

# User's Manual



## 802.11n Wireless Portable AP / Router

▶ **WNRT-300**



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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.



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 DC-plug or push the hardware Power Switch to OFF position to disconnect the device from the power circuit.

Without remove the DC-plug or switch off 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 DC-plug for 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 Wireless Portable AP / Router

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# Chapter 1. Product Introduction

## 1.1. Package Contents

The following items should be contained in the package:

- ◆ WNRT-300 Portable AP/Router
- ◆ Power Adapter
- ◆ USB Cable
- ◆ Ethernet Cable
- ◆ Li-ion Battery
- ◆ Quick Installation Guide
- ◆ CD-ROM (User's Manual included)

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

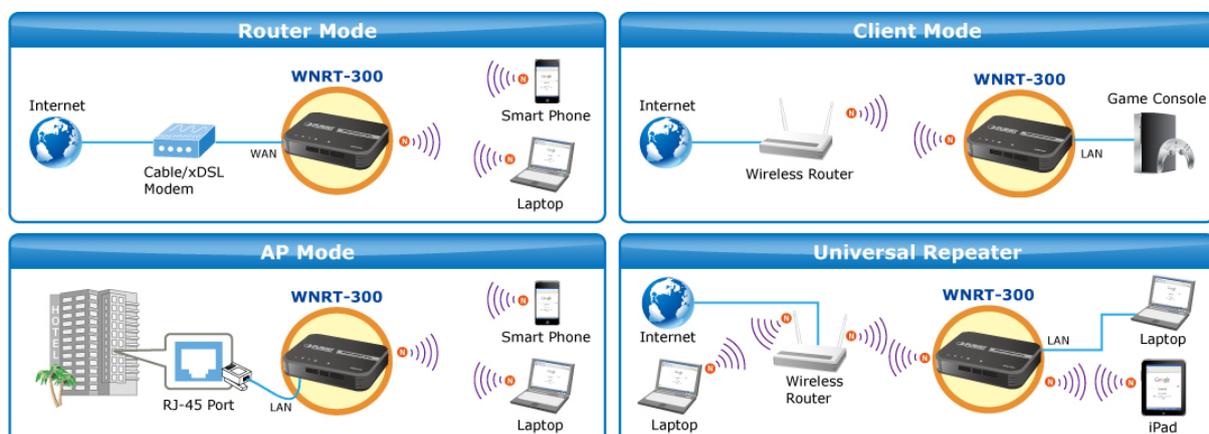
## 1.2. Product Description

### Multiple Wireless Network Technologies for Greater Access

PLANET Wireless Portable Broadband Router, the WNRT-300 features 802.11n radio with 1T1R antenna technology compliant with 802.11b/g/n standards. Compared with general wireless routers, the WNRT-300 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 stylish design, the WNRT-300 is easy to carry for the true mobility. It can operate in various environments with the hardware switch modes including **AP**, **Router**, and **Client**, which helps to immediately set up a wireless network without software configuration. The portable design and operation flexibility make the WNRT-300 suitable for travelling, moving and outdoor applications.

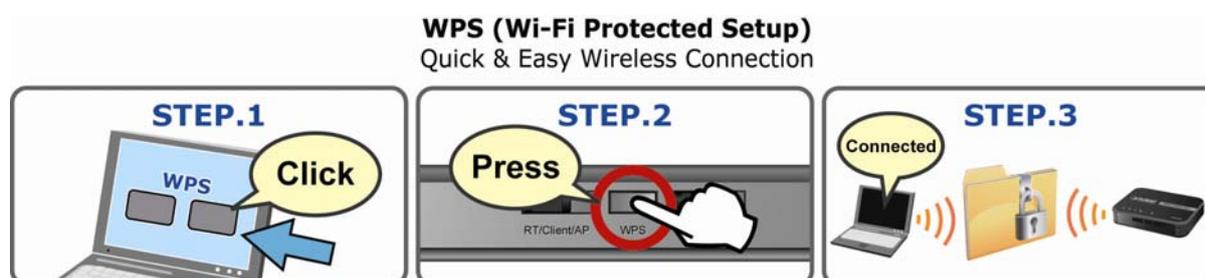


## Built-in High Capacity Battery

The WNRT-300 has one built-in rechargeable lithium battery and its power supplied through mini USB interface. The power can be directly charged via the computer's USB port which increases the convenience even when there is no power outlet available.

## One-touch Secure Wireless Connection

In order to simplify security settings for home and SOHO network, the WNRT-300 supports **Wi-Fi Protected Setup (WPS)** with configuration in PBC and PIN type. Just push the WPS button or key in the PIN code, the secure connection between the WNRT-300 and the wireless clients can be built immediately, which offers users a convenient and fast method to construct a secure wireless network.



## Wide Range of Wireless Security Support

To secure the wireless communication, the WNRT-300 supports most up-to-date encryptions including WPA/WPA2-PSK with TKIP/AES. Made to fulfill enterprise and various applications demand, the WNRT-300 enhances security and management features such as multiple SSID and IEEE 802.1Q VLAN 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. Even more, the VLAN support allows multiple SSID to access Internal VLAN topology.

## Advanced Firewall Security

In the Router mode, the WNRT-300 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 WNRT-300 can protect your Intranet clients from unauthorized accesses and various DoS attacks from the Internet. In aspect of the firewall, the WNRT-300 provides IP/ MAC/ Port/ URL filtering, and prevents possible hackers attack.

## Easy Setup Anytime Anywhere

The WNRT-300 provides a total solution for home and business users. With the High Speed 802.11n wireless technology, the WNRT-300 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 150Mbps data rate
- Backward compatible with 802.11b/g standard
- Equipped with one 10/100Mbps RJ-45 Ethernet port for LAN/WAN, Auto MDI/MDI-X supported
  
- **Wireless Network Range Extender**
  - Multiple Wireless Modes: AP, WDS, Repeater, Universal Repeater, Client
  - Supports WMM (Wi-Fi Multimedia), Wireless QoS
  - Supports IAPP (Inter Access Point Protocol), Wireless Roaming
  
- **Fixed-network Broadband Router**
  - Supported Internet types: Dynamic IP/ Static IP/ PPPoE/ L2TP/ PPTP
  - Supports Static & Dynamic (RIP1 and 2) Routing
  - Supports IP / MAC-Based Bandwidth Control
  - Supports 802.1d STP & IGMP Proxy
  
- **Secure Network Connection**
  - Advanced security: 64/128-bit WEP, WPA-Enterprise/ WPA2-Enterprise and WPA-PSK/WPA2-PSK with TKIP/AES Encryption, 802.1x Authentication
  - Built-in NAT firewall features with Port/ IP/ MAC/ URL Filtering, and DoS protection
  - Supports 802.1Q VLAN
  
- **Advanced Networking Function for Specific Application**
  - Supports multiple sessions IPSec, L2TP, PPTP, and IPv6 VPN pass-through
  - Supports Port Forwarding, DMZ, UPnP and Dynamic DNS for various networking applications
  - Supports DHCP Server
  
- **Easy to Install & Management**
  - Web-Based UI and setup Wizard for easy configuration
  - System status monitoring includes DHCP Client and System Log
  
- **Flexible Application & Business-oriented design**
  - Portable and Pocket-sized design for true mobility
  - Hardware switchable operation modes: Router / AP / Client
  - One-touch Wi-Fi Protected Setup (WPS)
  - Built-in rechargeable Li-ion battery

## 1.4. Product Specification

<b>Product</b>	<b>WNRT-300</b> 150Mbps 802.11n Wireless AP / Router	
<b>Hardware Specification</b>		
<b>Interface</b>	LAN/WAN	1 x 10/100Mbps Auto MDI/MDI-X RJ45 port
<b>Antenna</b>	Gain:	1 x Internal 2dBi Antenna
	Orientation:	Omni-directional
<b>Button/Switch</b>	<p>Front panel (from left to right):  Mode Selection Switch (Router/Client/AP)  WPS Button  Power On/Off Switch</p> <p>Rear panel:  Reset button  *Push for above 5 seconds to reset to factory default settings</p>	
<b>LED Indicators</b>	PWR, WLAN, WAN/LAN, WPS, CHG	
<b>Material</b>	Plastic	
<b>Dimension (W x D x H)</b>	88 x 62 x 18 mm	
<b>Weight</b>	With battery: 80g Without battery: 58g	
<b>Battery</b>	Built-in Rechargeable Li-ion Battery (3.7V, 1050mAh)	
<b>Power Requirement</b>	DC 5V , 0.4A maximum, connected through mini-USB connector	
<b>Power Adapter</b>	AC Input: 100~240V AC (50/60Hz) DC Output: 5V with max. 1A current	
<b>Standard Accessory</b>	Power Adapter x 1, USB Cable x 1, Ethernet Cable x 1, Li-ion Battery x 1, CD-ROM x 1, Quick Guide x 1	
<b>Wireless Interface Specification</b>		
<b>Standard</b>	Compliance with IEEE 802.11b/g/n	
<b>Frequency Band</b>	2.4~2.4835GHz	
<b>Extend Frequency</b>	DSSS	
<b>Modulation Type</b>	DBPSK, DQPSK, QPSK, CCK and OFDM (BPSK/QPSK/16-QAM/ 64-QAM)	
<b>Data Transmission Rates</b>	11n: Up to 150Mbps (Dynamic) 11g: Up to 54Mbps (Dynamic) 11b: Up to 11Mbps (Dynamic)	
<b>Transmission Distance</b>	Indoor up to 100m outdoor up to 300m (it is limited to the environment)	
<b>Channel</b>	America/ FCC: 2.412~2.462GHz (11 Channels) Europe/ ETSI: 2.412~2.472GHz (13 Channels) Japan/ TELEC: 2.412~2.484GHz (14 Channels)	
<b>Max. RF Power</b>	20 dBm (EIRP)	
<b>Receive Sensitivity</b>	135M: -68dBm@10% PER 54M: -68dBm@10% PER 11M: -85dBm@8% PER	
<b>Software Features</b>		
<b>Operation Mode</b>	<ul style="list-style-type: none"> <li>■ AP</li> <li>■ Router</li> <li>■ Client</li> </ul> (Switchable by H/W)	

<b>Wireless Mode</b>	<ul style="list-style-type: none"> <li>■ AP</li> <li>■ WDS</li> <li>■ Repeater (WDS+AP)</li> <li>■ Universal Repeater (AP+Client)</li> </ul>
<b>Encryption Security</b>	<p>WEP (64/128-bit) encryption security  WPA-Enterprise / WPA2-Enterprise (TKIP/AES)  WPA-Personal / WPA2-Personal (TKIP/AES)  802.1x Authentication</p>
<b>Wireless Security</b>	Provide wireless LAN ACL (Access Control List) filtering
	Wireless MAC address filtering
	Support WPS (Wi-Fi Protected Setup)
	Enable/Disable SSID Broadcast
<b>Wireless Advanced</b>	WMM(Wi-Fi Multimedia): 802.11e Wireless QoS
	IAPP(Inter Access Point Protocol): 802.11f Wireless Roaming
	Provide Wireless Statistics
<b>Internet Connection Type</b>	<p>Shares data and Internet access for users, supporting following internet access:</p> <ul style="list-style-type: none"> <li>■ PPPoE</li> <li>■ Dynamic IP</li> <li>■ Static IP</li> <li>■ PPTP</li> <li>■ L2TP</li> </ul>
<b>Firewall</b>	NAT firewall with SPI (Stateful Packet Inspection)
	Built-in NAT server supporting Port Forwarding, and DMZ
	Built-in firewall with IP address/ MAC address/ Port/ URL filtering
	Support ICMP-FLOOD, UDP-FLOOD, TCP-SYN-FLOOD filter, DoS protection
	Support 802.1Q VLAN up to 4
<b>Routing Protocol</b>	Static / Dynamic (RIP1 and 2) Routing
<b>VPN Pass-through</b>	PPTP, L2TP, IPSec, IPv6
<b>LAN</b>	Built-in DHCP server supporting static IP address distributing
	Support UPnP, Dynamic DNS
	Support IGMP Proxy
	Support 802.1d STP (Spanning Tree)
	IP / MAC-based Bandwidth Control
<b>System Management</b>	Web-based (HTTP) management interface
	SNTP time synchronize
	Easy firmware upgrade
	System Log supports Remote Log
<b>Standards Conformance</b>	
<b>IEEE Standards</b>	<p>IEEE 802.11n (1T1R, up to 150Mbps)  IEEE 802.11g  IEEE 802.11b  IEEE 802.11i  IEEE 802.3 10Base-T  IEEE 802.3u 100Base-TX  IEEE 802.3x Flow Control</p>
<b>Others Protocols and Standards</b>	CSMA/CA, CSMA/CD, TCP/IP, DHCP, ICMP, NAT, PPPoE, SNTP
<b>Environment</b>	
<b>Temperature</b>	<p>Operating: 0 ~ 40 Degree C  Storage: -40 ~ 70 Degree C</p>

<b>Humidity</b>	Operating: 10 ~ 90% (Non-Condensing) Storage: 5 ~ 90% (Non-Condensing)
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## Chapter 2. Hardware Interface

### 2.1. Overview

#### Front Panel

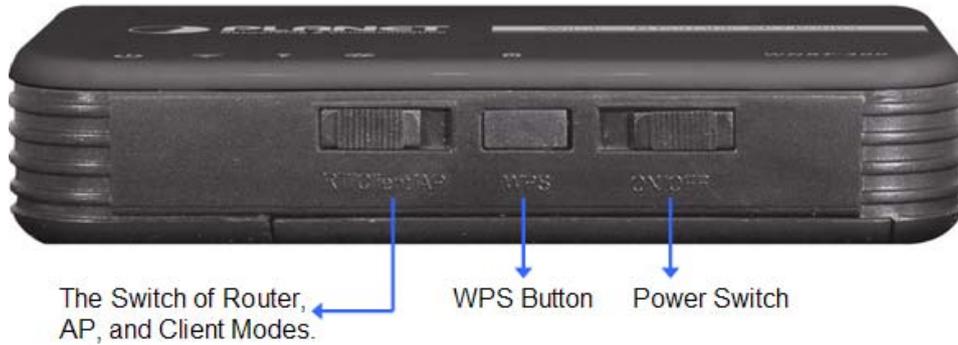


Figure 2-1

#### Rear Panel

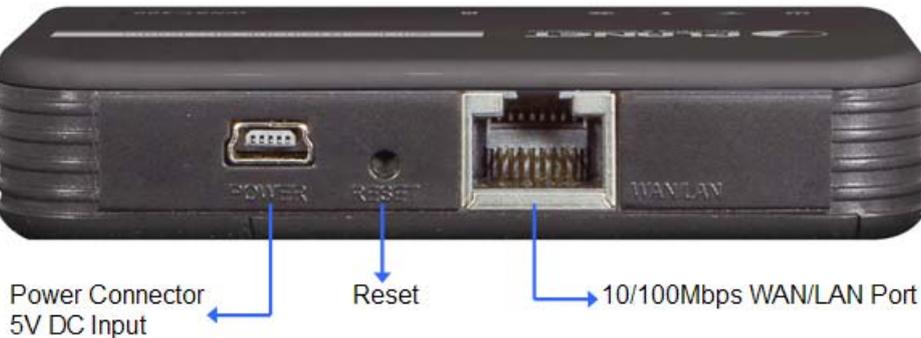


Figure 2-2

Object	Description
<b>WPS Button</b>	Press the button for about 5 seconds to activate the WPS function.
<b>Reset</b>	Reset the WNRT-300 to the factory default settings by holding the Reset button and pressing down for about 5 seconds.

### 2.2. LED Indications

The LEDs on the top panel indicate the instant status of system power, wireless data activity, WPS, port links, battery, and help monitor and troubleshoot when needed. [Figure 2-3](#) and [Table 2-1](#) show the LED indications of the WNRT-300.

