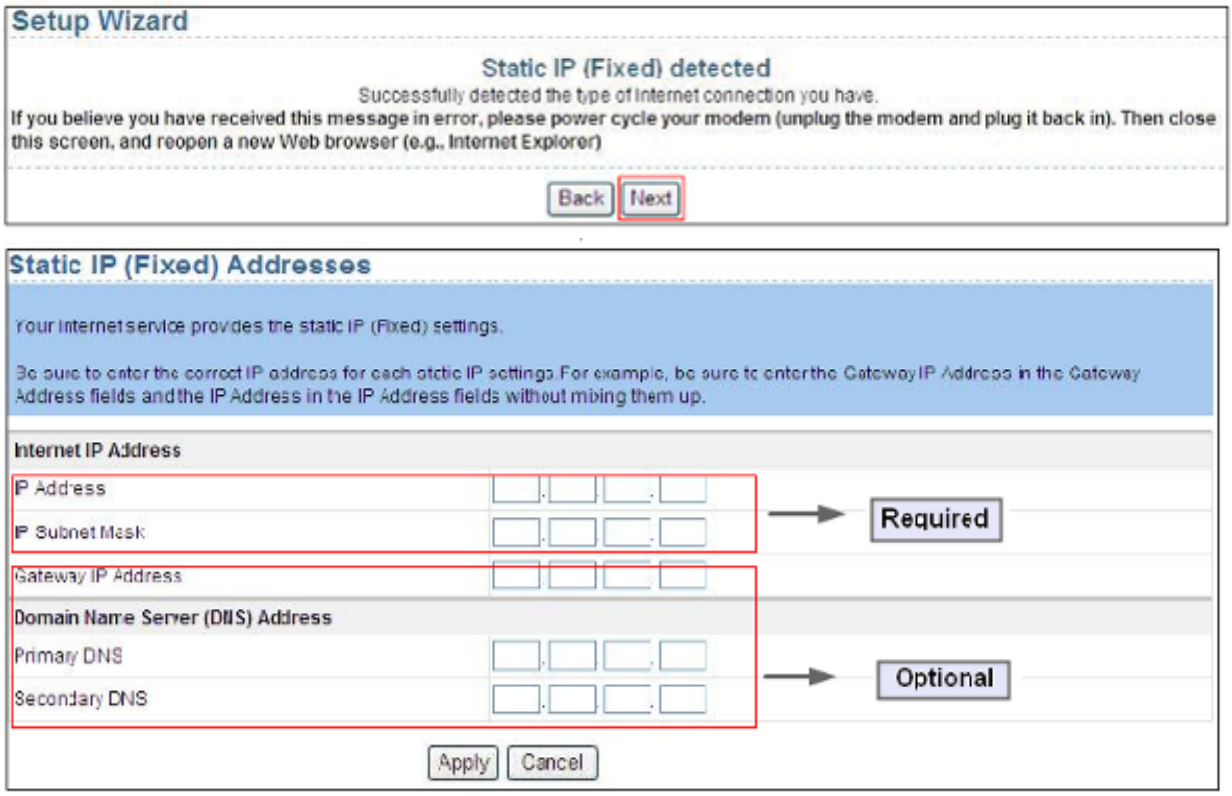


Figure 5-13

Parameter configuration for PPPoE

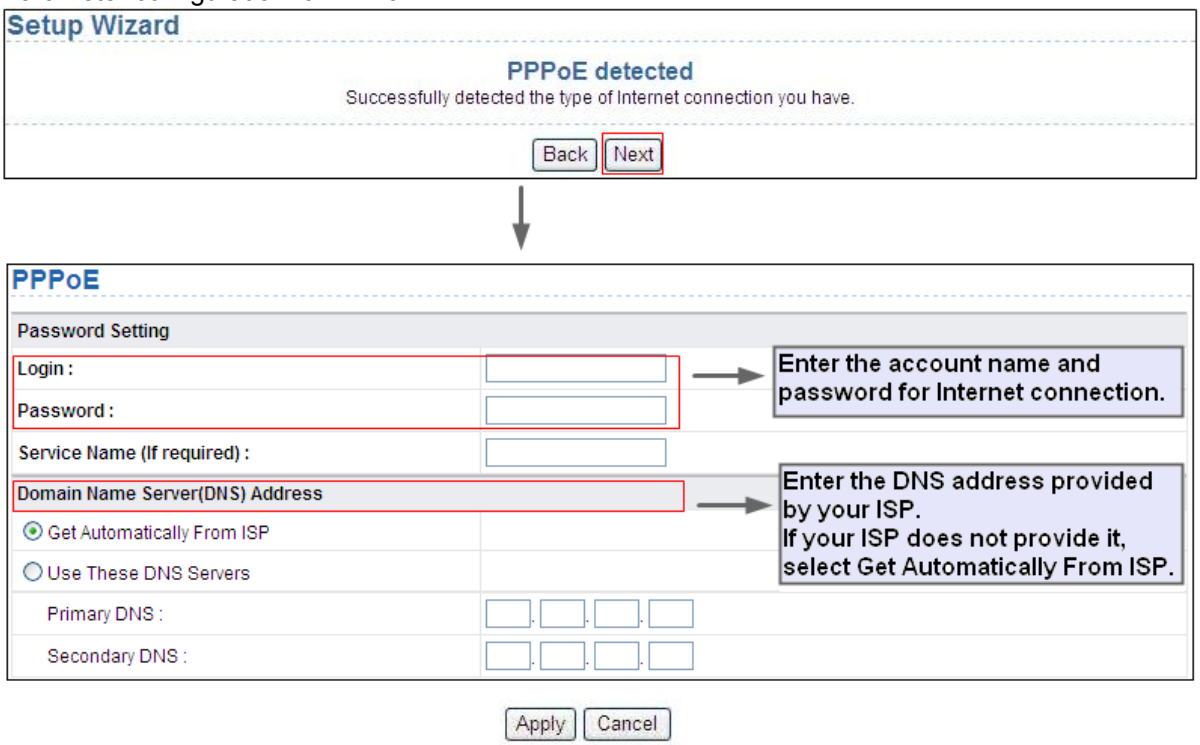


Figure 5-14

Step 5 Click **Next**. Set the SSID and password and note them down. Click **Finish** to complete the settings.

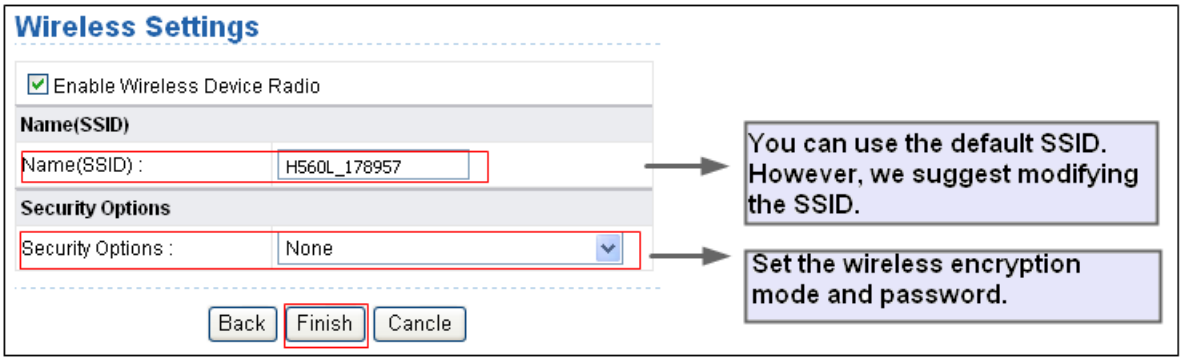


Figure 5-15

5.5. Client Mode Configuration

Step 1 Set the three-way switch on the side panel to **Client** after WNAP-1260 is powered on. Log in to the configuration page after the system is started.

Step 2 Click **Setup Wizard** in the navigation bar on the left pane of the page. Click **Site Survey** to search for the wireless network you want to connect.

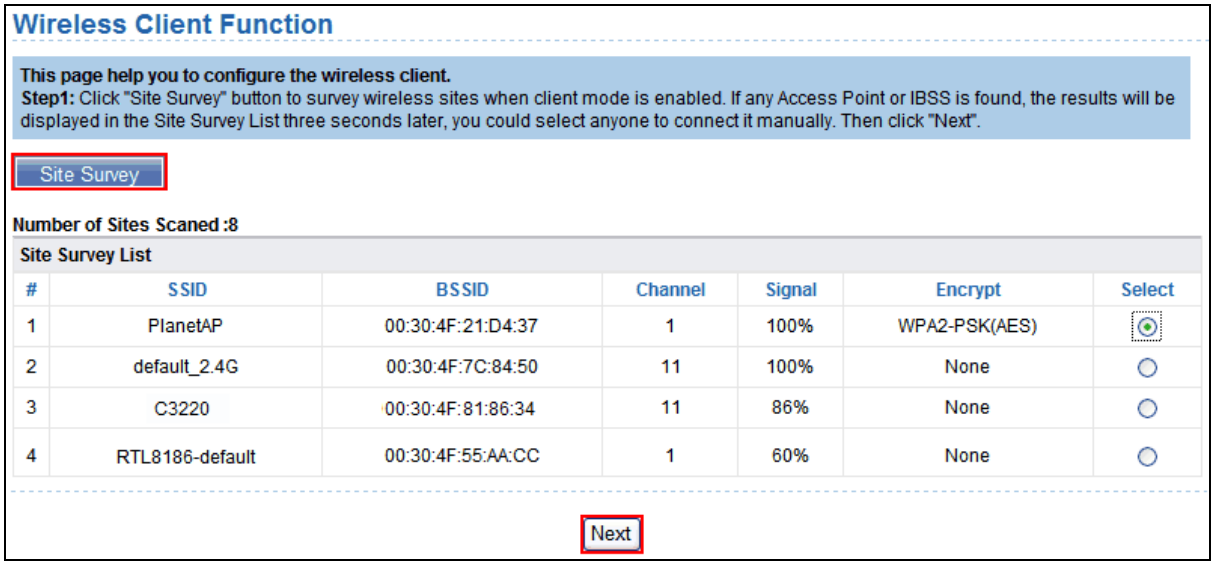


Figure 5-16

Step 3 Enter encryption information of the selected wireless network. Click **Next**.

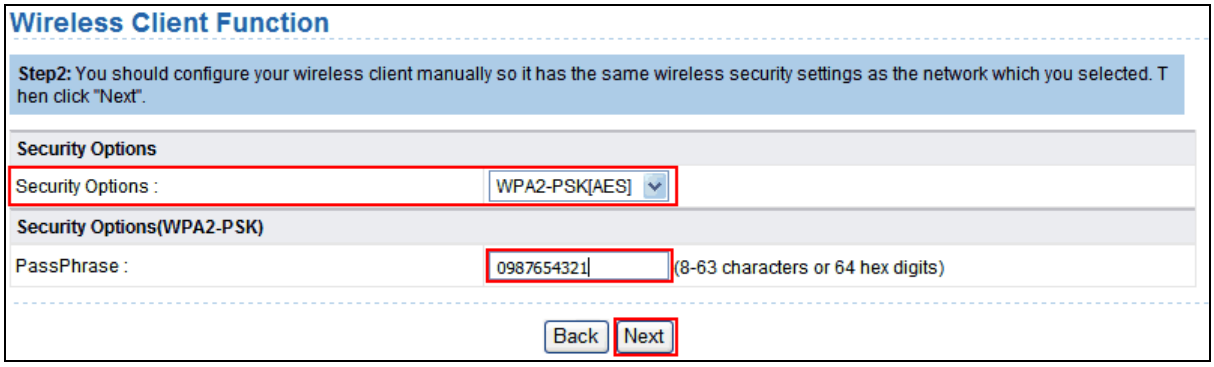


Figure 5-17

Step 4 Check **Synchronize Wireless Universal Repeater's And Uplink AP's SSID And Security Options** if you want to sync the SSID & Security key. Click **Finish** to complete the settings.

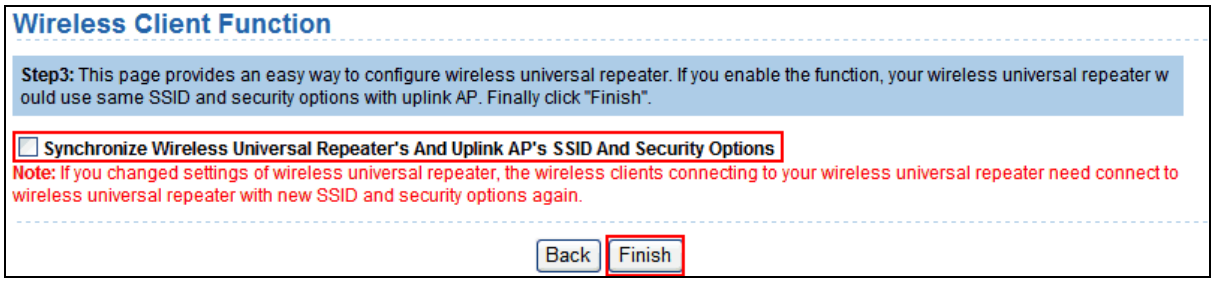
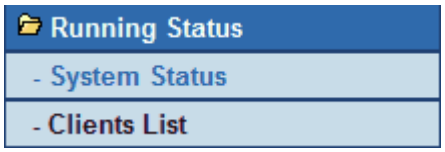


Figure 5-18

Chapter 6. Web Configuration for the Wireless Universal Repeater Mode

6.1. Running Status

Click **Running Status** and the extended navigation menu is shown as follows:



Click the submenu to enter a specific configuration page.

6.1.1. System Status

Choose **Running Status** > **System Status** and the **System Status** page is displayed.

System Status

System Info	
Hardware Version	V1.0.0
Firmware Version	V1.0.0
Product Name	WiFi Repeater
Work Mode	Repeater Mode
Time and Date	1971-01-01 10:16:00
LAN1 Port	
MAC Address	0
IP Address	192.168.1.253
IP Subnet Mask	255.255.255.0
LAN2 Port	
DHCP	Enabled
IP Address	192.168.1.126
IP Subnet Mask	255.255.255.0
Gateway IP Address	192.168.1.254
Wireless Client	
Wireless Network Selected Name (SSID)	WiFi_Original
Wireless Channel	2.412GHz- CH1
Wi-Fi Protected Setup(WPS)	ON

Figure 6-1

In this page, you can view information about the current running status of WNAP-1260, including system information, LAN port status, wireless client information, and wireless universal repeater status.

6.1.2. Clients List

Choose **Running Status** > **Clients List** and the **Clients List** page is displayed.

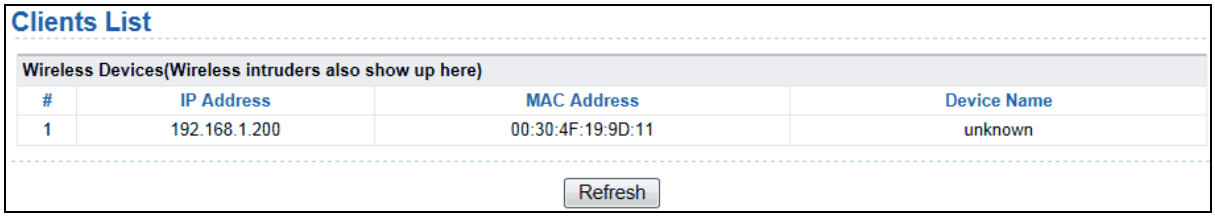


Figure 6-2

This page displays information of devices connected to WNAP-1260, including the IP address, device name, and MAC address of each device.

6.2. Setup Wizard

For settings, refer to section 5.3. "**Repeater Mode Configuration**".

6.3. Repeater Mode Setting

Click **Repeater Mode Settings** and the **Repeater Mode Settings** page is displayed. Select **Wireless Universal Repeater Mode**.

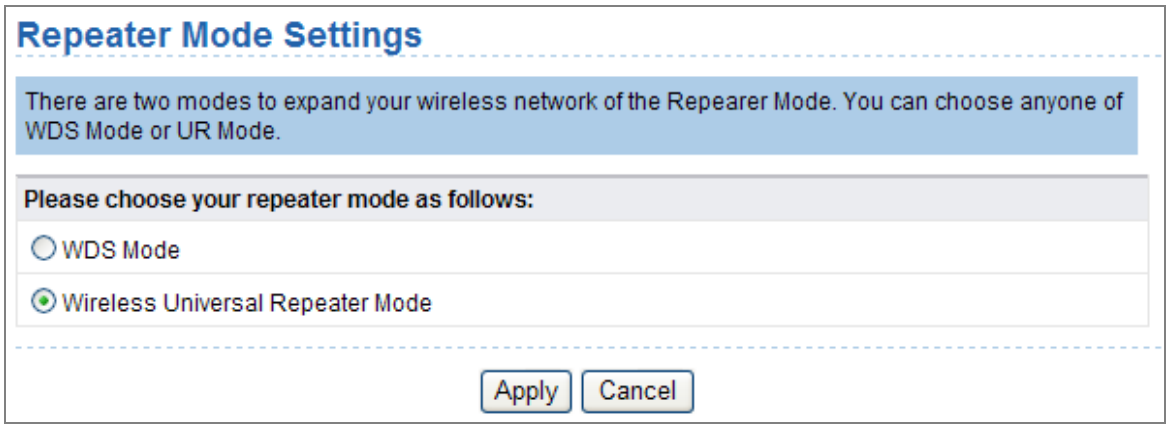
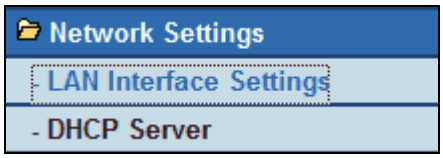


Figure 6-3

6.4. Network Settings

Click **Network Settings** and the extended navigation menu is shown as follows:



Click a submenu to perform specific parameter configurations.

6.4.1. LAN Interface Settings

Choose **Network Settings** > **LAN Interface Settings** and the **LAN Interface Settings** page is displayed.

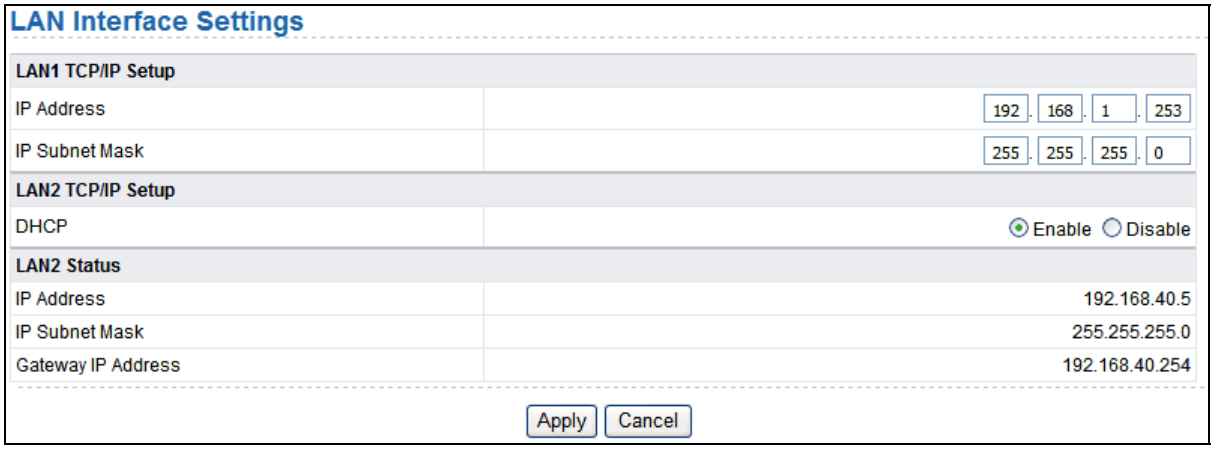


Figure 6-4

You can modify the IP address and IP subnet mask of the LAN port as required.

If you change the default IP address, you must use the new IP address to log in to the Web configuration page of the router and the default gateway of all hosts in the LAN must be set to the new IP address for internet access. The subnet mask of all hosts in the LAN must be the same as the subnet mask specified in the LAN Interface Settings page.

6.4.2. DHCP Server

Choose **Network Settings** > **DHCP Server** and the **DHCP Server** page is displayed.

DHCP refers to Dynamic Host Configuration Protocol. If **Use Device as DHCP Service** is selected, WNAP-1260 automatically assigns IP addresses to comupters in the LAN. Users do not need to configure TCP/IP protocol paramters such as the IP address, the subnet mask, the gateway, and the DNS server information for computers connected to the router's LAN.

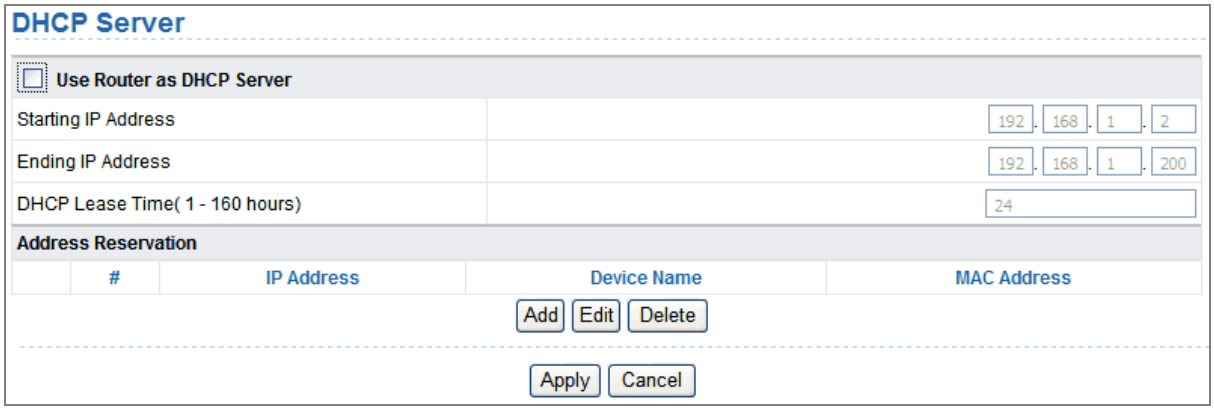


Figure 6-5

Using the Router as a DHCP Server

- **Use Router as DHCP Server**: If you select the **Use Router as DHCP Server** check box, WNAP-1260 serves as a DHCP server to automatically assign IP addresses to computers connected to it.
- **Starting IP Address/Ending IP Address**: Set the starting and ending IP addresses to specify a pool of IP addresses to be assigned by the DHCP server. After you set **Starting IP Address/Ending IP Address**, hosts in the LAN obtain IP addresses that are in the range of the starting and ending IP addresses.
- **DHCP Lease Time**: The valid time for an IP address that is automatically assigned by the DHCP server to a host. The DHCP server does not assign the IP address to other hosts within the specified time.

Using Address Reservation

When you specify a reserved IP address for a computer in the LAN, the computer always receives the same IP address each time it accesses the router's DHCP server. Reserved IP addresses should be assigned to computers or servers that require permanent IP settings.

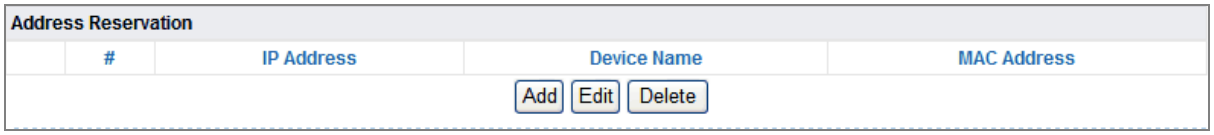


Figure 6-6

To reserve an IP address:

Step 1 Click **Add** to enter the **Address Reservation** page.

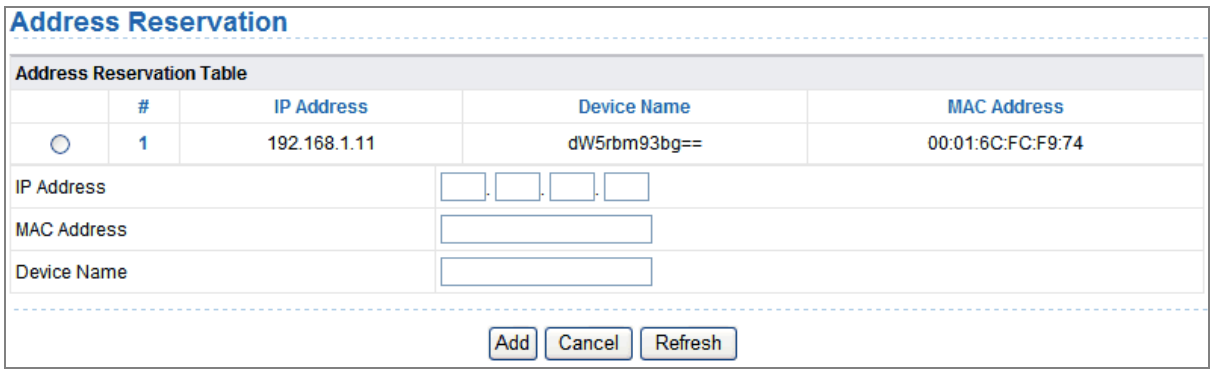


Figure 6-7

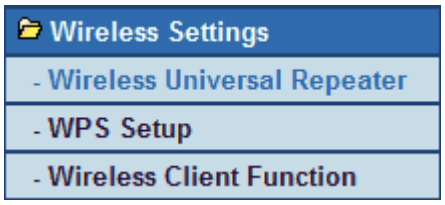
Step 2 Select one item from **Address Reservation Table**, or enter the IP address in the **IP Address** field to assign to the computer or server (Choose an IP address from the IP address pool that you have specified, for example 192.168.100.x). Enter the MAC address and device name of the computer or server.

Step 3 Click **Add** to add a new item into **Address Reservation**.

Step 4 Click **Apply** to save the settings.

6.5. Wireless Settings

Click **Wireless Settings** and the extended navigation menu is shown as follows:



Click a submenu to perform specific parameter configurations.

6.5.1. Wireless Universal Repeater

In universal repeater mode, WNAP-1260 acts as the AP and client simultaneously.

Choose **Wireless Settings** > **Wireless Universal Repeater** and the **Wireless Universal Repeater** page is displayed.

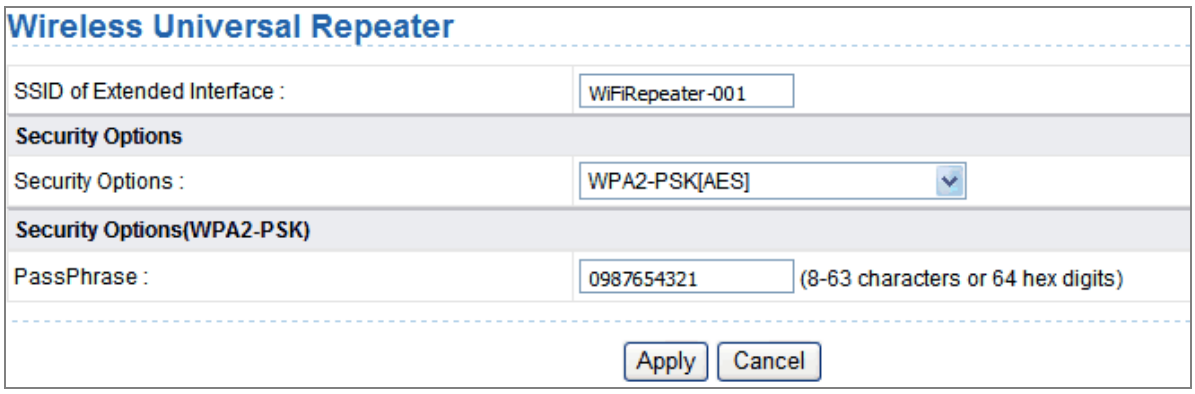


Figure 6-8

- **SSID of Extended Interface**: Set the SSID of the repeater.
- **Security Options**: Set the security encryption mode for the repeater. It is recommended to configure the repeater with the same encryption mode as that of its uplink AP.

After finishing settings, click **Apply** to save the settings.

6.5.2. WPS Setup

WPS refers to **Wi-Fi Protected Setup**.

You can use WPS to establish wireless connection in a quick and secure way if the uplink AP or terminal (for example, the network adapter) has the WPS function. It is suggested to first configure wireless encryption for the uplink AP. If you change the wireless encryption mode after having establishing wireless connection using WPS, you must use WPS to establish wireless connection again. Note that if the wireless client does not support WPS you must manually configure the wireless client (such as SSID, security mode, and password) to make it have the same SSID and wireless security settings as the router.

In the **Repeater mode** with WDS disabled, WNAP-1260 can perform WPS encrypted connection to both the uplink AP and the downlink client device.

The following describes how to configure WPS for the Repeater mode.

- **Using the WPS Button**

- **WPS connection to the uplink AP**

  In the Repeater mode with WDS disabled, press the **WPS** button on the side panel of WNAP-1260 in 3 seconds and release it. And press the **WPS** button on the uplink AP. Then they can start WPS session.

- **WPS connection to the downlink client device**

  In the Repeater mode with WDS disabled, press the **WPS** button on the side panel of WNAP-1260 for 3-10 seconds and release it. And press the **WPS** button on the client device. Then they can start WPS session.

Note

The SSID, authentication and pre-shared key for WNAP-1260 will automatically change to the same as those of its uplink AP after WNAP-1260 succeeds in connecting to the uplink AP through the WPS button mode.

- **Using the Web Page**

You can perform WPS settings using the Web page for configuration.

Choose **Wireless Settings** > **WPS Setup** to display the **WPS Setup** page.

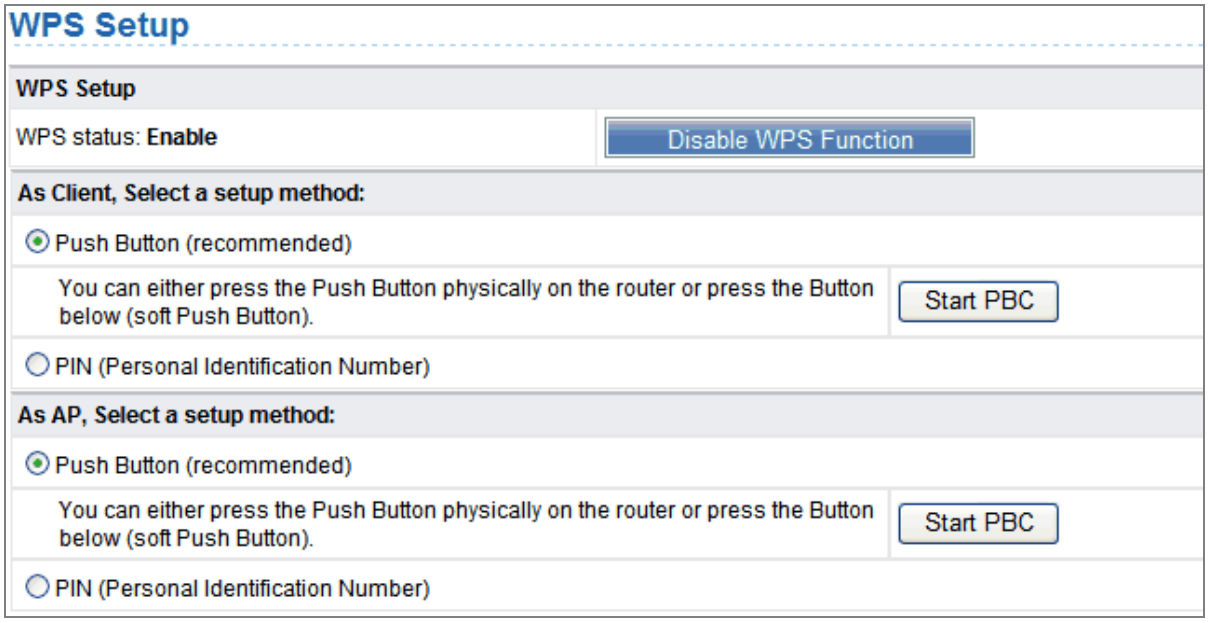


Figure 6-9

– As an AP

You can perform WPS settings using the Web page for configuration.

Choose **Wireless Settings** > **WPS Setup** to display the WPS page.

- **PBC mode**

Step 1 Select **Push Button** and click **Start PBC**. WPS encrypted connection starts.

Step 2 Press the **WPS** button on the network adapter or click the **PBC** button in the network adapter configuration tool within 2 minutes to start WPS connection. After WPS connection is established, the following page is displayed, indicating that the WPS connection is completed.

- **PIN mode**

Step 1 Select **PIN**, enter the PIN code of the network adapter (refer to the client of the network adapter), and click **Start PIN** to start WPS connection.

Step 2 Click the PIN button on the network adapter within 2 minutes to start WPS connection. After WPS connection is established, the following page is displayed, indicating that the WPS connection is completed.

– As a client

You can perform WPS settings using the Web page for configuration.

Choose **Wireless Settings** > **WPS** to display the WPS page.

- **PBC mode**

Step 1 Select Push Button and click Start PBC. WPS encrypted connection starts.

Step 2 Start the WPS PBC process. After WPS connection is established, the following page is displayed, indicating that the WPS connection is completed.

- **PIN mode**

Step 1 Select **PIN**, click **Generate New PIN**, and click **Start PIN** to start WPS connection.

Step 2 Start the WPS PBC process within 2 minutes to start WPS connection. After WPS connection is established, the following page is displayed, indicating that the WPS connection is completed.

6.5.3. Wireless Client Function

Choose **Wireless Settings** > **Wireless Client Function** and the **Wireless Client Function** page is displayed.

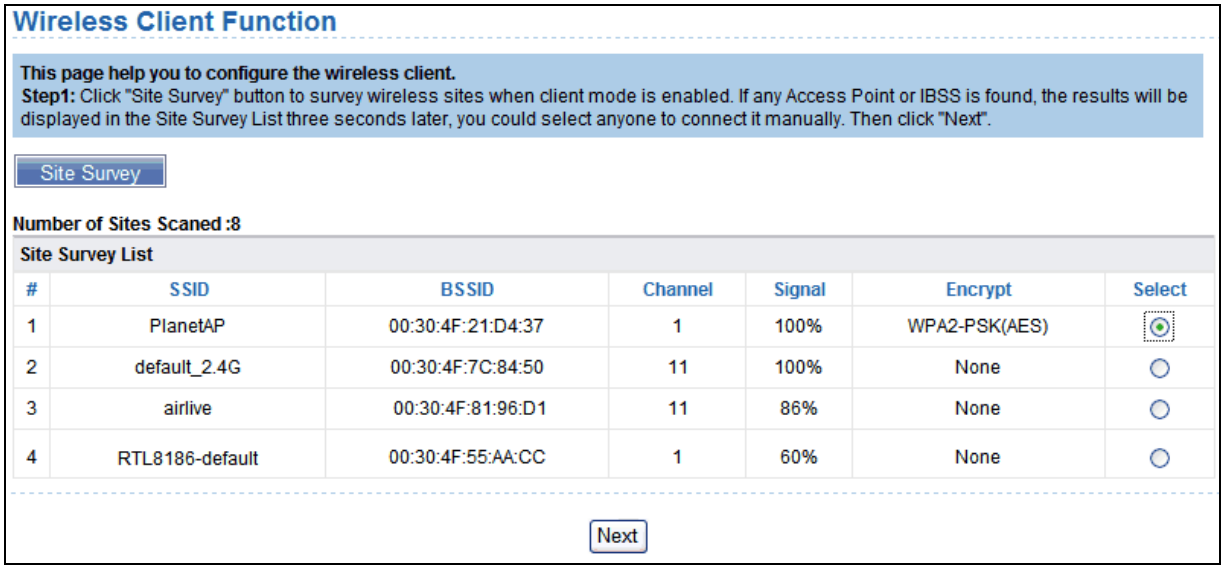


Figure 6-10

Step 1 Click **Site Survey** to search for the wireless network you want to connect.

Step 2 Enter encryption information of the selected wireless network.

Step 3 Configure the client with the same security settings as the selected network. Click Next.

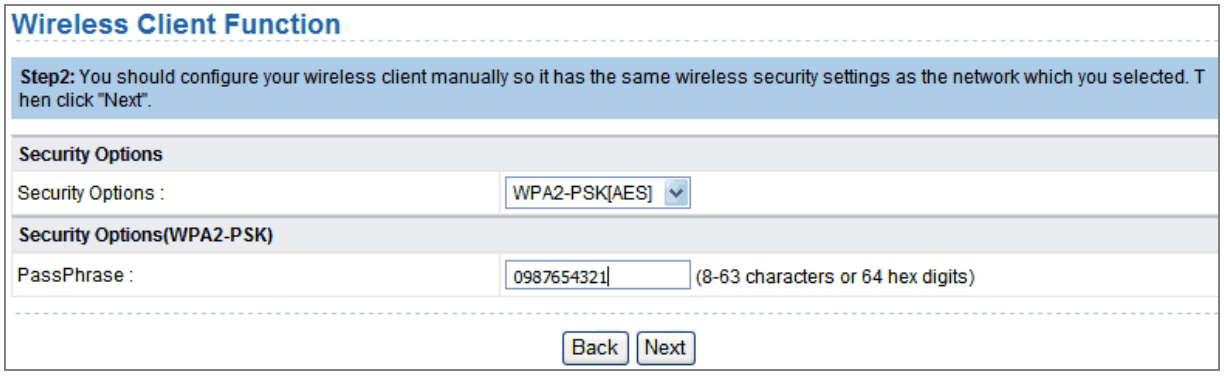


Figure 6-11

Step 4 WNAP-1260 provides the wireless roaming function if you select **Synchronize Wireless Universal Repeater's And Uplink AP's SSID And Security Options**. Click **Finish**. Then, the client can communicate with the selected network.

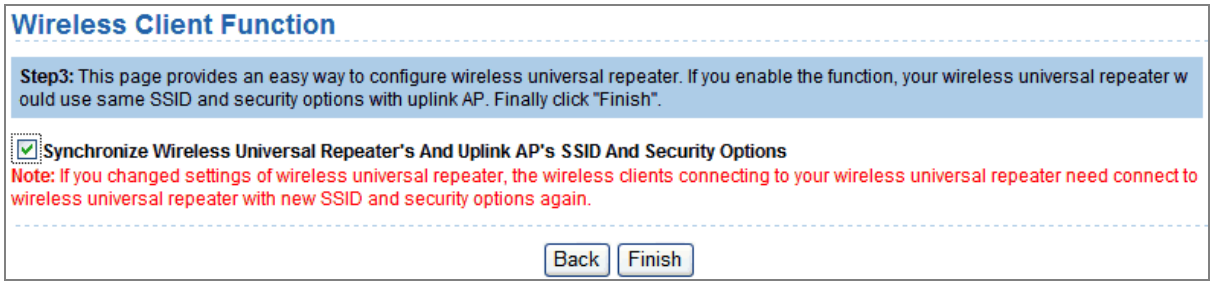
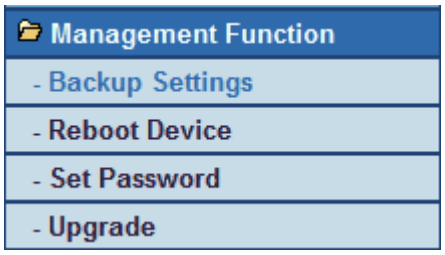


Figure 6-12

6.6. Management Function

Click **Management Function** and the extended navigation menu is shown as follows.



Click a submenu to perform specific parameter configurations.

6.6.1. Backup Settings

Choose **Management Function** > **Backup Settings** and the **Backup Settings** page is displayed.

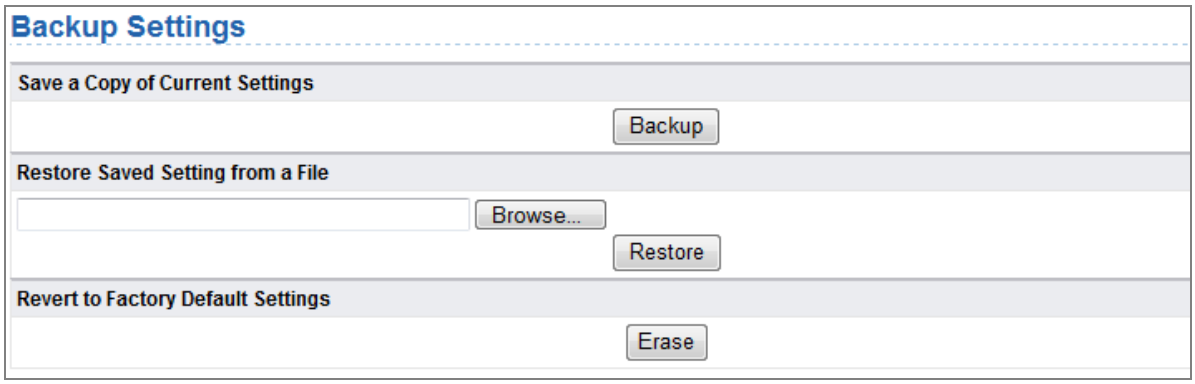


Figure 6-13

In this page, you can export configuration information of the router to the computer in the form of XML for later use, import a previously saved or a new configuration file, and restore the factory default settings of the router.

- **Backup**
  Click Backup and save configuration information of the router as a local file.

Note: Before saving your configuration file, change the administrator password to the default (admin) in case you forget your password. Then change it again after you have saved the configuration file. If you forget the password, you will need to reset the configuration to factory defaults.

- **Restore**

  The Backup and Restore options in the Backup Settings page let you save and retrieve a file containing your router's configuration settings.

  Click Browse… to select the configuration file restored in your computer and click Restore to load the file to the router.

- **Erase**

  Under some circumstances (for example, if you move the router to a different network or if you have forgotten the password) you might want to erase the configuration and restore the factory default settings.

  Click Erase to restore the factory default settings of the router. This operation has the same effect as pressing the Reset button on the side panel for 3-6 seconds.

6.6.2. Reboot Device

Choose **Management Function** > **Reboot Device** and the **Reboot Device** page is displayed.

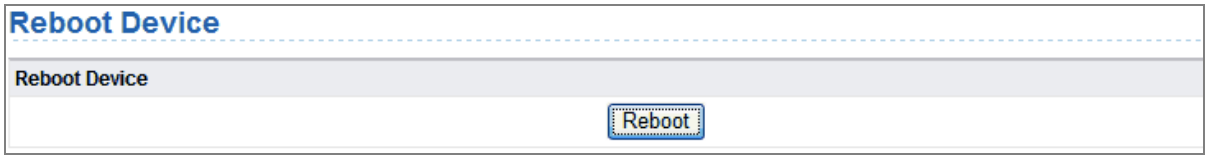


Figure 6-14

Click **Reboot** to reboot the router. After the router is rebooted, the system jumps to the login page.

6.6.3. Set Password

Choose **Management Function** > **Set Password** and the **Set Password** page is displayed.

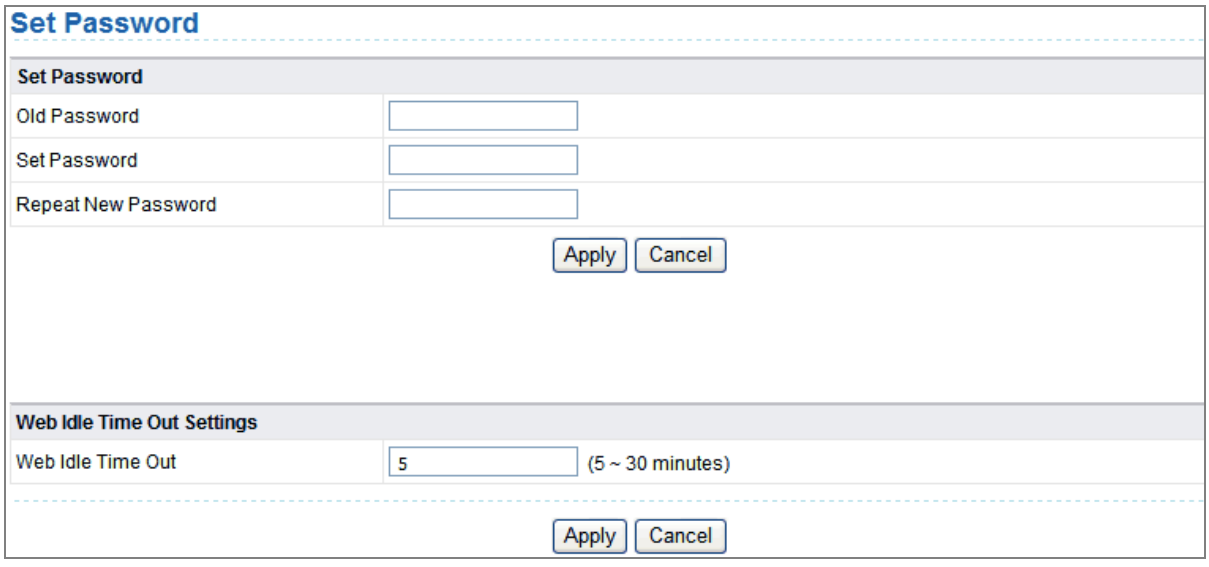


Figure 6-15

In this page, you can change the password of the administrator and set the page timeout time.

