

# Archer C3200 User Guide AC3200 Wireless Tri-Band Gigabit Router

REV1.0.0 1910011477

# Contents

Abo	ut This Guide	1
Char 1. 1. 1. 2. 1. 3.	Product Overview. Main Features. Panel Layout. 1. 3. 1. Front Panel. 1. 3. 2. Rear Panel	<b>2</b> 2 3 3 3 5
<b>Char</b> 2. 1. 2. 2. 2. 3.	System Requirements       6         Installation Environment Requirements       6         Connect Your Router       6	5 5 5 5
Chap	oter 3. Log into Your Router	3
<b>Char</b> 4. 1. 4. 2. 4. 3.	Oter 4. Set Up Internet Connection       Ouick Setup.         Quick Setup.       Ouick Setup.         Manually Configure Your Internet Connection Settings       Ouick Setup.         Setting Up an IPv6 Internet Connection.       Ouick Setup.	<b>9</b> € 12 15
<b>Char</b> 5. 1. 5. 2.	Create Guest Network	<b>19</b> 19 19
<b>Char</b> 6. 1. 6. 2. 6. 3. 6. 4.	Share Local Resources in the Internet by Virtual Server         Open Ports Dynamically by Port Triggering         Make Applications Free from Port Restriction by DMZ         Make Xbox Online Games Run Smoothly by UPnP.	21 22 23 24
Char	oter 7 USB Application	25
7.1.	Local Storage Sharing 7. 1. 1. Access the USB disk 7. 1. 2. Customize Your Settings Remote Access via FTP Server	25 25 25 25 27
7.3.	7. 2. 1. Access the USB disk	27 29 29
7.4.	7. 3. 1. Access the USB disk	29 30 31
Chap	oter 8. Parental Controls	35
Chap	oter 9. Bandwidth Control	37
Chap	oter 10.Network Security	39

10.1.	Protect the Network from Cyber Attacks	39
10.2.	Access Control	40
10.3.	IP & MAC Binding	41

Chap	ter 11.Customize Your Network Settings	43
11.1.	Change the LAN Settings	43
11.2.	Configure to Support IPTV Service	43
11.3.	Specify DHCP Server Settings	44
11.4.	Set Up a Dynamic DNS Service Account	46
11.5.	Create Static Routes	47
11.6.	Specify Wireless Settings	48
11.7.	Use WPS for Wireless Connection	51
	11. 7. 1. Set the Router's PIN	51
	11.7.2. Use the WPS Wizard for Wi-Fi Connections	51
11.8.	Schedule Your Wireless Function.	52
11.9.	Set up a VPN Connection	53

Chap	ter 12.Manage the Router	56
12.1.	Set Up System Time	56
12.2.	Test the Network Connectivity	57
12.3.	Upgrade the Firmware	58
12.4.	Backup and Restore Configuration Settings	58
12.5.	Change the Administrator Account	59
12.6.	Local Management.	60
12.7.	Remote Management	60
12.8.	System Log	61
12.9.	SNMP Settings	63
12.10.	Monitor the Internet Traffic Statistics	64
12.11.	Control LEDs	64
Арре	ndix A: Specifications	66
Appe	ndix B: FAQ	67

# **About This Guide**

This guide provides details of each function and shows how to configure the router appropriate to your needs. In addition to this guide, a Quick Installation Guide is also released with each TP-LINK router, you are suggested to configure your router for quick Internet setup by following the published Quick Installation Guide before you get started with a further configuration.

## Conventions

In this guide the following conventions are used:

Convention	ntion Description	
router	Stands for AC3200 Wireless Tri-Band Gigabit Router without any explanation.	
parameters	Parameters provided in the screenshots are just references for setting up the device, which may differ from the actual situation. You can set the parameters according to your demand.	
screenshots	The demonstrated screenshots may look a little different from the actual web page of your device due to the various firmware versions. Please just configure your product based on the actual web page.	
Blue Italic	Hyperlinks are in blue italic. You can click to redirect to a website or a specific section.	
Blue	Texts on the web page are in blue, including the menus, items, buttons, etc.	
>	The menu structures to show the path to load the corresponding page. For example, Advanced > Wireless > MAC Filtering means the MAC Filtering function page is under the Wireless menu that is located in the Advanced tab.	
Note:	Ignoring this type of note might result in a malfunction or damage to the device.	
Tips:	Indicates important information that helps you make better use of your device.	
symbols on the web page	<ul> <li>Click to edit the corresponding entry.</li> <li>Click to delete the corresponding entry.</li> <li>Click to enable or disable the corresponding entry.</li> </ul>	

# Get to Know About Your Router

This chapter introduces what the router can do and shows its main features and appearance.

This chapter contains the following sections:

- Product Overview
- Main Features
- Panel Layout

# 1.1. Product Overview

## What This Product Does

TP-LINK's 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.

## More Wi-Fi for More Devices

The Archer C3200 uses Tri-Band technology to run three separate Wi-Fi channels at once, creating a network that can connect to more devices without a trade-off in performance.

Smart Connect helps devices run even faster by assigning them to the best available channel to balance network demand.

## **Seamless Streaming and Gaming**

With the fastest combined Wi-Fi speed of up to 3200Mbps, the Archer C3200 lets you simultaneously game online and stream video in 4K Ultra HD across multiple devices without lag.

## **Maximum Coverage and Stability**

Six high-performance external antennas greatly increase the Archer C3200's range and signal stability. Beamforming technology further improves the router's coverage by helping it locate wireless devices to form stronger, more reliable connections.

## **Run All Your Devices At Once**

A powerful 1GHz dual-core CPU and three co-processors easily handle the demand made on the Archer C3200's network when multiple users are browsing, streaming, and gaming all at the same time.

## Lightning-Fast Wired Performance

External hard drives can connect directly to the Archer C3200 via its USB 3.0 and 2.0 ports, making it easy to share files, photos, music, and video across your network.

The Archer C3200 is also equipped with four Gigabit Ethernet ports that enable blazing wired speeds 10x greater than Fast Ethernet, helping connected gaming consoles, PCs, and smart TVs achieve their best performance.

## **Easy Setup and Use**

Set up the Archer C3200 in minutes thanks to its intuitive web interface and the powerful Tether app. Tether also lets you manage its network settings from any Android or iOS device, including parental controls and media sharing.

# 1.2. 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 Controls 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.

# 1.3. Panel Layout

## 1.3.1. Front Panel



The router's LEDs are located on the front panel (View from top to bottom). You can check the router's working status by following the LED Explanation table.

## LED Explanation:

Name	Status	Indication
	Flash	System initializing or firmware upgrading is in process. Do not disconnect or power off the router.
<b>O</b> Power	On	System initialization complete.
	Off	Power is off. Please ensure that the power adapter is connected correctly.

Name	Status	Indication
2.4GHz (2.4GHz)	On Off	2.4GHz wireless is working properly. 2.4GHz wireless is disabled.
5GHz-1	On	5GHz-1 wireless is working properly.
(5GHz-1)	Off	5GHz-1 wireless is disabled.
5GHz-2:	On	5GHz-2 wireless is working properly.
(5GHz-2)	Off	5GHz-2 wireless is disabled.
	On	There is device(s) connected to the Ethernet (1/2/3/4) port(s).
(Ethernet)	Off	No any device is connected to the Ethernet (1/2/3/4) port.
	Blue	The Internet port is connected, and the Internet is accessible.
Ø (Internet)	Orange	The Internet port is connected, but the Internet is inaccessible.
	Off	The Internet port isn't connected, and the Internet is inaccessible.
	Flash	WPS button on the router is pressed, and the router is trying to connect a wireless device to its network via WPS.
V (WPS)	On	The connection via WPS is successful.
	Off	The connection via WPS fails.
	Flash	The router is identifying the device connected to the USB 2.0 port/USB 3.0 port.
	On	The device is identified successfully.
	Off	No device is connected to the USB 2.0 port/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). Refer to the following for detailed instructions.

Button	Description
(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, 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 1 second turns all LEDs on or off.

## 1.3.2. Rear Panel



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

ltem	Description
Reset button	Pressing this button for about 7 seconds enables the Reset function.
USB 2.0 port The USB 2.0 port connects to a USB 2.0 storage device or a USB 2.0 printer.	
Internet port	This port is where you will connect the DSL/cable Modem, or Ethernet.
Ethernet (1, 2, 3, 4) ports	These ports (1, 2, 3, 4) connect the router to the local PCs.
USB 3.0 port	The USB 3.0 port connects to a USB 3.0 storage device or a USB 3.0 printer.
Power On/Off button	This button powers on or off the router.
Power port	This port is where you will connect the power socket via the provided power adapter.

# **Connect the Hardware**

This chapter contains the following sections:

- System Requirements
- Installation Environment Requirements
- 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°C~40°C (32°F~104°F)
- Operating Humidity: 10%~90%RH, Non-condensing

# 2.3. Connect Your Router

Follow the steps below to 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.

### 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. Connect your computer to the router.

## Method 1: Wired

Connect your computer's Ethernet port to the router's Ethernet port via an Ethernet cable.

## • Method 2: Wirelessly

Connect your computer to the router wirelessly by using the default SSID (Wireless Network Name) and Wireless Password printed on the product label of the router.

## $\cdot\,$ Method 3: Use the WPS button

Wireless devices that support WPS, including Android phones, tablets, most USB network cards, can be connected to your router through this method.(WPS is not supported by IOS devices.)

### Note:

The WPS function cannot be configured if the wireless function of the router is disabled. Also, the WPS function will be disabled if your wireless encryption is WEP. Please make sure the wireless function is enabled and is configured with the appropriate encryption before configuring the WPS.

- 1. Tab the WPS icon on the device's screen.
- 2. Immediately press the WPS button on your router.
- 3. The WPS LED flashes for about two minutes during the WPS process.
- 4. When the WPS LED is on, the client device has successfully connected to the router.





# Log into Your Router

With a Web-based utility, it is easy to configure and manage the router. The Web-based utility can be used on any Windows, Macintosh or UNIX OS with a Web browser, such as Microsoft Internet Explorer, Mozilla Firefox or Apple Safari.

Follow the steps below to log into your router.

- 1. Set up the TCP/IP Protocol in Obtain an IP address automatically mode on your computer.
- 2. Launch a web browser and type in *http://tplinkwifi.net* or *http://192.168.0.1*. Use admin for both username and password, and click Login.

○ ○ ▽ 2 htt	p://tplinkwifi.net	→ ×
(A) ( <b>P</b> )	admin ••••• Login	

#### Note:

If the login window does not appear, please refer to Q3. I cannot login to the router's web management page, what can I do?

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

Set up a new username and password
Set up a new username and password
New Hearspread
New Username: example
New Password:
Low Middle High
Confirm New Password:
Confirm

# **Set Up Internet Connection**

This chapter introduces how to connect your router to the Internet. The router is equipped with a web-based Quick Setup wizard. It has many ISP information built in, automates many of the steps and verifies that those steps have been successfully completed. Furthermore, you can also set up an IPv6 connection if your ISP provides IPv6 service.

This chapter contains the following sections:

- Quick Setup
- Manually Configure Your Internet Connection Settings
- Setting Up an IPv6 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. *Tips*:

If you need the IPv6 Internet connection, please refer to the section of Setting Up an IPv6 Internet Connection.

Follow the steps below to set up your router to access the Internet.

- 1. Visit *http://tplinkwifi.net*, and log in with the username and password you set for the router.
- 2. Go to Quick Setup on the top of the page.
- 3. Select your region and time zone, and click Next.

#### Note:

Per FCC regulations, all Wi-Fi products marketed in the U.S. must be fixed to the U.S. region only.

Internet Connection Ty	e Wireless Settings	Connection T	est
•		•	
Region and Time Zone	Summary		
Region:	United States		•
Time Zone:	(GMT-08:00) Pacific Time (US & Canada); Tijuana		•
		Exit	Next

4. 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.

