

# **User Guide**

AX3000 Wi-Fi 6 Portable Router TL-WR3002X

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## **About This Guide**

This guide is a complement to Quick Installation Guide. The Quick Installation Guide provides instructions for quick internet setup, while this guide contains details of each function and demonstrates how to configure them.

When using this guide, please notice that features of the router may vary slightly depending on the model and software version you have, and on your location, language, and internet service provider. All screenshots, images, parameters and descriptions documented in this guide are used for demonstration only.

#### Conventions

In this guide the following conventions are used:

Convention	Description	
Underlined	Underlined words or phrases are hyperlinks. You can click to redirect to a website or a specific section.	
Teal	Contents to be emphasized and texts on the web page are in teal, including the menus, items, buttons and so on.	
>	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.	
Ø Tips:	Indicates important information that helps you make better use of your device.	

#### Speed/Coverage Disclaimer

\*Maximum wireless signal rates are the physical rates derived from IEEE Standard 802.11 specifications. Actual wireless data throughput, wireless coverage and number of connected devices are not guaranteed and will vary as a result of network conditions, client limitations, and environmental factors, including building materials, obstacles, volume and density of traffic, and client location.

\*Use of 802.11ax (Wi-Fi 6) and its features require clients to also support corresponding features. Actual power reduction by Target Wake Time may vary as a result of network conditions, client limitations, and environmental factors.

\*The 802.11ax white paper defines standardized modifications to both the IEEE 802.11 physical layers (PHY) and the IEEE 802.11 Medium Access Control (MAC) layer as enabling at least one mode of operation capable of supporting improvement of at least four times the average throughput per station (measured at the MAC data service access point) in a dense deployment scenario.

\* It is recommended to use the supplied power adapter. If you use other power adapters, there is a risk of damaging the device.

\*Whether the USB Internet Sharing function can be used depends on the compatibility of the 3/4G USB Modem or mobile device, and is not guaranteed to be compatible with all devices.

\*Actual network speed may be limited by the rate of the product's Ethernet WAN or LAN port, the rate supported by the network cable, internet service provider factors, and other environmental conditions.

#### More Info

The latest software, management app and utility are available from the Download Center at <u>https://www.tp-link.com/support</u>.

The Quick Installation Guide can be found where you find this guide or inside the package of the router.

Specifications can be found on the product page at <u>https://www.tp-link.com</u>.

A TP-Link Community is provided for you to discuss our products at <u>https://community.tp-link.com</u>.

Our Technical Support contact information can be found at the Contact Technical Support page at <u>https://www.tp-link.com/support</u>.

## **Chapter 1**

## Get to Know About Your Router

This chapter introduces what the router can do and shows its appearance. It contains the following sections:

- Product Overview
- <u>Appearance</u>

### 1.1. Product Overview

To meet the wireless needs of almost any situation you might encounter, the TP-Link portable router, with multiple operating modes, is designed for home and travel use. The portable size of the router means that you can put it in your pocket and take it with you wherever you go. The built-in adapter makes it perfect for travelers, students, and anyone else living life on the go.

## 1.2. Appearance



#### **LED** Explanation

Status	Indication	
Blinking Blue The router is starting up / being upgraded / establishing the connection.		
Solid Blue The router is connected to the internet or the main network, or WPS connection is successfully established.		
Solid Red The router has started up but is disconnected from the internet		
Blinking Red The router is being reset. Do not power off your router.		



#### **Button Description**

Item	Description	
ECO Mode Switch	<ul> <li>This switch is used to change the power saving mode of the router.</li> <li>Boost Mode: Favors wireless range and transmission speed but may increase energy consumption and raise device temperature.</li> <li>Balance Mode: Automatically balances wireless range and transmission speed while considering energy consumption and device temperature.</li> <li>ECO Mode: Saves energy and lowers device temperature by reducing device's wireless range and transmission speed.</li> </ul>	
WPS/Reset Button	<ul> <li>Press the button for 1 second and immediately press the WPS button on your client to start the WPS process.</li> <li>Press and hold the button for about 6 seconds until the LED blinks red to reset the router to its factory default settings.</li> </ul>	

#### Interface Description

Item	Description	
Power Port	This port is used to connect the USB-C charger provided in the package.	
USB 3.0 Port	Use this USB 3.0 port to connect your 3G/4G/5G USB modem, mobile device, or USB storage device to the router.	
1 Gbps LAN Port	For connecting your PC or other wired devices to the router.	
2.5 Gbps WAN Port	<ul> <li>As a WAN port (by default): For connecting it to your modem, the Ethernet outlet, or for other internet services.</li> <li>As a LAN port (need to set manually): For connecting your PC or other wired devices to the router.</li> </ul>	
microSD Card Slot For inserting your microSD card into the router.		

## Chapter 2

## **Connect the Hardware**

This chapter contains the following sections:

- Position Your Router
- <u>Connect Your Router</u>

## 2.1. Position Your Router

- The router should not be located where it will be exposed to moisture or excessive heat.
- Place the router in a location where it can be connected to the various devices as well as to a power source.
- Make sure the cables and power cord are safely placed out of the way so they do not create a tripping hazard.
- The router can be placed on a shelf or desktop.
- Keep the router away from devices with strong electromagnetic interference, such as Bluetooth devices, cordless phones and microwaves.

## 2.2. Connect Your Router

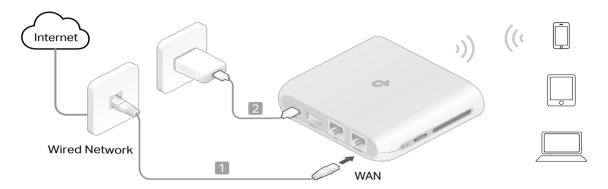
The router supports the following modes: Router, USB Internet (3G/4G USB Modem and USB Tethering), Hotspot, Access Point, Range Extender, and Client. Refer to the scenarios below to determine an appropriate network mode, and carry out the corresponding steps.

Network Mode	Recommended Scenarios	I Want to	Requirements
Router (Default Mode)	During Travel (e.g., hotel, airport, cafe, cruise ship, RV, camp, etc.)	Share the internet with more wireless devices when the wired network is limited to one device at a time.	An existing wired network provided by a modem or other network device.
3G/4G/5G USB Modem		Share a 3G/4G/5G USB modem's data with other devices.	A 3G/4G/5G USB modem (with a SIM card inserted).
USB Tethering		Share a mobile device's cellular data with other devices.	<ul> <li>A mobile device (with a SIM card inserted)</li> <li>A USB cable.</li> </ul>
Hotspot		Turn an existing public Wi-Fi into a private network (wired and wireless).	A public Wi-Fi.
Access Point	At Home (e.g., home, office, etc.)	Turn an existing wired-only network into a wireless network.	An existing wired network provided by a router, switch, etc.
Range Extender		Expand an existing Wi-Fi network for better Wi-Fi coverage.	An existing Wi-Fi network.
Client		Connect a wired-only device, such as a smart TV, media player, or game console, to a Wi-Fi network.	An existing Wi-Fi network.



#### 2. 2. 1. Router Mode (Default)

Shares the internet with more wireless devices when the wired network is limited to one device at a time. Suitable for hotel rooms and home networks.



- 1. Connect the router's WAN port to the existing wired network with an Ethernet cable.
- 2. Power on the router.
- 3. Wait until the router's LED turns solid (blue or red) before moving on.
- 4. Connect your device to the router (wireless or wired).
- Wireless: Connect your device to the router's Wi-Fi. The default wireless network names (SSIDs) and wireless password are printed on both the Wi-Fi info card and the label at the bottom of the router.
- Wired: Turn off the Wi-Fi on your device and connect to the LAN port of the router with an Ethernet cable.

5. Go to Set Up Internet Connection to complete the setup.

**Note**: If the hotel's internet has an authentication process, you will need to authenticate only once and only on one device.

#### 2. 2. 2. 3G/4G/5G USB Modem / USB Tethering Mode

In 3G/4G/5G USB Modem mode, the router shares a 3G/4G/5G USB modem's data with other devices. And in USB Tethering mode, the router shares a mobile device's cellular data with other devices. The two modes are suitable for travel.



- 1. Power on the router.
- 2. Wait until the router's LED turns solid (blue or red), which indicates that the router has started up, and then connect the router's 3G/4G/5G USB port to your USB modem or mobile device.
- 3. Connect your device to the router (wireless or wired).
- Wireless: Connect your device to the router's Wi-Fi. The default wireless network names (SSIDs) and wireless password are printed on both the Wi-Fi info card and the label at the bottom of the router.

Note: When USB tethering, avoid connecting the tethered mobile device to the router's Wi-Fi.

- Wired: Turn off the Wi-Fi on your device and connect to the LAN port of the router with an Ethernet cable.
- 4. Go to Set Up Internet Connection to complete the setup.

#### 2.2.3. Hotspot Mode

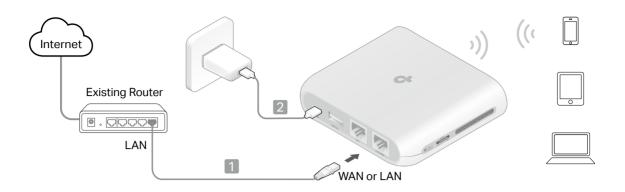
Turns an existing public Wi-Fi into a private network (wired and wireless). Suitable for travel.



- 1. Power on the router.
- 2. Wait until the router's LED turns solid red before moving on.
- 3. Connect your device to the router (wireless or wired).
- Wireless: Connect your device to the router's Wi-Fi. The default wireless network names (SSIDs) and wireless password are printed on both the Wi-Fi info card and the label at the bottom of the router.
- Wired: Turn off the Wi-Fi on your device and connect to the LAN of the router with an Ethernet cable.
- 4. Go to Set Up Internet Connection to complete the setup.

#### 2. 2. 4. Access Point Mode

Turns an existing wired-only network into a wireless network. Suitable for dorm rooms or homes where there's already a wired router but you need a wireless network.



- 1. Connect the router's WAN or LAN port to the existing router with an Ethernet cable.
- 2. Power on the router.
- 3. Wait until the router's LED turns solid (blue or red) before moving on.
- 4. Connect your device to the router (wireless or wired).
- Wireless: Connect your device to the router's Wi-Fi. The default wireless network names (SSIDs) and wireless password are printed on both the Wi-Fi info card and the label at the bottom of the router.
- Wired: Turn off the Wi-Fi on your device and connect to the WAN or LAN port of the router with an Ethernet cable.

Note: If the hotel's internet has an authentication process, you will need to authenticate it on EACH device.

5. Go to Set Up Internet Connection to complete the setup.

#### 2. 2. 5. Range Extender Mode

Repeats signal from an existing wireless network. Suitable to extend wireless coverage, reaching devices that were previously too far from your primary router to maintain a stable wireless connection.

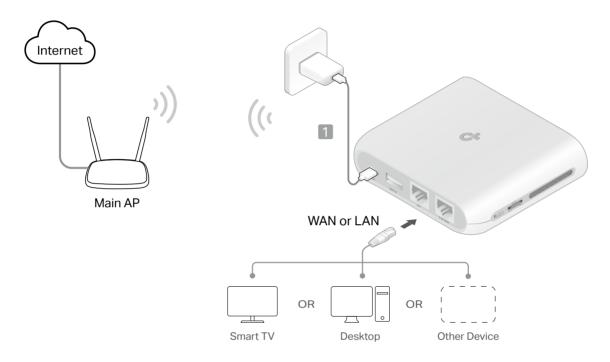


- 1. Power on the router near your main AP.
- 2. Wait until the router's LED turns into solid red before moving on.
- 3. Connect your device to the router (wireless or wired).

- Wireless: Connect your device to the router's Wi-Fi. The default wireless network names (SSIDs) and wireless password are printed on both the Wi-Fi info card and the label at the bottom of the router.
- Wired: Turn off the Wi-Fi on your device and connect to the WAN or LAN port of the router with an Ethernet cable.
- 4. Go to <u>Set Up Internet Connection</u> to complete the setup.

#### 2.2.6. Client Mode

Acting as an adapter, the router in Client mode connects a wired-only device, such as a smart TV, media player, or game console, to a Wi-Fi network.



- 1. Power on the router near your main AP.
- 2. Wait until the router's LED turns into solid red before moving on.
- 3. Connect a computer to the WAN or LAN port of the router with an Ethernet cable.

Note: In Client mode, you can only connect your devices to the router through a wired connection.

4. Go to <u>Set Up Internet Connection</u> to complete the setup.

## Chapter 3

## **Set Up Internet Connection**

This chapter guides you how to set up Internet connection via Tether app or the router's web management page. It contains the following sections:

- Set up via Tether
- Set up via the Web Management Page

### 3.1. Set up via Tether

#### Note:

**1.** The router in Client mode can't be managed by Tether. Please set it up using the web management page.

**2.** Due to Tether app updates, your actual user interface and pathway may differ from those depicted here.

The Tether app runs on iOS and Android devices, such as smartphones and tablets.

1. Launch the Apple App Store or Google Play store and search "TP-Link Tether" or simply scan the QR code to download and install the app.



2. Launch the Tether app and log in with your TP-Link ID.

Note: If you don't have a TP-Link ID, create one first.

- 3. Tap the + button and select Add a Router. Follow the steps to complete the setup and connect to the internet.
- 4. Connect your devices to the newly configured network of the router and enjoy the internet!

### 3. 2. Set up via the Web Management Page

#### 3. 2. 1. Log in to the 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.

- 1. Set up the TCP/IP Protocol in Obtain an IP address automatically mode on your computer.
- 2. Visit <u>http://tplinkwifi.net</u>, and create a login password for secure management purposes. Then click Let's Get Started to log in.

← → C 🖍 🗋 http://tplinkwifi.ne	t	=
	Create an administrator password For security purposes, create a local password for login before starting the quick setup.	
	Iogin before starting the quick setup. New Password: Confirm Password:	
	Ø Let's Get Started	

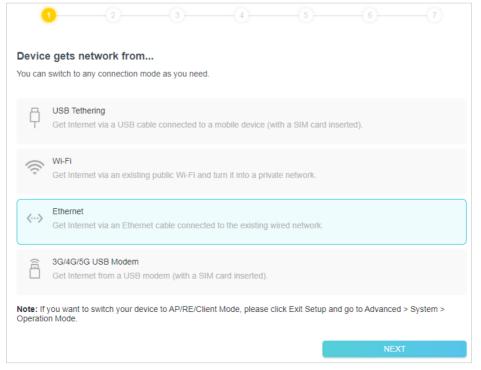
Note: If the login window does not appear, please refer to FAQ.

#### 3. 2. 2. Configure the Router

The Quick Setup Wizard will guide you through the process to set up your router. Follow the step-by-step instructions to complete Quick Setup or go to Advanced > Quick Setup, and follow the instructions to connect your router to the internet.

#### **Router Mode**

1. Start the Quick Setup, select Ethernet, and click NEXT.



2. Follow the step-by-step instructions to set up the internet connection, and enjoy the internet.

#### Note:

• If you have changed the preset wireless network name (SSID) and wireless password during the Quick Setup, all your wireless devices must use the new SSID and password to connect to the router.

#### **USB** Tethering Mode

1. Start the Quick Setup, select USB Tethering, and click NEXT.

	22		4			7
	e gets network from switch to any connection n		-			
þ	USB Tethering Get Internet via a USB ca	ble connected to	a mobile device (v	vith a SIM card ins	serted).	
(((;	Wi-Fi Get Internet via an existin	g public Wi-Fi and	d turn it into a priva	ate network.		
<···>	Ethernet Get Internet via an Etherr	net cable connecte	ed to the existing v	vired network.		
	3G/4G/5G USB Modem Get Internet from a USB r	modem (with a SI	M card inserted).			
	you want to switch your de on Mode.	vice to AP/RE/Clie	ent Mode, please o	lick Exit Setup an	d go to Advanced	> System >
					NEX	Т

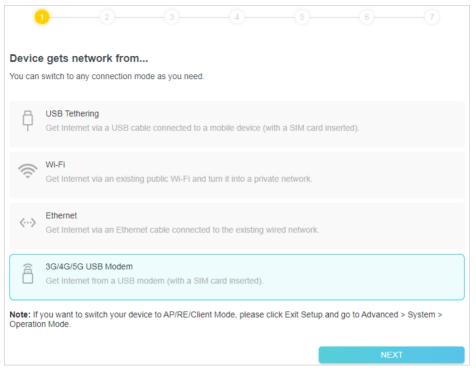
2. Connect your iPhone/iPad to the router using a USB cable.



- 3. Follow the step-by-step instructions to set up the internet connection, and enjoy the internet.
- Note:
- If you have changed the preset wireless network name (SSID) and wireless password during the Quick Setup, all your wireless devices must use the new SSID and password to connect to the router.

#### 3G/4G/5G USB Modem Mode

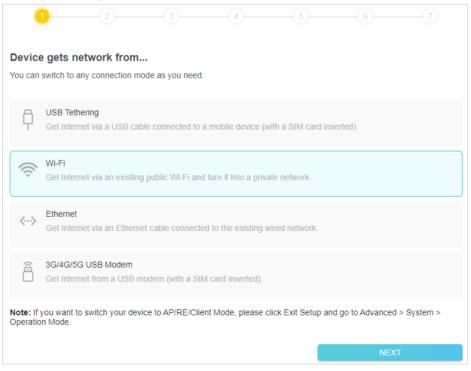
1. Start the Quick Setup, select 3G/4G/5G USB Modem, and click NEXT.



- 2. Connect your USB modem to USB port of the router.
- 3. Follow the step-by-step instructions to set up the internet connection, and enjoy the internet.

#### **Hotspot Mode**

1. Start the Quick Setup, select Wi-Fi, and click NEXT.



## 2. Follow the step-by-step instructions to set up the internet connection, and enjoy the internet.

#### Note:

- If the public hotspot requires a Captive Portal Authentication, complete the authentication during the Quick Setup before you can access the network.
- If you have changed the preset wireless network name (SSID) and wireless password during the Quick Setup, all your wireless devices must use the new SSID and password to connect to the router.

#### Access Point/Range Extender/Client Mode

- 1. To switch your device to AP/RE/Client Mode, please click Exit Setup and go to Advanced > System > Operation Mode.
- 2. Select AP/RE/Client Mode, and click SAVE.

Оре	eration Mode
Sele	ect an operation mode according to your needs.
0	Router/USB Tethering/USB Modem Mode/Hotspot Mode (Current)
	Router: Get Internet via an Ethernet cable connected to an existing wired network.
	AP/RE/Client Mode
	Client: Act as a "Wireless Adapter" to connect your wired devices (e.g. Blu-ray player, smart TV) to an existing Wi-Fi. Home use recommended.

3. Select a desired mode and click REBOOT. The settings will take effect only after the router reboots. Internet access will be disabled temporarily.

The settings will take effect only after the router reboots. Internet access will be disabled temporarily. Select an operation mode according to your needs.
Access Point
O Range Extender
O Client
CANCEL REBOOT

4. Wait until it finishes rebooting and follow the step-by-step instructions to complete the setup, then enjoy the internet.

#### Note:

If you have changed the preset wireless network name (SSID) and wireless password during the Quick Setup, all your wireless devices must use the new SSID and password to connect to the router.

### **Chapter 4**

## **Configure the Router in Router/USB Internet Mode**

This chapter presents how to configure the various features of the router working in Router mode, 3G/4G USB Modern mode, and USB Tethering mode.

It contains the following sections:

- Operation Mode
- Network Map
- <u>Network</u>
- TP-Link Cloud Service
- <u>Wireless</u>
- <u>USB Storage Device</u>
- <u>NAT Forwarding</u>
- Security
- VPN Server&Client

- <u>IPv6</u>
- <u>System</u>

## 4.1. Operation Mode

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Internet.
- To view the router's current mode:

Locate the Connection Settings section. The router's current operation mode is highlighted.

Connection Settings					
Select a network mode based on how your in	ternet is provided, and set it	up.			
Ethernet	USB Tethering	a USB Modem	Hotspot		
On · In use	Disconnected	Disconnected	Off		
Note: Multi-WAN Backup feature is enabled.	and the Internet connection	modo will automatically swite	h bass on internet priority and connectio		
status. To edit your settings, go to Advanced			in base on internet phonty and connectio		
Ethernet					
		have also			
Get Internet via an Ethernet cable connec	cted to the existing wired he	twork.			
Internet Connection Type:	Dynamic IP	~ ]			
	Select this type if your ISP	doesn't provide any			
	information for internet cor	nnection.			
Router MAC Address:	Use Default MAC Addres	25			
Router Write Address.	Use Deladit MAC Addres	-			
		3F - 92 - 04			

• To change the router's network mode:

#### Option 1:

- 1. Log in to the web management page of the router and go to Internet > Connection Settings.
- 2. Select your desired network mode, configure the parameters , and click SAVE.

#### Option 2:

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Operation Mode.
- 3. Select your desired network mode and click SAVE.

Оре	eration Mode	
Sele	ect an operation mode according to your needs.	
۲	Router/USB Tethering/USB Modem Mode/Hotspot Mode (Current)	
		>
	Router: Get Internet via an Ethernet cable connected to an existing wired network.	
0	AP/RE/Client Mode	
		>
	Range Extender: Extend the range of an existing Wi-Fi. Home use recommended.	

### 4.2. Network Map

Network Map outlines device connectivity of your network visually and helps you manage general settings of the network.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Network Map.
- 3. Click each network device icon to check and manage general network settings.
- Click Internet to check internet status.

Internet	[	2.4G 5G 중   중 	Clients
Internet Status			
Connection Type: WAN MAC Address:	Dynamic IP 00-FF-00-3F-92-04	Internet IP Address: Online Duration:	192.168.0.101 48 minutes

• Click the router to check device status and network settings. You can turn on or off the wireless network or guest network, or click Edit to change related settings.

Internet	TLV	2.46 5G () () () () () () () () () ()		Clients
Router Information				
Device Name: LAN MAC Address:	TL-WR3002X 00-FF-00-3F-92-03	IPv4 LAN IP: IPv6 LAN IP:	FE80::2FF:FF	192.168.1.1 :FE3F:9203/64
Wireless				Edit
Band Network Name (SSID)	Password		Channel	Status
2.4 GHz TP-Link_portable	12345678		Auto (Current: 7)	
5 GHz TP-Link_portable_5G	12345678		Auto (Current: 44)	
VPN Client	Go To Settings	ECO Mode		Learn More
Set up profiles to use the VPN Client func	tion.	Balance Mode Speed: Coverage: Temp. Experience:	=	

Guest Network				Edit
Band Network Name (SSID)	Password		Channel	Status
2.4 GHz TP-Link_Guest_9203				
5 GHz TP-Link_Guest_9203_5G				
Performance				
CPU Load	Current: 15%	Memory Usage		Current: 30%
80%		80%		
40%		40%		
20%	o	20%		- <b>O</b> (
0% O O O O O O O O O O O O O O O O O O O		0% <b>oo-</b>	0 0	
Ethernet Status				G Refresh
<b>~</b>				
Internet 1 Gbps WAN/LAN				
1000 Mbps 1000 Mbps Full Duplex Full Duplex				

• Click Clients to view the client devices in your network. You can block devices so they cannot access your network.

Internet	2.41 TL-WR3002X	3 56 ▶  <b>奈</b>	Clients
Connected Clients			View Deny List
Device Info	Interface	Real-time Rate	Modify
<ul> <li>18503634-BG</li> <li>40-ED-00-22-30-74</li> <li>192.168.1.45</li> </ul>	(Wired)	↑ 0 Kbps ↓ 0 Kbps	ß

### 4.3. Network

#### 4.3.1. Status

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > Status. You can view the current status information of the router.

Status	
Internet status overview is disp	layed on this page.
Internet	
Status:	Connected
Internet Connection Type:	Dynamic IP
IP Address:	10.161.133.32
Subnet Mask:	255.255.254.0
Default Gateway:	10.161.132.1
Primary DNS:	172.29.1.1
Secondary DNS:	172.29.1.2
Online Duration:	9 minutes

 Internet - Displays the current settings of the internet, and you can configure them on the Advanced > Network > Internet page.

Note: 3G/4G USB Modem mode and USB Tethering mode don't have the Internet section.

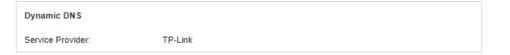
- Status Indicates whether the router has been connected to the internet.
- Internet Connection Type (Only for Router Mode) Indicates the way in which your router is connected to the internet.
- IP Address The Internet IP (WAN IP) address of the router.
- Subnet Mask The subnet mask associated with the Internet IP (WAN IP) address.
- Default Gateway The Gateway currently used is shown here.
- Primary & Secondary DNS The IP addresses of DNS (Domain Name System) server.
- Online Duration Displays how long the router has been connected to the internet.

LAN	
MAC Address:	00-FF-00-3F-92-03
IP Address:	192.168.1.1
Subnet Mask:	255.255.255.0

- LAN This field displays the current settings of the LAN, and you can configure them on the Network > LAN page.
  - MAC Address The physical address of the router.
  - IP Address The LAN IP address of the router.
  - Subnet Mask The subnet mask associated with the LAN IP address.

DHCP Server	
DHCP Server:	On
IP Address Pool:	192.168.1.2 - 192.168.1.253

- DHCP Server This field displays the current settings of DHCP (Dynamic Host Configuration Protocol) Server, and you can configure them on the Network > DHCP Server page.
  - DHCP Server Indicates whether the DHCP server is enabled or disabled. It is enabled by default and the router acts as a DHCP server.
  - IP Address Pool The IP address range for the DHCP server to assign IP addresses.



- Dynamic DNS This field displays the current settings of the Dynamic DNS (Domain Name System), and you can configure them on the Advanced > Network > Dynamic DNS page.
  - Service Provider The Dynamic DNS service provider you have signed up for.

#### 4.3.2. Internet Port

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > Internet.
- 3. Select a port for internet service. Make sure the cable is securely connected to this port on your router.

Internet Port	
Select a port for internet service. Make sure the cable	is securely connected to this port on your router.
1	2
(m)	
2.5 Gbps WAN/LAN	1 Gbps WAN/LAN
۲	0

#### 4. 3. 3. Internet Settings for Router Mode

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > Internet.
- 3. Select your internet connection type from the drop-down list.

Internet	
et up an internet connection with the service information provided by your ISP (internet service provider).	
Internet Connection Type:	Dynamic IP 🗸

#### Dynamic IP

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

Click RENEW to renew the IP parameters from your ISP.

Click **RELEASE** to release the IP parameters.

Set up an internet connection v	with the service information provided by y	your ISP (in	iternet se
Internet Connection Type:	Dynamic IP	~	
IP Address:	192.168.0.101		
Subnet Mask:	255.255.255.0		
Default Gateway:	192.168.0.1		
Primary DNS:	192.168.0.1		
Secondary DNS:	0.0.0.0		
	RENEW		
	RELEASE		
<ul> <li>Advanced Settings</li> </ul>			
ONS Address:	Get Dynamically from ISP	~	
Primary DNS:	192.168.0.1		
Secondary DNS:	0.0.0.0		
MTU Size:	1500	bytes	
Host Name:	WR3002X		
	Get IP using Unicast DHCP		

- DNS Address- The default setting is to get an IP address dynamically from your ISP. If your ISP does not automatically assign DNS addresses to the router, please select Use the Following DNS Addresses and enter the IP address in dotted-decimal notation of your ISP's primary DNS server. If a secondary DNS server address is available, enter it as well.
- MTU Size The normal MTU (Maximum Transmission Unit) value for most Ethernet networks is 1500 Bytes. It is not recommended that you change the default MTU size unless required by your ISP.
- Host Name This option specifies the name of the router.
- Get IP with Unicast DHCP A few ISPs' DHCP servers do not support the broadcast applications. If you cannot get the IP address normally, you can choose this option. (It is rarely required.)

MAC Clone	
Set the MAC address of your specific MAC address.	router. Use the default address unless your ISP allows internet access from only a
Router MAC Address:	Use Default MAC Address
	00 - FF - 00 - 3F - 92 - 04
	00 - FF - 00 - 3F - 92 - 04

• Router MAC Address :

- Use Default MAC Address Do not change the default MAC address of your router in case the ISP does not bind the assigned IP address to the MAC address.
- Clone Current Device MAC Select to copy the current MAC address of the computer that is connected to the router, in case the ISP binds the assigned IP address to the MAC address.
- Use Custom MAC Address Select if your ISP requires you to register the MAC address and enter the correct MAC address in this field, in case the ISP binds the assigned IP address to the specific MAC address.

Note:

- You can only use the MAC Address Clone function for PCs on the LAN.
- If you have changed the WAN MAC address when the WAN connection is PPPoE, it will not take effect until the connection is re-established.

#### Static IP

If your ISP provides a static or fixed IP address, subnet mask, default gateway and DNS setting, please select Static IP.

Internet			
Set up an internet connection w	ith the service information pr	ovided by your ISP (in	ternet service provider).
Internet Connection Type:	Static IP	~	
IP Address:			
Subnet Mask:			
Default Gateway:			
Primary DNS:			
Secondary DNS:			(Optional)
MTU Size:	1500	bytes	

- IP Address Enter the IP address in dotted-decimal notation provided by your ISP.
- Subnet Mask Enter the subnet mask in dotted-decimal notation provided by your ISP. Normally 255.255.255.0 is used as the subnet mask.
- Default Gateway Enter the gateway IP address in dotted-decimal notation provided by your ISP.
- Primary/Secondary DNS (Optional) Enter one or two DNS addresses in dotteddecimal notation provided by your ISP.
- MTU Size The normal MTU (Maximum Transmission Unit) value for most Ethernet networks is 1500 Bytes. It is not recommended that you change the default MTU size unless required by your ISP.

MAC Clone	
Set the MAC address of your specific MAC address.	r router. Use the default address unless your ISP allows internet access from only a
Router MAC Address:	
Router MAC Address:	Use Default MAC Address

- Router MAC Address :
  - Use Default MAC Address Do not change the default MAC address of your router in case the ISP does not bind the assigned IP address to the MAC address.
  - Clone Current Device MAC Select to copy the current MAC address of the computer that is connected to the router, in case the ISP binds the assigned IP address to the MAC address.
  - Use Custom MAC Address Select if your ISP requires you to register the MAC address and enter the correct MAC address in this field, in case the ISP binds the assigned IP address to the specific MAC address.

Note:

- You can only use the MAC Address Clone function for PCs on the LAN.
- If you have changed the WAN MAC address when the WAN connection is PPPoE, it will not take effect until the connection is re-established.

#### PPPoE

If your ISP provides PPPoE connection, select PPPoE.

Internet		
Set up an internet connection with the service information provided by your ISP (internet service provider).		
Internet Connection Type:	PPPoE ~	
Username:		
Password:	Ø	
IP Address:	0.0.0.0	
Primary DNS:	0.0.0.0	
Secondary DNS:	0.0.0.0	
Advanced Settings		
	CONNECT	
	DISCONNECT	

• Username/Password - Enter the username and password provided by your ISP. These fields are case-sensitive.

Advanced Settings			
Secondary Connection:	None	~	
MTU Size:	1480	bytes	
Service Name:			
Access Concentrator Name:			
Detect Online Interval:	10	seconds	
IP Address:	Get Dynamically from ISP	$\checkmark$	
DNS Address:	Get Dynamically from ISP	$\sim$	
Primary DNS:	0.0.0.0		
Secondary DNS:	0.0.0.0		
Connection Mode:	Auto	$\checkmark$	
	CONNECT		
	DISCONNECT		

- Secondary Connection It's available only for PPPoE connection. If your ISP provides an extra connection type, select Dynamic IP or Static IP to activate the secondary connection.
- MTU Size The default MTU size is 1480 bytes. It is not recommended that you change the default MTU size unless required by your ISP.
- Service Name The service name should not be configured unless you are sure it is necessary for your ISP. In most cases, leaving these fields blank will work.
- Access Concentrator Name The access concentrator name should not be configured unless you are sure it is necessary for your ISP. In most cases, leaving these fields blank will work.
- Detect Online Interval The router will detect Access Concentrator online at every interval. The default value is 10. You can input the value between 0 and 120. The value 0 means no detect.
- IP Address The default setting is to get an IP address dynamically from your ISP. If your ISP does not automatically assign IP addresses to the router, please select Use the Following IP Address and enter the IP address provided by your ISP in dotteddecimal notation.
- DNS Address The default setting is to get an IP address dynamically from your ISP. If your ISP does not automatically assign DNS addresses to the router, please select Use the Following DNS Addresses and enter the IP address in dotted-decimal notation of your ISP's primary DNS server. If a secondary DNS server address is available, enter it as well.
- Connection Mode
  - Auto In this mode, the internet connection reconnects automatically whenever it gets disconnected.

- On Demand In this mode, the internet connection will be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the internet again.
- Time-based In this mode, the internet connection will be in effect during the Connection Time you set.
- Manual In this mode, the internet connection is controlled manually by clicking the Connect/Disconnect button. This mode also supports the Max Idle Time function as On Demand mode. Enter a maximum time (in minutes), the internet connection can be inactive before it is terminated into the Max Idle Time. The default value is 15 minutes. If you want the internet connection remains active all the time, enter 0 (zero).

IAC Clone		
Set the MAC address of your router. Use the default address unless your ISP allows internet access from specific MAC address.		
outer MAC Address:	Use Default MAC Address	
	00 - FF - 00 - 3F - 92 - 04	

- Router MAC Address :
  - Use Default MAC Address Do not change the default MAC address of your router in case the ISP does not bind the assigned IP address to the MAC address.
  - Clone Current Device MAC Select to copy the current MAC address of the computer that is connected to the router, in case the ISP binds the assigned IP address to the MAC address.
  - Use Custom MAC Address Select if your ISP requires you to register the MAC address and enter the correct MAC address in this field, in case the ISP binds the assigned IP address to the specific MAC address.

Note:

- Only when you have configured the system time on the Advaned > System > Time Settings page, will the time-based connecting function take effect.
- Sometimes the connection cannot be terminated although you have specified the Max Idle Time because some applications are visiting the internet continually in the background.
- You can only use the MAC Address Clone function for PCs on the LAN.
- If you have changed the WAN MAC address when the WAN connection is PPPoE, it will not take effect until the connection is re-established.

# L2TP

If your ISP provides L2TP connection, please select L2TP.

Internet Connection Type:	L2TP	~
Username:		
Password:		Ø
IP Address:	0.0.0.0	
Primary DNS:	0.0.0.0	
Secondary DNS:	0.0.0.0	
	<ul> <li>Dynamic IP</li> <li>Static IP</li> </ul>	
VPN Server IP/Domain Name:		
IP Address:	0.0.0.0	
Subnet Mask:	0.0.0.0	
Default Gateway:	0.0.0.0	
Primary DNS:	0.0.0.0	
Secondary DNS:	0.0.0.0	
MTU Size:	1460	bytes
Connection Mode:	Auto	~
	CONNECT	
	DISCONNECT	

- Username/Password Enter the username and password provided by your ISP. These fields are case-sensitive.
- VPN Server IP/ Domain Name Enter the VPN server's IP address or domain name provided by your ISP.
- MTU Size The default MTU size is "1460" bytes, which is usually fine. It is not recommended that you change the default MTU Size unless required by your ISP.
- Connection Mode
  - Auto In this mode, the internet connection reconnects automatically whenever it gets disconnected.
  - On Demand In this mode, the internet connection will be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the internet again.

Manual - In this mode, the internet connection is controlled manually by clicking the Connect/Disconnect button. This mode also supports the Max Idle Time function as On Demand mode. Enter a maximum time (in minutes), the internet connection can be inactive before it is terminated into the Max Idle Time. The default value is 15 minutes. If you want the internet connection remains active all the time, enter 0 (zero).

MAC Clone				
Set the MAC address of your router. Use the default address unless your ISP allows internet access from only a specific MAC address.				
Router MAC Address:	Use Default MAC Address			
	00 - FF - 00 - 3F - 92 - 04			

- Router MAC Address :
  - Use Default MAC Address Do not change the default MAC address of your router in case the ISP does not bind the assigned IP address to the MAC address.
  - Clone Current Device MAC Select to copy the current MAC address of the computer that is connected to the router, in case the ISP binds the assigned IP address to the MAC address.
  - Use Custom MAC Address Select if your ISP requires you to register the MAC address and enter the correct MAC address in this field, in case the ISP binds the assigned IP address to the specific MAC address.

#### Note:

- Sometimes the connection cannot be terminated although you have specified the Max Idle Time because some applications are visiting the internet continually in the background.
- You can only use the MAC Address Clone function for PCs on the LAN.
- If you have changed the WAN MAC address when the WAN connection is PPPoE, it will not take effect until the connection is re-established.

# PPTP

If your ISP provides PPTP connection, please select PPTP.

Internet Connection Type:	PPTP v
Username:	
Password:	Ø
IP Address:	0.0.0.0
Primary DNS:	0.0.0.0
Secondary DNS:	0.0.0.0
	Oynamic IP
	Static IP
VPN Server IP/Domain Name:	
IP Address:	0.0.0.0
Subnet Mask:	0.0.0.0
Default Gateway:	0.0.0.0
Primary DNS:	0.0.0.0
Secondary DNS:	0.0.0.0
MTU Size:	1420 bytes
Connection Mode:	Auto
	CONNECT
	DISCONNECT

- Username/Password Enter the username and password provided by your ISP. These fields are case-sensitive.
- VPN Server IP/ Domain Name Enter the VPN server's IP address or domain name provided by your ISP.
- MTU Size The default MTU size is "1420" bytes, which is usually fine. It is not recommended that you change the default MTU Size unless required by your ISP.
- Connection Mode
  - Auto In this mode, the internet connection reconnects automatically whenever it gets disconnected.

- On Demand In this mode, the internet connection will be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the internet again.
- Manual In this mode, the internet connection is controlled manually by clicking the Connect/Disconnect button. This mode also supports the Max Idle Time function as On Demand mode. Enter a maximum time (in minutes), the internet connection can be inactive before it is terminated into the Max Idle Time. The default value is 15 minutes. If you want the internet connection remains active all the time, enter 0 (zero).

MAC Clone	
Set the MAC address of your specific MAC address.	router. Use the default address unless your ISP allows internet access from only a
Router MAC Address:	Use Default MAC Address
	00 - FF - 00 - 3F - 92 - 04

- Router MAC Address :
  - Use Default MAC Address Do not change the default MAC address of your router in case the ISP does not bind the assigned IP address to the MAC address.
  - Clone Current Device MAC Select to copy the current MAC address of the computer that is connected to the router, in case the ISP binds the assigned IP address to the MAC address.
  - Use Custom MAC Address Select if your ISP requires you to register the MAC address and enter the correct MAC address in this field, in case the ISP binds the assigned IP address to the specific MAC address.

#### Note:

- Sometimes the connection cannot be terminated although you have specified the Max Idle Time because some applications are visiting the internet continually in the background.
- You can only use the MAC Address Clone function for PCs on the LAN.
- If you have changed the WAN MAC address when the WAN connection is PPPoE, it will not take effect until the connection is re-established.

# 4.3.4. NAT

Note: 3G/4G/5G USB Modem mode and USB Tethering mode don't have this function.

The router's NAT (Network Address Translation) feature makes devices on the LAN use the same public IP address to communicate with devices on the internet, which protects the local network by hiding IP addresses of the devices.

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

- 2. Go to Advanced > Network > Internet and locate the NAT section.
- 3. Enable NAT, then click SAVE.

NAT		
NAT:	Enable NAT	

4. NAT is enable by dafault and it's highly recommended. If you disable it, you may have no access to the internet and NAT Forwarding will not take effect.

### 4.3.5. DoT/DoH

Encrypting DNS queries by TLS/HTTPS, DoT/DoH can provide you with a more secure and private internet connection.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > Internet and locate the DoT/DoH section.
- 3. Select a DNS Privacy: DoT/DoH.
- 4. Select a DNS Mode.
  - **Default Mode:** In this mode, the router will prioritize the secure DNS server you selected. If the server is unavailable, the default DNS server will take effect.
  - **Ultra Secure Mode:** In this mode, the router only uses the secure DNS server you selected. If the server is unavailable, the internet connectivity will be affected.
- 5. Enter the DNS Server. You can detect whether the selected DNS servers are available or not. When you save the settings, DoH/DoT will be applied to these DNS servers, and the Primary & Secondary DNS servers you've set won't take effect.

Encrypting DNS queries connection.	by TLS/HTTPS, DoT/DoH can provide you with a more secure and private internet
DNS Privacy:	• DoT
	О DoH
	○ None
DNS Mode:	Default Mode The router will prioritize the secure DNS server you selected. If the server is unavailable, the default DNS server will take effect.
	O Ultra Secure Mode
DNS Server:	
	(Optional)
	(Optional)
	DETECT DNS SERVER

# 4. 3. 6. Internet Port Negotiation Speed Setting

Note: 3G/4G USB Modem mode and USB Tethering mode don't have this function.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > Internet and locate the Internet Port Negotiation Speed Setting section.
- 3. Select the duplex type from the drop-down list and click SAVE.

Internet Port Negotiation Sp	eed Setting		
Internet Port Negotiation Speed	Auto Negotiation	~	

# 4. 3. 7. Internet Settings for 3G/4G USB Modem Mode

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Internet > Connection Settings.
- 3. Set up the 3G/4G USB modem connection and click SAVE.

ct a network mode based on	how your internet is provided, and set	t it up.	
Ethernet Disconnected	USB Tethering Disconnected	USB Modem Disconnected	G Hotspot
	is enabled, and the Internet connection Advanced > Network > Multi-WAN B		base on internet priority and con
JSB Modem			
3et Internet from a USB mod	em (with a SIM card inserted).		
USB Modem:	Identify successfully		
Location:	China	~	
Mobile ISP:	China Telecom	~	
Note: The following settings with caution.	Set the Dial Number manually. will be applied to both the 3G/4G/5G	r, APN, Username and Password USB Modem mode and the USB	Tethering mode, please configur
Note: The following settings with caution. Connection Mode:	manually.	USB Modem mode and the USB	Tethering mode, please configur
with caution.	manually. will be applied to both the 3G/4G/5G	USB Modem mode and the USB	Tethering mode, please configur
with caution.	manually. will be applied to both the 3G/4G/5G Connect Automatically	USB Modem mode and the USB	Tethering mode, please configur
with caution. Connection Mode: Max Idle Time:	manually. will be applied to both the 3G/4G/5G Connect Automatically 15 Auto	USB Modem mode and the USB	Tethering mode, please configur
with caution. Connection Mode: Max Idle Time:	manually. will be applied to both the 3G/4G/5G Connect Automatically 15 Auto	USB Modem mode and the USB	Tethering mode, please configur
with caution. Connection Mode: Max Idle Time: Authentication Type:	manually. will be applied to both the 3G/4G/5G Connect Automatically 15 Auto The default is Auto, do n	USB Modem mode and the USB	Tethering mode, please configur
with caution. Connection Mode: Max Idle Time: Authentication Type:	manually. will be applied to both the 3G/4G/5G Connect Automatically 15 Auto The default is Auto, do n 1480	USB Modem mode and the USB	Tethering mode, please configur
with caution. Connection Mode: Max Idle Time: Authentication Type: MTU Size(in bytes):	manually. will be applied to both the 3G/4G/5G Connect Automatically 15 Auto The default is Auto, do n 1480	USB Modem mode and the USB minutes of change unless necessary. bytes NNS Servers	Tethering mode, please configur
with caution. Connection Mode: Max Idle Time: Authentication Type: MTU Size(in bytes): Primary DNS:	manually. will be applied to both the 3G/4G/5G Connect Automatically 15 Auto The default is Auto, do n 1480 Use The following D	USB Modem mode and the USB minutes of change unless necessary. bytes NNS Servers	

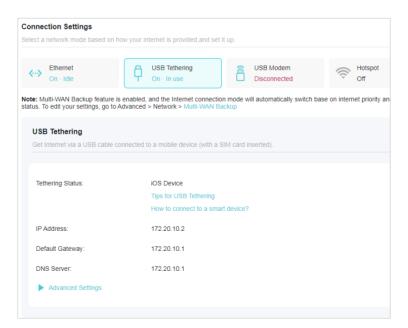
- USB Modem Displays the connection status of the current mode.
- Location Please select the location where you are enjoying the 3G/4G USB modem service.
- Mobile ISP Please select the ISP providing the 3G/4G USB modem service. The router will automatically fill in the default Dial Number and APN of that ISP.
- Username/Password Enter the username and password provided by your ISP if any.
- Connection Mode
  - Connect Automatically In this mode, the 3G/4G connection reconnects automatically whenever it gets disconnected.
  - Connect on Demand In this mode, the 3G/4G connection will be terminated automatically after a specified inactivity period (Max Idle Time) and be reestablished when you attempt to access the internet again.
  - Connect Manually In this mode, the 3G/4G connection is controlled manually. This mode also supports the Max Idle Time function as Connect on Demand mode. Enter a maximum time (in minutes), the 3G/4G connection can be inactive before it is terminated into the Max Idle Time. The default value is 15

minutes. If you want the internet connection remains active all the time, enter 0 (zero).

- Authentication Type Some ISPs require authentication to access the internet. Please select Auto or consult your ISP.
  - Auto The router will have dynamic negotiation with the dialing server and the authentication type doesn't need to be specified.
  - PAP Password Authentication Protocol. Select PAP if required by your ISP.
  - CHAP Challenge Handshake Authentication Protocol. Select CHAP if required by your ISP.
- MTU size (in bytes) The typical MTU (Maximum Transmission Unit) size for 3G or 4G network is 1480 Bytes.
- Use the Following DNS Servers Select this checkbox and enter the DNS server address(es) in dotted decimal notation provided by your ISP. This 3G/4G USB modem connection will only use the specified DNS server(s).

# 4. 3. 8. Internet Settings for USB Tethering Mode

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Internet > Connection Settings.



- Tethering Status Displays the connection info of the current mode.
- IP Address The internet IP (WAN IP) address of the router.
- Default Gateway The Gateway currently used is shown here.

• DNS Server - Displays the DNS server which resolves the domain names to the corresponding IP addresses.

Connection Mode:	Connect Automatically	~	
Somection mode.	Connect Automatically		
Max Idle Time:	15	minutes	
Authentication Type:	Auto	~	
	The default is Auto, do not chang	je unless necessary.	
MTU Size(in bytes):	1480	bytes	
	Use The following DNS Ser	vers	
Primary DNS:			
Secondary DNS:		(Optional	
	TURN ON		
	TURN OFF		

- Connection Mode
  - Connect Automatically In this mode, the USB Tethering reconnects automatically whenever it gets disconnected.
  - Connect on Demand In this mode, the USB Tethering connection will be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the internet again.
  - Connect Manually In this mode, the USB Tethering connection is controlled manually. This mode also supports the Max Idle Time function as Connect on Demand mode. Enter a maximum time (in minutes), the USB Tethering connection can be inactive before it is terminated into the Max Idle Time. The default value is 15 minutes. If you want the internet connection remains active all the time, enter 0 (zero).
- Authentication Type Some ISPs require authentication to access the internet. Please select Auto or consult your ISP.
  - Auto The router will have dynamic negotiation with the dialing server and the authentication type doesn't need to be specified.
  - PAP Password Authentication Protocol. Select PAP if required by your ISP.
  - CHAP Challenge Handshake Authentication Protocol. Select CHAP if required by your ISP.
- MTU size (in bytes) The typical MTU (Maximum Transmission Unit) size for 3G or 4G network is 1480 Bytes.
- Use the Following DNS Servers Select this checkbox and enter the DNS server address(es) in dotted decimal notation provided by your ISP. This USB tethering connection will only use the specified DNS server(s).

# 4. 3. 9. Multi-WAN Backup

Multi-WAN is supported in the Router/USB Internet mode. When the preferred mode fails, the backup mode will take over network data transmission, ensuring network continuity and reliability.

Note: USB Internet includes the 3G/4G USB Modem mode and USB Tethering mode.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > Multi-WAN Backup.
- 3. Enable Multi-WAN Backup.



4. In Network Connection Priority, modify the connection priority and the settings of the Router mode and the USB Internet mode.

Network Connection Priority	etwork Connection Priority odify the connection priority and the settings of different network modes.				
	are settings of uniferent network modes.				
Connection Type	Connection Status	Priority	Settings		
Router (Current Mode)	<ul> <li>Connected</li> </ul>	1 🦊	Ø		
USB Internet	Disconnected	2 🔨	Ø		

- To modify the modes' network connection settings:
  - 1. Click <sup>(1)</sup> at each mode, and enter the settings provided by your ISP.