For security, it is strongly recommended to change the default password of the administrator. If you forget the password, you can restore the router to the default settings. The default password is admin.

6.6.4. Upgrade

Choose **Management Function** > **Upgrade** and the **Upgrade** page is displayed.

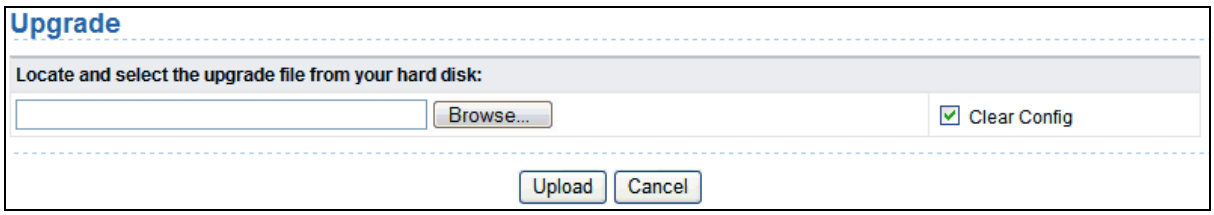


Figure 6-16

Upgrade the software of the router in the following steps:

Step 1 Click **Browse…** to navigate to the latest software.

Step 2 Select the correct upgrade file. If you select **Clear Config**, the router restores to the default settings after upgrade. If you do not select it, the current settings remain.

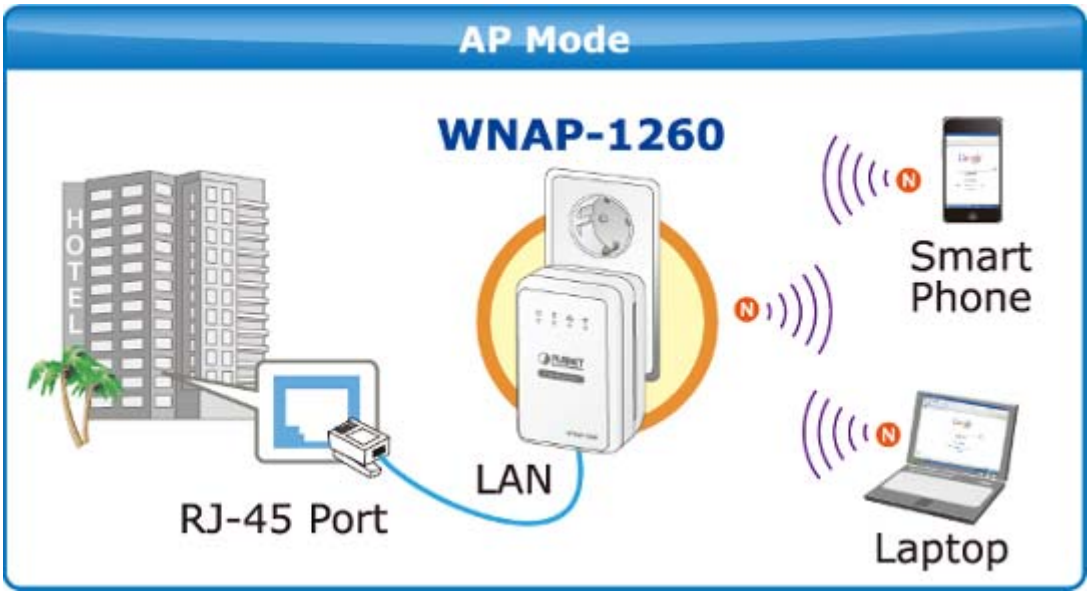
Step 3 Click **Upload** to start upgrade.

After the upgrade is completed, the router automatically reboots.

After the software upgrade, WNAP-1260 returns to the factory default settings. In case of losing the previous configuration information, please save settings before updating the software. Do not power off the device during upgrade.

Chapter 7. Web Configuration for the Bridge Mode

7.1. Bridge / AP Mode Topology



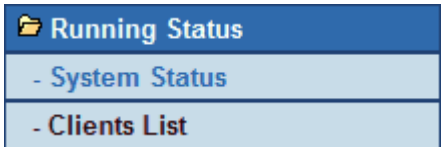
7.2. Hardware Setting

Set the three-way switch on the side panel to **AP** after WNAP-1260 is powered on.

7.3. Running Status

Log in to the configuration page after the system is started.

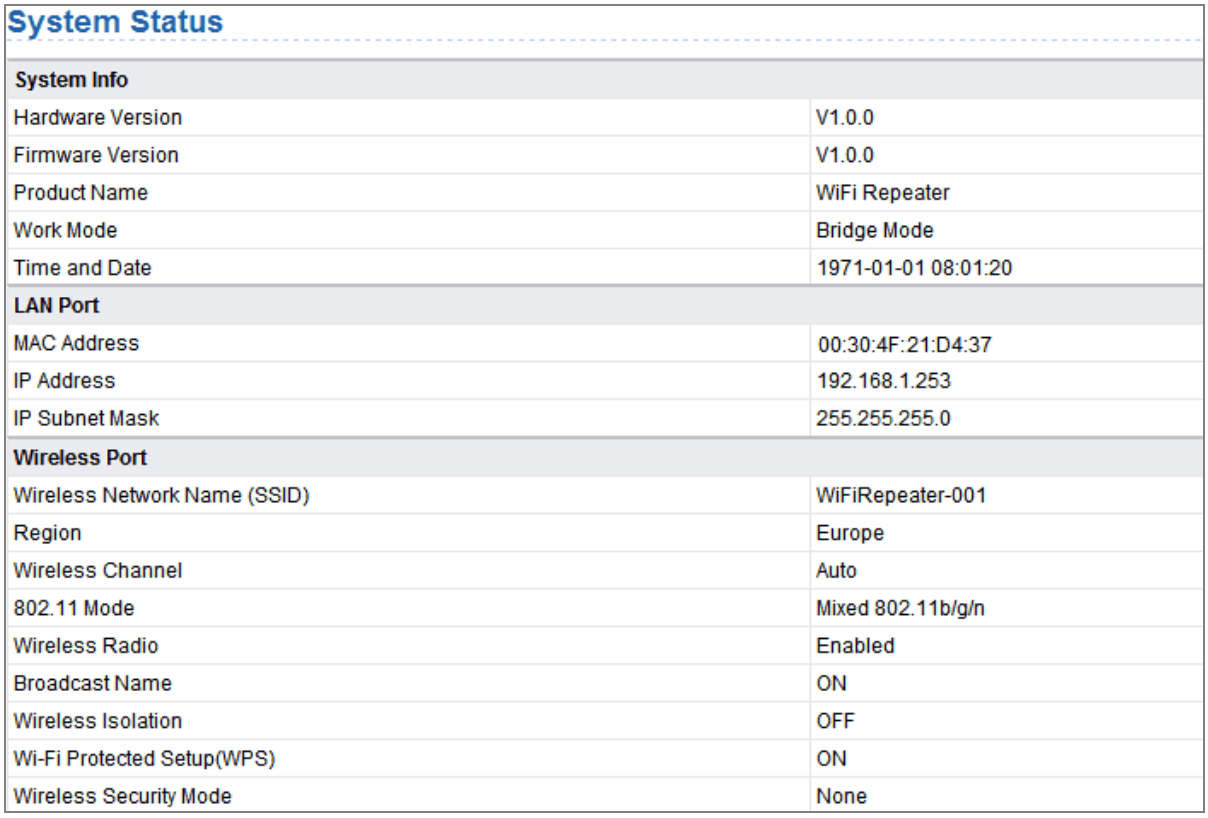
Click **Running Status** and the extended navigation menu is shown as follows:



Click the submenu to enter a specific configuration page.

7.3.1. System Status

Choose **Running Status** > **System Status** and the **System Status** page is displayed.



System Status

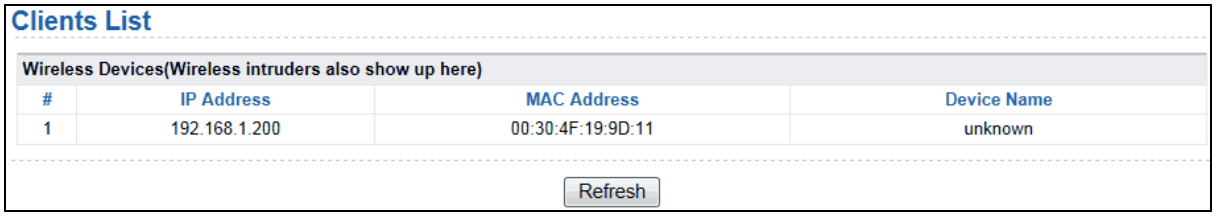
System Info	
Hardware Version	V1.0.0
Firmware Version	V1.0.0
Product Name	WiFi Repeater
Work Mode	Bridge Mode
Time and Date	1971-01-01 08:01:20
LAN Port	
MAC Address	00:30:4F:21:D4:37
IP Address	192.168.1.253
IP Subnet Mask	255.255.255.0
Wireless Port	
Wireless Network Name (SSID)	WiFiRepeater-001
Region	Europe
Wireless Channel	Auto
802.11 Mode	Mixed 802.11b/g/n
Wireless Radio	Enabled
Broadcast Name	ON
Wireless Isolation	OFF
Wi-Fi Protected Setup(WPS)	ON
Wireless Security Mode	None

Figure 7-1

In this page, you can view information about the current running status of WNAP-1260, including system information, LAN port status, and wireless network status.

7.3.2. Clients List

Choose **Running Status** > **Clients List** and the **Clients List** page is displayed.



Clients List

Wireless Devices(Wireless intruders also show up here)

#	IP Address	MAC Address	Device Name
1	192.168.1.200	00:30:4F:19:9D:11	unknown

Refresh

Figure 7-2

This page displays information of computers connected to the router, including the IP adress, and MAC address of each computer.

7.4. Setup Wizard

For settings, refer to section 5.3. "**Bridge Mode Configuration**".

7.5. Mode Setting

Click **Mode Settings** and the **Mode Settings** page is displayed.

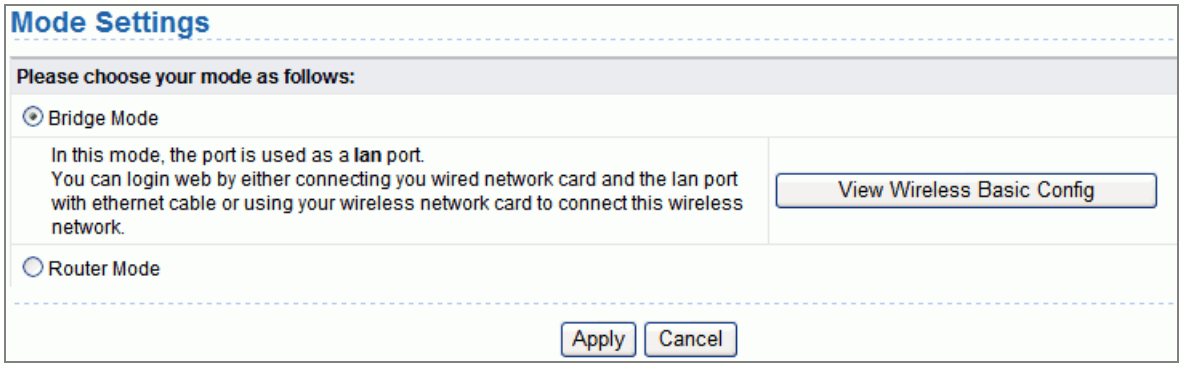
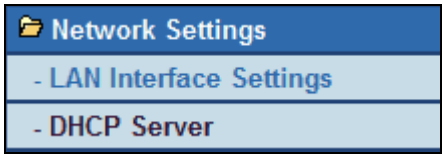


Figure 7-3

- **Bridge Mode**: The interface on its case is an LAN interface. Users can connect WNAP-1260 and the PC using an RJ45 cable or a wireless network card.
- **Router Mode**: Computers can connect to WNAP-1260 in a wireless way only.

7.6. Network Settings

Click **LAN Interface Settings** and the extended navigation menu is shown as follows:



Click a submenu to perform specific parameter configurations.

7.6.1. LAN Interface Settings

Choose **Network Settings** > **LAN Interface Settings** and the **LAN Interface Settings** page is displayed.

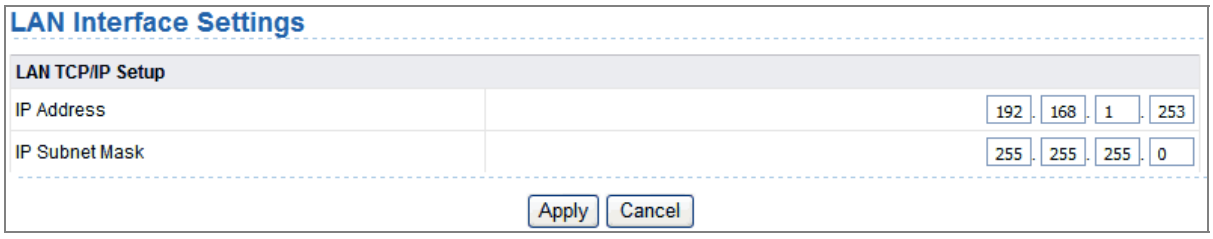


Figure 7-4

You can modify the IP address and IP subnet mask of the LAN port as required.

Note

- If you change the default IP address, you must use the new IP address to log in to the Web configuration page of the router and the default gateway of all hosts in the LAN must be set to the new IP address for internet access.
- The subnet mask of all hosts in the LAN must be the same as the subnet mask specified in the LAN Interface Settings page.

7.6.2. DHCP Server

Choose **Network Settings** > **DHCP Server** and the **DHCP Server** page is displayed.

DHCP refers to Dynamic Host Configuration Protocol. If **Use Device as DHCP Service** is selected, WNAP-1260 automatically assigns IP addresses to comupters in the LAN. Users do not need to configure TCP/IP protocol paramters such as the IP address, the subnet mask, the gateway, and the DNS server information for computers connected to the router's LAN.

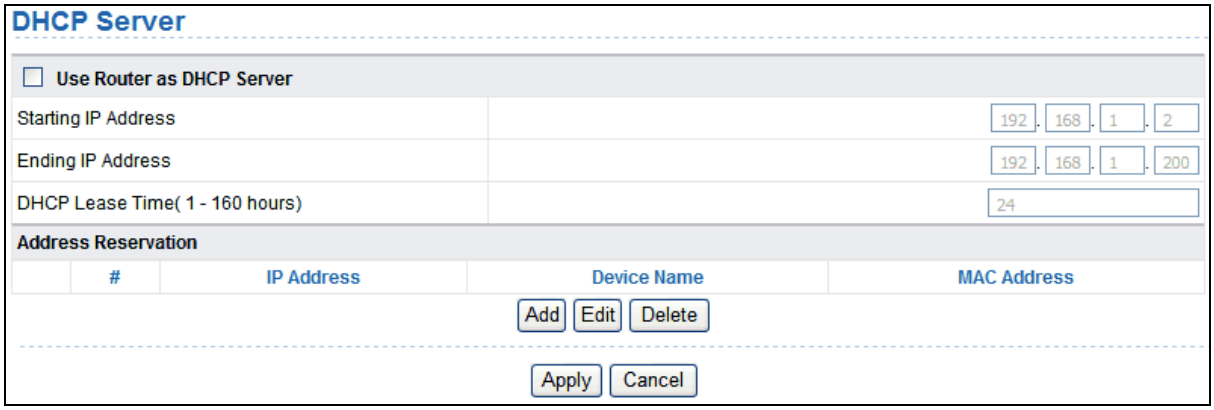


Figure 7-5

Using the Router as a DHCP Server

- **Use Router as DHCP Server**: If you select the **Use Router as DHCP Server** check box, WNAP-1260 serves as a DHCP server to automatically assign IP addresses to computers connected to it.
- **Starting IP Address**/**Ending IP Address**: Set the starting and ending IP addresses to specify a pool of IP addresses to be assigned by the DHCP server. After you set **Starting IP Address**/**Ending IP Address**, hosts in the LAN obtain IP addresses that are in the range of the starting and ending IP addresses.
- **DHCP Lease Time**: The valid time for an IP address that is automatically assigned by the DHCP server to a host. The DHCP server does not assign the IP address to other hosts within the specified time.

Using Address Reservation

When you specify a reserved IP address for a computer in the LAN, the computer always receives the same IP address each time it accesses the router's DHCP server. Reserved IP addresses should be assigned to computers or servers that require permanent IP settings.

To reserve an IP address:

Step 1 Click **Add** to enter the **Address Reservation** page.

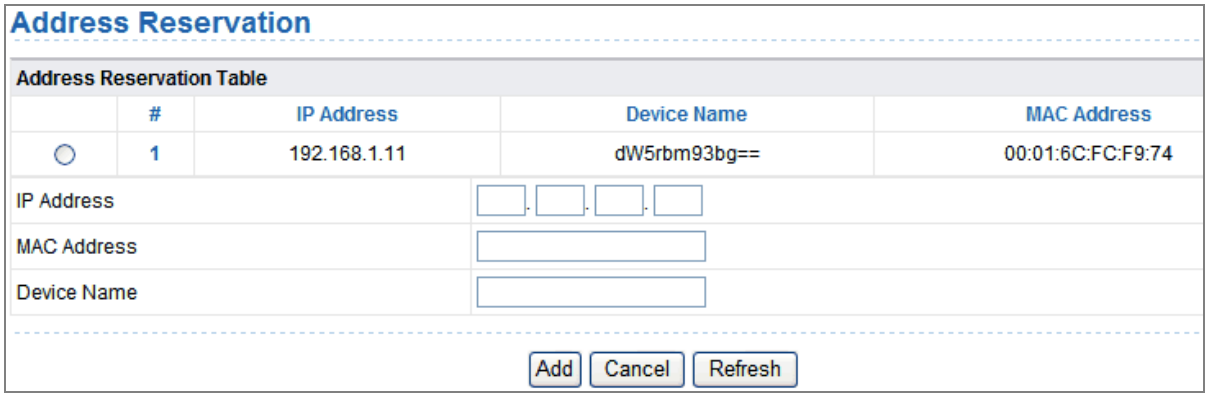


Figure 7-6

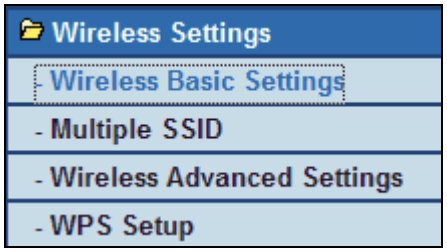
Step 2 Select one item from **Address Reservation Table**, or enter the IP address in the **IP Address** field to assign to the computer or server (Choose an IP address from the IP address pool that you have specified, for example 192.168.1.x). Enter the MAC address and device name of the computer or server.

Step 3 Click **Add** to add a new item into **Address Reservation**.

Step 4 Click **Apply** to save the settings.

7.7. Wireless Settings

Click **Wireless Settings** and the extended navigation menu is shown as follows:



Click a submenu to perform specific parameter configurations.

7.7.1. Wireless Basic Settings

Choose **Wireless Settings** > **Wireless Basic Settings** and the **Wireless Basic Settings** page is displayed.

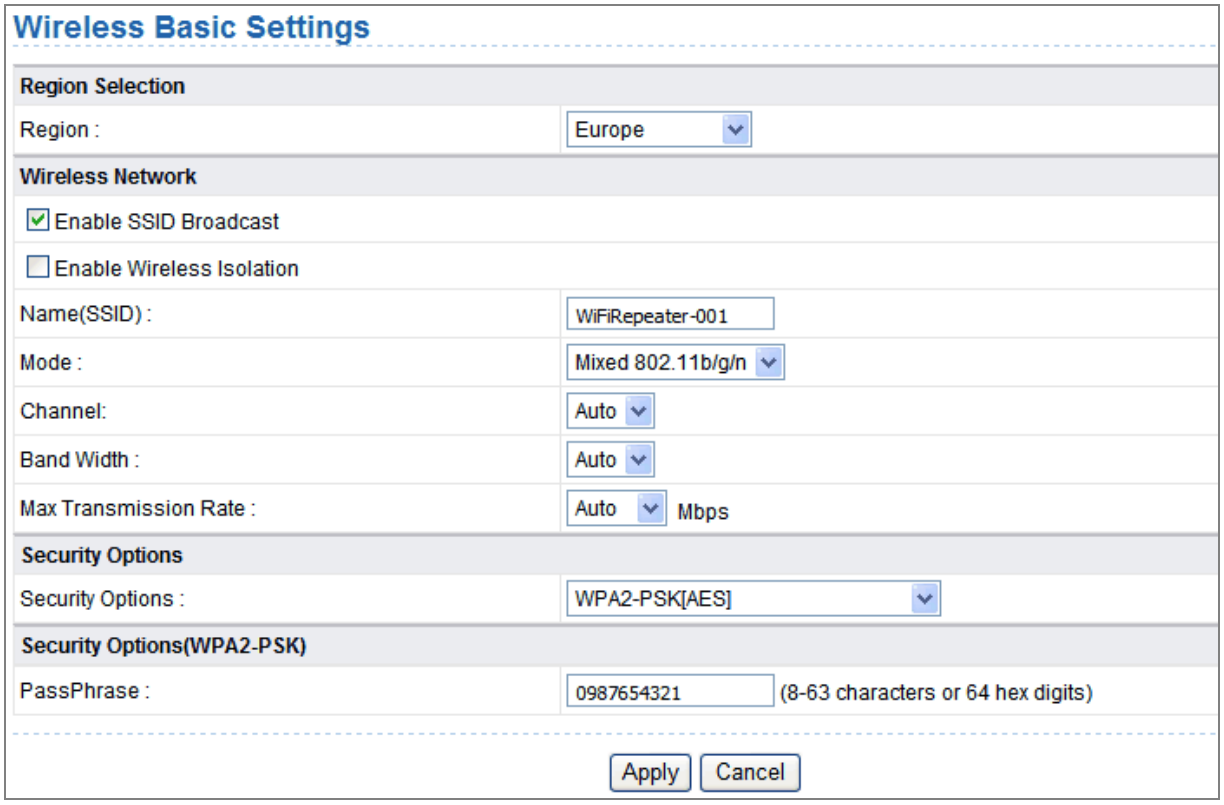


Figure 7-7

Object	Description
• **Region**:	Select the region where you are located.
• **Enable SSID Broadcast**:	If enabled, the router broadcasts its SSID in the wireless network. Wireless clients can scan the SSID and access the wireless network under the SSID.
• **Enable Wireless Isolation:**	If selected, wireless clients connected to the network of the same SSID can access the Internet only, but cannot communicate with each other.
• **Name (SSID)**:	Set the name for the wireless network. The SSID can contain up to 32 characters and can be letters, numerals, underlines, and any combinations of them. The SSID is case-sensitive
• **Mode**:	Select the wireless mode. Mixed 802.11b/g/n is recommended.
• **Channel**:	The channel for transmitting wireless signals. When you select Auto, WNAP-1260 automatically selects the best channel from the available channels according to actual situations. The default channel is **Auto**.
• **Band Width**:	The bandwidth occupied for wireless signal transmission.
• **Max Transmission Rate**:	The maximum transmission rate of WNAP-1260.
• **Security Options**:	Set the security encryption of the wireless network, to prevent unauthorized access and listening.

Security Options

- **None**

Data encryption is not adopted and the network is not secure. Any stations can access the network. This option is not recommended.

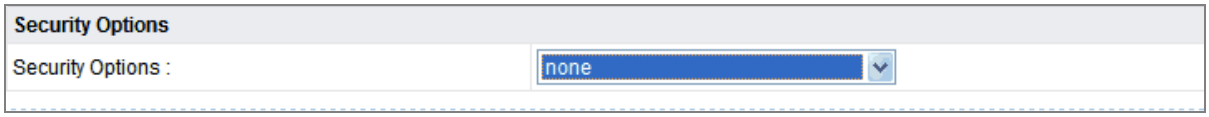


Figure 7-8

– **WEP**

Wired **E**quivalent **P**rivacy. You can use WEP 64- or 128-bit encryption.

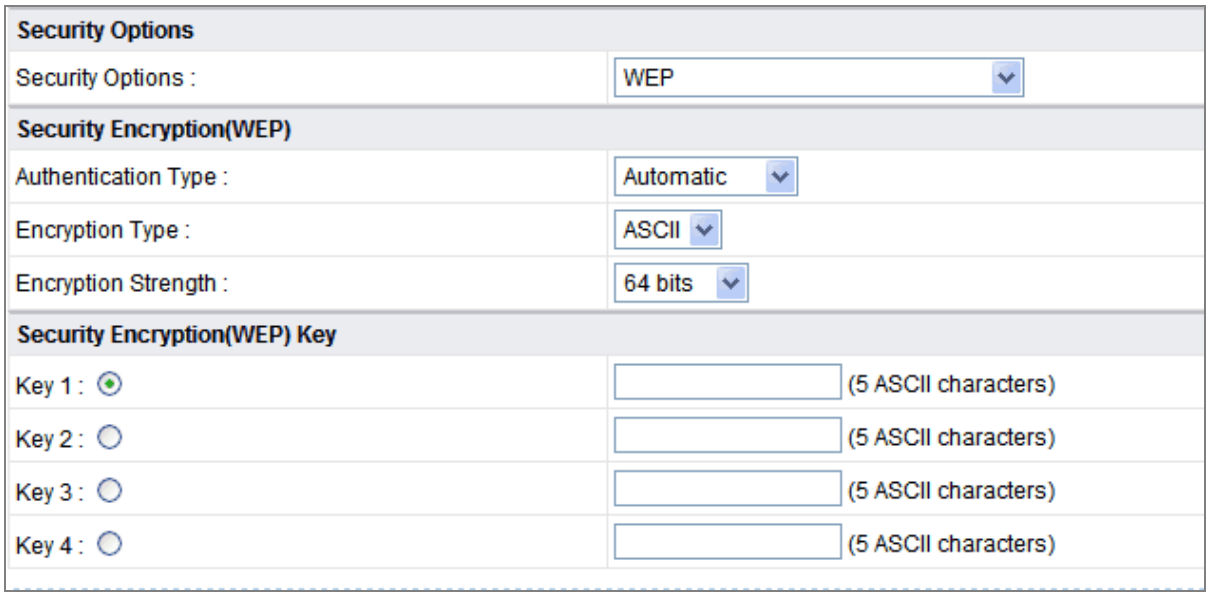


Figure 7-9

Object	Description
• **Authentication Type**:	Select the authentication type that the system adopts. Three authentication types are available: Automatic, Open, and Shared keys. ■ **Automatic**: If selected, the router uses an authentication type of **Open** or **Shared keys** according to the request of the host. ■ **Open**: If selected, hosts in the wireless network can pass the authentication and connect to the wireless network without using a password. However, the password is required if you want to transmit data. ■ **Shared keys**: If selected, hosts in the wireless network can pass authentication only when the correct password is entered. Otherwise, the hosts cannot connect to the wireless network.
• **Encryption Type**:	The type of the key to be set. Hexadecimal and ASCII code are available. ■ **Hex**: Valid characters for keys contain 0–9 and A–F. ■ **ASCII**: Valid characters for keys contain all characters of the key board.

• **Encryption Strength**:	The encryption strength determines the length of the key. ■ If **Encryption Strength** is set to **64 bits**, set the key to 10 hexadecimal digits or 5 ASCII characters. ■ If **Encryption Strength** is set to **128 bits**, set the key to 26 hexadecimal digits or 13 ASCII characters.
• **Key 1/2/3/4**:	Set the key based on the selected encryption type and encryption strength.

– **WPA-PSK[TKIP] or WPA2-PSK[TKIP]**

- **WPA-PSK**: Preshared key Wi-Fi protection access
- **WPA2-PSK**: Preshared key Wi-Fi protection access version 2
- **TKIP**: Temporal Key Integrity Protocol

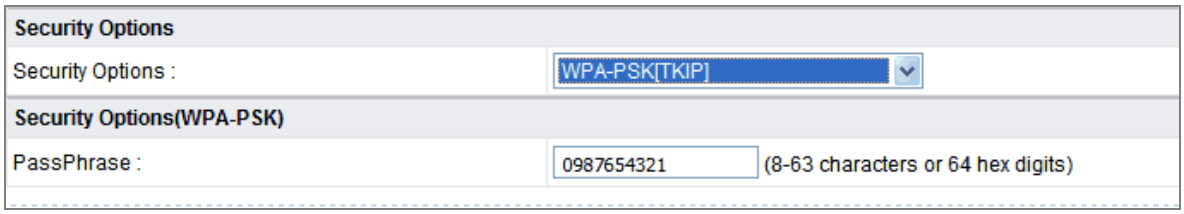


Figure 7-10

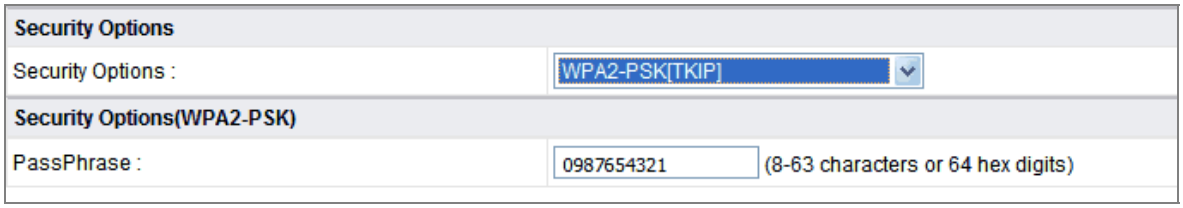


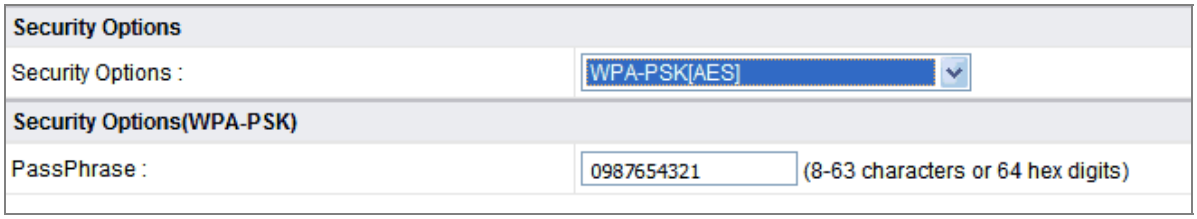
Figure 7-11

- **PassPhrase:** Enter 8-63 ASCII characters or 64 hexadecimal digits.

Note: The 802.11n mode does not support the TKIP algorithm.

– **WPA-PSK[AES] or WPA2-PSK[AES]**

- **WPA-PSK**: Preshared key Wi-Fi protection access.
- **WPA2-PSK**: Preshared key Wi-Fi protection access version 2.
- **AES:** Advanced Encryption Standard



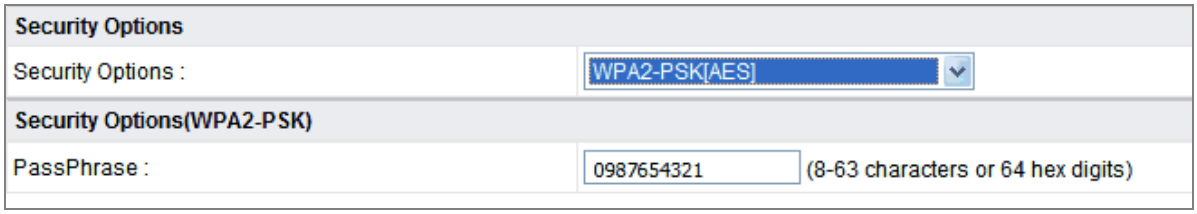


Figure 7-12

- **PassPhrase:** Enter 8-63 ASCII characters or 64 hexadecimal digits.

– **WPA-PSK/WPA2-PSK+[TKIP]/[AES]**

It allows the client to use either WPA-PSK[TKIP]/[AES] or WPA2-PSK[TKIP]/[AES].

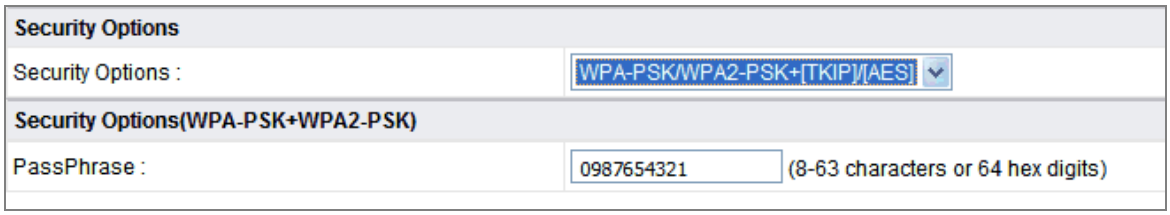


Figure 7-13

- **PassPhrase:** Enter 8-63 ASCII characters or 64 hexadecimal digits.

Note

– After you complete configuring wireless settings for WNAP-1260, only hosts that have the same wireless settings (for example, the SSID) as WNAP-1260 can connect to it.

– If you configure security settings for WNAP-1260, hosts must have the same security settings (for example, the password) as WNAP-1260 in order to connect to WNAP-1260.

7.7.2. Multiple SSID

If you do not want visitors to know your wireless security key, you can use the Multiple SSID to allow them to use your Internet without knowing your wireless connection password.

Choose **Wireless Settings** > **Multiple SSID** and the **Multiple SSID** page is displayed.

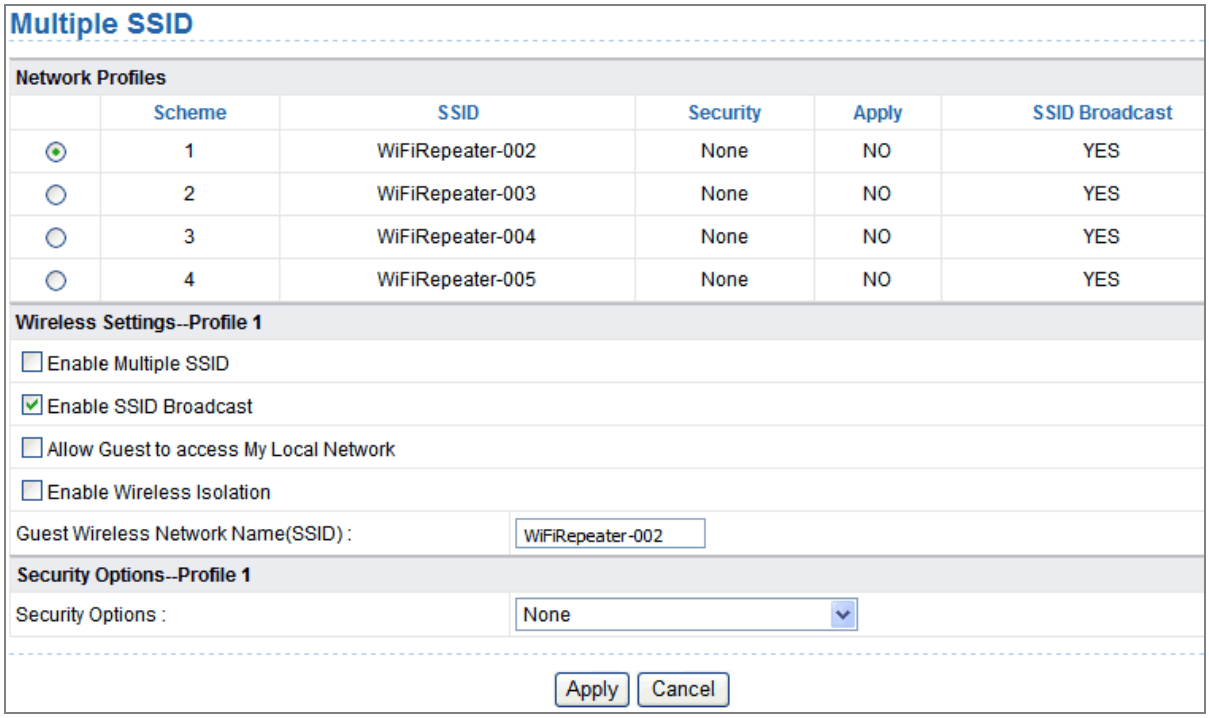


Figure 7-14

Object	Description
• **Network Profiles**:	Brief description of the created Multiple SSID. You can create up to four Multiple SSIDs. A network profile contains the SSID and encryption mode, whether to use the Multiple SSID, and whether to broadcast SSID. You can click the radio button of a profile to view detailed information or modify settings.
• **Enable Multiple SSID**:	If enabled, both you and visitors can connect to the network by using the SSID of the Multiple SSID.
• **Enable SSID Broadcast**:	If enabled, WNAP-1260 broadcasts its SSID to all wireless stations.
• **Allow Guest to access My Local Network**:	If enabled, visitors using the SSID of a guest network can access not only the Internet but also the LAN of WNAP-1260, like users using the primary SSID of the network. If disabled, visitors using the SSID of a guest network cannot access the LAN of WNAP-1260.
• **Enable Wireless Isolation**:	If selected, wireless clients connected to the guest network of the same SSID can access the Internet only, but cannot communicate with each other.
• **Guest Wireless Network Name (SSID)**:	Set the name of the Multiple SSID.
• **Security Options**:	Refer to security option descriptions in section "**Wireless Basic Settings**".

After finishing settings, click **Apply** to save the settings.

7.7.3. Wireless Advanced Settings

Choose **Wireless Settings** > **Wireless Advanced Settings** and the **Wireless Advanced Settings** page is displayed.

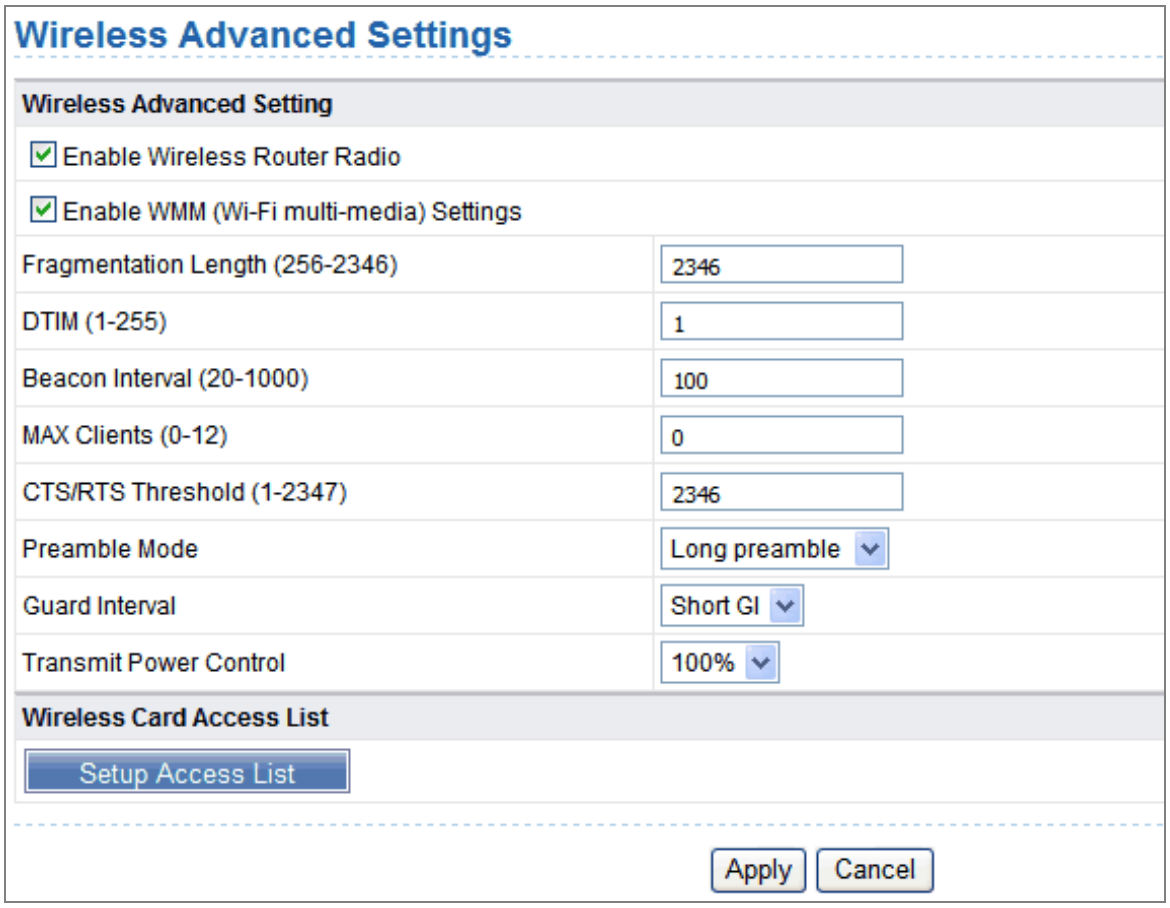


Figure 7-15

Object	Description
• **Enable Wireless Router Radio**:	If you disable the wireless router radio, wireless devices cannot connect to the WNAP-1260 router. If you do not use your wireless network for a period of time, you can clear this check box and disable all wireless connectivity
• **Enable WMM (Wi-Fi multi-media) Settings**:	**WMM** function can guarantee the packets with high- priority messages being transmitted preferentially. It is strongly recommended enabled
• **Fragmentation Length (256-2346)**:	Set the threshold of fragmentation length. If the length of a packet exceeds the set value, the packet is automatically fragmented into several packets. The value of **Fragmentation Length** cannot be too small because excessive packets reduce wireless network performance. The default value is 2346.
• **DTIM (1-255)**:	Set the interval for sending DTIM frames
• **Beacon Interval (20-1000)**:	The beacon interval is the frequency of sending Beacon frames. Set the interval for sending Beacon frames. The unit is millisecond (ms). The default value is 100 ms
• **MAX Clients (0-12)**:	Set the maximum number of clients. 0 indicates the number of connected clients is not limited
• **CTS/RTS Threshold (1-2347)**:	Set the CTS/RTS threshold. If the length of a packet is greater than

	the specified RTS value, WNAP-1260 sends an RTS frame to the destination station to negotiate. After receiving an RTS frame, the wireless station responds with a Clear to Send (CTS) frame to WNAP-1260, notifying that they can communicate with each other
• **Preamble Mode**:	A preamble (especially the **802.11b High Rate/DSSS PHY** field; 56 digits synchronized field for short preamble) defines the length of the CRC correction block for communication between wireless devices. Short preamble should be applied in a network with intense traffics. It helps improve the efficiency of a wireless network responding to applications that have high requirement of real-time, such as streaming video and voice-over-IP telephony.
• **Guard Interval**:	**Short GI**: The interval is 400 ns. When short GI is enabled, WNAP-1260 can receive and send short-frame-interval packets. This helps improve the transmission rate of WNAP-1260. **Long GI**: The interval is 800 ns.
• **Transmit Power Control**:	Set the transmit power of the wireless network. It is recommended to use the default setting of **100%**.

Restricting wireless access by MAC address

When a wireless card access list is configured and enabled, the router checks the MAC address of any wireless device attempting a connection and allows only connections to computers identified on the trusted computer list.

The MAC address is a network device's unique 12-character physical address, containing the hexadecimal characters 0–9, a–f, or A–F only. The MAC address is in the format of XX:XX:XX:XX:XX:XX.

To restrict wireless access by MAC address:

Step 1 Click Setup Access List button in the Wireless Advanced Settings page to display the **Wireless Card Access List** page.

