

# **User Guide**

AX6000 8-Stream Wi-Fi 6 Router Archer AX80

# **Contents**

Abo	ut This Guide	1
Cha	pter 1. Get to Know About Your Router	3
1. 1. 1. 2.	Product Overview	
Cha	pter 2. Connect the Hardware	7
2. 1. 2. 2.	Position Your Router	
Cha	pter 3. Log In to Your Router	10
Cha	pter 4. Set Up Internet Connection	12
4. 1. 4. 2. 4. 3. 4. 4. 4. 5.	Use Quick Setup Wizard  Quick Setup Via TP-Link Tether App.  Manually Set Up Your Internet Connection  Set Up the Router as an Access Point  Set Up an IPv6 Internet Connection.	13 14 17
Cha	pter 5. TP-Link Cloud Service	22
5. 1. 5. 2. 5. 3.	Register a TP-Link ID.  Change Your TP-Link ID Information.  Manage the User TP-Link IDs  5. 3. 1.Add TP-Link ID to Manage the Router.  5. 3. 2.Remove TP-Link ID(s) from Managing the Router.	23 24 25
5. 4.	Manage the Router via the TP-Link Tether App	26
Cha	pter 6. Wireless Settings	27
6. 1. 6. 2. 6. 3.	Specify Wireless Settings  Schedule Your Wireless Function  Use WPS for Wireless Connection  6. 3. 1.Connect via the Client's PIN	30
	6. 3. 1. Connect via the Client's PIN	

6. 4.	6. 3. 3. Push the WPS Button	
Chan	oter 7. Guest Network	34
6. 1.	Create a Network for Guests	
6. 2.	Customize Guest Network Options	. 36
Chap	ter 8. USB Settings	37
7. 1.	Access the USB Storage Device	. 38
	7. 1. 1. Access the USB Device Locally	. 38
	7. 1. 2.Access the USB Device Remotely	. 39
	7. 1. 3. Customize the Access Settings	. 41
7. 2.	Media Sharing	. 43
7. 3.	Time Machine	. 44
Chap	eter 9. HomeShield	46
8. 1.	Network Security	. 47
8. 2.	Parental Controls	. 47
8. 3.	Network Analysis & Optimization	. 48
Chap	ter 10.Network Security	50
9. 1.	Protect the Network from Cyber Attacks	. 51
9. 2.	Access Control	. 51
9. 3.	IP & MAC Binding	. 53
Chap	eter 11.NAT Forwarding	56
10. 1.	Share Local Resources on the Internet by Port Forwarding	. 57
10. 2.	Open Ports Dynamically by Port Triggering	. 59
10.3.	Make Applications Free from Port Restriction by DMZ	. 60
10. 4.	Make Xbox Online Games Run Smoothly by UPnP	. 61
Chap	ter 12.VPN Server	63
11. 1.	Use OpenVPN to Access Your Home Network	. 64
11. 2.	Use PPTP VPN to Access Your Home Network	. 65
Chap	ter 13.Customize Your Network Settings	71
12. 1.	Change the LAN Settings	.72
	Configure to Support IPTV Service	
	Specify DHCP Server Settings	

12. 4.	Set Up a Dynamic DNS Service Account	. 75
12. 5.	Create Static Routes	. 76
Chap	ter 14.Manage the Router	79
13. 1.	Upgrade the Firmware	. 80
	13. 1. 1.Auto Update	. 80
	13. 1. 2.Online Upgrade	. 80
	13. 1. 3.Local Upgrade	. 81
13. 2.	Backup and Restore Configuration Settings	. 82
13.3.	Change the Login Password	. 83
13. 4.	Password Recovery	. 84
13.5.	Local Management	. 85
13.6.	Remote Management	. 86
13.7.	System Log	. 88
13.8.	Test the Network Connectivity	. 90
13.9.	Set Up System Time	. 92
13.10	. Set the Router to Reboot Regularly	. 94
13. 11	. Control the LED	. 95
FAQ.		96

# **About This Guide**

This guide is a complement of Quick Installation Guide. The Quick Installation Guide instructs you on quick internet setup, and this guide provides details of each function and shows you the way to configure these functions appropriate to your needs.

Note: Features available in the router may vary by model and software version. Router availability may also vary by region or ISP. All images, steps, and descriptions in this guide are only examples and may not reflect your actual Router experience.