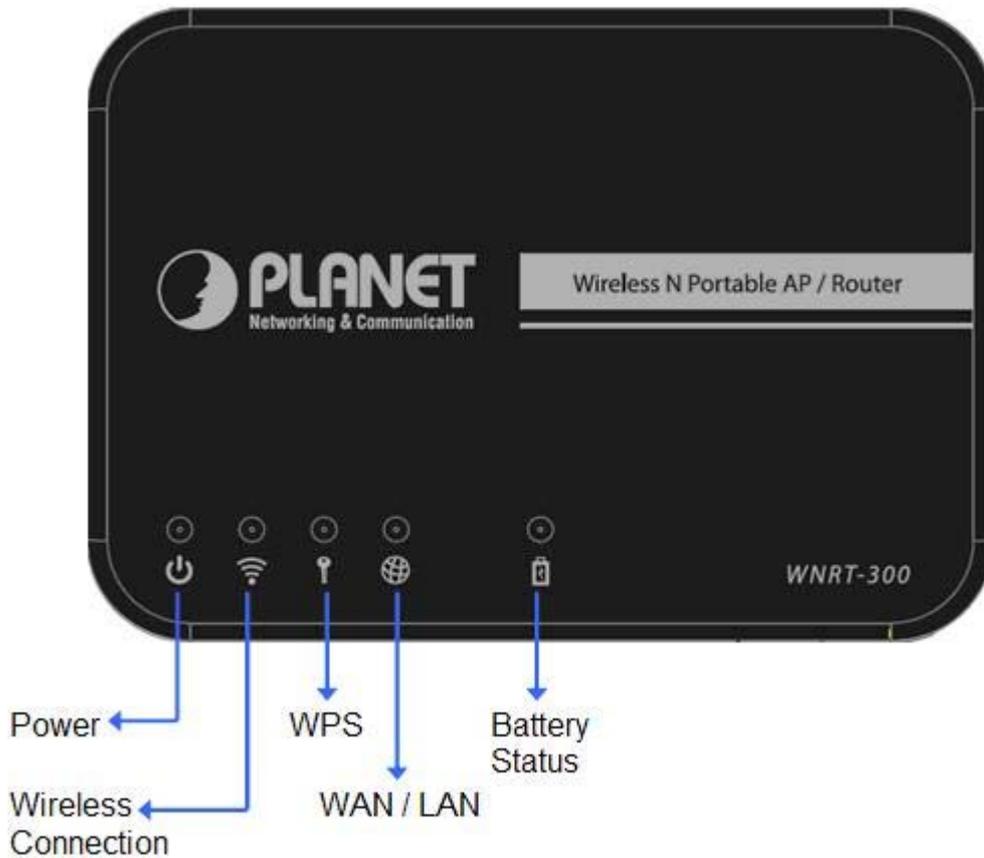


Figure 2-3 Top Panel

**LED Definition**

LED	COLOR	STATE	FUNCTION
Power	Green	On	Device power on
		Off	Device power off
		Flash	Low battery power
WLAN	Blue	Flash	The Wireless function is enabled.
		Off	The Wireless function is disabled.
WPS	Blue	On	WPS is activated
		Off	WPS is not activated
WAN/LAN	Blue	On	Link is established
		Off	No Ethernet device connected
		Flash	Packets are transmitting or receiving
Battery Status	Red	On	Charging
		Off	Charging complete/ no external power input

Table 2-1

## Chapter 3. Installation Guide

### 3.1. System Requirements

- ◆ Broadband Internet Access Service (Cable / xDSL / Ethernet connection)
- ◆ One Cable/xDSL Modem that has an RJ-45 connector (not necessary if the WNRT-300 is connected directly to the Ethernet.)
- ◆ 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



Note

It is recommended to use Internet Explorer 7.0 or above to access the WNRT-300.

### 3.2. Typical Application

Please shift the hardware switch on the WNRT-300 to change the operation mode.

#### 3.2.1. Router Mode



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 WNRT-300. The WNRT-300 is supposed to connect with the Cable / xDSL Modem by UTP cable.

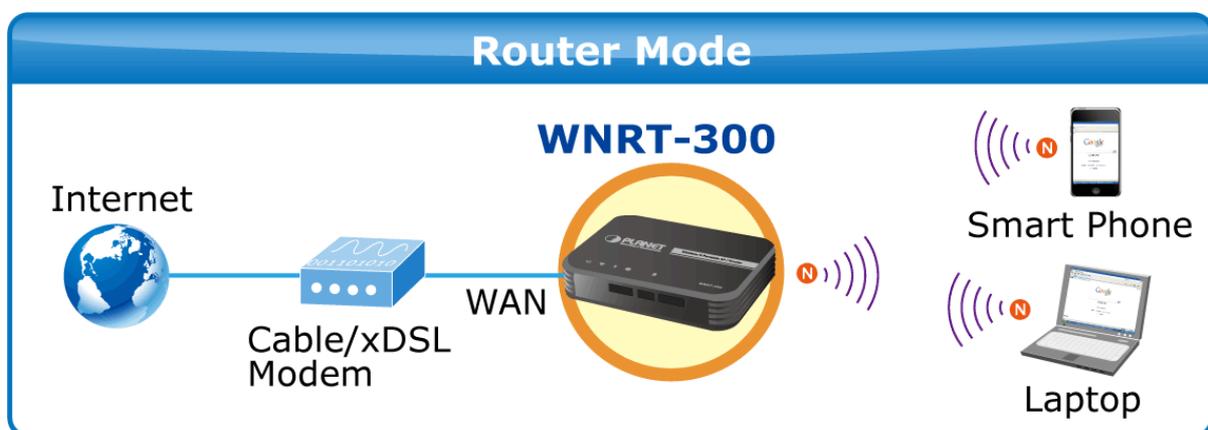


Figure 3-1

### 3.2.2. AP Mode



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 WNRT-300. They can certainly assign the IP address for themselves as well in the Control Panel of Windows. The WNRT-300 is supposed to bridge to the Ethernet directly by UTP cable.

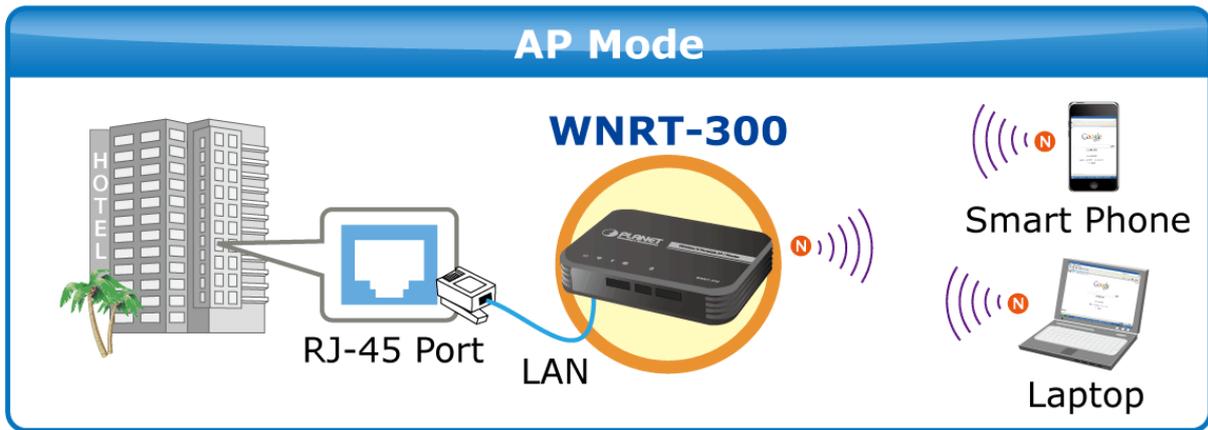


Figure 3-2

### 3.2.3. Client Mode



In Client Mode, the WNRT-300 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.

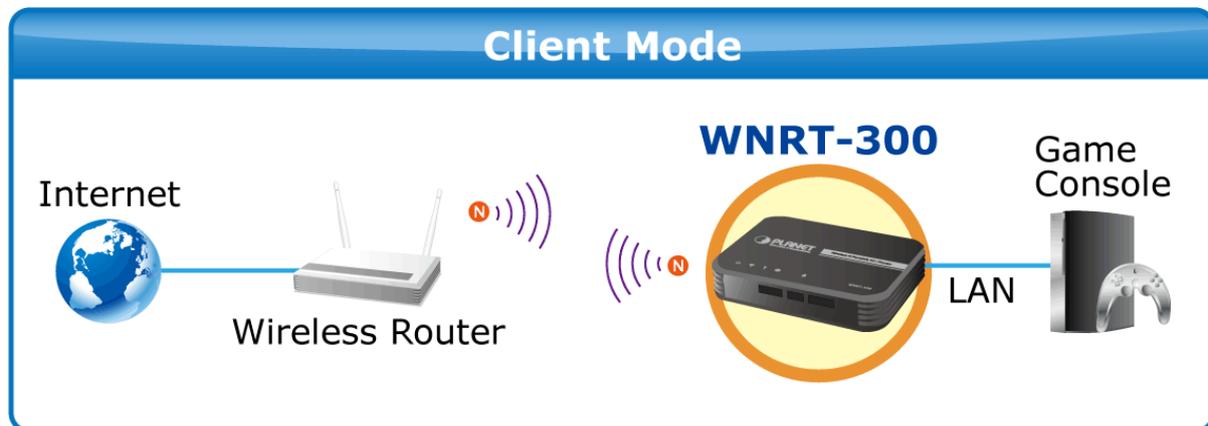


Figure 3-3

### 3.3. Manual Network Setup - TCP/IP Configuration

The default IP address of the WNRT-300 is **192.168.1.1**, and the default Subnet Mask is **255.255.255.0**. These values can be changed as you desire in the web UI of the WNRT-300. In this section, we use all the default values for description.

No matter you want to configure the WNRT-300 via wired or wireless connection, the PC need to be assigned an IP address first. Before you connect the local PC to the WNRT-300 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 XP**. First, make sure your Ethernet Adapter is working, and refer to the Ethernet adapter's manual if needed.

#### 3.3.1. Obtain an IP Address Automatically

If you are sure the DHCP server of WNRT-300 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 WNRT-300 built-in DHCP server will assign an IP address to the PC automatically.

- 1) On the Windows taskbar, click the **Start** button, point to **Settings**, and then click **Control Panel**.
- 2) Double-click the **Network Connections** icon. Then right-click on the **Wireless Network Connection**, and select Properties in the appearing window.

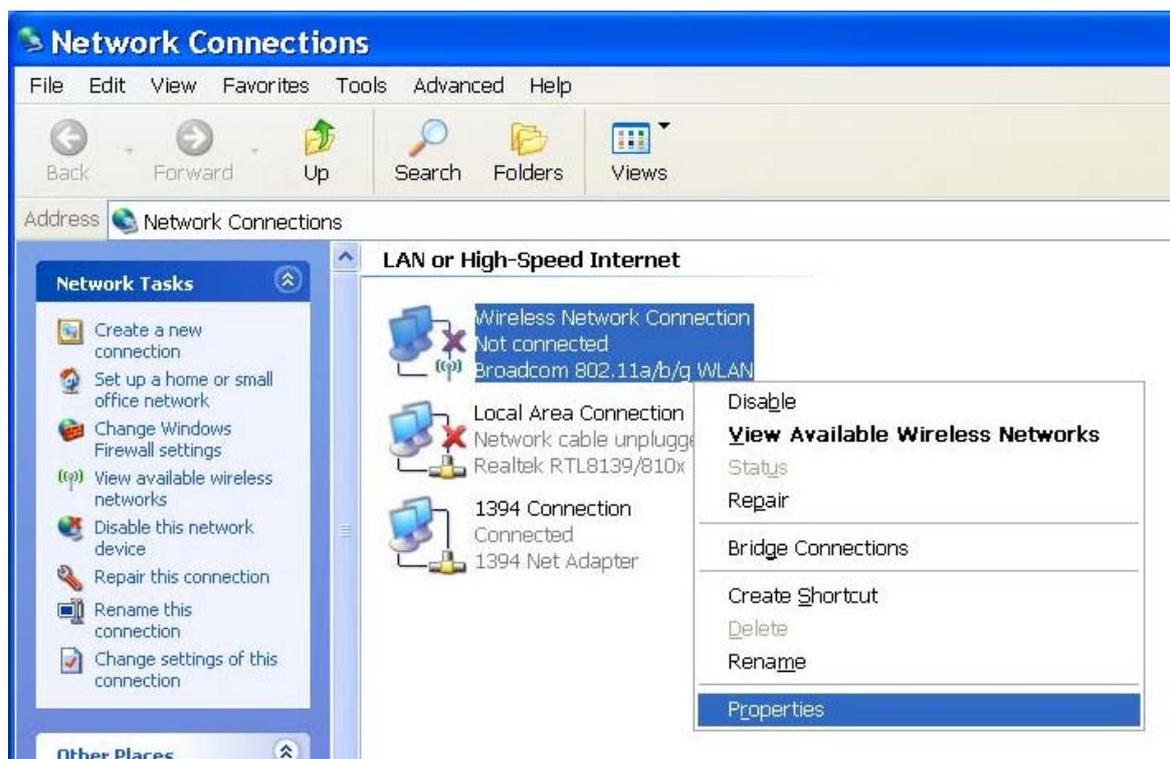


Figure 3-4

- 3) In the prompt window shown below, double click on the **Internet Protocol (TCP/IP)**.

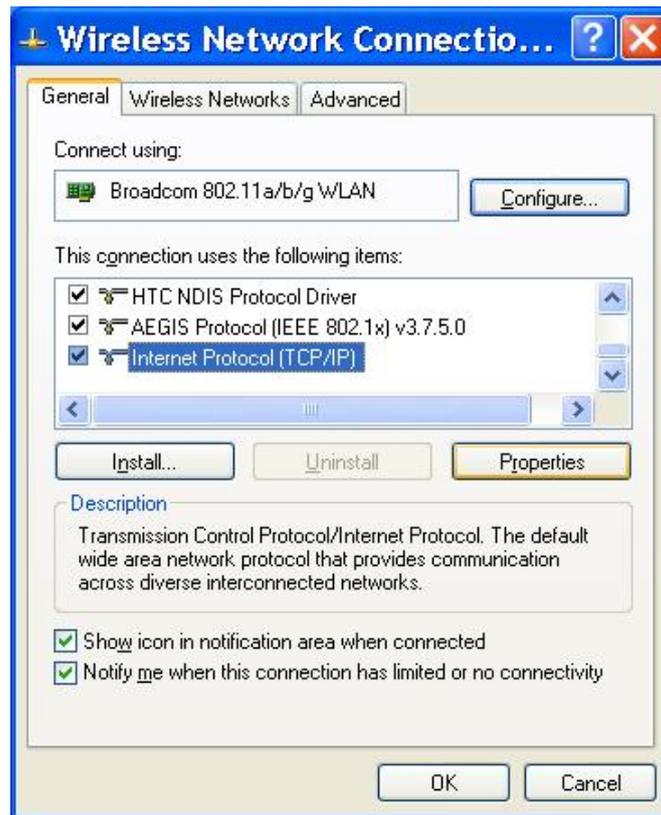


Figure 3-5

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

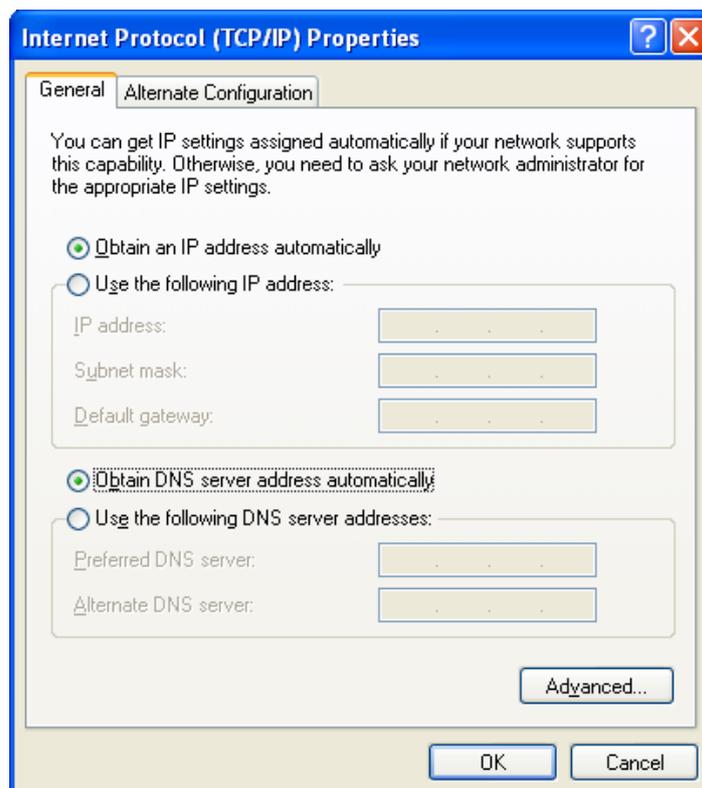


Figure 3-1

### 3.3.2. Configure the IP address manually

If you are sure the DHCP server of WNRT-300 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 WNRT-300, and "xxx" is any number from 2 to 254), Subnet Mask is 255.255.255.0, and the Gateway is 192.168.1.1 (The default IP address of WNRT-300)

- 1) Continue the settings from the last figure, select **Use the following IP address** radio button.
- 2) If the LAN IP address of the WNRT-300 is 192.168.1.1, enter IP address 192.168.1.x (x is from 2 to 254), and Subnet mask 255.255.255.0.
- 3) Enter the LAN IP address of the WNRT-300 (the default IP is 192.168.1.1) 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.