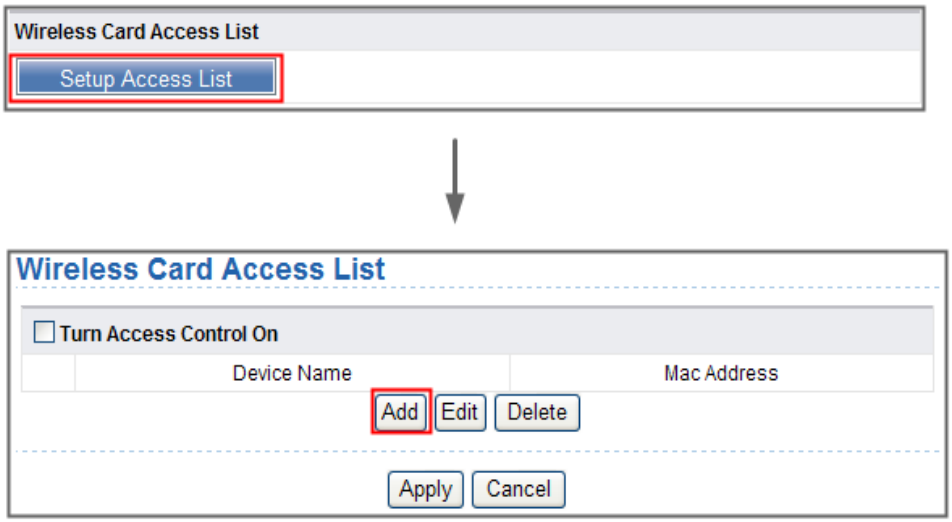


Figure 7-16

Step 2 Click **Add** to add a wireless device to the wireless access control list. The Wireless Card Access Setup page is displayed.

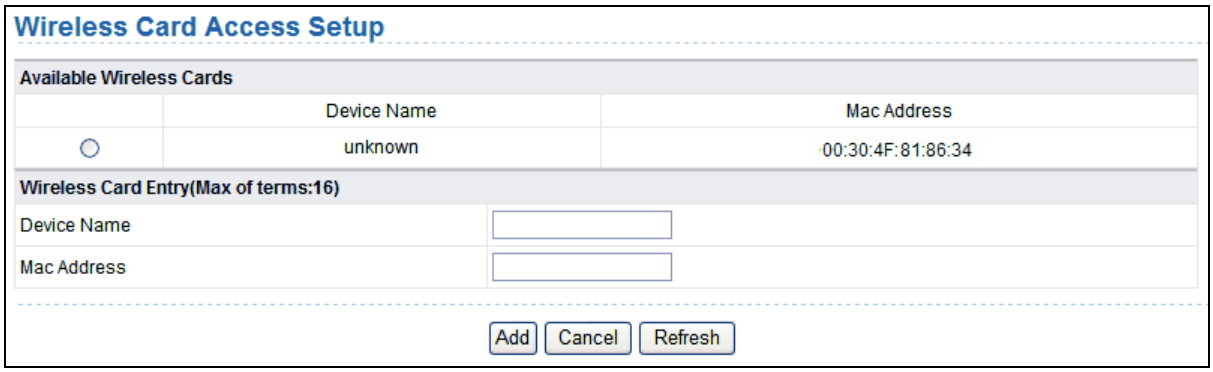


Figure 7-17

Step 3 If the computer you want appears in the **Available Wireless Cards** list, you can select the radio button of that computer to obtain its MAC address. Otherwise, you can manually enter a name and MAC address of the computer to be authorized. Generally, the MAC address is labeled on the bottom of the wireless device.

Step 4 Click **Add** to add this wireless device to the wireless card access list. The page jumps to the list page.

Step 5 Select Turn Access Control On. If selected, you can restrict PCs' access to the wireless network, only allowing specified PCs to access your network according to their MAC addresses.

Step 6 Click **Apply** to save your Wireless Card Access List settings.

Now, only devices on this list can wirelessly connect to the WNAP-1260 router.

7.7.4. WPS Setup

WPS refers to **Wi-Fi Protected Setup**.

You can use WPS to establish wireless connection in a quick and secure way if the uplink AP or terminal (for example, the network adapter) has the WPS function. It is suggested to first configure wireless encryption for the uplink AP. If you change the wireless encryption mode after having establishing wireless connection using WPS, you must use WPS to establish wireless connection again. Note that if the wireless client does not support WPS you must manually configure the wireless client (such as SSID, security mode, and password) to make it have the same SSID and wireless security settings as the router.

The following describes how to configure WPS for the AP mode.

- **Using the WPS Button**

In the AP mode with WDS disabled, press the **WPS** button on the side panel of WNAP-1260 and the **WPS** button on the client device. WNAP-1260 can perform WPS encrypted connection to the downlink client device.

Figure 7-18

■ Using the Web Page

You can perform WPS settings using the Web page for configuration.

Choose **Wireless Settings** > **WPS Setup** to display the **WPS Setup** page.

- **PBC mode**

Step 1 Select **Push Button** and click **Start PBC**. WPS encrypted connection starts.

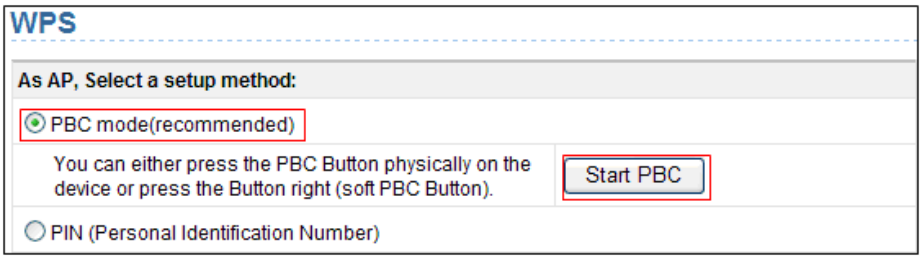


Figure 7-19

Step 2 Press the **WPS** button on the network adapter or click the **PBC** button in the network adapter configuration tool within 2 minutes to start WPS connection.

Step 3 After WPS connection is established, the following page is displayed, indicating that the WPS connection is completed.

Figure 7-20

- **PIN mode**

Step 4 Select **PIN**, enter the PIN code of the network adapter (refer to the client of the network adapter), and click **Start PIN** to start WPS connection.

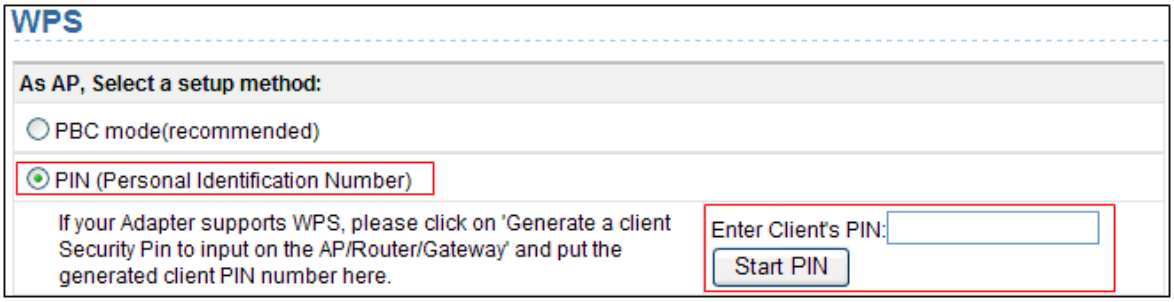


Figure 7-21

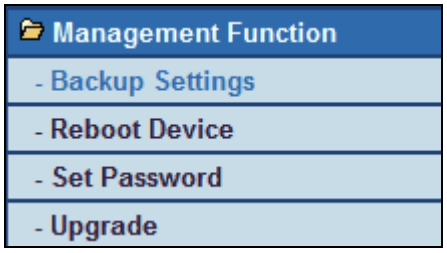
Step 5 Click the PIN button on the network adapter within 2 minutes to start WPS connection.

Step 6 After WPS connection is established, the following page is displayed, indicating that the WPS connection is completed.

Figure 7-22

7.8. Management Function

Click **Management Function** and the extended navigation menu is shown as follows.



Click a submenu to perform specific parameter configurations.

7.8.1. Backup Settings

Choose **Management Function** > **Backup Settings** and the **Backup Settings** page is displayed.

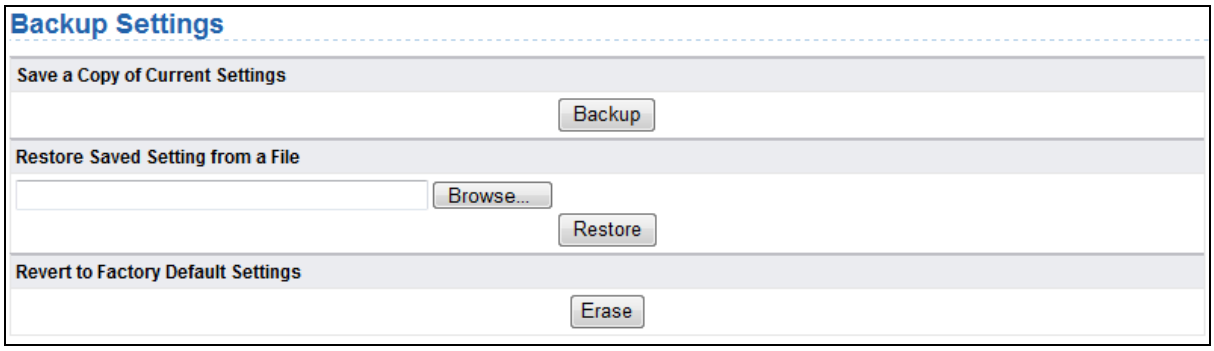


Figure 7-23

In this page, you can export configuration information of the router to the computer in the form of XML for later use, import a previously saved or a new configuration file, and restore the factory default settings of the router.

- **Backup**

Click Backup and save configuration information of the router as a local file.

Note: Before saving your configuration file, change the administrator password to the default (admin) in case you forget your password. Then change it again after you have saved the configuration file. If you forget the password, you will need to reset the configuration to factory defaults.

- **Restore**

The Backup and Restore options in the Backup Settings page let you save and retrieve a file containing your router's configuration settings.

Click Browse… to select the configuration file restored in your computer and click Restore to load the file to the router.

- **Erase**

Under some circumstances (for example, if you move the router to a different network or if you have forgotten the password) you might want to erase the configuration and restore the factory default settings.

Click Erase to restore the factory default settings of the router. This operation has the same effect as pressing the Reset button on the side panel for 3-6 seconds.

7.8.2. Reboot Device

Choose **Management Function** > **Reboot Device** and the **Reboot Device** page is displayed.

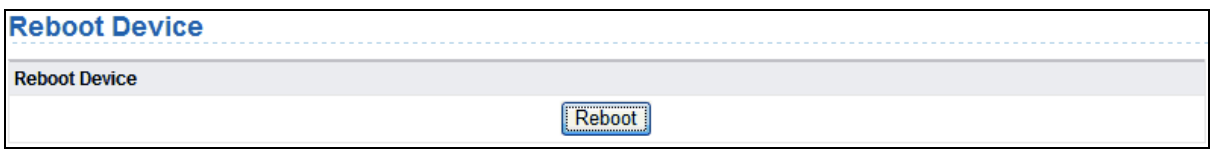


Figure 7-24

Click **Reboot** to reboot the router. After the router is rebooted, the system jumps to the login page.

7.8.3. Set Password

Choose **Management Function** > **Set Password** and the **Set Password** page is displayed.

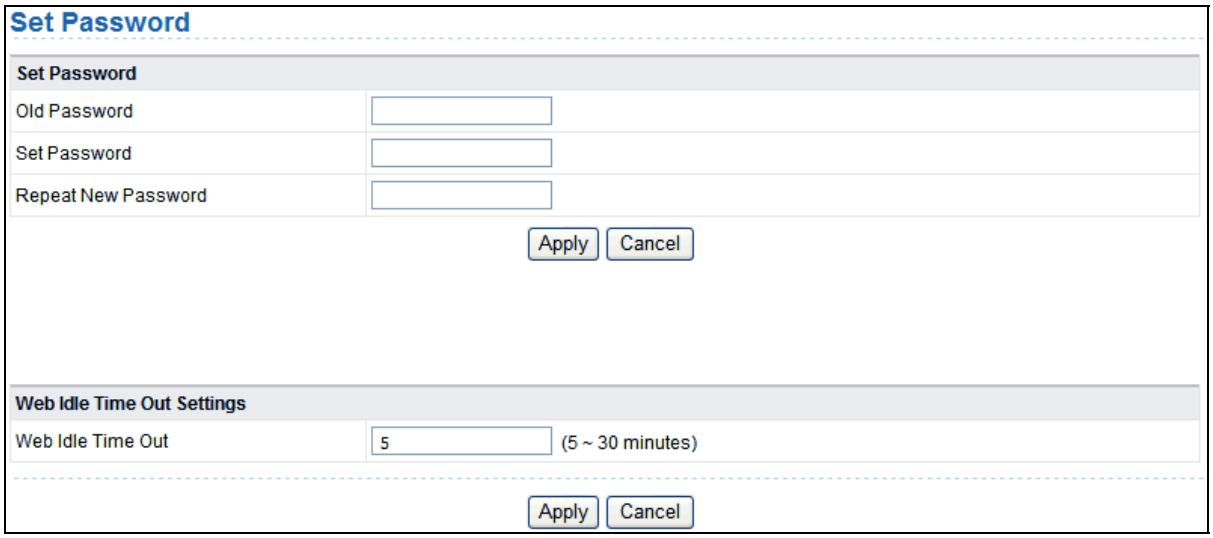


Figure 7-25

In this page, you can change the password of the administrator and set the page timeout time.

For security, it is strongly recommended to change the default password of the administrator. If you forget the password, you can restore the router to the default settings. The default password is admin.

7.8.4. Upgrade

Choose **Management Function** > **Upgrade** and the **Upgrade** page is displayed.

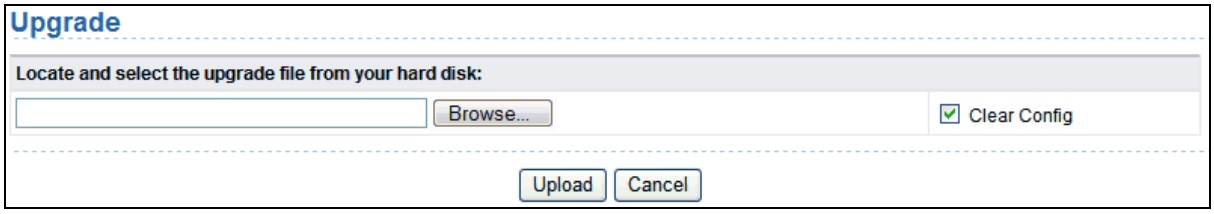


Figure 7-26

Upgrade the software of the router in the following steps:

Step 1 Click Browse… to navigate to the latest software.

Step 2 Select the correct upgrade file. If you select Clear Config, the router restores to the default settings after upgrade. If you do not select it, the current settings remain.

Step 3 Click Upload to start upgrade.

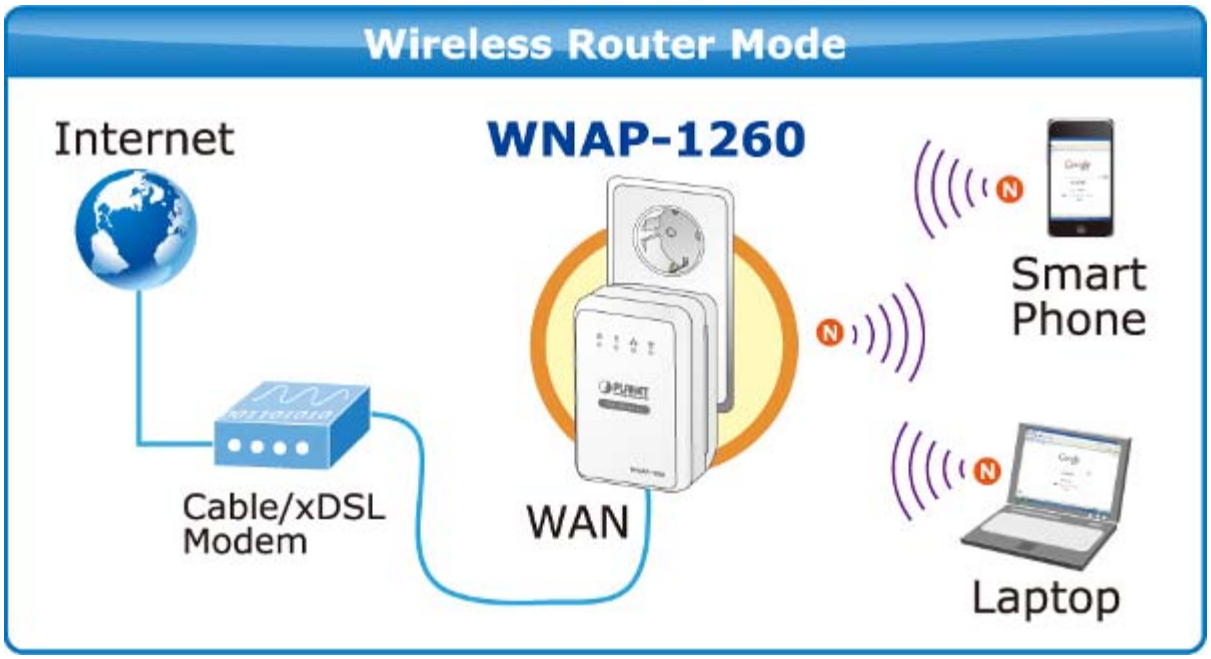
After the upgrade is completed, the router automatically reboots.

Chapter 8. Web Configuration for the Router Mode

In the Router mode, WNAP-1260 works as a domestic gateway.

8.1. Router Mode Topology

In Router Mode, the NAT (Network Address Translation) function and DHCP server are both enabled, and all wireless clients share the same public IP assigned by ISP through WAN port of the WNAP-1260. The WNAP-1260 is supposed to connect with the Cable / xDSL Modem by UTP cable.



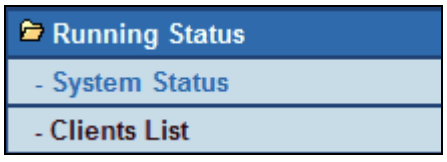
8.2. Hardware Setting

Set the three-way switch on the side panel to **AP** after WNAP-1260 is powered on.

8.3. Running Status

Log in to the configuration page after the system is started.

Click **Running Status** and the extended navigation menu is shown as follows:



Click the submenu to enter a specific configuration page.

8.3.1. System Status

Choose **Running Status** > **System Status** and the **System Status** page is displayed.

Figure 8-1

In this page, you can view information about the current running status of WNAP-1260, including system information, connection status of the Internet port, LAN port status, and wireless network status.

Click **Show Statistics** and the **Statistic Information** page as shown in the following figure is displayed:

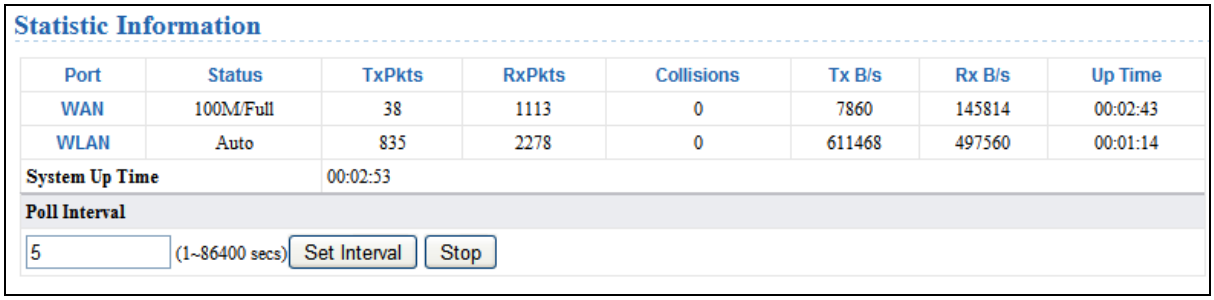


Figure 8-2

In this page, you can view performance statistics information of WNAP-1260, including the numbers of sent and received packets at each port.

- **Set Interval**: Set the interval for traffic statistics.
- **Stop**: If you click this button, this page always displays statistics information that was refreshed for the last time and it is not refreshed any more.

Click **Connection Status** in the **System Status** page, and the **Connection Status** page is displayed. This page displays current connection information of WNAP-1260.
The following takes WAN connection of **DHCP** as an example.

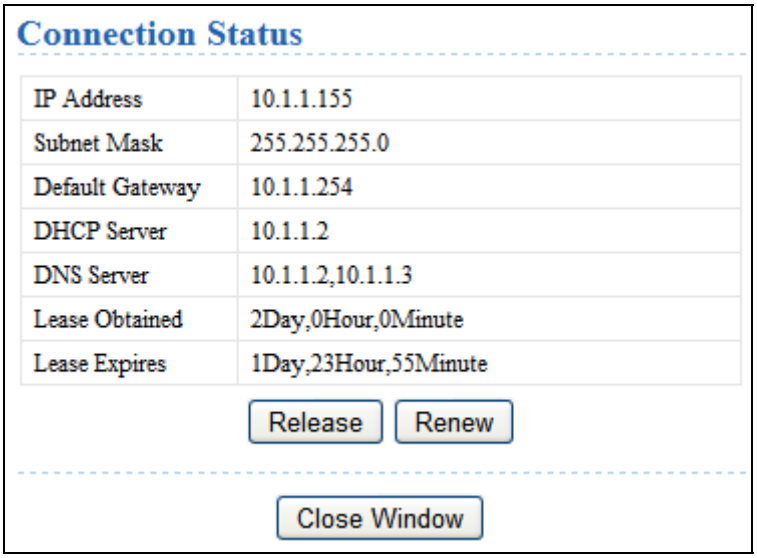


Figure 8-3

- **Release**: Click the button and WNAP-1260 sends a request to the ISP for releasing the IP address, the subnet mask, the default gateway, and DNS server settings.
- **Renew**: Click the button and WNAP-1260 dynamically obtains an IP address, a subnet mask, the default gateway, and DNS server settings from the ISP. The information will be displayed in this page.

For details of WAN connection modes, refer to section "**Choose Network Settings** > **LAN Interface Settings** and the **LAN Interface Settings** page is displayed.

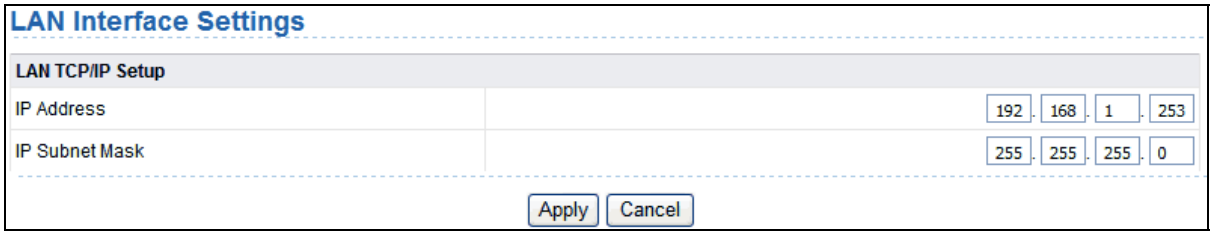


Figure 8-6

You can modify the IP address and IP subnet mask of the LAN port as required.

Note

If you change the default IP address, you must use the new IP address to log in to the Web configuration page of the router and the default gateway of all hosts in the LAN must be set to the new IP address for internet access. The subnet mask of all hosts in the LAN must be the same as the subnet mask specified in the LAN Interface Settings page.

8.3.2. Clients List

Choose **Running Status** > **Clients List** and the **Clients List** page is displayed.

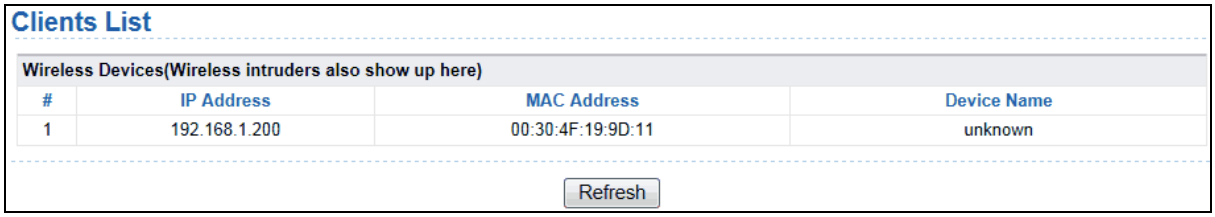


Figure 8-4

This page displays information of computers connected to WNAP-1260, including the IP address and MAC address of each computer.

8.4. Setup Wizard

For settings, refer to section **錯誤! 找不到參照來源。**"錯誤! 找不到參照來源。".

8.5. Mode Setting

Click **Mode Settings** and the **Mode Settings** page is displayed.

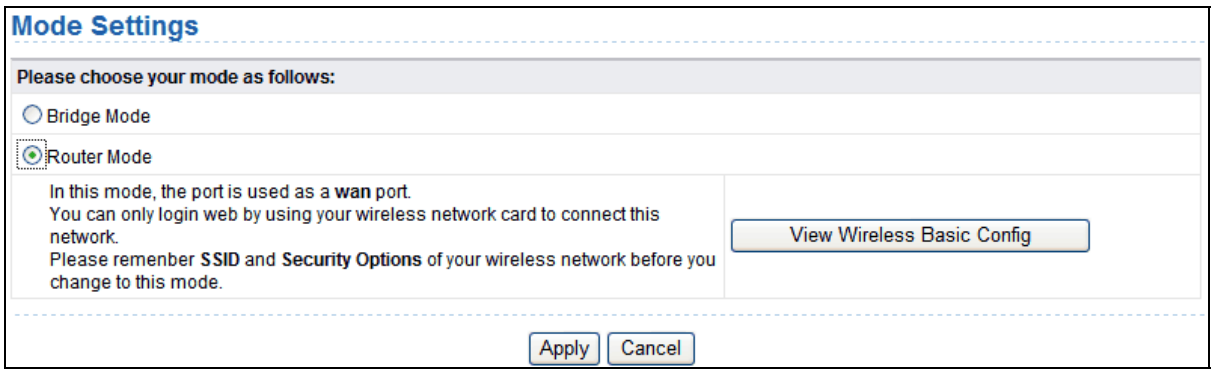
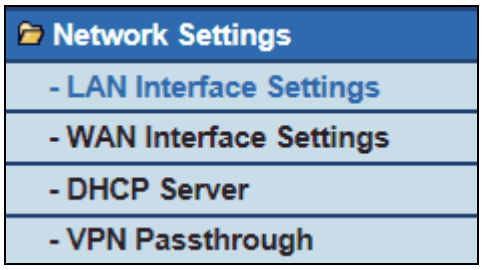


Figure 8-5

- **Bridge Mode**: The interface on its case is an LAN interface. Users can connect WNAP-1260 and the PC using an RJ45 cable or a wireless network card.
- **Router Mode**: Computers can connect to WNAP-1260 in a wireless way only.

8.6. Network Settings

Click **Wired Network Settings** and the extended navigation menu is shown as follows:



Click a submenu to perform specific parameter configurations.

8.6.1. LAN Interface Settings

Choose **Network Settings** > **LAN Interface Settings** and the **LAN Interface Settings** page is displayed.

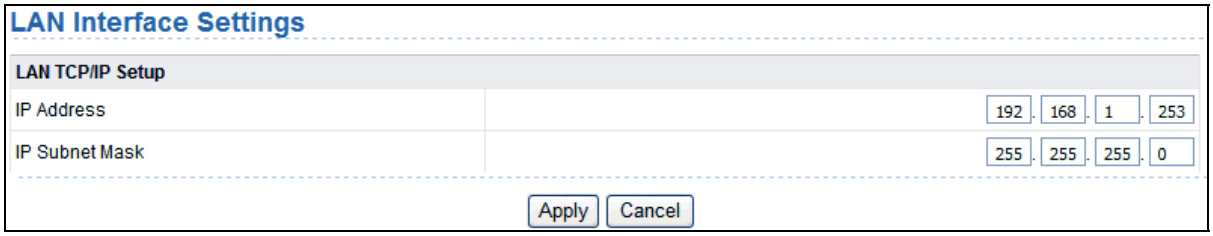


Figure 8-6

You can modify the IP address and IP subnet mask of the LAN port as required.

If you change the default IP address, you must use the new IP address to log in to the Web configuration page of the router and the default gateway of all hosts in the LAN must be set to the new IP address for internet access. The subnet mask of all hosts in the LAN must be the same as the subnet mask specified in the LAN Interface Settings page.

8.6.2. WAN Interface Settings

Choose **Network Settings** > **WAN Interface Settings** and the **WAN Interface Settings** page is displayed.

The router supports 5 modes of WAN connection, including **Dynamic IP (DHCP)**, **Static IP**, **PPPoE, PPTP, and L2TP**. Select the WAN connection you use. Contact your ISP if you do not know your WAN connection mode.

(1) Dynamic IP (DHCP)

If you select dynamic IP (DHCP), WNAP-1260 automatically obtains the IP address from the ISP automatically. Select DHCP when the ISP does not provide any IP network parameters. See the following figure:

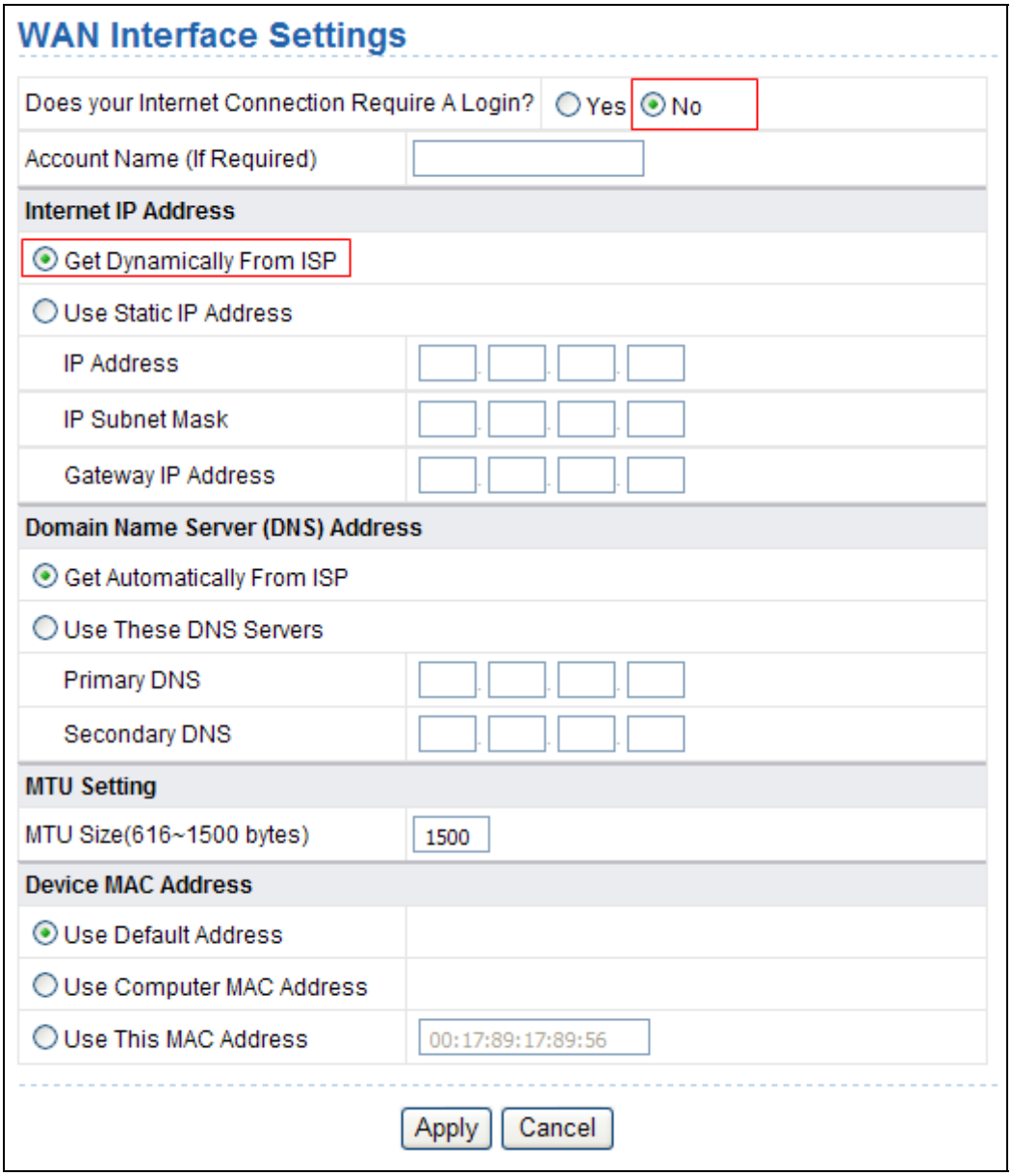


Figure 8-7

Object	Description
• **Account Name**:	The account name is provided by your ISP. If the ISP does not provide it, you can leave the item blank.
• **Domain Name Service (DNS) Address**:	Select **Use These DNS Servers** if you know that your ISP does not automatically transmit DNS addresses to the router during login. And enter the IP address of your ISP's primary DNS server. Enter a secondary DNS server address if available
• **MTU Size**:	Set the maximum transmission unit. The default value is recommended
•	
• **Device MAC Address**:	Physical address of the router. • Generally, select **Use Default Address**. • If the ISP requires MAC address authentication, Select **Use Computer MAC Address** or **Use This MAC Address**.

	• If you select **Use Computer MAC Address**, the MAC address of the current computer serves as the MAC address of the router. If you select **Use This MAC Address**, you need to enter the MAC address of another computer. The format of an MAC address is XX:XX:XX:XX:XX:XX.

After finishing settings, click Apply to save the settings.

(2) Static IP

If the ISP provides the IP address, subnet mask, and information about the gateway and DNS server, select Static IP. Contact your ISP if you do not know the information.

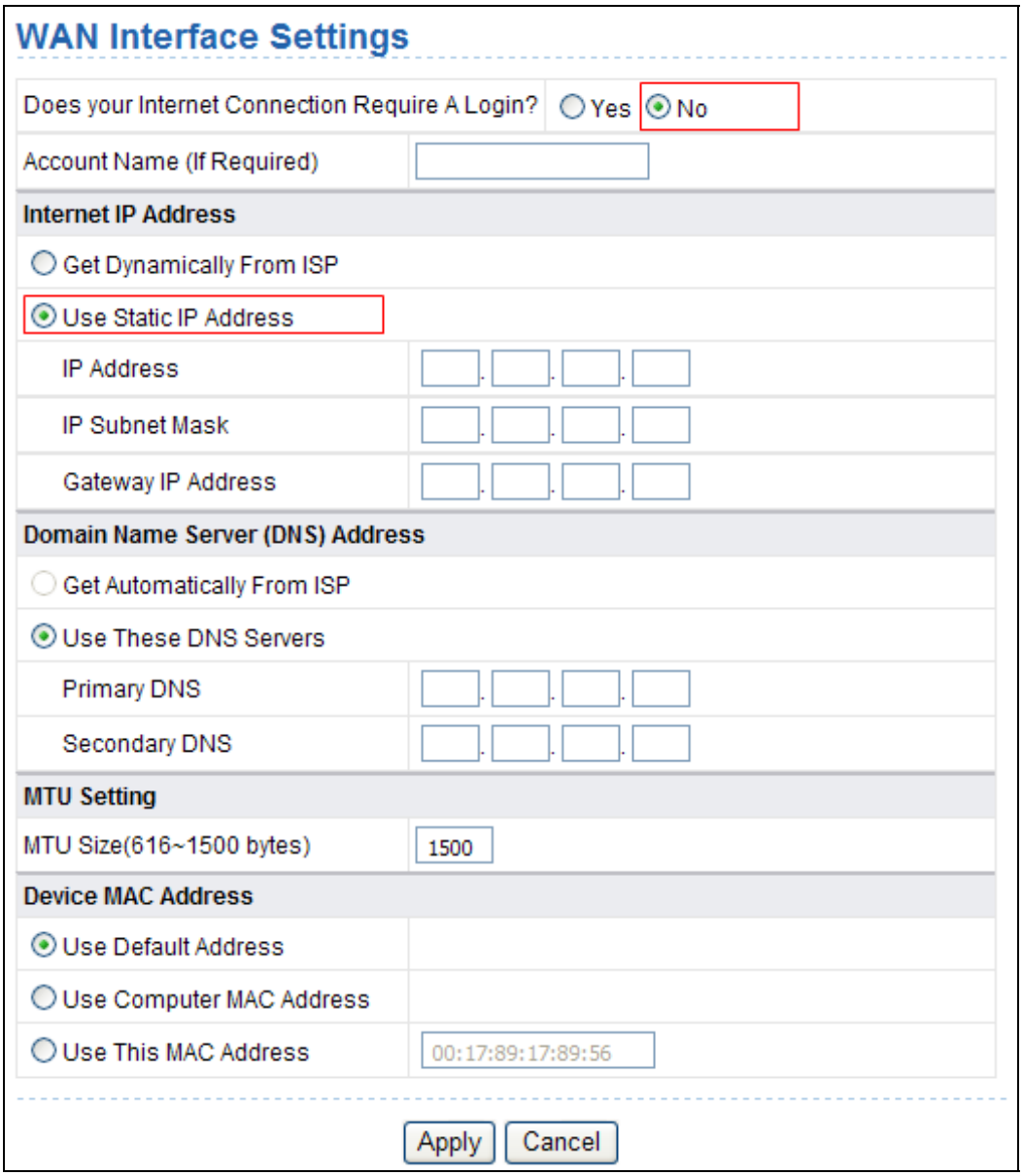


Figure 8-8

Object	Description
• **Account Name**:	The account name is provided by your ISP. If the ISP does not provide it, you can leave the item blank

• **IP Address**:	Enter the WAN IP address provided by the ISP. The parameter must be entered
• **IP Subnet Mask**:	Enter the WAN subnet mask provided by the ISP. It varies with the network type. It is usually 255.255.255.0 (Class C)
• **Gateway IP Address**:	Enter the IP address of the gateway provided by the ISP. It is the IP address used for connecting to the ISP.
• **Primary DNS**:	Enter the IP address of the primary DNS server if necessary
• **Secondary DNS**:	Enter the IP address of that DNS server if the ISP provides another DNS server
• **MTU Size**:	Set the maximum transmission unit. The default value is recommended
• **Router MAC Address**:	See descriptions on setting **Router MAC Address** for DHCP.

After finishing settings, click Apply to save the settings.

(3) PPPoE

If the ISP provides the user name and password for PPPoE (Point-to-Point Protocol over Ethernet) dialup, select PPPoE.

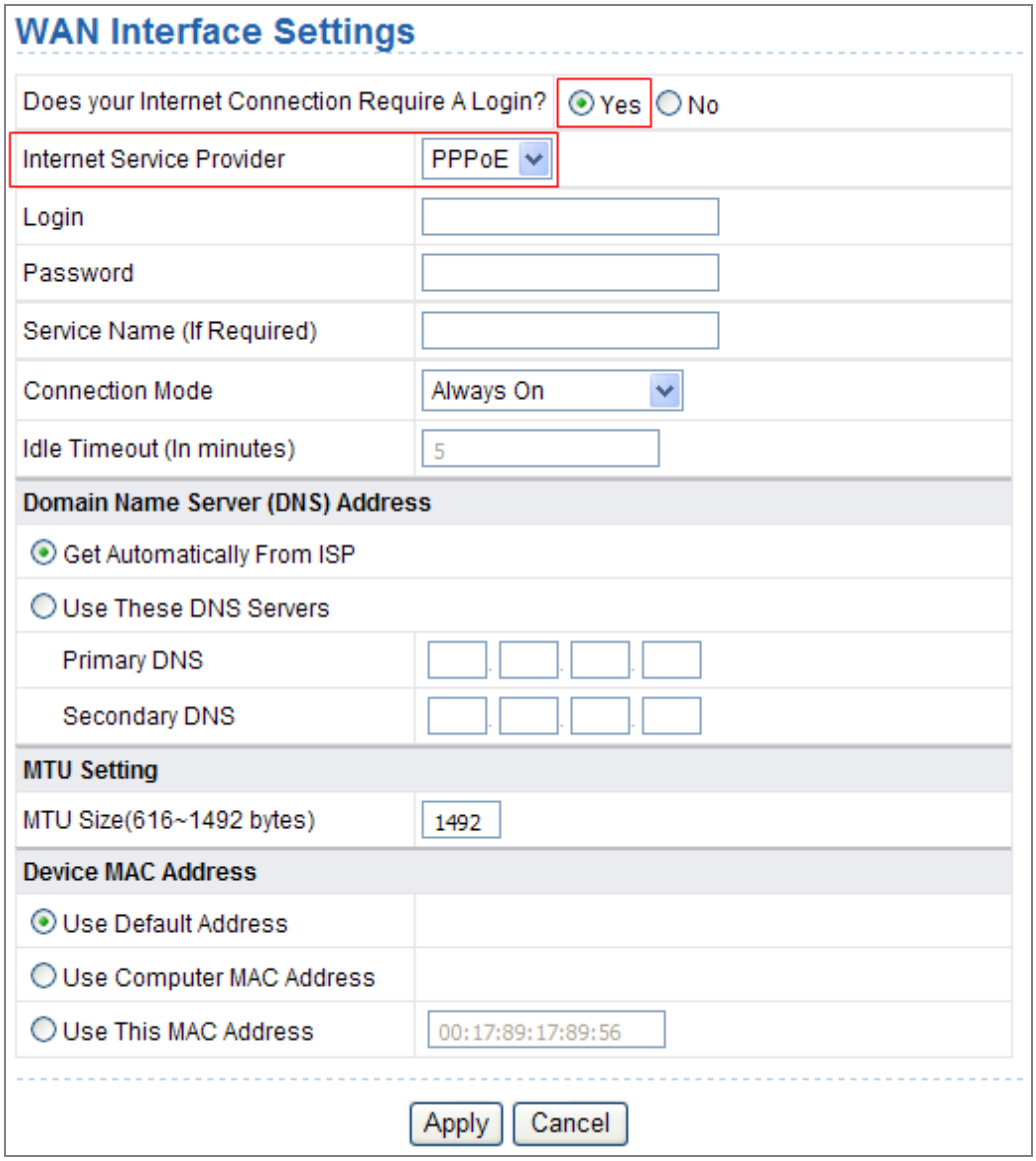


Figure 8-9

Object	Description
• **Login**:	Enter the user name for PPPoE dialup provided by the ISP
• **Password**:	Enter the password for PPPoE dialup provided by the ISP
• **Service Name**:	If several PPPoE servers are available, specify one in this field
• **Connection Mode**:	■ **Always On**: If you select it, the system automatically establishes a connection. If WNAP-1260 is disconnected from the network because of external factors when you are using the Internet access service, the system attempts connection in an interval of the specified time (for example, 10 seconds) until the connection is established. If you pay for Internet access monthly, we recommend you to use this connection mode. ■ **Dial On Demand**: If you select it, the system automatically establishes a connection when a network access request from the LAN is received. If no network access request is sent from the LAN within the specified time of **Idle Timeout**, the system automatically interrupts the connection. If you pay for Internet access by time, you are recommended to use this connection mode, which effectively saves the expense of Internet access. ■ **Manually Connect:** If you select it, you need to manually set dialup connection after startup.
• **Idle Timeout**:	If the system does not detect any Internet access behavior within the specified time of **Idle Timeout**, the system interrupts the Internet connection.
• **Domain Name Server (DNS) Address**:	Select **Use These DNS Servers** if you know that your ISP does not automatically transmit DNS addresses to the router during login. And enter the IP address of your ISP's primary DNS server. Enter a secondary DNS server address if available
• **MTU Size**:	Set the maximum transmission unit. The default value is recommended
• **Router MAC Address**:	See descriptions on setting **Router MAC Address** for DHCP.

After finishing settings, click Apply to save the settings.

(4) PPTP

If the ISP provides the user name and password for PPTP dialup, select PPTP.