Network Connection Se	ettings X
Internet Connection Type:	Dynamic IP V
	Select this type if your ISP doesn't provide any information for internet connection.
Router MAC Address:	Use Default MAC Address
	00 - FF - 00 - 3F - 92 - 04
	CANCEL SAVE

Network Connection	Settings	×
Note: You can use a 3G/4 How to connect to a smart		vice to provide internet access.
USB Modem:	Identify successfully	
Location:	United States	~
Mobile ISP:	AT&T	~
	Set the Dial Number, Password manually.	APN, Username and
Note: The following setting Tethering mode, please co	as will be applied to both the 30	G/4G/5G USB Modem mode and the USB
Connection Mode:	Connect Automatically	Y
Max Idle Time:	15	minutes
Authentication Type:	Auto	~
	The default is Auto, do not necessary.	change unless
MTU Size(in bytes):	1480	bytes
	Use The following DN	S Servers
Primary DNS:		
Secondary DNS:		(Optional)
		CANCEL

• To set Multi-WAN Backup priority:

Click  $\checkmark$  / <sup>1</sup> at each mode. The mode with the 1<sup>st</sup> priority will be set as the preferred mode, and the mode with the 2<sup>nd</sup> priority will be set as the backup mode. when the preferred mode fails, the backup mode will take over network data transmission.

Network Connection Priority	etwork Connection Priority				
lodify the connection priority and the settings of different network modes.					
Connection Type	Connection Status	Priority	Settings		
Router (Current Mode)	<ul> <li>Connected</li> </ul>	1 🗸	Ø		
USB Internet	Disconnected	2 ↑	٥		

• Connection Check:

The router uses Ping to check the connection status of the Router mode and USB Internet periodically to check whether the internet is available. You can edit the following parameters, and click SAVE.

Connection Check			
The device check the connection is available.	status of "Router" and "USB	Internet" periodical	ly to determine whether the Interne
Track Command:	Ping		
Track Interval:	5	second(s)	
Change to unavailable if Ping failed for:	3	times	
Change to available if Ping succeeded for:	6	times	
IPv4 Track IP/Domain Name:	1.1.1.1		
	8.8.8.8		(Optional)
	208.67.222.222		(Optional)
	208.67.220.220		(Optional)

Track Interval - The time interval between consecutive ICMP echo requests. You are recommended to keep it as the default.

Change to unavailable/available if Ping failed/succeeded for X Times - The connection status will change to Disconnected/Connected if the Ping Failure/ Success times reach the value you set.

IPv4 Track IP/Domain Name - Enter the IP address or domain name of the tested host or other network device that you want to check the connectivity between the router. You can add up to 4 items.

### 4.3.10. LAN

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > LAN.
- 3. Configure the IP parameters of the LAN and click SAVE.

LAN		
View and configure LAN s	settings.	
MAC Address:	00-FF-00-3F-92-03	
IP Address:	192.168.1.1	
Subnet Mask:	255.255.255.0	~

• MAC Address - The physical address of the LAN ports. The value can not be changed.

- **IP Address** Enter the IP address in dotted-decimal notation of your router (the default one is 192.168.0.1).
- **Subnet Mask** An address code that determines the size of the network. Normally 255.255.255.0 is used as the subnet mask.
- Note:
- If you have changed the IP address, you must use the new IP address to log in.
- If the new IP address you set is not in the same subnet as the old one, the IP address pool in the DHCP Server will be configured automatically, but the Virtual Server and DMZ Host will not take effect until they are re-configured.

# 4.3.11. IGMP

IGMP (Internet Group Management Protocol) helps the router to identify which clients are subscribed to specific multicast groups within a local network. This allows for efficient transmission of multicast data packets, avoiding unnecessary traffic waste and improving network performance.

IGMP can be used to manage multicast transmission in IPTV. If you want to set up IPTV to enable Internet/IPTV/Phone service provided by your internet service provider (ISP), follow the steps:

Before you start, make sure your ISP provides the networking service based on IGMP technology, e.g., British Telecom(BT) and Talk Talk in UK:

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > IGMP.
  - 1) Tick the IGMP Proxy and IGMP Snooping checkbox, then select the IGMP Version, either V2 or V3, as required by your ISP.

IGMP			
Check the multicast setting	s. It is recommended to keep them	n as default.	
IGMP Proxy:	Enabled		
IGMP Snooping:	Enabled		
IGMP Version:	V2	~	

- 2) Click SAVE.
- 3) After configuring IGMP proxy, IPTV can work behind your router now. You can connect your set-top box to any of the router's Ethernet port.

### 4.3.12. DHCP Server

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 addresses for specified client devices.

- To specify the IP address that the router assigns:
- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > DHCP Server and locate the DHCP Server section.

DHCP Server			
Dynamically assign IP addres	sses to the devices connected t	o the router.	
DHCP Server:	Enabled		
IP Address Pool:	192.168.1.2	- 192.168.1.253	3
Address Lease Time:	120	minutes	
Default Gateway:	192.168.1.1		(Optional)
Primary DNS:			(Optional)
Secondary DNS:			(Optional)

- 1. Tick the Enable checkbox.
- 2. Enter the starting and ending IP addresses in the IP Address Pool.
- 3. Enter other parameters if the ISP offers. The Default Gateway is automatically filled in and is the same as the LAN IP address of the router.

#### 4. Click SAVE.

Note: To use the DHCP server function of the router, you must configure all computers on the LAN as Obtain an IP Address automatically.

- To reserve an IP address for a specified client device:
- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > DHCP Server and locate the Address Reservation section.
- 3. Click Add in the Address Reservation section.

Address Reservation				
Reserve IP addresses for s	specific devices connected to	the router.		
				🔂 Ad
Device Name	MAC Address	Reserved IP Address	Status	Modify
There is no entry!				

4. Click VIEW CONNECTED DEVICES and select the you device you want to reserve an IP for. Then the MAC and IP Address will be automatically filled in. You can also enter the MAC and IP address of the client device.

Add a Reservation	Entry	×
MAC Address:		
	VIEW CONNECTED DEVICES	
IP Address:		
	CANCEL SAVE	

- To check the DHCP client list:
- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > DHCP Server and locate the DHCP Client List section. You can see the device information of the list.
- 3. Click Refresh to see the current attached devices.

ently assigned with IP addresses	by the DHCP server.	
		C Refresh
MAC Address	Assigned IP Address	Lease Time
40-ED-00-22-30-74	192.168.1.45	1:58:31
	MAC Address	Contraction of the second se

# 4.3.13. Dynamic DNS

The router offers the DDNS (Dynamic Domain Name System) feature, which allows the hosting of a website, FTP server, or e-mail server with a fixed domain name (named by yourself) and a dynamic IP address. Thus your friends can connect to your server by entering your domain name no matter what your IP address is.

Before using this feature, you need to sign up for DDNS service providers such as www.comexe.cn, www.dyndns.org, or www.noip.com. The Dynamic DNS client service provider will give you a password or key.

- 1. Visit <u>http://tplinkwifi.net</u>, 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: TP-Link, NO-IP or DynDNS.

It is recommended to select TP-Link so that you can enjoy TP-Link's superior DDNS service. Otherwise, please select NO-IP or DynDNS. If you don't have a DDNS account, you have to register first by clicking Register Now.

Dynamic DNS			
Assign a fixed host name (	domain name) for remote access	to your device, website, or server behind	the router.
Service Provider:	TP-Link	~	
Note: To use TP-Link DDN	S service, login in with your TP-L	nk ID.	

Note: To enjoy TP-Link's DDNS service, you have to log in with a TP-Link ID. If you have not logged in with one, click log in.

4. Click Register in the Domain Name List if you have selected TP-Link, and enter the Domain Name as needed.

Dynamic DNS				
Assign a fixed host nar router.	ne (domain name)	for remote access to	your device, website, or se	erver behind the
\$	Service Provider:	TP-Link	~	
Curren	t Domain Name:			
Domain Name List				
				Registe
Domain Name	Registered Da	te Status	Operation	Delete
No Entries				

If you have selected NO-IP or DynDNS, enter the username, password and domain name of your account.

Assign a fixed host name (domain nam router.	e) for remote access to your device, we	bsite, or server behind t
Service Provider:	NO-IP ~	Register Now
Username:		
Password:	Ø	
Domain Name:		
WAN IP binding:	Enable	
Status:	Not launching	
	LOGIN AND SAVE	1
	LOGOUT	

#### 5. Click LOG IN AND SAVE.

Note: If you want to use a new DDNS account, please click LOGOUT first, and then log in with a new account.

### 4.3.14. Static Routing

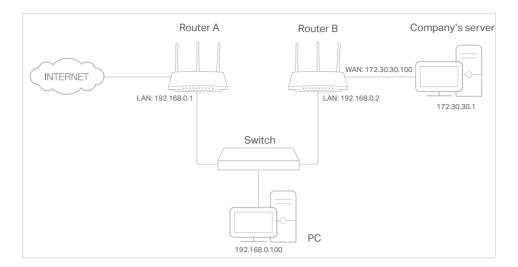
Static Routing is a form of routing that is configured manually by a network administrator or a user by adding entries into a routing table. The manually-configured routing information guides the router in forwarding data packets to the specific destination.

#### I want to:

Visit multiple networks and servers at the same time.

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

\*Image may differ from your actual product.



### How can I do that?

- 1. Change the routers' LAN IP addresses to two different IP addresses on the same subnet. Disable Router B's DHCP function.
- 2. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for Router A.
- 3. Go to Advanced > Network > Routing and locate the Static Routing section.

Static Routing							
Predetermine a fixed route for network packets to reach a specific host or network.							
							🔂 Add
Netwo Destin		Subnet Mask	Default Gateway	Interface	Description	Status	Modify
There	is no ent	ry!					

4. Click Add and finish the settings according to the following explanations:

Add a Routing Entry			×
Network Destination:			
Subnet Mask:			
Default Gateway:			
Interface:	- Please Select -	~	
Description:			
		CANCEL	SAVE

- Network Destination 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 Router A. In the example, the IP address of the company network is the destination IP address, so here enter 172.30.30.1.
- Subnet Mask The Subnet Mask determines which portion of an IP address is the network portion, and which portion is the host portion.
- Default 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 data. In the example, the data packets will be sent to the LAN port of Router B and then to the Server, so the default gateway should be 192.168.1.2.
- Interface Determined by the port (WAN/LAN) that sends out data packets. In the example, the data are sent to the gateway through the LAN port of Router A, so LAN/WLAN should be selected.
- Description Enter a description for this static routing entry.
- 5. Click SAVE.
- 6. Check the Routing Table below. If you can find the entry you've set, the static routing is set successfully.

Routing Table				
View all valid routing entries that are currently in use.				
Active Route Number: 3			C Refresh	
Network Destination	Subnet Mask	Gateway	Interface	
0.0.0.0	0.0.0.0	192.168.0.1	WAN	
192.168.0.0	255.255.255.0	0.0.0.0	WAN	
192.168.1.0	255.255.255.0	0.0.0.0	LAN	

# 4.4. TP-Link Cloud Service

TP-Link Cloud service provides a better way to manage your cloud devices. Log in to your router with a TP-Link ID, and you can easily monitor and manage your home network when you are out and about via the Tether app. To ensure that your router stays new and gets better over time, the TP-Link Cloud will notify you when an important firmware upgrade is available. Surely you can also manage multiple TP-Link Cloud devices with a single TP-Link ID.

This section introduces how to register a new TP-Link ID, bind or unbind TP-Link IDs to manage your router, and the Tether app with which you can manage your home network no matter where you may find yourself.

# 4. 4. 1. Register a TP-Link ID

If you have skipped the registration during the Quick Setup process, you can:

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > TP-Link ID or click TP-Link ID on the very top of the page.

	Remote Control Access and control your network
TP-Link ID (Email):	remotely
Password:	Smart Home Support Amazon Alexa and Google Assistant
LOG IN	Parental Controls Manages online strategy for the
SIGN UP	connected devices
Forgot Password?	DOWNLOAD ON THE DOWNLOAD ON THE App Store

3. Click Sign Up and follow the instructions to register a TP-Link ID.

Create a TP-Link I	ID		
		Remote Control	
Select Country or Region	$\sim$	Access and contro remotely	l your network
Email Address		Smart Home	
Password	ø	Support Amazon A Assistant	lexa and Goog
Confirm Password	ø		
I have fully read and accepte	ed the	Parental Controls	
Privacy Policy and Terms of	Use.	Manages online st connected devices	
Subscribe to the TP-Link new be the first to know about am deals, VIP giveaways, new p	nazing		WINLOAD ON THE
so much more.			ogle Play
so much more.			ogieriay

- 4. After activating your TP-Link ID, come back to the TP-Link ID page to log in. The TP-Link ID used to log in to the router for the first time will be automatically bound as an Admin.
- Note:
- To learn more about the Admin and User TP-Link ID, refer to Manage the User TP-Link IDs.
- Once you have registered a TP-Link ID on the web management page, you can only register another TP-Link ID via the Tether APP. Please refer to <u>Set up via Tether</u> to install the app.
- If you want to unbind the admin TP-Link ID from your router, please go to Advanced > TP-Link ID, an click Unbind in the Device Information section.

### 4. 4. 2. Change Your TP-Link ID Information

Follow the steps below to change your email address and password of your TP-Link ID as needed.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID.
- 2. Go to Advanced > TP-Link ID, and focus on the TP-Link ID section.

TP-Link ID		
Edit the email and password for your TP-	-Link ID.	
Email:		ß
Password:	•••••	Ø
Region:	United States	
Email Subscription:		
		ewsletter and be the first to know about amazing products, and so much more!

- To change your email address:
- 1. Click 🗹 behind the Email.

2. Enter the password of your TP-Link ID, then a new email address. And click SAVE.

Change Email	×
Current Password:	Ø
New Email:	
	nay not sync to client devices immediately. Please log in again when Internet to update account information.
	CANCEL SAVE

- To change your password:
- 1. Click 🗹 behind the Password.

2. Enter the current password, then a new password twice. And click SAVE.

Change Password	×
Current Password:	Ø
New Password:	Ø
	may not sync to client devices immediately. Please log in again when Internet to update account information.
	CANCEL SAVE

# 4. 4. 3. Manage the User TP-Link IDs

The TP-Link ID used to log in to the router for the first time will be automatically bound as the Owner account. The Owner account can add or remove other TP-Link IDs to or from the same router. All accounts can monitor and manage the router locally or remotely, but only the owner account can:

- Reset the router to its factory default settings either on the web management page or in the Tether app.
- Add/remove other TP-Link IDs to/from the router.

#### Add TP-Link ID to Manage the Router

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID.
- 2. Go to Advanced > TP-Link ID, and focus on the Bound TP-Link IDs section.

ind or unbind TP-Link IDs to control who c	manage this device.	
Dwner		Unbind

#### 3. Click 🕂 Bind , enter another TP-Link ID as needed and click SAVE.

**Note:** If you need another TP-Link ID, please register a new one via the Tether app. Refer to <u>Manage the Router via the</u> <u>TP-Link Tether App</u> to install the app and register a new TP-Link ID.

Bind TP-Link ID		×
TP-Link ID (Email):		
	CANCEL	BIND

4. The new TP-Link ID will be displayed in the Bound TP-Link IDs table.

#### Remove TP-Link ID(s) from Managing the Router

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID.
- 2. Go to Advanced > TP-Link ID, and focus on the Bound TP-Link IDs section.
- 3. Tick Unbind of the TP-Link ID(s) you want to remove.

Bound TP-Link IDs				
Bind or unbind TP-Link IDs to control who can manage this device.				
0				
	Unbind			
Owner				
	Unbind			

### 4. 4. 4. Manage the Router via the TP-Link Tether App

The Tether app runs on iOS and Android devices, such as smartphones and tablets.

1. Launch the Apple App Store or Google Play store and search "TP-Link Tether" or simply scan the QR code to download and install the app.



2. Launch the Tether app and log in with your TP-Link ID.

Note: If you don't have a TP-Link ID, create one first.

- 3. Connect your device to the router's wireless network.
- 4. Go back to the Tether app, select the model of your router and log in with the password you set for the router.

#### 5. Manage your router as needed.

- Note: If you need to remotely access your router from your smart devices, you need to:
- Log in with your TP-Link ID. If you don't have one, refer to Register a TP-Link ID.
- Make sure your smartphone or tablet can access the internet with cellular data or a Wi-Fi network.

# 4.5. Wireless

### 4.5.1. Wireless Settings

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Wireless > Wireless Settings.
- 3. Configure the wireless settings for the wireless network and click SAVE.

Wireless Settings		
Personalize settings for each	h band.	
OFDMA:	Enabled ?	
тwт:	Enabled ?	
2.4 GHz:	C Enabled	Share Network
Network Name (SSID):	TP-Link_portable	Hide SSID
Security:	WPA2-PSK[AES]	
Password:	12345678	
2.4 GHz Advanced Sett	ings	
Transmit Power:	High ~	
Channel Width:	20/40 MHz ~	
Channel:	Auto	
Mode:	802.11b/g/n/ax mixed V	
5 GHz:	Enabled	Share Network
Network Name (SSID):	TP-Link_portable_5G	Hide SSID
Security:	WPA2-PSK[AES]	
Password:	12345678	
▼ 5 GHz Advanced Settings		
Transmit Power:	High ~	
Channel Width:	20/40/80/160 MHz	
Channel:	Auto	
	The channel width and channel you've selected This will require some waiting time to meet regurequirements.	
Mode:	802.11a/n/ac/ax mixed V	

 OFDMA - This feature enables multiple users to transmit data simultaneously, and thus greatly improves speed and efficiency. Noted that only when your clients also support OFDMA, can you fully enjoy the benefits.

- TWT Target Wake Time allows 802.11ax routers and clients to negotiate their periods to transmit and receive data packets. Clients only wake up at TWT sessions and remain in sleep mode for the rest of the time, which significantly extend their battery life.
- 2.4GHz/5GHz Select this checkbox to enable the 2.4GHz/5GHz wireless network.
- Share Network- Click to save the Wi-Fi settings for sharing.
- Network Name (SSID) Enter a value of up to 32 characters. The same Name (SSID) must be assigned to all wireless devices in your network.
- Hide SSID Select this checkbox if you want to hide the network name (SSID) from the Wi-Fi network list. In this case, you need to manually join the network.
- Security Select an option from the Security drop-down list. We recommend you don't change the default settings unless necessary.
- Password Set a password for the wireless network. The value is case-sensitive.
- Transmit Power Select High, Middle or Low to specify the data transmit power. The default and recommended setting is High.
- Channel Width Select a channel width (bandwidth) for the wireless network.
- Channel Select an operating channel for the wireless network. For the 2.4 GHz and 5GHz bands, it is recommended to leave the channel to Auto, if you are not experiencing the intermittent wireless connection issue.
- Mode You can choose the appropriate "Mixed" mode.

# 4.5.2. Guest Network

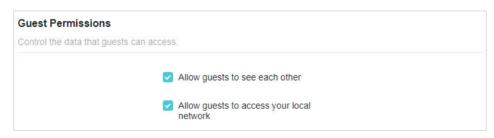
Guest Network allows you to provide Wi-Fi access for guests without disclosing your host network. When you have guests in your house, apartment, or workplace, you can create a guest network for them. In addition, you can customize guest network settings to ensure network security and privacy.

### Create a Guest Network

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Wireless > Guest Network.
- 3. Enable the 2.4GHz/5GHz guest network according to your needs.

Guest Network		
Enable the wireless bands yo	u want your guests to use and complete the	related information.
2.4 GHz:	Enabled	Share Network
Network Name (SSID):	TP-Link_Guest_9203	Hide SSID
5 GHz:	Enabled	Share Network
Network Name (SSID):	TP-Link_Guest_9203_5G	Hide SSID
Security:	Open	~
	This security type is not considered se encryption.	cure. Consider selecting a more secure

- 4. Customize the SSID. Don't select Hide SSID unless you want your guests to manually input the SSID for guest network access.
- 5. Select the Security type and customize your own password. If No security is selected, no password is needed to access your guest network.
- 6. Click SAVE. Now you guests can access your guest network using the SSID and password you set!
- Customize Guest Network Options
- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Wireless > Guest Network. Locate the Guest Permissions section.
- 3. Customize guest network options according to your needs.



#### Allow guests to see each other

Tick this checkbox if you want to allow the wireless clients on your guest network to communicate with each other via methods such as network neighbors and Ping.

#### Allow guests to access my local network

Tick this checkbox if you want to allow the wireless clients on your guest network to communicate with the devices connected to your router's LAN ports or main network via methods such as network neighbors and Ping.

4. Click SAVE. Now you can ensure network security and privacy!

### 4.5.3. Wireless Schedule

The wireless function can be automatically off at a specific time when you do not need the wireless function.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Wireless > Wireless Schedule.
- 3. Enable the Wireless Schedule function.

Wireless Schedule				
Schedule when to automati	cally turn off your	wireless network.		
Wireless Schedule:				
Current Time:	2025-02-	05 05:16:37 PM		
Note: Before using this feat	ture, make sure S	ystem Time is set to "Get from I	nternet".	
				🔂 Add
Wireless Off Time	Band	Repeat	Enable	Modify
There is no entry!				

4. Click Add to specify a wireless off period during which you need the wireless off automatically, and click SAVE.

Add Schedule		×
Enable This Entry:	Enabled	
Band:	<ul> <li>2.4 GHz</li> <li>5 GHz</li> </ul>	
Wireless Off Time:	11 · · · · PM · ·	
	07 ·	
Repeat:	S M T W T F S	
	CANCEL	

Note:

- The effective wireless schedule is based on the time of the router. You can go to Advanced > System > Time to modify the time.
- The wireless network will be automatically turned on after the time period you set.

# 4.5.4. WPS

WPS (Wi-Fi Protected Setup) can help you to quickly and securely connect to a network. This section will guide you to add a new wireless device to your router's network quickly via WPS.

- Note:
- The WPS function cannot be configured if the wireless function of the router is disabled. Please make sure the wireless function is enabled before configuration.
- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Wireless > WPS.
- 3. Follow one of the following methods to connect your client device to the router's Wi-Fi network.

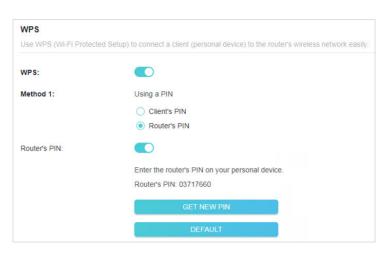
# Method 1: Using a PIN

### • Connects via the Client's PIN

1. Keep the WPS Status as Enabled and select Client's PIN.

WPS Use WPS (Wi-Fi Protec	ted Setup) to connect a client (personal device) to the router's wireless network easily.
	_
WPS:	
Method 1:	Using a PIN
	Client's PIN
	O Router's PIN
	Enter your personal device's PIN here and click CONNECT
	CONNECT

- 2. Enter the PIN of your device and click CONNECT. Then your device will get connected to the router.
- Connects via the Router's PIN
- 1. Keep the WPS Status as Enabled and select Router's PIN.



#### 2. Enter the router's PIN on your personal device. You can also generate a new one.

**Note:** 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.

### Method 2: Using the WPS Button on the Web Screen

Click Start on the screen. Within two minutes, enable WPS on your personal device. A Device-(XX-XX-XX-XX-XX) Connected message should appear on the screen, indicating successful WPS connection.

Note: XX-XX-XX-XX-XX-XX is the MAC address of your device.

Method 2:	Using the button below
	Click the button below, then enable WPS on your personal device within 2 minutes.
	Start

### Method 3: Using the WPS Button on the Router

Press the router's WPS button. Within two minutes, enable WPS on your personal device.

### 4.5.5. Additional Settings

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Wireless > Additional Settings.

#### 3. Configure the advanced settings of your wireless network and click SAVE.

**Note:** If you are not familiar with the setting items on this page, it's strongly recommended to keep the provided default values; otherwise it may result in lower wireless network performance.

Additional Settings			
Check advanced wireless settin	gs for your device.		
WMM:	Enabled		
AP Isolation:	Enabled		
Airtime Fairness:	Enabled		
Beacon Interval:	100		
RTS Threshold:	2346		
DTIM Interval:	1		
Group Key Update Period:	0	S	

- WMM WMM function can guarantee the packets with high-priority messages being transmitted preferentially.
- AP Isolation This function isolates all connected wireless stations so that wireless stations cannot access each other through WLAN.
- Airtime Fairness This function can improve the overall network performance by sacrificing a little bit of network time on your slow devices.
- Beacon Interval Enter a value between 40-1000 milliseconds for Beacon Interval here. Beacon Interval value determines the time interval of the beacons. The beacons are the packets sent by the router to synchronize a wireless network. The default value is 100.
- RTS Threshold Here you can specify the RTS (Request to Send) Threshold. If the packet is larger than the specified RTS Threshold size, the router will send RTS frames to a particular receiving station and negotiate the sending of a data frame. The default value is 2346.
- DTIM Interval This value determines the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the router has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. You can specify the value between 1-255 Beacon Intervals. The default value is 1, which indicates the DTIM Interval is the same as Beacon Interval.
- Group Key Update Period Enter a number of seconds (minimum 30) to control the time interval for the encryption key automatic renewal. The default value is 0, meaning no key renewal.

# 4.6. USB Storage Device

Insert your USB storage device into the router's USB port and then access files stored there locally or remotely.

Ø Tips:

- If you use USB hubs, make sure no more than 4 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, exFat, NTFS or HFS+.
- Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to Advanced > USB & microSD > Storage Device and click Remove.

# 4. 6. 1. Access the USB Device Locally

Insert your USB storage device into the router's USB port and then refer to the following table to access files stored on your USB storage device.

	<ul> <li>Method 1:</li> <li>Go to Computer &gt; Network, then click the Network Server Name (TP-SHARE by default) in the Computer section.</li> <li>Note:</li> </ul>				
	Operations in different systems are similar				
		File Edit View Tools Help			
Windows	Organize 🔻 Network	c and Sharing Center Add a printer			
computer	🔀 Favorites	★ Favorites			
	🥽 Libraries	TP-SHARE			
	🤣 Homegroup	Media Devices (1)			
	1 Computer				
	🗣 Network	<ul> <li>Network Infrastructure (1) —</li> </ul>			
		Andrea (D.M.			

Windows computer	<ul> <li>Method 2:</li> <li>Open the Windows Explorer (or go to Computer) and type the server address \\tplinkwifi.net or ftp://tplinkwifi.net in the address bar, then press Enter.</li> </ul>
Мас	<ol> <li>Select Go &gt; Connect to Server.</li> <li>Type the server address smb://tplinkwifi.net.</li> <li>Click Connect.</li> <li>Click Connect.</li> <li>Server Address:         <ul> <li>(Connect to Server</li> <li>(Favorite Servers:</li> <li>(Remove) Browse</li> <li>Connect</li> </ul> </li> <li>When prompted, select the Guest radio box. (If you have set up a username and a password to deny anonymous access to the USB disks, you should select the Registered User radio box. To learn how to set up an account for the access, refer to To Set Up Authentication for Data Security.)</li> </ol>
Tablet	Use a third-party app for network files management.

#### Ø Tips:

You can also access your USB storage device by using your Network/Media Server Name as the server address. Refer to <u>To Customize the Address of the USB Storage Device</u> to learn more.

# 4. 6. 2. Access the USB Device Remotely

You can access your USB disk outside the local area network. For example, you can:

- 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.

Follow the steps below to configure remote access settings.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > USB & microSD > Storage Device.
- 3. Tick the Internet FTP checkbox, and then click SAVE.

sing your USB storage device or i	microSD (TF) card.		
e: TP-Share			
Address	Enable	Port	Modify
\\192.168.1.1 smb://192.168.1.1			ß
ftp://192.168.1.1:21		21	Ø
ftp://192.168.0.101:21 Set DDNS		21	Ø
	e: TP-Share Address \\192.168.1.1 smb://192.168.1.121 ftp://192.168.0.101:21	Address         Enable           \\192.168.1.1         Image: Comparison of the state of the s	e: TP-Share           Address         Enable         Port           \\\192.168.1.1             ftp://192.168.1.1:21         21         21

4. Refer to the following table to access your USB disk remotely.

	1) Open the Windows Explorer (or go to Computer, only for Windows users) or open a web browser.
	2) Type the server address in the address bar:
	Type in ftp://< <u>WAN IP address of the router</u> >:< <u>port number</u> > (such as ftp://59.40.2.243:21). If you have specified the domain name of the router, you can also type in ftp://< <u>domain name</u> >:< <u>port number</u> > (such as ftp://MyDomainName:21)
Computer	File Edit View Tools Help
	Organize 👻 Include in library 💌
	3) Press Enter on the keyboard.
	4) Access with the username and password you set in <u>To Set Up</u> <u>Authentication for Data Security</u> .
	Tips: You can also access the USB disk via a third-party app for network files management, which can resume broken file transfers.
Tablet	Use a third-party app for network files management.

Ø Tips:

Click <u>Dynamic DNS</u> to learn how to set up a domain name for you router.

# 4. 6. 3. Customize the Access Settings

By default, all the network clients can access all folders on your USB disk. You can customize your sharing settings by setting a sharing account, sharing specific contents and setting a new sharing address on the router's web management page.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > USB & microSD > Storage Device.
- To Customize the Address of the USB Storage Device

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

 In the Access Method session, make sure Samba for Windows Samba for macOS/ Linux is enabled, and enter a Network/Media Server Name as you like, such as MyShare, then click SAVE.

	Access Method Select the method for accessing your USB storage device or microSD (TF) card.				
Net	work/Media Server Name:	MyShare			
	Access Method	Address	Enable	Port	Modify
	SMB for Windows SMB for macOS/Linux	\\192.168.1.1 smb://192.168.1.1			ß
	Local FTP	ftp://192.168.1.1:21		21	ß
	Internet FTP	ftp://192.168.0.101:21 Set DDNS		21	Ø

- 2. Now you can access the USB storage device by visiting \\MyShare (for Windows) or smb://MyShare (for Mac).
- To Only Share Specific Content

Focus on the File Sharing section. Specify sharing folders that you want to share and click SAVE.

File Sharing		
Share files with devices in	your home or office network.	
Secure Sharing:		
Select Folder:	■ NTFS(G:) ✓	
	Work >	
	Documents >	
	Pictures >	
	EXFAT(H:) >	
	DISK(I:) >	

• To Set Up Authentication for Data Security

You can set up authentication for your USB storage device so that network clients will be required to enter username and password when accessing the USB storage device.

1. In the File Sharing section, enable Secure Sharing.

ecure Sharing					
Customize the access settings to ensure data security.					
Password		Permissions	Modify		
	Ø	Read&Write	Ø		
	Ø	Read	Ø		
	Password	Password	Password     Permissions       ·······     Ø       Read&Write		

2. Click <sup>I</sup> to modify the access account, and pay attention to the default username and password. Accessing as an administrator can read and modify the shared folders while visitors can only read the shared folders.

#### Note:

- 1. For Windows users, do not set the sharing username the same as the Windows username. Otherwise, Windows credential mechanism may cause the following problems:
  - If the sharing password is also the same as the Windows password, authentication will not work since the Windows will automatically use its account information for USB access.
  - If the sharing password is different from the Windows password, the Windows will be unable to remember your credentials and you will always be required to enter the sharing password for USB access.
- 2. Due to Windows credential mechanism, you might be unable to access the USB disk after changing Authentication settings. Please log out from the Windows and try to access again. Or you can change the address of the USB disk by referring to To Customize the Address of the USB Storage Device.

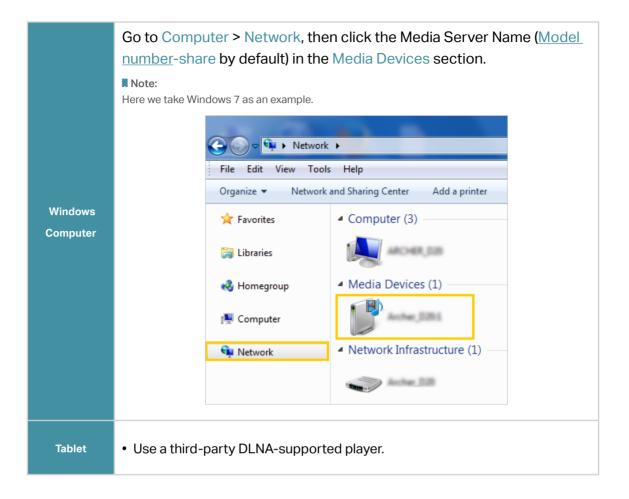
#### 4. 6. 4. Media Sharing

The feature of Media Sharing allows you to view photos, play music and watch movies stored on the USB storage device directly from DLNA-supported devices, such as your computer, tablet and PS2/3/4.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > USB & microSD > Storage Device.
- 3. Enable Media Sharing.

Media Sharing	
View photos, play music and watch movies stored on the USB storage device via the access address.	
Madia Shadaya	
Media Sharing:	

- 4. When your USB storage device is inserted into the router, your DLNA-supported devices (such as your computer and pad) connected to the router can detect and play the media files on the USB storage devices.
- 5. Refer to the following table for detailed instructions.



# 4.7. NAT Forwarding

The router's NAT (Network Address Translation) feature makes the devices on the LAN use the same public IP address to communicate on the internet, which protects the local network by hiding IP addresses of the devices. However, it also brings about the problem that external hosts cannot initiatively communicate with the specified devices in the local network.

With the forwarding feature, the router can traverse the isolation of NAT so that clients on the internet can reach devices on the LAN and realize some specific functions.

The Mercusys router includes four forwarding rules. If two or more rules are set, the priority of implementation from high to low is Port Forwarding, Port Triggering, UPNP and DMZ.

# 4.7.1. Port Forwarding

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

Port Forwarding can be used to set 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 (192.168.1.100). I hope that my friends on the internet can visit my website in some way. My PC is connected to the router with the WAN IP address 218.18.232.154.



- 1. Set your PC to a static IP address, for example 192.168.1.100.
- 2. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 3. Go to Advanced > NAT Forwarding > Port Forwarding.

Po	rt Forward	ding					
Sp	ecify ports to	make specific d	levices or services	on your local netv	vork accessibl	e over the intern	et.
							🔂 Add
	Service Name	Device IP Address	External Port	Internal Port	Protocol	Status	Modify
	There is	no entry!					

4. Click Add.

Add a Port Forwarding Entry X				
<b>Note:</b> Add a rule for an individual external port or port range. For nonconsecutive ports (example: 100 and 200), add multiple rules. For more info, refer to Port Forwarding FAQ.				
Service Name:				
	VIEW COMMON SERVICES			
Device IP Address:				
	VIEW CONNECTED DEVICES			
External Port:	O Individual Port			
	Port Range			
Protocol:	All			
Enable This Entry:	Enabled			
	CANCEL			

- 5. Click VIEW COMMON SERVICES and select HTTP. The External Port, Internal Port and Protocol will be automatically filled in.
- 6. Click VIEW CONNECTED DEVICES and select your home PC. The Device IP Address will be automatically filled in. Or enter the PC's IP address 192.168.0.100 manually in the Device IP Address field.

#### 7. Click SAVE.

Ø Tips:

- 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.
- If the service you want to use is not in the common services list, you can enter the corresponding parameters
  manually. You should verify the port number that the service needs.
- You can add multiple port forwarding rules if you want to provide several services in a router. Please note that the External Port should not be overlapped.

# Done!

# Users on the internet can enter http:// WAN IP (in this example: http:// 218.18.232.154) to visit your personal website.

Ø Tips:

- The WAN IP should be a public IP address. For the WAN IP is assigned dynamically by the ISP, it is recommended to apply and register a domain name for the WAN referring to <u>Dynamic DNS</u>. Then users on the internet can use http:// domain name to visit the website.
- 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.

# 4.7.2. Port Triggering

Port Triggering can specify a triggering port and its corresponding external ports. When a host on 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, video players and common applications including MSN Gaming Zone, Dialpad and Quick Time 4 players, etc.

Follow the steps below to configure the Port Triggering rules:

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > NAT Forwarding > Port Triggering and click 🔂 Add.

Port Triggering						
Specify ports to allow devices on your local network to dynamically open specific external ports and forward packets (from the internet) to the device that triggered it.						
						🔂 Add
Service Name	Triggering Port	Triggering Protocol	External Port	External Protocol	Status	Modify
There is	no entry!					

3. Click VIEW COMMON SERVICES, and select the desired application. The Triggering Port, Triggering Protocol and External Port will be automatically filled in. The following picture takes application MSN Gaming Zone as an example.

Add a Port Triggering E	ntry	×
Service Name:		
	VIEW COMMON SERVICES	
Triggering Port:		
Triggering Protocol:	All	
External Port:		
External Protocol:	All	
Enable This Entry:	Enabled	
	CANCEL	Æ

- 4. Click SAVE.
- Ø Tips:

- You can add multiple port triggering rules according to your network need.
- The triggering ports can not be overlapped.
- 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.

# 4.7.3. UPnP

The UPnP (Universal Plug and Play) protocol allows 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 on the local network and the internet can freely communicate with each other thus 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:
- UPnP is enabled by default in this router.
- Only the application supporting UPnP protocol can use this feature.
- 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 <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > NAT Forwarding > UPnP and toggle on or off according to your needs.

UPnP	
	al Plug and Play) to allow devices on your local network to dynamically open ports for ultiplayer gaming and real-time communications.
UPnP:	

# 4.7.4. DMZ

When a PC is set to be a DMZ (Demilitarized Zone) host on 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:

When DMZ is enabled, the DMZ host is totally exposed to the internet, which may bring some potential safety hazards. 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 log in normally but cannot join a team with other players. To solve this problem, set your PC as a DMZ host with all ports open.

### How can I do that?

- 1. Assign a static IP address to your PC, for example 192.168.0.100.
- 2. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 3. Go to Advanced > NAT Forwarding > DMZ and tick to enable DMZ.
- 4. Click VIEW CONNECTED DEVICES and select your PC. The Device IP Address will be automatically filled in. Or enter the PC's IP address 192.168.0.100 manually in the DMZ Host IP Address field.

DMZ		
Expose a specific device in your local network to the internet for applications such as online gaming and real-time communications.		
DMZ:	Enabled	
DMZ Host IP Address:		
	VIEW CONNECTED DEVICES	

5. Click SAVE.

#### 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.

# 4.8. Security

# 4.8.1. Protect the Network from Cyber Attacks

The SPI (Stateful Packet Inspection) Firewall protects the router from cyber attacks and validate the traffic that is passing through the router based on the protocol. This function is enabled by default.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Security > Firewall. It's recommended to keep the default settings.

Firewall		
Check the settings of the firewall that protects your network. It is recommended to keep them as default.		
SPI Firewall:		
Respond to Pings from LAN:		
Respond to Pings from WAN:		

# 4.8.2. 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 (Deny List) or a list of allowed devices (Allow List).

#### I want to:

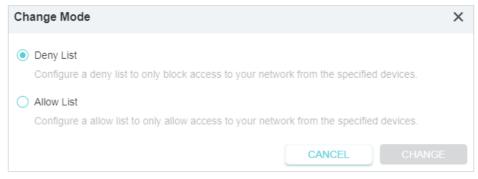
Block or allow specific client devices to access my network (via wired or wireless).

# How can I do that?

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Security > Access Control.
- 3. Toggle on to enable Access Control.

Access Control	
Control the access to you	etwork from the specified devices.
Access Control:	
Current Mode:	Deny List 🖕 Change Mode

4. Click Change Mode to select the access mode to either block (recommended) or allow the device(s) in the list.



#### To block specific device(s):

1) Select Deny List.

Access Control					
Control the access to your	Control the access to your network from the specified devices.				
Access Control: Current Mode:	Deny List	🗲 Change Mode			
			🔂 🔂		
Device Type	Device Name	MAC Address	Modify		
There is no entry!					

2) Click ( Add and select devices you want to be blocked, or enter the MAC address manually, and click ADD.

Ac	ld Dev	ices				×
() () ()		t From De 1anually	vice List			
		Туре	Device Name	IP	MAC	
		Ē	18503634-BG	192.168.1.45	40-ED-00-22-30-74	
				CANC	EL ADD	

Add Devices	X
<ul><li>Select From Device List</li><li>Add Manually</li></ul>	
Device Name:	
MAC Address: -	
	CANCEL ADD

4) The Operation Succeeded message will appear on the screen, which means the selected devices have been successfully added to the Deny List.

#### To allow specific device(s):

1) Select Allow List and click CHANGE.

Change Mode	×
<ul> <li>Deny List</li> <li>Configure a deny list to only block access to your network from the specified devices.</li> </ul>	
Allow List     Configure a allow list to only allow access to your network from the specified devices.     CANCEL     CHANGE	

2) Your own device is in the Allow List by default and cannot be deleted. Click 😌 Add to add other devices to the Allow List.

			🔂 Add
Device Type	Device Name	MAC Address	Modify
<b>_</b>	18503634-BG	40-ED-00-22-30-74	1

- Add connected devices
- 1) Click Select From Device List.
- 2) Select the devices you want to be allowed and click ADD.

Add Devices				×
<ul> <li>Select From Devic</li> <li>Add Manually</li> </ul>	be List			
Туре С	Device Name	IP	MAC	
There is no entr	γI			
			CANCEL	ADD

- 3) The Operation Succeeded message will appear on the screen, which means the selected devices have been successfully added to the Allow List.
- Add unconnected devices
- 1) Click Add Manually.
- 2) Enter the Device Name and MAC Address of the device you want to be allowed and click ADD.

Add Devices	>	×
<ul> <li>Select From Device List</li> <li>Add Manually</li> </ul>		
Device Name:		
MAC Address:		
	CANCEL ADD	

3) The Operation Succeeded message will appear on the screen, which means the device has been successfully added to the Allow List.

#### Done!

Now you can block or allow specific client devices to access your network (via wired or wireless) using the Deny List or Allow List.

#### 4.8.3. 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 I do that?

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Security > IP & MAC Binding.
- 3. Enable IP & MAC Binding.

IP & MAC Binding Bind the MAC and IP addre	sses of devices to pre	event ARP spoofing a	ind attacks.	
IP & MAC Binding:				

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

#### To bind the connected device(s):

1) Locate the ARP List section and enable Bind to bind the IP and MAC addresses of a specific device.

ARP List				
Bind or unbind the MAC a	nd IP addresses of currently cor	inected devices.		
				C Refres
Device Name	MAC Address	IP Address	Bind	Modify
18503634-BG	40-ED-00-22-30-74	192.168.1.45		⑪

#### To add a binding entry:

1) Click 😌 Add in the Binding List section.

Binding List			
Add or delete binding entries.			
			🕀 Add
Device Name	MAC Address	IP Address	Modify
There is no entry!			

2) Click VIEW CONNECTED DEVICES and select the device you want to bind. The MAC Address and IP Address fields will be automatically filled in.

Add Binding Entry		×
MAC Address:		
	VIEW CONNECTED DEVICES	
IP Address:		
	CANCEL SAVE	

3) Click SAVE.

#### Done!

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

#### 4.8.4. ALG

ALG allows customized Network Address Translation (NAT) traversal filters to be plugged into the gateway to support address and port translation for certain application layer "control/data" protocols such as FTP, TFTP, H323 etc. It is recommended to keep the default settings.

You may need to disable SIP ALG when you are using voice and video applications to create and accept a call through the router, since some voice and video communication applications do not work well with SIP ALG.

Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router. Go to Advanced > Security > ALG.

ALG	
Check the ALG (Application Laye	r Gateway) settings. It is recommended to keep them as default.
PPTP Passthrough:	
L2TP Passthrough:	
IPSec Passthrough:	
FTP ALG:	
TFTP ALG:	
RTSP ALG:	
H323 ALG:	
SIP ALG:	

# 4.9. VPN Server&Client

The router offers several ways to set up VPN connections:

**VPN Server** allows remote devices to access your home network in a secured way through the internet. The router supports four types of VPN Server:

**OpenVPN** is somewhat complex but with higher security and more stability, suitable for restricted environments such as campus network and company intranet.

**PPTP VPN** is easy to use with the built-in VPN software of computers and mobile devices, but it is vulnerable and may be blocked by some ISPs.

**L2TP/IPSec VPN** is more secure but slower than PPTP VPN, and may have trouble getting around firewalls.

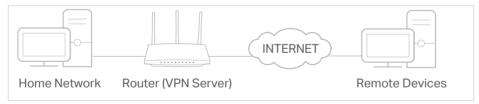
**WireGuard VPN** is a secure, fast and modern VPN protocol. It is based on the UDP protocol and uses modern encryption algorithms to improve work efficiency.

**VPN Client** allows devices in your home network to access remote VPN servers, without the need to install VPN software on each device.

# 4.9.1. Use OpenVPN to Access Your Home Network

OpenVPN Server is used to create an OpenVPN connection for remote devices to access your home network.

To use the VPN feature, you need to enable OpenVPN Server on your router, and install and run VPN client software on remote devices. Please follow the steps below to set up an OpenVPN connection.



#### Step1. Set up OpenVPN Server on Your Router

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > VPN Server > OpenVPN, and tick the Enable box of OpenVPN.

OpenVPN		
Set up an OpenVPN for se	cure, remote access to your network.	
Note: No certificate has be	en created. Generate one below before enabling OpenVPN.	
OpenVPN:	Enabled	
Service Type:	• UDP	
	○ ТСР	
Interface Type:	TUN V	
Service Port:	1194	
VPN Subnet:	10.8.0.0	
Netmask:	255.255.255.0	
Client Access:	Home Network Only	

- Note:
- Before you enable VPN Server, we recommend you configure Dynamic DNS Service (recommended) or assign a static IP address for router's WAN port and synchronize your System Time with internet.
- The first time you configure the OpenVPN Server, you may need to generate a certificate before you enable the VPN Server.
- 3. Select the Service Type (communication protocol) for OpenVPN Server: UDP, TCP.
- 4. Enter a VPN Service Port to which a VPN device connects, and the port number should be between 1024 and 65535.
- 5. In the VPN Subnet/Netmask fields, enter the range of IP addresses that can be leased to the device by the OpenVPN server.
- 6. Select your Client Access type. Select Home Network Only if you only want the remote device to access your home network; select Internet and Home Network if you also want the remote device to access internet through the VPN Server.
- 7. Click SAVE.
- 8. Click GENERATE to get a new certificate.

Certificate		
Generate the certificate.		
		_
	GENERATE	

Note: If you have already generated one, please skip this step, or click GENERATE to update the certificate.

9. Click EXPORT to save the OpenVPN configuration file which will be used by the remote device to access your router.

Configuration File		
Export the configuration file.		
	EXPORT	

#### Step 2. Configure OpenVPN Connection on Your Remote Device

1. Visit http://openvpn.net/index.php/download/community-downloads.html to

download the OpenVPN software, and install it on your device where you want to run the OpenVPN client utility.

**Note:** You need to install the OpenVPN client utility on each device that you plan to apply the VPN function to access your router. Mobile devices should download a third-party app from Google Play or Apple App Store.

- 2. After the installation, copy the file exported from your router to the OpenVPN client utility's "config" folder (for example, C:\Program Files\OpenVPN\config on Windows). The path depends on where the OpenVPN client utility is installed.
- 3. Run the OpenVPN client utility and connect it to OpenVPN Server.

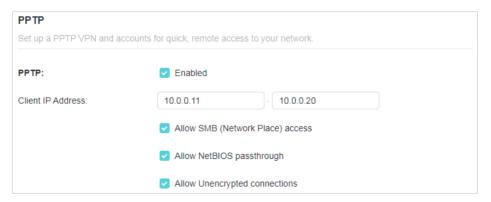
### 4.9.2. Use PPTP VPN to Access Your Home Network

PPTP VPN Server is used to create a PPTP VPN connection for remote devices to access your home network.

To use the VPN feature, you need to set up PPTP VPN Server on your router, and configure the PPTP connection on remote devices. Please follow the steps below to set up a PPTP VPN connection.

Step 1. Set up PPTP VPN Server on Your Router

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > VPN Server > PPTP, and tick the Enable box of PPTP.



**Note:** Before you enable VPN Server, we recommend you configure Dynamic DNS Service (recommended) or assign a static IP address for router's WAN port and synchronize your System Time with internet.

- 3. In the Client IP Address field, enter the range of IP addresses (up to 10) that can be leased to the devices by the PPTP VPN server.
- 4. Set the PPTP connection permission according to your needs.
  - Select Allow Samba (Network Place) access to allow your VPN device to access your local Samba server.

- Select Allow NetBIOS passthrough to allow your VPN device to access your Samba server using NetBIOS name.
- Select Allow Unencrypted connections to allow unencrypted connections to your VPN server.

5. Click SAVE.

6. Configure the PPTP VPN connection account for the remote device. You can create up to 16 accounts.

Acco	ount List		
Confi	gure accounts (up to 16)	that can be used by remote clients to connect to the VPN serve	er.
			🔂 Add
	Username	Password	Modify
	There is no entry!		

- 4) Click Add.
- 5) Enter the Username and Password to authenticate devices to the PPTP VPN Server.

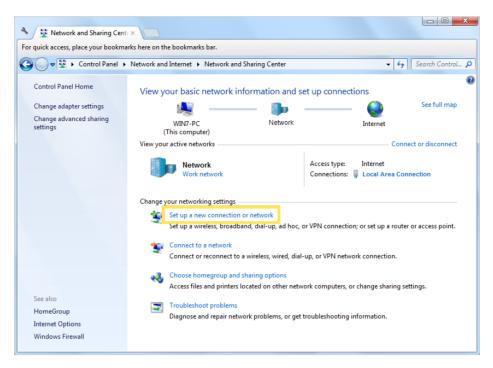
Add Account	×
Username:	
Password:	Ø
	CANCEL ADD

6) Click ADD.