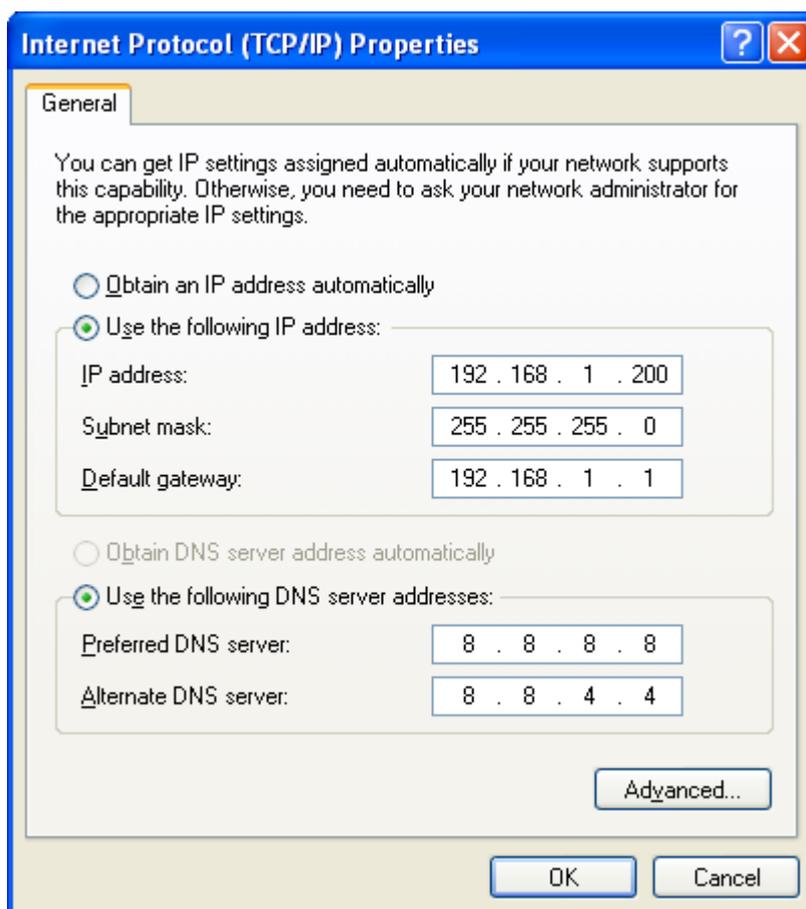


Figure 4-2

### 3.4. Hardware Installation

Please follow the instruction below to build the wireless network connection between WNRT-300 and your computers.



Note

Before you start using the WNRT-300, please follow the procedures below to install and charge the battery.

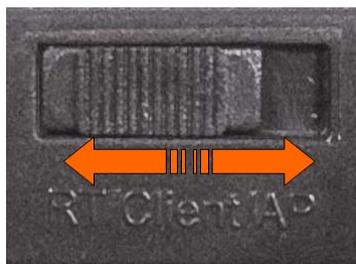
**Step 1:** Remove the battery cover, and insert the attached battery into the slot. Then replace the cover back.

**Step 2:** Charge the battery by the attached power adapter and USB cable. The red  LED will be lit up.

**Step 3:** The battery needs to be charged for 8 hours in the first time. When the battery is fully charged, the red  LED will be off.

Before installing the WNRT-300, make sure your PC is connected to the Internet through the broadband service successfully at this moment. If there is any problem, please contact your local ISP. After that, please install the WNRT-300 according to the following steps.

**Step 1.** Please shift the hardware switch on the WNRT-300 to the operation mode you want to use, and follow the figure below to install it for the purpose of configuration.



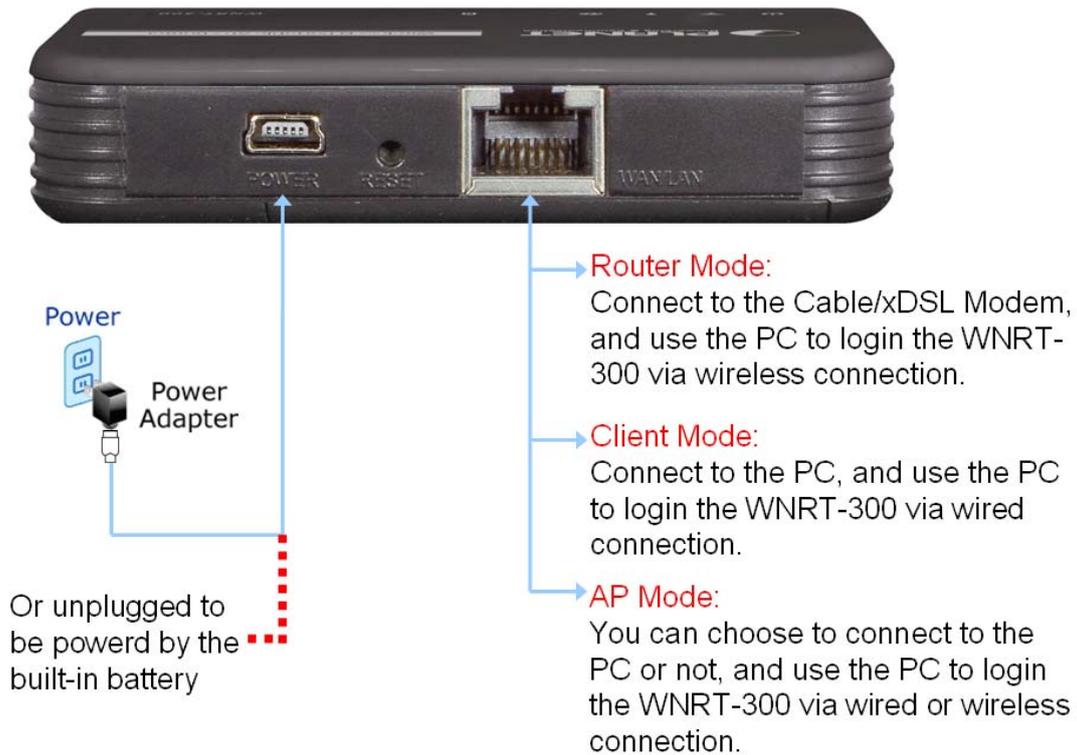


Figure 3-4

**Step 2.** Please turn on the WNRT-300.

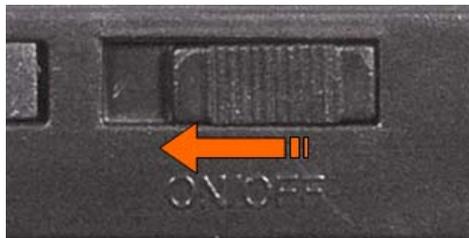


Figure 3-6

The procedures of hardware installation are finished. Please continuously follow the next section to start setup in the web UI.



If you want to configure the WNRT-300 via wireless connection, please use your PC to site survey the wireless signal of WNRT-300, and connect your PC with it wirelessly.

Default SSID: **default**

\*Default Wireless Security: **None**

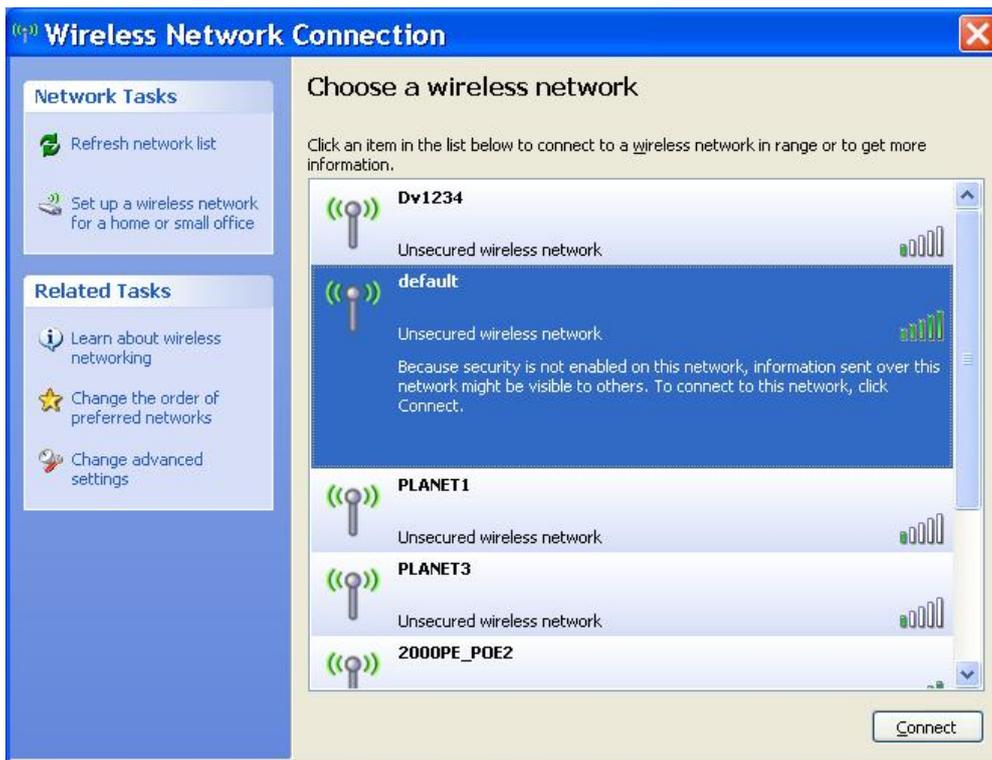


Figure 3-5

### 3.5. Starting Setup in Web UI

It is easy to configure and manage the WNRT-300 via web browser. To access the web UI of the WNRT-300, please open a web browser and enter the default IP address <http://192.168.1.1> in the address field of the browser.



Figure 3-7

After a moment, a login window will appear. Enter the User Name and Password. Then click the **OK** button.



Figure 3-8 Login Window

Default User name: **admin**

Default Password: **admin**



If the above screen does not pop up, it may mean that your web-browser has been set to a proxy. Go to Tools menu>Internet Options>Connections>LAN Settings, in the screen that appears, cancel the Using Proxy checkbox, and click OK to finish it.

After you enter the username and password, the main screen appears as [Figure 3-9](#)

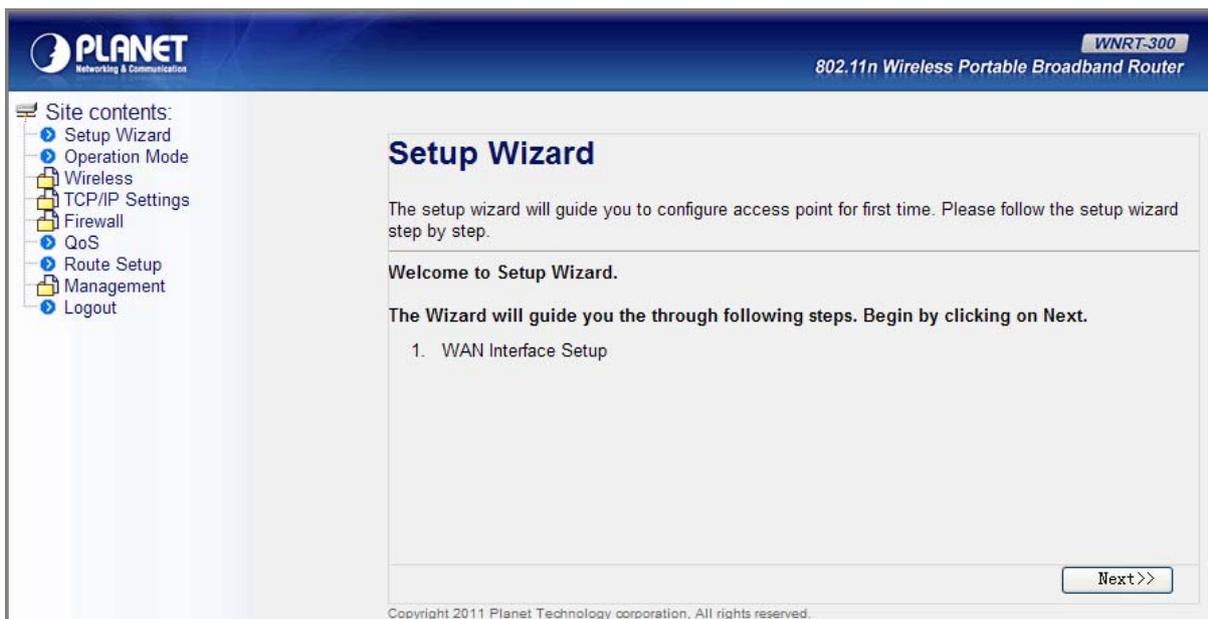


Figure 3-9 WNRT-300 Web UI Screenshot

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

## Chapter 4. Configuration in Web UI

### 4.1. Login

After successfully logging into the web UI of the WNRT-300, you will see the main menus on the left side of the web-based utility. There are some different options appear as the operation mode changes. For example, the figure below is the menus of Router Mode in the web UI.



**Figure 4-1** The Menu of Router Mode in The Web UI

The details for the functions in each operation mode are listed in the following sections.

### 4.2. Setup Wizard

No matter what operation mode you switch to on the WNRT-300, the first screen you enter into the web UI is the Setup Wizard. It will guide the user to configure the WNRT-300 easily and quickly. There are different procedures in different operation modes. According to the operation mode you switch to, please follow the instructions below to configure the WNRT-300 via Setup Wizard.

#### ◆ Router Mode



**Step 1.** The figure below is the screen of the Setup Wizard in Router Mode. Please click the “Next>>” button to continue.

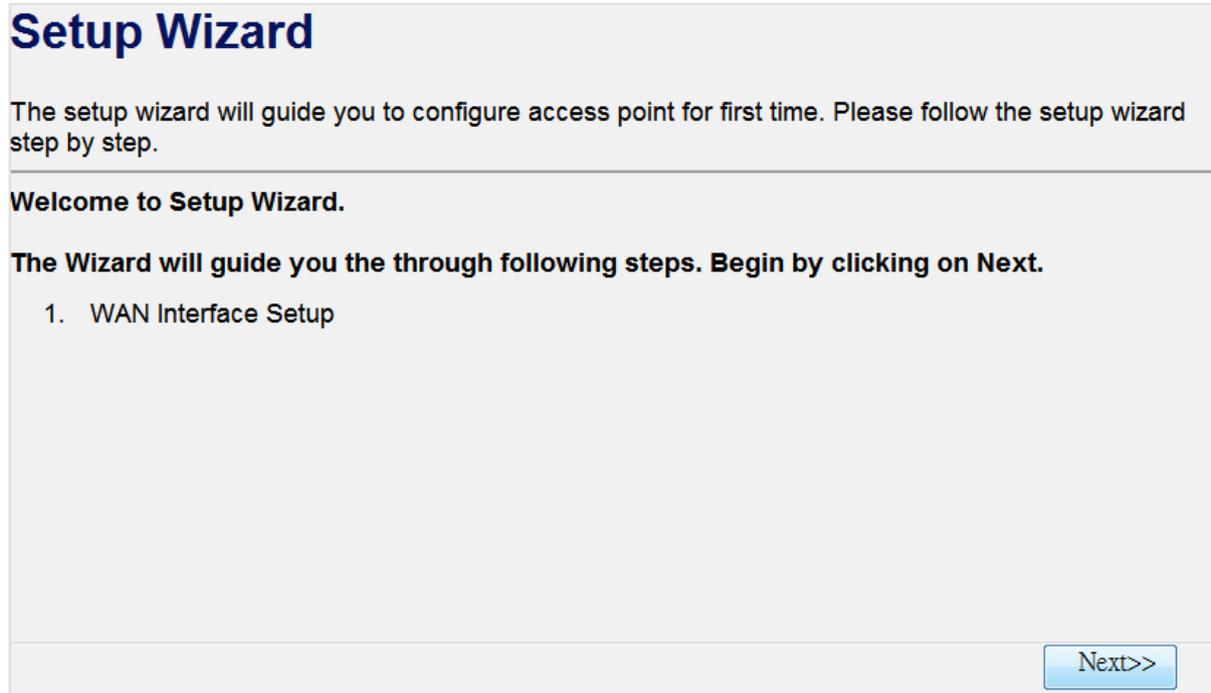


Figure 4-2

**Step 2.** Please select the corresponding WAN connection type of your Internet service, and fill the correct parameters in the blanks. Then click the “Finished” button to save the settings and reboot to take effect.

