

# **3G** / 802.11n Wireless Portable Router

**WNRT-300G**



# Outline

- ◆ **Product Overview**
- ◆ **Product Features**
- ◆ **Product Applications**
- ◆ **Operation Mode**
- ◆ **Web UI**
- ◆ **Product Comparison**
- ◆ **Appendix**



# Internet Access Equipments and Application



Tablet /  
Smart Phone

Tablet

Tablet

NetBook

iPad

iPod  
Touch

Game  
Console

Notebook

# Product Overview

◆ **Dimensions**

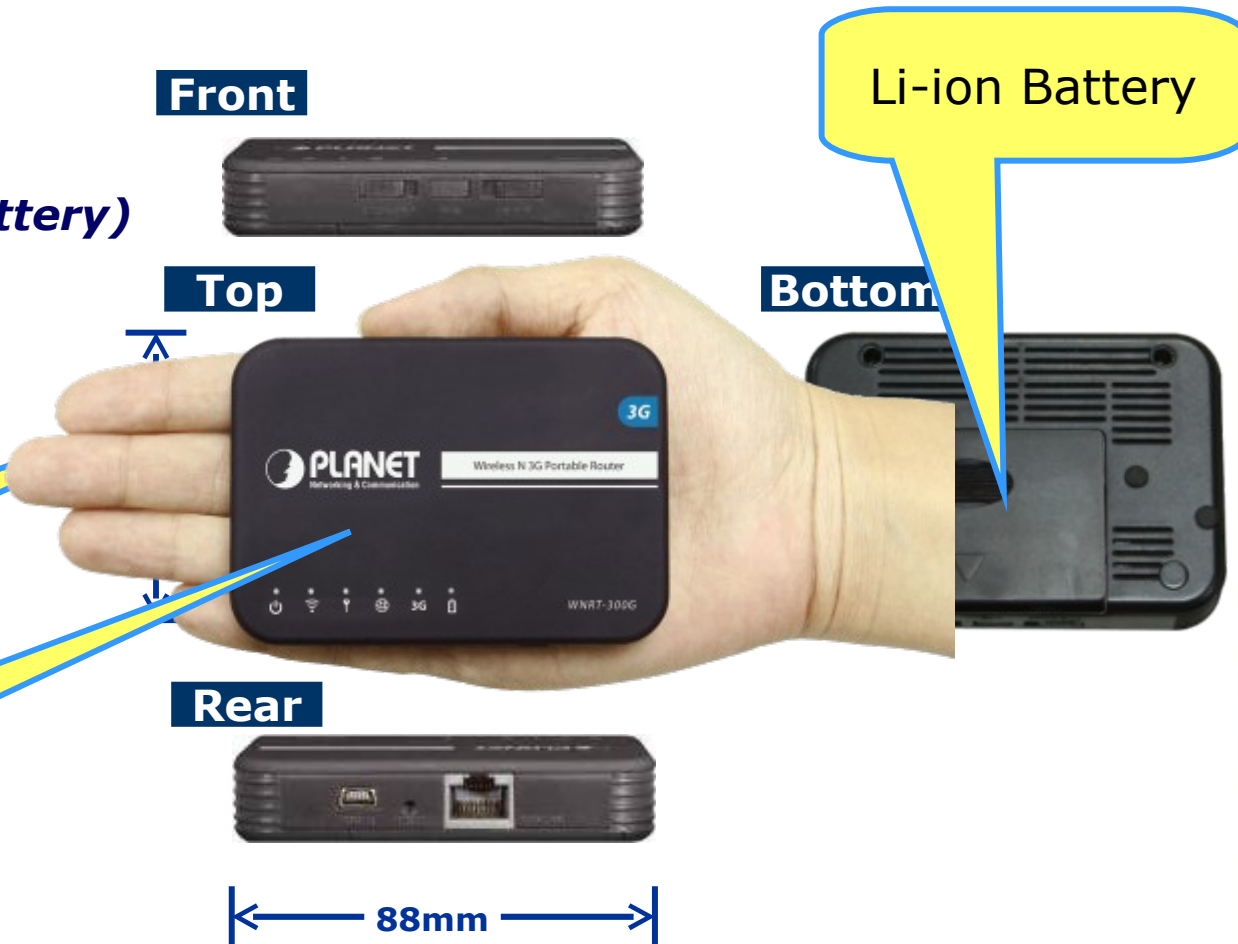
**88 x 62 x 18 mm**

◆ **Weight**

**58g (80g with battery)**

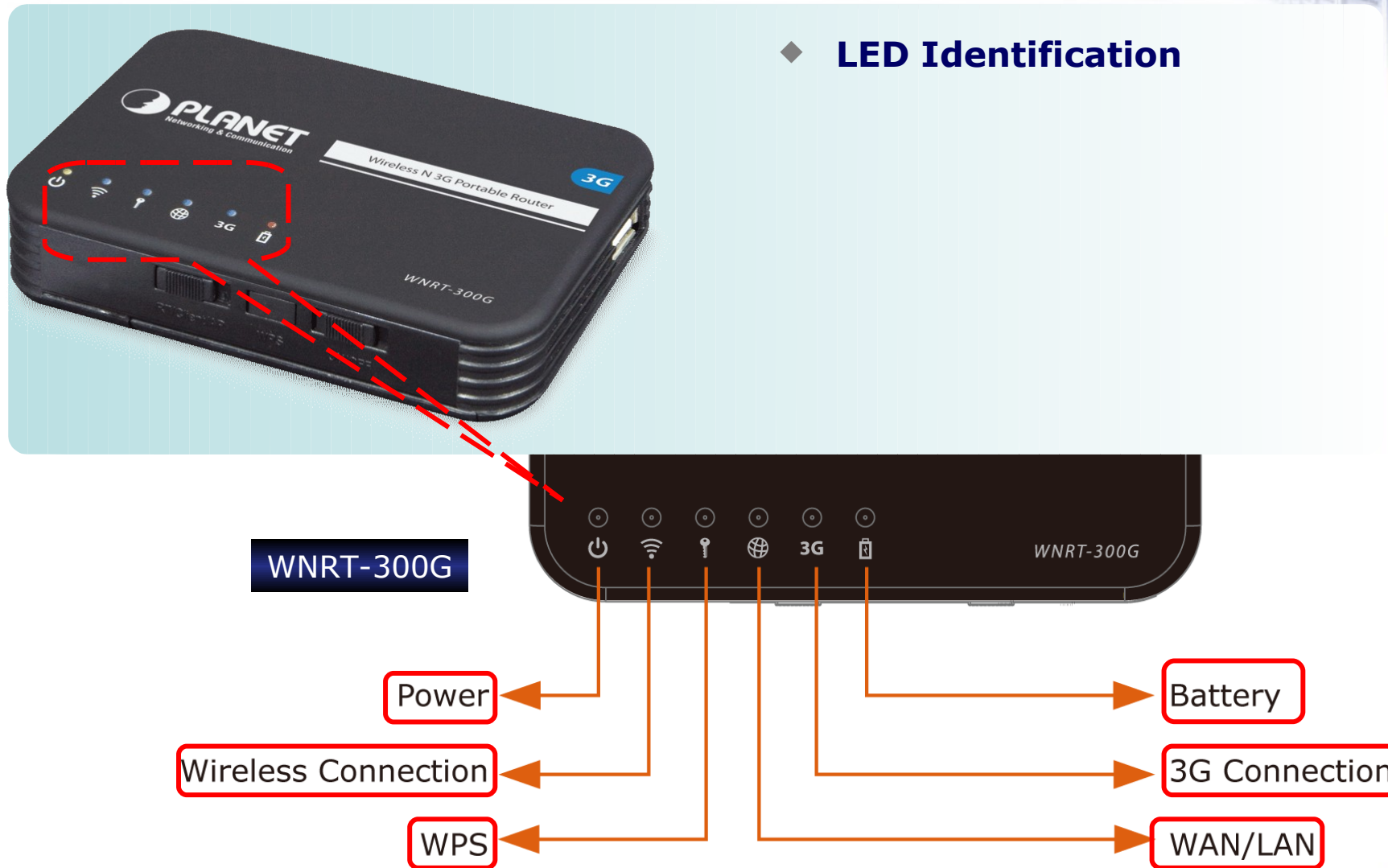
◆ **Power**

**5V DC, 1A**



# Product Overview

## ◆ LED Identification



# Product Overview

## ◆ Front Panel



The Switch of  
Router, AP and Client  
Modes

WPS Button

Power Switch

## ◆ Rear Panel

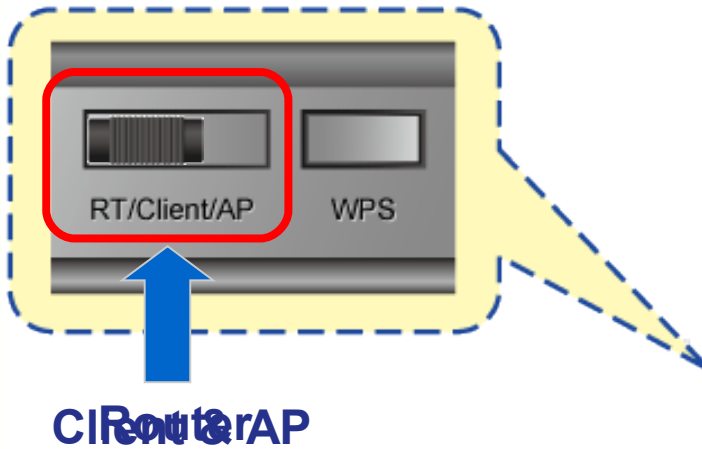


Power Connector  
5V DC Input

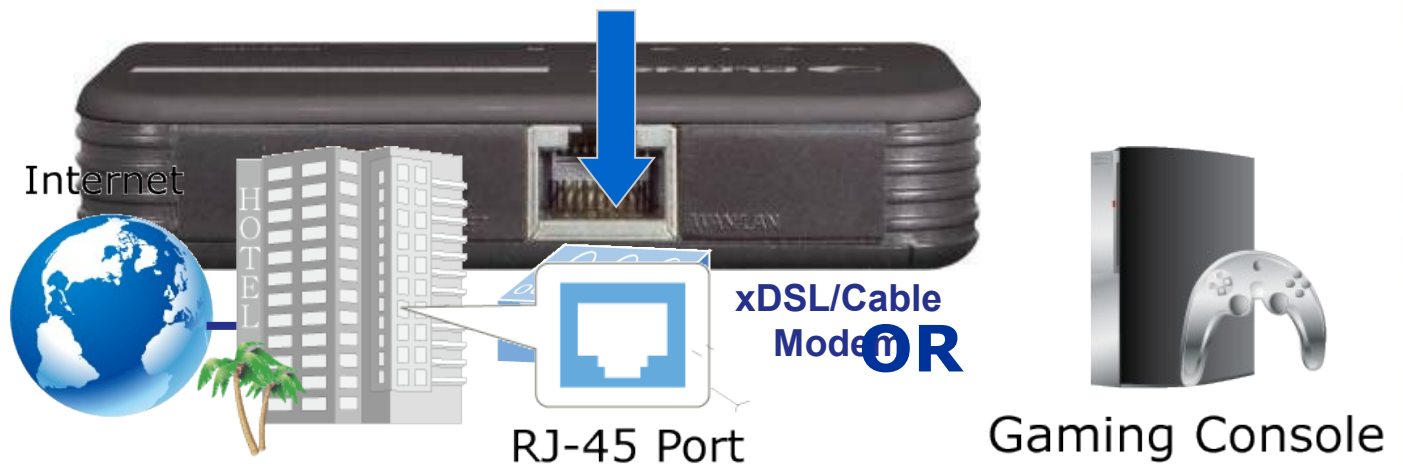
Reset Button

10/100Mbps  