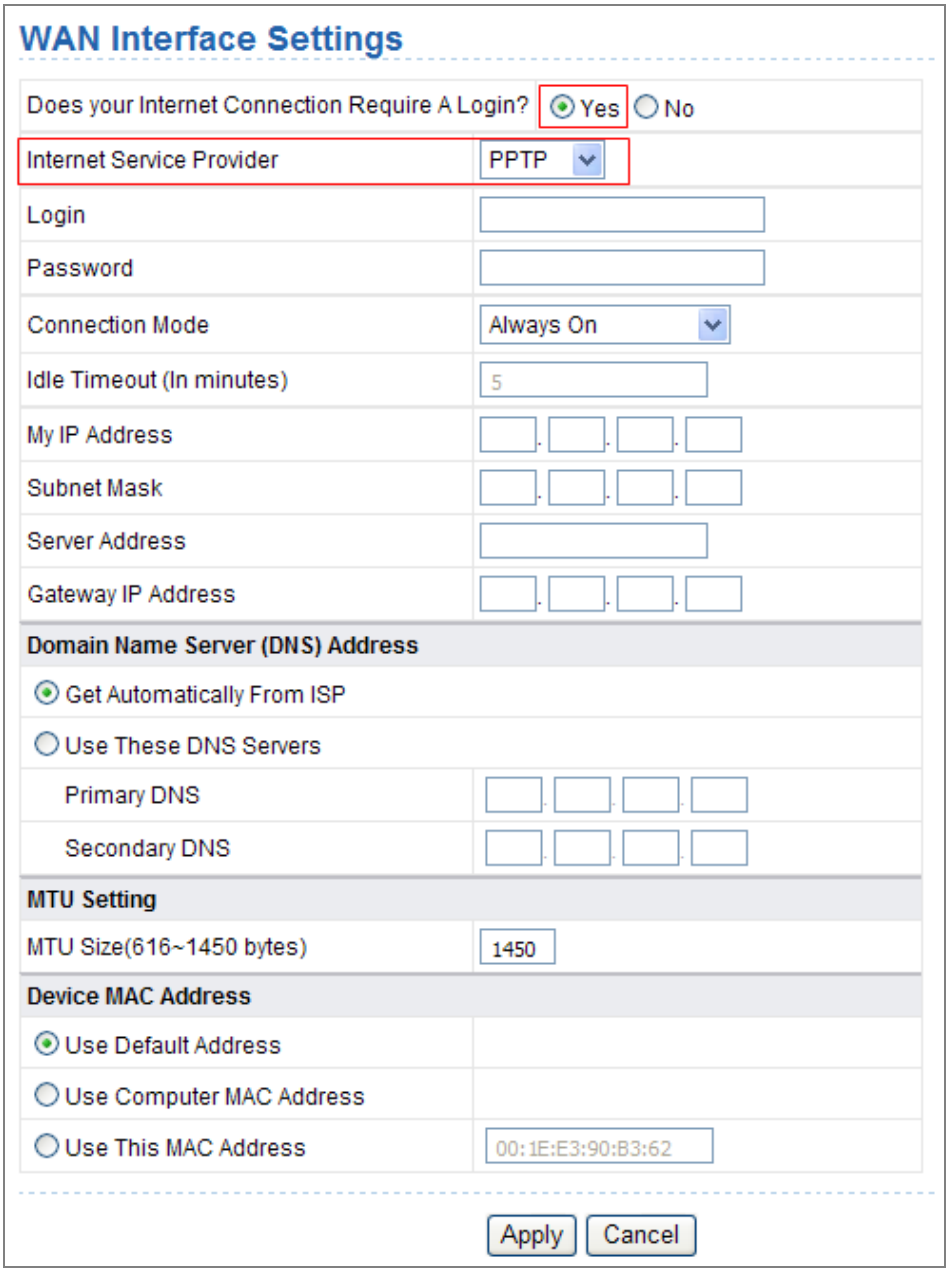


Figure 8-10

Object	Description
• **Login**:	Enter the user name for PPTP dialup provided by the ISP
• **Password**:	Enter the password for PPTP dialup provided by the ISP
• **Connection Mode**:	• **Always On**: If you select it, the system automatically establishes a connection. If WNAP-1260 is disconnected from the network because of external factors when you are using the Internet access service, the system attempts connection in an interval of the specified time (for example, 10 seconds) until the connection is established. If you pay for Internet access monthly, we

	recommend you to use this connection mode. • **Dial On Demand**: If you select it, the system automatically establishes a connection when a network access request from the LAN is received. If no network access request is sent from the LAN within the specified time of **Idle Timeout**, the system automatically interrupts the connection. If you pay for Internet access by time, you are recommended to use this connection mode, which effectively saves the expense of Internet access. **Manually Connect:** If you select it, you need to manually set dialup connection after startup.
• **Idle Timeout**:	If the system does not detect any Internet access behavior within the specified time of **Idle Timeout**, the system interrupts the Internet connection
• **My IP Address**:	Enter your IP address. You can also leave this field blank
• **Subnet Mask**:	Enter the subnet mask. You can also leave this field blank
• **Sever Address**:	Enter the IP address of the server. You can also leave this field blank
• **Gateway IP Address**:	Enter the IP address of the gateway. You can also leave this field blank
• **Domain Name Server (DNS) Address**:	Select **Use These DNS Servers** if you know that your ISP does not automatically transmit DNS addresses to the router during login. And enter the IP address of your ISP's primary DNS server. Enter a secondary DNS server address if available
• **MTU Size**:	Set the maximum transmission unit. The default value is recommended
• **Router MAC Address**:	See descriptions on setting **Router MAC Address** for DHCP

After finishing settings, click Apply to save the settings.

(5) L2TP

If the ISP provides the user name and password for L2TP dialup, select L2TP.

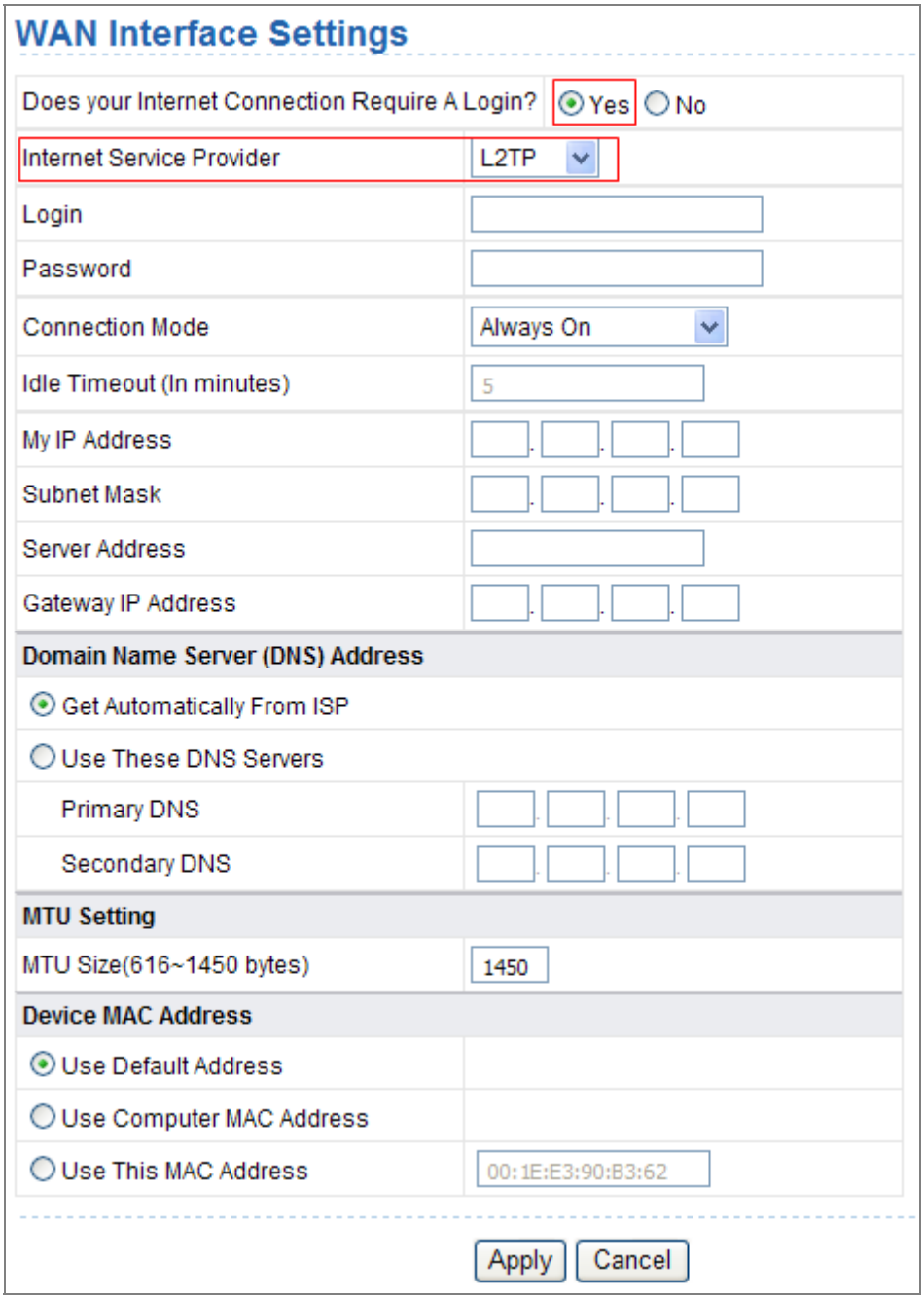


Figure 8-11

For details of parameter settings for this page, refer to previous parameter descriptions for **PPTP**.

8.6.3. DHCP Server

Choose **Network Settings** > **DHCP Server** and the **DHCP Server** page is displayed.

DHCP refers to Dynamic Host Configuration Protocol. If **Use Device as DHCP Service** is selected, WNAP-1260 automatically assigns IP addresses to comupters in the LAN. Users do not need to configure TCP/IP protocol paramters such as the IP address, the subnet mask, the gateway, and the DNS server information for computers connected to the router's LAN.

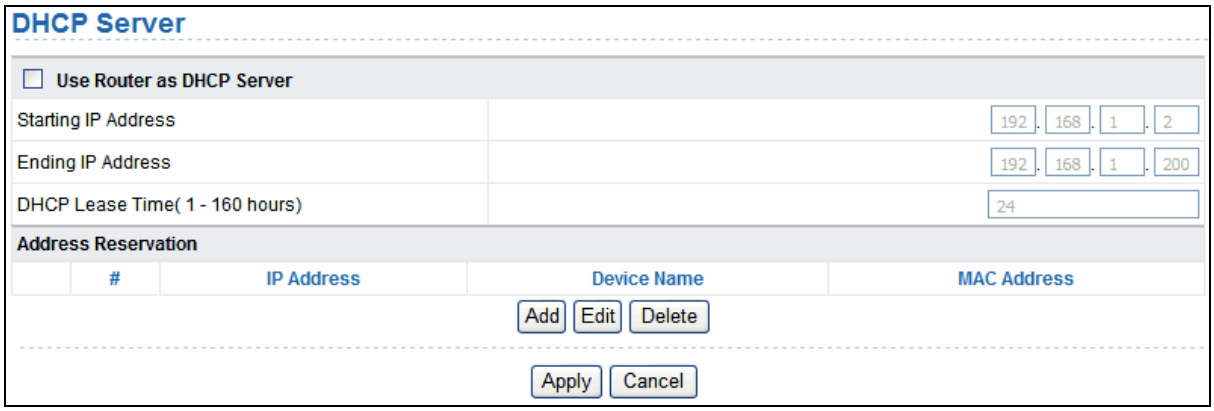


Figure 8-12

Using the Router as a DHCP Server

- **Use Router as DHCP Server**: If you select the **Use Router as DHCP Server** check box, WNAP-1260 serves as a DHCP server to automatically assign IP addresses to computers connected to it.
- **Starting IP Address/Ending IP Address**: Set the starting and ending IP addresses to specify a pool of IP addresses to be assigned by the DHCP server. After you set **Starting IP Address/Ending IP Address**, hosts in the LAN obtain IP addresses that are in the range of the starting and ending IP addresses.
- **DHCP Lease Time**: The valid time for an IP address that is automatically assigned by the DHCP server to a host. The DHCP server does not assign the IP address to other hosts within the specified time.

Using Address Reservation

When you specify a reserved IP address for a computer in the LAN, the computer always receives the same IP address each time it accesses the router's DHCP server. Reserved IP addresses should be assigned to computers or servers that require permanent IP settings.

To reserve an IP address:

Step 1 Click **Add** to enter the **Address Reservation** page.

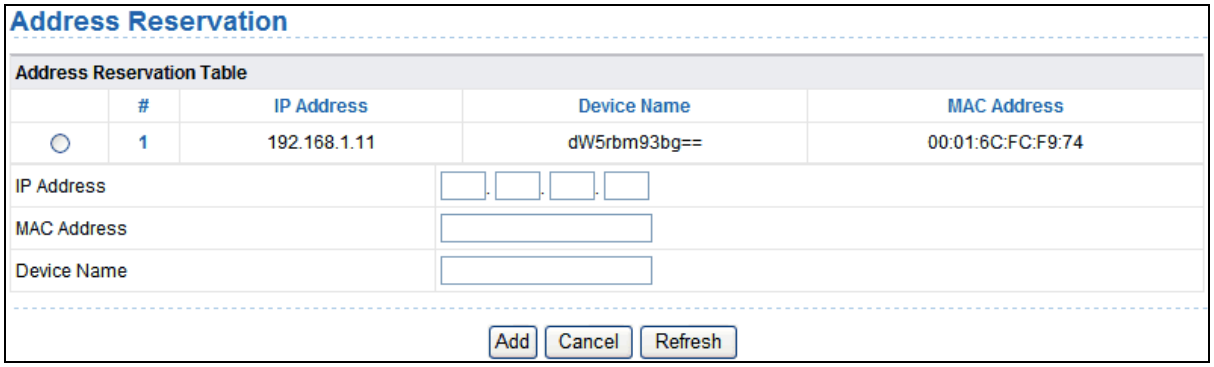


Figure 8-13

Step 2 Select one item from Address Reservation Table, or enter the IP address in the IP Address field to assign to the computer or server (Choose an IP address from the IP address pool that you have specified, for example 192.168.1.x). Enter the MAC address and device name of the computer or server.

Step 3 Click Add to add a new item into Address Reservation.

Step 4 Click Apply to save the settings.

8.6.4. VPN Passthrough

Choose **Network Settings** > **VPN Passthrough** and the **VPN Passthrough** page is displayed.

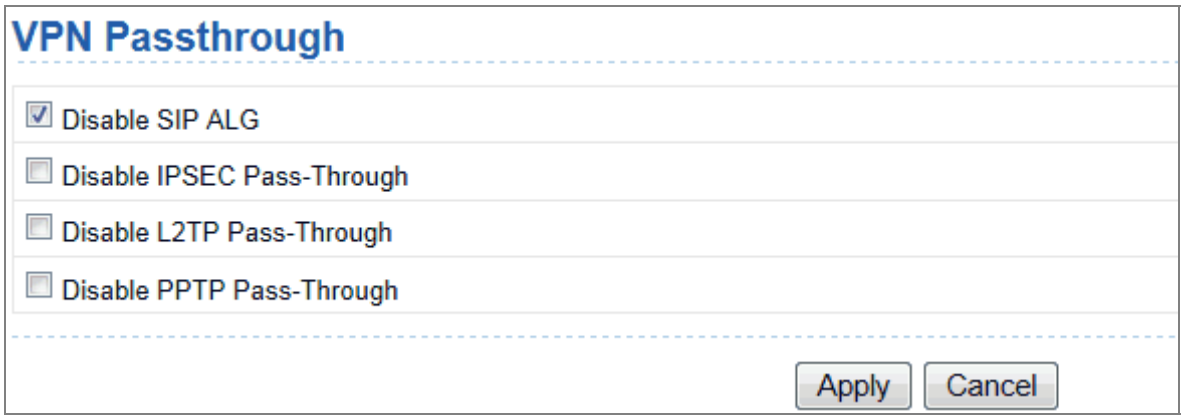


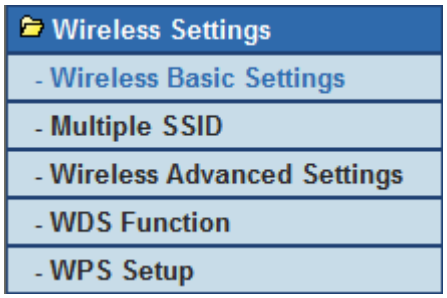
Figure 8-14

Object	Description
• **Disable SIP ALG**:	Certain SIP applications have special mechanisms for passing through the NAT firewall and SIP ALG may have conflicts with these mechanisms. In most cases, please disable SIP ALG
• **Disable IPSEC/L2TP/PPTP Pass-Through**:	IPSEC/PPTP/L2TP Pass-Through provides a secure communication method for remote computers in the wide area network (WAN) (for example, the Internet). Enable the corresponding VPN pass-through function if an intra-network host needs to use a VPN protocol (such as the PPTP, L2TP, IPSEC) to connect to a remote VPN network through the router

After finishing settings, click **Apply** to save the settings.

8.7. Wireless Settings

Click **Wireless Settings** and the extended navigation menu is shown as follows:



Click a submenu to perform specific parameter configurations.

8.7.1. Wireless Basic Settings

Choose **Wireless Settings** > **Wireless Basic Settings** and the **Wireless Basic Settings** page is displayed.

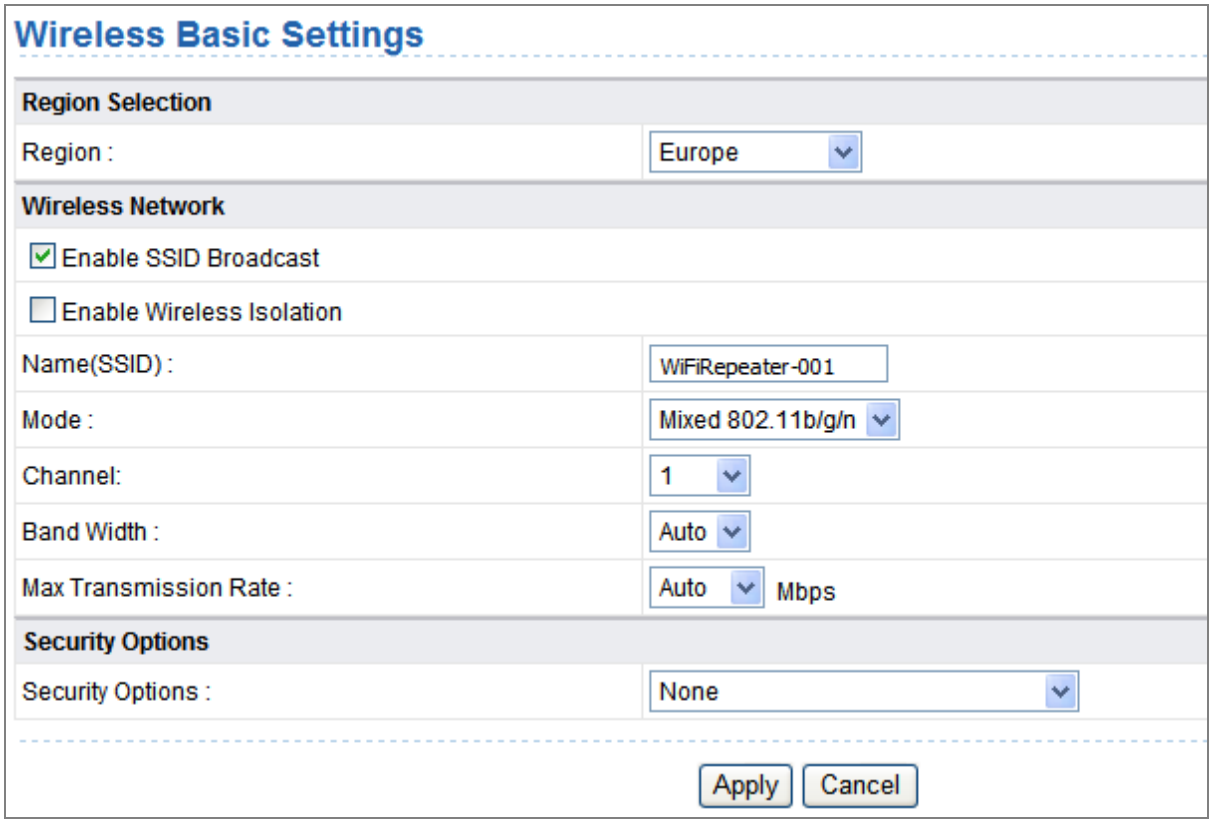


Figure 8-15

Object	Description
• **Region**:	Select the region where you are located.
• **Enable SSID Broadcast**:	If enabled, the router broadcasts its SSID in the wireless network. Wireless clients can scan the SSID and access the wireless network under the SSID.
• **Enable Wireless Isolation:**	If selected, wireless clients connected to the network of the same SSID can access the Internet only, but cannot communicate with each other.

• **Name (SSID)**:	Set the name for the wireless network. The SSID can contain up to 32 characters and can be letters, numerals, underlines, and any combinations of them. The SSID is case-sensitive
• **Mode**:	Select the wireless mode. Mixed 802.11b/g/n is recommended.
• **Channel**:	The channel for transmitting wireless signals. When you select Auto, WNAP-1260 automatically selects the best channel from the available channels according to actual situations. The default channel is **Auto**.
• **Band Width**:	The bandwidth occupied for wireless signal transmission.
• **Max Transmission Rate**:	The maximum transmission rate of WNAP-1260.
• **Security Options**:	Set the security encryption of the wireless network, to prevent unauthorized access and listening.

Security Options

– **None**

Data encryption is not adopted and the network is not secure. Any stations can access the network. This option is not recommended.

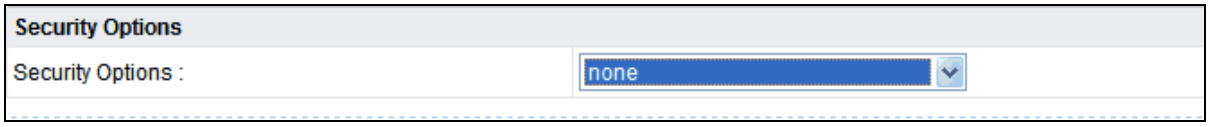


Figure 8-16

– **WEP**

Wired equivalent privacy. You can use WEP 64- or 128-bit encryption.

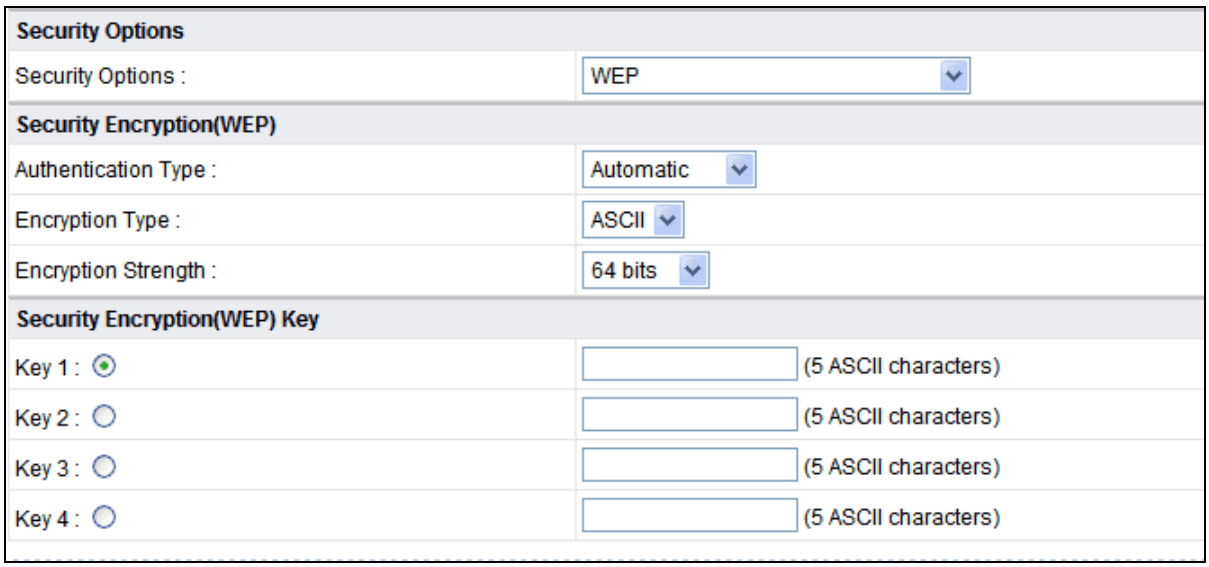


Figure 8-17

Object	Description
• **Authentication Type**:	Select the authentication type that the system adopts. Three authentication types are available: Automatic, Open, and Shared keys.

	■ **Automatic**: If selected, the router uses an authentication type of **Open** or **Shared keys** according to the request of the host. ■ **Open**: If selected, hosts in the wireless network can pass the authentication and connect to the wireless network without using a password. However, the password is required if you want to transmit data. ■ **Shared keys**: If selected, hosts in the wireless network can pass authentication only when the correct password is entered. Otherwise, the hosts cannot connect to the wireless network.
• **Encryption Type**:	The type of the key to be set. Hexadecimal and ASCII code are available. ■ **Hex**: Valid characters for keys contain 0–9 and A–F. ■ **ASCII**: Valid characters for keys contain all characters of the key board.
• **Encryption Strength**:	The encryption strength determines the length of the key. ■ If **Encryption Strength** is set to **64 bits**, set the key to 10 hexadecimal digits or 5 ASCII characters. ■ If **Encryption Strength** is set to **128 bits**, set the key to 26 hexadecimal digits or 13 ASCII characters.
• **Key 1/2/3/4**:	Set the key based on the selected encryption type and encryption strength.

– **WPA-PSK[TKIP] or WPA2-PSK[TKIP]**

- **WPA-PSK**: Preshared key Wi-Fi protection access
- **WPA2-PSK**: Preshared key Wi-Fi protection access version 2
- **TKIP**: Temporal Key Integrity Protocol

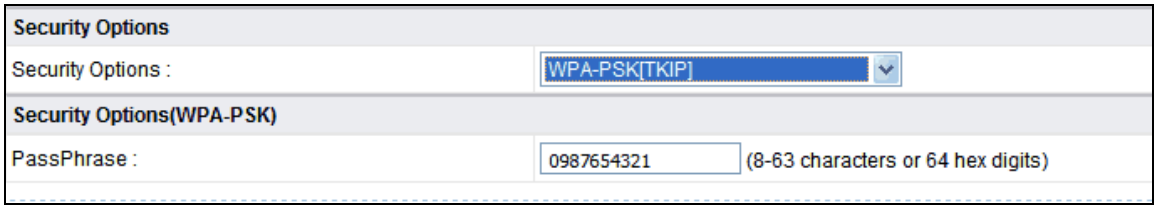


Figure 8-18

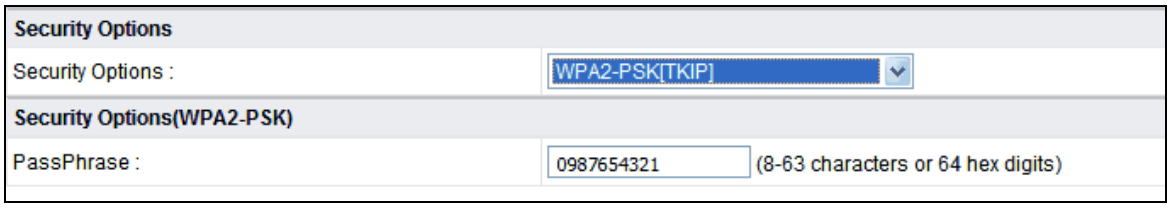


Figure 8-19

- **PassPhrase:** Enter 8-63 ASCII characters or 64 hexadecimal digits.

Note: The 802.11n mode does not support the TKIP algorithm.

- **WPA-PSK[AES] or WPA2-PSK[AES]**
  - **WPA-PSK**: Preshared key Wi-Fi protection access.
  - **WPA2-PSK**: Preshared key Wi-Fi protection access version 2.
  - **AES:** Advanced Encryption Standard

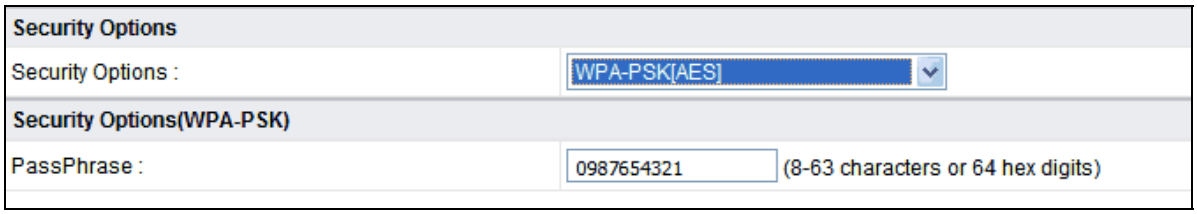


Figure 8-20

Figure 8-21

- **PassPhrase:** Enter 8-63 ASCII characters or 64 hexadecimal digits.

- **WPA-PSK/WPA2-PSK+[TKIP]/[AES]**

It allows the client to use either WPA-PSK[TKIP]/[AES] or WPA2-PSK[TKIP]/[AES].

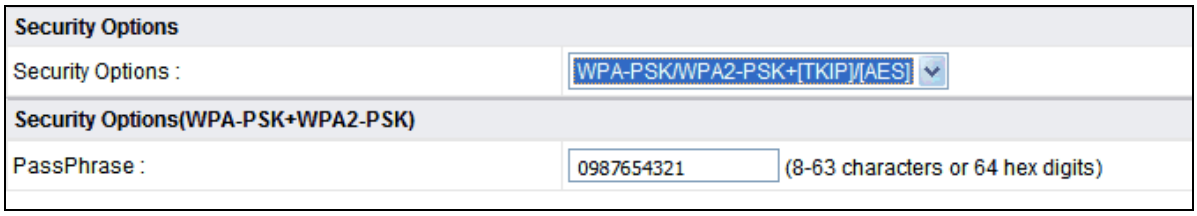


Figure 8-22

- **PassPhrase:** Enter 8-63 ASCII characters or 64 hexadecimal digits.

Note: After you complete configuring wireless settings for WNAP-1260, only hosts that have the same wireless settings (for example, the SSID) as WNAP-1260 can connect to it. If you configure security settings for WNAP-1260, hosts must have the same security settings (for example, the password) as WNAP-1260 in order to connect to WNAP-1260.

8.7.2. Multiple SSID

If you do not want visitors to know your wireless security key, you can use the Multiple SSID to allow

them to use your Internet without knowing your wireless connection password.

Choose **Wireless Settings** > **Multiple SSID** and the **Multiple SSID** page is displayed.

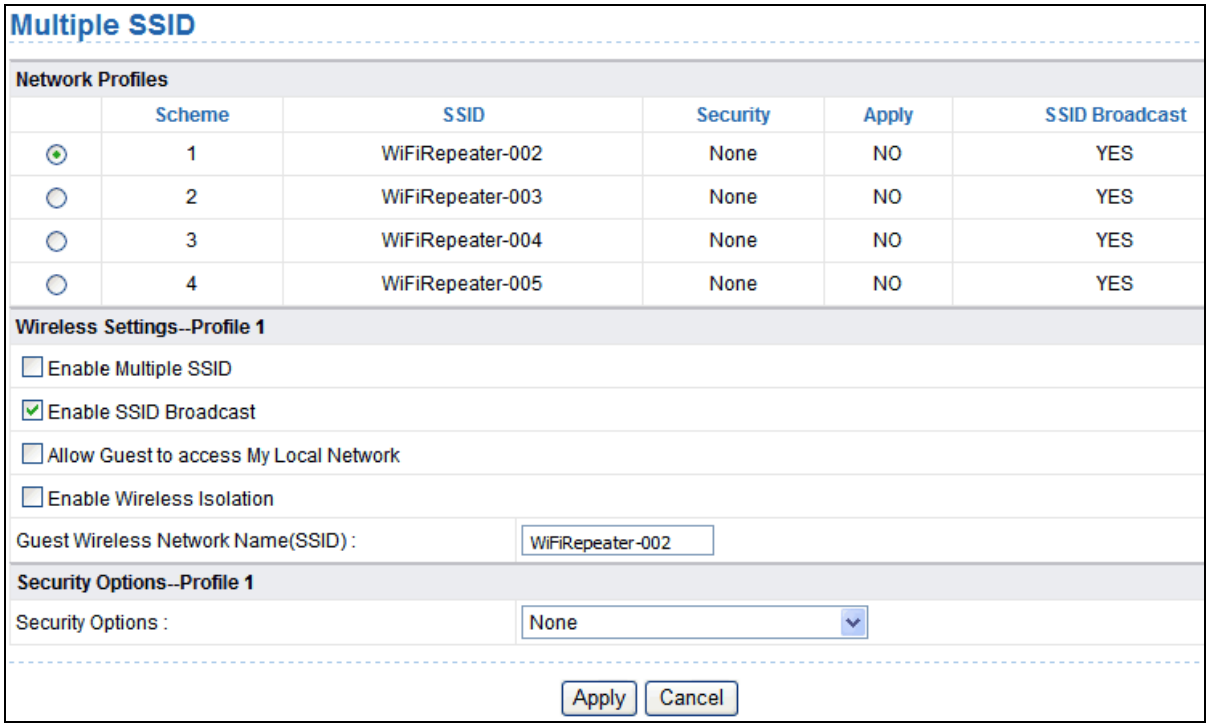


Figure 8-23

Object	Description
• **Network Profiles**:	Brief description of the created Multiple SSID. You can create up to four Multiple SSIDs. A network profile contains the SSID and encryption mode, whether to use the Multiple SSID, and whether to broadcast SSID. You can click the radio button of a profile to view detailed information or modify settings.
• **Enable Multiple SSID**:	If enabled, both you and visitors can connect to the network by using the SSID of the Multiple SSID.
• **Enable SSID Broadcast**:	If enabled, WNAP-1260 broadcasts its SSID to all wireless stations.
• **Allow Guest to access My Local Network**:	If enabled, visitors using the SSID of a guest network can access not only the Internet but also the LAN of WNAP-1260, like users using the primary SSID of the network. If disabled, visitors using the SSID of a guest network cannot access the LAN of WNAP-1260.
• **Enable Wireless Isolation**:	If selected, wireless clients connected to the guest network of the same SSID can access the Internet only, but cannot communicate with each other.
• **Guest Wireless Network Name (SSID)**:	Set the name of the Multiple SSID.
• **Security Options**:	Refer to security option descriptions in section "**Wireless Basic Settings**".

After finishing settings, click **Apply** to save the settings.

8.7.3. Wireless Advanced Settings

Choose **Wireless Settings** > **Wireless Advanced Settings** and the **Wireless Advanced Settings** page is displayed.

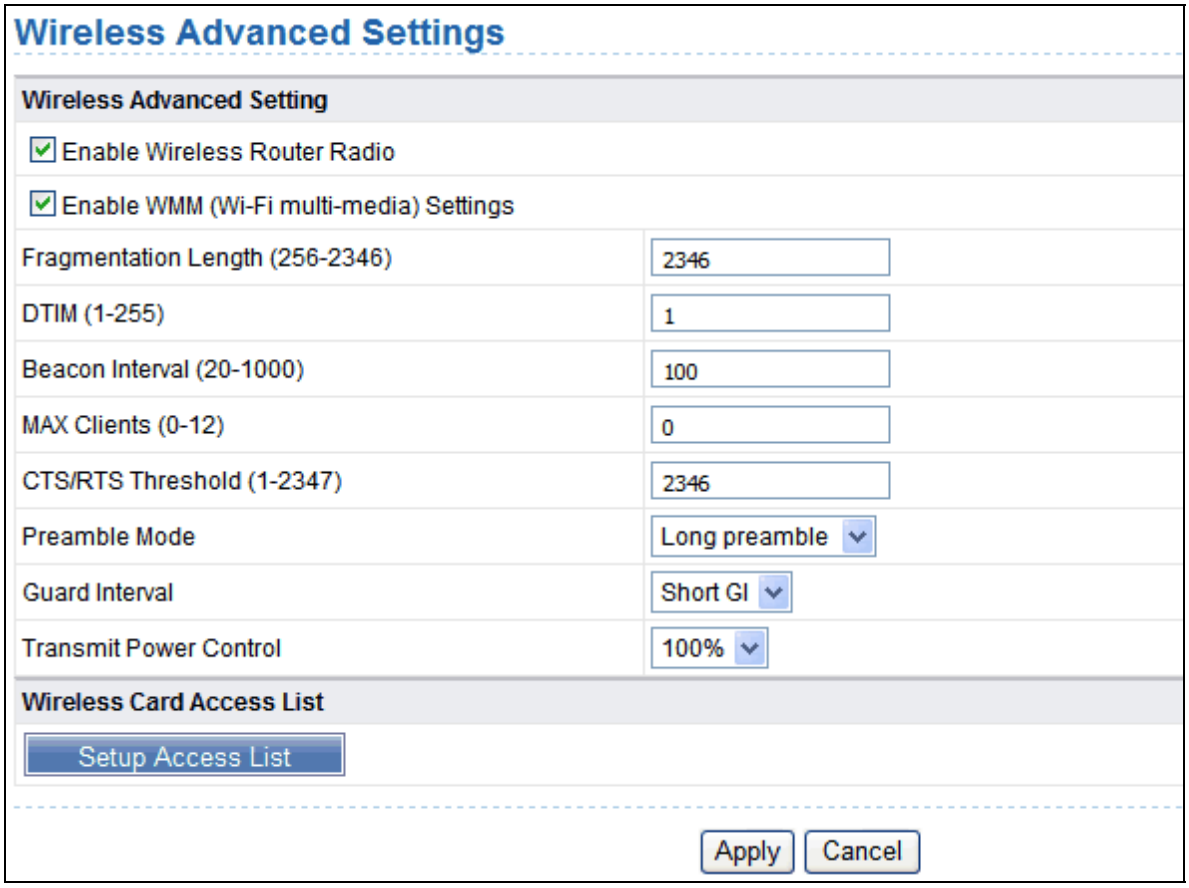


Figure 8-24

Object	Description
• **Enable Wireless Router Radio**:	If you disable the wireless router radio, wireless devices cannot connect to the WNAP-1260 router. If you do not use your wireless network for a period of time, you can clear this check box and disable all wireless connectivity
• **Enable WMM (Wi-Fi multi-media) Settings**:	**WMM** function can guarantee the packets with high- priority messages being transmitted preferentially. It is strongly recommended enabled
• **Fragmentation Length (256-2346)**:	Set the threshold of fragmentation length. If the length of a packet exceeds the set value, the packet is automatically fragmented into several packets. The value of **Fragmentation Length** cannot be too small because excessive packets reduce wireless network performance. The default value is 2346.
• **DTIM (1-255)**:	Set the interval for sending DTIM frames
• **Beacon Interval (20-1000)**:	The beacon interval is the frequency of sending Beacon frames. Set the interval for sending Beacon frames. The unit is millisecond (ms). The default value is 100 ms

• **MAX Clients (0-12)**:	Set the maximum number of clients. 0 indicates the number of connected clients is not limited
• **CTS/RTS Threshold (1-2347)**:	Set the CTS/RTS threshold. If the length of a packet is greater than the specified RTS value, WNAP-1260 sends an RTS frame to the destination station to negotiate. After receiving an RTS frame, the wireless station responds with a Clear to Send (CTS) frame to WNAP-1260, notifying that they can communicate with each other
• **Preamble Mode**:	A preamble (especially the **802.11b High Rate/DSSS PHY** field; 56 digits synchronized field for short preamble) defines the length of the CRC correction block for communication between wireless devices. Short preamble should be applied in a network with intense traffics. It helps improve the efficiency of a wireless network responding to applications that have high requirement of real-time, such as streaming video and voice-over-IP telephony.
• **Guard Interval**:	**Short GI**: The interval is 400 ns. When short GI is enabled, WNAP-1260 can receive and send short-frame-interval packets. This helps improve the transmission rate of WNAP-1260. **Long GI**: The interval is 800 ns.
• **Transmit Power Control**:	Set the transmit power of the wireless network. It is recommended to use the default setting of **100%**.

Restricting wireless access by MAC address

When a wireless card access list is configured and enabled, the router checks the MAC address of any wireless device attempting a connection and allows only connections to computers identified on the trusted computer list.

The MAC address is a network device's unique 12-character physical address, containing the hexadecimal characters 0–9, a–f, or A–F only. The MAC address is in the format of XX:XX:XX:XX:XX:XX.

To restrict wireless access by MAC address:

Step 1 Click Setup Access List button in the Wireless Advanced Settings page to display the **Wireless Card Access List** page.

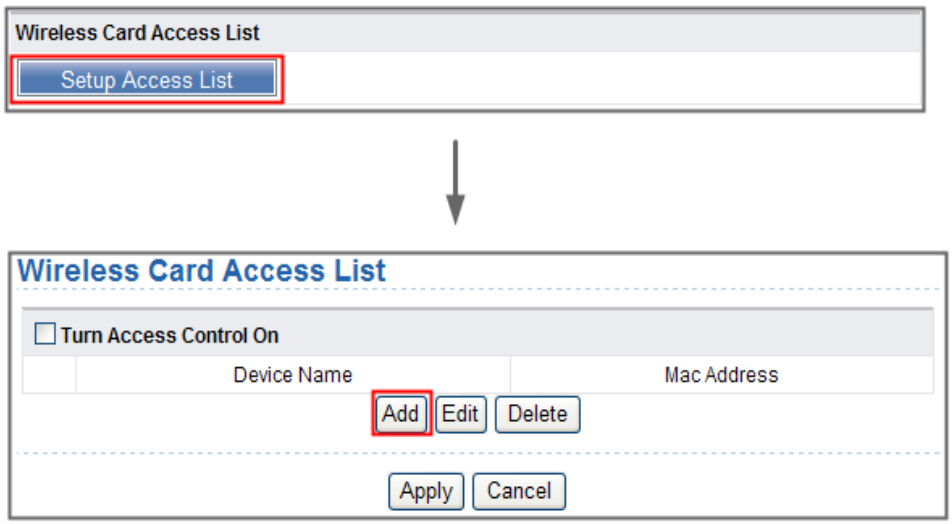


Figure 8-25

Step 2 Click Add to add a wireless device to the wireless access control list. The Wireless Card Access Setup page is displayed.

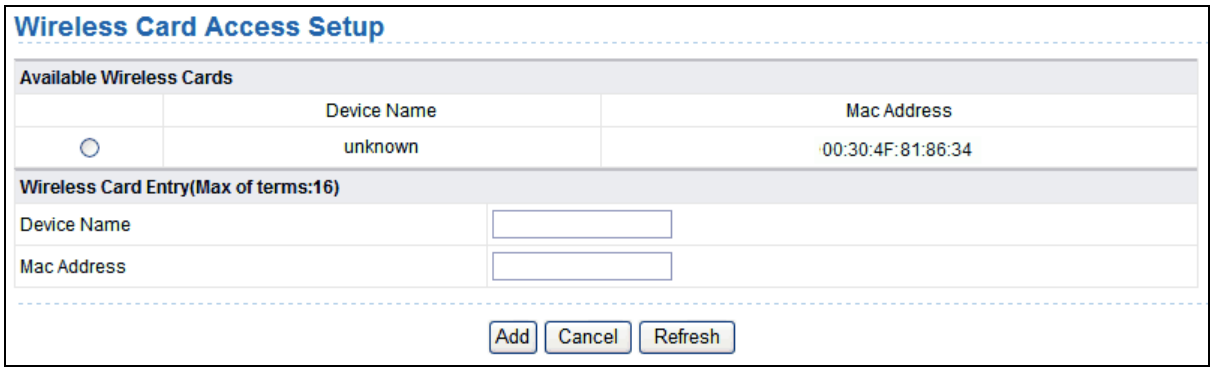


Figure 8-26

Step 3 If the computer you want appears in the Available Wireless Cards list, you can select the radio button of that computer to obtain its MAC address. Otherwise, you can manually enter a name and MAC address of the computer to be authorized. Generally, the MAC address is labeled on the bottom of the wireless device.