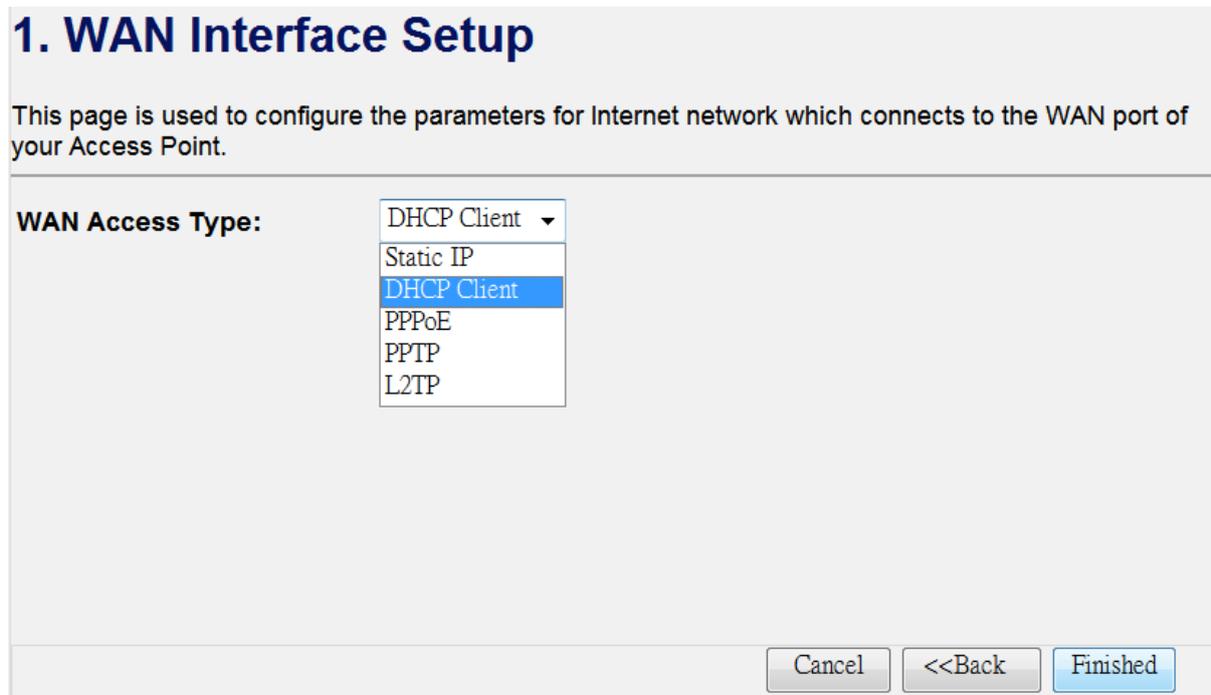
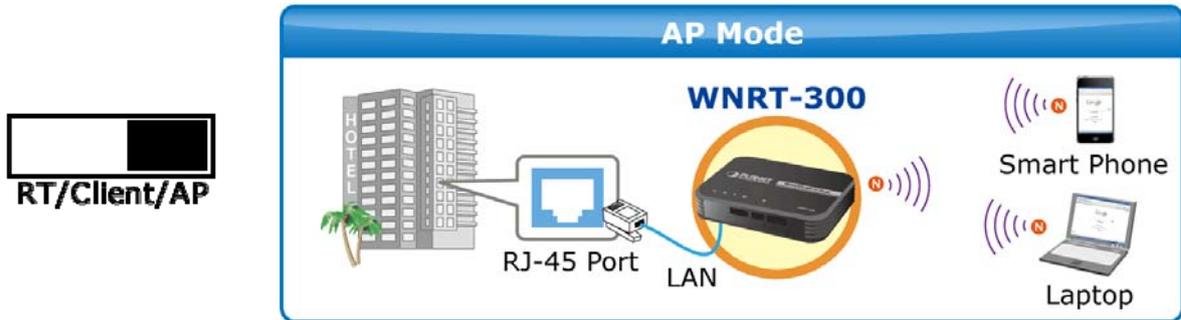


Figure 4-3

◆ AP Mode



**Step 1.** The figure below is the screen of the Setup Wizard in AP Mode. Please click the “Next>>” button to continue.

## Setup Wizard

The setup wizard will guide you to configure access point for first time. Please follow the setup wizard step by step.

**Welcome to Setup Wizard.**

**The Wizard will guide you the through following steps. Begin by clicking on Next.**

1. Set Wireless Network Name
2. Select Wireless Security Mode

Next>>

Figure 4-4

**Step 2.** Please enter the SSID for recognizing the wireless connection. The default setting is “default”. Then click the “Next>>” button to continue.

## 1. Set Wireless Network Name

You can enter the Wireless Network Name of AP.

**Wireless Network Name(SSID):**

default

Cancel

<<Back

Next>>

Figure 4-5

**Step 3.** Please select the wireless security mode, and setup the password for wireless connection. Then click the “Finished” button to save the settings and reboot to take effect.

## 2. Select Wireless Security Mode

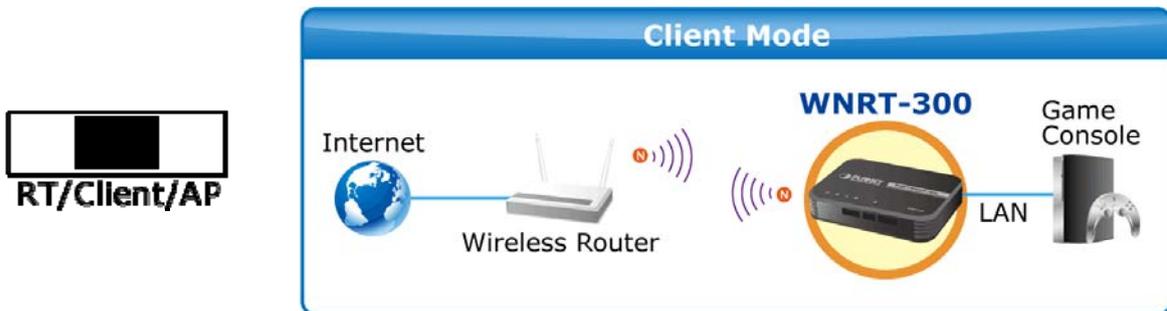
This page allows you setup the wireless security. Turn on WEP or WPA by using Encryption Keys could prevent any unauthorized access to your wireless network.

**Encryption:**

- None
- WEP
- WPA
- WPA2**
- WPA2 Mixed

Figure 4-6

◆ **Client Mode**



**Step 1.** The figure below is the screen of the Setup Wizard in Client Mode. Please click the “Next>>” button to continue.

## Setup Wizard

The setup wizard will guide you to configure access point for first time. Please follow the setup wizard step by step.

**Welcome to Setup Wizard.**

**The Wizard will guide you the through following steps. Begin by clicking on Next.**

1. Set Wireless Network Name
2. Select Wireless Security Mode

Next>>

Figure 4-7

**Step 2.** Please enter the SSID of the AP you want to connect with, or you can click the "Site Survey" button to search the available local AP. The details of the available AP will appear. Then choose the AP you want to connect to, and click the "Next>>" button to continue.

### 1. Set Wireless Network Name

You can enter the Wireless Network Name of AP.

Wireless Network Name(SSID):

hinet

Site Survey

SSID	BSSID	Channel	Type	Encrypt	Signal	Select
pp	00:26:5a:9a:9b:b4	11 (B+G)	AP	WEP	16	<input type="radio"/>
hinet	34:08:04:9a:8b:57	6 (B+G)	AP	no	14	<input checked="" type="radio"/>
BIGPINE	00:19:cb:e8:e5:d6	6 (B+G)	AP	WEP	8	<input type="radio"/>

Cancel

<<Back

Next>>

Figure 4-8

**Step 3.** Please select the correct encryption method of the AP you chose before, and enter the password of it. Then click the "Finished" button to save the settings and reboot to take effect.

## 2. Select Wireless Security Mode

This page allows you setup the wireless security. Turn on WEP or WPA by using Encryption Keys could prevent any unauthorized access to your wireless network.

**Encryption:**

- None
- WEP
- WPA
- WPA2
- WPA2 Mixed

Figure 4-9

## 4.3. Operation Mode

This page shows the current operation mode, but users can only change it by shifting the hardware switch on the WNRT-300.

### Operation Mode

You can setup different modes to LAN and WLAN interface for NAT and bridging function.

- Router:** When the Mode Selection Switch on the bottom of the Device is set to Router, the unit is in Router Mode. In this mode, the device is supposed to connect to internet via ADSL/Cable Modem. The NAT is enabled and all wireless client share the same IP to ISP through WAN port.
- AP:** When the Mode Selection Switch on the front of the Device is set to AP, the unit is in Access Point Mode. In this mode, all ethernet ports and wireless interface are bridged together and NAT function is disabled. All the WAN related function and firewall are not supported.
- Client:** When the Mode Selection Switch on the bottom of the Device is set to Client, the unit is in Client Mode.

Figure 4-10

## 4.4. Wireless

The Wireless menu contains submenus of the settings about wireless network. Please refer to the following sections for the details.



Figure 4-11

### 4.4.1. Basic Settings

Choose menu "**Wireless** → **Basic Settings**", and you can configure the basic settings for the wireless network in this page. After the configuration, please click the "Apply Changes" button to save the settings.

## Wireless Basic Settings

This page is used to configure the parameters for wireless LAN clients which may connect to your Access Point. Here you may change wireless encryption settings as well as wireless network parameters.

**Disable Wireless LAN Interface**

**Band:**

**Mode:**

**Network Type:**

**SSID:**

**Channel Width:**

**Control Sideband:**

**Channel Number:**

**Broadcast SSID:**

**WMM:**

**Data Rate:**

**Associated Clients:**

**Enable Mac Clone (Single Ethernet Client)**

**Enable Universal Repeater Mode (Acting as AP and client simultaneously)**

**SSID of Extended Interface:**

Figure 4-12 Wireless Basic Settings

Object	Description																																													
<b>Disable Wireless LAN Interface</b>	Check the box to disable the wireless function.																																													
<b>Band</b>	<p>Select the desired mode. Default is “<b>2.4GHz (B+G+N)</b>”. It is strongly recommended that you set the Band to “2.4GHz (B+G+N)”, and all of 802.11b, 802.11g, and 802.11n wireless stations can connect to the WNRT-300.</p> <ul style="list-style-type: none"> <li>■ <b>2.4 GHz (B)</b>: 802.11b mode, rate is up to 11 Mbps</li> <li>■ <b>2.4 GHz (G)</b>: 802.11g mode, rate is up to 54 Mbps</li> <li>■ <b>2.4 GHz (N)</b>: 802.11n mode, rate is up to 150 Mbps(1T1R)</li> <li>■ <b>2.4 GHz (B+G)</b>: 802.11b/g mode, rate is up to 11 Mbps or 54 Mbps</li> <li>■ <b>2.4 GHz (G+N)</b>: 802.11g/n mode, rate is up to 54 Mbps or 150 Mbps</li> <li>■ <b>2.4 GHz (B+G+N)</b>: 802.11b/g/n mode, rate is up to 11 Mbps,54 Mbps, or 150 Mbps</li> </ul>																																													
<b>Mode</b>	<p>There are <b>AP</b>, <b>WDS</b>, <b>AP+WDS</b>, and <b>Client</b>, four kinds of wireless mode selection. If you select WDS or AP+WDS, please click “WDS Settings” submenu for the related configuration. Furthermore, click the “<b>Multiple AP</b>” button to enable multiple SSID function.</p> <div data-bbox="544 1093 1382 1447" style="border: 1px solid #ccc; padding: 5px;"> <p><b>Multiple APs</b></p> <p>This page shows and updates the wireless setting for multiple APs.</p> <table border="1" data-bbox="550 1211 1375 1379"> <thead> <tr> <th>No.</th> <th>Enable</th> <th>Band</th> <th>SSID</th> <th>Data Rate</th> <th>Broadcast SSID</th> <th>WMM</th> <th>Access</th> <th>Active Client List</th> </tr> </thead> <tbody> <tr> <td>AP1</td> <td><input checked="" type="checkbox"/></td> <td>2.4 GHz (B+G+N)</td> <td>default VAP</td> <td>Auto</td> <td>Enabled</td> <td>Enabled</td> <td>LAN+WAN</td> <td>Show</td> </tr> <tr> <td>AP2</td> <td><input checked="" type="checkbox"/></td> <td>2.4 GHz (B+G+N)</td> <td>default VAP</td> <td>Auto</td> <td>Enabled</td> <td>Enabled</td> <td>LAN+WAN</td> <td>Show</td> </tr> <tr> <td>AP3</td> <td><input type="checkbox"/></td> <td>2.4 GHz (B+G+N)</td> <td>default VAP</td> <td>Auto</td> <td>Enabled</td> <td>Enabled</td> <td>LAN+WAN</td> <td>Show</td> </tr> <tr> <td>AP4</td> <td><input type="checkbox"/></td> <td>2.4 GHz (B+G+N)</td> <td>default VAP</td> <td>Auto</td> <td>Enabled</td> <td>Enabled</td> <td>LAN+WAN</td> <td>Show</td> </tr> </tbody> </table> <p style="text-align: center;"> <input type="button" value="Apply Changes"/> <input type="button" value="Reset"/> </p> </div>	No.	Enable	Band	SSID	Data Rate	Broadcast SSID	WMM	Access	Active Client List	AP1	<input checked="" type="checkbox"/>	2.4 GHz (B+G+N)	default VAP	Auto	Enabled	Enabled	LAN+WAN	Show	AP2	<input checked="" type="checkbox"/>	2.4 GHz (B+G+N)	default VAP	Auto	Enabled	Enabled	LAN+WAN	Show	AP3	<input type="checkbox"/>	2.4 GHz (B+G+N)	default VAP	Auto	Enabled	Enabled	LAN+WAN	Show	AP4	<input type="checkbox"/>	2.4 GHz (B+G+N)	default VAP	Auto	Enabled	Enabled	LAN+WAN	Show
No.	Enable	Band	SSID	Data Rate	Broadcast SSID	WMM	Access	Active Client List																																						
AP1	<input checked="" type="checkbox"/>	2.4 GHz (B+G+N)	default VAP	Auto	Enabled	Enabled	LAN+WAN	Show																																						
AP2	<input checked="" type="checkbox"/>	2.4 GHz (B+G+N)	default VAP	Auto	Enabled	Enabled	LAN+WAN	Show																																						
AP3	<input type="checkbox"/>	2.4 GHz (B+G+N)	default VAP	Auto	Enabled	Enabled	LAN+WAN	Show																																						
AP4	<input type="checkbox"/>	2.4 GHz (B+G+N)	default VAP	Auto	Enabled	Enabled	LAN+WAN	Show																																						
<b>Network Type</b>	<p>In <b>Infrastructure</b>, the wireless LAN serves as a wireless station. And the user can use the PC equipped the WNRT-300 to access the wireless network via other access point. In <b>Ad hoc</b>, the wireless LAN will use the Ad-hoc mode to operate.</p> <p>Default is “<b>Infrastructure</b>”.</p>																																													
<b>SSID</b>	The ID of the wireless network and default is “default”. User can access the wireless network through it only. However, if you switch to Client Mode, this field becomes the SSID of the AP you want to connect with.																																													
<b>Channel Width</b>	You can select <b>20MHz</b> or <b>40MHz</b> .																																													
<b>Control Sideband</b>	You can select <b>Upper</b> or <b>Lower</b> .																																													
<b>Channel Number</b>	You can select the operating frequency of wireless network.																																													

<b>Broadcast SSID</b>	<p>If you enable "Broadcast SSID", every wireless station located within the coverage of the WNRT-300 can discover its signal easily. If you are building a public wireless network, enabling this feature is recommended. In private network, disabling "Broadcast SSID" can provide better wireless network security.</p> <p>Default is <b>"Enabled"</b>.</p>
<b>WMM</b>	<p><b>WMM</b> function can guarantee the packets with high-priority messages being transmitted preferentially.</p> <p>Default is "Enabled".</p>
<b>Data Rate</b>	Default is <b>"Auto"</b> .
<b>Associated Clients</b>	Click the <b>"Show Active Clients"</b> button to show the status table of active wireless clients.
<b>Enable Mac Clone (Single Ethernet Client)</b>	Enable Mac Clone.
<b>Enable Universal Repeater Mode (Acting as AP and client simultaneously)</b>	It is only available in Client Mode. Universal Repeater is a technology used to extend wireless coverage. To enable Universal Repeater Mode, check the box and enter the SSID you want to broadcast in the field below. Then please click "Security" submenu for the related settings of the AP you want to connect with.

#### 4.4.2. Advanced Settings

Choose menu **"Wireless → Advanced Settings"**, and you can configure the advanced settings for the wireless network in this page. After the configuration, please click the "Apply Changes" button to save the settings.

## Wireless Advanced Settings

These settings are only for more technically advanced users who have a sufficient knowledge about wireless LAN. These settings should not be changed unless you know what effect the changes will have on your Access Point.

Fragment Threshold:	<input type="text" value="2346"/>	(256-2346)
RTS Threshold:	<input type="text" value="2347"/>	(0-2347)
Beacon Interval:	<input type="text" value="100"/>	(20-1024 ms)
Preamble Type:	<input checked="" type="radio"/> Long Preamble <input type="radio"/> Short Preamble	
IAPP:	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled	
Protection:	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled	
Aggregation:	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled	
Short GI:	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled	
WLAN Partition:	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled	
RF Output Power:	<input checked="" type="radio"/> 100% <input type="radio"/> 70% <input type="radio"/> 50% <input type="radio"/> 35% <input type="radio"/> 15%	
<input type="button" value="Apply Changes"/>		<input type="button" value="Reset"/>

**Figure 4-13** Wireless Advanced Settings

Object	Description
<b>Fragment Threshold</b>	You can specify the maximum size of packet during the fragmentation of data to be transmitted. If you set this value too low, it will result in bad performance.  Default is "2346".
<b>RTS Threshold</b>	When the packet size is smaller the RTS threshold, the access point will not use the RTS/CTS mechanism to send this packet.  Default is "2347".
<b>Beacon Interval</b>	The interval of time that this access point broadcast a beacon. Beacon is used to synchronize the wireless network. Default is "100".
<b>Preamble Type</b>	Preamble type defines the length of CRC block in the frames during the wireless communication. " <b>Short Preamble</b> " is suitable for high traffic wireless network. " <b>Long Preamble</b> " can provide more reliable communication.  Default is "Long Preamble".
<b>IAPP</b>	IAPP (Inter-Access Point Protocol) enabled is recommendation that describes an optional extension to IEEE 802.11 that provides wireless access-point communications among multivendor systems.  Default is "Enabled".

<b>Protection</b>	<p>It is recommended to enable the protection mechanism. This mechanism can decrease the rate of data collision between 802.11b and 802.11g wireless stations. When the protection mode is enabled, the throughput of the AP will be a little lower due to many of frame traffic should be transmitted.</p> <p>Default is "Disabled".</p>
<b>Aggregation</b>	<p>It is a function where the values of multiple rows are grouped together.</p> <p>Default is "Enabled"</p>
<b>Short GI</b>	<p>It is used to set the time that the receiver waits for RF reflections to settle out before sampling data.</p> <p>Default is "Enabled"</p>
<b>WLAN Partition</b>	<p>This feature also called "WLAN isolation" or "Block Relay". If this is enabled, wireless clients cannot exchange data through the WNRT-300.</p> <p>Default is "Disabled".</p>
<b>RF Output Power</b>	<p>Users can adjust the wireless output power here.</p> <p>Default is "100%".</p>

### 4.4.3. Security

Choose menu “**Wireless → Security**”, and you can configure the settings of wireless security for the wireless network in this page. After the configuration, please click the “Apply Changes” button to save the settings.