WAN/LAN Port

# Product Overview



RJ-45 Port  
LAN



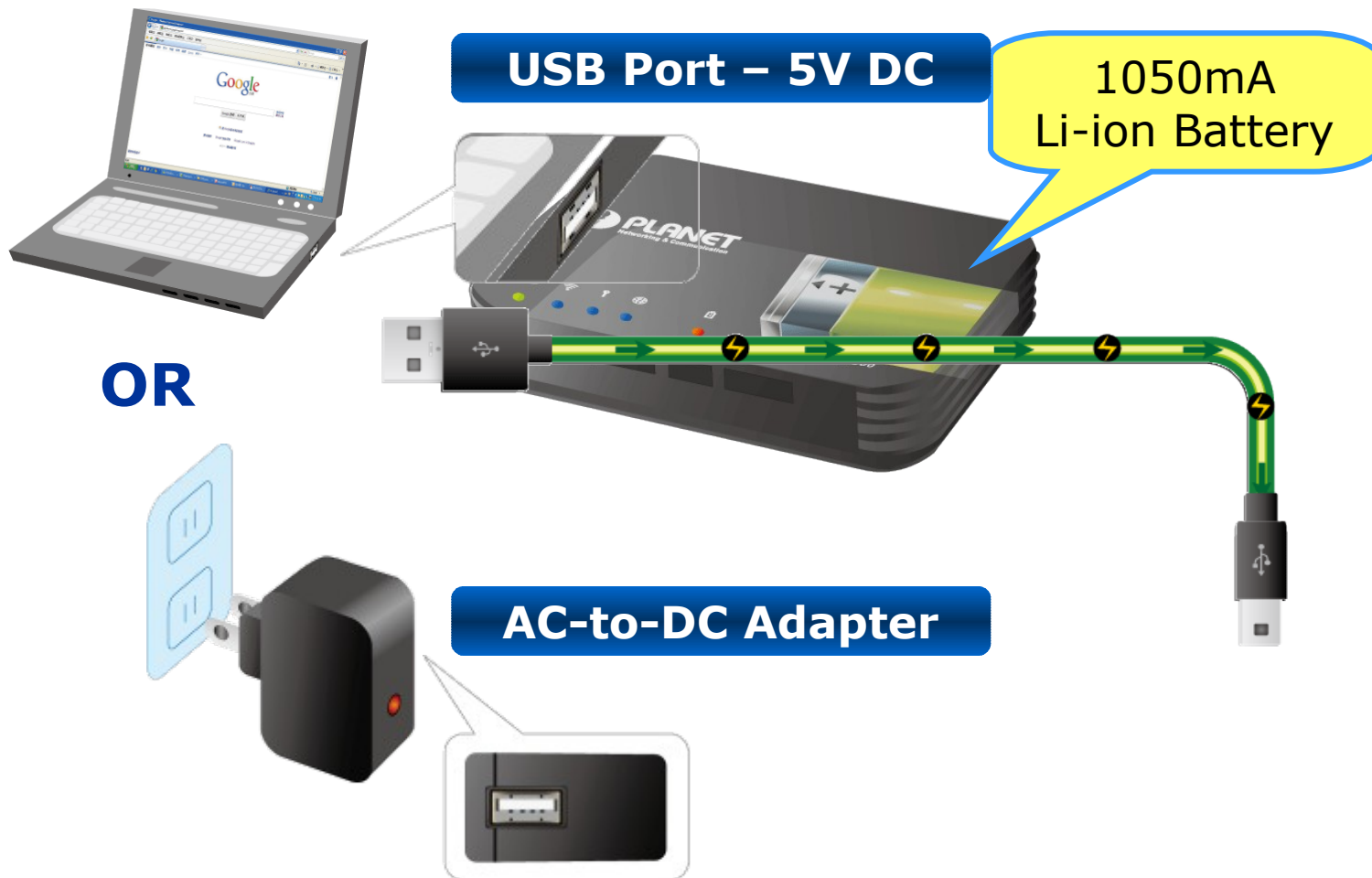
# Product Overview

- ◆ **3G / 3.5G / 3.75 network connecting capability**



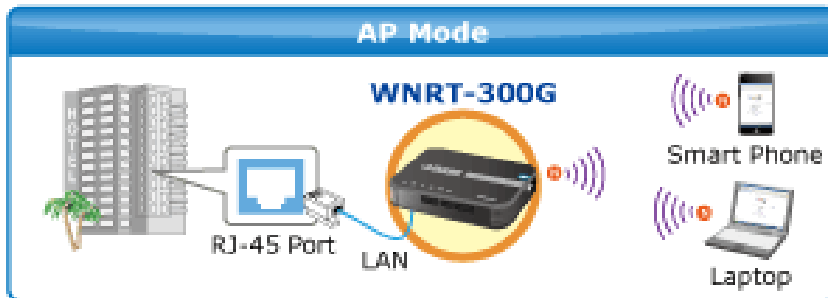
# Product Overview

## ◆ Power Input for WNRT-300G



# Product Applications

- ◆ **Various applications in your network environment**



# 3G Introduce / Benefit

## ◆ What is 3G

- ✓ 3G is the third generation of telecommunication mobile telephony services.
- ✓ Services include wide-area wireless voice telephony, **video calls** and broadband wireless data
- ✓ Data transmission capabilities able to deliver data rates up to **14.4 Mbps** on the downlink and **5.8 Mbps** on the uplink.
- ✓ 3.5G: Improve the speed of 3G

## ◆ The Benefit of 3G

- ✓ Wireless Mobility connection Always-On
- ✓ Save wired ADSL cost
- ✓ Providing high-end services to customers, which are voice data and video enabled.