	Internet Connection Type	Wireless Settings		Connection Test
Region and	Time Zone		Summary	
	Auto Detecting			
	Oynamic IP			
	O Static IP			
	O PPPoE			
	O L2TP			
	О рртр			
	Note: If you are not sure which Internet Connectio Provider (ISP) for assistance.	n Type you have, use Auto Det	ect or contact you	ur Internet Service
			I	Back Next

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

Internet Connection Type	Wireless Settings	Connection Test
Region and Time Zone	Summa	ry
Auto Detect Dynamic IP Oynamic IP		
O Static IP		
O PPPoE		
O L2TP		
О рртр		
Note: If you are not sure which Internet Connect Provider (ISP) for assistance.	tion Type you have, use Auto Detect or c	ontact your Internet Service
		Back Next

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

	Internet Connection Type	Wireless Settings		Connection Te	st
	• • •	•			
Region and	Time Zone		Summary		
	If your ISP only allows Internet access to a specific	MAC address, you need to C	lone that MAC Addr	ress 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				
	Clone current computer mac Address				
	Note: If you select Clone MAC Address, please mal	ke sure the MAC Address of t	this computer is reg	jistered with your	
	ISP before clicking Next.				
			ſ		
				Back	Next

7. Configure your wireless settings and click Next.

	Internet Connection Type	Wireless Sett	ings	Connection	Test
Region and Time Zo	one		Summary		
Please	e set the SSIDs and password	ls for 2.4GHz and 5GHz wireless n	etworks.		
Wirele	ess Network (2.4GHz):	🗹 Enable			
Wirele	ess Network Name (SSID):	TP-LINK_508B			
Passw	vord:	12345670			
Wirele	ess Network (5GHz-1):	☑ Enable			
Wirele	ess Network Name (SSID):	TP-LINK_508B_5G_1			
Passw	vord:	12345670			
Wirele	ess Network (5GHz-2):	☑ Enable			
Wirele	ess Network Name (SSID):	TP-LINK_508B_5G_2			
Passw	vord:	12345670			
				Back	Next

## Note:

- 1. You may customize your 2.4GHz/5GHz-1/5GHz-2 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.
- 2. Tick Hide SSID if you want to hide this wireless network name.
- 8. Confirm the information and click Save.

Internet Connection T	ype Wireless Settings	C	onnection Test
Region and Time Zone	• •	Summary	0
Region: Time Zone: Internet Connection Type:	United States (GMT-08:00) Pacific Time (US & Canada); 1 Dynamic IP	íjuana	
Wireless Network (2.4GHz): Wireless Network Name (SSII Password:	Enabled D): TP-LINK_508B 12345670		
Wireless Network (5GHz-1): Wireless Network Name (SSIL Password:	Enabled ): TP-LINK_508B_5G_1 12345670		
Wireless Network (5GHz-2): Wireless Network Name (SSIE Password:	Enabled ): TP-LINK_508B_5G_2 12345670		
			Back Save

9. Click Test Internet Connection. If you successfully connect to the Internet, the screen will display as follows.

Inte	ernet Connection Type	Wireless Settings		Connection T	est
Region and Time Zone		Summa	iry		
Congr	atulations!				
You have co Click Test In Test Inter	mplete Iternet met Co	Success!			
		Click Finish to end the Quick Setup process.		Back	Finish
		ОК			

10. Now your computer and Wi-Fi device can connect to the Internet!

#### Ø tips:

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 Wi-Fi device to join the Wi-Fi network.

# 4.2. Manually Configure Your Internet Connection Settings

In this part, you can check your current Internet connection settings. You can also modify the settings according to the service information provided by your ISP.

Follow the steps below to check or modify your Internet connection settings.

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

Internet			?
Auto Detect			
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.
  - 1) 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		?
Auto Detect		
Internet Connection Type:	Dynamic IP 🔹	
<ul> <li>Do NOT Clone MAC Address</li> <li>Clone Current Computer MAC</li> </ul>	Address	
Note: If you are not sure which In Internet Service Provider (ISP) for	nternet Connection Type you have, use Auto Detect or contact your assistance.	
	Save	

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

Internet		
Auto Detect		
Internet Connection Type:	Static IP	
IP Address:	192.168.0.100	
Subnet Mask:	255.255.255.0	
Default Gateway:	192.168.0.1	(Optional)
Primary DNS:	8.8.8.8	(Optional)
Secondary DNS:		(Optional)
Note: If you are not sure w your Internet Service	hich Internet Connection Type you Provider (ISP) for assistance.	u have, use Auto Detect or contact
		Save

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

Internet	t			?
Auto De	etect			
Internet C	Connection Type:	PPPoE 🔻		
Username	2:	eXample		
Password:	:	••••		
Note: I	If you are not sure w your Internet Service	hich Internet Connection Type you Provider (ISP) for assistance.	J have, use Auto Detect or contact	
			Save	

4) 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			?
Auto Detect			
Internet Connection Type:	L2TP 🔻		
Username:	l2tp		
Password:			
Secondary Connection:	Oynamic IP O Static IP		
VPN Server IP/Domain Name:	192.168.202.254		
Note: If you are not sure which Ir Internet Service Provider (ISP) for	iternet Connection Type you l assistance.	have, use Auto Detect or contact your	
		Save	

5) 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			?
Auto Detect			
Internet Connection Type:	рртр 💌		
Username:	pptp		
Password:			
Secondary Connection:	Oynamic IP O Static IP		
VPN Server IP/Domain Name:	192.168.202.254		
Note: If you are not sure which In Internet Service Provider (ISP) for	nternet Connection Type you assistance.	have, use Auto Detect or contact your	
		Save	

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 succeeds, the screen will display as follows. Here we take PPPoE as an example.

(		Ц	🛜   🋜   🋜 2.4G 5G-1 5G-2
	Internet	Router	
Wireless Clien	ts Wired Clients	Printer	USB Disk
Dinternet			
D Internet	Connected		

#### 🖉 Tips:

- 1. 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.
- 2. If you still cannot connect to the Internet, refer to Appendix B: FAQ for further instructions.

# 4.3. Setting Up an IPv6 Internet Connection

In this part, you can set up an IPv6 Internet connection if your ISP supports it and has provided related parameters.

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

IPv6 Internet	
Enable IPv6	
Internet Connection Type:	Dynamic IP 💌
IPv6 Address:	::
IPv6 Gateway:	::
Addressing Type:	DHCPv6
⊘ Advanced	Save
IPv6 LAN	
Address Type:	RADVD O DHCPv6 Server
	Enable RDNSS
	Enable ULA Prefix
Site Prefix Type:	Delegated      Static
	Save

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

## Ø Tips:

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

IPv6 Internet		
Enable IPv6		
Internet Connection Type:	Dynamic IP 🔹	
IPv6 Address:	Dynamic IP	
IPv6 Gateway:	Static IP	
Addressing Type:	PPPoE	
	6to4 Tunnel	
🕑 Advanced		
		Save

- 4. Fill in information provided by your ISP.
  - 1) Static IP: Fill in blanks. Click Advanced to have more configuration if your ISP requires. Click Save.

IPv6 Internet		
Enable IPv6		
Internet Connection Type:	Static IP	•
IPv6 Address:	:	
IPv6 Gateway:	**	(Optional)
IPv6 DNS Server:	:	(Optional)
Secondary IPv6 DNS Server:	:	(Optional)
⊘ Advanced		

2) Dynamic IP: Select the Addressing Type. Click Advanced to have more configuration if your ISP requires. Click Save.

IPv6 Internet	
Enable IPv6	
Internet Connection Type:	Dynamic IP 🔻
IPv6 Address:	::
IPv6 Gateway:	::
Addressing Type:	DHCPv6
⊘ Advanced	
	Save

3) PPPoE: Fill in the Username and Password, and select the Addressing Type. Click Advanced to have more configuration if your ISP requires. Click Save.

IPv6 Internet		
Enable IPv6		
Internet Connection Type:	PPPoE	•
Username:		
Password:		
Confirm Password:		
Addressing Type:	DHCPv6	•
⊘ Advanced		Save

4) 6to4 Tunnel: An IPv4 Internet connection type is a prerequisite for this connection type. (Go to *Manually Configure Your Internet Connection Settings* for more information.) Click Save.

IPv6 Internet		
Enable IPv6		
Internet Connection Type:	6to4 Tunnel	•
IPv4 Address:	192.168.0.100	
IPv4 Subnet Mask:	255.255.255.0	
IPv4 Gateway:	192.168.0.1	
		Save

5. Configure the IPv6 LAN settings. Leave the settings as default, and click Save.

Address Type:	RADVD O DHCPv6 Server	
	Enable RDNSS	
	Enable ULA Prefix	
Site Prefix Type:	Delegated O Static	

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

💮 Internet 🥑	IPv4   IPv6
MAC Address:	00-0A-EB-AC-25-01
IP Address:	2001:c68:202:2111::120/ 64
Default Gateway:	fe80::edd0:80d2:7f5e:6be 7
Primary DNS:	2001:c68:202:2111::1
Secondary DNS:	2001:c68:202:2111::2
Connection Type:	PPPoE

#### Ø Tips:

Visit Appendix B: FAQ if there is no Internet connection.

# **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 customize guest network options to ensure network security and privacy.

This chapter contains the following sections:

- Create Guest Network
- Customize Guest Network Options

# 5.1. Create Guest Network

- 1. Visit *http://tplinkwifi.net*, and log in with the username and password you set for the router.
- 2. Go to Advanced > Guest Network.
- 3. Create a 2.4GHz or 5GHz guest network according to your needs.

Wireless		2.4GHz   5GHz-1   5GHz-2
	🗹 Enable	
Wireless Network Name (SSID):	My_Guests	Hide SSID
Security:	O None	al
Version:	○ Auto	
Encryption:	O Auto O TKIP 💿 AES	
Password:	PassWord_1234	
		Save

- 1) Click 2.4GHz, 5GHz-1, or 5GHz-2 and select Enable.
- 2) Set an easy-to-identify SSID. Don't select Hide SSID unless you want your guests and other people to manually input this SSID for Wi-Fi access.
- 3) Set Security to WPA/WPA2 Personal, keep the default Version and Encryption values, and set an easy-to-remember password.
- 4. Click Save. Now your guests can access your guest network using the SSID and password you set!

#### Ø Tips:

To view guest network information, go to Advanced > Status and find the Guest Network section.

# 5.2. Customize Guest Network Options

- 1. Visit *http://tplinkwifi.net*, and log in with the username and password you set for the router.
- 2. Go to Advanced > Guest Network.
- 3. Customize guest network options according to your needs.



Allow guests to see each other

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

Allow guests to access my local network

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

4. Click Save. Now users in your guest network can enjoy only the network authorities you assigned!

## Ø Tips:

To view guest network information, go to Advanced > Status and find the Guest Network section.

# **NAT Forwarding**

Router's NAT (Network Address Translation) feature makes the devices in the LAN use the same public IP address to communicate in the Internet, which protect the local network by hiding IP addresses of the devices. However, it also brings about the problem that external host cannot initiatively communicate with the specified device in the local network.

6

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

TP-LINK router includes four 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.

This chapter contains the following sections:

- Share Local Resources in the Internet by Virtual Server
- Open Ports Dynamically by Port Triggering
- Make Applications Free from Port Restriction by DMZ
- Make Xbox Online Games Run Smoothly by UPnP

# 6.1. Share Local Resources in the Internet by Virtual Server

When you build up a server in the local network and want to share it on the Internet, Virtual Server can realize the service and provide it to the Internet users. At the same time virtual server can keep the local network safe as other services are still invisible from the Internet.

Virtual server can be used for setting up public services in your local network, such as HTTP, FTP, DNS, POP3/SMTP and Telnet. Different service uses different service port. Port 80 is used in HTTP service, port 21 in FTP service, port 25 in SMTP service and port 110 in POP3 service. Please verify the service port number before the configuration.

**I want to:** share my personal website I've built in local network with my friends through the Internet.

For example, The personal website has been built in my home PC (192.168.0.100). I hope that my friends in the Internet can visit my website in some way. The PC is connected to the router with the WAN IP address 218.18.232.154.



How can I

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

do that?

