

User's Manual

300Mbps 802.11n Wireless Gigabit Broadband Router

▶ WNRT-633



www.PLANET.com.tw

Copyright

Copyright © 2013 by PLANET Technology Corp. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual or otherwise, without the prior written permission of PLANET.

PLANET makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranties, merchantability or fitness for any particular purpose. Any software described in this manual is sold or licensed "as is". Should the programs prove defective following their purchase, the buyer (and not this company, its distributor, or its dealer) assumes the entire cost of all necessary servicing, repair, and any incidental or consequential damages resulting from any defect in the software. Further, this company reserves the right to revise this publication and to make changes from time to time in the contents hereof without obligation to notify any person of such revision or changes.

All brand and product names mentioned in this manual are trademarks and/or registered trademarks of their respective holders.

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. Plug 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, (for 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.

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 10Military Radiolocation use. Refarming of themW e.i.r.p. within the bandband has been ongoing in recent years to a2454-2483.5 MHzrelaxed regulation. Full implementation plane	
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	Norway Implemented Within a radius of 20 km from the centre of N	
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; WEEE should

be collected separately.

Revision

User's Manual for PLANET 802.11n Wireless Gigabit Router

Model: WNRT-633

Rev: 1.0 (May, 2013)

Part No: EM-WNRT-633_v1.01 (2081-E50300-000)

CONTENTS

Chapter 1.	Product Introduction1
1.1	Package Contents1
1.2	Product Description2
1.3	Product Features4
1.4	Product Specifications5
Chapter 2.	Hardware Installation7
2.1	Hardware Description7
2	.1.1 The Front Panel
2	.1.2 LED Indications
2	.1.3 The Rear Panel
Chapter 3.	Connecting to the Router
3.1	System Requirements10
3.2	Installing the Router10
Ob and an 4	In stallstice, Oxida
•	Installation Guide
	Manual Network Setup - TCP/IP Configuration13
	.1.1 Obtain an IP Address Automatically
	.1.2 Configure the IP address manually
4.2	Starting Setup in Web UI
Chapter 5.	Configuration in Web UI22
5.1	Wizard22
5.2	Operation Mode33
5.3	WAN Setup34
5	0.3.1 WAN Interface
5	.3.2 DDNS
5	.3.3 Planet DDNS
5	.3.4 Planet EasyDDNS
5.4	LAN Setup44
5	.4.1 LAN Interface Setup
5	.4.2 Static DHCP
5	.4.3 DHCP Client
5	.4.4 UPnP
5.5	Wireless
5	.5.1 Basic Settings

5.5.2	Advanced	. 58
5.5.3	Security	.60
5.5.4	Access Control	.61
5.5.5	WDS Settings	.63
5.5.6	Site Survey	.65
5.5.7	' WPS	.66
5.5.8	Schedule	.68
5.6 Se	ervice Setup	.69
5.6.1	Port Forwarding	.69
5.6.2	2 DMZ	.70
5.7 Se	curity Setup	.71
5.7.1	Security	.71
5.7.2	2 URL Filtering	.72
5.7.3	MAC Filtering	.73
5.7.4	IP Filtering	.73
5.7.5	Denial of Service (DoS)	.74
5.8 Ro	oute Setup	.76
5.8.1	Router Setup	.76
5.8.2	RIP Setup	.77
5.9 Qo	oS Setup	.78
5.10 Sy	rstem	.79
5.10	1Time Zone Setting	.80
5.10	2Upgrade Firmware	.81
5.10	3Save/Reload Settings	.81
5.10	4Password	.83
5.11 St	atus	.84
5.11.	1 Status	. 84
5.11.	2 Statistics	.85
5.11.	3Log	.85
5.12 Lo	gout	.86
Chapter 6. Q	uick Connection to a Wireless Network	87
6.1 W	indows XP (Wireless Zero Configuration)	.87
6.2 W	indows 7 (WLAN AutoConfig)	.89
6.3 Ma	ac OS X 10.x	.92
6.4 iP	hone / iPod Touch / iPad	.96
Appendix A: T	roubleshooting	99

Appendix B: Hardware Specifications	101
Appendix C: Planet Smart Discovery Utility	103
Appendix D: Glossary	104

Chapter 1. Product Introduction

1.1 Package Contents

Thank you for choosing PLANET WNRT-633. Before installing the router, please verify the contents inside the package box.



Note

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

1.2 Product Description

Multiple Wireless Network Technologies for Greater Access

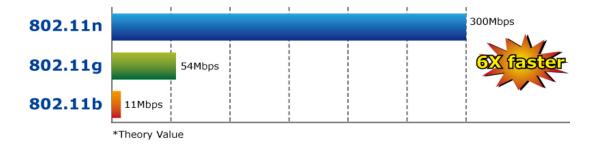


Offering an instant network and flexibility for users to handle network expansion and speed, the PLANET WNRT-633 Wireless Gigabit Router is the total solution for the Home, Hotspot and the SOHO users. It offers 300Mbps wireless speed, multiple operation modes Gigabit LAN and WAN features to increase client mobility and speed within a network. By installing the WNRT-633 as the central connection point of network, the connected computers and mobile devices are able to share the high speed broadband Internet connection and networked server. With the four built-in 10/100/1000Base-T LAN ports, it is easy to integrate

the wireless devices with existing wired network.

High Speed 802.11n Wireless

The WNRT-633 features latest IEEE 802.11n radio with 2T2R MIMO antenna technology to provide improved wireless speed and coverage with up to 300Mbps upload and download data rate. The incredible wireless speed makes it ideal for handling multiple HD movies stream, high resolution on-line game, stereo music, VoIP and data streams at the same time stably and smoothly. It is also backward compliant with 802.11g and 802.11b standards; thus, it is no need to change the existing network for convenient maintenance. Just connect to the WNRT-633 and users can immediately enjoy the high-speed wireless sharing.

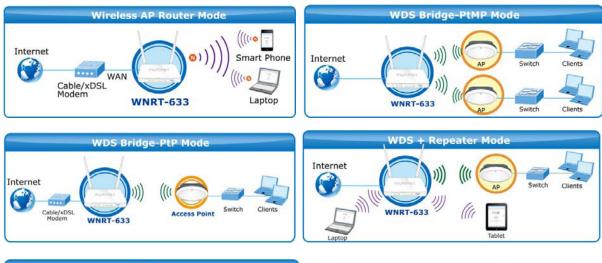


Wireless Coverage Plus !

The WNRT-633 is equipped with **5dBi High-Gain** antennas to provide strong signal and excellent performance even in the long range or bad environment. With detachable RP-SMA connector design in the WNRT-633, it allows users to manually exchange higher gain antenna for farther wireless coverage range.

Easy Setup for Multiple Wireless Modes

The WNRT-633 supports multiple wireless modes including **Gateway**, **Bridge**, **Repeater** and **WISP** (Wireless Internet Service Provider), for different network applications. Furthermore, with the built-in Wizard Setup function, users can configure the WNRT-633 easily and quickly through a couple of simple steps. It is so easy to apply the WNRT-633 to the existing wired network. The WNRT-633 definitely provides a total network solution for the home and the SOHO users.





Wide Range of Wireless Security Support

To secure the wireless communication, the WNRT-633 supports most up-to-date encryptions including WPA/WPA2-PSK with TKIP/AES. Made to fulfill enterprise and various applications demand, the WNRT-633 enhances security and management features such as multiple SSID. It can create up to 5 virtual standalone APs with 5 different SSIDs according to individual security levels and encryption scheme of various wireless devices.

One-touch Secure Wireless Connection

In order to simplify security settings for home and SOHO network, the WNRT-633 supports **W**i-Fi **P**rotected **S**etup (**WPS**) with configuration in PBC and PIN type. Just push the WPS button or key in the PIN code, the secure connection between the WNRT-633 and the wireless clients can be built immediately, which offers users a convenient and fast method to construct a secure wireless network.



WPS (Wi-Fi Protected Setup) Quick & Easy Wireless Connection

Powerful Firewall and Complete Access Control Functions

The WNRT-633 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-633 can protect your Intranet clients from unauthorized accesses and various DoS attacks from the Internet. In aspect of the firewall, the WNRT-633 provides IP/MAC/URL filtering, and prevents possible hackers attack.

1.3 Product Features

- IEEE Compliant Wireless LAN & Wired LAN
 - Compliant with IEEE 802.11n wireless technology capable up to 300Mbps data rate
 - Backward compatible with 802.11b/g standard
 - Equipped with all Gigabit RJ-45 ports (10/100/1000Mbps) of 1 WAN and 4 LAN ports
 - Auto MDI/MDI-X supported

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

- One-touch Wi-Fi Protected Setup (WPS)
- Advanced security: 64-/128-bit WEP, WPA/WPA2 and WPA-PSK/WPA2-PSK (TKIP/AES encryption) and 802.1x Authentication
- Built-in NAT firewall features with Port/ IP/ MAC/ URL Filtering, and DoS protection
- Supports Multiple-SSID to allow users to access different networks through a single AP

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 Installation & Management

- User Friendly Web-Based UI and setup Wizard for easy configuration
- Remote Management allows configuration from a remote site
- System status monitoring includes DHCP Client List and System Log

1.4 Product Specifications

Product	WNRT-633			
	300Mbps 802.11n Wireless Gigabit Router			
Hardware Specification				
	WAN	1 x 10/100/1000Mbps Auto MDI/MDI-X RJ45 port		
Interface	LAN	4 x 10/100/1000Mbps Auto MDI/MDI-X RJ45 ports		
	Wireless	2 x detachable RP-SMA Connectors		
Antenna	Gain:	2 x 5dBi antennas		
	Orientation:	Omni-directional		
	Reset / WPS b	button at rear panel		
WPS / Reset Button	■ Pre	ess for about 7 seconds to reset the device to factory default.		
	■ Pre	ess for 1 second to activate WPS function.		
LED Indicators	PWR, WPS, V	WLAN, WAN/LAN with green light		
Material	Plastic			
Dimensions	154 x 106 x 2	7 mm (without antenna)		
(W x D x H)	154 x 136 x 2	7 mm (with antenna)		
Weight	212g			
Power Adapter	AC Input: 100	0∼240V AC (50/60Hz)		
	DC Output: 12V, 1A			
Wireless Interface Spe	cifications			
Standard	Compliance v	vith IEEE 802.11b/g/n		
Frequency Band	2.4~2.4835G	Hz		
Extend Frequency	DSSS			
Modulation Type	DBPSK, DQPSK, QPSK, CCK and OFDM (BPSK/QPSK/16-QAM/ 64-QAM)			
	802.11n(40MI	Hz):270/243/216/162/108/81/54/27Mbps		
	135/121.5/108/81/54/40.5/27/13.5Mbps (Dynamic)			
Data Transmission	802.11n(20MHz):130/117/104/78/52/39/26/13Mbps			
Rates		0/26/19.5/13/6.5Mbps (Dynamic)		
	802.11g:54/48/36/24/18/12/9/6Mbps (Dynamic)			
802.11b:11/5.5/2/1Mbps (Dynamic)				
Transmission	Indoor up to 100m			
Distance		300m (it is limited to the environment)		
		C: 2.412~2.462GHz (11 Channels)		
Channel	Europe/ ETSI: 2.412~2.472GHz (13 Channels)			
		C: 2.412~2.484GHz (14 Channels)		
Max. RF Power	20 dBm max.	(EIRP) m@10% PER		
		-		
Receive Sensitivity	130M: -68dBm@10% PER 54M: -68dBm@10% PER			
	11M: -85dBm@8% PER			
	Gateway	y(default)		
Operation Mode	■ Bridge	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
	■ WSP			
	_	Repeater (WDS+AP)		
Wireless Mode		 Universal Repeater 		
	■ WDS	(AP+Client)		

	WEP (64/128-bit) encryption security		
Encryption Security	WPA-Enterprise / WPA2-Enterprise (TKIP/AES)		
	WPA-Personal / WPA2-Personal (TKIP/AES)		
	802.1x Authentication		
	Provides wireless LAN ACL (Access Control List) filtering		
Wireless Security	Wireless MAC address filtering		
Wireless Security	Supports WPS (Wi-Fi Protected Setup)		
	Enables/Disables SSID Broadcast		
	WMM(Wi-Fi Multimedia): 802.11e Wireless QoS		
Wireless Advanced	IAPP(Inter Access Point Protocol): 802.11f Wireless Roaming		
	Provides Wireless Statistics		
Router Features			
	Shares data and Internet access for users, supporting the following internet		
	accesses:		
	PPPoE		
Internet Connection	Dynamic IP		
Туре	Static IP		
	■ PPTP		
	L2TP		
	NAT firewall with SPI (Stateful Packet Inspection)		
	Built-in NAT server supporting Port Forwarding, and DMZ		
Firewall	Built-in firewall with IP address/ MAC address/ Port/ URL filtering		
	Supports ICMP-FLOOD, UDP-FLOOD, TCP-SYN-FLOOD filter, DoS		
	protection		
Routing Protocol	Static / Dynamic (RIP1 and 2) Routing		
VPN Pass-through	PPTP, L2TP, IPSec, IPv6		
	Built-in DHCP server supporting static IP address distributing		
	Supports UPnP, Dynamic DNS		
LAN	Supports IGMP Proxy		
	Supports 802.1d STP (Spanning Tree)		
	IP / MAC-based Bandwidth Control		
	Web-based (HTTP) management interface		
	SNTP time synchronize		
System Management			
	Easy firmware upgrade		
Standarda Conformanc	System Log supports Remote Log		
Standards Conformanc			
	IEEE 802.11n (2T2R, up to 300Mbps) IEEE 802.11g		
	IEEE 802.110		
IEEE Standards	IEEE 802.110 IEEE 802.11i		
IEEE Standards			
	IEEE 802.3 10Base-T		
	IEEE 802.3u 100Base-TX IEEE 802.3x Flow Control		
Other Protocols and			
Standards	CSMA/CA, CSMA/CD, TCP/IP, DHCP, ICMP, NAT, PPPoE, SNTP		
Environment			
	Operating: 0 ~ 40 degrees C		
Temperature	Storage: -40 ~ 70 degrees C		
	Operating: 10 ~ 90% (Non-Condensing)		
Humidity	Storage: 5 ~ 90% (Non-Condensing)		
	clouder of the condensing,		

Chapter 2. Hardware Installation

Please follow the instructions below to connect WNRT-633 to the existing network devices and your computers.

2.1 Hardware Description

- Dimensions: 154 x 136 x 27mm (W x D x H)
- Weight : 212g

2.1.1 The Front Panel

The front panel provides a simple interface monitoring of the router. Figure 2-1 shows the front panel of WNRT-633.

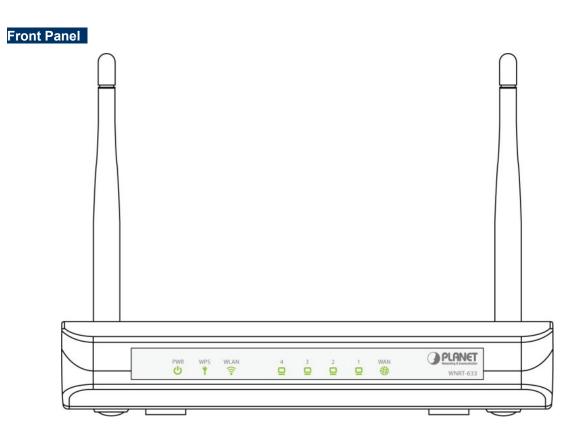


Figure 2-1 WNRT-633 Front Panel

2.1.2 LED Indications

The LEDs on the top panel indicate the instant status of system power, wireless data activity, WPS, and port links, and help monitor and troubleshoot when needed. Figure 2-2 and Table 2-1 show the LED indications of the WNRT-633.

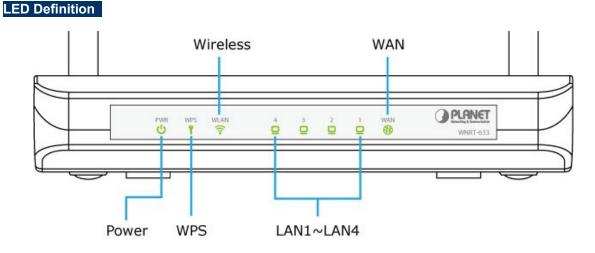


Figure 2-2 WNRT-633 LED Panel

	LED (Left to Right) STATUS FUNCTION		FUNCTION	
ტ	On U PWR Flash		Device power on The system is working properly	
		Off	Device power off	
Ŷ	Y WPS Flash The system is performing WPS authentication on a client device.			
	WLAN	On	The 2.4G WiFi is activated	
	Flash	Device is transmitting data wirelessly over 2.4GHz		
On Link is established		Link is established		
	1~4	Flash	Packets are transmitting or receiving	
		Off	LAN port is not connected	
	On	Link is established		
•	WAN	Flash	Packets are transmitting or receiving	
		Off	WAN port is not connected	

Table 2-1 The LED indication

2.1.3 The Rear Panel

The rear panel provides the physical connectors connected to the power adapter and any other network device. Figure 2-3 shows the rear panel of WNRT-633.