# Product Features

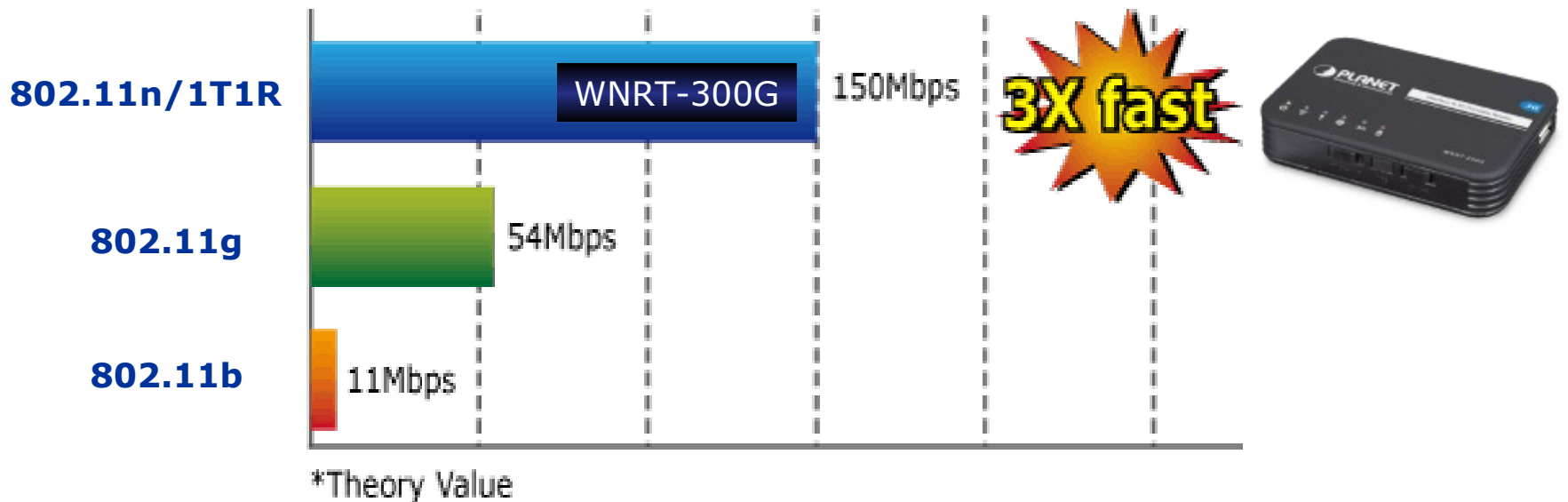
## ◆ Hardware

- ✓ **Compact and stylish design**
- ✓ **Built-in Nokia compatible Li-ion Battery**
  - **~5hrs** operating time
- ✓ **802.11n wireless, internal 2dBi antenna**
- ✓ **Hardware **Operation mode switch****
- ✓ **Zero configured **WPS** button**

# Product Features

## ◆ Industrial Compliant Wireless LAN & LAN

- ✓ Compliant with IEEE 802.11n Wireless Technology
- ✓ Data rate up to 150Mbps
- ✓ Backward Compatible with 802.11b/g Standard
- ✓ LAN/WAN: 10/100Mbps, Auto MDI/MDI-X Supported



# Product Features

- ◆ **Dual Fixed-Network Broadband Interfaces**
  - ✓ **3G/3.75G Mobile Internet Connection**
    - Compatible with UMTS / HSPA / EVDO Mobile Network
  - ✓ **WAN types**
    - Dynamic IP
    - Static IP
    - PPPoE
    - L2TP
    - PPTP
- ◆ **Supports Dynamic & Static Routing, IP/MAC-Based Bandwidth Control, 802.1d STP, IGMP Proxy**
- ◆ **Wireless Network Range Extender**
  - ✓ **Supports WMM, QoS, IAPP**

# Product Features

## ◆ Secure Network Connection

- ✓ Supports **Wi-Fi Protected Setup (WPS)**
- ✓ **Advanced security:**
  - 64/128-bit WEP
  - WPA-Enterprise / WPA2-Enterprise
  - WPA-PSK / WPA2-PSK (TKIP/AES encryption)
  - 802.1x Authentication
- ✓ Supports **NAT firewall with Port/IP/MAC/URL Filtering, DoS attack protection**
- ✓ Supports **802.1Q VLAN**

## Product Features – WPS Easy Setup

### ◆ WPS (Wi-Fi Protected Setup)

– Quick and Easy Wireless Connection

#### ✓ STEP.1

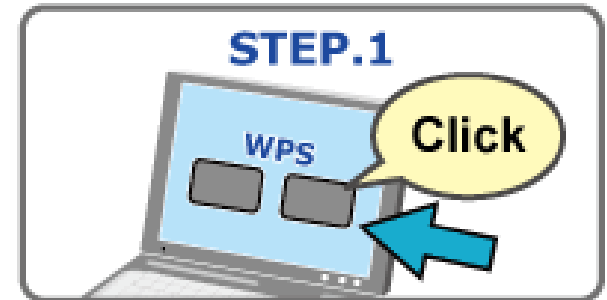
In the Wireless Client, click the WPS Software Button from the Web UI

#### ✓ STEP.2

In the AP, push the WPS Hardware Button from the front panel within 2 minutes

#### ✓ STEP.3

Wait for the connection being establish



# Product Features

## ◆ Multiple SSID + VLAN

SSID: Internet  
VLAN: VID=1



SSID: VoIP  
VLAN: VID=4



VoIP  
Phone



Gaming Console

SSID: Gaming  
VLAN: VID=2



Tablet

Audio Stream

SSID: Streaming  
VLAN: VID=3

# Product Features

## ◆ Multiple Wireless Network Technologies for Greater Access

### ✓ Multiple Operation Modes:

- Router
- AP
- Client

### ✓ Multiple Wireless Modes:

- AP
- WDS (Bridge)
- WDS + AP (Repeater)
- Universal Repeater
- Client

# Product Features

- ◆ **Advanced Networking function for Specific Application**
  - ✓ Supports multiple sessions **IPSec, L2TP, PPTP, and IPv6 VPN pass-through**
  - ✓ Supports **wireless schedule** function
  - ✓ Supports **Port Forwarding, DMZ, UPnP, and Dynamic DNS.**
  
- ◆ **Easy Installation & Management**
  - ✓ **System status monitoring includes DHCP Clients, System Log**