#### 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, etc.
>	The menu structures to show the path to load the corresponding page. For example, Advanced > Wireless > Guest Network means the Guest Network 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.
symbols on the web page	<ul> <li>Click to edit the corresponding entry.</li> <li>Click to delete the corresponding entry.</li> <li>Click to enable or disable the corresponding entry.</li> <li>Click to view more information about items on the page.</li> </ul>

#### More Info

The latest software, management app and utility can be found at Download Center at <a href="https://www.tp-link.com/support/download/">https://www.tp-link.com/support/download/</a>.

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 <a href="https://www.tp-link.com">https://www.tp-link.com</a>.

TP-Link Community is provided for you to discuss our products and share knowledge at <a href="https://community.tp-link.com">https://community.tp-link.com</a>.

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

\*Maximum wireless signal rates are the physical rates derived from IEEE Standard 802.11 specifications. Actual wireless data throughput and wireless coverage are not guaranteed and will vary as a result of 1) environmental factors, including building materials, physical objects, and obstacles, 2) network conditions, including local interference, volume and density of traffic, product location, network complexity, and network overhead, and 3) client limitations, including rated performance, location, connection, quality, and client condition.

\*Use of Wi-Fi 6 (802.11ax), and features including OFDMA, MU-MIMO, 1024-QAM, and HT160 require clients to also support the corresponding features.

\*2.5 Gbps internet speeds require compatible service plans and equipment. 2.5 Gbps and 1 Gbps ports cannot be concurrently configured as WAN ports.

\*Saving clients' battery power requires clients to also support the 802.11ax Wi-Fi standard. Actual power reduction may vary as a result of network conditions, client limitations, and environmental factors.

\*Use of WPA3 requires clients to also support the corresponding feature.

\*This router may not support all the mandatory features as ratified in Draft 3.0 of IEEE 802.11ax specification.

\*Further software upgrades for feature availability may be required.

# Chapter 1

# **Get to Know About Your Router**

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

It chapter contains the following sections:

- Product Overview
- Appearance

### 1. 1. Product Overview

TP-Link AX router, with next-generation 802.11ax Wi-Fi Technology, achieves Wi-Fi performance at its ultimate level. The revolutionary combination of OFDMA and 1024QAM improve throughput by 4 times and dramatically increase the whole network capacity and efficiency. It's also backwards compatible with 802.11a/b/g/n/ac.

Moreover, it is simple and convenient to set up and use the TP-Link router due to its intuitive web interface and the powerful Tether app.

# 1.2. Appearance

### 1. 2. 1. Top Panel



The router's LED is located on the front. You can check the router's working status by following the LED Explanation table.

### **LED Explanation**

Status	Indication
Solid orange	The Wi-Fi is off.
Pulsing orange	The system is starting up.
Solid red	No internet connection.
Pulsing red	The Wi-Fi is off and there is not internet connection.

Status	Indication
Solid blue	The router is working normally.
Pulsing blue	The firmware is being upgraded, WPS connection is being established, or the router is being reset. Do not disconnect or power off your router.
Off	Power is off or the LED is turned off.

### 1. 2. 2. Back Panel and Side Panel



# **Button and Port Explanation**

Item	Description
USB 2.0 Port	For connecting your USB storage devices to the router.
Power Port	For connecting the router to a power socket via the provided power adapter.
Power On/Off Button	Press this button to power on or off the router.
Reset Button	Press and hold the button until the LED blinks to reset the router to its factory default settings.
2.5 Gbps WAN/LAN Port*	For connecting to your modem, the Ethernet outlet or other internet devices. Used as the WAN or LAN port.
1 Gbps WAN/LAN Port*	For connecting to your modem, the Ethernet outlet or other internet devices. Used as the WAN or LAN port.
LAN Port (1-3)	For connecting your PC or other wired devices to the router.

#### Note:

The 2.5 Gbps WAN/LAN port and 1 Gbps WAN/LAN port cannot be used as the WAN port at the same time. If you choose to use 2.5 Gbps WAN/LAN port as the WAN port for internet service, the 1 Gbps WAN/LAN port will be used as LAN port by default. It's recommended to use 2.5 Gbps WAN/LAN port as the WAN port.

The following parts are located on the side panel.

# **Button and Port Explanation**

Item	Description
USB 3.0 Port	For connecting your USB storage devices to the router.
₩ (WPS Button)	Press this WPS button, and immediately press the WPS button on your client device to start the WPS process. The LED of the router should change from pulsing blue to solid on, indicating successful WPS connection.
় (Wi-Fi Button)	Press and hold this button for about 2 seconds to turn on or off the wireless function of your router.
※ (LED Button)	Press the LED button to turn on or off the LED of your router.

