TP-LINK®

User Guide

Archer C3200

AC3200 Wireless Tri-Band Gigabit Router

REV1.0.0

COPYRIGHT & TRADEMARKS

http://www.tp-link.com

FCC STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against 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:

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

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.

Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user’s authority to operate the equipment.

FCC RF Radiation Exposure Statement:

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

“To comply with FCC RF exposure compliance requirements, this grant is applicable to only Mobile Configurations. The antennas used for this transmitter must be installed to provide a separation distance of at least 27 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.”

Note: Operations are restricted to indoor usage only.

CE Mark Warning

CE1588 (!)

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

National Restrictions

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

Country	Restriction	Reason/remark
Bulgaria	None	General authorization required for outdoor use and public service
France	Outdoor use limited to 10 mW e.i.r.p. within the band 2454-2483.5 MHz	Military Radiolocation use. Refarming of the 2.4 GHz band has been ongoing in recent years to allow current relaxed regulation. Full implementation planned 2012
Italy	None	If used outside of own premises, general authorization is required
Luxembourg	None	General authorization required for network and service supply(not for spectrum)
Norway	Implemented	This subsection does not apply for the geographical area within a radius of 20 km from the centre of Ny-Ålesund
Russian Federation	None	Only for indoor applications

5150-5250 MHz

Country	Restriction	Reason/remark
Bulgaria	Not implemented	Planned
Croatia	License required	
Italy		General authorization required if used outside own premises

Luxembourg	None	General authorization required for network and service supply (not for spectrum)
Russian Federation	No info	

5250-5350 MHz

Country	Restriction	Reason/remark
Bulgaria	Not implemented	Planned
Croatia	License required	
Italy		General authorization required if used outside own premises
Luxembourg	None	General authorization required for network and service supply (not for spectrum)
Russian Federation	No info	

5470-5725 MHz

Country	Restriction	Reason/remark
Bulgaria	Not implemented	Planned
France		Relevant+ provisions for the implementation of DFS mechanism described in ETSI standard EN 301 893 V1.3.1 and subsequent versions
Italy		General authorization required if used outside own premises
Luxembourg	None	General authorization required for network and service supply (not for spectrum)
Russian Federation	No info	
Turkey	Not implemented	Defence systems

Note: Please don’t use the product outdoors in France.

Canadian Compliance Statement

This device complies with Industry Canada license-exempt RSSs. Operation is subject to the following two conditions:

(1) This device may not cause interference, and

(2)This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil nedoit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that permitted for successful communication.

The device for the band 5180-5240 MHz is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems.

les dispositifs fonctionnant dans la bande 5180-5240 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.

Industry Canada Statement

Complies with the Canadian ICES-003 Class B specifications.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

CAN ICES-3 (B)/NMB-3(B)

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 32cm between the radiator & your body.

D é claration d'exposition aux radiations:

Cet é quipement est conforme aux limites d'exposition aux rayonnements IC é tablies pour un environnement non contrôl é . Cet é quipement doit ê tre install é et utilis é avec un minimum de 32 cm de distance entre la source de rayonnement et votre corps.

Korea Warning Statements

당해 무선설비는 운용중 전파혼신 가능성이 있음.

NCC Notice & BSMI Notice

注意！

依據 低功率電波輻射性電機管理辦法

第十二條 經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性或功能。

第十四條 低功率射頻電機之使用不得影響飛航安全及干擾合法通行；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信規定作業之無線電信。低功率射頻電機需忍受合法通信或工業、科學以及醫療用電波輻射性電機設備之干擾。

減少電磁波影響，請妥適使用。

安全諮詢及注意事項

●請使用原裝電源供應器或只能按照本產品注明的電源類型使用本產品。

●清潔本產品之前請先拔掉電源線。請勿使用液體、噴霧清潔劑或濕布進行清潔。

●注意防潮，請勿將水或其他液體潑灑到本產品上。

●插槽與開口供通風使用，以確保本產品的操作可靠並防止過熱，請勿堵塞或覆蓋開口。

●請勿將本產品置放於靠近熱源的地方。除非有正常的通風，否則不可放在密閉位置中。

●請不要私自打開機殼，不要嘗試自行維修本產品，請由授權的專業人士進行此項工作。

Продукт сертифіковано згідно с правилами системи УкрСЕПРО на відповідність вимогам нормативних документів та вимогам, що передбачені чинними законодавчими актами України.

Safety Information

- When product has power button, the power button is one of the way to shut off the product; when there is no power button, the only way to completely shut off power is to disconnect the product or the power adapter from the power source.
- Don’t disassemble the product, or make repairs yourself. You run the risk of electric shock and voiding the limited warranty. If you need service, please contact us.
- Avoid water and wet locations.
- Adapter shall be installed near the equipment and shall be easily accessible.
- The plug considered as disconnect device of adapter.

This product can be used in the following countries:

AT	BG	BY	CA	CZ	DE	DK	EE
ES	FI	FR	GB	GR	HU	IE	IT
LT	LV	MT	NL	NO	PL	PT	RO
RU	SE	SK	TR	UA	US		

TP-LINK® TP-LINK TECHNOLOGIES CO., LTD

DECLARATION OF CONFORMITY

For the following equipment:

Product Description: **AC3200 Wireless Tri-Band Gigabit Router**

Model No.: **Archer C3200**

Trademark: **TP-LINK**

We declare under our own responsibility that the above products satisfy all the technical regulations applicable to the product within the scope of Council Directives:
Directives 1999/5/EC, Directives 2004/108/EC, Directives 2006/95/EC, Directives 1999/519/EC, Directives 2011/65/EU
The above product is in conformity with the following standards or other normative documents
EN 300 328 V1.8.1
EN 301 489-1 V1.9.2 & EN 301 489-17 V2.2.1
EN 55022: 2010 + AC: 2011
EN 55024: 2010
EN 61000-3-2: 2006 + A1: 2009 + A2: 2009
EN 61000-3-3: 2013
EN 60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011
EN 50385: 2002
EN 301 893 V1.7.1

The product carries the CE Mark:

CE 1588 (!)

Person responsible for making this declaration:

Yang Hongliang
Product Manager of International Business

Date of issue: 2015

CONTENTS

Chapter 1. Get to Know About Your Router

1.1 Product Overview

The Archer C3200 AC3200 Wireless Tri-Band Gigabit Router integrates 4-port Switch, Firewall, NAT-router and Wireless AP. Powered by 3x3 MIMO technology, this router delivers exceptional range and speed, which can fully meet the need of Small Office/Home Office (SOHO) networks and the users demanding higher networking performance. Your wireless connections are radio band selectable to avoid interference in your area, and the four built-in Gigabit ports supply high-speed connection to your wired devices.

Incredible Speed

The Archer C3200 provides up to 3200Mbps wireless connection with other wireless clients. The incredible speed makes it ideal for handling multiple data streams at the same time, which ensures your network stable and smooth. The performance of this 802.11ac wireless router will give you the unexpected networking experience at speed much faster than 802.11n. It is also compatible with all IEEE 802.11n, IEEE 802.11a, IEEE 802.11b and IEEE 802.11g products.

Multiple Security Protections

With multiple protection measures, including SSID broadcast control and wireless LAN 64/128/152-bit WEP encryption, Wi-Fi Protected Access (WPA2- PSK, WPA- PSK), as well as advanced Firewall protections, the Archer C3200 provides complete data privacy.

Flexible Access Control

The Archer C3200 provides flexible access control, so that parents or network administrators can establish restricted access policies for children or staff. It also supports Virtual Server and DMZ host for Port Triggering, and then the network administrators can manage and monitor the network in real time with the remote management function.

Simple Installation

Since the router is compatible with virtually all the major operating systems, it is very easy to manage. Quick Setup Wizard is supported and detailed instructions are provided step by step in this user guide. Before installing the router, please look through this guide to know all the router’s functions.

1.2 Conventions

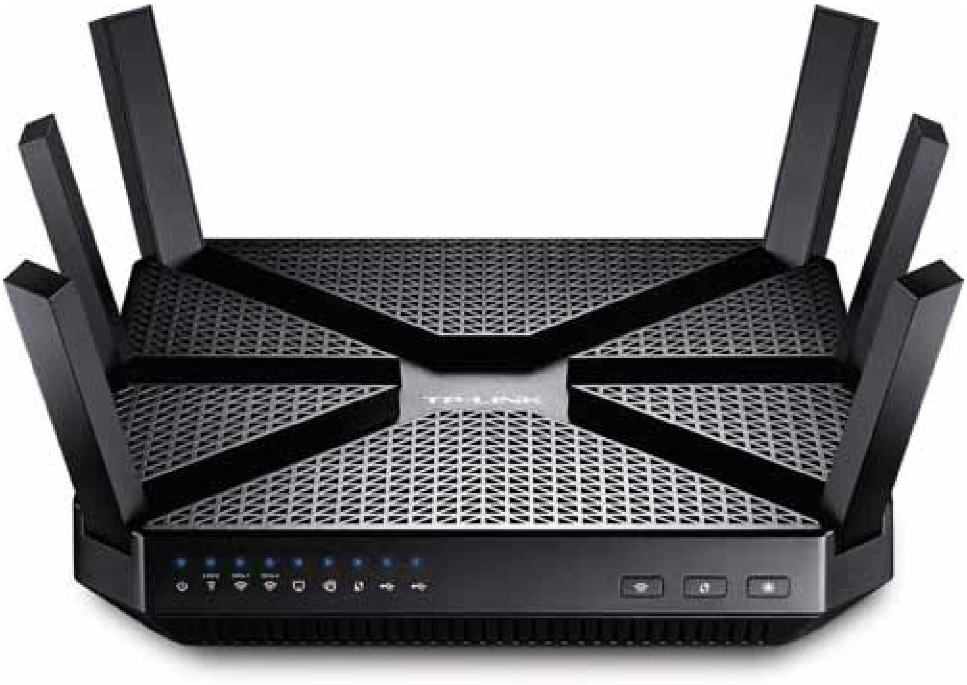
The router or Archer C3200 mentioned in this guide stands for Archer C3200 AC3200 Wireless Tri-Band Gigabit Router without any explanation.

1.3 Main Features

- Complies with IEEE 802.11ac.
- One 10/100/1000M Auto-Negotiation RJ45 Internet port, four 10/100/1000M Auto-Negotiation RJ45 Ethernet ports, supporting Auto MDI/MDIX.
- Provides a USB 3.0 port and a USB 2.0 port supporting file sharing and print server.
- Provides WPA/WPA2, WPA-PSK/WPA2-PSK authentication, TKIP/AES encryption security.
- Shares data and Internet access for users, supporting Dynamic IP/Static IP/PPPoE/PPTP/ L2TP Internet access.
- Supports simultaneous 2.4GHz and 5GHz connections for 3200Mbps of total available bandwidth.
- Supports Virtual Server, Special Application and DMZ host.
- Supports UPnP, Dynamic DNS, Static Routing.
- Provides Automatic-connection and Scheduled Connection on certain time to the Internet.
- Built-in NAT and DHCP server supporting static IP address distributing.
- Supports Parental Control and Access Control.
- Connects Internet on demand and disconnects from the Internet when idle for PPPoE.
- Provides WEP encryption security and wireless LAN ACL (Access Control List).
- Supports Flow Statistics.
- Supports IPv6.
- Supports firmware upgrade and Web management.

1.4 Panel Layout

1.4.1 Front Panel



The router's LEDs are located on the front panel (View from left to right).

Name	Status	Indication
(Power)	Flashing	The router is booting or upgrading.
	On	The router has booted.
	Off	Power is off.
2.4GHz (2.4GHz Wireless)	On	2.4GHz wireless is working properly.
	Off	2.4GHz wireless is disabled.
5GHz-1 (5GHz-1 Wireless)	On	5GHz-1 wireless is working properly.
	Off	5GHz-1 wireless is disabled.
5GHz-2 (5GHz-2 Wireless)	On	5GHz-2 wireless is working properly.
	Off	5GHz-2 wireless is disabled.
(Ethernet)	On	There is device(s) connected to the Ethernet (1/2/3/4) port(s).
	Off	No any device is connected to the Ethernet (1/2/3/4) port.
(Internet)	Blue	The Internet port is connected, and the Internet is accessible.
	Orange	The Internet port is connected, but the Internet is inaccessible.
	Off	The Internet port isn't connected, and the Internet is inaccessible.
(WPS)	Flashing	WPS button on the router is pressed, and the router is trying to connect a wireless device to its network via WPS.
	On	The connection via WPS is successful.
	Off	The connection via WPS fails.

(USB 1)	Flashing	The router is identifying the device connected to the USB 2.0 port.
	On	The device is identified successfully.
	Off	No device is connected to the USB 2.0 port.
(USB 2)	Flashing	The router is identifying the device connected to the USB 3.0 port.
	On	The device is identified successfully.
	Off	No device is connected to the USB 3.0 port.

☞ **Note:**

After a device is successfully added to the network by WPS function, the WPS LED will keep on for about 5 minutes and then turn off.

The following buttons are also located on the front panel (View from left to right).

- (Wi-Fi): Pressing this button for 2 seconds enables or disables the Wi-Fi function.
- (WPS): Pressing this button for less than 5 seconds enables the WPS function. If your client devices, such as wireless adapters, that support Wi-Fi Protected Setup, then you can press this button to quickly establish a connection between the router and client devices and automatically configure wireless security for your wireless network.
- (LED On/Off): Pressing this button for 2 seconds turns all LEDs on or off.

1.4.2 Rear Panel

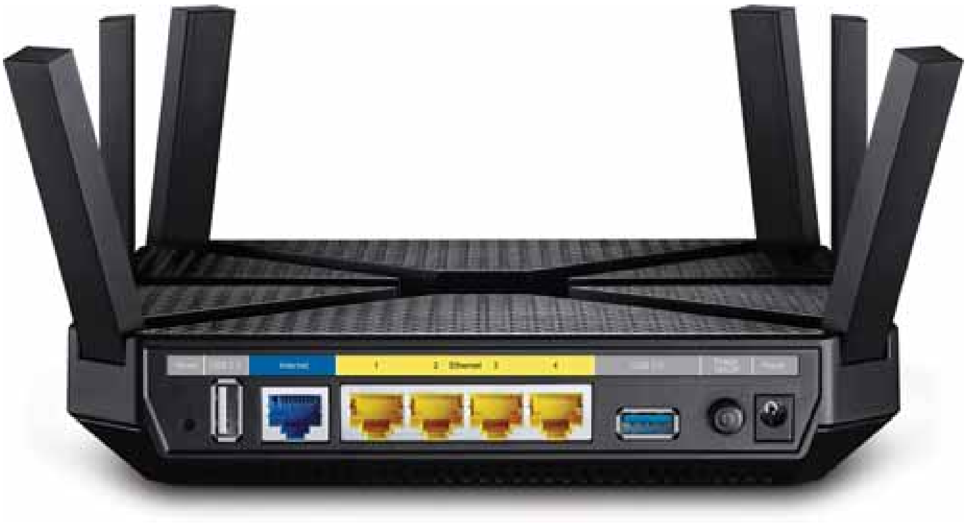


Figure 1-1 Rear Panel sketch

The following parts are located on the rear panel (View from left to right).

- **Reset:** Pressing this button for about 8 seconds enables the Reset function.

- **USB 2.0:** The USB 2.0 port connects to a USB 2.0 storage device or a USB 2.0 printer.
- **Internet:** This port is where you will connect the DSL/cable Modem, or Ethernet.
- **Ethernet (1, 2, 3, 4):** These ports (1, 2, 3, 4) connect the router to the local PC(s).
- **USB 3.0:** The USB 3.0 port connects to a USB 3.0 storage device or a USB 3.0 printer.
- **Power On/Off:** The switch for the power.
- **Power:** The Power socket is where you will connect the power adapter. Please use the power adapter provided.

Chapter 2. Connect Your Router

2.1 System Requirements

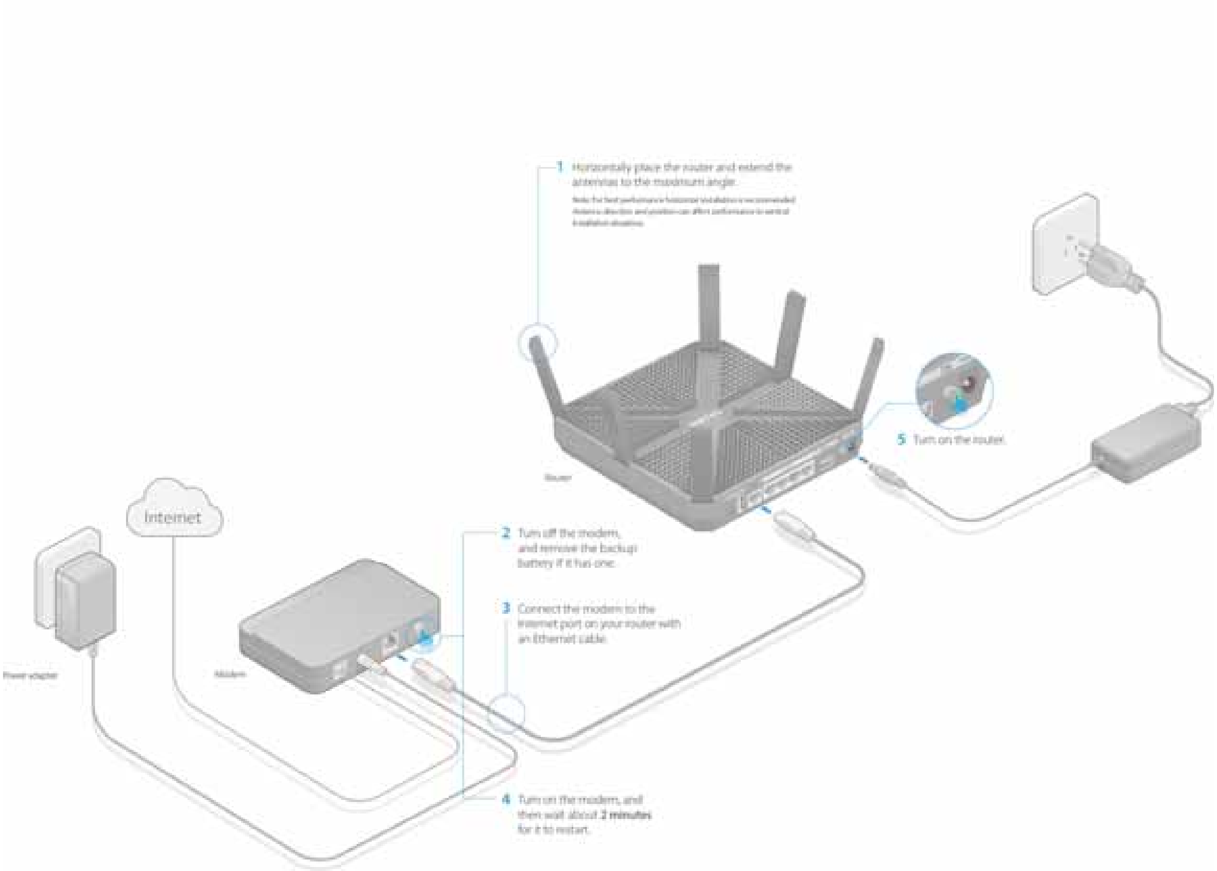
- Broadband Internet Access Service (DSL/Cable/Ethernet)
- One DSL/Cable Modem that has an RJ45 connector (which is not necessary if the router is connected directly to the Ethernet)
- PCs with a working Ethernet Adapter and an Ethernet cable with RJ45 connectors
- TCP/IP protocol on each PC
- Web browser, such as Microsoft Internet Explorer, Mozilla Firefox or Apple Safari

2.2 Installation Environment Requirements

- Place the router in a well-ventilated place far from any heater or heating vent
- Avoid direct irradiation of any strong light (such as sunlight)
- Keep at least 2 inches (5 cm) of clear space around the router
- Operating Temperature: 0℃~40℃ (32℉~104℉)
- Operating Humidity: 10%~90%RH, Non-condensing

2.3 Connect Your Router

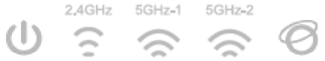
1. Connect your router as shown in the figure below. The electrical outlet shall be installed near the device and shall be easily accessible.


1 Horizontally place the router and extend the antennas to the maximum angle.
Router
5 Turn on the router.
Internet
2 Turn off the modem, and remove the backup battery if it has one.
3 Connect the modem to the Internet port on your router with an Ethernet cable.
Power adapter
Modem
4 Turn on the modem, and then wait about 2 minutes for it to restart.

☞ **Note:**

If your Internet connection is through an Ethernet cable from the wall instead of through a DSL / Cable / Satellite modem, connect the Ethernet cable directly to the router's Internet port.

2. Verify that the following LEDs are on and stable before continuing with the configuration:



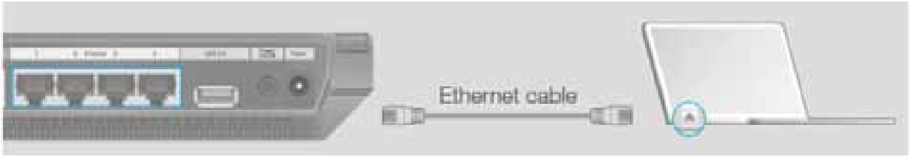
☞ **Note:**

If the 2.4GHz, 5GHz-1, and 5GHz-2 LEDs are off, press the Wi-Fi button for about 2 seconds, then check the LEDs again in a few seconds.

3. Connect your computer to the router.

Option 1: Wired

Turn off the Wi-Fi on your computer and connect the devices as shown below.



Option 2: Wireless

Connect wirelessly by using the SSID (network name) and Wireless Password printed on the product label at the bottom of the router.

Option 3: Via WPS

If your computer or wireless adapter has a physical WPS button, you can use the WPS button to quickly connect the router.

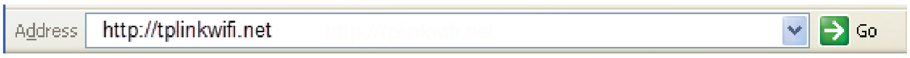
1. Press the WPS button on the router for 1 second.
2. Within 2 minutes, press the WPS button on your computer or wireless adapter for 2 seconds.

   The WPS LED flashes for two minutes during the WPS process. When the WPS LED is on, the client device has successfully connected to the router.

Chapter 3. Log into Your Router

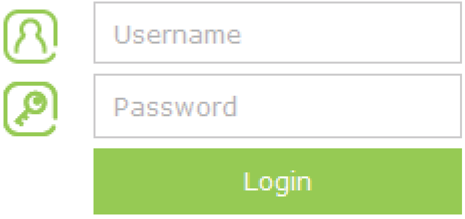
1. If the TCP/IP Protocol on your computer is set to the static (fixed) IP address, you need to change it to obtain an IP address automatically.

2. Enter http://tplinkwifi.net or http://192.168.0.1 in the address bar of a web browser.



Address http://tplinkwifi.net

3. Use **admin** for both username and password, and click **Login**.



☞ **Note:**

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

4. Create a new username and password for subsequent login.

Chapter 4. Set Up Internet Connection

4.1 Quick Setup

The Quick Setup Wizard will guide you through the process to set up your router to access the Internet.

4.1.1 Use the Quick Setup with Auto-detection

I want to: Automatically set up my router to access the Internet.

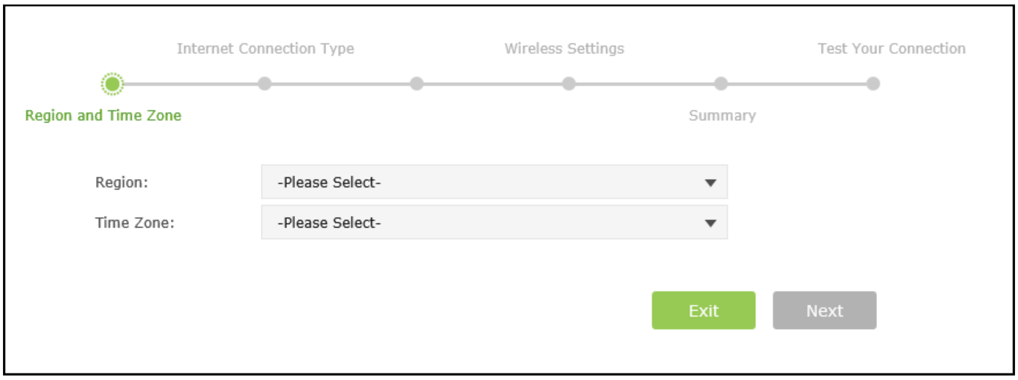
Note: If you need the IPv6 Internet connection, please refer to the section of *Manually Specify IPv6 Internet Connections*.

Example:

My Internet service provider (ISP) provided me Dynamic IP as the Internet connection type. I want to quickly configure my router for Internet connection.

How can I do that?

1. Visit http://tplinkwifi.net, and log in with the password you set for the router.
2. Click **Quick Setup** on the top of the page，select your Region and Time Zone from the drop-down list and click **Next**.



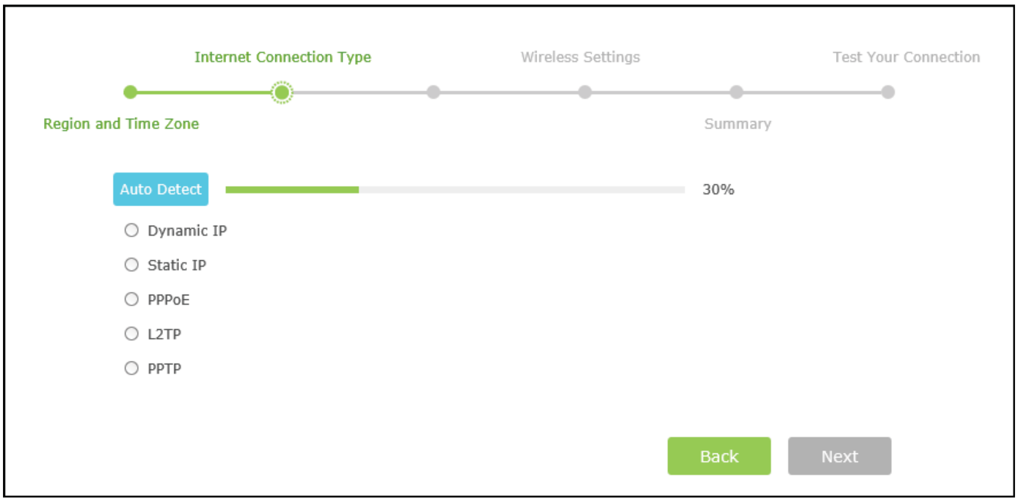
Region: -Please Select-

Time Zone: -Please Select-

3. Click **Auto Detect** and the router will detect your connection type automatically.

Note:

You can also choose the connection type manually. If you use DSL line and you are only provided an account name and a password by your ISP, choose PPPoE. If you use cable TV or fiber cable, choose Dynamic IP. If you are provided more information such as IP address, Subnet Mask and Default Gateway, choose Static IP. Contact your ISP if you are not sure about the Internet connection information.



○ Dynamic IP

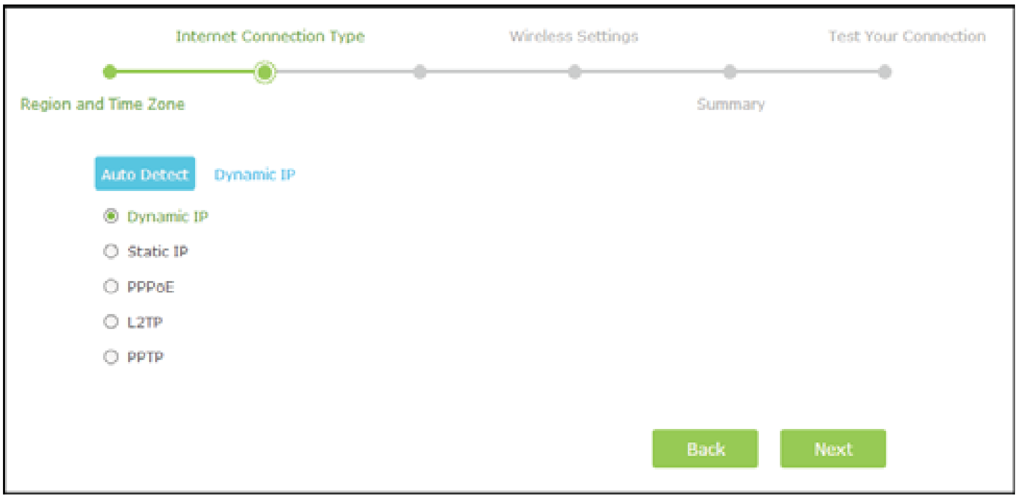
○ Static IP

○ PPPoE

○ L2TP

○ PPTP

4. In this case, the router automatically detects Dynamic IP as the connection type. Click **Next**.



Auto Detect Dynamic IP

● Dynamic IP

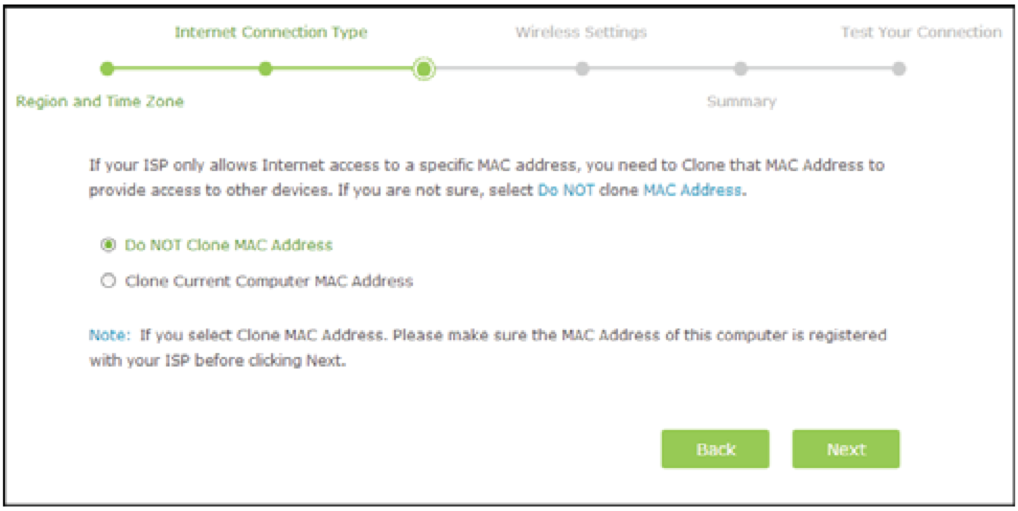
○ Static IP

○ PPPoE

○ L2TP

○ PPTP

5. Follow the instructions on the page to decide whether to clone MAC Address. Click **Next**.



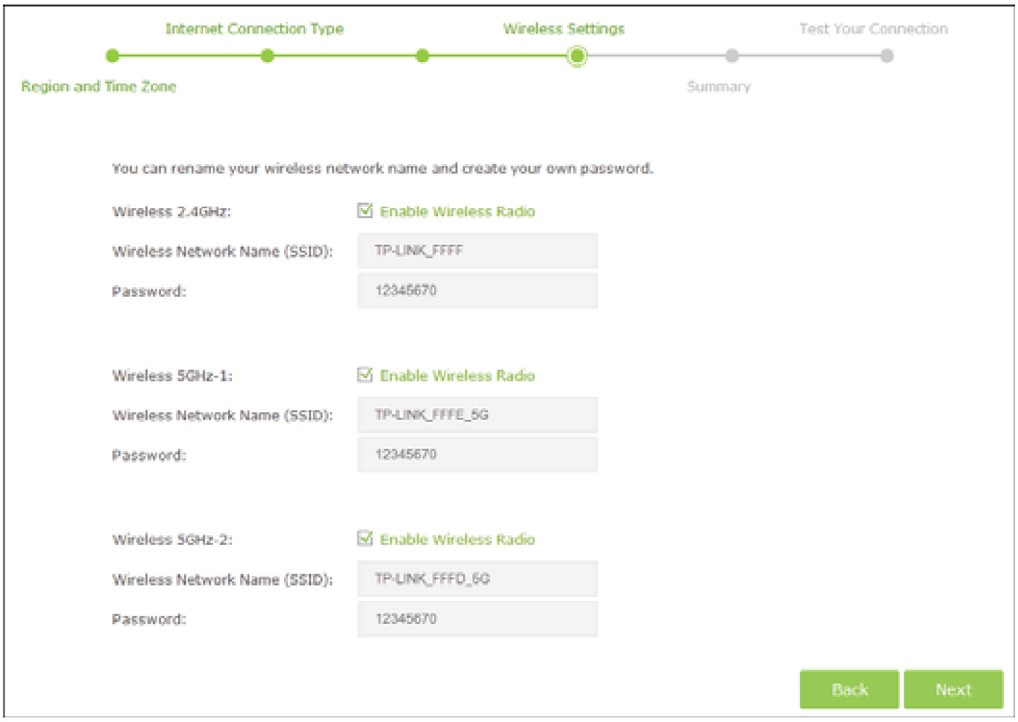
If your ISP only allows Internet access to a specific MAC address, you need to Clone that MAC Address to provide access to other devices. If you are not sure, select Do NOT clone MAC Address.

● Do NOT Clone MAC Address

○ Clone Current Computer MAC Address

Note: If you select Clone MAC Address. Please make sure the MAC Address of this computer is registered with your ISP before clicking Next.

6. Configure your wireless settings and click **Next**.



You can rename your wireless network name and create your own password.

Wireless 2.4GHz: ☑ Enable Wireless Radio

Wireless Network Name (SSID): TP-LINK_FFFF

Password: 12345670

Wireless 5GHz-1: ☑ Enable Wireless Radio

Wireless Network Name (SSID): TP-LINK_FFFE_5G

Password: 12345670

Wireless 5GHz-2: ☑ Enable Wireless Radio

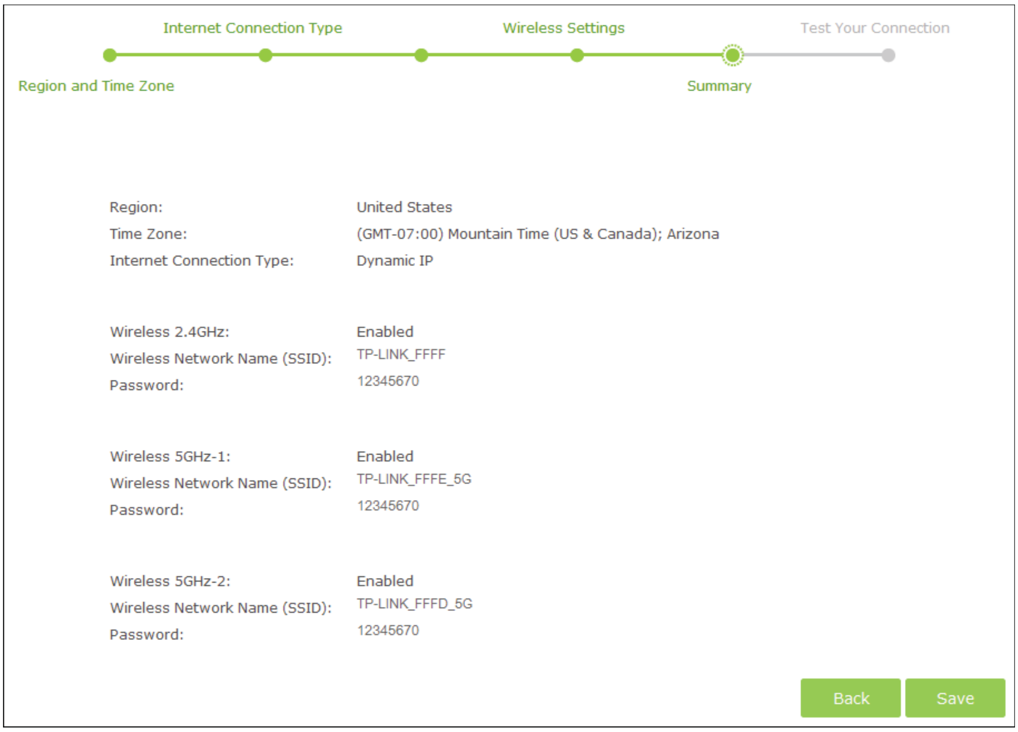
Wireless Network Name (SSID): TP-LINK_FFFD_5G

Password: 12345670

Note:

- You may customize your 2.4GHz/5GHz SSID and password. Once done, the wireless connection will disconnect automatically, and you must then use the new SSID/password to regain access to the Internet.
- Tick "Hide SSID" if you want to hide this wireless network name.

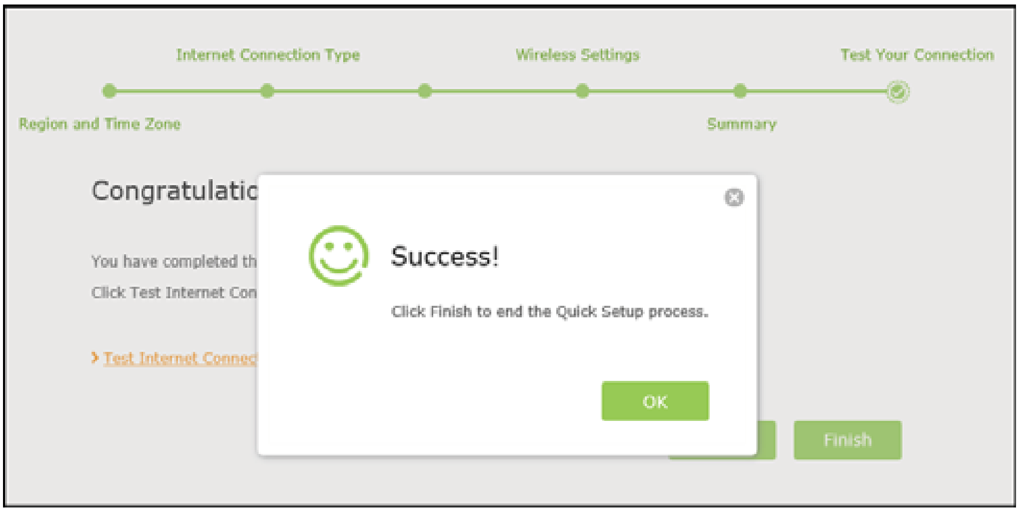
7. Confirm the information and click **Save**.



Region:	United States
Time Zone:	(GMT-07:00) Mountain Time (US & Canada); Arizona
Internet Connection Type:	Dynamic IP
Wireless 2.4GHz:	Enabled
Wireless Network Name (SSID):	TP-LINK_FFFF
Password:	12345670
Wireless 5GHz-1:	Enabled
Wireless Network Name (SSID):	TP-LINK_FFFE_5G
Password:	12345670
Wireless 5GHz-2:	Enabled
Wireless Network Name (SSID):	TP-LINK_FFFD_5G
Password:	12345670

8. Click **Test Internet Connection**.

If you successfully connect to the Internet, the screen will display as follows.



Congratulatic

You have completed th

Click Test Internet Con

› Test Internet Connec

Success!

Click Finish to end the Quick Setup process.

Completed! Success! Now your computer and WiFi device can connect to the Internet!

You can connect your computer to the router's LAN port using an Ethernet cable to join the local area network. You can also find and select the wireless network name on your WiFi device to join the WiFi network.

4.2 Manual Setup

Select **Basic > Internet** and you can check your current Internet connection settings. You can also modify the settings according to the service information provided by your ISP.

4.2.1 Manually configure your Internet Connection Settings

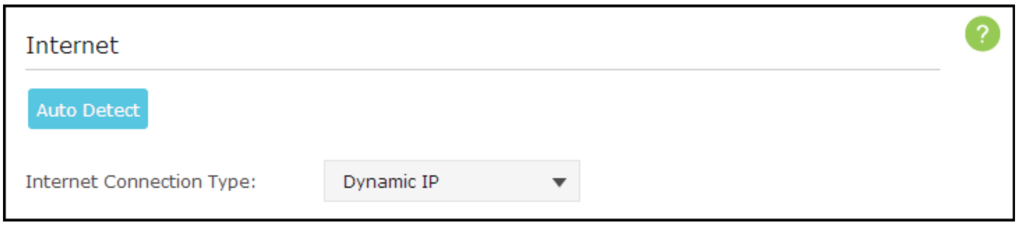
I want to: View and manually modify the router's Internet connection settings.

Example:

After I finish the Quick Setup, I still cannot connect to the Internet, so I want to check and modify the settings.

How can I do that?

1. Visit http://tplinkwifi.net, and log in with the password you set for the router.
2. Click **Basic** on the top of the page, and then click **Internet** on the left to enter the setting page.
3. Select your Internet connection type from the drop-down list.

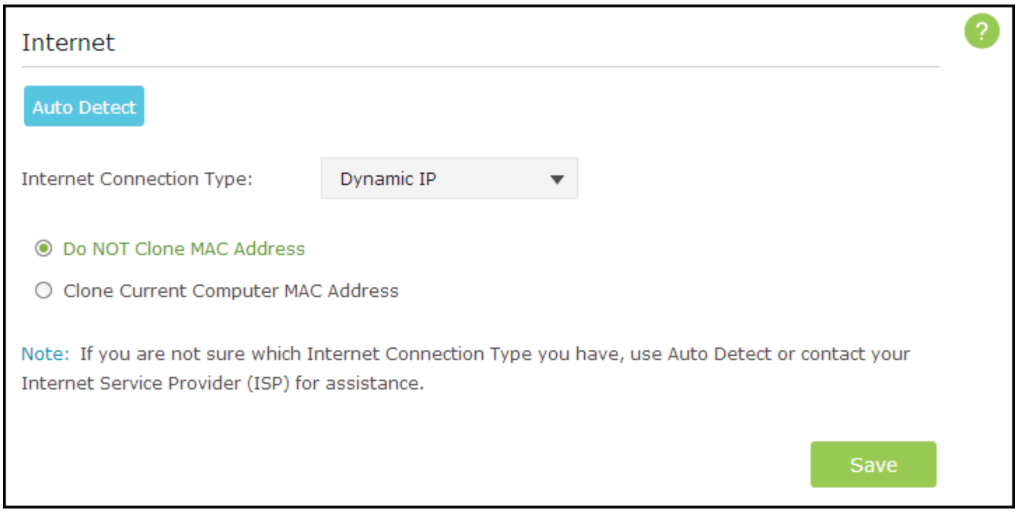


Internet Connection Type: Dynamic IP

Note: If you are unsure what your connection type is, click **Auto Detect**. Since different connection types need different cables and connection information, you can also refer to the demonstrations in Step 3 to judge your connection type.