# Product Applications

## ◆ 3G Mobile Connection

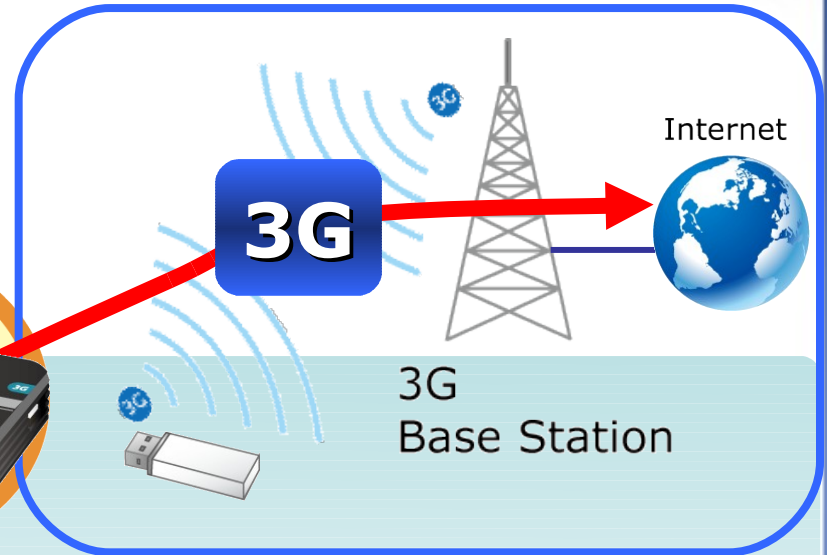
✓ Easily share the connection with your

- Laptop
- iPhone, iPad
- Tablet
- And any other Wi-Fi supported devices



# Product Applications

## ◆ 3G Mobile Connection



**150Mbps / 802.11n Wi-Fi**



Laptop



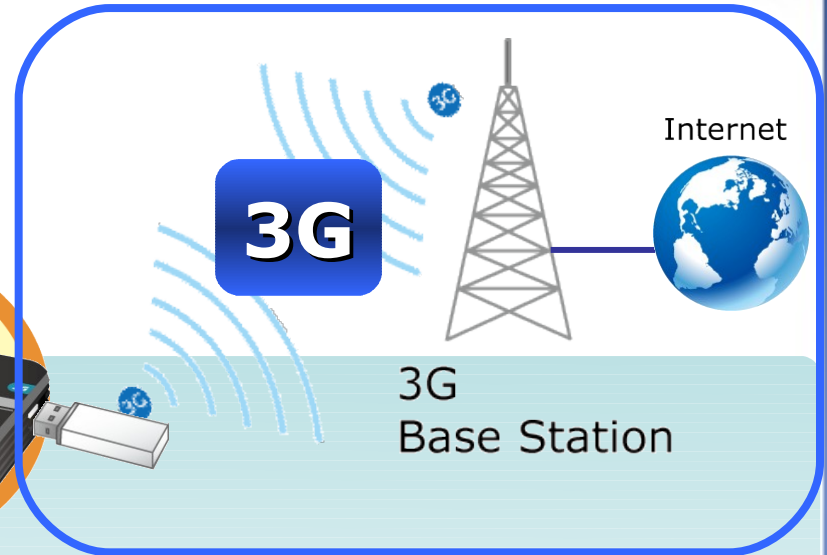
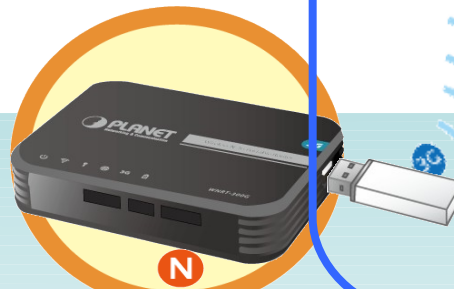
Smart Phone