#### Step 2. Configure PPTP VPN Connection on Your Remote Device

The remote device can use the Windows built-in PPTP software or a third-party PPTP software to connect to PPTP Server. Here we use the Windows built-in PPTP software as an example.

- 1. Go to Start > Control Panel > Network and Internet > Network and Sharing Center.
- 2. Select Set up a new connection or network.



3. Select Connect to a workplace and click Next.

Choose a connection option	
Connect to the Internet Set up a wireless, broadband, or dial-up connection to the Internet.	
Set up a new network	
Connect to a workplace Set up a dial-up or VPN connection to your workplace.	
Set up a dial-up connection Connect to the Internet using a dial-up connection.	
Ne	ext Cancel

4. Select Use my Internet connection (VPN).

$\bigcirc$	Connect to a Workplace	
	How do you want to connect?	
	Use my Internet connection (VPN) Connect using a virtual private network (VPN) connection through the Internet.	
	ių — 🄮 — 🦫	
	Dial directly Connect directly to a phone number without going through the Internet.	
	🔍 —— 🢵	
	What is a VPN connection?	
		Cancel

5. Enter the internet IP address of the router (for example: 218.18.1.73) in the Internet address field. Click Next.

0	Connect to a Workplace		
	Type the Internet addr	ess to connect to	
	Your network administrator o	an give you this address.	
	Internet address:	218.18.1.73	
	Destination name:	VPN Connection	
		o use this connection yone with access to this computer to use this connection. ust set it up so I can connect later	
		Nex	t Cancel

6. Enter the User name and Password you have set for the PPTP VPN server on your router, and click Connect.

0	Connect to a Workplace		
	Type your user name	and password	
	User name:	allers.	
	Password:	•••••	
	Domain (optional):	Show characters Remember this password	
			Connect Cancel

7. Click Connect Now when the VPN connection is ready to use.

😡 🌆 Connect to a Workplace	
The connection is ready to use	
in the second se	
Connect now	
	Close

#### 4.9.3. Use L2TP/IPSec VPN to Access Your Home Network

L2TP/IPSec VPN Server is used to create a L2TP/IPSec VPN connection for remote devices to access your home network.

To use the VPN feature, you need to set up L2TP/IPSec VPN Server on your router, and configure the L2TP/IPSec connection on remote devices. Please follow the steps below to set up the L2TP/IPSec VPN connection.



Home Network



#### Step 1. Set up L2TP/IPSec VPN Server on Your Router

- 1. Visit http://tplinkwifi.net, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > VPN Server > L2TP/IPSec, and enable L2TP/IPSec.

#### Note:

- Firmware update may be required to support L2TP/IPSec VPN Server.
- · Before you enable VPN Server, we recommend you configure Dynamic DNS Service (recommended) or assign a static IP address for router's WAN port and synchronize your System Time with internet.

L2TP/IPSec		
Set up a L2TP/IPSec VPN and	d accounts for quick, remo	te access to your network.
L2TP/IP Sec:	Enabled	
Client IP Address:	10.9.0.11	- 10.9.0.20
IPSec Encryption:	Encrypted	~
IPSec Pre-Shared Key:		
	Allow NetBIOS	passthrough

- 3. In the Client IP Address field, enter the range of IP addresses (up to 10) that can be leased to the devices by the L2TP/IPSec VPN server.
- 4. Keep IPSec Encryption as Encrypted and create an IPSec Pre-Shared Key.
- 5. Click SAVE.
- 6. Configure the L2TP/IPSec VPN connection account for the remote device. You can create up to 16 accounts.

Account List		
Configure accounts (up to 16) th	nat can be used by remote clients to connect to th	ne VPN server.
		🔂 Add
Username	Password	Modify
There is no entry!		

- 7) Click Add.
- 8) Enter the Username and Password to authenticate devices to the L2TP/IPSec VPN Server.

Add Account	X
Username:	
Password:	Ø
	CANCEL ADD

9) Click ADD.

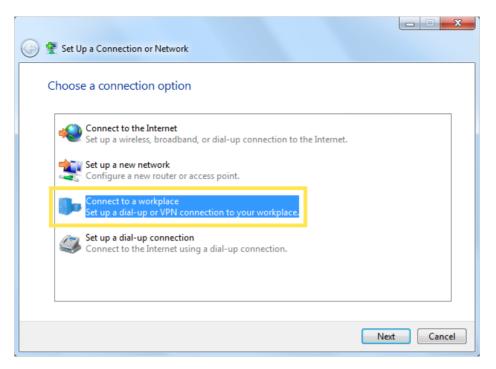
#### Step 2. Configure L2TP/IPSec VPN Connection on Your Remote Device

The remote device can use the Windows or Mac OS built-in L2TP/IPSec software or a third-party L2TP/IPSec software to connect to L2TP/IPSec Server. Here we use the Windows built-in L2TP/IPSec software as an example.

- 1. Go to Start > Control Panel > Network and Internet > Network and Sharing Center.
- 2. Select Set up a new connection or network.

Network and Sharing Cent	×				
For quick access, place your bookma	rks here on the bookmarks bar.				
🚱 🗢 👯 🕨 Control Panel 🕨	Network and Internet      Network and Sharing Center	er 🗸 🐓 Se	earch Control 🔎		
Control Panel Home	View your basic network information		0		
Change adapter settings Change advanced sharing settings	WIN7-PC Netv (This computer)	work Internet	See full map		
	View your active networks	Connect of	r disconnect		
	Network Work network	Access type: Internet Connections: 🏮 Local Area Connecti	ion		
	Change your networking settings Set up a new connection or network Set up a wireless, broadband, dial-up, ad hoc, or VPN connection; or set up a router or access point. Connect to a network Connect or reconnect to a wireless, wired, dial-up, or VPN network connection. Choose homegroup and sharing options Access files and printers located on other network computers, or change sharing settings.				
See also HomeGroup Internet Options Windows Firewall	Diagnose and repair network problems	, or get troubleshooting information.			

3. Select Connect to a workplace and click Next.



4. Select Use my Internet connection (VPN).

🚱 🜆 Connect to a Workplace	
How do you want to connect?	
<ul> <li>Use my Internet connection (VPN)</li> <li>Connect using a virtual private network (VPN) connection through the Internet.</li> </ul>	
🧶 — 🇶 — 🕪	
Dial directly Connect directly to a phone number without going through the Internet.	
i i i i i i i i i i i i i i i i i i i	
What is a VPN connection?	
	Cancel

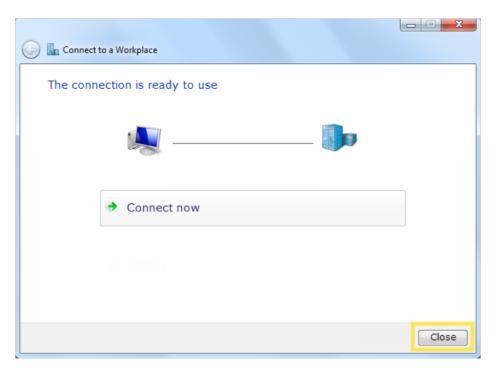
5. Enter the internet IP address of the router (for example: 218.18.1.73) in the Internet address field, and select the checkbox Don't connect now; just set it up so I can connect later. Click Next.

3	🔚 Connect to a Workplace					
	Type the Internet address to connect to					
	Your network administrator c	an give you this address.				
	Internet address:	218.18.1.73				
	Destination name:	VPN Connection				
	<ul> <li>Use a smart card</li> <li>Allow other people to use this connection This option allows anyone with access to this computer to use this connection.</li> <li>Don't connect now; just set it up so I can connect later</li> </ul>					
		Next	Cancel			

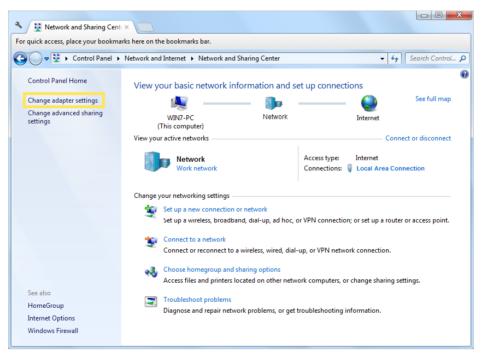
6. Enter the User name and Password you have set for the L2TP/IPSec VPN server on your router, and click Connect.

6	Connect to a Workplace		
	Type your user name	and password	
	User name:		
	Password:	••••	
	Domain (optional):	Show characters	
			Connect Cancel

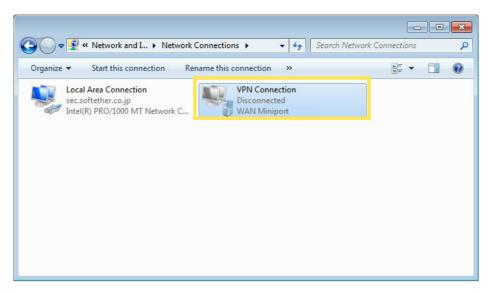
7. Click Close when the VPN connection is ready to use



8. Go to Network and Sharing Center and click Change adapter settings.



9. Find the VPN connection you created, then double-click it.



10. Enter the User name and Password you have set for the L2TP/IPSec VPN server on your router, and click Properties.

🐓 Connect VPN Co	onnection
User name:	-
Password:	Ange its availance of the
Do <u>m</u> ain:	
Me only	ame and password for the following users:
Connect	Cancel Properties Help

11. Switch to the Security tab, select Layer 2 Tunneling Protocol with IPsec (L2TP/ IPSec) and click Advanced settings.

eneral	Options	Security	Networking	Sharing	
[ype of	VPN:				
Layer	2 Tunnelin	g Protocol	with IPsec (L	2TP/IPSec)	•
<u>)</u> ata er	ncryption:			Advanced s	settings
Requir	e encrypti	on (disconr	nect if server o	leclines)	
Authe	entication				
O Us	e <u>E</u> xtensit	le Authent	ication Protoc	ol (EAP)	
					-
				Proper	ties
		and a set			
	ow these p	protocols			
	Unencryp	ted passw	ord (PAP)		
V	Challenge	e <u>H</u> andshal	ke Authentica	tion Protocol (CH/	AP)
V	Microsoft	CHAP Ver	sion 2 (MS-CH	IAP v2)	
			e my Window: Iomain, if any)	s logon name and	

12. Select Use preshared key for authentication and enter the IPSec Pre-Shared Key you have set for the L2TP/IPSec VPN server on your router. Then click OK.

dvanced P	roperties
Use pr Key:	eshared key for authentication
	rtificate for authentication
V Ve	rify the Name and Usage attributes of the server's certificate
<u>[√] V</u> e	rify the Name and Usage attributes of the server's certificate

Done! Click Connect to start VPN connection.

🐓 Connect VPI	N Connection
<u>U</u> ser name:	
Password:	7- dage for an exception of the first
Do <u>m</u> ain:	
Me only	er name and password for the following users:
Connect	Cancel Properties Help

# 4.9.4. Use WireGuard VPN to Access Your Home Network

WireGuard VPN Server is used to create a Wire Guard VPN connection for remote devices to access your home network.

Step 1. Set up WireGuard VPN Server on Your Router

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > VPN Server > WireGuard, and tick the Enable box of WireGuard.

WireGuard	
Set up a WireGuard VPN and	accounts for quick, remote and secure access to your network.
WireGuard:	Enabled
Tunnel IP Address:	10.5.5.1/32
Listen Port:	51820
Client Access:	Internet and Home Network $$
Advanced Settings	
DNS:	Enabled
Persistent Keepalive:	25
Private Key:	eMBlyWXIuKzo+KqE3PjS449KIaUHAdQJrkt xpC3INWQ=
Public Key:	keBCmYqibUTgTaMShoah5U37AkVUoCYnA ThUYO5QhVI=
	RENEW KEY

- 3. Set the tunnel IP address and listen port. Do NOT change it unless necessary.
- 4. Select your Client Access type. Select Home Network Only if you only want the remote device to access your home network; select Internet and Home Network if you also want the remote device to access internet through the VPN Server.
- 5. (Optional) Click Advanced Settings to display more settings. If DNS is turned on, the router will become the DNS server of the VPN client that establishes a connection with it. Change the Persistent Keepalive time (25 seconds by default) to send out heartbeat regularly, you can also click RENEW KEY to update the private key and public key.

Step 2. Create accounts that can be used by remote clients to connect to the VPN server.

1. Locate the Account List section.

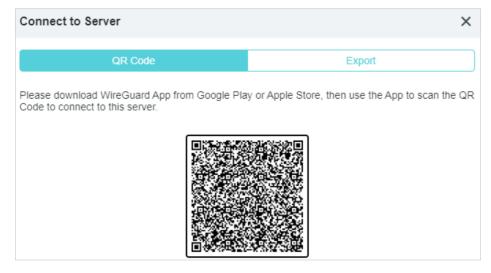
Configure accounts (up to 16) that can be used by remete clients to connect to the V/DN conver	
Configure accounts (up to 16) that can be used by remote clients to connect to the VPN server.	
•	Add
Username Allowed IPs Modify	
There is no entry!	

2. Click Add to create an account.

Add	×
Username:	
Address:	10.5.5.2/32
Allowed IPs (Client):	0.0.0.0/0
Allowed IPs (Server):	10.5.5.2/32
Pre-shared Key (Secret):	Enabled
	CANCEL SAVE

- 3. Give a name to this account.
- 4. Enter the address of the virtual interface assigned to this account. Do NOT change it unless necessary.
- 5. Traffic sent from the WireGard VPN client to the allowed IPs (client) will be transmitted through the tunnel. By default, all network traffic from clients will be transmitted through the tunnel. Do NOT change it unless necessary.
- 6. Traffic sent from the WireGard VPN server to the allowed IPs (server) will be transmitted through the tunnel. Do NOT change it unless necessary.
- 7. Enable or disable pre-shared key.
- 8. Click SAVE.

Note: One account can only be used by one WireGuard VPN client at the same time to connect to the WireGuard VPN server.



- 9. Connect to the WireGuard server.
- For mobile phones, download WireGuard App from Google Play or Apple Store, then use the App to scan the QR Code to connect to this server.
- For other devices (e.g. TP-Link WireGuard VPN client), Click EXPORT to save the WireGuard VPN configuration file which will be used by the remote device to access your router.

Connect to Server	×
QR Code	Export
Please use the following configuration to set up yo	our WireGuard client.
EXP	ORT
[Interface] PrivateKey = al6XUS7avPkuacRljQ29COrZnyiU Address = 10.5.5.2/32 [Peer] PublicKey = keBCmYqibUTgTaMShoah5U37Ak AllowedIPs = 0.0.0.0/0 Endpoint = 192.168.0.100:51820 PersistentKeepalive = 25	
	DONE

10. On the account list, you can click the button to modify the VPN server settings, connect to the server, or delete the account.

Account List		
Configure accounts (up to 16) that	can be used by remote clients to connect to the	he VPN server.
		🔂 Add
Username	Allowed IPs	Modify
Admin	0.0.0/0	じゅし

# 4.9.5. Use VPN Client to Access a Remote VPN Server

VPN Client is used to create VPN connections for devices in your home network to access a remote VPN server.

To use the VPN feature, simply configure a VPN connection and choose your desired devices on your router, then these devices can access the remote VPN server. Please follow the steps below:



- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > VPN Client.

Note: Firmware update may be required to support VPN Client.

3. Enable VPN Client, then save the settings.



- 4. Add VPN servers, and enable the one you need.
  - 1) In the Server List section, click Add.

Server List				
Add or edit VPN server.	Up to 6 VPN servers can be	added.		
				🔂 Ado
Description	Server	Status	Enable	Modify
No VPN Client				

2) Specify a description for the VPN, and choose the VPN type.

Add Profile			×
Description:			
VPN Type:	WireGuard	~	
Import from Config File:	Open∨PN		
NAT:	PPTP L2TP/IPSec		
Interface	WireGuard		
▶ Peer			
		CANCEL	SAVE

- 3) Enter the VPN information provided by your VPN provider.
- OpenVPN: Enter the VPN username and password if required by your VPN provider, otherwise simply leave them empty. Then import the configuration file provided by your VPN provider.

Add Profile		×
Description:		
VPN Type:	OpenVPN ~	
Username:		(Optional)
Password:	Ø	(Optional)
Import .ovpn File:	1 UPLOAD	
	Import the CA file or edit the .ovpn file manually	
	CAN	CEL SAVE

**Note:** You can also check the box of Import the CA file or edit the . ovpn file manually, then upload the CA file or manually configure the settings.

	Import the CA file or edit the ovpn file manually	
Import CA File:	1 UPLOAD	
Manual Settings:	Edit	
	CANCEL	SAVE

• PPTP: Enter the VPN server address (for example: 218.18.1.73) and the VPN username and password provided by your VPN provider.

Add Profile		×
Description:		
VPN Type:	РРТР	
VPN Server:		
Username:		
Password:	Q.	5
Encryption:	Auto	
	C/	ANCEL SAVE

 L2TP/IPSec VPN: Enter the VPN server address (for example: 218.18.1.73), VPN username and password, and IPSec pre-shared key provided by your VPN provider.

Add Profile			×
Description:			
VPN Type:	L2TP/IPSec	~	
VPN Server:			
Username:			
Password:		Ø	
IPSec Pre-Shared Key:			
		CANCEL SAVE	

• WireGuard VPN: Give a description, and click BROWSE to import the WireGuard VPN server configuration. Then you will see the detailed parameters. Do NOT change the parameters unless necessary.

Add Profile		×
Description:		
VPN Type:	WireGuard	~
Import from Config File:	소 UPLOAD	
NAT:	Enabled	
► Interface		
▶ Peer		
		CANCEL SAVE

- 4) Save the settings.
- 5) In the server list, enable the one you need.

Server List				
Add or edit VPN server.	Up to 6 VPN servers can be	e added.		
				🕂 Add
Description	Server	Status	Enable	Modify
No VPN Client				

- 5. Add and manage the devices that will use the VPN function.
  - 1) In the Device List section, click Add.
  - 2) Choose and add the devices that will access the VPN server you have configured.

Device List				
Manage devices that w	ill use the VPN function.			
				🔂 Add
Device Type	Device Name	MAC Address	VPN Access	Modify
No items				

6. Save the settings.

				×
Select the	e devices that will access VPN	server.		
ONLINE [	DEVICES			
	Device Type	Device Name	MAC Address	
	<b>_</b>	18503634-BG	40-ED-00-22-30-74	
OFFLINE	DEVICES			
	Device Type	Device Name	MAC Address	
The	ere is no entry!			

Done! Now the devices you specified can access the VPN server you enabled.

## 4.10. IPv6

#### 4. 10. 1. Set up an IPv6 Internet Connection

This function allows you to set up an IPv6 internet connection using the information provided by your ISP (internet service provider).

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > IPv6.
- 3. Enable IPv6 and select the internet connection type provided by your ISP. Note: If you do not know what your internet connection type is, contact your ISP.
- 4. Fill in information as required by different connection types.

IPv6 Internet			
Set up an IPv6 internet connect	ion using the information provide	d by your ISP (internet service prov	ider).
10.0			
IPv6:			

• Static IP: Fill in blanks and save the settings.

Pv6 Internet			
et up an IPv6 internet connect	ion using the information pro	vided by your ISP (internet service	provider)
Pv6:			
nternet Connection Type:	Static IP	~	
Pv6 Address:			
efault Gateway:			
rimary DNS:			
econdary DNS:			
TU Size:	1500	bytes	

 Dynamic IP(SLAAC/DHCPv6): Click Advanced Settings to input further information if your ISP requires. Save the settings and click RENEW.

IPv6 Internet	
Set up an IPv6 internet connec	tion using the information provided by your ISP (internet service provider).
IPv6:	
Internet Connection Type:	Dynamic IP(SLAAC/DHCPv6)
IPv6 Address:	::
Primary DNS:	::
Secondary DNS:	::
	RENEW
	RELEASE
Advanced Settings	

 PPPoE: By default, the router uses the IPv4 account to connect to the IPv6 server. Click Advanced Settings to input further information if your ISP requires. Save the settings and click CONNECT.

**Note:** If your ISP provides two separate accounts for the IPv4 and IPv6 connections, manually enter the username and password for the IPv6 connection.

IPv6 Internet		
Set up an IPv6 internet connect	tion using the information provided by your ISP (internet service pro	vider).
IPv6:		
Internet Connection Type:	PPPoE ~	
	Share the same PPPoE session with IPv4	
Username:		
Password:	Ø	
IPv6 Address:	H	
Advanced Settings		
	CONNECT	
	DISCONNECT	

• 6to4 Tunnel: An IPv4 internet connection type is a prerequisite for this connection type. Please manually set up your internet connection first. Click Advanced Settings to input further information if your ISP requires. Save the settings and click CONNECT.

Pv6 Internet	
Set up an IPv6 internet connect	ion using the information provided by your ISP (internet service pr
Pv6:	
nternet Connection Type:	6to4 Tunnel 🗸
Pv4 Address:	0.0.0.0
Pv4 Subnet Mask:	0.0.0.0
Pv4 Default Gateway:	0.0.0.0
funnel Address:	::
Advanced Settings	
	CONNECT
	DISCONNECT

• Pass-Through (Bridge): Save the settings. No configuration is required.

IPv6 Internet			
Set up an IPv6 internet connect	ion using the information provided b	/ your ISP (internet servio	e provider).
IPv6:			
Internet Connection Type:	Pass-Through (Bridge)	~	

5. Configure LAN ports. Windows users are recommended to choose from DHCPv6 and SLAAC+Stateless DHCP.

IPv6 LAN	
Configure the LAN IPv6 a	ddress of the router and set the configuration type to assign IPv6 addresses to the clients
Assigned Type:	ND Proxy
	O DHCPv6
	SLAAC+Stateless DHCP
	SLAAC+RDNSS
Address:	FE80::2FF:FF:FE3F:9203/64

Note: You don't need to configure IPv6 LAN if the Internet Connection Type is Pass-Through (Bridge).

6. In **MAC Clone** section, set the MAC address of your router. Use the default address unless your ISP allows internet access from only a specific MAC address.

MAC Clone		
Set the MAC address of your specific MAC address.	router. Use the default address unless your ISP allows internet acces	s from only a
Router MAC Address:	Use Default MAC Address	
	00 - FF - 00 - 3F - 92 - 04	

## 4.11. System

#### 4.11.1. Firmware Upgrade

TP-Link aims at providing better network experience for users.

We will inform you through the web management page if there's any update firmware available for your router. Also, the latest firmware will be released at the TP-Link official website <u>www.tp-link.com</u>, and you can download it from the <u>Support</u> page for free.

Note:

- Backup your router configuration before firmware upgrade.
- Do NOT turn off the router during the firmware upgrade.

#### Auto Update

Enable Auto Update and set the update time. The router will update firmware automatically at the specified time when new version is available.

Auto Update			
Auto update allows your performance and enhane	router to automatically update to the latest firmv ces system security.	ware which	n provides better network
Auto Update:			
Current Time:	2024-12-27 12:39:21 AM		Time Settings

#### **Online Upgrade**

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. When the latest firmware is available for your router, the upgrade icon of will display in the top-right corner of the page. Click the icon to go to the Firmware Upgrade page.

Alternatively, you can go to Advanced > System > Firmware Upgrade, and click CHECK FOR UPGRADES to see whether the latest firmware is released.

Online Update	
Update firmware for this router over the internet.	
Firmware Version:	
Hardware Version:	TL-WR3002X v1.0
	CHECK FOR UPDATES
	Firmware is up to date.

#### 3. Click UPGRADE if there is new firmware.

#### 4. Wait a few minutes for the upgrade and reboot to complete.

*Tips:* If there's a new and important firmware update for your router, you will see the prompt notification on your computer as long as a web browser is opened. Click UPGRADE, and log in to the web management page with the username and password you set for the router. You will see the Firmware Upgrade page.

#### Local Upgrade

- 1. Download the latest firmware file for the router from <u>www.tp-link.com</u>.
- 2. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 3. Go to Advanced > System > Firmware Upgrade.
- 4. Focus on the Local Upgrade section. Click BROWSE to locate the downloaded new firmware file, and click UPGRADE.

Local Update	
Update firmware for this router from	n a local file.
New Firmware File:	企 UPLOAD
	UPDATE

5. Wait a few minutes for the upgrade and reboot to complete.

Note: If you fail to upgrade the firmware for the router, please contact our Technical Support.

#### 4. 11. 2. 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 <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Backup & Restore.

#### • To backup configuration settings:

Click BACK UP 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 current router settings to a file.	
	BACK UP

- To restore configuration settings:
- 1. Click UPLOAD to locate the backup configuration file stored on your computer, and click RESTORE.

Restore	
Restore settings from a backup file.	
File:	企 UPLOAD
	RESTORE

#### 2. Wait a few minutes for the restoring and rebooting.

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

- To reset the router except your login password and TP-Link ID:
- 1. In the Factory Default Restore section, click RESTORE.

Factory Default Restore				
Restore all settings to default values.				
Restore all configuration settings to default values, except your login and cloud account information.				
RESTORE				

#### 2. Wait a few minutes for the resetting and rebooting.

#### Note:

- During the resetting process, do not turn off the router.
- After reset, you can still use the current login password or the TP-Link ID to log in to the web management page.

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

#### 1. Click FACTORY RESTORE to reset the router.

FACTORY RESTORE	Restore all the configuration settings	s to their default values.
		FACTORY RESTORE

#### 2. Wait a few minutes for the resetting and rebooting.

#### Note:

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

#### 4. 11. 3. Change the Login Password

# The account management feature allows you to change your login password of the web management page.

**Note:** If you are using a TP-Link ID to log in to the web management page, the account management feature will be disabled. To manage the TP-Link ID, go to Advanced > TP-Link ID.

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

2. Go to Advanced > System > Administration and focus on the Change Password section.

15
Ø
1

- 3. Enter the old password, then a new password twice (both case-sensitive). Click SAVE.
- 4. Use the new password for future logins.

#### 4.11.4. Password Recovery

# This feature allows you to recover the login password you set for you router in case you forget it.

**Note:** If you are using a TP-Link ID to log in to the web management page, the Password Recovery feature will be disabled. To manage the TP-Link ID, go to Advanced > TP-Link ID.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > System > Administration and focus on the Password Recovery section.
- 3. Tick the Enable box of Password Recovery.
- 4. Specify a mailbox (From) for sending the recovery letter and enter its SMTP Server address. Specify a mailbox (To) for receiving the recovery letter. If the mailbox (From) to send the recovery letter requires encryption, Tick the Enable box of Authentication and enter its username and password.

Tips:

- SMTP server is available for users in most webmail systems. For example, the SMTP server address of Gmail is smtp.gmail.com.
- Generally, Authentication should be enabled if the login of the mailbox requires username and password.

Password Recovery		
Reset local management password via preset questions and answers.		
Password Recovery:	Z Enabled	
From:		
To:		
SMTP Server:		
Authentication:	Enabled	
Username:		
Password:	Ø	6

#### 5. Click SAVE.

To recover the login password, please visit <u>http://tplinkwifi.net</u>, click Forgot Password? on the login page and follow the instructions to set a new password.

#### 4.11.5. Local Management

This feature allows you to limit the number of client devices on your LAN from accessing the router by using the MAC address-based authentication.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Administration and complete the settings In Local Management section as needed.
- Access the router via HTTPS and HTTP:

Tick the Enable box of Local Management via HTTPS to access the router via HTTPS and HTTP, or keep it disabled to access the router only via HTTP.

Local Management			
Access and manage the router from	m local network devices.		
Local Management via HTTPS:	Enabled		
Local Managers:	All Devices	~	

• Allow all LAN connected devices to manage the router:

Select All Devices for Local Managers.

Local Management		
Access and manage the router fro	m local network devices.	
Local Management via HTTPS:	Enabled	
5		

- Allow specific devices to manage the router:
- 1. Select Specified Devices for Local Managers and click SAVE.

Local Management		
Access and manage the router from	n local network devices.	
Local Management via HTTPS:	Z Enabled	
Local Managers:	Specified Devices	
		Add Device
Description	MAC Address	Modify
There is no entry!		

2. Click Add Device.

Add Device		×
Description:		(Optional)
	VIEW CONNECTED DEVICES	
MAC Address:		
	CAN	SAVE

- 3. Click VIEW CONNECTED DEVICES and select the device to manage the router from the Connected Devices list, or enter the MAC address of the device manually.
- 4. Specify a Description for this entry.
- 5. Click SAVE.

#### 4.11.6. Remote Management

This feature allows you to control remote devices' authority to manage the router.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Administration and complete the settings in Remote Management section as needed.
- Forbid all devices to manage the router remotely:

Do not tick the Enable checkbox of Remote Management.

Remote Management Access and manage the router over	er the internet.	
Note: Remote Management is not supported when you are connected to the internet only via IPv6. If you want to use Remote Management, please make sure you have set up an IPv4 connection first.		
Remote Management:	Enabled	

• Allow all devices to manage the router remotely:

Remote Management				
Access and manage the router over the internet.				
	supported when you are connected to the inte nake sure you have set up an IPv4 connectio			
Remote Management:	Enabled			
HTTPS Port:	443			
Web Address for Management:	https://192.168.0.100:443			
Remote Managers:	All Devices ~			

- 1. Tick the Enable checkbox of Remote Management.
- 2. Keep the HTTPS port as default settings (recommended) or enter a value between 1024 and 65535.
- 3. Select All Devices for Remote Managers.
- 4. Click SAVE.

Devices on the internet can log in to <u>https://Router's WAN IP address:port number</u> (such as <u>https://113.116.60.229:1024</u>) to manage the router.

Ø Tips:

- You can find the WAN IP address of the router on Network Map > Internet.
- The router's WAN IP is usually a dynamic IP. Please refer to Dynamic DNS if you want to log in to the router through a domain name.
- Allow a specific device to manage the router remotely:

Remote Management		
Access and manage the router ov	ver the internet.	
	t supported when you are connected to the make sure you have set up an IPv4 conne	
Remote Management:	Enabled	
HTTPS Port:	443	
Web Address for Management:	https://192.168.0.100:443	
Remote Managers:	Specified Device	~
Only this IP Address:		

- 1. Tick the Enable checkbox of Remote Management.
- 2. Keep the HTTPS port as default settings (recommended) or enter a value between 1024 and 65535.
- 3. Select Specified Device for Remote Managers.
- 4. In the Only this IP Address field, enter the IP address of the remote device to manage the router.
- 5. Click SAVE.

Devices using this WAN IP can manage the router by logging in to <u>https://Router's WAN</u> IP:port number (such as <u>https://113.116.60.229:1024</u>).

Tips: The router's WAN IP is usually a dynamic IP. Please refer to <u>Dynamic DNS</u> if you want to log in to the router through a domain name.

#### 4.11.7. System Log

When the router does not work normally, you can save the system log and send it to the technical support for troubleshooting.

- To save the system log locally:
- 1. Visit <u>http://tplinkwifi.net</u>, and log in your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > System Log.
- 3. Choose the type and level of the system logs as needed.

System Log				
View a detailed record	of system activities.			
Current Time:	2024-12-27 12:51	1:33 AM		
All	~			
Search	Q		🕄 Refresh	🗳 Clear All
2024-12-27 00:46 2024-12-27 00:46 2024-12-27 00:46 2024-12-27 00:46 2024-12-27 00:45 2024-12-27 00:45 2024-12-27 00:45 2024-12-27 00:45 2024-12-27 00:45 2024-12-27 00:35 2024-12-27 00:35	49 Led Controller INFO [1293] 49 Led Controller ERROR [125 49 Led Controller DEBUG [125 49 Led Controller DEBUG [125 49 Led Controller INFO [1293] 49 Led Controller INFO [1293] 49 Led Controller ERROR [125 49 Led Controller DEBUG [125 49 Led Controller DEBUG [125 15 Traffic Statistics INFO [8792 15 Traffic Statistics INFO [8792 15 Network INFO [7997] Set IF	93] Config importing failed 93] Failed to read WAN0_OFF 93] Config importing failed 93] Failed to read LAN_ON 1 Start to run WAN1_OFF 93] Config importing failed 93] Failed to read WAN0_ON 93] Config importing failed 93] Failed to read LAN_ON 2] stats reset ad config		

4. In the Save Log section, click SAVE TO LOCAL to save the system logs to a local disk.

Save Log	
Send system log to a specific emai	address or save locally.
	MAIL LOG
	SAVE TO LOCAL

• To send the system log to a mailbox at a fixed time:

For example, I want to check my router's working status at a fixed time every day, however, it's too troublesome to log in to the web management page every time I want to go checking. It would be great if the system logs could be sent to my mailbox at 8 a.m. every day.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > System Log.
- 3. In the Save Log section, click MAIL LOG.
- 4. Enter the information required:

Mail Log			×
Note: Set your mail information	n below.		
Email From:			
	Require Password		
Username:			
Email Password:		Ø	
SMTP Server:			
Email To:			
	Mail Log Automatically		
Frequency:	Every Day	~	
Mail Time:	00 ~ : 00	~	
	C	CANCEL SAVE	

1) Email From: Enter the email address used for sending the system log.

#### 2) Select Require Password.

Tips: Generally, Require Password should be selected if the login of the mailbox requires username and password.

- 3) Username: Enter the email address used for sending the system log.
- 4) Email Password: Enter the password to login the sender's email address.
- 5) SMTP Server: Enter the SMTP server address.

Tips: SMTP server is available for users in most webmail systems. For example, the SMTP server address of Hotmail is smtp-mail.outlook.com.

- 6) Email To: Enter the recipient's email address, which can be the same as or different from the sender's email address.
- 7) Select Mail Log Automatically.

<sup>@</sup> Tips: The router will send the system log to the designated email address if this option is enabled.

8) Frequency: This determines how often the recipient will receive the system log.

5. Click SAVE.

#### 4. 11. 8. Test the Network Connectivity

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

1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.

#### 2. Go to Advanced > System > Diagnostics.

Diagnostics			
Troubleshoot network connectivity	problems.		
Diagnostics Tools:	Ping		~
IP Address/Domain Name:			
Ping Count:	4		
Ping Packet Size:	64	Ву	/tes
		START	

- 3. Enter the information:
  - 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 IP Address or Domain Name of the tested host.
  - 3) Modify the Ping Count number and the Ping Packet Size. It's recommended to keep the default value.
  - 4) If you have chosen Traceroute, you can modify the Traceroute Max TTL. It's recommended to keep the default value.
- 4. Click START to begin the diagnostics.

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

Reply from 192.168.0.1: bytes=64 ttl=64 seg=4 time=0.907 ms	
Ping Statistic "192.168.0.1" Packets: Sent=4, Received=4, Lost=0 (0.00% loss) Round-trip min/avg/max = 0.907/0.929/0.966 ms ping is stopped.	

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

```
traceroute to 192.168.0.1, 5 hops max, 46 byte packets

1 * * *

2 * * *

3 * * *

4 * * *

5 * * *

Trace Complete.

traceroute is stopped.
```

#### 4.11.9. 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 time-based functions like Parental Controls. You can choose the way to obtain the system time as needed.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Time.
- To get time from the internet:
- 1. Enable 24-Hour Time if you want the time to display in a 24-hour way.
- 2. In the Set Time field, select Get from Internet.

System Time		
Set the router's system time.		
Current Time:	2024-12-27 00:56:27	
24-Hour Time:		
Set Time:	Get from Internet	
Time Zone:	(UTC+08:00) Beijing, Chongqing, Hong Kong, Urumqi	~
NTP Server I:	us.pool.ntp.org	
NTP Server II:	north-america.pool.ntp.org (Optional)	

- 3. Select your local Time Zone from the drop-down list.
- 4. In the NTP Server I field, enter the IP address or domain name of your desired NTP Server.
- 5. (Optional) In the NTP Server II field, enter the IP address or domain name of the second NTP Server.
- 6. Click SAVE.
- To get time from your computer:
- 1. In the Set Time field, select Get from Managing Device.

System Time		
Set the router's system ti	me.	
Current Time:	2024-12-27 00:57:16	
24-Hour Time:		
Set Time:	Get from Managing Device	~

- 2. The time of your computer will then be displayed and click SAVE.
- To manually set the date and time:
- 1. In the Set Time field, select Manually.

System Time		
Set the router's system time.		
Current Time:	2024-12-27 01:00:13	
24-Hour Time:		
Set Time:	Manually	~
Date:	2024/12/27	
Time:	00 ~: 57 ~: 06	~

- 2. Set the current Date (In MM/DD/YYYY format).
- 3. Set the current Time (In HH/MM/SS format).
- 4. Click SAVE.
- To set up Daylight Saving Time:
- 1. Tick the Enable box of Daylight Saving Time.

Daylight Saving Time Automatically synchronize the	system time with daylight saving time.			
Daylight Saving Time:	Enabled			
Start: 2025	Mar	~	2nd	~
	Sun	~	10:00	~
End: 2025	Nov	~	First	~
	Sun	~	09:00	~
Running Status:	Daylight Saving Time is off.			

2. Select the correct Start date and time when daylight saving time starts at your local time zone.

- 3. Select the correct End date and time when daylight saving time ends at your local time zone.
- 4. Click SAVE.

#### 4. 11. 10. Set the Router to Reboot Regularly

The Scheduled Reboot feature cleans the cache to enhance the running performance of the router.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Reboot.
- 3. Tick the Enable box of Reboot Schedule.

Reboot Schedule		
Set when and how often the	e router reboots automatically.	
Reboot Schedule:	Enabled	
Note: Before using this feat	rure, make sure System Time is set to "Get	from Internet".
Reboot Time:	3 ~ :00	~
Repeat:	Every Week	~
	Monday	~

- 4. Specify the Reboot Time when the router reboots and Repeat to decide how often it reboots.
- 5. Click SAVE.

#### 4.11.11. Control the LED

The LED of the router indicates its activities and status. You can enable the Night Mode feature to specify a time period during which the LED is off.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > LED Control.
- 3. Enable Night Mode.
- 4. Specify the LED off time, and the LED will be off during this period every day.
- 5. Click SAVE.

LED Control Turn the router's LEDs on or off.	
LED Status:	
Night Mode	
Set a time period when the LEDs v	vill be off automatically.
Night Mode:	Z Enabled
Note: Before using this feature, ma	ake sure System Time is set to "Get from Internet".
Current Time:	2024-12-27 01:03:06
LED Off From:	23 ~ : 00 ~
To:	<b>7</b> → : <b>00</b> → (next day)

#### 4.11.12. ECO Mode

An ECO Mode switch is used to change the power saving mode of the router. To change the ECO Mode, please toggle the Mode Switch on the device to your desired mode.

- Boost Mode: Favors wireless range and transmission speed but may increase energy consumption and raise device temperature.
- Balance Mode: Automatically balances wireless range and transmission speed while considering energy consumption and device temperature.
- ECO Mode: Saves energy and lowers device temperature by reducing device's wireless range and transmission speed.

ECO Mode		
Choose the ECO Mode that suits your	needs best.	
Note: If you want to change the ECO N	lode, please toggle the Mode Switch on	the device to your desired mode.
Boost Mode	Balance Mode (Current)	ECO Mode
2000 11000		200 11000

#### 4. 11. 13. Authorize Third-Party Services

Share your clients' information to a third-party services to identify your clients better. We won't save your private information.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Authorize Third-Party Services.

#### 3. Enable Client Identification.

Authorize Third-Party Services			
Once enabled, we will share your clients' information to a third-party services to identify your clients better. We won't save your private information.			
Client Identification:			

# Chapter 5

# **Configure the Router in Hotspot Mode**

This chapter presents how to configure the various features of the router working in Hotspot mode.

It contains the following sections:

- Operation Mode
- Network Map
- <u>Network</u>
- TP-Link Cloud Service
- <u>Wireless</u>
- USB Storage Device
- <u>NAT Forwarding</u>
- Security
- VPN Server&Client

- <u>IPv6</u>
- System

# 5.1. Operation Mode

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Internet.
- To view the router's current mode:

Locate the Connection Settings section. The router's current operation mode is highlighted.

a network mode based on how	your internet is provided, and set it up.			
Ethernet Off		ISB Modem Iff	Hotspot TP-Link Office	
<b>htspot</b> t Internet via an existing public \	VI-Fi and turn it into a private network.			
	Wi-Fi SCANNER			
/ireless Band:	2.4 GHz	2.4 GHz		
	🔵 5 GHz			
lain Network SSID:	TP-Link Office			
IAC Address:	62 - E9 - 31 - 1D -	89 - AE		
	Lock to AP			
ecurity:	WPA/WPA2-Personal	~		
assword:	25802580			
ternet Connection Type:	Dynamic IP	~		
	Select this type if your ISP doesn't pro information for internet connection.	vide any		
outer MAC Address	Use Default MAC Address			

• To change the router's network mode:

#### Option 1:

- 1. Log in to the web management page of the router and go to Internet > Connection Settings.
- 2. Select your desired network mode, configure the parameters , and click SAVE.

#### Option 2:

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Operation Mode.
- 3. Select your desired network mode and click SAVE.

Operation Mode	
Select an operation mode according to your needs.	
Router/USB Tethering/USB Modem Mode/Hotspot Mode (Current)	
	>
Router: Get Internet via an Ethernet cable connected to an existing wired network.	
AP/RE/Client Mode	
	>
Range Extender: Extend the range of an existing Wi-Fi. Home use recommended.	

# 5.2. Network Map

Network Map outlines device connectivity of your network visually and helps you manage general settings of the network.

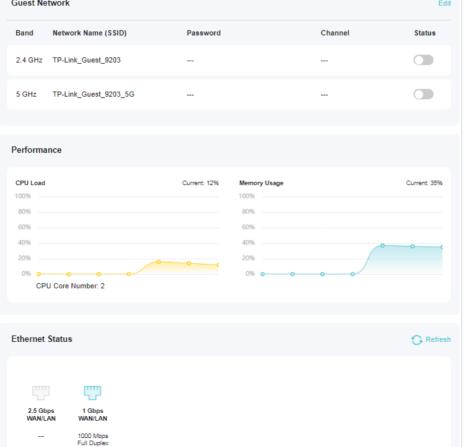
- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Network Map.
- 3. Click each network device icon to check and manage general network settings.
- Click Public Wi-Fi to check internet status.

Public Wi-Fi	((*		Clients
Internet Status			
WISP SSID: Connection Type:	TP-Link Office Dynamic IP	Internet IP Address: WAN MAC Address:	10.161.133.32 00-FF-00-3F-92-04
	S france in		

• Click the router to check device status and network settings. You can turn on or off the wireless network or guest network, or click Edit to change related settings.

123

Public Wi	• າ)) 		33002X	((-	Clients
Router Infor	rmation				
Device Name		TL-WR3002X 00-FF-00-3F-92-03	IPv4 LAN IP: IPv6 LAN IP:	FE80::2FF:FF	192.168.1.1 :FE3F:9203/64
Wireless					Edit
Band N	letwork Name (SSID)	Password		Channel	Status
2.4 GHz T	P-Link_portable	12345678		Auto (Current: 11)	
5 GHz T	P-Link_portable_5G	12345678		Auto (Current: 36)	
VPN Client		Go To Settings	ECO Mode		Learn More
Set up profile	es to use the VPN Client funct	ion.	Balance Mode Speed: Coverage: Temp. Experience		
Guest Netwo					Edi



• Click Clients to view the client devices in your network. You can block devices so they cannot access your network.

Public Wi-Fi	((• • •)) ••)) TL-WR3002X		Clients
Connected Clients			View Deny List
Device Info	Interface	Real-time Rate	Modify
<ul> <li>18503634-BG</li> <li>40-ED-00-22-30-74</li> <li>192.168.1.45</li> </ul>	(Wired)	↑ 1.6 Kbps ↓ 0 Kbps	Ø

## 5.3. Network

#### 5. 3. 1. Status

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > Status. You can view the current status information of the router.

Status			
Internet status overview is display	nternet status overview is displayed on this page.		
Internet			
Status:	Connected		
Internet Connection Type:	Dynamic IP		
IP Address:	10.161.133.32		
Subnet Mask:	255.255.254.0		
Default Gateway:	10.161.132.1		
Primary DNS:	172.29.1.1		
Secondary DNS:	172.29.1.2		
Online Duration:	9 minutes		

- Internet This field displays the current settings of the internet, and you can configure them on the Advanced > Network > Internet page
  - Status Indicates whether the router has been connected to the internet.

- Internet Connection Type Indicates the way in which your router is connected to the internet.
- IP Address The WAN IP address of the router.
- Subnet Mask The subnet mask associated with the WAN IP address.
- Default Gateway The Gateway currently used is shown here.
- Primary & Secondary DNS The IP addresses of DNS (Domain Name System) server.
- Online Duration Displays how long the router has been connected to the internet.

LAN		
MAC Address:	00-FF-00-3F-92-03	
IP Address:	192.168.1.1	
Subnet Mask:	255.255.255.0	

- LAN This field displays the current settings of the LAN, and you can configure them on the Network > LAN page.
  - MAC Address The physical address of the router.
  - IP Address The LAN IP address of the router.
  - Subnet Mask The subnet mask associated with the LAN IP address.

DHCP Server	
DHCP Server:	On
IP Address Pool:	192.168.1.2 - 192.168.1.253

- DHCP Server This field displays the current settings of DHCP (Dynamic Host Configuration Protocol) Server, and you can configure them on the Network > DHCP Server page.
  - DHCP Server Indicates whether the DHCP server is enabled or disabled. It is enabled by default and the router acts as a DHCP server.
  - IP Address Pool The IP address range for the DHCP server to assign IP addresses.

Dynamic DNS		
Service Provider:	TP-Link	

- Dynamic DNS This field displays the current settings of the Dynamic DNS (Domain Name System), and you can configure them on the Advanced > Network > Dynamic DNS page.
  - Service Provider The Dynamic DNS service provider you have signed up for.

#### 5. 3. 2. Turn WAN to LAN

When the router is in Hotspot Mode, the WAN port for internet service is deactivated. You can turn the 2.5 Gbps WAN/LAN port into a LAN port to use two LAN ports for better usage of the network resources.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > Internet.
- 3. Enable Turn WAN to LAN.

Internet Port			
Select a port for internet servi	ce. Make sure the cable	is securely connect	ted to this port on your router.
<b>•</b>	• •		nable Turn WAN to LAN to turn 2.5 Gbps of the network resources.
	1 2.5 Gbps WAN/LAN	2 1 Gbps WAN/LAN	
Turn WAN to LAN:	<b>X</b>		

#### 5. 3. 3. Internet Settings

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > Internet.
- 3. Select your internet connection type from the drop-down list.

Internet		
Set up an internet connection w	ith the service information provided by	your ISP (internet service provider).
Internet Connection Type:	Dynamic IP	~

#### **Dynamic IP**

If your ISP provides the DHCP service, please select Dynamic IP, and the router will automatically get IP parameters from your ISP.

Click **RENEW** to renew the IP parameters from your ISP.

Internet		
Set up an internet connection v	with the service information provided by	y your ISP (i
Internet Connection Type:	Dynamic IP	~
IP Address:	10.161.133.32	
Subnet Mask:	255.255.254.0	
Default Gateway:	10.161.132.1	
Primary DNS:	172.29.1.1	
Secondary DNS:	172.29.1.2	
	RENEW	
	RELEASE	
<ul> <li>Advanced Settings</li> </ul>		
DNS Address:	Get Dynamically from ISP	~
Primary DNS:	172.29.1.1	
Secondary DNS:	172.29.1.2	
MTU Size:	1500	bytes
Host Name:	WR3002X	
	Get IP using Unicast DHCP	

Click RELEASE to release the IP parameters.

- DNS Address- The default setting is to get an IP address dynamically from your ISP. If your ISP does not automatically assign DNS addresses to the router, please select Use the Following DNS Addresses and enter the IP address in dotted-decimal notation of your ISP's primary DNS server. If a secondary DNS server address is available, enter it as well.
- MTU Size The normal MTU (Maximum Transmission Unit) value for most Ethernet networks is 1500 Bytes. It is not recommended that you change the default MTU size unless required by your ISP.
- Host Name This option specifies the name of the router.
- Get IP with Unicast DHCP A few ISPs' DHCP servers do not support the broadcast applications. If you cannot get the IP address normally, you can choose this option. (It is rarely required.)

MAC Clone	
Set the MAC address of your specific MAC address.	router. Use the default address unless your ISP allows internet access from
Router MAC Address:	
Router MAC Address:	Use Default MAC Address

- Router MAC Address :
  - Use Default MAC Address Do not change the default MAC address of your router in case the ISP does not bind the assigned IP address to the MAC address.
  - Clone Current Device MAC Select to copy the current MAC address of the computer that is connected to the router, in case the ISP binds the assigned IP address to the MAC address.
  - Use Custom MAC Address Select if your ISP requires you to register the MAC address and enter the correct MAC address in this field, in case the ISP binds the assigned IP address to the specific MAC address.