4. Follow the instructions on the page to continue the configuration. Parameters on the figures are just used for demonstration.

- If you choose Dynamic IP, you need to select whether to clone the MAC address. Dynamic IP users are usually equipped with cable TV or fiber cable.



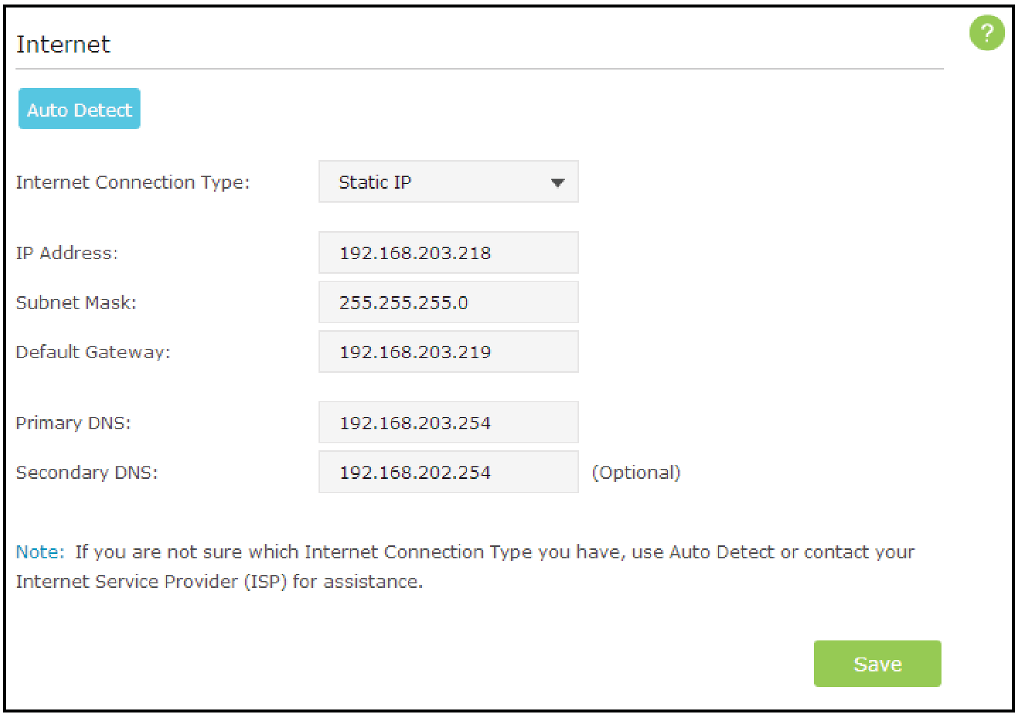
Internet Connection Type: Dynamic IP

● Do NOT Clone MAC Address

○ Clone Current Computer MAC Address

Note: If you are not sure which Internet Connection Type you have, use Auto Detect or contact your Internet Service Provider (ISP) for assistance.

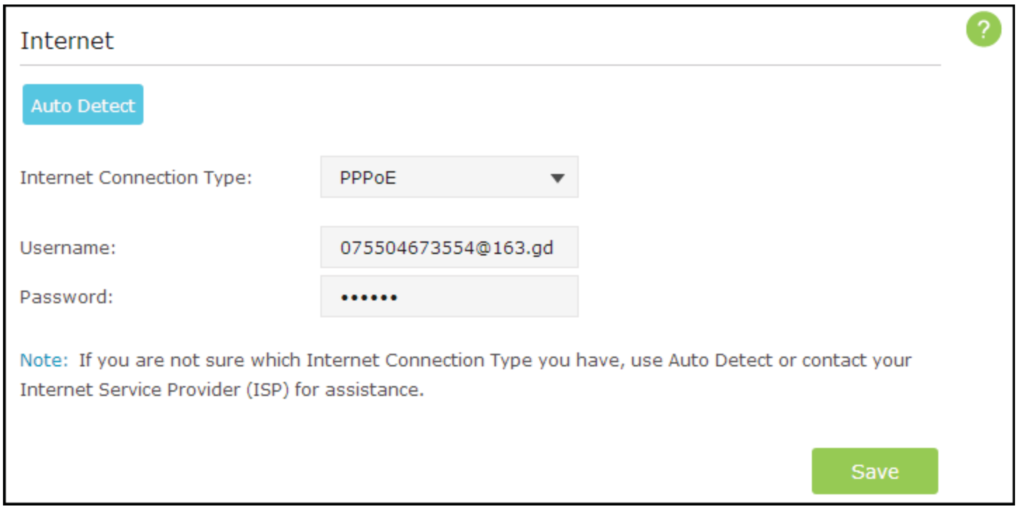
- If you choose Static IP, enter the information provided by your ISP in the corresponding fields.



Internet Connection Type:	Static IP
IP Address:	192.168.203.218
Subnet Mask:	255.255.255.0
Default Gateway:	192.168.203.219
Primary DNS:	192.168.203.254
Secondary DNS:	192.168.202.254 (Optional)

Note: If you are not sure which Internet Connection Type you have, use Auto Detect or contact your Internet Service Provider (ISP) for assistance.

- If you choose PPPoE, enter the username and password provided by your ISP. PPPoE users usually have DSL cable.

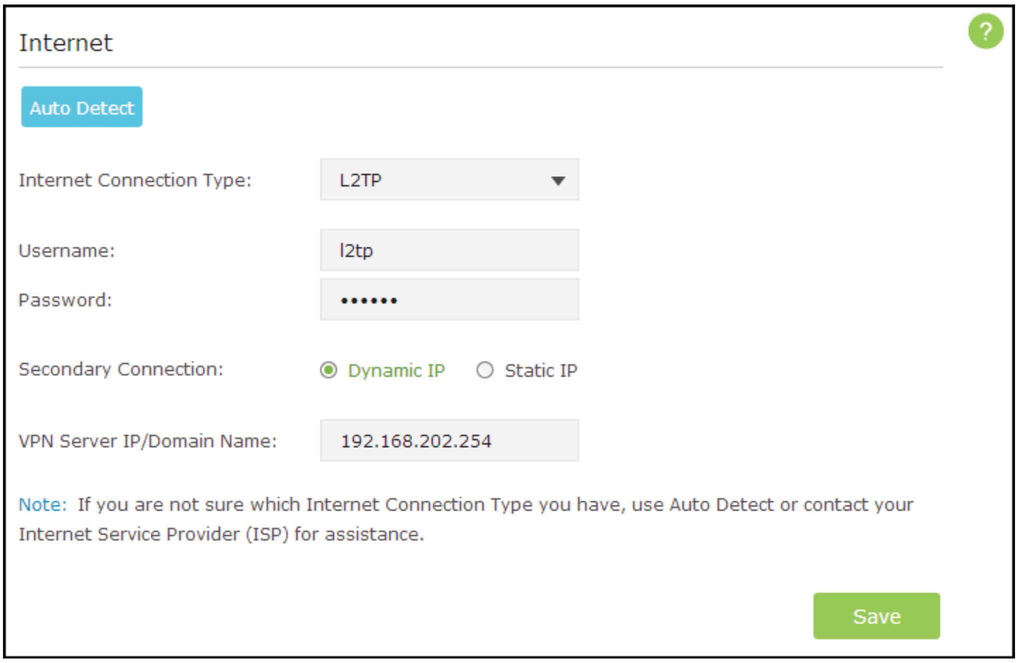


Internet

Internet Connection Type:	PPPoE
Username:	075504673554@163.gd
Password:	••••••

Note: If you are not sure which Internet Connection Type you have, use Auto Detect or contact your Internet Service Provider (ISP) for assistance.

- ➢ If you choose L2TP, enter the username and password and choose the Secondary Connection provided by your ISP. Different parameters are needed according to the Secondary Connection.

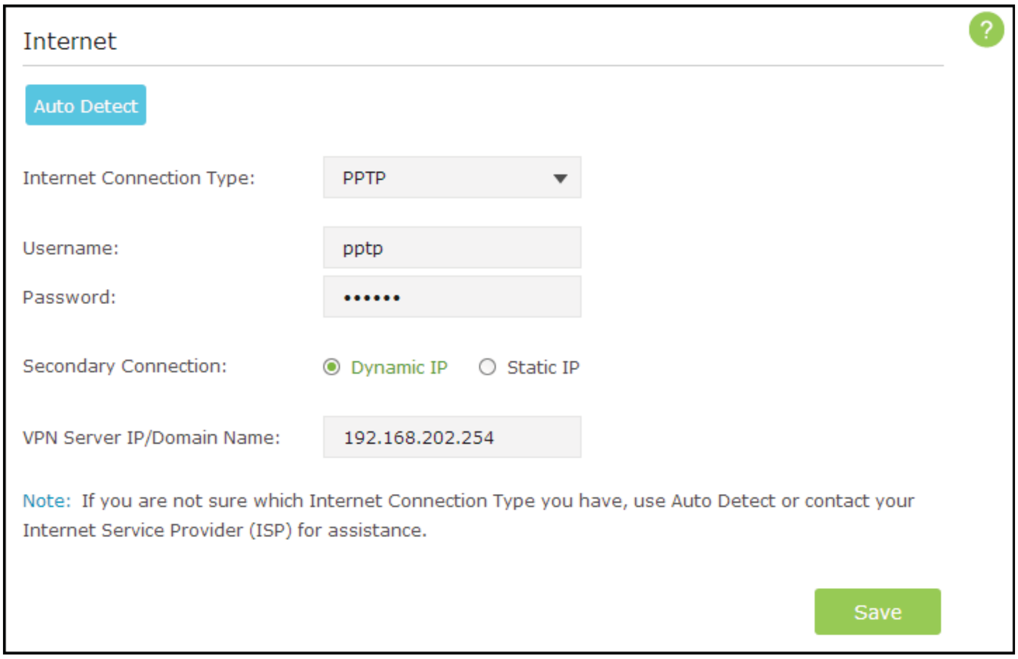


Internet

Internet Connection Type:	L2TP
Username:	l2tp
Password:	••••••
Secondary Connection:	● Dynamic IP ○ Static IP
VPN Server IP/Domain Name:	192.168.202.254

Note: If you are not sure which Internet Connection Type you have, use Auto Detect or contact your Internet Service Provider (ISP) for assistance.

- ➢ If you choose PPTP, enter the username, password and choose the Secondary Connection provided by your ISP. Different parameters are needed according to the Secondary Connection.



Internet

Internet Connection Type: PPTP

Username: pptp

Password: ••••••

Secondary Connection: ● Dynamic IP ○ Static IP

VPN Server IP/Domain Name: 192.168.202.254

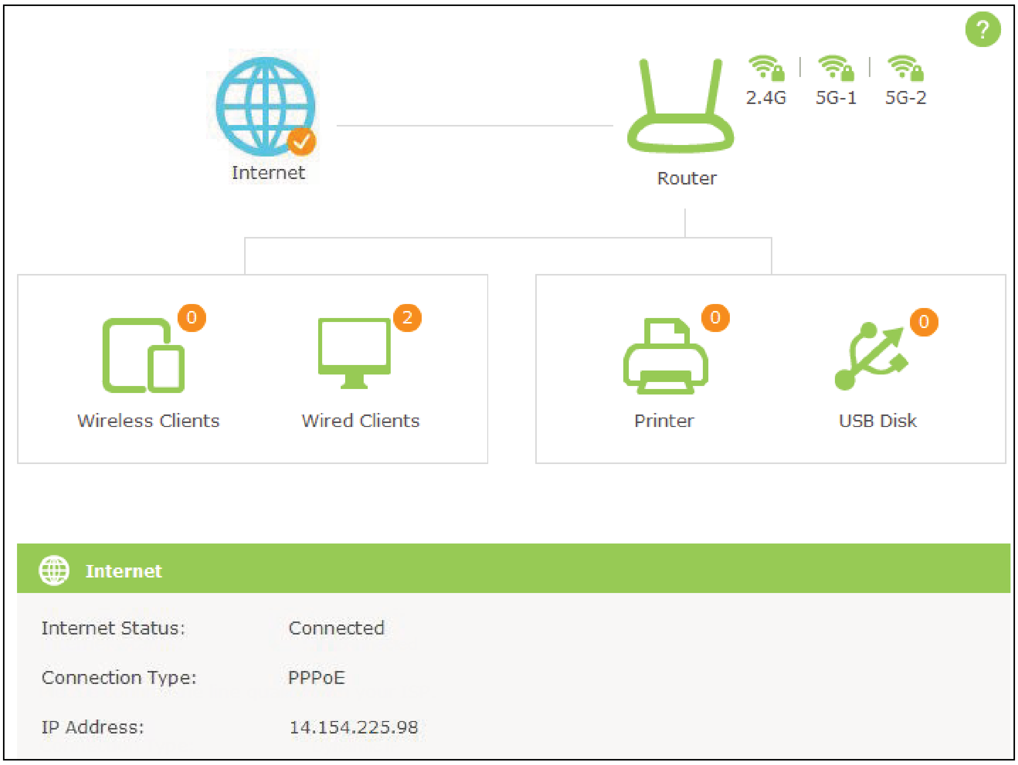
Note: If you are not sure which Internet Connection Type you have, use Auto Detect or contact your Internet Service Provider (ISP) for assistance.

5. Click **Save** to make the settings take effect. To check your Internet connection, click **Network Map** on the left of the page.

Note:

It may take 1-2 minutes to make the settings valid.

6. After the connection succeed, the screen will display as follows. Here we take PPPoE as an example.



Internet

Internet Status: Connected

Connection Type: PPPoE

IP Address: 14.154.225.98

Note:

- If your Internet connection type is "Bigpond Cable", please go to "Advanced>Network>Internet".
- If you use Dynamic IP and PPPoE and you are provided any other parameters that are not required on the page, please go to "Advanced>Network>Internet" to complete the configuration.
- If you still cannot connect to the Internet, refer to Appendix: FAQ for further instructions.

Completed! Success! Now your computer and WiFi device can connect to the Internet!

You can connect your computer to the router's LAN port using an Ethernet cable to join the local area network. You can also find and select the wireless network name on your WiFi device to join the WiFi network.

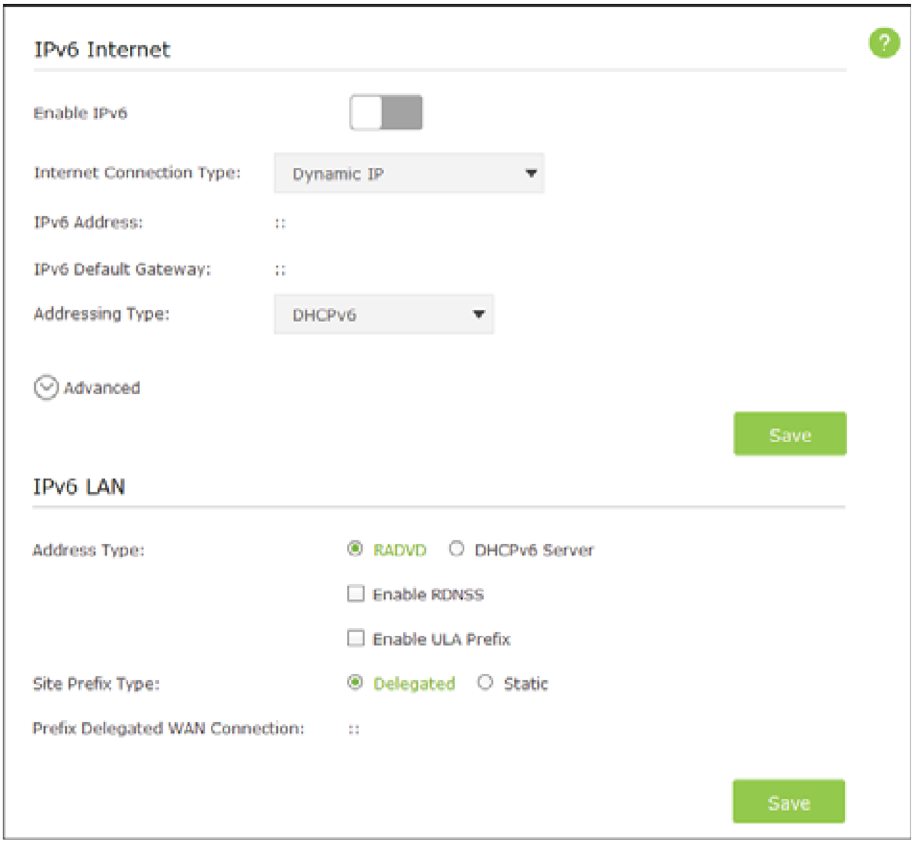
Chapter 5. Set up an IPv6 Internet Connection

I want to:

Connect to IPv6 network with information provided by my ISP.

How can I do that?

1. Visit http://tplinkwifi.net, and log in with the password you set for the router.
2. Click **Advanced** > **IPv6** to log into the configuration page.



IPv6 Internet

Enable IPv6

Internet Connection Type: Dynamic IP

IPv6 Address: ::

IPv6 Default Gateway: ::

Addressing Type: DHCPv6

IPv6 LAN

Address Type: ● RADVD ○ DHCPv6 Server

□ Enable RDNSS

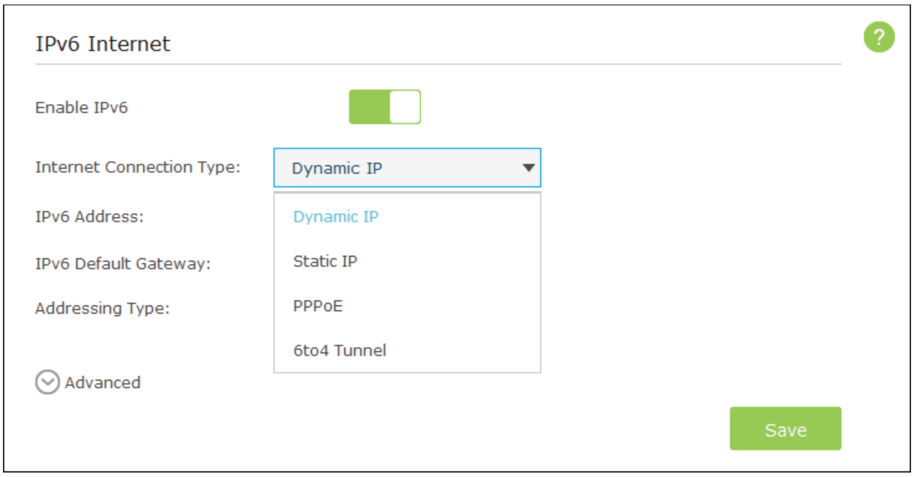
□ Enable ULA Prefix

Site Prefix Type: ● Delegated ○ Static

Prefix Delegated WAN Connection: ::

3. Enable IPv6, and select the Internet connection type provided by ISP.

   Tip: If you do not know what your Internet connection type is, contact your ISP or judge according to already known information provided by your ISP.



IPv6 Internet

Enable IPv6

Internet Connection Type: Dynamic IP

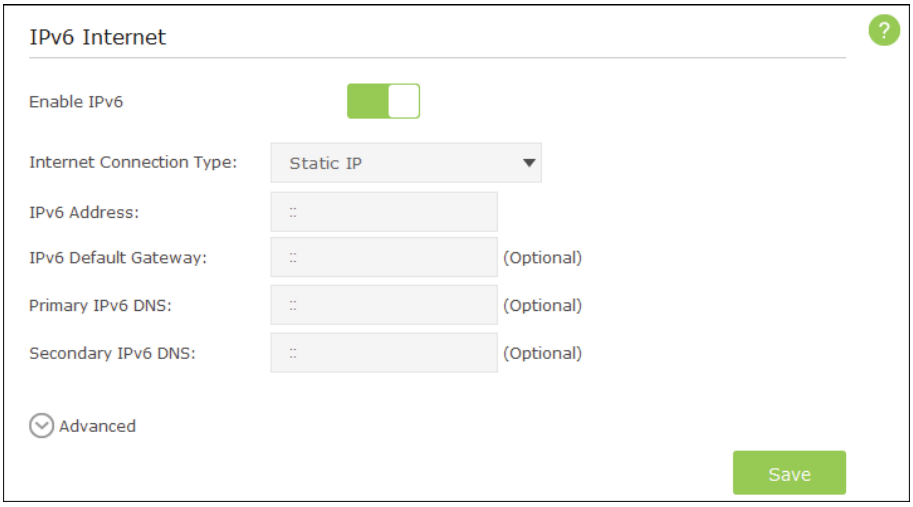
IPv6 Address:

IPv6 Default Gateway:

Addressing Type:

4. Fill in information as required by different connection type.

Static IP：Fill in blanks and click **Save**.



IPv6 Internet

Enable IPv6

Internet Connection Type: Static IP

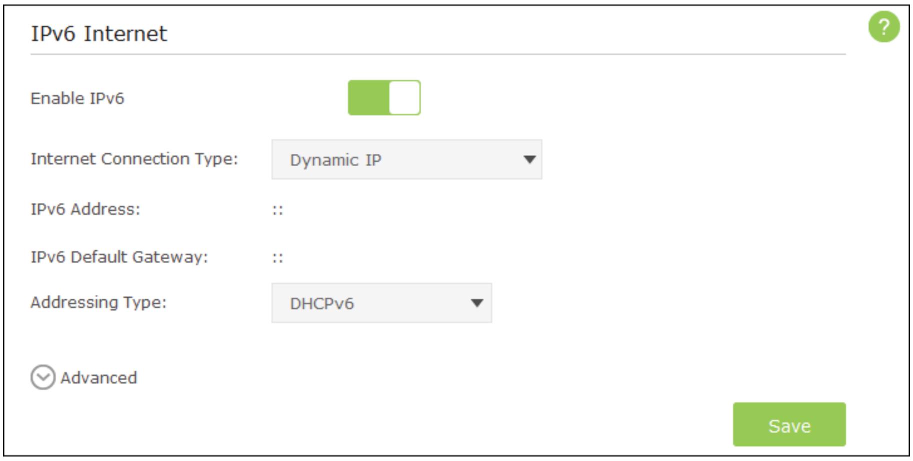
IPv6 Address: ::

IPv6 Default Gateway: :: (Optional)

Primary IPv6 DNS: :: (Optional)

Secondary IPv6 DNS: :: (Optional)

Dynamic IP：Click **Advanced** to have more configuration if ISP requires. Click **Save** to save the settings and then click **Renew** to finish the configuration.



IPv6 Internet

Enable IPv6

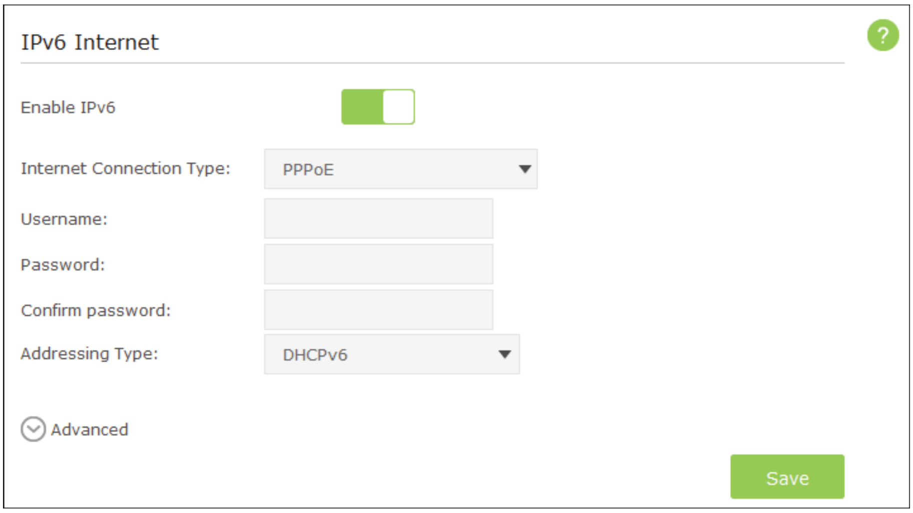
Internet Connection Type: Dynamic IP

IPv6 Address: ::

IPv6 Default Gateway: ::

Addressing Type: DHCPv6

PPPoE：Fill in the Username and Password. Click **Advanced** to have more configuration if ISP requires. Click **Save** to save the settings and then click **Connect** to finish the configuration.



IPv6 Internet

Enable IPv6

Internet Connection Type: PPPoE

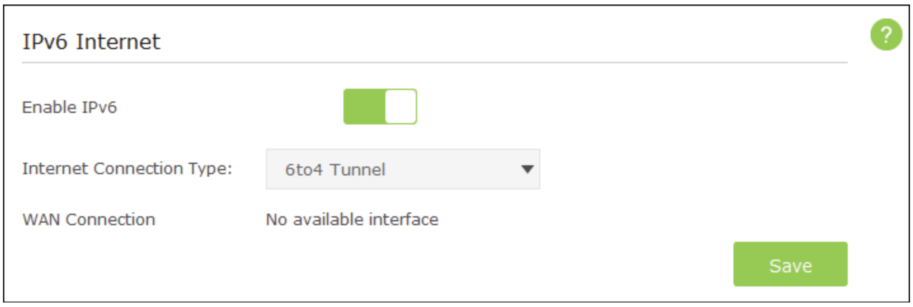
Username:

Password:

Confirm password:

Addressing Type: DHCPv6

6to4 Tunnel：An IPv4 Internet connection type is a prerequisite for this connection type. (Go to ...for more information.) Click **Advanced** to have more configuration if ISP requires. Click **Save** to save the settings and then click **Connect** to finish the configuration.



IPv6 Internet

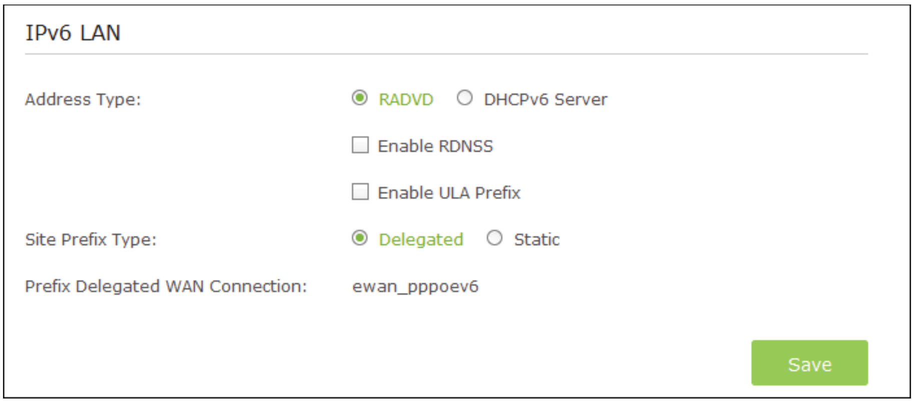
Enable IPv6

Internet Connection Type: 6to4 Tunnel

WAN Connection No available interface

5. Click **Save**.
6. Configure IPv6 LAN. Leave the rest of the settings as default and click **Save**.

Tips: Find Help on the management interface to know more about items.



IPv6 LAN

Address Type: ● RADVD ○ DHCPv6 Server

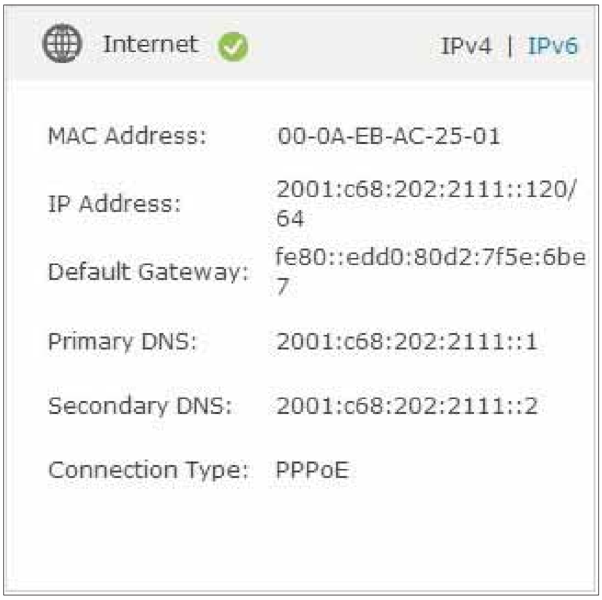
□ Enable RDNSS

□ Enable ULA Prefix

Site Prefix Type: ● Delegated ○ Static

Prefix Delegated WAN Connection: ewan_pppoev6

7. Click **Status** to check whether you succeed or not. The following figure is an example of a successful PPPoE configuration.



MAC Address:	00-0A-EB-AC-25-01
IP Address:	2001:c68:202:2111::120/64
Default Gateway:	fe80::edd0:80d2:7f5e:6be7
Primary DNS:	2001:c68:202:2111::1
Secondary DNS:	2001:c68:202:2111::2
Connection Type:	PPPoE

Tips: Visit FAQ if there is no Internet connection.

Completed! Now your router has successfully connected to IPv6 Internet. Devices can connect to the Internet wired or wirelessly.

Chapter 6. Bandwidth Control

The Bandwidth Control feature is used to fully utilize your limit bandwidth and optimize the load respectively. With this feature enabled, you can assign a specific minimum or maximum bandwidth for each computer, thus minimizing the impact caused when the connection is under heavy load.

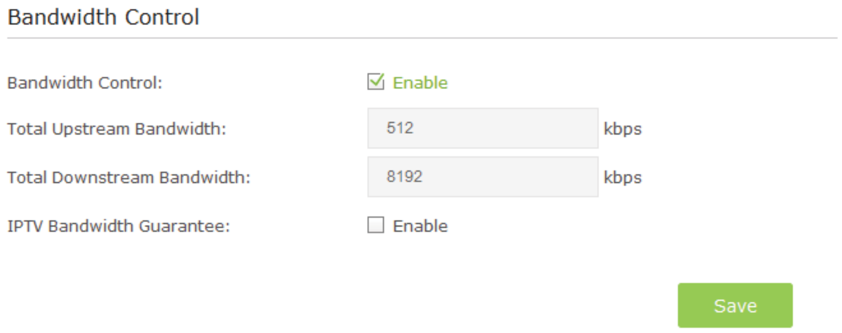
I want to: Use an independent bandwidth and enjoy a good Internet experience without being affected by other users who are sharing the same router.

For example, my roommate and I share 512Kbps Upstream Bandwidth and 8Mbps Downstream Bandwidth via this router, she likes to watch live show and play online games, which may take up much bandwidth. I don't want to be affected, so we agree to equally distribute the bandwidth. Our IP addresses are 192.168.1.101 and 192.168.1.110.

Tips: To use the bandwidth control feature, you'd better set static IP Address on each computer to be controlled or configure Address reservation on the router in order to manage easily. About how to configure address reservation, please refer to Reserve LAN IP Addresses.

How can I do that?

1. Visit http://tplinkwifi.net, and log in with the password you set for the router.
2. Go to ***Advanced > Bandwidth Control*** page.



Bandwidth Control

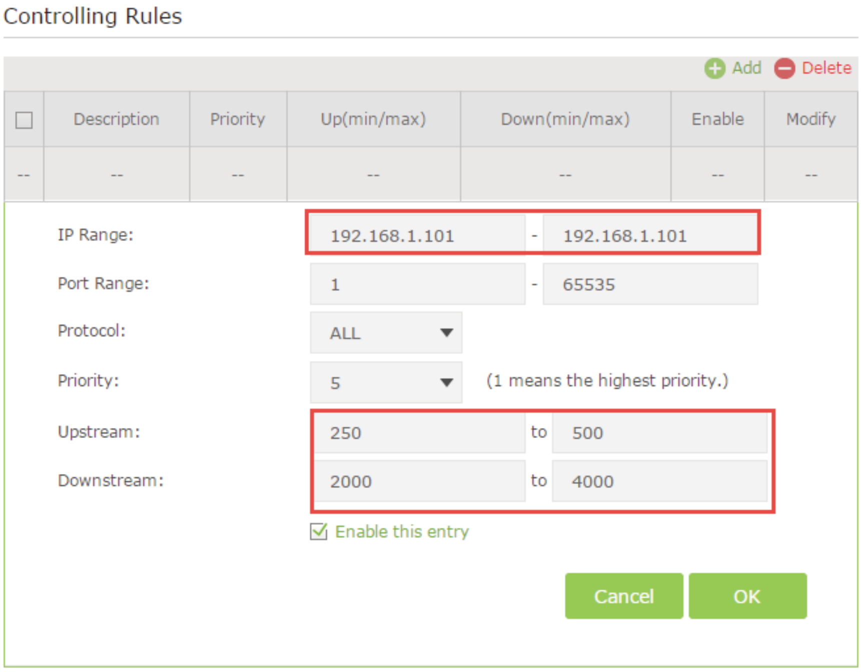
Bandwidth Control: ☑ Enable

Total Upstream Bandwidth: 512 kbps

Total Downstream Bandwidth: 8192 kbps

IPTV Bandwidth Guarantee: □ Enable

3. Enable Bandwidth Control.
4. Enter the **Total Upstream Bandwidth** and the **Total Downstream Bandwidth** given by your ISP. (**1Mbps=1024Kbps**)
5. Click **Save** to save the settings.
6. Click **Add** to add controlling rules for each computer respectively.



Controlling Rules

□	Description	Priority	Up(min/max)	Down(min/max)	Enable	Modify
--	--	--	--	--	--	--

IP Range: 192.168.1.101 - 192.168.1.101

Port Range: 1 - 65535

Protocol: ALL

Priority: 5 (1 means the highest priority.)

Upstream: 250 to 500

Downstream: 2000 to 4000

☑ Enable this entry

- Add a rule for 192.168.1.101

  IP Range-Enter the IP address. The field can be single IP address or IP address range according to your demands. When you configure the single IP address, the computer with this IP address will get **independent** given bandwidth. When you configure the IP address range, all computers in the range will **share** the given bandwidth.

  Port Range-Keep the default settings. The port arrange of TCP protocol or UDP protocol.

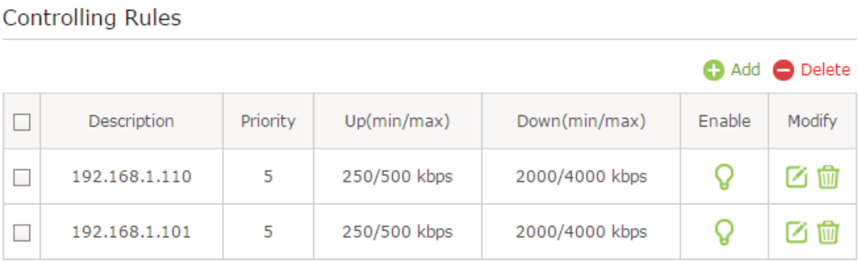
  Protocol-Keep the default settings. Or you can choose the TCP protocol or UDP protocol or both of them.

  Priority-Keep the default settings. You can change the value if you want to first guarantee the bandwidth for one computer. The smaller value has the higher priority.

  Upstream/Downstream-Enter the bandwidth according to your division.

  Check to enable this entry and click OK to save the settings.

- Follow the steps above to add a rule for the other computer. And then you will get the following table.



Controlling Rules

□	Description	Priority	Up(min/max)	Down(min/max)	Enable	Modify
□	192.168.1.110	5	250/500 kbps	2000/4000 kbps		
□	192.168.1.101	5	250/500 kbps	2000/4000 kbps		

Completed! Now you have an independent bandwidth.

Chapter 7. Network Security

7.1 MAC Filtering

This function exploits the uniqueness of the MAC (Medium Access Control) address, a unique 12-digit hexadecimal address (for example, D8:5D:4C:B4:46:EA) of every network device, to determine if the device can or cannot access your wireless network.

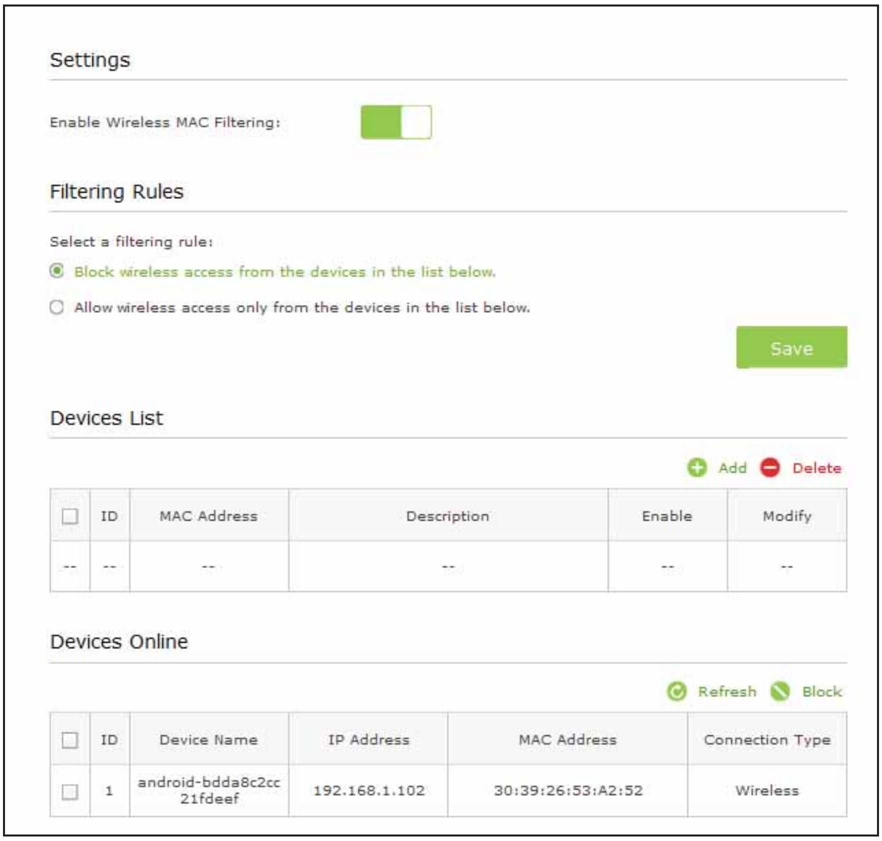
I want to: Prevent unauthorized users from accessing my wireless network by utilizing the network device's MAC address and IP address.

For example, I have a computer that is connected to my wireless network. Now, an unknown device (an intruder) is also using my wireless network, which affects my Internet speed. I need the following capabilities to control my wireless network:

1. My computer is always allowed to access the wireless network.
2. The unknown device is not allowed to access the wireless network.
3. When there are guests, they can use the wireless network with my permission.
4. I don't need to change my network's password.

How can I do that?

1. Visit http://tplinkwifi.net, and log in with the password you set for the router.
2. Go to ***Advanced>Wireless>MAC Filtering***. Enable **Wireless MAC Filtering**.



Settings

Enable Wireless MAC Filtering:

Filtering Rules

Select a filtering rule:

● Block wireless access from the devices in the list below.

○ Allow wireless access only from the devices in the list below.

Save

Devices List

Add Delete

□	ID	MAC Address	Description	Enable	Modify
--	--	--	--	--	--

Devices Online

Refresh Block

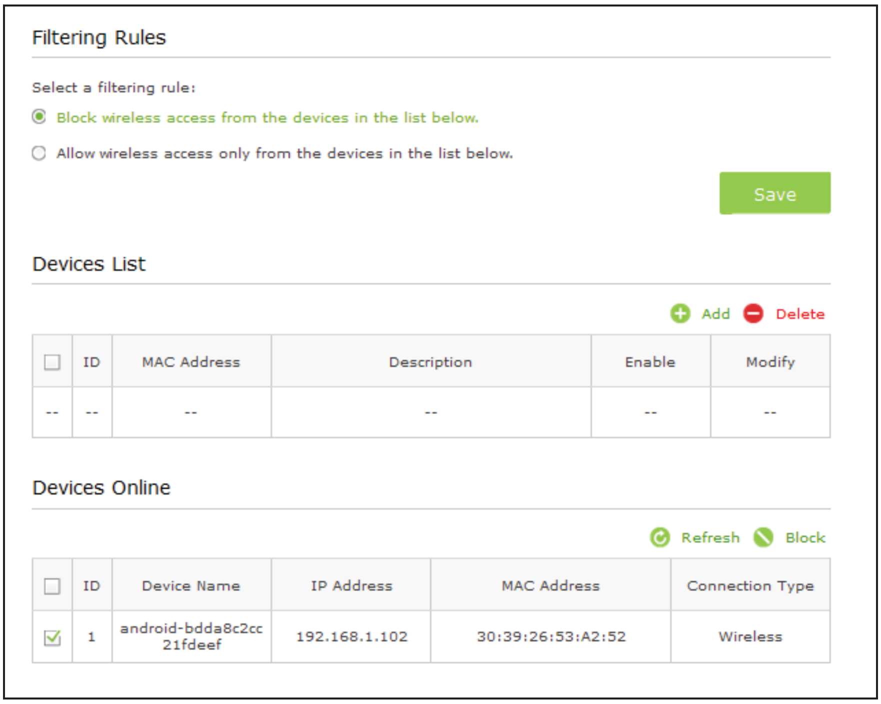
□	ID	Device Name	IP Address	MAC Address	Connection Type
□	1	android-bdda8c2cc 21fdeef	192.168.1.102	30:39:26:53:A2:52	Wireless

3. **Use method 1 or method 2 to configure the filtering rules.**

➢ **Method 1: block the unknown device (Recommended)**

1) Select **Block wireless access from the devices in the list below** and Click **Save**.