## Wireless Security Setup

This page allows you setup the wireless security. Turn on WEP or WPA by using Encryption Keys could prevent any unauthorized access to your wireless network.

Select SSID: Root AP - default ▼

---

Encryption: Disable ▼

802.1x Authentication: Disable  
WEP  
WPA  
**WPA2**  
WPA-Mixed

Apply Changes
Reset

Figure 4-14 Wireless Security

Object	Description
<b>Select SSID</b>	Select the SSID you want to configure the wireless security function, includes the root one and the client one.
<b>Encryption</b>	<p><b>Disable:</b> No security setup for wireless connection.</p> <hr/> <p><b>WEP:</b> It is based on the IEEE 802.11 standard. And the default setting of authentication is <b>Automatic</b>, which can select <b>Open System</b> or <b>Shared Key</b> authentication type automatically based on the wireless station's capability and request. Furthermore, you can select <b>Key Length</b> and enter 10 &amp; 26 <b>Hexadecimal</b> digits (any combination of 0-9, a-f, A-F, zero key is not promoted) or 5 &amp; 13 <b>ASCII</b> characters in the <b>Encryption Key</b> field.</p> <hr/> <p><b>WPA / WPA2 / WPA-Mixed:</b> When you select the authentication mode based on <b>Enterprise (Radius Server)</b>, please enter the <b>IP Address</b>, <b>Port</b>, and <b>Password</b> of the Radius Server. When you select the other authentication mode based on <b>Personal (Pre-Shared Key)</b>, please enter at least 8 ASCII characters (<b>Passphrase</b>) or 64 <b>Hexadecimal</b> characters. All of the Cipher Suites support <b>TKIP</b> and <b>AES</b>.</p>

<b>802.1x Authentication</b>	Enable 802.1x authentication function, then please enter the <b>IP Address</b> , <b>Port</b> , and <b>Password</b> of the Radius Server.
------------------------------	--

#### 4.4.4. Access Control

Choose menu “**Wireless → Access Control**”, you can choose to allow or deny the computer of specified MAC address to connect with the WNRT-300 in this page. After the configuration, please click the “Apply Changes” button to save the settings.

## Wireless Access Control

If you choose 'Allowed Listed', only those clients whose wireless MAC addresses are in the access control list will be able to connect to your Access Point. When 'Deny Listed' is selected, these wireless clients on the list will not be able to connect the Access Point.

**Wireless Access Control Mode:** Disable ▾

**MAC Address:**  Allow Listed

Disable  
Deny Listed

**Current Access Control List:**

MAC Address	Comment	Select

**Figure 4-15** Wireless Access Control

Object	Description
<b>Wireless Access Control Mode</b>	You can choose to set the Allowed-List, Denied-List, or disable this function.
<b>MAC Address</b>	Enter the MAC address you want to allow or deny to connect to the WNRT-300 in the field.
<b>Comment</b>	You can make some comment for each MAC address on the list.
<b>Current Access Control List</b>	You can select some MAC address, and click the “Delete Selected” button to delete it.

#### 4.4.5. WDS Settings

**Wireless Distribution System (WDS)** uses wireless media to communicate with other APs, like the Ethernet does. To do this, you must set these APs in the **same channel** and **set MAC address of other APs** which you want to communicate with in the table and then enable the WDS.

Choose menu "**Wireless → WDS Settings**", and you can configure WDS to connect the WNRT-300 with another AP in this page. After the configuration, please click the "Apply Changes" button to save the settings.

### WDS Settings

Wireless Distribution System uses wireless media to communicate with other APs, like the Ethernet does. To do this, you must set these APs in the same channel and set MAC address of other APs which you want to communicate with in the table and then enable the WDS.

**Enable WDS**

**MAC Address:**

**Data Rate:** Auto ▼

**Comment:**

Apply Changes
Reset
Set Security
Show Statistics

**Current WDS AP List:**

MAC Address	Tx Rate (Mbps)	Comment	Select

Delete Selected
Delete All
Reset

**Figure 4-16** WDS Settings

Object	Description
<b>Enable WDS</b>	Check the box to enable the WDS function. Please select WDS or AP+WDS in the Mode of Wireless Basic Settings before you enable WDS in this page.
<b>MAC Address</b>	You can enter the MAC address of the AP you want to connect with.
<b>Data Rate</b>	Default is " <b>Auto</b> ".
<b>Comment</b>	You can make some comment for each MAC address on the list.
<b>Set Security</b>	Click the " <b>Set Security</b> " button, then configure the wireless security parameters of the AP you want to connect via WDS.
<b>Show Statics</b>	Click the " <b>Show Statics</b> " button to show the WDS AP.

<b>Current WDS AP List</b>	You can select some MAC address of the AP, and click the “Delete Selected” button to delete it.
----------------------------	---

#### 4.4.6. Site Survey

Choose menu “**Wireless → Site Survey**” to scan the available local AP. If any Access Point is found, you could choose any one to connect with manually when the Client Mode is enabled.

### Wireless Site Survey

This page provides tool to scan the wireless network. If any Access Point or IBSS is found, you could choose to connect it manually when client mode is enabled.

Site Survey

SSID	BSSID	Channel	Type	Encrypt	Signal
XXX	e8:4a:03:01:82:c4	6 (B+G+N)	AP	WPA2-PSK	46
andy	00:21:e8:e9:eb:cd	2 (B+G+N)	AP	WEP	20
3p	00:e8:5a:9a:9b:b4	11 (B+G)	AP	WEP	18
BIGPINE	e8:19:cb:e8:e5:d6	6 (B+G)	AP	WEP	16
carol556	00:18:e8:e9:55:54	2 (B+G)	AP	WEP	14

Figure 4-17 Wireless Site Survey

#### 4.4.7. WPS

Choose menu “**Wireless** → **WPS**”, and you can configure the setting for WPS (Wi-Fi Protected Setup). After the configuration, please click the “Apply Changes” button to save the settings.

### Wi-Fi Protected Setup

This page allows you to change the setting for WPS (Wi-Fi Protected Setup). Using this feature could let your wireless client automatically synchronize its setting and connect to the Access Point in a minute without any hassle.

**Disable WPS**

**WPS Status:**
 Configured
 UnConfigured

**Self-PIN Number:** 19305240

**Push Button Configuration:**

**Client PIN Number:**

**Figure 4-18** WPS (Wi-Fi Protected Setup)

Object	Description
<b>Disable WPS</b>	You can check the box to disable the WPS function.
<b>WPS Status</b>	Here you can check if the connection via WPS is established or not.
<b>Self-PIN Number</b>	It is the PIN number of the WNRT-300 here.
<b>Push Button Configuration</b>	Click the “Start PBC”, and then activate WPS as well in the client device within 2 minutes.
<b>Client PIN Number</b>	In addition to the PBC method, you can also use the PIN method to activate the WPS. Just enter the PIN number of the client device in the field, and click the “Start PIN” button.

#### 4.4.8. Schedule

Choose menu “**Wireless** → **Schedule**”, and you can configure the schedule rule of enabling wireless function. After the configuration, please click the “Apply Changes” button to save the settings.

## Wireless Schedule

This page allows you setup the wireless schedule rule. Please do not forget to configure system time before enable this feature.

Enable Wireless Schedule

Days :

Everyday  Sun  Mon  Tue  Wed  Thu  Fri  Sat

Time :

24 Hours  From 08 : 30 To 18 : 00

Apply Changes

Reset

Figure 4-19 Wireless Schedule

## 4.5. TCP/IP Settings

The TCP/IP Settings menu contains submenus of the settings about LAN and WAN. Please refer to the following sections for the details.

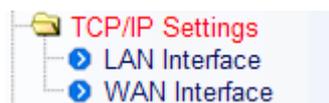


Figure 4-20

### 4.5.1. LAN Interface

Choose menu “**TCP/IP Settings → LAN Interface**”, and you can configure the parameters for LAN (Local Area Network). After the configuration, please click the “Apply Changes” button to save the settings.

## LAN Interface Setup

This page is used to configure the parameters for local area network which connects to the LAN port of your Access Point. Here you may change the setting for IP address, subnet mask, DHCP, etc..

IP Address:	<input type="text" value="192.168.1.1"/>
Subnet Mask:	<input type="text" value="255.255.255.0"/>
Default Gateway:	<input type="text" value="0.0.0.0"/>
DHCP:	<input type="text" value="Server"/> <input type="button" value="v"/>
DHCP Client Range:	<input type="text" value="192.168.1.100"/> - <input type="text" value="192.168.1.200"/> <input type="button" value="Show Client"/>
Static DHCP:	<input type="button" value="Set Static DHCP"/>
Domain Name:	<input type="text" value="Router"/>
802.1d Spanning Tree:	<input type="text" value="Disabled"/> <input type="button" value="v"/>
Clone MAC Address:	<input type="text" value="000000000000"/>
<input type="button" value="Apply Changes"/> <input type="button" value="Reset"/>	

Figure 4-21 LAN Interface

Object	Description
IP Address	The LAN IP address of the WNRT-300, and default is <b>192.168.1.1</b> . You can change it according to your request.
Subnet Mask	Default is <b>255.255.255.0</b> . You can change it according to your request.
Default Gateway	Default is <b>0.0.0.0</b> . You can change it according to your request.
DHCP	You can select one of <b>Disable</b> , <b>Client</b> , and <b>Server</b> . Default is <b>Server</b> , that the WNRT-300 can assign IP addresses to the computers automatically.
DHCP Client Range	For the <b>Server</b> mode, you must enter the DHCP client IP address range in the field. And you can click the " <b>Show Client</b> " button to show the Active DHCP Client Table.
Static DHCP	Click the " <b>Set Static DHCP</b> " button, and you can reserve some IP addresses for those network devices with the specified MAC addresses anytime when they request IP addresses.
Domain Name	Default is <b>Router</b> .
802.1d Spanning Tree	You can enable or disable the spanning tree function.
Clone MAC Address	You can input a MAC address here for using clone function.

## 4.5.2. WAN Interface

Choose menu “TCP/IP Settings → WAN Interface”, and you can configure the parameters for the Internet network. After the configuration, please click the “Apply Changes” button to save the settings.

### WAN Interface Setup

This page is used to configure the parameters for Internet network which connects to the WAN port of your Access Point. Here you may change the access method to DHCP, PPPoE, static IP, PPTP or L2TP by click the item value of WAN Access type.

---

**WAN Access Type:** DHCP Client ▼

Static IP  
**DHCP Client**  
 PPPoE  
 PPTP  
 L2TP

**Attain DNS Automatically**

**Set DNS Manually**

**DNS 1:**

**DNS 2:**

**DNS 3:**

**Clone MAC Address:**

**Enable uPNP**

**Enable IGMP Proxy**

**Enable Ping Access on WAN**

**Enable Web Server Access on WAN**

**Enable IPsec pass through on VPN connection**

**Enable PPTP pass through on VPN connection**

**Enable L2TP pass through on VPN connection**

**Enable IPv6 pass through on VPN connection**

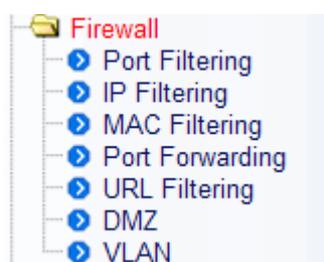
**Figure 4-22** WAN Interface

Object	Description
<b>WAN Access Type</b>	Please select the corresponding WAN Access Type for the Internet, and fill the correct parameters from your local ISP in the fields which appear below.
<b>Clone MAC Address</b>	You can input a MAC address here for using clone function.
<b>Enable uPNP</b>	Check the box to enable the uPNP function. The uPNP devices can be automatically discovered by the uPNP service application on the LAN.
<b>Enable IGMP Proxy</b>	Check the box to enable the IGMP Proxy function.

<b>Enable Ping Access on WAN</b>	Check the box to enable Ping access from the Internet Network.
<b>Enable Web Server Access on WAN</b>	Check the box to enable the web server access of the WNRT-300 from the Internet network.
<b>Enable IPsec pass through on VPN connection</b>	Check the box to enable IPsec pass through function on VPN connection.
<b>Enable PPTP pass through on VPN connection</b>	Check the box to enable PPTP pass through function on VPN connection.
<b>Enable L2TP pass through on VPN connection</b>	Check the box to enable L2TP pass through function on VPN connection.
<b>Enable IPv6 pass through on VPN connection</b>	Check the box to enable IPv6 pass through function on VPN connection.

## 4.6. Firewall

The Firewall menu contains submenus of the settings about firewall and access filtering. Please refer to the following sections for the details.



**Figure 4-23**

### 4.6.1. Port Filtering

Choose menu “**Firewall → Port Filtering**”, and you can configure which port range and protocol to be restricted. After the configuration, please click the “Apply Changes” button to save the settings.

## Port Filtering

Entries in this table are used to restrict certain types of data packets from your local network to Internet through the Gateway. Use of such filters can be helpful in securing or restricting your local network.

**Enable Port Filtering**

Port Range:  -  Protocol: Both ▼  
Both  
TCP  
UDP Comment:

**Current Filter Table:**

Port Range	Protocol	Comment	Select
100-200	TCP+UDP	test	<input type="checkbox"/>

**Figure 4-24** Port Filtering

Object	Description
Enable Port Filtering	Enable port filtering
Port Range	Add ports you want to control
Protocol	Select the port number protocol type (TCP, UDP or both). If you are unsure, then leave it to the default both protocol
Comment	The description of this setting

Check the “Select” box of which rule you want to delete, then click the “Delete Selected” button to delete it.

### 4.6.2. IP Filtering

Choose menu “**Firewall → IP Filtering**”, and you can configure which IP address and protocol to be restricted. After the configuration, please click the “Apply Changes” button to save the settings.

## IP Filtering

Entries in this table are used to restrict certain types of data packets from your local network to Internet through the Gateway. Use of such filters can be helpful in securing or restricting your local network.

---

**Enable IP Filtering**

Local IP Address:  Protocol: Both ▼ Comment:

Both  
 TCP  
 UDP

**Current Filter Table:**

Local IP Address	Protocol	Comment	Select
192.168.1.100	TCP+UDP	test	<input type="checkbox"/>

**Figure 4-25** IP Filtering

Object	Description
<b>Enable IP Filtering</b>	Enable IP filtering
<b>Local IP Address</b>	Add LAN IP address you want to control
<b>Protocol</b>	Select the port number protocol type (TCP, UDP or both). If you are unsure, then leave it to the default both protocol
<b>Comment</b>	The description of this setting

Check the “Select” box of which rule you want to delete, and then click the “Delete Selected” button to delete it.

### 4.6.3. MAC Filtering

Choose menu “**Firewall → MAC Filtering**”, and you can configure which computer of the specified MAC address to be restricted. After the configuration, please click the “Apply Changes” button to save the settings.

## MAC Filtering

Entries in this table are used to restrict certain types of data packets from your local network to Internet through the Gateway. Use of such filters can be helpful in securing or restricting your local network.

Enable MAC Filtering

MAC Address:  Comment:

Current Filter Table:

MAC Address	Comment	Select
01:02:03:04:05:06	test	<input type="checkbox"/>

Figure 4-26 MAC Filtering

Object	Description
Enable MAC Filtering	Enable MAC filtering
MAC Address	Add MAC address you want to control
Comment	The description of this setting

Check the "Select" box of which rule you want to delete, and then click the "Delete Selected" button to delete it.

#### 4.6.4. Port Forwarding

Choose menu "**Firewall → Port Forwarding**", and you can configure to re-direct a particular range of service port numbers from the Internet network to a particular LAN IP address. It helps users to host some servers behind the firewall. After the configuration, please click the "Apply Changes" button to save the settings.

## Port Forwarding

Entries in this table allow you to automatically redirect common network services to a specific machine behind the NAT firewall. These settings are only necessary if you wish to host some sort of server like a web server or mail server on the private local network behind your Gateway's NAT firewall.

**Enable Port Forwarding**

IP Address:  Protocol: **Both**  Port Range:  -  Comment:

Both  
TCP  
UDP

### Current Port Forwarding Table:

Local IP Address	Protocol	Port Range	Comment	Select
192.168.1.100	TCP+UDP	100-101	test	<input type="checkbox"/>

**Figure 4-27** Port Forwarding

Object	Description
<b>Enable Port Forwarding</b>	Enable Port Forwarding function
<b>IP Address</b>	Add LAN IP address of specified host or server on the private local network
<b>Protocol</b>	Select the port number protocol type (TCP, UDP or both). If you are unsure, then leave it to the default both protocol
<b>Port Range</b>	Add ports you want to control. For TCP and UDP Services, enter the beginning of the range of port numbers used by the service. If the service uses a single port number, enter it in both the start and finish fields.
<b>Comment</b>	The description of this setting

Check the "Select" box of which rule you want to delete, and then click the "Delete Selected" button to delete it.