- 2. Visit *http://tplinkwifi.net*, and log in with the username and password you set for the router.
  - 3. Go to Advanced > NAT Forwarding > Virtual Servers, click Add.
  - 4. Click View Existing Application, and select HTTP. The external port, internal port and protocol will be automatically filled with contents. Enter the PC's IP address 192.168.0.100 in the Internal IP field.
  - 5. Click OK to save the settings.

	uur c								
								🔂 Add 🤅	Delete
	ID	Service Type	External Port		Internal IP	Internal Port	Protocol	Status	Modify
	Ser	vice Name:					View Exis	sting App	lication
External Port: (XX-XX or						(XX-XX or )	(X)		
Internal IP:									
Internal Port:							(XX or Blar	k, 1-6553	5)
	Prot	tocol:		Т	СР	•			
				M E	Enable this Entry				
						С	ancel	ОК	

#### Ø Tips:

- 1. It is recommended to keep the default settings of Internal Port and Protocol if you are not clear about which port and protocol to use.
- 2. If the service you want to use is not in the Service Type, you can enter the corresponding parameters manually. You should verify the port number that the service need.
- 3. You can add multiple virtual server rules if you want to provide several services in a router. Please note that the External Port should not be overlapped.
- **Done!** Users in the Internet can enter http://WAN IP (in this example: http:// 218.18.232.154) to visit your personal website.

## 🖉 Tips:

- 1. WAN IP should be a public IP address. For the WAN IP is assigned dynamically by ISP, it is recommended to apply and register a domain name for the WAN refer to *Set Up a Dynamic DNS Service Account*. Then you can use http://domain name to visit the website.
- 2. If you have changed the default External Port, you should use http://WAN IP: External Port or http://domain name: External Port to visit the website.

# 6.2. Open Ports Dynamically by Port Triggering

Port triggering can specify a triggering port and its corresponding external ports. When a host in the local network initiates a connection to the triggering port, all the external ports will be opened for subsequent connections. The router can record the IP address of the host. When the data from the Internet return to the external ports, the router can forward them to the corresponding host. Port triggering is mainly applied to online games, VoIPs and video players. Common applications include MSN Gaming Zone, Dialpad and Quick Time 4 players, etc.

Follow the steps below to configure the port triggering rules:

- 1. Visit *http://tplinkwifi.net*, and log in with the username and password you set for the router.
- 2. Go to Advanced > NAT Forwarding > Port Triggering and click Add.
- 3. Click View Existing Applications, and select the desired application. The external port, internal port and protocol will be automatically filled with contents. The following picture takes application MSN Gaming Zone as an example.
- 4. Click OK to save the settings.

								🔂 Add	Delete	
	ID	Application	Triggerin Port	g Triggering Protocol	Exter Por	nal t	External Protocol	Status	Modify	
	App	lication:	1	1SN Gaming Zone		Vie	ew Existing A	pplications		
Application.										
	Trig	gering Port:	4	4/624 (XX,1-65535)						
	Trig	gering Protocol:	1	LL	•					
	Exte	ernal Port:	:	2300-2400,28800	-29000	(XX mos	or XX-XX,1-6 st 5 pairs)	5535,at		
	Exte	ernal Protocol:	,	<b>LL</b>		most 5 pairs)				
				Enable This Entry						
									_	

#### Ø Tips:

- 1. You can add multiple port triggering rules according to your network need.
- 2. If the application you need is not listed in the Existing Applications list, please enter the parameters manually. You should verify the external ports the application uses first and enter them into External Port field according to the format the page displays.

# 6.3. Make Applications Free from Port Restriction by DMZ

When a PC is set to be a DMZ (Demilitarized Zone) host in the local network, it is totally exposed to the Internet, which can realize the unlimited bidirectional communication between internal hosts and external hosts. The DMZ host becomes a virtual server with all ports opened. When you are not clear about which ports to open in some special applications, such as IP camera and database software, you can set the PC to be a DMZ host.

#### Note:

DMZ is more applicable in the situation that users are not clear about which ports to open. When it is enabled, the DMZ host is totally exposed to the Internet, which may bring some potential safety hazard. If DMZ is not in use, please disable it in time.

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

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

## How can I 1. Assign a static IP address to your PC, for example 192.168.0.100.

## do that?

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

3. Go to Advanced > NAT Forwarding > DMZ and select the checkbox to enable DMZ.

DMZ:	🗹 Enable DMZ	
DMZ Host IP Address:	192.168.0.100	

4. Enter the IP address 192.168.0.100 in the DMZ Host IP Address filed.

5. Click Save to save the settings.

**Done!** 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.

# 6.4. Make Xbox Online Games Run Smoothly by 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 if you want to use applications for multiplayer gaming, peer-to-peer connections, real-time communication (such as VoIP or telephone conference) or remote assistance, etc.

## Tips:

- 1. UPnP is enabled by default in this router.
- 2. Only the application supporting UPnP protocol can use this feature.
- 3. UPnP feature needs the support of operating system (e.g. 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 without a hitch.



If necessary, you can follow the steps to change the status of UPnP.

- 1. Visit *http://tplinkwifi.net*, and log in with the username and password you set for the router;
- 2. Go to Advanced > NAT Forwarding > UPnP and toggle on or off according to your needs.

JPnP:	C	Dn			
JPnP	Service List				
Client M	lumber: 0				🕝 Refresh
Client N ID	Service Description	External Port	Protocol	Internal IP Address	🕝 Refresh Internal Port

# **USB** Application

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

The router only supports USB external flash drives, hard drives and USB printers, and does not support USB 3G/4G modems.

This chapter contains the following sections:

- Local Storage Sharing
- Remote Access via FTP Server
- Media Sharing
- Printer Sharing

# 7.1. Local Storage Sharing

Share your USB storage devices with different users on the network.

## 7.1.1. Access the USB disk

## 1. Connect Your USB Disk

Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.

## Ø Tips:

- 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 use a USB hard drive, make sure its file system is FAT32 or NTFS.
- Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to Advanced > USB Settings > Device Settings and click 
   Safety Remove.

## 2. Access Your USB Disk

By default all the network clients can access all folders on your USB disk. Refer to the following table for access instructions. You can also customize your sharing content and set a sharing account referring to *Customize Your Settings*.

Windows computer	<ol> <li>Press Windows () + R on the keyboard (or select Start &gt; Run).</li> <li>Type the server address \\tplinkwifi.net or ftp://tplinkwifi.net in the dialog box.</li> <li>Click OK.</li> </ol>
Мас	<ol> <li>Select Go &gt; Connect to Server.</li> <li>Type the server address smb://tplinkwifi.net or ftp://tplinkwifi.net.</li> <li>Click Connect.</li> </ol>
pad	Use a third-party app for network files management.

### Ø Tips:

You can also access all folders by using your Network/Media Server Name. Refer to *To Customize the Address of the USB Disk* to learn more.

## 7.1.2. Customize Your Settings

## **To Only Share Specific Content**

By default, Share All is enabled so all content on the USB disk is shared. If you want to only share specific folders, follow the steps below:

- 1. Visit *http://tplinkwifi.net*, then log in with the username and password you set for the router.
- 2. Go to Basic or Advanced > USB Settings > Sharing Access. Focus on the Folder Sharing section. Click the button to disable Share All, then click Add to add a new sharing folder.

Folder	Folder Sharing									
Share All:							o	Add 😑 Delete		
	ID	Folder Name	F	Folder Path	Media Sharing	Volume Name	Status	Modify		
Volume Name:			G: 💌							
Fo	older	Path:		G:/Lessons Brov				wse		
Fo	older	Name:		Lesson1						
				Enable Authentication						
				☑ Enable Write Access						
				🗹 Enable Media :	Sharing					
						Cano	cel	ок		

- 3. Select the Volume Name and Folder Path, then enter a Folder Name as you like.
- 4. Decide the way you share the folder:
  - Enable Authentication: Select to enable authentication for this folder sharing, and you will be required to use a username and password to access the USB disk. Refer to *To Set up Authentication for Data Security* to learn more.
  - Enable Write Access: If you select this check box, network clients can modify this folder.
  - Enable Media Sharing: Select to enable media sharing for this folder, and you can view photos, play music and watch movies stored on the USB disk directly from DLNA-supported devices. Click Media Sharing to learn more.
- 5. Click OK.

### Ø Tips:

The router can share 32 volumes at most. You can click Q on the page to detach the corresponding volume you do not need to share.

### To Set up Authentication for Data Security

If you enable Authentication, network clients will be required to enter the username and password you set when accessing the USB disk.

- 1. Visit *http://tplinkwifi.net*, then log in with the username and password you set for the router.
- 2. Go to Advanced > USB Settings > Sharing Access. Focus on the Sharing Account section.

Sharing Account								
Prepare an account for sharing contents. You can use the login account or create a new one.								
Account:	Ose Default Account							
	O Use New Account							
Username:	admin							
Password:	• • • • •	(Same as Login Password)						
		Save						

3. Choose to use the default account (admin) or use a new account, and click Save.

- 4. Enable Authentication to apply the account you just set.
  - If you leave Share All enabled, click the button to enable Authentication for all folders.

Folder Sharing						
Share All:						
Enable Authentication:						

If Share All is disabled, enable Authentication for specific folders.

#### To Customize the Address of the USB Disk

You can customize the server name and use the name to access your USB disk.

- 1. Visit *http://tplinkwifi.net*, then log in with the username and password you set for the router.
- 2. Go to Advanced > USB Settings > Sharing Access. Focus on the Sharing Settings section
- 3. Make sure Network Neighborhood is ticked, and enter a Network/Media Server Name as you like, such as My-Share, then click Save.

Network/Media Server Name:		My-Share	
Enable	Access Method	Link	Port
	Network Neighborhood	\\My-Share	
	FTP	ftp://192.168.0.74:21	21
	FTP (Via Internet)	ftp://0.0.0.0:21	21

4. Now you can access the USB disk with \\My-Share (smb://My-Share for Mac).

# 7.2. Remote Access via FTP Server

You can access your USB disk outside the local area network.

#### For example:

- Share photos and other large files with your friends without logging in to (and paying for) a photo-sharing site or email system.
- Get a safe backup for the materials for a presentation.
- Remove the files on your camera's memory card from time to time during the journey.

## Note:

If your ISP assigns a private WAN IP address (such as 192.168.x.x or 10.x.x.x), you cannot use this feature because private addresses are not routed on the Internet.

## 7.2.1. Access the USB disk

## 1. Connect Your USB Disk

Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.

#### Ø Tips:

- 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 use a USB hard drive, make sure its file system is FAT32 or NTFS.

#### Chapter 7. USB Application

 Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to Advanced > USB Settings > Device Settings and click 
 Safety Remove.

## 2. Enable Authentication for Data Security

It is strongly recommended that you set and apply a sharing account for data security.

- 1) Visit *http://tplinkwifi.net*, then log in with the username and password you set for the router.
- 2) Go to Advanced > USB Settings > Sharing Access.
- 3) Choose to use the default account (admin) or use a new account, and click Save.

Sharing Account		
Prepare an account fo	r sharing contents. You can use the login account or create a ne	ew one.
Account:	Use Default Account	
	O Use New Account	
Username:	admin	
Password:	••••• (Same as Login Pass	word)
		Save

- 4) Enable Authentication to apply the sharing account.
- If you leave Share All enabled, click the button to enable Authentication for all folders.

Folder Sharing	
Share All:	
Enable Authentication:	

• If Share All is disabled, enable Authentication for specific folders.

## 3. Enable the FTP (via Internet)

Select the check box to enable FTP (via Internet), then click Save.

Network/Media Server Name:		My-Share	
Enable	Access Method	Link	Port
	Network Neighborhood	\\My-Share	
	FTP	ftp://192.168.0.74:21	21
$\checkmark$	FTP (Via Internet)	ftp://0.0.0.0:21	21
	FTP (Via Internet)	10://0.0.0.0:21	21

## 4. Access Your USB Disk via Internet

Now different clients with Internet connection can access the USB disk:

- To download, open a web browser and type the server address ftp://<WAN IP address of the router>:<port number> (such as ftp://59.40.2.243:21), or if you set up a domain name for your router you can type the server address ftp://<domain name of the router>:<port number> (such as ftp://<domain name of the router>:<port number> (such as ftp://
   MyDomainName:21) in the address bar, then press Enter on the keyboard.
   To upload, use a third-party app for network files management.
- Chapter 7. USB Application

pad

• Use a third-party app for network files management.

#### Ø Tips:

Go to Set Up a Dynamic DNS Service Account to learn how to set up a domain name for your router.