2) Select the device(s) to be blocked in the **Devices Online** table.



Filtering Rules

Select a filtering rule:

● Block wireless access from the devices in the list below.

○ Allow wireless access only from the devices in the list below.

Save

Devices List

Add Delete

□	ID	MAC Address	Description	Enable	Modify
--	--	--	--	--	--

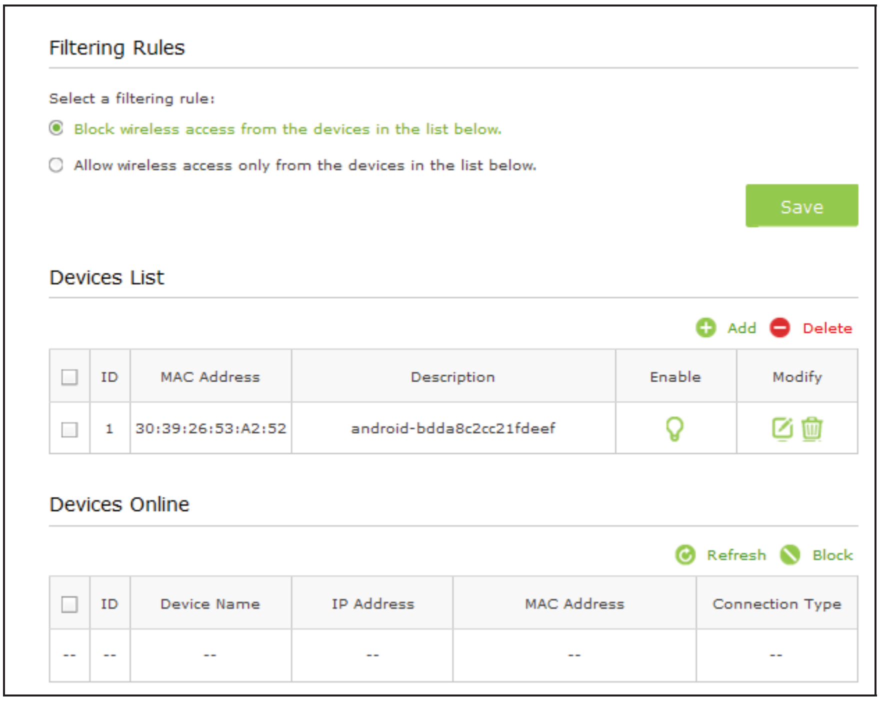
Devices Online

Refresh Block

□	ID	Device Name	IP Address	MAC Address	Connection Type
☑	1	android-bdda8c2cc 21fdeef	192.168.1.102	30:39:26:53:A2:52	Wireless

3) Click **Block** above the **Devices Online** table. The selected devices will

be added to **Devices List** automatically.



Filtering Rules

Select a filtering rule:

● Block wireless access from the devices in the list below.

○ Allow wireless access only from the devices in the list below.

Save

Devices List

Add Delete

□	ID	MAC Address	Description	Enable	Modify
□	1	30:39:26:53:A2:52	android-bdda8c2cc21fdeef		

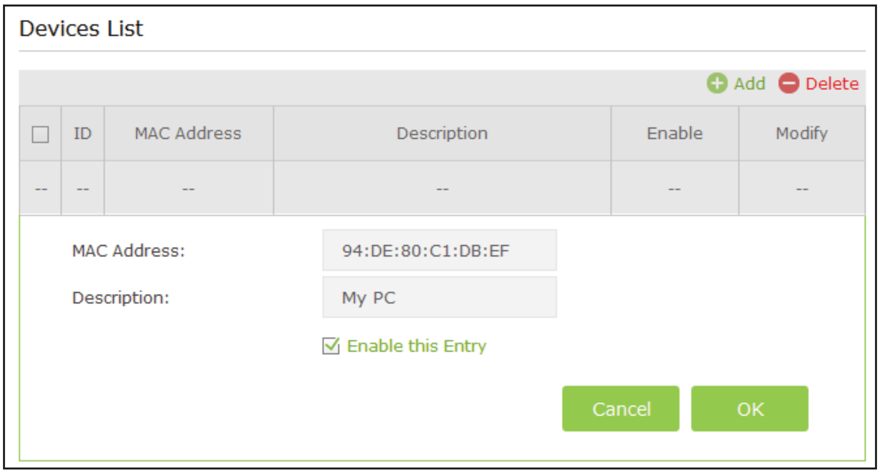
Devices Online

Refresh Block

□	ID	Device Name	IP Address	MAC Address	Connection Type
--	--	--	--	--	--

- **Method 2: allow the authorized device(s)**

1) Select **Allow wireless access from the devices only in the list below** and Click **Save**.
2) Click **Add**.
3) Enter the **MAC Address** (You can copy and paste the **MAC Address** from **Devices Online** list if the device is connected to your wireless network) and the **Description** of the allowed device.
4) Select the checkbox to enable this entry, and click **OK**.



Devices List

Add Delete

□	ID	MAC Address	Description	Enable	Modify
--	--	--	--	--	--

MAC Address: 94:DE:80:C1:DB:EF

Description: My PC

☑ Enable this Entry

Cancel OK

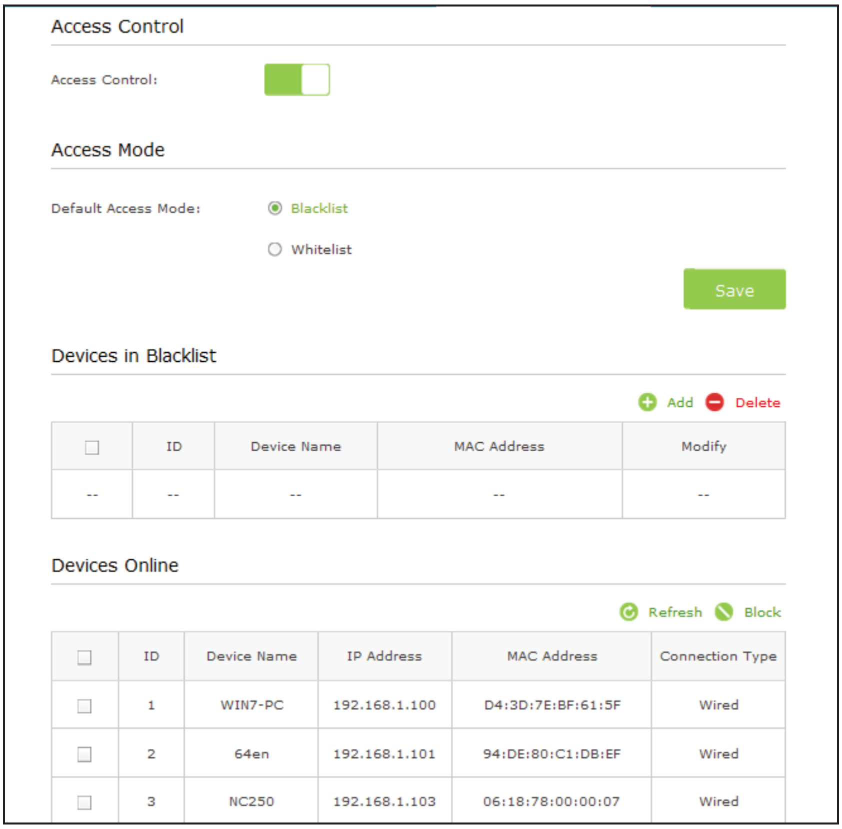
Completed! Now the intruder can no longer access your wireless network.

7.2 Access Control

I want to: Block or allow some specific client devices to access my network (wired or wireless) using a list of blocked devices or a list of allowed devices.

How can I do that?

1. Visit http://tplinkwifi.net, and log in with the password you set for the router.
2. Go to ***Advanced > Security > Access Control***. Enable Access Control.



Access Control

Access Control: ON

Access Mode

Default Access Mode: ● Blacklist ○ Whitelist

Devices in Blacklist

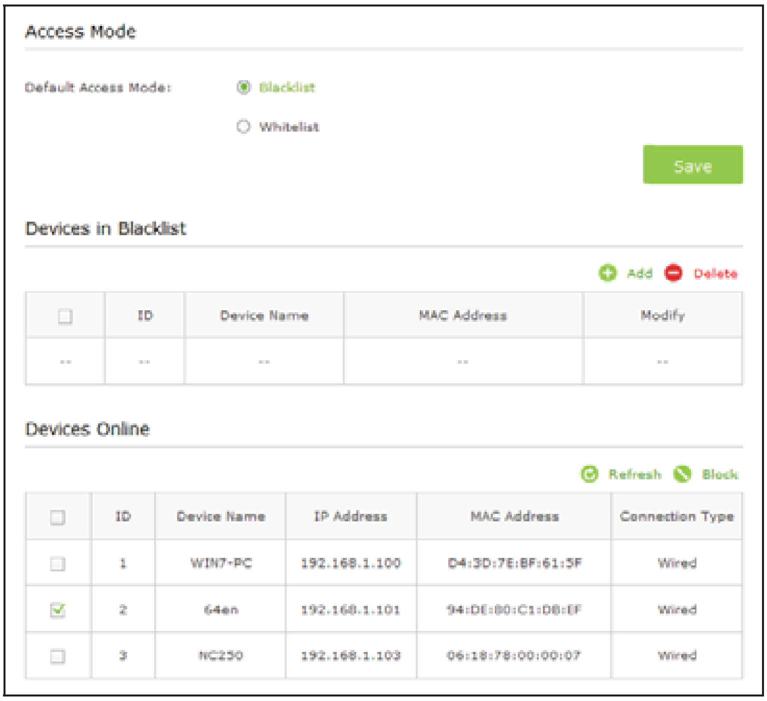
□	ID	Device Name	MAC Address	Modify
--	--	--	--	--

Devices Online

□	ID	Device Name	IP Address	MAC Address	Connection Type
□	1	WIN7-PC	192.168.1.100	D4:3D:7E:BF:61:5F	Wired
□	2	64en	192.168.1.101	94:DE:80:C1:DB:EF	Wired
□	3	NC250	192.168.1.103	06:18:78:00:00:07	Wired

3. Select the **Access Mode** you need and click **Save**.
   - In **Blacklist mode**, any device (wired or wireless) added to the Devices in Blacklist will be blocked from accessing your network. It is recommended to select this mode if you only want to block specific devices. For specific configurations under this mode, go to Blacklist Mode.
   - In **Whitelist mode**, only devices (wired or wireless) added to the Devices in Whitelist will be allowed to access the network. It is recommended to select this mode if you want to grant exclusive access to specific devices. For specific configurations under this mode, go to Whitelist Mode.

✓ **Blacklist Mode**



Access Mode

Default Access Mode: ● Blacklist ○ Whitelist

Devices in Blacklist

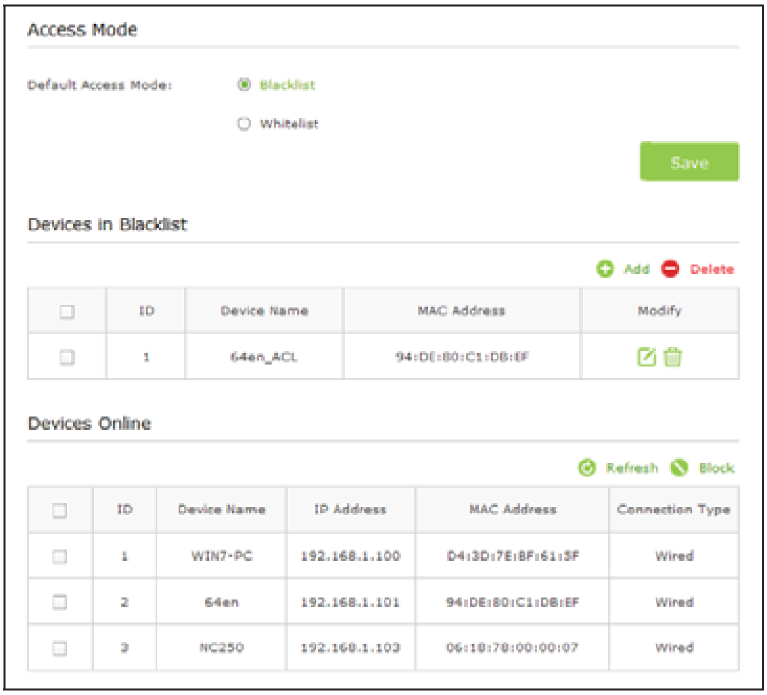
□	ID	Device Name	MAC Address	Modify
--	--	--	--	--

Devices Online

□	ID	Device Name	IP Address	MAC Address	Connection Type
□	1	WIN7-PC	192.168.1.100	D4:3D:7E:BF:61:5F	Wired
☑	2	64en	192.168.1.101	94:DE:80:C1:DB:EF	Wired
□	3	NC250	192.168.1.103	06:18:78:00:00:07	Wired

1) Select the device(s) to be blocked.

2) Click **Block**. The selected device(s) will be added to Devices in Blacklist automatically.



Access Mode

Default Access Mode: ● Blacklist ○ Whitelist

Devices in Blacklist

□	ID	Device Name	MAC Address	Modify
□	1	64en_ACL	94:DE:80:C1:DB:EF	✎ 🗑

Devices Online

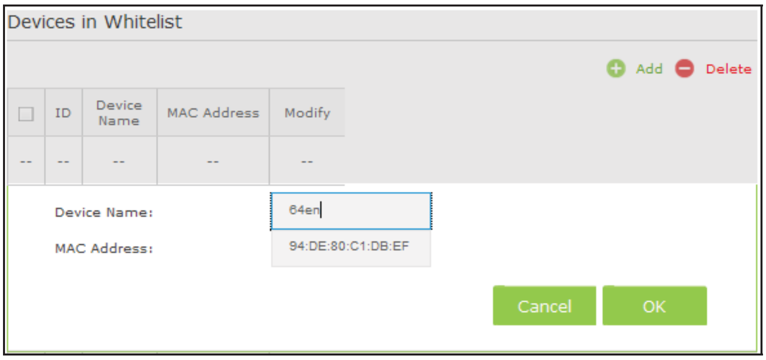
□	ID	Device Name	IP Address	MAC Address	Connection Type
□	1	WIN7-PC	192.168.1.100	D4:3D:7E:BF:61:5F	Wired
□	2	64en	192.168.1.101	94:DE:80:C1:DB:EF	Wired
□	3	NC250	192.168.1.103	06:18:78:00:00:07	Wired

✓ **Whitelist Mode**

1) Click **Add** to add a new entry.

2) Enter the Device Name and MAC address (You can copy and paste the information from Devices Online list if the device is connected to your network).

3) Click **OK**.



Devices in Whitelist

□	ID	Device Name	MAC Address	Modify
--	--	--	--	--

Device Name: 64en

MAC Address: 94:DE:80:C1:DB:EF

Completed! Now you can block or allow specific client devices to access your network (wired or wireless) using the **Blacklist** or **Whitelist**.

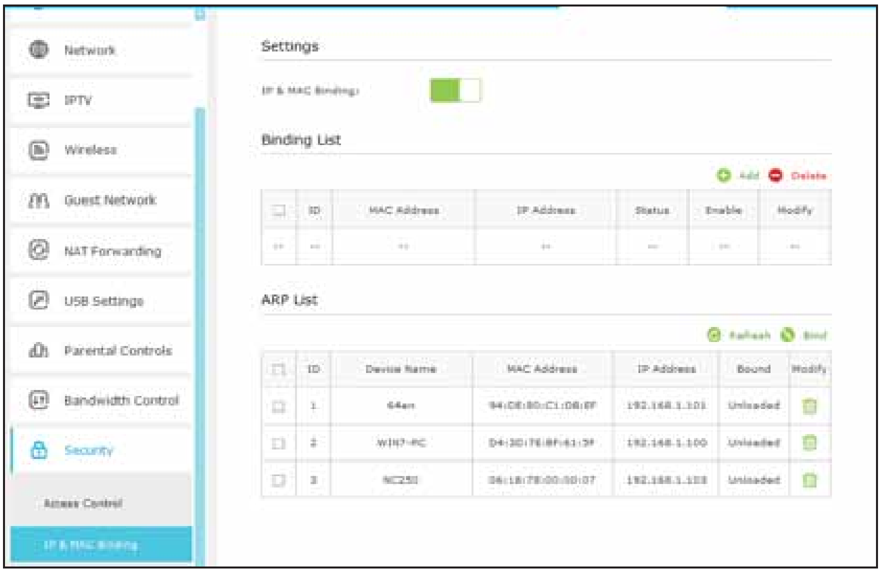
7.3 IP & MAC Binding

IP & MAC Binding, namely, ARP (Address Resolution Protocol) Binding, is used to map network device's IP address to its MAC address. This will prevent ARP Spoofing and ARP Attacks by denying any other device other than the bound one to access the network using the bound IP address.

I want to: Prevent ARP Spoofing and ARP Attacks.

How can I do that?

1. Visit http://tplinkwifi.net, and log in with the password you set for the router.
2. Go to ***Advanced > Security > IP & MAC Binding***. Enable **IP & MAC Binding**.



Settings

IP & MAC Binding:

Binding List

□	ID	MAC Address	IP Address	Status	Enable	Modify
--	--	--	--	--	--	--

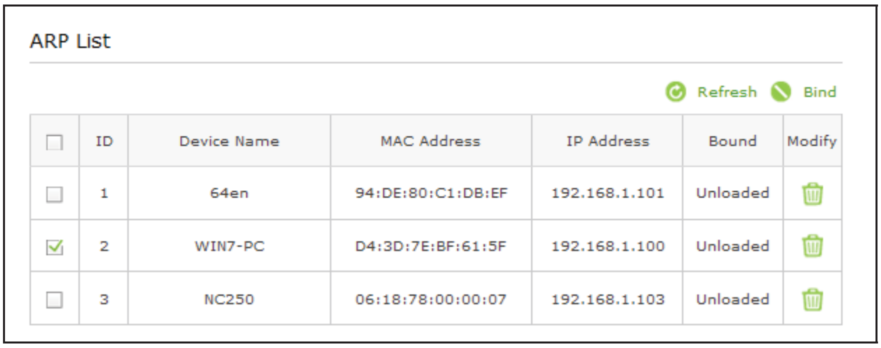
ARP List

□	ID	Device Name	MAC Address	IP Address	Bound	Modify
□	1	64en	94:DE:80:C1:DB:EF	192.168.1.101	Unloaded	
□	2	WIN7-PC	D4:3D:7E:BF:61:3F	192.168.1.100	Unloaded	
□	3	NC250	06:18:78:00:00:07	192.168.1.103	Unloaded	

3. **Use method 1 or method 2 to bind device (s).**

➢ **Method 1: bind the connected device(s)**

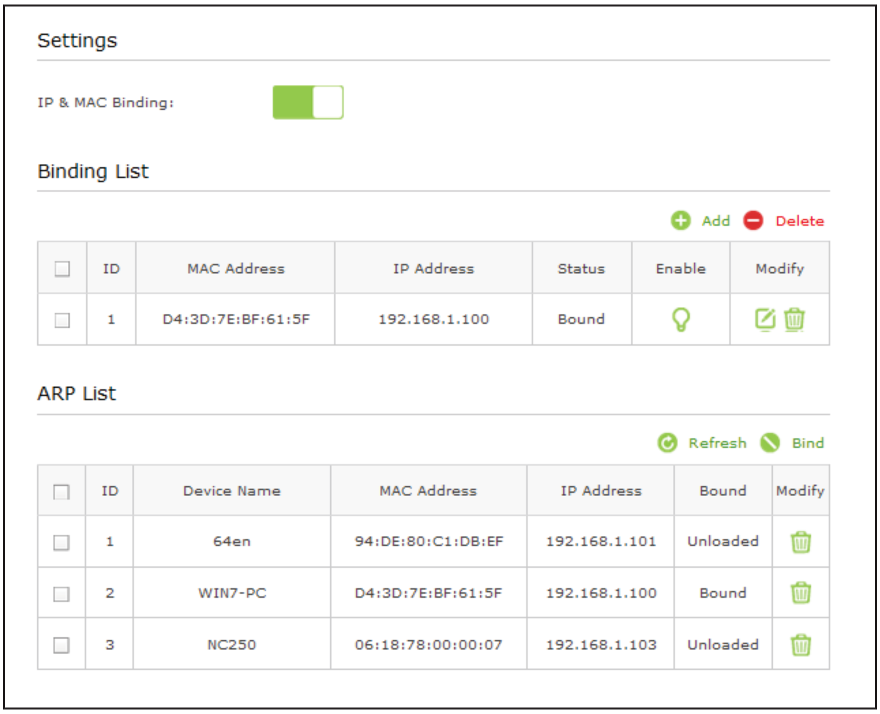
1) Select the device to be bound in the **ARP List**.



ARP List

□	ID	Device Name	MAC Address	IP Address	Bound	Modify
□	1	64en	94:DE:80:C1:DB:EF	192.168.1.101	Unloaded	🗑
☑	2	WIN7-PC	D4:3D:7E:BF:61:5F	192.168.1.100	Unloaded	🗑
□	3	NC250	06:18:78:00:00:07	192.168.1.103	Unloaded	🗑

2) Click **Bind** to add a new binding entry.



Settings

IP & MAC Binding: ●

Binding List

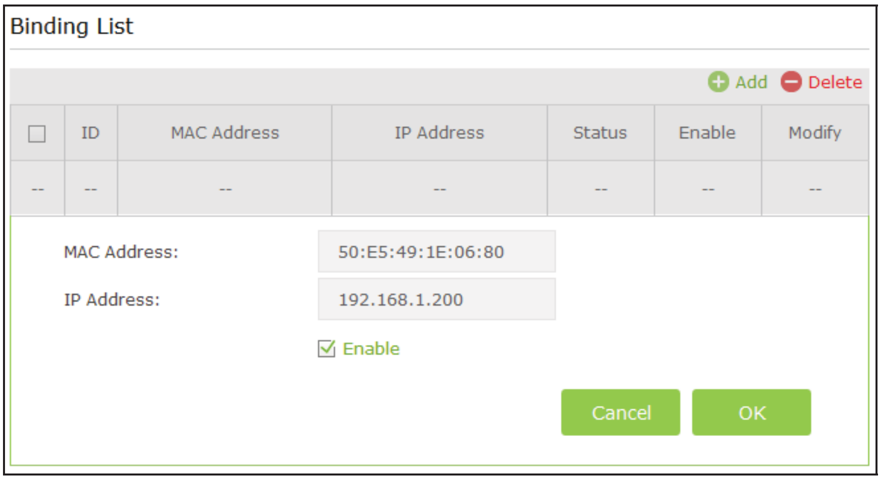
□	ID	MAC Address	IP Address	Status	Enable	Modify
□	1	D4:3D:7E:BF:61:5F	192.168.1.100	Bound	💡	✎ 🗑

ARP List

□	ID	Device Name	MAC Address	IP Address	Bound	Modify
□	1	64en	94:DE:80:C1:DB:EF	192.168.1.101	Unloaded	🗑
□	2	WIN7-PC	D4:3D:7E:BF:61:5F	192.168.1.100	Bound	🗑
□	3	NC250	06:18:78:00:00:07	192.168.1.103	Unloaded	🗑

➢ **Method 2: bind the unconnected device(s)**

1) Click **Add** to add a new entry.



Binding List

□	ID	MAC Address	IP Address	Status	Enable	Modify
--	--	--	--	--	--	--

MAC Address: 50:E5:49:1E:06:80

IP Address: 192.168.1.200

☑ Enable

2) Enter the **MAC address** and **IP address** that you want to bind.

3) Select the checkbox to enable the entry.

4) Click **OK**.

Completed! Now you don’t need to worry about ARP Spoofing and ARP Attacks.

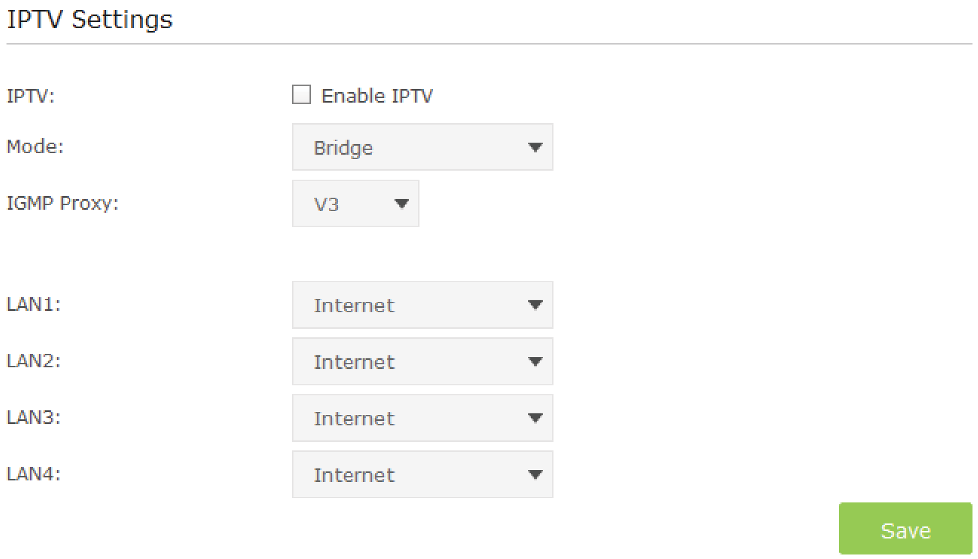
Chapter 8. IPTV

I want to: Configure the Router to enable Internet Protocol Television (IPTV) Services.

For example, I already bought IPTV service, but this service can only be delivered through the Internet. Therefore, I need to configure my router first.

How can I do that?

1) Visit http://tplinkwifi.net, and log in with the password you set for the router.
2) Click **Advanced > Network > IPTV** to open the configuration page.



IPTV Settings

IPTV: □ Enable IPTV

Mode: Bridge

IGMP Proxy: V3

LAN1: Internet

LAN2: Internet

LAN3: Internet

LAN4: Internet

3) Enable IPTV function.
4) Select the appropriate mode according to your ISP. If your ISP is not listed and no other parameters are required, select the **Bridge** mode and specify whether each LAN port functions as the Internet supplier or IPTV supplier.
5) Select the IGMP (Internet Group Management Protocol) Proxy version, either V2 or V3, according to your ISP.
6) Click **Save**.

Completed! Configurations needed on router is done now! You may need other configurations on your set-top box before enjoying your TV.

Chapter 9. USB Settings

This chapter describes how to share and access USB devices connected to the router among different clients.

The router supports most USB storage devices, such as USB external flash drives and hard drives, and USB printers, but does not support USB 3G/4G modems.

9.1 Local Storage Sharing

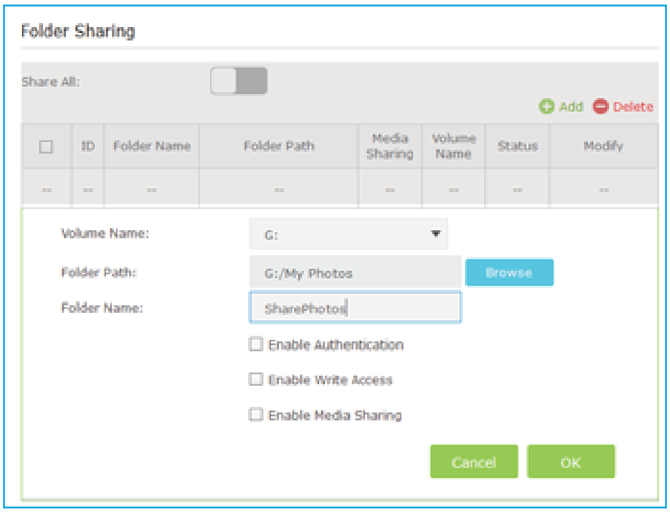
I want to: Share my USB storage devices to different users on the network.

How can I do that?

1. Connect the USB device

Connect your USB storage device to the router's USB port directly or via a USB cable. Wait several seconds until the USB LED becomes solid on.

2. Ensure the USB device is identified by the router
   1) Visit http://tplinkwifi.net, and log in with the password you set for the router.
   2) Select **Basic > USB Settings**.
   3) Click **Scan**, then you can see the device's information.
3. Choose the content you want to share
   - **Share the whole disk:** Leave **Share All** enabled and you can share all the content on the USB disk
   - **Share specific folders:**
   1) Click to disable **Share All**.
   2) Click ⊕ Add add a new sharing folder.
   3) According to the location of the folder, select the **Volume Name** and **Folder Path**, then specify the **Share Name** for the sharing folder.



Folder Sharing

Share All:

⊕ Add ⊖ Delete

□	ID	Folder Name	Folder Path	Media Sharing	Volume Name	Status	Modify
--	--	--	--	--	--	--	--

Volume Name: G:

Folder Path: G:/My Photos Browse

Folder Name: SharePhotos

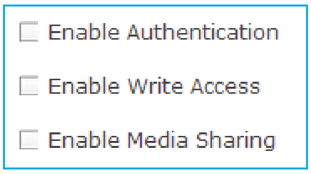
□ Enable Authentication

□ Enable Write Access

□ Enable Media Sharing

Cancel OK

4) Decide the way you share the folder by ticking the boxes below:



□ Enable Authentication

□ Enable Write Access

□ Enable Media Sharing

- ✓ If you tick **Enable Authentication**, before accessing the folders you share, clients have to type in the account name and password that you set.
- ✓ If you tick **Enable Write Access**, clients can modify the folder.
- ✓ If you tick **Enable Media Sharing** enable, you can play media files on the folders from DLNA-supported devices on your network.

5) Click **OK** to make the settings valid.

4. Access the USB disks you share

➢ Access from your **Windows computer:**

a) Press **Start** (⊞) + **R** on the keyboard (or select **Start**, then click **Run**)

b) Type the link **\\tplinkwifi.net** in the dialog box

c) Click **OK**

➢ Access from your **Mac:**

a) Select **Go > Connect to Server**

b) Type the link **smb://tplinkwifi.net** as the server address.

c) Click **Connect**

➢ Access from your **pad**:

Use a third-party app for network folders management to access from your pad.

Completed! Now different users on your network can access the content you share on the USB disk.

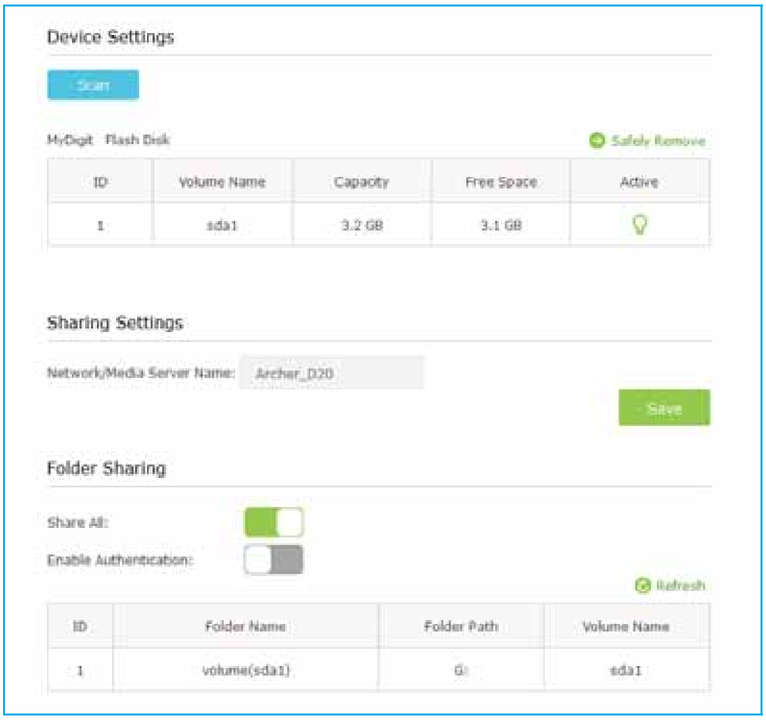
In addition: **1. Modify the Link to the USB storage device**

You can also modify the link to the USB disk by specifying the **Network/Media Server Name**. For example, if you specify the **Network/Media Server Name** as **MyShare**, you can access the USB disk by **\\MyShare** (**smb://MyShare** for Mac).

1) Visit http://tplinkwifi.net, then log in with the password you set for the router.

2) Select **Basic > USB Settings**.

3) Specify the **Network/Media Server Name**.



Device Settings

MyDigit Flash Disk

ID	Volume Name	Capacity	Free Space	Active
1	sda1	3.2 GB	3.1 GB	●

Sharing Settings

Network/Media Server Name: Archer_D20

Folder Sharing

Share All: ●

Enable Authentication: ○

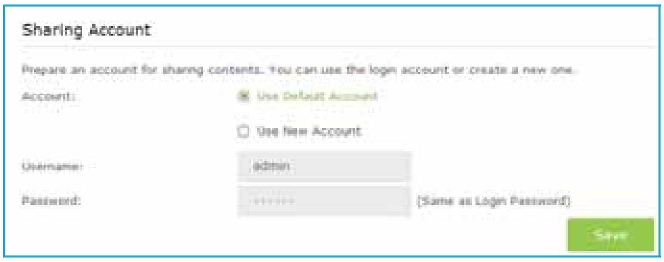
ID	Folder Name	Folder Path	Volume Name
1	volume(sda1)	G:	sda1

4) Click **Save**.

2. Set up Authentication for Security

You can also set up Authentication to prevent anonymous clients to access your USB disks.

1) Visit http://tplinkwifi.net, then log in with the password you set for the router.
2) Select **Advanced > USB Settings > Folder Sharing**.
3) Specify the sharing account according to the instructions on the page.



Sharing Account

Prepare an account for sharing contents. You can use the login account or create a new one.

Account: ● Use Default Account

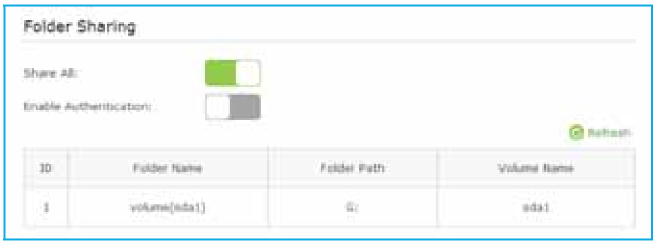
○ Use New Account

Username: admin

Password: •••••• (Same as Login Password)

4) Click **Save**.
5) Enable **Authentication**.

- ➢ If you leave **Share All** enable, click ○ to enable **Authentication**.



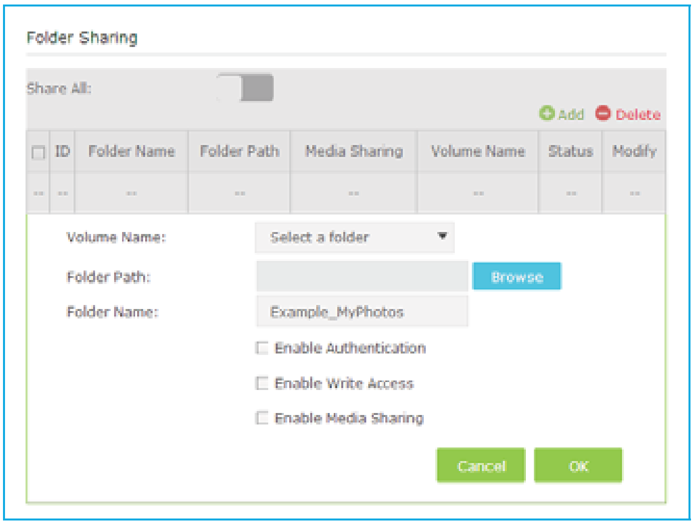
Folder Sharing

Share All: ●

Enable Authentication: ○

ID	Folder Name	Folder Path	Volume Name
1	volume(sda1)	G:	sda1

- ➢ If **Share All** is disabled, you can enable **Authentication** for specific folders.



Folder Sharing

Share All:

Add Delete

□	ID	Folder Name	Folder Path	Media Sharing	Volume Name	Status	Modify
--	--	--	--	--	--	--	--

Volume Name: Select a folder ▼

Folder Path: Browse

Folder Name: Example_MyPhotos

□ Enable Authentication

□ Enable Write Access

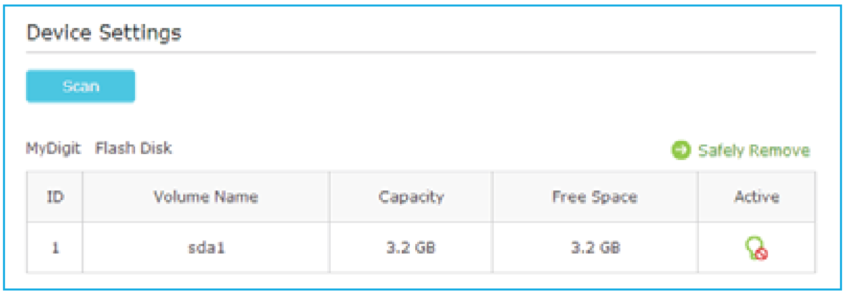
□ Enable Media Sharing

Cancel OK

3. Detach specific volume

The router can share eight volumes at most. You can click the corresponding 💡 to detach the volume you do not need to share.

The figure below shows that the volume named **sda1** has been detached.



Device Settings

Scan

MyDigit Flash Disk Safely Remove

ID	Volume Name	Capacity	Free Space	Active
1	sda1	3.2 GB	3.2 GB	💡

Note:

- If you use USB hubs, make sure no more than four devices are connected to the router.
- If the USB storage device requires using bundled external power, make sure the external power has been connected.
- If you are using USB hard drive, please make sure its file system is FAT32 or NTFS.

9.2 Remote Access via FTP Server

I want to: Access to my USB disks outside my local area network.

For example:

- ✓ Share photos and other large files with my friends without logging in to (and paying for) a photo-sharing site or email system.
- ✓ Get a safe backup for resources I need in a presentation.

Remove the files from my to camera's memory card from time to time during the journey.

How can I do that?

Premise: Your Router Gets a Public IP

If your router is assigned by a private IP such as **192.168.x.x** or **10.x.x.x,** you cannot use this function. Follow the steps below to check the IP address of your router:

1. Visit http://tplinkwifi.net, and log in with the password you set for the router.
2. Click **Basic > Network Map** on the main menu, click Internet icon to check the **IP Address** of the router.
3. If the IP address is a public address, you can setup remote access via FTP server by following the steps below:

Note: The IP address is assigned by your ISP.

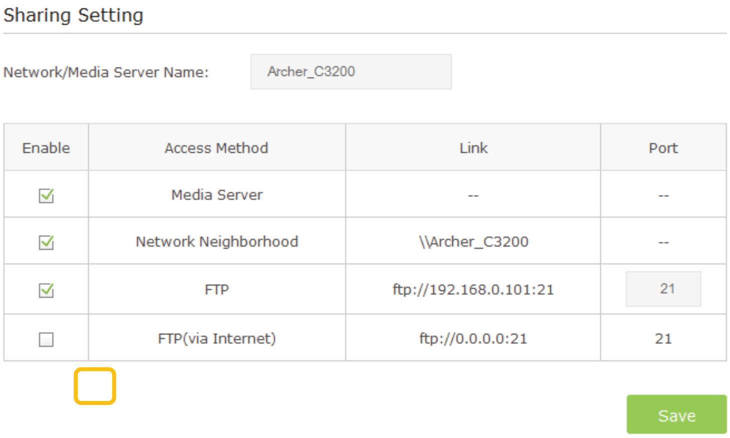
Setup the FTP server through Internet

1. Connect the USB disk

Connect your USB storage device to the router's USB port directly or via a USB cable. Wait several seconds until the USB LED becomes solid on.

2. Enable FTP(via Internet):

1) Visit http://tplinkwifi.net, then log in with the password you set for the router.
2) Select **Advanced > USB Settings > Folder Sharing**. Tick the box to enable the feature, then click **Save**.



Sharing Setting

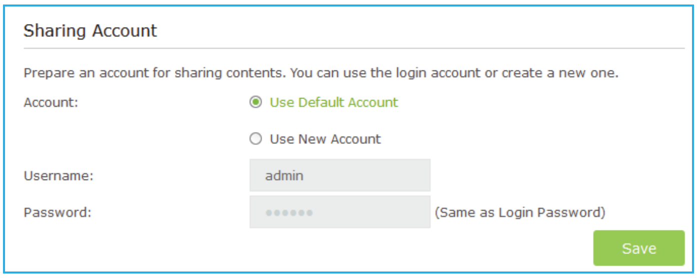
Network/Media Server Name: Archer_C3200

Enable	Access Method	Link	Port
☑	Media Server	--	--
☑	Network Neighborhood	\\Archer_C3200	--
☑	FTP	ftp://192.168.0.101:21	21
□	FTP(via Internet)	ftp://0.0.0.0:21	21

Note: On the page, you can get to know and the **link of FTP(via Internet)**. If the Access Method of **FTP** is enabled, network users can access the USB disk connected to the router with the **link of FTP**; if the Access Method of FTP(via Internet) is enable, any user with Internet connection can access the USB disk with the **link of FTP(via Internet)**. It is not suggested that you change the **Port**.

3. Specify the sharing account

To specify the sharing account, choose **Use Default Account** or **Use New Account** for the access to the USB disk. Click **Save**.



Sharing Account

Prepare an account for sharing contents. You can use the login account or create a new one.