Note:

• You can only use the MAC Address Clone function for PCs on the LAN.

#### Static IP

If your ISP provides a static or fixed IP address, subnet mask, default gateway and DNS setting, please select Static IP.

Internet			
Set up an internet connection w	ith the service information p	provided by your ISP (in	nternet service provider).
Internet Connection Type:	Static IP	~	
IP Address:			
Subnet Mask:			
Default Gateway:			
Primary DNS:			
Secondary DNS:			(Optional)
MTU Size:	1500	bytes	

- IP Address Enter the IP address in dotted-decimal notation provided by your ISP.
- Subnet Mask Enter the subnet mask in dotted-decimal notation provided by your ISP. Normally 255.255.255.0 is used as the subnet mask.
- Default Gateway Enter the gateway IP address in dotted-decimal notation provided by your ISP.
- Primary/Secondary DNS (Optional) Enter one or two DNS addresses in dotteddecimal notation provided by your ISP.
- MTU Size The normal MTU (Maximum Transmission Unit) value for most Ethernet networks is 1500 Bytes. It is not recommended that you change the default MTU size unless required by your ISP.

MAC Clone	
Set the MAC address of your specific MAC address.	router. Use the default address unless your ISP allows internet access from only
Router MAC Address:	
Router MAC Address:	Use Default MAC Address

- Router MAC Address :
  - Use Default MAC Address Do not change the default MAC address of your router in case the ISP does not bind the assigned IP address to the MAC address.
  - Clone Current Device MAC Select to copy the current MAC address of the computer that is connected to the router, in case the ISP binds the assigned IP address to the MAC address.
  - Use Custom MAC Address Select if your ISP requires you to register the MAC address and enter the correct MAC address in this field, in case the ISP binds the assigned IP address to the specific MAC address.

Note:

- You can only use the MAC Address Clone function for PCs on the LAN.
- If you have changed the WAN MAC address when the WAN connection is PPPoE, it will not take effect until the connection is re-established.

#### 5.3.4. NAT

The router's NAT (Network Address Translation) feature makes devices on the LAN use the same public IP address to communicate with devices on the internet, which protects the local network by hiding IP addresses of the devices.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > Internet and locate the NAT section.
- 3. Configure NAT, then click SAVE.

NAT		
NAT:	Enable NAT	

4. NAT is enable by dafault and it's highly recommended. If you disable it, you may have no access to the internet and NAT Forwarding will not take effect.

#### 5. 3. 5. DoT/DoH

Encrypting DNS queries by TLS/HTTPS, DoT/DoH can provide you with a more secure and private internet connection.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > Internet and locate the DoT/DoH section.
- 3. Select a DNS Privacy: DoT/DoH.
- 4. Select a DNS Mode.
  - **Default Mode:** In this mode, the router will prioritize the secure DNS server you selected. If the server is unavailable, the default DNS server will take effect.
  - **Ultra Secure Mode:** In this mode, the router only uses the secure DNS server you selected. If the server is unavailable, the internet connectivity will be affected.
- 5. Enter the DNS Server. You can detect whether the selected DNS servers are available or not. When you save the settings, DoH/DoT will be applied to these DNS servers, and the Primary & Secondary DNS servers you've set won't take effect.

DoT/DoH Encrypting DNS queries by T connection.	ILS/HTTPS, DoT/DoH can provide you with a more secure and private internet
DNS Privacy:	<ul> <li>DoT</li> <li>DoH</li> <li>None</li> </ul>
DNS Mode:	Default Mode The router will prioritize the secure DNS server you selected. If the server is unavailable, the default DNS server will take effect.
DNS Server:	O Ultra Secure Mode
	(Optional) (Optional) DETECT DNS SERVER

#### 5.3.6. LAN

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > LAN.
- 3. Configure the IP parameters of the LAN and click SAVE.

LAN		
View and configure LAN	settings.	
MAC Address:	00-FF-00-3F-92-03	
IP Address:	192.168.1.1	
Subnet Mask:	255,255,255,0	~

- MAC Address The physical address of the LAN ports. The value can not be changed.
- IP Address Enter the IP address in dotted-decimal notation of your router (the default one is 192.168.0.1).
- Subnet Mask An address code that determines the size of the network. Normally 255.255.255.0 is used as the subnet mask.
- Note:
- If you have changed the IP address, you must use the new IP address to log in.
- If the new IP address you set is not in the same subnet as the old one, the IP address pool in the DHCP Server will be configured automatically, but the Virtual Server and DMZ Host will not take effect until they are re-configured.

#### 5.3.7. IGMP

IGMP (Internet Group Management Protocol) helps the router to identify which clients are subscribed to specific multicast groups within a local network. This allows for efficient transmission of multicast data packets, avoiding unnecessary traffic waste and improving network performance.

IGMP can be used to manage multicast transmission in IPTV. If you want to set up IPTV to enable Internet/IPTV/Phone service provided by your internet service provider (ISP), follow the steps:

Before you start, make sure your ISP provides the networking service based on IGMP technology, e.g., British Telecom(BT) and Talk Talk in UK:

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > IGMP.
  - 1) Tick the IGMP Proxy and IGMP Snooping checkbox, then select the IGMP Version, either V2 or V3, as required by your ISP.

IGMP			
Check the multicast setting	s. It is recommended to keep them	as default.	
IGMP Proxy:	Enabled		
IGMP Snooping:	Enabled		
IGMP Version:	V2	~	

- 2) Click SAVE.
- 3) After configuring IGMP proxy, IPTV can work behind your router now. You can connect your set-top box to any of the router's Ethernet port.

#### 5. 3. 8. DHCP Server

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 addresses for specified client devices.

- To specify the IP address that the router assigns:
- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > DHCP Server and locate the DHCP Server section.

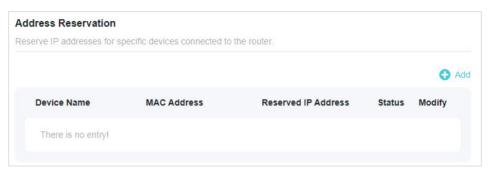
DHCP Server					
Dynamically assign IP addresses to the devices connected to the router.					
DHCP Server:	Enabled				
IP Address Pool:	192.168.1.2	- 192.168.1.253	3		
Address Lease Time:	120	minutes			
Default Gateway:	192.168.1.1		(Optional)		
Primary DNS:			(Optional)		
Secondary DNS:			(Optional)		

- 1. Tick the Enable checkbox.
- 2. Enter the starting and ending IP addresses in the IP Address Pool.
- 3. Enter other parameters if the ISP offers. The Default Gateway is automatically filled in and is the same as the LAN IP address of the router.
- 4. Click SAVE.

Note: To use the DHCP server function of the router, you must configure all computers on the LAN as Obtain an IP Address automatically.

• To reserve an IP address for a specified client device:

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > DHCP Server and locate the Address Reservation section.
- 3. Click Add in the Address Reservation section.



4. Click VIEW CONNECTED DEVICES and select the you device you want to reserve an IP for. Then the MAC and IP Address will be automatically filled in. You can also enter the MAC and IP address of the client device.

Add a Reservation	Entry	>
MAC Address:		
	VIEW CONNECTED DEVICES	
IP Address:		
	CANCEL	

- To check the DHCP client list:
- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > DHCP Server and locate the DHCP Client List section. You can see the device information of the list.
- 3. Click Refresh to see the current attached devices.

OHCP Client List /iew the devices that are cur	rently assigned with IP addresses	s by the DHCP server.	
Total Clients: 1			C Refrest
Device Name	MAC Address	Assigned IP Address	Lease Time
18503634-BG	40-ED-00-22-30-74	192.168.1.45	1:58:31

#### 5. 3. 9. Dynamic DNS

The router offers the DDNS (Dynamic Domain Name System) feature, which allows the hosting of a website, FTP server, or e-mail server with a fixed domain name (named by yourself) and a dynamic IP address. Thus your friends can connect to your server by entering your domain name no matter what your IP address is.

Before using this feature, you need to sign up for DDNS service providers such as www.comexe.cn, www.dyndns.org, or www.noip.com. The Dynamic DNS client service provider will give you a password or key.

- 1. Visit <u>http://tplinkwifi.net</u>, 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: TP-Link, NO-IP or DynDNS.

It is recommended to select TP-Link so that you can enjoy TP-Link's superior DDNS service. Otherwise, please select NO-IP or DynDNS. If you don't have a DDNS account, you have to register first by clicking Register Now.

Dynamic DNS			
Assign a fixed host name (	domain name) for remote access	to your device, website, or server be	hind the router.
Service Provider:	TP-Link	~	

Note: To enjoy TP-Link's DDNS service, you have to log in with a TP-Link ID. If you have not logged in with one, click log in.

4. Click Register in the Domain Name List if you have selected TP-Link, and enter the Domain Name as needed.

Oynamic DNS				
ssign a fixed host nar outer.	ne (domain name) for	remote access to	o your device, website, or se	erver behind the
:	Service Provider: TF	<sup>D</sup> -Link	~	
Currer				
Oomain Name List				
				🕀 Regist
Domain Name	Registered Date	Status	Operation	Delete
No Entries				

If you have selected NO-IP or DynDNS, enter the username, password and domain name of your account.

Dynamic DNS		
Assign a fixed host name (domain name router.	e) for remote access to your device, we	bsite, or server behind the
Service Provider:	NO-IP 🗸	Register Now
Username:		
Password:	Ø	
Domain Name:		
WAN IP binding:	Enable	
Status:	Not launching	
	LOGIN AND SAVE	
	LOGOUT	

#### 5. Click LOG IN AND SAVE.

Note: If you want to use a new DDNS account, please click LOGOUT first, and then log in with a new account.

#### 5. 3. 10. Static Routing

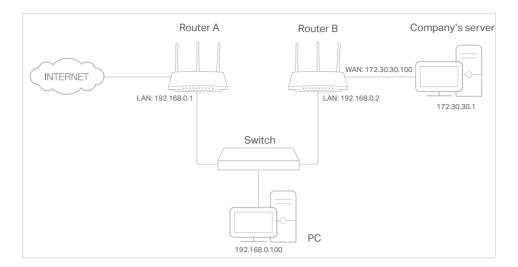
Static Routing is a form of routing that is configured manually by a network administrator or a user by adding entries into a routing table. The manually-configured routing information guides the router in forwarding data packets to the specific destination.

#### I want to:

Visit multiple networks and servers at the same time.

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

\*Image may differ from your actual product.



#### How can I do that?

- 1. Change the routers' LAN IP addresses to two different IP addresses on the same subnet. Disable Router B's DHCP function.
- 2. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for Router A.
- 3. Go to Advanced > Network > Routing and locate the Static Routing section.

Static Routing							
Predetermine a fixed route for network packets to reach a specific host or network.							
							🔂 Add
Netwo Destin		Subnet Mask	Default Gateway	Interface	Description	Status	Modify
There is no entry!							

4. Click Add and finish the settings according to the following explanations:

Add a Routing Entry			×
Network Destination:			
Subnet Mask:			
Default Gateway:			
Interface:	- Please Select -	~	
Description:			
		CANCEL	SAVE

- Network Destination 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 Router A. In the example, the IP address of the company network is the destination IP address, so here enter 172.30.30.1.
- Subnet Mask The Subnet Mask determines which portion of an IP address is the network portion, and which portion is the host portion.
- Default 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 data. In the example, the data packets will be sent to the LAN port of Router B and then to the Server, so the default gateway should be 192.168.1.2.
- Interface Determined by the port (WAN/LAN) that sends out data packets. In the example, the data are sent to the gateway through the LAN port of Router A, so LAN/WLAN should be selected.
- Description Enter a description for this static routing entry.
- 5. Click SAVE.
- 6. Check the Routing Table below. If you can find the entry you've set, the static routing is set successfully.

Routing Table				
View all valid routing entries that are currently in use.				
Active Route Number: 3			C Refresh	
Network Destination	Subnet Mask	Gateway	Interface	
0.0.0.0	0.0.0.0	192.168.0.1	WAN	
192.168.0.0	255.255.255.0	0.0.0	WAN	
192.168.1.0	255.255.255.0	0.0.0.0	LAN	

# 5.4. TP-Link Cloud Service

TP-Link Cloud service provides a better way to manage your cloud devices. Log in to your router with a TP-Link ID, and you can easily monitor and manage your home network when you are out and about via the Tether app. To ensure that your router stays new and gets better over time, the TP-Link Cloud will notify you when an important firmware upgrade is available. Surely you can also manage multiple TP-Link Cloud devices with a single TP-Link ID.

This section introduces how to register a new TP-Link ID, bind or unbind TP-Link IDs to manage your router, and the Tether app with which you can manage your home network no matter where you may find yourself.

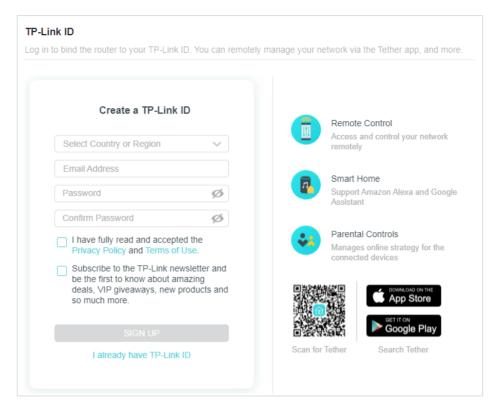
# 5. 4. 1. Register a TP-Link ID

If you have skipped the registration during the Quick Setup process, you can:

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > TP-Link ID or click TP-Link ID on the very top of the page.

	Remote Control
TP-Link ID (Email):	Access and control your network remotely
Password:	Smart Home Support Amazon Alexa and Google Assistant
LOG IN	Parental Controls Manages online strategy for the connected devices
SIGN UP	connected devices
Forgot Password?	DOWNLOAD ON THE App Store Control of the Control of the Co

3. Click Sign Up and follow the instructions to register a TP-Link ID.



- 4. After activating your TP-Link ID, come back to the TP-Link ID page to log in. The TP-Link ID used to log in to the router for the first time will be automatically bound as an Admin.
- Note:
- To learn more about the Admin and User TP-Link ID, refer to Manage the User TP-Link IDs.
- Once you have registered a TP-Link ID on the web management page, you can only register another TP-Link ID via the Tether APP. Please refer to <u>Set up via Tether</u> to install the app.
- If you want to unbind the admin TP-Link ID from your router, please go to Advanced > TP-Link ID, an click Unbind in the Device Information section.

# 5. 4. 2. Change Your TP-Link ID Information

Follow the steps below to change your email address and password of your TP-Link ID as needed.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID.
- 2. Go to Advanced > TP-Link ID, and focus on the TP-Link ID section.

TP-Link ID			
Edit the email and password for your TP-	-Link ID.		
Email:		C	
Password:		ß	
Region:	United States		
Email Subscription:			
	Subscribe to the TP-Link newsletter and be the first to know about amazing deals, VIP giveaways, new products, and so much more!		

- To change your email address:
- 1. Click 🗹 behind the Email.
- 2. Enter the password of your TP-Link ID, then a new email address. And click SAVE.

Change Email	×
Current Password:	Ø
New Email:	
	nay not sync to client devices immediately. Please log in again when Internet to update account information.
	CANCEL SAVE

- To change your password:
- 1. Click 🗹 behind the Password.
- 2. Enter the current password, then a new password twice. And click SAVE.

Change Password	×
Current Password:	Ø
New Password:	Ø
	may not sync to client devices immediately. Please log in again when a Internet to update account information.
	CANCEL SAVE

#### 5. 4. 3. Manage the User TP-Link IDs

The TP-Link ID used to log in to the router for the first time will be automatically bound as the Owner account. The Owner account can add or remove other TP-Link IDs to or from the same router. All accounts can monitor and manage the router locally or remotely, but only the owner account can:

- Reset the router to its factory default settings either on the web management page or in the Tether app.
- Add/remove other TP-Link IDs to/from the router.

#### Add TP-Link ID to Manage the Router

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID.
- 2. Go to Advanced > TP-Link ID, and focus on the Bound TP-Link IDs section.

Bound TP-Link IDs				
Bind or unbind TP-Link IDs to control who can manage this device.				
Owner	Unbind			
Bind				

#### 3. Click 🕂 Bind , enter another TP-Link ID as needed and click SAVE.

**Note:** If you need another TP-Link ID, please register a new one via the Tether app. Refer to <u>Manage the Router via the</u> <u>TP-Link Tether App</u> to install the app and register a new TP-Link ID.

Bind TP-Link ID		×
TP-Link ID (Email):		
	CANCEL	BIND

4. The new TP-Link ID will be displayed in the Bound TP-Link IDs table.

#### Remove TP-Link ID(s) from Managing the Router

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID.
- 2. Go to Advanced > TP-Link ID, and focus on the Bound TP-Link IDs section.
- 3. Tick Unbind of the TP-Link ID(s) you want to remove.

Bound TP-Link IDs	
Bind or unbind TP-Link IDs to control who can manage this device.	
0	
Owner	Unbind
	Unbind

# 5. 4. 4. Manage the Router via the TP-Link Tether App

The Tether app runs on iOS and Android devices, such as smartphones and tablets.

1. Launch the Apple App Store or Google Play store and search "TP-Link Tether" or simply scan the QR code to download and install the app.



2. Launch the Tether app and log in with your TP-Link ID. Note: If you don't have a TP-Link ID, create one first.

- 3. Connect your device to the router's wireless network.
- 4. Go back to the Tether app, select the model of your router and log in with the password you set for the router.

#### 5. Manage your router as needed.

**Note:** If you need to remotely access your router from your smart devices, you need to:

- Log in with your TP-Link ID. If you don't have one, refer to Register a TP-Link ID.
- Make sure your smartphone or tablet can access the internet with cellular data or a Wi-Fi network.

# 5.5. Wireless

## 5. 5. 1. Wireless Settings

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Wireless > Wireless Settings.
- 3. Configure the wireless settings for the wireless network and click SAVE.

Wireless Settings					
Personalize settings for each band					
OFDMA:	Enabled 🕝				
TWT:	Enabled 😮				
2.4 GHz:	Enabled	Share Network			
Network Name (SSID):	TP-Link_portable	Hide SSID			
Security:	WPA2-PSK[AES]				
Password:	12345678				
▼ 2.4 GHz Advanced Settings					
Transmit Power:	High v				
Channel Width:	20/40 MHz ~				
Channel:	Auto 🗸				
Mode:	802.11b/g/n/ax mixed V				
Note: In Hotspot Mode, these setting	ngs will follow those of the exist public Wi-Fi.				
5 GHz:	Enabled	Share Network			
Network Name (SSID):	TP-Link_portable_5G	Hide SSID			
Security:	WPA2-PSK[AES]				
Password:	12345678				
▼ 5 GHz Advanced Settings					
Transmit Power:	High V				
Channel Width:	20/40/80/160 MHz V				
Channel:	Auto				
	The channel width and channel you've selected This will require some waiting time to meet re- requirements.				
Mode:	802.11a/n/ac/ax mixed				

- OFDMA This feature enables multiple users to transmit data simultaneously, and thus greatly improves speed and efficiency. Noted that only when your clients also support OFDMA, can you fully enjoy the benefits.
- TWT Target Wake Time allows 802.11ax routers and clients to negotiate their periods to transmit and receive data packets. Clients only wake up at TWT sessions and remain in sleep mode for the rest of the time, which significantly extend their battery life.
- 2.4GHz/5GHz Select this checkbox to enable the 2.4GHz/5GHz wireless network.
- Share Network- Click to save the Wi-Fi settings for sharing.
- Network Name (SSID) Enter a value of up to 32 characters. The same Name (SSID) must be assigned to all wireless devices in your network.

- Hide SSID Select this checkbox if you want to hide the network name (SSID) from the Wi-Fi network list. In this case, you need to manually join the network.
- Security Select an option from the Security drop-down list. We recommend you don't change the default settings unless necessary.
- Password Set a password for the wireless network. The value is case-sensitive.
- Transmit Power Select High, Middle or Low to specify the data transmit power. The default and recommended setting is High.
- Channel Width Select a channel width (bandwidth) for the wireless network.
- Channel Select an operating channel for the wireless network. For the 2.4 GHz and 5GHz bands, it is recommended to leave the channel to Auto, if you are not experiencing the intermittent wireless connection issue.
- Mode You can choose the appropriate "Mixed" mode.

## 5. 5. 2. Guest Network

Guest Network allows you to provide Wi-Fi access for guests without disclosing your host 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 settings to ensure network security and privacy.

#### Create a Guest Network

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Wireless > Guest Network.
- 3. Enable the 2.4GHz/5GHz guest network according to your needs.

Enable the wireless bands you	u want your guests to use and complete the relate	d information.
2.4 GHz:	Enabled	Share Network
Network Name (SSID):	TP-Link_Guest_9203	Hide SSID
5 GHz:	Enabled	Share Network
Network Name (SSID):	TP-Link_Guest_9203_5G	Hide SSID
Security:	Open	

- 4. Customize the SSID. Don't select Hide SSID unless you want your guests to manually input the SSID for guest network access.
- 5. Select the Security type and customize your own password. If No security is selected, no password is needed to access your guest network.

- 6. Click SAVE. Now you guests can access your guest network using the SSID and password you set!
- Customize Guest Network Options
- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Wireless > Guest Network. Locate the Guest Permissions section.
- 3. Customize guest network options according to your needs.

Guest Permissions Control the data that guests can access	a.
2	Allow guests to see each other
2	Allow guests to access your local network

#### • Allow guests to see each other

Tick this checkbox if you want to allow the wireless clients on your guest network to communicate with each other via methods such as network neighbors and Ping.

• Allow guests to access my local network

Tick this checkbox if you want to allow the wireless clients on your guest network to communicate with the devices connected to your router's LAN ports or main network via methods such as network neighbors and Ping.

4. Click SAVE. Now you can ensure network security and privacy!

#### 5. 5. 3. Wireless Schedule

The wireless function can be automatically off at a specific time when you do not need the wireless function.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Wireless > Wireless Schedule.
- 3. Enable the Wireless Schedule function.

Wireless Schedule				
Schedule when to automati	ically turn off your v	vireless network.		
Wireless Schedule:				
Current Time:	2025-02-0	05 05:16:37 PM		
Note: Before using this fea	ture, make sure Sy	stem Time is set to "Get from I	nternet".	
				🕀 Add
Wireless Off Time	Band	Repeat	Enable	Modify
There is no entry!				

4. Click Add to specify a wireless off period during which you need the wireless off automatically, and click SAVE.

Add Schedule		×
Enable This Entry:	Enabled	
Band:	<ul> <li>✓ 2.4 GHz</li> <li>✓ 5 GHz</li> </ul>	
Wireless Off Time:	11 V: 00 V PM V	
	07 V : 00 V AM V (next day)	
Repeat:		
	CANCEL	

Note:

- The effective wireless schedule is based on the time of the router. You can go to Advanced > System > Time to modify the time.
- The wireless network will be automatically turned on after the time period you set.

## 5.5.4. WPS

# WPS (Wi-Fi Protected Setup) can help you to quickly and securely connect to a network. This section will guide you to add a new wireless device to your router's network quickly via WPS.

#### Note:

• The WPS function cannot be configured if the wireless function of the router is disabled. Please make sure the wireless function is enabled before configuration.

# 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.

2. Go to Advanced > Wireless > WPS.

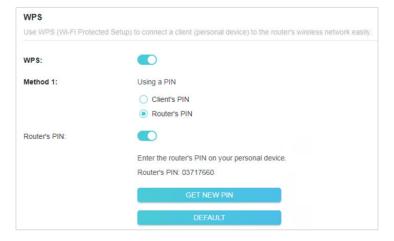
3. Follow one of the following methods to connect your client device to the router's Wi-Fi network.

#### Method 1: Using a PIN

- Connects via the Client's PIN
- 1. Keep the WPS Status as Enabled and select Client's PIN.

WPS	
Use WPS (Wi-Fi Protecter	d Setup) to connect a client (personal device) to the router's wireless network easily.
WPS:	
Method 1:	Using a PIN
	Client's PIN
	O Router's PIN
	Enter your personal device's PIN here and click CONNECT
	CONNECT

- 2. Enter the PIN of your device and click CONNECT. Then your device will get connected to the router.
- Connects via the Router's PIN
- 1. Keep the WPS Status as Enabled and select Router's PIN.



2. Enter the router's PIN on your personal device. You can also generate a new one.

**Note:** 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.

#### Method 2: Using the WPS Button on the Web Screen

Click Start on the screen. Within two minutes, enable WPS on your personal device. A Device-(XX-XX-XX-XX-XX) Connected message should appear on the screen, indicating successful WPS connection.

Note: XX-XX-XX-XX-XX is the MAC address of your device.

Method 2:	Using the button below
	Click the button below, then enable WPS on your personal device within 2 minutes.
	Start

#### Method 3: Using the WPS Button on the Router

Press the router's WPS button. Within two minutes, enable WPS on your personal device.

#### 5. 5. 5. Additional Settings

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Wireless > Additional Settings.

#### 3. Configure the advanced settings of your wireless network and click SAVE.

**Note:** If you are not familiar with the setting items on this page, it's strongly recommended to keep the provided default values; otherwise it may result in lower wireless network performance.

Additional Settings			
Check advanced wireless settin	gs for your device.		
WMM:	Enabled		
AP Isolation:	Enabled		
Airtime Fairness:	Enabled		
Beacon Interval:	100		
RTS Threshold:	2346		
DTIM Interval:	1		
Group Key Update Period:	0	S	

- WMM WMM function can guarantee the packets with high-priority messages being transmitted preferentially.
- AP Isolation This function isolates all connected wireless stations so that wireless stations cannot access each other through WLAN.
- Airtime Fairness This function can improve the overall network performance by sacrificing a little bit of network time on your slow devices.
- Beacon Interval Enter a value between 40-1000 milliseconds for Beacon Interval here. Beacon Interval value determines the time interval of the beacons. The

beacons are the packets sent by the router to synchronize a wireless network. The default value is 100.

- RTS Threshold Here you can specify the RTS (Request to Send) Threshold. If the packet is larger than the specified RTS Threshold size, the router will send RTS frames to a particular receiving station and negotiate the sending of a data frame. The default value is 2346.
- DTIM Interval This value determines the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the router has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. You can specify the value between 1-255 Beacon Intervals. The default value is 1, which indicates the DTIM Interval is the same as Beacon Interval.
- Group Key Update Period Enter a number of seconds (minimum 30) to control the time interval for the encryption key automatic renewal. The default value is 0, meaning no key renewal.

# 5.6. USB Storage Device

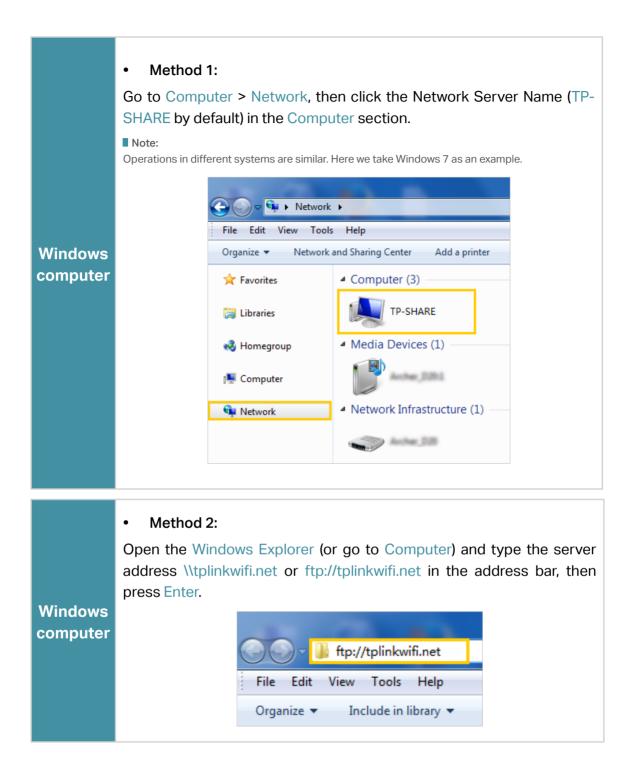
Insert your USB storage device into the router's USB port and then access files stored there locally or remotely.

Ø Tips:

- If you use USB hubs, make sure no more than 4 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, exFat, NTFS or HFS+.
- Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to Advanced > USB & microSD > Storage Device and click Remove.

# 5. 6. 1. Access the USB Device Locally

Insert your USB storage device into the router's USB port and then refer to the following table to access files stored on your USB storage device.



Мас	<ol> <li>Select Go &gt; Connect to Server.</li> <li>Type the server address smb://tplinkwifi.net.</li> <li>Click Connect.</li> <li>Connect to Server</li> <li>Server Address:</li> <li>Server Address:</li> <li>Server Address:</li> <li>Server Address:</li> <li>Server Address:</li> <li>Server Servers:</li> <li>Server Browse</li> <li>Connect</li> <li>Browse</li> <li>Connect</li> <li>Server Browse</li> <li>Server Browse</li> <li>Server Browse</li> <li>Connect</li> <li>Server Browse</li> <li>Server Browse</li></ol>
Tablet	Use a third-party app for network files management.

#### Ø Tips:

You can also access your USB storage device by using your Network/Media Server Name as the server address. Refer to <u>To Customize the Address of the USB Storage Device</u> to learn more.

# 5. 6. 2. Access the USB Device Remotely

You can access your USB disk outside the local area network. For example, you can:

- 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.

#### Follow the steps below to configure remote access settings.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > USB & microSD > Storage Device.

3. Tick the Internet FTP checkbox, and then click SAVE.

Access Method				
Select the method for accessin	g your USB storage device or r	nicroSD (TF) card.		
Network/Media Server Name:	TP-Share			
Access Method	Address	Enable	Port	Modify
SMB for Windows SMB for macOS/Linux	\\192.168.1.1 smb://192.168.1.1			Ĩ
Local FTP	ftp://192.168.1.1:21		21	ľ
Internet FTP	ftp://192.168.0.101:21 Set DDNS		21	ß

4. Refer to the following table to access your USB disk remotely.

	<ol> <li>Open the Windows Explorer (or go to Computer, only for Windows users) or open a web browser.</li> <li>Type the server address in the address bar: Type in ftp://&lt;<u>WAN IP address of the router</u>&gt;:&lt;<u>port number</u>&gt; (such as ftp://59.40.2.243:21). If you have specified the domain name of the router, you can also type in ftp://&lt;<u>domain name</u>&gt;:&lt;<u>port</u></li> </ol>
Computer	number> (such as ftp://MyDomainName:21)
	<ul> <li>3) Press Enter on the keyboard.</li> <li>4) Access with the username and password you set in <u>To Set Up</u></li> </ul>
	Authentication for Data Security.
	Tips: You can also access the USB disk via a third-party app for network files management, which can resume broken file transfers.
Tablet	Use a third-party app for network files management.

Ø Tips:

Click <u>Dynamic DNS</u> to learn how to set up a domain name for you router.

# 5. 6. 3. Customize the Access Settings

By default, all the network clients can access all folders on your USB disk. You can customize your sharing settings by setting a sharing account, sharing specific contents and setting a new sharing address on the router's web management page.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > USB & microSD > Storage Device.
- To Customize the Address of the USB Storage Device

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

 In the Access Method session, make sure Samba for Windows Samba for macOS/ Linux is enabled, and enter a Network/Media Server Name as you like, such as MyShare, then click SAVE.

	Access Method Select the method for accessing your USB storage device or microSD (TF) card.						
Ne	work/Media Server Name:	MyShare					
	Access Method	Address	Enable	Port	Modify		
	SMB for Windows SMB for macOS/Linux	\\192.168.1.1 smb://192.168.1.1			ľ		
	Local FTP	ftp://192.168.1.1:21		21	ľ		
	Internet FTP	ftp://192.168.0.101:21 Set DDNS		21	ß		

- 2. Now you can access the USB storage device by visiting \\MyShare (for Windows) or smb://MyShare (for Mac).
- To Only Share Specific Content

Focus on the File Sharing section. Specify sharing folders that you want to share and click SAVE.

File Sharing		
Share files with devices in	rour home or office network.	
Secure Sharing:		
Select Folder:	NTFS(G:) V	
	Work >	
	Documents >	
	Pictures >	
	Z EXFAT(H:) >	
	✓ DISK(I:) >	

#### • To Set Up Authentication for Data Security

You can set up authentication for your USB storage device so that network clients will be required to enter username and password when accessing the USB storage device.

1. In the File Sharing section, enable Secure Sharing.

ecure Sharing						
Customize the access set	tings to ensure data secu	ırity.				
Username	Password		Permissions	Modify		
admin		Ø	Read&Write	Ø		
visit		Ø	Read	Ø		

2. Click <sup>I</sup> to modify the access account, and pay attention to the default username and password. Accessing as an administrator can read and modify the shared folders while visitors can only read the shared folders.

#### Note:

- 1. For Windows users, do not set the sharing username the same as the Windows username. Otherwise, Windows credential mechanism may cause the following problems:
  - If the sharing password is also the same as the Windows password, authentication will not work since the Windows will automatically use its account information for USB access.
  - If the sharing password is different from the Windows password, the Windows will be unable to remember your credentials and you will always be required to enter the sharing password for USB access.
- 2. Due to Windows credential mechanism, you might be unable to access the USB disk after changing Authentication settings. Please log out from the Windows and try to access again. Or you can change the address of the USB disk by referring to <u>To Customize the Address of the USB Storage Device</u>.

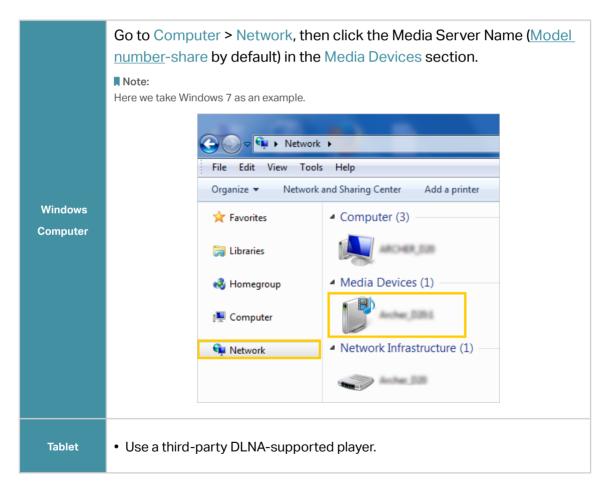
#### 5. 6. 4. Media Sharing

The feature of Media Sharing allows you to view photos, play music and watch movies stored on the USB storage device directly from DLNA-supported devices, such as your computer, tablet and PS2/3/4.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > USB & microSD > Storage Device.
- 3. Enable Media Sharing.



- 4. When your USB storage device is inserted into the router, your DLNA-supported devices (such as your computer and pad) connected to the router can detect and play the media files on the USB storage devices.
- 5. Refer to the following table for detailed instructions.



# 5.7. NAT Forwarding

The router's NAT (Network Address Translation) feature makes the devices on the LAN use the same public IP address to communicate on the internet, which protects

the local network by hiding IP addresses of the devices. However, it also brings about the problem that external hosts cannot initiatively communicate with the specified devices in the local network.

With the forwarding feature, the router can traverse the isolation of NAT so that clients on the internet can reach devices on the LAN and realize some specific functions.

The Mercusys router includes four forwarding rules. If two or more rules are set, the priority of implementation from high to low is Port Forwarding, Port Triggering, UPNP and DMZ.

# 5.7.1. Port Forwarding

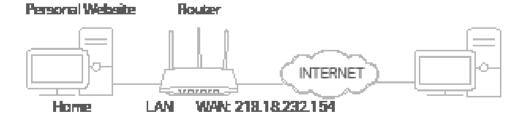
When you build up a server in the local network and want to share it on the internet, Port Forwarding can realize the service and provide it to internet users. At the same time Port Forwarding can keep the local network safe as other services are still invisible from the internet.

Port Forwarding can be used to set 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 (192.168.1.100). I hope that my friends on the internet can visit my website in some way. My PC is connected to the router with the WAN IP address 218.18.232.154.



- 1. Set your PC to a static IP address, for example 192.168.1.100.
- 2. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 3. Go to Advanced > NAT Forwarding > Port Forwarding.

rt Forward	ding						
Specify ports to make specific devices or services on your local network accessible over the internet.							
						🔂 Add	
Convice	Device IP	External	Internal Part	Protocol	Status	Madify	
Name	Address	Port	internal Port	Protocol	Status	Modify	
Thora is	no ontail						
mere is	no entry!						
	ecify ports to Service Name	Service Device IP	Service Device IP External Name Address Port	ecify ports to make specific devices or services on your local networks of the specific devices or services on your local networks of the specific devices of services on your local networks of the specific devices of services on your local networks of the specific devices of services on your local networks of the specific devices of services on your local networks of the specific devices of services on your local networks of the specific devices of services on your local networks of the specific devices of services on your local networks of the specific devices of services on your local networks of the specific devices of	ecify ports to make specific devices or services on your local network accessible Service Device IP External Internal Port Protocol Name Address Port	ecify ports to make specific devices or services on your local network accessible over the intern Service Device IP External Internal Port Protocol Status Name Address Port	

#### 4. Click Add.

Add a Port Forwarding	Entry	×
	vidual external port or port range. For nonconsecutive ports (exam rules. For more info, refer to Port Forwarding FAQ.	ple:
Service Name:		
	VIEW COMMON SERVICES	
Device IP Address:		
	VIEW CONNECTED DEVICES	
External Port:	Individual Port	
	Port Range	
Protocol:	All	
Enable This Entry:	Enabled	
	CANCEL	

- 5. Click VIEW COMMON SERVICES and select HTTP. The External Port, Internal Port and Protocol will be automatically filled in.
- 6. Click VIEW CONNECTED DEVICES and select your home PC. The Device IP Address will be automatically filled in. Or enter the PC's IP address 192.168.0.100 manually in the Device IP Address field.

#### 7. Click SAVE.

Ø Tips:

- 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.
- If the service you want to use is not in the common services list, you can enter the corresponding parameters manually. You should verify the port number that the service needs.
- You can add multiple port forwarding rules if you want to provide several services in a router. Please note that the External Port should not be overlapped.

Done!

Users on the internet can enter http:// WAN IP (in this example: http:// 218.18.232.154) to visit your personal website.

Ø Tips:

- The WAN IP should be a public IP address. For the WAN IP is assigned dynamically by the ISP, it is recommended to apply and register a domain name for the WAN referring to <u>Dynamic DNS</u>. Then users on the internet can use http:// domain name to visit the website.
- 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.

# 5.7.2. Port Triggering

Port Triggering can specify a triggering port and its corresponding external ports. When a host on 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, video players and common applications including MSN Gaming Zone, Dialpad and Quick Time 4 players, etc.

Follow the steps below to configure the Port Triggering rules:

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > NAT Forwarding > Port Triggering and click 🕂 Add.

(from the internet) to the	Specify ports to allow devices on your local network to dynamically open specific external ports and forward packets (from the internet) to the device that triggered it.					
						🔂 Add
Service Trigg Name		Triggering Protocol	External Port	External Protocol	Status	Modify
There is no entry	/1					

3. Click VIEW COMMON SERVICES, and select the desired application. The Triggering Port, Triggering Protocol and External Port will be automatically filled in. The following picture takes application MSN Gaming Zone as an example.

Add a Port Triggering Entry			×
Service Name:			
	VIEW COMMON SERV	CES	
Triggering Port:			
Triggering Protocol:	All	~	
External Port:			
External Protocol:	All	~	
Enable This Entry:	Enabled		
		CANCEL	SAVE

#### 4. Click SAVE.

- Ø Tips:
- You can add multiple port triggering rules according to your network need.
- The triggering ports can not be overlapped.
- 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.

#### 5.7.3. UPnP

The UPnP (Universal Plug and Play) protocol allows 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 on the local network and the internet can freely communicate with each other thus 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:

- UPnP is enabled by default in this router.
- Only the application supporting UPnP protocol can use this feature.
- 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 <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > NAT Forwarding > UPnP and toggle on or off according to your needs.

UPnP
Enable UPnP (Universal Plug and Play) to allow devices on your local network to dynamically open ports for applications such as multiplayer gaming and real-time communications.
UPnP:

# 5.7.4. DMZ

When a PC is set to be a DMZ (Demilitarized Zone) host on 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:

When DMZ is enabled, the DMZ host is totally exposed to the internet, which may bring some potential safety hazards. 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 log in normally but cannot join a team with other players. To solve this problem, set your PC as a DMZ host with all ports open.

#### How can I do that?

- 1. Assign a static IP address to your PC, for example 192.168.0.100.
- 2. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 3. Go to Advanced > NAT Forwarding > DMZ and tick to enable DMZ.

4. Click VIEW CONNECTED DEVICES and select your PC. The Device IP Address will be automatically filled in. Or enter the PC's IP address 192.168.0.100 manually in the DMZ Host IP Address field.

DMZ	
Expose a specific device in your loc communications.	cal network to the internet for applications such as online gaming and real-time
DMZ:	Enabled
DMZ Host IP Address:	
	VIEW CONNECTED DEVICES

#### 5. Click SAVE.

#### 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.

# 5.8. Security

#### 5.8.1. Protect the Network from Cyber Attacks

The SPI (Stateful Packet Inspection) Firewall protects the router from cyber attacks and validate the traffic that is passing through the router based on the protocol. This function is enabled by default.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Security > Firewall. It's recommended to keep the default settings.

Firewall				
Check the settings of the firewall that protects your network. It is recommended to keep them as default.				
SPI Firewall:				
Respond to Pings from LAN:				
Respond to Pings from WAN:				

#### 5.8.2. 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 (Deny List) or a list of allowed devices (Allow List).

#### I want to:

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

#### How can I do that?

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Security > Access Control.
- 3. Toggle on to enable Access Control.

Access Control	
Control the access to your	work from the specified devices.
Access Control:	
Current Mode:	Deny List 🖕 Change Mode

4. Click Change Mode to select the access mode to either block (recommended) or allow the device(s) in the list.

Change Mode	Х
<ul> <li>Deny List Configure a deny list to only block access to your network from the specified devices.</li> </ul>	
<ul> <li>Allow List</li> <li>Configure a allow list to only allow access to your network from the specified devices.</li> </ul>	
CANCEL CHANGE	

#### To block specific device(s):

1) Select Deny List.

Access Control			
Control the access to you	r network from the speci	fied devices.	
Access Control:			
Current Mode:	Deny List 🚄	→ Change Mode     →	
			🔂 Add
Device Type	Device Name	MAC Address	Modify
There is no entry!			

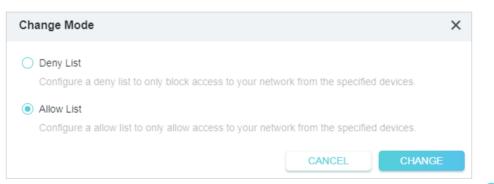
2) Click ( Add and select devices you want to be blocked, or enter the MAC address manually, and click ADD.

Add Devices				×
<ul> <li>Select From De</li> <li>Add Manually</li> </ul>	evice List			
🔽 Туре	Device Name	IP	MAC	
• 🗳	18503634-BG	192.168.1.45	40-ED-00-22-30-74	
		CAN	CEL ADD	
Add Devices				×
<ul> <li>Select From De</li> <li>Add Manually</li> <li>Device Name:</li> <li>MAC Address:</li> </ul>	evice List			
		CANC	CEL ADD	

4) The Operation Succeeded message will appear on the screen, which means the selected devices have been successfully added to the Deny List.

#### To allow specific device(s):

1) Select Allow List and click CHANGE.



2) Your own device is in the Allow List by default and cannot be deleted. Click 🕂 Add to add other devices to the Allow List.

			🔂 Add
Device Type	Device Name	MAC Address	Modify
<b>e</b>	18503634-BG	40-ED-00-22-30-74	Û

#### • Add connected devices

- 1) Click Select From Device List.
- 2) Select the devices you want to be allowed and click ADD.

Ad	d Devices				×
•	Select From De Add Manually	evice List			
	Туре	Device Name	IP	MAC	
	There is no e	entry!			
				CANCEL	ADD

3) The Operation Succeeded message will appear on the screen, which means the selected devices have been successfully added to the Allow List.

#### Add unconnected devices

- 1) Click Add Manually.
- 2) Enter the Device Name and MAC Address of the device you want to be allowed and click ADD.

Add Devices		×
<ul><li>Select From Device List</li><li>Add Manually</li></ul>		
Device Name:		
MAC Address:		
	CANCEL AD	D

3) The Operation Succeeded message will appear on the screen, which means the device has been successfully added to the Allow List.

#### Done!

Now you can block or allow specific client devices to access your network (via wired or wireless) using the Deny List or Allow List.

#### 5.8.3. 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

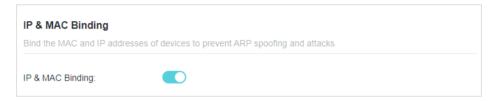
other ARP attacks by denying network access to an device with matching IP address in the Binding list, but unrecognized MAC address.

#### I want to:

Prevent ARP spoofing and ARP attacks.

#### How can I do that?

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Security > IP & MAC Binding.
- 3. Enable IP & MAC Binding.



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

To bind the connected device(s):

1) Locate the ARP List section and enable Bind to bind the IP and MAC addresses of a specific device.

ARP List Bind or unbind the MAC as	nd IP addresses of currently cor	nnected devices.		
				C Refrest
Device Name	MAC Address	IP Address	Bind	Modify
18503634-BG	40-ED-00-22-30-74	192.168.1.45		⑪

#### To add a binding entry:

1) Click 😌 Add in the Binding List section.

Bir	Binding List					
Add	Add or delete binding entries.					
				🔂 Add		
	Device Name	MAC Address	IP Address	Modify		
	There is no entry!					

2) Click VIEW CONNECTED DEVICES and select the device you want to bind. The MAC Address and IP Address fields will be automatically filled in.

Add Binding Entry		×
MAC Address:		
	VIEW CONNECTED DEVICES	
IP Address:		
	CANCEL SAVE	

3) Click SAVE.

#### Done!

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

#### 5.8.4. ALG

ALG allows customized Network Address Translation (NAT) traversal filters to be plugged into the gateway to support address and port translation for certain application layer "control/data" protocols such as FTP, TFTP, H323 etc. It is recommended to keep the default settings.

You may need to disable SIP ALG when you are using voice and video applications to create and accept a call through the router, since some voice and video communication applications do not work well with SIP ALG.

Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router. Go to Advanced > Security > ALG.

ALG		
Check the ALG (Application Layer Gateway) settings. It is recommended to keep them as default.		
PPTP Passthrough:		
L2TP Passthrough:		
IPSec Passthrough:		
FTP ALG:		
TFTP ALG:		
RTSP ALG:		
H323 ALG:		
SIP ALG:		

# 5.9. VPN Server&Client

The router offers several ways to set up VPN connections:

**VPN Server** allows remote devices to access your home network in a secured way through the internet. The router supports four types of VPN Server:

**OpenVPN** is somewhat complex but with higher security and more stability, suitable for restricted environments such as campus network and company intranet.

**PPTP VPN** is easy to use with the built-in VPN software of computers and mobile devices, but it is vulnerable and may be blocked by some ISPs.

**L2TP/IPSec VPN** is more secure but slower than PPTP VPN, and may have trouble getting around firewalls.

**WireGuard VPN** is a secure, fast and modern VPN protocol. It is based on the UDP protocol and uses modern encryption algorithms to improve work efficiency.

**VPN Client** allows devices in your home network to access remote VPN servers, without the need to install VPN software on each device.

# 5. 9. 1. Use OpenVPN to Access Your Home Network

OpenVPN Server is used to create an OpenVPN connection for remote devices to access your home network.

To use the VPN feature, you need to enable OpenVPN Server on your router, and install and run VPN client software on remote devices. Please follow the steps below to set up an OpenVPN connection.



#### Step1. Set up OpenVPN Server on Your Router

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > VPN Server > OpenVPN, and tick the Enable box of OpenVPN.

OpenVPN				
Set up an OpenVPN for secure, ren	note access to your network.			
Note: No certificate has been create	ed. Generate one below before enabling Open∨PN.			
OpenVPN:	C Enabled			
Service Type:	• UDP			
	○ TCP			
Interface Type:	TUN V			
Service Port:	1194			
VPN Subnet:	10.8.0.0			
Netmask:	255.255.255.0			
Client Access:	Home Network Only			

- Note:
- Before you enable VPN Server, we recommend you configure Dynamic DNS Service (recommended) or assign a static IP address for router's WAN port and synchronize your System Time with internet.
- The first time you configure the OpenVPN Server, you may need to generate a certificate before you enable the VPN Server.
- 3. Select the Service Type (communication protocol) for OpenVPN Server: UDP, TCP.
- 4. Enter a VPN Service Port to which a VPN device connects, and the port number should be between 1024 and 65535.
- 5. In the VPN Subnet/Netmask fields, enter the range of IP addresses that can be leased to the device by the OpenVPN server.
- 6. Select your Client Access type. Select Home Network Only if you only want the remote device to access your home network; select Internet and Home Network if you also want the remote device to access internet through the VPN Server.
- 7. Click SAVE.
- 8. Click GENERATE to get a new certificate.