Rear Panel

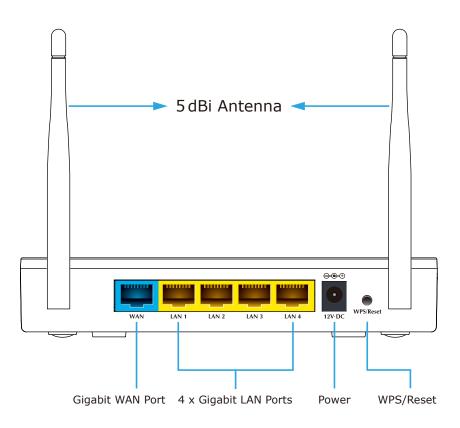
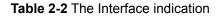


Figure 2-3 Rear Panel of WNRT-633

Interface	Description	
Antenna x 2	Fixed 5dBi Omni Dipole Antennas	
WPS/Reset	 Press the Reset button gently for 1 second and then release it. The system starts to WPS connection. Press the Reset button gently for 7 seconds and then release it. The system restores to the factory default settings. 	
WAN	Connect to the Cable/xDSL Modem, or the Ethernet	
LAN1-4	Connect to the user's PC or network devices	
Power	Connect to the power adapter provided in the package	



Chapter 3. Connecting to the Router

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 Router 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
- The above PC installed with WEB Browser



The Router in the following instructions is named as PLANET WNRT-633.
 It is recommended to use Internet Explore 7.0 or above to access the Router.

3.2 Installing the Router

Before installing the Router, 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 Router according to the following steps. Don't forget to pull out the power plug and keep your hands dry.

Step 1. Power off your PC, Cable/xDSL Modem, and the Wireless Router.

- **Step 2.** Locate an optimum location for the Wireless Router. The best place is usually at the center of your wireless network.
- Step 3. Adjust the direction of the antenna. Normally, upright is a good direction.

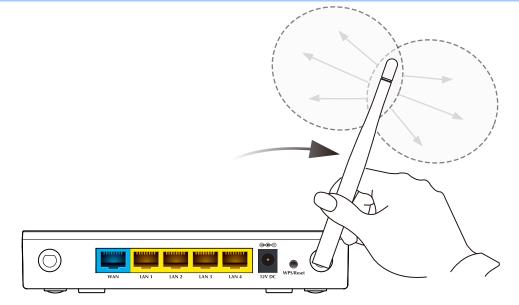
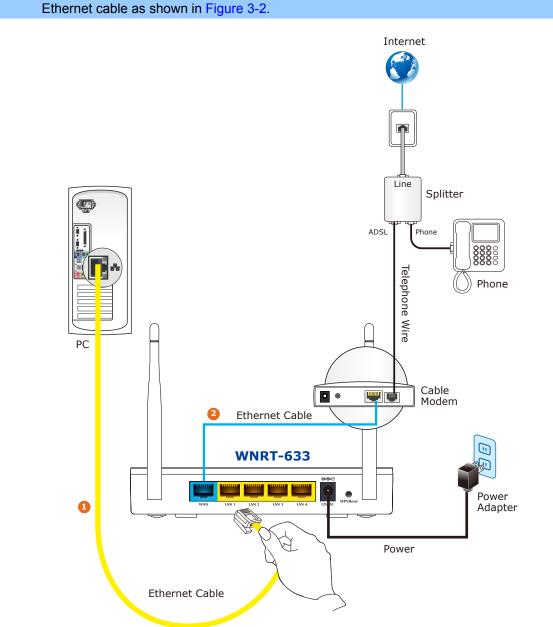


Figure 3-1 Adjust the direction of the antenna



Step 4. Connect the PC or Switch/Hub in your LAN to the LAN Ports (Yellow ports) of the Router with Ethernet cable as shown in Figure 3-2

Figure 3-2 Hardware Installation of the WNRT-633 Wireless Router

Step 5. Connect the power adapter to the power socket on the Wireless Router, and the other end into an electrical outlet. Then power on the Wireless Router.

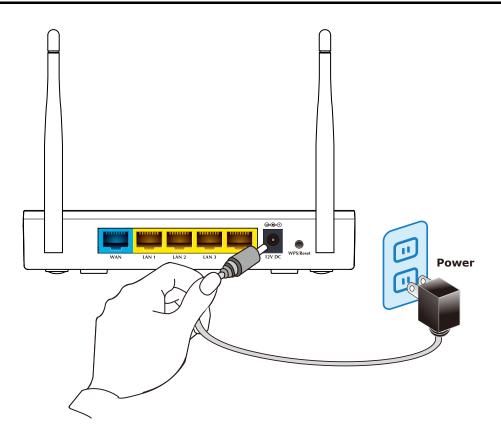


Figure 3-3 Power on the Wireless Router

Step 6. Power on your PC and Cable/xDSL Modem.

Chapter 4. Installation Guide

This chapter will show you how to configure the basic functions of your Wireless Router using **Quick Setup** within minutes.



A computer with wired Ethernet connection to the Wireless Router is required for the first-time configuration.

4.1 Manual Network Setup - TCP/IP Configuration

The default IP address of the WNRT-633 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-633. In this section, we use all the default values for description.

Whether the WNRT-633 is configured via wired or wireless connection, the PC needs to be assigned an IP address first. Before you connect the local PC to the WNRT-633 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

In the following sections, we'll introduce how to install and configure the TCP/IP correctly in **Windows 7**. And the procedures in other operating systems are similar. First, make sure your Ethernet Adapter is working, and refer to the Ethernet adapter's manual if needed.

4.1.1 Obtain an IP Address Automatically

Summary:

- 1. Set up the TCP/IP Protocol in "Obtain an IP address automatically" mode on your PC.
- 2. Then the WNRT-633 built-in DHCP server will assign IP address to the PC automatically.

If you are sure the DHCP server of WNRT-633 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-633 built-in DHCP server will assign an IP address to the PC automatically.

1. Install TCP/IP component

- 1) On the Windows taskbar, click the Start button, point to Control Panel, and then click it.
- 2) Under the Network and Internet icon, click on the View network status and tasks. And then

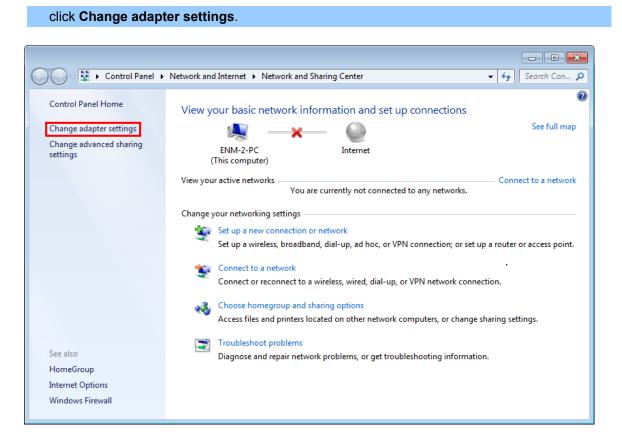


Figure 4-1-1 Change adapter settings

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

00-	I	Net	work and Internet 🕨 Net	work Con	nections	- - +	_	erch Ne	•t P
Organize			nect To Disable this						0
×	Netwo	ork ca	Connection ble unplugged e FE Family Controller	Ş.	VPN Connection Disconnected WAN Miniport (PPTP)				
	Not c	onneo	twork Connection						
× alli	Ather	۲	Disable						
			Connect / Disconnect						
			Status Diagnose						
			-						
		۲	Bridge Connections						
			Create Shortcut						
		0	Delete						
		۲	Rename		_				
	[۲	Properties						

Figure 4-1-2 Network Connection Properties

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

Wireless Network Connection Properties
Networking
Connect using:
Intel(R) Wireless WiFi Link 4965AGN
Configure
This connection uses the following items:
 Client for Microsoft Networks QoS Packet Scheduler File and Printer Sharing for Microsoft Networks Reliable Multicast Protocol Internet Protocol Version 6 (TCP/IPv6) Internet Protocol Version 4 (TCP/IPv4) Link-Layer Topology Discovery Mapper I/O Driver Link-Layer Topology Discovery Responder
Install Uninstall Properties
Description Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
OK Cancel

Figure 4-1-3 TCP/IP Setting

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

Internet Protocol Version 4 (TCP/IPv4) P	roperties			?	x
General Alternate Configuration					
You can get IP settings assigned automathis capability. Otherwise, you need to a for the appropriate IP settings.					
Obtain an IP address automatically					
O Use the following IP address:					
IP address:					
S <u>u</u> bnet mask:					
Default gateway:		·			
Obtain DNS server address automa	atically				
OUSe the following DNS server addre	esses:				-
Preferred DNS server:					
Alternate DNS server:					
Validate settings upon exit			Adva	anced.	
		ОК		Car	icel

Figure 4-1-4 Obtain an IP address automatically

4.1.2 Configure the IP address manually

Summary:

- Set up the TCP/IP Protocol for your PC.
- Configure the network parameters. The IP address is 192.168.1.xxx ("xxx" is any number from 2 to 254), Subnet Mask is 255.255.255.0, and Gateway is 192.168.1.1 (The Router's default IP address)

If you are sure the DHCP server of WNRT-633 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-633, 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-633)

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

- If the LAN IP address of the WNRT-633 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.
- Enter the LAN IP address of the WNRT-633 (the default IP is 192.168.1.1) into the Default gateway field.

 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.

General	
	l automatically if your network supports aed to ask your network administrator
Obtain an IP address autom	atically
Ose the following IP address	5:
IP address:	192.168.1.200
Subnet mask:	255.255.255.0
Default gateway:	192.168.1.1
Obtain DNS server address a	automatically
Ose the following DNS serve	er addresses:
Preferred DNS server:	8.8.8.8
Alternate DNS server:	8.8.4.4
🔲 Validate settings upon exit	Ad <u>v</u> anced

Figure 4-1-5

Now, you can run the Ping command in the **command prompt** to verify the network connection between your PC and the Router. The following example is in **Windows 7** OS. Please follow the steps below:

- 1. Click on Start
- 2. Type "**cmd**" in the Search box.

Files (1)		
₽ See more results		
[cmd]	×	Shut down 🕨

- 3. Open a command prompt, and type ping **192.168.1.1**, and then press **Enter**.
 - If the result displayed is similar to Figure 4-1-7, it means the connection between your PC and the Router has been established well.



Figure 4-1-7 Success result of Ping command

If the result displayed is similar to Figure 4-1-8, it means the connection between your PC and the Router has failed.

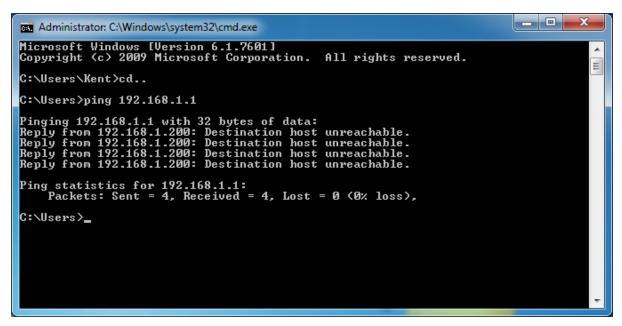


Figure 4-1-8 Failure result of Ping command

If the address is 0.0.0.0, check your adapter installation, security settings, and the settings on your router. Some firewall software programs may block a DHCP request on newly installed adapters.



1. The 1/2/3/4 LEDs of LAN ports which you link to on the Router and LEDs on your PC's adapter should be lit.

2. If the Router's IP address is 192.168.1.1, your PC's IP address must be within the range of 192.168.1.2 ~ 192.168.1.254.

4.2 Starting Setup in Web UI

It is easy to configure and manage the WNRT-633 via web browser.

Step 1. To access the configuration utility, open a web-browser and enter the default IP address <u>http://192.168.1.1</u> in the web address field of the browser.



Figure 4-2-1 Login the Router

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

Windows Security
The server 192.168.1.1 at PLANET WNRT-633 Router requires a username and password.
Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).
User name Password Remember my credentials
OK Cancel

Figure 4-2-2 Login Window

Default IP Address: 192.168.1.1	
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 your web browser's 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 in Figure 4-2-3

Figure 4-2-3 WNRT-633 Web UI Screenshot

On this page, you can view information about the current running status of WNRT-633, including WAN interface, LAN interface, wireless interface settings and status, and firmware version information.

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

Chapter 5. Configuration in Web UI

After successfully logging into the web UI of the WNRT-633, you will see the main menus on the left side of the web-based utility. There are some different options appearing as the operation mode changes. For example, the figure below is the menu of Router Mode in the web UI.



During operation, if you are not clear about a certain feature, there are the corresponding explanations and instructions on the right side of the web page; you can simply read all related helpful info. The details of the functions in each operation mode are listed in the following sections.

5.1 Wizard

The Setup Wizard will guide the user to configure the WNRT-633 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-633 via Setup Wizard.

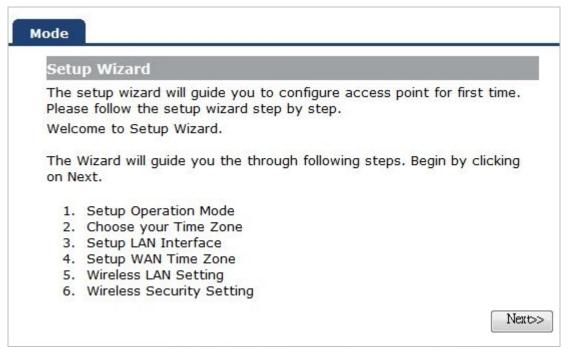
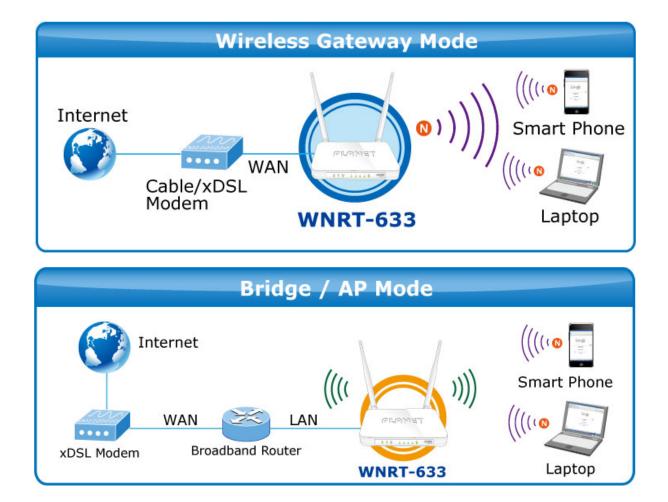
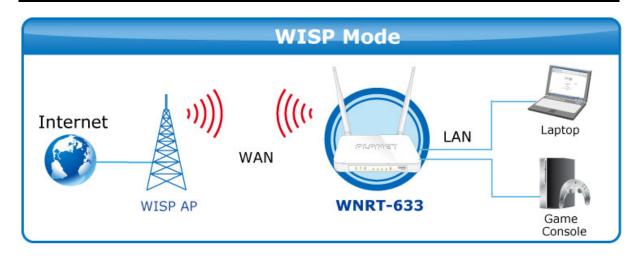


Figure 5-1-1 The Setup Wizard steps screenshot

Step 1: Setup Operation Mode

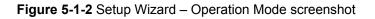
The router supports three operation modes, Gateway, Bridge and Wireless ISP.





Each mode is suitable for different uses. Please choose the correct mode.

Ор	eration Mod	e
	ı can setup dil Iging function.	fferent modes to LAN and WLAN interface for NAT and
۲	Gateway:	In this mode, the device is supposed to connect to internet via ADSL/Cable Modem. The NAT is enabled and PCs in four LAN ports share the same IP to ISP through WAN port. The connection type can be setup in WAN page by using PPPOE, DHCP client, PPTP client, L2TP client or static IP.
0	Bridge:	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
0	Wireless ISP:	In this mode, all ethernet ports are bridged together and the wireless client will connect to ISP access point. The NAT is enabled and PCs in ethernet ports share the same IP to ISP through wireless LAN. You must set the wireless to client mode first and connect to the ISP AP in Site-Survey page. The connection type can be setup in WAN page by using PPPOE, DHCP client, PPTP client, L2TP client or static IP.



Step 2: Time Zone Setting

The Time Configuration option allows you to configure, update, and maintain the correct time on the internal system clock. Daylight Saving can also be configured to automatically adjust the time when needed.

server over the Interne	ystem time by synchronizing with a t.	public time
Enable NTP client u	pdate	
Automatically Adjus	t Daylight Saving	
Time Zone Select :	(GMT+08:00)Taipei	Ŧ
NTP server :	192.5.41.41 - North America 🛛 👻	

Figure 5-1-3 Setup Wizard – Time Zone Setting screenshot

Object	Description
Enable NTP client update	Check this box to connect NTP Server and synchronize internet time.
Automatically Adjust Daylight Saving	Check this box, system will adjust the daylight saving automatically.
Time Zone Select	Select the Time Zone from the drop-down menu.
NTP Server	Select the NTP Server from the drop-down menu.

Step 3: LAN Interface Setting

Set up the IP Address and Subnet Mask for the LAN interface.

which connects to	the LAN port of you	meters for local area network Access Point. Here you may net mask, DHCP, etc
IP Address:	192.168.1.1]
Subnet Mask:	255.255.255.0	

Figure 5-1-4 Setup Wizard – LAN Interface Setup screenshot

Object	Description	
IP Address	Enter the IP address of your Router.	
	Factory default: 192.168.1.1	
Subnet Mask	An address code that determines the size of the network.	
	Normally use 255.255.255.0 as the subnet mask.	

Step 4 WAN Interface Setting

The Wireless Router supports five access modes in the WAN side. Please choose the correct mode according to your ISP Service.

Mode 1 - DHCP Client

WAN Interface Se	tup				
This page is used to connects to the WAI the access method t item value of WAN A	N port of your Acce to static IP, DHCP,	ss Point.	Here you	i may chan	nge
WAN Access Type:	DHCP Client Static IP DHCP Client PPPoE PPTP L2TP				

Figure 5-1-5 Setup Wizard – WAN Interface Setup screenshot

Select DHCP Client to obtain IP Address information automatically from your ISP.