## 7.2.2. Customize Your Settings

### **To Only Share Specific Content**

By default, Share All is enabled so all content on the USB disk is shared. If you want to only share specific folders, follow the steps below:

- 1. Visit *http://tplinkwifi.net*, then log in with the username and password you set for the router.
- 2. Go to Basic or Advanced > USB Settings > Sharing Access. Focus on the section of Folder Sharing. Click the button to disable Share All, then click Add to add a new sharing folder.
- 3. Select the Volume Name and Folder Path, then specify the Folder Name as you like.
- 4. Select Enable Authentication. If you allow network clients to modify this folder, select Enable Write Access.

	Folder Sharing								
Share All:								C	Add 😑 Delete
		ID	Folder Name	Folder Path		Media Sharing	Volume Name	Status	Modify
	Volume Name:			Select a folder 🔹 🔻					
	Folder Path:			Browse					
	Fo	lder	Name:						
					☑ Enable Authentication				
					☑ Enable Write Access				
					Enable Media	Sharing			
							Cano	cel	ок

5. Click OK.

## 🖉 Tips:

The router can share 32 volumes at most. You can click Q on the page to detach the corresponding volume you do not need to share.

## 7.3. Media Sharing

The feature of Media Sharing allows you to view photos, play music and watch movies stored on the USB disk directly from DLNA-supported devices, such as your computer, pad and PS2/3.

## 7.3.1. Access the USB disk

#### 1. Connect Your USB Disk

Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.

### Ø Tips:

- 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 use a USB hard drive, make sure its file system is FAT32 or NTFS.
- Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to Advanced > USB Settings > Device Settings and click 
   Safety Remove.

#### 2. Play the Media on Your USB Disk

Now the DLNA-supported devices (such as your computer and pad) connected to the router can detect and play the media files on the USB disks.

- 1. Open the Windows Media Player.
- 2. Click the media server name (such as Genie Media Severs) under the list of Other Libraries, then you can directly view photos, play music and watch movies that you share on the USB disks.



## 7.3.2. Customize Your Settings

#### **To Only Share Specific Content**

By default, Share All is enabled so all content on the USB disk is shared. If you want to only share specific folders, follow the steps below:

- 1. Visit *http://tplinkwifi.net*, then log in with the username and password you set for the router.
- 2. Go to Advanced > USB Settings > Sharing Access.
- 3. Focus on the section of Folder Sharing. Click the button to disable Share All, then click Add to add a new sharing folder.
- 4. Select the Volume Name and Folder Path, then enter a Folder Name as you like.
- 5. Select Enable Media Sharing and click OK.

1	Folder Sharing									
Share All:								C	Add 😑 Delete	
		ID	Folder Name	F	Folder Path	Media Sharing	Volume Name	Status	Modify	
	Volume Name:				Select a folder 🔹					
	Folder Path:							Browse		
	Folder Name:									
					Enable Authentication					
					Enable Write Access					
					🗹 Enable Media 🤅	Sharing				
							Cano	cel	ок	

#### 🥙 Tips:

The router can share 32 volumes at most. You can click Q on the page to detach the corresponding volume you do not need to share.

# 7.4. Printer Sharing

The feature of Printer Sharing helps you share a printer with different computers connected to the router.

## 1. Install the Driver of the Printer

Make sure you have installed the driver of the printer on each computer that needs printer service.

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

## 2. Connect the Printer

Cable a printer to the USB port with the USB cable. Wait several seconds until the USB LED becomes solid on.

## Note:

Printers unlisted may be incompatible with the router. You can check Printer Compatibility List to verify whether your printer is supported by the router: *http://www.tp-link.com/compatible/print-server/*.

#### 3. Install the TP-LINK USB Printer Controller Utility

TP-LINK USB Printer Controller Utility helps you access the shared printer. Download and install the utility on each computer that needs printer service.

You can get the utility from *http://www.tp-link.com/app/usb/*. PC Utility is for Windows computer and Mac Utility is for Mac computer.



## 4. Access the Printer

You should set the shared printer as Auto-Connect Printer on every computer that needs printer service.

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

1

TP-LINK USB Printer Controller		
Exit Configure Server for Printing Scanning	Disconnect	

Windows



Mac

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



Windows

0 0 0	TP-Link USB Printer Controller		
Auto 2	🖌 🔀 🧞		
▼ @ 10-mean	0 - 192,108,0.1		
踚 MFP - C	+ Set Auto-Connect Printer		
	- Delete Auto-Connect Printer		
		Close	

Mac

4) Select the printer you share, then click Apply.

🛹 Add to Auto-Connect Printer List	
< Installed Printer List >	
Printer Name □ ♣ Fax ☑ ♣ Series Printer recommended	
Apply	Cancel

Windows
0 0 0	TP-Link USB Printer Controller
🐔 🏫 🖏 🗙	
V 🗢	Add to Auto-Connect Printer List
	Installed Printer List
	10.10.180
	series
	Stylus Photo 720-f97c12 1000 J110 series 1000 J110 series-1
	Apply Cancel

#### Mac

5) You will see the printer marked as Auto-Connect Printer. Now you can print with this printer.

System Tools	B Printer Control	ller			
Configure Server	Auto-Connect for Printing	Connect for Scanning	<b>T</b> Disconnect	Request to Connect	
MF	RO-192168111 P-Canon MG620	series [Auto-Co	onnected Printer ]		

#### Windows

00	TP-Link USB Printer Controller	
🏠 🚵 🕰 💥		
TO-WESHO - 192 168 1 1		
🍓 MFP - 🛛 🛛 🖇	ries [Auto-Connected Printer]	

Mac

#### Ø Tips:

The Print Server also allows 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 select Network Scanner. Then, a scanning window will pop up. Finish the scanning process by following the on-screen instructions.

## **Parental Controls**

This function allows you to block inappropriate, explicit and malicious websites, and control access to specified websites at specified time.



I want to: control what types of websites my children or other home network users can visit and even the time 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 www. tp-link.com and Wikipedia.org from 18:00 (6PM) to 22:00 (10PM) on weekdays and not other time.

# How can I do that?

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

A durana a di Si Davrana da l		Developmental Constructor
Advanced > Parental	( ontrois and enable	Parental Controls

Pare	enta	Controls					
Parer	ntal C	ontrols:					
Dev	ices	Under Parental	Controls				
The E Syste	effecti em To	ve Time Schedule is t ols -> Time Settings"	pased on the time of the F	outer. The	time can be se	et in "Advar 🕂 Add 🌘	nced ->
	ID	Device Name	MAC Address	Internet Access Time	Description	Status	Modify
Con	tent	Restriction	🖲 Blacklist 🔿 Whitelist				
<b>C</b> A	dd a	new keyword				_	
							Save

#### 3. Click Add.

					🔂 Add 🧲	Delete
ID	Device Name	MAC Address	Internet Access Time	Description	Status	Modify
Dev	ice Name:			View Existing	Device	
MAC	Address:					
Inte	rnet Access Time:	O				
Des	cription:		(c	optional)		
		🗹 Enable				
				Cancel	ОК	

4. Click View Existing Devices, and select the device to be controlled. Or, enter the Device Name and MAC Address manually.

- 0 Mon Thu Fri. Sun. Tue. Wed 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
- 5. Click the <sup>(1)</sup> icon to set the Internet Access Time. Drag the cursor over the appropriate cell(s) and click OK.

- 6. Enter a Description for the entry.
- 7. Select the checkbox to enable this entry and click OK.
- 8. Select the restriction mode.
  - 1) In Blacklist mode, the controlled devices cannot access any websites containing the specified keywords during the Internet Access Time period.
  - 2) In Whitelist mode, the controlled devices can only access websites containing the specified keywords during the Internet Access Time period.

Content Restriction	
Restriction	🔿 Blacklist 🔘 Whitelist
🕀 Add a New Keyword	
www.tp-link.com	wikipedia 😑
	Save

- 9. 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.
  - 1) 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.
  - 2) Specify the domain suffix (eg. .edu or .org) to allow access only to the websites with that suffix.
  - 3) If you wish to block all Internet browsing access, do not add any keyword to the Whitelist.

10.Enter the keywords or websites you want to add and click Save.

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

# **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 192.168.0.101 and 192.168.0.110.

- **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 *To reserve an IP address for a specified client device*.
- How can I 1. Visit *http://tplinkwifi.net*, and log in with the username and password you set for the router.
- do that?

2. Go to Advanced > Bandwidth Control page.

Bandwidth Control		
Bandwidth Control:	🗹 Enable	
Total Upstream Bandwidth:	512	kbps
Total Downstream Bandwidth:	8192	kbps
		Save

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

Control	ling Rules								
								🕂 Add	🖨 Delete
	Description		Priority	Up(n	nin/ma	x)	Down(min/max)	Enable	Modify
IP	Range:	192	.168.0.3	101		-	192.168.0.101		
Por	t Range:	1				-	65535		
Pro	otocol:	ALL		•					
Pri	ority:	5		•	(1 me	ean	s the highest prior	rity.)	
Up	stream:	250	)			to	500		
Do	wnstream:	200	0			to	4000		
		🗹 Ena	able this	entry					
							Cancel	ОК	

- 1) 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.
- 2) Port Range: Keep the default settings. The default port range of TCP protocol or UDP protocol is from 1 to 65535.
- 3) Protocol: Keep the default setting. Or you can choose the TCP protocol or UDP protocol or both of them.
- 4) Priority: Keep the default setting. You can change the value if you want to first guarantee the bandwidth for one computer. The smaller value has the higher priority.
- 5) Upstream/Downstream: Enter the bandwidth according to your division.
- 6) Check to enable this entry and click OK to save the settings.
- 6. Follow the steps above to add a rule for the other computer. And then you will get the following table.

Con	trolling Rules					
					🕂 Add	🖨 Delete
	Description	Priority	Up(min/max)	Down(min/max)	Enable	Modify
	192.168.0.110	5	250/500 kbps	2000/4000 kbps	Ŷ	20
	192.168.0.101	5	250/500 kbps	2000/4000 kbps	Q	2

#### **Done!** Now you and your roommate have an independent bandwidth.

# **Network Security**

This chapter guides you on how to protect your home network from cyber attacks and unauthorized users by implementing these three network security functions. You can protect your home network against DoS (Denial of Service) attacks from flooding your network with server requests using DoS Protection, block or allow specific client devices to access your network using Access Control, or you can prevent ARP spoofing and ARP attacks using IP & MAC Binding function.

10

This chapter contains the following sections:

- Protect the Network from Cyber Attacks
- Access Control
- IP & MAC Binding

## 10. 1. Protect the Network from Cyber Attacks

The SPI (Stateful Packet Inspection) Firewall and DoS (Denial of Service) Protection protect the router from cyber attacks.

The SPI Firewall can prevent cyber attacks and validate the traffic that is passing through the router based on the protocol. This function is enabled by default, and it's recommended to keep the default setting.

DoS Protection can protect your home network against DoS attacks from flooding your network with server requests. Follow the steps below to configure DoS Protection.

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

DOS PIOLE	ction:			
Enable DoS F	Protection			
ICMP-FLOOD	Attack Filtering:	Off	•	
UDP-FLOOD /	Attack Filtering:	Off	•	
TCP-FLOOD A	Attack Filtering:	Off	•	
		🗌 Forbid Lan Ping		
		🗹 Forbid Wan Ping		
				Save
Plaskad D	oC Host List			
Blocked D	oS Host List			
Blocked D	oS Host List			🕑 Refresh 🖨 Delete
Blocked D	oS Host List	IP Address		Refresh  Delete MAC Address

- 3. Enable DoS Protection.
- 4. Set the level (Off, Low, Middle or High) of protection for ICMP-FLOOD Attack Filtering, UDP-FlOOD Attack Filtering and TCP-SYN-FLOOD Attack Filtering.
  - ICMP-FLOOD Attack Filtering Enable to prevent the Internet Control Message Protocol (ICMP) flood attack.
  - UDP-FIOOD Attack Filtering Enable to prevent the User Datagram Protocol (UDP) flood attack.
  - TCP-SYN-FLOOD Attack Filtering Enable to prevent the Transmission Control Protocol-Synchronize (TCP-SYN) flood attack.