PSP

# Product Applications

## ◆ 3G Mobile Connection



**150Mbps / 802.11n Wi-Fi**

**Outdoor Events**

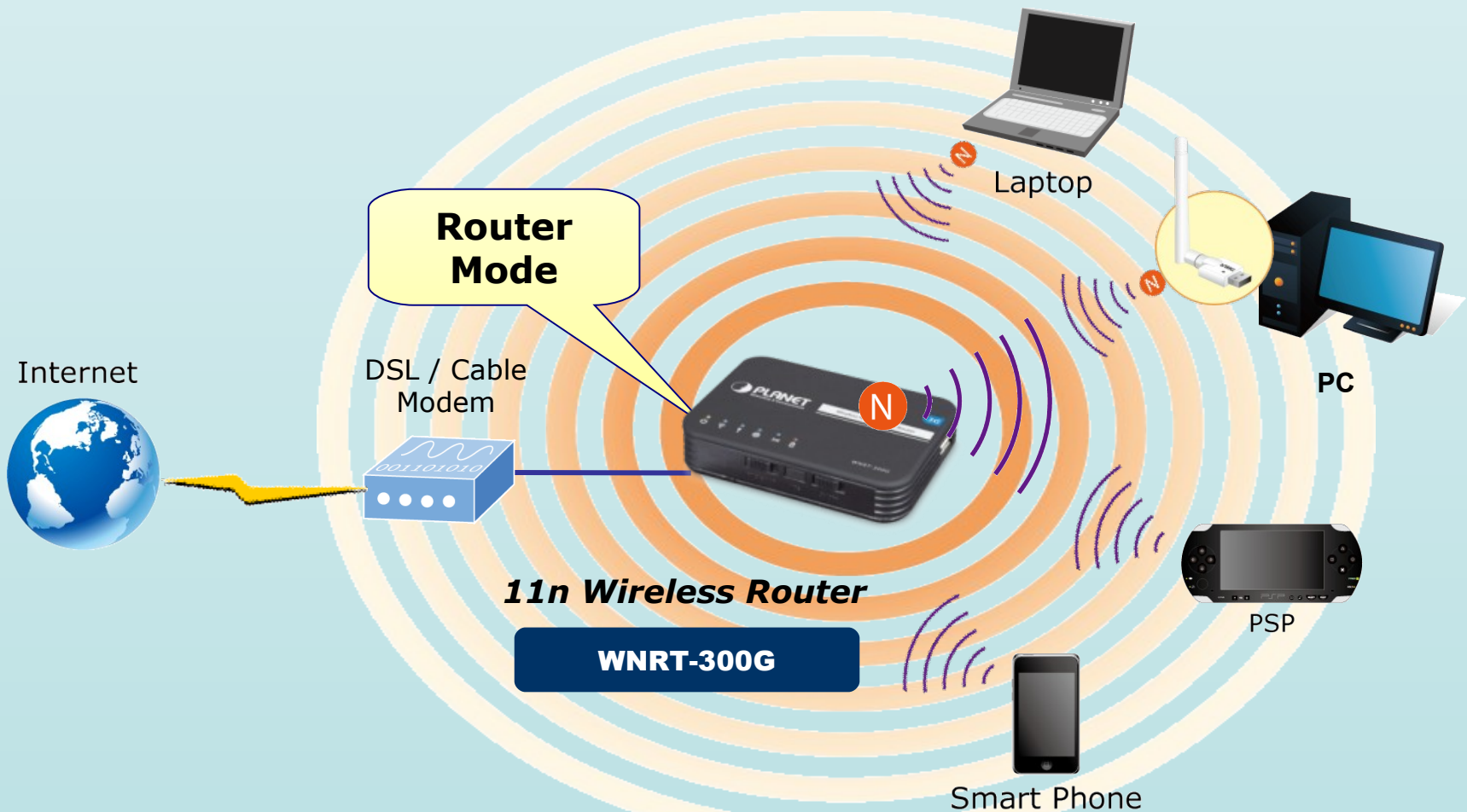
**Transportation**

**Public Station**



# Operation Mode

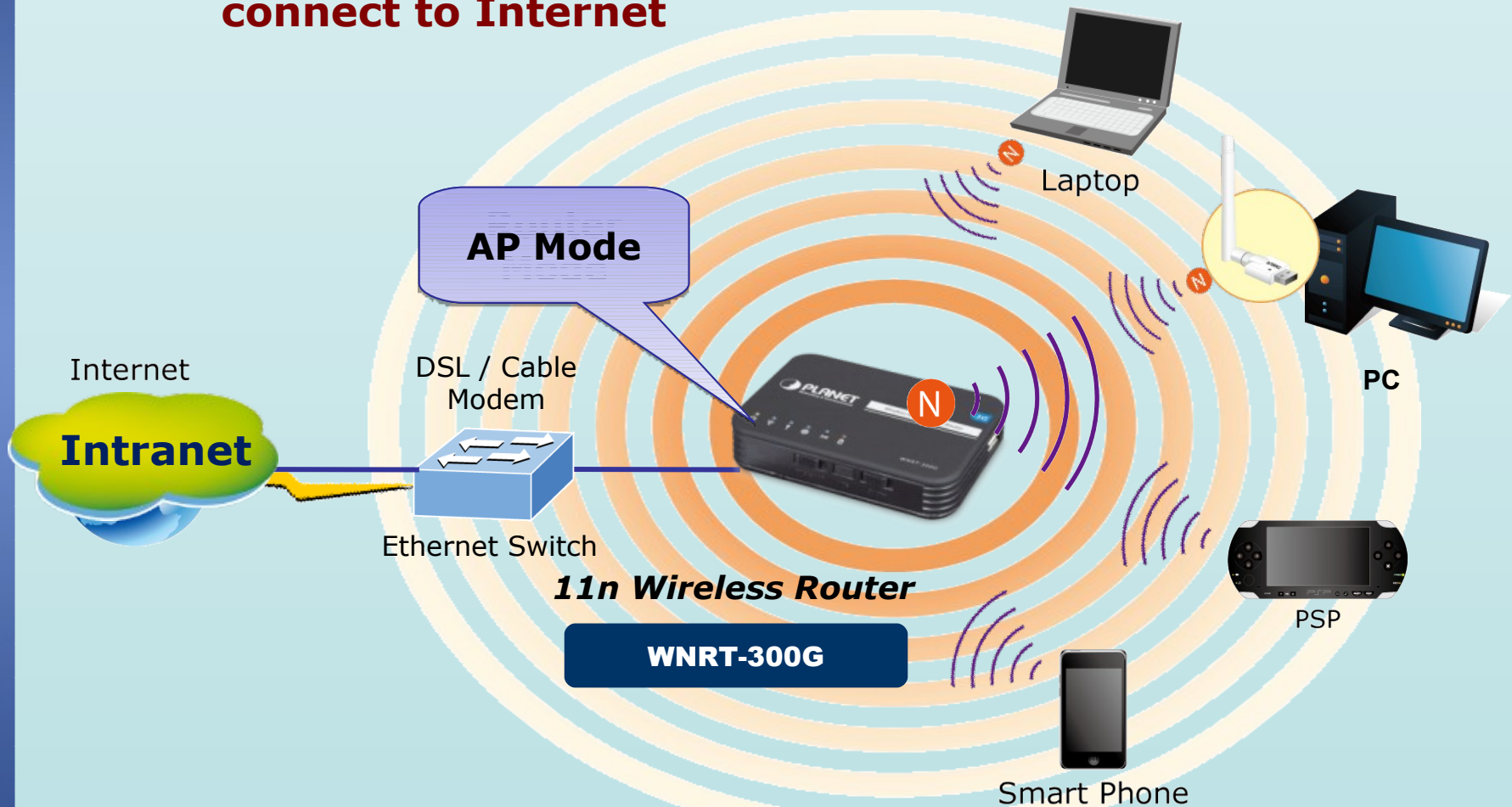
## ◆ xDSL/Cable Wireless Router Mode – without 3G



# Operation Mode

## ◆ Access Point – without 3G

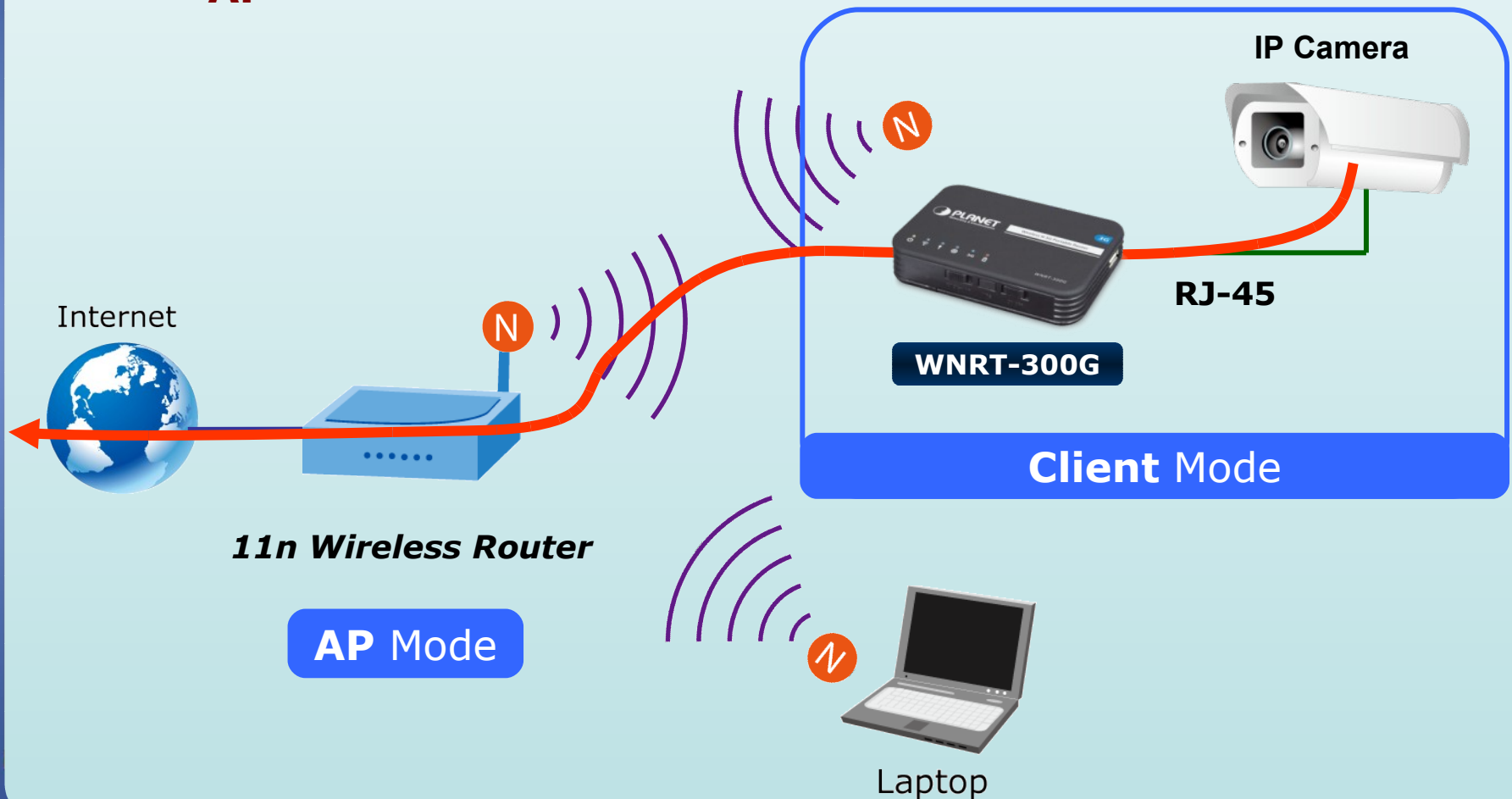
- ✓ Acts as a central hub for wired / wireless LAN and connect to Internet