Mode 2 Static IP

Select **Static IP Address** if all the Internet port's IP information is provided to you by your ISP. You will need to enter the **IP address**, **subnet mask**, **gateway address**, and **DNS address** provided to you by your ISP. Each IP address entered in the fields must be in the appropriate IP form, which are four octets separated by a dot (x.x.x.x). The Router will not accept the IP address if it is not in this format.

	tup	
		ters for Internet network which
		Point. Here you may change PoE, PPTP or L2TP by click the
item value of WAN A		ice, if it is early by click the
WAN Access Type:	Static IP 🛛 👻	
IP Address:	172.1.1.1	
Subnet Mask:	255.255.255.0	
Default Gateway:	172.1.1.254	
DNS :		

Figure 5-1-6 WAN Interface Setup – Static IP setup screenshot

Object	Description	
IP Address	Enter the IP address assigned by your ISP.	
Subnet Mask	Enter the Subnet Mask assigned by your ISP.	
Default Gateway	Enter the Gateway assigned by your ISP.	
DNS	The DNS server information will be supplied by your ISP	
	(Internet Service Provider).	

Mode 3 PPPoE

Choose **PPPoE** (**Point to Point Protocol over Ethernet**) if your ISP uses a PPPoE connection. Your ISP will provide you with a **username** and **password**. This option is typically used for DSL services.

WAN Interface Se	tup		
connects to the WAN	N port of your Access P o static IP, DHCP, PPPo	rs for Internet network bint. Here you may chan E, PPTP or L2TP by click	nge
WAN Access Type:	PPP₀E ►		
User Name:	ISP_PPPoE_Usemame		
Password:	•••••		

Figure 5-1-7 WAN Interface Setup – PPPoE setup screenshot

Object	Description
User Name	Enter your PPPoE user name.
Password	Enter your PPPoE password.

Mode 4 PPTP

Choose **PPTP** (**Point-to-Point-Tunneling Protocol**) if your ISP uses a PPTP connection. Your ISP will provide you with IP information and PPTP Server IP Address; of course, it also includes a **username** and **password**. This mode is typically used for DSL services.

WAN Interface Se	tup	
connects to the WAI	N port of your Access to static IP, DHCP, PP	eters for Internet network whick Point. Here you may change PPOE, PPTP or L2TP by click the
WAN Access Type:	PPTP 🔹	
Oynamic IP (DHCP))	
🔘 Static IP		
IP Address:	172.1.1.2	
Subnet Mask:	255.255.255.0	
Default Gateway:	172.1.1.254	
Server IP Address:	172.1.1.1	
User Name:	PPTP_Usemame	
Password:		

Figure 5-1-8 WAN Interface Setup – PPTP setup screenshot

The page includes the following fields:

Object	Description
IP Address	Enter the IP address.
Subnet Mask	Enter the subnet Mask.
Server IP Address	Enter the PPTP Server IP address provided by your ISP.
User Name	Enter your PPTP username.
Password	Enter your PPTP password.

Mode 5 L2TP

Choose L2TP (Layer 2 Tunneling Protocol) if your ISP uses a L2TP connection. Your ISP will provide you with a username and password.

WAN Interface Se		
connects to the WAR	configure the parameters for Internet ne port of your Access Point. Here you ma static IP, DHCP, PPPoE, PPTP or L2TP cess type.	ay change
WAN Access Type:	L2TP -	
Oynamic IP (DHCP)		
🔘 Static IP		
IP Address:	172.1.1.2	
Subnet Mask:	255.255.255.0	
Default Gateway:	172.1.1.254	
Server IP Address:	172.1.1.1	
User Name:	L2TP_Usemame	
Password:		

Figure 5-1-9 WAN Interface Setup – L2TP setup screenshot

The page includes the following fields:

Object	Description
IP Address	Enter the IP address.
Subnet Mask	Enter the subnet Mask.
Server IP Address	Enter the L2TP Server IP address provided by your ISP.
User Name	Enter your L2TP username.
Password	Enter your L2TP password.

Step 5: WLAN Settings

	to configure the parameters for wireless LAN clients t to your Access Point.
Band:	2.4 GHz (B+G+N) ▼
Mode:	AP 👻
Network Type:	Infrastructure 👻
SSID:	WNRT-633
Channel Width:	40MHz 👻
ControlSideband:	Upper 👻
Channel Number:	11 -
Enable Mac C	Clone (Single Ethernet Client)

Figure 5-1-10 Wireless Basic Settings screenshot

Object	Description
Band	Supports 802.11B, 802.11G, 802.11N and mixed. Please choose
	its band according to your clients.
Mode	Supports AP, Client, WDS and AP+WDS mode.
Network Type	This type is only valid in client mode.
SSID	Service Set Identifier, it identifies your wireless network.
Channel Width	Select 40MHz if you use 802.11n or 802.11n mixed mode,
	otherwise 20MHz, it is default value.
Control Sideband:	It is only valid when you choose channel width 40MHz.
Channel Number	Indicates the channel setting for the router.
Enable Mac Clone	Enables or disables MAC clone option.
	You can use the "Mac Clone" button to copy the MAC address of
	the Ethernet Card installed by your ISP and replace the WAN
	MAC address with this MAC address.

Step 6: Wireless Security Setup

Secure your wireless network by turning on the WPA or WEP security feature on the router. For this section you can set **WEP** and **WPA-PSK** security mode.

Encryption: WEP

The following picture shows how to set the WEP security.

Mode	
Wireless Se	ecurity Setup
	ws you setup the wireless security. Turn on WEP or WPA by ion Keys could prevent any unauthorized access to your ork.
Encryption:	WEP
Key Length:	64-bit 👻
Key Format:	Hex (10 characters) -
Key Setting:	*****
	Cancel Cancel Finished

Figure 5-1-11 Wireless Security Setup – WEP setting screenshot

The page includes the following fields:

Object	Description
Key length	WEP supports 64-bit or 128-bit security key.
Key Format	User can enter key in ASCII or Hex format.
Key Setting	Enter the key, its format is limited by the Key format, ASCII or Hex.

Encryption: WPA-PSK

The following picture shows how to set **WPA-PSK** security. You can select **WPA (TKIP)**, **WPA2 (AES)** and **Mixed mode**.

This page allows you set using Encryption Keys co				
wireless network.		,		
Encryption: WPA2(AES)	•			
Pre-Shared Key Format:	Passphrase	-		
Pre-Shared Key:				

Figure 5-1-12 Wireless Security Setup – WPA setting screenshot

Object	Description
Pre-Shared Key Format	Specify the format of the key, pass phrase or hex.
Pre-Shared Key	Enter the key here, its format is limited by the key format.

Click the **Reboot** button to make your wireless configuration to take effect and finish the **Setup Wizard**.

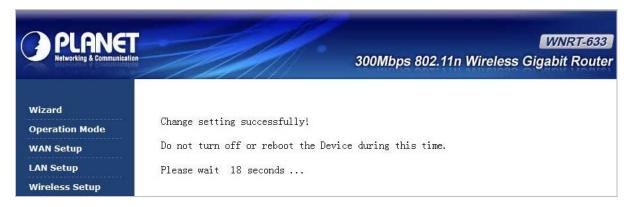


Figure 5-1-13

After the rebooting, please check whether you can access the Internet or not in the "Status" page.

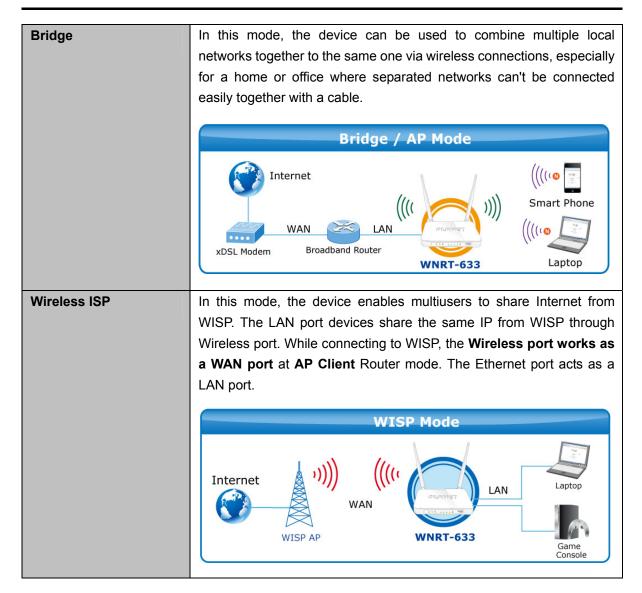
5.2 Operation Mode

This page shows the current operation mode, and users can set different modes to LAN and WLAN interface for NAT and bridging function on the WNRT-633.

Operation Mod	
You can setup dit bridging function.	fferent modes to LAN and WLAN interface for NAT and
Gateway:	In this mode, the device is supposed to connect to internet via ADSL/Cable Modem. The NAT is enabled and PCs in four LAN ports share the same IP to ISP through WAN port. The connection type can be setup in WAN page by using PPPOE, DHCP client, PPTP client, L2TP client or static IP.
🔘 Bridge:	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.
Ø Wireless ISP:	In this mode, all ethernet ports are bridged together and the wireless client will connect to ISP access point. The NAT is enabled and PCs in ethernet ports share the same IP to ISP through wireless LAN. You must set the wireless to client mode first and connect to the ISP AP in Site-Survey page. The connection type can be setup in WAN page by using PPPOE, DHCP client, PPTP client, L2TP client or static IP.

Figure 5-2-1 Operation Mode

Object	Description
Gateway	In this mode, the device enables multiusers to share Internet via ADSL/Cable Modem. The wireless port shares the same IP to ISP through Ethernet WAN port. The Wireless port acts the same as a LAN
	port while at AP Router mode. Wireless Gateway Mode
	Internet Cable/xDSL Modem WAN Cable/xDSL WORT-633 (((()))))) (((()))) Smart Phone ((())))) Laptop



5.3 WAN Setup

You can configure WAN connection type manually here just like it in Setup Wizard, and set advanced functions like DDNS (Dynamic DNS) here.

5.3.1 WAN Interface

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

Choose menu "WAN Setup \rightarrow WAN Setup", and you can configure the parameters for the Internet network. After the configuration, please click the "Apply" button to save the settings.

WAN Interface Setup Apply 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 static IP, DHCP, PPPoE, PPTP or L2TP by click the item value of WAN Access type. Reset WAN Access Type: DHCP Client Host Name: MTU Size: 1492 O Attain DNS Automatically O Set DNS Manually DNS 1: DNS 2: DNS 3:	WAN Setup DDNS	Setup
MTU Size: 1492 (1400-1492 bytes) Attain DNS Automatically Set DNS Manually DNS 1: DNS 2: DNS 3:	This page is used to co connects to the WAN p access method to station of WAN Access type.	nfigure the parameters for Internet network which ort of your Access Point. Here you may change the c IP, DHCP, PPPoE, PPTP or L2TP by click the item value Reset
DNS 1: DNS 2: DNS 3:	MTU Size:	(1400-1492 Dytes)
Clone MAC Address: 0000000000	DNS 1: DNS 2: DNS 3:	

Figure 5-3-1 WAN Interface Setup screenshot

Object		Description
WAN Access Type		the corresponding WAN Access Type for the Internet, and fill arameters from your local ISP in the fields which appear
	DHCP Client	Select DHCP Client to obtain IP Address information automatically from your ISP.
	Static IP	Select Static IP Address if all the Internet port's IP information is provided to you by your ISP (Internet Service Provider). You will need to enter the IP address, subnet mask, gateway address, and DNS address provided to you by your ISP. Each IP address entered in the fields must be in the appropriate IP form, which are four octets separated by a dot (x.x.x.x). The Router will not accept the IP address if it is not in this format. IP Address Enter the IP address assigned by your ISP. Subnet Mask Enter the Subnet Mask assigned by your ISP. Default Gateway Enter the Gateway assigned by your ISP.

		DNS
		The DNS server information will be supplied by your ISP.
	PPPoE	Choose PPPoE (Point to Point Protocol over Ethernet) if
		your ISP uses a PPPoE connection. Your ISP will provide
		you with a username and password. This option is typically
		used for DSL services.
		User Name
		Enter your PPPoE user name.
		Password
		Enter your PPPoE password.
	PPTP	Choose PPTP (Point-to-Point-Tunneling Protocol) if your ISP
		uses a PPTP connection. Your ISP will provide you with IP
		information and PPTP Server IP Address; of course, it also
		includes a username and password. This mode is typically
		used for DSL services.
		IP Address
		Enter the IP address.
		Subnet Mask
		Enter the Subnet Mask.
		Server IP Address
		Enter the PPTP Server IP address provided by your ISP.
		User Name
		Enter your PPTP user name.
		Password
		Enter your PPTP password.
	L2TP	Choose L2TP (Layer 2 Tunneling Protocol) if your ISP uses
		a L2TP connection. Your ISP will provide you with a
		username and password.
		IP Address
		Enter the IP address.
		Subnet Mask
		Enter the Subnet Mask.
		Server IP Address
		Enter the L2TP Server IP address provided by your ISP.
		User Name
		Enter your L2TP user name.
		Password
		Enter your L2TP password.
Host Name	This option sp	ecifies the Host Name of the Wireless Router.

MTU Size	The normal MTU (Maximum Transmission Unit) value for most Ethernet networks is 1492 Bytes. It is not recommended that you change the default MTU Size unless required by your ISP.
Attain DNS Automatically	Select "Attain DNS Automatically", the DNS servers will be assigned dynamically from your ISP.
Set DNS Manually	If your ISP gives you one or two DNS addresses, select Set DNS Manually and enter the primary and secondary addresses into the correct fields.
Clone MAC Address	You can input a MAC address here for using clone function.



If you get Address not found error when you access a Web site, it is likely that your DNS servers are set up improperly. You should contact your ISP to get DNS server addresses.



WAN IP, whether obtained automatically or specified manually, should NOT be on the same IP net segment as the LAN IP; otherwise, the router will not work properly. In case of emergency, press the hardware "Reset" button.

5.3.2 DDNS

The Wireless Router offers the **DDNS** (Dynamic Domain Name System) feature, which allows the hosting of a website, FTP server, or e-mail server with a fixed domain name (named by yourself) and a dynamic IP address, and then your friends can connect to your server by entering your domain name no matter what your IP address is. Before using this feature, you need to sign up for DDNS service providers such as <u>PLANET DDNS</u> or <u>www.dyndns.org</u>. The Dynamic DNS client service provider will give you a password or key.

Choose menu "WAN Setup \rightarrow DDNS Setup" to configure the settings about Dynamic DNS. After the configuration, please click the "Apply" button to save the settings.

WAN Setup DDNS Setup	
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.	Apply
Enable DDNS	Reset
Service Provider : PLANET DDNS 💌	
Domain Name :	
User Name/Email:	
Password/Key:	
Note: For Planet DDNS,you can create your DDNS account <u>here</u> For TZO, you can have a 30 days free trial <u>here o</u> r manage your TZO account in <u>control panel</u> For DynDNS, you can create your DynDNS account <u>here</u>	

Figure 5-3-2 DDNS Setup screenshot

Object	Description
Enable DDNS	Check the box to enable the Dynamic DNS function.
Service Provider	Select the DDNS service provider from the drop-down menu, such as
	PLANET DDNS, DynDNS or TZO.
Domain Name	Enter the domain name you have registered from the DDNS service
	provider.
User Name/Email	Enter the user name or email you have registered from the DDNS
	service provider.
Password/Key	Enter the password you have registered from the DDNS service provider.

5.3.3 Planet DDNS

First of all, please go to <u>http://www.planetddns.com</u> to register a Planet DDNS account, and refer to the FAQ (<u>http://www.planetddns.com/index.php/fag</u>) for how to register a free account.

	PLANET Networking & Communication
C PLANET DDNS	PLANET Website FAQ Support
Sign in	
Sign in Forgotten Password / Create A New Account	

Figure 5-3-3 Planet DDNS Website

When you finish your DDNS account, please return to WAN Setup -> WAN Setup to set up your WAN type which can be connected to external network.

WAN Interface Set	tup			
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				
		E, PPTP or L2TP by click the item value		
of WAN Access type.			Reset	
WAN Access Type:	DHCP Client 🔽			
	Static IP			
Host Name:	DHCP Client			
	PPPoE			
MTU Size:	1PPTP	.400-1492 bytes)		
Attain DNS Autom	L2TP			
CALLAIT DIS AULOIN	aucany			

Figure 5-3-4 WAN Settings

To select dynamic DNS **Service Provider** <u>www.planetddns.com</u>, the page will appear as shown in **Figure 5-3-5**.

Dynamic DNS S	etting	
	ervice, that provides you with a valid, unchanging RL) to go with that (possibly everchanging) IP-ad	
Enable DDNS		
Service Provider :	PLANET DDNS 🐱	
Domain Name :	usemane	
User Name/Email:	usemame@planet.com.tw	
Password/Key:	•••••	
Note:		
For Planet DDNS,y	ou can create your DDNS account <u>here</u>	тго

Figure 5-3-5 PlanetDDNS Settings

Step 1. Enable DDNS, and then select "PLANET DDNS".

To set up for DDNS, follow these instructions:

- Step 1. Type the Domain Name you received from dynamic DNS service provider.
- Step 2. Type the User Name for your DDNS account.
- Step 3. Type the Password for your DDNS account.

Step 2. Go to "Security Setup-> Security" page to allow remote access from WAN port.