Account: ● Use Default Account ○ Use New Account

Username: admin

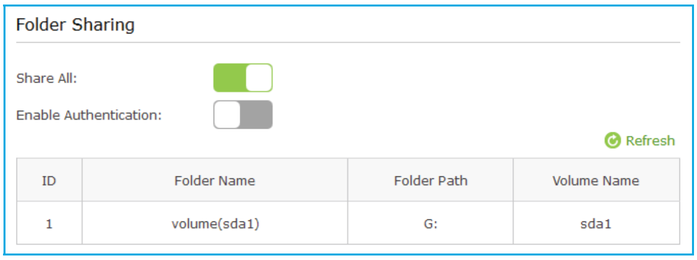
Password: •••••• (Same as Login Password)

4. Choose the content to share and enable Authentication

You can choose the content to share as needed and setup Authentication for data security by following the steps below:

- If you want to share the whole disk, leave **Share All** enabled, then click beside **Enable Authentication**.
- If you do not want to share all the content on the USB disk:

1) Disable **Share All** by clicking .



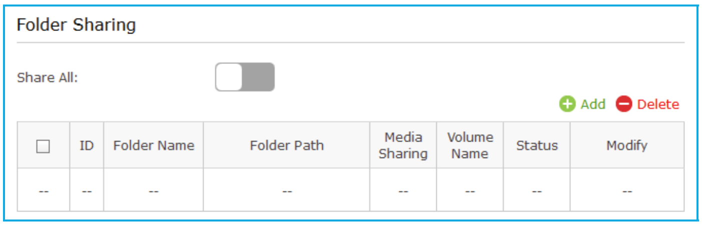
Folder Sharing

Share All:

Enable Authentication:

ID	Folder Name	Folder Path	Volume Name
1	volume(sda1)	G:	sda1

2) Click ⊕ Add to add an entry for the folder you want to share.

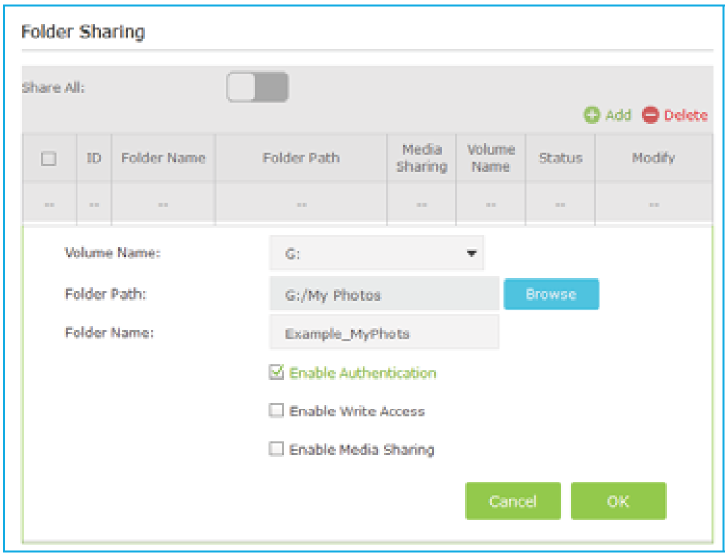


Folder Sharing

Share All:

□	ID	Folder Name	Folder Path	Media Sharing	Volume Name	Status	Modify
--	--	--	--	--	--	--	--

3) Fill necessary information and remember to enable **Authentication** for specific folders by ticking the box.



Folder Sharing

Share All:

□	ID	Folder Name	Folder Path	Media Sharing	Volume Name	Status	Modify
--	--	--	--	--	--	--	--

Volume Name: G:

Folder Path: G:/My Photos

Folder Name: Example_MyPhots

☑ Enable Authentication

□ Enable Write Access

□ Enable Media Sharing

- ✓ If you tick **Enable Write Access**, clients can modify the folder.
- ✓ If you tick **Enable Media Sharing** enable, you can play media files on the folders from DLNA-supported devices on your network.

4) Click **Save**.

Access your USB disks through the Internet

- ✓ Access from your **Windows** computer:

a) Press **Start** ( ) + **R** on the keyboard (or select Start **>** Run)

b) Type **ftp://IP address or domain name of the router** (e.g.: ftp://59.40.2.243) in the dialog box and click **OK**

c) Type the account name and password you just set for the router.

✓ Access from your **Mac:**

a) Select **Go > Connect to Server**

b) Type **ftp://IP address or domain name of the router** (e.g.: ftp://59.40.2.243) as the server address and click **Connect**

c) Type the account name and password you just set for the router.

✓ Access from your **pad:**

Use a third-party app for network files management to access.

Note:

To setup a domain name for your router, refer to the chapter of **Dynamic DNS**.

Completed! Now you or your friend can access the folders you share with any computer or pad with Internet connection.

In addition: If the Port is not 21, you have to type it when you access the USB disks through the Internet. For example, if you set the domain name as **MyDomainName.com**, and the Port as **2048**, the link should be **ftp://MyDomainName.com:2048**.

Note:

- If you use USB hubs, make sure no more than four devices are connected to the router.
- If the USB storage device requires using bundled external power, make sure the external power has been connected.
- If you are using USB hard drive, please make sure its file system is FAT32 or NTFS.

9.3 Media Sharing

I want to: View photos, play music and watch movies stored on the USB disks directly from your computer and other DLNA-supported devices.

I want to know: Do I have DLNA-supported devices?

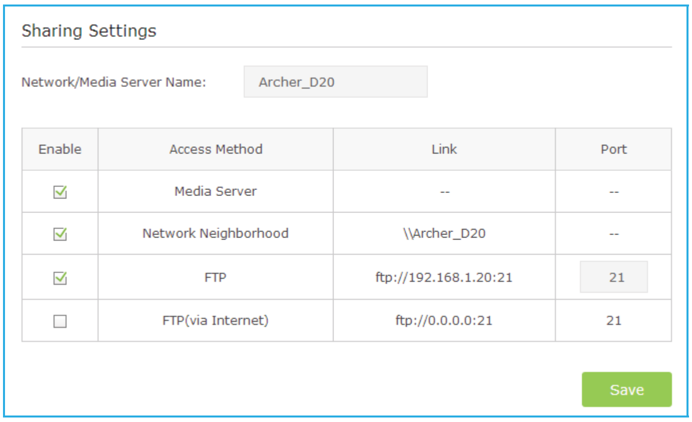
Your computer supports DLNA. Your pad can be DLNA-supported with appropriate apps. You may have other DLNA-supported devices at home, such as TVs, DVD and Blu-ray players, games consoles, digital media players, photo frames, cameras and more. Be specific, your Xbox and PS2/3.

How can I do that?

1. Visit http://tplinkwifi.net, and log in with the password you set for the router.

2. Select **Advanced > USB Settings > Folder Sharing.**

3. Focus on the section of Sharing Settings. Tick the check box to enable the feature of **Media Server**. Click **Save**.



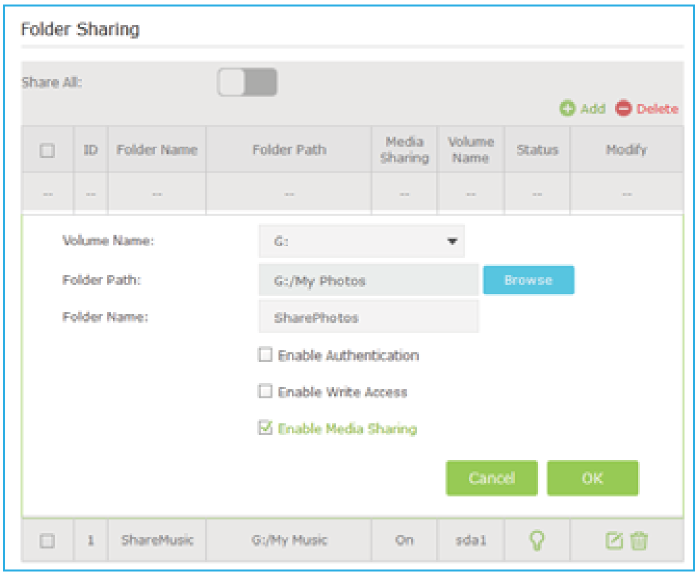
Sharing Settings

Network/Media Server Name: Archer_D20

Enable	Access Method	Link	Port
☑	Media Server	--	--
☑	Network Neighborhood	\\Archer_D20	--
☑	FTP	ftp://192.168.1.20:21	21
□	FTP(via Internet)	ftp://0.0.0.0:21	21

4. Focus on the section of Folder Sharing.

If the feature of **Share All** is enabled, all media files on your USB disks are shared. If you disable **Share All**, you can tick the box to **Enable Media Sharing** for specific folders as shown below:



Folder Sharing

Share All:

□	ID	Folder Name	Folder Path	Media Sharing	Volume Name	Status	Modify
--	--	--	--	--	--	--	--
□	1	ShareMusic	G:/My Music	On	sda1		

Volume Name: G:

Folder Path: G:/My Photos

Folder Name: SharePhotos

□ Enable Authentication

□ Enable Write Access

☑ Enable Media Sharing

- ✓ If you tick **Enable Authentication**, before accessing the folders you share, clients have to type in the account name and password that you set.
- ✓ If you tick **Enable Write Access**, clients can modify the folder.

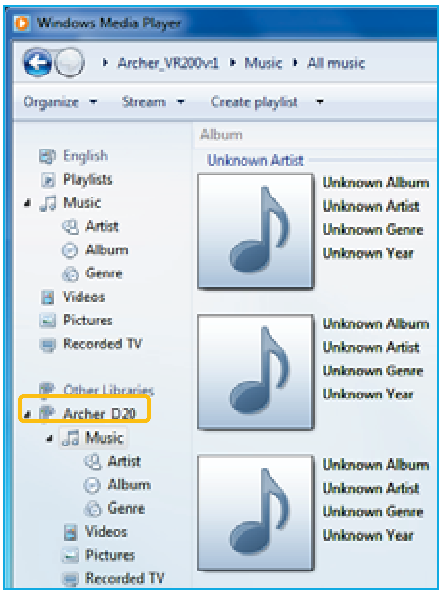
Completed! Now all DLNA-supported devices connected to the router can detect the media files on the USB disks you share:

For example:

Enjoy Media Sharing from **Windows Media Player** of Windows computers:

1) Open the Windows Media Player.

2) Click the media server name under the list of **Other Libraries**.



3) You can directly view photos, play music and watch movies that you share from the USB disks.

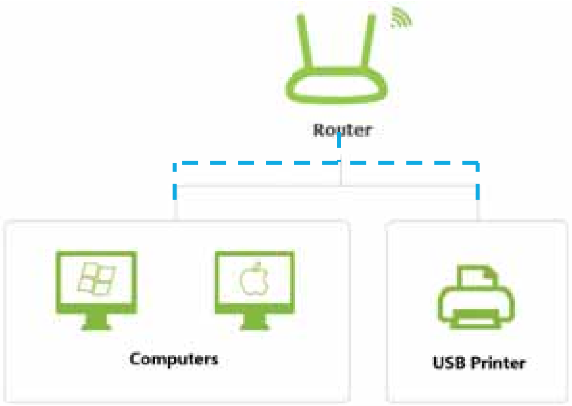
Note: Windows system is usually equipped with Windows Media Player.

9.4 Printer Sharing

I want to: Different computers on the same network share a print.

How can I do that? **Step 1** ***Connect the Printer***

Cable the printer to the USB port with the USB cable.

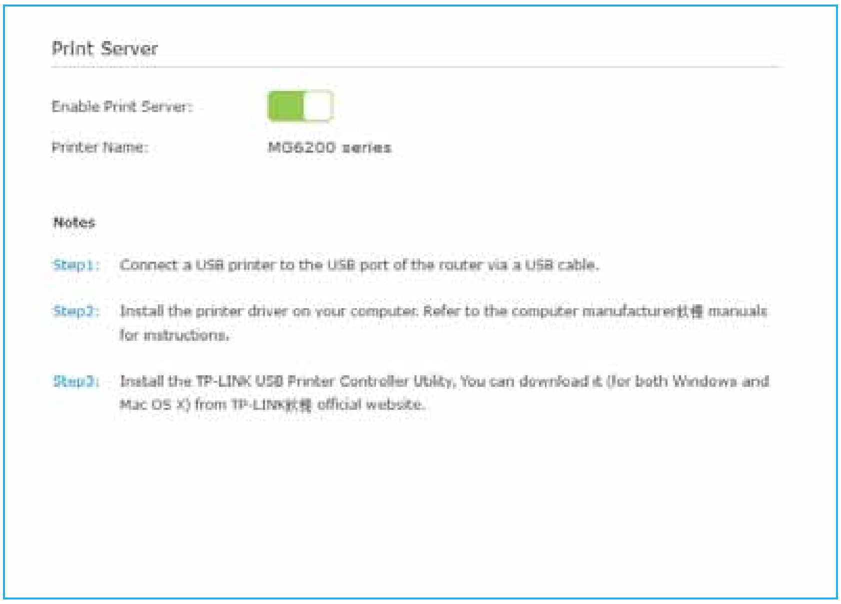


Step 2 Enable the Print Server

1. Visit http://tplinkwifi.net, and log in with the password you set for the router.

2. Click **Basic > USB Settings > Print Server**

3. Make sure the Print Server is enabled and the printer is detected by the router.



Print Server

Enable Print Server:

Printer Name: MG6200 series

Notes

Step1: Connect a USB printer to the USB port of the router via a USB cable.

Step2: Install the printer driver on your computer. Refer to the computer manufacturer鈥檚 manuals for instructions.

Step3: Install the TP-LINK USB Printer Controller Utility, You can download it (for both Windows and Mac OS X) from TP-LINK鈥檚 official website.

Note: You can check **Printer Compatibility List** to verify whether your printer is supported by the Router. Printers unlisted may be incompatible with the router. To get the list, visit http://www.tp-link.com/app/usb/.

Step 3 Install the Driver of the Printer

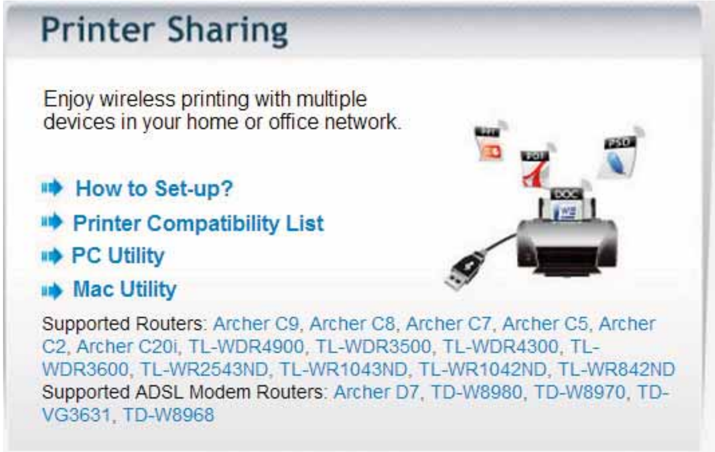
You should install the driver of the printer on each computer that needs printer service.

If you do not have the driver, contact the printer manufacturer.

Step 4 Install the TP-LINK USB Printer Controller Utility

Download and Install the TP-LINK USB Printer Controller Utility on each computer that needs printer service. You can get the utility from this page http://www.tp-link.com/app/usb/.

Note: **PC Utility** is for Windows computer and **Mac Utility** is for Mac computer.



Printer Sharing

Enjoy wireless printing with multiple devices in your home or office network.

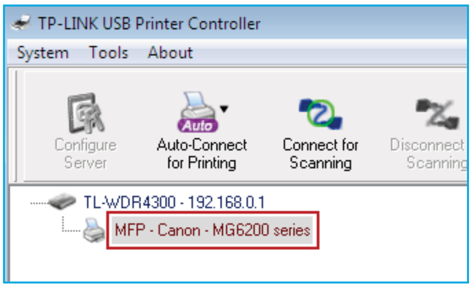
- How to Set-up?
- Printer Compatibility List
- PC Utility
- Mac Utility

Supported Routers: Archer C9, Archer C8, Archer C7, Archer C5, Archer C2, Archer C20i, TL-WDR4900, TL-WDR3500, TL-WDR4300, TL-WDR3600, TL-WR2543ND, TL-WR1043ND, TL-WR1042ND, TL-WR842ND

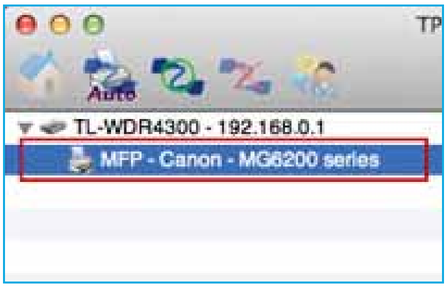
Supported ADSL Modem Routers: Archer D7, TD-W8980, TD-W8970, TD-VG3631, TD-W8968

Step 5 Set up the Printer as Auto-Connect Printer.

1. Double-click the icon on your desktop to launch the USB Printer Controller.
2. Highlight the printer you want to share.

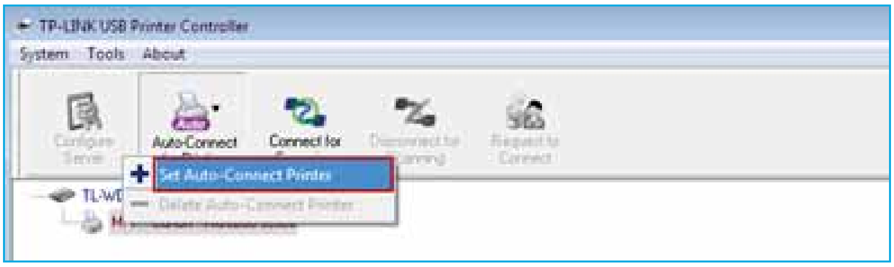


Windows

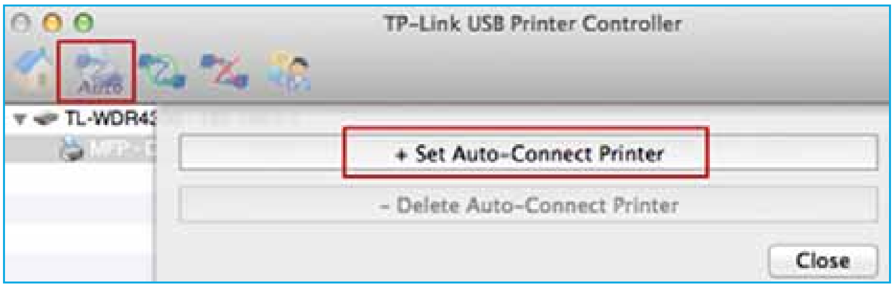


Mac

3. Click the **Auto-Connect for printing** tab to pull down a list, then select **Set Auto-Connect Printer**.

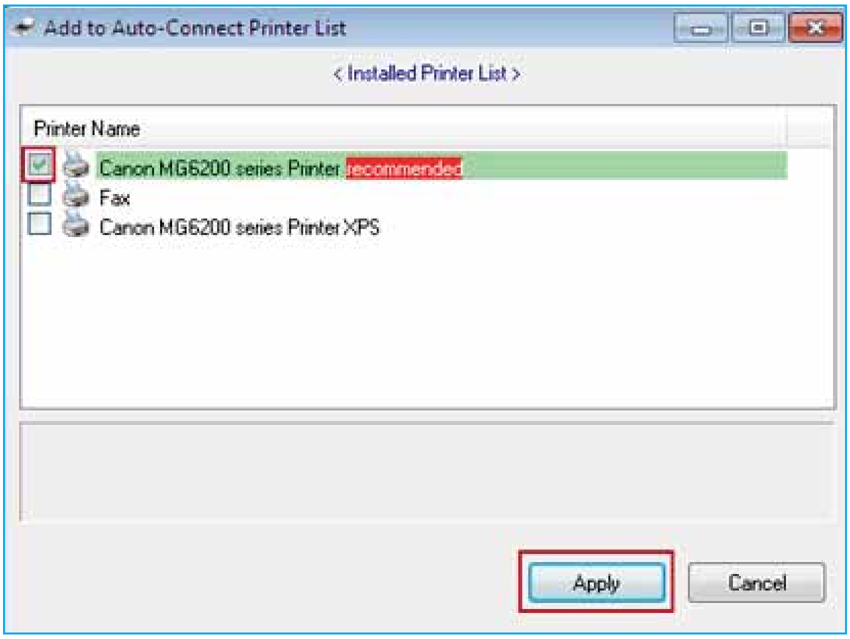


Windows


TP-Link USB Printer Controller
Auto
TL-WDR43
MFP-C
+ Set Auto-Connect Printer
- Delete Auto-Connect Printer
Close

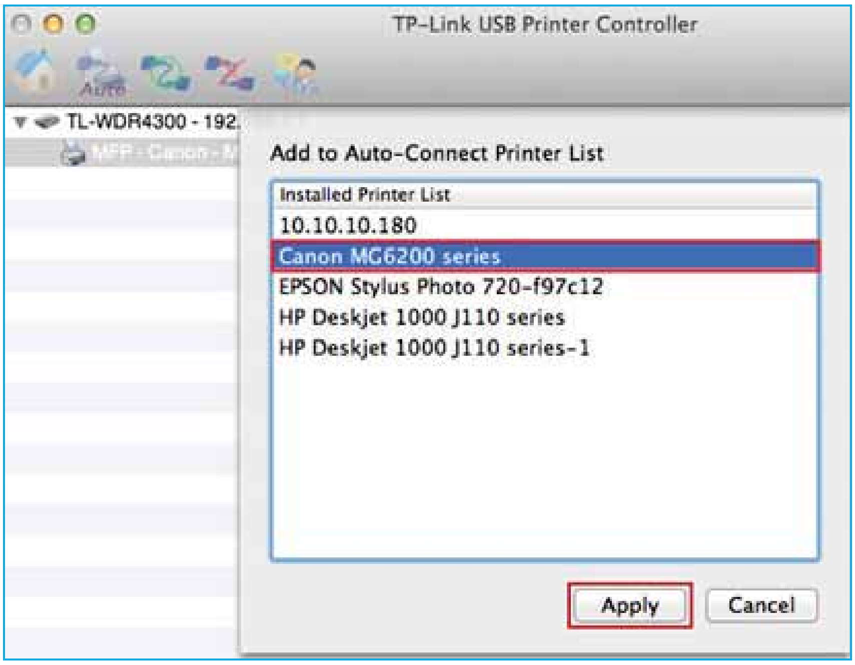
Mac

4. Select the name of the printer you want to share, and then click **Apply**.



☑ Canon MG6200 series Printer recommended
□ Fax
□ Canon MG6200 series Printer XPS

Windows

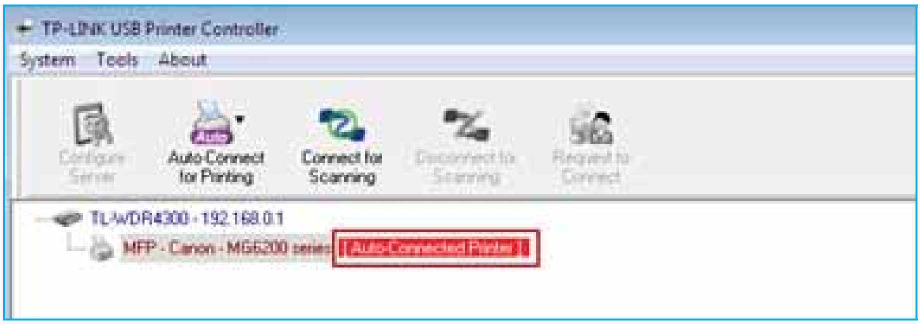


Add to Auto-Connect Printer List

Installed Printer List
10.10.10.180
Canon MG6200 series
EPSON Stylus Photo 720-f97c12
HP Deskjet 1000 J110 series
HP Deskjet 1000 J110 series-1

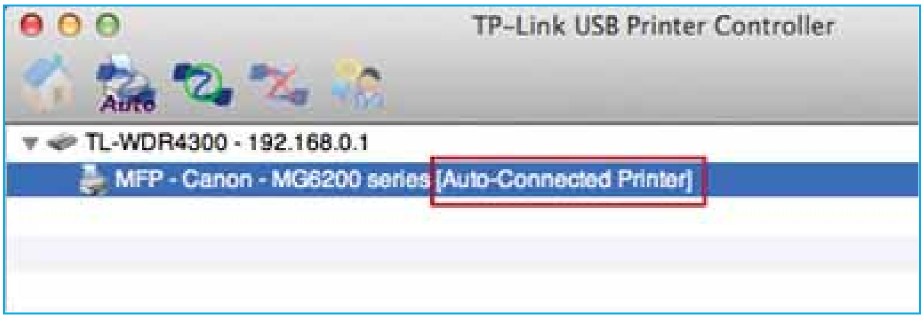
Mac

Completed! After successful setting, you will see the printer marked as Auto-Connect Printer. Then you can print with this printer



TL-WDR4300 - 192.168.0.1
MFP - Canon - MG6200 series [Auto-Connected Printer]

Windows



TL-WDR4300 - 192.168.0.1
MFP - Canon - MG6200 series [Auto-Connected Printer]

Mac

In addition:

Scan with the TP-LINK USB Printer Controller:

The Print Server can also allow different clients to share the scan feature of MFPs (Multi-Function Printers). To scan with **TP-LINK USB Printer Controller**, right-click the printer and then select **Network Scanner**. Then, a scanning window will pop up. Finish the scanning process following instructions of the window.

Chapter 10. Parental Controls

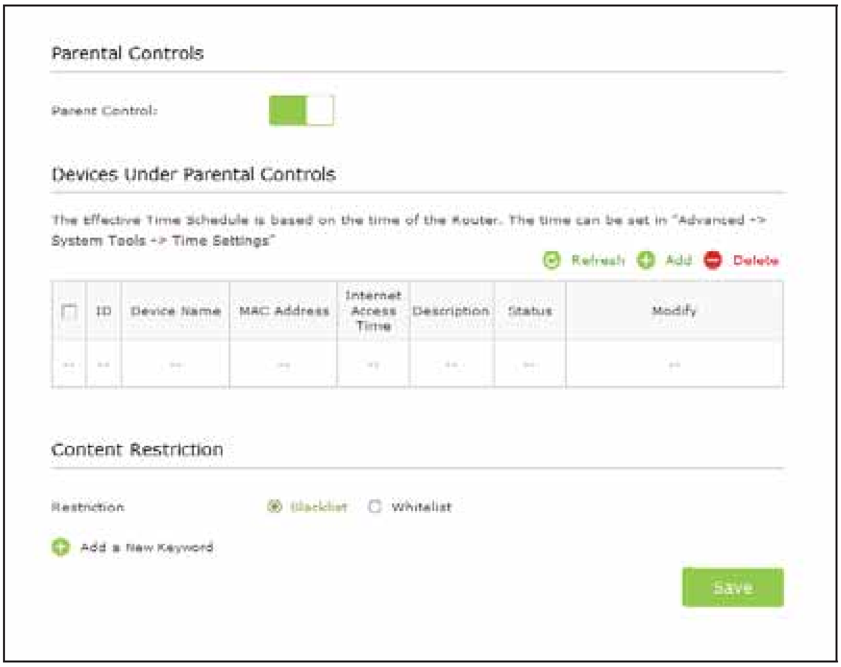
This function allows you to block inappropriate, explicit and malicious websites; restrict access by certain times of day (for example, client devices can only visit www.tp-link.com during office hours); and at the same time it protects every device on your home network against malware and phishing through one central control point.

I want to: Control what types of websites my children or other home network users can visit and even the times of day they are allowed to access the Internet.

For example, I want to allow my children's devices (e.g. a computer or a tablet) to access only the following websites, www.tp-link.com and Wikipedia.org, from 18:00 (6PM) to 22:00 (10PM) on weekdays and not other times.

How can I do that?

1. Visit http://tplinkwifi.net, and log in with the password you set for the router.
2. Go to ***Basic*** or ***Advanced > Parental Controls***. Enable **Parental Controls**.



Parental Controls

Parent Control: 🟩

Devices Under Parental Controls

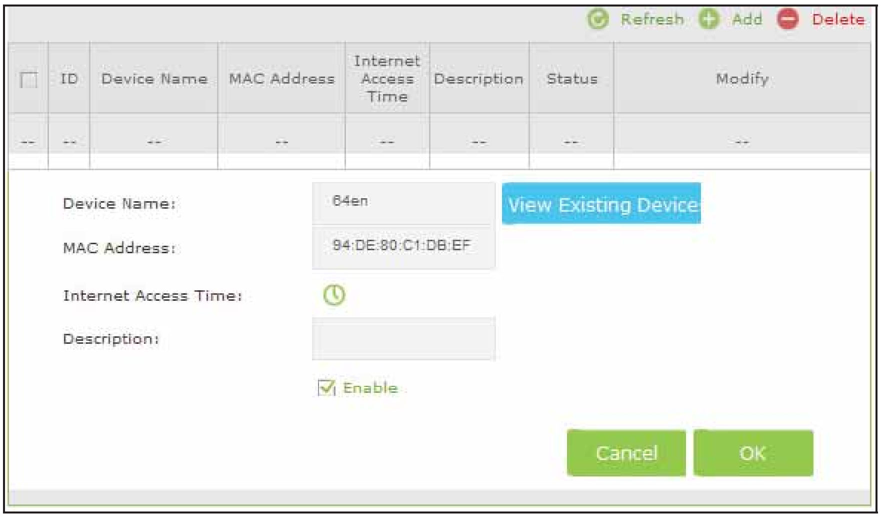
The Effective Time Schedule is based on the time of the Router. The time can be set in "Advanced -> System Tools -> Time Settings"

□	ID	Device Name	MAC Address	Internet Access Time	Description	Status	Modify
--	--	--	--	--	--	--	--

Content Restriction

Restriction ● Blacklist ○ Whitelist

3. Click **Add** to add a restriction entry



□	ID	Device Name	MAC Address	Internet Access Time	Description	Status	Modify
--	--	--	--	--	--	--	--

Device Name: 64en

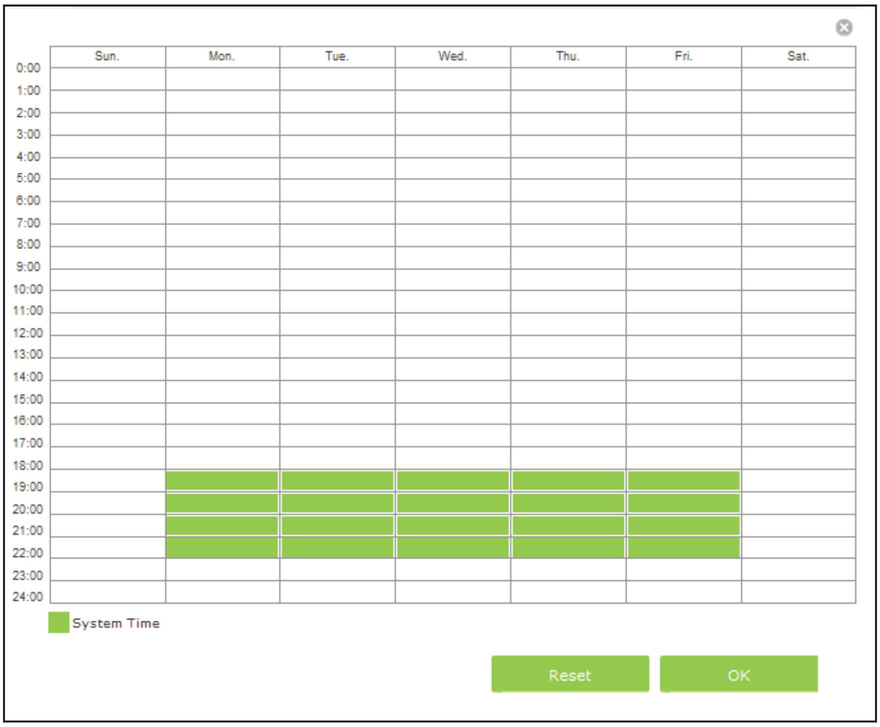
MAC Address: 94:DE:80:C1:DB:EF

Internet Access Time:

Description:

☑ Enable

4. Click **View Existing Devices**, and click ⊕ to select the device to be controlled in the new window. Or, enter the **Device Name** and **MAC Address** manually.
5. Click the 🕓 icon to set the Internet Access Time. Drag the cursor over the appropriate cell(s) and click **OK**.

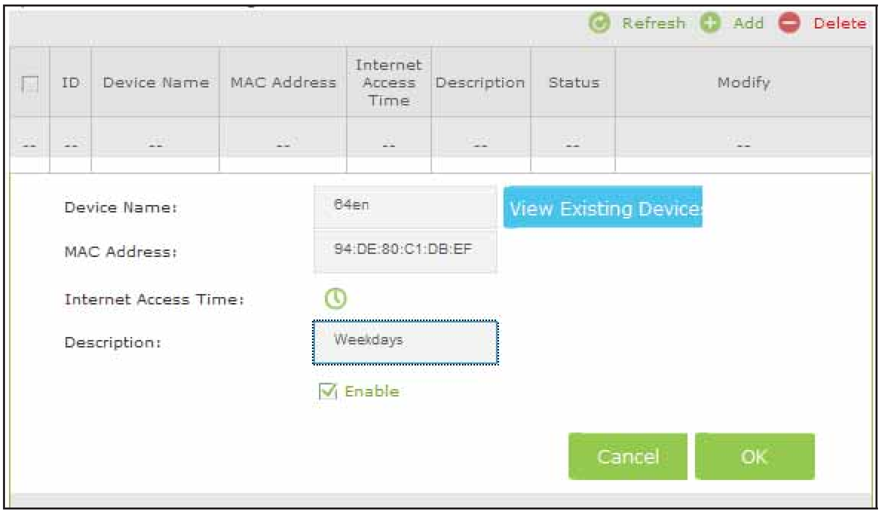


	Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
0:00							
1:00							
2:00							
3:00							
4:00							
5:00							
6:00							
7:00							
8:00							
9:00							
10:00							
11:00							
12:00							
13:00							
14:00							
15:00							
16:00							
17:00							
18:00		🟩	🟩	🟩	🟩	🟩	
19:00		🟩	🟩	🟩	🟩	🟩	
20:00		🟩	🟩	🟩	🟩	🟩	
21:00		🟩	🟩	🟩	🟩	🟩	
22:00							
23:00							
24:00							

🟩 System Time

Note: To reset the Internet Access Time, click **Reset**.

6. Enter the **Description**. Select the checkbox to enable this entry and click OK.



□	ID	Device Name	MAC Address	Internet Access Time	Description	Status	Modify
--	--	--	--	--	--	--	--

Device Name: 64en

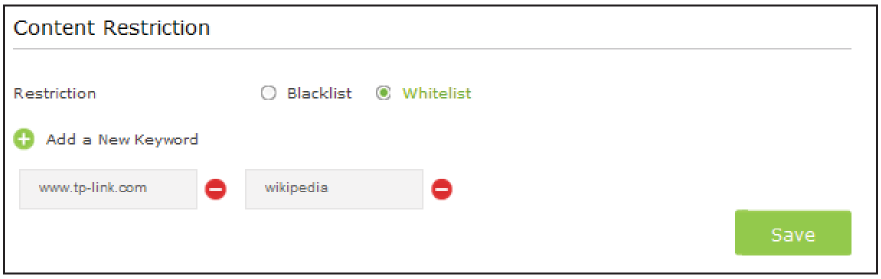
MAC Address: 94:DE:80:C1:DB:EF

Internet Access Time:

Description: Weekdays

☑ Enable

- Specify the Content Restriction


Content Restriction

Restriction ○ Blacklist ● Whitelist

www.tp-link.com

wikipedia

7. Select the restriction mode.
   - In **Blacklist** mode, the controlled devices cannot access any websites containing the specified keywords during the Internet Access Time period.
   - In **Whitelist** mode, the controlled devices can only access websites containing the specified keywords during the Internet Access Time period.
8. Click **Add a new keyword**.

   You can add up to 200 keywords for both Blacklist and Whitelist. Below are some sample entries to allow access.

   A. Enter a web address (e.g. www.tp-link.com) or a web address keyword (e.g. wikipedia) to only allow or block access to the websites containing that keyword.

   B. Specify the domain suffix (eg. .edu or .org) to allow access only to the websites with that suffix.

   C. If you wish to block all Internet browsing access, do not add any keyword to the **Whitelist**.
9. Enter a keyword or a website and click **Save**.

Completed! Now you can control your children's Internet access according to your needs.

Chapter 11. Guest Network

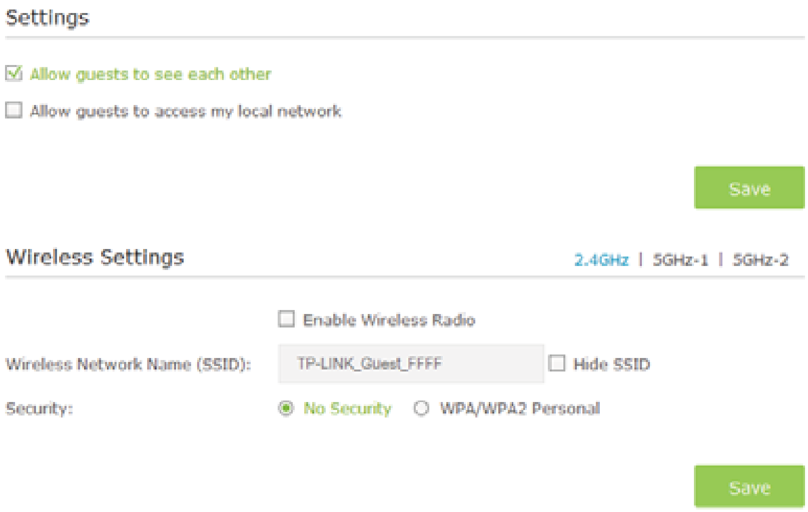
This function allows you to provide Wi-Fi access for guests without disclosing your main network. When you have guests in your house, apartment, or workplace, you can create a guest network for them. In addition, you can limit the network authorities for guests to ensure network security and privacy.

11.1 Create a Network for Guests

I want to: Provide Wi-Fi access for guests without disclosing my main network.

How can I do that?

1. Visit http://tplinkwifi.net, and log in with the password you set for the router.
2. Go to ***Advanced→Guest Network***.



Settings

☑ Allow guests to see each other

□ Allow guests to access my local network

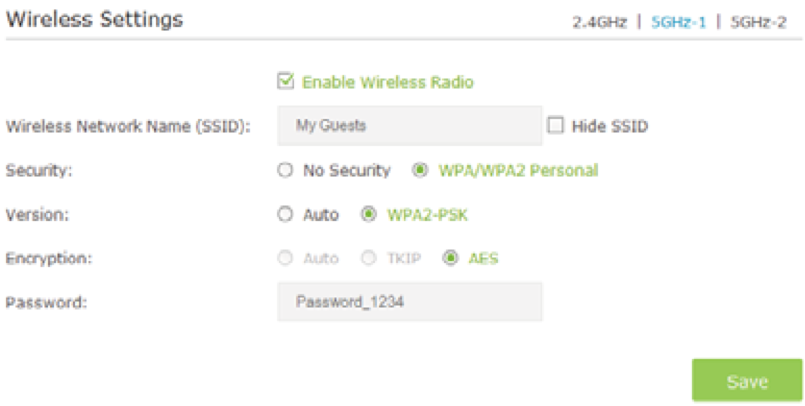
Wireless Settings

□ Enable Wireless Radio

Wireless Network Name (SSID): TP-LINK_Guest_FFFF □ Hide SSID

Security: ● No Security ○ WPA/WPA2 Personal

3. Enable a guest network (2.4GHz, 5GHz-1, or 5GHz), and set the network SSID and password.



Wireless Settings

☑ Enable Wireless Radio

Wireless Network Name (SSID): My Guests □ Hide SSID

Security: ○ No Security ● WPA/WPA2 Personal

Version: ○ Auto ● WPA2-PSK

Encryption: ○ Auto ○ TKIP ● AES

Password: Password_1234

Note:

1. If you select **Hide SSID**, your guests and other people need to manually input this SSID for Wi-Fi access.
2. If you select **No Security**, your guests and other people don't need to enter a password for Wi-Fi access.

4. Click **Save**.

Completed! Now your guests can access your guest network using the SSID and password you set.

Tips:

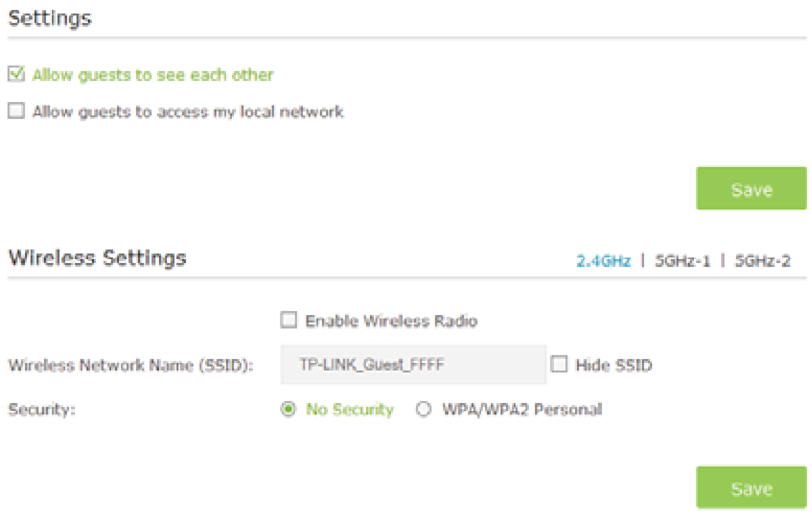
To view guest network information, go to ***Advanced→Status*** and click **2.4G**, **5G-1** or **5G-2** in the **Guest Network** section.

11.2 Limit the Network Authorities for Guests

I want to: Limit the network authorities and bandwidth for guests to ensure network security and privacy.

How can I do that?