# Operation Mode

## ◆ Wireless Client – without 3G

- ✓ Acts as a wireless client connecting with the remote AP



# Operation Mode

## ◆ 3G Router / CPE Client

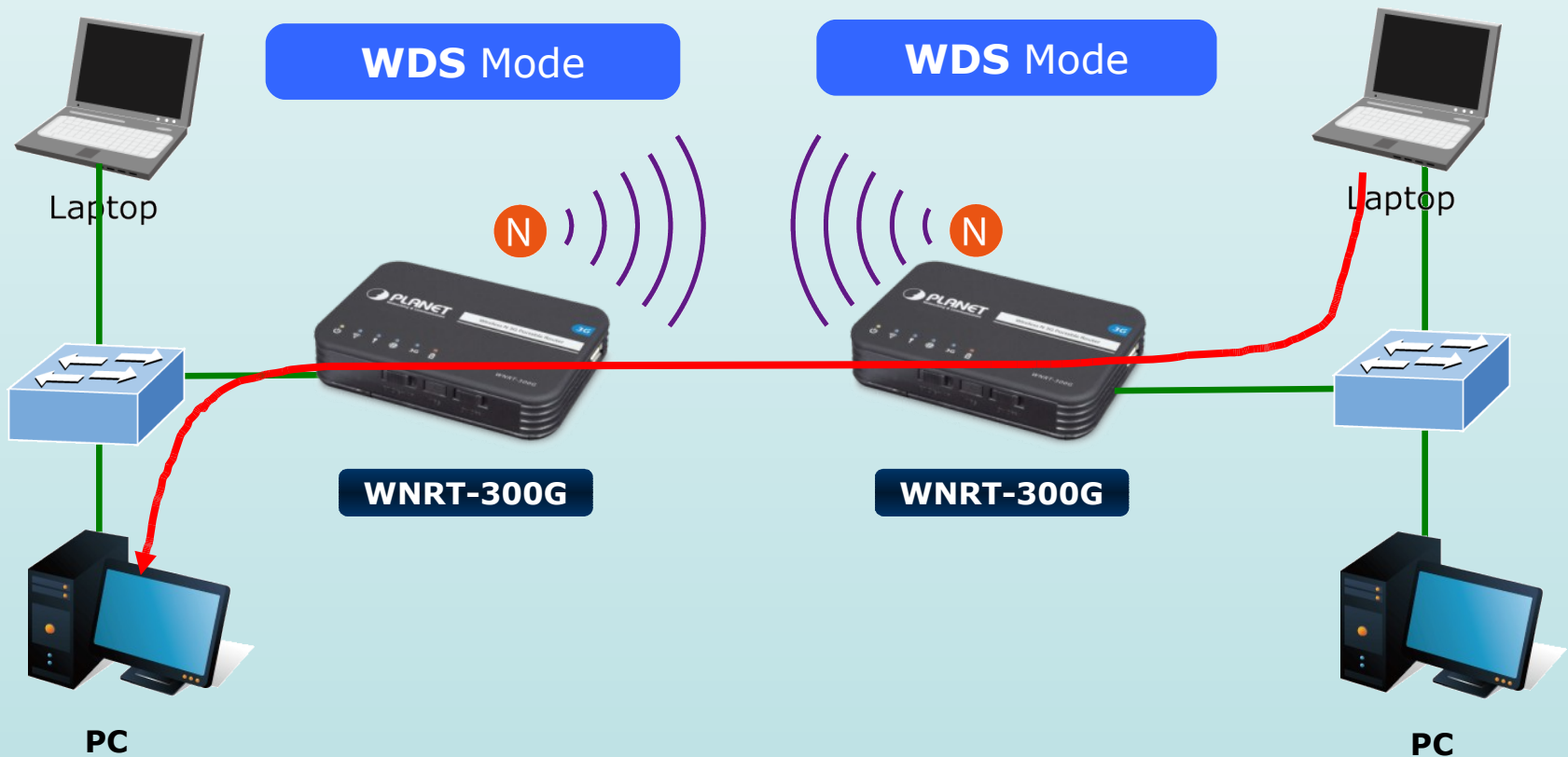
- ✓ **IP Camera be able to connect to the internet through 3G sharing of WNRT-300G**



# Operation Mode

## ◆ WDS Mode (Bridge)

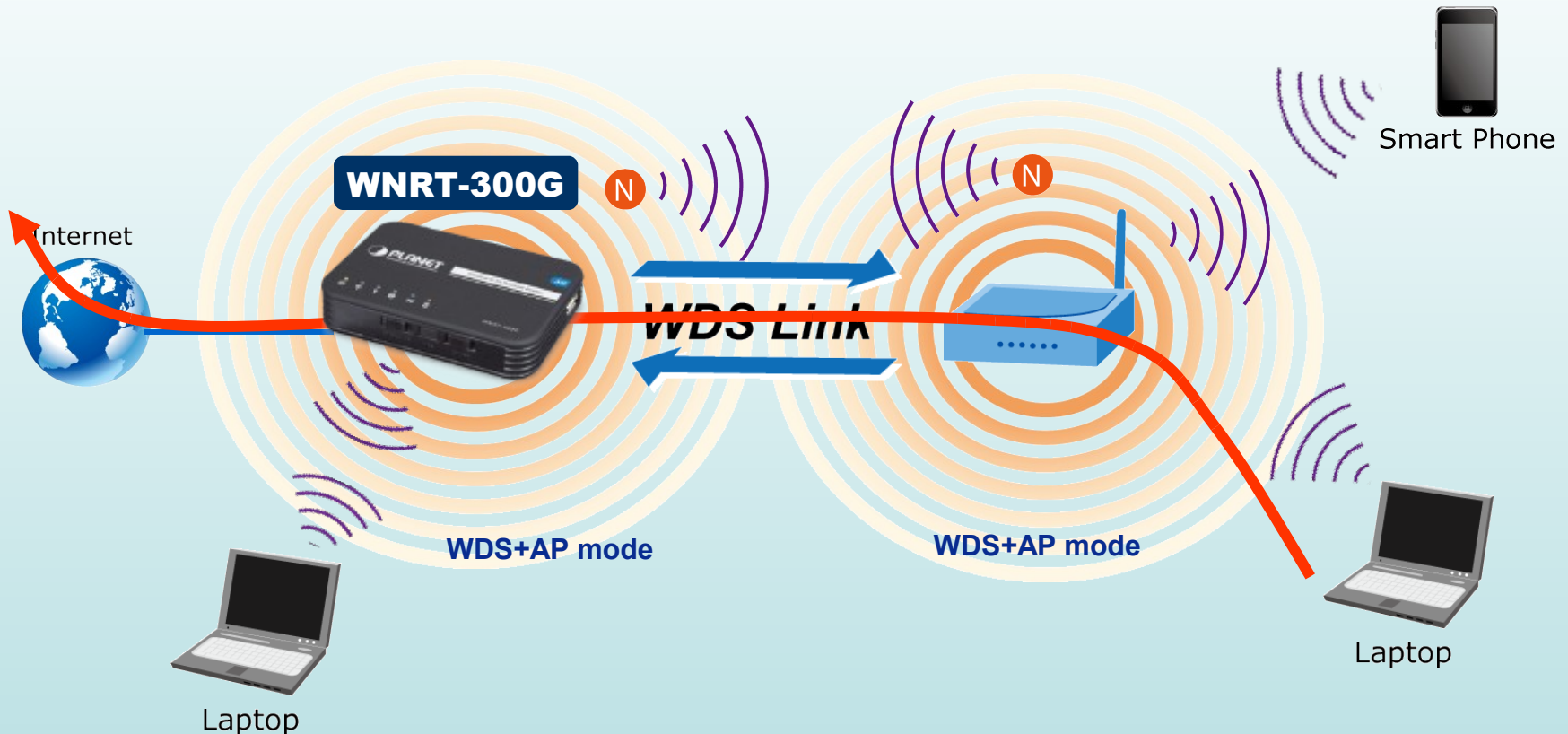
- ✓ **Two APs in two remote locations connect to each other wirelessly**