Figure 5-3-6 Enable Web Access on WAN

Step 3. Apply the settings, and ensure you have connected the WAN port to the internet by Ethernet cable.

Step 4. In a remote computer, enter the Domain Name to the internet browser's address bar.



Figure 5-3-7 Login PLANET DDNS

Lastly you can go to My Devices page of Planet DDNS website to check if the "Last Connection IP" is displayed. This indicates your DDNS service is working properly.

А рг		21			krimeter i	Derivest
				PLA	NET Website FAQ	Supp
Home	My Devices	Profile			Welcome, test12 (Eign out)	
	Device					
	Device					
	id Device 🕂	d Domain	Name of Your Device	Luet Connection IP	Madily Delete	

Figure 5-3-8 My Devices

5.3.4 Planet EasyDDNS

PLANET Easy DDNS is a way help to get your Domain Name with just one click. You can just login to the Web Management Interface of your devices, check the DDNS menu and just enable it.

Once you enabled the Easy DDNS, your PLANET Network Device will use the format PLxxxxx where xxxxxx is the last 6 characters of your MAC address that can be found on the Web page or bottom label of the device. (For example: 00-30-4F-77-88-17, it will be converted into **PL778817**.planetddns.com)

To use Planet EasyDDNS service, please refer to the procedure listed as following.

Step 1. Select "Enable Easy DDNS" to use the Planet Easy DDNS service.

WAN Setup DD	NS Setup
Dynamic DNS S	Setting
	ervice, that provides you with a valid, unchanging, internet Apply JRL) to go with that (possibly everchanging) IP-address.
Enable DDNS	Reset
Service Provider :	Easy DDNS 🗸
Domain Name :	pl8196c9.planetddns.com
User Name/Email:	pl8196c9
Password/Key:	•••••
For TZO, you can account in <u>contro</u>	rou can create your DDNS account <u>here</u> have a 30 days free trial <u>here or manage your TZO I panel</u> can create your DynDNS account <u>here</u>

Figure 5-1-9 Planet EasyDDNS Settings

Domain Name : Display the specified domain name for this device. (format: plxxxxx.planetddns.com,

xxxxxx is the last six-digit of the WAN Port MAC address)

Step 2. Go to "Security Setup-> Security" page to allow remote access from WAN port.

Security	URL Filter	MAC Filter	IP Filter	DoS	
Security	1				
🗹 Enab	le Ping Access (on WAN]		Apply
🗹 Enab	le Web Server A	Access on WAN			
🗹 Enab	le IPsec pass th	nrough on VPN co	onnection		Reset
🗹 Enab	le PPTP pass th	rough on VPN co	nnection		
🗹 Enab	le L2TP pass th	rough on VPN co	nnection		
🗌 Enab	ole IPv6 pass thr	ough on VPN co	nnection		

Figure 5-3-10 Enable Web Access on WAN

- **Step 3.** Apply the settings, and ensure you have connected the WAN port to the internet by Ethernet cable.
- **Step 4.** In a remote computer, enter the Domain Name displayed in the **Figure 5-3-9** to the internet browser's address bar.



Figure 5-3-11 Login Easy DDNS

5.4 LAN Setup

There are two ways to assign IP addresses to computers:

- Static IP Address (set the IP address for every computer manually)
- Dynamic IP Address (IP address of computers will be assigned by a router automatically)

It is recommended for most of computers to use dynamic IP address, because it will save a lot of time on setting IP addresses for every computer, especially when there are a lot of computers in the network; for servers and network devices which will provide services to other computers and users that come from Internet, static IP address should be useful, so other computers are able to locate the server. You can configure the IP parameters of the LAN on the screen as below.

5.4.1 LAN Interface Setup

Choose menu "LAN Setup \rightarrow LAN Interface", and you can configure the parameters for LAN (Local Area Network). After the configuration, please click the "Apply" button to save the settings.

LAN Setup	Static DHCP	DHCP Client	UPnP	
LAN Inter	face Setup			
connects to	the LAN port of you	the parameters for l ur Access Point. Hen t mask, DHCP, etc		Apply
IP Address:	192.16	8.1.1		Reset
Subnet Mas	ik: 255.25	5.255.0		
Default Gate	eway: 192.16	8.1.1		
DHCP:	Server	r 💌		
DHCP Client	Range: 192.16	68.1.100 - 192.16	8.1.200	
DHCP Lease	e Time: 480	(1 ~ 10080 m	inutes)	
Domain Nam	ne: WNRT	-633		
802.1d Spar Tree:	nning Disabl	led 💌		
Clone MAC .	Address: 000000	000000		
Enable IGMP	P Proxy 🔽			

Figure 5-4-1 LAN Interface Setup screenshot

Object	Description			
IP Address	The LAN IP address of the WNRT-633, and default is 192.168.1.1. Yo			
	can change it according to your request.			
Subnet Mask	Default is 255.255.255.0 . You can change it according to your request.			
Default Gateway	Default is 192.168.1.1 . You can change it according to your request.			

DHCP	You can select one of Disable , Client , and Server . Default is Server , that the WNRT-633 can assign IP addresses to the computers automatically.				
DHCP Client Range	For the Server mode, you must enter the DHCP client IP address				
	range in the field. And you can click the "Show Client" button to show				
	the Active DHCP Client Table.				
Static DHCP	Click the "Set Static DHCP" 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 Router .				
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.				



If you change the device's LAN IP address, you must enter the new one in your browser to get back to the web-based configuration utility. And LAN PCs' gateway must be set to this new IP for successful Internet connection.

5.4.2 Static DHCP

This page allows you reserve IP addresses, and assign the same IP address to the network device with the specified MAC address any time it requests an IP address. This is almost the same as when a device has a static IP address except that the device must still request an IP address from the DHCP server.

LAN Setup	Static DHCP	DHCP Client	UPnP		
to the netwo IP address. except that	ows you reserve 1 ork device with the This is almost the the device must st Static DHCP 192.168.1.102		ess any time ice has a st	e it requests an atic IP address	Apply Reset
Static DHC	P List:				
IP Add	iress M	AC Address	Commer	nt Select	
192.168	.1.101 00-3	D-4f-11-22-33	Jack's P	c 🗌	
Delete Selec	ted Delete All	Reset			

Figure 5-4-2 Static DHCP Setup screenshot

Object	Description
IP Address	Enter the IP address which needs to be bound.
MAC Address	Enter the MAC address of the computer you want to assign the above IP address.
Comment	You can add some comment for this item.

Click "Apply" to add the entry in the list.

5.4.3 DHCP Client

This table shows the assigned IP address, MAC address and time expired for each DHCP leased client.

LAN Setup	Static DHCP	DHCP Client	UPnP		
Active DH	CP Client Table				
	nows the assigned 1 leased client.	IP address, MAC ad	dress and tir	me expired for	Refresh
IP Address	MAC Ad	ldress	Time Ex	pired(s)	Class
192.168.1.1	100 74:2f:6	8:cb:cO:ac	28575		Close
192.168.1.1	101 58:55:c	a:fa:e3:31	28789		

Figure 5-4-3 DHCP Client screenshot

Object	Description
IP Address	The IP address that the Router has allocated to the DHCP client.
MAC Address	The MAC address of the DHCP client
Time Expired(s)	Remaining time for a corresponding IP address lease.

5.4.4 UPnP

The UPnP feature allows the devices, such as Internet computers, to access the local host resources or devices as needed. UPnP devices can be automatically discovered by the UPnP service application on the LAN.

LAN Setup	Static DHCP	DHCP Client	UPnP		
UPNP Sett	ing				
🗹 Enable (uPNP				Apply
Current P	ort Forwarding	Table added by	UPnP		Reset
Local IP	Prot	ocol Port		Status	

Figure 5-4-4 UPnP Setting screenshot

The page includes the following fields:

Object	Description
UPnP	Check on to enable UPnP function.
Local IP	The IP address of an internal host that receives/sends responses.
Protocol	Indicates whether to perform TCP or UDP port forwarding
Port	Port on host side.



The pages also list the forwarding port added by UPnP Service.

5.5 Wireless

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

PLANET Networking & Communication				300N	1bps 80	2.11n Wireles	And a state of the	WNRT-633 bit Router
	Basic	Advanced	Security	Access Control	WDS	Site Survey	WPS	Schedule
Wizard	Minol	ess Dasis Coll	- 10000000					
Operation Mode		ess Basic Sett		ameters for wireless LA	AN clients w	which Apply		
WAN Setup		onnect to your Ac		e you may change wire arameters.	eless encry			
LAN Setup	🔲 Di	sable Wireless L	AN Interface			Reset		
Wireless Setup	Count	ry: UNITE	D STATES	~				
Services Setup	Band:	2.4 GH	z (B+G+N) 💌					

Figure 5-5-1

5.5.1 Basic Settings

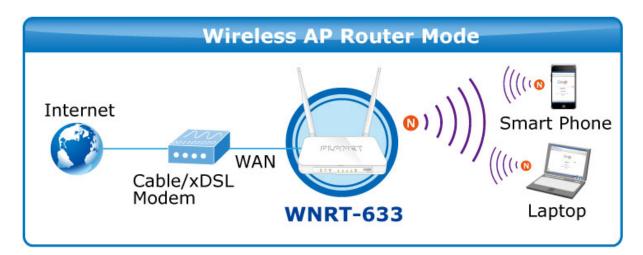
Choose menu "Wireless Setup \rightarrow Basic", and you can configure the basic settings for the wireless network on this page. After the configuration, please click the "Apply" button to save the settings.

First of all, the Wireless Router supports multiple wireless modes for different network applications, which includes:

- AP
- Client
- WDS
- AP+WDS

It is so easy to combine the WNRT-633 with the existing wired network. The WNRT-633 definitely provides a total network solution for the home and the SOHO users.

AP Standard wireless Access Point



Basic Adva	nced Security	Access Control	WDS	Site Survey
Wireless Ba	sic Settings			
may connect t	sed to configure the par o your Access Point. Her ell as wireless network p	re you may change wire		
🗌 Disable V	Vireless LAN Interface			Reset
Country:	UNITED STATES	~		
Band:	2.4 GHz (B+G+N) 🔽			
Mode:	AP 🔽	Multiple AP		
Network Type:	Infrastructure V			
SSID:	WNRT-633		Add to Pro	file
Channel Width:	40MHz 🗸			
Control Sideband:	Upper 🗸			
Channel Number:	11 💌			
Broadcast SSID:	Enabled 🗸			
WMM:	Enabled V			
Data Rate:	Auto 🗸			
TX restrict:	0 Mbps (0:no	restrict)		
RX restrict:	0 Mbps (0:no	restrict)		
Associated Clients:	Show Active Client	s		
Enable N	lac Clone (Single Ethe	rnet Client)		
Enable L and client sim	Iniversal Repeater Mod Iultaneouly)	e (Acting as AP		
SSID of Exter			Add to Pro	file
Interface:	RTK 11n AP RPT0		100110	

Figure 5-5-2 Wireless Basic Settings-AP mode screenshot

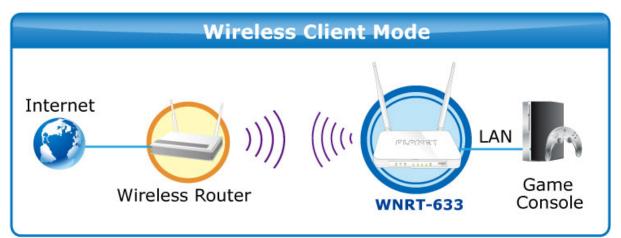
Object	Description
Disable Wireless LAN	Check the box to disable the wireless function.
Interface	
Country	Select your region from the pull-down list.
	This field specifies the region where the wireless function of the Router
	can be used. It may be illegal to use the wireless function of the Router

	in a region other than one of those specified in this field. If your country or region is not listed, please contact your local government agency for assistance.
Band	Select the desired mode. Default is " 2.4GHz (B+G+N) ". 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-633.
	 2.4 GHz (B): 802.11b mode, rate is up to 11Mbps 2.4 GHz (G): 802.11g mode, rate is up to 54Mbps 2.4 GHz (N): 802.11n mode, rate is up to 300Mbps(2T2R) 2.4 GHz (B+G): 802.11b/g mode, rate is up to 11Mbps or 54Mbps 2.4 GHz (G+N): 802.11g/n mode, rate is up to 54Mbps or 300Mbps 2.4 GHz (B+G+N): 802.11b/g/n mode, rate is up to 11Mbps, 54Mbps, or 300Mbps
Mode	There are four kinds of wireless mode selections: AP Client WDS AP+WDS
	If you select WDS or AP+WDS, please click "WDS Settings " submenu for the related configuration. Furthermore, click the "Multiple AP" button to enable multiple SSID function.
SSID	The ID of the wireless network. 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. Default: WNRT-633
Channel Width	You can select 20MHz or 40MHz .
Control Sideband	You can select Upper or Lower .
Channel Number	You can select the operating frequency of wireless network.
Broadcast SSID	If you enable "Broadcast SSID", every wireless station located within the coverage of the WNRT-633 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.
	Default is "Enabled".
Data Rate	Set the wireless data transfer rate to a certain value. Since most of wireless devices will negotiate with each other and pick a proper data transfer rate automatically, it's not necessary to change this value unless you know what will happen after modification.
	Default is "Auto".

Associated Clients	Click the "Show Active Clients" button to show the status table of
	active wireless clients.
Enable Universal	Universal Repeater is a technology used to extend wireless coverage.
Repeater Mode	To enable Universal Repeater Mode, check the box and enter the
(Acting as AP and client simultaneously)	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.

Client (Infrastructure)

Combine the Wireless Router to the Ethernet devices such as TV, Game player, or HDD&DVD, to make them be wireless stations.



Mode:	Client V Multiple AP
Network Type:	Infrastructure 💌
SSID:	PLANET Add to Profile
Channel Width:	40MHz 💌
Control Sideband:	Upper 🔽
Channel Number:	11 💌
Broadcast SSID:	Enabled 💌
WMM:	Enabled 💙
Data Rate:	Auto 💌
TX restrict:	0 Mbps (0:no restrict)
RX restrict:	0 Mbps (0:no restrict)
Associated Clients:	Show Active Clients

Enable Universal Repe client simultaneouly)	ater Mode (Acting as	AP and
SSID of Extended Interface	e:	
WNRT-633 RPT0		Add to Profile
Epoble Wireless Brefile		
Enable Wireless Profile Wireless Profile List: SSID	Encrypt	Select
Wireless Profile List:	Encrypt WPA2/AES	Select

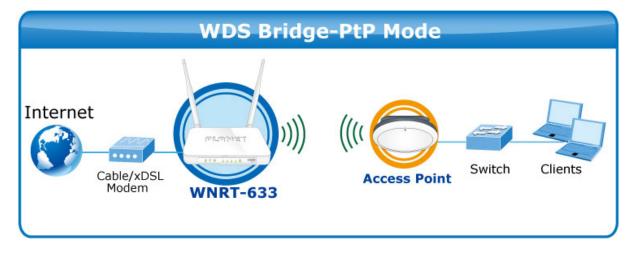
Figure 5-5-3 Wireless Basic Settings-Client mode screenshot

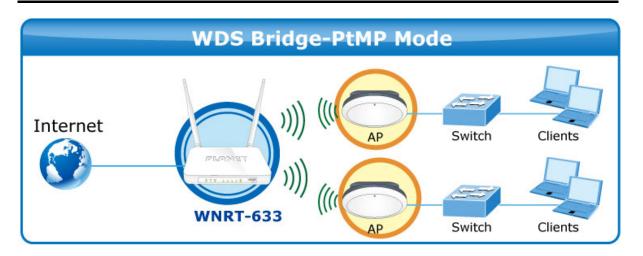
Object	Description		
Disable Wireless LAN Interface	Check the box to disable the wireless function.		
Country	Select your region from the pull-down list.		
Band	 Select the desired mode. Default is "2.4GHz (B+G+N)". It is strongly recommended that you set the Band to "2.4GHz (B+G+N)", and all of 802.11b, 802.11g, and 802.11n wireless stations can connect to the WNRT-633. 2.4 GHz (B): 802.11b mode, rate is up to 11Mbps 2.4 GHz (G): 802.11g mode, rate is up to 54Mbps 2.4 GHz (N): 802.11n mode, rate is up to 300Mbps(2T2R) 2.4 GHz (B+G): 802.11b/g mode, rate is up to 11Mbps or 54Mbps 2.4 GHz (G+N): 802.11b/g mode, rate is up to 54Mbps or 300Mbps 2.4 GHz (G+N): 802.11b/g mode, rate is up to 54Mbps, or 300Mbps 		
Mode	There are four kinds of wireless mode selections: AP Client WDS AP+WDS If you select WDS or AP+WDS, please click "WDS Settings" submenu for the related configuration. Furthermore, click the "Multiple AP" button to enable multiple SSID function.		
Network Type	In Infrastructure , the wireless LAN serves as a wireless station. And the user can use the PC equipped with the WNRT-633 to access the wireless network via other access points. In Ad hoc , the wireless LAN		

	will use the Ad-hoc mode to operate.
	Default is " Infrastructure ".
	Note: only while the wireless mode is set to " Client ", then the Network Type can be configured.
SSID	The ID of the wireless network. 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. Default: WNRT-633
Broadcast SSID	If you enable "Broadcast SSID", every wireless station located within the coverage of the WNRT-633 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. Default is " Enabled ".
Data Rate	Set the wireless data transfer rate to a certain value. Since most of wireless devices will negotiate with each other and pick a proper data transfer rate automatically, it's not necessary to change this value unless you know what will happen after modification.
	Default is " Auto" .
Enable Mac Clone	Enable Mac Clone.
(Single Ethernet Client)	

■ WDS

Connect this Wireless Router with up to 8 WDS-capable wireless routers to expand the scope of network.