#### Ø Tips:

The level of protection is based on the traffic packets number. The protection will be triggered immediately when the number of packets exceeds the preset threshold value (the value can be set on Advanced > System Tools > System Parameters > DoS Protection Level Settings), and the vicious host will be displayed in the Blocked DoS Host List.

- 5. Select Forbid Lan Ping if you want to ignore the ping packets from LAN port.
- 6. Select Forbid Wan Ping if you want to ignore the ping packets from WAN port.
- 7. Click Save to make the settings effective.

## 10.2. Access Control

Access Control is used to block or allow specific client devices to access your network (via wired or wireless) based on a list of blocked devices (Blacklist) or a list of allowed devices (Whitelist).

**I want to:** Block or allow specific client devices to access my network (via wired or wireless).

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

do that?

<ol><li>Go to Advanced &gt; Security &gt; Access Cont</li></ol>
---

Access	Control					
Access Co	ontrol:					
Access	Mode					
Default Ad	ccess Mod	le: 💿 Blac	klist			
		O Whi	telist			
Devices	s in Bla	cklist				
					e	Add 😑 Delete
	ID	Device Name	MAC Addres	s	Status	Modify
Devices	s Online	)				
					0	Refresh 🚫 Block
	ID	Device Name	IP Address	I	MAC Address	Connection Type
	1	Unknown	192.168.0.200	50:	E5:49:1E:06:80	Wired
	2	C3200-SHARE	192.168.0.74	00:	DA:EB:0C:26:42	Wired

#### 3. Enable Access Control.

4. Select the access mode to either block (recommended) or allow the device(s) in the list.

#### To block specific device(s)

- 1) Select Blacklist.
- 2) Select the device(s) to be blocked in the Devices Online table.
- 3) Click Block above the Devices Online table. The selected devices will be added to Devices in Blacklist automatically.

#### To allow specific device(s)

- 1) Select Whitelist and click Save.
- 2) Click Add.

Access	Mode				
Default Ad	ccess Mode	e: O Blac	cklist		
		White	itelist		
_					
Devices	s in Whi	telist			
					🕂 Add 😑 Delete
	ID	Device Name	MAC Address	Status	Modify
De	vice Name	2:			
MA	C Address	:			
		I	🗹 Enable		
				Cancel	ок

- 3) Enter the Device Name and MAC Address (You can copy and paste the information from the following list if the device is connected to your network).
- 4) Click OK.
- **Done!** Now you can block or allow specific client devices to access your network (via wired or wireless) using the Blacklist or Whitelist.

## 10.3. IP & MAC Binding

IP & MAC Binding, namely, ARP (Address Resolution Protocol) Binding, is used to bind network device's IP address to its MAC address. This will prevent ARP Spoofing and other ARP attacks by denying network access to an device with matching IP address in the Binding list, but unrecognized MAC address.

I want to:	Prevent ARP spoofing and ARP attacks.
How can l	1. Visit <i>http://tplinkwifi.net</i> , and log in with the username and password you set for the router.
do that?	2. Go to Advanced > Security > IP & MAC Binding.

	nys						
P & M	AC Bin	iding:					
Bindi	ng Li	ist					
					0	Add 😑	Delete
	ID	MAC Address	IP Address	Status	Enabl	e M	odify
ARP	List						
					<b>()</b> R	lefresh 🧯	Bind
	ID	Device Name	MAC Address	IP Addres	s	Bound	Modify
	1	C3200-SHARE	00:0A:EB:0C:26:42	192.168.0	.74 U	nloaded	劬
	2	Unknown	50:E5:49:1E:06:80	192.168.0.	200 U	nloaded	劬

### 3. Enable IP & MAC Binding.

4. Bind your device(s) according to your need.

### To bind the connected device(s)

- 1) Select the device(s) to be bound in the ARP List.
- 2) Click Bind to add to the Binding List.

#### To bind the unconnected device

1) Click Add.

Bindi	ng Li	st				
					🕂 Add	😑 Delete
	ID	MAC Address	IP Address	Status	Enable	Modify
	MAC A	ddress:				
	IP Add	ress:				
			Enable			
				Cancel	l Oł	c

- 2) Enter the MAC address and IP address that you want to bind.
- 3) Select the checkbox to enable the entry and click OK.

**Done!** Now you don't need to worry about ARP spoofing and ARP attacks.

# Customize Your Network Settings

This chapter guides you on how to configure advanced networking features that are available for this router.

This chapter contains the following sections:

- Change the LAN Settings
- Configure to Support IPTV Service
- Specify DHCP Server Settings
- Set Up a Dynamic DNS Service Account
- Create Static Routes
- Specify Wireless Settings
- Use WPS for Wireless Connection
- Schedule Your Wireless Function
- Set up a VPN Connection

## 11.1. Change the LAN Settings

The router is preset with a default LAN IP 192.168.0.1, 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 username and password you set for the router.
- 2. Go to Advanced > Network > LAN page.
- 3. Type in a new IP address appropriate to your needs.

LAN		
MAC Address:	40:16:9F:BF:50:8B	
LAN IPv4:	192.168.0.107	
Subnet Mask:	255.255.255.0 🔻	
IGMP Snooping:	✓ Enable IGMP Snooping	
		Save

- 4. Leave the Subnet Mask as the default settings.
- 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. Click Save.

#### Note:

If you have set the Virtual Server, DMZ or DHCP address reservation, and the new LAN IP address is not in the same subnet with the old one, then you should reconfigure them.

## 11.2. Configure to Support IPTV Service

IPTV is the abbreviation of Internet Protocol Television. The service can only be delivered through the Internet, and our router provides a specific LAN port for IPTV.

By automatically seperating IPTV from Internet surfing, we guarantee you a high quality of vedio streaming and a high speed of Internet surfing.

#### Chapter 11. Customize Your Network Settings

11

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** 1. Visit *http://tplinkwifi.net*, and log in with the username and password you set for the router.
  - **do that?** 2. Go to Advanced > Network > IPTV to open the configuration page.
    - 3. Configure IPTV settings:

IPTV Settings			
IPTV:	🗹 Enable IPTV		
Mode:	Bridge	•	
IGMP Proxy:	V3 <b>•</b>		
LAN1:	IPTV	•	
LAN2:	Internet	•	
LAN3:	Internet	•	
LAN4:	Internet	•	

- 1) Select the Enable IPTV check box.
- 2) Select the appropriate Mode according to your ISP. Select Bridge if your ISP is not listed and no other parameters are required, and then skip to substep 4. Select Custom if your ISP is not listed but provides necessary parameters.
- 3) After you have selected a mode, the necessary parameters are predetermined. You can perform other configuration, e.g. enter the IPTV Multicast VLAN ID and select the IPTV Multicast VLAN Priority in Russia mode according to your ISP.
- 4) Select the IGMP Proxy version, either V2 or V3, according to the information provided by your ISP.
- 5) For Russia, Singapore-ExStream, Malaysia-Unifi and Malaysia-Maxis mode, connect device to the predetermined LAN port. For Bridge and Custom mode, select a LAN port as the IPTV port and connect the set-top box to the corresponding port.
- 6) Click Save.
- **Done!** Your IPTV setup is done now! You may need other configurations on your set-top box before enjoying your TV.

## 11.3. Specify DHCP Server Settings

By default, the DHCP (Dynamic Host Configuration Protocol) Server is enabled and the router acts as a DHCP server; it dynamically assigns TCP/IP parameters to client devices from the IP Address Pool. You can change the settings of DHCP Server if necessary, and you can reserve LAN IP address for specified client device.

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

DHCP Se	erver							
DHCP:		E	🗹 Enable					
IP Address	Pool:		192.168.0.100	- 192.168.0.100 - 192.168.0.199				
Address Lease Time:			1440		mir val	nutes. (1-2 ue is 1440	2880. The o	lefault
Default Gateway:			192.168.0.1		(Op	otional)		
Primary DNS:			8.8.8.8		(Op	otional)		
Secondary DNS:			0.0.0.0		(Op	otional)		
Client Li	ist							Save
Client Num	nber: 0						C	Refresh
ID	Client Nam	ne M	/AC Address		A	Assigned IP		Lease Time
Address	Reservatio	n						
							🔂 Add	Delete
	MAC A	ddress	Reserved IP		(	Group	Enable	Modify
Conditio	on Pool							
							🔂 Add	Delete
	Vendor ID	Start IP Addres	s/End IP Address	Faci	lity	Group	Status	Modify
					-			

## To specify the IP address that the router assigns

- 1. Make sure that the Enable DHCP Server checkbox is selected.
- 2. Enter the starting and ending IP address in the IP Address Pool.
- 3. Enter other parameters if the ISP offers, the Default Gateway is automatically filled, which is the same as the LAN IP address of the router.
- 4. Click Save to make the settings effective.

## To reserve an IP address for a specified client device

1. Click the Add button.

Address	Reservation					
					🔂 Add 🧲	Delete
	MAC Address		Reserved IP	Group	Enable	Modify
MAG	C Address:					
Res	served IP:					
Gro	up:	D	efault 🔻			
		<b>√</b> E	nable this entry			
				Cancel	ок	

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

#### Note:

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 (192.168.0.50 to 192.168.0.80) to Camera devices, thus facilitating the network management.

## 11.4. Set Up a Dynamic DNS Service Account

Most ISPs (Internet service provieders) assign a dynamic IP address to the router and you can use this IP address to access your router remotely. However, the IP address can change any time and you don't know when it changes. In this case, you might need the DDNS (Dynamic Domain Name Server) feature on the router to allow you and your friends to access your router and local servers (FTP, HTTP, etc.) using domain name, in no need of checking and remembering the IP address. **Note:** DDNS does not work if the ISP assigns a private Internet IP address (such as 192.168.0.x) to the router.

To set up DDNS, please follow the instructions below:

- 1. Visit *http://tplinkwifi.net*, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > Dynamic DNS.
- 3. Select the DDNS Service Provider (Dyndns or NO-IP). If you don't have a DDNS account, select a service provider and click Go to register.

Dynamic DNS Settings		?
Service Provider:	Dyndns O NO-IP Go to register	
Username:	lisaddns	
Password:	• • • • • • • •	
Domain Name:	lisa.ddns.net	
Login Logout	Disconnected	
	Save	

- 4. Enter the username, password and domain name of the account.
- 5. Click Login and click Save.

*Tips:* If you want to use a new DDNS account, please Logout first, then log in with the new account.

## 11.5. 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<br/>do that?1. Change the router's LAN IP addresses to two different IP addresses on the same subnet. Disable<br/>Router 2's DHCP function.

- 2. Visit *http://tplinkwifi.net*, and log in with the username and password you set for the router.
- 3. Go to Network > Advanced Routing.
- 4. Click Add to add a new static routing entry.

atic Routing							
					<b>(</b> ) A	dd 😑 Delete	
	ID	Destination IP	Subnet Mask	Gateway	Enable	Modify	

5. Finish the settings according to the following explanations:

	ID	Destination IP	Subnet Mask	Ga	teway	Enable	Modify
					,		,
Destination IP:			172.30.30.1				
Sub	net Mask:		255.255.255.255				
Gat	eway:		192.168.0.2				
Inte	erface:		LAN	•			
Status:		Enabled	•				

Destination IP: 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; 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.

Gateway: 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: 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.

Status: Determines the status of the entry. In the example, Enabled should be selected.

- 6. Click OK to save the settings.
- 7. Check the System Routing Table below. If you can find the entry you set, the static routing is set successfully.

System Routing Table					
				🕑 Refresh	
ID	Destination Network	Subnet Mask	Gateway	Interface	
1	172.30.30.1	255.255.255.255	192.168.0.2	LAN & WLAN	
2	192.168.2.0	255.255.255.0	0.0.0.0	LAN & WLAN	
3	192.168.0.0	255.255.255.0	0.0.0.0	LAN & WLAN	

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

## 11.6. Specify Wireless Settings

The router's wireless network names (SSIDs) and passwords, and security options are preset in the factory. The preset SSIDs and passwords can be found on the product label. You can customize the wireless settings according to your needs.