Certificate		
Generate the certificate.		
		_
	GENERATE	

Note: If you have already generated one, please skip this step, or click GENERATE to update the certificate.

9. Click EXPORT to save the OpenVPN configuration file which will be used by the remote device to access your router.

Configuration File		
Export the configuration file.		
	EXPORT	

#### Step 2. Configure OpenVPN Connection on Your Remote Device

1. Visit http://openvpn.net/index.php/download/community-downloads.html to

download the OpenVPN software, and install it on your device where you want to run the OpenVPN client utility.

**Note:** You need to install the OpenVPN client utility on each device that you plan to apply the VPN function to access your router. Mobile devices should download a third-party app from Google Play or Apple App Store.

- 2. After the installation, copy the file exported from your router to the OpenVPN client utility's "config" folder (for example, C:\Program Files\OpenVPN\config on Windows). The path depends on where the OpenVPN client utility is installed.
- 3. Run the OpenVPN client utility and connect it to OpenVPN Server.

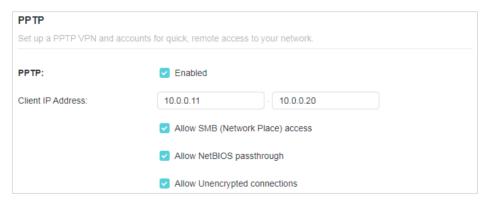
## 5. 9. 2. Use PPTP VPN to Access Your Home Network

PPTP VPN Server is used to create a PPTP VPN connection for remote devices to access your home network.

To use the VPN feature, you need to set up PPTP VPN Server on your router, and configure the PPTP connection on remote devices. Please follow the steps below to set up a PPTP VPN connection.

Step 1. Set up PPTP VPN Server on Your Router

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > VPN Server > PPTP, and tick the Enable box of PPTP.



**Note:** Before you enable VPN Server, we recommend you configure Dynamic DNS Service (recommended) or assign a static IP address for router's WAN port and synchronize your System Time with internet.

- 3. In the Client IP Address field, enter the range of IP addresses (up to 10) that can be leased to the devices by the PPTP VPN server.
- 4. Set the PPTP connection permission according to your needs.
  - Select Allow Samba (Network Place) access to allow your VPN device to access your local Samba server.

- Select Allow NetBIOS passthrough to allow your VPN device to access your Samba server using NetBIOS name.
- Select Allow Unencrypted connections to allow unencrypted connections to your VPN server.

5. Click SAVE.

6. Configure the PPTP VPN connection account for the remote device. You can create up to 16 accounts.

Account List					
Cor	Configure accounts (up to 16) that can be used by remote clients to connect to the VPN server.				
			\rm Add		
	Username	Password	Modify		
	There is no entry!				

- 4) Click Add.
- 5) Enter the Username and Password to authenticate devices to the PPTP VPN Server.

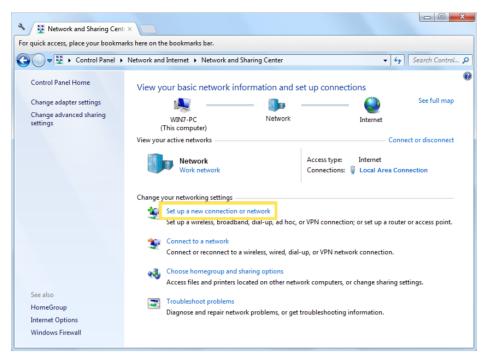
Add Account	×
Username:	
Password:	Ø
	CANCEL ADD

6) Click ADD.

#### Step 2. Configure PPTP VPN Connection on Your Remote Device

The remote device can use the Windows built-in PPTP software or a third-party PPTP software to connect to PPTP Server. Here we use the Windows built-in PPTP software as an example.

- 1. Go to Start > Control Panel > Network and Internet > Network and Sharing Center.
- 2. Select Set up a new connection or network.



3. Select Connect to a workplace and click Next.

( Set Up a Connection or Network	
Choose a connection option	
Connect to the Internet Set up a wireless, broadband, or dial-up connection to the Internet.	
Set up a new network Configure a new router or access point.	
Connect to a workplace Set up a dial-up or VPN connection to your workplace.	
Set up a dial-up connection Connect to the Internet using a dial-up connection.	
	ext Cancel

4. Select Use my Internet connection (VPN).

🚱 🌆 Connect to a Workplace	
How do you want to connect?	
<ul> <li>Use my Internet connection (VPN)</li> <li>Connect using a virtual private network (VPN) connection through the Internet.</li> </ul>	
i - I - I - I - I - I - I - I - I - I -	
Dial directly Connect directly to a phone number without going through the Internet.	
ing ing ing	
What is a VPN connection?	
	Cancel

5. Enter the internet IP address of the router (for example: 218.18.1.73) in the Internet address field. Click Next.

0	Connect to a Workplace				
	Type the Internet address to connect to				
	Your network administrator o	can give you this address.			
	Internet address:	218.18.1.73			
	Destination name:	VPN Connection			
		o use this connection yone with access to this computer to use this connection. ust set it up so I can connect later			
		Nex	t Cancel		

6. Enter the User name and Password you have set for the PPTP VPN server on your router, and click Connect.

0	Connect to a Workplace		
	Type your user name a	and password	
	User name:	1000	
	Password:	•••••	
		<ul> <li>Show characters</li> <li>Remember this password</li> </ul>	
	Domain (optional):		
			Connect Cancel

7. Click Connect Now when the VPN connection is ready to use.

🕞 🌆 Connect to a We	orkplace	
The connectio	n is ready to use	
	in the second se	
•	Connect now	
		Close

### 5. 9. 3. Use L2TP/IPSec VPN to Access Your Home Network

L2TP/IPSec VPN Server is used to create a L2TP/IPSec VPN connection for remote devices to access your home network.

To use the VPN feature, you need to set up L2TP/IPSec VPN Server on your router, and configure the L2TP/IPSec connection on remote devices. Please follow the steps below to set up the L2TP/IPSec VPN connection.



Home Network

**Remote Devices** 

### Step 1. Set up L2TP/IPSec VPN Server on Your Router

- 1. Visit http://tplinkwifi.net, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > VPN Server > L2TP/IPSec, and enable L2TP/IPSec.

#### Note:

- Firmware update may be required to support L2TP/IPSec VPN Server.
- · Before you enable VPN Server, we recommend you configure Dynamic DNS Service (recommended) or assign a static IP address for router's WAN port and synchronize your System Time with internet.

L2TP/IPSec		
Set up a L2TP/IPSec VPN an	d accounts for quick, remo	te access to your network.
L2TP/IP Sec:	Enabled	
Client IP Address:	10.9.0.11	- 10.9.0.20
IPSec Encryption:	Encrypted	~
IPSec Pre-Shared Key:		
	Allow NetBIOS	passthrough

- 3. In the Client IP Address field, enter the range of IP addresses (up to 10) that can be leased to the devices by the L2TP/IPSec VPN server.
- 4. Keep IPSec Encryption as Encrypted and create an IPSec Pre-Shared Key.
- 5. Click SAVE.
- 6. Configure the L2TP/IPSec VPN connection account for the remote device. You can create up to 16 accounts.

Account List				
Configure accounts (up to 16) th	nat can be used by remote clients to connect to th	ne VPN server.		
		🔂 Add		
Username	Password	Modify		
There is no entry!				

- 7) Click Add.
- 8) Enter the Username and Password to authenticate devices to the L2TP/IPSec VPN Server.

Add Account	>	<
Username:		
Password:	Ø	
	CANCEL ADD	

9) Click ADD.

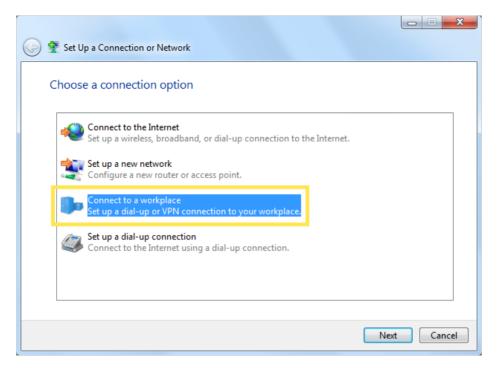
### Step 2. Configure L2TP/IPSec VPN Connection on Your Remote Device

The remote device can use the Windows or Mac OS built-in L2TP/IPSec software or a third-party L2TP/IPSec software to connect to L2TP/IPSec Server. Here we use the Windows built-in L2TP/IPSec software as an example.

- 1. Go to Start > Control Panel > Network and Internet > Network and Sharing Center.
- 2. Select Set up a new connection or network.

Network and Sharing Cent	×		
For quick access, place your bookma	ks here on the bookmarks bar.		
🚱 🗢 🖳 🕨 Control Panel 🕨	Network and Internet   Network and Sharing Cent	ter 🗸	• 😽 Search Control 🔎
Control Panel Home	View your basic network information	and set up connections	0
Change adapter settings	i 📃 ——— 🔢	b — ()	See full map
Change advanced sharing settings	WIN7-PC Net (This computer)	twork Internet	
	View your active networks		Connect or disconnect
	Network Work network	Access type: Internet Connections: U Local Are	ea Connection
	Change your networking settings Set up a new connection or network Set up a wireless, broadband, dial-up, a Connect to a network	· · ·	· ·
	Connect or reconnect to a wireless, wir	red, dial-up, or VPN network connection	on.
	Choose homegroup and sharing optio Access files and printers located on oth		ring settings.
See also HomeGroup Internet Options	Troubleshoot problems Diagnose and repair network problems	s, or get troubleshooting information.	
Windows Firewall			

3. Select Connect to a workplace and click Next.



4. Select Use my Internet connection (VPN).

🚱 🌆 Connect to a Workplace	
How do you want to connect?	
<ul> <li>Use my Internet connection (VPN)</li> <li>Connect using a virtual private network (VPN) connection through the Internet.</li> </ul>	
i - I - I - I - I - I - I - I - I - I -	
Dial directly Connect directly to a phone number without going through the Internet.	
i i i i i i i i i i i i i i i i i i i	
What is a VPN connection?	
	Cancel

5. Enter the internet IP address of the router (for example: 218.18.1.73) in the Internet address field, and select the checkbox Don't connect now; just set it up so I can connect later. Click Next.

3	🔚 Connect to a Workplace		
	Type the Internet addre	ess to connect to	
	Your network administrator c	an give you this address.	
	Internet address:	218.18.1.73	
	Destination name:	VPN Connection	
	Use a smart card		
	Allow other people to This option allows any	use this connection yone with access to this computer to use this connection.	
	📝 Don't connect now; ju	ist set it up so I can connect later	
		Next	Cancel

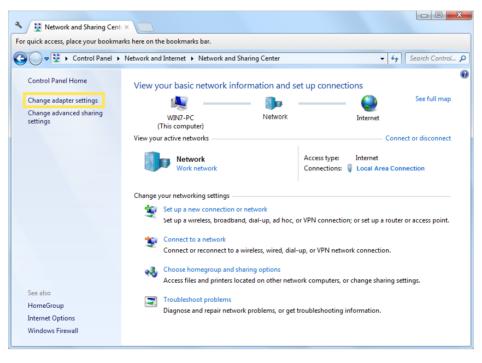
6. Enter the User name and Password you have set for the L2TP/IPSec VPN server on your router, and click Connect.

0	Connect to a Workplace		
	Type your user name	and password	
	User name:	10000	
	Password:	••••	
	Domain (optional):	Show characters Remember this password	
			Connect Cancel

7. Click Close when the VPN connection is ready to use

🥪 🌆 Connect to a Workplace	
The connection is ready to use	
i i i	
Connect now	
	Close

8. Go to Network and Sharing Center and click Change adapter settings.



9. Find the VPN connection you created, then double-click it.

		_	×
🚱 🔵 🗢 🕎 « Network and I 🕨 Network Connections 🕨 🔹 🍫 Search Network Co	onnecti	ons	9
Organize  Start this connection Rename this connection  >>		•	0
Local Area Connection sec.softether.co.jp Intel(R) PRO/1000 MT Network C VPN Connection Disconnected WAN Miniport			

10. Enter the User name and Password you have set for the L2TP/IPSec VPN server on your router, and click Properties.

🐓 Connect VPN	Connection
User name: Password:	an A shareh ann anna an an
Domain:	
Me only	er name and password for the following users:
Connect	Cancel Properties Help

11. Switch to the Security tab, select Layer 2 Tunneling Protocol with IPsec (L2TP/ IPSec) and click Advanced settings.

	tions	Security	Networking	Sharing	
Type of VPI	N:				
Layer 2 Tu	nneling	Protocol	with IPsec (L	2TP/IPSec)	
Data encryp	otion:			Advanc	ed settings
Require en	cryptio	n (disconr	nect if server o	leclines)	
Authentic	ation				
O Use E	tensib	le Authent	ication Protoc	ol (EAP)	
				Pro	perties
Allow the second sec	nere n	rotocole			·
C record	icac p	0000013			
🔲 Une	encrypt	ed passw	ord (PAP)		
🔽 Cha	llenge	<u>H</u> andshal	ke Authentica	tion Protocol (	CHAP)
Mic	rosoft	CHAP Ver	sion 2 (MS-CH	IAP v2)	
			e my Windows Iomain, if any)	s logon name	and

12. Select Use preshared key for authentication and enter the IPSec Pre-Shared Key you have set for the L2TP/IPSec VPN server on your router. Then click OK.

dvanced P L2TP	roperties			<b>-</b> ×
Use pr Key:	eshared key for auther	ntication		1
-	ertificate for authentica rify the Name and Usag		the server's certifi	cate
		_		

Done! Click Connect to start VPN connection.

🐓 Connect VP	N Connection
<u>U</u> ser name:	
Password:	7- dage to an eliment of the
Do <u>m</u> ain:	
Me only	who uses this computer
Connect	Cancel Properties Help

### 5. 9. 4. Use WireGuard VPN to Access Your Home Network

WireGuard VPN Server is used to create a Wire Guard VPN connection for remote devices to access your home network.

### Step 1. Set up WireGuard VPN Server on Your Router

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > VPN Server > WireGuard, and tick the Enable box of WireGuard.

WireGuard	
Set up a WireGuard VPN and	accounts for quick, remote and secure access to yo
WireGuard:	Enabled
Tunnel IP Address:	10.5.5.1/32
Listen Port:	51820
Client Access:	Internet and Home Network
Advanced Settings	
DNS:	Enabled
Persistent Keepalive:	25
Private Key:	eMBlyWXIuKzo+KqE3PjS449KIaUHAdQJrkt xpC3INWQ=
Public Key:	keBCmYqibUTgTaMShoah5U37AkVUoCYnA ThUYO5QhVI=
	RENEW KEY

- 3. Set the tunnel IP address and listen port. Do NOT change it unless necessary.
- 4. Select your Client Access type. Select Home Network Only if you only want the remote device to access your home network; select Internet and Home Network if you also want the remote device to access internet through the VPN Server.
- 5. (Optional) Click Advanced Settings to display more settings. If DNS is turned on, the router will become the DNS server of the VPN client that establishes a connection with it. Change the Persistent Keepalive time (25 seconds by default) to send out heartbeat regularly, you can also click RENEW KEY to update the private key and public key.

# Step 2. Create accounts that can be used by remote clients to connect to the VPN server.

1. Locate the Account List section.

Account List				
Configure accounts (up to 16) that can be used by remote clients to connect to the VPN server.				
		🔂 Add		
Username	Allowed IPs	Modify		
There is no entry!				

2. Click Add to create an account.

Add	×
Username:	
Address:	10.5.5.2/32
Allowed IPs (Client):	0.0.0/0
Allowed IPs (Server):	10.5.5.2/32
Pre-shared Key (Secret):	Enabled
	CANCEL

- 3. Give a name to this account.
- 4. Enter the address of the virtual interface assigned to this account. Do NOT change it unless necessary.
- 5. Traffic sent from the WireGard VPN client to the allowed IPs (client) will be transmitted through the tunnel. By default, all network traffic from clients will be transmitted through the tunnel. Do NOT change it unless necessary.
- 6. Traffic sent from the WireGard VPN server to the allowed IPs (server) will be transmitted through the tunnel. Do NOT change it unless necessary.
- 7. Enable or disable pre-shared key.
- 8. Click SAVE.

Note: One account can only be used by one WireGuard VPN client at the same time to connect to the WireGuard VPN server.

Connect to Server	×				
QR Code	Export				
Please download WireGuard App from Google Play or Apple Store, then use the App to scan the QR Code to connect to this server.					

- 9. Connect to the WireGuard server.
- For mobile phones, download WireGuard App from Google Play or Apple Store, then use the App to scan the QR Code to connect to this server.
- For other devices (e.g. TP-Link WireGuard VPN client), Click EXPORT to save the WireGuard VPN configuration file which will be used by the remote device to access your router.

Connect to Server	×
QR Code	Export
Please use the following configuration to set up yo	our WireGuard client.
EXP	ORT
[Interface] PrivateKey = al6XUS7avPkuacRljQ29COrZnyiU Address = 10.5.5.2/32 [Peer] PublicKey = keBCmYqibUTgTaMShoah5U37Ak AllowedIPs = 0.0.0.0/0 Endpoint = 192.168.0.100:51820 PersistentKeepalive = 25	
	DONE

10. On the account list, you can click the button to modify the VPN server settings, connect to the server, or delete the account.

can be used by remote clients to connect to th	e VPN server.
	🔂 Add
Allowed IPs	Modify
0.0.0/0	ப்சங்

### 5. 9. 5. Use VPN Client to Access a Remote VPN Server

VPN Client is used to create VPN connections for devices in your home network to access a remote VPN server.

To use the VPN feature, simply configure a VPN connection and choose your desired devices on your router, then these devices can access the remote VPN server. Please follow the steps below:



- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > VPN Client.

Note: Firmware update may be required to support VPN Client.

3. Enable VPN Client, then save the settings.



- 4. Add VPN servers, and enable the one you need.
  - 1) In the Server List section, click Add.

Server List				
Add or edit VPN server.	Up to 6 VPN servers can be	added.		
				🔂 Ado
Description	Server	Status	Enable	Modify
No VPN Client				

2) Specify a description for the VPN, and choose the VPN type.

Add Profile			×
Description:			
VPN Type:	WireGuard	~	
Import from Config File:	Open∨PN		
NAT:	PPTP L2TP/IPSec		
Interface	WireGuard		
▶ Peer			
		CANCEL	SAVE

- 3) Enter the VPN information provided by your VPN provider.
- OpenVPN: Enter the VPN username and password if required by your VPN provider, otherwise simply leave them empty. Then import the configuration file provided by your VPN provider.

Add Profile		×
Description:		
VPN Type:	OpenVPN ~	
Username:		(Optional)
Password:	Ø	(Optional)
Import .ovpn File:	企 UPLOAD	
	Import the CA file or edit the .ovpn file manually	
	CAN	CEL SAVE

**Note:** You can also check the box of Import the CA file or edit the . ovpn file manually, then upload the CA file or manually configure the settings.

	Import the CA file or edit the ovpn file manually	
Import CA File:	企 UPLOAD	
Manual Settings:	Edit	
	CANCEL	SAVE

• PPTP: Enter the VPN server address (for example: 218.18.1.73) and the VPN username and password provided by your VPN provider.

Add Profile		×
Description:		
VPN Type:	PPTP v	
VPN Server:		
Username:		
Password:	Ø	
Encryption:	Auto	
	CANCEL SAVE	

 L2TP/IPSec VPN: Enter the VPN server address (for example: 218.18.1.73), VPN username and password, and IPSec pre-shared key provided by your VPN provider.

Add Profile			×
Description:			
VPN Type:	L2TP/IPSec	~	
VPN Server:			
Username:			
Password:		Ø	
IPSec Pre-Shared Key:			
		CANCEL SAVE	

• WireGuard VPN: Give a description, and click BROWSE to import the WireGuard VPN server configuration. Then you will see the detailed parameters. Do NOT change the parameters unless necessary.

Add Profile		×
Description:		
VPN Type:	WireGuard	~
Import from Config File:	企 UPLOAD	
NAT:	Enabled	
Interface		
▶ Peer		
		CANCEL SAVE

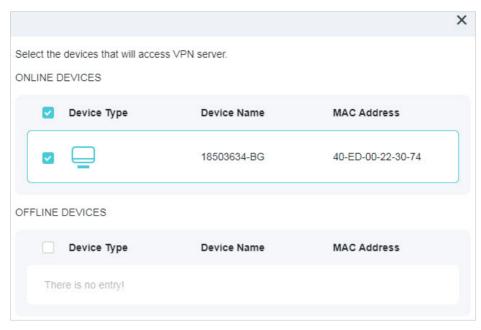
- 4) Save the settings.
- 5) In the server list, enable the one you need.

Server List				
Add or edit VPN server.	Up to 6 VPN servers can be	added.		
				🔂 Add
Description	Server	Status	Enable	Modify
No VPN Client				

- 5. Add and manage the devices that will use the VPN function.
  - 1) In the Device List section, click Add.
  - 2) Choose and add the devices that will access the VPN server you have configured.

De	evice List				
Ma	anage devices that w	ill use the VPN function.			
					🔂 Add
	Device Type	Device Name	MAC Address	VPN Access	Modify
	No items				

6. Save the settings.



Done! Now the devices you specified can access the VPN server you enabled.

### 5.10. IPv6

### 5. 10. 1. Set up an IPv6 Internet Connection

This function allows you to set up an IPv6 internet connection using the information provided by your ISP (internet service provider).

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > IPv6.
- 3. Enable IPv6 and select the internet connection type provided by your ISP. Note: If you do not know what your internet connection type is, contact your ISP.

IPv6 Internet		
Set up an IPv6 internet connect	on using the information provided by	your ISP (internet service provider).
IPv6:		
Internet Connection Type:	- Please Select -	$\sim$

- 4. Fill in information as required by different connection types.
- Static IP: Fill in blanks and save the settings.

IPv6 Internet		
Set up an IPv6 internet connect	ion using the information pro	ovided by your ISP (internet se
IPv6:		
Internet Connection Type:	Static IP	~
IPv6 Address:		
Default Gateway:		
Primary DNS:		
Secondary DNS:		
MTU Size:	1500	bytes

• Dynamic IP(SLAAC/DHCPv6): Click Advanced Settings to input further information if your ISP requires. Save the settings and click RENEW.

IPv6 Internet	
Set up an IPv6 internet connec	tion using the information provided by your ISP (internet service provider).
IPv6:	
Internet Connection Type:	Dynamic IP(SLAAC/DHCPv6)
IPv6 Address:	: :
Primary DNS:	::
Secondary DNS:	ä
	RENEW
	RELEASE
Advanced Settings	

5. Configure LAN ports. Windows users are recommended to choose from DHCPv6 and SLAAC+Stateless DHCP.

IPv6 LAN	
Configure the LAN IPv6 a	address of the router and set the configuration type to assign IPv6 addresses to the clients.
Assigned Type:	ND Proxy
	O DHCPv6
	SLAAC+Stateless DHCP
	SLAAC+RDNSS
Address:	FE80::2FF:FF:FE3F:9203/64

6. In **MAC Clone** section, set the MAC address of your router. Use the default address unless your ISP allows internet access from only a specific MAC address.

MAC Clone		
Set the MAC address of your specific MAC address.	router. Use the default address unless your ISP allows internet acces	s from only a
Router MAC Address:	Use Default MAC Address	
	00 - FF - 00 - 3F - 92 - 04	

### 5.11. System

### 5.11.1. Firmware Upgrade

TP-Link aims at providing better network experience for users.

We will inform you through the web management page if there's any update firmware available for your router. Also, the latest firmware will be released at the TP-Link official website <u>www.tp-link.com</u>, and you can download it from the <u>Support</u> page for free.

Note:

- Backup your router configuration before firmware upgrade.
- Do NOT turn off the router during the firmware upgrade.

### Auto Update

Enable Auto Update and set the update time. The router will update firmware automatically at the specified time when new version is available.

Auto update allows your performance and enhan	router to automatically update to the latest firmw	vare which provides better network
venerinance and emilan	oo oy storn sooding.	
Auto Update:		
Current Time:	2024-12-27 12:39:21 AM	Time Settings
Surrent Time.	2024-12-27 12:03:21740	Time octango

### **Online Upgrade**

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. When the latest firmware is available for your router, the upgrade icon of will display in the top-right corner of the page. Click the icon to go to the Firmware Upgrade page.

Alternatively, you can go to Advanced > System > Firmware Upgrade, and click CHECK FOR UPGRADES to see whether the latest firmware is released.

Online Update Update firmware for this rout	er over the internet.
Firmware Version:	
Hardware Version:	TL-WR3002X v1.0
	CHECK FOR UPDATES
	Firmware is up to date.

### 3. Click UPGRADE if there is new firmware.

### 4. Wait a few minutes for the upgrade and reboot to complete.

**V** Tips: If there's a new and important firmware update for your router, you will see the prompt notification on your computer as long as a web browser is opened. Click UPGRADE, and log in to the web management page with the username and password you set for the router. You will see the Firmware Upgrade page.

### Local Upgrade

- 1. Download the latest firmware file for the router from <u>www.tp-link.com</u>.
- 2. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 3. Go to Advanced > System > Firmware Upgrade.
- 4. Focus on the Local Upgrade section. Click BROWSE to locate the downloaded new firmware file, and click UPGRADE.

Local Update	
Update firmware for this router from	a local file.
New Firmware File:	企 UPLOAD
	UPDATE

### 5. Wait a few minutes for the upgrade and reboot to complete.

**Note:** If you fail to upgrade the firmware for the router, please contact our Technical Support.

### 5. 11. 2. 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 <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Backup & Restore.
- To backup configuration settings:

Click BACK UP 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 current router settings to a file.	
	BACK UP

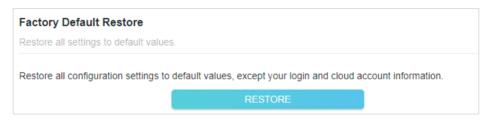
- To restore configuration settings:
- 1. Click UPLOAD to locate the backup configuration file stored on your computer, and click RESTORE.

Restore		
Restore settings from a backup file.		
File:	亡 UPLOAD	
	RESTORE	

### 2. Wait a few minutes for the restoring and rebooting.

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

- To reset the router except your login password and TP-Link ID:
- 1. In the Factory Default Restore section, click RESTORE.



- 2. Wait a few minutes for the resetting and rebooting.
- Note:
- During the resetting process, do not turn off the router.
- After reset, you can still use the current login password or the TP-Link ID to log in to the web management page.
- To reset the router to factory default settings:
- 1. Click FACTORY RESTORE to reset the router.



### 2. Wait a few minutes for the resetting and rebooting.

Note:

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

• We strongly recommend you backup the current configuration settings before resetting the router.

### 5. 11. 3. Change the Login Password

# The account management feature allows you to change your login password of the web management page.

**Note:** If you are using a TP-Link ID to log in to the web management page, the account management feature will be disabled. To manage the TP-Link ID, go to Advanced > TP-Link ID.

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

## 2. Go to Advanced > System > Administration and focus on the Change Password section.

Change Password	
change the router's local management passwor	rd.
Old Password:	Ø
lew Password:	Ø
Confirm New Password:	Ø

- 3. Enter the old password, then a new password twice (both case-sensitive). Click SAVE.
- 4. Use the new password for future logins.

### 5. 11. 4. Password Recovery

# This feature allows you to recover the login password you set for you router in case you forget it.

**Note:** If you are using a TP-Link ID to log in to the web management page, the Password Recovery feature will be disabled. To manage the TP-Link ID, go to Advanced > TP-Link ID.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > System > Administration and focus on the Password Recovery section.
- 3. Tick the Enable box of Password Recovery.
- 4. Specify a mailbox (From) for sending the recovery letter and enter its SMTP Server address. Specify a mailbox (To) for receiving the recovery letter. If the mailbox (From) to send the recovery letter requires encryption, Tick the Enable box of Authentication and enter its username and password.

Tips:

- SMTP server is available for users in most webmail systems. For example, the SMTP server address of Gmail is smtp.gmail.com.
- Generally, Authentication should be enabled if the login of the mailbox requires username and password.

Password Recovery	Password Recovery		
Reset local management passv	Reset local management password via preset questions and answers.		
Password Recovery:	Enabled		
From:			
To:			
SMTP Server:			
Authentication:	Enabled		
Username:			
Password:		Ø	

### 5. Click SAVE.

To recover the login password, please visit <u>http://tplinkwifi.net</u>, click Forgot Password? on the login page and follow the instructions to set a new password.

### 5.11.5. Local Management

This feature allows you to limit the number of client devices on your LAN from accessing the router by using the MAC address-based authentication.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Administration and complete the settings In Local Management section as needed.

#### Access the router via HTTPS and HTTP:

Tick the Enable box of Local Management via HTTPS to access the router via HTTPS and HTTP, or keep it disabled to access the router only via HTTP.

Local N	lanagement				
Access a	nd manage the router fro	m local network devices	S.		
Local Ma	nagement via HTTPS:	Enabled			
Local Ma	nagers:	All Devices		~	

Allow all LAN connected devices to manage the router:

Select All Devices for Local Managers.

Local Management Access and manage the router from local network devices.				
Local Management via HTTPS:	Enabled			
Local Managers:	All Devices	~		

- Allow specific devices to manage the router:
- 1. Select Specified Devices for Local Managers and click SAVE.

Local Management				
Access and manage the router from	n local network devices.			
Local Management via HTTPS:	Enabled			
Local Managers:	Specified Devices			
		Add Device		
Description	MAC Address	Modify		
There is no entry!				

### 2. Click Add Device.

Add Device		×
Description:	(Optional)	
	VIEW CONNECTED DEVICES	
MAC Address:		
	CANCEL SAVE	

- 3. Click VIEW CONNECTED DEVICES and select the device to manage the router from the Connected Devices list, or enter the MAC address of the device manually.
- 4. Specify a Description for this entry.
- 5. Click SAVE.

### 5.11.6. Remote Management

This feature allows you to control remote devices' authority to manage the router.

1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.

- 2. Go to Advanced > System > Administration and complete the settings in Remote Management section as needed.
- Forbid all devices to manage the router remotely:

Do not tick the Enable checkbox of Remote Management.



Allow all devices to manage the router remotely:

Remote Management	
Access and manage the router ov	er the internet.
	supported when you are connected to the internet only via IPv6. If you want to make sure you have set up an IPv4 connection first.
Remote Management:	C Enabled
HTTPS Port:	443
Web Address for Management:	https://192.168.0.100:443
Remote Managers:	All Devices $\checkmark$

- 1. Tick the Enable checkbox of Remote Management.
- 2. Keep the HTTPS port as default settings (recommended) or enter a value between 1024 and 65535.
- 3. Select All Devices for Remote Managers.
- 4. Click SAVE.

Devices on the internet can log in to <u>https://Router's WAN IP address:port number</u> (such as <u>https://113.116.60.229:1024</u>) to manage the router.

- Ø Tips:
- You can find the WAN IP address of the router on Network Map > Internet.
- The router's WAN IP is usually a dynamic IP. Please refer to Dynamic DNS if you want to log in to the router through a domain name.
- Allow a specific device to manage the router remotely:

Remote Management Access and manage the router over the internet.			
	supported when you are connected to the inte nake sure you have set up an IPv4 connection		
Remote Management:	Enabled		
HTTPS Port:	443		
Web Address for Management:	https://192.168.0.100:443		
Remote Managers:	Specified Device ~		
Only this IP Address:			

- 1. Tick the Enable checkbox of Remote Management.
- 2. Keep the HTTPS port as default settings (recommended) or enter a value between 1024 and 65535.
- 3. Select Specified Device for Remote Managers.
- 4. In the Only this IP Address field, enter the IP address of the remote device to manage the router.
- 5. Click SAVE.

Devices using this WAN IP can manage the router by logging in to <u>https://Router's WAN</u> IP:port number (such as <u>https://113.116.60.229:1024</u>).

Tips: The router's WAN IP is usually a dynamic IP. Please refer to <u>Dynamic DNS</u> if you want to log in to the router through a domain name.

### 5.11.7. System Log

When the router does not work normally, you can save the system log and send it to the technical support for troubleshooting.

- To save the system log locally:
- 1. Visit <u>http://tplinkwifi.net</u>, and log in your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > System Log.
- 3. Choose the type and level of the system logs as needed.

System Log View a detailed record of	r system activities.	
Current Time:	2024-12-27 12:51:33 AM	
All	~	
Search	Q	😋 Refresh 🛛 🏼 🖌 Clear All
2024-12-27 00:46:49	Led Controller INFO [1293] Start to run	WAN1_ON
	Led Controller ERROR [1293] Config im	
	Led Controller DEBUG [1293] Failed to	_
	) Led Controller ERROR [1293] Config im ) Led Controller DEBUG [1293] Failed to (	
	Led Controller INFO [1293] Start to run 1	
	Led Controller ERROR [1293] Config im	_
	Led Controller DEBUG [1293] Failed to	
	Led Controller ERROR [1293] Config im	_
2024-12-27 00:45:49	Led Controller DEBUG [1293] Failed to	read LAN_ON
2024-12-27 00:35:15	Traffic Statistics INFO [8792] stats reset	i .
2024-12-27 00:35:15	Network INFO [7997] Reload config	
2024-12-27 00:35:14	Network INFO [7997] Set IPv6 status to	on, protocol is

### 4. In the Save Log section, click SAVE TO LOCAL to save the system logs to a local disk.

Save Log	
Send system log to a specific er	nail address or save locally.
	MAIL LOG
	SAVE TO LOCAL

• To send the system log to a mailbox at a fixed time:

For example, I want to check my router's working status at a fixed time every day, however, it's too troublesome to log in to the web management page every time I want to go checking. It would be great if the system logs could be sent to my mailbox at 8 a.m. every day.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > System Log.
- 3. In the Save Log section, click MAIL LOG.
- 4. Enter the information required:

Mail Log			×
Note: Set your mail information	n below.		
Email From:			
	Require Password		
Username:			
Email Password:	Ø	5	
SMTP Server:			
Email To:			
	Mail Log Automatically		
Frequency:	Every Day ~	·	
Mail Time:	00 ~ : 00 ~	·	
	CA	ANCEL SAVE	

1) Email From: Enter the email address used for sending the system log.

#### 2) Select Require Password.

Tips: Generally, Require Password should be selected if the login of the mailbox requires username and password.

- 3) Username: Enter the email address used for sending the system log.
- 4) Email Password: Enter the password to login the sender's email address.
- 5) SMTP Server: Enter the SMTP server address.

Tips: SMTP server is available for users in most webmail systems. For example, the SMTP server address of Hotmail is smtp-mail.outlook.com.

- Email To: Enter the recipient's email address, which can be the same as or different from the sender's email address.
- 7) Select Mail Log Automatically.

<sup>@</sup> Tips: The router will send the system log to the designated email address if this option is enabled.

8) Frequency: This determines how often the recipient will receive the system log.

5. Click SAVE.

### 5. 11. 8. Test the Network Connectivity

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

1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.

2. Go to Advanced > System > Diagnostics.

Diagnostics			
Troubleshoot network connectivity	problems.		
Diagnostics Tools:	Ping		~
IP Address/Domain Name:			
Ping Count:	4		
Ping Packet Size:	64		Bytes
		START	

- 3. Enter the information:
  - 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 IP Address or Domain Name of the tested host.
  - 3) Modify the Ping Count number and the Ping Packet Size. It's recommended to keep the default value.
  - 4) If you have chosen Traceroute, you can modify the Traceroute Max TTL. It's recommended to keep the default value.
- 4. Click START to begin the diagnostics.

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

PING 192.168.0.1 (192.168.0.1): 64 data bytes Reply from 192.168.0.1: bytes=64 ttl=64 seq=1 time=0.966 ms Reply from 192.168.0.1: bytes=64 ttl=64 seq=2 time=0.916 ms Reply from 192.168.0.1: bytes=64 ttl=64 seq=3 time=0.928 ms Reply from 192.168.0.1: bytes=64 ttl=64 seq=4 time=0.907 ms
Ping Statistic "192.168.0.1" Packets: Sent=4, Received=4, Lost=0 (0.00% loss) Round-trip min/avg/max = 0.907/0.929/0.966 ms ping is stopped.

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

```
traceroute to 192.168.0.1, 5 hops max, 46 byte packets

1 * * *

2 * *

3 * *

4 * *

5 * * *

Trace Complete.

traceroute is stopped.
```

### 5. 11. 9. 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 time-based functions like Parental Controls. You can choose the way to obtain the system time as needed.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Time.
- To get time from the internet:
- 1. Enable 24-Hour Time if you want the time to display in a 24-hour way.
- 2. In the Set Time field, select Get from Internet.

System Time		
Set the router's system tim	ie.	
Current Time:	2024-12-27 00:56:27	
24-Hour Time:		
Set Time:	Get from Internet	
Time Zone:	(UTC+08:00) Beijing, Chongqing, Hong Kong, Urumqi	~
NTP Server I:	us.pool.ntp.org	
NTP Server II:	north-america.pool.ntp.org (Optional)	

- 3. Select your local Time Zone from the drop-down list.
- 4. In the NTP Server I field, enter the IP address or domain name of your desired NTP Server.
- 5. (Optional) In the NTP Server II field, enter the IP address or domain name of the second NTP Server.
- 6. Click SAVE.
- To get time from your computer:
- 1. In the Set Time field, select Get from Managing Device.

System Time		
Set the router's system ti	me.	
Current Time:	2024-12-27 00:57:16	
24-Hour Time:		
Set Time:	Get from Managing Device	$\sim$

- 2. The time of your computer will then be displayed and click SAVE.
- To manually set the date and time:
- 1. In the Set Time field, select Manually.

System Time		
Set the router's system time.		
Current Time:	2024-12-27 01:00:13	
24-Hour Time:		
Set Time:	Manually	~
Date:	2024/12/27	
Time:	00 ~ : 57 ~ :	06 ~

- 2. Set the current Date (In MM/DD/YYYY format).
- 3. Set the current Time (In HH/MM/SS format).
- 4. Click SAVE.
- To set up Daylight Saving Time:
- 1. Tick the Enable box of Daylight Saving Time.

Daylight Saving Time Automatically synchronize the	system time with daylight savin	g time.		
Daylight Saving Time:	Enabled			
Start: 2025	Mar	~	2nd	~
	Sun	~	10:00	$\sim$
End: 2025	Nov	~	First	$\sim$
	Sun	~	09:00	~
Running Status:	Daylight Saving Time is of	ff.		

2. Select the correct Start date and time when daylight saving time starts at your local time zone.

- 3. Select the correct End date and time when daylight saving time ends at your local time zone.
- 4. Click SAVE.

### 5. 11. 10. Set the Router to Reboot Regularly

The Scheduled Reboot feature cleans the cache to enhance the running performance of the router.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Reboot.
- 3. Tick the Enable box of Reboot Schedule.

Reboot Schedule		
Set when and how often the	e router reboots automatically.	
Reboot Schedule:	Enabled	
Note: Before using this feat	rure, make sure System Time is set to "G	et from Internet".
Reboot Time:	3 ~ 00	~
Repeat:	Every Week	$\sim$
	Monday	~

- 4. Specify the Reboot Time when the router reboots and Repeat to decide how often it reboots.
- 5. Click SAVE.

### 5.11.11. Control the LED

The LED of the router indicates its activities and status. You can enable the Night Mode feature to specify a time period during which the LED is off.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > LED Control.
- 3. Enable Night Mode.
- 4. Specify the LED off time, and the LED will be off during this period every day.
- 5. Click SAVE.

LED Control Turn the router's LEDs on or off.	
LED Status:	
Night Mode	
Set a time period when the LEDs w	ill be off automatically.
Night Mode:	Enabled
Note: Before using this feature, ma	ke sure System Time is set to "Get from Internet".
Current Time:	2024-12-27 01:03:06
LED Off From:	23 ~ . 00 ~
To:	[7

### 5.11.12. ECO Mode

An ECO Mode switch is used to change the power saving mode of the router. To change the ECO Mode, please toggle the Mode Switch on the device to your desired mode.

- Boost Mode: Favors wireless range and transmission speed but may increase energy consumption and raise device temperature.
- Balance Mode: Automatically balances wireless range and transmission speed while considering energy consumption and device temperature.
- ECO Mode: Saves energy and lowers device temperature by reducing device's wireless range and transmission speed.

ECO Mode		
Choose the ECO Mode that suits you	r needs best.	
Note: If you want to change the ECO	Mode, please toggle the Mode Switch on	the device to your desired mode.
Decent Marke	Deleges Made (Ourset)	E00 Made
Boost Mode	Balance Mode (Current)	ECO Mode

### 5. 11. 13. Authorize Third-Party Services

Share your clients' information to a third-party services to identify your clients better. We won't save your private information.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Authorize Third-Party Services.

### 3. Enable Client Identification.

Authorize Third-Party Services
Once enabled, we will share your clients' information to a third-party services to identify your clients better. We won't save your private information.
Client Identification:

### Chapter 6

# **Configure the Router in Access Point Mode**

This chapter presents how to configure the various features of the router working in Access Point mode.

It contains the following sections:

- Operation Mode
- <u>Network Map</u>
- <u>Wireless</u>
- <u>Network</u>
- USB Storage Device
- <u>Access Control</u>
- Firmware Upgrade
- Backup and Restore Configuration Settings
- <u>TP-Link Cloud Service</u>
- <u>Change the Login Password</u>
- Password Recovery
- Local Management

- <u>System Log</u>
- <u>Test the Network</u>
   <u>Connectivity</u>
- <u>Set Up System Time</u>
- <u>Set the Router to Reboot</u> <u>Regularly</u>
- <u>Control the LED</u>
- ECO Mode

### 6.1. Operation Mode

If the router is working at Router/USB Tethering/USB Modem/Hotspot Mode currently, follow the steps to switch the operation mode to Access Point mode.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Operation Mode.
- 3. Select AP/RE/Client Mode and click SAVE.

Operation Mo	de			
Select an operat	ion mode according	to your needs.		
Router/USE	3 Tethering/USB Mo	dem Mode/Hotspot Mode (Current)		
<		Wan cable		>
Router: Get	Internet via an Ethe	rnet cable connected to an existing wire	ed network.	
AP/RE/Clier	nt Mode			
<	(	WAN cable	() 	>
Access Poin	it: Change an existin	g wired (Ethernet) network into a wirek	ess one. Home use recommended	1.

4. Select Access Point and click REBOOT. The settings will take effect only after the router reboots. Internet access will be disabled temporarily.

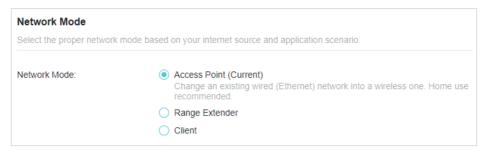


5. Wait until it finishes rebooting and follow instructions to complete the setup.

# If the router is working at Range Extender/Client Mode currently, follow the steps to switch the operation mode to Access Point mode.

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

3. Select the desired network mode and click SAVE.



4. Go to Quick Setup and select Access Point, then follow the instructions to complete the setup.

Select your network mode The following modes can help you extend your exisiting network.	
Access Point     Change an existing wired (Ethernet) network into a wireless one. Home use reco	mmended.
	<sup>(()</sup>
Range Extender     Extend the range of an existing Wi-Fi. Home use recommended.	
	(h)
<ul> <li>Client         Act as a "Wireless Adapter" to connect your wired devices (e.g. Blu-ray player, sr use recommended.         Note: The client device's wireless network will be turned off, you need to access through a wired connection.     </li> </ul>	
Note: If you want to switch your device to Router/Hotspot Mode, please click Exit Set Mode.	up and go to Advanced > Operation
	NEXT

### 6.2. Network Map

Network Map outlines device connectivity of your network visually and helps you manage general settings of the network.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Network Map.

- 3. Click each network device icon to check and manage general network settings.
- Click Internet to check internet status.

Internet	[	2.40 50 ♥ ♥ 	Clients
Internet Status			
Connection Type: MAC Address:	Dynamic IP 00-FF-00-3F-92-03	IP Address: Subnet Mask:	192.168.0.102 255.255.255.0

• Click the router to check device status and network settings. You can turn on or off the wireless network or guest network, or click Edit to change related settings.

Inter	met	(	2.46 56		Clients
Access Poir	nt Mode is in effect. If you need	to change to another mod	e, you can go to Netw	ork Mode.	
Router In	formation				
Device Na		TL-WR3002X 00-FF-00-3F-92-03	IPv4 LAN IP: IPv6 LAN IP:	FE80::2FF:FF	192.168.0.102 :FE3F:9203/64
Wireless					Edit
Band	Network Name (SSID)	Password		Channel	Status
2.4 GHz	TP-Link_portable	12345678		Auto (Current: 4)	
5 GHz	TP-Link_portable_5G	12345678		Auto (Current: 36)	
Guest Ne	twork				Edit
Band	Network Name (SSID)	Password		Channel	Status
2.4 GHz	TP-Link_Guest_9203				
5 GHz	TP-Link_Guest_9203_5G				

Performance				
CPU Load 100% 80% 60% 40% 20% 0% CPU Core	o o o	Current	100%	Current: 28%
Ethernet Statu	IS			C Refresh
2.5 Gbps WAN/LAN 100 Mbps Full Duplex	1 Gbps WAN/LAN 1000 Mbps Full Duplex			

• Click Clients to view the client devices in your network.

All (1)		2.46 56 ♥ ♥		Clients
Connected Clients				View Deny List
Device Info	Interface	Tx/Rx Rate(Mbps) 🕐	Duration	Modify
18503634-BG           40-ED-00-22-30-74           192.168.0.103	(Wired)		2 min	ß

### 6.3. Wireless

#### 6.3.1. Wireless Settings

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Wireless > Wireless Settings.

Wireless Settings		
Personalize settings for each ba	and.	
OFDMA:	Enabled 🥝	
TWT:	Enabled 🕜	
2.4 GHz:	Enabled	Share Network
Network Name (SSID):	TP-Link_F70C	Hide SSID
Security:	WPA2-PSK[AES] V	
Password:	12345678	
▼ 2.4 GHz Advanced Settings	3	
Transmit Power:	High ~	
Channel Width:	20/40 MHz ~	
Channel:	Auto ~	
Mode:	802.11b/g/n/ax mixed V	
5 GHz:	Enabled	Share Network
Network Name (SSID):	TP-Link_F70C_5G	Hide SSID
Security:	WPA2-PSK[AES] ~	
Password:	12345678	
▼ 5 GHz Advanced Settings		
Transmit Power:	High $\vee$	
Channel Width:	20/40/80/160 MHz V	
Channel:	Auto ~	
	The channel width and channel you've select This will require some waiting time to meet re requirements.	ed will overlap with DFS channels. gulatory radar detection
Mode:	802.11a/n/ac/ax mixed V	

- OFDMA This feature enables multiple users to transmit data simultaneously, and thus greatly improves speed and efficiency. Noted that only when your clients also support OFDMA, can you fully enjoy the benefits.
- TWT Target Wake Time allows 802.11ax routers and clients to negotiate their periods to transmit and receive data packets. Clients only wake up at TWT sessions and remain in sleep mode for the rest of the time, which significantly extend their battery life.
- 2.4GHz/5GHz Select this checkbox to enable the 2.4GHz/5GHz wireless network.
- Share Network- Click to save the Wi-Fi settings for sharing.
- Network Name (SSID) Enter a value of up to 32 characters. The same Name (SSID) must be assigned to all wireless devices in your network.

- Hide SSID Select this checkbox if you want to hide the network name (SSID) from the Wi-Fi network list. In this case, you need to manually join the network.
- Security Select an option from the Security drop-down list. We recommend you don't change the default settings unless necessary.
- Password Set a password for the wireless network. The value is case-sensitive.
- Transmit Power Select High, Middle or Low to specify the data transmit power. The default and recommended setting is High.
- Channel Width Select a channel width (bandwidth) for the wireless network.
- Channel Select an operating channel for the wireless network. For the 2.4 GHz and 5GHz bands, it is recommended to leave the channel to Auto, if you are not experiencing the intermittent wireless connection issue.
- Mode You can choose the appropriate "Mixed" mode.
- 3. Configure the wireless settings for the wireless network and click SAVE.

#### 6. 3. 2. Guest Network

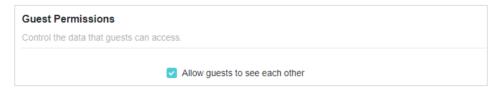
Guest Network allows you to provide Wi-Fi access for guests without disclosing your host network. When you have guests in your house, apartment, or workplace, you can create a guest network for them. In addition, you can customize guest network settings to ensure network security and privacy.

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

Guest Network Enable the wireless bands yo	u want your guests to use and complete the	related information.
2.4 GHz:	Enabled	Share Network
Network Name (SSID):	TP-Link_Guest_9203	Hide SSID
5 GHz:	Enabled	Share Network
Network Name (SSID):	TP-Link_Guest_9203_5G	Hide SSID
Security:	Open	~
	This security type is not considered se	ecure. Consider selecting a more secure

4. Customize the SSID. Don't select Hide SSID unless you want your guests to manually input the SSID for guest network access.