Network Type: Infrastructure SSID: PLANET Add to Profile SSID: 40MHz Channel Width: 40MHz Control Sideband: Upper Control Sideband: Upper Channel Number: 11 Broadcast SSID: Enabled Broadcast SSID: Enabled Data Rate: Auto Data Rate: Auto Tx restrict: 0 Mbps (0:no restrict) Rx restrict: 0 Mbps (0:no restrict) Associated Clients: Enable Mac Clone (Single Ethernet Client) Enable Universal Repeater Mode (Acting as AP and client simultaneouly) SSID of Extended Interface: WNRT-633 RPTU	Mode:	WDS Multiple AP		
Channel 40MHz ▼ Width: 40MHz ▼ Control Upper ▼ Sideband: 11 ▼ Proadcast Enabled ▼ SSID: Enabled ▼ WMM: Enabled ▼ Data Rate: Auto ▼ TX restrict: 0 Mbps (0:no restrict) RX restrict: 0 Mbps (0:no restrict) Associated Show Active Clients Enable Mac Clone (Single Ethernet Client) Enable Universal Repeater Mode (Acting as AP and client simultaneouly) SSID of Extended Interface: Add to Profile		Infrastructure 🔽		
Width: 4UMHz Control Upper Sideband: Upper Sideband: 11 Number: 11 Broadcast Enabled SSID: Enabled WMM: Enabled Data Rate: Auto TX restrict: 0 Mbps (0:no restrict) RX restrict: 0 Mbps (0:no restrict) Associated Clients: Enable Mac Clone (Single Ethernet Client) Enable Universal Repeater Mode (Acting as AP and client simultaneouly) SSID of Extended Interface:	SSID:	PLANET	Add to Profile	
Sideband: Upper ♥ Channel 11 ♥ Number: 11 ♥ Broadcast Enabled ♥ SSID: Enabled ♥ WMM: Enabled ♥ Data Rate: Auto ♥ TX restrict: 0 Mbps (0:no restrict) RX restrict: 0 Mbps (0:no restrict) Associated Show Active Clients Clients: Show Active Clients Enable Mac Clone (Single Ethernet Client) Enable Universal Repeater Mode (Acting as AP and client simultaneouly) SSID of Extended Interface: Add to Profile		40MHz 💌		
Number: II Broadcast SSID: Enabled WMM: Enabled Data Rate: Auto Data Rate: Auto TX restrict: 0 Mbps (0:no restrict) RX restrict: 0 Mbps (0:no restrict) Associated Clients: Enable Mac Clone (Single Ethernet Client) Enable Universal Repeater Mode (Acting as AP and client simultaneouly) SSID of Extended Interface:		Upper 💌		
SSID: Enabled ♥ WMM: Enabled ♥ Data Rate: Auto ♥ TX restrict: 0 Mbps (0:no restrict) RX restrict: 0 Mbps (0:no restrict) Associated Clients: □ Show Active Clients □ Enable Mac Clone (Single Ethernet Client) □ Enable Universal Repeater Mode (Acting as AP and client simultaneouly) SSID of Extended Interface: Add to Profile		11 💌		
Data Rate: Auto TX restrict: 0 Mbps (0:no restrict) RX restrict: 0 Mbps (0:no restrict) Associated Clients: Show Active Clients Imable Mac Clone (Single Ethernet Client) Enable Mac Clone (Single Ethernet Client) Imable Simultaneouly SSID of Extended Interface:		Enabled 💌		
TX restrict: 0 Mbps (0:no restrict) RX restrict: 0 Mbps (0:no restrict) Associated Show Active Clients Clients: Show Active Clients Image: Image	WMM:	Enabled 🔽		
RX restrict: 0 Mbps (0:no restrict) Associated Show Active Clients Clients: • • Enable Mac Clone (Single Ethernet Client) • Enable Universal Repeater Mode (Acting as AP and client simultaneouly) SSID of Extended Interface: Add to Profile	Data Rate:	Auto 💌		
Associated Show Active Clients Clients: Show Active Clients Enable Mac Clone (Single Ethernet Client) Enable Universal Repeater Mode (Acting as AP and client simultaneouly) SSID of Extended Interface:	TX restrict:	0 Mbps (0:no restrict)		
Clients: Show Active Clients Clients: Show Active Clients Enable Mac Clone (Single Ethernet Client) Enable Universal Repeater Mode (Acting as AP and client simultaneouly) SSID of Extended Interface: Add to Profile	RX restrict:	0 Mbps (0:no restrict)		
 Enable Universal Repeater Mode (Acting as AP and client simultaneouly) SSID of Extended Interface: 		Show Active Clients		
client simultaneouly) SSID of Extended Interface:	🗌 Enable N	Mac Clone (Single Ethernet Client)		
Add to Profile				
WNRT-633 RPT0	SSID of Exter			
	WNRT-633 RP	то	Add to Profile	

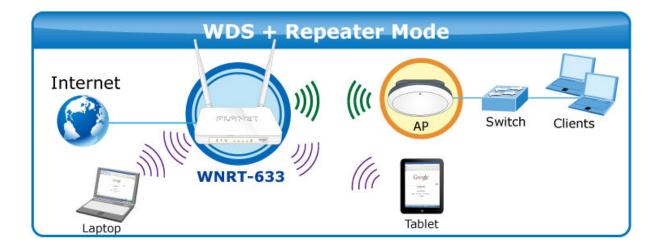
Figure 5-5-4 Wireless Basic Settings-WDS mode screenshot

Object	Description
Disable Wireless LAN	Check the box to disable the wireless function.
Interface	

Country	Select your region from the pull-down list.		
	This field specifies the region where the wireless function of the Router		
	can be used. It may be illegal to use the wireless function of the Router		
	in a region other than one of those specified in this field. If your country		
	or region is not listed, please contact your local government agency for		
_ .			
Band	Select the desired mode. Default is "2.4GHz (B+G+N)". 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-633.		
	■ 2.4 GHz (B): 802.11b mode, rate is up to 11Mbps		
	2.4 GHz (G) : 802.11g mode, rate is up to 54Mbps		
	2.4 GHz (N) : 802.11n mode, rate is up to 300Mbps(2T2R)		
	2.4 GHz (B+G) : 802.11b/g mode, rate is up to 11Mbps or 54Mbps		
	2.4 GHz (G+N) : 802.11g/n mode, rate is up to 54Mbps or 300Mbps		
	2.4 GHz (B+G+N): 802.11b/g/n mode, rate is up to 11Mbps,		
	54Mbps, or 300Mbps		
Mode	There are four kinds of wireless mode selections:		
	■ AP		
	■ Client		
	■ WDS		
	AP+WDS		
	If you select WDS or AP+WDS, please click "WDS Settings" submenu		
	for the related configuration. Furthermore, click the "Multiple AP"		
	button to enable multiple SSID function.		
Channel Width	You can select 20MHz or 40MHz .		
Control Sideband	You can select Upper or Lower .		
Channel Number	You can select the operating frequency of wireless network.		
Data Rate	Set the wireless data transfer rate to a certain value. Since most of		
	wireless devices will negotiate with each other and pick a proper data		
	transfer rate automatically, it's not necessary to change this value		
	unless you know what will happen after modification.		
	Default is " Auto" .		

AP+ WDS

Connect this Wireless Router with up to 8 WDS-capable wireless routers, and as another AP to provide service for all wireless stations within its coverage.



Mode:	AP+WDS V Multiple AP	
Network Type:	Infrastructure 💌	
SSID:	WNRT-633	Add to Profile
Channel Width:	40MHz 💌	
Control Sideband:	Upper 💌	
Channel Number:	11 💌	
Broadcast SSID:	Enabled 💌	
WMM:	Enabled 💙	
Data Rate:	Auto 💌	
TX restrict:	0 Mbps (0:no restrict)	
RX restrict:	0 Mbps (0:no restrict)	
Associated Clients:	Show Active Clients	
Enable M	lac Clone (Single Ethernet Client)	
Enable U client simultar	niversal Repeater Mode (Acting as AP and neouly)	
	ded Interface:	Add to Profile
WNRT-633 RP	ТО	

Figure 5-5-5 Wireless Basic Settings-AP+WDS mode screenshot

Object	Description
Disable Wireless LAN	Check the box to disable the wireless function.
Interface	
Country	Select your region from the pull-down list.
	This field specifies the region where the wireless function of the Router
	can be used. It may be illegal to use the wireless function of the Router
	in a region other than one of those specified in this field. If your country
	or region is not listed, please contact your local government agency for assistance.
Band	Select the desired mode. Default is "2.4GHz (B+G+N)". 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-633.
	■ 2.4 GHz (B): 802.11b mode, rate is up to 11Mbps
	2.4 GHz (G) : 802.11g mode, rate is up to 54Mbps
	 2.4 GHz (N): 802.11n mode, rate is up to 300Mbps(2T2R) 2.4 GHz (R+G): 802.11h/g mode, rate is up to 11Mbps or 54Mbps
	 2.4 GHz (B+G): 802.11b/g mode, rate is up to 11Mbps or 54Mbps 2.4 GHz (G+N): 802.11g/n mode, rate is up to 54Mbps or 300Mbps
	 2.4 GHz (B+G+N): 802.11b/g/n mode, rate is up to 11Mbps,
	54Mbps, or 300Mbps
Mode	There are four kinds of wireless mode selections:
	■ AP
	Client
	■ WDS ■ AP+WDS
	If you select WDS or AP+WDS, please click " WDS Settings " submenu
	for the related configuration. Furthermore, click the "Multiple AP" button to enable multiple SSID function.
SSID	The ID of the wireless network. 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.
	Default: WNRT-633
Channel Width	You can select 20MHz or 40MHz .
Control Sideband	You can select Upper or Lower .
Channel Number	You can select the operating frequency of wireless network.
Broadcast SSID	If you enable "Broadcast SSID", every wireless station located within
	the coverage of the WNRT-633 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.
	· · · · · · · · · · · · · · · · · · ·

	Default is " Enabled ".		
Data Rate	Set the wireless data transfer rate to a certain value. Since most of wireless devices will negotiate with each other and pick a proper data		
	transfer rate automatically, it's not necessary to change this value		
	unless you know what will happen after modification.		
	Default is " Auto" .		
Associated Clients	Click the "Show Active Clients" button to show the status table of		
	active wireless clients.		
Enable Universal	Universal Repeater is a technology used to extend wireless coverage.		
Repeater Mode	To enable Universal Repeater Mode, check the box and enter the		
(Acting as AP and client simultaneously)	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.		

5.5.2 Advanced

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

Basic	Advanced	Security	Access 0	Control	WDS	Site Survey
Wirel	ess Advanced	Settings				
sufficie	settings are only ent knowledge at ed unless you kn	oout wireless L	AN. These set	tings shou	ld not be	
Fragm	ent Threshold:	2346	(256-2346)			
RTS T	hreshold:	2347	(0-2347)			
Beaco	n Interval:	100	(20-1024 ms	5)		
Pream	ble Type:	Long Prea	mble 🔘 Sho	ort Preamb	le	
IAPP:		Enabled	O Disabled			
Protec	tion:	Enabled	Oisabled			
Aggre	gation:	Enabled	O Disabled			
Short	GI:	Enabled	O Disabled			
WLAN	Partition:	O Enabled	Oisabled			
STBC:		O Enabled	Oisabled			
20/40	MHz Coexist:	O Enabled	Oisabled			
RF Ou	tput Power:	⊙ 100% C	70% 🔿 50	% 0359	% 🔘 159	%

Figure 5-5-6 Wireless Advanced Settings

Object	Description
Fragment Threshold	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".
RTS Threshold	When the packet size is smaller than the RTS threshold, the access
	point will not use the RTS/CTS mechanism to send this packet.
	Default is "2347".
Beacon Interval	The interval of time that this access point broadcast a beacon. Beacon
	is used to synchronize the wireless network. Default is "100".
Preamble Type	Preamble type defines the length of CRC block in the frames during
	the wireless communication. "Short Preamble" is suitable for high
	traffic wireless network. "Long Preamble" can provide more reliable
	communication.
	Default is "Long Preamble".
IAPP	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".
Protection	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.
	Default is "Disabled".
Aggregation	It is a function where the values of multiple rows are grouped together.
	Default is "Enabled"
Short GI	It is used to set the time that the receiver waits for RF reflections to
	settle out before sampling data.
	Default is "Enabled"
WLAN Partition	This feature also called "WLAN isolation" or "Block Relay". If this is
	enabled, wireless clients cannot exchange data through the
	WNRT-633.
	Default is "Disabled".
STBC	Activate Space Time Blocking Code (STBC) which does not need
	channel statement information (CSI).
	Default Setting: "Disabled"
20/40MHz Coexist	Configure 20/40MHz coexisting scheme.
	If you set up as "Enabled", "20MHz" and "40MHz" will coexist.
	Default Setting: "Disabled"
RF Output Power	Users can adjust the wireless output power here.
	Default is "100%".

5.5.3 Security

Choose menu "Wireless \rightarrow Security", and you can configure the settings of wireless security for the wireless network on this page. After the configuration, please click the "Apply" button to save the settings.

Basic	Advanced	Security	Access Control	WDS	Site Survey
This p using wirele	Encryption Keys of ess network.	etup the wirele	ss security. Turn on WE ny unauthorized access		Apply Reset
Encry	yption: entication Mode:	WPA2	(RADIUS) Personal	(Pre-Shar	ed
Pre- Shar	2 Cipher Suite: ed Key Format: Shared Key:	□ TKIP I A Passphrase	ES V		
Apply Chan	iges Reset				

Figure 5-5-7 Wireless Security Setup screenshot

Object	Description
Select SSID	Select the SSID you want to configure the wireless security function,
	which includes the root one and the client one.
Encryption	Disable:
	No security setup for wireless connection.
	WEP:
	It is based on the IEEE 802.11 standard. And the default setting of
	authentication is Automatic, which can select Open System or
	Shared Key authentication type automatically based on the wireless
	station's capability and request. Furthermore, you can select Key
	Length and enter 10 & 26 Hexadecimal digits (any combination of
	0-9, a-f, A-F, zero key is not promoted) or 5 & 13 ASCII characters in
	the Encryption Key field.

	 WPA: WPA is a medium level encryption and is supported by most wireless devices and operating systems. WPA2: WPA2 is a high level encryption and is supported by most wireless
	devices and operating systems. WPA / WPA2 / WPA-Mixed: WPA Mixed Mode allows the use of both WPA and WPA2 at the same time.
Authentication Mode	Enterprise (RADIUS) When you select the authentication mode based on Enterprise (Radius Server), please enter the IP Address , Port , and Password of the Radius Server.
	Personal (Pre-Shared Key) When you select the other authentication mode based on Personal (Pre-Shared Key), please enter at least 8 ASCII characters (Passphrase) or 64 Hexadecimal characters. All of the Cipher Suites support TKIP and AES .
802.1x Authentication	Enable 802.1x authentication function, then please enter the IP Address , Port , and Password of the Radius Server.

5.5.4 Access Control

Choose menu "Wireless \rightarrow Access Control", you can choose to allow or deny the computer of specified MAC address to connect with the WNRT-633 on this page. After the configuration, please click the "Apply" button to save the settings.

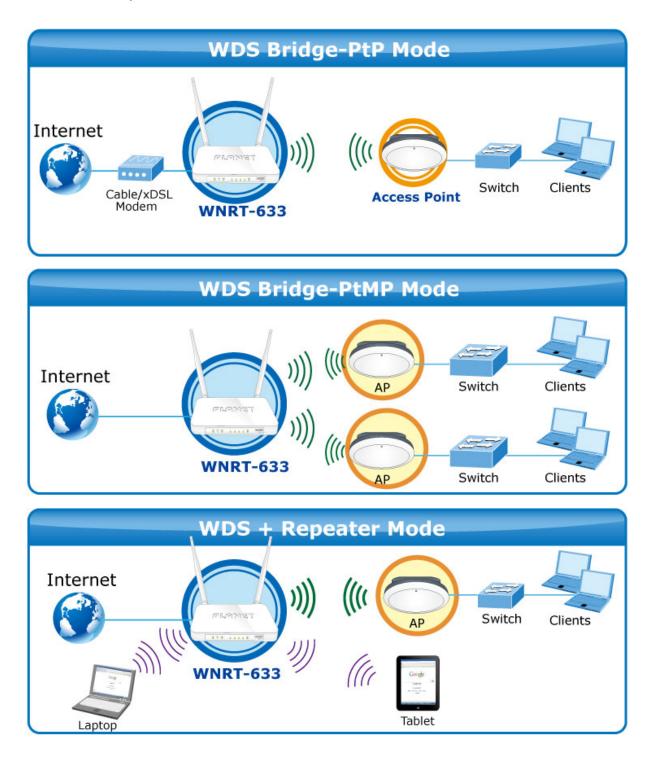


Figure 5-5-8 Wireless Access Control Setup screenshot

Object	Description
Wireless Access	You can choose to set the Allowed-List, Denied-List, or disable this
Control Mode	function.
MAC Address	Enter the MAC address you want to allow or deny to connect to the
	WNRT-633 in the field.
Comment	You can make some comment on each MAC address on the list.
Current Access Control	You can select some MAC address, and click the "Delete Selected"
List	button to delete it.

5.5.5 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.



Before configuring the WDS Setting page, you have to select the wireless mode to "WDS" on the **Wireless** -> **Basic** web page.