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

#### Chapter 11. Customize Your Network Settings

#### 2. Go to Basic > Wireless.

Wireless Settings			?
Wireless 2.4GHz:	🗹 Enable		
Wireless Network Name (SSID):	TP-LINK_508B	Hide SSID	
Password:	12345670		
Wireless 5GHz-1:	🗹 Enable		
Wireless Network Name (SSID):	TP-LINK_508B_5G_1	Hide SSID	
Password:	12345670		
Wireless 5GHz-2:	🗹 Enable		
Wireless Network Name (SSID):	TP-LINK_508B_5G_2	Hide SSID	
Password:	12345670		
			Save

## To enable or disable the wireless function:

The wireless radio is enabled by default, if you want to disable the 2.4GHz, 5GHz-1, or 5GHz-2 wireless function, just clear the corresponding Enable checkbox.

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

Create a new SSID in Wireless Network Name (SSID) and customize the password for the network in Password. The default SSID is TP-LINK\_XXXX for 2.4GHz, TP-LINK\_XXXX\_5G\_1 for 5GHz-1, and TP-LINK\_XXXX\_5G\_2 for 5GHz-2, 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.

## **Advanced Settings:**

Go to Advanced > Wireless > Wireless Settings.

Settings		
Region:	United States	•
Smart Connect		
Smart Connect:	Enable	
		Save
Wireless	2.4GH	z   5GHz-1   5GHz-2
Wireless Radio:	🗹 Enable	
Wireless Network Name (SSID):	TP-LINK_508B	ide SSID
Security:	WPA/WPA2 Personal(Recommended	)
/ersion:	O Auto 💿 WPA2-PSK	
Encryption:	🔿 Auto 🔿 TKIP 💿 AES	
Password:	12345670	
Mode:	802.11bgn mixed	
lodel	5	
Channel:	Auto 🔻	
Channel: Channel Width:	Auto  Auto	

## To change the working region for the router:

Select the Region from the drop-down list and click Save. **Note:** Per FCC regulations, all Wi-Fi products marketed in the U.S. are locked to the U.S. region.

## To use the smart connect function

The smart connect function helps devices run faster by assigning them to best wireless bands based on actual conditions to balance network demands.

- 1. Select the Smart Connect checkbox, and click Save.
- 2. Keep the default or set a new SSID and password, and click Save.

This SSID and password will be applied for 2.4GHz, 5GHz-1, and 5GHz-2 wireless networks.

Smart Connect		
Smart Connect:	🗹 Enable	
		Save
Wireless		
Wireless Radio:	🗹 Enable	
Wireless Network Name (SSID):	TP-LINK_508B	Hide SSID
Security:	WPA/WPA2 Personal(Recom	nmended) 🔹
Version:	O Auto 💿 WPA2-PSK	
Encryption:	O Auto O TKIP 🖲 AES	
Password:	12345670	
	O Low O Middle 🖲 High	

## To change the security option:

In the Wireless section, select an option from the Security dropdown list.

The router provides four security options, No Security, WPA/WPA2 - Personal (Recommended), WPA/WPA2 - Enterprise and WEP. We recommend you don't change the default settings unless necessary. If you select other options, configure the related parameters according to the help page.

### In addition

- Mode Select a transmission mode according to your wireless client devices. 802.11b/g/n mixed, 802.11g/n mixed or 802.11n only for 2.4GHz; and 802.11a/n/ac mixed, 802.11n/ac mixed or 802.11ac only for 5GHz. It is recommended to just leave it as default.
- Channel Width Select a channel width (bandwidth) for the wireless network.
- Channel Select an operating channel for the wireless network. It is recommended to leave it as default, if you are not experiencing the intermittent wireless connection issue.
- Transmit Power Select either High, Middle or Low to specify the data transmit power. The default and recommended setting is High.

## 11.7. Use WPS for Wireless Connection

Wi-Fi Protected Setup(WPS) gives consumers an easier approach to set up a security-protected Wi-Fi connection.

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

## 11.7.1. Set the Router's PIN

Router's PIN is enabled by default to allow wireless devices to connect to the router using the PIN. You can use the default one or generate a new one.

Router's PIN						
Other devices can connect to Router's PIN:	the router using the ro	uter's WPS PIN code.				
Current PIN:	12345670					

#### Note:

- 1. If you want to enable/disable the WPS feature, go to System Tools > System Parameters > WPS, select or clear the Enable WPS check box.
- 2. PIN (Personal Identification Number) is an eight-character identification number preset to each router. WPS supported devices can connect to your router with the PIN. The default PIN is labeled on the bottom of the router.

## 11.7.2. Use the WPS Wizard for Wi-Fi Connections

- 1. Select a setup method:
  - **Push Button (Recommended)**: Click the Connect button on the screen. Within two minutes, push the WPS button on the client device.

WPS Settings
Select a setup method:
Press the physical WPS button on the router or click the Connect button below.
O PIN Code

Chapter 11. Customize Your Network Settings

• **PIN Code**: Enter the client's PIN, and click Connect.

WPS Settings		
Select a setup method:		
○ Push Button (Recommend	ed)	
IN Code		
Enter the client's PIN:		
Connect		
Connect		

2. Success will appear on the above screen and the WPS LED on the router will keep on for five minutes if the client has been successfully added to the network.

## 11.8. Schedule Your Wireless Function

You can automatically turn off your wireless network at the time when you do not need the wireless connection.

- 1. Visit *http://tplinkwifi.net*, and log in with the username and 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.

the	schedule tal	ble to choose t	he period on w	hich you need t	he wireless off	automatically	
e Set	tings"	lieuule is base	u on the time	or the Router. I	ne time can be	s set in Syste	11 10015 ->
ble W	/ireless Sche	dule:					
0	Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
0							
0							
0							
0							
0							
0							
0							
0							
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00							
0							
0							
00 -							
00							
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00							
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00							
00							
0							

- 4. Set the time. Drag the cursor 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-1 and 5GHz-2 wireless networks.

## Note:

- 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-1, and 5GHz-2 ) 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.

## 11.9. Set up a VPN Connection

VPN (Virtual Private Network) is a private network established across 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. IPSec is one of the major implementations of VPNs.

**I want to:** Establish an IPSec VPN tunnel to connect two LANs via Internet so that the hosts in different remote LANs are able to communicate with each as if they are in the same LAN.

For example, I am the network administrator of a regional office, I need to let my office staff can visit the headquarter's servers and resources, and vice versa. I know that the router in my office and the device in headquarter both support IPSec VPN feature, so I decide to set up a VPN connection with the headquarter office.

The following diagram is a typical VPN topology. Here Site A refers to regional office's network (local network). And Site B refers to the headquarter's network (remote network) which I want to connect.



## How can I do that?

- 1. Make sure of 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 username and password you set for the router.
  - 2) Go to Advanced > Network > IPSec VPN to open the configuration page. Click Add to set up a VPN tunnel.

IP	Sec Settings							
Do	ad Boor Detection:							
De	ad Feel Detection.					C	Add 😑	Delete
	Connection Name Remote Gateway Local A			ddress	Remote Address	Status	Enable	Modify
	IPSec Connection Name: VPN1							
	Remote IPSec Ga	teway (URL):		219.13	4.112.247		Site B's W	AN IP
	Tunnel access fro	om local IP addresse	s:	Subne	et Address	•		
	IP Address for VP	PN:		192.168.1.0			LAN IP ran	ge of Site A
	Subnet Mask:			255.25	5.255.0			
	Tunnel access fro	om remote IP addres	ses:	Subne	et Address	•		
	IP Address for VP	PN:		192.168.2.0			LAN IP ran	ige of Site B
	Subnet Mask:			255.255.255.0				
	Key Exchange Me	ethod:		Auto(	IKE)	•		
	Authentication M	ethod:		Pre-Shared Key				
	Pre-Shared Key:			psk_key				
	Perfect Forward Secrecy:		Enable 🔻					
	O Advanced							
					Cancel		ОК	

- 3) In the IPSec Connection Name column, specify a name.
- 4) In the Remote IPSec Gateway (URL) column, Enter Site B's WAN IP address.
- 5) To configure Site A's LAN:

In the Tunnel access from local IP addresses column, here we take Subnet Address as an example. Then input the LAN IP range of Site A in the IP Address for VPN column, and input Subnet Mask of Site A.

6) To configure Site B's LAN:

In the Tunnel access from remote IP addresses column, here we take Subnet Address as an example. Then input the LAN IP range of Site B in the IP Address for VPN column, and input Subnet Mask of Site B.

- 7) Select the Key Exchange Method for the policy. We select Auto(IKE) here.
- 8) Enter the Pre-Shared Key for IKE authentication. Then keep Perfect Forward Secrecy enabled.

#### Note:

- The key should consist of visible characters without blank space.
- Make sure Site A and Site B use the same key.

- 9) Leave the Advanced Settings as default value. Then click OK to save.
- 3. Configuration on Site B (remote network). Refer to step 2 configuration on Site A and 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.
- 5. Check the VPN connection. You can ping site B' LAN IP from your computer in site A to verify that the IPSec VPN connection is set up correctly.
- *Tips:* To check the VPN connection, you can do the following.
  - a. 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:	cmd 💌
	OK Cancel Browse

b. 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].

C:\WINDOWS\system32\cmd.exe	- 🗆 ×
Hicrosoft Windows XP [Version 5.1.2600] (C) Copyright 1985-2001 Microsoft Corp.	<u></u>
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:	
Mininun = Oms, Maxinum = Oms, Average = Oms	
C: \Users \Administrator>	
	• /

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

**Done!** Now IPSec VPN is implemented to establish a connection.

#### 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.

## Manage the Router

This chapter will show you the configuration for managing and maintaining your router.

This chapter includes the following sections:

- Set Up System Time
- Test the Network Connectivity
- Upgrade the Firmware
- Backup and Restore Configuration Settings
- Change the Administrator Account
- Local Management
- Remote Management
- System Log
- SNMP Settings
- Monitor the Internet Traffic Statistics
- Control LEDs

## 12.1. Set Up System Time

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

Follow the steps below to set your system time.

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

Time Settin	gs	
Time Zone:	(GMT-08:00) Pacific Time (US & Cana	ada); Tijuana 🔹 🔻
Date:	21/07/2015	(MM/DD/YY)
Time:	17 🔻 : 8 💌 : 45 💌	
NTP Server I:	0.0.0.0	(optional)
NTP Server II:	0.0.0.0	(optional)
Get from F	PC Get GMT	
		Save

3. Configure the system time using the following methods :

Manually: Select your time zone and enter your local time.

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.

- 4. Click Save to make your settings effective.
- 5. After setting the system time, you can set Daylight Saving time according to your needs. Tick the checkbox to enable Daylight Saving, set the start and end time and then click Save to make the settings effective.

Daylight Savin	Ig							
Daylight Saving:	🗹 Enable	Daylight Sav	ving					
Start:	Mar	<b>▼</b> M	Last	•	W Sun	<b>▼</b> T	02:00	•
End:	Oct	<b>▼</b> M	Last	•	W Sun	<b>v</b> T	03:00	•
							Sa	ve

## 12. 2. Test the Network Connectivity

Diagnostics is used to test the connectivity between the router and the host or other network devices.

- 1. Visit *http://tplinkwifi.net*, and log in with the username and password you set for the router.
- 2. Go to Advanced > System Tools > Diagnostics.

Diagnostic Tools		?
Diagnostic tool:	ping     traceroute	
Target IP Address/Domain Name:		
Start		
⊘ Advanced		

- 3. Enter the information with the help of page tips:
  - 1) Choose Ping or Traceroute as the diagnostic tool to test the connectivity;
  - Ping is used to test the connectivity between the router and the tested host, and measure the round-trip time.
  - Traceroute is used to display the route (path) your router has passed to reach the tested host, and measure transit delays of packets across an Internet Protocol network.
  - 2) Enter the Target IP Address/Domain Name of the tested host.
- 4. Click Start to begin the diagnostics.

#### Tips:

Click Advanced, you can modify the packet count, packet size, test timeout time or max hop. It's recommended to keep the default value.

The figure below indicates the proper connection between the router and the Yahoo server (www.Yahoo.com) tested through Ping.