Step 4 Click Add to add this wireless device to the wireless card access list. The page jumps to the list page.

Step 5 Select Turn Access Control On. If selected, you can restrict PCs' access to the wireless network, only allowing specified PCs to access your network according to their MAC addresses.

Step 6 Click Apply to save your Wireless Card Access List settings.

Now, only devices on this list can wirelessly connect to the WNAP-1260 router.

8.7.4. WDS Function

Wireless distribution system (WDS) enables interconnection between APs in an IEEE 802.11 wireless network. It extends the wireless network through several APs, without connection of the wired backbone network. If you want to use WDS to achieve wireless repeating or bridging, enable WDS.

Choose **Wireless Settings** > **WDS Function** and the **WDS Function** page is displayed.

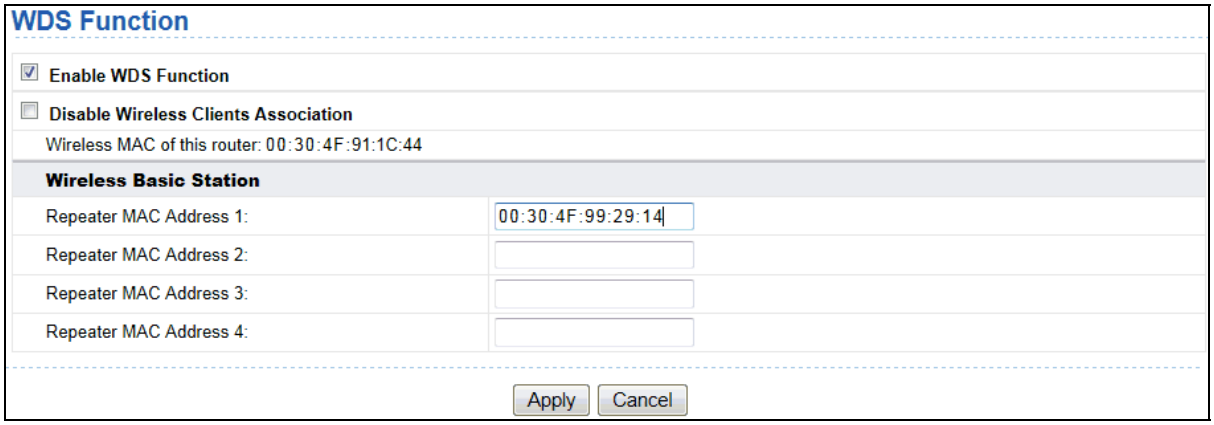


Figure 8-27

Object	Description
• **Enable WDS Function**:	Enable the WDS function if you want to use this function. Note that the WDS function cannot be enabled if the channel is set to **Auto**
• **Enable Wireless Clients Association**:	If not selected, the wireless basic station does not transmit any signals to clients that are directly connected to it
• **Central Base Station**:	In this mode, the router serves as a basic station to communicate with repeaters. The basic station forwards the data of communication between repeaters to the destination repeaters. Repeaters should be configured accordingly. Note that a wireless basic station can be configured with up to four repeaters.
• **Repeater MAC Address 1/2/3/4**:	Enter the MAC address of the repeater

After finishing settings, click **Apply** to save the settings.

For WDS application description, refer to section 5.2.3. "WDS Application".

8.7.5. WPS Setup

WPS refers to Wi-Fi Protected Setup.

You can use WPS to establish wireless connection in a quick and secure way if the uplink AP or terminal (for example, the network adapter) has the WPS function. It is suggested to first configure wireless encryption for the uplink AP. If you change the wireless encryption mode after having establishing wireless connection using WPS, you must use WPS to establish wireless connection again. Note that if the wireless client does not support WPS you must manually configure the wireless client (such as SSID, security mode, and password) to make it have the same SSID and wireless security settings as the router.

The following describes how to configure WPS for the AP mode.

Using the WPS Button

In the AP mode with WDS disabled, press the **WPS** button on the side panel of WNAP-1260 and the **WPS** button on the client device. WNAP-1260 can perform WPS encrypted connection to the downlink client device.

Figure 8-28

Using the Web Page

You can perform WPS settings using the Web page for configuration.
Choose **Wireless Settings** > **WPS Setup** to display the **WPS Setup** page.

- **PBC mode**

Step 1 Select **Push Button** and click **Start PBC**. WPS encrypted connection starts.

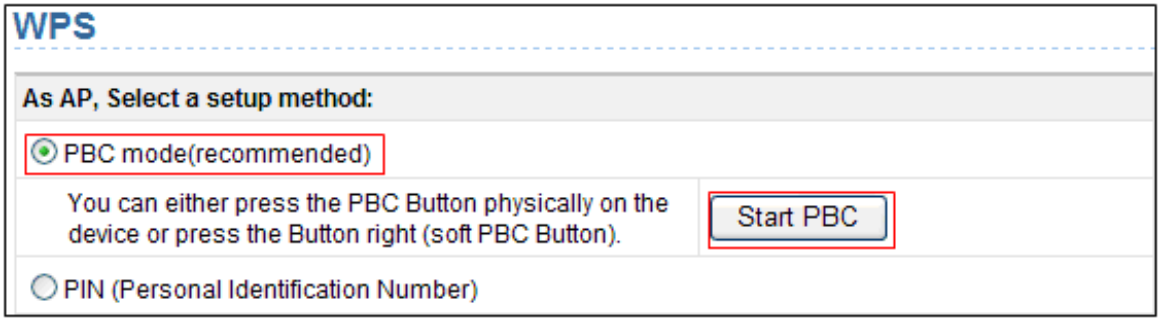


Figure 8-29

Step 2 Press the **WPS button** on the network adapter or click the **PBC button** in the network adapter configuration tool within 2 minutes to start WPS connection. After WPS connection is established, the following page is displayed, indicating that the WPS connection is completed.

Figure 8-30

- **PIN mode**

Step 1 Select **PIN**, enter the PIN code of the network adapter (refer to the client of the network adapter), and click **Start PIN** to start WPS connection.

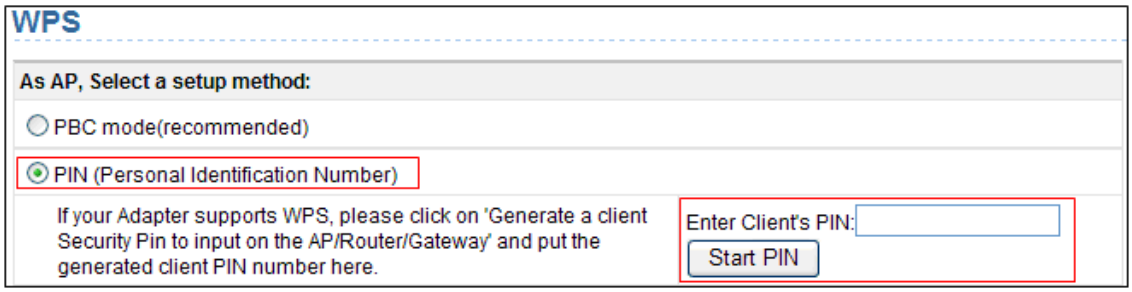


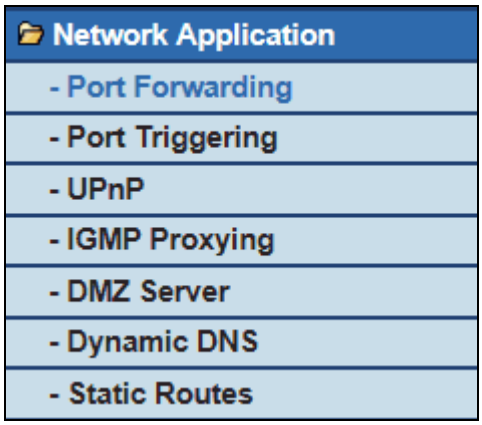
Figure 8-31

Step 2 Click the **PIN** button on the network adapter within 2 minutes to start WPS connection. After WPS connection is established, the following page is displayed, indicating that the WPS connection is completed.

Figure 8-32

8.8. Network Application

Click **Network Application** and the extended navigation menu is shown as follows:



Click a submenu to perform specific parameter configurations.

8.8.1. Port Forwarding

By default, the firewall function of the router hides your LAN. As a result, other users on the Internet can detect only the router, but cannot access a certain PC in the LAN directly. If you want to access a PC in an LAN, you need to configure port forwarding for the router and map the desired port to the corresponding PC in the LAN. The router forwards packets to the PC according to the port mapping rule after receiving an access request from the Internet. In this way, communication is successfully established between the Internet and the PC in the LAN.

Choose **Network Application** > **Port Forwarding** and the **Port Forwarding** page is displayed.

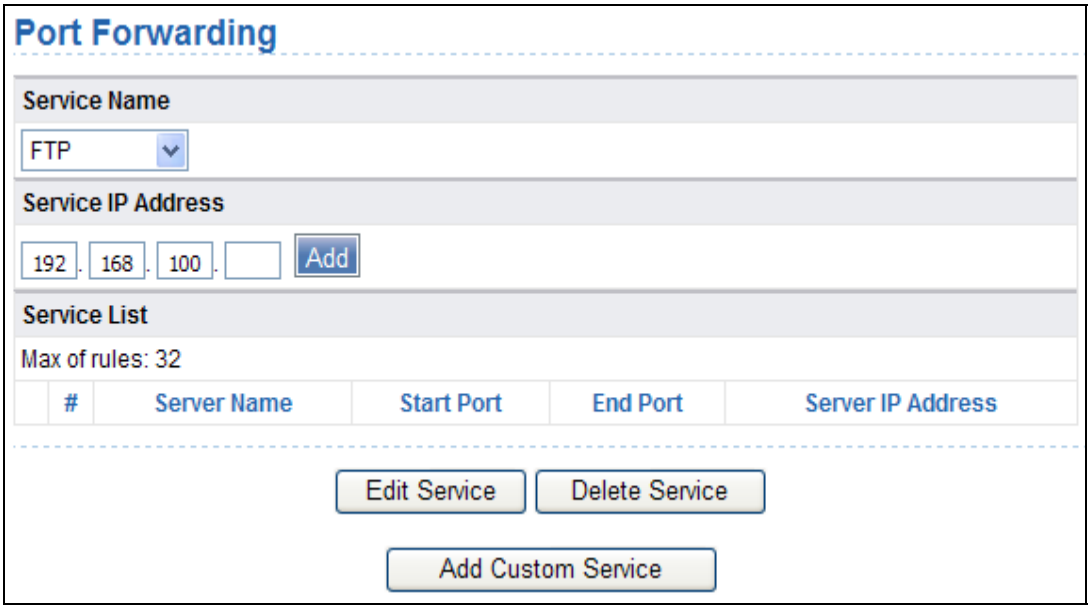


Figure 8-33

- **Service Name**: Select a service type.
- **Service IP Address**: Enter the IP address of the computer that provides services.

Click the Add Custom Service button and the Ports - Custom Service page is displayed:

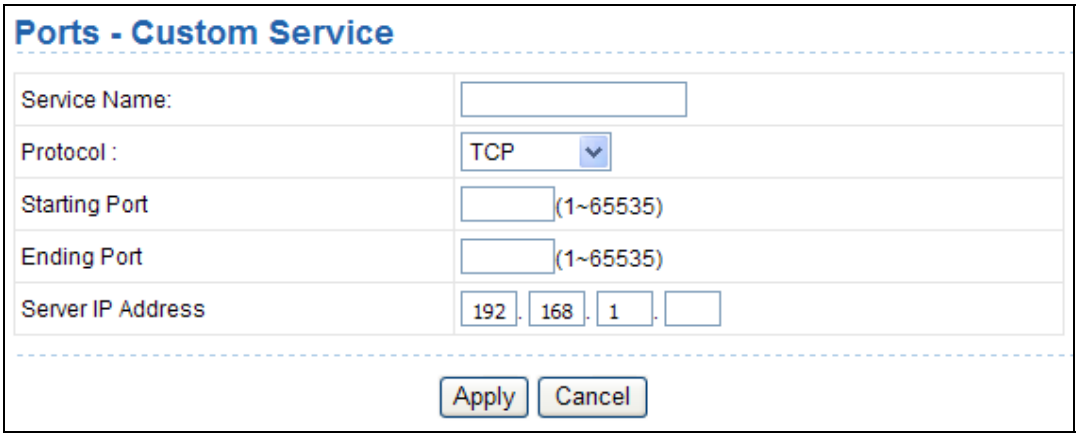


Figure 8-34

Object	Description
• **Service Name**:	Select a service type
• **Protocol**:	The protocol used at the mapping port. You can select **TCP/UDP**, **TCP**, or **UDP**. It is recommended to use **TCP/UDP** if you do not know which protocol should be used.
• **Starting Port**:	After the connection to the mapping port is established, the corresponding port is open and the application can initiate subsequent connection requests to the open port
• **Ending Port**:	Set the end port of the mapping port range
• **Service IP Address**:	Enter the IP address of the computer that provides services

After finishing settings, click **Apply** to save the settings.

8.8.2. Port Triggering

Certain applications, such as WAN network games, video conferences, and network calls, require multiple connections. Because of the firewall setting, these applications cannot work on a simple NAT router. However, certain special applications enable the applications to work on an NAT router.

When an application sends a connection request to a trigger port, the corresponding ports are open for later connection and service provision.

Choose **Network Application** > **Port Triggering** and the **Port Triggering** page is displayed.

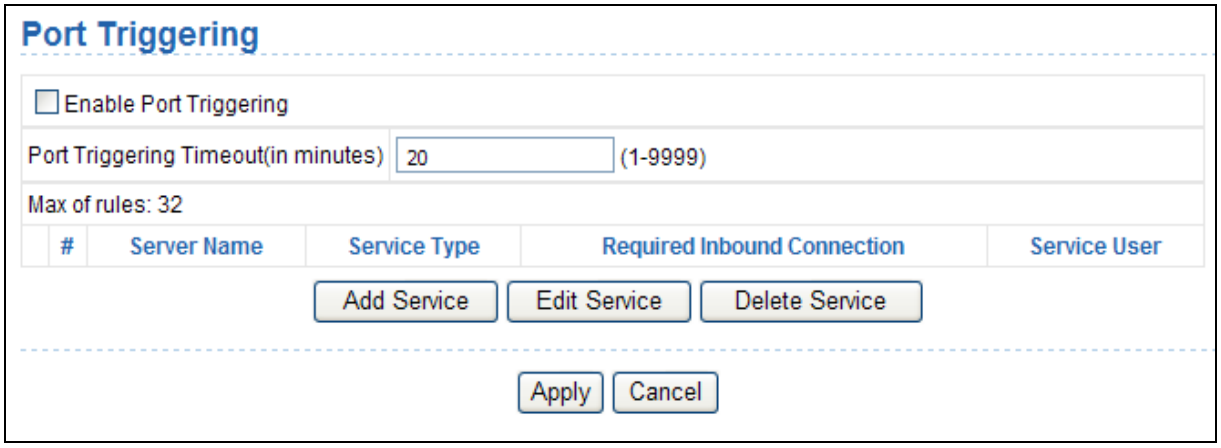


Figure 8-35

Object	Description
• **Enable Port Triggering**:	If Enable Port Triggering box is not checked, all port triggering function will be disabled
• **Port Triggering Timeout**:	The timeout value controls the inactive timer at the specified ingress port. Upon timeout of the inactive timer, the ingress port is disabled

Click the **Add Service** button and the **Port Triggering – Services** page is displayed:

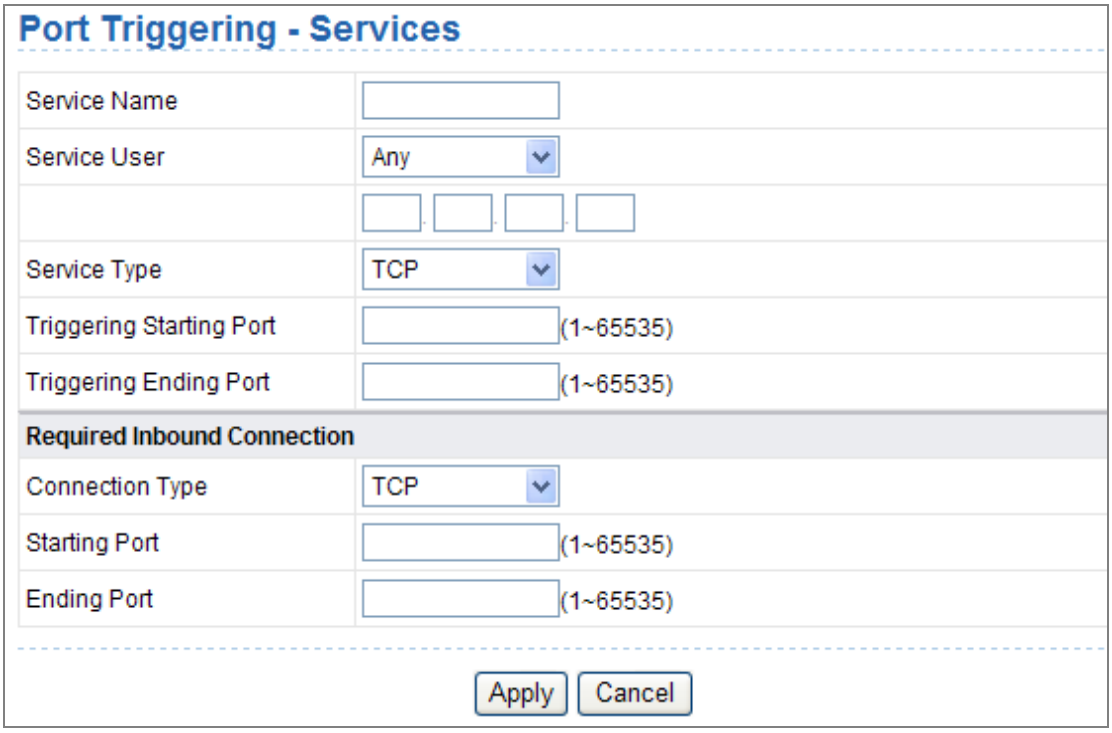


Figure 8-36

Object	Description
• **Service Name**:	Enter a service name
• **Service User**:	■ **Any**: Allow everybody in the user network to use the service. ■ **Single address**: Enter the IP address of the network adapter on the PC. Then, the service is applied only on the specific network adapter of the PC.
• **Service Type**:	The protocol used at the triggering port. You can select **TCP/UDP**, **TCP**, or **UDP**
• **Triggering Starting Port**:	The first port to which an application sends a connection request. All relevant ports can be open only after connection is established at this starting port. Otherwise, other relevant ports are not open.
• **Triggering Ending Port**:	Set the end port of the triggering port range.
• **Starting Port**:	The starting port of the port range
• **Ending Port**:	The ending port of the port range.

After finishing settings, click **Apply** to add a port triggering rule.

8.8.3. UPnP

By using the Universal **Plug and Play (UPnP)** protocol, a host in the LAN can ask the router to perform specific port conversion, to enable an external host to access resources on the internal host when necessary. For example, if MSN Messenger is installed on Windows ME and Windows XP operating systems, UPnP can be used for audio and video conversations. In this way, functions restricted by NAT can work properly.

Choose **Network Application** > **UPnP** and the **UPnP** page is displayed.

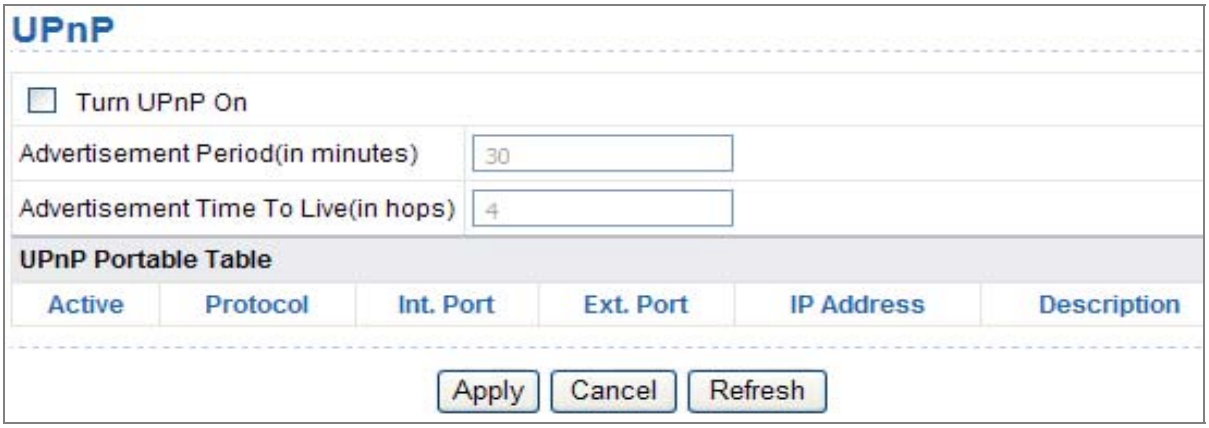


Figure 8-37

Object	Description
• **Turn UPnP On**:	If selected, UPnP is enabled
• **Advertisement Period (in minutes)**:	Set the broadcast interval. It indicates the interval for the router broadcasting its UPnP information. The value should be in the range of 1 to 1440 minutes and the default is 30 minutes
• **Advertisement Time To Live (in hops)**:	The time for the broadcast to live. It is the number of hops after each UPnP packet is sent. The number of hops is the times that each packet can be broadcast before it vanishes. The value is in the range of 1 to 255 hops and the default is 4 hops
• **UPnP Portable Table**:	This table shows the IP addresses of UPnP devices that are connected to the router and open (internal and external) ports on the devices. It also lists the types and status of the open ports.

Note

- Only applications that support UPnP can use the UPnP function.
- The functionality of UPnP requires support by the application and operating systems such as Windows ME, Windows XP, and Windows Vista

8.8.4. IGMP Proxying

Click **Network Application** > **IGMP Proxying** and the **IGMP Proxying** page is displayed.

Figure 8-38

- **Enable IGMP proxying**: IGMP proxying enables a PC in the LAN to receive desired multicast traffic from the Internet.
- Disable IGMP proxying if you do not need this function.

After finishing the setting, click **Apply** to apply the setting.

8.8.5. DMZ Server

DMZ (Demilitarized Zone), a special network zone that is different from the external network or the internal network. Servers that are allowed to access the external network, such as Web and e-mail, connect to the DMZ. The internal network is protected behind the Trust Zone interface, and is not allowed any user to access. Therefore, the internal and external networks are separated, which can meet user's secrecy demand.

Usually, there are some public servers in DMZ, such as Web, Mail, and FTP. Users from the external network can access services in DMZ, but they cannot obtain the company's secret information or personal information that is stored on the internal network. Even though servers in the DMZ are damaged, it does not cause secret information loss on the internal network.

Choose **Network Application** > **DMZ Server** and the **DMZ Server** page is displayed.

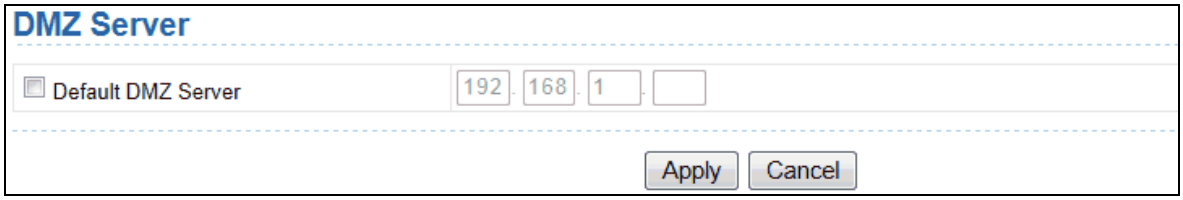


Figure 8-39

- **Default DMZ Server**: Enter the IP address of a PC that serves as the DMZ server.

Note

When PC on the internal network is set to be the DMZ host, all interfaces of the PC will be exposed to the Internet and the PC will risk great security.

Unless necessary, please do not set the DMZ casually. After the DMZ host is set, mappings of all the interfaces will point to the DMZ host and the port mappings that point to other hosts will be invalid.

8.8.6. Dynamic DNS

Dynamic domain name resolution (DDNS) is mainly used to achieve resolution between fixed domain names and dynamic IP addresses. For a user that uses a dynamic IP address, after the user obtains a new IP address in the Internet access, the dynamic domain name software installed in the host sends the IP address to the DDNS server provided by the DDNS service provider and updates the domain name resolution database. When another user on the Internet tries accessing the domain name, the dynamic domain name resolution server returns the correct IP address.

Choose **Network Application** > **Dynamic DNS** and the **Dynamic DNS** page is displayed.

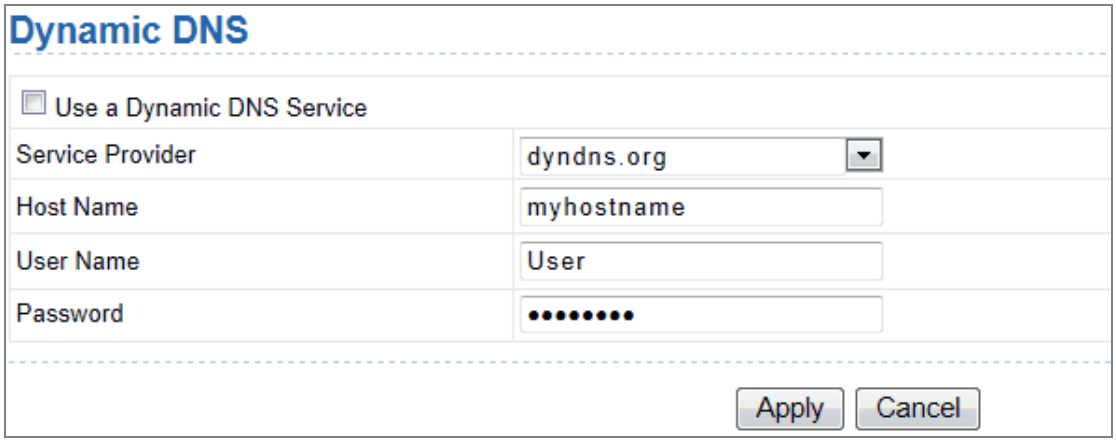


Figure 8-40

Object	Description
• **Use a Dynamic DNS Service**:	If you have registered with a DDNS service provider, select **Use a Dynamic DNS Service**.
• **Service Provider**:	Select your DDNS service provider.
• **Host Name**:	Enter the host name or domain name provided by your DDNS service provider
• **User Name**:	Enter the name of your DDNS account
• **Password**:	Enter the password of the DDNS account

After finishing the settings, click **Apply** to apply the settings.

8.8.7. Static Routes

Static routing is a special type of routing that can be applied in a network to reduce the problem of routing selection and data flow overload caused by routing selection so as to improve the packets forwarding speed. You can set the destination IP address, subnet mask, and gateway to specify a routing rule. The destination IP address and subnet mask determine a destination network or host to which the router sends packets through the gateway.

Choose **Network Application** > **Static Routes** and the **Static Routes** page is displayed.

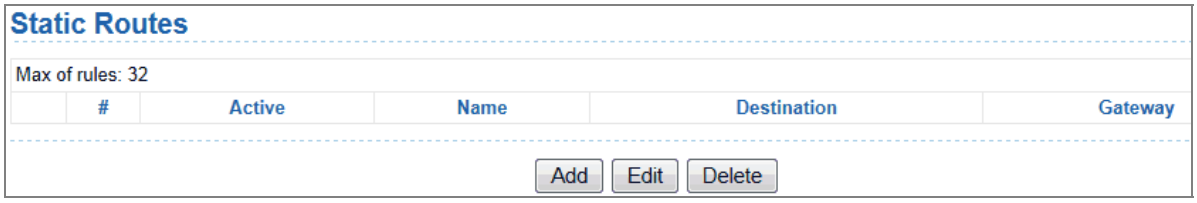


Figure 8-41

Click **Add** to add a static routing rule.

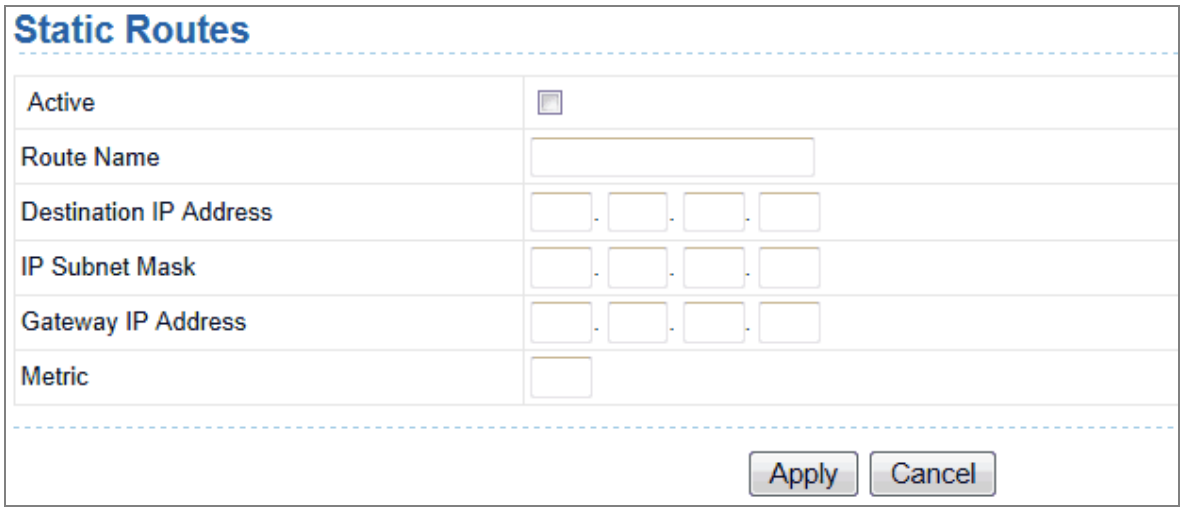


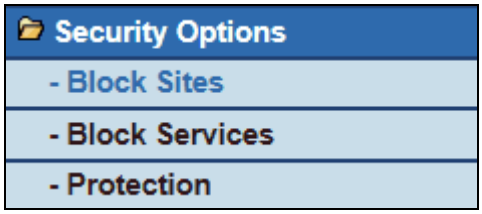
Figure 8-42

Object	Description
• **Active**:	The static routing rule can take effect only if the **Active** check box is selected.
• **Route Name**:	Enter the name of the static route.
• **Destination IP Address**:	The destination address or network that you want to access. This IP address cannot be in the same network segment as the IP address of the WAN or LAN interface of WNAP-1260.
• **IP Subnet Mask**:	This IP subnet mask together with the destination IP address identify the target network
• **Gateway IP Address**:	The IP address of the next node to which packets are sent. The gateway IP address must be in the same network segment as the IP address of the WAN or LAN interface of WNAP-1260.
• **Metric**:	The number of other routers in the user network. The value ranges from 2 to 15. Usually, the value of 2 or 3 leads to the best performance. If the route is direct connection, set **Metric** to 2

After finishing settings, click **Apply** to save the settings.

8.9. Security Options

Click **Security Options** and the extended navigation menu is shown as follows:



Click a submenu to perform specific parameter configurations.

8.9.1. Block Sites

WNAP-1260 allows you to restrict access based on WEB addresses and WEB address keywords. When a user tries accessing a restricted website, a message is displayed, indicating that the firewall restricts access to the website.

Choose **Security Options** > **Block Sites** and the **Block Sites** page is displayed.

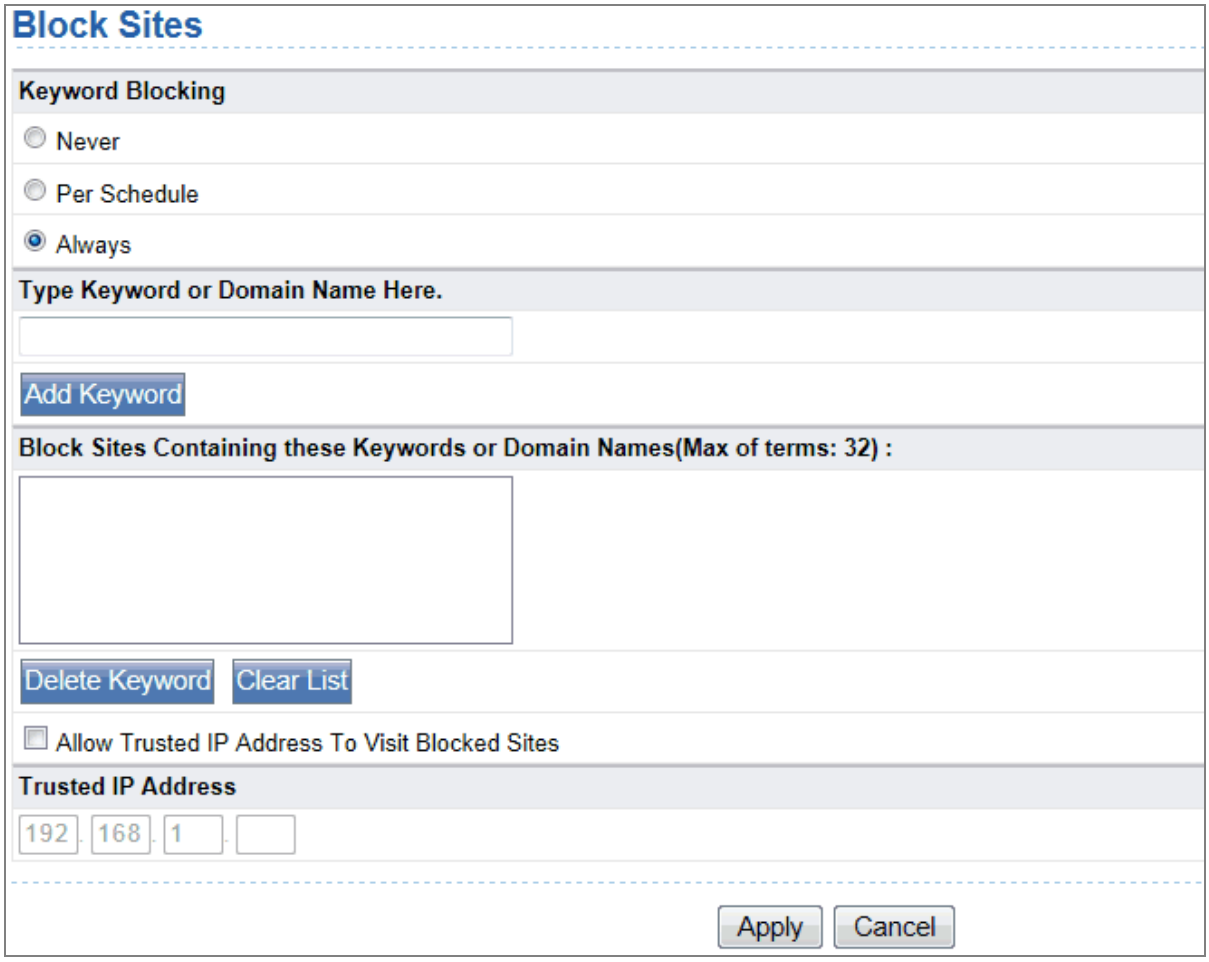


Figure 8-43

To block access to Internet sites:

Step 1 Select **Per Schedule** or **Always** to enable keyword blocking.

To block by schedule, be sure to specify a time period in the **Schedule** page. For more information about scheduling, refer to section 8.10.3. "Schedules".

Step 2 Enter keywords or domain names that you want to block in the keyword field and click **Add Keyword**. The keyword or domain name then appears in the **Block Sites Containing these Keywords or Domain Names** list.

Note

Keyword application examples:

- If the keyword **XXX** is specified, the URL www.aabbcc.com/xxx.html is blocked.
- If the keyword **.com** is specified, only websites with other domain suffixes (such as .edu, .org, or .gov) can be accessed.

Step 3 You can specify one trusted user, which is a computer that has no restriction in network access. To specify a trusted user, enter the computer's IP address in the **Trusted IP Address** field and select the **Allow Trusted IP Address To Visit Blocked Sites** check box.

Since the trusted user is identified by IP address, you should configure that computer with a fixed IP address.

Step 4 Click **Apply** to save the settings.

8.9.2. Block Services

WNAP-1260 allows you to block the use of certain Internet services by computers on your network. Choose **Security Options** > **Block Services** and the **Block Services** page is displayed.

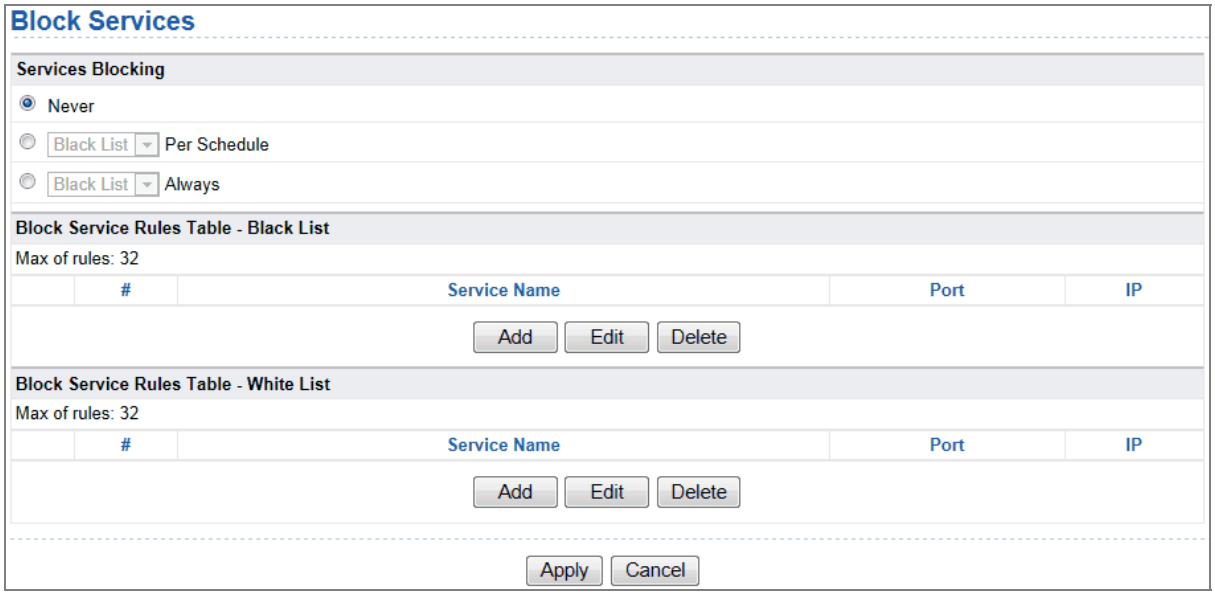


Figure 8-44

To specify a service for blocking:

Step 1 Select **Per Schedule** or **Always** to enable keyword blocking.

To block by schedule, be sure to specify a time period in the **Schedule** page. For more information about scheduling, refer to section 8.10.3. "Schedules".

- **Black List**: Indicates to prevent service that complies with the rule in the **Block Service Rules Table-Black List** area from being used.
- **White List**: Indicates to allow only service that complies with the rule in the **Block Service Rules Table-White List** area to be available for use.

Step 2 Click **Add** to specify a service for blocking. The **Block Services Setup** page is displayed:

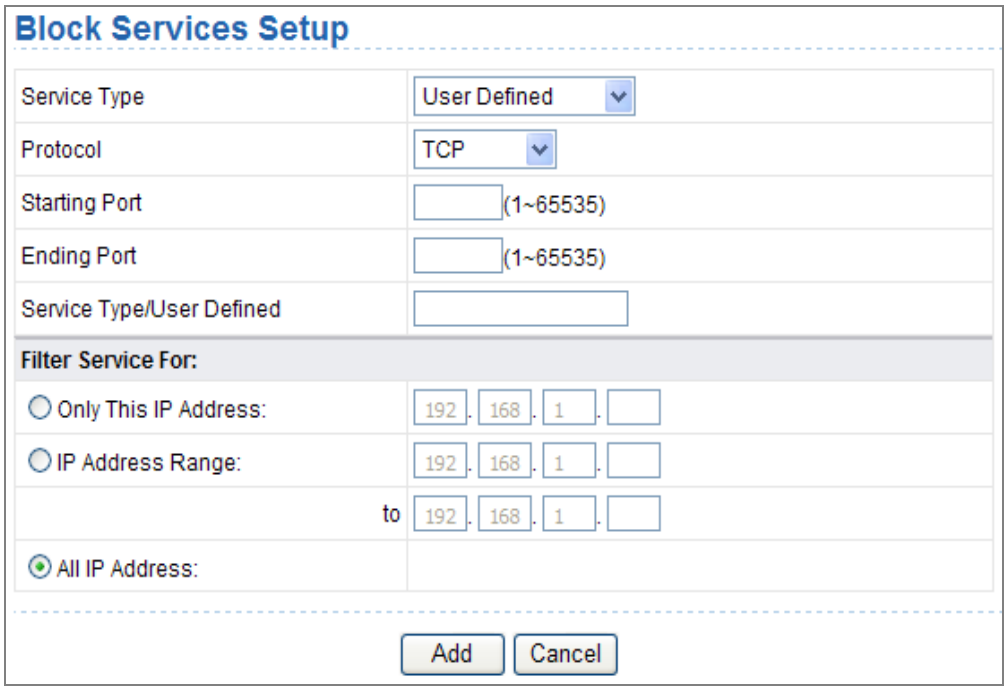


Figure 8-45

Step 3 Set the parameters in this page.

Object	Description
• **Service Type**:	Select a service type. If your desired type is not in the list, select User defined. Then, you need to select the protocol, enter the service name, and specify the port range. For services that exist in the drop-down list, the corresponding information is already preset.
• **Protocol**:	Set the protocol used at service ports. If you are not sure about the protocol that the application uses, select TCP/UDP.
• **Starting Port/Ending Port**:	The starting and ending ports of the port range where the specified service is blocked. If the application uses a single port number, enter the number in both fields
• **Service Type/User Defined**:	Enter the service name
• **Filter Service For:**	You can block the specified service for a single computer, computers within an IP address range, or all computers

After finishing settings, click **Add** to add a new rule. Then, click **Apply** to save the settings.

8.9.3. Protection

Choose **Security Options** > **Protection** and the **Protection** page is displayed.

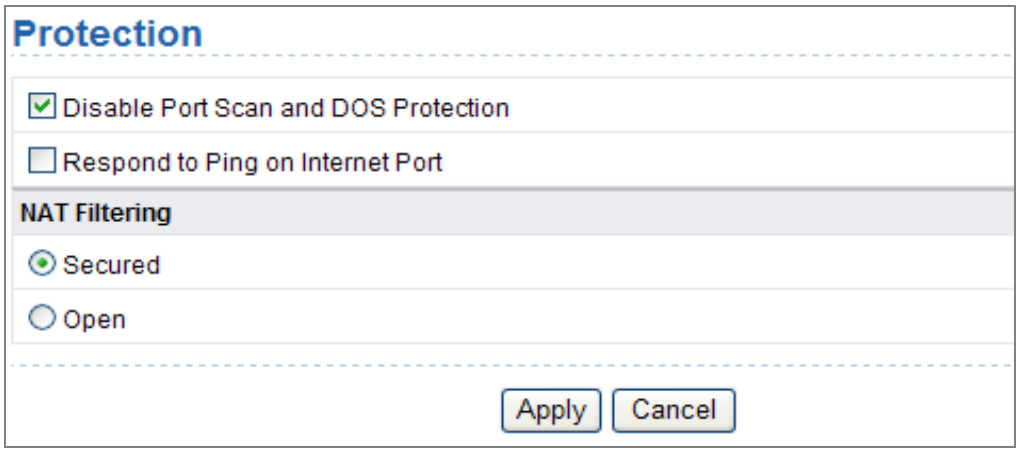


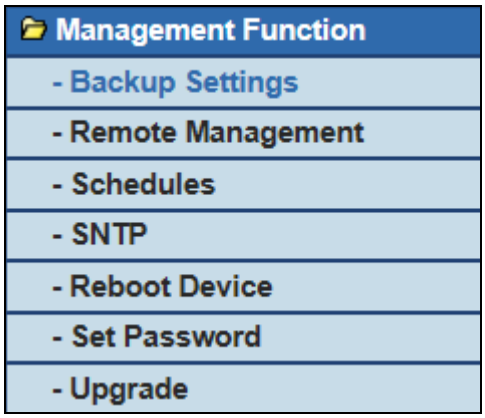
Figure 8-46

Object	Description
• **Disable port scan and DoS protection**:	**Denial of service (DoS)** protection protects your LAN against DOS attacks. Generally, please enable the port scanning and DOS protection function
• **Respond to Ping on Internet Port**:	If enabled, the router responds to ping commands from the Internet. However, like the DMZ server, enabling this function can bring about security risks. Generally, please disable this function.
• **NAT Filtering**:	NAT filtering determines the way that the router deals with incoming traffic. ■ **Secured**: This option provides a secured firewall to protect PCs on LAN from attacks from the Internet, but it may not allow some Internet games, point-to-point applications, or multimedia applications to work. ■ **Open**: This option provides a less secure firewall that allows almost all Internet applications to work.