Basic	Advanced	Security	Access Control	WDS	Site Survey
Wire	less Basic Sett	ings			
mayic		cess Point. Her	ameters for wireless L re you may change wir parameters.		otion
D	isable Wireless I	AN Interface			Reset
Count	ry: TAIWA	N	*		
Band:	2.4 GH	lz (B+G+N) 🔽			
Mode:	WDS	~	Multiple AP		
Netwo Type:	Client	*			
SSID:	AP+W	DS		Add to P	rofile

Figure 5-5-9 WDS Settings

Choose menu "Wireless \rightarrow WDS Settings", and you can configure WDS to connect the WNRT-633 with another AP on this page. After the configuration, please click the "Apply" button to save the settings.

Basic	Advanced	Security	Access Control	WDS	Site Survey
WDS	Settings				
other the s	APs, like the Etl ame channel and	nernet does. T I set MAC addr	reless media to comr o do this, you must s ess of other APs whi hen enable the WDS	set these AP ch you want	s in
E	nable WDS				
MAC	Address:				
Data	Rate: Auto	~			
Comm	nent:				
	Set	Security S	now Statistics		
Curr	ent WDS AP Li	st:			
	MAC Address	Tx Rate	(Mbps) Comm	ient S	elect
00):30:4f:81:98:c1	. Aut	ο		
00):30:4f:11:22:33	Aut	o WDS	-3	
00):30:4f:22:33:44	- Aut	o WDS	-4	
00): 30: 4f: 33: 44: 55	a Aut	o WDS	-2	
Delet	e Selected De	lete All Re	set		

Figure 5-5-10 WDS Settings

Object	Description			
Enable WDS	Check the box to enable the WDS function. Please select $\ensuremath{\textbf{WDS}}$ or			
	AP+WDS in the Mode of Wireless Basic Settings before you enable			
	WDS on this page.			
MAC Address	You can enter the MAC address of the AP you want to connect with.			
Data Rate	Default is " Auto" .			
Comment	You can make some comment for each MAC address on the list.			
Set Security	Click the "Set Security" button, then configure the wireless security			
	parameters of the AP you want to connect via WDS.			
Show Statics	Click the "Show Statics" button to show the WDS AP.			
Current WDS AP List	You can select some MAC address of the AP, and click the "Delete			
	Selected" button to delete it.			

- WDS feature can only be implemented between 2 wireless devices that both support the WDS feature. Plus, SSID, channel, security settings and security key must be the same on both such devices.
- To encrypt your wireless network, see sections 5.5.3. Do remember to reboot the device after you save your wireless security settings; otherwise, the WDS feature may not function.

5.5.6 Site Survey

Note

Choose menu "Wireless \rightarrow 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.

Basic	Advar	nced	Security	Access	Contro	I WDS	Site	e Survey
Wirele	ss Site :	Survey	1.					
	found, yo I.		o scan the wire choose to conn					
S	SID		BSSID	Channel	Туре	Encrypt	Signal	
WNR	т-633	00:30	:4f:91:1c:4b	11 (B+G+N)	AP	WPA2- PSK	72	
and a star second	- 10-11- 7	8.9	80.00.75.40	8 (B+G+N)	AP	WPA2- PSK	64	
100 - 700 C	1 10 10 -	H H	i di Albani dan	11 (B+G)	AP	WEP	38	
		1000 100	100 TT 110 TT	1 (B+G)	AP	WPA-PSK	30	

5.5.7 WPS

WPS (Wi-Fi Protected Setup) is designed to ease setup of security Wi-Fi networks and subsequently network management. This Wireless Router supports WPS features for AP mode, AP+WDS mode, Infrastructure-Client mode, and the wireless root interface of Universal Repeater mode.

WPS (Wi-Fi Protected Setup) Quick & Easy Wireless Connection



Simply enter a PIN code or press the software PBC button or hardware WPS button (if any) and a secure wireless connection is established.

- PBC: If you find the WPS LED blinking for 2 minutes after you press the hardware WPS button on the device, it means that PBC encryption method is successfully enabled. And an authentication will be performed between your router and the WPS/PBC-enabled wireless client device during this time; if it succeeds, the wireless client device connects to your device, and the WPS LED turns off. Repeat steps mentioned above if you want to connect more wireless client devices to the device.
- PIN : To use this option, you must know the PIN code from the wireless client and enter it in corresponding field on your device while using the same PIN code on client side for such connection.

Choose menu "Wireless \rightarrow WPS", and you can configure the setting for WPS. After the configuration, please click the "Apply" button to save the settings.

Basic	Advanced	Security	Access Control	WDS	Site Survey	WPS		
Wi-Fi	Wi-Fi Protected Setup							
This pa Using 1 setting	This page allows you to change the setting for WPS (Wi-Fi Protected Setup). Using this feature could let your wireless client automically syncronize its setting and connect to the Access Point in a minute without any hassle. Disable WPS Reset							
WPS S	itatus:	Configured Reset to UnCon	OUnConfigured					
state:	ock-down unlocked IN Number:	Unlock 46728470						
	Push Button Start PBC							
STOP	WSC	Stop WSC						
Client	PIN Number:		Start PIN					
Currer	Current Key Info:							
Authe	ntication	Encryption	Кеу					
WPA2	PSK	AES	0222199518					

Figure 5-5-12 WPS (Wi-Fi Protected Setup)

The page includes the following fields:

Object	Description
Disable WPS	You can check the box to disable the WPS function.
WPS Status	Here you can check if the connection via WPS is established or not.
Self-PIN Number	It is the PIN number of the WNRT-633 here.
Push Button	Click the "Start PBC", and then activate WPS as well in the client
Configuration	device within 2 minutes.
Client PIN Number	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.



The WPS encryption can be implemented only between your Router and another WPS-capable device.

5.5.8 Schedule

Wireless Schedules will enable or disable your wireless access at a set time based on your predefined schedule. This feature is often used for restricting access to all users (such as children, employees, guests) during specific times of the day for parental control or security reasons.

Choose menu "Wireless \rightarrow Schedule", and you can configure the schedule rule of enabling wireless function. After the configuration, please click the "Apply" button to save the settings.

Basic	Advand	ced Security	Acces	ss Control	WDS	Site Survey			
Wirele	Wireless Schedule								
This pag to config	This page allows you setup the wireless schedule rule. Please do not forget Apply to configure system time before enable this feature.								
🔲 Ena	Enable Wireless Schedule								
Enable	Day	From		Т	o	Reset			
	Sun 💌	00 🔽 (hour) 🛛	(min)	00 🔽 (hour)	00 🗸 (min)				
	Sun 💌	00 🔽 (hour) 00 🕻	(min)	00 🔽 (hour)	00 🔽 (min)				
	Sun 🔽	00 🔽 (hour) 00 💽	(min)	00 🚩 (hour)	00 🔽 (min)				
	Sun 💌	00 🔽 (hour) 00 🖸	(min)	00 🔽 (hour)	00 🔽 (min)				
	Sun 💌	00 🔽 (hour) 00 💽	(min)	00 🔽 (hour)	00 🔽 (min)				
	Sun 💌	00 🔽 (hour) 00 🖻	(min)	00 🔽 (hour)	00 🔽 (min)				
	Sun 💌	00 🔽 (hour) 00 🕚	(min)	00 🔽 (hour)	00 🔽 (min)				
	Sun 💌	00 🔽 (hour) 00 💽	(min)	00 🔽 (hour)	00 🔽 (min)				
	Sun 💌	00 🔽 (hour) 00 🕻	(min)	00 🔽 (hour)	00 🔽 (min)				
	Sun 💌	00 🔽 (hour) 00 🛐	(min)	00 🔽 (hour)	00 🔽 (min)				

Figure 5-5-13 Wireless Schedule



When setting the Wireless Schedule, it is important to ensure that your **System Clock** settings have been configured. If they have not, your Wireless Schedule will not function correctly.

5.6 Service Setup

5.6.1 Port Forwarding

Choose menu "Service Setup \rightarrow 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" button to save the settings.

Port Forwarding	DMZ				
Port Forwarding Entries in this table services to a specifi necessary if you wis server on the prival IP Enable Port For IP Address: Protocol: Port Range: Comment:	allow you to au c machine behin sh to host some ce local network	d the NAT firew sort of server li	all. These setting ke a web server	gs are only or mail	Apply Reset
Current Port Fo	rwarding Tab	ole:			
Local IP Address	Protocol	Port Range	Comment	Select	
192.168.1.101	TCP+UDP	8888	Test		
192.168.1.102	UDP	8080	Web server		
Delete Selected	Delete All	Reset			

Figure 5-6-1 Port Forwarding

Object	Description
Enable Port Forwarding	Enable Port Forwarding function
IP Address	Add LAN IP address of specified host or server on the private local network
Protocol	Select the port number protocol type (TCP, UDP or both). If you are unsure, then leave it to the default both protocol
Port Range	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.
Comment	The description of this setting

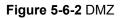
Check the "**Select**" box of which rule you want to delete, and then click the "**Delete Selected**" button to delete it.

5.6.2 DMZ

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

Choose menu "Service Setup \rightarrow 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" button to save the settings.

Port Forwarding DMZ	
DMZ A Demilitarized Zone is used to provide Internet services without sacrificing unauthorized access to its local private network. Typically, the DMZ host contains devices accessible to Internet traffic, such as Web (HTTP) servers, FTP servers, SMTP (e-mail) servers and DNS servers. Image: Enable DMZ DMZ Host IP Address: 192.168.1.200	Apply Reset



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.

5.7 Security Setup

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

Wizard	Security URL Filter MAC Filter IP Filter DoS				
Operation Mode	Security				
WAN Setup	Enable Ping Access on WAN Enable Web Server Access on WAN				
LAN Setup	Enable IPsec pass through on VPN connection				
Wireless Setup	Enable PPTP pass through on VPN connection				
Services Setup	Enable L2TP pass through on VPN connection				
Services Secup	Enable IPv6 pass through on VPN connection				
Security Setup					

Figure 5-7-1

5.7.1 Security

The Wireless router provides extensive firewall protection by restricting connection parameters to limit the risk of intrusion and defending against a wide array of common hacker attacks.

Security	URL Filter	MAC Filter	IP Filter	DoS			
Security							
🗌 Enab	le Ping Access o	on WAN				Apply	
🔲 Enab	le Web Server A	ccess on WAN					
🗹 Enab	Enable IPsec pass through on VPN connection						
🗹 Enab	Enable PPTP pass through on VPN connection						
🗹 Enab	le L2TP pass thi	ough on VPN co	nnection				
🔲 Enab	le IPv6 pass thr	ough on VPN cor	nnection				

Figure 5-7-2

Object	Description		
Enable IGMP Proxy	Check the box to enable the IGMP Proxy function.		
Enable Ping Access on WAN	Check the box to enable Ping access from the Internet Network.		
Enable Web Server Access	Check the box to enable the web server access of the		
on WAN	WNRT-633 from the Internet network.		
Enable IPsec pass through	Check the box to enable IPsec pass through function on VPN		
on VPN connection	connection.		
Enable PPTP pass through	Check the box to enable PPTP pass through function on VPN		
on VPN connection	connection.		
Enable L2TP pass through on	Check the box to enable L2TP pass through function on VPN		
VPN connection	connection.		

Enable IPv6 pass through on	Check the box to enable IPv6 pass through function on VPN
VPN connection	connection.

5.7.2 URL Filtering

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

Choose menu "Security Setup \rightarrow URL Filtering", and you can configure which URL addresses to be blocked. After the configuration, please click the "Apply" button to save the settings.

Recurity	URL Filter	MAC Filter	IP Filter	DoS					
Security	UKL FIILER	MAG FIILEF	IP FIILEF	005					
URL Filt	URL Filtering								
	r is used to deny RLs which contai			internet. B	lock Apply				
🗹 Ena	ble URL Filtering				Reset				
💿 deny	url address(blac	k list)							
🔾 allow	url address(whit	e list)							
URL Add	ress:								
Current	t Filter Table:								
	URL /	ddress		Select					
	9	ex							
	vio	ence							
Delete S	elected Delete	All Reset							

Figure 5-7-3 URL Filtering

The page includes the following fields:

Object	Description
Enable URL Filtering:	Check this box to enable URL Filter function.
IP Address:	The IP Address that you want to filter.
URL Address:	The URL Address that you want to filter.

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



If you wish to block www.facebook.com, simply type in "facebook" and the Wireless Router will block all websites with the text "facebook" in the URL.

5.7.3 MAC Filtering

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

Choose menu "Security Setup→ MAC Filter", and you can configure which computer of the specified MAC address to be restricted. After the configuration, please click the "Apply" button to save the settings.

Security	URL Filter	MAC Filter	IP Filter	DoS	
from you filters ca 	n this table are u r local network t n be helpful in se le MAC Filtering ress:	ised to restrict c to Internet throu ecuring or restric	gh the Gatewa ting your loca	ay. Use of such	Apply Reset
	Filter Table: MAC Address		Comment	Select	
Delete So	00:30:4f:aa:bb: elected Delete		Jack's NB		

Figure 5-7-4 MAC Filtering

The page includes the following fields:

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.

5.7.4 IP Filtering

IP Filtering is used to block internet or network access to **specific IP addresses** on your local network. The restricted user may still be able to login to the network but will not be able to access the internet. To begin blocking access to an IP address, enable IP Filtering and enter the IP address of the user you wish to block. Choose menu "Security Setup \rightarrow IP Filter", and you can configure which IP address and protocol to be restricted. After the configuration, please click the "Apply" button to save the settings.

Security	URL Filter	MAC Filter	IP Filter	DoS	
your loca be helpfu	this table are us I network to Inte I in securing or n Ile IP Filtering Idress:	ed to restrict cert rnet through the estricting your loc 22.168.1.201 Both V ack's iPhone	Gateway. Use o		Apply Reset
Current	Filter Table:				
192.1	IP Address L68.1.200	Protocol TCP+UDP	Comment Jack's PC	Select	
Delete Si	elected Delet	e All Reset			

Figure 5-7-5 IP Filtering

The page includes the following fields:

Object	Description
Enable IP Filtering	Check this box to enable IP Filter function
Local IP Address	Add LAN IP address 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, and then click the "**Delete Selected**" button to delete it.

5.7.5 Denial of Service (DoS)

The Wireless Router can prevent specific DoS attacks from entering your network. 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 "Security Setup \rightarrow DoS" to configure the settings of DoS attack prevention. After the configuration, please click the "Apply" button to save the settings.

Security	URL Filter	MAC Filt	er IP I	Filter	DoS	
Denial o	f Service					
hackers to	of-service" (DoS) prevent legitima le DoS Preventio	ite users of a	aracterized a service fro	by an ex om using	plicit attempt by that service.	Apply
🗖 wh	iole System Floo	d: SYN	0	Packet	ts/Second	
🗆 wh	iole System Floo	d: FIN	0	Packet	ts/Second	
🗖 wh	iole System Floo	d: UDP	0	Packet	ts/Second	
🗆 wh	iole System Floo	d: ICMP	0	Packet	ts/Second	
🗖 Per	-Source IP Floor	d: SYN	0	Packet	ts/Second	
🗖 Per	-Source IP Floor	: FIN	0	Packet	ts/Second	
🗖 Per	-Source IP Floor	d: UDP	0	Packet	ts/Second	
🗖 Per	-Source IP Floor	d: ICMP	0	Packet	ts/Second	
🗆 тс	P/UDP PortScan		Low 🚩 S	Sensitivi	ty	
	/IP Smurf					
_	Land					
	Spool TearDrop					
	qOfDeath					
	- P Scan					
🗖 тс	P SynWithData					
	P Bomb					
	P EchoChargen					
Select A	LL Clear ALI	_				
🗖 Ena	able Source IP Bl	ocking	0	Block tin	ne (sec)	

Figure 5-7-6 Denial of Service

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

5.8 Route Setup

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

5.8.1 Router Setup

A static route is a pre-determined pathway that network information must travel to reach a specific host or network.

Route Setup	RIP Setup				
Routing Setu)				
This page is used I Enable Stat		route entry.			Apply
IP Address:				F	Reset
Subnet Mask:					
Gateway:					
Metric:					
Interface:	LAN 💌]			
	Show Ro	oute Table			
Static Route T	able:				
Destination IP Address	Netmask	Gateway	/ Metric	Interface	Select
192.168.200.0	255.255.255.0) 192.168.1.:	253 1	LAN	
172.16.1.0	255.255.255.0) 172.16.0.2	53 1	WAN	
Delete Selected	Delete All	Reset			

Figure 5-8-1 Routing Setup

Object	Description
Enable Static Route	Click this box to enable static route.
IP Address	The network or host IP address desired to access.

Subnet Mask	The subnet mask of destination IP.
Gateway	The gateway is the router or host's IP address to which packet was sent. It must be the same network segment with the WAN or LAN port.
Show Routing Table	Clicking this button will show you all the routing table of the system.
Static Routing table	It only shows the static routing table and you can delete one or all.

5.8.2 RIP Setup

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

Route Setup	RIP Setup	
RIP1/RIP2	Setup	
This page is u	sed to setup dynamic routing protocol. /namic Route	Apply
NAT:	💿 Enabled 🛛 🔿 Disabled	Reset
Transmit:	◉ Disabled ○ RIP 1 ○ RIP 2	
Receive:	⊙ Disabled ○ RIP 1 ○ RIP 2	

Figure 5-8-2 RIP Setup

Object	Description
Enable Dynamic	Click this box to enable Dynamic Route.
Route	

5.9 QoS Setup

The **QoS** (**Quality of Service**) helps improve your network gaming performance by prioritizing applications. By default the bandwidth control are disabled and application priority is not classified automatically. In order to complete this settings, please follow the steps below.