### 4.6.5. URL Filtering

Choose menu “**Firewall → URL Filtering**”, and you can configure which URL addresses to be blocked. After the configuration, please click the “Apply Changes” button to save the settings.

## URL Filtering

URL filter is used to deny LAN users from accessing the internet. Block those URLs which contain keywords listed below.

---

**Enable URL Filtering**

URL Address:

**Current Filter Table:**

URL Address	Select
google.com	<input type="checkbox"/>

**Figure 4-28** URL Filtering

Check the “Select” box of which rule you want to delete, and then click the “Delete Selected” button to delete it.

### 4.6.6. DMZ

This page allows you to set a **De-militarized Zone (DMZ)** to separate internal network and Internet.

Choose menu “**Firewall → DMZ**”, and you can configure the private IP address of DMZ. The DMZ feature allows one local host to be exposed to the Internet for a special-purpose service such as Internet gaming or video conferencing. After the configuration, please click the “Apply Changes” button to save the settings.

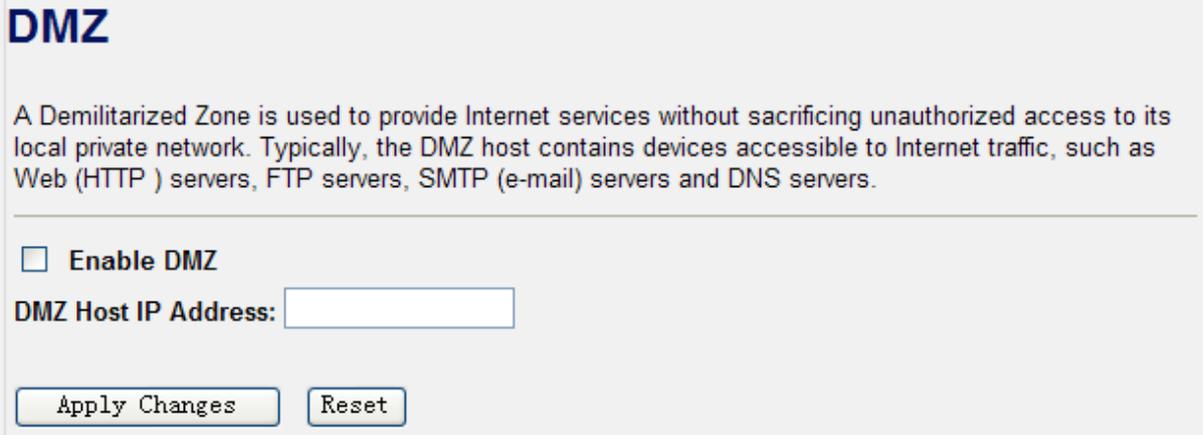


Figure 4-29 DMZ

Object	Description
Enable DMZ	Check the box to enable DMZ function. If the DMZ Host Function is enabled, it means that you set up DMZ host at a particular computer to be exposed to the Internet so that some applications/software, especially Internet / online game can have two way connections.
DMZ Host IP Address	Enter the IP address of a particular host in your LAN which will receive all the packets originally going to the WAN port / Public IP address above.

#### 4.6.7. VLAN

If your network uses VLAN (**Virtual Local Area Network**s), you can assign the SSID (configured for Multiple AP) to a VLAN on your network. Client devices that associate using the SSID are grouped into this VLAN. Up to 5 security profiles can be enabled at one time in WNRT-300, thus allowing up to 5 different SSIDs to be used simultaneously. Cooperating with the VLAN support, network administrators can define separated wireless subnets for various Class-of-service and security policies.



Choose menu “**Firewall → VLAN**”, and you can configure the settings of virtual LAN. VLAN refers to a group of logically networked devices on one or more LANs, so that they can communicate with each other as if they were attached to the same wire. In fact, they are located on different LAN segments. VLAN are based on logical instead of physical connections, so it is very flexible for user/host management. After the configuration, please click the “Apply Changes” button to save the settings.

## VLAN Settings

Entries in below table are used to config vlan settings. VLANs are created to provide the segmentation services traditionally provided by routers. VLANs address issues such as scalability, security, and network management.

**Enable VLAN**

Enable	Ethernet/Wireless	WAN/LAN	Tag	VID <sub>(1~4090)</sub>	Priority	CFI
<input checked="" type="checkbox"/>	Wireless Primary AP	LAN	<input checked="" type="checkbox"/>	1	0	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Virtual AP1	LAN	<input checked="" type="checkbox"/>	2	0	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Virtual AP2	LAN	<input type="checkbox"/>	3	0	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Virtual AP3	LAN	<input type="checkbox"/>	4	0	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Virtual AP4	LAN	<input type="checkbox"/>	1	0	<input type="checkbox"/>
<input type="checkbox"/>	Ethernet Port5	WAN	<input type="checkbox"/>	1	0	<input type="checkbox"/>

Figure 4-30 VLAN Settings

Object	Description
<b>Enable VLAN</b>	Check the box to enable 802.1Q VLAN function. This option is only useful if the hubs/switches on your LAN support the VLAN standard.
<b>Enable</b>	Select a network which defines VLAN.
<b>Tag</b>	Enable Tag VLAN. It allows 802.1Q Untagged or Tagged VLAN for selected network. When adding a VLAN to selected network, it tells the AP router whether to keep or remove the tag from a frame on egress.
<b>VID</b>	Set up VLAN group and VID value for each VAP. The AP Router allows assign VID for selected Ethernet / Wireless network. The range for the VID is 1-4090. The VLAN ID is 1 by default
<b>Priority</b>	Set up the 802.1p priority.
<b>CFI</b>	Set up CFI.

## 4.7. QoS

The QoS (Quality of Service) function will improve the network performance of the specified computer by ensuring that its network traffic is prioritized over others'. After the configuration, please click the "Apply Changes" button to save the settings.

### QoS

Entries in this table improve your online gaming experience by ensuring that your game traffic is prioritized over other network traffic, such as FTP or Web.

---

Enable QoS

Automatic Uplink Speed

Manual Uplink Speed (Kbps):

Automatic Downlink Speed

Manual Downlink Speed (Kbps):

**QoS Rule Setting:**

Address Type:  IP  MAC

Local IP Address:  -

MAC Address:

Mode:  ▼

Uplink Bandwidth (Kbps):

Downlink Bandwidth (Kbps):

Comment:

**Current QoS Rules Table:**

Local IP Address	MAC Address	Mode	Uplink Bandwidth	Downlink Bandwidth	Comment	Select
<input type="button" value="Delete Selected"/> <input type="button" value="Delete All"/> <input type="button" value="Reset"/>						

Figure 4-31 QoS

Object	Description
Enable QoS	Check the box to enable the QoS function.
Automatic Uplink Speed	Check the box to adjust the uplink speed automatically by the WNRT-300. Or enter the uplink data rate manually in the field below.

<b>Automatic Downlink Speed</b>	Check the box to adjust the downlink speed automatically by the WNRT-300. Or enter the downlink data rate manually in the field below.
<b>QoS Rule Setting</b>	To set the priority rule, you can appoint the computer by <b>IP</b> address or <b>MAC</b> address, and enter it in the correct field. Select <b>minimum</b> or <b>maximum</b> bandwidth, and then fill the <b>uplink</b> and <b>downlink</b> data rate into the field.

## 4.8. Route Setup

The page is used to setup dynamic routing protocol or edit static route entry. After the configuration, please click the "Apply Changes" button to save the settings.

### Routing Setup

This page is used to setup dynamic routing protocol or edit static route entry.

---

**Enable Dynamic Route**

**NAT:**                       Enabled     Disabled

**Transmit:**                 Disabled     RIP 1     RIP 2

**Receive:**                 Disabled     RIP 1     RIP 2

---

**Enable Static Route**

**IP Address:**             

**Subnet Mask:**           

**Gateway:**               

**Metric:**                 

**Interface:**                LAN ▼

**Static Route Table:**

Destination IP Address	Netmask	Gateway	Metric	Interface	Select

Figure 4-32 Routing Setup

## 4.9. Management

The Management menu contains submenus of the general settings of the WNRT-300. Please refer to the following sections for the details.

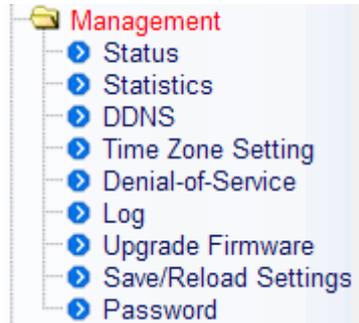


Figure 4-33

### 4.9.1. Status

Choose menu “**Management** → **Status**” to show the current status and some basic settings of the WNRT-300.

## Access Point Status

This page shows the current status and some basic settings of the device.

System	
<b>Uptime</b>	0day:0h:3m:32s
<b>Firmware Version</b>	v2.3
<b>Build Time</b>	Thu May 24 17:10:22 CST 2011
Wireless Configuration	
<b>Mode</b>	AP
<b>Band</b>	2.4 GHz (B+G+N)
<b>SSID</b>	default
<b>Channel Number</b>	6
<b>Encryption</b>	Disabled
<b>BSSID</b>	00:30:4f:11:22:33
<b>Associated Clients</b>	1
WAN Configuration	
<b>Attain IP Protocol</b>	Getting IP from DHCP server...
<b>IP Address</b>	0.0.0.0
<b>Subnet Mask</b>	0.0.0.0
<b>Default Gateway</b>	0.0.0.0
<b>MAC Address</b>	00:30:4f:44:55:66

Figure 4-34 Status

## 4.9.2. Statistics

Choose menu “**Management** → **Statistics**” to show the packet counters for transmission and reception regarding to wireless and Ethernet network.

### Statistics

This page shows the packet counters for transmission and reception regarding to wireless and Ethernet networks.

<b>Wireless LAN</b>	Sent Packets	2812
	Received Packets	8226
<b>Ethernet WAN</b>	Sent Packets	150
	Received Packets	0

**Figure 4-35** Statistics

Item	Description
Wireless LAN <b>Sent Packets</b>	It shows the statistic count of sent packets on the wireless LAN interface.
Wireless LAN <b>Received Packets</b>	It shows the statistic count of received packets on the wireless LAN interface.
Ethernet WAN <b>Sent Packets</b>	It shows the statistic count of sent packets on the Ethernet WAN interface.
Ethernet WAN <b>Received Packets</b>	It shows the statistic count of received packets on the Ethernet WAN interface.
Refresh	Click the refresh the statistic counters on the screen.

### 4.9.3. DDNS

Choose menu “**Management → DDNS**” to configure the settings about Dynamic DNS. Dynamic DNS is a kind of service that provides users with a valid, unchanging internet domain name (an URL) to go with that (possibly ever changing) IP address. After the configuration, please click the “Apply Changes” button to save the settings.

## Dynamic DNS Setting

Dynamic DNS is a service, that provides you with a valid, unchanging, internet domain name (an URL) to go with that (possibly everchanging) IP-address.

**Enable DDNS**

**Service Provider :** DynDNS ▼

**Domain Name :** DynDNS s.org

**User Name/Email:**  

**Password/Key:**  

Note:  
 For TZO, you can have a 30 days free trial [here](#) or manage your TZO account in [control panel](#)  
 For DynDNS, you can create your DynDNS account [here](#)

**Figure 4-36** DDNS

Object	Description
<b>Enable DDNS</b>	Check the box to enable the Dynamic DNS function.
<b>Service Provider</b>	Select the DDNS service provider.
<b>Domain Name</b>	Enter the domain name you have registered from the DDNS service provider.
<b>User Name/Email</b>	Enter the user name you have registered from the DDNS service provider.
<b>Password/Key</b>	Enter the password you have registered from the DDNS service provider.

#### 4.9.4. Time Zone Setting

Choose menu “**Management → Time Zone Setting**” to configure the system time. You can also maintain the system time by synchronizing with a public time server over the Internet. After the configuration, please click the “Apply Changes” button to save the settings.

**Figure 4-37** Time Zone Setting

Object	Description
Time Zone Select	Input current time manually.
Time Zone Select	Select the time zone of the country you are currently in. The router will set its time based on your selection.
Enable NTP client update	Check to enable NTP update. Once this function is enabled, Router will automatically update current time from NTP server.
NTP Server	User may select prefer NTP sever or input address of NTP server manually.

#### 4.9.5. Denial of Service

A "denial-of-service" (DoS) attack is characterized by an explicit attempt by hackers to prevent legitimate users of a service from using that service.

Choose menu “**Management → Denial of Service**” to configure the settings of DoS attack prevention. After the configuration, please click the “Apply Changes” button to save the settings.

## Denial of Service

A "denial-of-service" (DoS) attack is characterized by an explicit attempt by hackers to prevent legitimate users of a service from using that service.

**Enable DoS Prevention**

Whole System Flood: SYN  Packets/Second

Whole System Flood: FIN  Packets/Second

Whole System Flood: UDP  Packets/Second

Whole System Flood: ICMP  Packets/Second

Per-Source IP Flood: SYN  Packets/Second

Per-Source IP Flood: FIN  Packets/Second

Per-Source IP Flood: UDP  Packets/Second

Per-Source IP Flood: ICMP  Packets/Second

TCP/UDP PortScan  Sensitivity

ICMP Smurf

IP Land

IP Spoof

IP TearDrop

PingOfDeath

TCP Scan

TCP SynWithData

UDP Bomb

UDP EchoChargen

Enable Source IP Blocking  Block time (sec)

Figure 4-38 Denial of Service

Object	Description
Enable DoS Prevention	Check to enable DoS function. User may set other related configurations about DoS below

### 4.9.6. Log

Choose menu "Management → Log" to configure the settings of system log. You can check the box of

the items you want to record it in the log. After the configuration, please click the “Apply Changes” button to save the settings.

## System Log

This page can be used to set remote log server and show the system log.

**Enable Log**

**system all**
 **wireless**
 **DoS**

**Enable Remote Log**

**Log Server IP Address:**

```

May 20 00:08:16  usb usb1: uevent
May 20 00:08:16  usb usb1: usb_probe_device
May 20 00:08:16  usb usb1: configuration #1 chosen from 1 choice
May 20 00:08:16  usb usb1: adding 1-0:1.0 (config #1, interface 0)
May 20 00:08:16  usb 1-0:1.0: uevent
May 20 00:08:16  hub 1-0:1.0: usb_probe_interface
May 20 00:08:16  hub 1-0:1.0: usb_probe_interface - got id
May 20 00:08:16  hub 1-0:1.0: USB hub found
May 20 00:08:16  hub 1-0:1.0: 1 port detected
May 20 00:08:16  hub 1-0:1.0: standalone hub
May 20 00:08:16  hub 1-0:1.0: individual port power switching
May 20 00:08:16  hub 1-0:1.0: individual port over-current protection
May 20 00:08:16  hub 1-0:1.0: power on to power good time: 20ms
May 20 00:08:16  hub 1-0:1.0: local power source is good

```

Figure 4-39 System Log

Object	Description
<b>Enable Log</b>	Check to enable log function.
<b>System all/Dos</b>	Select which log you want to check. Related information will be shown at below.

### 4.9.7. Upgrade Firmware

Choose menu “**Management → Upgrade Firmware**” to upgrade the firmware of the WNRT-300. Select the new firmware file downloaded from the PLANET website, and then click “Upload” button to upgrade it.

## Upgrade Firmware

This page allows you upgrade the Access Point firmware to new version. Please note, do not power off the device during the upload because it may crash the system.

Firmware Version: v2.3

Select File:  瀏覽...

Upload Reset

Figure 4-40 Upgrade Firmware

Object	Description
Select File	Browse and select file you want to upgrade and press Upload to perform upgrade. <b>Please wait till on screen shows related information after upgrade finished.</b>

### 4.9.8. Save/Reload Settings

Choose menu “**Management → Save/Reload Settings**” to backup or reset the configuration of the WNRT-300.

## Save/Reload Settings

This page allows you save current settings to a file or reload the settings from the file which was saved previously. Besides, you could reset the current configuration to factory default.

Save Settings to File:

Load Settings from File:  瀏覽...

Reset Settings to Default:

Figure 4-41 Save/Reload Settings

Object	Description
Save Settings to File	Click the “Save...” button to backup the configuration of the WNRT-300. And then save the “config.dat” in your computer.
Load Settings from File	Select the configuration file of the WNRT-300, and then click the “Upload” button to reload the configuration back into the WNRT-300.

<b>Reset Settings to Default</b>	Click the “Reset” button to reset all settings of the WNRT-300 to factory default.
----------------------------------	--

### 4.9.9. Password

Choose menu “**Management → Password**” to change the user name and password which is inputted to access the web UI of the WNRT-300.

## Password Setup

This page is used to set the account to access the web server of Access Point. Empty user name and password will disable the protection.

**User Name:**

**New Password:**

**Confirmed Password:**

**Figure 4-42** Password Setup

Object	Description
<b>User Name</b>	Enter user name.
<b>New Password</b>	Input the password for this user.
<b>Confirmed Password</b>	Confirm the password again.

### 4.10. Logout

Click “Logout” to log out the web UI of the WNRT-300. And then click the “Apply Change” button for sure.

## Logout

This page is used to logout.