After finishing the settings, click **Apply** to apply the settings.

8.10. Management Function

Click **Management Function** and the extended navigation menu is shown as follows.



Click a submenu to perform specific parameter configurations.

8.10.1. Backup Settings

Choose **Management Function** > **Backup Settings** and the **Backup Settings** page is displayed.

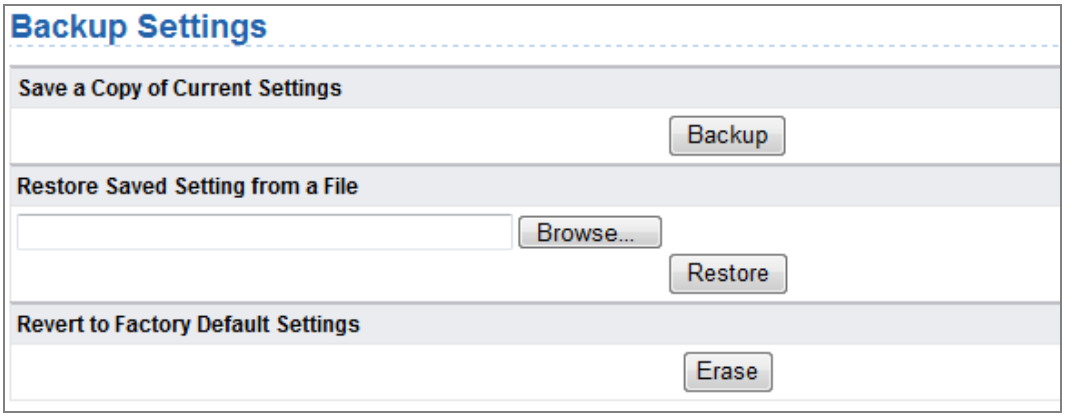


Figure 8-47

In this page, you can export configuration information of the router to the computer in the form of XML for later use, import a previously saved or a new configuration file, and restore the factory default settings of the router.

■ **Backup**

Click Backup and save configuration information of the router as a local file.

Note: Before saving your configuration file, change the administrator password to the default (admin) in case you forget your password. Then change it again after you have saved the configuration file. If you forget the password, you will need to reset the configuration to factory defaults.

■ **Restore**

The Backup and Restore options in the Backup Settings page let you save and retrieve a file containing your router's configuration settings.

Click Browse… to select the configuration file restored in your computer and click Restore to load the file to the router.

■ **Erase**

Under some circumstances (for example, if you move the router to a different network or if you have forgotten the password) you might want to erase the configuration and restore the factory default settings.

Click Erase to restore the factory default settings of the router. This operation has the same effect as pressing the Reset button on the side panel for 3-6 seconds.

8.10.2. Remote Management

The remote management function allows you to configure the router from the WAN through the Web browser. In this way, you can manage the router on a remote host.

Choose **Management Function** > **Remote Management** and the **Remote Management** page is displayed.

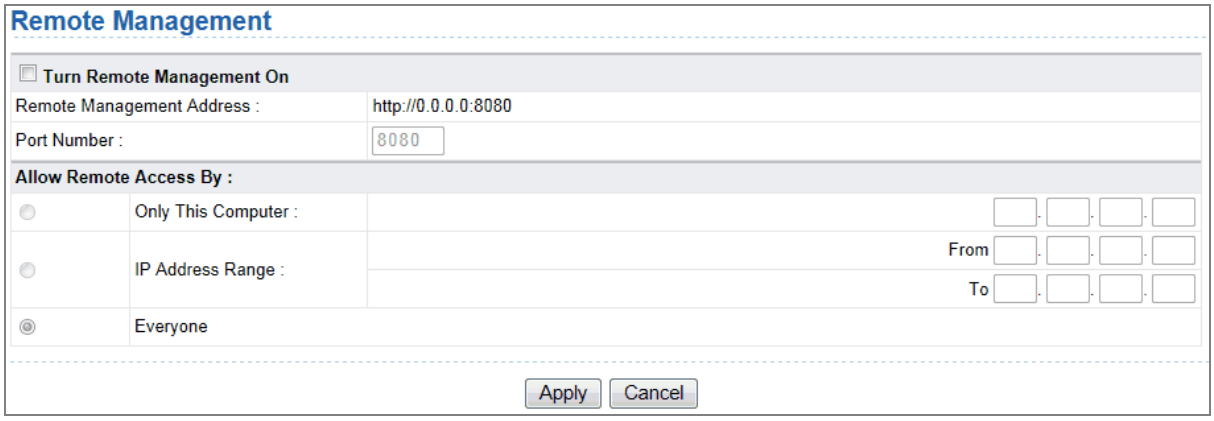


Figure 8-48

Object	Description
• **Turn Remote Management On**:	If selected, you can perform remote Web management for the router from the WAN
• **Remote Management Address**:	IP address that is used to access the router from the Internet. The default is http://0.0.0.0:8080. When accessing the router, you need to enter an address in the form of "**the WAN IP address of the router**"+ "**:**" + "**the port number**" in the IE address bar. For example, if your external address is **10.0.0.123** and the used port number is **8080**, enter **10.0.0.123:8080** in your browser.
• **Port Number**:	The port number for accessing the router through remote Web management.
• **Allow Remote Access By**:	Set the IP address of the computer on which remote Web management is carried out to access the router. ■ **Only This Computer**: Only the specified IP address can access the router. ■ **IP Address Range**: A range of IP addresses on the Internet can access the router. You need to enter the starting and ending IP addresses to specify a range. ■ **Everyone**: Everyone on the Internet can access the router.

After finishing settings, click **Apply** to save the settings.

8.10.3. Schedules

Choose **Management Function** > **Schedules** and the **Schedule** page is displayed.

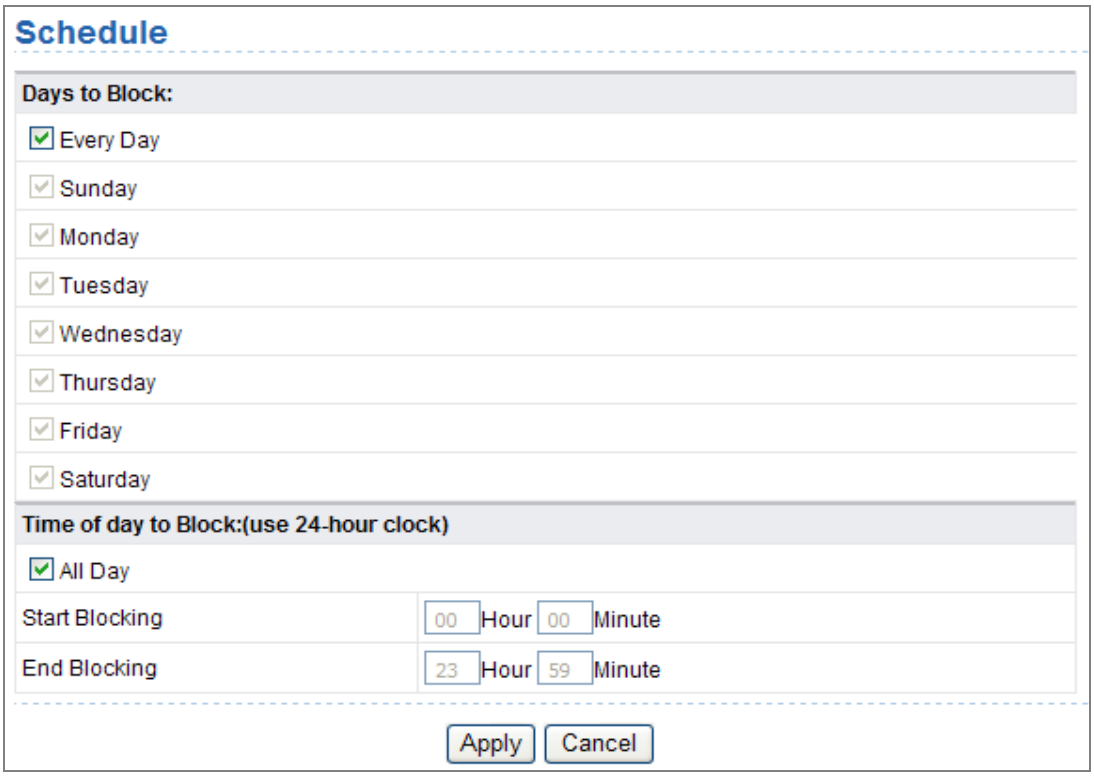


Figure 8-49

If you already set site filtering in the **Block Sites** page or set sevice filtering in the **Block Services** page, you can set a schedule to specify the time and mode of restricting Internet access.

Object	Description
• **Days to Block:**	Select days on which you want to apply blocking by selecting the appropriate check boxes. Select **Every Day** to select the check boxes for all days
• **Time of Day to Block:**	■ **All Day**: To perform 24-hour blocking. ■ **Start Blocking/End Blocking**: If you want to restrict access in a fixed period during the days you specify, enter the start and end time in 24-hour format.

After finishing settings, click **Apply** to save the settings.

8.10.4. SNTP

Choose **Management Function** > **SNTP** and the **SNTP** page is displayed.

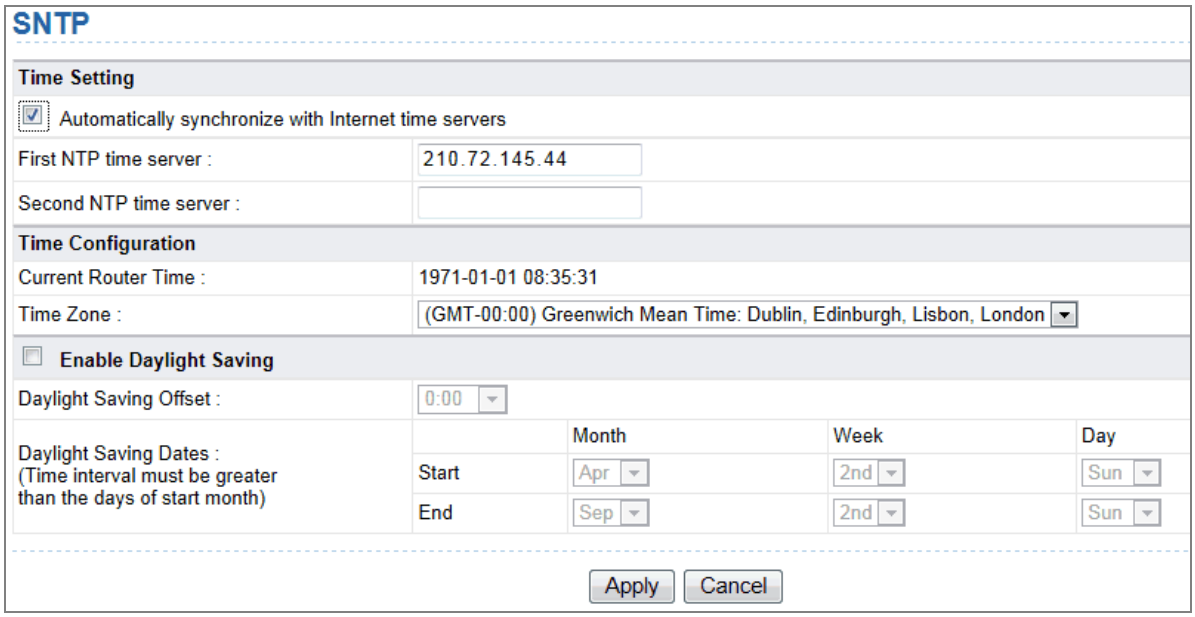


Figure 8-50

SNTP refers to **Simple Network Time Protocol**. In this page, you can set time information of your router. It is strongly recommended to set the correct time on the router first. This ensures proper functioning of log, site blocking, and schedule because their time settings are based on time information in this page.

Object	Description
• **Automatically synchronize with Internet time servers**:	If selected automatic synchronization with the network time server is enabled
• **First NTP time server**:	Enter the IP address of the primary NTP server. The NTP server is a network time server that is used to synchronize the time of computers on the Internet. When you set the first NTP time server, the router obtains GMT time from the specified NTP server with priority after it is connected to the Internet
• **Second NTP time server**:	Enter the IP address of the secondary NTP server if available
• **Current Router Time**:	Display the current system time of the router
• **Time Zone**:	Select the time zone where you are located.
• **Enable Daylight Saving**:	Enable or disable daylight saving time (DST).
• **Daylight Saving Offset**:	Select a proper offset. If it is set to +1:00, 10:00 in the morning in standard time becomes 11:00 in the morning in DST
• **Daylight Saving Dates**:	Set the starting time and ending time of DST

After finishing settings, click **Apply** to save the settings.

8.10.5. Reboot Device

Choose **Management Function** > **Reboot Device** and the **Reboot Device** page is displayed.

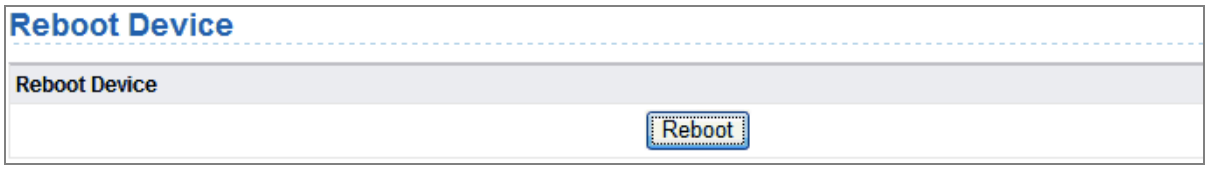


Figure 8-51

Click **Reboot** to reboot the router. After the router is rebooted, the system jumps to the login page.

8.10.6. Set Password

Choose **Management Function** > **Set Password** and the **Set Password** page is displayed.

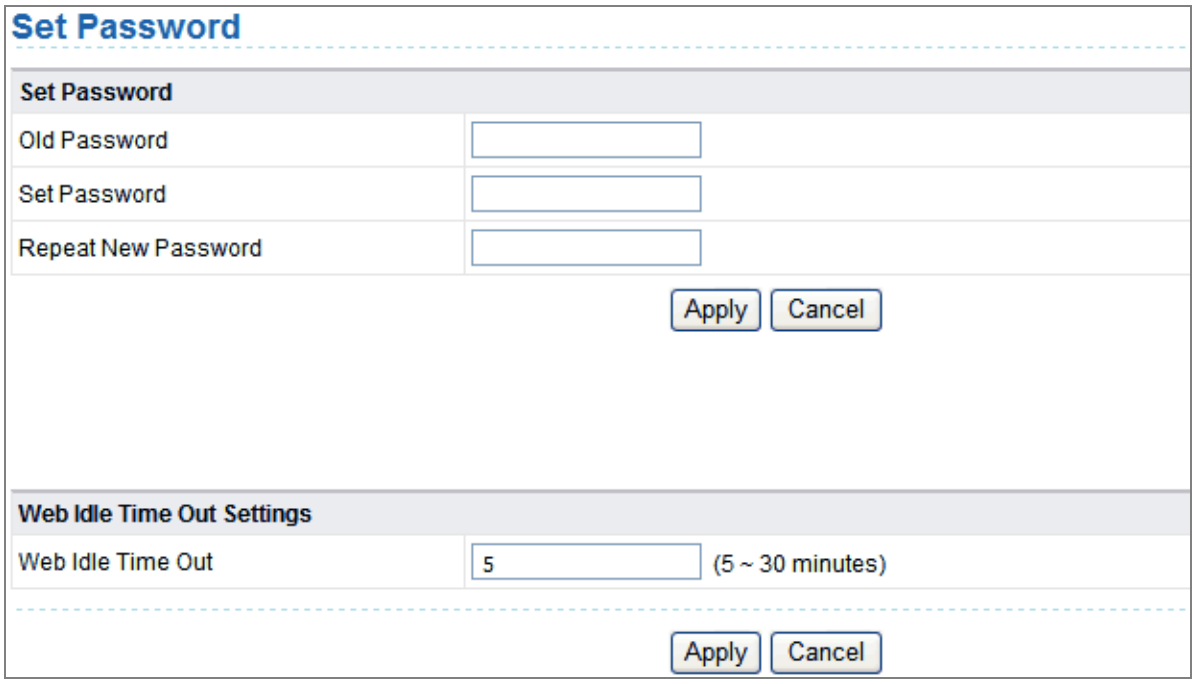


Figure 8-52

In this page, you can change the password of the administrator and set the page timeout time.

For security, it is strongly recommended to change the default password of the administrator. If you forget the password, you can restore the router to the default settings. The default password is admin.

8.10.7. Upgrade

Choose **Management Function** > **Upgrade** and the **Upgrade** page is displayed.

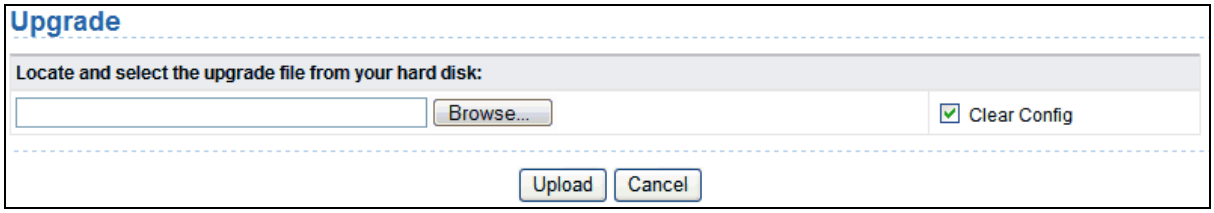


Figure 8-53

Upgrade the software of the router in the following steps:

Step 1 Click **Browse…** to navigate to the latest software.

Step 2 Select the correct upgrade file. If you select **Clear Config**, the router restores to the default settings after upgrade. If you do not select it, the current settings remain.

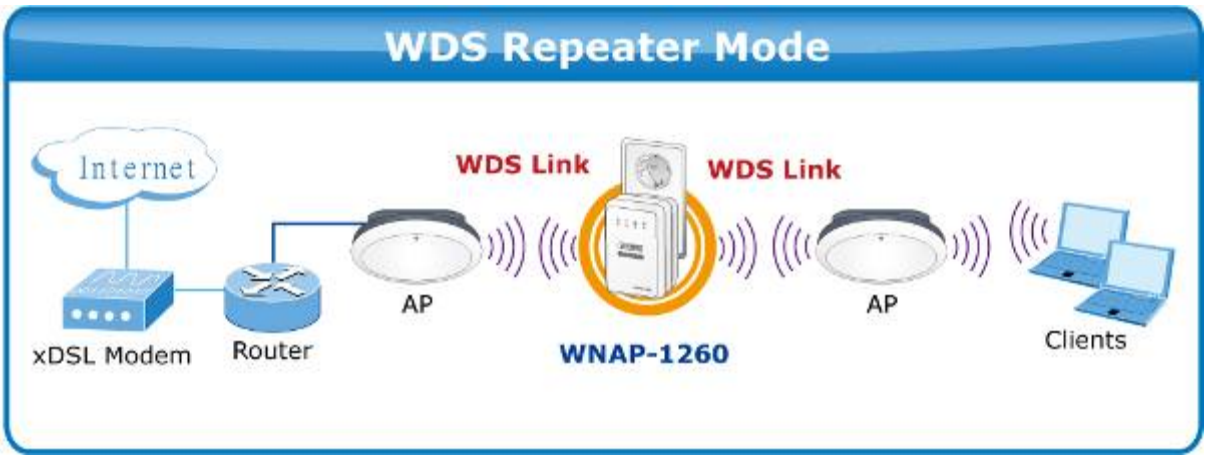
Step 3 Click **Upload** to start upgrade.

After the upgrade is completed, the router automatically reboots.

Chapter 9. Web Configuration for the WDS Mode

9.1. WDS Mode Topology

In the WDS mode, WNAP-1260 expands wireless coverage of the existing AP. Computers can connect to WNAP-1260 in either a wired or wireless way.



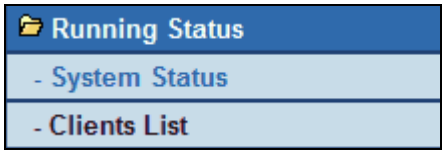
9.2. Hardware Setting

Set the three-way switch on the side panel to **Repeater** after WNAP-1260 is powered on.

9.3. Running Status

Log in to the configuration page after the system is started.

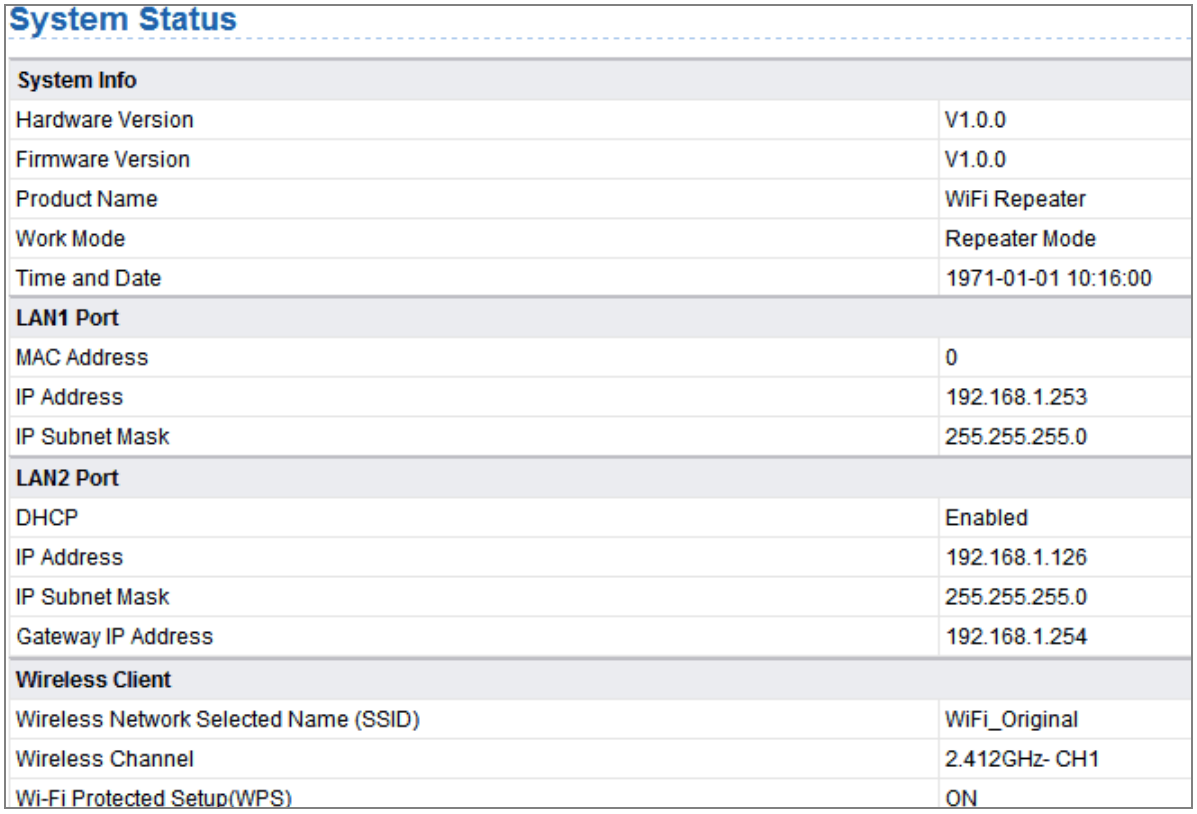
Click **Running Status** and the extended navigation menu is shown as follows:



Click the submenu to enter a specific configuration page.

9.3.1. System Status

Choose **Running Status** > **System Status** and the **System Status** page is displayed.



System Status

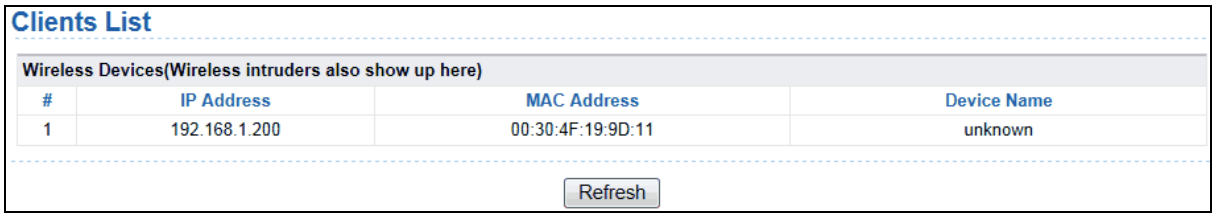
System Info	
Hardware Version	V1.0.0
Firmware Version	V1.0.0
Product Name	WiFi Repeater
Work Mode	Repeater Mode
Time and Date	1971-01-01 10:16:00
LAN1 Port	
MAC Address	0
IP Address	192.168.1.253
IP Subnet Mask	255.255.255.0
LAN2 Port	
DHCP	Enabled
IP Address	192.168.1.126
IP Subnet Mask	255.255.255.0
Gateway IP Address	192.168.1.254
Wireless Client	
Wireless Network Selected Name (SSID)	WiFi_Original
Wireless Channel	2.412GHz- CH1
Wi-Fi Protected Setup(WPS)	ON

Figure 9-1

In this page, you can view information about the current running status of WNAP-1260, including **system information**, **LAN port status**, and **wireless repeating information**.

9.3.2. Clients List

Choose **Running Status** > **Clients List** and the **Clients List** page is displayed.



Clients List

Wireless Devices(Wireless intruders also show up here)

#	IP Address	MAC Address	Device Name
1	192.168.1.200	00:30:4F:19:9D:11	unknown

Refresh

Figure 9-2

This page displays information of devices connected to WNAP-1260, including the IP adress and MAC address of each device.

9.4. Setup Wizard

For settings, refer to section 5.2. "**WDS Mode Configuration**".

9.5. Mode Setting

Click **Mode Settings** and the **Mode Settings** page is displayed.

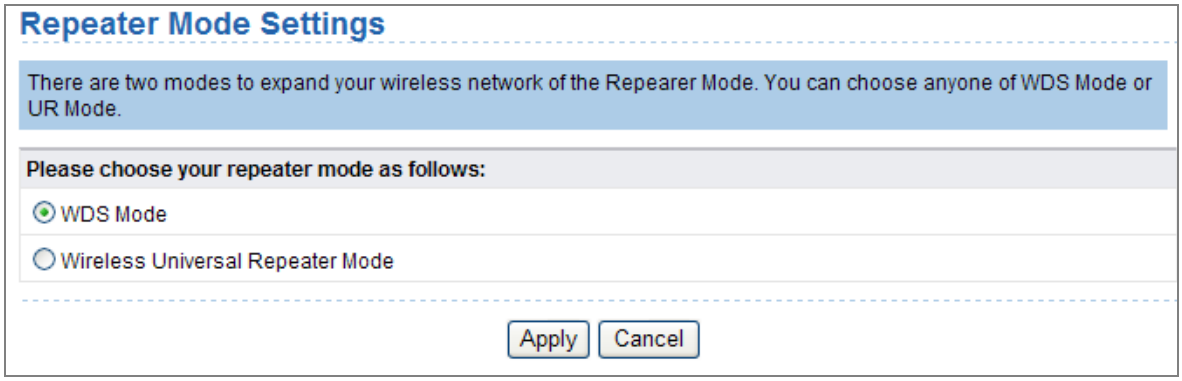
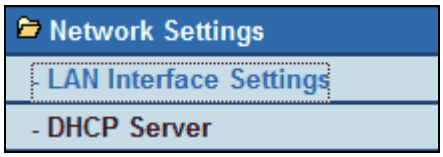


Figure 9-3

Select **WDS Mode**. Note that WDS function cannot be used if the channel is set to **Auto**.

9.6. Network Settings

Click **Wired Network Settings** and the extended navigation menu is shown as follows:



Click a submenu to perform specific parameter configurations.

9.6.1. LAN Interface Settings

Choose **Network Settings** > **LAN Interface Settings** and the **LAN Interface Settings** page is displayed.

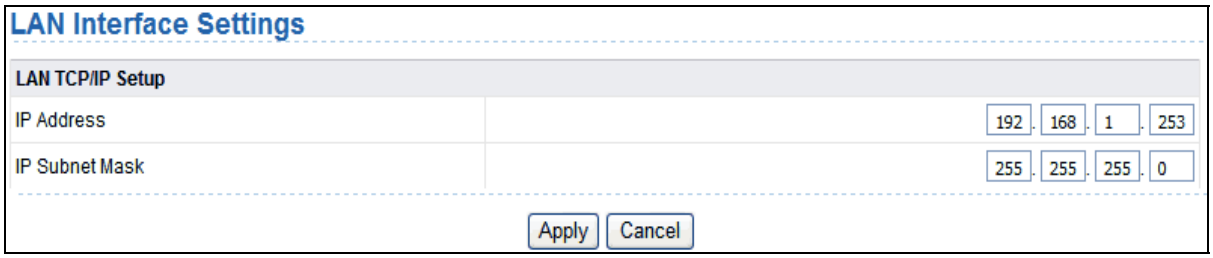


Figure 9-4

You can modify the IP address and IP subnet mask of the LAN port as required.

Note

If you change the default IP address, you must use the new IP address to log in to the Web configuration page of the router and the default gateway of all hosts in the LAN must be set to the new IP address for internet access. The subnet mask of all hosts in the LAN must be the same as the subnet mask specified in the LAN Interface Settings page.

9.6.2. DHCP Server

Choose **Network Settings** > **DHCP Server** and the **DHCP Server** page is displayed.

DHCP refers to **Dynamic Host Configuration Protocol**. If **Use Device as DHCP Service** is selected, WNAP-1260 automatically assigns IP addresses to comupters in the LAN. Users do not need to configure TCP/IP protocol paramters such as the IP address, the subnet mask, the gateway, and the DNS server information for computers connected to the router's LAN.

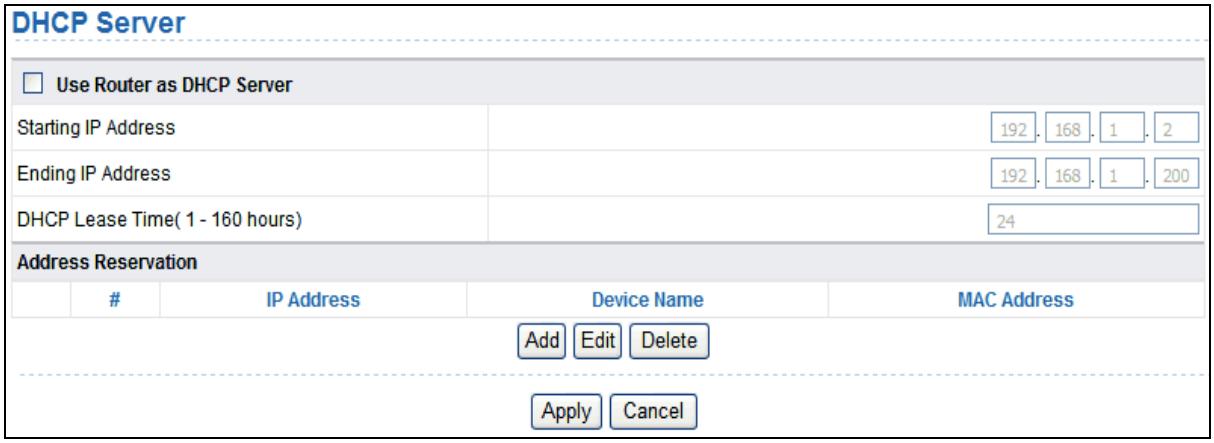


Figure 9-5

Using the Router as a DHCP Server

Object	Description
• **Use Router as DHCP Server**:	If you select the **Use Router as DHCP Server** check box, WNAP-1260 serves as a DHCP server to automatically assign IP addresses to computers connected to it
• **Starting IP Address/Ending IP Address**:	Set the starting and ending IP addresses to specify a pool of IP addresses to be assigned by the DHCP server. After you set **Starting IP Address/Ending IP Address**, hosts in the LAN obtain IP addresses that are in the range of the starting and ending IP addresses
• **DHCP Lease Time**:	The valid time for an IP address that is automatically assigned by the DHCP server to a host. The DHCP server does not assign the IP address to other hosts within the specified time

Using Address Reservation

When you specify a reserved IP address for a computer in the LAN, the computer always receives the same IP address each time it accesses the router's DHCP server. Reserved IP addresses should be assigned to computers or servers that require permanent IP settings.

To reserve an IP address:

Step 1 Click **Add** to enter the **Address Reservation** page.

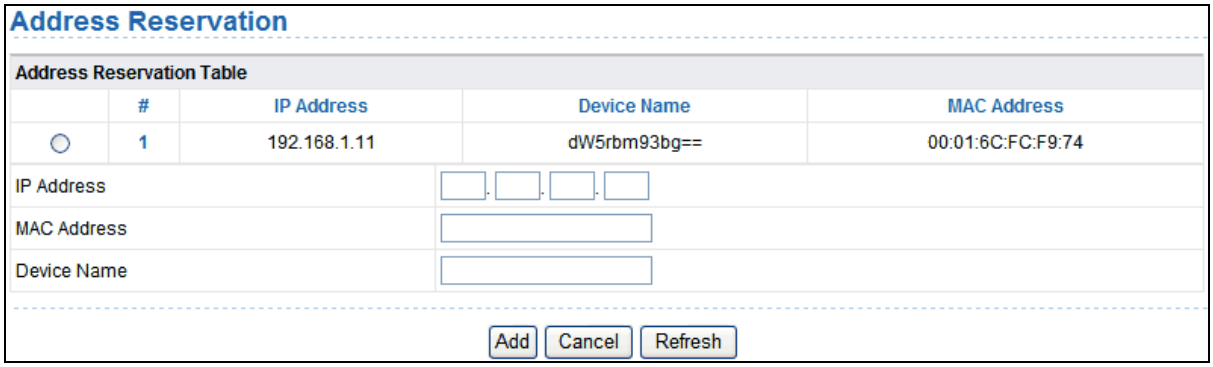


Figure 9-6

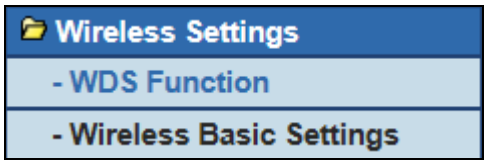
Step 2 Select one item from **Address Reservation Table**, or enter the IP address in the **IP Address** field to assign to the computer or server (Choose an IP address from the IP address pool that you have specified, for example 192.168.1.x). Enter the MAC address and device name of the computer or server.

Step 3 Click **Add** to add a new item into **Address Reservation**.

Step 4 Click **Apply** to save the settings.

9.7. Wireless Settings

Click **Wireless Settings** and the extended navigation menu is shown as follows:



Click a submenu to perform specific parameter configurations.

9.7.1. WDS Function

Wireless distribution system (WDS) enables interconnection between APs in an IEEE 802.11 wireless network. It extends the wireless network through several APs, without connection of the wired backbone network. Enable WDS if you want to use WDS to achieve wireless repeating or bridging.

Choose **Wireless Settings** > **WDS Function** and the **WDS Function** page is displayed.

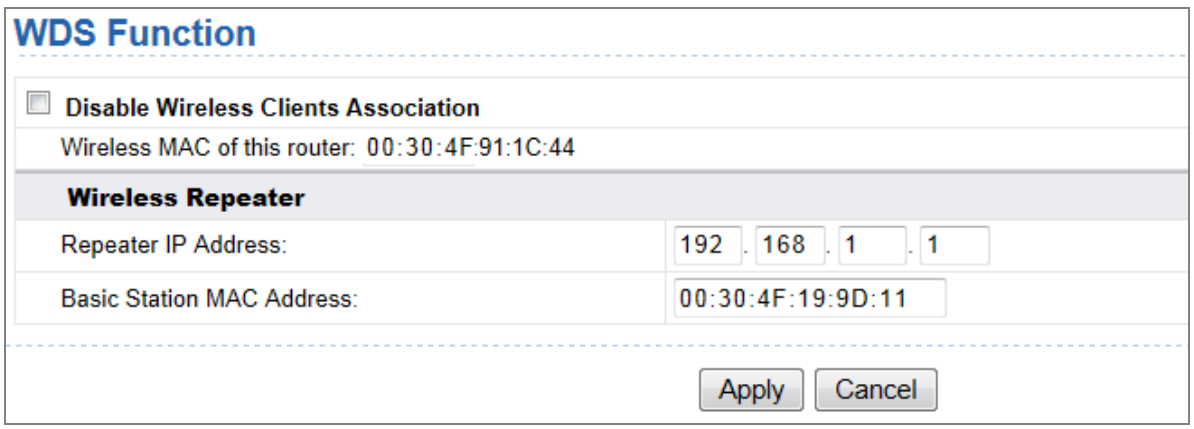


Figure 9-7

Object	Description
• **Disable Wireless Clients Association**:	If selected, the repeater does not transmit any signals to clients that are connected to it. Generally, clear this check box. Generally, select this check box
• **Repeater IP Address**:	Set the repeater's IP address different from the wireless basic station and other repeaters to avoid IP address conflict. We suggest setting IP addresses of the same network segment for the wireless basic station and repeaters
• **Basic Station MAC Address:**	Enter the MAC address of the wireless basic station.

After finishing settings, click **Apply** to save the settings.

For WDS application description, refer to section 5.2.3. "**WDS Application**".

9.7.2. Wireless Basic Settings

Choose **Wireless Settings** > **Wireless Basic Settings** and the **Wireless Basic Settings** page is displayed.

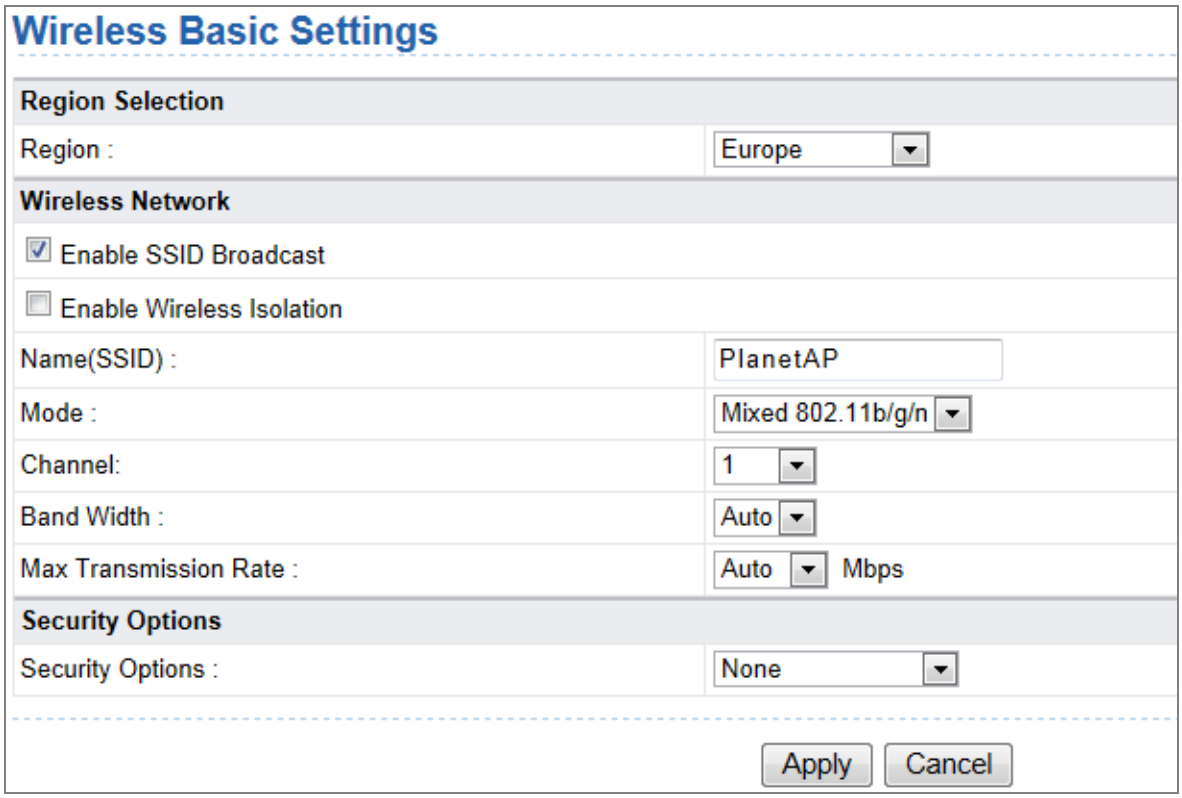


Figure 9-8

Object	Description
• **Region**:	Select the region where you are located.
• **Enable SSID Broadcast**:	If enabled, the router broadcasts its SSID in the wireless network. Wireless clients can scan the SSID and access the wireless network under the SSID.

• **Enable Wireless Isolation:**	If selected, wireless clients connected to the network of the same SSID can access the Internet only, but cannot communicate with each other.
• **Name (SSID)**:	Set the name for the wireless network. The SSID can contain up to 32 characters and can be letters, numerals, underlines, and any combinations of them. The SSID is case-sensitive
• **Mode**:	Select the wireless mode. Mixed 802.11b/g/n is recommended.
• **Channel**:	The channel for transmitting wireless signals. When you select Auto, WNAP-1260 automatically selects the best channel from the available channels according to actual situations. The default channel is **Auto**.
• **Band Width**:	The bandwidth occupied for wireless signal transmission.
• **Max Transmission Rate**:	The maximum transmission rate of WNAP-1260.
• **Security Options**:	Set the security encryption of the wireless network, to prevent unauthorized access and listening.

Security Options

– **None**

Data encryption is not adopted and the network is not secure. Any stations can access the network. This option is not recommended.

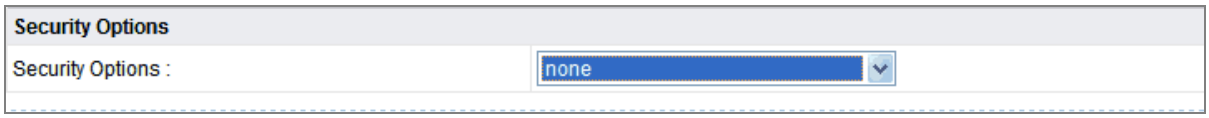


Figure 9-9

– **WEP**

Wired **E**quivalent **P**rivacy. You can use WEP 64- or 128-bit encryption.