1. Visit http://tplinkwifi.net, and log in with the password you set for the router.
1. Go to ***Advanced→Guest Network.***



Settings

☑ Allow guests to see each other

□ Allow guests to access my local network

Save

Wireless Settings — 2.4GHz | 5GHz-1 | 5GHz-2

□ Enable Wireless Radio

Wireless Network Name (SSID): TP-LINK_Guest_FFFF □ Hide SSID

Security: ● No Security ○ WPA/WPA2 Personal

Save

2. Limit the network authorities and bandwidth according to your needs.

➢ **Allow guests to see each other**

Select this checkbox to allow the clients in your guest network to access each other.

- **Allow guests to access my local network**

  Select this checkbox to allow the clients in your guest network to access your local network, not just Internet access.

3. Click **Save.**

Completed! Now users in your guest network can enjoy only the network authorities you assigned.

Tips:

To view guest network information, go to ***Advanced→Status*** and click **2.4G**, **5G-1** or **5G-2** in the **Guest Network** section.

Chapter 12. NAT Forwarding

Router's Network Address Translation (NAT) function protects devices in the local network by hiding the IP address of each device and use the same public IP address to communicate on the Internet. But it also brings about the problem that external host cannot initiatively communicate with the specified device in the local network.

With NAT forwarding the router can penetrate the isolation of NAT and external devices on the Internet can initiatively communicate with the devices in the local network, thus to realize some special demands.

TP-LINK router supports four NAT forwarding rules. If two or more rules are set, the priority of implementation from high to low is Virtual Servers, Port Triggering, UPNP and DMZ.

12.1 Share Local Website on the Internet

I want to: Share the personal website I've built in my home PC with my friends through the Internet.

For example: The personal website has been built in my home PC. The PC is connected to the router with the WAN IP address 218.18.232.154. I hope that my friends on the Internet can visit my website in some way.

How can I do that? **Tip:** Two methods are introduced in this section. "Method 1 Though Virtual Servers" is relatively more complex to configure but with higher security while "Method 2 Through DMZ" is easier to configure but with lower security. Please choose the proper method in accordance with your actual need.

Method 1 Through Virtual Server

1. Check to see the IP address of your PC. Take 192.168.0.100 as an example. The port of HTTP service is 80.

   Tip: The port varies in different service. Please verify the IP address of the PC as the server and its internal service port. It is recommended to assign a static IP to the PC. E.g., 192.168.0.100.

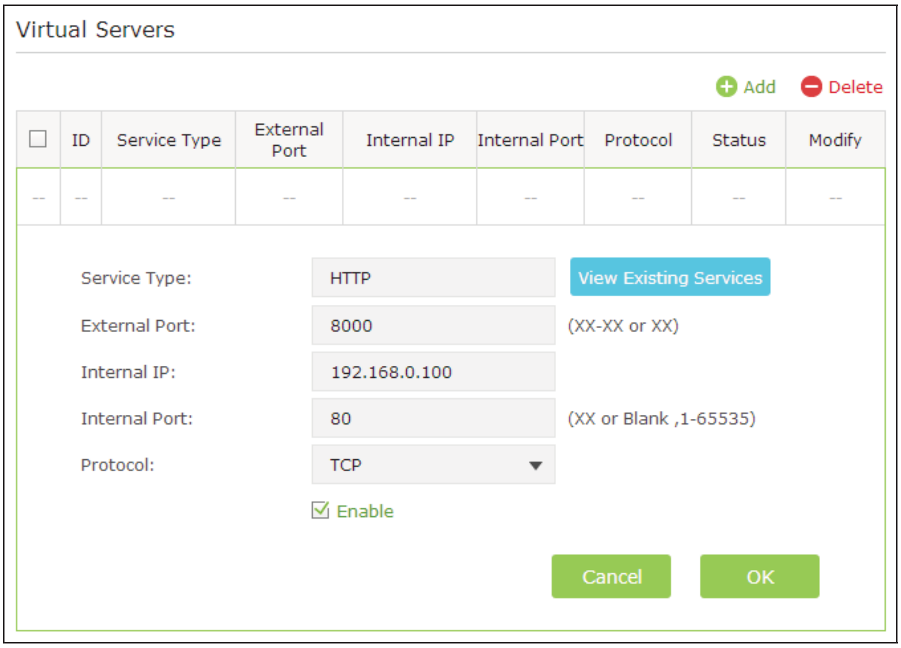
2. Visit http://tplinkwifi.net, and log in with the username and password you set for the router.

3. Click Advanced ->NAT Forwarding -> Virtual Servers to enter the configuration page of Virtual Servers.
4. Click Add and then set the rules of Virtual Server.

You can select one of the two modes to configure: automatic configuration and manual configuration. The former one is recommended in this environment.

Mode 1: Automatic Configuration

The Service Type field lists all the common service type. Please click View Existing Services, and select HTTP in the prompt page. The external port, internal port and protocol will be automatically filled with contents. Fill in PC's IP address 192.168.0.100 in the IP Address field.



□	ID	Service Type	External Port	Internal IP	Internal Port	Protocol	Status	Modify
--	--	--	--	--	--	--	--	--

Service Type: HTTP
External Port: 8000 (XX-XX or XX)
Internal IP: 192.168.0.100
Internal Port: 80 (XX or Blank ,1-65535)
Protocol: TCP
☑ Enable

Tip:

1. It is recommended to keep the default settings of Internal Port and Protocol.

2. When HTTP is selected, External Port will be filled with default port 80 automatically. It is recommended to change the port number to 8000 or 8080, etc.

Mode 2: Manual Configuration

If your service is not listed in the Service Type field, please fill in the parameters manually. Verify the port that the service type should use. The following steps are based on the environment mentioned at the beginning.

- External Port is provided by router for Internet users. They visit the website through the WAN IP address and the external port. This field can be filled with a single port or a ports range. Here we use 8000.
- Internal Port is used by the server PC. The data received by External Port will be forwarded to Internal Port. You can leave it blank if the Internal Port is the same as the External Port. Here we use 80.
- Enter the server PC's IP Address into the IP Address field. Here we use 192.168.0.100.
- Protocol is the protocol used by the virtual service. Please select ALL if you aren't clear which protocol to be used. Here we use TCP.

5. Click OK to complete the settings.

Method 2 Through DMZ

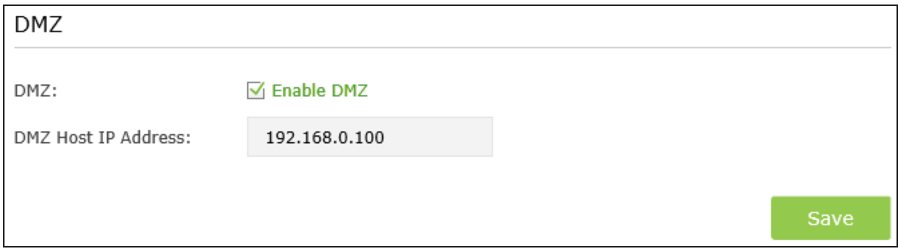
Tip: If you are not sure which specific port to open, you can use DMZ. When DMZ is enabled, the DMZ host is exposed to the Internet, which may bring some potential safety hazard. If DMZ is not in use, please disable it in time.

1. Verify the host PC's IP address. For example, 192.168.0.100.

   Tip: It is recommended to assign a static IP to your PC.

2. Visit http://tplinkwifi.net, and log in with the username and password you set for the router.

3. Click Advanced ->NAT Forwarding -> DMZ to open the DMZ configuration page.



DMZ

DMZ: ☑ Enable DMZ

DMZ Host IP Address: 192.168.0.100

4. Select the Enable DMZ checkbox.

5. Enter the PC's IP address 192.168.0.100 into the DMZ Host IP Address field.

6. Click Save.

Completed!

1. If Method 1 Virtual Server is used, the Internet users can enter http:// WAN IP: External Port (in this example: http:// 218.18.232.154: 8000) to visit your personal website.

2. If Method 2 DMZ is used, the Internet users can enter http:// WAN IP (in this example: http:// 218.18.232.154) to visit your personal website.

   Tip: Please make sure your WAN IP is a public IP address. As the WAN IP address is dynamic, you are suggested to register a domain name for your router, then visit the website using http:// domain name: External Port.

12.2 Share Local Resources on the Internet

I want to: Make my office PC visit and download the files and resources in the home PC through the Internet.

For example: The home PC is connected to the home router, whose WAN IP address is 218.18.232.154. The FTP server has been built in the home PC. Other PCs in the LAN can visit and download the files in the FTP server. Now I want my office PC connected to the Internet to get the files and resources from the FTP server.

How can I do that? **Tip:** Two methods are introduced in this section. "Method 1 Though Virtual Servers" is relatively more complex to configure but with higher security while "Method 2 Through DMZ" is easier to configure but with lower security. Please choose the proper method in accordance with your actual need.

Method 1 Through Virtual Server

1. Check to see the IP address of your PC. Take 192.168.0.100 as an example. The port of FTP service is 21.

   Tip: The port varies in different service. Please verify the IP address of the

PC as the server and its internal service port. It is recommended to assign a static IP to the server. E.g., 192.168.0.100.

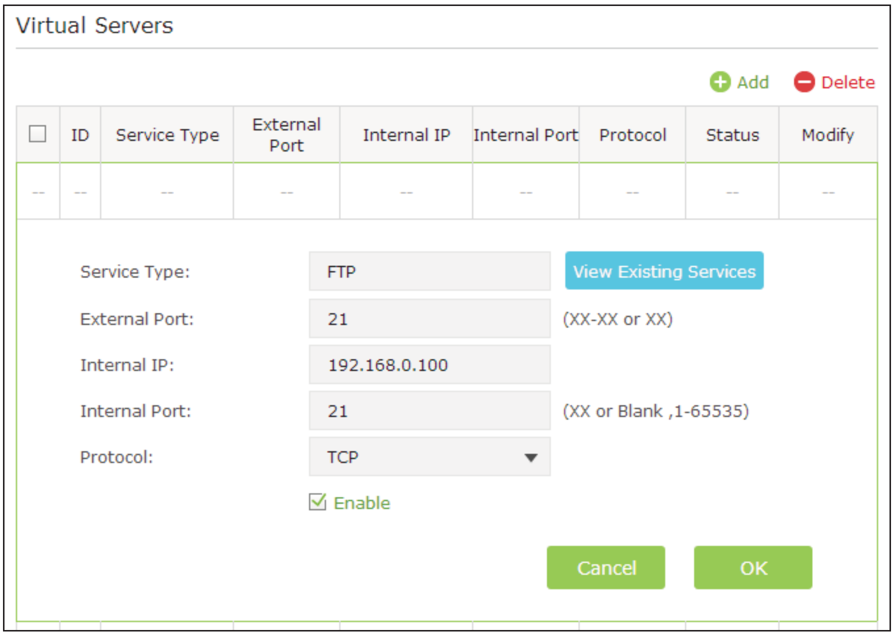
2. Visit http://tplinkwifi.net, and log in with the username and password you set for the router.

3. Click Advanced ->NAT Forwarding -> Virtual Servers to enter the configuration page of Virtual Servers.

4. Configure the Virtual Server rules automatically.

   Select FTP in the Service Type list, the parameters will be automatically filled in the field.

   - External Port: the external port of FTP is 21.
   - Internal Port: the internal port of FTP is 21.
   - IP Address: enter the PC's IP address into this field manually: 192.168.0.100.
   - Protocol: the protocol used in FTP is TCP.



Virtual Servers

□	ID	Service Type	External Port	Internal IP	Internal Port	Protocol	Status	Modify
--	--	--	--	--	--	--	--	--

Service Type:	FTP	View Existing Services
External Port:	21	(XX-XX or XX)
Internal IP:	192.168.0.100	
Internal Port:	21	(XX or Blank ,1-65535)
Protocol:	TCP ▼	

☑ Enable

Tip: If you want to configure manually, please refer to "Sharing Personal

Website in Local Network to the Internet -> Method 1 Through Virtual Server ->Mode 2 Manual Configuration".

5. Click OK.

Method 2 Through DMZ

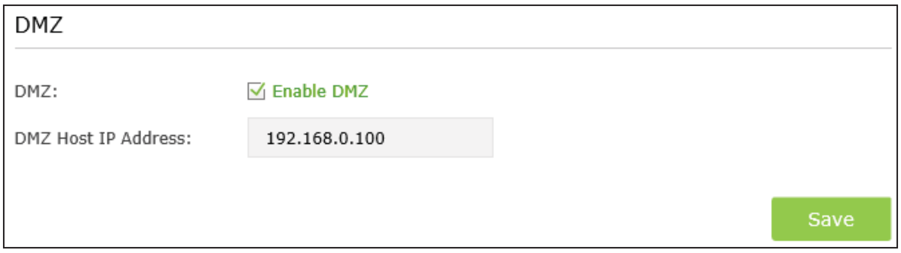
Tip: If you are not sure which specific port to open, you can use DMZ. When DMZ is enabled, the DMZ host is exposed to the Internet, which may bring some potential safety hazard. If DMZ is not in use, please disable it in time.

1. Verify the PC's IP address. For example, 192.168.0.100.

   Tip: It is recommended to assign a static IP to your PC.

2. Visit http://tplinkwifi.net, and log in with the username and password you set for the router.

3. Click Advanced ->NAT Forwarding -> DMZ to open the DMZ configuration page.



DMZ

DMZ: ☑ Enable DMZ

DMZ Host IP Address: 192.168.0.100

4. Select the Enable DMZ checkbox.

5. Enter the PC's IP address 192.168.0.100 into the DMZ Host IP Address field.

6. Click Save to complete the configuration.

Completed!

1. If Method 1 Virtual Server is used, the Internet users can enter http:// WAN IP: External Port (in this example: http:// 218.18.232.154: 8000) to visit your personal website.

2. If Method 2 DMZ is used, the Internet users can enter http:// WAN IP (in this example: http:// 218.18.232.154) to visit your personal website.

   Tip: Please make sure your WAN IP is a public IP address. As the WAN IP address is dynamic, you are suggested to register a domain name for your router, then visit the website using http:// domain name: External Port.

12.3 Make Online Game Free from Port Restriction

I want to: Make the home PC join the Internet online game without port restriction.

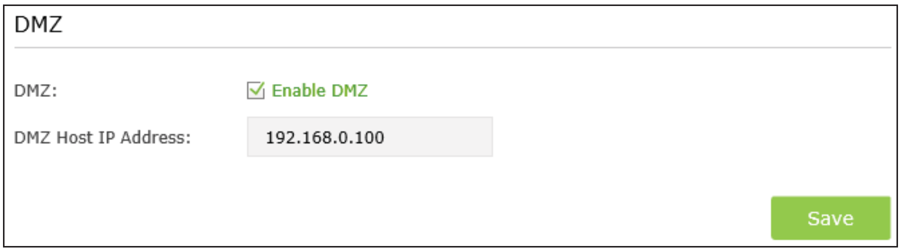
For example: Because of some port restriction, when playing the online games, users can login normally but cannot join a team with other players. To solve this problem, you can try to set your PC as a DMZ with all ports opened.

How can I do that? **Tip**: If you are not sure which specific port to open, you can use DMZ. When DMZ is enabled, the DMZ host is exposed to the Internet, which may bring some potential safety hazard. If DMZ is not in use, please disable it in time.

1. Assign you PC a static IP address, for example 192.168.0.100.

2. Visit http://tplinkwifi.net, and log in with the username and password you set for the router.

3. Click Advanced ->NAT Forwarding -> DMZ to open the DMZ configuration page.



DMZ

DMZ: ☑ Enable DMZ

DMZ Host IP Address: 192.168.0.100

4. Select the Enable DMZ checkbox.

5. Enter the PC’s IP address 192.168.0.100 into the DMZ Host IP Address field.

6. Click Save.

Completed! The configuration is completed. You've set your PC to a DMZ host and now you can make a team to game with other players.

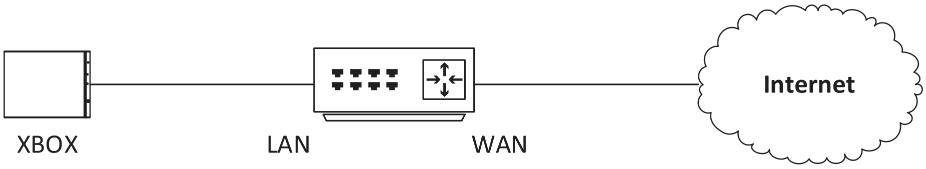
12.4 Make Xbox Online Games Run Smoothly with UPnP

UPnP (Universal Plug and Play) protocol allows the applications or host devices to automatically find the front- end NAT device and send request to it to open the corresponding ports. With UPnP enabled, the applications or host devices in the both sides of NAT device can freely communicate with each other realizing the seamless connection of the network. You may need to enable the UPnP function if you want to play online games with many friends, realize point-to point connection, use real-time communication (such as Internet telephony or telephone conference) or have remote assistance, etc.

Tip:

1. UPnP is enabled by default in this router.
2. Only the application supporting UPnP protocol can use this function.
3. UPnP function needs the support of operating system (e.g. Windows XP/ Windows Vista/ Windows 7/ Windows 8, etc. Some of operating system need to install the UPnP components).

For example: When you connect your Xbox to the router which has connected to the Internet to play online games, UPnP will send request to the router to open the corresponding ports allowing the following data penetrating the NAT to transmit. Therefore, you can play Xbox online games smoothly.

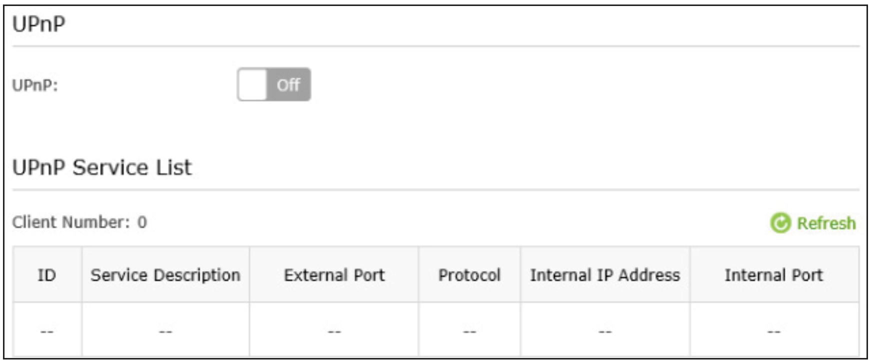


If necessary, you can change the status of UPnP as follows.

1. Visit http://tplinkwifi.net, and log in with the username and password you set for the router.

2. Click Advanced ->NAT Forwarding -> UPnP to open the UPnP configuration page.

3. Toggle on or off according to your needs.



UPnP

UPnP: Off

UPnP Service List

Client Number: 0

ID	Service Description	External Port	Protocol	Internal IP Address	Internal Port
--	--	--	--	--	--

12.5 More Applications

Virtual Servers

In the configuration page of Virtual Server, you can find some applications in the Service Type. Click the corresponding option to use the application and refer to the previous examples to complete the configuration.

Tip: If you want to provide multiple Virtual Server services to the Internet users, please avoid the port conflict when you add several Virtual Server rules.

- **DNS**

Build DNS server in the local network to provide domain name resolution service. The DNS server is composed of the domain name resolver and the domain name server. It saves all the hosts' domain names and their corresponding IP addresses and can convert the domain name into its IP address.

- **POP3**

Build POP3 mail server in the local network to provide mail services. POP3 is mainly used in receiving mails. When the receiver is offline, the mail server will store these emails until the receiver check and get these emails.

- **SMTP**

Build the SMTP mail server in the local network to provide mail services. SMTP is used to send and transfer the emails.

- **TELNET**

Build the Telnet server in the local network to enable the remote visit function of the PC. It allow the users to log in to the remote host system in local PC.

Port Triggering

Port Triggering is mainly used in Internet games, Internet telephony, Video player, etc.

Tip:

1 According to the need, you can add several rules of Port Triggering in the router.

2. The open ports of different rules should not overlap.

3. One rule can be used only by one host at one time. Other hosts' request will be rejected.

4. At any time, one host can only use one Port Triggering rule.

- **Multiple Xboxes playing games at the same time**

  Set the Port Triggering rules to let the Xboxes connect to the router and work normally on the Internet.

- **MSN Gaming Zone**

- **Dialpad**

  Dialpad is a kind of toll-free Internet Telephone. After setting the Port Triggering rules, you can use Dialpad to call your friends all over the world.

- **Quick Time 4**

  Quick Time 4 is the media player of Apple which can be used to play the video of MOV format.

DMZ

- **Not clear about the port number**

  If you are not sure about which specific port to open for some special applications, such as IP Camera, database software, etc. you can set your PC as a DMZ host.

Chapter 13. Customize Your Network Settings

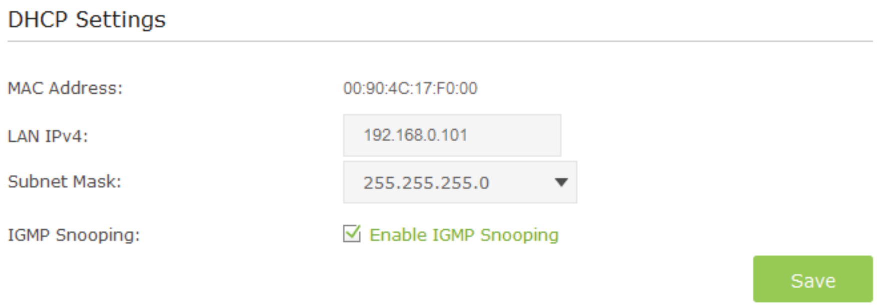
This chapter introduces how to change the default settings or adjust the basic configuration of the router using the web-based management page.

13.1 LAN Settings

13.1.1 Change the LAN IP address

The router is preset with a default LAN IP 192.168.1.1, which you can use to log in to its web-based management page. The LAN IP address together with the Subnet Mask also defines the subnet that the connected devices are on. If the IP address conflicts with another device on your local network or your network requires a specific IP subnet, you can change it.

1. Visit http://tplinkwifi.net, and log in with the password you set for the router.
2. Go to ***Advanced*** > ***Network*** > ***LAN*** page.



DHCP Settings

MAC Address:	00:90:4C:17:F0:00
LAN IPv4:	192.168.0.101
Subnet Mask:	255.255.255.0
IGMP Snooping:	☑ Enable IGMP Snooping

3. Type in a new IP Address appropriate to your needs.
4. Select the Subnet Mask from the drop-down list. The subnet mask together with the IP address identifies the your local IP subnet.
5. Keep IGMP Snooping as enabled by default.

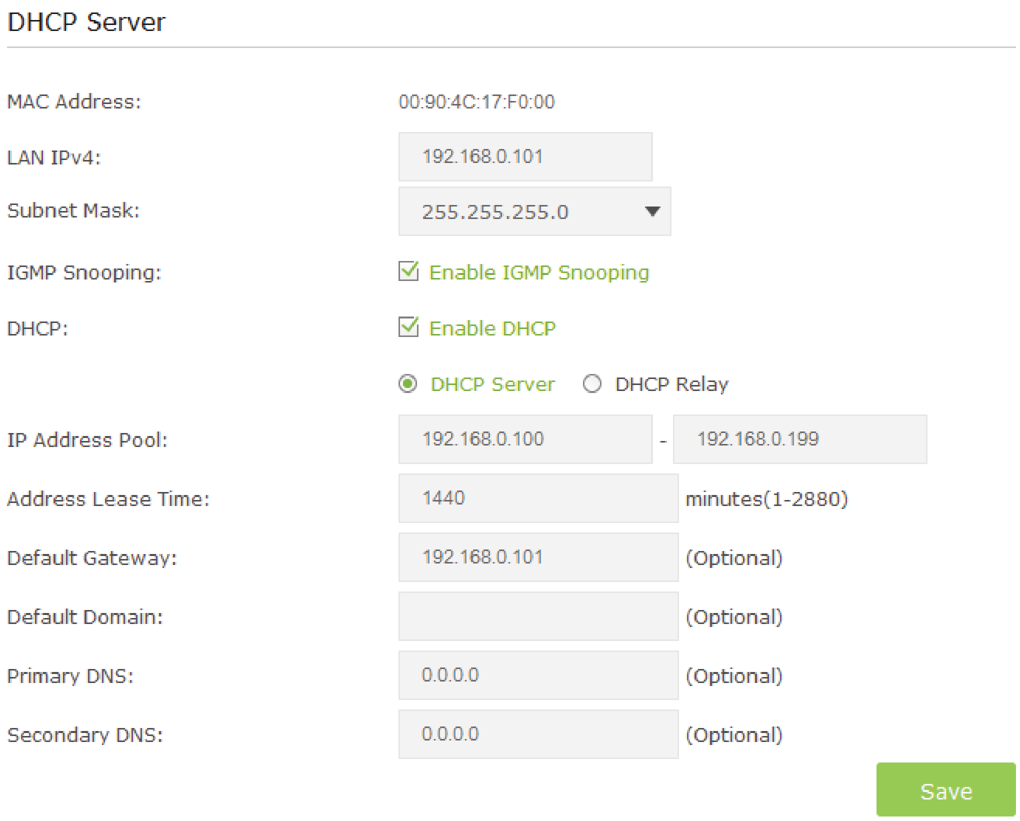
   IGMP Snooping is the process of listening to IGMP (Internet Group Management Protocol) network traffic. The function prevents hosts on a local network from receiving traffic for a multicast group they have not explicitly joined.

6. You can configure the router's second IP Address and Subnet Mask for LAN Interface through which you can also access the web management page.
7. Leave the rest of the default settings as they are.
8. Click **Save** to make the settings effective.

13.1.2 Use the Router as a DHCP Server

You can configure the router to act as a DHCP server to assign IP addresses to its clients. To use the DHCP server function of the router, you must configure all computers on the LAN as "Obtain an IP Address automatically".

1. Visit http://tplinkwifi.net, and log in with the password you set for the router.
2. Go to ***Advanced*** > ***Network*** > ***DHCP Server*** page and select **IPv4**.



DHCP Server

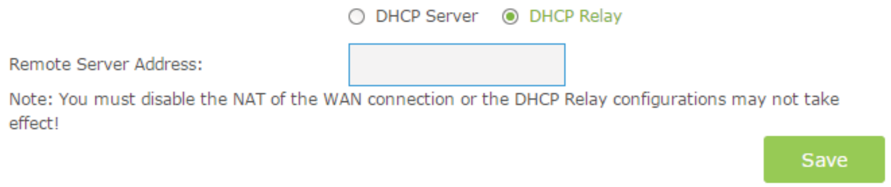
MAC Address:	00:90:4C:17:F0:00	
LAN IPv4:	192.168.0.101	
Subnet Mask:	255.255.255.0 ▼	
IGMP Snooping:	☑ Enable IGMP Snooping	
DHCP:	☑ Enable DHCP	
	● DHCP Server ○ DHCP Relay	
IP Address Pool:	192.168.0.100 - 192.168.0.199	
Address Lease Time:	1440	minutes(1-2880)
Default Gateway:	192.168.0.101	(Optional)
Default Domain:		(Optional)
Primary DNS:	0.0.0.0	(Optional)
Secondary DNS:	0.0.0.0	(Optional)

3. Enable **DHCP** and select **DHCP Server**.
4. Specify the **IP Address Pool**, the start address and end address must be on the same subnet with LAN IP. The router will assign addresses within this specified range to its clients. It is from 192.168.1.100 to 192.168.1.199 by default.
5. Enter a value for the **Address Lease Time**.

   The **Address Lease Time** is the amount of time in which a DHCP client can lease its current dynamic IP address assigned by the router. After the dynamic IP address expires, the user will be automatically assigned a new dynamic IP address. The default is **1440** minutes.
6. Click **Save** to make the settings effective.

Note:

1. The router can be configured to work as a DHCP Relay. A DHCP relay is a computer that forwards DHCP data between computers that request IP addresses and the DHCP server that assigns the addresses. Each of the device's interfaces can be configured as a DHCP relay. If it is enabled, the DHCP requests from local PCs will forward to the DHCP server that runs on WAN side.



○ DHCP Server ● DHCP Relay

Remote Server Address:

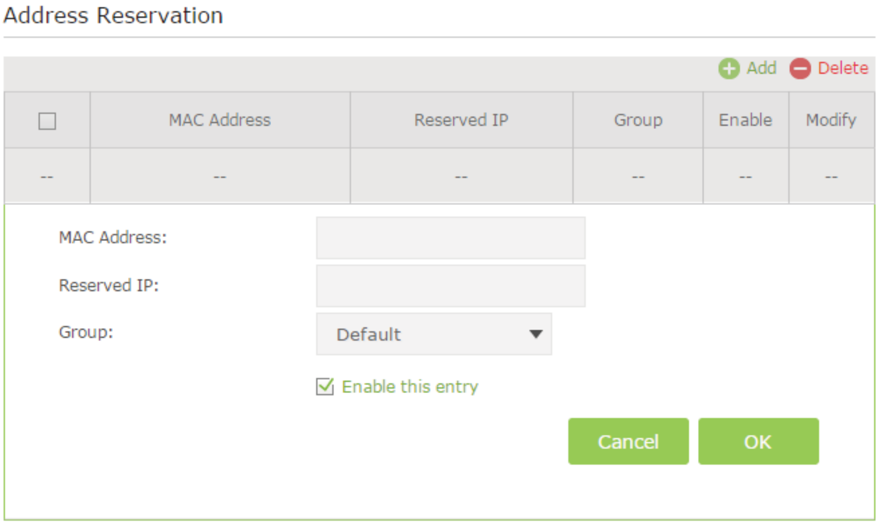
Note: You must disable the NAT of the WAN connection or the DHCP Relay configurations may not take effect!

2. You can also appoint IP addresses within a specified range to devices of the same type by using Condition Pool feature. For example, you can assign IP addresses within the range (192.168.1.50 to192.168.1.80) to Camera devices, thus facilitating the network management. Enable DHCP feature and configure the parameters according to your actual situation on ***Advanced*** > ***Network*** > ***LAN Settings*** page.

13.1.3 Reserve LAN IP Addresses

You can view and add a reserved address for a client. When you specify an IP address for a device on the LAN, that device will always receive the same IP address each time when it accesses the DHCP server. If there are some devices in the LAN that require permanent IP addresses, please configure **Address Reservation** on the router for the purpose.

1. Visit http://tplinkwifi.net, and log in with the password you set for the router.
2. Go to ***Advanced*** > ***Network*** > ***DHCP Server***.
3. Scroll down to locate the **Address Reservation** table and click ⊕ Add to add an address reservation entry for your device.



Address Reservation

□	MAC Address	Reserved IP	Group	Enable	Modify
--	--	--	--	--	--

MAC Address:

Reserved IP:

Group: Default

☑ Enable this entry

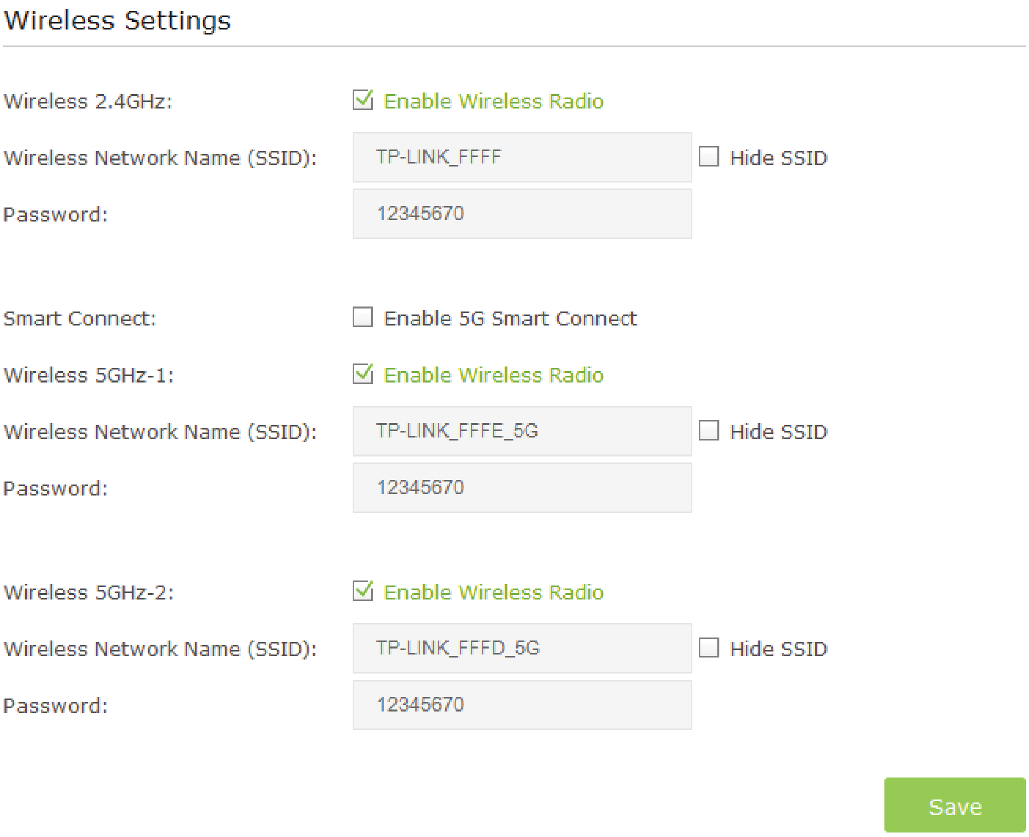
4. Enter the MAC address of the device for which you want to reserve IP address.
5. Specify the IP address which will be reserved by the router.
6. Check to **Enable this entry** and click **OK** to make the settings effective.

13.2 Wireless Settings

13.2.1 Specify Basic Wireless Settings

The router's wireless network name (SSID) and password, and security option are preset in the factory. The preset SSID and password can be found on the product label. You can customize the wireless settings according to your needs.

Open a web browser and log in to the web-based management page. Go to ***Basic*** > ***Wireless*** page.



Wireless Settings

Wireless 2.4GHz:	☑ Enable Wireless Radio	
Wireless Network Name (SSID):	TP-LINK_FFFF	□ Hide SSID
Password:	12345670	
Smart Connect:	□ Enable 5G Smart Connect	
Wireless 5GHz-1:	☑ Enable Wireless Radio	
Wireless Network Name (SSID):	TP-LINK_FFFE_5G	□ Hide SSID
Password:	12345670	
Wireless 5GHz-2:	☑ Enable Wireless Radio	
Wireless Network Name (SSID):	TP-LINK_FFFD_5G	□ Hide SSID
Password:	12345670	

To enable or disable the wireless function:

Enable the Wireless Network 2.4GHz or 5GHz. If you don't want to use the wireless function, just uncheck the box. If you disable the wireless function, all the wireless settings won't be effective.

To change the wireless network name (SSID) and wireless password:

Enter a new SSID using up to 32 characters. The default SSID is TP-LINK_XXXX and the value is case-sensitive.

Note: If you use a wireless device to change the wireless settings, you will be disconnected when the settings are effective. Please write down the new SSID and password for future use.

To hide SSID:

Select Hide SSID, and your SSID will not broadcast. Your SSID won't display when you scan for local wireless network list on your wireless device and you need to manually join the network.

To change the mode or channel:

Go to ***Advanced*** > **Wireless** >***Wireless Settings*** page and select the wireless network 2.4GHz or 5GHz.

- **Mode:** Select the desired mode.

802.11n only: Select only if all of your wireless clients are 802.11n devices.

802.11gn mixed: Select if you are using both 802.11b and 802.11g wireless clients.

802.11bgn mixed: Select if you are using a mix of 802.11b, 11g, and 11n wireless clients.

Note: When 802.11n only mode is selected, only 802.11n wireless stations can connect to the router. It is strongly recommended that you select 802.11bgn mixed, and all of 802.11b, 802.11g, and 802.11n wireless stations can connect to the router.

802.11ac/n mixed (5Ghz) - Select if you are using both 802.11ac and 802.11n wireless clients.

802.1111a/n/ac mixed (5Ghz) - Select if you are using a mix of 802.11ac, 802.11n and 802.11ac wireless clients. It is strongly recommended that you select 11a/n/ac mixed.

- **Channel:** Select the channel you want to use from the drop-down list. This field determines which operating frequency will be used. It is not necessary to change the wireless channel unless you notice interference problems with another nearby access point.
- **Channel Width:** Select the channel width from the drop-down list. The default setting is automatic, which can adjust the channel width for your clients automatically.

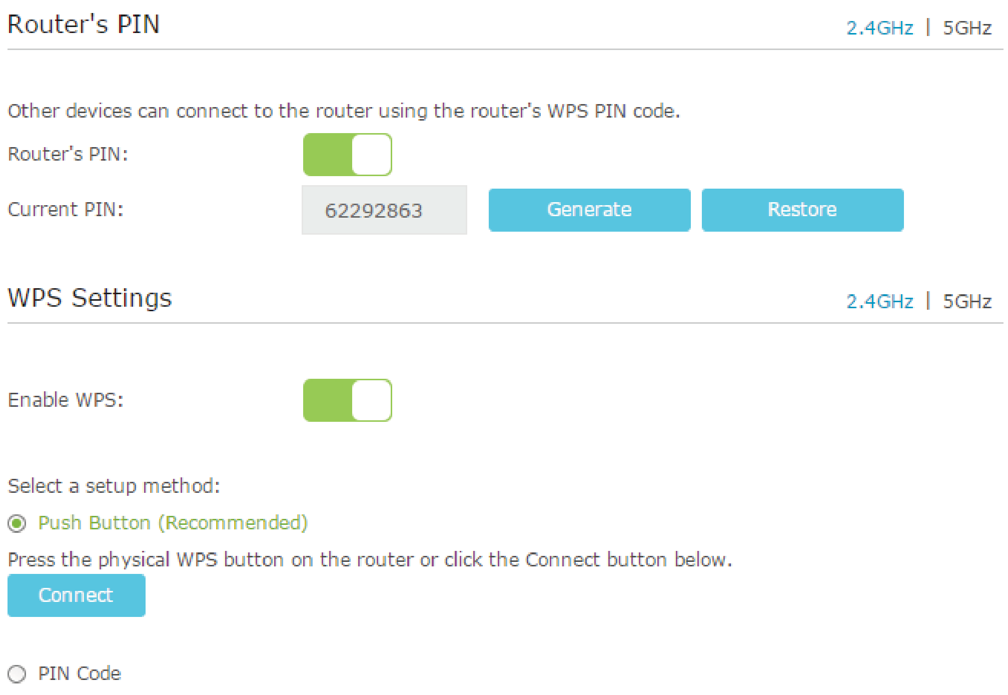
To change the security option：

1. Go to ***Advanced*** > **Wireless** >***Wireless Settings*** page.
2. Select the wireless network 2.4GHz or 5GHz.
3. Select an option from the Security dropdown list. The router provides four options, None, WPA/WPA2 Personal (Recommended), WPA/WPA2 Enterprise, WEP. WPA2 uses the newest standard and the security level is the highest. We recommend you don’t change the default settings unless necessary.

13.2.2 Use WPS for Wireless Connection

You can use WPS feature to add a new wireless device to an existing network quickly.

1. Visit http://tplinkwifi.net, and log in with the password you set for the router.
2. Go to ***Advanced*** > **Wireless** >***WPS*** page.
3. Select the wireless network 2.4GHz or 5GHz according to your wireless client.



Router's PIN 2.4GHz | 5GHz

Other devices can connect to the router using the router's WPS PIN code.

Router's PIN: ●

Current PIN: 62292863

WPS Settings 2.4GHz | 5GHz

Enable WPS: ●

Select a setup method:

● Push Button (Recommended)

Press the physical WPS button on the router or click the Connect button below.

○ PIN Code

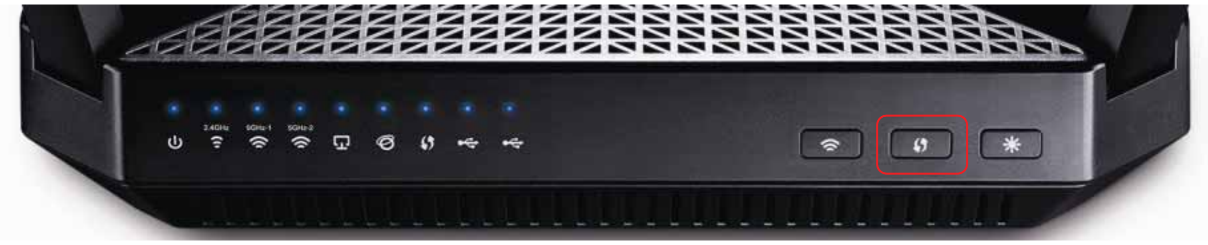
4. Add a new device:

If the wireless adapter supports Wi-Fi Protected Setup (WPS), you can establish a wireless connection between the wireless adapter and the router using either Push Button Configuration (PBC) method or PIN method.

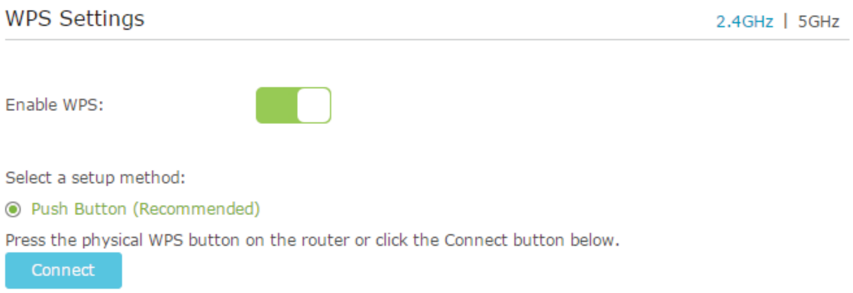
Option 1 Use the Wi-Fi Protected Setup Button

Use this method if your client device has a Wi-Fi Protected Setup button.