**Do you want to logout ?**

**Figure 4-43** Logout

## Chapter 5. Quick Connection to a Wireless Network

### 5.1. Windows XP (Wireless Zero Configuration)

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



Figure 5-1

**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

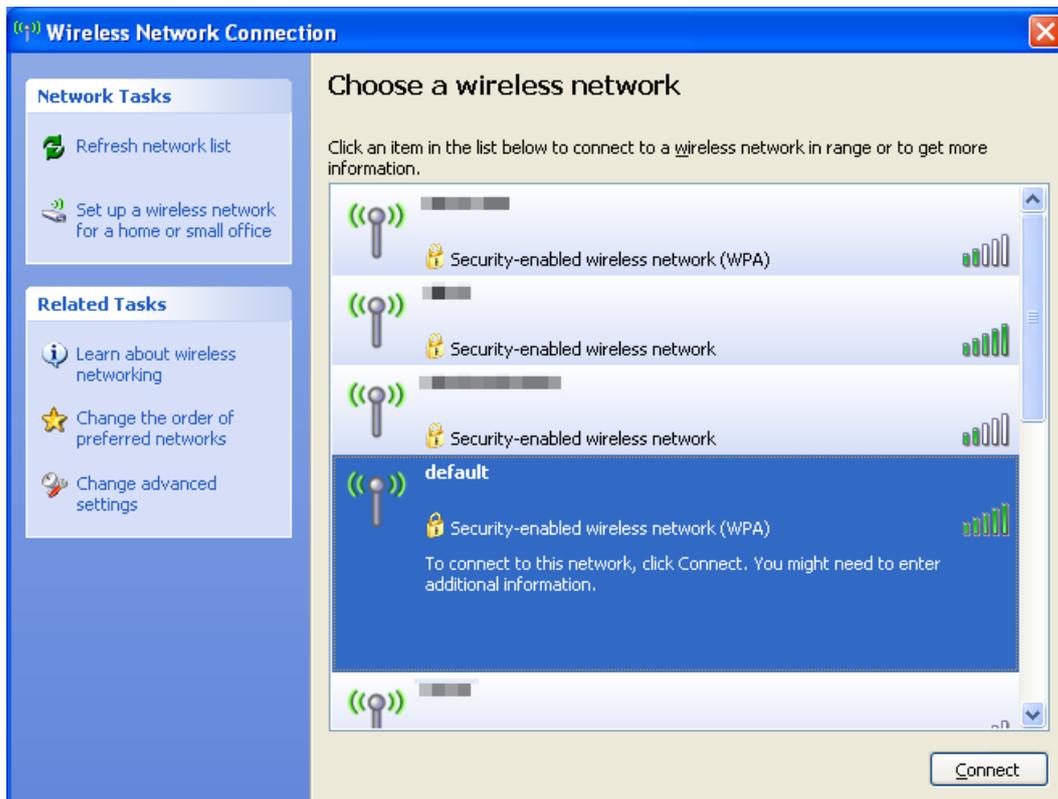


Figure 5-2

**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 4.4.3](#)
- (3) Click the [Connect] button

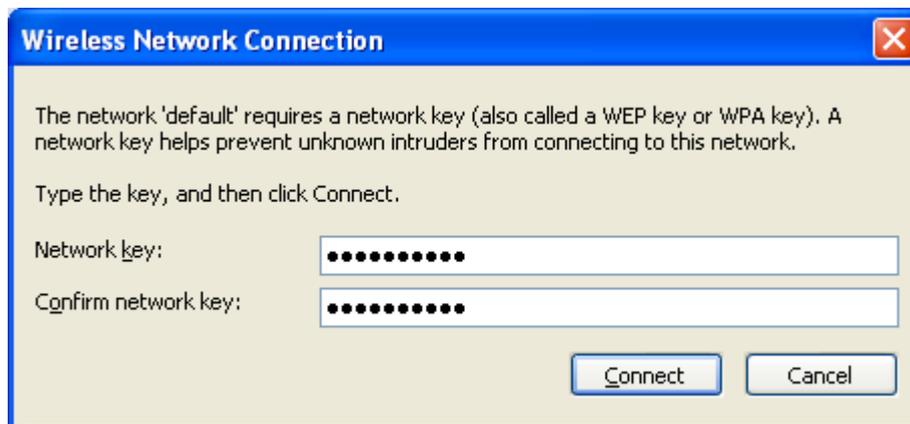


Figure 5-3

**Step 5: Check if “Connected” is displayed**

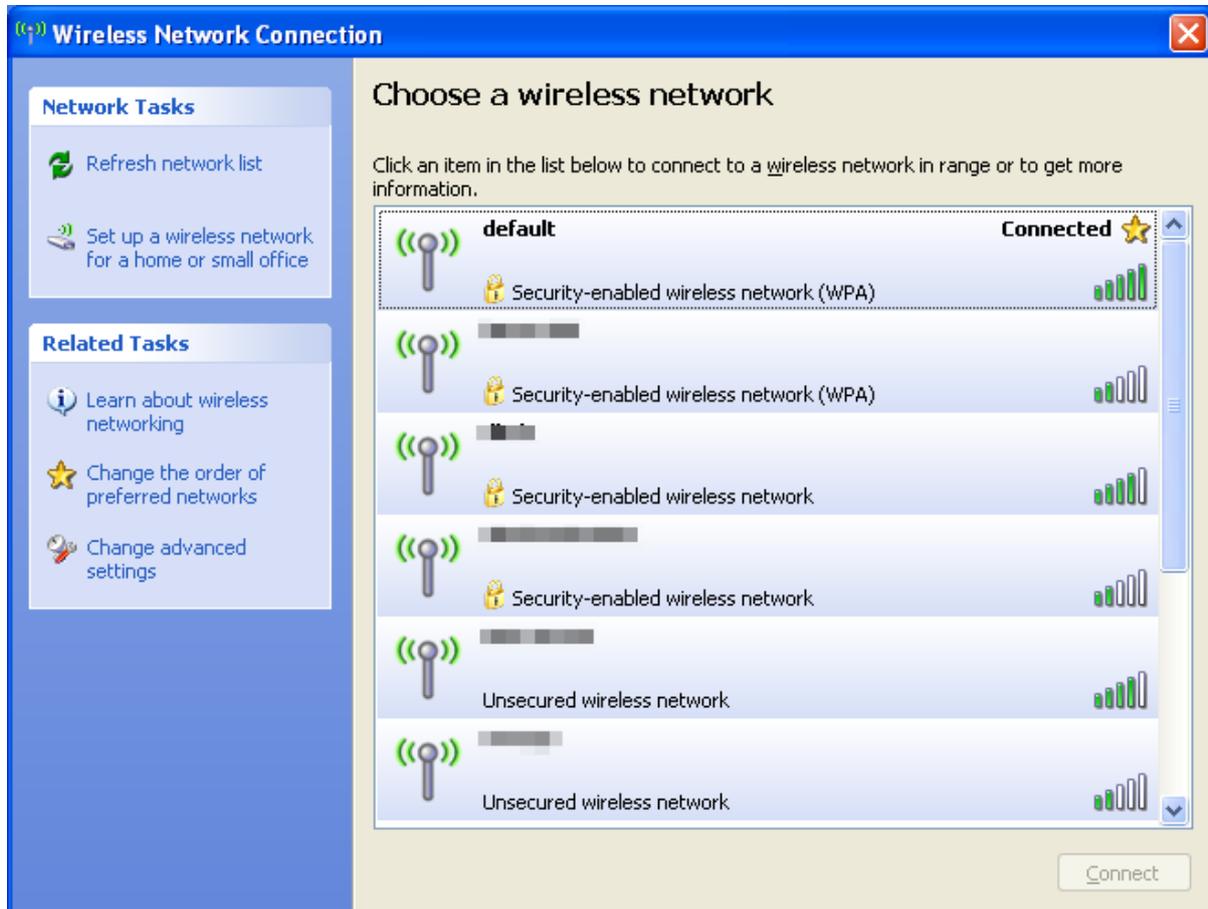


Figure 5-4



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.

## 5.2. 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 5-5

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

- (1) Select SSID [**default**]
- (2) Click the [**Connect**] button

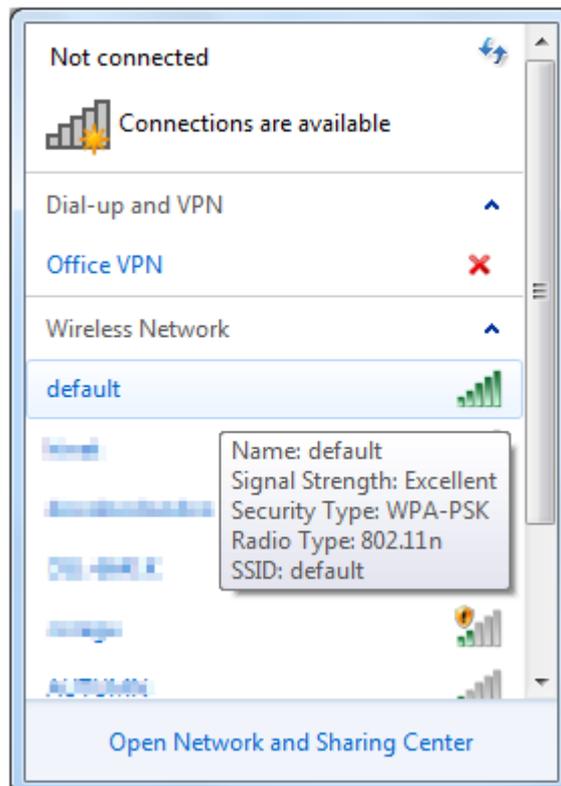


Figure 5-6

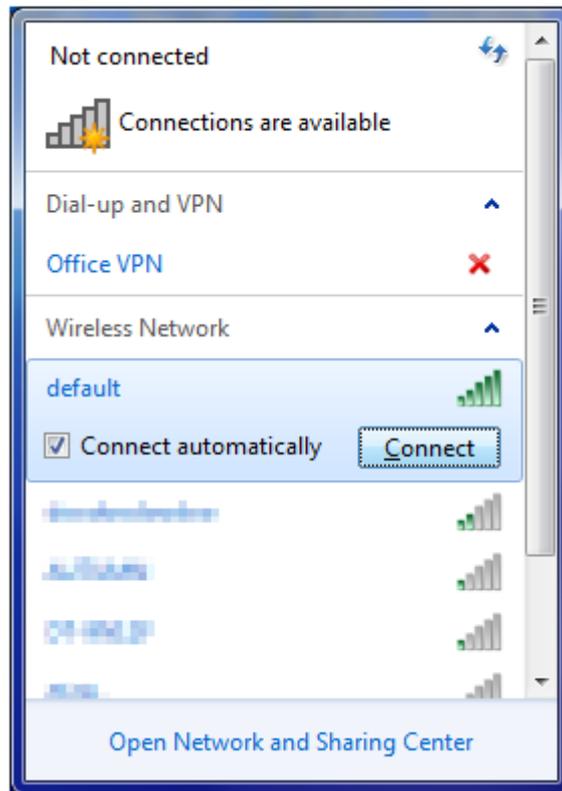


Figure 5-7



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 4.4.3](#)
- (3) Click the [OK] button



Figure 5-8

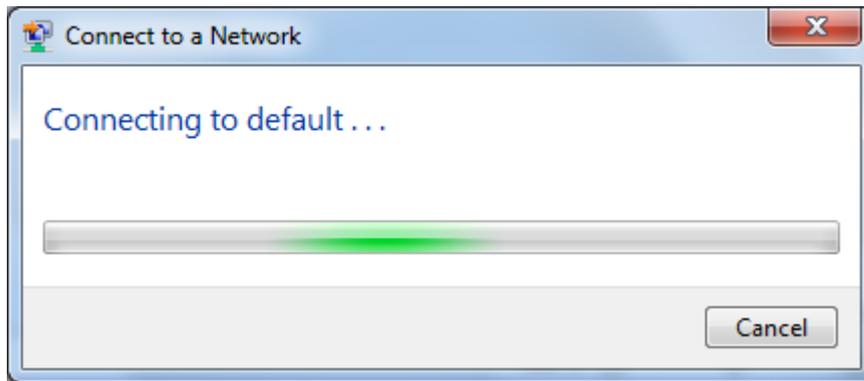


Figure 5-9

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

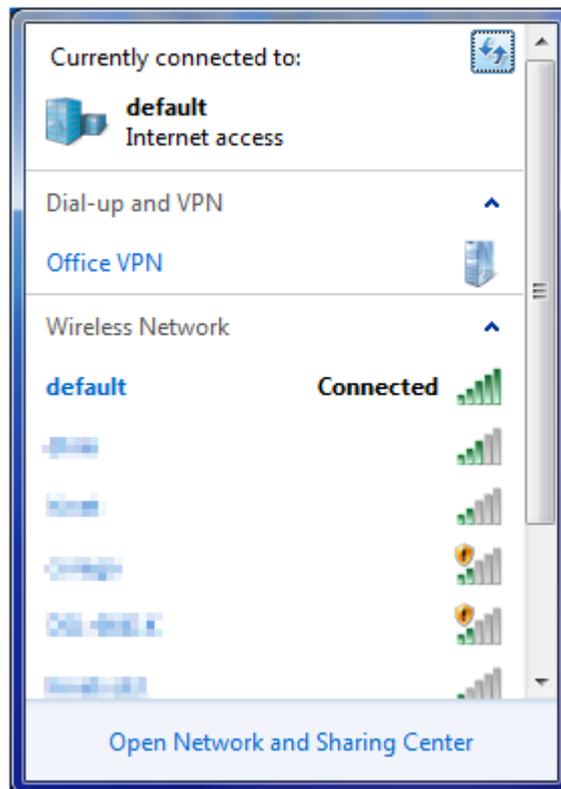


Figure 5-10

## 5.3. Mac OS X

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

The AirPort Network Connection menu will appear

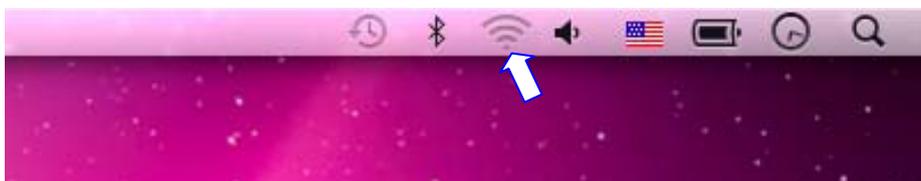


Figure 5-11

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

- (1) Select and SSID [**default**]
- (2) Double-click on the selected SSID

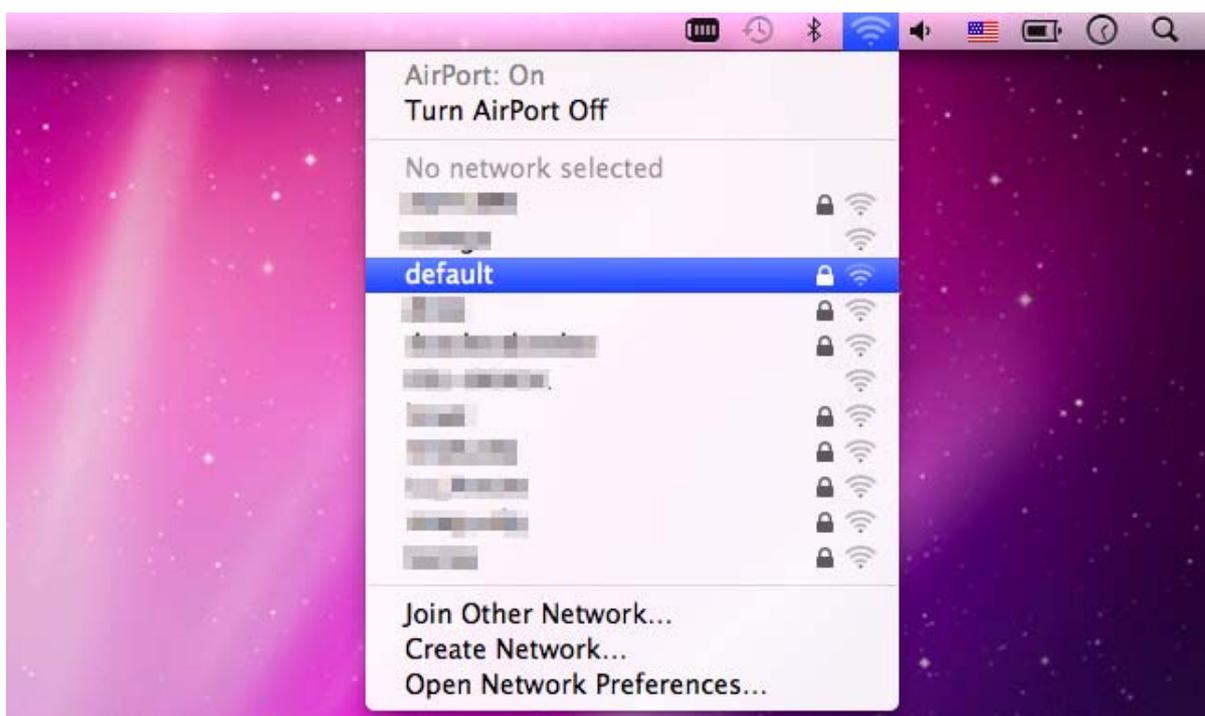


Figure 5-12

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

- (4) Enter the encryption key that configured in [section 4.4.3](#)
- (1) Click the [OK] button



Figure 5-13



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.