- 5. Select the Security type and customize your own password. If No security is selected, no password is needed to access your guest network.
- 6. Click SAVE. Now you guests can access your guest network using the SSID and password you set!
- Customize Guest Network Options
- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Wireless > Guest Network. Locate the Guest Permissions section.
- 3. Customize guest network options according to your needs.



#### • Allow guests to see each other

Tick this checkbox if you want to allow the wireless clients on your guest network to communicate with each other via methods such as network neighbors and Ping.

4. Click SAVE. Now you can ensure network security and privacy!

#### 6.3.3. Wireless Schedule

The wireless function can be automatically off at a specific time when you do not need the wireless function.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Wireless > Wireless Schedule.
- 3. Enable the Wireless Schedule function.

Wireless Schedule				
Schedule when to automati	cally turn off your	wireless network.		
Wireless Schedule:				
Current Time:	2025-02-0	05 05:16:37 PM		
Note: Before using this fea	ture, make sure Sy	stem Time is set to "Get from I	Internet".	
				🔂 Ad
Wireless Off Time	Band	Repeat	Enable	Modify
There is no entry!				

4. Click Add to specify a wireless off period during which you need the wireless off automatically, and click SAVE.

Add Schedule		×
Enable This Entry:	Enabled	
Band:	<ul> <li>✓ 2.4 GHz</li> <li>✓ 5 GHz</li> </ul>	
Wireless Off Time:	11 ~ : 00 ~ PM ~	
	07 ~ : 00 ~ AM ~ (next day)	
Repeat:	S M T W T F S	
	CANCEL	

Note:

- The effective wireless schedule is based on the time of the router. You can go to Advanced > System > Time to modify the time.
- The wireless network will be automatically turned on after the time period you set.

#### 6.3.4. WPS

# WPS (Wi-Fi Protected Setup) can help you to quickly and securely connect to a network. This section will guide you to add a new wireless device to your router's network quickly via WPS.

Note:

- The WPS function cannot be configured if the wireless function of the router is disabled. Please make sure the wireless function is enabled before configuration.
- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Wireless > WPS.
- 3. Follow one of the following methods to connect your client device to the router's Wi-Fi network.

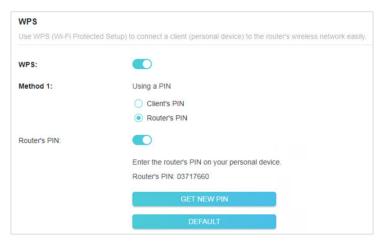
#### Method 1: Using a PIN

#### • Connects via the Client's PIN

1. Keep the WPS Status as Enabled and select Client's PIN.

WPS	
Use WPS (Wi-Fi Protec	cted Setup) to connect a client (personal device) to the router's wireless network easily.
WPS:	
Method 1:	Using a PIN
	Client's PIN
	O Router's PIN
	Enter your personal device's PIN here and click <b>CONNECT</b>
	CONNECT

- 2. Enter the PIN of your device and click CONNECT. Then your device will get connected to the router.
- Connects via the Router's PIN
- 1. Keep the WPS Status as Enabled and select Router's PIN.



#### 2. Enter the router's PIN on your personal device. You can also generate a new one.

**Note:** 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.

#### Method 2: Using the WPS Button on the Web Screen

Click Start on the screen. Within two minutes, enable WPS on your personal device. A Device-(XX-XX-XX-XX-XX) Connected message should appear on the screen,

#### indicating successful WPS connection.

Note: XX-XX-XX-XX-XX is the MAC address of your device.

Method 2:	Using the button below
	Click the button below, then enable WPS on your personal device within 2 minutes.
	Start

#### Method 3: Using the WPS Button on the Router

Press the router's WPS button. Within two minutes, enable WPS on your personal device.

#### 6. 3. 5. Additional Settings

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Wireless > Additional Settings.

#### 3. Configure the advanced settings of your wireless network and click SAVE.

**Note:** If you are not familiar with the setting items on this page, it's strongly recommended to keep the provided default values; otherwise it may result in lower wireless network performance.

Additional Settings		
Check advanced wireless settir	igs for your device.	
WMM:	Enabled	
AP Isolation:	Enabled	
Airtime Fairness:	Enabled	
Beacon Interval:	100	
RTS Threshold:	2346	
DTIM Interval:	1	
Group Key Update Period:	0	S

- WMM WMM function can guarantee the packets with high-priority messages being transmitted preferentially.
- AP Isolation This function isolates all connected wireless stations so that wireless stations cannot access each other through WLAN.
- Airtime Fairness This function can improve the overall network performance by sacrificing a little bit of network time on your slow devices.
- Beacon Interval Enter a value between 40-1000 milliseconds for Beacon Interval here. Beacon Interval value determines the time interval of the beacons. The

beacons are the packets sent by the router to synchronize a wireless network. The default value is 100.

- RTS Threshold Here you can specify the RTS (Request to Send) Threshold. If the packet is larger than the specified RTS Threshold size, the router will send RTS frames to a particular receiving station and negotiate the sending of a data frame. The default value is 2346.
- DTIM Interval This value determines the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the router has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. You can specify the value between 1-255 Beacon Intervals. The default value is 1, which indicates the DTIM Interval is the same as Beacon Interval.
- Group Key Update Period Enter a number of seconds (minimum 30) to control the time interval for the encryption key automatic renewal. The default value is 0, meaning no key renewal.

### 6.4. Network

#### 6.4.1. Status

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > Status. You can view the current status information of the router.

Status			
Internet status overview is	displayed on this page.		
LAN			
MAC Address:	00-FF-00-3F-92-03		
IP Address:	192.168.0.102		
Subnet Mask:	255.255.255.0		
DHCP Server			
DHCP Server:	Auto		
IP Address Pool:	192.168.0.2 - 192.168.0.253		

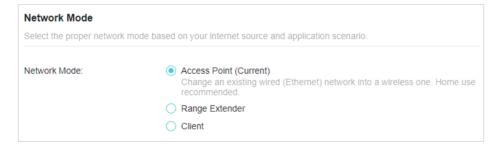
 LAN - This field displays the current settings of the LAN, and you can configure them on the Network > LAN page.

- MAC Address The physical address of the router.
- IP Address The LAN IP address of the router.
- Subnet Mask The subnet mask associated with the LAN IP address.
- DHCP Server This field displays the current settings of DHCP (Dynamic Host Configuration Protocol) Server, and you can configure them on the Network > DHCP Server page.
  - DHCP Server Indicates whether the DHCP server is enabled or disabled. It is enabled by default and the router acts as a DHCP server.
  - IP Address Pool The IP address range for the DHCP server to assign IP addresses.

#### 6.4.2. Network Mode

In Access Point mode, you can quickly switch to Range Extender mode or Client mode with one tap.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > Network Mode.
- 3. Select the desired network mode and click SAVE.



#### 6.4.3. LAN

In Access Point mode, this router is preset with Dynamic IP, which allows it to dynamically obtain an IP address and gateway from the main router/AP. It is recommended that you keep the default LAN settings to avoid IP conflict with the main router/AP or other devices on your local network.

If you want to set a static IP address for the access point, follow the steps below:

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > LAN.
- 3. In IP Type, select Static IP.

LAN View and configure LAN settings	i.	
MAC Address:	00-FF-00-3F-92-03	
IP Type:	O Dynamic IP	
	Static IP	
IP Address:	192.168.0.102	
Subnet Mask:	255.255.255.0	~
Default Gateway:	192.168.0.1	
Primary DNS:	192.168.0.1	
Secondary DNS:		(Optional)

#### 4. Leave other parameters as the default settings.

#### 5. Click SAVE.

#### Note:

After setting a static IP address, you can use the new IP address to log into the web management page besides http:// tplinkwifi.net.

#### 6.4.4. DHCP Server

By default, the DHCP (Dynamic Host Configuration Protocol) server works in Auto mode to avoid IP conflict. It will automatically assign IP addresses to clients from its IP address pool only when the DHCP server of the main router/AP is disabled.

You can change the DHCP server settings if necessary, and you can reserve LAN IP addresses for specified client devices.

#### Note:

If you disable the DHCP server and there is no other DHCP server within your LAN, you have to configure the IP address for each client manually.

#### • To specify the IP address that the router assigns:

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

DHCP Server			
Dynamically assign IP addres	sses to the devices connected	I to the router.	
DHCP Server:	<ul> <li>Auto</li> </ul>		
	<ul><li>On</li></ul>		
	Off		
IP Address Pool:	192.168.0.2	- 192.168.0.253	
Address Lease Time:	1	minutes	
Default Gateway:	192.168.0.1		(Optional)
Primary DNS:			(Optional)
Secondary DNS:			(Optional)

- 1. Turn on DHCP Server.
- 2. Enter the starting and ending IP addresses in the IP Address Pool.
- 3. Enter other parameters if the ISP offers. The Default Gateway is automatically filled in and is the same as the LAN IP address of the router.

#### 4. Click SAVE.

Note: To use the DHCP server function of the router, you must configure all computers on the LAN as Obtain an IP Address automatically.

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

The DHCP server of the router works when it is turned on, or when it is in Auto mode with the DHCP server of the main router/AP disabled. When it is working, you can view the DHCP clients and reserve IP addresses for them.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- Go to Advanced > Network > DHCP Server and locate the Address Reservation section.
- 3. Click Add in the Address Reservation section.

ddress Reservation	specific devices connected to	the router		
eserve in addresses ior :	specific devices conflected to	the fouler.		
				🔂 Ad
Device Name	MAC Address	Reserved IP Address	Status	Modify
There is no entry!				

4. Click VIEW CONNECTED DEVICES and select the you device you want to reserve an IP for. Then the MAC and IP Address will be automatically filled in. You can also enter the MAC and IP address of the client device.

Add a Reservation Ent	ry	3
MAC Address:		
	VIEW CONNECTED DEVICES	
IP Address:		

- To check the DHCP client list:
- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > DHCP Server and locate the DHCP Client List section. You can see the device information of the list.
- 3. Click Refresh to see the current attached devices.

√iew the devices that are cur	rently assigned with IP addresses	by the DHCP server.	
Total Clients: 1			C Refres
Device Name	MAC Address	Assigned IP Address	Lease Time
18503634-BG	40-ED-00-22-30-74	192.168.1.45	1:58:31

### 6.5. USB Storage Device

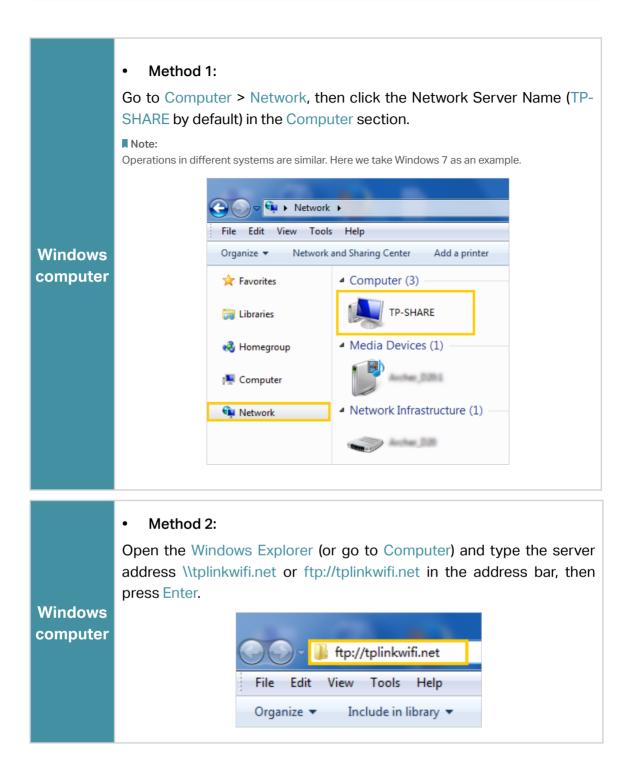
## Insert your USB storage device into the router's USB port and then access files stored there locally.

Ø Tips:

- If you use USB hubs, make sure no more than 4 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, exFat, NTFS or HFS+.
- Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to Advanced > USB > USB Storage Device and click Remove.

#### 6. 5. 1. Access the USB Device Locally

Insert your USB storage device into the router's USB port and then refer to the following table to access files stored on your USB storage device.



Мас	<ol> <li>Select Go &gt; Connect to Server.</li> <li>Type the server address smb://tplinkwifi.net.</li> <li>Click Connect.</li> </ol> Connect to Server           Server Address:           smb://tplinkwifi.net           Favorite Servers:           Remove           Browse
	4) When prompted, select the Guest radio box. (If you have set up a username and a password to deny anonymous access to the USB disks, you should select the Registered User radio box. To learn how to set up an account for the access, refer to <u>To Set Up Authentication</u> <u>for Data Security</u> .)
Tablet	Use a third-party app for network files management.

#### Ø Tips:

You can also access your USB storage device by using your Network/Media Server Name as the server address. Refer to <u>To Customize the Address of the USB Storage Device</u> to learn more.

#### 6. 5. 2. Customize the Access Settings

By default, all the network clients can access all folders on your USB disk. You can customize your sharing settings by setting a sharing account, sharing specific contents and setting a new sharing address on the router's web management page.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > USB & microSD > Storage Device.
- To Customize the Address of the USB Storage Device

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

 In the Access Method session, make sure Samba for Windows Samba for macOS/ Linux is enabled, and enter a Network/Media Server Name as you like, such as MyShare, then click SAVE.

Access Method				
Select the method for acces	ssing your USB storage device or	microSD (TF) card.		
Network/Media Server Nam	MyShare			
Access Method	Address	Enable	Port	Modify
SMB for Windows SMB for macOS/Linux	\\192.168.0.102 k smb://192.168.0.102			ľ
Local FTP	ftp://192.168.0.102:21		21	ß

2. Now you can access the USB storage device by visiting \\MyShare (for Windows) or smb://MyShare (for Mac).

#### • To Only Share Specific Content

Focus on the File Sharing section. Specify sharing folders that you want to share and click SAVE.

File Sharing		
Share files with devices in	your home or office network.	
Secure Sharing:		
Select Folder:	NTFS(G:) V	
	Work >	
	Documents >	
	✓ Pictures >	
	EXFAT(H:) >	
	DISK(I:) >	

#### • To Set Up Authentication for Data Security

You can set up authentication for your USB storage device so that network clients will be required to enter username and password when accessing the USB storage device.

1. In the File Sharing section, enable Secure Sharing.

ecure Sharing				
istomize the access set	tings to ensure data secu	irity.		
Username	Password		Permissions	Modify
admin		Ø	Read&Write	Ø
visit		Ø	Read	Ø

2. Click i to modify the access account. The username and password are both admin for default administrator account, and both visit for default visitor account. Accessing as an administrator can read and modify the shared folders while visitors can only read the shared folders.

#### Note:

- 1. For Windows users, do not set the sharing username the same as the Windows username. Otherwise, Windows credential mechanism may cause the following problems:
  - If the sharing password is also the same as the Windows password, authentication will not work since the Windows will automatically use its account information for USB access.
  - If the sharing password is different from the Windows password, the Windows will be unable to remember your credentials and you will always be required to enter the sharing password for USB access.
- 2. Due to Windows credential mechanism, you might be unable to access the USB disk after changing Authentication settings. Please log out from the Windows and try to access again. Or you can change the address of the USB disk by referring to <u>To Customize the Address of the USB Storage Device</u>.

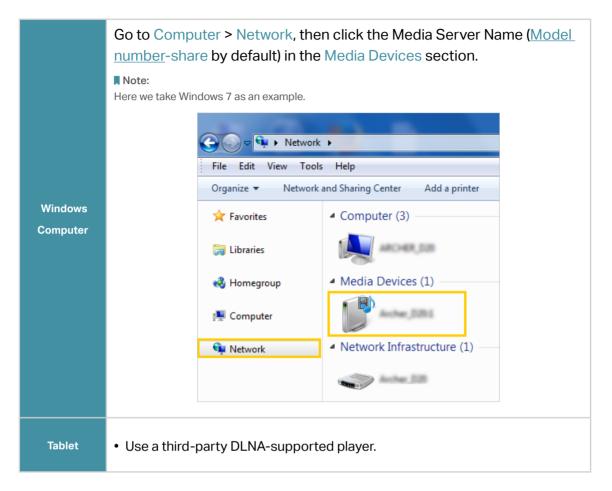
#### 6.5.3. Media Sharing

The feature of Media Sharing allows you to view photos, play music and watch movies stored on the USB storage device directly from DLNA-supported devices, such as your computer, tablet and PS2/3/4.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > USB & microSD > Storage Device.
- 3. Enable Media Sharing.

Media Sharing	
View photos, play music a	nd watch movies stored on the USB storage device via the access address.
Media Sharing:	

4. When your USB storage device is inserted into the router, your DLNA-supported devices (such as your computer and pad) connected to the router can detect and play the media files on the USB storage devices.



5. Refer to the following table for detailed instructions.

### 6.6. Access Control

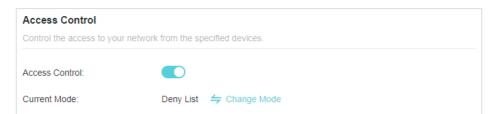
Access Control is used to block or allow specific client devices to access your network (via wired or wireless) based on a list of blocked devices (Deny List) or a list of allowed devices (Allow List).

#### I want to:

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

#### How can I do that?

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Security > Access Control.
- 3. Toggle on to enable Access Control.



4. Click Change Mode to select the access mode to either block (recommended) or allow the device(s) in the list.

Change Mode	Х
<ul> <li>Deny List Configure a deny list to only block access to your network from the specified devices.</li> </ul>	
<ul> <li>Allow List</li> <li>Configure a allow list to only allow access to your network from the specified devices.</li> </ul>	
CANCEL CHANGE	

#### To block specific device(s):

1) Select Deny List.

Access Control			
Control the access to you	r network from the sp	ecified devices.	
Access Control:			
Current Mode:	Deny List	🗲 Change Mode	
			🔂 Add
Device Type	Device Name	MAC Address	Modify
There is no entry!			

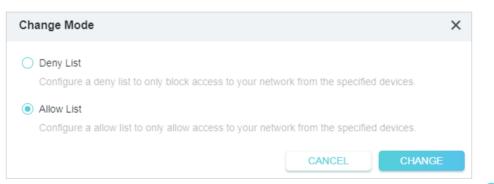
2) Click ( Add and select devices you want to be blocked, or enter the MAC address manually, and click ADD.

Add Device	es					×
<ul> <li>Select Fr</li> <li>Add Man</li> </ul>	rom Device List nually					
יד 🔽	ype Device	Name	IP	MAC		
	185036	34-BG	192.168.1.4	5 40-EC	-00-22-30-74	
			(	CANCEL	ADD	
Add Device	es					×
<ul> <li>Select Fr</li> <li>Add Man</li> <li>Device Name</li> <li>MAC Address</li> </ul>	- 			-		
				CANCEL	ADD	

1) The Operation Succeeded message will appear on the screen, which means the selected devices have been successfully added to the Deny List.

#### To allow specific device(s):

1) Select Allow List and click CHANGE.



2) Your own device is in the Allow List by default and cannot be deleted. Click 🕂 Add to add other devices to the Allow List.

			🔂 Add
Device Type	Device Name	MAC Address	Modify
<b>e</b>	18503634-BG	40-ED-00-22-30-74	١

#### • Add connected devices

- 1) Click Select From Device List.
- 2) Select the devices you want to be allowed and click ADD.

Ad	d Devices				×
•	Select From De Add Manually	evice List			
	Туре	Device Name	IP	MAC	
	There is no e	entry!			
				CANCEL	ADD

3) The Operation Succeeded message will appear on the screen, which means the selected devices have been successfully added to the Allow List.

#### Add unconnected devices

- 1) Click Add Manually.
- 2) Enter the Device Name and MAC Address of the device you want to be allowed and click ADD.

Add Devices		×
<ul> <li>Select From Device List</li> <li>Add Manually</li> </ul>		
Device Name:		
MAC Address:		
	CANCEL	D

3) The Operation Succeeded message will appear on the screen, which means the device has been successfully added to the Allow List.

#### Done!

Now you can block or allow specific client devices to access your network (via wired or wireless) using the Deny List or Allow List.

### 6.7. Firmware Upgrade

TP-Link aims at providing better network experience for users.

We will inform you through the web management page if there's any update firmware available for your router. Also, the latest firmware will be released at the TP-Link official website <u>www.tp-link.com</u>, and you can download it from the <u>Support</u> page for free.

#### Note:

- Backup your router configuration before firmware upgrade.
- Do NOT turn off the router during the firmware upgrade.

#### Auto Update

Enable Auto Update and set the update time. The router will update firmware automatically at the specified time when new version is available.

Auto Update		
Auto update allows your performance and enhane	router to automatically update to the latest firmv ces system security.	ware which provides better network
Auto Update:		
Current Time:	2024-12-27 12:39:21 AM	Time Settings

#### **Online Upgrade**

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. When the latest firmware is available for your router, the upgrade icon of will display in the top-right corner of the page. Click the icon to go to the Firmware Upgrade page.

Alternatively, you can go to Advanced > System > Firmware Upgrade, and click CHECK FOR UPGRADES to see whether the latest firmware is released.

Online Update	
Update firmware for this rou	iter over the internet.
Firmware Version:	
Hardware Version:	TL-WR3002X v1.0
	CHECK FOR UPDATES
	Firmware is up to date.

#### 3. Click UPGRADE if there is new firmware.

#### 4. Wait a few minutes for the upgrade and reboot to complete.

**V** Tips: If there's a new and important firmware update for your router, you will see the prompt notification on your computer as long as a web browser is opened. Click UPGRADE, and log in to the web management page with the username and password you set for the router. You will see the Firmware Upgrade page.

#### Local Upgrade

1. Download the latest firmware file for the router from <u>www.tp-link.com</u>.

- 2. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 3. Go to Advanced > System > Firmware Upgrade.
- 4. Focus on the Local Upgrade section. Click BROWSE to locate the downloaded new firmware file, and click UPGRADE.

Local Update		
Update firmware for this router from	n a local file.	
New Firmware File:	企 UPLOAD	
	UPDATE	

5. Wait a few minutes for the upgrade and reboot to complete.

Note: If you fail to upgrade the firmware for the router, please contact our Technical Support.

### 6.8. 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 <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Backup & Restore.
- To backup configuration settings:

Click BACK UP 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 current router settings to a file.		
_		
	BACK UP	

- To restore configuration settings:
- 1. Click UPLOAD to locate the backup configuration file stored on your computer, and click RESTORE.

Restore	
Restore settings from a backup file	à
File:	1 UPLOAD
	RESTORE

#### 2. Wait a few minutes for the restoring and rebooting.

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

#### • To reset the router except your login password and TP-Link ID:

1. In the Factory Default Restore section, click RESTORE.

Factory Default Restore		
Restore all settings to default value	S.	
Restore all configuration settings to	default values, except your login and cloud a RESTORE	account information.

#### 2. Wait a few minutes for the resetting and rebooting.

Note:

- During the resetting process, do not turn off the router.
- After reset, you can still use the current login password or the TP-Link ID to log in to the web management page.

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

1. Click FACTORY RESTORE to reset the router.

Restore all the configuration settings	s to their default values.	
	FACTORY RESTORE	

#### 2. Wait a few minutes for the resetting and rebooting.

#### Note:

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

### 6.9. TP-Link Cloud Service

TP-Link Cloud service provides a better way to manage your cloud devices. Log in to your router with a TP-Link ID, and you can easily monitor and manage your home network when you are out and about via the Tether app. To ensure that your router stays new and gets better over time, the TP-Link Cloud will notify you when an important firmware upgrade is available. Surely you can also manage multiple TP-Link Cloud devices with a single TP-Link ID.

This section introduces how to register a new TP-Link ID, bind or unbind TP-Link IDs to manage your router, and the Tether app with which you can manage your home network no matter where you may find yourself.

#### 6.9.1. Register a TP-Link ID

If you have skipped the registration during the Quick Setup process, you can:

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

2. Go to Advanced > TP-Link ID or click TP-Link ID on the very top of the page.

Smart Home Support Amazon Alexa and Goog Assistant
Parental Controls Manages online strategy for the connected devices
connected devices
DOWNLOAD ON THE App Store

3. Click Sign Up and follow the instructions to register a TP-Link ID.

Create a TP-Lin	k ID		
Select Country or Region	~	Remote Conti Access and co remotely	'OI ntrol your network
Email Address		Smart Home	
Password	ø		on Alexa and Googl
Confirm Password	ø		
I have fully read and accept	pted the	Parental Cont	rols e strategy for the
	of Use.		
<ul> <li>Privacy Policy and Terms of Subscribe to the TP-Link n be the first to know about deals, VIP giveaways, new so much more.</li> </ul>	newsletter and amazing	connected dev	

4. After activating your TP-Link ID, come back to the TP-Link ID page to log in. The TP-Link ID used to log in to the router for the first time will be automatically bound as an Admin.

Note:

- To learn more about the Admin and User TP-Link ID, refer to Manage the User TP-Link IDs.
- Once you have registered a TP-Link ID on the web management page, you can only register another TP-Link ID via the Tether APP. Please refer to <u>Set up via Tether</u> to install the app.
- If you want to unbind the admin TP-Link ID from your router, please go to Advanced > TP-Link ID, an click Unbind in the Device Information section.

#### 6. 9. 2. Change Your TP-Link ID Information

Follow the steps below to change your email address and password of your TP-Link ID as needed.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID.
- 2. Go to Advanced > TP-Link ID, and focus on the TP-Link ID section.

TP-Link ID		
Edit the email and password for your TP	-Link ID.	
Email:		ß
Password:		ß
Region:	United States	
Email Subscription:		
		ewsletter and be the first to know about amazing products, and so much more!

- To change your email address:
- 1. Click 🗹 behind the Email.
- 2. Enter the password of your TP-Link ID, then a new email address. And click SAVE.

Change Email		×
Current Password:	ø	
New Email:		
	may not sync to client devices immedia Internet to update account information	
	CAN	NCEL SAVE

- To change your password:
- 1. Click 🗹 behind the Password.
- 2. Enter the current password, then a new password twice. And click SAVE.

Change Password		×
Current Password:	Ø	
New Password:	Ø	
	may not sync to client devices immedia e Internet to update account information	
	CAN	CEL SAVE

#### 6.9.3. Manage the User TP-Link IDs

The TP-Link ID used to log in to the router for the first time will be automatically bound as the Owner account. The Owner account can add or remove other TP-Link IDs to or from the same router. All accounts can monitor and manage the router locally or remotely, but only the owner account can:

- Reset the router to its factory default settings either on the web management page or in the Tether app.
- Add/remove other TP-Link IDs to/from the router.

#### Add TP-Link ID to Manage the Router

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID.
- 2. Go to Advanced > TP-Link ID, and focus on the Bound TP-Link IDs section.

Bound TP-Link IDs		
Bind or unbind TP-Link IDs to control who can manage this device.		
<b>T</b>	Unbind	
Owner		
🕀 Bind		

#### 3. Click 🕂 Bind , enter another TP-Link ID as needed and click SAVE.

**Note:** If you need another TP-Link ID, please register a new one via the Tether app. Refer to <u>Manage the Router via the</u> <u>TP-Link Tether App</u> to install the app and register a new TP-Link ID.

Bind TP-Link ID		×
TP-Link ID (Email):		
	CANCEL	BIND

4. The new TP-Link ID will be displayed in the Bound TP-Link IDs table.

Remove TP-Link ID(s) from Managing the Router

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID.
- 2. Go to Advanced > TP-Link ID, and focus on the Bound TP-Link IDs section.
- 3. Tick Unbind of the TP-Link ID(s) you want to remove.

Bound TP-Link IDs			
Bind or unbind TP-Link IDs to control who can manage this device.			
\$ <mark>9</mark>	Unbind		
Owner			
	Unbind		

### 6.9.4. Manage the Router via the TP-Link Tether App

The Tether app runs on iOS and Android devices, such as smartphones and tablets.

1. Launch the Apple App Store or Google Play store and search "TP-Link Tether" or simply scan the QR code to download and install the app.



2. Launch the Tether app and log in with your TP-Link ID. Note: If you don't have a TP-Link ID, create one first.

- 3. Connect your device to the router's wireless network.
- 4. Go back to the Tether app, select the model of your router and log in with the password you set for the router.

#### 5. Manage your router as needed.

- Note: If you need to remotely access your router from your smart devices, you need to:
- Log in with your TP-Link ID. If you don't have one, refer to Register a TP-Link ID.
- Make sure your smartphone or tablet can access the internet with cellular data or a Wi-Fi network.

### 6.10. Change the Login Password

# The account management feature allows you to change your login password of the web management page.

**Note:** If you are using a TP-Link ID to log in to the web management page, the account management feature will be disabled. To manage the TP-Link ID, go to Advanced > TP-Link ID.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > Administration and focus on the Change Password section.

hange Password	
nange the router's local management passwo	rd.
d Password:	ø
ew Password:	Ø
nfirm New Password:	Ø

- 3. Enter the old password, then a new password twice (both case-sensitive). Click SAVE.
- 4. Use the new password for future logins.

### 6.11. Password Recovery

This feature allows you to recover the login password you set for you router in case you forget it.

**Note:** If you are using a TP-Link ID to log in to the web management page, the Password Recovery feature will be disabled. To manage the TP-Link ID, go to Advanced > TP-Link ID.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > Administration and focus on the Password Recovery section.
- 3. Tick the Enable box of Password Recovery.
- 4. Specify a mailbox (From) for sending the recovery letter and enter its SMTP Server address. Specify a mailbox (To) for receiving the recovery letter. If the mailbox (From) to send the recovery letter requires encryption, Tick the Enable box of Authentication and enter its username and password.

Tips:

- SMTP server is available for users in most webmail systems. For example, the SMTP server address of Gmail is smtp.gmail.com.
- Generally, Authentication should be enabled if the login of the mailbox requires username and password.

Password Recovery			
Reset local management password via preset questions and answers.			
Password Recovery:	Enabled		
From:			
To:			
SMTP Server:			
Authentication:	Enabled		
Username:			
Password:	Ø		

#### 5. Click SAVE.

To recover the login password, please visit <u>http://tplinkwifi.net</u>, click Forgot Password? on the login page and follow the instructions to set a new password.

### 6.12. Local Management

This feature allows you to limit the number of client devices on your LAN from accessing the router by using the MAC address-based authentication.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Administration and complete the settings In Local Management section as needed.
- Access the router via HTTPS and HTTP:

Tick the Enable box of Local Management via HTTPS to access the router via HTTPS and HTTP, or keep it disabled to access the router only via HTTP.

Local Management		
Access and manage the router fro	m local network devices.	
Local Management via HTTPS:	Enabled	

• Allow all LAN connected devices to manage the router:

Select All Devices for Local Managers.

Local Management Access and manage the router from	n local network devices.		
Local Management via HTTPS:	Enabled		
Local Managers:	All Devices	~	

- Allow specific devices to manage the router:
- 1. Select Specified Devices for Local Managers and click SAVE.

Local Management Access and manage the router from	n local network devices.	
Local Management via HTTPS:	Enabled	
Local Managers:	Specified Devices ~	
		Add Device
Description	MAC Address	Modify
There is no entry!		

2. Click Add Device.

Add Device	>	×
Description:	(Optional)	
	VIEW CONNECTED DEVICES	
MAC Address:		
	CANCEL SAVE	

- 3. Click VIEW CONNECTED DEVICES and select the device to manage the router from the Connected Devices list, or enter the MAC address of the device manually.
- 4. Specify a Description for this entry.
- 5. Click SAVE.

### 6.13. System Log

When the router does not work normally, you can save the system log and send it to the technical support for troubleshooting.

• To save the system log locally:

- 1. Visit <u>http://tplinkwifi.net</u>, and log in your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System Log.
- 3. Choose the type and level of the system logs as needed.

System Log				
/iew a detailed record of system activities.				
Current Time:	2024-12-27 12:51:33 AM			
All	~			
Search	Q	😋 Refresh 🛛 🗳 Clear A		
2024-12-27 00:46:49 2024-12-27 00:46:49	Led Controller INFO [1293] Start to ru Led Controller ERROR [1293] Config Led Controller DEBUG [1293] Failed t Led Controller ERROR [1293] Config	importing failed to read WAN0_OFF		
2024-12-27 00:45:49 2024-12-27 00:45:49	<ul> <li>Led Controller DEBUG [1293] Failed t</li> <li>Led Controller INFO [1293] Start to ru</li> <li>Led Controller ERROR [1293] Config</li> <li>Led Controller DEBUG [1293] Failed t</li> </ul>	n WAN1_OFF importing failed		
2024-12-27 00:45:49 2024-12-27 00:45:49	) Led Controller ERROR [1293] Config ) Led Controller DEBUG [1293] Failed t	importing failed to read LAN_ON		
	5 Traffic Statistics INFO [8792] stats res 5 Network INFO [7997] Reload config	,ct		

4. In the Save Log section, click SAVE TO LOCAL to save the system logs to a local disk.



• To send the system log to a mailbox at a fixed time:

For example, I want to check my router's working status at a fixed time every day, however, it's too troublesome to log in to the web management page every time I want to go checking. It would be great if the system logs could be sent to my mailbox at 8 a.m. every day.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System Log.
- 3. In the Save Log section, click MAIL LOG.
- 4. Enter the information required:

Mail Log			×
Note: Set your mail information	n below.		
Email From:			
	Require Password		
Username:			
Email Password:		Ø	
SMTP Server:			
Email To:			
	Mail Log Automatically		
Frequency:	Every Day	~	
Mail Time:	00 ~ : 00	~	
	C	CANCEL SAVE	

1) Email From: Enter the email address used for sending the system log.

#### 2) Select Require Password.

Tips: Generally, Require Password should be selected if the login of the mailbox requires username and password.

- 3) Username: Enter the email address used for sending the system log.
- 4) Email Password: Enter the password to login the sender's email address.
- 5) SMTP Server: Enter the SMTP server address.

Tips: SMTP server is available for users in most webmail systems. For example, the SMTP server address of Hotmail is smtp-mail.outlook.com.

- 6) Email To: Enter the recipient's email address, which can be the same as or different from the sender's email address.
- 7) Select Mail Log Automatically.

<sup>@</sup> Tips: The router will send the system log to the designated email address if this option is enabled.

8) Frequency: This determines how often the recipient will receive the system log.

5. Click SAVE.

### 6.14. Test the Network Connectivity

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

1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.

#### 2. Go to Advanced > Diagnostics.

Diagnostics		
Troubleshoot network connectivity	problems.	
Diagnostics Tools:	Ping	N
IP Address/Domain Name:		
Ping Count:	4	
Ping Packet Size:	64	Byte
		START

- 3. Enter the information:
  - 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 IP Address or Domain Name of the tested host.
  - 3) Modify the Ping Count number and the Ping Packet Size. It's recommended to keep the default value.
  - 4) If you have chosen Traceroute, you can modify the Traceroute Max TTL. It's recommended to keep the default value.
- 4. Click START to begin the diagnostics.

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

PING 192.168.0.1 (192.168.0.1): 64 data bytes Reply from 192.168.0.1: bytes=64 ttl=64 seq=1 time=0.966 ms Reply from 192.168.0.1: bytes=64 ttl=64 seq=2 time=0.928 ms Reply from 192.168.0.1: bytes=64 ttl=64 seq=4 time=0.907 ms Ping Statistic "192.168.0.1" Packets: Sent=4, Received=4, Lost=0 (0.00% loss) Round-trip min/avg/max = 0.907/0.929/0.966 ms ping is stopped.	
Packets: Sent=4, Received=4, Lost=0 (0.00% loss) Round-trip min/avg/max = 0.907/0.929/0.966 ms	Reply from 192.168.0.1: bytes=64 ttl=64 seq=1 time=0.966 ms Reply from 192.168.0.1: bytes=64 ttl=64 seq=2 time=0.916 ms Reply from 192.168.0.1: bytes=64 ttl=64 seq=3 time=0.928 ms
	Packets: Sent=4, Received=4, Lost=0 (0.00% loss) Round-trip min/avg/max = 0.907/0.929/0.966 ms

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

```
traceroute to 192.168.0.1, 5 hops max, 46 byte packets

1 * * *

2 * *

3 * *

4 * *

5 * *

Trace Complete.

traceroute is stopped.
```

### 6.15. 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 time-based functions like Parental Controls. You can choose the way to obtain the system time as needed.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Time.
- To get time from the internet:
- 1. Enable 24-Hour Time if you want the time to display in a 24-hour way.
- 2. In the Set Time field, select Get from Internet.

System Time	
Set the router's system time.	
Current Time:	2024-12-27 00:56:27
24-Hour Time:	
Set Time:	Get from Internet
Time Zone:	(UTC+08:00) Beijing, Chongqing, Hong Kong, Urumqi
NTP Server I:	us.pool.ntp.org
NTP Server II:	north-america.pool.ntp.org (Optional)

- 3. Select your local Time Zone from the drop-down list.
- 4. In the NTP Server I field, enter the IP address or domain name of your desired NTP Server.
- 5. (Optional) In the NTP Server II field, enter the IP address or domain name of the second NTP Server.
- 6. Click SAVE.
- To get time from your computer:

1. In the Set Time field, select Get from Managing Device.

System Time		
Set the router's system tin	me.	
Current Time:	2024-12-27 00:57:16	
24-Hour Time:		
Set Time:	Get from Managing Device	$\sim$
Set Time:	Get from Managing Device	~

- 2. The time of your computer will then be displayed and click SAVE.
- To manually set the date and time:
- 1. In the Set Time field, select Manually.

System Time		
Set the router's system tir	ne.	
Current Time:	2024-12-27 01:00:13	
24-Hour Time:		
Set Time:	Manually	~
Date:	2024/12/27	
Time:	00 v: 57 v:	06 ~

- 2. Set the current Date (In MM/DD/YYYY format).
- 3. Set the current Time (In HH/MM/SS format).
- 4. Click SAVE.
- To set up Daylight Saving Time:
- 1. Tick the Enable box of Daylight Saving Time.

Daylight Saving Time:	Enabled			
Start: 2025	Mar	~	2nd	
	Sun	~	10:00	
End: 2025	Nov	~	First	
	Sun	~	09:00	

2. Select the correct Start date and time when daylight saving time starts at your local time zone.

- 3. Select the correct End date and time when daylight saving time ends at your local time zone.
- 4. Click SAVE.

# 6.16. Set the Router to Reboot Regularly

The Scheduled Reboot feature cleans the cache to enhance the running performance of the router.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Reboot.
- 3. Tick the Enable box of Reboot Schedule.

Reboot Schedule		
Set when and how often the	e router reboots automatically.	
Reboot Schedule:	Enabled	
Note: Before using this fea	ture, make sure System Time is set to "Ge	et from Internet".
Reboot Time:	3 ~ : 00	~
Repeat:	Every Week	~

- 4. Specify the Reboot Time when the router reboots and Repeat to decide how often it reboots.
- 5. Click SAVE.

# 6.17. Control the LED

The LED of the router indicates its activities and status. You can enable the Night Mode feature to specify a time period during which the LED is off.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > LED Control.
- 3. Enable Night Mode.
- 4. Specify the LED off time, and the LED will be off during this period every day.
- 5. Click SAVE.

LED Control	
Turn the router's LEDs on or off.	
LED Status:	
Night Mode	
Set a time period when the LEDs v	vill be off automatically.
Night Mode:	Z Enabled
Note: Before using this feature, ma	ake sure System Time is set to "Get from Internet".
Current Time:	2024-12-27 01:03:06
LED Off From:	23 ~ ): 00 ~
To:	[7 ∨]: 00 ∨ (next day)

# 6.18. ECO Mode

An ECO Mode switch is used to change the power saving mode of the router. To change the ECO Mode, please toggle the Mode Switch on the device to your desired mode.

- Boost Mode: Favors wireless range and transmission speed but may increase energy consumption and raise device temperature.
- Balance Mode: Automatically balances wireless range and transmission speed while considering energy consumption and device temperature.
- ECO Mode: Saves energy and lowers device temperature by reducing device's wireless range and transmission speed.



# Chapter 7

# **Configure the Router in Range Extender Mode**

This chapter presents how to configure the various features of the router working in Range Extender mode.

It contains the following sections:

- Operation Mode
- Network Map
- Wireless
- <u>Network</u>
- USB Storage Device
- <u>Access Control</u>
- Firmware Upgrade
- Backup and Restore Configuration Settings
- TP-Link Cloud Service
- <u>Change the Login Password</u>

- <u>Password Recovery</u>
- Local Management
- <u>System Log</u>
- <u>Test the Network</u>
   <u>Connectivity</u>
- <u>Set Up System Time</u>
- <u>Set the Router to Reboot</u> <u>Regularly</u>
- <u>Control the LED</u>
- ECO Mode

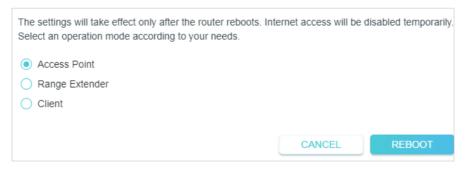
# 7.1. Operation Mode

If the router is working at Router/USB Tethering/USB Modem/Hotspot Mode currently, follow the steps to switch the operation mode to Range Extender mode.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Operation Mode.
- 3. Select AP/RE/Client Mode and click SAVE.

Operation Mo	de			
Select an operat	ion mode according	to your needs.		
Router/USE	3 Tethering/USB Mo	dem Mode/Hotspot Mode (Curre	ent)	
<		Wan cable	() 	>
Router: Get	Internet via an Ethe	met cable connected to an existing	j wired network.	
AP/RE/Clie	nt Mode			
<	(	Image: Wan cable		>
Access Poir	it: Change an existin	g wired (Ethernet) network into a v	wireless one. Home use recommer	nded.

4. Select Range Extender and click REBOOT. The settings will take effect only after the router reboots. Internet access will be disabled temporarily.

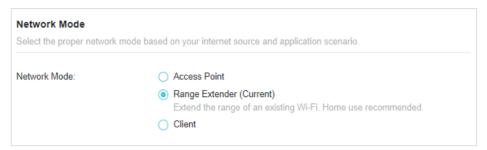


5. Wait until it finishes rebooting and follow instructions to complete the setup.

# If the router is working at AP/Client Mode currently, follow the steps to switch the operation mode to Range Extender mode.

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

3. Select the desired network mode and click SAVE.



4. Go to Quick Setup and select Range Extender, then follow the instructions to complete the setup.

Only of a strength of the state	
Select your network mode	
The following modes can help you extend your exisiting network.	
O Assess Dilat	
Access Point	
Change an existing wired (Ethernet) network into a wireless one. Home use recon	nmended.
	(•
	i L-j
WAN cable	
Range Extender	
Extend the range of an existing Wi-Fi. Home use recommended.	
	(()
	Ű ĿĊ
○ Client	
Act as a "Wireless Adapter" to connect your wired devices (e.g. Blu-ray player, sm use recommended.	art TV) to an existing Wi-Fi. Home
Note: The client device's wireless network will be turned off, you need to access the	ne router's management interface
through a wired connection.	
	Ŀ'n
Note: If you want to switch your device to Router/Hotspot Mode, please click Exit Setu	p and go to Advanced > Operation
Mode.	
	NEXT

# 7.2. Network Map

Network Map outlines device connectivity of your network visually and helps you manage general settings of the network.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Network Map.

- 3. Click each network device icon to check and manage general network settings.
- Click Internet to check internet status.

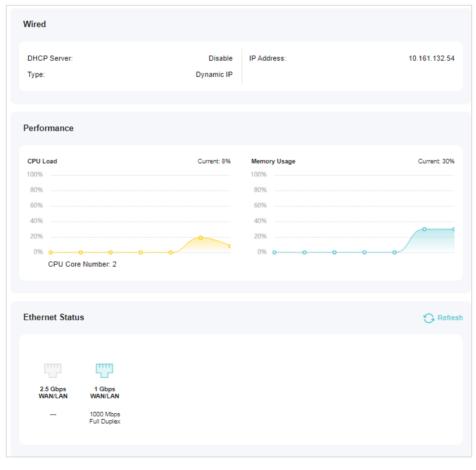
Internet	2.4G 5G ⇒ I ⇒ Main Router	2.4G 5G 중   중 TL-WR3002X	Clients
Internet Status			
Internet Status:	Connected		

• Click Main Router to check the wireless network information of the connected host router.

Inte	met	AG 5		2.46 56 奈│奈	Clients
Connect	to Main Network				Edit
Band	Network Name (SSID)	Password	MAC Address	Signal	Status
2.4 GHz	TP-Link Office	25802580	62-E9-31-1D-89-AE	Strong	
5 GHz	TP-Link Office	25802580	62-E9-31-1D-89-4B	Good	

• Click the router to check device status and network settings. You can turn on or off the extended network or guest network, or click Edit to change related settings.

	met	2.4G 5G ♥   ♥ Main Router		2.4G 5G 중   중 	Clients
	ender Mode is in effect. If you				Cifeita
Extended	d Network				Edit
Band	Network Name (SSID)	Password	MAC Address	Channel	Status
2.4 GHz	TP-Link Office_EXT	25802580	00-FF-00-3F-92-03	11	
5 GHz	TP-Link Office_EXT_5GHz	25802580	00-FF-00-3F-92-02	149	
Guest Ne	etwork				Edit
Band	Network Name (SSID)	Password		Channel	Status
2.4 GHz	TP-Link_Guest_9203				
5 GHz	TP-Link_Guest_9203_5G				



• Click Clients to view the client devices in your network.

Internet	2.46 56 ⇒   ⇒ Main Router		Clients
Connected Clients			View Deny List
Device Info	Interface	Tx/Rx Rate(Mbps) ⑦ Duration	Modify
18503634-BG           40-ED-00-22-30-74           10.161.132.8	(Wired)	0 min	Ø

# 7.3. Wireless

## 7. 3. 1. Configure Wireless Network

If you want to extend another main network after Quick Setup, you can refer to this section. Moreover, you can change the wireless settings for your extended networks.

**Note:** Here we take the configuration of the 5GHz network as an example.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- To extend another host network:
- 2. Go to Wireless >Wireless Settings.
- 3. Enable the wireless band, and click Wi-Fi SCANNER to find all available networks.

Connect to Main Netwo	
Connect to this device to you	r main network.
2.4 GHz:	Enabled
	Wi-Fi SCANNER
Main Network SSID:	TP-Link Office
MAC Address:	62 - E9 - 31 - 1D - 89 - AE
	Lock to AP
Security:	WPA/WPA2-Personal ~
Password:	25802580
5 GHz:	Enabled
5 0112.	Wi-Fi SCANNER
Main Network SSID:	TP-Link Office
MAC Address:	62 - E9 - 31 - 1D - 89 - 4B
	Lock to AP
Security:	WPA/WPA2-Personal ~
Password:	25802580

#### 4. Select the main network you want to extend.

#### Note:

If the network you want to extend is on but not listed, please try the following steps.

 $\cdot$  Move the router closer to your main router, and rescan for networks.

· You can manually enter the Network Name (SSID) and password of the network you want to extend, and click SAVE.

- 5. Once a main network is selected, the SSID and security type will be automatically filled in. If the selected network is encrypted, enter the password in the Password field.
- 6. (Optioal) If you enable Lock to AP, the router's connection will be restricted to the network with this specific MAC address.

## 7. Click SAVE.

- To enable or disable the extended network:
- 1. Go to Wireless >Wireless Settings > Extended Network.
- 2. Extended networks are enabled by default. If you want to disable the wireless function of a certain band, just clear the Enable checkbox. In this case, all the wireless settings of this band will be invalid.
- 3. Click SAVE.

- To change the wireless network name (SSID):
- 1. Go to Wireless >Wireless Settings > Extended Network.
- 2. Create a new SSID in Extended SSID or click COPY MAIN NETWORK SSID. The value is case-sensitive.

Extended Network Personalize settings for your extended network.				
2.4 GHz:	Enabled	Share Network		
Extended SSID:	TP-Link Office_EXT	Hide SSID		
	COPY MAIN NETWORK SSID			
5 GHz:	Enabled	Share Network		
Extended SSID:	TP-Link Office_EXT_5GHz	Hide SSID		
	COPY MAIN NETWORK SSID			

- To hide the SSID of the extended network:
- 1. Go to Wireless >Wireless Settings > Extended Network.
- 2. Select Hide SSID, and the corresponding SSID will not be displayed when wireless devices scan for local wireless networks. You need to manually enter the SSID to join the network.
- 3. Click SAVE.
- To share the extended network:
- 1. Go to Wireless >Wireless Settings > Extended Network.
- 2. Click Share Network of the corresponding band, and click Save Picture to share it to your guests.