Ping www.tanoo.com (110.214.12.74): 64 data bytes
Reply from 116.214.12.74: bytes=64 ttl=50 seq=1 time=51.640 ms
Reply from 116.214.12.74: bytes=64 ttl=50 seq=2 time=53.671 ms
Reply from 116.214.12.74: bytes=64 ttl=50 seq=3 time=56.045 ms
Reply from 116.214.12.74: bytes=64 ttl=50 seq=4 time=57.857 ms
Ping Statistic "www.Yahoo.com"
Packets: Sent=4, Received=4, Lost=0 (0.00% loss)
Round-trip min/avg/max = 51.640/54.803/57.857 ms

The figure below indicates the proper connection between the router and the Yahoo server (www.Yahoo.com) tested through Traceroute.



## 12.3. Upgrade the Firmware

TP-LINK 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 the Support page of our website *www.tp-link.com* and upgrade the firmware to the latest version.

#### Note:

- 1. Make sure the latest firmware file is matched with the hardware version (as shown in the webpage).
- 2. Make sure that you have a stable connection between the router and your computer. It is NOT recommended to upgrade the firmware wirelessly.
- 3. Make sure you remove any USB storage device connected to the router before the firmware upgrade to prevent data loss.
- 4. Backup your router configuration.
- 5. Do NOT turn off the router during the firmware upgrade.

Follow the steps to upgrade the firmware.

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

	(2
Browse	
1.0.0 Build 20150522 Rel. 42154	
Ardhar C2600 v1.0	
	Upgrade
	Browse

5. Wait a few moments for the upgrading and rebooting.

## 12.4. Backup and Restore Configuration Settings

The configuration settings are stored as a configuration file in the router. You can backup 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 necessary you can erase the current settings and reset the router to the default factory settings.

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

### To backup configuration settings:

Click Backup to save a copy of the current settings to your local computer. A '.bin' file of the current settings will be stored to your computer.

Backup		?
Save a copy of your current settings.		
	Backup	

## To restore configuration settings:

1. Click Browse to locate the backup configuration file stored on your computer, and click Restore.

Restore				
Restore saved setti	ings from a file.			
File:		Browse		
			Restore	

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

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

### To reset the router to factory default settings:

1. Click Factory Restore to reset the router.

Factory Default Restore	
Revert all the configuration settings to their default values.	
	Factory Restore

2. Wait a few moments for the reset and reboot.

#### Note:

- 1. During the resetting process, do not turn off or reset the router.
- 2. We strongly recommend you backup the current configuration settings before resetting the router.

## 12.5. Change the Administrator Account

The account management feature allows you to change your login username and password of the web-based management page.

- 1. Visit *http://tplinkwifi.net*, and log in with the username and password you set for the router before.
- 2. Go to Advanced > System Tools > Administration and complete the settings in Account Management section.

Account Management	t		?
Old Username:	admin	0	
Old Password:	*****	0	
New Username:	Mary		
New Password:	•••••		
Confirm New Password:	Low Middle High	0	
			Save

3. Enter the old username and old password. Enter the new username and enter the new password twice (both casesensitive). Click Save.

Use the new username and password for the following logins.

## 12.6. 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.

Follow the steps below to specify the local management.

- 1. Visit *http://tplinkwifi.net*, and log in with the username and password you set for the router.
- 2. Go to Advanced > System Tools> Administration page. Locate the Local Management section.
- 3. Keep the Port as the default setting. Enter the IP address or MAC address of the local device to manage the router.

#### Note:

- 1) The IP address of the local device must be in the same subnet as the router's LAN IP address.
- 2) If you want that all local devices can manage the router, just leave the IP/MAC Address field blank.

Local Management		
Port:	80	
IP/MAC Address:	192.168.0.109	
		Sa

4. Click Save to make the settings effective. Now only the device using the IP address or MAC address you set can manage the router.

## 12.7. 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 username and password you set for the router.
- 2. Go to Advanced > System Tools> Administration page. Locate the Remote Management section.

Remote Management		
Remote Management:	🗹 Enable	
Port:	80	
IP/MAC Address:		
		Save

- 3. Tick the checkbox to enable Remote Management.
- 4. Keep the Port as the default setting. Enter the IP address or MAC address of the remote device to manage the router. **Note:** If you want that all remote devices can manage the router, just leave the IP/MAC Address field blank.
- 5. Click Save to make the settings effective. Now, only the device using the IP address or MAC address you set can log in to http://router's Internet IP address:port number (such as http://113.116.60.229:80) to manage the router remotely.

#### Ø Tips:

- 1) You can find the Internet IP address of the router on Basic > Network Map > Internet.
- 2) The router's Internet IP is usually a dynamic IP. Please refer to *Set Up a Dynamic DNS Service Account* if you want to log in to the router through a domain name.

## 12.8. System Log

System Log can help you know what happened to your router, facilitating you to locate the malfunctions. For example when your router does not work properly, you will need to save the system log and send it to the technical support for troubleshooting.

- 1. Visit *http://tplinkwifi.net*, and log in with the username and password you set for the router.
- 2. Click Advanced > System Tools > System Log page.

Sys	stem Log			
Туре			ALL	T
Leve	al:		Debug	•
				🕝 Refresh 😑 Delete All
I	D Time	Туре	Level	Log Content
1	1970-01-01 00:46:15	IGMP	Warning	V2 igmp router occured! Not matching ours V3.
2	1970-01-01 00:45:15	IGMP	Warning	V2 igmp router occured! Not matching ours V3.
3	1970-01-01 00:44:10	IGMP	Warning	V2 igmp router occured! Not matching ours V3.
4	1970-01-01 00:43:10	IGMP	Warning	V2 igmp router occured! Not matching ours V3.
5	1970-01-01 00:42:41	DHCPD	Notice	Recv REQUEST from 48:43:7C:B0:B4:ED
6	1970-01-01 00:42:39	DHCPD	Notice	Send OFFER with ip 192.168.0.100
7	1970-01-01 00:42:39	DHCPD	Notice	Recv DISCOVER from 48:43:7C:B0:B4:ED
8	1970-01-01 00:42:05	IGMP	Warning	V2 igmp router occured! Not matching ours V3.
				<12345678 >
	Log Settings		Save Log	

## To view the system logs:

- 1. Select the log Type. Select ALL to view all kinds of logs, or select IGMP or PPP to view the specific logs.
- 2. Select the log Level and you will see the logs with the specific or higher levels.
- 3. Click Refresh to refresh the log list.

## To save the system logs:

You can choose to save the system logs to your local computer or a remote server.

Click Save Log to save the logs in a txt file to your computer.

Click Log Settings to set the save path of the logs.

Log Settings				
Save Locally				
Minimum Level	Information	•		
☑ Save Remotely				
Minimum Level:	Warning	•		
Server IP:	192.168.1.100			
Server Port:	514			
Local Facility Name:	User			
			Back	Save

- Save Locally: Select this option to cache the system log to the router's local memory, select the minimum level of system log to be saved from the drop-down list. The logs will be shown in the table in descending order on the System Log page.
- Save Remotely: Select this option to send the system log to a remote server, select the minimum level of system log to be saved from the drop-down list and enter the information of the remote server. If the remote server has a log viewer client or a sniffer tool implemented, you can view and analyze the system log remotely in real-time.

## 12.9. SNMP Settings

SNMP (Simple Network Management Protocol) has been widely applied in the computer networks currently, which is used for ensuring the transmission of the management information between two nodes. In this way, network administrators can easily search and modify the information on any node on the network. Meanwhile, they can locate faults promptly and implement the fault diagnosis, capacity planning and report generating.

An SNMP Agent is an application running on the router that performs the operational role of receiving and processing SNMP messages, sending responses to the SNMP manager, and sending traps when an event occurs. So a router contains SNMP "agent" software can be monitored and/or controlled by SNMP Manager using SNMP messages.

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

SNMP Settings			
Simple Network Manageme updates and statistics from Enable SNMP Agent:	ent Protocol(SNMP) allows manae n the SNMP agent within this dev	ement applications to retrieve st. ice.	atus
Read Community:	public		
Set Community:	private		
System Name:	Archer C3200		
System Description:	0.8101+004b00uld 15063		
System Location:			
System Contact:			
Trap Manager IP:	0.0.0.0		
			Save

- Enable SNMP Agent: Toggle On to enable the built-in SNMP agent that allows the router to operate as the operational role in receiving and processing of SNMP messages, sending responses to the SNMP manager, and triggering SNMP traps when an event occurs.
- Read-only Community: Displays the default public community string that protects the router from unauthorized access.
- Set Community: Displays the default read and write community string that protects the router from unauthorized changes.
- System Name: Displays the administratively-assigned name for this managed device.
- System Description: Displays the textual description of the managed device. This value should include the full name and version identification of the system's hardware type, software operating-system, and networking software.
- System Location: Displays the physical location of this device (e.g., telephone closet, 3rd floor).
- System Contact: Displays the textual identification of the contact person for this managed device, together with information on how to contact this person.
- Trap Manager IP: Displays the IP address of the host to receive the traps.

You are suggested to keep the default settings. Click Save to make the settings effective.

## 12. 10. Monitor the Internet Traffic Statistics

The Traffic Statistics page displays the network traffic of the LAN, WAN and WLAN sent and received packets, allows you to monitor the volume of Internet traffic statistics.

- 1. Visit *http://tplinkwifi.net*, and log in with the username and password you set for the router.
- 2. Go to Advanced > System Tools > Traffic Statistics.
- 3. Toggle on Traffic Statistics, and then you can monitor the traffic statistics in Traffic Statistics List section.

*©* **Tips:** This function is enabled by default.

Fraffic Statistics:	On				
Fraffic Statist	ics List				
			Ø	Refresh 🚫 Reset /	All 😑 Delete All
IP Address/MAC Address	Total Packets	Total Bytes	Current Packets	Current Bytes	Modify
192.168.0.200/ 5 0-E5-49-1E-06- 80	0	0	0	0	¢ 🛍
192.168.0.20/ 40 -16-9F-BF-51-0C	1	594	0	0	() 団
192.168.0.155/ 0 0-14-78-43-45- 45	1	346	0	0	¢ 🛍
192.168.0.1/ 00- 0A-EB-13-09-19	1	594	0	0	<b>()</b> 🔟
192.168.0.123/ C 4-E9-84-23-06- C6	1	594	0	0	¢ 🛍
192.168.0.4/ 00- 0A-EB-13-01-02	2	412	0	0	<b>()</b> 🔟
192.168.0.100/ C 8-85-50-5D-02- 40	0	0	0	0	¢ 🛍
192.168.0.184/ C 8-85-50-5D-02- 40	0	0	0	0	<b>Ф</b>

Click Refresh to update the statistic information on the page.

Click Reset All to reset all statistic values in the list to zero.

Click Delete All to delete all statistic information in the list.

Click <sup>()</sup> to reset the statistic information of the specific device.

Click  $\overline{10}$  to delete the specific device item in the list.

## 12.11. Control LEDs

The router LEDs indicate router activities and behavior. You can turn on or turn off the router from the web-based management page.

- 1. Visit *http://tplinkwifi.net*, and log in with the username and password you set for the router.
- 2. Go to Advanced > System Tools > System Parameters.
- 3. In the LED section, enable the Night Mode.
- 4. Specify a time period according to your needs, and the LEDs will be off during the period.
- 5. Click Save to make the settings effective.