# Operation Mode

## ◆ WDS + AP Mode (Repeater)

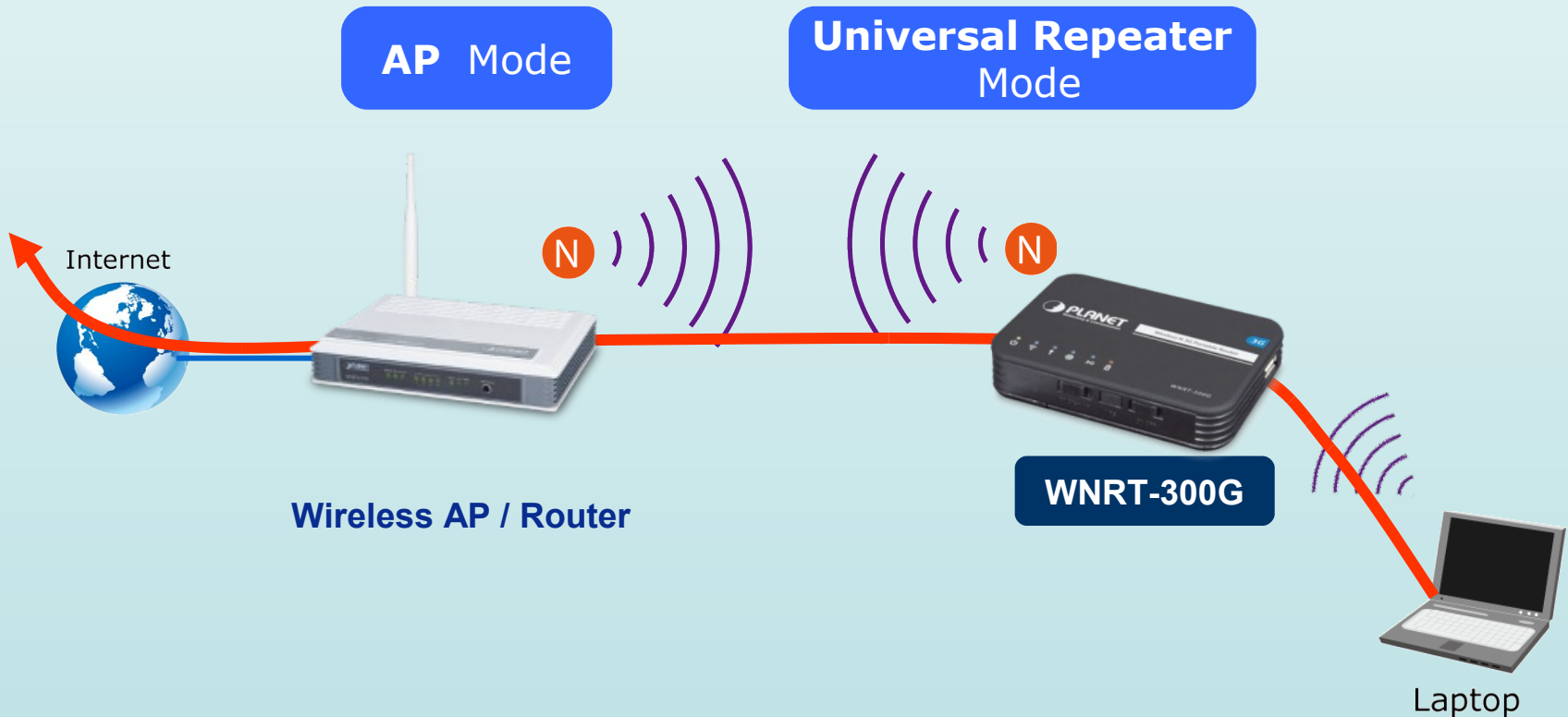
- ✓ Bridge two APs and provides access for wireless clients at the same time



# Operation Mode

## ◆ Universal Repeater Mode

- ✓ Extends the coverage of AP, even if your AP/Router doesn't have WDS function



# Web UI - Main

Site contents:

- ▶ Setup Wizard
- ▶ Operation Mode
- ▶ Wireless
- ▶ TCP/IP Settings
- ▶ Firewall
- ▶ QoS
- ▶ Route Setup
- ▶ Management
- ▶ Logout

## Setup Wizard

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

Welcome to Setup Wizard.

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

1. WAN Interface Setup

Next>>

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**Main Menu of  
Every Function**

**The Corresponding  
Screen after Clicking  
Each Function**

# Web UI – Operation Mode

**Site contents:**

- ▶ Setup Wizard
- ▶ Operation Mode
- ▶ Wireless
- ▶ TCP/IP Settings
- ▶ Firewall
- ▶ QoS
- ▶ Route Setup
- ▶ Management
- ▶ Logout

## Operation Mode

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

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

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**Shifting The Hardware Switch to Change The Operation Mode**

# Web UI – 3G Configuration

**PLANET** Networking & Communication

WNRT-300G  
802.11n Wireless Portable Router

Site contents:

- Setup Wizard
- Operation Mode
- Wireless
  - Basic Settings
  - Advanced Settings
  - Security
  - Access Control
  - WDS settings
  - Site Survey
  - WPS
  - Schedule
- TCP/IP Settings
  - LAN Interface
  - WAN Interface
- Firewall
- QoS
- Router
- Management
- Log

**WAN Interface S**

This page is used to configure the port of your Access Point. Here you can select the WAN Access Type, USB 3G Modem, ISP, APN, Dial Number, Connection Type, Idle Time, and MTU Size.

WAN Access Type:

USB 3G Modem:

ISP:

APN:

Dial Number:

Connection Type: Continuous

Idle Time: 5 (1-1000 minutes)

MTU Size: 1490 (1420-1490 bytes)

Attain DNS Automatically

**Built-in Global ISP Configuration**

- Argentina Three(Pre-paid)
- Argentina Virgin Mobile
- Argentina Vodafone
- Austria Drei
- Austria Max Max Online
- Austria Max Online(Business)
- Austria Max Online(Metro)
- Austria Mobilkom A1
- Austria Orange
- Austria tele.ring
- Austria Yesss
- Azerbaijan Azercell
- Azerbaijan Bakcell
- Bahamas Batelco
- Bangladesh AKTel
- Bangladesh Banglalink
- Bangladesh Grameen Phone
- Barbados Digicel
- Belarus MTS
- Belarus VELCOM(Privet)
- Belarus Velcom(Simple GPRS)
- Belarus VELCOM(Web plus)
- Belarus VELCOM
- Belgium BASE

# Web UI - Wireless

- Site contents:
- Setup Wizard
- Operation Mode
- Wireless
  - Basic Settings
  - Advanced Settings
  - Security
  - Access Control
  - WDS settings
  - Site Survey
  - WPS
  - Schedule
- TCP/IP Settings
- Firewall
- QoS
- Route Setup
- Management
- Logout

## Wireless Basic Settings

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

Disable Wireless LAN Interface

Band: 2.4 GHz (B+G+N)

Mode: AP

Multiple AP

Network Type: Infrastructure

SSID: WNRT-300G

Channel Width: 40MHz

Control Sideband: Upper

Domain Region: FCC

Channel Number: 11

Broadcast SSID: Enabled

WMM: Enabled

Data Rate: Auto

Associated Clients: Show Active Clients

Enable Mac Clone (Single Ethernet Client)

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

SSID of Extended Interface: default-Repseice

Apply Changes

Reset

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Various Wireless Modes

Universal Repeater

# Web UI - WDS

**Site contents:**

- ▶ Setup Wizard
- ▶ Operation Mode
- ▶ Wireless
  - ▶ Basic Settings
  - ▶ Advanced Settings
  - ▶ Security
  - ▶ Access Control
  - ▶ **WDS settings**
  - ▶ Site Survey
  - ▶ WPS
  - ▶ Schedule
- ▶ TCP/IP Settings
- ▶ Firewall
- ▶ QoS
- ▶ Route Setup
- ▶ Management
- ▶ Logout

## WDS Settings

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

 **Enable WDS**
**MAC Address:**

**Data Rate:**

Auto ▼

**Comment:**





**Current WDS AP List:**

MAC Address	Tx Rate (Mbps)	Comment	Select
00:30:4f:12:34:56	Auto		<input type="checkbox"/>



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**WDS  
Configuration**

# Web UI – WPS

**Site contents:**

- ▶ Setup Wizard
- ▶ Operation Mode
- ▶ Wireless
  - ▶ Basic Settings
  - ▶ Advanced Settings
  - ▶ Security
  - ▶ Access Control
  - ▶ WDS settings
  - ▶ Site Survey
  - ▶ WPS
  - ▶ Schedule
- ▶ TCP/IP Settings
- ▶ Firewall
- ▶ QoS
- ▶ Route Setup
- ▶ Management
- ▶ Logout

## Wi-Fi Protected Setup

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

 **Disable WPS**

Apply Changes

Reset

**WPS Status:** Configured  UnConfigured

Reset to UnConfigured

**Self-PIN Number:** 19305240**Push Button Configuration:** Start PBC**Client PIN Number:** Start PIN

WPS was disabled automatically because wireless mode setting could not be supported. You need go to Wireless/Basic page to modify wireless mode to enable WPS.

**Current Key Info:****Authentication** Encryption**Method 1:**

Press “Start PBC” Button of both WNRT 300G (S/W or H/W) and wireless client device in 2 minutes.

**Method 2:**

As a registrar, enter the PIN code of the wireless client device; As a enrollee, use the Self-PIN number to fill into the wireless client device.