Extended Network Personalize settings for yo	our extended network.	
.4 GHz:	Enabled	Share Network
xtended SSID:	TP-Link Offi	SSID: SSID: TP-Link Office_EX T Password: 25802580
lz:	Enabled	Save Picture
ended SSID:	TP-Link Office_EXT_50	Hz Hide SSID
	COPY MAIN NET	WORK SSID

## 7. 3. 2. Guest Network

Guest Network allows you to provide Wi-Fi access for guests without disclosing your host 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 settings to ensure network security and privacy.

## Create a Guest Network

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Wireless > Guest Network.
- 3. Enable the 2.4GHz/5GHz guest network according to your needs.

Guest Network		
Enable the wireless bands yo	u want your guests to use and complete the	related information.
2.4 GHz:	Enabled	Share Network
Network Name (SSID):	TP-Link_Guest_9203	Hide SSID
5 GHz:	Enabled	Share Network
Network Name (SSID):	TP-Link_Guest_9203_5G	Hide SSID
Security:	Open	~
	This security type is not considered se encryption.	ecure. Consider selecting a more secure

- 4. Customize the SSID. Don't select Hide SSID unless you want your guests to manually input the SSID for guest network access.
- 5. Select the Security type and customize your own password. If Open is selected, no password is needed to access your guest network.
- 6. Click SAVE. Now you guests can access your guest network using the SSID and password you set!
- Customize Guest Network Options
- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Wireless > Guest Network. Locate the Guest Permissions section.
- 3. Customize guest network options according to your needs.



• Allow guests to see each other

Tick this checkbox if you want to allow the wireless clients on your guest network to communicate with each other via methods such as network neighbors and Ping.

4. Click SAVE. Now you can ensure network security and privacy!

## 7. 3. 3. Wireless Schedule

The wireless function can be automatically off at a specific time when you do not need the wireless function.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Wireless > Wireless Schedule.
- 3. Enable the Wireless Schedule function.

Wireless Schedule				
Schedule when to automati	cally turn off your v	vireless network.		
Wireless Schedule:				
Current Time:	2025-02-0	05 05:16:37 PM		
Note: Before using this fea	ture, make sure Sy	stem Time is set to "Get from	Internet".	
				🔂 Ad
Wireless Off Time	Band	Repeat	Enable	Modify
There is no entry!				

4. Click Add to specify a wireless off period during which you need the wireless off automatically, and click SAVE.

Add Schedule		×
Enable This Entry:	Enabled	
Band:	<ul> <li>✓ 2.4 GHz</li> <li>✓ 5 GHz</li> </ul>	
Wireless Off Time:	11 V: 00 V PM V	
	07 V : 00 V AM V (next day)	
Repeat:		

Note:

- The effective wireless schedule is based on the time of the router. You can go to Advanced > Time & Language to modify the time.
- The wireless network will be automatically turned on after the time period you set.

# 7. 3. 4. Additional Settings

# 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.

2. Go to Wireless > Additional Settings.

#### 3. Configure the advanced settings of your wireless network and click SAVE.

**Note:** If you are not familiar with the setting items on this page, it's strongly recommended to keep the provided default values; otherwise it may result in lower wireless network performance.

Additional Settings		
Check advanced wireless settin	gs for your device.	
WMM:	Enabled	
AP Isolation:	Enabled	
Airtime Fairness:	Enabled	
Beacon Interval:	100	
RTS Threshold:	2346	
DTIM Interval:	1	
Group Key Update Period:	0	S

- WMM WMM function can guarantee the packets with high-priority messages being transmitted preferentially.
- AP Isolation This function isolates all connected wireless stations so that wireless stations cannot access each other through WLAN.
- Airtime Fairness This function can improve the overall network performance by sacrificing a little bit of network time on your slow devices.
- Beacon Interval Enter a value between 40-1000 milliseconds for Beacon Interval here. Beacon Interval value determines the time interval of the beacons. The beacons are the packets sent by the router to synchronize a wireless network. The default value is 100.
- RTS Threshold Here you can specify the RTS (Request to Send) Threshold. If the packet is larger than the specified RTS Threshold size, the router will send RTS frames to a particular receiving station and negotiate the sending of a data frame. The default value is 2346.
- DTIM Interval This value determines the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the router has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. You can specify the value between 1-255 Beacon Intervals. The default value is 1, which indicates the DTIM Interval is the same as Beacon Interval.

• Group Key Update Period - Enter a number of seconds (minimum 30) to control the time interval for the encryption key automatic renewal. The default value is 0, meaning no key renewal.

# 7.4. Network

## 7.4.1. Status

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > Status. You can view the current status information of the router.

Status Internet status overview is displayed on this page.				
Internet status overview is	displayed on this page.			
LAN				
MAC Address:	00-FF-00-3F-92-03			
IP Address:	10.161.132.54			
Subnet Mask:	255.255.255.0			
DHCP Server				
DHCP Server:	Auto			
IP Address Pool:	10.161.132.2 - 10.161.132.253			

- LAN This field displays the current settings of the LAN, and you can configure them on the Network > LAN page.
  - MAC Address The physical address of the router.
  - IP Address The LAN IP address of the router.
  - Subnet Mask The subnet mask associated with the LAN IP address.
- DHCP Server This field displays the current settings of DHCP (Dynamic Host Configuration Protocol) Server, and you can configure them on the Network > DHCP Server page.
  - DHCP Server Indicates whether the DHCP server is enabled or disabled. It is enabled by default and the router acts as a DHCP server.
  - IP Address Pool The IP address range for the DHCP server to assign IP addresses.

## 7.4.2. Network Mode

Follow the steps to quickly switch to Access Point mode or Client mode with one tap.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > Network Mode.
- 3. Select the desired network mode and click SAVE.

Network Mode Select the proper network	mode based on your internet source and application scenario.
Network Mode:	Access Point
	<ul> <li>Range Extender (Current) Extend the range of an existing Wi-Fi. Home use recommended.</li> </ul>
	O Client

# 7.4.3. LAN

The router in Range Extender mode is preset with a default LAN IP 192.168.0.254, with which you can log in to the web 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 <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > LAN.
- 3. In IP Type, select Static IP.
- 4. Enter a new IP Address as needed (such as 192.168.0.252), and leave the Subnet Mask as the default settings .
- 5. Enter the gateway that is in the same subnet as the IP address. The gateway is usually the LAN IP address of your router.
- 6. Click SAVE.

LAN View and configure LAN settings.		
MAC Address:		
ІР Туре:	<ul> <li>Dynamic IP</li> </ul>	
	Static IP	
IP Address:		
Subnet Mask:	- Please Select - V	
Default Gateway:		
Primary DNS:		
Secondary DNS:		(Optional)

#### Note:

- If you have changed the IP address, you must use the new IP address to log in.
- If the new IP address you set is not in the same subnet as the old one, the IP address pool in the DHCP Server will be configured automatically, but the Virtual Server and DMZ Host will not take effect until they

are re-configured.

## 7.4.4. DHCP Server

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 addresses for specified client devices.

#### • To specify the IP address that the router assigns:

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

DHCP Server Dynamically assign IP addres	sses to the devices conne	cted to the router.	
DHCP Server:	O Auto		
	On		
	Off		
IP Address Pool:			
Address Lease Time:	120	minutes	
Default Gateway:			(Optional)
Primary DNS:			(Optional)
Secondary DNS:			(Optional)

## 1. Turn on DHCP Server.

2. Enter the starting and ending IP addresses in the IP Address Pool.

3. Enter other parameters if the ISP offers. The Default Gateway is automatically filled in and is the same as the LAN IP address of the router.

4. Click SAVE.

Note: To use the DHCP server function of the router, you must configure all computers on the LAN as Obtain an IP Address automatically.

• To reserve an IP address for a specified client device:

The DHCP server of the router works when it is turned on, or when it is in Auto mode with the DHCP server of the main router disabled. When it is working, you can view the DHCP clients and reserve IP addresses for them.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > DHCP Server and locate the Address Reservation section.
- 3. Click Add in the Address Reservation section.

Address Reservation	ı			
Reserve IP addresses for	r specific devices connected to	the router.		
				🔂 Add
Device Name	MAC Address	Reserved IP Address	Status	Modify
There is no entry!				

4. Click VIEW CONNECTED DEVICES and select the you device you want to reserve an IP for. Then the MAC and IP Address will be automatically filled in. You can also enter the MAC and IP address of the client device.

Add a Reservation Entry							
MAC Address:	-	- <u>-</u>	-	-	-		
	VIEW	CON	NECTE	D DE\	/ICES		
IP Address:							

- To check the DHCP client list:
- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.

- 2. Go to Advanced > Network > DHCP Server and locate the DHCP Client List section. You can see the device information of the list.
- 3. Click Refresh to see the current attached devices.

ently assigned with IP addresses	s by the DHCP server.	
		C Refres
MAC Address	Assigned IP Address	Lease Time
40-ED-00-22-30-74	192.168.1.45	1:58:31
	MAC Address	<ul> <li>An and the standard stan Standard standard stand Standard standard stand Standard standard st Standard standard st Standard standard stand Standard standard st Standard standard stand Standard standard stand Standard standard standard standard standard standar</li></ul>

# 7.5. USB Storage Device

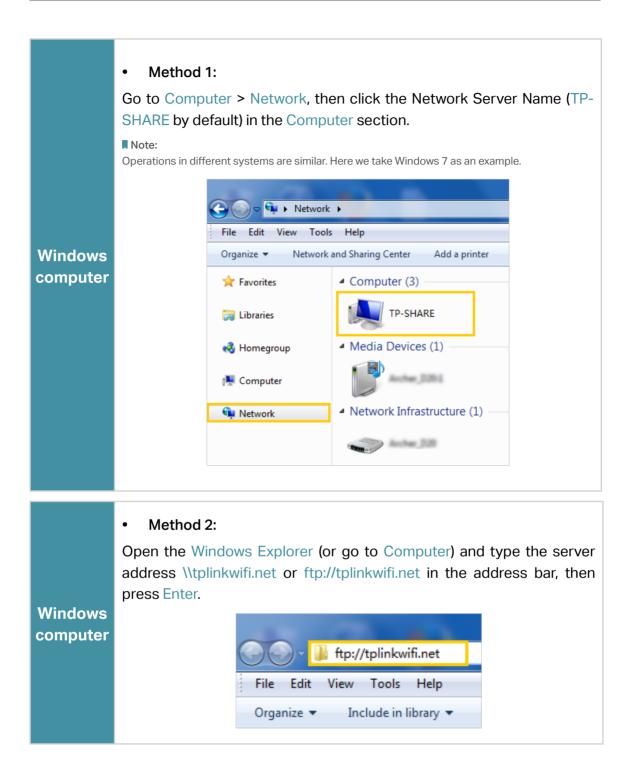
Insert your USB storage device into the router's USB port and then access files stored there locally.

Ø Tips:

- If you use USB hubs, make sure no more than 4 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, exFat, NTFS or HFS+.
- Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to Advanced > USB > USB Storage Device and click Remove.

# 7.5.1. Access the USB Device Locally

Insert your USB storage device into the router's USB port and then refer to the following table to access files stored on your USB storage device.



Мас	<ol> <li>Select Go &gt; Connect to Server.</li> <li>Type the server address smb://tplinkwifi.net.</li> <li>Click Connect.</li> </ol> Server Address:           smb://tplinkwifi.net           Favorite Servers:           Remove           Browse
	4) When prompted, select the Guest radio box. (If you have set up a username and a password to deny anonymous access to the USB disks, you should select the Registered User radio box. To learn how to set up an account for the access, refer to <u>To Set Up Authentication</u> for Data Security.)
Tablet	Use a third-party app for network files management.

#### Ø Tips:

You can also access your USB storage device by using your Network/Media Server Name as the server address. Refer to <u>To Customize the Address of the USB Storage Device</u> to learn more.

## 7. 5. 2. Customize the Access Settings

By default, all the network clients can access all folders on your USB disk. You can customize your sharing settings by setting a sharing account, sharing specific contents and setting a new sharing address on the router's web management page.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > USB & microSD > Storage Device.

## To Customize the Address of the USB Storage Device

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

 In the Access Method session, make sure Samba for Windows Samba for macOS/ Linux is enabled, and enter a Network/Media Server Name as you like, such as MyShare, then click SAVE.

Access Method						
Select the method for accessing your USB storage device or microSD (TF) card.						
Network/Media Server Name:	MyShare					
Access Method	Address	Enable	Port	Modify		
SMB for Windows SMB for macOS/Linux	\\10.161.132.54 smb://10.161.132.54			ď		
Local FTP	ftp://10.161.132.54:21		21	Ľ		

2. Now you can access the USB storage device by visiting \\MyShare (for Windows) or smb://MyShare (for Mac).

## • To Only Share Specific Content

Focus on the File Sharing section. Specify sharing folders that you want to share and click SAVE.

<b>5</b> 7 01 1		
File Sharing		
Share files with devices in	your home or office network.	
Secure Sharing:		
Select Folder:	■ NTFS(G:) ∨	
	Work >	
	Documents >	
	Pictures >	
	EXFAT(H:) >	
	✓ DISK(I:) >	

#### • To Set Up Authentication for Data Security

You can set up authentication for your USB storage device so that network clients will be required to enter username and password when accessing the USB storage device.

1. In the File Sharing section, enable Secure Sharing.

Customize the access settings to ensure data security.         Username       Password       Permissions         admin       ••••••••< <       Read&Write	
admin 🧀 🧭 Read&Write	Modify
	Ø
visit 🧀 🂋 Read	Ø

2. Click i to modify the access account. The username and password are both admin for default administrator account, and both visit for default visitor account. Accessing as an administrator can read and modify the shared folders while visitors can only read the shared folders.

#### Note:

- 1. For Windows users, do not set the sharing username the same as the Windows username. Otherwise, Windows credential mechanism may cause the following problems:
  - If the sharing password is also the same as the Windows password, authentication will not work since the Windows will automatically use its account information for USB access.
  - If the sharing password is different from the Windows password, the Windows will be unable to remember your credentials and you will always be required to enter the sharing password for USB access.
- 2. Due to Windows credential mechanism, you might be unable to access the USB disk after changing Authentication settings. Please log out from the Windows and try to access again. Or you can change the address of the USB disk by referring to <u>To Customize the Address of the USB Storage Device</u>.

## 7.5.3. Media Sharing

The feature of Media Sharing allows you to view photos, play music and watch movies stored on the USB storage device directly from DLNA-supported devices, such as your computer, tablet and PS2/3/4.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > USB & microSD > Storage Device.
- 3. Enable Media Sharing.

Media Sharing	
View photos, play music a	nd watch movies stored on the USB storage device via the access address.
Media Sharing:	

4. When your USB storage device is inserted into the router, your DLNA-supported devices (such as your computer and pad) connected to the router can detect and play the media files on the USB storage devices.

5. Refer to the following table for detailed instructions.

# 7.6. 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 (Deny List) or a list of allowed devices (Allow List).

## I want to:

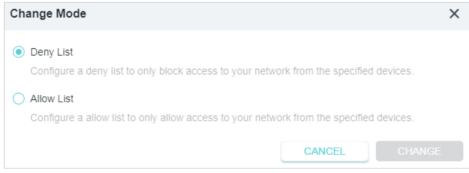
Block or allow specific client devices to access my network (via wired or wireless).

## How can I do that?

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Security > Access Control.
- 3. Toggle on to enable Access Control.



4. Click Change Mode to select the access mode to either block (recommended) or allow the device(s) in the list.



## To block specific device(s):

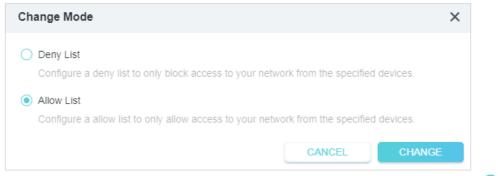
1) Select Deny List.

Access	s Control			
Control t	the access to you	r network from the spe	ecified devices.	
Access (	Control:			
Current	Mode:	Deny List	← Change Mode	
				🔂 Add
De	vice Type	Device Name	MAC Address	Modify
T	here is no entry!			

2) Click ( Add and select devices you want to be blocked, or enter the MAC address manually, and click ADD.

Ad	d Dev	vices				×	(
•		t From De Manually	evice List				
		Туре	Device Name	IP	MAC		
		<b>_</b>	18503634-BG	192.168.1.4	5 40-ED-	00-22-30-74	
				(	CANCEL	ADD	
Ad	d Dev	vices				×	
		t From De Manually ame:	evice List				
MA	C Addı	ress:	_		-		
					CANCEL		

- 1) The Operation Succeeded message will appear on the screen, which means the selected devices have been successfully added to the Deny List.
- To allow specific device(s):
- 1) Select Allow List and click CHANGE.



2) Your own device is in the Allow List by default and cannot be deleted. Click 🔂 Add to add other devices to the Allow List.



- Add connected devices
- 1) Click Select From Device List.
- 2) Select the devices you want to be allowed and click ADD.

Add Devices			×
Select From Device List     Add Manually			
Type Device N	lame IP	MAC	
There is no entry!			
		CANCEL	ADD

- 3) The Operation Succeeded message will appear on the screen, which means the selected devices have been successfully added to the Allow List.
- Add unconnected devices
- 1) Click Add Manually.
- 2) Enter the Device Name and MAC Address of the device you want to be allowed and click ADD.

Add Devices	2	×
<ul> <li>Select From Device List</li> <li>Add Manually</li> </ul>		
Device Name:		
MAC Address:		
	CANCEL ADD	

3) The Operation Succeeded message will appear on the screen, which means the device has been successfully added to the Allow List.

## Done!

Now you can block or allow specific client devices to access your network (via wired or wireless) using the Deny List or Allow List.

# 7.7. Firmware Upgrade

TP-Link aims at providing better network experience for users.

We will inform you through the web management page if there's any update firmware available for your router. Also, the latest firmware will be released at the TP-Link official website <u>www.tp-link.com</u>, and you can download it from the <u>Support</u> page for free.

Note:

- Backup your router configuration before firmware upgrade.
- Do NOT turn off the router during the firmware upgrade.

# Auto Update

Enable Auto Update and set the update time. The router will update firmware automatically at the specified time when new version is available.

Auto Update			
Auto update allows your performance and enhance	router to automatically update to the latest firmvices system security.	ware which	n provides better network
Auto Update:			
Current Time:	2024-12-27 12:39:21 AM		Time Settings
Update Time:	03:00 AM-05:00 AM	~	

# **Online Upgrade**

1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.

2. When the latest firmware is available for your router, the upgrade icon of will display in the top-right corner of the page. Click the icon to go to the Firmware Upgrade page.

Alternatively, you can go to Advanced > System > Firmware Upgrade, and click CHECK FOR UPGRADES to see whether the latest firmware is released.

Online Update		
Update firmware for this router ov	router over the internet.	
Firmware Version:		
Hardware Version:	TL-WR3002X v1.0	
	CHECK FOR UPDATES	
	Firmware is up to date.	

3. Click UPGRADE if there is new firmware.

#### 4. Wait a few minutes for the upgrade and reboot to complete.

**V** Tips: If there's a new and important firmware update for your router, you will see the prompt notification on your computer as long as a web browser is opened. Click UPGRADE, and log in to the web management page with the username and password you set for the router. You will see the Firmware Upgrade page.

## Local Upgrade

- 1. Download the latest firmware file for the router from <u>www.tp-link.com</u>.
- 2. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 3. Go to Advanced > System > Firmware Upgrade.
- 4. Focus on the Local Upgrade section. Click BROWSE to locate the downloaded new firmware file, and click UPGRADE.

Local Update	
Update firmware for this router from	a local file.
New Firmware File:	企 UPLOAD
	UPDATE

#### 5. Wait a few minutes for the upgrade and reboot to complete.

Note: If you fail to upgrade the firmware for the router, please contact our Technical Support.

# 7.8. 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 <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Backup & Restore.
- To backup configuration settings:

Click BACK UP 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 current router settings to a file	
	BACK UP

- To restore configuration settings:
- 1. Click UPLOAD to locate the backup configuration file stored on your computer, and click RESTORE.

Restore	
Restore settings from a backup file.	
File:	土 UPLOAD
	RESTORE

#### 2. Wait a few minutes for the restoring and rebooting.

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

- To reset the router except your login password and TP-Link ID:
- 1. In the Factory Default Restore section, click RESTORE.

Factory Default Restore		
Restore all settings to default values	ð.	
Restore all configuration settings to	default values, except your login and cloud a	ccount information.
	RESTORE	

#### 2. Wait a few minutes for the resetting and rebooting.

#### Note:

- During the resetting process, do not turn off the router.
- After reset, you can still use the current login password or the TP-Link ID to log in to the web management page.
- To reset the router to factory default settings:
- 1. Click FACTORY RESTORE to reset the router.

Restore all the configuration settings	s to their default values.
	FACTORY RESTORE

#### 2. Wait a few minutes for the resetting and rebooting.

Note:

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

# 7.9. TP-Link Cloud Service

TP-Link Cloud service provides a better way to manage your cloud devices. Log in to your router with a TP-Link ID, and you can easily monitor and manage your home network when you are out and about via the Tether app. To ensure that your router stays new and gets better over time, the TP-Link Cloud will notify you when an important firmware upgrade is available. Surely you can also manage multiple TP-Link Cloud devices with a single TP-Link ID.

This section introduces how to register a new TP-Link ID, bind or unbind TP-Link IDs to manage your router, and the Tether app with which you can manage your home network no matter where you may find yourself.

# 7.9.1. Register a TP-Link ID

If you have skipped the registration during the Quick Setup process, you can:

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > TP-Link ID or click TP-Link ID on the very top of the page.

TP-Link ID	
Log in to bind the router to your TP-Link ID. You can remotely n	nanage your network via the Tether app, and more.
TP-Link ID (Email):	Remote Control Access and control your network remotely
Password:	Smart Home Support Amazon Alexa and Google Assistant
LOG IN	Parental Controls Manages online strategy for the
SIGN UP	connected devices
Forgot Password?	
	Scan for Tether Search Tether

Create a TP-Lir	nk ID		
		Remote Control	
Select Country or Region	~	Access and control y remotely	our network
Email Address		Smart Home	
Password	ø	Support Amazon Ale Assistant	xa and Google
Confirm Password	ø		
I have fully read and acce Privacy Policy and Terms		Parental Controls Manages online stra connected devices	tegy for the
Subscribe to the TP-Link be the first to know about deals, VIP giveaways, ne so much more.			Store

3. Click Sign Up and follow the instructions to register a TP-Link ID.

- 4. After activating your TP-Link ID, come back to the TP-Link ID page to log in. The TP-Link ID used to log in to the router for the first time will be automatically bound as an Admin.
- Note:
- To learn more about the Admin and User TP-Link ID, refer to Manage the User TP-Link IDs.
- Once you have registered a TP-Link ID on the web management page, you can only register another TP-Link ID via the Tether APP. Please refer to <u>Set up via Tether</u> to install the app.
- If you want to unbind the admin TP-Link ID from your router, please go to Advanced > TP-Link ID, an click Unbind in the Device Information section.

## 7.9.2. Change Your TP-Link ID Information

Follow the steps below to change your email address and password of your TP-Link ID as needed.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID.
- 2. Go to Advanced > TP-Link ID, and focus on the TP-Link ID section.

TP-Link ID		
Edit the email and password for your TP-	Link ID.	
Email:		C
Password:		ß
Region:	United States	
Email Subscription:		
		wsletter and be the first to know about amazing products, and so much more!

- To change your email address:
- 1. Click 🗹 behind the Email.
- 2. Enter the password of your TP-Link ID, then a new email address. And click SAVE.

Change Email	X
Current Password:	Ø
New Email:	
	nay not sync to client devices immediately. Please log in again when Internet to update account information.
	CANCEL SAVE

- To change your password:
- 1. Click 🧭 behind the Password.
- 2. Enter the current password, then a new password twice. And click SAVE.

Change Password	×
Current Password:	Ø
New Password:	Ø
	may not sync to client devices immediately. Please log in again when Internet to update account information.
	CANCEL SAVE

## 7.9.3. Manage the User TP-Link IDs

The TP-Link ID used to log in to the router for the first time will be automatically bound as the Owner account. The Owner account can add or remove other TP-Link IDs to or from the same router. All accounts can monitor and manage the router locally or remotely, but only the owner account can:

- Reset the router to its factory default settings either on the web management page or in the Tether app.
- Add/remove other TP-Link IDs to/from the router.

#### Add TP-Link ID to Manage the Router

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID.
- 2. Go to Advanced > TP-Link ID, and focus on the Bound TP-Link IDs section.

Bound TP-Link IDs	
Bind or unbind TP-Link IDs to control who can manage this device.	
Owner	Unbind
😝 Bind	

#### 3. Click 🕂 Bind , enter another TP-Link ID as needed and click SAVE.

**Note:** If you need another TP-Link ID, please register a new one via the Tether app. Refer to <u>Manage the Router via the</u> <u>TP-Link Tether App</u> to install the app and register a new TP-Link ID.

Bind TP-Link ID		×
TP-Link ID (Email):		
	CANCEL	BIND

4. The new TP-Link ID will be displayed in the Bound TP-Link IDs table.

#### Remove TP-Link ID(s) from Managing the Router

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID.
- 2. Go to Advanced > TP-Link ID, and focus on the Bound TP-Link IDs section.
- 3. Tick Unbind of the TP-Link ID(s) you want to remove.

Bound TP-Link IDs	
Bind or unbind TP-Link IDs to control who can manage this device.	
<b>°</b>	Unbind
Owner	
	Unbind

# 7.9.4. Manage the Router via the TP-Link Tether App

The Tether app runs on iOS and Android devices, such as smartphones and tablets.

1. Launch the Apple App Store or Google Play store and search "TP-Link Tether" or simply scan the QR code to download and install the app.



2. Launch the Tether app and log in with your TP-Link ID. Note: If you don't have a TP-Link ID, create one first.

- 3. Connect your device to the router's wireless network.
- 4. Go back to the Tether app, select the model of your router and log in with the password you set for the router.

#### 5. Manage your router as needed.

- **Note:** If you need to remotely access your router from your smart devices, you need to:
- Log in with your TP-Link ID. If you don't have one, refer to Register a TP-Link ID.
- Make sure your smartphone or tablet can access the internet with cellular data or a Wi-Fi network.

# 7.10. Change the Login Password

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

**Note:** If you are using a TP-Link ID to log in to the web management page, the account management feature will be disabled. To manage the TP-Link ID, go to Advanced > TP-Link ID.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > Administration and focus on the Change Password section.

nge Password	
hange the router's local management password	l.
old Password:	Ø
lew Password:	Ø
onfirm New Password:	Ø

- 3. Enter the old password, then a new password twice (both case-sensitive). Click SAVE.
- 4. Use the new password for future logins.

# 7.11. Password Recovery

This feature allows you to recover the login password you set for you router in case you forget it.

**Note:** If you are using a TP-Link ID to log in to the web management page, the Password Recovery feature will be disabled. To manage the TP-Link ID, go to Advanced > TP-Link ID.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > Administration and focus on the Password Recovery section.
- 3. Tick the Enable box of Password Recovery.
- 4. Specify a mailbox (From) for sending the recovery letter and enter its SMTP Server address. Specify a mailbox (To) for receiving the recovery letter. If the mailbox (From) to send the recovery letter requires encryption, Tick the Enable box of Authentication and enter its username and password.

Tips:

- SMTP server is available for users in most webmail systems. For example, the SMTP server address of Gmail is smtp.gmail.com.
- Generally, Authentication should be enabled if the login of the mailbox requires username and password.

Password Recovery		
Reset local management pas	sword via preset questions and	d answers.
Password Recovery:	Enabled	
From:		
To:		
SMTP Server:		
Authentication:	Enabled	
Username:		
Password:		Ø

## 5. Click SAVE.

To recover the login password, please visit <u>http://tplinkwifi.net</u>, click Forgot Password? on the login page and follow the instructions to set a new password.

# 7.12. Local Management

This feature allows you to limit the number of client devices on your LAN from accessing the router by using the MAC address-based authentication.

1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.

- 2. Go to Advanced > Administration and complete the settings In Local Management section as needed.
- Access the router via HTTPS and HTTP:

Tick the Enable box of Local Management via HTTPS to access the router via HTTPS and HTTP, or keep it disabled to access the router only via HTTP.

Local Management			
Access and manage the router from	n local network devices.		
Local Management via HTTPS:	Enabled		
Local Managers:	All Devices	$\sim$	

• Allow all LAN connected devices to manage the router:

Select All Devices for Local Managers.

Local Management		
Access and manage the router fro	om local network devices.	
Local Management via HTTPS:	Enabled	

- Allow specific devices to manage the router:
- 1. Select Specified Devices for Local Managers and click SAVE.

Local Management		
Access and manage the router from	n local network devices.	
Local Management via HTTPS:	Enabled	
Local Managers:	Specified Devices ~	
		Add Device
Description	MAC Address	Modify
There is no entry!		

2. Click Add Device.

Add Device		×
Description:		(Optional)
	VIEW CONNECTED DEVICES	
MAC Address:		
	CAN	ICEL SAVE

- 3. Click VIEW CONNECTED DEVICES and select the device to manage the router from the Connected Devices list, or enter the MAC address of the device manually.
- 4. Specify a Description for this entry.
- 5. Click SAVE.

# 7.13. System Log

When the router does not work normally, you can save the system log and send it to the technical support for troubleshooting.

- To save the system log locally:
- 1. Visit <u>http://tplinkwifi.net</u>, and log in your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System Log.
- 3. Choose the type and level of the system logs as needed.

System Log			
View a detailed record of	of system activities.		
Current Time:	2024-12-27 12:	51:33 AM	
All	$\checkmark$		
Search	Q	🕤 Re	fresh 🛛 🗳 Clear A
2024-12-27 00:46:4	9 Led Controller INEO [129	31 Start to run WAN1_ON	
	9 Led Controller INFO [129] 9 Led Controller ERROR [1		
2024-12-27 00:46:4	9 Led Controller ERROR [1	3] Start to run WAN1_ON 293] Config importing failed 293] Failed to read WAN0 OFF	
2024-12-27 00:46:4 2024-12-27 00:46:4	9 Led Controller ERROR [1 9 Led Controller DEBUG [1:	293] Config importing failed	
2024-12-27 00:46:4 2024-12-27 00:46:4 2024-12-27 00:46:4	9 Led Controller ERROR [1 9 Led Controller DEBUG [1: 9 Led Controller ERROR [1	293] Config importing failed 293] Failed to read WAN0_OFF	
2024-12-27 00:46:4 2024-12-27 00:46:4 2024-12-27 00:46:4 2024-12-27 00:46:4	9 Led Controller ERROR [1 9 Led Controller DEBUG [1: 9 Led Controller ERROR [1	293] Config importing failed 293] Failed to read WAN0_OFF 293] Config importing failed 293] Failed to read LAN_ON	
2024-12-27 00:46:4 2024-12-27 00:46:4 2024-12-27 00:46:4 2024-12-27 00:46:4 2024-12-27 00:46:4 2024-12-27 00:45:4	9 Led Controller ERROR [1 9 Led Controller DEBUG [1 9 Led Controller ERROR [1 9 Led Controller DEBUG [1 9 Led Controller INFO [129 9 Led Controller ERROR [1	293] Config importing failed 293] Failed to read WAN0_OFF 293] Config importing failed 293] Failed to read LAN_ON 3] Start to run WAN1_OFF 293] Config importing failed	
2024-12-27 00:46:4 2024-12-27 00:46:4 2024-12-27 00:46:4 2024-12-27 00:46:4 2024-12-27 00:45:4 2024-12-27 00:45:4 2024-12-27 00:45:4	9 Led Controller ERROR [1 9 Led Controller DEBUG [1 9 Led Controller ERROR [1 9 Led Controller DEBUG [1 9 Led Controller INFO [1293 9 Led Controller ERROR [1 9 Led Controller ERROR [1	293] Config importing failed 293] Failed to read WAN0_OFF 293] Config importing failed 293] Failed to read LAN_ON 3] Start to run WAN1_OFF 293] Config importing failed 293] Failed to read WAN0_ON	
2024-12-27 00:46:4 2024-12-27 00:46:4 2024-12-27 00:46:4 2024-12-27 00:46:4 2024-12-27 00:45:4 2024-12-27 00:45:4 2024-12-27 00:45:4 2024-12-27 00:45:4	9 Led Controller ERROR [1 9 Led Controller DEBUG [1 9 Led Controller ERROR [1 9 Led Controller DEBUG [1 9 Led Controller INFO [1293 9 Led Controller ERROR [1 9 Led Controller DEBUG [1. 9 Led Controller ERROR [1	293] Config importing failed 293] Failed to read WAN0_OFF 293] Config importing failed 293] Failed to read LAN_ON 3] Start to run WAN1_OFF 293] Config importing failed 293] Failed to read WAN0_ON 293] Config importing failed	
2024-12-27 00:46:4 2024-12-27 00:46:4 2024-12-27 00:46:4 2024-12-27 00:46:4 2024-12-27 00:45:4 2024-12-27 00:45:4 2024-12-27 00:45:4 2024-12-27 00:45:4	9 Led Controller ERROR [1 9 Led Controller DEBUG [1 9 Led Controller ERROR [1 9 Led Controller DEBUG [1] 9 Led Controller INFO [129 9 Led Controller ERROR [1 9 Led Controller EBUG [1] 9 Led Controller ERROR [1 9 Led Controller ERROR [1]	293] Config importing failed 293] Failed to read WAN0_OFF 293] Config importing failed 293] Failed to read LAN_ON 3] Start to run WAN1_OFF 293] Config importing failed 293] Failed to read WAN0_ON 293] Config importing failed 293] Failed to read LAN_ON	
2024-12-27 00:46:4 2024-12-27 00:46:4 2024-12-27 00:46:4 2024-12-27 00:46:4 2024-12-27 00:45:4 2024-12-27 00:45:4 2024-12-27 00:45:4 2024-12-27 00:45:4 2024-12-27 00:45:4 2024-12-27 00:35:1	9 Led Controller ERROR [1 9 Led Controller DEBUG [1: 9 Led Controller ERROR [1 9 Led Controller DEBUG [1: 9 Led Controller INFO [129] 9 Led Controller ERROR [1 9 Led Controller ERROR [1 9 Led Controller ERROR [1 9 Led Controller DEBUG [1: 5 Traffic Statistics INFO [87	293] Config importing failed 293] Failed to read WAN0_OFF 293] Config importing failed 293] Failed to read LAN_ON 3] Start to run WAN1_OFF 293] Config importing failed 293] Failed to read WAN0_ON 293] Config importing failed 293] Failed to read LAN_ON '92] stats reset	
2024-12-27 00:46:4 2024-12-27 00:46:4 2024-12-27 00:46:4 2024-12-27 00:45:4 2024-12-27 00:45:4 2024-12-27 00:45:4 2024-12-27 00:45:4 2024-12-27 00:35:1 2024-12-27 00:35:1	9 Led Controller ERROR [1 9 Led Controller DEBUG [1 9 Led Controller DEBUG [1 9 Led Controller DEBUG [1 9 Led Controller INFO [129: 9 Led Controller ERROR [1 9 Led Controller DEBUG [1 9 Led Controller DEBUG [1 9 Led Controller DEBUG [1 5 Traffic Statistics INFO [87 5 Network INFO [7997] Rel	293] Config importing failed 293] Failed to read WAN0_OFF 293] Config importing failed 293] Failed to read LAN_ON 3] Start to run WAN1_OFF 293] Config importing failed 293] Failed to read WAN0_ON 293] Config importing failed 293] Failed to read LAN_ON '92] stats reset	

4. In the Save Log section, click SAVE TO LOCAL to save the system logs to a local disk.

Save Log	
Send system log to a specific emai	address or save locally.
	MAIL LOG
	SAVE TO LOCAL

• To send the system log to a mailbox at a fixed time:

For example, I want to check my router's working status at a fixed time every day, however, it's too troublesome to log in to the web management page every time I want to go checking. It would be great if the system logs could be sent to my mailbox at 8 a.m. every day.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System Log.
- 3. In the Save Log section, click MAIL LOG.
- 4. Enter the information required:

Mail Log			×
Note: Set your mail information	n below.		
Email From:			
	Require Password		
Username:			
Email Password:		Ø	
SMTP Server:			
Email To:			
	Mail Log Automatically		
Frequency:	Every Day	~	
Mail Time:	00 ~ : 00	~	
		CANCEL	SAVE

1) Email From: Enter the email address used for sending the system log.

#### 2) Select Require Password.

Tips: Generally, Require Password should be selected if the login of the mailbox requires username and password.

3) Username: Enter the email address used for sending the system log.

- 4) Email Password: Enter the password to login the sender's email address.
- 5) SMTP Server: Enter the SMTP server address.

Tips: SMTP server is available for users in most webmail systems. For example, the SMTP server address of Hotmail is smtp-mail.outlook.com.

- 6) Email To: Enter the recipient's email address, which can be the same as or different from the sender's email address.
- 7) Select Mail Log Automatically.

Tips: The router will send the system log to the designated email address if this option is enabled.

8) Frequency: This determines how often the recipient will receive the system log.

5. Click SAVE.

# 7.14. Test the Network Connectivity

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

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Diagnostics.

Diagnostics Troubleshoot network connectivity problems.				
Diagnostics Tools:	Ping	~		
IP Address/Domain Name:				
Ping Count:	4			
Ping Packet Size:	64	Bytes		
		START		

- 3. Enter the information:
  - 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 IP Address or Domain Name of the tested host.

- 3) Modify the Ping Count number and the Ping Packet Size. It's recommended to keep the default value.
- 4) If you have chosen Traceroute, you can modify the Traceroute Max TTL. It's recommended to keep the default value.
- 4. Click START to begin the diagnostics.

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

```
PING 192.168.0.1 (192.168.0.1): 64 data bytes

Reply from 192.168.0.1: bytes=64 ttl=64 seq=1 time=0.966 ms

Reply from 192.168.0.1: bytes=64 ttl=64 seq=2 time=0.916 ms

Reply from 192.168.0.1: bytes=64 ttl=64 seq=3 time=0.928 ms

Reply from 192.168.0.1: bytes=64 ttl=64 seq=4 time=0.907 ms

--- Ping Statistic "192.168.0.1" ---

Packets: Sent=4, Received=4, Lost=0 (0.00% loss)

Round-trip min/avg/max = 0.907/0.929/0.966 ms

ping is stopped.
```

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

```
traceroute to 192.168.0.1, 5 hops max, 46 byte packets

1 * * *

2 * * *

3 * * *

4 * * *

5 * * *

Trace Complete.

traceroute is stopped.
```

# 7.15. 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 time-based functions like Parental Controls. You can choose the way to obtain the system time as needed.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Time.
- To get time from the internet:
- 1. Enable 24-Hour Time if you want the time to display in a 24-hour way.
- 2. In the Set Time field, select Get from Internet.

System Time		
Set the router's system time.		
Current Time:	2024-12-27 00:56:27	
24-Hour Time:		
Set Time:	Get from Internet	
Time Zone:	(UTC+08:00) Beijing, Chongqing, Hong Kor	ng, Urumqi 🛛 🗸 🗸
NTD Converts		
NTP Server I:	us.pool.ntp.org	
NTP Server II:	north-america.pool.ntp.org	(Optional)

- 3. Select your local Time Zone from the drop-down list.
- 4. In the NTP Server I field, enter the IP address or domain name of your desired NTP Server.
- 5. (Optional) In the NTP Server II field, enter the IP address or domain name of the second NTP Server.
- 6. Click SAVE.
- To get time from your computer:
- 1. In the Set Time field, select Get from Managing Device.

System Time		
Set the router's system ti	ne.	
Current Time:	2024-12-27 00:57:16	
24-Hour Time:		
Set Time:	Get from Managing Device $\sim$	

- 2. The time of your computer will then be displayed and click SAVE.
- To manually set the date and time:
- 1. In the Set Time field, select Manually.

System Time	
Set the router's system time.	
Current Time:	2024-12-27 01:00:13
24-Hour Time:	
Set Time:	Manually
Date:	2024/12/27
Time:	00 ~ : 57 ~ : 06 ~

- 2. Set the current Date (In MM/DD/YYYY format).
- 3. Set the current Time (In HH/MM/SS format).
- 4. Click SAVE.
- To set up Daylight Saving Time:
- 1. Tick the Enable box of Daylight Saving Time.

Daylight Saving Time				
Automatically synchronize the	system time with daylight saving ti	me.		
Daylight Saving Time:	Enabled			
Start: 2025	Mar	~	2nd	~
	Sun	~	10:00	~
End: 2025	Nov	~	First	~
	Sun	~	09:00	~
Running Status:	Daylight Saving Time is off.			

- 2. Select the correct Start date and time when daylight saving time starts at your local time zone.
- 3. Select the correct End date and time when daylight saving time ends at your local time zone.
- 4. Click SAVE.

# 7.16. Set the Router to Reboot Regularly

The Scheduled Reboot feature cleans the cache to enhance the running performance of the router.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Reboot.
- 3. Tick the Enable box of Reboot Schedule.

Reboot Schedule				
Set when and how often the router r	eboots automatically.			
Reboot Schedule:  Enabled				
Note: Before using this feature, make sure System Time is set to "Get from Internet".				
Reboot Time:	3 ~ : 00 ~			
Repeat:	Every Week			
	Monday ~			

- 4. Specify the Reboot Time when the router reboots and Repeat to decide how often it reboots.
- 5. Click SAVE.

# 7.17. Control the LED

The LED of the router indicates its activities and status. You can enable the Night Mode feature to specify a time period during which the LED is off.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > LED Control.
- 3. Enable Night Mode.
- 4. Specify the LED off time, and the LED will be off during this period every day.
- 5. Click SAVE.

LED Control			
Turn the router's LEDs on or off.			
LED Status:			
Night Mode			
Set a time period when the LEDs will be off automatically.			
Night Mode:	Z Enabled		
Note: Before using this feature, make sure System Time is set to "Get from Internet".			
Current Time:	2024-12-27 01:03:06		
LED Off From:	23 ~ : 00 ~		
To:	7 ~ : 00 ~ (next day)		

# 7.18. ECO Mode

An ECO Mode switch is used to change the power saving mode of the router. To change the ECO Mode, please toggle the Mode Switch on the device to your desired mode.

- Boost Mode: Favors wireless range and transmission speed but may increase energy consumption and raise device temperature.
- Balance Mode: Automatically balances wireless range and transmission speed while considering energy consumption and device temperature.
- ECO Mode: Saves energy and lowers device temperature by reducing device's wireless range and transmission speed.

ECO Mode		
Choose the ECO Mode that suits your nee	eds best.	
Note: If you want to change the ECO Mod	e, please toggle the Mode Switch on th	he device to your desired mode.
Boost Mode	Balance Mode (Current)	ECO Mode

# **Chapter 8**

# **Configure the Router in Client Mode**

This chapter presents how to configure the various features of the router working in Client mode.

It contains the following sections:

- Operation Mode
- Network Map
- Wireless
- <u>Network</u>
- USB Storage Device
- Firmware Upgrade
- Backup and Restore Configuration Settings
- TP-Link Cloud Service
- <u>Change the Login Password</u>
- Password Recovery

- Local Management
- System Log
- <u>Test the Network</u>
   <u>Connectivity</u>
- <u>Set Up System Time</u>
- <u>Set the Router to Reboot</u> <u>Regularly</u>
- <u>Control the LED</u>
- ECO Mode

# 8.1. Operation Mode

If the router is working at Router/USB Tethering/USB Modem/Hotspot Mode currently, follow the steps to switch the operation mode to Client mode.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Operation Mode.
- 3. Select AP/RE/Client Mode and click SAVE.

Operation Mod	de				
Select an operation	on mode according t	to your needs.			
Router/USB	Tethering/USB Mo	dem Mode/Hotspot I	Mode (Current)		
<	¢	Wan cable		() 	>
Router: Get I	nternet via an Ether	net cable connected t	o an existing wired r	network.	
AP/RE/Clien	t Mode				
<	₩.	ा किक्क्क् (WAN	(Cable	() ب	>
Access Point	t: Change an existing	g wired (Ethernet) net	work into a wireless	one. Home use recomme	nded.

4. Select Client and click REBOOT. The settings will take effect only after the router reboots. Internet access will be disabled temporarily.

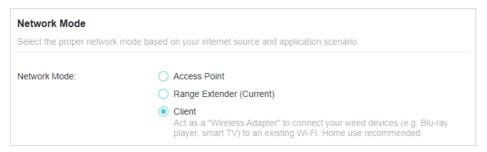
be disabled temporarily.
REBOOT

5. Wait until it finishes rebooting and follow instructions to complete the setup.

# If the router is working at AP/Range Extender Mode currently, follow the steps to switch the operation mode to Client mode.

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

3. Select the desired network mode and click SAVE.



4. Go to Quick Setup and select Client, then follow the instructions to complete the setup.

Access Point     Change an existing wired (Ethernet) network into a wireless one. Home use recommended.	
Range Extender Extend the range of an existing Wi-Fi. Home use recommended.	
<ul> <li>Client         Act as a "Wireless Adapter" to connect your wired devices (e.g. Blu-ray player, smart TV) to an existing Wi-Fi. Home use recommended.     </li> <li>Note: The client device's wireless network will be turned off, you need to access the router's management interface through a wired connection.</li> </ul>	
Note: If you want to switch your device to Router/Hotspot Mode, please click Exit Setup and go to Advanced > Operation Mode.	
NEXT	

# 8.2. Network Map

Network Map outlines device connectivity of your network visually and helps you manage general settings of the network.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Network Map.
- 3. Click each network device icon to check and manage general network settings.
- Click Internet to check internet status.

Internet	2.4G The second	TL-WR3002X	Clients
Internet Status			
Internet Status:	Connected		

• Click Main Router to check the wireless network information of the connected host router.

Inte	met	2.4G	TL-WR3002X		Clients	
Connect	to Main Network					Edit
Band	Network Name (SSID)	Password	MAC Address	Signal		
2.4 GHz	TP-Link Office	25802580	62-E9-31-1D-89-AE	Strong		

• Click the router to check device status and network settings.

Internet	Aain Router	TL-WR3002X	Clients
Client Mode is in effect. If you need to cha	ange to another mode, you	can go to Network Mode.	
Device Information			
MAC Address:	00-FF-00-3F-92-03	Subnet Mask:	255.255.255.0
IP Address:	192.168.0.101		
Performance			
CPU Load 100%	Current: 8%	Memory Usage	Current: 30%
80%		80%	
40%		60% 40%	
20%		20%	• • • • • • •
0% CPU Core Number: 0		0%	
CPO Core Number: 0			
Ethernet Status			😯 Refresh
2.5 Gbps 1 Gbps WAN/LAN WAN/LAN			
1000 Mbps 1000 Mbps Full Duplex Full Duplex			

• Click Clients to view the client devices in your network.

Internet	2.4G	TL-WR3002X	Clients
Connected Clients Device Info 18503634-BG 40-ED-00-22-30-74	Interface	Real-time Rate	Modify

# 8.3. Wireless

## 8.3.1. Configure Wireless Network

If you want to connect another main network after Quick Setup, you can refer to this section.

Note: Here we take the configuration of the 2.4GHz network as an example.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- To change the main network:
- 2. Go to Wireless.
- 3. Find Wireless Band, select a wireless band and click Wi-Fi SCANNER to find all available networks.

Connect to Main Network	
Connect to this device to your ma	ain network.
Wireless Band:	2.4 GHz
	• 5 GHz
	WI-FI SCANNER
Main Network SSID:	TP-Link Office
MAC Address:	62 - E9 - 31 - 1D - 89 - AF
	Lock to AP
Security:	WPA/WPA2-Personal V
Password:	25802580

## 4. Select the main network you want to extend.

#### Note:

If the network you want to extend is on but not listed, please try the following steps.

 $\cdot$  Move the router closer to your main router, and rescan for networks.

· You can manually enter the Network Name (SSID) and password of the network you want to extend, and click SAVE.

- 5. Once a main network is selected, the SSID and security type will be automatically filled in. If the selected network is encrypted, enter the password in the Password field.
- 6. (Optioal) If you enable Lock to AP, the router's connection will be restricted to the network with this specific MAC address.
- 7. Click SAVE.

# 8.4. Network

## 8.4.1. Status

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > Status. You can view the current status information of the router.

Status Internet status overview is display	red on this page.
LAN	
MAC Address:	00-FF-00-3F-92-03
IP Address:	10.161.132.54
Subnet Mask:	255.255.255.0
DHCP Server	
DHCP Server:	Auto
IP Address Pool:	10.161.132.2 - 10.161.132.253

- LAN This field displays the current settings of the LAN, and you can configure them on the Network > LAN page.
  - MAC Address The physical address of the router.
  - IP Address The LAN IP address of the router.
  - Subnet Mask The subnet mask associated with the LAN IP address.
- DHCP Server This field displays the current settings of DHCP (Dynamic Host Configuration Protocol) Server, and you can configure them on the Network > DHCP Server page.
  - DHCP Server Indicates whether the DHCP server is enabled or disabled. It is enabled by default and the router acts as a DHCP server.
  - IP Address Pool The IP address range for the DHCP server to assign IP addresses.