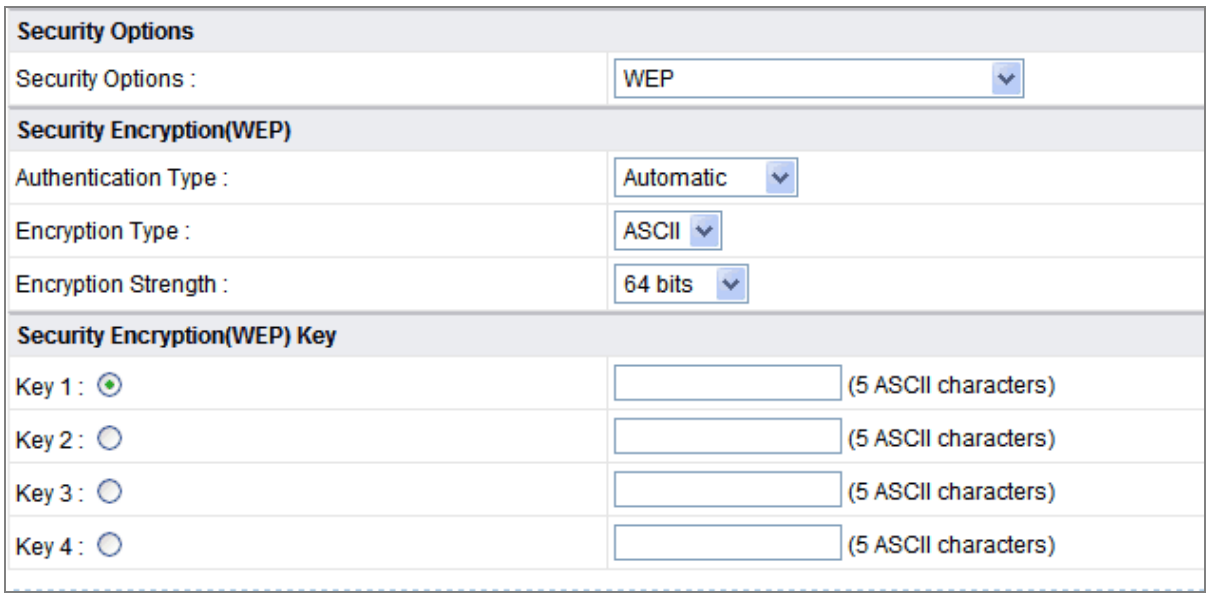


Figure 9-10

Object	Description
• **Authentication Type**:	Select the authentication type that the system adopts. Three authentication types are available: Automatic, Open, and Shared keys.

	■ **Automatic**: If selected, the router uses an authentication type of **Open** or **Shared keys** according to the request of the host. ■ **Open**: If selected, hosts in the wireless network can pass the authentication and connect to the wireless network without using a password. However, the password is required if you want to transmit data. ■ **Shared keys**: If selected, hosts in the wireless network can pass authentication only when the correct password is entered. Otherwise, the hosts cannot connect to the wireless network.
• **Encryption Type**:	The type of the key to be set. Hexadecimal and ASCII code are available. ■ **Hex**: Valid characters for keys contain 0–9 and A–F. ■ **ASCII**: Valid characters for keys contain all characters of the key board.
• **Encryption Strength**:	The encryption strength determines the length of the key. ■ If **Encryption Strength** is set to **64 bits**, set the key to 10 hexadecimal digits or 5 ASCII characters. ■ If **Encryption Strength** is set to **128 bits**, set the key to 26 hexadecimal digits or 13 ASCII characters.
• **Key 1/2/3/4**:	Set the key based on the selected encryption type and encryption strength.

– **WPA-PSK[TKIP] or WPA2-PSK[TKIP]**

- **WPA-PSK**: Preshared key Wi-Fi protection access
- **WPA2-PSK**: Preshared key Wi-Fi protection access version 2
- **TKIP**: Temporal Key Integrity Protocol

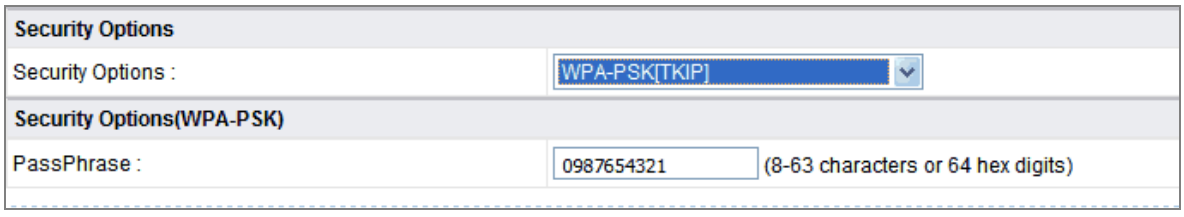


Figure 9-11

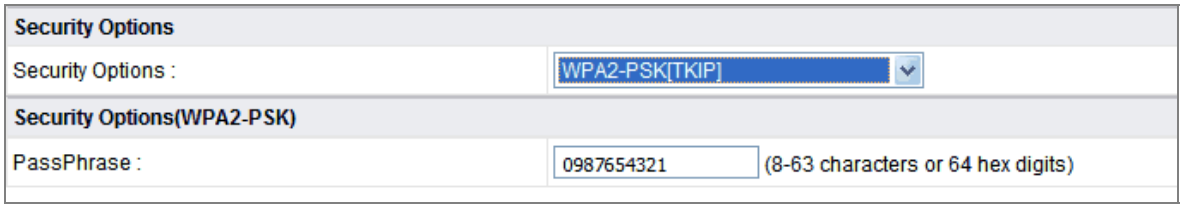


Figure 9-12

- **PassPhrase:** Enter 8-63 ASCII characters or 64 hexadecimal digits.

Note: The 802.11n mode does not support the TKIP algorithm.

– **WPA-PSK[AES] or WPA2-PSK[AES]**

- **WPA-PSK**: Preshared key Wi-Fi protection access.
- **WPA2-PSK**: Preshared key Wi-Fi protection access version 2.
- **AES:** Advanced Encryption Standard

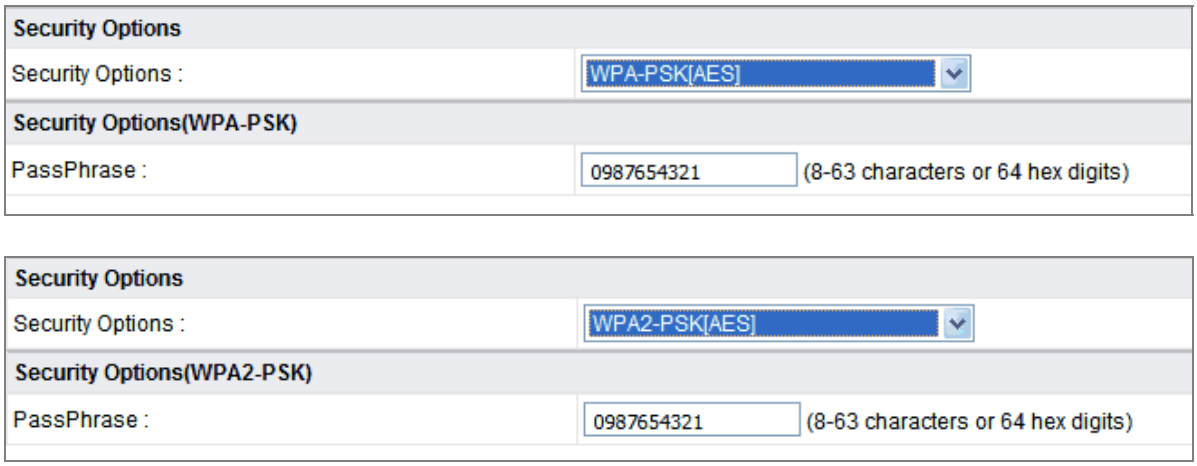


Figure 9-13

- **PassPhrase:** Enter 8-63 ASCII characters or 64 hexadecimal digits.

– **WPA-PSK/WPA2-PSK+[TKIP]/[AES]**

It allows the client to use either WPA-PSK[TKIP]/[AES] or WPA2-PSK[TKIP]/[AES].

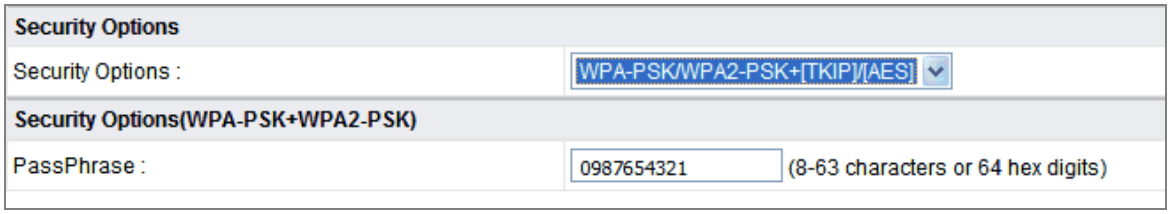


Figure 9-14

- **PassPhrase:** Enter 8-63 ASCII characters or 64 hexadecimal digits.

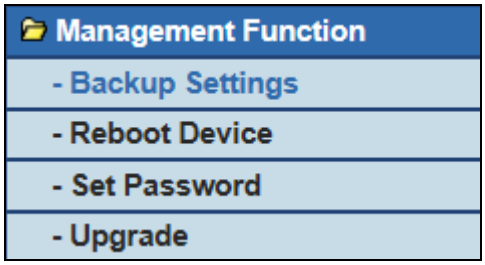
Note:

– After you complete configuring wireless settings for WNAP-1260, only hosts that have the same wireless settings (for example, the SSID) as WNAP-1260 can connect to it.

– If you configure security settings for WNAP-1260, hosts must have the same security settings (for example, the password) as WNAP-1260 in order to connect to WNAP-1260.

9.8. Management Function

Click **Management Function** and the extended navigation menu is shown as follows.



Click a submenu to perform specific parameter configurations.

9.8.1. Backup Settings

Choose **Management Function** > **Backup Settings** and the **Backup Settings** page is displayed.

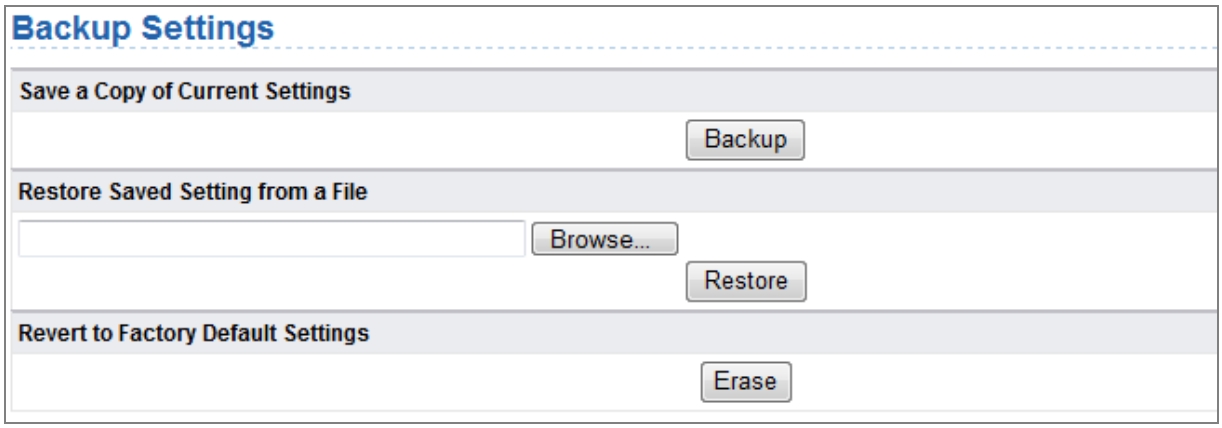


Figure 9-16

In this page, you can export configuration information of the router to the computer in the form of XML for later use, import a previously saved or a new configuration file, and restore the factory default settings of the router.

■ **Backup**

Click Backup and save configuration information of the router as a local file.

Before saving your configuration file, change the administrator password to the default (admin) in case you forget your password. Then change it again after you have saved the configuration file. If you forget the password, you will need to reset the configuration to factory defaults.

■ **Restore**

The Backup and Restore options in the Backup Settings page let you save and retrieve a file containing your router's configuration settings.

Click Browse… to select the configuration file restored in your computer and click Restore to load the file to the router.

■ **Erase**

Under some circumstances (for example, if you move the router to a different network or if you have forgotten the password) you might want to erase the configuration and restore the factory default settings.

Click Erase to restore the factory default settings of the router. This operation has the same effect as pressing the Reset button on the side panel for 3-6 seconds.

9.8.2. Reboot Device

Choose **Management Function** > **Reboot Device** and the **Reboot Device** page is displayed.

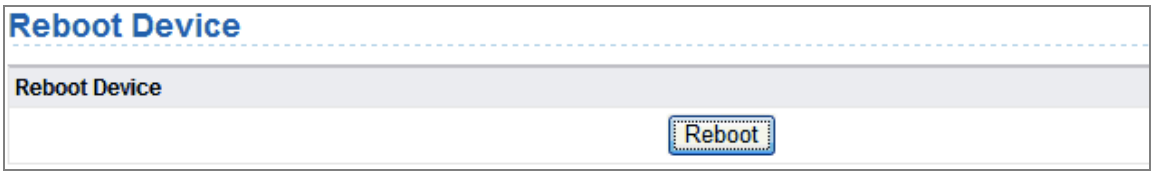


Figure 9-17

Click **Reboot** to reboot the router. After the router is rebooted, the system jumps to the login page.

9.8.3. Set Password

Choose **Management Function** > **Set Password** and the **Set Password** page is displayed.

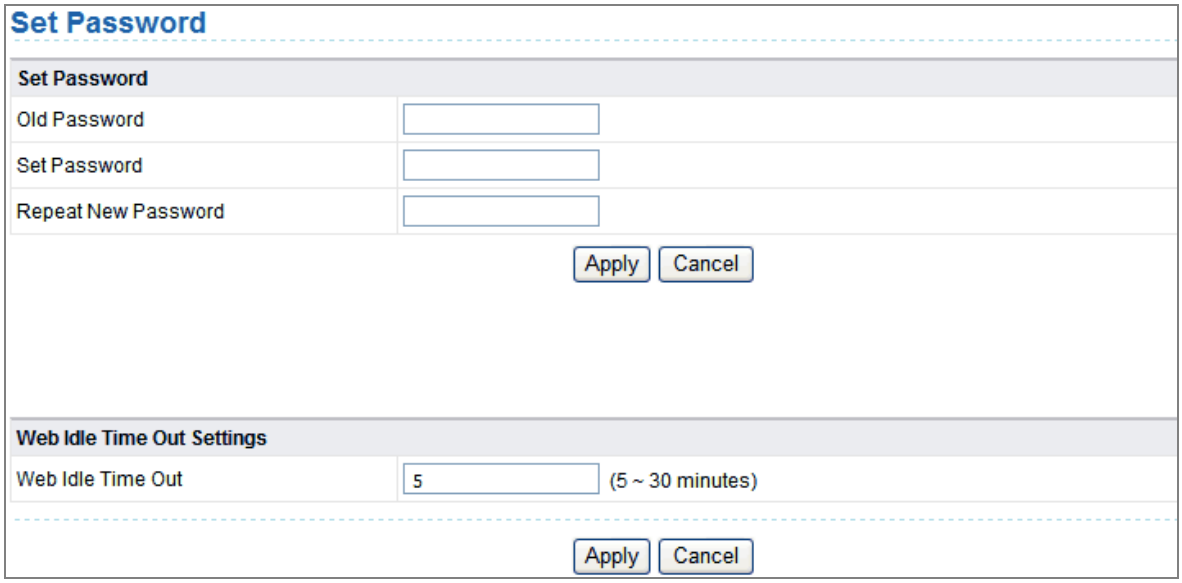


Figure 9-18

In this page, you can change the password of the administrator and set the page timeout time.

Note

For security, it is strongly recommended to change the default password of the administrator. If you forget the password, you can restore the router to the default settings. The default password is admin.

9.8.4. Upgrade

Choose **Management Function** > **Upgrade** and the **Upgrade** page is displayed.

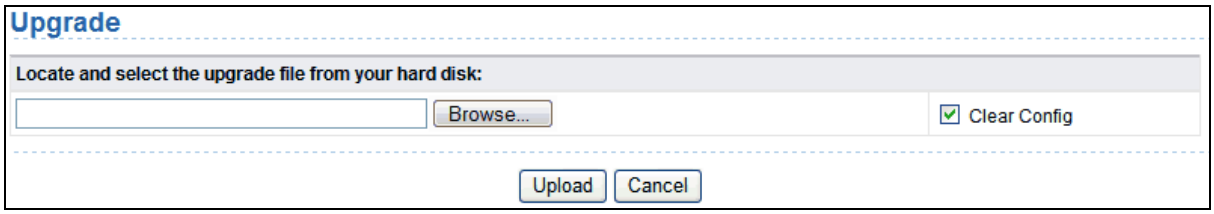


Figure 9-19

Upgrade the software of the router in the following steps:

Step 1 Click **Browse…** to navigate to the latest software.

Step 2 Select the correct upgrade file. If you select **Clear Config**, the router restores to the default settings after upgrade. If you do not select it, the current settings remain.

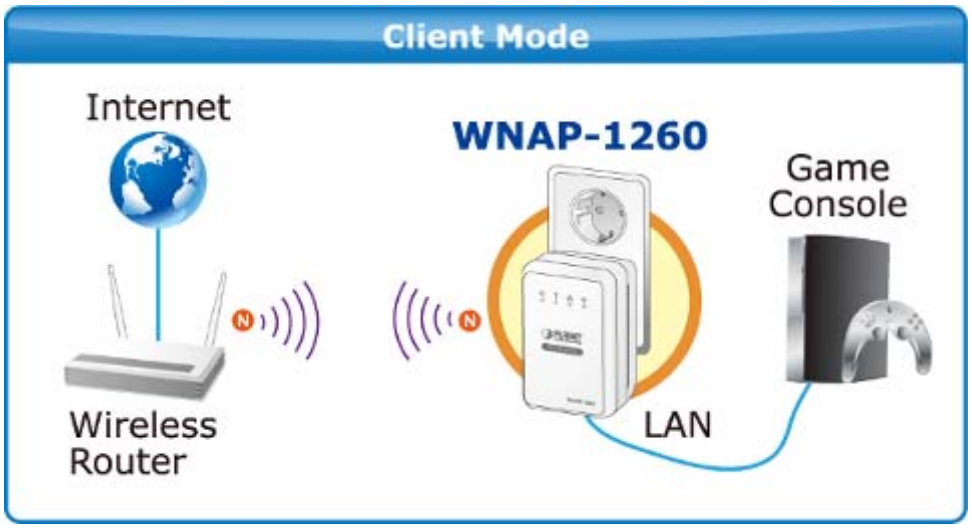
Step 3 Click **Upload** to start upgrade.

After the upgrade is completed, the router automatically reboots.

Chapter 10. Web Configuration for the Client Mode

10.1. Client Mode Topology

In Client Mode, the WNAP-1260 is supposed to act as a wireless station for the PC or other wired-only network device. Users can site survey the available local AP and choose someone to connect with.

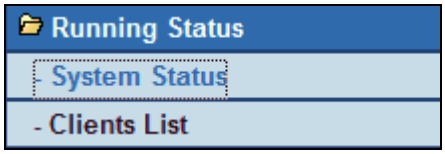


10.2. Hardware Setting

Set the three-way switch on the side panel to **Client** after WNAP-1260 is powered on.

10.3. Running Status

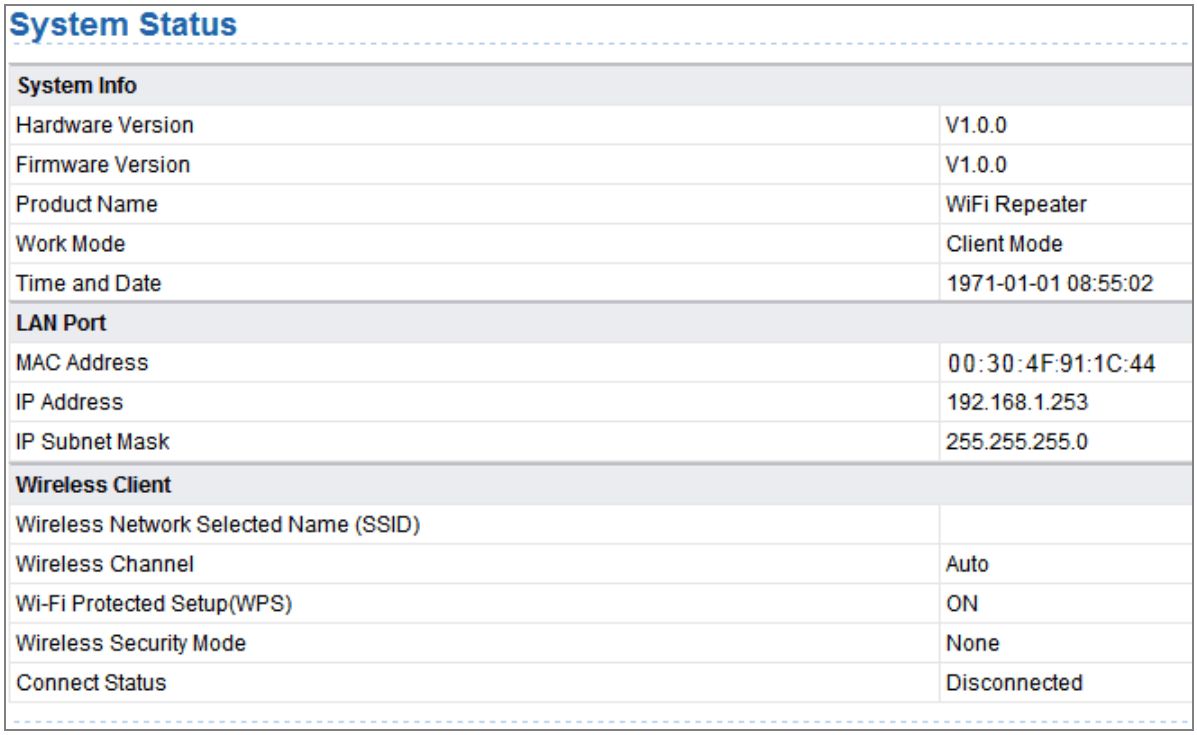
Log in to the configuration page after the system is started.
Click **Running Status** and the extended navigation menu is shown as follows:



Click the submenu to enter a specific configuration page.

10.3.1. System Status

Choose **Running Status** > **System Status** and the **System Status** page is displayed.



System Status

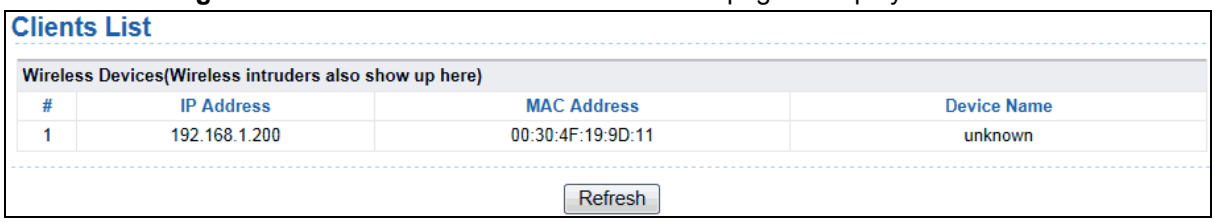
System Info	
Hardware Version	V1.0.0
Firmware Version	V1.0.0
Product Name	WiFi Repeater
Work Mode	Client Mode
Time and Date	1971-01-01 08:55:02
LAN Port	
MAC Address	00:30:4F:91:1C:44
IP Address	192.168.1.253
IP Subnet Mask	255.255.255.0
Wireless Client	
Wireless Network Selected Name (SSID)	
Wireless Channel	Auto
Wi-Fi Protected Setup(WPS)	ON
Wireless Security Mode	None
Connect Status	Disconnected

Figure 9-20

In this page, you can view information about the current running status of WNAP-1260, including system information, LAN port status, and wireless client status.

10.3.2. Clients List

Choose **Running Status** > **Clients List** and the **Clients List** page is displayed.



Clients List

Wireless Devices(Wireless intruders also show up here)

#	IP Address	MAC Address	Device Name
1	192.168.1.200	00:30:4F:19:9D:11	unknown

Refresh

Figure 9-21

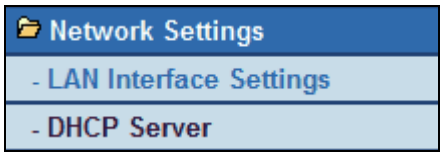
This page displays information of wireless devices connected to WNAP-1260, including the IP adress and MAC address of each device.

10.4. Setup Wizard

For settings, refer to section 5.5. "**Client Mode Configuration**".

10.5. Network Settings

Click **Network Settings** and the extended navigation menu is shown as follows:



Click a submenu to perform specific parameter configurations.

10.5.1. LAN Interface Settings

Choose **Network Settings** > **LAN Interface Settings** and the **LAN Interface Settings** page is displayed.

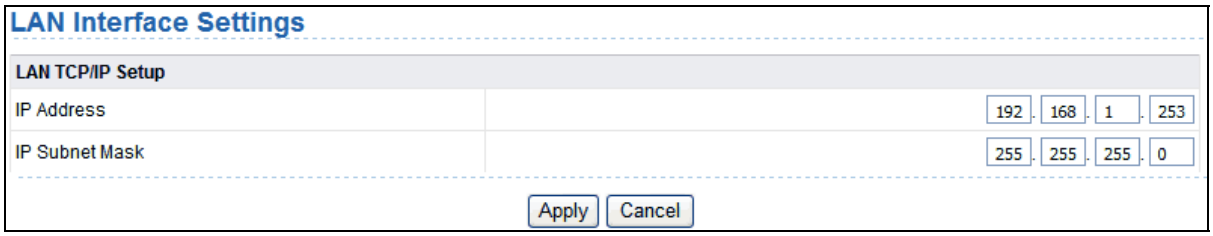


Figure 9-22

You can modify the IP address and IP subnet mask of the LAN port as required.

If you change the default IP address, you must use the new IP address to log in to the Web configuration page of the router and the default gateway of all hosts in the LAN must be set to the new IP address for internet access. The subnet mask of all hosts in the LAN must be the same as the subnet mask specified in the LAN Interface Settings page.

10.5.2. DHCP Server

Choose **Network Settings** > **DHCP Server** and the **DHCP Server** page is displayed.

DHCP refers to Dynamic Host Configuration Protocol. If **Use Device as DHCP Service** is selected, WNAP-1260 automatically assigns IP addresses to comupters in the LAN. Users do not need to configure TCP/IP protocol paramters such as the IP address, the subnet mask, the gateway, and the DNS server information for computers connected to the router's LAN.

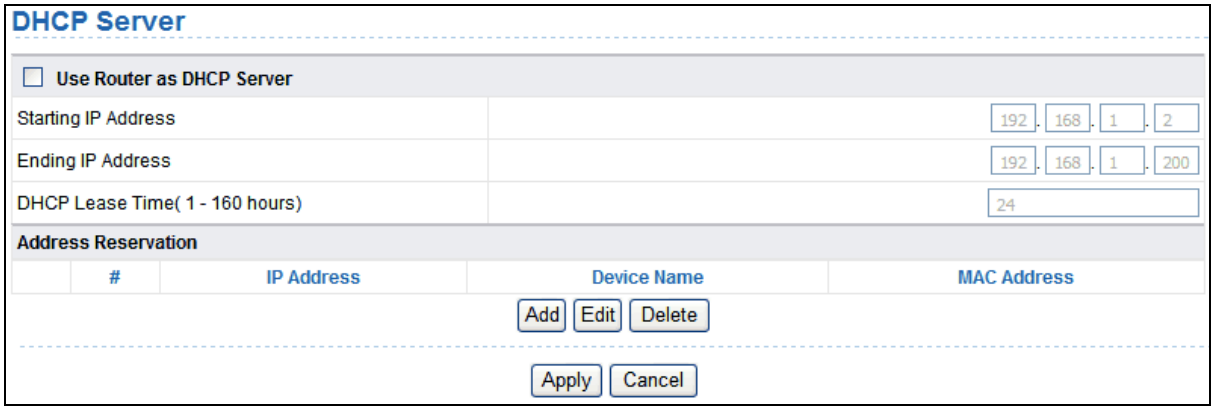


Figure 9-23

Using the Router as a DHCP Server

Object	Description
• **Use Router as DHCP Server**:	If you select the **Use Router as DHCP Server** check box, WNAP-1260 serves as a DHCP server to automatically assign IP addresses to computers connected to it

• **Starting IP Address/Ending IP Address**:	Set the starting and ending IP addresses to specify a pool of IP addresses to be assigned by the DHCP server. After you set **Starting IP Address/Ending IP Address**, hosts in the LAN obtain IP addresses that are in the range of the starting and ending IP addresses
• **DHCP Lease Time**:	The valid time for an IP address that is automatically assigned by the DHCP server to a host. The DHCP server does not assign the IP address to other hosts within the specified time

Using Address Reservation

When you specify a reserved IP address for a computer in the LAN, the computer always receives the same IP address each time it accesses the router's DHCP server. Reserved IP addresses should be assigned to computers or servers that require permanent IP settings.

To reserve an IP address:

Step 1 Click **Add** to enter the **Address Reservation** page.

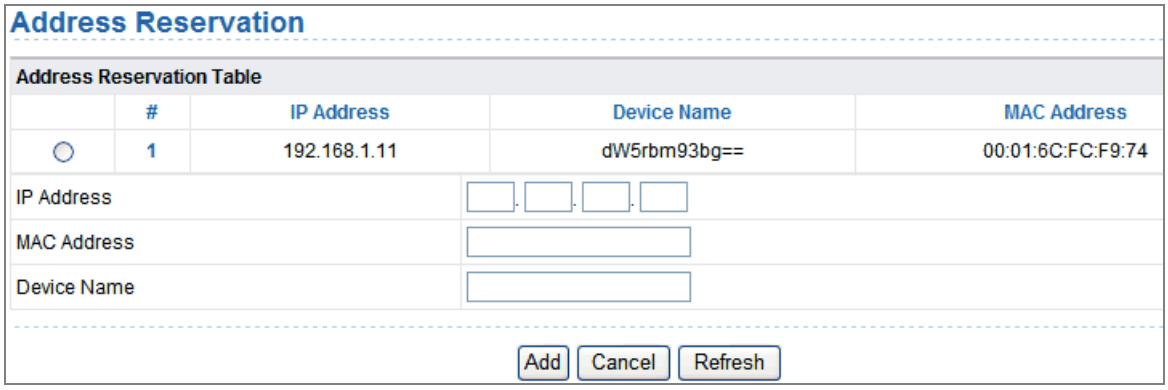


Figure 9-24

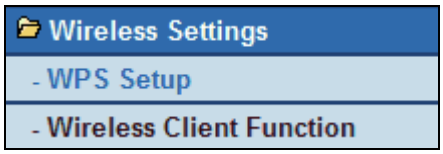
Step 2 Select one item from **Address Reservation Table**, or enter the IP address in the **IP Address** field to assign to the computer or server (Choose an IP address from the IP address pool that you have specified, for example 192.168.1.x). Enter the MAC address and device name of the computer or server.

Step 3 Click **Add** to add a new item into **Address Reservation**.

Step 4 Click **Apply** to save the settings.

10.6. Wireless Settings

Click **Wireless Settings** and the extended navigation menu is shown as follows:



Click a submenu to perform specific parameter configurations.

10.6.1. WPS Setup

WPS refers to **Wi-Fi Protected Setup**.

You can use WPS to establish wireless connection in a quick and secure way if the uplink AP or terminal (for example, the network adapter) has the WPS function. It is suggested to first configure wireless encryption for the uplink AP. If you change the wireless encryption mode after having establishing wireless connection using WPS, you must use WPS to establish wireless connection again. Note that if the wireless client does not support WPS you must manually configure the wireless client (such as SSID, security mode, and password) to make it have the same SSID and wireless security settings as the router.

The following describes how to configure WPS for the Client mode.

■ **Using the WPS Button**

In the Client mode, WNAP-1260 can perform WPS encrypted connection to either the uplink AP or the repeater.

■ **Using the Web Page**

You can perform WPS settings using the Web page for configuration.
Choose **Wireless Settings** > **WPS Setup** to display the **WPS Setup** page.

- **PBC mode**

Step 1 Select **Push Button** and click **Start PBC**. WPS encrypted connection starts.

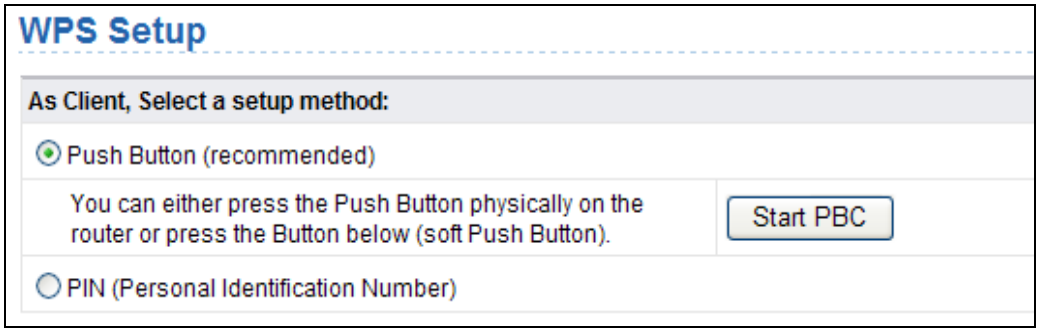


Figure 10-1

Step 2 Start the WPS PBC process. After WPS connection is established, the following page is displayed, indicating that the WPS connection is completed.

Figure 10-2

- **PIN mode**

Step 1 Select **PIN**, click **Generate New PIN**, and click **Start PIN** to start WPS connection.

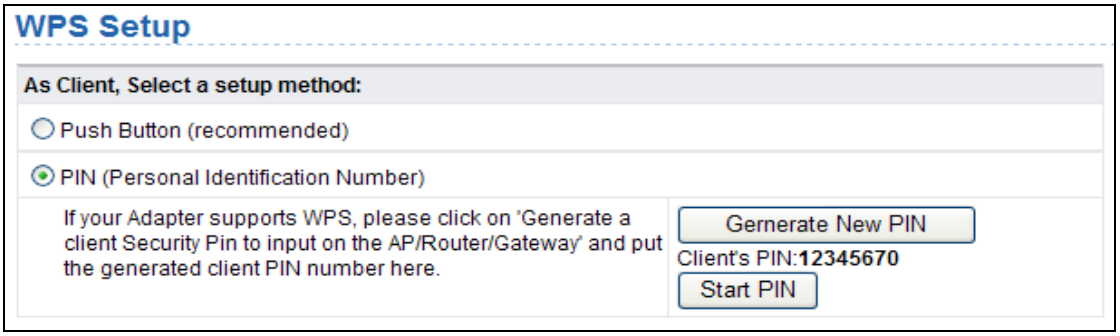


Figure 10-3

Step 2 Start the WPS PBC process within 2 minutes to start WPS connection. After WPS connection is established, the following page is displayed, indicating that the WPS connection is completed.

Figure 10-4

10.6.2. Wireless Client Function

Choose **Wireless Settings** > **Wireless Client Function** and the **Wireless Client Function** page is displayed.

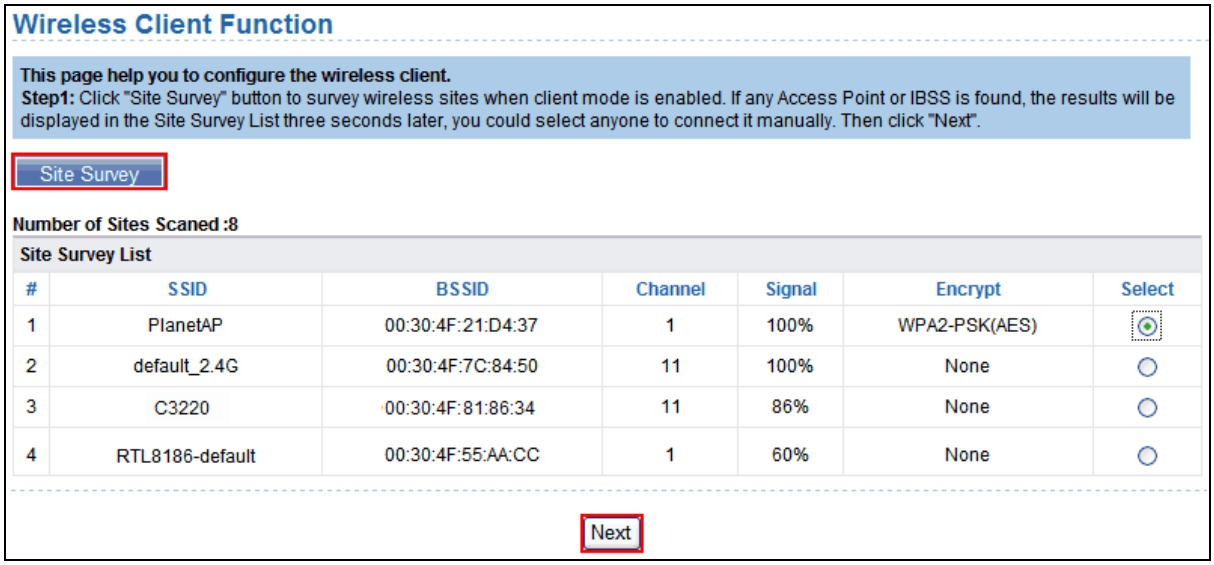


Figure 10-5

Step 1 Click **Site Survey** to search for the wireless network you want to connect.

Step 2 Enter encryption information of the selected wireless network. Configure the client with the same security settings as the selected network. Click **Finish**. Then, the client can communicate with the selected network.

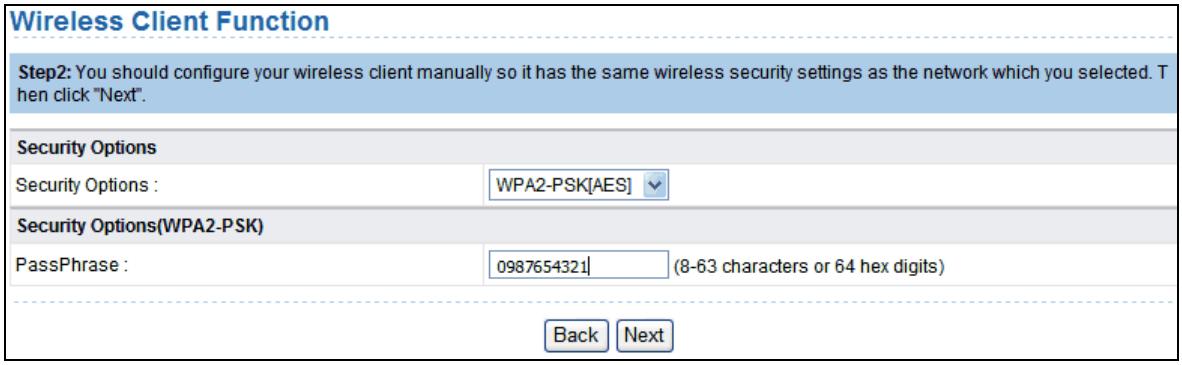
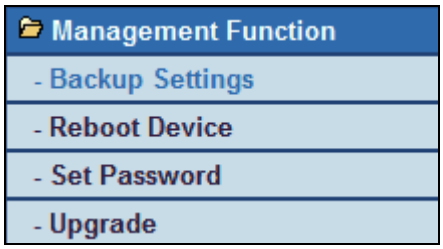


Figure 10-6

10.7. Management Function

Click **Management Function** and the extended navigation menu is shown as follows.



Click a submenu to perform specific parameter configurations.

10.7.1. Backup Settings

Choose **Management Function** > **Backup Settings** and the **Backup Settings** page is displayed.

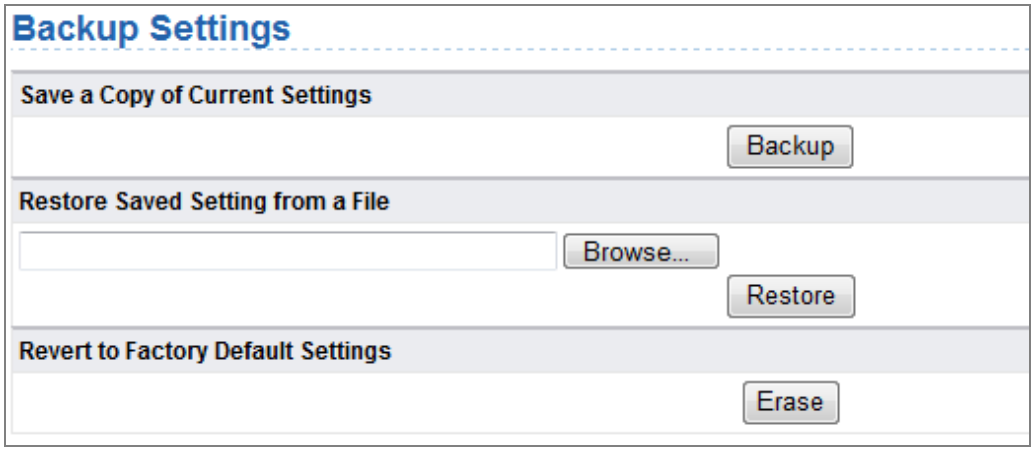


Figure 10-7

In this page, you can export configuration information of the router to the computer in the form of XML for later use, import a previously saved or a new configuration file, and restore the factory default settings of the router.

■ **Backup**

Click Backup and save configuration information of the router as a local file.

Note: Before saving your configuration file, change the administrator password to the default (admin) in case you forget your password. Then change it again after you have saved the configuration file. If you forget the password, you will need to reset the configuration to factory defaults.

■ **Restore**

The Backup and Restore options in the Backup Settings page let you save and retrieve a file containing your router's configuration settings.

Click Browse… to select the configuration file restored in your computer and click Restore to load the file to the router.

■ **Erase**

Under some circumstances (for example, if you move the router to a different network or if you have forgotten the password) you might want to erase the configuration and restore the factory default settings.

Click Erase to restore the factory default settings of the router. This operation has the same effect as pressing the Reset button on the side panel for 3-6 seconds.

10.7.2. Reboot Device

Choose **Management Function** > **Reboot Device** and the **Reboot Device** page is displayed.

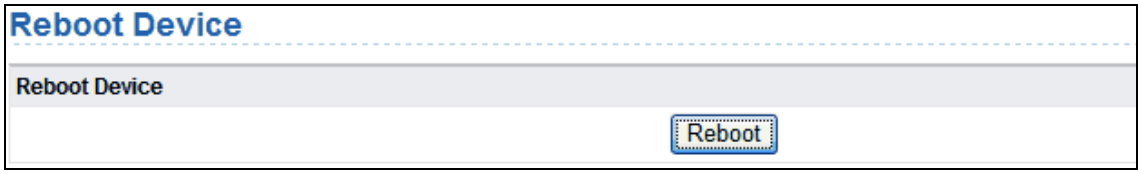


Figure 10-8

Click **Reboot** to reboot the router. After the router is rebooted, the system jumps to the login page.

10.7.3. Set Password

Choose **Management Function** > **Set Password** and the **Set Password** page is displayed.

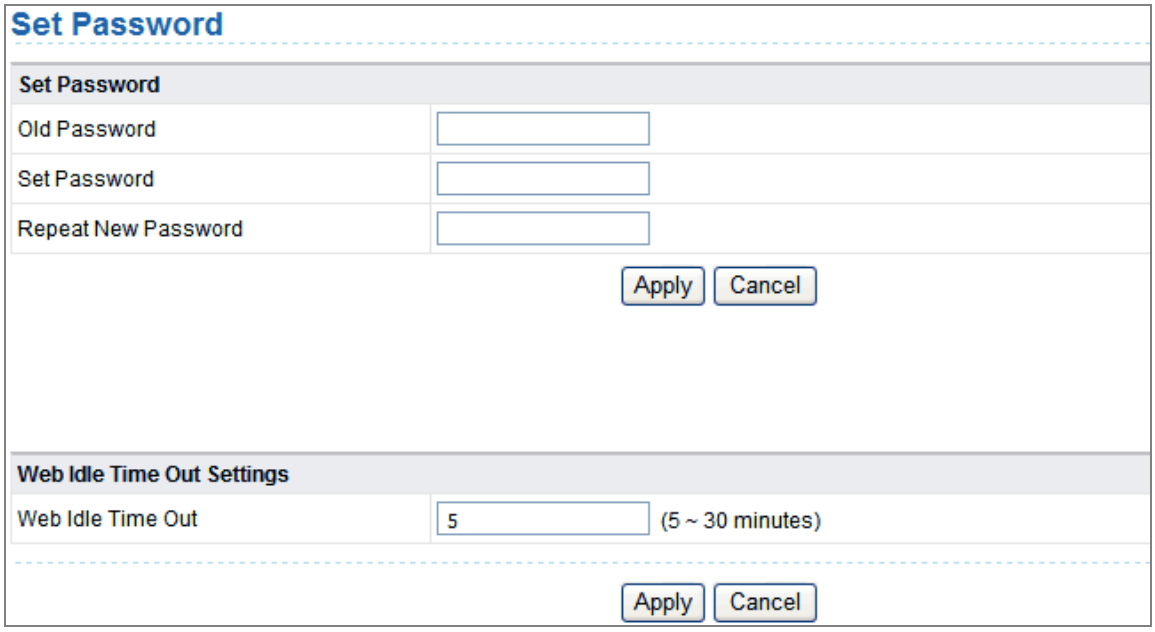


Figure 10-9

In this page, you can change the password of the administrator and set the page timeout time.