# Web UI – Wireless Security

Site contents:

- ▶ Setup Wizard
- ▶ Operation Mode
- ▶ Wireless
  - ▶ Basic Settings
  - ▶ Advanced Settings
  - ▶ Security
  - ▶ Access Control
  - ▶ WDS settings
  - ▶ Site Survey
  - ▶ WPS
  - ▶ Schedule
- ▶ TCP/IP Settings
- ▶ Firewall
- ▶ QoS
- ▶ Route Setup
- ▶ Management
- ▶ Logout

## Wireless Security Setup

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

Select SSID:

Encryption:

- WPA2
- Disable
- WEP
- WPA
- WPA2
- WPA-Mixed

Authentication Mode:

RADIUS)  Personal (Pre-Shared Key)

WPA2 Cipher Suite:

TKIP

Pre-Shared Key Format:

ASCII

Pre-Shared Key:

••••••••

Apply Changes

Reset

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Supports many authentication and encryption methods

# Web UI – Wireless Schedule

Site contents:

- ▶ Setup Wizard
- ▶ Operation Mode
- ▶ Wireless
  - ▶ Basic Settings
  - ▶ Advanced Settings
  - ▶ Security
  - ▶ Access Control
  - ▶ WDS settings
  - ▶ Site Survey
  - ▶ WPS
  - ▶ Schedule
- ▶ TCP/IP Settings
- ▶ Firewall
- ▶ QoS
- ▶ Route Setup
- ▶ Management
- ▶ Logout

## Wireless Schedule

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

Enable Wireless Schedule

Days :

Everyday  Sun  Mon  Tue  Wed  Thu  Fri  Sat

Time :

24 Hours  From 09 : 00 To 18 : 00

Apply Changes

Reset

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**Wireless Schedule  
Function**

# Web UI – Access Control

## QoS

Entries in prioritized

- Enable
- Auto

Manual U

- Auto

Manual D

QoS Rule

Address T

Local IP A

MAC Add

Mode:

Uplink Ba

Downlink Bandwidth

Comment:

Apply Changes

## Wireless Access Control

If you choo  
control list  
clients on t

Wireless A

MAC Add

Apply

Current Ac

IP Address

Subnet Ma

Gateway:

Metric:

Interface:

Apply Changes

Reset

## Routing Setup

This page is

- Enable

NAT:

Transmit:

Receive:

- Enable

IP Address

Subnet Ma

Gateway:

Metric:

Interface:

Apply Changes

Reset

## Wireless Schedule

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

- Enable Wireless Schedule

Days :

- Everyday
- Sun
- Mon
- Tue
- Wed
- Thu
- Fri
- Sat

Time :

- 24 Hours
- From 09 : 00 To 18 : 00

Apply Changes

Reset

Apply Changes

Reset

Show Route Table

# Web UI – Firewall



**Firewall**

- Port Filtering
- IP Filtering
- MAC Filtering
- Port Forwarding
- URL Filtering
- DMZ

## Port Filtering

## IP Filtering

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

## URL Filtering

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

Enable URL Filtering

URL Address:

**Current Filter Table:**

URL Address	Select
<input type="text"/>	<input type="button" value="Comment"/> <input type="button" value="Select"/>




# Product Comparison



Model	PLANET WNRT-300G	ASUS WL-330N3G	D-Link DAP-1350
Features			
Wireless Standard	802.11b/g/n	802.11b/g/n	802.11b/g/n
Interface	10/100Mbps (WAN/LAN) USB port for 3G Modem	10/100Mbps (WAN/LAN) USB port for 3G Modem	10/100Mbps (WAN/LAN) USB port for 3G Modem
WAN	3G Dynamic IP Static IP PPPoE PPTP L2TP	3G Dynamic IP Static IP PPPoE PPTP L2TP	3G Dynamic IP Static IP PPPoE
Security	64/128/152-bit WEP, WPA/WPA2, WPA- PSK/WPA2-PSK	64/128-bit WEP, WPA-PSK/WPA2- PSK	64/128-bit WEP, WPA- PSK/WPA2-PSK
Wireless Mode	Router, Client, AP, WDS, WDS+AP, Universal Repeater	Router, AP, Universal Repeater, Client	Router, Client, AP
Build-in Battery	Yes	No	No
3G Dongles Compatibility	Various Brands	Various Brands	D-Link DWM-156/152
Virtual Server	Yes	Yes	No
DMZ	Yes	Yes	No

# Product Comparison

## ◆ Compare with other portable 3G Sharing devices

Equipment		WNRT-300G	Telecom 3G WiFi Modem	Smart Phone
				
3G		USB	Built-in 3G module	Built-in 3G module
Wireless Standard		802.11 b/g/n 150Mbps	802.11b.g 54Mbps	802.11b/g 54Mbps
Wired Ethernet		<b>10/100Mbps RJ-45</b>	--	--
Operation Mode	3G Sharing	■	■	■
	Wireless Router - xDSL / Cable	■	--	--
	Wireless AP	■	--	--
	Bridge	■	--	--
	Repeater	■	--	--
	Client	■	--	--
Enhanced Security		Multiple SSID, WPS, Access Control, VPN pass through	--	--
Suggest number of sharing client		20	5	3
Target Customer Level		Business, traveler, internet heavy user	consumer	consumer

# Appendix

## ◆ Related Products

- ✓ **WNL-U554** 150Mbps 11n Wireless USB Adapter
- ✓ **WNL-U554A** 150Mbps 11n Wireless USB Adapter with 3dBi Antenna
- ✓ **WNL-U554M** 150Mbps Micro 11n Wireless USB Adapter
- ✓ **WNL-9501** 802.11n Wireless PCI Express Adapter



**WNL-U554**



**WNL-U554A**












**WNL-U554M**



**WNL-9501**

# Appendix

## ◆ 3G USB Adapter compatible list:

Brand	Model Name	Brand	Model Name	Brand	Model Name	Brand	Model Name		
 <b>Huawei</b>	E169	 <b>LG</b>	AD600	<b>Atheros</b>	WNDA3200	<b>PROLiNK</b>	PHS100		
	E173		HDM-2100	<b>AVM</b>	Fritz!Wlan	<b>Sagem</b>	F@ST 9520-35-GLR		
	E173s		LDU-1900D	<b>A-Link</b>	3GU	<b>Samsung</b>	GT-B3730		
	E180		LUU-2100TI	<b>BandLuxe</b>	C100		SGH-Z810		
	E220	L-05A	<b>Linktop</b>	LW272	C120	U209			
	E230	LW273		<b>BandLuxe</b>	C170	<b>Siptune</b>	LM-75		
	E270	MMX 300c	<b>Micromax</b>	MMX 300c	C270	<b>Solomon</b>	S3Gm-660		
	E630	MBD-200HU	<b>MobiData</b>	MBD-200HU	<b>Beceem</b>	<b>Sony Ericsson</b>	MD300		
	E870	SW006	<b>MyWave</b>	SW006	<b>Bless</b>		MD400		
	E1553	CS-15	 <b>NOKIA</b> <small>Connecting People</small>	CS-15	<b>Cricket</b>	A600	MD400G		
	K3765	CS-17		<b>Nokia</b>	CS-17	<b>C-motech</b>	CGU-628	HomeLink 1202	
	K4505	CS-18		<b>Novatel</b>	CS-18	<b>Digicom</b>	CHU-629S	G450	
	R201	MC760	 <small>NOVATEL WIRELESS</small>	MC760	<b>D-Link</b>	D-50	<b>Toshiba</b>	UM175	
	U7510	MC990D		<b>Novatel</b>	MC990D	<b>EpiValley</b>	8E4455	<b>UTStarcom</b>	UM185E
	U7517	U760		<b>Olivetti</b>	U760	<b>Franklin</b>	DWM-162-U5	<b>Vertex</b>	VW100
	U8110	Olicard 100		Olicard 100	<b>GW</b>	SEC-7089		MD950	
AC581	Olicard 145	<b>Olivetti</b>		Olicard 145	<b>Hummer</b>	U210	(Huawei) K3806		
MF110	MW833UP	<b>Onda</b>	MW833UP	<b>Hyundai</b>	D301	(Huawei) K4605			
MF110	iCON 210	<b>Option</b>	iCON 210		DTM5731	(ZTE) K2525			
MF112					MB-810	(ZTE) K3570-Z			
MF651						(ZTE) K3571-Z			
MU351						(ZTE) K3805-Z			
<b>Airplus</b>	MCD-800					(ZTE) K3806-Z			
 <b>ALCATEL</b>	X020					(ZTE) K4505-Z			
	X060S					845			
	X200								
	X200L								
UC165									

# ACTIVATING IP POWER