## 8.4.2. Network Mode

In Access Point mode, you can quickly switch to Range Extender mode or Client mode with one tap.

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

#### 2. Go to Advanced > Network > Network Mode.

3. Select the desired network mode and click SAVE.

Network Mode	
Select the proper network	mode based on your internet source and application scenario.
Network Mode:	O Access Point
	<ul> <li>Range Extender (Current)</li> </ul>
	<ul> <li>Client Act as a "Wireless Adapter" to connect your wired devices (e.g. Blu-ray player, smart TV) to an existing Wi-Fi. Home use recommended.</li> </ul>

## 8.4.3. LAN

The router in Client mode is preset with a default LAN IP 192.168.0.254, with which you can log in to the web 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 <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > LAN.
- 3. In IP Type, select Static IP.
- 4. Enter a new IP Address as needed (such as 192.168.0.252), and leave the Subnet Mask as the default settings .
- 5. Enter the gateway that is in the same subnet as the IP address. The gateway is usually the LAN IP address of your router.
- 6. Click SAVE.

LAN View and configure LAN se	ttings.	
MAC Address:		
IP Туре:	<ul><li>Dynamic IP</li><li>Static IP</li></ul>	
IP Address:		
Subnet Mask:	- Please Select -	~
Default Gateway:		
Primary DNS:		
Secondary DNS:		(Optional)

Note:

• If you have changed the IP address, you must use the new IP address to log in.

 If the new IP address you set is not in the same subnet as the old one, the IP address pool in the DHCP Server will be configured automatically, but the Virtual Server and DMZ Host will not take effect until they are re-configured.

## 8.4.4. DHCP Server

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 addresses for specified client devices.

#### • To specify the IP address that the router assigns:

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

Dynamically assign IP addres	sses to the devices connected to the I	router.	
DHCP Server:	<ul> <li>Auto</li> </ul>		
	<ul><li>On</li></ul>		
	Off		
IP Address Pool:	192.168.0.2	192.168.0.253	
Address Lease Time:	1	minutes	
Default Gateway:	192.168.0.1		(Optional)
Primary DNS:			(Optional)
Secondary DNS:			(Optional

- 1. Turn on DHCP Server.
- 2. Enter the starting and ending IP addresses in the IP Address Pool.
- 3. Enter other parameters if the ISP offers. The Default Gateway is automatically filled in and is the same as the LAN IP address of the router.

#### 4. Click SAVE.

Note: To use the DHCP server function of the router, you must configure all computers on the LAN as Obtain an IP Address automatically.

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

The DHCP server of the router works when it is turned on, or when it is in Auto mode with the DHCP server of the main router disabled. When it is working, you can view the DHCP clients and reserve IP addresses for them.

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

- 2. Go to Advanced > Network > DHCP Server and locate the Address Reservation section.
- 3. Click Add in the Address Reservation section.

specific devices connected to	the router		
			•
			Ad
MAC Address	Reserved IP Address	Status	Modify
		MAC Address Reserved IP Address	

4. Click VIEW CONNECTED DEVICES and select the you device you want to reserve an IP for. Then the MAC and IP Address will be automatically filled in. You can also enter the MAC and IP address of the client device.

Add a Reservation Er	ntry	×
MAC Address:		
	VIEW CONNECTED DEVICES	

- To check the DHCP client list:
- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the username and password you set for the router.
- 2. Go to Advanced > Network > DHCP Server and locate the DHCP Client List section. You can see the device information of the list.
- 3. Click Refresh to see the current attached devices.

OHCP Client List			
/iew the devices that are cur	rently assigned with IP addresses	s by the DHCP server.	
Fotal Clients: 1			C Refrest
Device Name	MAC Address	Assigned IP Address	Lease Time
18503634-BG	40-ED-00-22-30-74	192.168.1.45	1:58:31

# 8.5. USB Storage Device

Insert your USB storage device into the router's USB port and then access files stored there locally.

Ø Tips:

- If you use USB hubs, make sure no more than 4 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, exFat, NTFS or HFS+.
- Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to Advanced > USB > USB Storage Device and click Remove.

## 8.5.1. Access the USB Device Locally

Insert your USB storage device into the router's USB port and then refer to the following table to access files stored on your USB storage device.

	• Method 1: Go to Computer > Network, th SHARE by default) in the Comp	en click the Network Server Name (TP- uter section.
	Note:     Operations in different systems are similar.	Here we take Windows 7 as an example.
	File Edit View Too	
Windows	*	and Sharing Center Add a printer
computer	🔶 Favorites	Computer (3)
	😭 Libraries	TP-SHARE
	輚 Homegroup	Media Devices (1)
	🖳 Computer	
	🗣 Network	<ul> <li>Network Infrastructure (1) —</li> </ul>
		Anthen (200

Windows computer	<ul> <li>Method 2:</li> <li>Open the Windows Explorer (or go to Computer) and type the server address \tplinkwifi.net or ftp://tplinkwifi.net in the address bar, then press Enter.</li> </ul>
Мас	<ol> <li>Select Go &gt; Connect to Server.</li> <li>Type the server address smb://tplinkwifi.net.</li> <li>Click Connect.</li> <li>Click Connect.</li> <li>Server Address:         <ul> <li>(net):</li> <li>(net):</li></ul></li></ol>
Tablet	Use a third-party app for network files management.

#### Ø Tips:

You can also access your USB storage device by using your Network/Media Server Name as the server address. Refer to <u>To Customize the Address of the USB Storage Device</u> to learn more.

## 8. 5. 2. Customize the Access Settings

By default, all the network clients can access all folders on your USB disk. You can customize your sharing settings by setting a sharing account, sharing specific contents and setting a new sharing address on the router's web management page.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > USB & microSD > Storage Device.
- To Customize the Address of the USB Storage Device

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

 In the Access Method session, make sure Samba for Windows Samba for macOS/ Linux is enabled, and enter a Network/Media Server Name as you like, such as MyShare, then click SAVE.

Select the method for accessing your USB storage device or microSD (TF) card.         Network/Media Server Name:       MyShare         Access Method       Address       Enable       Port       Modify         SMB for Windows SMB for macOS/Linux       \\10.161.132.54 smb://10.161.132.54        Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Image: Colspan="3">Address         SMB for Windows SMB for macOS/Linux       \\10.161.132.54 smb://10.161.132.54       Image: Colspan="3">Image: Colspan="3"	Access Method				
Access Method     Address     Enable     Port     Modify       SMB for Windows     \\10.161.132.54      Image: Comparison of the second se	Select the method for accessir	ng your USB storage device or	microSD (TF) card.		
SMB for Windows         \\10.161.132.54          Image: Simple control of the second control	Network/Media Server Name:	MyShare			
SMB for macOS/Linux smb://10.161.132.54	Access Method	Address	Enable	Port	Modify
					ß
Local FTP ftp://10.161.132.54:21 21	Local FTP	ftp://10.161.132.54:21		21	ľ

2. Now you can access the USB storage device by visiting \\MyShare (for Windows) or smb://MyShare (for Mac).

## To Only Share Specific Content

Focus on the File Sharing section. Specify sharing folders that you want to share and click SAVE.

File Sharing		
Share files with devices in	rour home or office network.	
Secure Sharing:		
Select Folder:	■ NTFS(G:) ✓	
	Work >	
	Documents >	
	Pictures >	
	Z EXFAT(H:) >	
	✓ DISK(I:) >	

#### To Set Up Authentication for Data Security

You can set up authentication for your USB storage device so that network clients will be required to enter username and password when accessing the USB storage device.

1. In the File Sharing section, enable Secure Sharing.

Secure Sharing Customize the access se	ettings to ensure data secu	urity.		
Username	Password		Permissions	Modify
admin		ø	Read&Write	
visit		ø	Read	ß

2. Click i to modify the access account. The username and password are both admin for default administrator account, and both visit for default visitor account. Accessing as an administrator can read and modify the shared folders while visitors can only read the shared folders.

#### Note:

- 1. For Windows users, do not set the sharing username the same as the Windows username. Otherwise, Windows credential mechanism may cause the following problems:
  - If the sharing password is also the same as the Windows password, authentication will not work since the Windows will automatically use its account information for USB access.
  - If the sharing password is different from the Windows password, the Windows will be unable to remember your credentials and you will always be required to enter the sharing password for USB access.
- 2. Due to Windows credential mechanism, you might be unable to access the USB disk after changing Authentication settings. Please log out from the Windows and try to access again. Or you can change the address of the USB disk

by referring to To Customize the Address of the USB Storage Device.

## 8.5.3. Media Sharing

The feature of Media Sharing allows you to view photos, play music and watch movies stored on the USB storage device directly from DLNA-supported devices, such as your computer, tablet and PS2/3/4.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > USB & microSD > Storage Device.
- 3. Enable Media Sharing.

Media Sharing	
View photos, play music a	nd watch movies stored on the USB storage device via the access address.
Media Sharing:	

- 4. When your USB storage device is inserted into the router, your DLNA-supported devices (such as your computer and pad) connected to the router can detect and play the media files on the USB storage devices.
- 5. Refer to the following table for detailed instructions.

# 8.6. Firmware Upgrade

TP-Link aims at providing better network experience for users.

We will inform you through the web management page if there's any update firmware available for your router. Also, the latest firmware will be released at the TP-Link official website <u>www.tp-link.com</u>, and you can download it from the <u>Support</u> page for free.

Note:

- Backup your router configuration before firmware upgrade.
- Do NOT turn off the router during the firmware upgrade.

## Auto Update

Enable Auto Update and set the update time. The router will update firmware automatically at the specified time when new version is available.

Auto Update			
Auto update allows your performance and enhan	router to automatically update to the latest firmuces system security.	ware which	provides better network
Auto Update:			
Current Time:	2024-12-27 12:39:21 AM		Time Settings
	03:00 AM-05:00 AM	~	

## **Online Upgrade**

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. When the latest firmware is available for your router, the upgrade icon of will display in the top-right corner of the page. Click the icon to go to the Firmware Upgrade page.

Alternatively, you can go to Advanced > System > Firmware Upgrade, and click CHECK FOR UPGRADES to see whether the latest firmware is released.

Online Update Update firmware for this rou	tor over the internet	
Firmware Version:		
Hardware Version:	TL-WR3002X v1.0	
	CHECK FOR UPDATES	
	Firmware is up to date.	

## 3. Click UPGRADE if there is new firmware.

## 4. Wait a few minutes for the upgrade and reboot to complete.

*©* **Tips:** If there's a new and important firmware update for your router, you will see the prompt notification on your computer as long as a web browser is opened. Click UPGRADE, and log in to the web management page with the username and password you set for the router. You will see the Firmware Upgrade page.

## Local Upgrade

- 1. Download the latest firmware file for the router from <u>www.tp-link.com</u>.
- 2. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 3. Go to Advanced > System > Firmware Upgrade.
- 4. Focus on the Local Upgrade section. Click BROWSE to locate the downloaded new firmware file, and click UPGRADE.

Local Update	
Update firmware for this router from	a local file.
New Firmware File:	企 UPLOAD
	UPDATE

5. Wait a few minutes for the upgrade and reboot to complete.

Note: If you fail to upgrade the firmware for the router, please contact our Technical Support.

# 8.7. 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 <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Backup & Restore.

## • To backup configuration settings:

Click BACK UP 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 current router settings to a file.		
	BACK UP	

- To restore configuration settings:
- 1. Click UPLOAD to locate the backup configuration file stored on your computer, and click RESTORE.

Restore	
Restore settings from a backup file.	
File:	企 UPLOAD
	RESTORE

## 2. Wait a few minutes for the restoring and rebooting.

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

- To reset the router except your login password and TP-Link ID:
- 1. In the Factory Default Restore section, click RESTORE.

Factory Default Restore		
Restore all settings to default values	i.	
Restore all configuration settings to	default values, except your login and cloud a	ccount information.
	RESTORE	

## 2. Wait a few minutes for the resetting and rebooting.

Note:

• During the resetting process, do not turn off the router.

• After reset, you can still use the current login password or the TP-Link ID to log in to the web management page.

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

1. Click FACTORY RESTORE to reset the router.



## 2. Wait a few minutes for the resetting and rebooting.

#### Note:

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

# 8.8. TP-Link Cloud Service

TP-Link Cloud service provides a better way to manage your cloud devices. Log in to your router with a TP-Link ID, and you can easily monitor and manage your home network when you are out and about via the Tether app. To ensure that your router stays new and gets better over time, the TP-Link Cloud will notify you when an important firmware upgrade is available. Surely you can also manage multiple TP-Link Cloud devices with a single TP-Link ID.

This section introduces how to register a new TP-Link ID, bind or unbind TP-Link IDs to manage your router, and the Tether app with which you can manage your home network no matter where you may find yourself.

## 8.8.1. Register a TP-Link ID

If you have skipped the registration during the Quick Setup process, you can:

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > TP-Link ID or click TP-Link ID on the very top of the page.

	Remote Control Access and control your network
TP-Link ID (Email):	remotely
	Smart Home
Password:	Support Amazon Alexa and Google
ø	Assistant
LOG IN	Parental Controls
LOG IN	Manages online strategy for the connected devices
SIGN UP	
Forgot Password?	
Forgot Password?	
	DOWNLOAD ON THE

3. Click Sign Up and follow the instructions to register a TP-Link ID.

Create a TP-Link	ID		
			e Control
Select Country or Region	~	Access remotel	and control your network y
Email Address		Smart H	Jomo
Password	ø		Amazon Alexa and Googl
Confirm Password	ø		
I have fully read and accept	ed the		al Controls
Privacy Policy and Terms of			es online strategy for the ted devices
Subscribe to the TP-Link ne			
<ul> <li>be the first to know about an deals, VIP giveaways, new processing of the second second</li></ul>			DOWNLOAD ON THE App Store
so much more.		2 7.0 490.00	OFTITON
			Google Play

4. After activating your TP-Link ID, come back to the TP-Link ID page to log in. The TP-Link ID used to log in to the router for the first time will be automatically bound as an Admin.

Note:

- To learn more about the Admin and User TP-Link ID, refer to Manage the User TP-Link IDs.
- Once you have registered a TP-Link ID on the web management page, you can only register another TP-Link ID via the Tether APP. Please refer to <u>Set up via Tether</u> to install the app.

• If you want to unbind the admin TP-Link ID from your router, please go to Advanced > TP-Link ID, an click Unbind in the Device Information section.

## 8.8.2. Change Your TP-Link ID Information

Follow the steps below to change your email address and password of your TP-Link ID as needed.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID.
- 2. Go to Advanced > TP-Link ID, and focus on the TP-Link ID section.

TP-Link ID		
Edit the email and password for your TP-	-Link ID.	
Email:		ß
Password:	•••••	ß
Region:	United States	
Email Subscription:		
		wsletter and be the first to know about amazing products, and so much more!

- To change your email address:
- 1. Click 🗹 behind the Email.
- 2. Enter the password of your TP-Link ID, then a new email address. And click SAVE.

Change Email	×
Current Password:	Ø
New Email:	
	may not sync to client devices immediately. Please log in again when Internet to update account information.
	CANCEL SAVE

- To change your password:
- 1. Click 🗹 behind the Password.
- 2. Enter the current password, then a new password twice. And click SAVE.

Change Password		×
Current Password:	Ø	
New Password:	ø	
	may not sync to client devices immedia Internet to update account information	
	CAN	ICEL SAVE

## 8.8.3. Manage the User TP-Link IDs

The TP-Link ID used to log in to the router for the first time will be automatically bound as the Owner account. The Owner account can add or remove other TP-Link IDs to or from the same router. All accounts can monitor and manage the router locally or remotely, but only the owner account can:

- Reset the router to its factory default settings either on the web management page or in the Tether app.
- Add/remove other TP-Link IDs to/from the router.

## Add TP-Link ID to Manage the Router

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID.
- 2. Go to Advanced > TP-Link ID, and focus on the Bound TP-Link IDs section.

Bound TP-Link IDs		
Bind or unbind TP-Link IDs to control who can manage this device.		
<b>T</b>	Unbind	
Owner		
🕀 Bind		

## 3. Click 🕂 Bind , enter another TP-Link ID as needed and click SAVE.

**Note:** If you need another TP-Link ID, please register a new one via the Tether app. Refer to <u>Manage the Router via the</u> <u>TP-Link Tether App</u> to install the app and register a new TP-Link ID.

Bind TP-Link ID		×
TP-Link ID (Email):		
	CANCEL	BIND

4. The new TP-Link ID will be displayed in the Bound TP-Link IDs table.

Remove TP-Link ID(s) from Managing the Router

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID.
- 2. Go to Advanced > TP-Link ID, and focus on the Bound TP-Link IDs section.
- 3. Tick Unbind of the TP-Link ID(s) you want to remove.

Bound TP-Link IDs	
Bind or unbind TP-Link IDs to control who can manage this dev	ice.
0	
Owner	Unbind
	Unbind

# 8.9. Change the Login Password

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

**Note:** If you are using a TP-Link ID to log in to the web management page, the account management feature will be disabled. To manage the TP-Link ID, go to Advanced > TP-Link ID.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > Administration and focus on the Change Password section.

e Password	
the router's local management password	l.
Password:	Ø
Password:	Ø
irm New Password:	Ø

- 3. Enter the old password, then a new password twice (both case-sensitive). Click SAVE.
- 4. Use the new password for future logins.

# 8.10. Password Recovery

This feature allows you to recover the login password you set for you router in case you forget it.

**Note:** If you are using a TP-Link ID to log in to the web management page, the Password Recovery feature will be disabled. To manage the TP-Link ID, go to Advanced > TP-Link ID.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > Administration and focus on the Password Recovery section.
- 3. Tick the Enable box of Password Recovery.
- 4. Specify a mailbox (From) for sending the recovery letter and enter its SMTP Server address. Specify a mailbox (To) for receiving the recovery letter. If the mailbox (From) to send the recovery letter requires encryption, Tick the Enable box of Authentication and enter its username and password.
  - Ø Tips:
  - SMTP server is available for users in most webmail systems. For example, the SMTP server address of Gmail is smtp.gmail.com.
  - Generally, Authentication should be enabled if the login of the mailbox requires username and password.

Password Recovery		
Reset local management passwor	d via preset questions and answers.	
Password Recovery:	Enabled	
From:		
To:		
SMTP Server:		
Authentication:	Enabled	
Username:		
Password:	Ø	

## 5. Click SAVE.

To recover the login password, please visit <u>http://tplinkwifi.net</u>, click Forgot Password? on the login page and follow the instructions to set a new password.

# 8.11. Local Management

This feature allows you to limit the number of client devices on your LAN from accessing the router by using the MAC address-based authentication.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Administration and complete the settings In Local Management section as needed.
- Access the router via HTTPS and HTTP:

Tick the Enable box of Local Management via HTTPS to access the router via HTTPS and HTTP, or keep it disabled to access the router only via HTTP.

Local Management Access and manage the router from local network devices.			
Local Management via HTTPS:	Enabled		
Local Managers:	All Devices	~	

• Allow all LAN connected devices to manage the router:

Select All Devices for Local Managers.

Local Management			
Access and manage the router fro	m local network devices.		
Local Management via HTTPS:	Enabled		
Local Managers:	All Devices	~	

- Allow specific devices to manage the router:
- 1. Select Specified Devices for Local Managers and click SAVE.

Local Management		
Access and manage the router from	n local network devices.	
Local Management via HTTPS:	Enabled	
Local Managers:	Specified Devices	
		Add Device
Description	MAC Address	Modify
There is no entry!		

## 2. Click Add Device.

Add Device		Х
Description:	(Optional)	
	VIEW CONNECTED DEVICES	
MAC Address:		
	CANCEL	SAVE

3. Click VIEW CONNECTED DEVICES and select the device to manage the router from the Connected Devices list, or enter the MAC address of the device manually.

4. Specify a Description for this entry.

5. Click SAVE.

# 8.12. System Log

When the router does not work normally, you can save the system log and send it to the technical support for troubleshooting.

- To save the system log locally:
- 1. Visit <u>http://tplinkwifi.net</u>, and log in your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System Log.
- 3. Choose the type and level of the system logs as needed.

System Log		
View a detailed recor	d of system activities.	
Current Time:	2024-12-27 12:51:33 AM	
All	~	
Search	Q	😋 Refresh 🛛 🇳 Clear Al
2024-12-27 00:46	:49 Led Controller INFO [1293] Start to ru	un WAN1 ON
	3:49 Led Controller ERROR [1293] Config	-
	:49 Led Controller DEBUG [1293] Failed	
	:49 Led Controller ERROR [1293] Config	
2024-12-27 00:46	:49 Led Controller DEBUG [1293] Failed	to read LAN_ON
2024-12-27 00:45	:49 Led Controller INFO [1293] Start to ru	un WAN1_OFF
2024-12-27 00:45	5:49 Led Controller ERROR [1293] Config	importing failed
	5:49 Led Controller DEBUG [1293] Failed	
2024-12-27 00:45	5:49 Led Controller ERROR [1293] Config	importing failed
2024-12-27 00:45	5:49 Led Controller DEBUG [1293] Failed	to read LAN_ON
	5:15 Traffic Statistics INFO [8792] stats re-	set
	5:15 Network INFO [7997] Reload config 5:14 Network INFO [7997] Set IPv6 status	

4. In the Save Log section, click SAVE TO LOCAL to save the system logs to a local disk.



• To send the system log to a mailbox at a fixed time:

For example, I want to check my router's working status at a fixed time every day, however, it's too troublesome to log in to the web management page every time I want to go checking. It would be great if the system logs could be sent to my mailbox at 8 a.m. every day.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System Log.
- 3. In the Save Log section, click MAIL LOG.
- 4. Enter the information required:

Mail Log			×
Note: Set your mail informatio	n below.		
Email From:			
	Require Password		
Username:			
Email Password:		Ø	
SMTP Server:			
Email To:			
	Mail Log Automatically		
Frequency:	Every Day	~	
Mail Time:	00 ~ : 00	~	
		CANCEL	SAVE

1) Email From: Enter the email address used for sending the system log.

#### 2) Select Require Password.

Tips: Generally, Require Password should be selected if the login of the mailbox requires username and password.

- 3) Username: Enter the email address used for sending the system log.
- 4) Email Password: Enter the password to login the sender's email address.
- 5) SMTP Server: Enter the SMTP server address.

Tips: SMTP server is available for users in most webmail systems. For example, the SMTP server address of Hotmail is smtp-mail.outlook.com.

- 6) Email To: Enter the recipient's email address, which can be the same as or different from the sender's email address.
- 7) Select Mail Log Automatically.

Tips: The router will send the system log to the designated email address if this option is enabled.

8) Frequency: This determines how often the recipient will receive the system log.

#### 5. Click SAVE.

# 8.13. Test the Network Connectivity

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

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Diagnostics.

Diagnostics		
Troubleshoot network connectivity	problems.	
Diagnostics Tools:	Ping	$\vee$
IP Address/Domain Name:		
Ping Count:	4	
Ping Packet Size:	64	Bytes
		START

- 3. Enter the information:
  - 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 IP Address or Domain Name of the tested host.
  - 3) Modify the Ping Count number and the Ping Packet Size. It's recommended to keep the default value.
  - 4) If you have chosen Traceroute, you can modify the Traceroute Max TTL. It's recommended to keep the default value.

4. Click START to begin the diagnostics.

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

```
PING 192.168.0.1 (192.168.0.1): 64 data bytes
Reply from 192.168.0.1: bytes=64 ttl=64 seq=1 time=0.966 ms
Reply from 192.168.0.1: bytes=64 ttl=64 seq=2 time=0.916 ms
Reply from 192.168.0.1: bytes=64 ttl=64 seq=3 time=0.928 ms
Reply from 192.168.0.1: bytes=64 ttl=64 seq=4 time=0.907 ms
---- Ping Statistic "192.168.0.1" ---
Packets: Sent=4, Received=4, Lost=0 (0.00% loss)
Round-trip min/avg/max = 0.907/0.929/0.966 ms
ping is stopped.
```

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

```
traceroute to 192.168.0.1, 5 hops max, 46 byte packets

1 * * *

2 * * *

3 * * *

4 * * *

5 * * *

Trace Complete.

traceroute is stopped.
```

# 8.14. 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 time-based functions like Parental Controls. You can choose the way to obtain the system time as needed.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Time.
- To get time from the internet:
- 1. Enable 24-Hour Time if you want the time to display in a 24-hour way.
- 2. In the Set Time field, select Get from Internet.

System Time		
Set the router's system time.		
Current Time:	2024-12-27 00:56:27	
24-Hour Time:		
Set Time:	Get from Internet	
Set fille.	Get nom internet	
Time Zone:	(UTC+08:00) Beijing, Chongqing, Hong Kor	ng, Urumqi 🗸 🗸
NTP Server I:	us.pool.ntp.org	
NTP Server II:	north-america.pool.ntp.org	(Optional)

- 3. Select your local Time Zone from the drop-down list.
- 4. In the NTP Server I field, enter the IP address or domain name of your desired NTP Server.
- 5. (Optional) In the NTP Server II field, enter the IP address or domain name of the second NTP Server.
- 6. Click SAVE.
- To get time from your computer:
- 1. In the Set Time field, select Get from Managing Device.

System Time		
Set the router's system to	ne.	
Current Time:	2024-12-27 00:57:16	
24-Hour Time:		
Set Time:	Get from Managing Device <	

- 2. The time of your computer will then be displayed and click SAVE.
- To manually set the date and time:
- 1. In the Set Time field, select Manually.

System Time	
Set the router's system time.	
Current Time:	2024-12-27 01:00:13
24-Hour Time:	
Set Time:	Manually
Date:	2024/12/27
Time:	00 ~ : 57 ~ : 06 ~

- 2. Set the current Date (In MM/DD/YYYY format).
- 3. Set the current Time (In HH/MM/SS format).
- 4. Click SAVE.
- To set up Daylight Saving Time:
- 1. Tick the Enable box of Daylight Saving Time.

Daylight Saving Time Automatically synchronize the	system time with daylight saving	time.		
Daylight Saving Time:	Enabled			
Start: 2025	Mar	~	2nd	~
	Sun	~	10:00	~
End: 2025	Nov	~	First	~
	Sun	~	09:00	~
Running Status:	Daylight Saving Time is off.			

- 2. Select the correct Start date and time when daylight saving time starts at your local time zone.
- 3. Select the correct End date and time when daylight saving time ends at your local time zone.
- 4. Click SAVE.

# 8.15. Set the Router to Reboot Regularly

The Scheduled Reboot feature cleans the cache to enhance the running performance of the router.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Reboot.
- 3. Tick the Enable box of Reboot Schedule.

Reboot Schedule				
Set when and how often the router i	eboots automatically.			
Reboot Schedule: 🗸 Enabled				
Note: Before using this feature, make sure System Time is set to "Get from Internet".				
Reboot Time:	3 ~			
Repeat:	Every Week			
	Monday ~			

- 4. Specify the Reboot Time when the router reboots and Repeat to decide how often it reboots.
- 5. Click SAVE.

# 8.16. Control the LED

The LED of the router indicates its activities and status. You can enable the Night Mode feature to specify a time period during which the LED is off.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > LED Control.
- 3. Enable Night Mode.
- 4. Specify the LED off time, and the LED will be off during this period every day.
- 5. Click SAVE.

LED Control	
Turn the router's LEDs on or off.	
LED Status:	
Night Mode	
Set a time period when the LEDs v	vill be off automatically.
Night Mode:	Z Enabled
Note: Before using this feature, ma	ake sure System Time is set to "Get from Internet".
Current Time:	2024-12-27 01:03:06
LED Off From:	23 ~ : 00 ~
To:	7 ~ : 00 ~ (next day)

# 8.17. ECO Mode

An ECO Mode switch is used to change the power saving mode of the router. To change the ECO Mode, please toggle the Mode Switch on the device to your desired mode.

- Boost Mode: Favors wireless range and transmission speed but may increase energy consumption and raise device temperature.
- Balance Mode: Automatically balances wireless range and transmission speed while considering energy consumption and device temperature.
- ECO Mode: Saves energy and lowers device temperature by reducing device's wireless range and transmission speed.

ECO Mode				
Choose the ECO Mode that suits your nee	eds best.			
Note: If you want to change the ECO Mod	le, please toggle the Mode Switch on t	he device to your desired mode.		
• (((((((((((((((((((((((((((((((((((((				
Boost Mode	Balance Mode (Current)	ECO Mode		

# Chapter 9

# **HomeShield**

Customize your home network with enhanced security using a kit of features built in TP-Link HomeShield. Whether protecting your sensitive data or limiting the access of kids and guests, TP-Link HomeShield provides you the tools you need to fully manage your network.

It contains the following sections:

- Network Check
- Parental Controls
- <u>QoS</u>
- More Features

\*For an easier way to check your home network protection system, you can download the Tether app to enjoy full Homeshield Pro feature.

# 9.1. Network Check

Scan your whole network to help analyze and optimize your network.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > HomeShield > Network Check.

Network Check				
Check your network for bette	er network performance and security.			
	Click SCAN to start checking your network.			
	Router Security			
	Security			
	SCAN			

3. Click SCAN.

#### 4. Optimize your network according to the tips.

Network Check			
Check your network for better	network performance and security.		
	The following items can be op Router Security Wireless Security RESCAN	timized. Perfect 1 risk	
Router Security (?)			

Router Security 🥝	
Firmware Version	0
Remote Management	0
Respond to Pings from WAN	0
Port Forwarding	0
Port Triggering	0
DMZ	0

Wireless Security ?

# 9.2. Parental Controls

Parental Controls allows you to set up unique restrictions on internet access for each member of your family. You can block inappropriate content, set daily limits for the total time spent online and restrict internet access to certain times of the day.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > HomeShield > Parental Controls.

Parental Control	s				
Easily manage your flexible schedules.	kid's online activities b	y blocking inappr	opriate content, settir	ng online time lim	its, and creating
Current Time:	2025-0	2-13 11:35:13 AN	Л		
Note: To get accurat Internet is selected.	Note: To get accurate time, controls that take effect based on system time, go to Time Settings to check Get from Internet is selected.				
					🔂 Ado
Name	Time Spent Online	Devices	Insights	Internet Access	Modify
Click Add to a	dd a profile.				

- 3. Click Add to create a profile for a family member.
- 4. Add basic profile information.

Create Profile			×
0	2		
Basic Info	Content Filter		Time Controls
Basic Info			
Name the profile and add devi	ices to it.		
Profile Name:			
Age:	Prefer Not to Say	~ <b>?</b>	
Devices:			
+ Add Devices			
		CANCEL	NEXT

1) Enter a name for the profile to make it easier to identify. Set the age to get the corresponding filter level.

323

- 2) Click + Add Devices.
- 3) Select the devices that belong to this family member. Access restrictions will be applied to these devices. Click Add when finished.

Ad	Add Devices to Profile				×	
On	e devic	e can be added	to one profile only.			
On	line De	vices				
		Device Type	Device Name	MAC Address	Profile Name	
			iPhone	1A-BA-61-61-0D-73		
			18503634-BG	40-ED-00-22-30-74		

Note: Only devices that have previously been connected to your router's network are listed here. If you are unable to find the device you want to add, connect it to your network and then try again.

#### 4) Click NEXT

#### 5. Block content for this profile.

Create Profile		×
Ø	2	
Basic Info	Content Filter	Time Controls
Content Filter		
Select categories to block the co	prresponding content.	
Select Categories 💡		
Mature Content	✓ Chat Messaging	Social
Online Shopping	Streaming Media	File Sharing
Gaming		
Blocked Websites Block a specific website by addi	ng a URL, or block all websites co	ntaining a specific keyword.
Enter a keyword or URL	ADD	
Allowed Websites Allow access to specific website the Blocked History. Enter a keyword or URL	s that would be blocked by the Co	ontent Filter. You can also add from
		BACK NEXT

- 1) Select the content categories to block in the Content Filter list.
- 2) You can also block a specific website or add allowed websites. Enter a keyword (for example, "Facebook") or a URL (for example, "www.facebook.com"), then click Add.
- 3) Click NEXT.
- 6. Set time restrictions on internet access.

Create Profile		×
Ø		3
Basic Info	Content Filter	Time Controls
Time Controls		
Set internet access time for th	ne profile.	
Bedtime When enabled, internet is una	available during this period.	
Bedtime:		
From:	09 ~: 00 ~ PM ~	
To:	07 ~ : 00 ~ AM ~	(next day)
	ntrols? Go to Homeshield > More Featu oy full Homeshield Pro feature.	res for a detailed introduction
	В	ACK SAVE

- 4) Enable Bedtime and use the up/down arrows or enter times in the fields. Devices under this profile will be unable to access the internet during this time period.
- 5) Click SAVE.
- 6) After adding a profile, you can click the Insight icon to check the detailed visited history, and pause the network for this profile anytime.

Parental Contro	ls					
Easily manage your flexible schedules.	kid's online activities b	y blocking inapprop	riate content, settii	ng online time lin	nits, and creatin	g
Current Time:	2025-0	02-13 11:42:03 AM				
Note: To get accura Internet is selected.	ate time, controls that ta	ike effect based on	system time, go to	Time Settings to		n Add
Name	Time Spent	Devices	Insights	Internet	Modify	
Name	Online	Devices	maighta	Access	wouny	
Adan	0	• 1 • 0	0	(1)	区前	

Note: You can go to Advanced > HomeShield > More Features for a detailed introduction and download Tether to enjoy full Homeshield Pro feature.

# 9.3. QoS

QoS (Quality of Service) allows you to prioritize connection of specific devices for a set duration. Devices set as high priority will be allocated more bandwidth and so continue to run smoothly even when there is heavy traffic on the network.

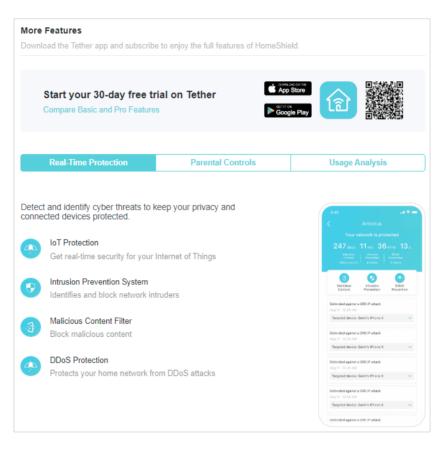
- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > HomeShield > QoS.
- 3. Enable QoS to set the total bandwidth. Then click SAVE.
- 4. Enable High Priority for the desired device and set its effective time.

Global Settings Prioritize the Internet traffic of spec	ific device to guarante	ee a faster co	nnection.	
QoS:	Enabled			
Download Bandwidth:	10000	Mbps	~	
Upload Bandwidth:	10000	Mbps	~	
Device Priority				
Device Info	Real-time Rate	Traffic Usage	High Priority	Timing
18503634-BG (Wired) 40-ED-00-22-30	↑ 0 Kbps	0 KB		Always 🗸

# 9.4. More Features

Download the Tether app and subscribe to enjoy the full features of HomeShield.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > HomeShield > More Features.
- 3. Follow the web instructions to get full features of HomeShield.



# FAQ

# Q1. What should I do if there is no internet access?

- Check if the internet is working normally by connecting a computer/phone directly to the current network. If it is not, contact your internet service provider. If you're in a hotel room or on a trade show, the internet may be limited and requires that you authenticate for the service or purchase the internet access.
- If you are using a cable modem, power off your modem for about 5 minutes, then power it on and check the internet. If your modem has more than one Ethernet port, keep other ports unconnected.
- Log in to the web management page, and go to the Network Map page to check whether the internet IP address is valid or not. If it's valid, go to Advanced > Network
   Internet, click Advanced Settings, select Use the Following DNS Addresses, set the primary DNS to 8.8.8.8, and set the secondary DNS to 8.8.4.4. If it is not, check the hardware connection or contact your internet service provider.

# Q2. How do I restore the router to its factory default settings?

With the router powered on, press and hold the RESET button for about 6 seconds until the LED blinks red to restore the factory default settings.

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

# Q3. What should I do if I forget my Wi-Fi password?

- If you have not changed the default wireless password, it can be found on the label of the router.
- Connect a computer directly to the LAN port of the router using an Ethernet cable.
   Log in to the router's web management page at <a href="http://tplinkwifi.net">http://tplinkwifi.net</a>, and go to the Wireless page to retrieve or reset your wireless password.

# Q4. What should I do if I forget my login password of the web management page?

- If you are using a TP-Link ID to log in, click Forgot Password? on the login page and then follow the instructions to reset it.
- Alternatively, refer to FAQ > Q2 to reset the router. Then visit http://tplinkwifi.net to create a new login password.

# Q5. What should I do if my wireless signal is unstable or weak?

It may be caused by too much interference.

• Set your wireless channel to a different one.

- Choose a location with less obstacles that may block the signal between the router and the main AP. An open corridor or a spacious location is ideal.
- Move the router to a new location away from Bluetooth devices and other household electronics, such as cordless phone, microwave, and baby monitor, to minimize signal interference.
- When in Range Extender mode, the ideal location to place the router is halfway between your main AP and the Wi-Fi dead zone. If that is not possible, place the router closer to your main AP to ensure stable performance.

# Q6. What should I do if I cannot enter the captive portal when the router is set to Hotspot mode?

- If the portal login page didn't open during the Quick Setup process, connect your smartphone or computer to the router, then open any website, and you will be redirected to the portal login page.
- If some public hotspots limit the number of devices each customer can access by MAC address, do the following:

1. Connect a smartphone to the public hotspot's Wi-Fi. Find the smartphone's MAC address on its Wi-Fi list, and write the MAC address down.

2. Log in to the web management page of the router and go to Advanced > Network > Internet > Router MAC Address. Select Use Custom MAC Address, enter the MAC address that your smartphone uses to connect to the public hotspot's Wi-Fi, and click SAVE.

# Q7. What should I do if I want to change the router's network mode?

Option 1. Log in to the web management page of the router and go to Advanced > Quick Setup. Select your desired network mode and follow the instructions to complete the setup.

Option 2. Log in to the web management page of the router and go to Advanced > Network > Network Mode and follow the instructions to complete the setup.

Option 3. Log in to the web management page of the router and click Change Mode, then follow the instructions to complete the setup.

#### FCC compliance information statement



#### Product Name: AX3000 Wi-Fi 6 Portable Router

Model Number: TL-WR3002X

Component Name	Model
I.T.E. Power	DSA-18QFB FUS A

#### Responsible party:

**TP-Link Systems Inc.** 

Address: 10 Mauchly, Irvine, CA 92618 Website: http://www.tp-link.com/us/ Tel: +1 626 333 0234 Fax: +1 909 527 6804

E-mail: sales.usa@tp-link.com

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference.
- 2. This device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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

### FCC RF Radiation Exposure Statement

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

"To comply with FCC RF exposure compliance requirements, this grant is applicable to only Mobile Configurations. The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be colocated or operating in conjunction with any other antenna or transmitter."

We, TP-Link Systems Inc., has determined that the equipment shown as above has been shown to comply with the applicable technical standards, FCC part 15. There is no unauthorized change is made in the equipment and the equipment is properly maintained and operated.

Issue Date: 2025-03-24

#### FCC compliance information statement

Product Name: I.T.E. Power Supply Model Number: DSA-18QFB FUS A Responsible party: **TP-Link Systems Inc.** Address: 10 Mauchly, Irvine, CA 92618 Website: http://www.tp-link.com/us/ Tel: +1 626 333 0234 Fax: +1 909 527 6804 E-mail: sales.usa@tp-link.com

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference.
- 2. This device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

We, **TP-Link Systems Inc.**, has determined that the equipment shown as above has been shown to comply with the applicable technical standards, FCC part 15. There is no unauthorized change is made in the equipment and the equipment is properly maintained and operated.

Issue Date: 2025-03-24

# CE

# **OPERATING FREQUENCY(the maximum transmitted power)**

2400 MHz -2483.5 MHz(20dBm) 5150 MHz -5250 MHz (23dBm) 5250 MHz -5350 MHz (23dBm) 5470 MHz -5725 MHz (30dBm)

# EU declaration of conformity

TP-Link hereby declares that the device is in compliance with the essential requirements and other relevant provisions of directives 2014/53/EU, 2009/125/EC, 2011/65/EU and (EU) 2015/863.

The original EU declaration of conformity may be found at

https://www.tp-link.com/en/support/ce/

# **RF Exposure Information**

This device meets the EU requirements (2014/53/EU Article 3.1a) 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**

Frequency band: 5150 - 5250 MHz:

Indoor use: Inside buildings only. Installations and use inside road vehicles and train carriages are not permitted. Limited outdoor use: If used outdoors, equipment shall not be attached to a fixed installation or to the external body of road vehicles, a fixed infrastructure or a fixed outdoor antenna. Use by unmanned aircraft systems (UAS) is limited to within the 5170 - 5250 MHz band.

Frequency band: 5250 - 5350 MHz:

Indoor use: Inside buildings only. Installations and use in road vehicles, trains and aircraft are not permitted. Outdoor use is not permitted.

Frequency band: 5470 - 5725 MHz:

Installations and use in road vehicles, trains and aircraft and use for unmanned aircraft systems (UAS) are not permitted.

AT	BE	BG	СН	CY	CZ	DE	DK
EE	EL	ES	FI	FR	HR	HU	IE
IS	IT	LI	LT	LU	LV	МΤ	NL
NO	PL	PT	RO	SE	SI	SK	UK(NI)



# UKCA Mark UK CA

# **UK Declaration of Conformity**

TP-Link hereby declares that the device is in compliance with the essential requirements and other relevant provisions of the Radio Equipment Regulations 2017.

The original UK Declaration of Conformity may be found at https://www.tp-link.com/support/ukca

# **National Restrictions**

Attention: This device may only be used indoors in Great Britain.



# **Canadian Compliance Statement**

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.

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

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1) L'appareil ne doit pas produire de brouillage;

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

#### Caution:

The device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;

DFS (Dynamic Frequency Selection) products that operate in the bands 5250- 5350 MHz, 5470-5600MHz, and 5650-5725MHz.

#### Avertissement:

Le dispositif fonctionnant dans la bande 5150-5250 MHz est réservé uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

Les produits utilisant la technique d'atténuation DFS (sélection dynamique des fréquences) sur les bandes 5250- 5350 MHz, 5470-5600MHz et 5650-5725MHz.

# **Radiation Exposure Statement:**

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

# Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

# Industry Canada Statement

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

#### Korea Warning Statements:

당해 무선설비는 운용중 전파혼신 가능성이 있음.

#### NCC Notice & BSMI Notice:

注意!

取得審驗證明之低功率射頻器材,非經核准,公司、商號或使用者均不得擅自變更頻 率、加大功率或變更原設計之特性及功能。 低功率射頻器材之使用不得影響飛航安全及干擾合法通信;經發現有干擾現象時,應立 即停用,並改善至無干擾時方得繼續使用。

前述合法通信,指依電信管理法規定作業之無線電通信。

低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。 應避免影響附近雷達系統之操作。

# 安全諮詢及注意事項

- 請使用原裝電源供應器或只能按照本產品注明的電源類型使用本產品。
- 清潔本產品之前請先拔掉電源線。請勿使用液體、噴霧清潔劑或濕布進行清潔。
- 注意防潮,請勿將水或其他液體潑灑到本產品上。
- 插槽與開口供通風使用,以確保本產品的操作可靠並防止過熱,請勿堵塞或覆蓋 開口。
- 請勿將本產品置放於靠近熱源的地方。除非有正常的通風,否則不可放在密閉位置中。
- 不要私自拆開機殼或自行維修,如產品有故障請與原廠或代理商聯繫。

# 限用物質含有情況標示聲明書

設備名稱: AX3000 Wi-Fi 6 Portable Router 型號(型式): TL-WR3002X Fquipment name Type designation (Type)

Equipment	it name Type designation (Type)					
			限	限用物質及其化學	符號	
			Restricted sub	stances and its c	hemical symbols	
單元	鉛	汞	鎘	六價鉻	多溴聯苯	多溴二苯醚
Unit	u Lead (Pb)	Mercury	Cadmium (Cd)	Hexavalent chromium	Polybrominated biphenyls	Polybrominated diphenyl ethers
	(PD)	(Hg)	(Cu)	(Cr+6)	(PBB)	(PBDE)
PCB	0	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
外殼	0	0	0	0	0	0
電源供應器	_	0	0	0	0	0
其他及其 配件	_	0	0	0	0	0

備考1. <sup>\*</sup>超出0.1 wt %<sup>\*</sup> 及 <sup>\*</sup>超出0.01 wt %<sup>\*</sup> 係指限用物質之百分比含量超出百分比含量基準值。

Note 1: "Exceeding 0.1 wt %" and "exceeding 0.01 wt %" indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition.

備考2. \*〇 係指該項限用物質之百分比含量未超出百分比含量基準值。

Note 2: " $\bigcirc$ " indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.

備考3. 》一《係指該項限用物質為排除項目。

Note 3: The "-" indicates that the restricted substance corresponds to the exemption.

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

# EHE

# **Safety Information**

- Keep the device away from water, fire, humidity or hot environments.
- Do not attempt to disassemble, repair, or modify the device. If you need service, please contact us.
- Do not use damaged charger or USB cable to charge the device.
- Do not use any other chargers than those recommended.
- Do not use the device where wireless devices are not allowed.
- Adapter shall be installed near the equipment and shall be easily accessible.
- Use only power supplies which are provided by manufacturer and in the original packing of this product. If you have any questions, please don't hesitate to contact us.
- Operating Temperature:  $0^{\circ}C \sim 40^{\circ}C$  ( $32^{\circ}F \sim 104^{\circ}F$ )
- This product uses radios and other components that emit electromagnetic fields. Electromagnetic fields and magnets may interfere with pacemakers and other implanted medical devices. Always keep the product and its power adapter more than 15 cm (6 inches) away from any pacemakers or other implanted medical devices. If you suspect your product is interfering with your pacemaker or any other implanted medical device, turn off your product and consult your physician for information specific to your medical device.

Please read and follow the above safety information when operating the device. We cannot guarantee that no accidents or damage will occur due to improper use of the device. Please use this product with care and operate at your own risk.

- •請勿使用損壞的充電器或USB線來供應設備充電。
- 請勿使用推薦充電器以外的任何其他充電器。
- 變壓器應安裝在設備附近且易於操作。
- •運作溫度:0°C~40°C (32°F~104°F)

# Explanations of the symbols on the product label

Note: The product label can be found at the bottom of the product and its I.T.E. power supply. Symbols may vary from products.

Symbol	Explanation
	Class II equipment

Symbol	Explanation
Ē	Class II equipment with functional earthing
$\sim$	Alternating current
	Direct current
\$ <b>`C</b> \$	Polarity of d.c. power connector
$\bigtriangleup$	For indoor use only
4	Dangerous voltage
	Caution, risk of electric shock
VI	Energy efficiency Marking
	Protective earth
<u> </u>	Earth
$\downarrow$	Frame or chassis
Ē	Functional earthing
	Caution, hot surface
$\underline{\wedge}$	Caution
	Operator's manual
Ċ	Stand-by
( )	"ON"/"OFF" (push-push)
	Fuse
- N	Fuse is used in neutral N

Symbol	Explanation
	RECYCLING This product bears the selective sorting symbol for Waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European directive 2012/19/ EU in order to be recycled or dismantled to minimize its impact on the environment. User has the choice to give his product to a competent recycling organization or to the retailer when he buys a new electrical or electronic equipment.
(III)	Caution, avoid listening at high volume levels for long periods
	Disconnection, all power plugs
m	Switch of mini-gap construction
μ	Switch of micro-gap construction (for US version) Switch of micro-gap / micro-disconnection construction (for other versions except US)
٤	Switch without contact gap (Semiconductor switching device)

# 產品標籤上符號的解釋

#### 注意:產品標籤可以在產品底部和其I.T.E.電源供應器上找到。

#### 符號可能因產品而異。

符號	
	II類設備
	具有功能接地的II類設備
$\sim$	交流
	直流
♦€♦	輸出端點的極性
	僅供室內使用
4	危險電壓
A	請注意,有觸電的危險
VI	能源效率標誌

符號	說明
	保護接地
Ţ	接地
$\downarrow$	功能接地
\	功能接地
	請注意,表面過熱
	警告
	操作手冊
(	待機
$\bigcirc$	"開啟"/"關閉" (按壓式)
	保險絲
- <u></u> N	保險絲用於中性線N
	回收 這個產品帶有歐盟指令2012/19/EU中關於廢棄電氣電子設備(WEEE)的選擇性分類標誌。這意味 著,該產品必須按照該指令處理,以便進行回收或拆解,從而最大限度地減少對環境的影響。 用 戶可以選擇將產品交給有資格的回收機構,或在購買新的電器或電子設備時將其交給零售商進行回 收。
Ru	請小心,避免長時間以高音量收聽。
	斷線,所有電源插頭
m	迷你間隙結構開關
μ	小間隙結構開關(US版本) 小間隙/小斷開結構的開關(非US版)
3	無接觸間隙的開關(半導體開關設備)