- 1. Enable this function.
- 2. Enter the total speed or choose automatic mode.
- 3. Enter the IP address or MAC address user want to control.
- 4. Specify how to control this PC with this IP address or MAC address, including maximum or minimum bandwidth, priority and its up/down speed.

After the configuration, please click the "**Apply**" button to save the settings.

QoS		
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.		
🗹 Automatic Uplink Speed		
Manual Uplink Speed (Kbps): 512		
Automatic Downlink Speed		
Manual Downlink Speed (Kbps): 5	12	
QoS Rule Setting:		
Address Type:	● IP ○ MAC	
Local IP Address:	-	
MAC Address:		
Mode:	Guaranteed minimum bandwidth 💌	
Uplink Bandwidth (Kbps):		
Downlink Bandwidth (Kbps):		
Comment:		
Current QoS Rules Table:		
Local IP MAC Mode	Uplink Downlink andwidth Bandwidth	
Delete Selected Delete All	Reset	

Figure 5-9-1 QoS

The page includes the following fields:

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-633. Or enter the uplink data rate manually in the field below.
Automatic Downlink Speed	Check the box to adjust the downlink speed automatically by the WNRT-633. Or enter the downlink data rate manually in the field below.
QoS Rule Setting	To set the priority rule, you can appoint the computer by IP address or MAC address, and enter it in the correct field. Select minimum or maximum bandwidth, and then fill the uplink and downlink data rate into the field.

5.10 System

The System menu contains submenus of the general settings of the WNRT-633. Please refer to the following sections for the details.

	Time Zone	the sup dis references of	Davis (Land Davida	Deserves
Wizard	Time Zone	Upgrade Firmware	Save/Load Config	Passwor
Operation Mode	Time Zon	e Setting		
WAN Setup	You can maintain the system time by synchronizing with a public time server over the Internet.			time server
LAN Setup	Current Tim	e:	n 4 Day 29 Hr	16 Mn
Wireless Setup		22 Sec 33		
Services Setup	32	Copy Computer		
	Time Zone	Select : (GMT+08:00)Taip	iei	*
Security Setup				
Security Setup Router Setup	🗹 Enable	NTP client update		

Figure 5-10-1

5.10.1 Time Zone Setting

This section assists you in setting the Wireless Router's system time. You can either select to set the time and date manually or automatically obtain the GMT time from Internet.

Choose menu "System \rightarrow 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" button to save the settings.

Time Zone	Upgrade Firmware	Save/Load Config	Password	
Time Zone	e Setting			
You can mai over the Int		synchronizing with a public	time server Ap	ply
Current Time		on 4 Day 29 Hr 3	16 Mn Res	set
	Copy Compute	Time	Refr	resh
Time Zone	Select : (GMT+08:00)Ta	ipei	~	
Enable NTP client update				
🔲 Automa	Automatically Adjust Daylight Saving			
NTP server	:	- North America 🛛 👻		
	0	(Manual IP Setting])	

Figure 5-10-2 Time Zone Setting

The page includes the following fields:

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	Check to enable NTP update. Once this function is enabled, Router will
update	automatically update current time from NTP server.
NTP Server	User may select prefer NTP sever or input address of NTP server
	manually.



The configured time and date settings are lost when the Wireless Router is powered off.

5.10.2 Upgrade Firmware

Firmware upgrade is released periodically to improve the functionality of your device and also to add new features. If you run into a problem with a specific feature of the device, log on to our website <u>www.planet.com.tw</u> to download the latest firmware to update your device.

Choose menu "**System** → **Upgrade Firmware**" to upgrade the firmware of the WNRT-633. Select the new firmware file downloaded from the PLANET website, and then click "**Upload**" button to upgrade it.

Time Zone	Upgrade Firmware	Save/Load Config	Password
Upgrade Firm	ware		Unload
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.			n
Firmware Versior		24.06NG	Reset
Select File:		Browse	e

Figure 5-10-3 Upgrade Firmware

The page includes the following fields:

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



Do not disconnect the Wireless Router from your management PC (the PC you use to configure the device) or power off it during the upgrade process; otherwise, it may be permanently damaged. The Wireless Router will restart automatically when the upgrade process, which takes several minutes, completes.

5.10.3 Save/Reload Settings

Choose menu "System \rightarrow Save/Reload Settings" to back up or reset the configuration of the WNRT-633.

Once you have configured the Wireless Router the way you want it, you can save these settings to a configuration file on your local hard drive that can later be imported to your Wireless Router in case the device is restored to factory default settings.

Time Zone	Upgrade Firmware	Save/Load Config	Password
Save/Reload	Settings		
from the file which	you save current settings ch was saved previously. Bo ation to factory default.		
Save Settings t	o File: Save		
Load Settings fr File:	om	Browse Upl	oad
Reset Settings t Default:	to Reset		

Figure 5-10-4 Save/Reload Settings

The page includes the following fields:

Object	Description	
Save Settings to File	Click the "Save" button to back up the configuration of the	
	WNRT-633. And then save the "config.dat" in your computer.	
Load Settings from File	Select the configuration file of the WNRT-633, and then click the	
	"Upload" button to reload the configuration back into the WNRT-633.	
Reset Settings to	Click the "Reset" button to reset all settings of the WNRT-633 to	
Default	factory default.	
	Factory Default Settings:	
	User Name: admin	
	Password: admin	
	IP Address: 192.168.1.1	
	Subnet Mask: 255.255.255.0	
	SSID: WNRT-633	
	Wireless Security: None	



To activate your settings, you need to reboot the Wireless Router after you reset it.

5.10.4 Password

To ensure the Wireless Router's security, you will be asked for your password when you access the Wireless Router's Web-based Utility. The default user name and password is "admin". This page will allow you to add or modify the user name and passwords.

Choose menu "System \rightarrow Password" to change the user name and password which is inputted to access the web UI of the WNRT-633.

Time Zone	Upgrade Firmware	Save/Load Config	Password
Password Setup			
	l to set the account to acce r name and password will d	ss the web server of Acces lisable the protection.	s Apply
User Name:			Reset
New Password:			
Confirmed Passw	vord:		

Figure 5-10-5 Password Setup

The page includes the following fields:

Object	Description	
User Name	Enter user name.	
New Password	Input password for this user.	
Confirmed Password	Confirm password again.	



For the sake of security, it is highly recommended that you change default login password and user name.

5.11 Status

You can use this function to realize the instantaneous information of the Wireless Router. The Information displayed here may vary on different configurations.

5.11.1 Status

Choose menu "Status \rightarrow Status" to show the current status and some basic settings of the WNRT-633.

Status Statistics Log	9	
Access Point Status		
	status and some basic settings of the device.	
System		
Uptime	Oday:0h:2m:53s	
Firmware Version	v1.324.06NG	
Build Time	Mon Apr 29 15:25:44 CST 2013	
Wireless Configuration		
Mode	AP	
Band	2.4 GHz (B+G+N)	
SSID	WNRT-633	
Channel Number	11	
Encryption	WPA2	
BSSID	00:30:4f:81:98:c1	
Associated Clients	2	
Wireless Repeater Inter		
Mode	Infrastructure Client	
SSID	WNRT-633 RPTO	
Encryption	Disabled	
BSSID	00:00:00:00:00:00	
State	Scanning	
TCP/IP Configuration		
Attain IP Protocol	Fixed IP	
IP Address	192.168.1.1	
Subnet Mask	255.255.255.0	
Default Gateway	192.168.1.1	
DHCP Server	Enabled	
MAC Address	00:30:4f:81:98:c1	
WAN Configuration		
Attain IP Protocol	PPPoE Connected	
IP Address	118.168.238.58	
Subnet Mask	255.255.255.255	
Default Gateway	168.95.98.254	
MAC Address	00:30:4f:81:98:c9	

Figure 5-11-1 Status

5.11.2 Statistics

Choose menu "Status → Statistics" to show the packet counters for transmission and reception regarding wireless and Ethernet network.

Status	Statistics	Log				
Statistics						
This page show regarding to wi				sion and	reception	Refresh
Wireless LAN		Sent Pac	kets		9190	
WIREIESS LAN		Received	l Packets		280411	
Wireless Repeater LAN		Sent Pac	kets		99831	
		Received	l Packets		0	
		Sent Pac	kets		0	
Ethernet WAN		Received	l Packets		0	

Figure 5-11-2 Statistics

The page includes the following fields:

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

5.11.3 Log

Choose menu "**Management** \rightarrow **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" button to save the settings.

Status St	tatistics Log
System Log	
	used to set remote log server and show the system log. Apply
🗹 Enable Log	
🗹 system all	wireless DoS
🔽 Enable Re	mote Log Log Server IP Address: 192.168.1.222
Apr 29 15:25:	48 Realtek WLAN driver driver version 1.6
(2012-12-04)	
Apr 29 15:25:	48 Probing RTL8186 10/100 NIC-kenel stack size
order[3]	
Apr 29 15:25:	48 chip name: 8196C, chip revid: O
Apr 29 15:25:	48 NOT YET
Apr 29 15:25:	•
Apr 29 15:25:	
-	48 eth2 added. vid=9 Member port 0x8
Apr 29 15:25:	-
Apr 29 15:25:	
Apr 29 15:25:	
Apr 29 15:25:	
Apr 29 15:25:	48 Realtek FastPath:v1.03
L	
Refresh Cl	ear
Reliesi	

Figure 5-11-3 System Log

The page includes the following fields:

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

5.12Logout

Click "Logout" to log out the web UI of the WNRT-633. And then click the "Apply" button for sure.

Logout	
Logout	
This page is used to logout. Do you want to logout ?	Apply

Chapter 6. Quick Connection to a Wireless Network

In the following sections, the default SSID of the WNRT-633 is configured to "default".

6.1 Windows XP (Wireless Zero Configuration)

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



Figure 6-1-1

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

0	¹⁰ Wireless Network Connecti	on	×
	Network Tasks	Choose a wireless network	
	😴 Refresh network list	Click an item in the list below to connect to a <u>w</u> ireless network in range or to go information.	et more
	Set up a wireless network for a home or small office	((p))	• (UUs
	Related Tasks	((@))	
	Learn about wireless networking	Security-enabled wireless network ((@))	0000
	Change the order of preferred networks	Security-enabled wireless network	
	Change advanced settings	(()) default	line
		To connect to this network, click Connect. You might need to ente additional information.	r
		((p))	_n 💌
			Connect

Figure 6-1-2

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 5.5.3
- (3) Click the [Connect] button

Wireless Network Connection					
The network 'default' requires a network key (also called a WEP key or WPA key). A network key helps prevent unknown intruders from connecting to this network.					
Type the key, and then click (Connect.				
Network <u>k</u> ey:	•••••				
Confirm network key:	•••••				
	Cancel				

Figure 6-1-3

Step 5: Check if "Connected" is displayed

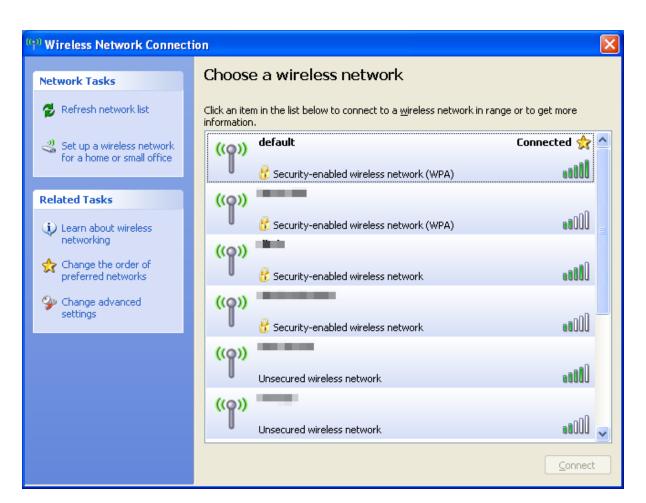


Figure 6-1-4



Some laptops are equipped with a "Wireless ON/OFF" switch for the internal wireless LAN. Make sure the hardware wireless switch is switch to "ON" position.

6.2 Windows 7 (WLAN AutoConfig)

WLAN AutoConfig service is built-in in Windows 7 that 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.





Figure 6-2-1

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

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

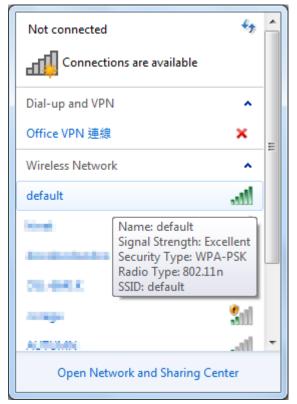


Figure 6-2-2

Not connected	^
Connections are available	
Dial-up and VPN	
Office VPN 連線 🗙 🗙	
Wireless Network	
default	
Connect automatically	
terstandard and	
and all	
or many all	
ana. al	Ŧ
Open Network and Sharing Center	

Figure 6-2-3



If you will be connecting to this Wireless Router in the future, check [Connect automatically].

Step 4: Enter the encryption key of the Wireless Router

- (1) The Connection to a Network box will appear
- (2) Enter the encryption key that is configured in section 5.5.3
- (3) Click the [OK] button

Connect to a Network	x
Type the network security key	
Security key:	
Hide characters	
You can also connect by pushing the button on the router.	
OK Car	ncel

Figure 6-2-4

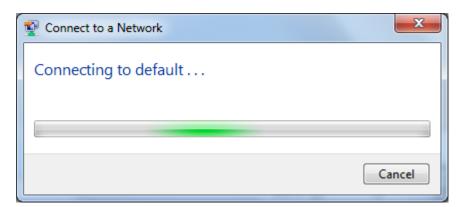


Figure 6-2-5

Step 5: Check if "Connected" is displayed



Figure 6-2-6

6.3 Mac OS X 10.x

In the following sections, the default SSID of the WNRT-633 is configured to "default".

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

The AirPort Network Connection menu will appear



Figure 6-3-1

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

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

	· · · ·	* 🤶	🔹 🔳 🕜 Q
	AirPort: On Turn AirPort Off		
	No network selected		
	default	ें • •	
1.	Anna Anna Anna Anna Anna Anna Anna Anna	• (i-	
	intenti di secondo di s		
	Total Annual State		
	Inclus		
	Join Other Network Create Network Open Network Preferences		

Figure 6-3-2

Step 4: Enter the encryption key of the Wireless Router

- (4) Enter the encryption key that is configured in section 5.5.3
- (1) Click the [OK] button

e.	The network "default" requires a WPA password.
	Password:
	Show password Remember this network
	Refiember tins network

Figure 6-3-3



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

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

	• • •	* 🛜	۰ 🖻		0	Q.
	AirPort: On Turn AirPort Off					
	√default	6 🛜		i Veni (*		
	10000	A 🔅				
	The second se	(1:				
		A 🛜				
and the second	THE OWNER	()				
1.1.1.1.1.1.1.1.1.1	termine and of				÷	
	the second se					
	COLUMN TRANS		02			
	and Million and					
		₽ 🛜	10			
	Join Other Network Create Network Open Network Preferences		•			
Sec. States and			8. (C.)			

Figure 6-3-4

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

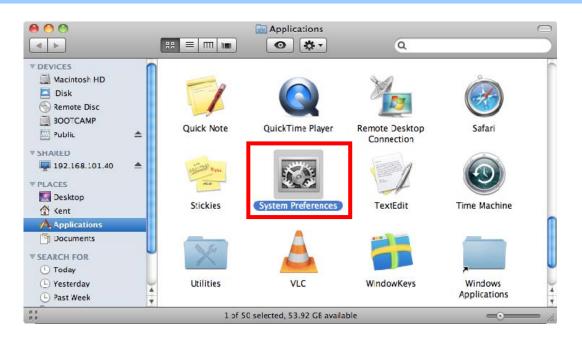


Figure 6-3-5

● ● ○ ▼ ▶ [:	Show All		System I	Preferences		Q	
Personal	-		_	ীয়ন্ত্ৰ			
Appearance	Desktop & Screen Saver	Dock	Exposé & Spaces	Language & Text	Security	Spotlight	
Hardware							
		8				i de la compañía de	0
CDs & DVDs	Displays	Energy Saver	Keyboard	Mouse	Trackpad	Print & Fax	Sound
Internet &	Wireless						
		8					
MobileMe	Network	Bluetooth	Sharing				
System							
11		**	(0)	-	2	0	\bigcirc
Accounts	Date & Time	Parental Controls	Software Update	Speech	Startup Disk	Time Machine	Universal Access
Other							

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

Figure 6-3-6

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 show "Not network selected".

00		Network			
Show All				Q	
	Locat	ion: Automatic		•	
USB Ethernet Not Connected	<u></u>	Status:	100 C	Turn AirPor	
802.11dapter Not Connected	<u></u>		AirPort is turned o a network.	n but is not connec	ted to
 AirPort On 		Network Name	' No network se	lected	
Home VPN Not Connected					(;; ();-
			default		
			And a state of the		
			in the second		₽ (\$
			Join Other Net Create Network		
+ - *-		Show AirPort statu	s in menu <mark>b</mark> ar	Advanc	ed) (?

Figure 6-3-7

6.4 iPhone / iPod Touch / iPad

In the following sections, the default SSID of the WNRT-633 is configured to "default".