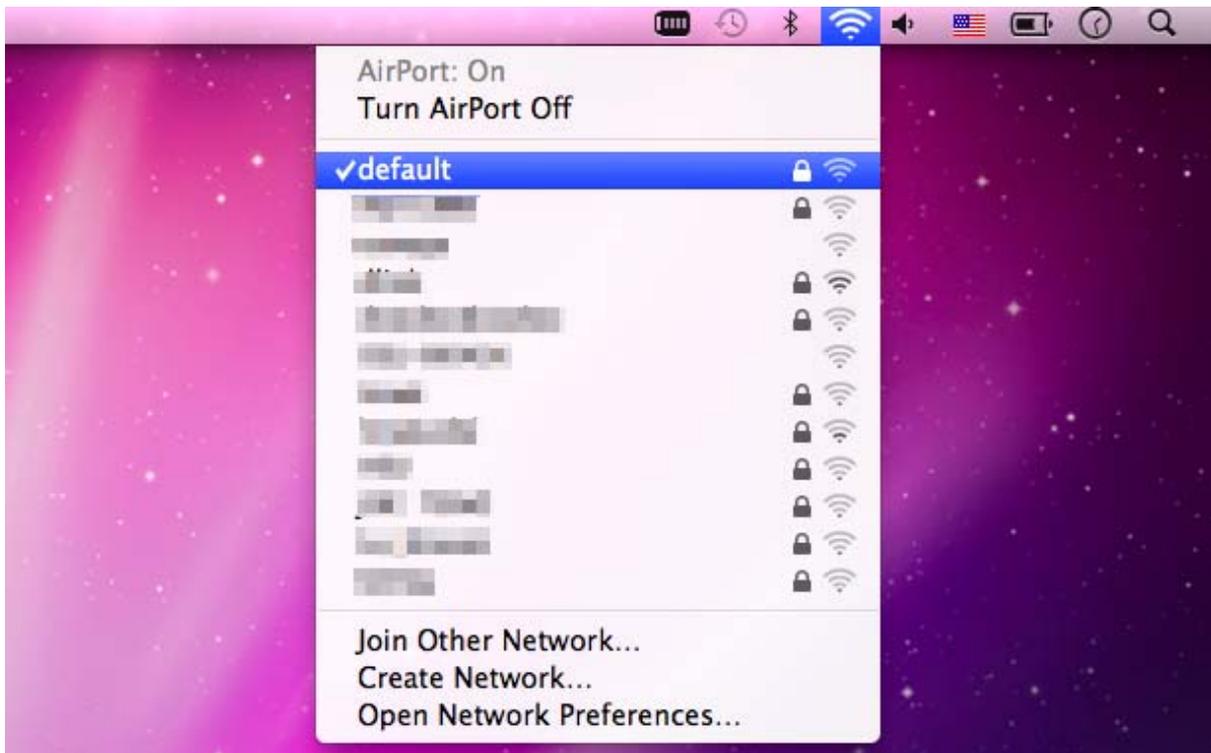


Figure 5-14

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**

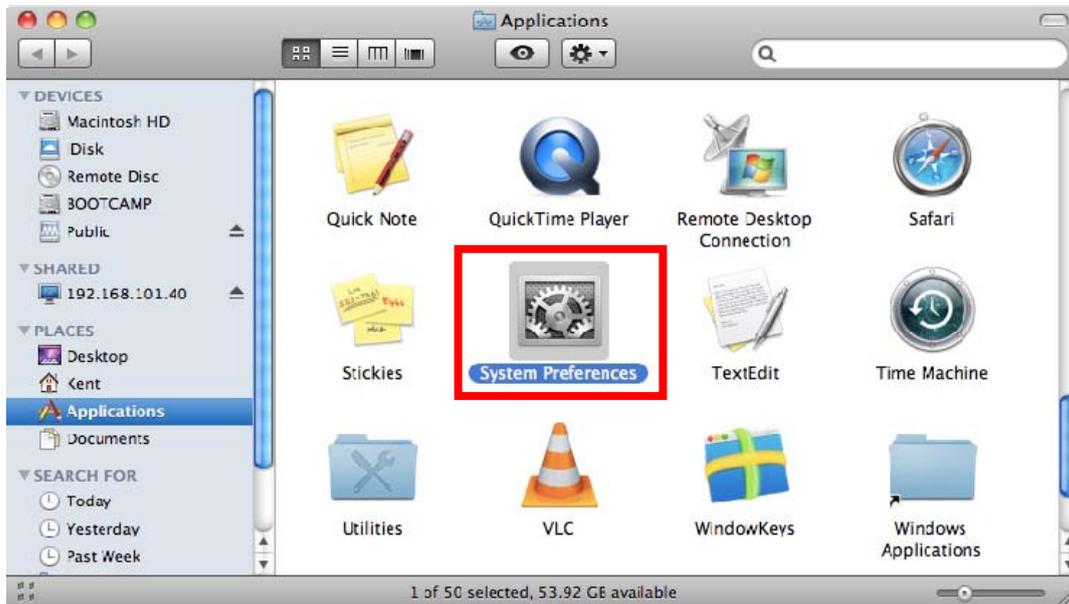


Figure 5-14

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



Figure 5-15

**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”.

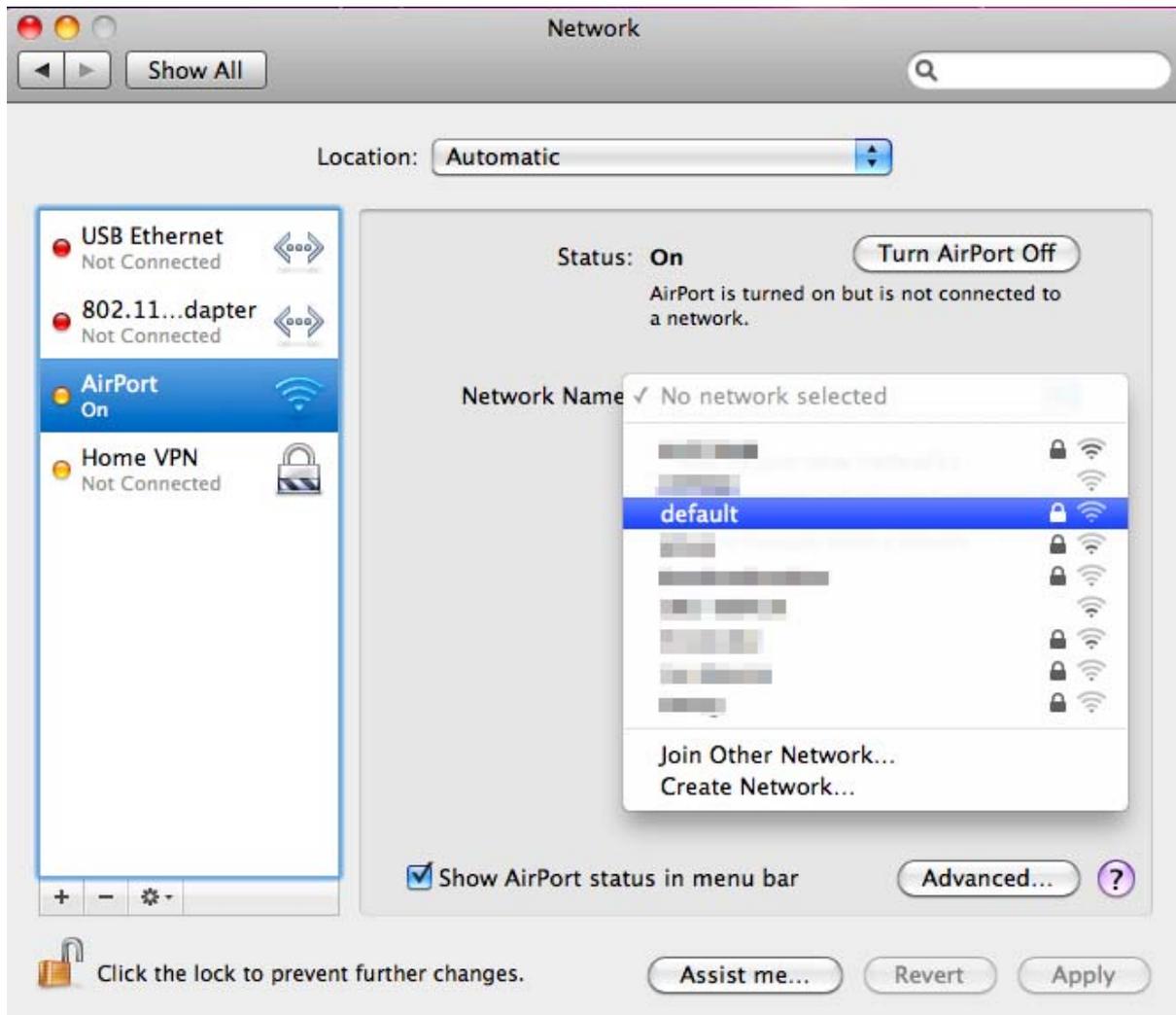


Figure 5-16

## 5.4. iPhone / iPod Touch / iPad

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

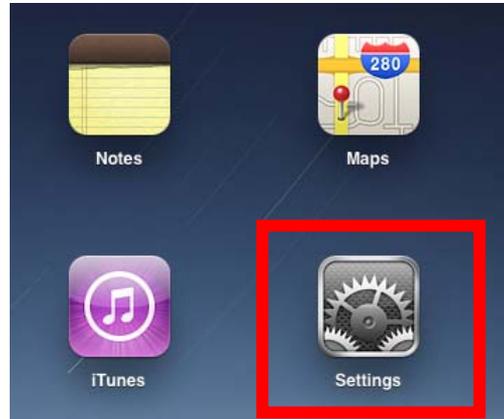


Figure 5-17

**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 appear "Not Connected".



Figure 5-18

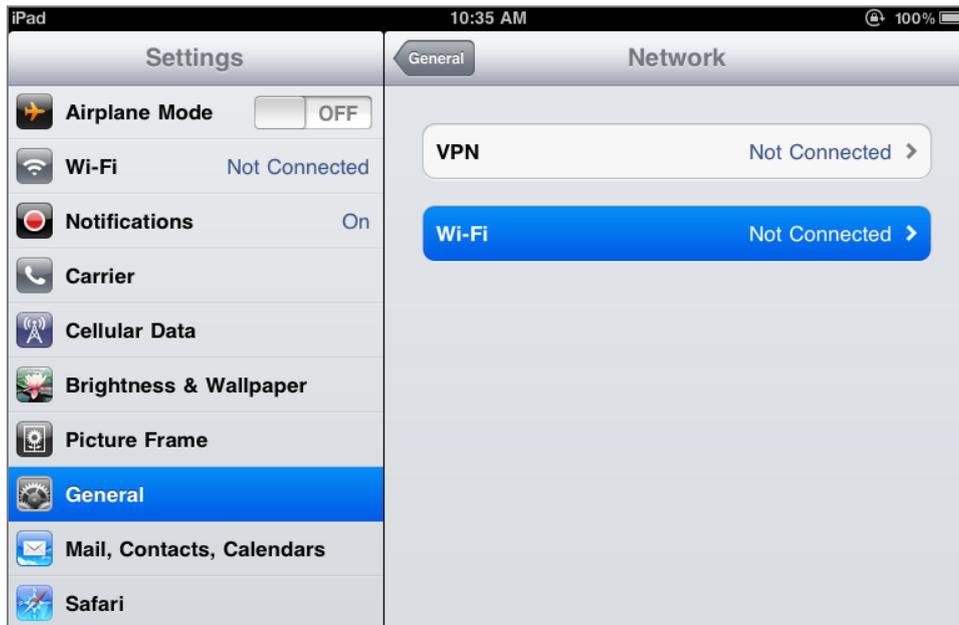


Figure 5-19

**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 5-20

**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 4.4.3
- (3) Tap the **[Join]** button

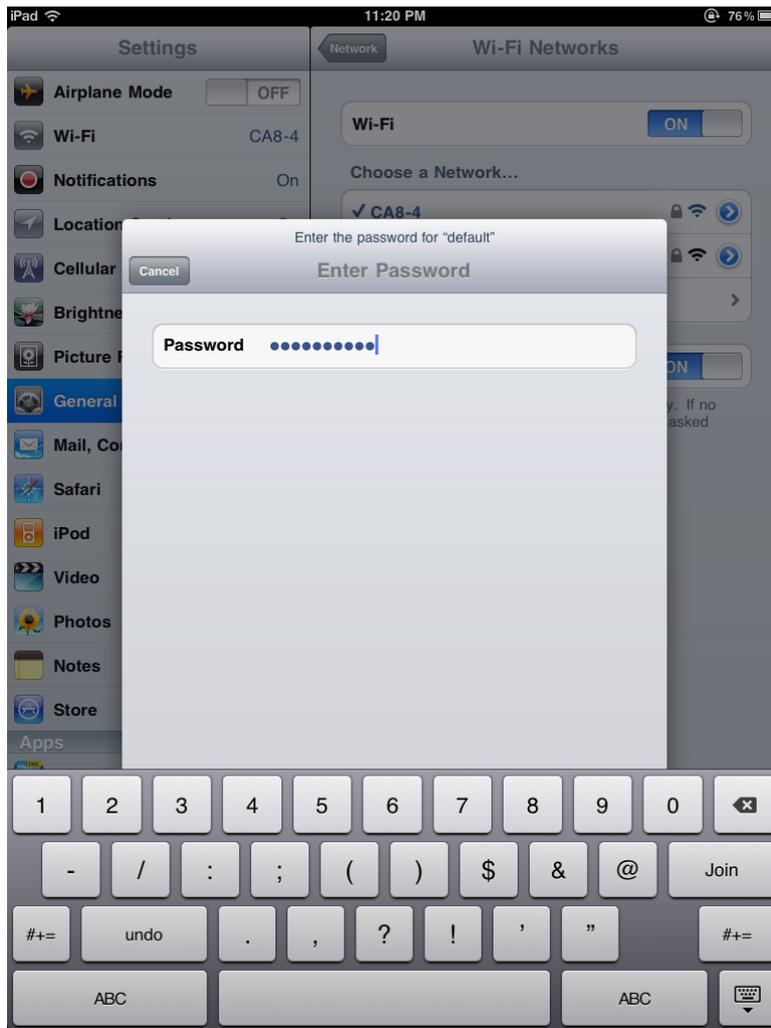


Figure 5-21

**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 5-22

## Appendix

Malfunction	Solution
<p>The WNRT-300 is not responding to me when I want to access it via web browser</p>	<p>Please check the connection of power cord and network cable of the WNRT-300. All cords and cables should be correctly and firmly inserted to the device.</p> <p>If all LEDs on the WNRT-300 are off, please check the status of power adapter, and make sure it is correctly powered.</p> <p>You must configure your PC as the same IP address section with the WNRT-300.</p> <p>Are you using MAC or IP address filter? Try to connect the WNRT-300 by another computer and see if it works; if not, please restore the WNRT-300 to factory default settings (Press "reset" button for over 10 seconds).</p> <p>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.</p> <p>If you just did firmware upgrade and this happens, contact the dealer of purchase for help.</p> <ol style="list-style-type: none"> <li>If all above solutions don't work, contact the dealer of purchase for help.</li> </ol>
<p>Unable to get connected with the Internet</p>	<ol style="list-style-type: none"> <li>Go to "Management → Status" submenu, and check the WAN configuration status.</li> </ol> <p>Please be patient, sometime Internet is just that slow.</p> <ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>Call your Internet service provider and check if there is something wrong with their service.</li> <li>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.</li> <li>Reset the WNRT-300 to the factory default settings and try again later.</li> <li>Reset the device provided by your Internet service provider as well.</li> </ol>

	<p>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.</p>
Unable to be found by the wireless clients	<p>a. Check if the "Broadcast SSID" is disabled.  b. Are you too far from the WNRT-300? Try to get closer.  c. Please remember that you have to enter SSID to your wireless client device manually, if SSID broadcast is disabled.</p>
File download is very slow or breaks frequently	<p>a. Are you using QoS function? Please disable it and try again.  Please be patient, sometime Internet is just that slow.  b. Reset the WNRT-300 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.</p>
Unable to login the web management UI: password is wrong	<p>a. Make sure you are connecting to the correct IP address of the WNRT-300.  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.</p>
The device is getting hot.	<p>a. This is not a malfunction if you can keep your hand on the case of the WNRT-300.  b. If you smell something wrong or see the smoke coming out from the WNRT-300 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.</p>
The date and time of all event logs are wrong	<p>a. Adjust the internal clock of the WNRT-300.</p>

## EC Declaration of Conformity

For the following equipment:

\*Type of Product: 150Mbps 802.11n Wireless Portable AP / Router

\*Model Number: WNRT-300

\* 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 300 328 V1.7.1	(2006-10)
EN 301 489-17 V1.8.1	(2008-04)
EN 301 489-1 V2.1.1	(2009-05)
EN 50371	(2002)
EN 60950-1	(2006 + A11:2009)

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

17<sup>st</sup> June., 2011

Date



Legal Signature

**PLANET TECHNOLOGY CORPORATION**

e-mail: sales@planet.com.tw    http://www.planet.com.tw

10F., No.96, Minquan Rd., Xindian Dist., New Taipei City, Taiwan, R.O.C. Tel:886-2-2219-9518 Fax:886-2-2219-9528

## EC Declaration of Conformity

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