Step 1: Press the WPS button on the front panel of the router for 1 second, as shown in the following figure.



You can also keep the default WPS Status as **Enabled**, select the **Push Button** radio button and click **Connect**. (Shown in the following figure)



WPS Settings

Enable WPS:

Select a setup method:

● Push Button (Recommended)

Press the physical WPS button on the router or click the Connect button below.

Step 2: Press the WPS button of the client device directly.

Step 3: The WPS LED flashes for two minutes during the WPS process.

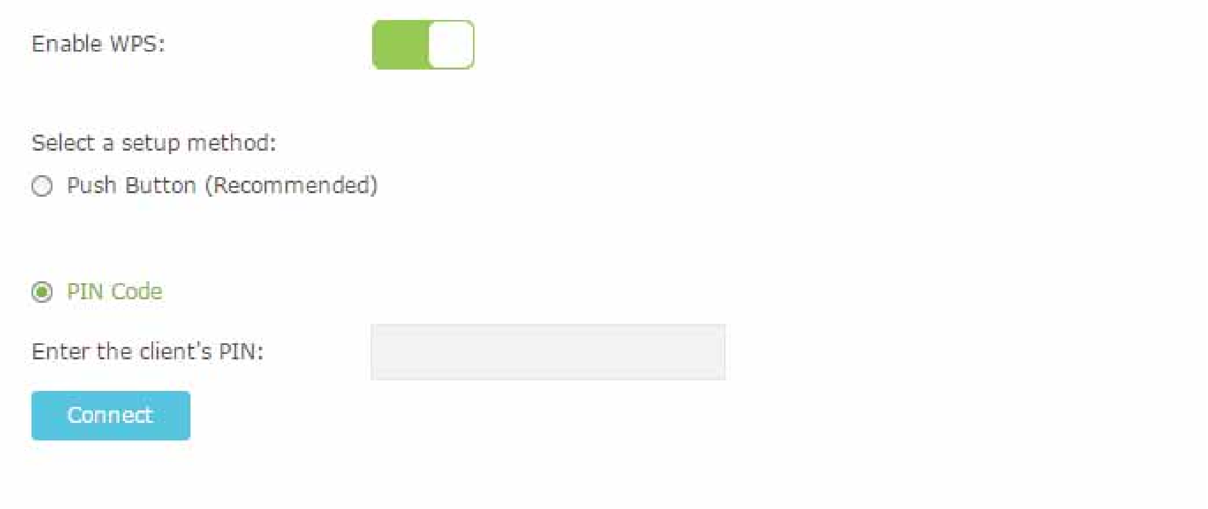
Step 4: When the WPS LED is on, the client device has successfully connected to the router.

Refer to your client device or its documentation for further instructions.

Option 2: Enter the client device's PIN on the router

Use this method if your client device has a Wi-Fi Protected Setup PIN number.

1. Keep the default WPS status as **Enabled** and select the **PIN Code** radio button.



Enable WPS:

Select a setup method:

○ Push Button (Recommended)

● PIN Code

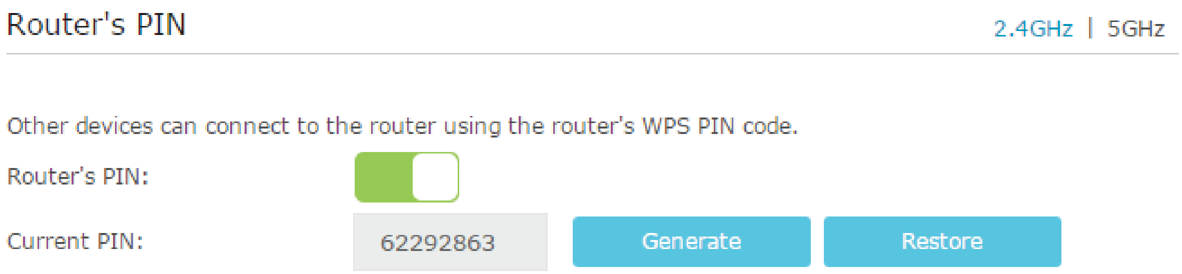
Enter the client's PIN:

2. Enter the PIN from the client device in the field on the above WPS screen. Then click **Connect** button.
3. "**Connect successfully**" will appear on the above screen, which means the client device has successfully connected to the router.

Option 3: Enter the router's PIN on your client device

Use this method if your client device asks for the router's PIN.

1. On the client device, enter the PIN number listed on the router's Wi-Fi Protected Setup screen. (It is also labeled on the bottom of the router.)



Router's PIN

Other devices can connect to the router using the router's WPS PIN code.

Router's PIN:

Current PIN: 62292863

2. The WPS LED flashes for two minutes during the WPS process.

3. When the WPS LED is on, the client device has successfully connected to the router.

Refer back to your client device or its documentation for further instructions.

Note:

1. The WPS LED on the router will light green for five minutes if the device has been successfully added to the network.
2. The WPS function cannot be configured if the wireless function of the router is disabled. Please make sure the wireless function is enabled before configuring the WPS.

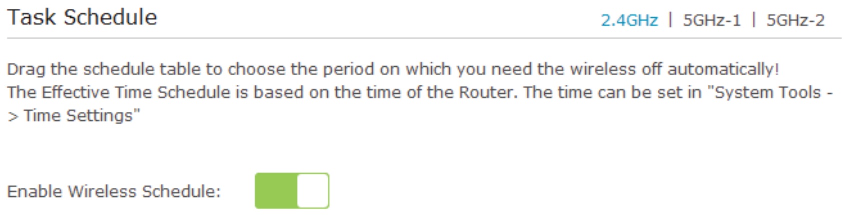
13.2.3 Schedule Your Wireless Function

I want to: Automatically turn off my wireless network (both 2.4GHz and 5GHz) at times when I do not need the wireless connection.

For example, I want to turn it off on the weekdays when I leave home for work. My work time is from 8:00am to 5:00pm from Monday to Friday.

How can I do that?

1. Visit http://tplinkwifi.net, and log in with the password you set for the router.
2. Go to ***Advanced*** > ***Wireless*** > ***Wireless Schedule*** page.
3. Select the 2.4GHz wireless network to configure. Toggle on the button to enable the **Wireless Schedule** feature.

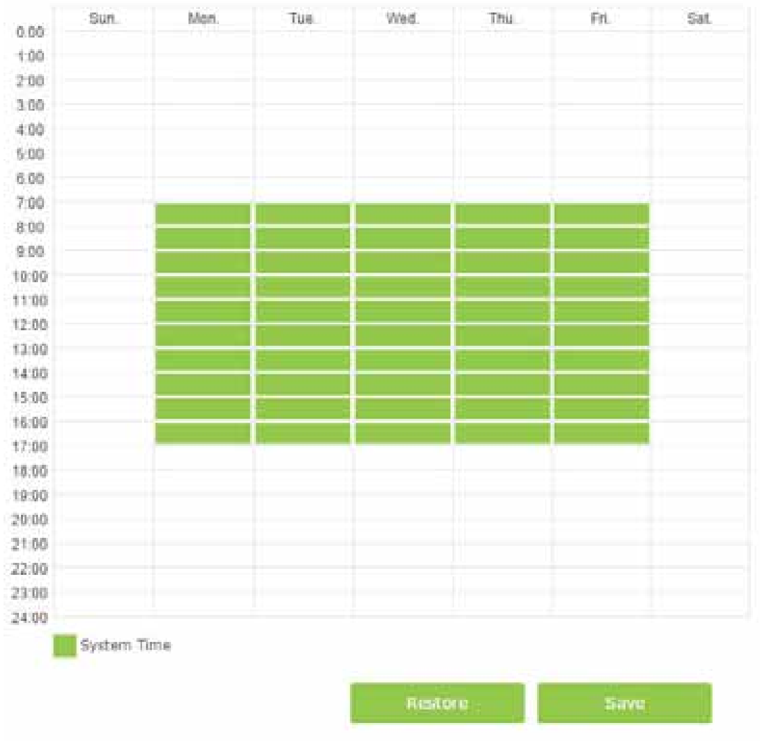


Task Schedule

Drag the schedule table to choose the period on which you need the wireless off automatically!
The Effective Time Schedule is based on the time of the Router. The time can be set in "System Tools -> Time Settings"

Enable Wireless Schedule:

4. Set the time. Drag the mouse to cover the time area and click **Save** to make the settings effective. The selected time will be in green.



5. Repeat steps 3 and 4 to set time for 5GHz wireless network.

Completed! Now your wireless network will be automatically turned off from 8:00 am to 5:00 pm from Monday to Friday.

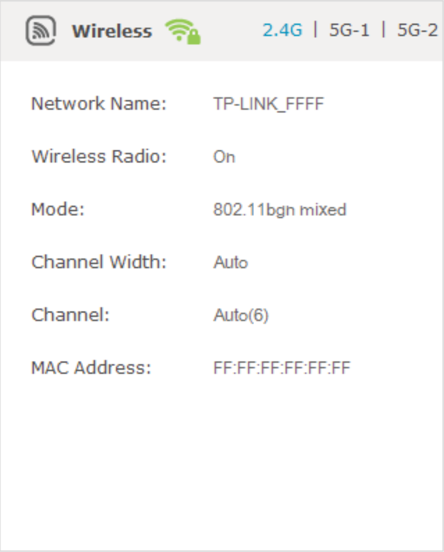
Tips:

1. If you just set time for one wireless band, the other wireless band is still always on, so set time for both of the two bands to schedule your whole wireless network.
2. The wireless LED (2.4GHz📶, 5GHz📶) will turn off if the corresponding wireless network is disabled.
3. The wireless network will be automatically turned on after the time period you set.

13.2.4 View Information

To view the detailed wireless network settings:

1. Open a web browser and log in to the web-based management page.
2. Go to ***Advanced*** > ***Status*** page. You can see the Wireless box.
3. Select 2.4G, 5G-1, or 5G-2 to view the wireless details.



Network Name: TP-LINK_FFFF

Wireless Radio: On

Mode: 802.11bgn mixed

Channel Width: Auto

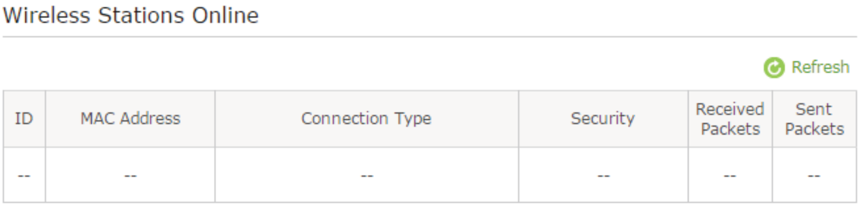
Channel: Auto(6)

MAC Address: FF:FF:FF:FF:FF:FF

Tips: You can also see the wrieless details by clicking the router icon on ***Basic***> ***Network Map.***

To view the detailed information of the connected wireless clients:

1. Visit http://tplinkwifi.net, and log in with the password you set for the router.
2. Go to ***Advanced*** > ***Wireless*** > ***Statistics*** page.
3. You can view the detailed information of the wireless clients, including its connected wireless band and security option as well as the packets transmitted.


Wireless Stations Online

ID	MAC Address	Connection Type	Security	Received Packets	Sent Packets
--	--	--	--	--	--

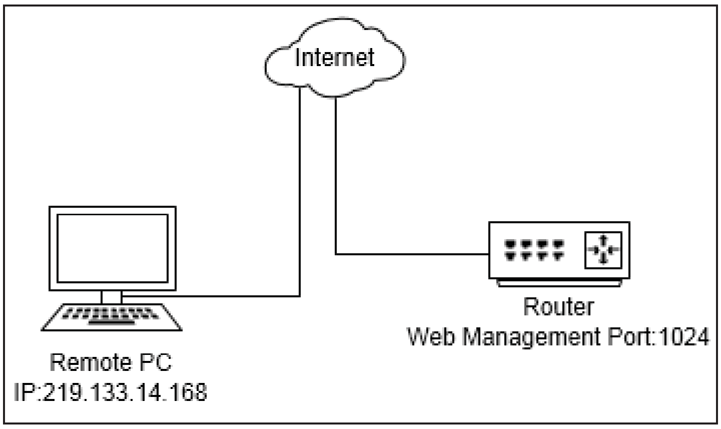
Tips: You can also see the wrieless details by clicking the wireless clients icon on ***Basic***> ***Network Map.***

13.3 Register a Domain Name for Your Router

To manage the router remotely, the remote device needs to log in to http://Router's WAN IP:port number, which requires the remote user to know the router's WAN IP. The ISP (Internet Service Provider), however, usually assigns a dynamic IP to the router. When the WAN IP changes, the user needs to reconfirm the related information. The Dynamic DNS (DDNS) links the router's dynamic WAN IP with a domain name, allows the remote device to log in with the domain name and saves the trouble of reconfirming.

I want to: Manage the router remotely with Remote PC, whose authority to manage the router has been enabled, by logging in with the domain name.

For example:



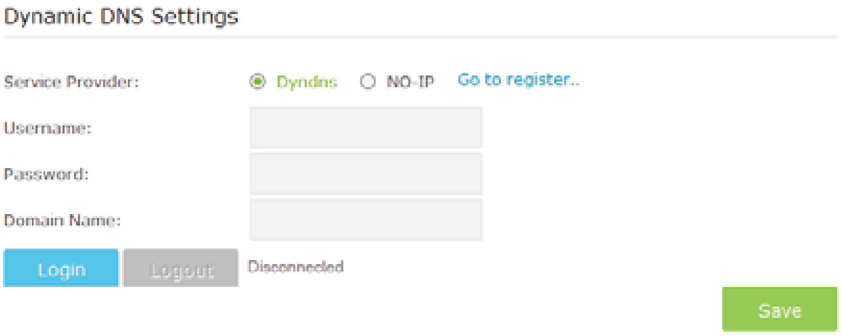
Note:

✓ DDNS does not work if the ISP assigns a private WAN IP address (such as 192.168.0.x) to the router.

✓ To use this function, you have to have a NO-IP account or a Dyndns account.

How can I do that?

1. Visit http://tplinkwifi.net, and log in with the password you set for the router.
2. Go to ***Advanced>Network>Dynamic DNS***.



Dynamic DNS Settings

Service Provider: ● Dyndns ○ NO-IP Go to register..

Username:

Password:

Domain Name:

3. Select a DDNS service provider (NO-IP or Dyndns).

   Note: If you don't have a DDNS account, select a service provider and click **Go to register** to register.
4. Enter the username, password and domain name of the account (such as lisadns.ddns.net).
5. Click **Login and Save**.

Completed! Now on the PC that can manage the router remotely, log in to http://domain name:port number (such as lisa.ddns.net:1024) to manage the router.

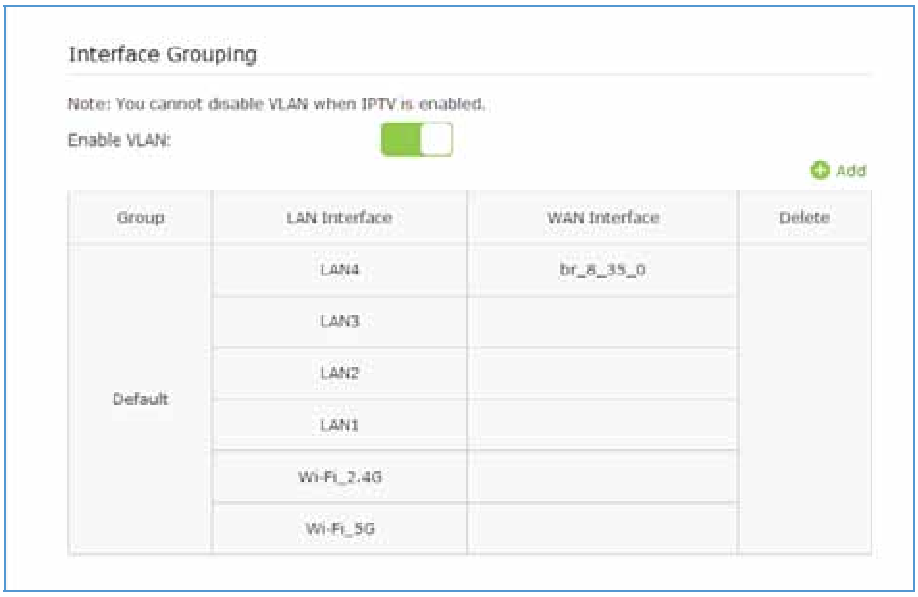
13.4 Interface Grouping

I want to: Divide my devices connected to the router into different groups and disallow devices' cross-group communication.

For example, in my house, devices connected to LAN1 and LAN3 are for work, while others for entertainment. I want to isolate working devices from others while keep all devices' access to the Internet.

How can I do that?

1. Visit http://tplinkwifi.net, and log in with the password you set for the router.
2. Click **Advanced > Network > Interface Grouping** to open the configuration page where some interfaces can be grouped together.



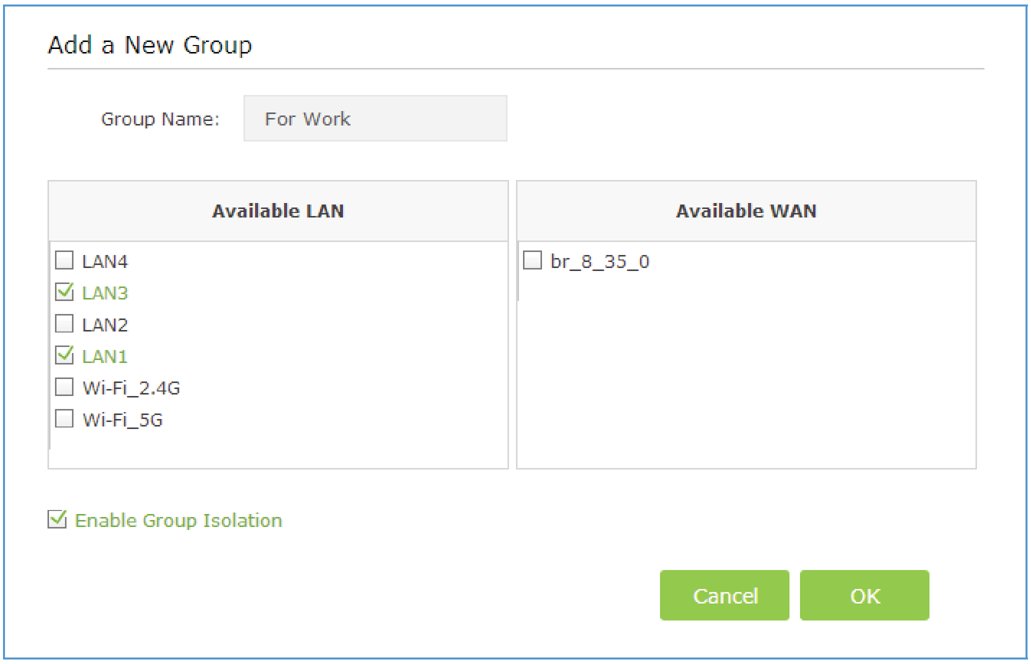
Interface Grouping

Note: You cannot disable VLAN when IPTV is enabled.

Enable VLAN:

Group	LAN Interface	WAN Interface	Delete
Default	LAN4	br_8_35_0	
	LAN3		
	LAN2		
	LAN1		
	Wi-Fi_2.4G		
	Wi-Fi_5G		

3. Click to **Add** a new group.



Add a New Group

Group Name: For Work

Available LAN	Available WAN
□ LAN4 ☑ LAN3 □ LAN2 ☑ LAN1 □ Wi-Fi_2.4G □ Wi-Fi_5G	□ br_8_35_0

☑ Enable Group Isolation

4. Name the group.
5. Check the boxes of LAN1 and LAN3 in **Available LAN**. Here Wi-Fi 2.4G network and Wi-Fi 5G network are viewed as a LAN interface respectively.
6. Click **Enable Group Isolation** to isolate working devices and disallow other devices from communicating with them.
7. Click **OK** to save the settings.

Completed! Now your working devices connected to LAN1 and LAN3 are in an isolated group!

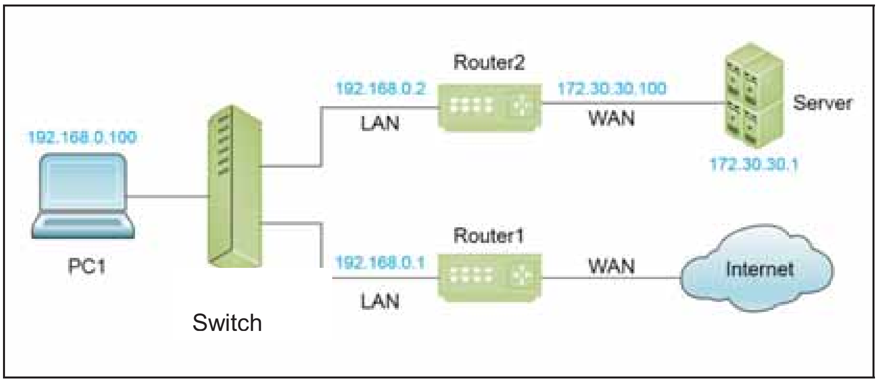
In addition: VLAN function is enabled by default. You cannot disable it when IPTV is enabled.

13.5 Create Static Routes

Static routing is a form of routing that is configured manually by a network administrator or a user by adding entries into a routing table. The manually-configured routing information guides the router in forwarding data packets to the specific destination.

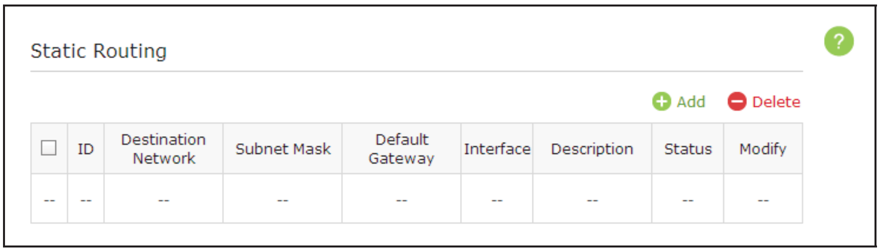
I want to: Visit multiple networks and multiple servers at the same time.

For example, in a small office, my PC can surf the Internet, but I also want to visit my company's network. Now I have a switch and another router. I connect the devices as shown in the following figure so that the physical connection between my PC and my company's server is achieved. To surf the Internet and visit my company's network at the same time, I need to configure the static routing.



How can I do that?

1. Change the routers LAN IP addresses to two different IP addresses on the same subnet. Disable Router 2's DHCP function.
2. Visit http://tplinkwifi.net, and log in with the password you set for the router. Go to ***Network>Advanced Routing***. Click **Add** to add a new static routing entry.

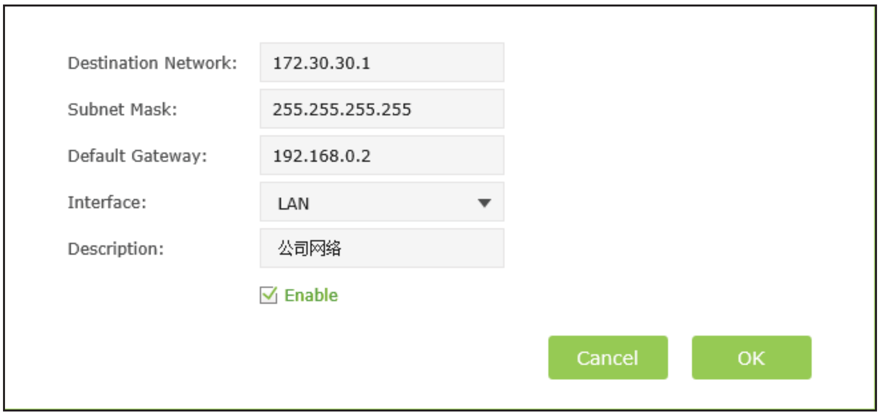


Static Routing

⊕ Add ⊖ Delete

□	ID	Destination Network	Subnet Mask	Default Gateway	Interface	Description	Status	Modify
--	--	--	--	--	--	--	--	--

3. Finish the settings according to the following explanations:



Destination Network:	172.30.30.1
Subnet Mask:	255.255.255.255
Default Gateway:	192.168.0.2
Interface:	LAN ▼
Description:	公司网络

☑ Enable

Destination Network: is the destination IP address that you want to assign to a static route. This IP address cannot be on the same subnet with the WAN IP or LAN IP of the router. In the example, the IP address of the company network is the destination IP address, so here enters 172.30.30.1.

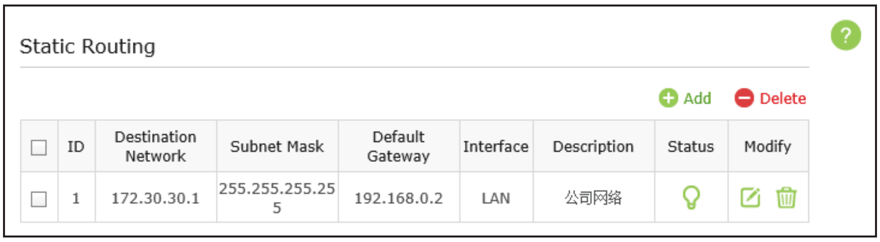
Subnet Mask: determines the destination network with the destination IP address. If the destination is a single IP address, enter 255.255.255.255; otherwise, enter the subnet mask of the corresponding network IP. In the example, the destination network is a single IP, so here enters 255.255.255.255.

Default Gateway: is the IP address of the gateway device to which the data packets will be sent. This IP address must be on the same subnet with the router's IP which sends out the data. In the example, the data packets will be sent to the LAN port of Router 2 and then to the Server, so the default gateway should be 192.168.0.2.

Interface: is determined by the port (WAN/LAN) that sends out the data packets. In the example, the data is sent to the gateway through the LAN port, so LAN should be selected.

Description: (Optional) Enter a description for this static routing entry.

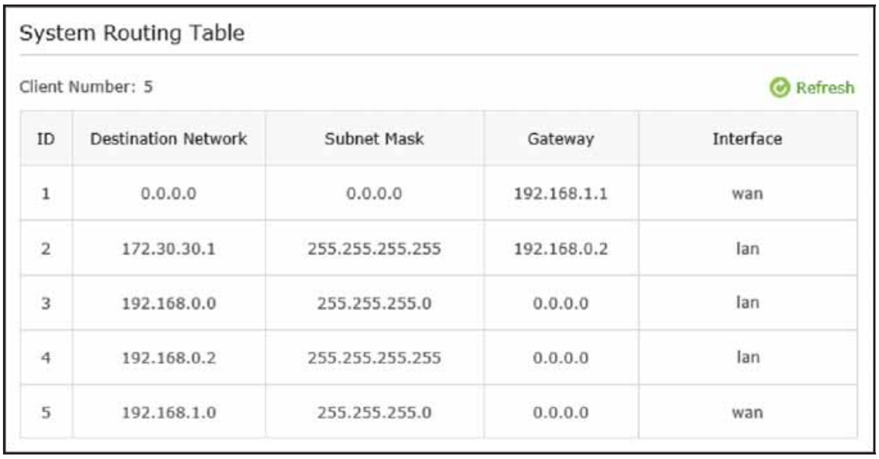
4. Click **OK** to save the settings.



Static Routing

□	ID	Destination Network	Subnet Mask	Default Gateway	Interface	Description	Status	Modify
□	1	172.30.30.1	255.255.255.255	192.168.0.2	LAN	公司网络	💡	✎ 🗑

5. Check the **System Routing Table** below. If you can find the entry you set in the **System Routing Table**, the static routing is set successfully.



System Routing Table

Client Number: 5

ID	Destination Network	Subnet Mask	Gateway	Interface
1	0.0.0.0	0.0.0.0	192.168.1.1	wan
2	172.30.30.1	255.255.255.255	192.168.0.2	lan
3	192.168.0.0	255.255.255.0	0.0.0.0	lan
4	192.168.0.2	255.255.255.255	0.0.0.0	lan
5	192.168.1.0	255.255.255.0	0.0.0.0	wan

Completed! Open a web browser on your PC. Enter the company server's IP address to visit the company network.

13.6 Set up VPN Connection

VPN (Virtual Private Network) is a private network established via the public network, generally via the Internet. However, the private network is a logical network without any physical network lines, so it is called Virtual Private Network.

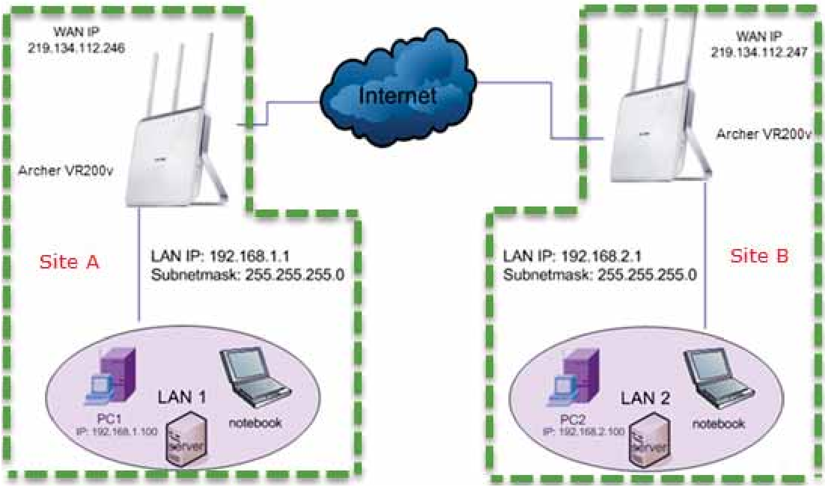
With the wide application of the Internet, more and more data are needed to be shared through the Internet. Connecting the local network to the Internet directly, though can allow the data exchange, will cause the private data to be exposed to all the users on the Internet.

The VPN (Virtual Private Network) technology is developed and used to establish the private network through the public network, which can provides a secure communication to a remote computer or remote network, and guarantee a secured data exchange.

I want to: Establish an IPSec VPN tunnel between two units which support IPSec protocol.

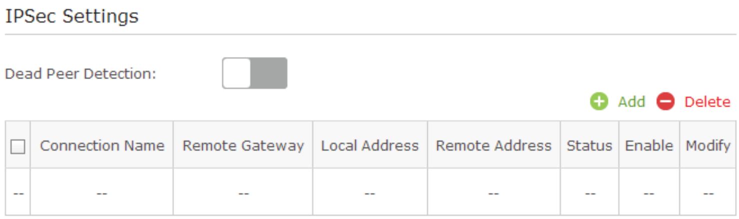
For example, I am a field staff and want to set up a VPN connection with company headquarters. Here Site A refers to my local network. And Site B refers to the remote network which I want to connect.

The following diagram is a typical VPN topology.



How can I do that?

1. Make sure the topology you want to build and record site A (local network) and site B (remote network)'s LAN IP and WAN IP.
2. Configuration on site A (local network).
   1) Visit http://tplinkwifi.net, and log in with the password you set for the router.
   2) Click **Advanced > Network > IPSec VPN** to open the configuration page.

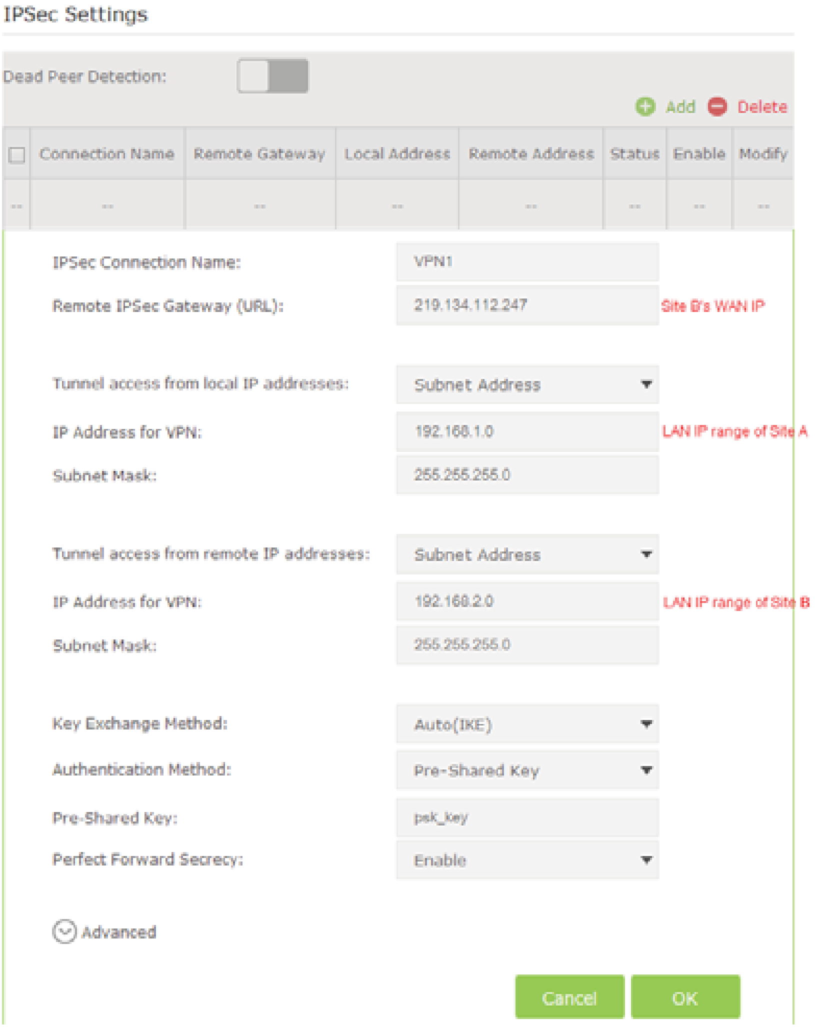


IPSec Settings

Dead Peer Detection:

□	Connection Name	Remote Gateway	Local Address	Remote Address	Status	Enable	Modify
--	--	--	--	--	--	--	--

3) Click **Add** to set up a VPN tunnel.



IPSec Settings

Dead Peer Detection:

□	Connection Name	Remote Gateway	Local Address	Remote Address	Status	Enable	Modify
--	--	--	--	--	--	--	--

IPSec Connection Name:	VPN1	
Remote IPSec Gateway (URL):	219.134.112.247	Site B's WAN IP
Tunnel access from local IP addresses:	Subnet Address	
IP Address for VPN:	192.168.1.0	LAN IP range of Site A
Subnet Mask:	255.255.255.0	
Tunnel access from remote IP addresses:	Subnet Address	
IP Address for VPN:	192.168.2.0	LAN IP range of Site B
Subnet Mask:	255.255.255.0	
Key Exchange Method:	Auto(IKE)	
Authentication Method:	Pre-Shared Key	
Pre-Shared Key:	psk_key	
Perfect Forward Secrecy:	Enable	

4) Enter a connection name for your IPSec VPN.

5) Enter Site B’s WAN IP address.

6) For Site A’s whole LAN here we select **Subnet Address**. Then input the **LAN IP** range and **Subnet Mask** of Site A.

7) For Site B’s whole LAN here we select **Subnet Address**. Then input the **LAN IP** range and **Subnet Mask** of Site B.

8) Select the **Key Exchange Method** for the policy. We select **Auto(IKE)** here.

9) Enter the **Pre-shared Key** for IKE authentication. Then keep Perfect Forward Secrecy enabled.

Note:

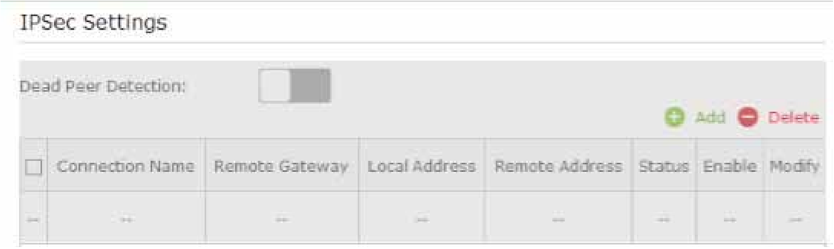
i. The key should consist of visible characters without blank space.

ii. Make sure Site A and Site B use the same key.

10) Leave the **Advanced** Settings as default value. Then click **OK** to save.

3. Configuration on Site B (remote network). You can do refer to **step 2**. Make sure that Site A and Site B use the same **pre-shared keys** and **Perfect Forward Secrecy** settings.

4. The **Status** column will change to **UP** if the VPN connection has been set up successfully.



IPSec Settings

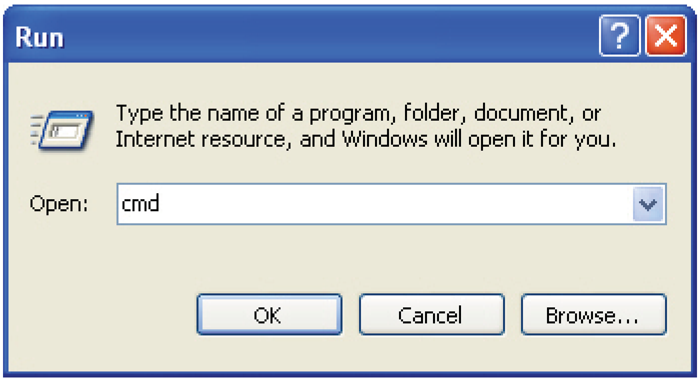
Dead Peer Detection:

□	Connection Name	Remote Gateway	Local Address	Remote Address	Status	Enable	Modify
--	--	--	--	--	--	--	--

5. Check the VPN connection. You can ping site B' LAN IP from your computer to verify that the IPSec VPN connection is set up correctly.

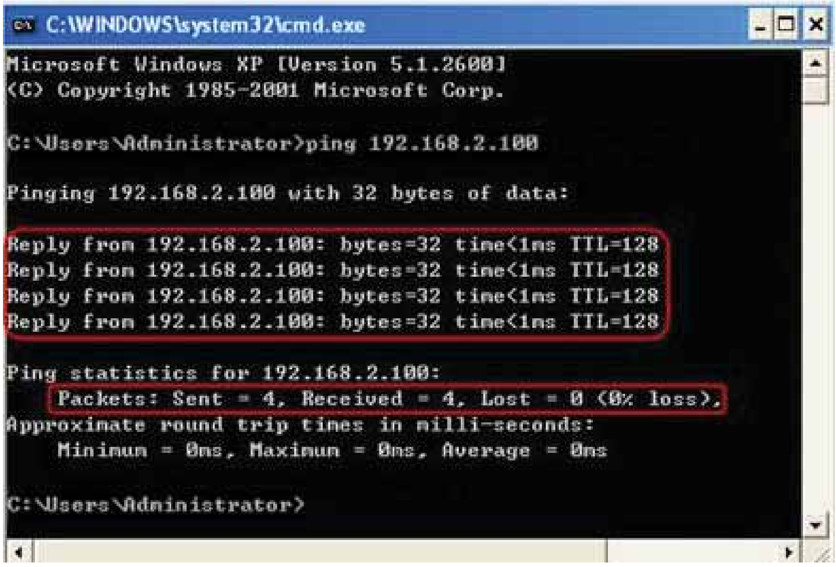
*To check the VPN connection, you can do the following:

1) On the host in Site A, press **[Windows Logo]** + **[R]** to open Run dialog. Input “**cmd**” and hit **OK**.


Run
Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
Open:
OK
Cancel
Browse...

Open: cmd

2) In the CLI window, type in “ping 192.168.2.x” (“192.168.2.x” can be IP address of any host in Site B). Then press [Enter].



```
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Users\Administrator>ping 192.168.2.100

Pinging 192.168.2.100 with 32 bytes of data:

Reply from 192.168.2.100: bytes=32 time<1ms TTL=128
Reply from 192.168.2.100: bytes=32 time<1ms TTL=128
Reply from 192.168.2.100: bytes=32 time<1ms TTL=128
Reply from 192.168.2.100: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.2.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\Administrator>
```

If Ping proceeds successfully (gets replies from host in Site B), the IPSec connection must be working properly now.

Note:

1) The product supports a maximum of ten simultaneous connections.

2) If one of the site has been off line for a while, for example, if Site A has been disconnected, on Site B you need to click Disable and then click Enable after Site A back on line in order to re-establish the IPSec tunnel.

Completed! The VPN tunnel is established.

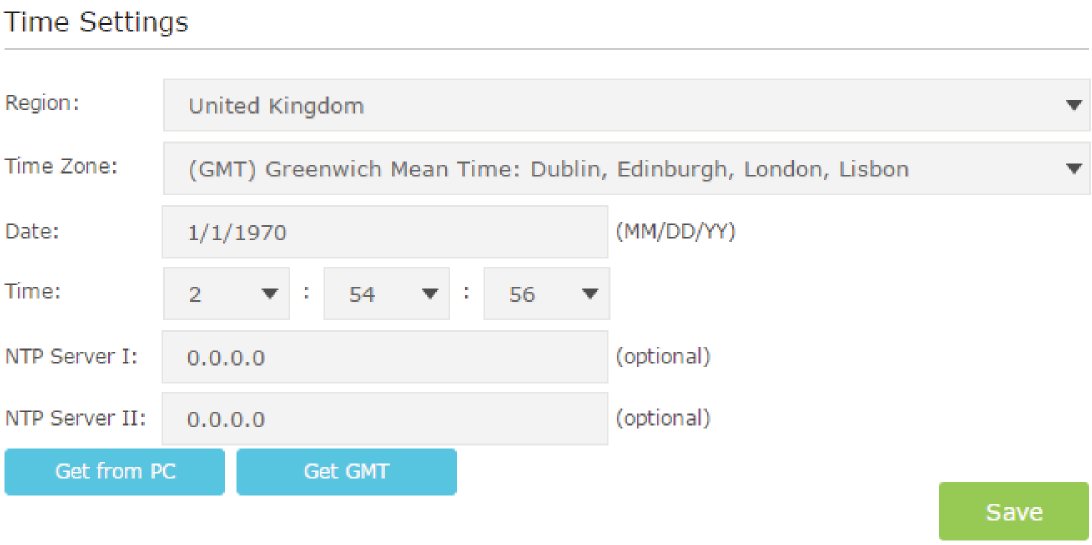
Chapter 14. Administrate Your Network

This chapter will show configuration for the key functions on the Web-based management page.