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



Figure 6-4-1

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 show "Not Connected".

iPad	10:35 AM	@ 100% 🔳
Settings	General	
Airplane Mode OFF		
Wi-Fi Not Connected	About	>
Notifications On	Usage	>
Carrier	Sounds	>
😰 Cellular Data		
🙀 Brightness & Wallpaper	Network	>
Picture Frame	Bluetooth	Off >
General	Location Services	On >
Mail, Contacts, Calendars	Spotlight Search	>
🛃 Safari		

Figure 6-4-2

iPad	10:35 AM	🕒 100% 📼
Settings	General Net	work
Airplane Mode OFF		
SWI-FI Not Connected	VPN	Not Connected >
Notifications On	Wi-Fi	Not Connected >
Carrier		
Cellular Data		
🙀 Brightness & Wallpaper		
Picture Frame		
General		
Mail, Contacts, Calendars		
Safari		



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]

iPad	11:23 PM	🕒 76% 📼
Settings	Network Wi-Fi Networks	3
Airplane Mode OFF		
SWI-FI Not Connected	Wi-Fi	ON
Notifications On	Choose a Network	
Location Services On	default	₽ 🌫 📀
🕎 Cellular Data	Other	>
🙀 Brightness & Wallpaper	Ask to Join Networks	ON
Picture Frame	Known networks will be joined auto known networks are available, you	
Seneral	before joining a new netw	



Step 4: Enter the encryption key of the Wireless Router

- (1) The password input screen will be displayed
- (2) Enter the encryption key that is configured in section 4.4.3
- (3) Tap the [Join] button

iPad 중	11:20 PM	@ 76% ■
Settings	Network Wi-Fi Net	tworks
Airplane Mode		
SWI-FI CA8-4	Wi-Fi	ON
Notifications On	Choose a Network	
Location	✓ CA8-4	₽ 중 📀
E Cellular Cancel	inter the password for "default" Enter Password	₽ ∻ (>
	Enter Password	>
Brightne Password	••••••	
Picture I		
General		y. If no asked
Mail, Co		
Safari		_
iPod		
Video		
Photos		
Notes		_
Store		
Apps		_
1 2 3 4	5 6 7 8	9 0 🛛
- / : ;	()\$8	& @ Join
#+= undo .	, ? ! ,	" #+=
ABC		ABC

Figure 6-4-5

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

iPad	11:25 PM	@ 75% 🖬
Settings	Network Wi-Fi Networks	
Airplane Mode OFF		
SWI-FI default	Wi-Fi	ON
Notifications On	Choose a Network	
Location Services On	✓ default	₽ 🗢 📀
🛞 Cellular Data	Other	>
🙀 Brightness & Wallpaper	Ask to Join Networks	ON
Picture Frame	Known networks will be joined automatica known networks are available, you will b	
General	before joining a new network.	0 20/00

Figure 6-4-6

Appendix A: Troubleshooting

If you find the router is working improperly or stop responding to you, please read this troubleshooting first before contacting the dealer for help,. Some problems can be solved by yourself within a very short period of time.

Malfunction	Solution			
The WNRT-633 is not	Please check the connection of power cord and network			
responding to me when I want	cable of the WNRT-633. All cords and cables should be			
to access it via web browser	correctly and firmly inserted to the device.			
	If all LEDs on the WNRT-633 are off, please check the			
	status of power adapter, and make sure it is correctly			
	powered.			
	You must configure your PC to the same IP address section			
	as that of the WNRT-633.			
	Are you using MAC or IP address filter? Try to connect the			
	WNRT-633 by another computer and see if it works; if not,			
	please restore the WNRT-633 to factory default settings			
	(Press "reset" button for over 10 seconds).			
	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.			
	If you just did firmware upgrade and this happens, contact			
	the dealer for help.			
	a. If all the above solutions don't work, contact the deale			
	for help.			
Unable to get connected with	a. Go to "Management \rightarrow Status" submenu, and check the			
the Internet	WAN configuration status.			
	Please be patient, sometimes Internet is just that slow.			
	 b. If you connect your computer to the Internet directly before, try to do that again. And check if you can get 			
	connected to the Internet with your computer directly			
	via the device provided by your local Internet service			
	provider.			
	c. Check the WAN access type (Static IP / Dynamic IP /			
	PPPoE / PPTP / L2TP), user name, password, and the			
	other parameters provided by your local ISP again.d. Call your Internet service provider and check if there is			
	something wrong with their service.			
	e. If you just can't connect to one or more website, but you			
	can still use other internet services, please check URL			
	filter in the web UI.			
	f. Reset the WNRT-633 to the factory default settings and			

try again later. g. Reset the device provided by your Internet serve provider as well. h. Try to use IP address instead of host name. If you of access a remote server by an IP address but not by host name, please check the DNS setting. Unable to be found by the wireless clients a. Check if the "Broadcast SSID" is disabled. b. Are you too far from the WNRT-633? Try to get close Disperse remember that you have to enter COID to method.
provider as well. h. Try to use IP address instead of host name. If you of access a remote server by an IP address but not by host name, please check the DNS setting. Unable to be found by the wireless clients a. Check if the "Broadcast SSID" is disabled. b. Are you too far from the WNRT-633? Try to get close
h.Try to use IP address instead of host name. If you of access a remote server by an IP address but not by host name, please check the DNS setting.Unable to be found by the wireless clientsa.Check if the "Broadcast SSID" is disabled. b.b.Are you too far from the WNRT-633? Try to get close
access a remote server by an IP address but not by host name, please check the DNS setting. Unable to be found by the wireless clients a. Check if the "Broadcast SSID" is disabled. b. Are you too far from the WNRT-633? Try to get close
host name, please check the DNS setting.Unable to be found by the wireless clientsa. Check if the "Broadcast SSID" is disabled. b. Are you too far from the WNRT-633? Try to get close
Unable to be found by the wireless clientsa. Check if the "Broadcast SSID" is disabled. b. Are you too far from the WNRT-633? Try to get close
wireless clients b. Are you too far from the WNRT-633? Try to get close
c. Please remember that you have to enter SSID to yo
wireless client device manually, if SSID broadcast
disabled.
File download is very slowa. Are you using QoS function? Please disable it and
or breaks frequently again.
Please be patient, sometime Internet is just that slow.
b. Reset the WNRT-633 to the factory default settings a
see if it is better after that.
c. Try to know what other computers are doing in ye
local area network. If someone is transferring big fil
other people will think Internet is really slow.
d. If this never happens before, call your Internet serv
provider to check if there is something wrong with the
network.
Unable to login the web a. Make sure you are connecting to the correct IP addre
management UI: password is of the WNRT-633.
wrong b. Password is case-sensitive. Make sure the "Caps Lo
light is not illuminated.
c. If you really forget the password, please do hardwa
reset.
The device is getting hot. a. This is not a malfunction if you can keep your hand the case of the WNRT-633.
b. If you smell something wrong or see the smoke com
out from the WNRT-633 or power adapter, plea
disconnect the device and power adapter from pow
(make sure it's safe before you're doing this!), and o
your dealer for help.
The date and time of all event a. Adjust the internal clock of the WNRT-633.
logs are wrong

Appendix B: Hardware Specifications

Product	WNRT-633 300Mbps 802.11n Wireless Gigabit Router				
Hardware Specificatior					
	WAN	1 x 10/100/1000Mbps Auto MDI/MDI-X RJ45 port			
Interface	LAN	4 x 10/100/1000Mbps Auto MDI/MDI-X RJ45 ports			
internatio	Wireless	2 x detachable RP-SMA Connectors			
	Gain:	2 x 5dBi antennas			
Antenna	Orientation:	Omni-directional			
WPS / Reset Button	Reset / WPS button at rear panel Press for about 7 seconds to reset the device to factory default.				
WF3/ Reset Button	 Press for about 7 seconds to reset the device to factory default. Press for 1 second to activate WPS function. 				
LED Indicators		WLAN, WAN/LAN with green light			
Material	Plastic	_			
Dimensions		7 mm (without antenna)			
(W x D x H)		7 mm (with antenna)			
Weight	212g				
Power Adapter		0~240V AC (50/60Hz)			
	DC Output: 12	2V, 1A			
Wireless Interface Spe					
Standard		vith IEEE 802.11b/g/n			
Frequency Band	2.4~2.4835GHz				
Extend Frequency Modulation Type	DSSS DBPSK, DQPSK, QPSK, CCK and OFDM (BPSK/QPSK/16-QAM/ 64-QAM)				
	802.11n(40MHz):270/243/216/162/108/81/54/27Mbps				
Data Transmission	135/121.5/108/81/54/40.5/27/13.5Mbps (Dynamic)				
Data Transmission Rates					
Nates	65/58.5/52/39/26/19.5/13/6.5Mbps (Dynamic) 802.11g:54/48/36/24/18/12/9/6Mbps (Dynamic)				
	802.11g:54/48/36/24/18/12/9/6Mbps (Dynamic) 802.11b:11/5.5/2/1Mbps (Dynamic)				
Tranamiasian					
Transmission Distance	Indoor up to 1	300m (it is limited to the environment)			
Distance					
Channel	America/ FCC: 2.412~2.462GHz (11 Channels) Europe/ ETSI: 2.412~2.472GHz (13 Channels)				
	Japan/ TELEC: 2.412~2.484GHz (14 Channels)				
Max. RF Power	20 dBm max.				
	270M: -68dBm@10% PER				
	130M: -68dBm@10% PER				
Receive Sensitivity	54M: -68dBm@10% PER				
	11M: -85dBm@8% PER				
	Gateway	y(default)			
Operation Mode	Bridge				
	WSP				
	■ AP	Repeater (WDS+AP)			
Wireless Mode		Universal Repeater			
	■ WDS (AP+Client)				

	WEP (64/128-bit) encryption security						
Encryption Security	WPA-Enterprise / WPA2-Enterprise (TKIP/AES)						
	WPA-Personal / WPA2-Personal (TKIP/AES)						
	802.1x Authentication						
	Provides wireless LAN ACL (Access Control List) filtering						
Wireless Security	Wireless MAC address filtering						
wheless Security	Supports WPS (Wi-Fi Protected Setup)						
	Enables/Disables SSID Broadcast						
	WMM(Wi-Fi Multimedia): 802.11e Wireless QoS						
Wireless Advanced	IAPP(Inter Access Point Protocol): 802.11f Wireless Roaming						
	Provides Wireless Statistics						
Router Features							
	Shares data and Internet access for users, supporting the following internet						
	accesses:						
	PPPoE						
Internet Connection	Dynamic IP						
Туре	Static IP						
	■ PPTP						
	L2TP						
	NAT firewall with SPI (Stateful Packet Inspection)						
	Built-in NAT server supporting Port Forwarding, and DMZ						
Firewall	Built-in firewall with IP address/ MAC address/ Port/ URL filtering						
	Supports ICMP-FLOOD, UDP-FLOOD, TCP-SYN-FLOOD filter, DoS						
	protection						
Routing Protocol	Static / Dynamic (RIP1 and 2) Routing						
VPN Pass-through	PPTP, L2TP, IPSec, IPv6						
	Built-in DHCP server supporting static IP address distributing						
	Supports UPnP, Dynamic DNS						
LAN	Supports IGMP Proxy						
	Supports 802.1d STP (Spanning Tree)						
	IP / MAC-based Bandwidth Control						
	Web-based (HTTP) management interface						
	SNTP time synchronize						
System Management	Easy firmware upgrade						
	System Log supports Remote Log						
Standards Conformanc							
	IEEE 802.11n (2T2R, up to 300Mbps)						
	IEEE 802.11g						
	IEEE 802.11b						
IEEE Standards	IEEE 802.11i						
	IEEE 802.111 IEEE 802.3 10Base-T						
	IEEE 802.3u 100Base-TX						
	IEEE 802.3x Flow Control						
Other Protocols and							
Standards	CSMA/CA, CSMA/CD, TCP/IP, DHCP, ICMP, NAT, PPPoE, SNTP						
Environment							
Townset	Operating: 0 ~ 40 degrees C						
Temperature	Storage: -40 ~ 70 degrees C						
	Operating: 10 ~ 90% (Non-Condensing)						
Humidity	Storage: 5 ~ 90% (Non-Condensing)						

Appendix C: Planet Smart Discovery Utility

To easily list the WNRT-633 in your Ethernet environment, the Planet Smart Discovery Utility from user's manual CD-ROM is an ideal solution.

The following installation instructions guide you to running the Planet Smart Discovery Utility.

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

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



Step 3: Press **"Refresh"** button for current connected devices in the discovery list as shown in the following screen:

)	PLANET Smart 1	Discovery Lite	i.						
Fil	e <u>O</u> ption <u>H</u> elp								
			Ú Refre	sh	🖹 Exit			9	PLANET Networking & Communication
Ĩ	MAC Address	Device Name	Version	DevicelP	NewPassword	IP Address	NetMask	Gateway	Description
1	00-30-4F-67-4E-96	GSW-2404SF	v2.1b080523b	10.1.1.233		10.1.1.233	255.255.254.0	10.1.1.233	GSW-2404SF
2	00-30-4F-63-54-5C	GSW-2404SF	Ver2.0b080103t	10.1.1.232		10.1.1.232	255.255.254.0	10.1.1.254	GSW-2404SF
3	00-30-4F-81-96-C1	WNRT-633	v1.324.06NG	192.168.1.1		192.168.1.1	255.255.255.0	192.168.1.1	WNRT-633
	-								
	Select Adap	ter: 192.168.1	1.11 (00:30:4F:9E:	:87:24)		•	Control Pac	cket Force Bro	adcast
			adata Davias	Lindete Mul	NG L Landa		Connect to	Device	
			pdate Device	Update Mu	lti Upda			Device	
De	vice : WNRT-633 (0	00-30-4F-81-96-	C1) Get I	Device Informat	ion done.				

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



The fields in white background can be modified directly, and then you can apply the new setting by clicking the "**Update Device**" button.

Appendix D: Glossary

- 802.11n 802.11n builds upon previous 802.11 standards by adding MIMO (multiple-input multiple-output). MIMO uses multiple transmitter and receiver antennas to allow for increased data throughput via spatial multiplexing and increased range by exploiting the spatial diversity, perhaps through coding schemes like Alamouti coding. The Enhanced Wireless Consortium (EWC) [3] was formed to help accelerate the IEEE 802.11n development process and promote a technology specification for interoperability of next-generation wireless local area networking (WLAN) products.
- 802.11b The 802.11b standard specifies a wireless networking at 11 Mbps using direct-sequence spread-spectrum (DSSS) technology and operating in the unlicensed radio spectrum at 2.4GHz, and WEP encryption for security. 802.11b networks are also referred to as Wi-Fi networks.
- 802.11g specification for wireless networking at 54 Mbps using direct-sequence spread-spectrum (DSSS) technology, using OFDM modulation and operating in the unlicensed radio spectrum at 2.4GHz, and backward compatibility with IEEE 802.11b devices, and WEP encryption for security.
- DDNS (Dynamic Domain Name System) The capability of assigning a fixed host and domain name to a dynamic Internet IP Address.
- DHCP (Dynamic Host Configuration Protocol) A protocol that automatically configure the TCP/IP parameters for the all the PC(s) that are connected to a DHCP server.
- DMZ (Demilitarized Zone) A Demilitarized Zone allows one local host to be exposed to the Internet for a special-purpose service such as Internet gaming or videoconferencing.
- DNS (Domain Name System) An Internet Service that translates the names of websites into IP addresses.
- > **Domain Name -** A descriptive name for an address or group of addresses on the Internet.
- DSL (Digital Subscriber Line) A technology that allows data to be sent or received over existing traditional phone lines.
- > ISP (Internet Service Provider) A company that provides access to the Internet.
- MTU (Maximum Transmission Unit) The size in bytes of the largest packet that can be transmitted.
- NAT (Network Address Translation) NAT technology translates IP addresses of a local area network to a different IP address for the Internet.
- PPPoE (Point to Point Protocol over Ethernet) PPPoE is a protocol for connecting remote hosts to the Internet over an always-on connection by simulating a dial-up connection.
- > SSID A Service Set Identification is a thirty-two character (maximum) alphanumeric key

identifying a wireless local area network. For the wireless devices in a network to communicate with each other, all devices must be configured with the same SSID. This is typically the configuration parameter for a wireless PC card. It corresponds to the ESSID in the wireless Access Point and to the wireless network name.

- WEP (Wired Equivalent Privacy) A data privacy mechanism based on a 64-bit or 128-bit or 152-bit shared key algorithm, as described in the IEEE 802.11 standard.
- Wi-Fi A trade name for the 802.11b wireless networking standard, given by the Wireless Ethernet Compatibility Alliance (WECA, see http://www.wi-fi.net), an industry standards group promoting interoperability among 802.11b devices.
 - WLAN (Wireless Local Area Network) A group of computers and associated devices communicate with each other wirelessly, which network serving users are limited in a local area.



EC Declaration of Conformity

For the following equipment:

*Type of Product:	300Mbps 802.11n Wireless Gigabit Broadband Router
*Model Number:	WNRT-633

* 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 V2.1.1	(2009-05)
EN 301 489-1 V1.9.2	(2011-09)
EN 55022	(2010)
EN 61000-3-2	(2006 + A1:2009 + A2:2009)
EN 61000-3-3	(2008)
EN 55024	(2010)
EN 61000-4-2	(2008)
EN 61000-4-3	(2010)
EN 61000-4-4	(2004 + A1:2010)
EN 61000-4-5	(2005)
EN 61000-4-6	(2008)
EN 61000-4-8	(2009)
EN 61000-4-11	(2004)
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 <u>Kent Kang</u>

Position / Title : <u>Product Manager</u>

Taiwan

17st June, 2013

Legal Signature

Place

Date

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

Full version of our declaration and detailed regulatory information can be found at planet.com.tw

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