Note

For security, it is strongly recommended to change the default password of the administrator. If you forget the password, you can restore the router to the default settings. The default password is admin.

10.7.4. Upgrade

Choose **Management Function** > **Upgrade** and the **Upgrade** page is displayed.

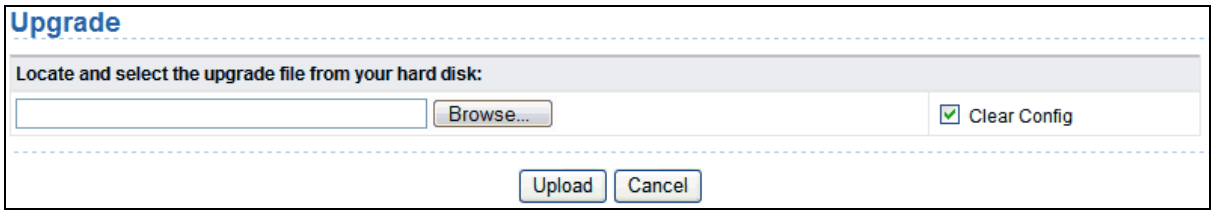


Figure 10-10

Upgrade the software of the router in the following steps:

Step 1 Click **Browse…** to navigate to the latest software.

Step 2 Select the correct upgrade file. If you select **Clear Config**, the router restores to the default settings after upgrade. If you do not select it, the current settings remain.

Step 3 Click **Upload** to start upgrade.

After the upgrade is completed, the router automatically reboots.

Chapter 11. Quick Connection to a Wireless Network

In the following sections, the **default SSID** of the WNAP-1260 is configured to "**default**".

Default SSID: **default**

11.1. Windows XP (Wireless Zero Configuration)

Step 1: Right-Click on the **wireless network icon** displayed in the system tray

Figure 11-1

Step 2: Select [**View Available Wireless Networks**]

Step 3: Highlight and select the wireless network (SSID) to connect

(1) Select SSID [**default**]

(2) Click the [**Connect**] button

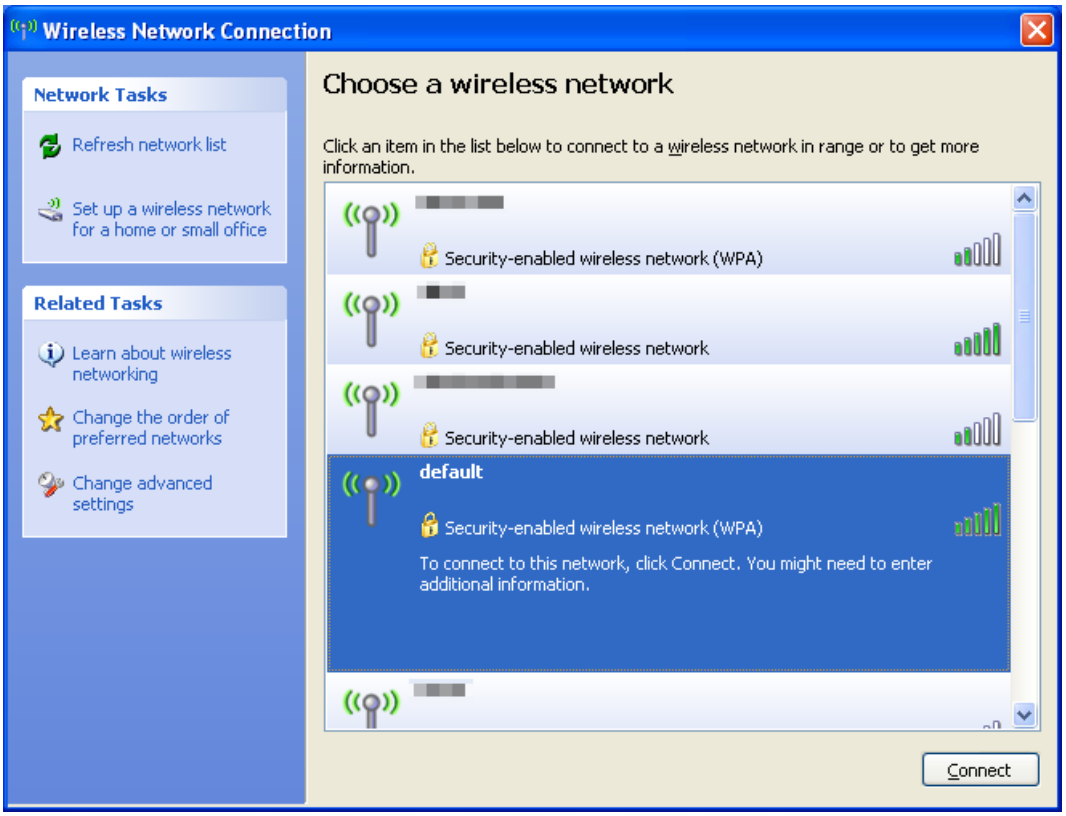


Figure 11-2

Step 4: Enter the **encryption key** of the Wireless Router

(1) The Wireless Network Connection box will appear

(2) Enter the encryption key that configured in section 7.7.1

(3) Click the [Connect] button

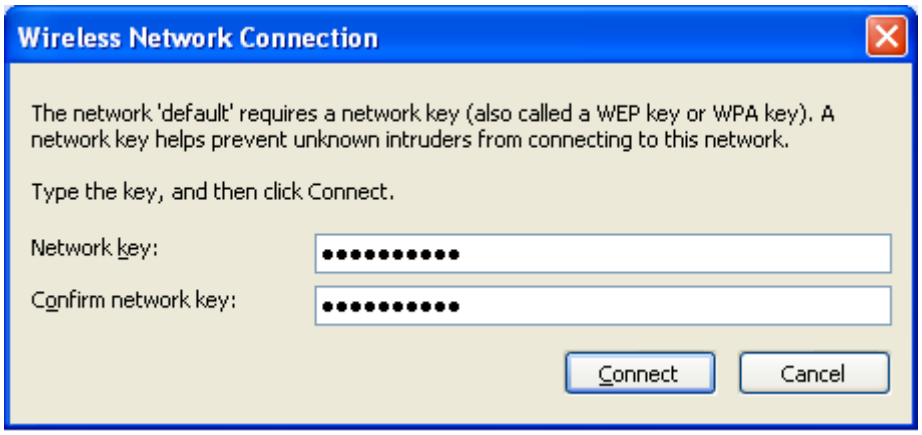


Figure 11-3

Step 5: Check if "**Connected**" is displayed

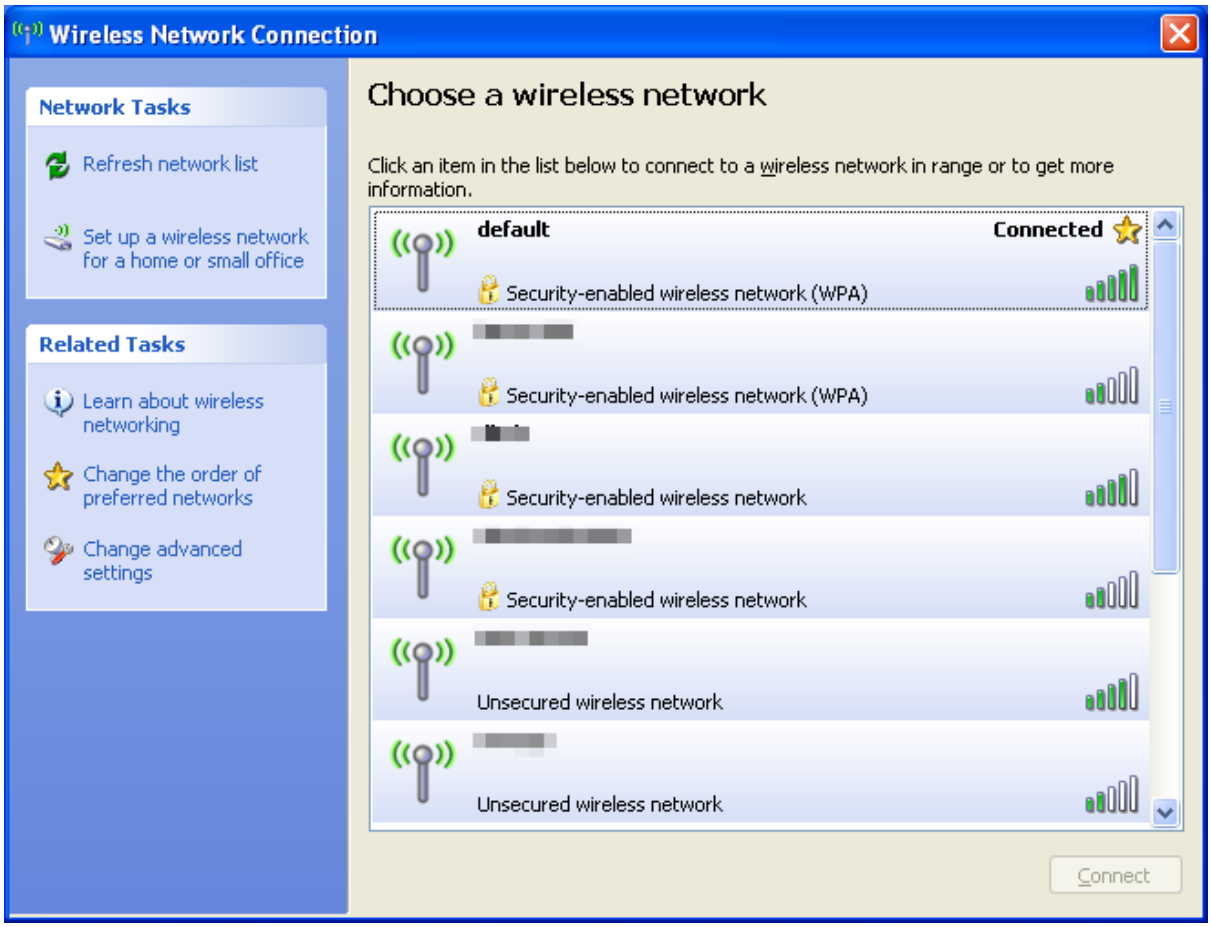


Figure 11-4

Note

Some laptops are equipped with an "Wi-Fi ON/OFF" hardware switch for the internal wireless LAN. Make sure the it is switched to "ON" position.

11.2. Windows 7 (WLAN AutoConfig)

WLAN AutoConfig service is built-in in Windows 7 and can be used to detect and connect to wireless network. This built-in wireless network connection tool is similar to wireless zero configuration tool in Windows XP.

Step 1: Right-Click on the **network icon** displayed in the system tray

Figure 11-5

Step 2: Highlight and select the wireless network (SSID) to connect

(1) Select SSID [**default**]

(2) Click the [**Connect**] button

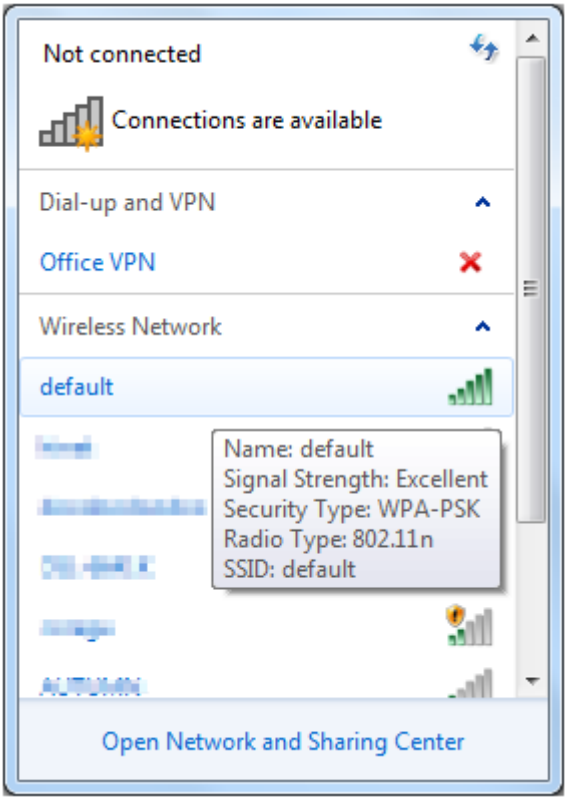


Figure 11-6

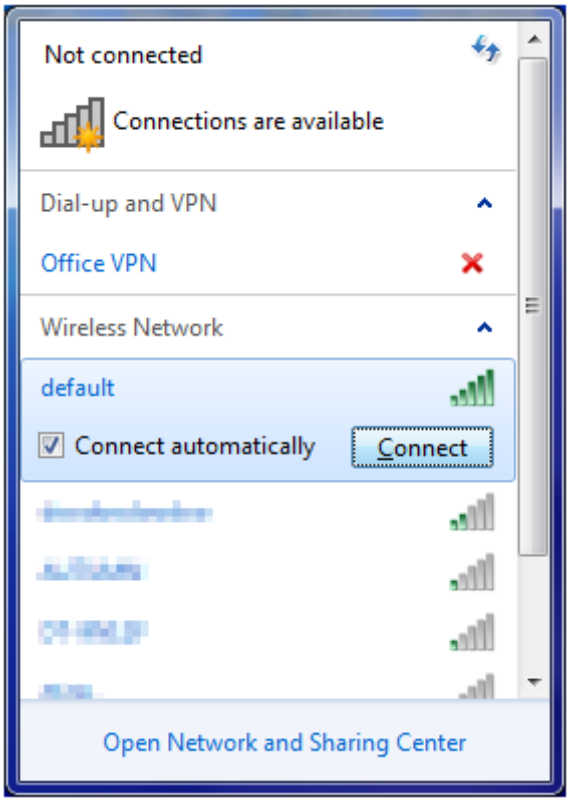


Figure 11-7

Note

If you want to connect to this Wireless Router in the future, please check the box of [**Connect automatically**].

Step 3: Enter the **encryption key** of the Wireless Router

(1) The [Connect to a Network] box will appear
(2) Enter the encryption key that configured in section 7.7.1
(3) Click the [OK] button

Figure 11-8

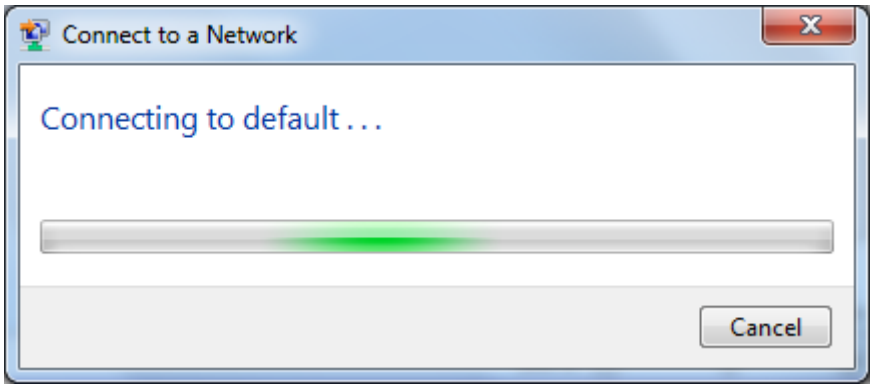


Figure 11-9

Step 4: Check if "**Connected**" is displayed

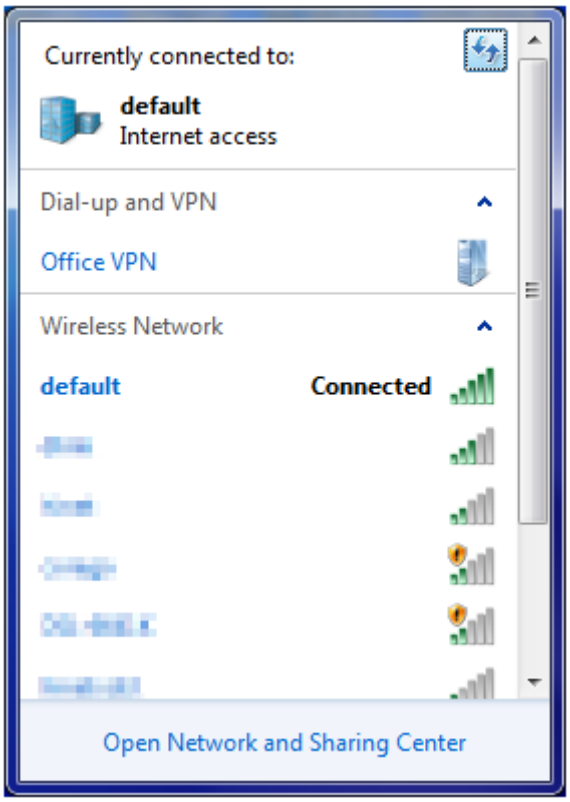


Figure 11-10

11.3. Mac OS X

Step 1: Right-Click on the **network icon** displayed in the system tray
The AirPort Network Connection menu will appear

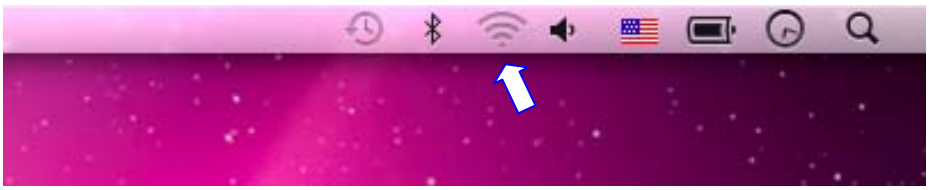


Figure 11-11

Step 2: Highlight and select the wireless network (SSID) to connect
(1) Select and SSID [**default**]
(2) Double-click on the selected SSID

Figure 11-12

Step 3: Enter the **encryption key** of the Wireless Router

(4) Enter the encryption key that configured in section 7.7.1

(1) Click the [OK] button

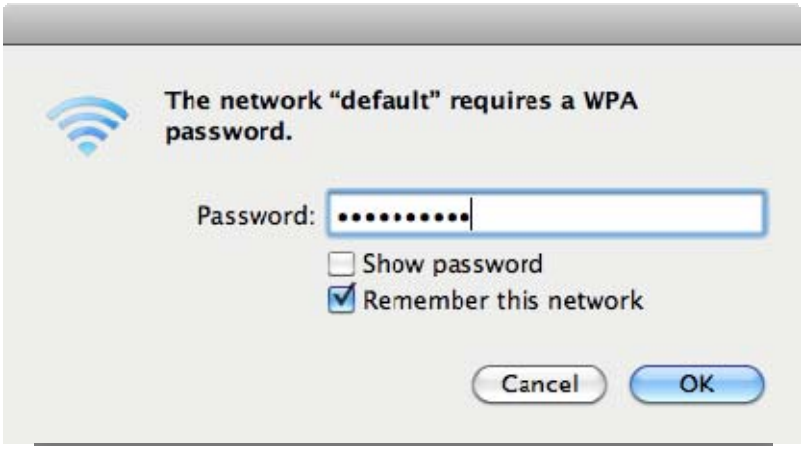


Figure 11-13

Note

If you want to connect to this Wireless Router in the future, please check [**Remember this network**].

Step 4: Check if the AirPort is connect to the selected wireless network.

If "Yes", then there will be a "check" symbol in front of the SSID.

Figure 11-14

There is another way to configure the MAC OS X Wireless settings:

Step 1: Click and open the [**System Preferences**] by going to **Apple** > **System Preference** or **Applications**

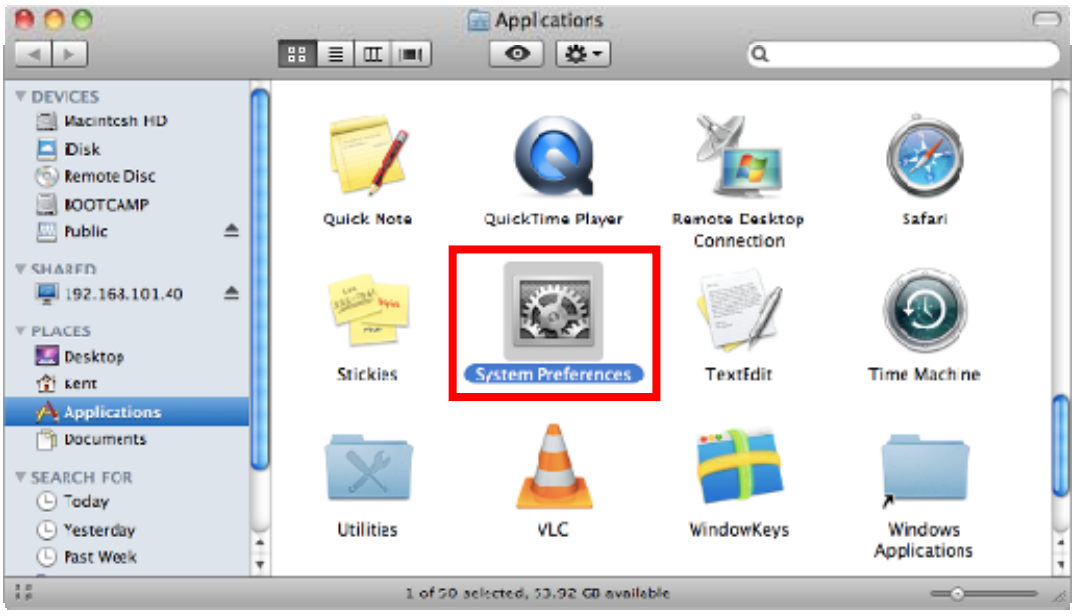


Figure 11-15

Step 2: Open **Network Preference** by clicking on the [**Network**] icon

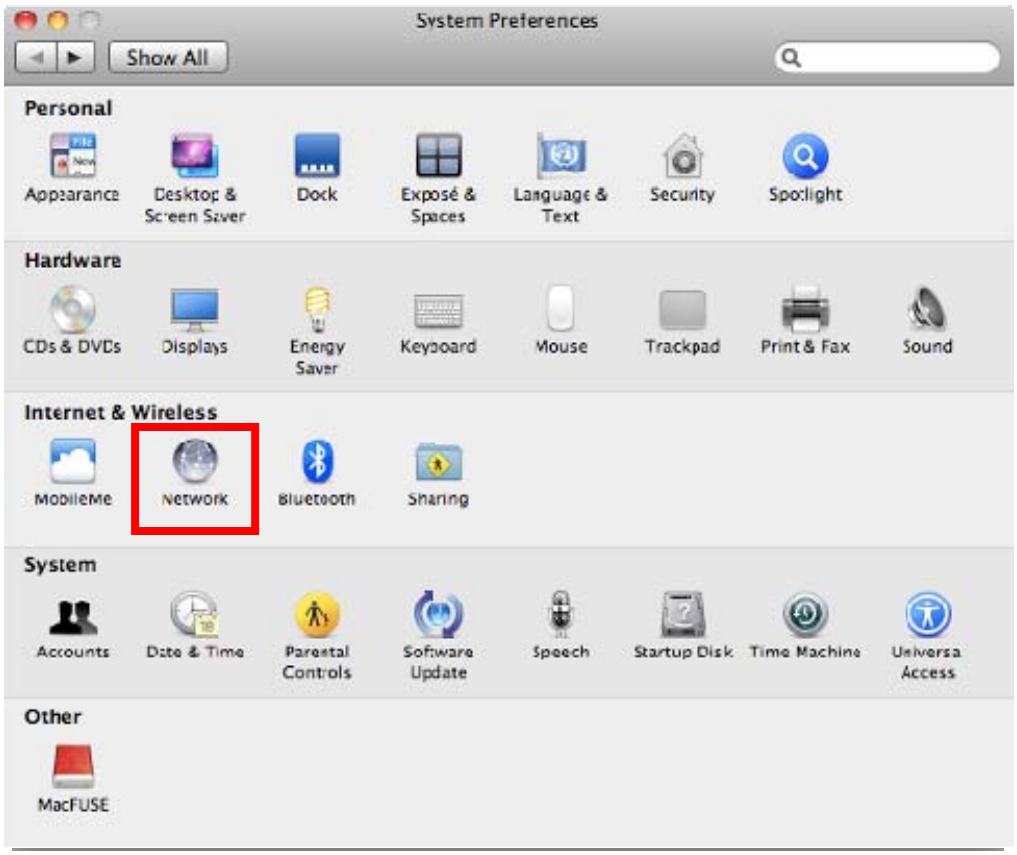


Figure 11-16

Step 3: Check Wi-Fi setting and select the available wireless network

(1) Choose the **AirPort** on the left-menu (make sure it is ON)

(2) Select Network Name [default] here

If this is the first time to connect to the Wireless Router, it should shows "Not network selected".

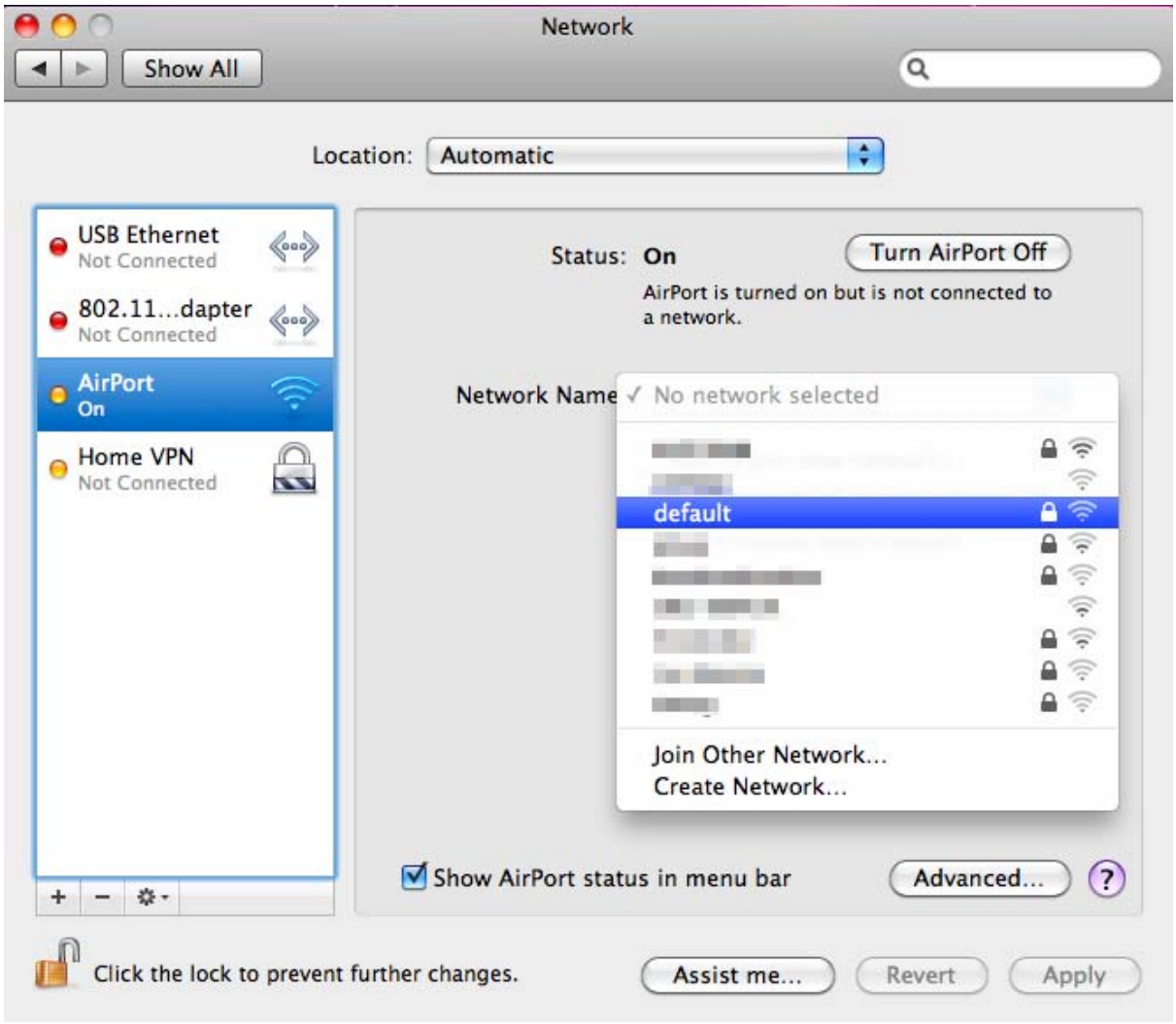

Network
Show All
Location: Automatic
USB Ethernet
Not Connected
802.11...dapter
Not Connected
AirPort
On
Home VPN
Not Connected
Status: On
Turn AirPort Off
AirPort is turned on but is not connected to a network.
Network Name
No network selected
default
Join Other Network...
Create Network...
Show AirPort status in menu bar
Advanced...
Click the lock to prevent further changes.
Assist me...
Revert
Apply

Figure 11-17

11.4. iPhone / iPod Touch / iPad

Step 1: Tap the [**Settings**] icon displayed in the home screen

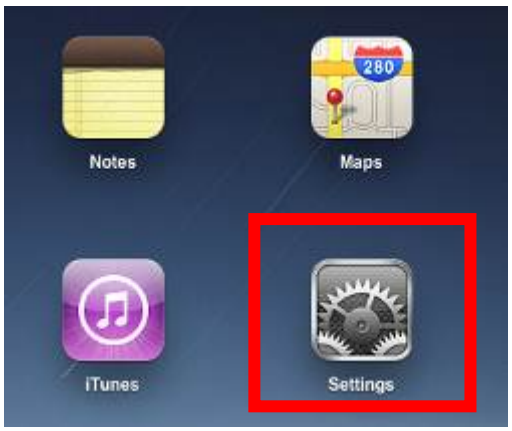


Figure 11-18

Step 2: Check Wi-Fi setting and select the available wireless network

(3) Tap [**General**] \ [**Network**]

(4) Tap [**Wi-Fi**]

If this is the first time to connect to the Wireless Router, it should appears "Not Connected".

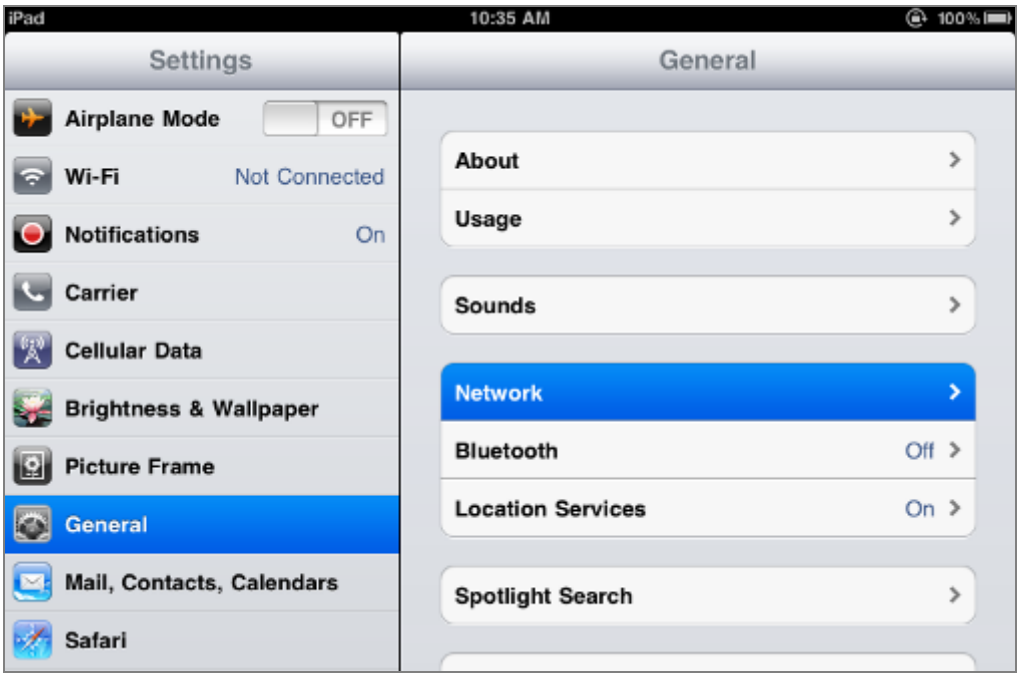


Figure 11-19

Figure 11-20

Step 3: Tap the target wireless network (SSID) in "**Choose a Network…**"

(1) Turn on Wi-Fi by tapping "**Wi-Fi**"

(2) Select SSID [**default**]

Figure 11-21

Step 4: Enter the **encryption key** of the Wireless Router

(1) The password input screen will be displayed

(2) Enter the encryption key that configured in section 7.7.1

(3) Tap the [**Join**] button

Figure 11-22

Step 5: Check if the iDevice is connected to the selected wireless network.
If "Yes", then there will be a "check" symbol in front of the SSID.

Figure 11-23

Appendix A. Planet Smart Discovery Utility

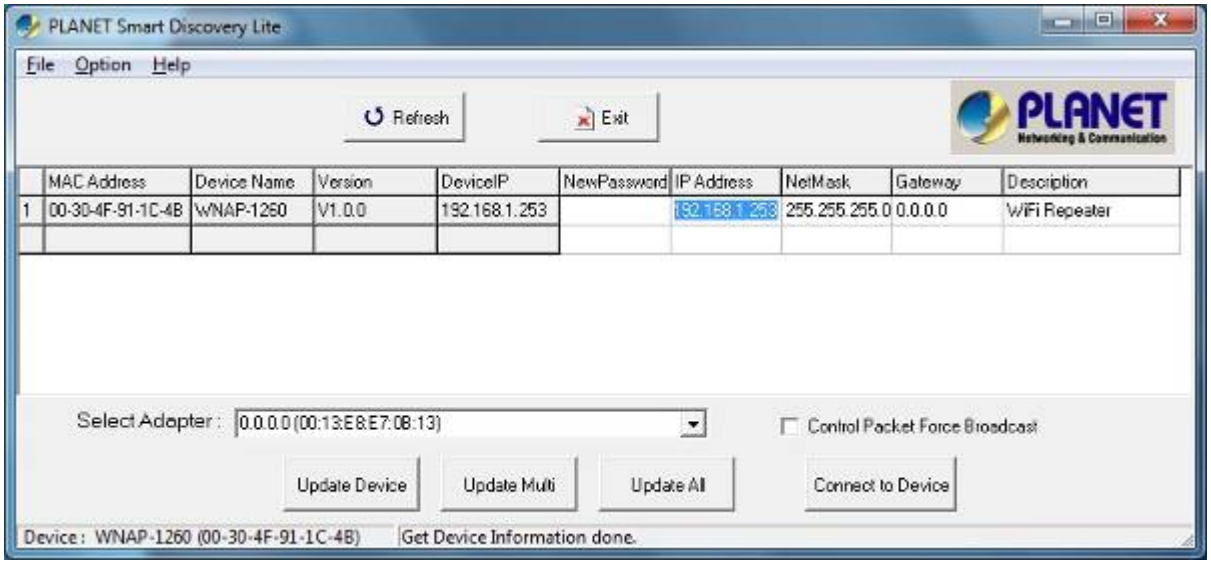
For easily list the WNAP-1260 in your Ethernet environment, the Planet Smart Discovery Utility from user's manual CD-ROM is an ideal solution.

The following install instructions guiding you for run the Planet Smart Discovery Utility.

Step 1: Deposit the **Planet Smart Discovery Utility** in administrator PC.

Step 2: Run this utility and the following screen appears.

Step 3: Press **"Refresh"** button for list current connected devices in the discovery list, the screen is shown as follow.



Step 3: Press **"Connect to Device"** button then the Web login screen appears.

Note

1. In Repeater Mode, the IP address of LAN 2 (DHCP) assigned by DHCP server will be listed in the table.
2. The LAN 2 (DHCP) only supported in Repeater Mode.
3. If cannot get the IP address from DHCP server or DHCP server is not existed, it will displayed the LAN 1 (Static IP address).
4. In other Modes, WNAP-1260 only supported LAN 1 (Static IP address).

Appendix B. FAQ

Malfunction	Solution
The WNAP-1260 is not responding to me when I want to access it via web browser	a. Please check the connection of power cord and network cable of the WNAP-1260. All cords and cables should be correctly and firmly inserted to the device. b. If all LEDs on the WNAP-1260 are off, please check the status of power adapter, and make sure it is correctly powered. c. You must configure your PC as the same IP address section with the WNAP-1260. d. Are you using MAC or IP address filter? Try to connect the WNAP-1260 by another computer and see if it works; if not, please restore the WNAP-1260 to factory default settings (Press "reset" button for over 10 seconds). e. Shift the hardware switch to Router Mode, and set your computer to obtain an IP address automatically (DHCP), and see if your computer can get an IP address. f. If you just did firmware upgrade and this happens, contact the dealer of purchase for help. a. If all above solutions don't work, contact the dealer of purchase for help.
Unable to get connected with the Internet	a. Go to "Management → Status" submenu, and check the WAN configuration status. Please be patient, sometime Internet is just that slow. b. If you connect your computer to the Internet directly before, try to do that again. And check if you can get connected to the Internet with your computer directly via the device provided by your local Internet service provider. c. Check the WAN access type (Static IP / Dynamic IP / PPPoE / PPTP / L2TP), user name, password, and the other parameters provided by your local ISP again. d. Call your Internet service provider and check if there is something wrong with their service. e. If you just can't connect to one or more website, but you can still use other internet services, please check URL filter in the web UI. f. Reset the WNAP-1260 to the factory default settings and try again later. g. Reset the device provided by your Internet service provider as well. h. Try to use IP address instead of hostname. If you can

	access a remote server by an IP address but not by a hostname, please check the DNS setting.
Unable to be found by the wireless clients	a. Check if the "Broadcast SSID" is disabled. b. Are you too far from the WNAP-1260? Try to get closer. c. Please remember that you have to enter SSID to your wireless client device manually, if SSID broadcast is disabled.
File download is very slow or breaks frequently	a. Are you using QoS function? Please disable it and try again. Please be patient, sometime Internet is just that slow. b. Reset the WNAP-1260 to the factory default settings and see if it is better after that. c. Try to know what are other computers doing in your local area network. If someone is transferring big files, other people will think Internet is really slow. d. If this never happens before, call you Internet service provider to check if there is something wrong with their network.
Unable to login the web management UI: password is wrong	a. Make sure you are connecting to the correct IP address of the WNAP-1260. b. Password is case-sensitive. Make sure the "Caps Lock" light is not illuminated. c. If you really forget the password, please do hardware reset.
The device is getting hot.	a. This is not a malfunction if you can keep your hand on the case of the WNAP-1260. b. If you smell something wrong or see the smoke coming out from the WNAP-1260 or power adapter, please disconnect the device and power adapter from power (make sure it's safe before you're doing this!), and call your dealer of purchase for help.
The date and time of all event logs are wrong	a. Adjust the internal clock of the WNAP-1260.

EC Declaration of Conformity

For the following equipment:

*Type of Product : Wall Plug 300Mbps Universal WiFi Repeater (EU Type)

*Model Number : WNAP-1260

* Produced by:
Manufacturer's Name : **Planet Technology Corp.**
Manufacturer's Address: 10F., No.96, Minquan Rd., Xindian Dist.,
New Taipei City 231, Taiwan (R.O.C.)

is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to 1999/5/EC R&TTE. For the evaluation regarding the R&TTE the following standards were applied:

EN 60950-1	(2005 + A1:2009)
EN 300 328 V1.7.1	(2006)
EN 301 489-1 V1.8.1	(2008)
EN 301 489-17 V2.1.1	(2009)
EN 62311	(2008)

Responsible for marking this declaration if the:

☒ **Manufacturer** ☐ **Authorized representative established within the EU**

Authorized representative established within the EU (if applicable):

Company Name: **Planet Technology Corp.**

Company Address: **10F., No.96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan (R.O.C.)**

Person responsible for making this declaration

Name, Surname **Kent Kang**

Position / Title : **Product Manager**

Taiwan — *Place*

22th June, 2012 — *Date*

Kent Kang — *Legal Signature*

EC Declaration of Conformity

English	Hereby, **PLANET Technology Corporation,** declares that this **802.11n Wall Plug Universal WiFi Repeater** is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.	**Lietuviškai**	Šiuo **PLANET Technology Corporation,**, skelbia, kad **802.11n Wall Plug Universal WiFi Repeater** tenkina visus svarbiausius 1999/5/EC direktyvos reikalavimus ir kitas svarbias nuostatas.
Česky	Společnost **PLANET Technology Corporation,** tímto prohlašuje, že tato **802.11n Wall Plug Universal WiFi Repeater** splňuje základní požadavky a další příslušná ustanovení směrnice 1999/5/EC.	**Magyar**	A gyártó **PLANET Technology Corporation**, kijelenti, hogy ez a **802.11n Wall Plug Universal WiFi Repeater** megfelel az 1999/5/EK irányelv alapkövetelményeinek és a kapcsolódó rendelkezéseknek.
Dansk	**PLANET Technology Corporation,** erklærer herved, at følgende udstyr **802.11n Wall Plug Universal WiFi Repeater** overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF	**Malti**	Hawnhekk, **PLANET Technology Corporation,** jiddikjara li dan **802.11n Wall Plug Universal WiFi Repeater** jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC
Deutsch	Hiermit erklärt **PLANET Technology Corporation,** dass sich dieses Gerät **802.11n Wall Plug Universal WiFi Repeater** in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 1999/5/EG befindet". (BMWi)	**Nederlands**	Hierbij verklaart , **PLANET Technology orporation,** dat **802.11n Wall Plug Universal WiFi Repeater** in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG
Eesti keeles	Käesolevaga kinnitab **PLANET Technology Corporation,** et see **802.11n Wall Plug Universal WiFi Repeater** vastab Euroopa Nõukogu direktiivi 1999/5/EC põhinõuetele ja muudele olulistele tingimustele.	**Polski**	Niniejszym firma **PLANET Technology Corporation,** oświadcza, że **802.11n Wall Plug Universal WiFi Repeater** spełnia wszystkie istotne wymogi i klauzule zawarte w dokumencie „Directive 1999/5/EC".
Ελληνικά	*ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ* , **PLANET Technology Corporation,** *ΔΗΛΩΝΕΙ ΟΤΙ ΑΥΤΟ* **802.11n Wall Plug Universal WiFi Repeater** *ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ* *ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ*	**Português**	**PLANET Technology Corporation,** declara que este **802.11n Wall Plug Universal WiFi Repeater** está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Español	Por medio de la presente, **PLANET Technology Corporation,** declara que **802.11n Wall Plug Universal WiFi Repeater** cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE	**Slovensky**	Výrobca **PLANET Technology Corporation,** týmto deklaruje, že táto **802.11n Wall Plug Universal WiFi Repeater** je v súlade so základnými požiadavkami a ďalšími relevantnými predpismi smernice 1999/5/EC.
Français	Par la présente, **PLANET Technology Corporation,** déclare que les appareils du **802.11n Wall Plug Universal WiFi Repeater** sont conformes aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE	**Slovensko**	**PLANET Technology Corporation**, s tem potrjuje, da je ta **802.11n Wall Plug Universal WiFi Repeater** skladen/a z osnovnimi zahtevami in ustreznimi določili Direktive 1999/5/EC.
Italiano	Con la presente , **PLANET Technology Corporation,** dichiara che questo **802.11n Wall Plug Universal WiFi Repeater** è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva. 1999/5/CE.	**Suomi**	**PLANET Technology Corporation,** vakuuttaa täten että **802.11n Wall Plug Universal WiFi Repeater** tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Latviski	Ar šo **PLANET Technology Corporation,** apliecina, ka šī **802.11n Wall Plug Universal WiFi Repeater** atbilst Direktīvas 1999/5/EK pamatprasībām un citiem atbilstošiem noteikumiem.	**Svenska**	Härmed intygar, P**LANET Technology Corporation**, att denna **802.11n Wall Plug Universal WiFi Repeater** står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.