14.1 Set System Time and Region

System time is the time displayed while the router is running. The system time you configure here will be used for other time-based functions like Parental Controls and Wireless Schedule. You can manually set how to get the system time.

1. Visit http://tplinkwifi.net, and log in with the password you set for the router. Go to ***Advanced*** > ***System Tools > Time Settings*** page.



Time Settings

Region:	United Kingdom	
Time Zone:	(GMT) Greenwich Mean Time: Dublin, Edinburgh, London, Lisbon	
Date:	1/1/1970	(MM/DD/YY)
Time:	2 : 54 : 56	
NTP Server I:	0.0.0.0	(optional)
NTP Server II:	0.0.0.0	(optional)

2. Select your Region from the drop-down list. The region is where the wireless function of the device can be used. It may be illegal to use the wireless function of the device in a region other than regions specified in the list. If your country or region is not listed, please contact your local government agency for assistance.

3. Three ways for you to configure the system time:

   Manually: Select your time zone and enter your local time, then click Save to make the settings effective.

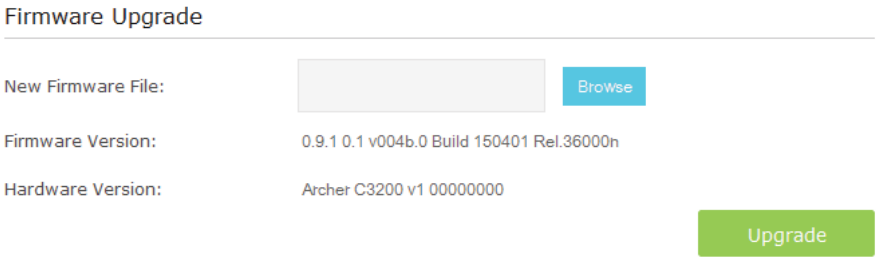
   Get from PC: Click this button if you want to use the current managing PC's time.

   Get GMT: Click this button if you want to get time from the Internet. Make sure your router can access the Internet before you select this way to get system time.

14.2 Update the Firmware

TP-LINK R&D is dedicated to improving and richening the product features, giving you a better network experience. We will release the latest firmware at TP-LINK official website, you can download the latest firmware file from our website: www.tp-link.com and upgrade the firmware to the latest version.

1. Download the latest firmware file from our website: www.tp-link.com.
2. Visit http://tplinkwifi.net, and log in with the password you set for the router. Click ***Advanced > System Tools > Firmware Upgrade***.



Firmware Upgrade

New Firmware File:

Firmware Version: 0.9.1 0.1 v004b.0 Build 150401 Rel.36000n

Hardware Version: Archer C3200 v1 00000000

3. Click **Browse** to locate the downloaded new firmware file, and click **Upgrade**.
4. Wait a few moments for the upgrading and rebooting.

Tips:

1. Before upgrading the firmware, it's better to back up your current settings.
2. During the upgrading process, do not turn off or reset the router.
3. The upgraded firmware version must correspond to the hardware.

14.3 Back up and Restore Configuration Settings

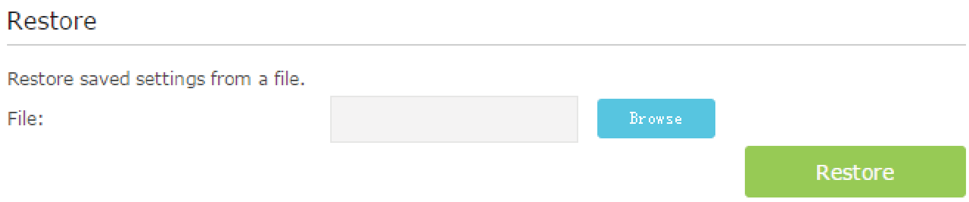
The configuration settings are stored as a configuration file in the router. You can back up the configuration file to your computer for future use and restore the router to a previous settings from the backup file when needed. Moreover, if needed you can erase the current settings and reset the router to the default factory settings.

To back up configuration settings:

1. Visit http://tplinkwifi.net, and log in with the password you set for the router. Click ***Advanced > System Tools > Backup & Restore***.
2. Click **Backup** to save a copy of the current settings to your local computer. A conf.bin file will be stored to your computer.

To restore configuration settings:

1. Visit http://tplinkwifi.net, and log in with the password you set for the router. Click ***Advanced > System Tools > Backup & Restore***.



Restore

Restore saved settings from a file.

File:

2. Click **Browse** to locate the backup configuration file, and click **Restore**. The configuration file is conf.bin.

3. Wait a few moments for the restoring and rebooting.

Tips: During the restoring process, do not turn off or reset the router.

To reset the router to factory default settings:

1. Visit http://tplinkwifi.net, and log in with the password you set for the router. Click ***Advanced > System Tools > Backup & Restore***.

2. Click **Factory Restore** to reset the router.

3. Wait a few moments for the resetting and rebooting.

Tips:

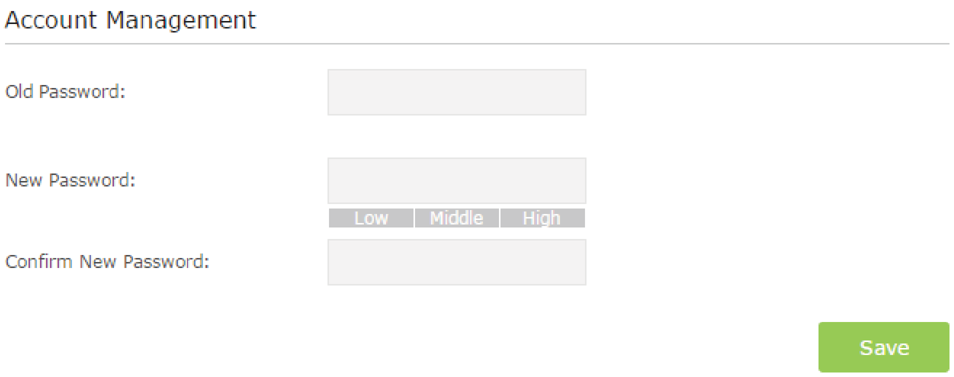
1. During the resetting process, do not turn off or reset the router.

2. We strongly recommend you back up the current configuration settings before resetting the router.

14.4 Change the Administrator Account

Admin account is used to log in to the router's web-based management page. You are required to set the admin account at first login. You can change it on the web page.

1. Visit http://tplinkwifi.net, and log in with the password you set for the router. Click ***Advanced > System Tools> Administration***. Locate the **Account Management** section.



Account Management

Old Password:

New Password:

Confirm New Password:

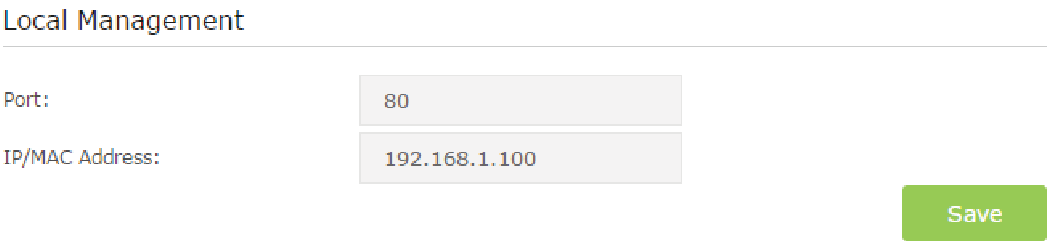
2. Enter the old password. Enter the new password and enter again to confirm.

3. Click **Save** to make the settings effective.

14.5 Local Management

You can control the local devices' authority to manage the router via Local Management feature. By default all local connected devices are allowed to manage the router. You can also allow only one device to manage the router.

1. Visit http://tplinkwifi.net, and log in with the password you set for the router. Locate the Local Management section
2. Keep the Port as the default setting. Enter the IP address or MAC address of the local device to manage the router.



Local Management

Port: 80

IP/MAC Address: 192.168.1.100

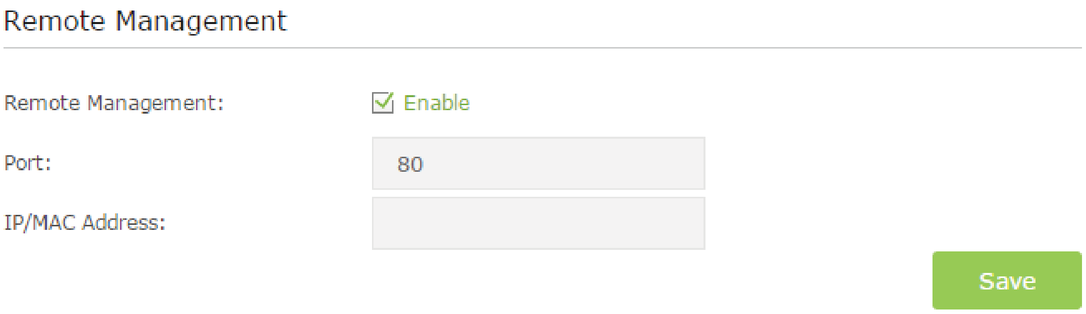
3. Click **Save** to make the settings effective. Now only the device (192.168.1.100) can manage the router.

   Note: If you want that all local devices can manage the router, just leave the **IP/MAC Address** field blank.

14.6 Remote Management

By default, the remote devices are not allowed to manage the router from the Internet. Follow the steps below to allow remote devices to manage the router.

1. Visit http://tplinkwifi.net, and log in with the password you set for the router. Locate the Remote Management section.
2. Tick the checkbox to enable the remote management.
3. Keep the Port as the default setting. Leave the IP/MAC Address field blank.



Remote Management

Remote Management: ☑ Enable

Port: 80

IP/MAC Address:

4. Click **Save** to make the settings effective. Now all the remote device can access the router and manage it.

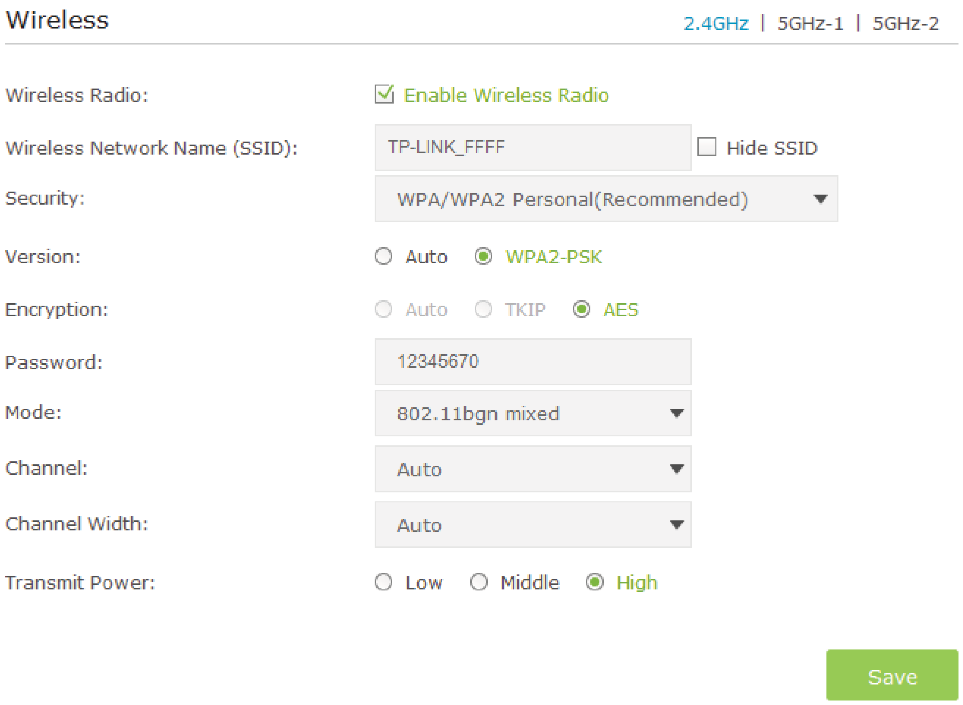
   Note: If you just want to allow a specific device to manage the router, you can enter the IP address of the remote device in the IP/MAC Address field.

Appendix A: FAQ

Q1. What can I do if I forgot my wireless password?

The default password is labeled at the back of the router. If the password has been altered, please connect the router to the PC using a cable and follow the steps below:

1. Visit http://tplinkwifi.net, and log in with the username and password you set for the router.
2. Go to **Advanced** >**Wireless** > **Wireless Settings**, locate the password on the loading page.



Wireless

2.4GHz | 5GHz-1 | 5GHz-2

Wireless Radio: ☑ Enable Wireless Radio

Wireless Network Name (SSID): TP-LINK_FFFF ☐ Hide SSID

Security: WPA/WPA2 Personal(Recommended)

Version: ○ Auto ● WPA2-PSK

Encryption: ○ Auto ○ TKIP ● AES

Password: 12345670

Mode: 802.11bgn mixed

Channel: Auto

Channel Width: Auto

Transmit Power: ○ Low ○ Middle ● High

Completed! Please mark down your password for future use.

Q2. How to retrieve the username and password of the web management page?

The default username and password of the web management page are “admin” (in lower case). If the password has been altered, please follow the steps below:

- **If you have altered the login username and password, and Password Recovery is enabled:**

  Tip: Ensure the Internet access is available before using this method.

1. Open the router's login page;
2. Click "Forget password->Send Code", the verification code will be sent to the mailbox you set when enabling Password Recovery.
3. Login to your mailbox to copy the verification code;
4. Paste the verification code on the window which pops up in Step 3;
5. Click "Confirm" (the login username and password will be reset as "admin" after the click).
6. Enter "admin" (in lower case) as both username and password to login.

   Tip: Please refer to Link to learn how to configure Password Recovery.

- **If you have altered the username and password but Password Recovery is disabled:**

1. Reset the router to factory default settings: press and hold the RESET button for about 8 seconds and then release;
2. Open the router's login page;
3. Enter "admin" (in lower case) as both username and password to login.

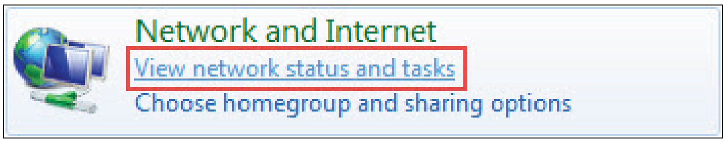
   Tip: You'll need to reconfigure the router to surf the Internet once the router is reset.

Completed! Please mark down your new password for future use.

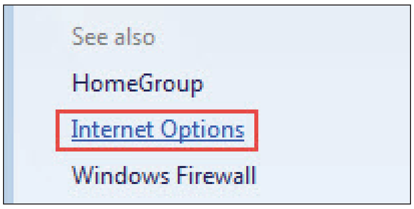
Q3. I cannot login the router's web management page, what can I do?

- Make sure the router connects to the PC correctly and the corresponding LED indicator(s) light up.
- Make sure the IP address of your PC is configured as "Obtain an IP address automatically" and "Obtain DNS server address automatically".
- Make sure the default access you input is right.
- Check your PC's settings:

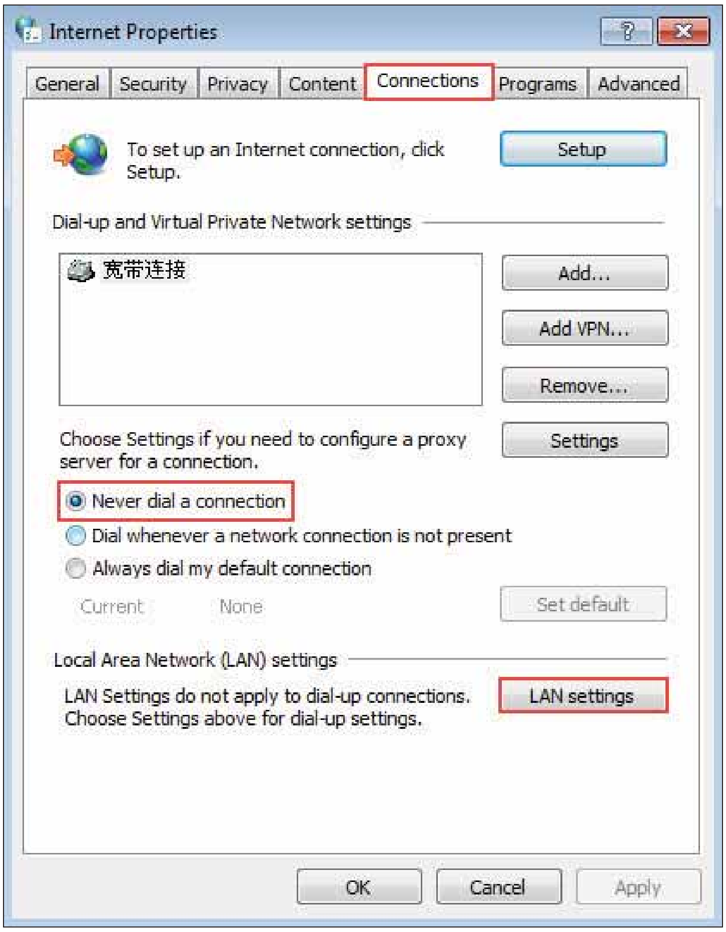
1) Go to **Start** > **Control Panel**, click **View network status and tasks**;


Network and Internet
View network status and tasks
Choose homegroup and sharing options

2) Click **Internet Options** on the bottom left;



3) Click **Connections**, select **Never dial a connection**;



To set up an Internet connection, click Setup.

Dial-up and Virtual Private Network settings

宽带连接

Choose Settings if you need to configure a proxy server for a connection.

● Never dial a connection

○ Dial whenever a network connection is not present

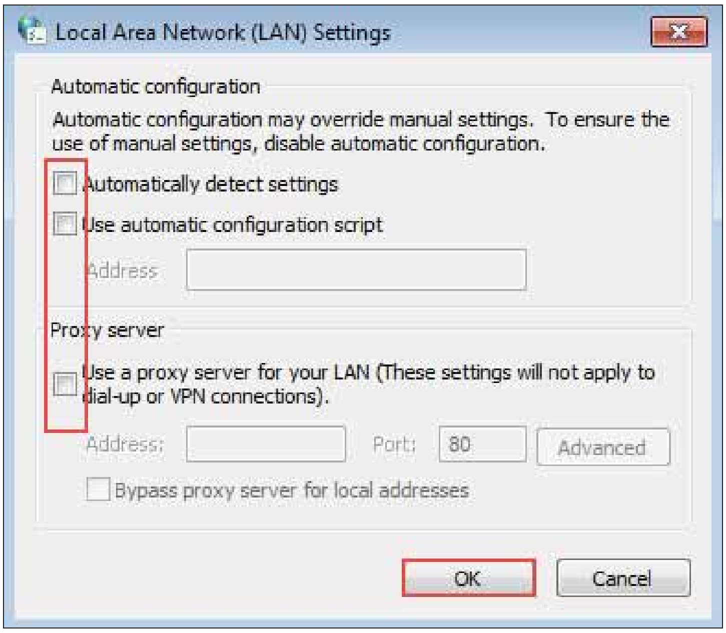
○ Always dial my default connection

Current None

Local Area Network (LAN) settings

LAN Settings do not apply to dial-up connections. Choose Settings above for dial-up settings.

4) Click **LAN settings**, deselect the following three options and click **OK**;



Automatic configuration

Automatic configuration may override manual settings. To ensure the use of manual settings, disable automatic configuration.

□ Automatically detect settings

□ Use automatic configuration script

Address

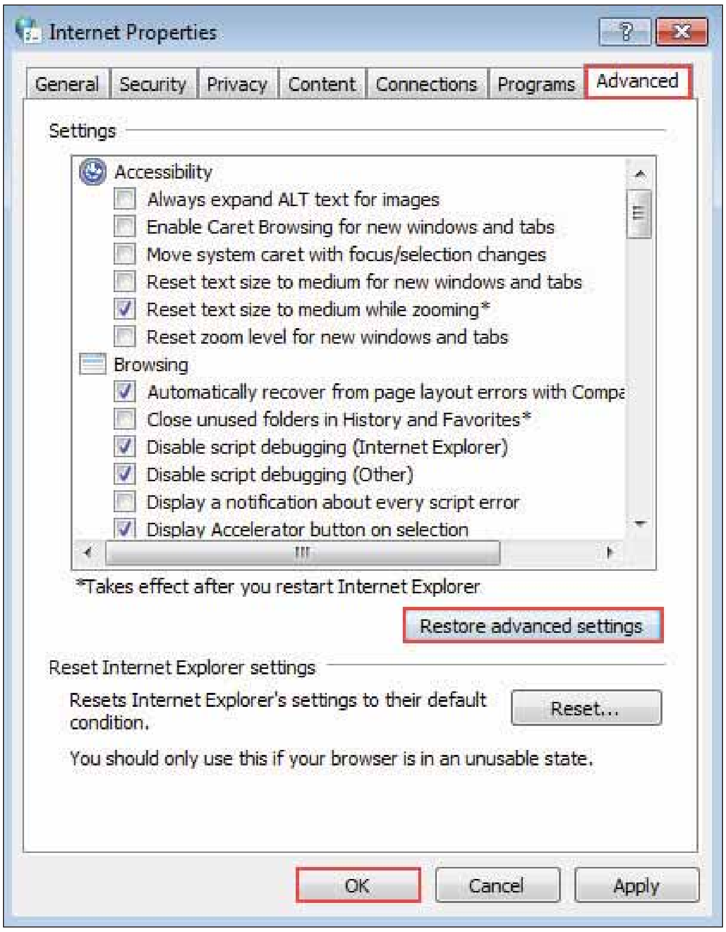
Proxy server

□ Use a proxy server for your LAN (These settings will not apply to dial-up or VPN connections).

Address: Port: 80

□ Bypass proxy server for local addresses

5) Go to **Advanced** > **Restore advanced settings**, click **OK** to save the settings.



Settings

Accessibility

- ☐ Always expand ALT text for images
- ☐ Enable Caret Browsing for new windows and tabs
- ☐ Move system caret with focus/selection changes
- ☐ Reset text size to medium for new windows and tabs
- ☑ Reset text size to medium while zooming*
- ☐ Reset zoom level for new windows and tabs

Browsing

- ☑ Automatically recover from page layout errors with Compa
- ☐ Close unused folders in History and Favorites*
- ☑ Disable script debugging (Internet Explorer)
- ☑ Disable script debugging (Other)
- ☐ Display a notification about every script error
- ☑ Display Accelerator button on selection

*Takes effect after you restart Internet Explorer

Reset Internet Explorer settings

Resets Internet Explorer's settings to their default condition.

You should only use this if your browser is in an unusable state.

- Change a web browser or PC and login again.
- Reset the router to factory default settings.

  Press and hold the RESET button for about 8 seconds and then release.

  Tip: You'll need to reconfigure the router to surf the Internet once the router is reset.

Open a web browser and login again. If login fails, please contact the technical support.

Completed! Now you can login to the router's web management page and manage your router.

Q4. How to use the WDS Bridging function to extend my wireless network?

For example: My house covers a large area. The wireless network coverage of the router I'm using (the root router) is limited. I want to use an extended router to extend the wireless network of the root router.

Tip: (1) WDS bridging only requires configuration on the extended router;

(2) WDS bridging function can be enabled either in 2.4GHz frequency or 5G frequency for a dual-band router. We use the WDS bridging function in 2.4GHz frequency as an example.

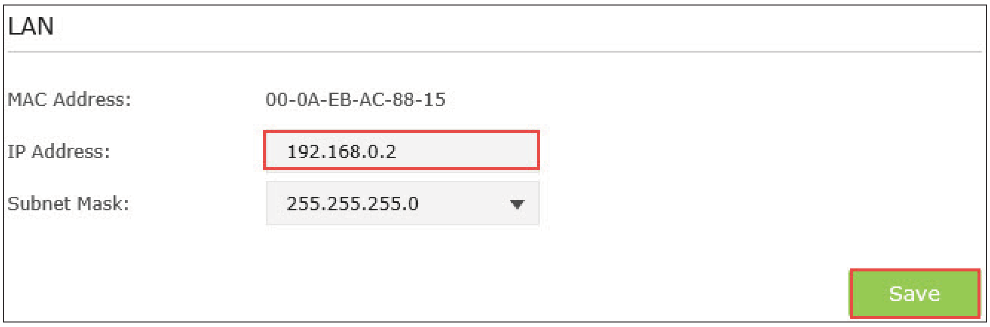
1. Visit http://tplinkwifi.net, and log in with the username and password you set for the router.

2. Configure the IP address of the router:

   1) Go to **Advanced** >**Network** > **LAN**, configure the IP address of the extended router to be in the same subnet with the root router. (For example, the IP address of the root router is 192.168.0.1, the IP address of the extended router can be 192.168.0.2~192.168.0.254. We take 192.168.0.2 as example.)

   2) Click **Save**.

   Tip: Login to the web management page again if the IP address of the router is altered.



LAN

MAC Address: 00-0A-EB-AC-88-15

IP Address: 192.168.0.2

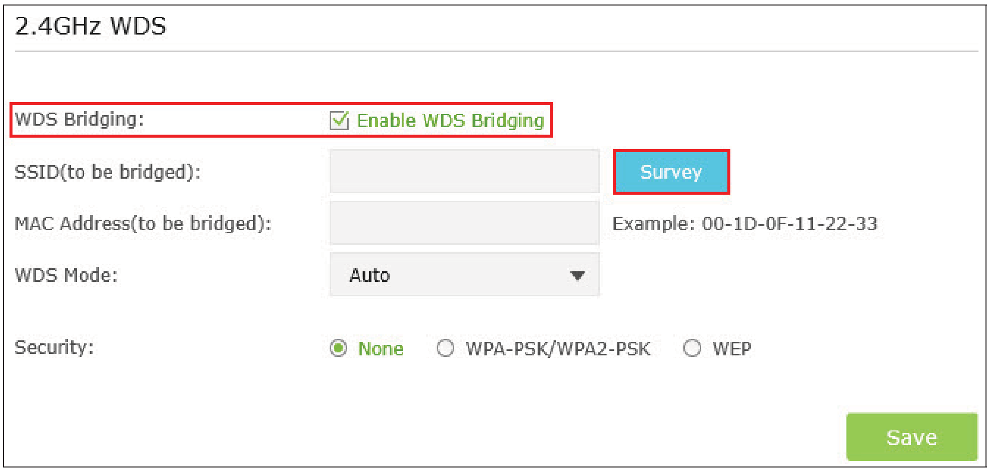
Subnet Mask: 255.255.255.0

3. Survey the SSID to be bridged:

   1) Go to **Advanced** >**System Tools** > **System Parameters** to load the 2.4GHz WDS page;

   2) Enable WDS Bridging;

   3) Click **Survey**;



2.4GHz WDS

WDS Bridging: ☑ Enable WDS Bridging

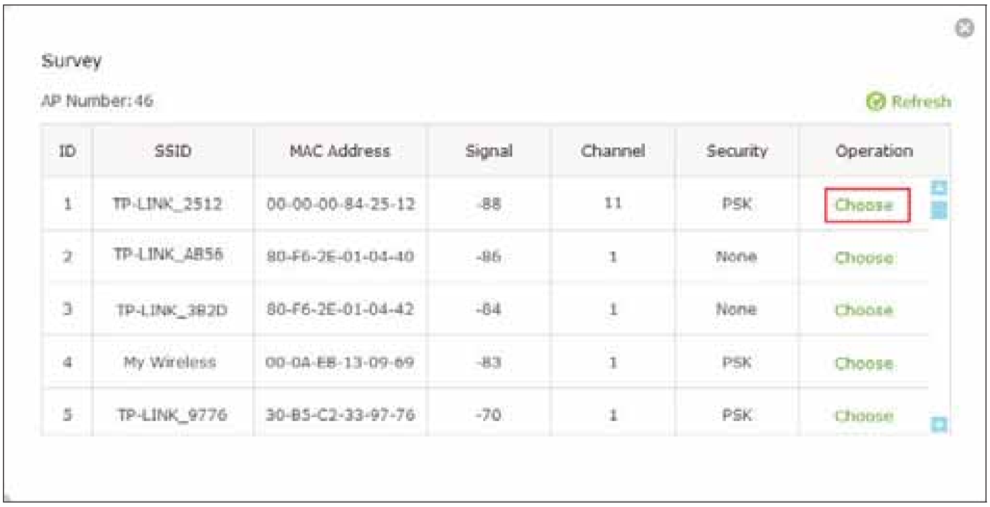
SSID(to be bridged):

MAC Address(to be bridged): Example: 00-1D-0F-11-22-33

WDS Mode: Auto

Security: ● None ○ WPA-PSK/WPA2-PSK ○ WEP

   4) Locate the root router's SSID and click **Choose**;

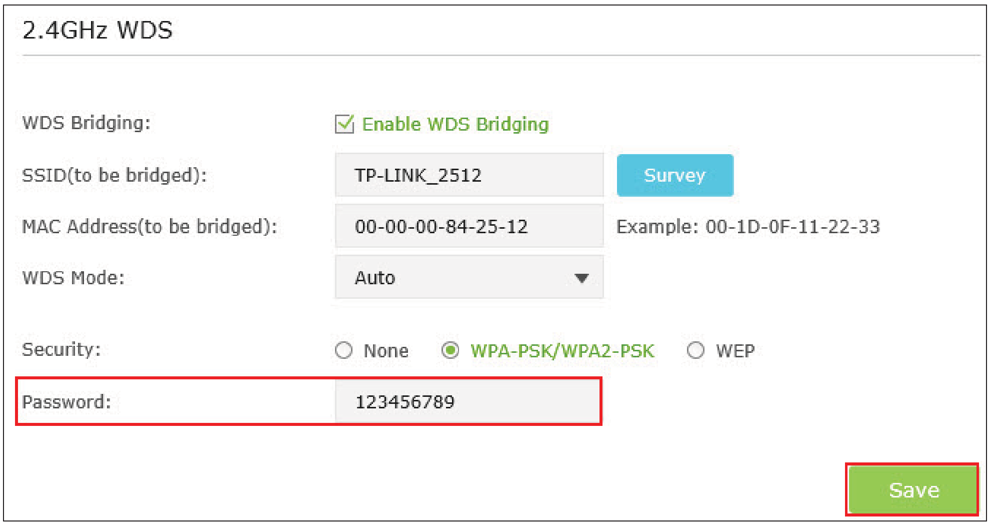


Survey

AP Number:46

ID	SSID	MAC Address	Signal	Channel	Security	Operation
1	TP-LINK_2512	00-00-00-84-25-12	-88	11	PSK	Choose
2	TP-LINK_AB56	80-F6-2E-01-04-40	-86	1	None	Choose
3	TP-LINK_3B2D	80-F6-2E-01-04-42	-84	1	None	Choose
4	My Wireless	00-0A-EB-13-09-69	-83	1	PSK	Choose
5	TP-LINK_9776	30-B5-C2-33-97-76	-70	1	PSK	Choose

5) Enter the wireless password of the root router and click **Save**.



2.4GHz WDS

WDS Bridging: ☑ Enable WDS Bridging

SSID(to be bridged): TP-LINK_2512

MAC Address(to be bridged): 00-00-00-84-25-12 Example: 00-1D-0F-11-22-33

WDS Mode: Auto

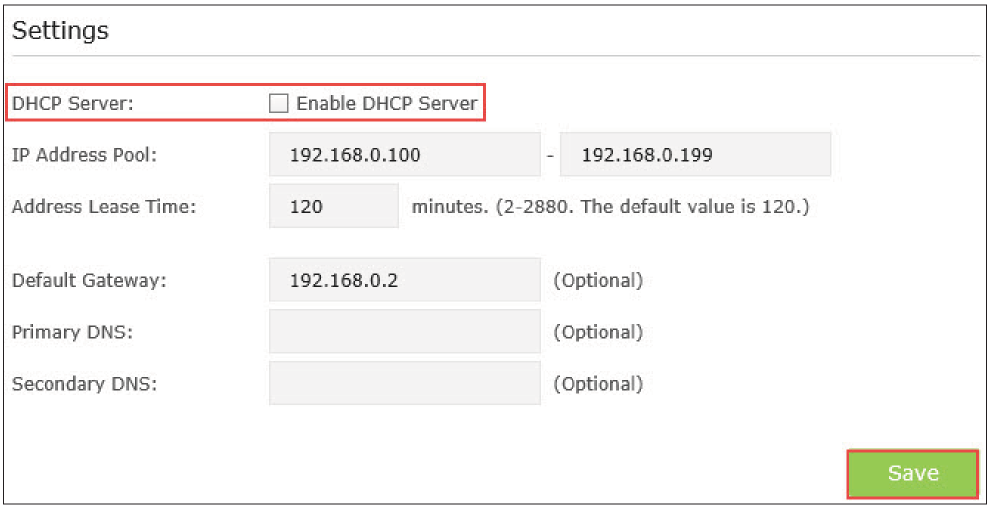
Security: ○ None ● WPA-PSK/WPA2-PSK ○ WEP

Password: 123456789

4. Disable DHCP:

1） Click **Network** > **DHCP Server** on the left column to load the Settings Page;

2） Deselect **Enable DHCP Server** as Figure 7 shows;



Settings

DHCP Server: □ Enable DHCP Server

IP Address Pool: 192.168.0.100 - 192.168.0.199

Address Lease Time: 120 minutes. (2-2880. The default value is 120.)

Default Gateway: 192.168.0.2 (Optional)

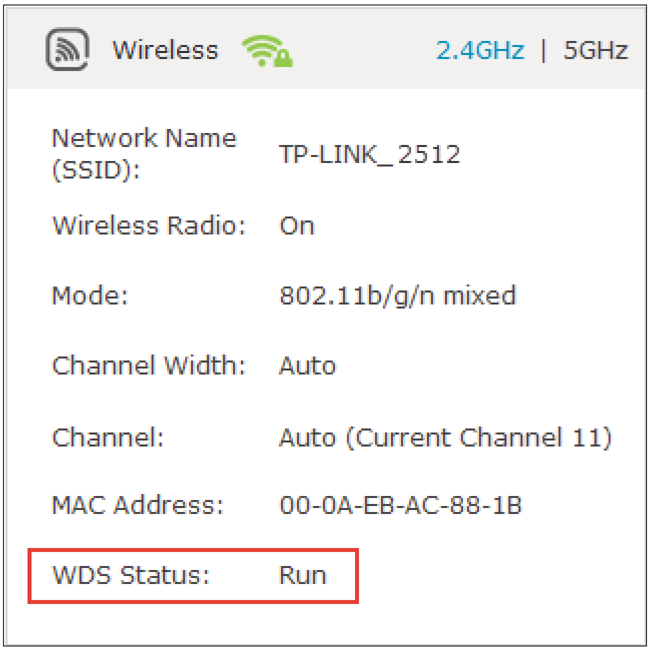
Primary DNS: (Optional)

Secondary DNS: (Optional)

3） Click **Save**.

Completed! Now you can login to the web management page, click **Advanced** > **Status** to check the WDS status. As Figure 8 shows, that the WDS status is Run means WDS bridging is successfully built.

TIP: The SSID and password of the extended router can be the same with or different from those of the root router. Please refer to Link to learn how to modify the extended router's SSID and password.



Network Name (SSID): TP-LINK_2512

Wireless Radio: On

Mode: 802.11b/g/n mixed

Channel Width: Auto

Channel: Auto (Current Channel 11)

MAC Address: 00-0A-EB-AC-88-1B

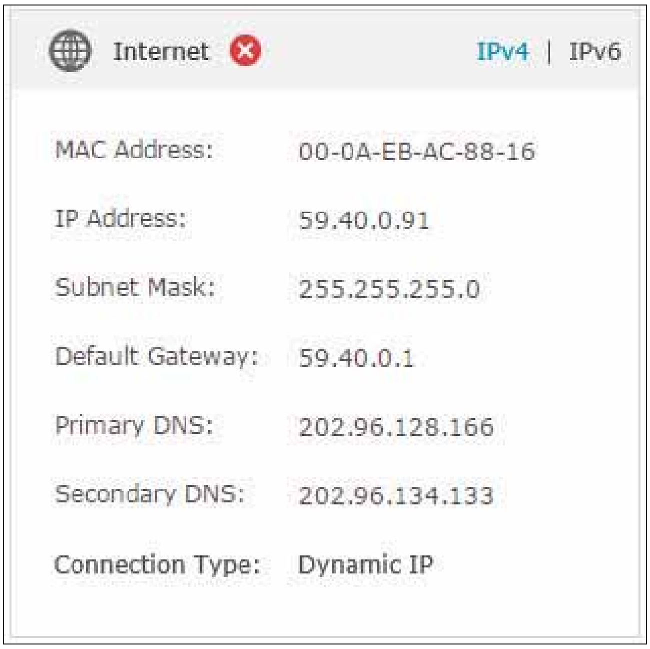
WDS Status: Run

Q5. I cannot access the Internet even though the configuration is finished, what can I do?

1. Visit http://tplinkwifi.net, and log in with the username and password you set for the router.

2. Go to **Advanced** > **Status** to check Internet status:

- **As** Figure 9 **shows, If WAN IP is a valid IP address, please follow the steps:**



Internet ☒ IPv4 | IPv6

MAC Address: 00-0A-EB-AC-88-16

IP Address: 59.40.0.91

Subnet Mask: 255.255.255.0

Default Gateway: 59.40.0.1

Primary DNS: 202.96.128.166

Secondary DNS: 202.96.134.133

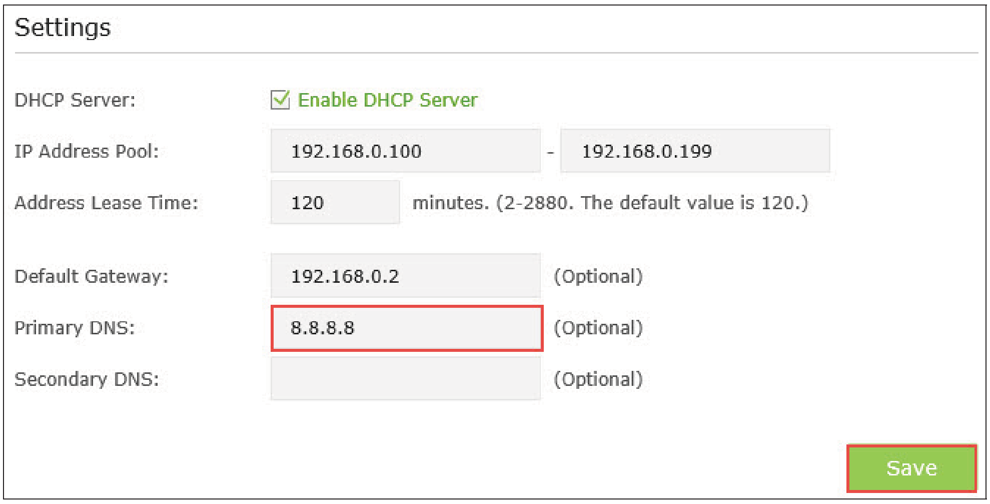
Connection Type: Dynamic IP

Solution 1: Manually configure DNS server.

1）Click **Advanced** > **Network** > **DHCP Server** to enter the configuration page;

2）Enter 8.8.8.8 as Primary DNS, click **Save**.

Tip: 8.8.8.8 is a safe and public DNS server operated by Google.



Settings

DHCP Server: ☑ Enable DHCP Server

IP Address Pool: 192.168.0.100 - 192.168.0.199

Address Lease Time: 120 minutes. (2-2880. The default value is 120.)

Default Gateway: 192.168.0.2 (Optional)

Primary DNS: 8.8.8.8 (Optional)

Secondary DNS: (Optional)

Solution 2： Power Cycle the modem and the TP-LINK router.

1) Power off your modem and TP-LINK router, leave them off for 1 minute;

Power on your modem first, wait about 2 minutes until it get a solid cable or Internet light;

2) Power back TP-LINK router;

3) Wait another 1 or 2 minutes and check the Internet access.

Solution 3: Reset the router to factory default settings and reconfigure.

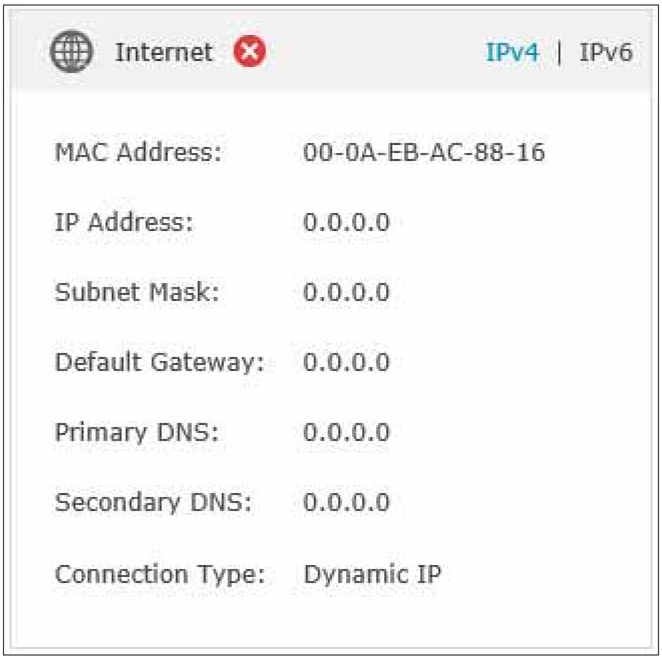
Tip: You'll have to reconfigure the router to access the Internet once the router is reset.