LED									
Night Mode:	🗌 Ena	ble							
Period of Night Time:	22	•	00	▼ to	06	•	00	•	(HH:MM)
Note: The time is based on the	time of	the Rou	ter whic	h can be s	et in "Sy	ystem To	ools -> T	íme S	ettings"
									Save

# **Appendix A: Specifications**

	HARDWARE FEATURES
Interfaces	4 10/100/1000Mbps LAN Ports, 1 10/100/1000Mbps WAN Port 1 USB 3.0 Port + 1 USB 2.0 Port
Button	Wireless On/Off Button Power On/off Button LED On/off Button WPS Button Reset Button
External Power Supply	12V/5A
Dimensions (W X D X H)	7.9 X 7.9 X 1.5 in. (200 X 200 X 39mm)
Antenna	3 dual band Fixed antennas & 3 single band Fixed antennas
	WIRELESS FEATURES
Wireless Standards	IEEE 802.11ac/n/a 5GHz IEEE 802.11b/g/n 2.4GHz
Frequency	2.4GHz, 5G band1/band2/band3
Signal Rate	5GHz Band1: Up to 1300Mbps 5GHz Band2: Up to 1300Mbps 2.4GHz: Up to 600Mbps
Reception Sensitivity	5GHz: 11a 6Mbps: -94dBm 11a 54Mbps: -76dBm 11ac HT20: -68dBm 11ac HT40: -64dBm 11ac HT80: -60dBm 2.4GHz 11g 54M: -77dBm 11n HT20: -73dBm 11n HT40: -71dBm
Wireless Functions	Enable/Disable Wireless Radio, WMM, Wireless Statistics
Wireless Security	64/128-bit WEP, WPA/WPA2, WPA-PSK/WPA2-PSK encryption
Transmission Power	CE: <20dBm(2.4GHz) <30dBm(5GHz)
Guest Network	2.4GHz guest network × 1 5GHz guest network × 2
	OTHERS
Certification	CE, RoHS
Package Contents	AC 3200 Wireless Tri-Band Gigabit Router Archer C3200 Power supply unit Ethernet Cable Quick Installation Guide
System Requirements	Microsoft Windows 98SE, NT, 2000, XP, Vista™ or Windows 7, Windows 8, MAC OS, NetWare, UNIX or Linux
Environment	Operating Temperature: 0°C~40 °C (32 °F~104°F) Storage Temperature: -40°C~70 °C (-40 °F~158°F) Operating Humidity: 10%~90% non-condensing Storage Humidity: 5%~90% 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 B: 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 computer 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 Basic > Wireless to obtain your wireless password.

## 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:

- 1. Reset the router to factory default settings: Press and hold the Reset button for about 7 seconds and then release;
- 2. Visit http://tplinkwifi.net;
- 3. Enter admin (in lower case) as both username and password to login.

**Note:** You'll need to reconfigure the router to surf the Internet once the router is reset, and please mark down your new password for future use.

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

This can happen for a variety of reasons, please try the methods below and try again.

- 1. Make sure the router connects to the computer correctly and the corresponding LED indicator(s) light up.
- 2. Make sure the IP address of your computer is configured as Obtain an IP address automatically and Obtain DNS server address automatically.
- 3. Make sure the *http://tplinkwifi.net* you input is right.
- 4. Check your computer's settings:
  - 1) Go to Start > Control Panel > Network and Internet, and click View network status and tasks;
  - 2) Click Internet Options on the bottom left;
  - 3) Click Connections, select Never dial a connection;

eneral	Security	Privacy	Content	Connections	Programs	Advanced
	To set up Setup.	o an Inter	net connec	tion, click	Set	up
Diai-up	Broadbar	nd Conn	ection	tungs	Add	ł
					Add V	'PN
					Remo	ve
Choos	se Settings r for a conr	if you nee nection.	ed to config	jure a proxy	Sett	ings
() Ne	ever dial a	connection	n			
🔘 Di	al wheneve	er a netwo	ork connect	tion is not pres	ent	
	ways dial m	ny default	connection	n		
Cur	rrent	None			Set default	
Local A	Area Netwo	rk (LAN) s	ettinas —			
LAN S Choo	Settings do se Settings	not apply above fo	to dial-up r dial-up se	connections. ettings.	LAN se	ttings

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

Automatic confi use of manual s	guration may ettings, disal	v override ma ble automati	anual set c configu	tings. To ration.	ensure the
Automatical	y detect sett	tings			
🔲 Use automa	tic configurat	tion script			
Address					
Proxy server					
Use a proxy dial-up or VF	server for y N connection	our LAN (The ns).	ese settir	ngs will no	ot apply to
Address:		Port	: 80		Advanced
	oroxy server	for local add	resses		

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

1 Interne	et Properti	es				? 🗙
General	Security	Privacy	Content	Connections	Programs	Advanced
Setting	s					
	Accessibilit Alway: Enable Reset Reset Reset Browsing Autom Close ( Disable Disable	ty s expand c Caret Br system ca text size text size zoom leve atically re unused for e script de s script de y a notific	ALT text for owsing for ret with for to medium to medium el for new w ecover fron lders in His ebugging (1 ebugging (1 ebugging (1	or images new windows a cus/selection of for new window windows and ta page layout e tory and Favo nternet Explor Other) t every script e	and tabs hanges ws and tabs * abs errors with Co rites* er) error	σπρε
•	Display	/ Accelera	ator button	on selection		+
*Tal	kes effect a	after you	restart Int	ernet Explorer	_	
Reset I Rese cond	nternet Exp ts Internet ition.	plorer set Explorer	tings 's settings	Restore	advanced so	ettings et
100 5		use this i			ancel	Apply

- 5. Change a web browser or computer and login again.
- 6. Reset the router to factory default settings: Press and hold the Reset button for about 7 seconds and then release. **Note:** 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 still fails, please contact the technical support.

## Q4. 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:

• If IP Address is a valid IP address, please try the methods below and try again:
💮 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

- 1. Your computer might not recognize any DNS server addresses, please manually configure DNS server.
  - 1) Go to Advanced > Network > DHCP Server;
  - 2) Enter 8.8.8.8 as Primary DNS, click Save.
  - **Tips:** 8.8.8.8 is a safe and public DNS server operated by Google.

DHCP Server		?
DHCP:	🗹 Enable	
IP Address Pool:	192.168.0.100	- 192.168.0.199
Address Lease Time:	1440	minutes. (1-2880. The default value is 1440.)
Default Gateway:	192.168.0.1	(Optional)
Primary DNS:	8.8.8	(Optional)
Secondary DNS:	0.0.0.0	(Optional)
		Save

- 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;
  - 2) Power on your modem first, wait about 2 minutes until it get a solid cable or Internet light;
  - 3) Power back TP-LINK router;
  - 4) Wait another 1 or 2 minutes and check the Internet access.
- 3. Reset the router to factory default settings and reconfigure.
  - **Note:** 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 7 seconds and then release;
  - 2) Reconfigure the router with the help of *Quick Setup*.
- 4. Please refer to *Upgrade the Firmware* to upgrade the firmware of the router.

 $\cdot~$  If the IP Address is 0.0.0.0, please try the methods below and try again:

IPv4   IPv6
00-0A-EB-AC-88-16
0.0.0.0
0.0.0.0
0.0.0.0
0.0.0.0
0.0.0.0
None

1. Check the physical connection.

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

- 2. Clone the MAC address of your computer.
  - 1) Visit *http://tplinkwifi.net*, and log in with the username and password you set for the router;
  - 2) Go to Advanced > Network > Internet;
  - 3) Choose an option to your need (Enter the MAC address if Use Custom MAC Address is selected), and click Save.

Use Default MAC Address	
O Use Current Computer MAC Address	
O Use Custom MAC Address	
	Save
	Save

#### Ø Tips:

- 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.
- The MAC addresses of a computer in wired connection and wireless connection are different.
- 3. Modify the LAN IP address of the router.

#### Note:

Most TP-LINK routers use 192.168.0.1/192.168.1.1 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) Go to Advanced > Network > LAN;
- 3) Modify the LAN IP address as the follow picture shows. Here we take 192.168.2.1 as an example;
- 4) Click Save.

LAN	
MAC Address:	40:16:9F:BF:50:8B
LAN IPv4:	192.168.2.1
Subnet Mask:	255.255.255.0
IGMP Snooping:	🗹 Enable IGMP Snooping

- 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;
  - 2) Power on your modem first, wait about 2 minutes until it get a solid cable or Internet light;
  - 3) Power back TP-LINK router;
  - 4) Wait another 1 or 2 minutes and check the Internet access.
- 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) Go to Advanced > Network > Internet;
  - 4) Select your Internet Connection Type and fill in other parameters with the help of page tips;
  - 5) Click Save.

WAN Interface		
Internet Connection Type:	Dynamic IP	•
IP Address:	Dynamic IP	
Subnet Mask:	Static IP	
Default Gateway:	PPPoE	
	L2TP	
Renew Release	РРТР	
⊘ Advanced		
MAC Clone		
Use Default MAC Address		
O Use Current Computer MAC	Address	
O Use Custom MAC Address		
		Save

- 6) Power cycle the modem and the TP-LINK router again.
- 3. Please refer to Upgrade the Firmware to upgrade the firmware of the router.

4. 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.

# Q5. 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;
- 2) Clicking on Troubleshoot and windows might be able to fix the problem by itself.

### **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;
- 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;
- 5) Right click Wireless Zero Configuration, and then select Properties;
- 6) Change Startup type to Automatic, click on Start button and make sure the Service status is Started. And then click OK.
- 7) Connect to wireless network.

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

- 1. Check the wireless LEDs 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. Go to Advanced > Wireless > Wireless Settings, and check the wireless router settings, double check your Wireless Network Name, make sure the Region is selected correctly and wireless is not hided;

#### Note:

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	
Smart Connect		
Smart Connect:	Enable	
	Save	
Wireless	2.4GHz   5GHz-1   5GHz-2	
Wireless Radio:	🗹 Enable	
Wireless Network Name (SSID):	TP-LINK_508B	
Security:	WPA/WPA2 Personal(Recommended)	
Version:	O Auto	
Encryption:	O Auto O TKIP 🖲 AES	
Password:	12345670	
Mode:	802.11bgn mixed 🔻	
Channel:	Auto 🔻	
Channel Width:	Auto 🔻	
Transmit Power:	🔿 Low 🔿 Middle 🖲 High	
	Save	

4. Connect to wireless network.

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

- 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;

👰 Connect to a Network	X
Type the 8-digit PII it is not	N from the router display 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 Wireless Password/Network Security Key;
- 3. If it continues on saying Network Security Key Mismatch, it is suggested to confirm the wireless password of your wireless router;

**Note:** Wireless Password/Network Security Key is case sensitive.

4. Connect to wireless network.

- Windows was unable to connect to XXXX /Can not 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.

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http://www.tp-link.com

# CE Mark Warning

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.

# **RF Exposure Information**

This device meets the EU requirements (1999/519/EC) on the limitation of exposure of the general public to electromagnetic fields by way of health protection.

The device complies with RF specifications when the device used at 20 cm from your body.

# **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		
Belarus	Not implemented			
Norway	Implemented	This subsection does not apply for the geographical area within a radius of 20 km from the centre of Ny-Ålesund on Svalbard.		
Italy	Implemented	The public use is subject to general authorisation by the respective service provider.		
Russian Federation	Limited implementation	<ul> <li>1. SRD with FHSS modulation</li> <li>1.1. Maximum 2.5 mW e.i.r.p.</li> <li>1.2. Maximum 100 mW e.i.r.p. Permitted for use SRD for outdoor applications without restriction on installation height only for purposes of gathering telemetry information for automated monitoring and resources accounting systems. Permitted to use SRD for other purposes for outdoor applications only when the installation height is not exceeding 10 m above the ground surface.</li> <li>1.3.Maximum 100 mW e.i.r.p. Indoor applications.</li> <li><b>2. SRD with DSSS and other than FHSS wideband modulation</b></li> <li>2.1. Maximum mean e.i.r.p. density is 2 mW/MHz. Maximum 100 mW e.i.r.p. It is permitted to use SRD for outdoor applications only for purposes of gathering telemetry information for automated monitoring and resources accounting systems or security systems.</li> <li>2.3. Maximum mean e.i.r.p. density is 10 mW/MHz. Maximum 100 mW e.i.r.p. Indoor applications.</li> </ul>		
Ukraine	Limited implementation	e.i.r.p. ≤100 mW with built-in antenna with amplification factor up to 6 dBi.		

ATTENTION: Due to EU law, the country settings must be identical to the country where the device is operating (important due to non-harmonised frequencies in the EU).

Restricted to indoor use.

# Korea Warning Statements:

당해 무선설비는 운용중 전파혼신 가능성이 있음.



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

# EHC

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.

Use only power supplies which are provided by manufacturer and in the original packing of this product.

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	SG	SK	TR	UA	US	

# **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 60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011 + A2: 2013 EN 50385: 2002 EN 301 893 V1.7.1

The product carries the CE Mark:

€1588

Person responsible for making this declaration:

me

Yang Hongliang Product Manager of International Business

Date of issue: 2015/10/21