1）Reset the router to factory default settings: press and hold the RESET button for about 8 seconds and then release;

2）Reconfigure the router with the help of Quick Setup wizard; **Solution 4: Upgrade the firmware of the router.**

1）Please refer to Link.

- **If the WAN IP is 0.0.0.0, follow the steps below:**



MAC Address: 00-0A-EB-AC-88-16

IP Address: 0.0.0.0

Subnet Mask: 0.0.0.0

Default Gateway: 0.0.0.0

Primary DNS: 0.0.0.0

Secondary DNS: 0.0.0.0

Connection Type: Dynamic IP

Solution 1: Check the physical connection.

1）Make sure the physical connection between the router and the modem is proper.

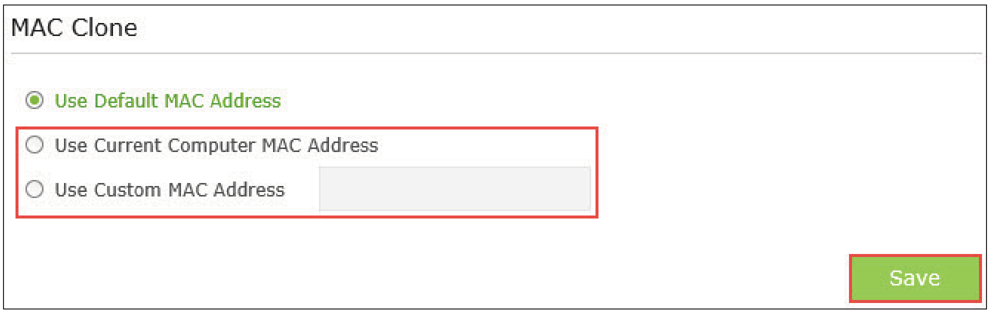
Solution 2：Clone the MAC address of your PC.

Note:（1）Some ISP will register the MAC address of your computer when you access the Internet for the first time through their Cable modem, if you add a router into your network to share your Internet connection, the ISP will not accept it as the MAC address is changed, so we need to clone your computer's MAC address to the router；

（2）The MAC addresses of a computer in wired connection and wireless connection are different.

1）Visit http://tplinkwifi.net, and log in with the username and password you set for the router.

2）Click **Advanced** > **Network** > **Internet** to enter the configuration page;



MAC Clone

● Use Default MAC Address

○ Use Current Computer MAC Address

○ Use Custom MAC Address

3） Choose an option to your need. Enter the MAC address if “Use Custom MAC Address” is selected.

4） Click **Save**.

Solution 3: Modify the LAN IP address of the router.

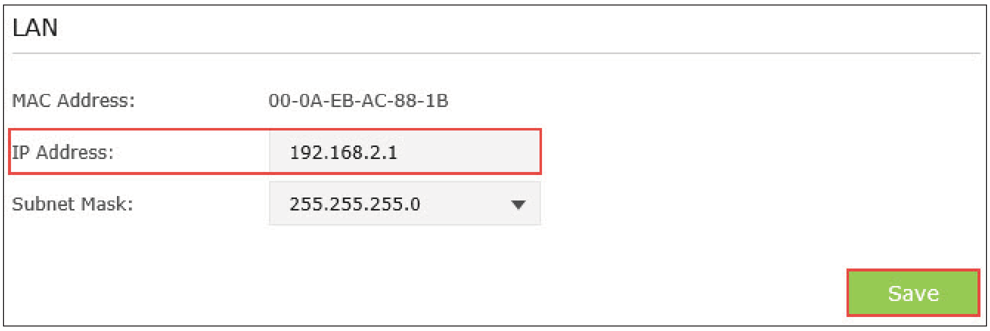
Note: Most TP-LINK routers use 192.168.1.1/192.168.0.1 as their default LAN IP address, it may be conflicting with the IP range of your existent ADSL modem/router. If so, the router is not able to communicate with your modem and cause you can’t access the Internet. To resolve the problem, we need to change the LAN IP address of the router to avoid such conflict, for example, 192.168.2.1.

1） Visit http://tplinkwifi.net, and log in with the username and password you set for the router.

2） Click **Advanced** > **Network** >**LAN** to enter the configuration page;

3） Modify the LAN IP address as Figure 13 shows. Here we take 192.168.2.1 as an example;

4） Click **Save**.



LAN

MAC Address: 00-0A-EB-AC-88-1B

IP Address: 192.168.2.1

Subnet Mask: 255.255.255.0

Solution 4：Power Cycle the modem and the TP-LINK router.

1） Power off your modem and TP-LINK router, leave them off for 1 minute;

Power on your modem first, wait about 2 minutes until it get a solid cable or Internet light;

2） Power back TP-LINK router;

Wait another 1 or 2 minutes and check the Internet access.

Solution 5: Double check the Internet Connection Type.

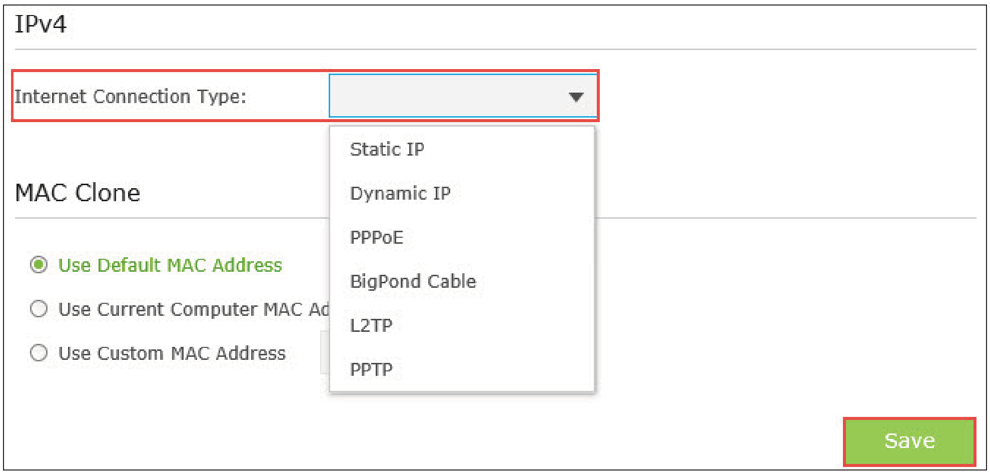
1） Confirm your Internet Connection Type, which can be learned from the ISP;

2） Visit http://tplinkwifi.net, and log in with the username and password you set for the router.

3） Click **Advanced** > **Network** >**Internet** to enter the configuration page;

4） Select your **Internet Connection Type** and fill in other parameters with the help of page tips;

5） Click **Save**;



IPv4

Internet Connection Type:

MAC Clone

● Use Default MAC Address

○ Use Current Computer MAC Ad

○ Use Custom MAC Address

6） Power Cycle the modem and the TP-LINK router again.

Solution 6: Upgrade the firmware of the router.

1） Please refer to Link.

3. Check the TCP/IP settings on the particular device if all other devices can get internet from the router.

If you've tried every method above but cannot access the Internet, please contact the technical support.

Completed! Now you can enjoy the wireless network with TP-LINK router.

Q6. I cannot find my wireless network or I cannot connect the wireless network, what can I do?

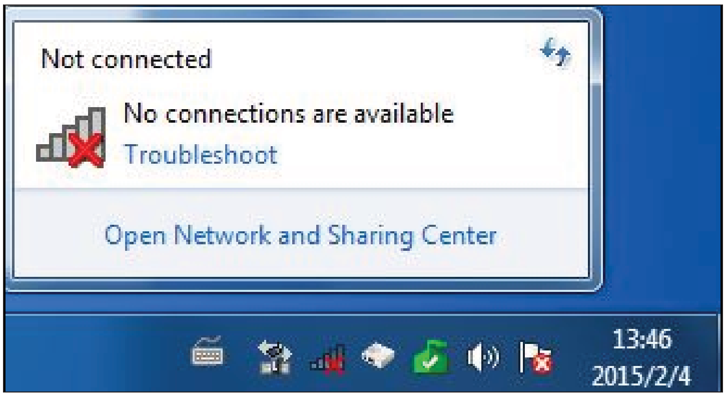
- If you fail to find any wireless network, please follow the steps below:

1. Make sure the wireless function is enabled if you're using a laptop with built-in wireless adapter. You can refer to the relevant document or contact the laptop manufacturer.

2. Make sure the wireless adapter driver is installed successfully and the wireless adapter is enabled.

On Windows 7

1) If you see the message "No connections are available", it is usually because the wireless function is disabled or blocked somehow.



Not connected

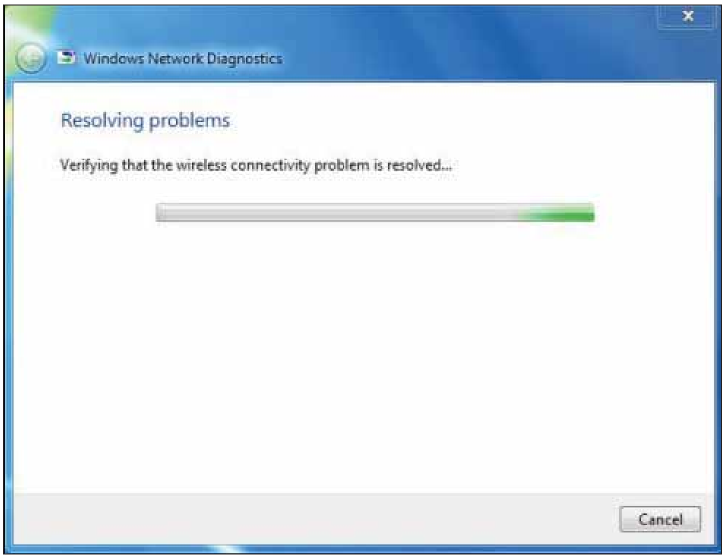
No connections are available

Troubleshoot

Open Network and Sharing Center

13:46
2015/2/4

2) Clicking on **Troubleshoot** and windows might be able to fix the problem by itself.



Windows Network Diagnostics

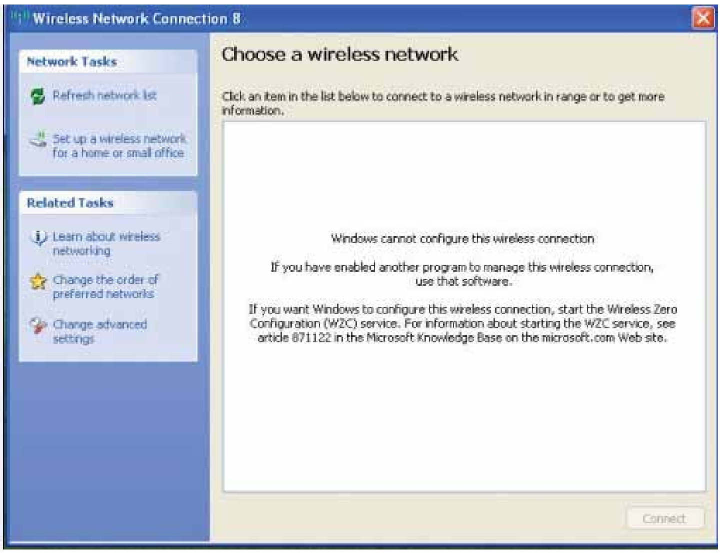
Resolving problems

Verifying that the wireless connectivity problem is resolved...

Cancel

On Windows XP

1) If you see the message “Windows cannot configure this wireless connection”, this is usually because windows configuration utility is disabled or you are running another wireless configuration tool to connect the wireless.



Wireless Network Connection 8
Network Tasks
Refresh network list
Set up a wireless network for a home or small office
Related Tasks
Learn about wireless networking
Change the order of preferred networks
Change advanced settings
Connect

Choose a wireless network

Click an item in the list below to connect to a wireless network in range or to get more information.

Windows cannot configure this wireless connection

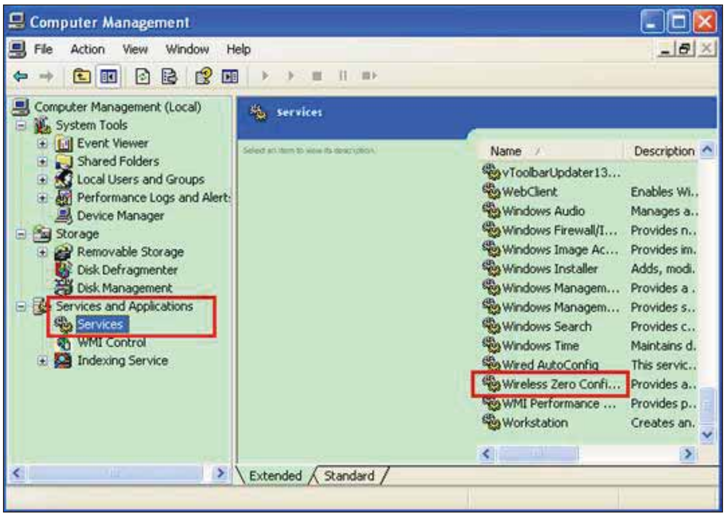
If you have enabled another program to manage this wireless connection, use that software.

If you want Windows to configure this wireless connection, start the Wireless Zero Configuration (WZC) service. For information about starting the WZC service, see article 871122 in the Microsoft Knowledge Base on the microsoft.com Web site.

2) Exit the wireless configuration tool(the TP-LINK Utility, for example);

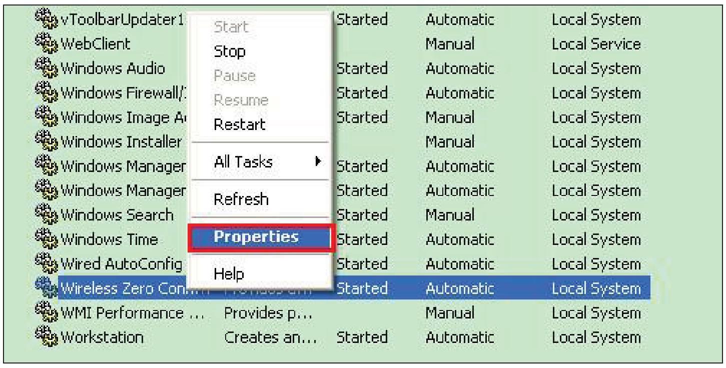
3) Select and right click on My Computer on desktop, select Manage to open Computer Management window;

4) Expand Services and Applications > Services, find and locate Wireless Zero Configuration in the Services list on the right side;



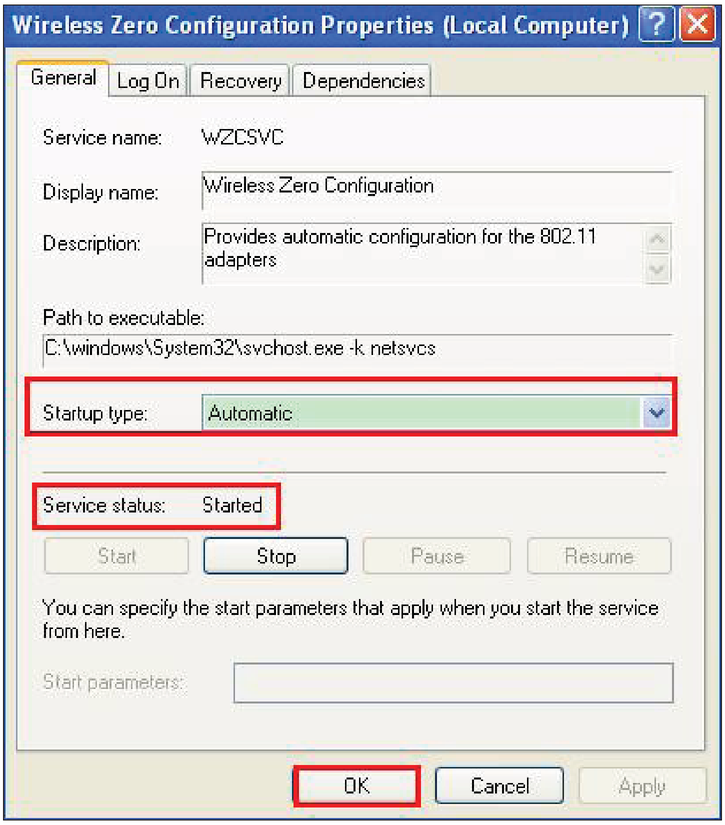
Name	Description
vToolbarUpdater13...	
WebClient	Enables Wi..
Windows Audio	Manages a..
Windows Firewall/I...	Provides n..
Windows Image Ac...	Provides im.
Windows Installer	Adds, modi.
Windows Managem...	Provides a .
Windows Managem...	Provides s..
Windows Search	Provides c..
Windows Time	Maintains d.
Wired AutoConfig	This servic..
Wireless Zero Confi...	Provides a..
WMI Performance ...	Provides p..
Workstation	Creates an.

5) Select Wireless Zero Configuration, right click, and then select Properties;



vToolbarUpdater1		Started	Automatic	Local System
WebClient			Manual	Local Service
Windows Audio		Started	Automatic	Local System
Windows Firewall/		Started	Automatic	Local System
Windows Image A		Started	Manual	Local System
Windows Installer			Manual	Local System
Windows Manager		Started	Automatic	Local System
Windows Manager		Started	Automatic	Local System
Windows Search		Started	Manual	Local System
Windows Time		Started	Automatic	Local System
Wired AutoConfig		Started	Automatic	Local System
Wireless Zero Con		Started	Automatic	Local System
WMI Performance ...	Provides p...		Manual	Local System
Workstation	Creates an...	Started	Automatic	Local System

6) Change Startup type to Automatic, click on Start button and make sure the Service status is Started. And then click OK.



Wireless Zero Configuration Properties (Local Computer)

Service name: WZCSVC

Display name: Wireless Zero Configuration

Description: Provides automatic configuration for the 802.11 adapters

Path to executable:
C:\windows\System32\svchost.exe -k netsvcs

Startup type: Automatic

Service status: Started

You can specify the start parameters that apply when you start the service from here.

Start parameters:

7) Connect to wireless network.

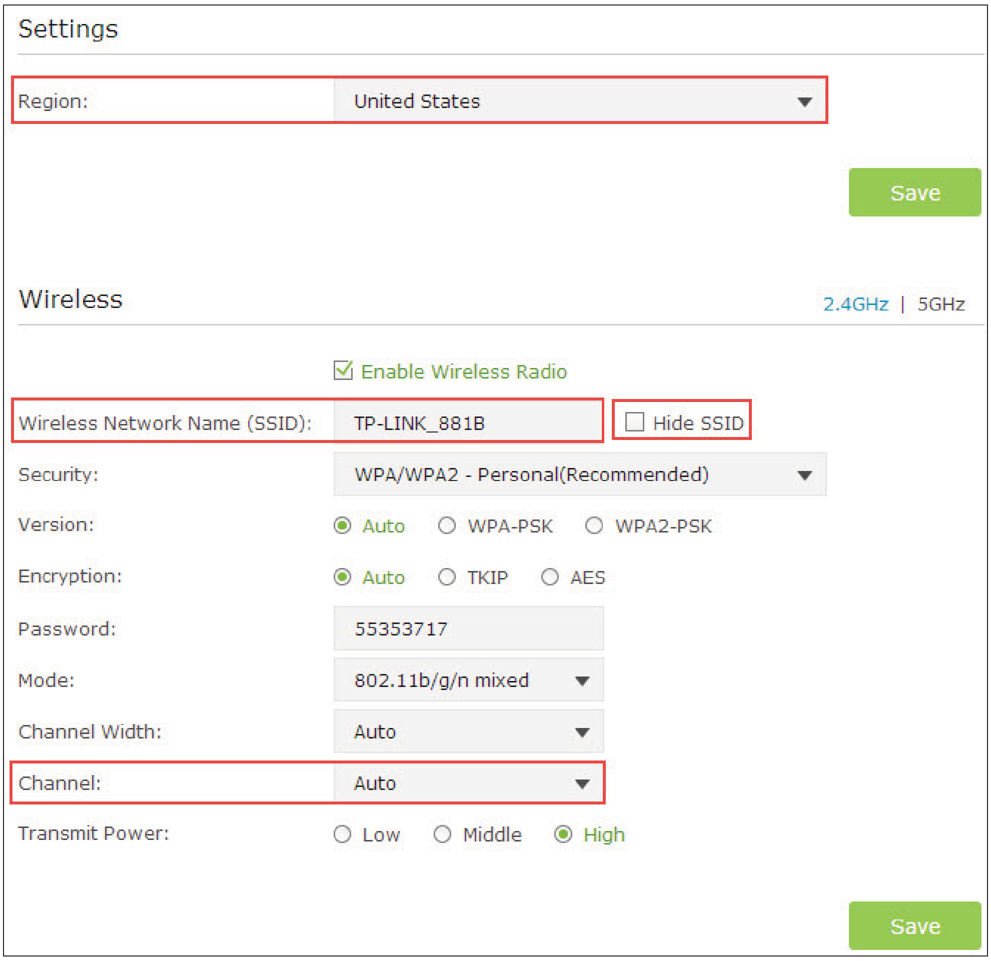
- If you can find other wireless network except your own, please follow the steps below:

1. Check the WLAN LED indicator on your wireless router/modem；

2. Make sure your computer/device is still in the range of your router/modem, move closer if it is currently too far away；

3. Click Advanced > Wireless > Wireless Settings, and check the wireless router settings, double check your Wireless Name ,make sure the Region/Country is selected correctly and wireless is not hided；

Tip: Different countries have different laws about wireless channel. For example, USA allows 2.4GHz channel from 1 to 11, while UK allows from 1 to 13.If you select the Region as UK or the Channel as 12/13 while you are in USA, your computer might not be able to pick up the signal.



Settings

Region: United States

Wireless

☑ Enable Wireless Radio

Wireless Network Name (SSID): TP-LINK_881B ☐ Hide SSID

Security: WPA/WPA2 - Personal(Recommended)

Version: ● Auto ○ WPA-PSK ○ WPA2-PSK

Encryption: ● Auto ○ TKIP ○ AES

Password: 55353717

Mode: 802.11b/g/n mixed

Channel Width: Auto

Channel: Auto

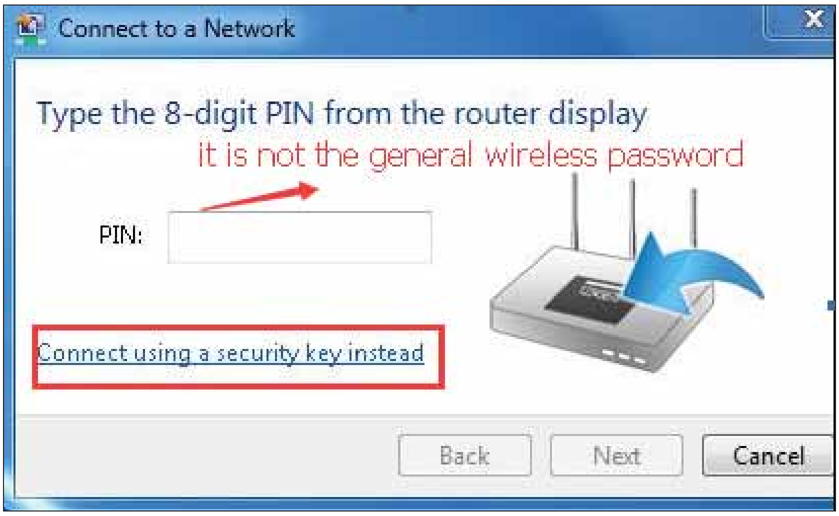
Transmit Power: ○ Low ○ Middle ● High

4. Connect to wireless network.

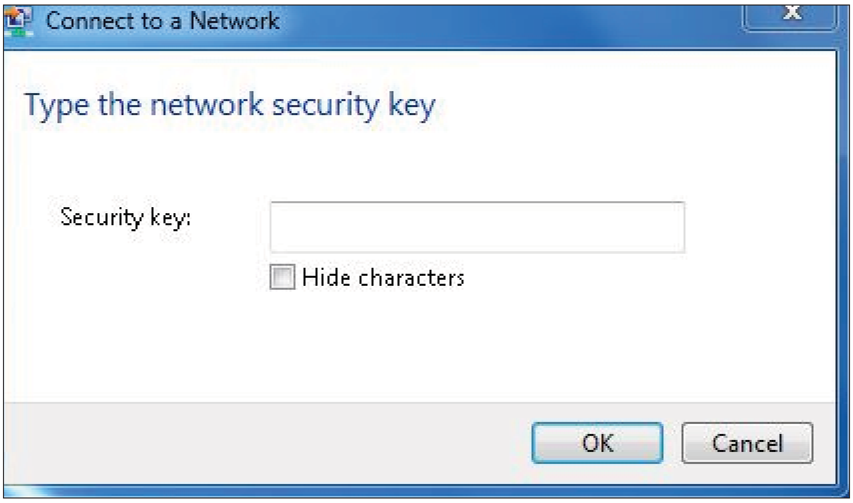
- If you can find your wireless network but fail to connect, please follow the steps below:

1. Authenticating problem, password mismatch.

   1) Sometimes it will ask you to type in a PIN number when you connect to the wireless network for the first time. This PIN number is different from the Wireless Password/Network Security Key, usually you can only find it on the back of your wireless router/modem;

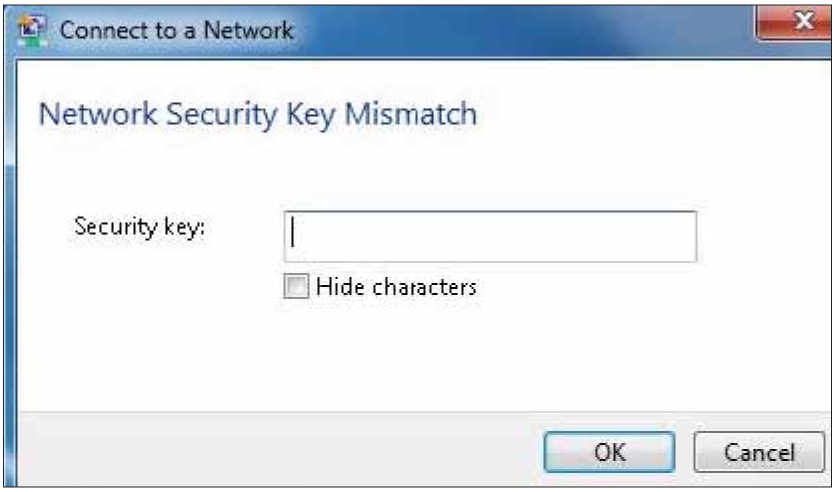

Connect to a Network
Type the 8-digit PIN from the router display
it is not the general wireless password
PIN:
Connect using a security key instead
Back
Next
Cancel

2)If you cannot find the PIN or PIN failed, you may choose “Connecting using a security key instead”, and then type in the Network Security Key/Wireless Password;



3)If it continues on saying network security key mismatch, it is suggested to confirm the wireless password on your wireless router/modem.

Tip: Wireless password/Network Security Key is case sensitive.



4)Connect to wireless network.

2. Windows was unable to connect to XXXX /Cannot join this network/Taking longer than usual to connect to this network.

   1)Check the wireless signal strength of your network, if it is weak (1~3 bars), please move the router closer and try again;

   2)Change the wireless Channel of the router to 1,6,or 11 to reduce interference from other networks;

   3)Re-install or update the driver for your wireless adapter of the computer.

   4)Connect to wireless network.

Completed! Now you can connect to your wireless network.

Appendix B: Configuring the PC

In this section, we'll introduce how to install and configure the TCP/IP correctly in Windows XP. First make sure your Ethernet Adapter is working, refer to the adapter's manual if needed.

1. Install TCP/IP component

1) On the Windows taskbar, click the **Start** button, point to **Settings**, and then click **Control Panel**.
2) Click the **Network and Internet Connections** icon, and then click on the **Network Connections** tab in the appearing window.
3) Right click the icon that showed below, select Properties on the prompt page.

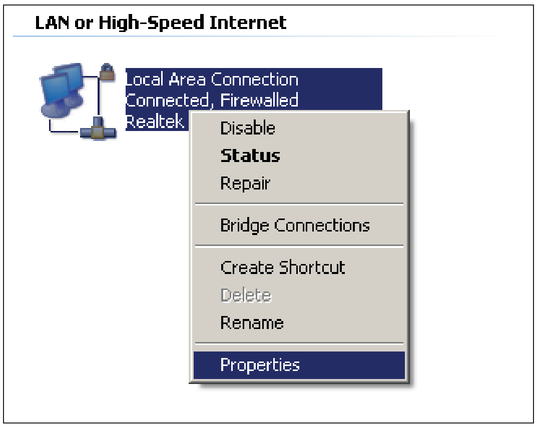
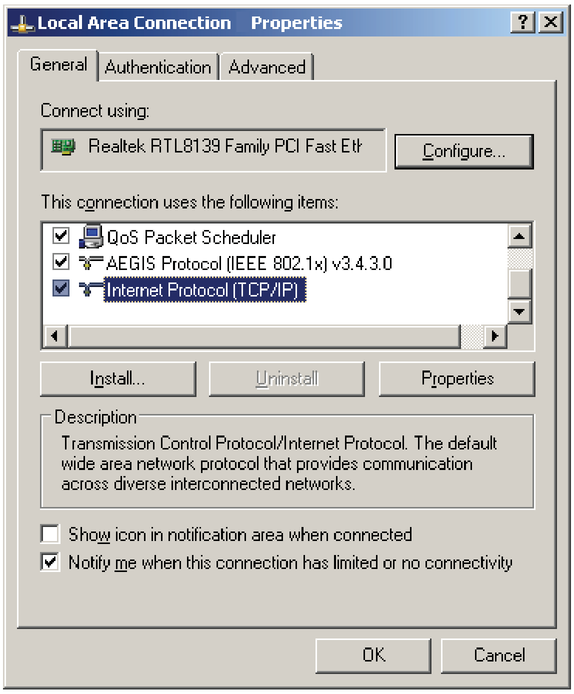


Figure B-1

4) In the prompt page that showed below, double click on the **Internet Protocol (TCP/IP)**.



Connect using:

Realtek RTL8139 Family PCI Fast Eth

This connection uses the following items:

☑ QoS Packet Scheduler
☑ AEGIS Protocol (IEEE 802.1x) v3.4.3.0
☑ Internet Protocol (TCP/IP)

Description

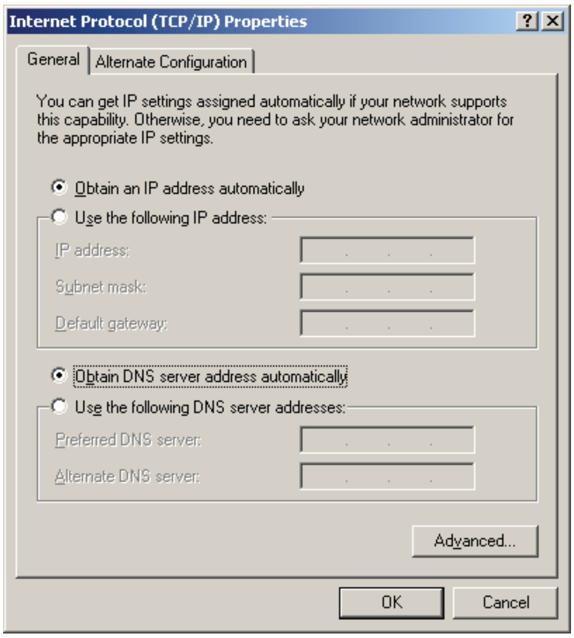
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.

☐ Show icon in notification area when connected
☑ Notify me when this connection has limited or no connectivity

Figure B-2

5) The following **TCP/IP Properties** window will display and the **IP Address** tab is open on this window by default.

6) Select **Obtain an IP address automatically** and **Obtain DNS server automatically**, as shown in the Figure below:



Internet Protocol (TCP/IP) Properties

General | Alternate Configuration

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

● Obtain an IP address automatically

○ Use the following IP address:

IP address: . . .

Subnet mask: . . .

Default gateway: . . .

● Obtain DNS server address automatically

○ Use the following DNS server addresses:

Preferred DNS server: . . .

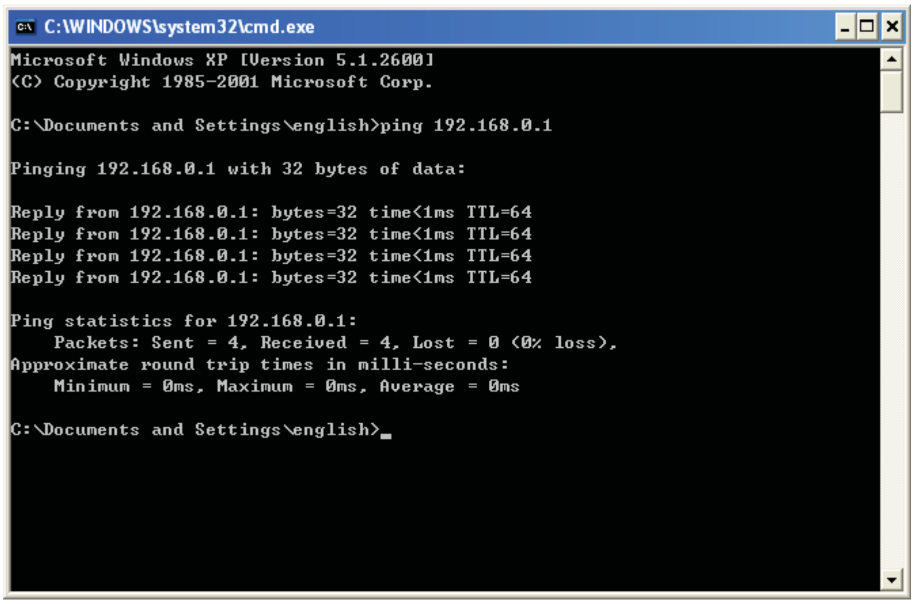
Alternate DNS server: . . .

Figure B-3

2. Verify the network connection between your PC and the router

Open a command prompt, and type *ping 192.168.0.1*, and then press **Enter**.

➢ If the result displayed is similar to the Figure B-4, it means the connection between your PC and the router has been established well.

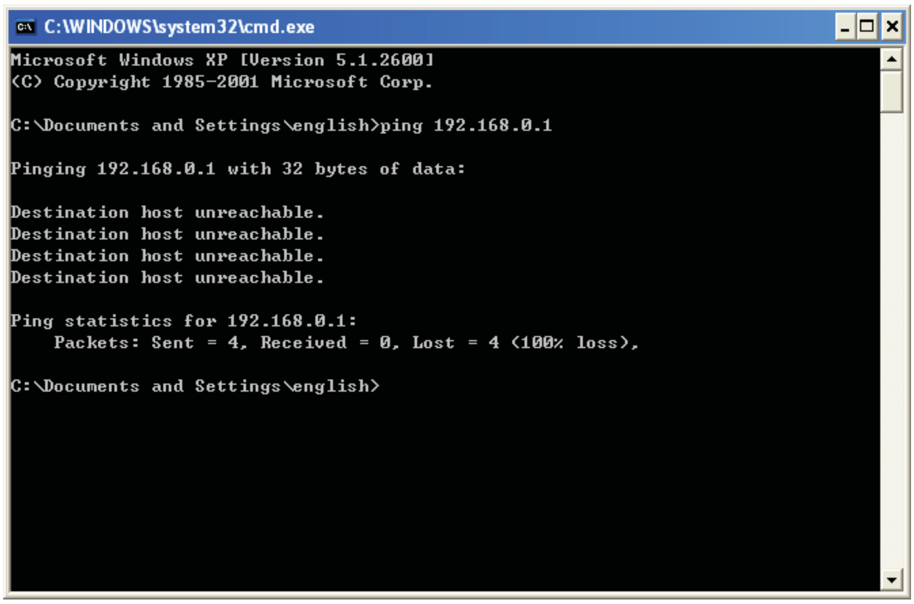


C:\WINDOWS\system32\cmd.exe

```
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\english>ping 192.168.0.1

Pinging 192.168.0.1 with 32 bytes of data:

Reply from 192.168.0.1: bytes=32 time<1ms TTL=64
Reply from 192.168.0.1: bytes=32 time<1ms TTL=64
Reply from 192.168.0.1: bytes=32 time<1ms TTL=64
Reply from 192.168.0.1: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Documents and Settings\english>_
```

Figure B-4 Success result of Ping command

➢ If the result displayed is similar to Figure B-5, it means the connection between your PC and the router failed.



```
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\english>ping 192.168.0.1

Pinging 192.168.0.1 with 32 bytes of data:

Destination host unreachable.
Destination host unreachable.
Destination host unreachable.
Destination host unreachable.

Ping statistics for 192.168.0.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\Documents and Settings\english>
```

Figure B-5 Failure result of Ping command

Please check the connection following these steps:

1. Is the connection between your PC and the router correct?

☞ **Note:**

The Ethernet LED 🖳 on the router and LEDs on your PC's adapter should be lit.

2. Is the TCP/IP configuration for your PC correct?

☞ **Note:**

If the router's IP address is 192.168.0.1, your PC's IP address must be within the range of 192.168.0.2 ~ 192.168.0.254.

3. Is the default LAN IP of the router correct?

☞ **Note:**

If the LAN IP of the modem connected with your router is 192.168.0.x, the default LAN IP of the router will automatically switch from 192.168.0.1 to 192.168.1.1 to avoid IP conflict. Therefore, in order to verify the network connection between your PC and the router, you can open a command prompt, and type *ping 192.168.1.1*, and then press **Enter**.

Appendix C: Specifications

General		
Standards	IEEE 802.11ac, IEEE 802.11n, IEEE 802.11g, IEEE 802.11b, IEEE 802.11a, IEEE 802.11e, IEEE 802.11i, IEEE 802.1X, IEEE 802.3X, IEEE 802.3, IEEE 802.3u, IEEE 802.3ab	
Protocols	TCP/IP, PPPoE, DHCP, ICMP, NAT, SNTP	

Ports	1 10/100/1000M Auto-Negotiation Internet RJ45 port;
	4 10/100/1000M Auto-Negotiation Ethernet RJ45 ports supporting Auto MDI/MDIX;
	2 USB ports supporting storage/FTP/Media/Print Server;	

Cabling Type	10BASE-T: UTP category 3, 4, 5 cable (maximum 100m) EIA/TIA-568 100Ω STP (maximum 100m) 100BASE-TX: UTP category 5, 5e cable (maximum 100m) EIA/TIA-568 100Ω STP (maximum 100m) 1000BASE-TX: UTP category 5, 5e cable (maximum 100m) EIA/TIA-568 100Ω STP (maximum 100m)	
LEDs	(Power), (2.4GHz), (5GHz-1), (5GHz-2), (Ethernet), (Internet), (WPS), (USB1), (USB2)	
Safety & Emissions	FCC, CE	
Wireless		
Frequency Band*	2.4GHz, 5GHz	
Radio Data Rate	11b: 1/2/5.5/11Mbps 11a/g: 6/9/12/18/24/36/48/54Mbps 11n: up to 450Mbps 11ac: up to 1.3Gbps	
Frequency Expansion	DSSS (Direct Sequence Spread Spectrum)	
Modulation	11ac: 256-QAM for OFDM 11n/g/a: QPSK,BPSK,16-QAM, 64-QAM for OFDM 11b: CCK,DQPSK,DBPSK	
Security	WEP, WPA/WPA2, WPA2-PSK/WPA-PSK	
Sensitivity	5G: 11a 6Mbps: -92dBm 11a 54Mbps: -74dBm 11ac HT20: -66dBm 11ac HT40: -62dBm 11ac HT80: -59dBm	2.4G: 11b 1M: -96dBm 11g 54M: -73dBm 11n HT20: -70dBm 11n HT40: -67dBm
Environmental and Physical		
Temperature	Operating: 0℃ to 40℃ (32℉ to 104℉)	
	Storage: -40℃ to 70℃ (-40℉ to 158℉)	
Humidity	Operating: 10% to 90% RH, Non-condensing	

	Storage: 5% to 90% RH, Non-condensing

* Only 2.412GHz~2.462GHz is allowed to be used in USA, which means only channel 1~11 is available for American users to choose.

Appendix D: Glossary

- **802.11ac** - IEEE 802.11ac is a wireless computer networking standard of 802.11.This specification will enable multi-station WLAN throughput of at least 1 gigabit per second .This is accomplished by extending the air interface concepts embraced by 802.11n: wider RF bandwidth, more MIMO spatial streams, multi-user MIMO, and high-density modulation (up to 256 QAM).

- **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** (**D**ynamic **D**omain **N**ame **S**ystem) **-** The capability of assigning a fixed host and domain name to a dynamic Internet IP Address.

- **DHCP** (**D**ynamic **H**ost **C**onfiguration **P**rotocol) **-** A protocol that automatically configure the TCP/IP parameters for the all the PC(s) that are connected to a DHCP server.

- **DMZ** (**Dem**ilitarized **Z**one) **-** 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** (**D**omain **N**ame **S**ystem) **-** 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** (**D**igital **S**ubscriber **L**ine) **-** A technology that allows data to be sent or received over existing traditional phone lines.

- **ISP** (**I**nternet **S**ervice **P**rovider) **-** 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** (**N**etwork **A**ddress **T**ranslation) **-** NAT technology translates IP addresses of a local area network to a different IP address for the Internet.
- **PPPoE** (**P**oint to **P**oint **P**rotocol **o**ver **E**thernet) **-** PPPoE is a protocol for connecting remote hosts to the Internet over an always-on connection by simulating a dial-up connection.
- **SSID -** A **S**ervice **S**et **Id**entification 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** (**W**ired **E**quivalent **P**rivacy) **-** 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** (**W**ireless **L**ocal **A**rea **N**etwork) **-** A group of computers and associated devices communicate with each other wirelessly, which network serving users are limited in a local area.