# Chapter 2

# **Connect the Hardware**

This chapter contains the following sections:

- Position Your Router
- Connect Your Router

Chapter 2 Connect the Hardware

#### 2. 1. Position Your Router

 The product should not be located in a place where it will be exposed to moisture or excessive heat.

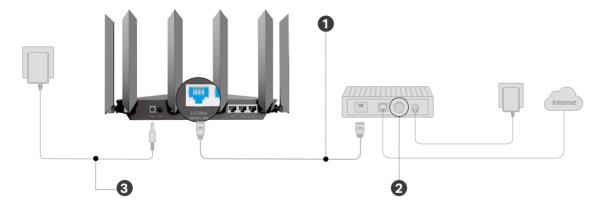
- Place the router in a location where it can be connected to multiple devices as well as to a power source.
- Make sure the cables and power cord are safely placed out of the way so they do not create a tripping hazard.
- The router can be placed on a shelf or desktop.
- Keep the router away from devices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

### 2. 2. Connect Your Router

#### Before you start:

- 1) Turn off your modem, if any, and remove the backup battery if it has one.
- 2) Place the router horizontally and orient the antennas vertically.

If your internet comes from an Ethernet outlet instead of a DSL / Cable / Satellite modem, connect the router's 2.5 GHz WAN/LAN port to it, then follow steps 3 and 4 to complete the hardware connection.



1. Connect the **powered-off modem** to the **2.5 Gbps WAN/LAN port** with an Ethernet cable.

#### Note:

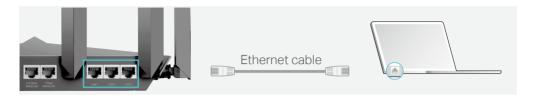
If you want to use the 1 Gbps WAN/LAN port as the WAN port instead, go to the Tether app or web management page to configure it.

- 2. Turn on the modem, and then wait about 2 minutes for it to restart.
- 3. Connect the power adapter to the router and turn on the router.
- 4. Verify the LED is solid on (red or blue) before moving on.

5. Connect your computer to the router.

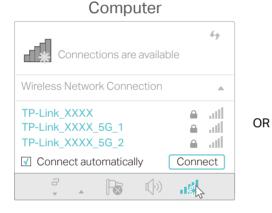
#### • Method 1: Wired

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



#### • Method 2: Wirelessly

- 1) Find the SSID (Network Name) and Wireless Password printed on the label at the bottom of the router.
- 2) Click the network icon of your computer or go to Wi-Fi Settings of your smart device, and then select the SSID to join the network.





• Method 3: Use the WPS button

Wireless devices that support WPS, including Android phones, tablets, and most USB network cards, can be connected to your router through this method.

#### Note:

- WPS is not supported by iOS devices.
- The WPS function cannot be configured if the wireless function of the router is disabled. Also, the WPS function will be disabled if your wireless encryption is WEP. Please make sure the wireless function is enabled and is configured with the appropriate encryption before configuring the WPS.
  - 1) Tap the WPS icon on the device's screen. Here we take an Android phone for instance.
  - 2) Within two minutes, press the WPS button on your router.

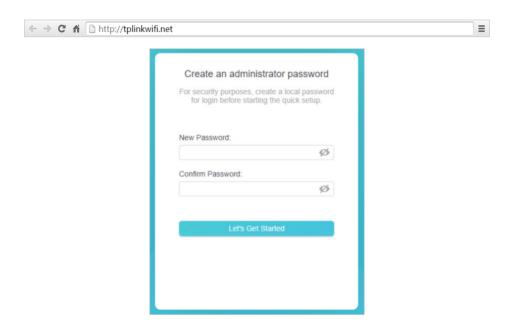
# Chapter 3

# **Log In to Your Router**

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

Follow the steps below to log in to your router.

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



#### Note:

• If the login window does not appear, please refer to the FAQ Section.

# Chapter 4

# **Set Up Internet Connection**

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

It contains the following sections:

- Use Quick Setup Wizard
- Quick Setup Via TP-Link Tether App
- Manually Set Up Your Internet Connection
- Set Up the Router as an Access Point
- Set Up an IPv6 Internet Connection

### 4. 1. Use Quick Setup Wizard

The Quick Setup Wizard will guide you to set up your router.

Tips:

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

Follow the steps below to set up your router.

- 1. Visit <a href="http://tplinkwifi.net">http://tplinkwifi.net</a>, and log in with the password you set for the router.
- 2. Follow the step-by-step instructions to complete Quick Setup configuration or go to Advanced > Quick Setup for configuration to connect your router to the internet. Then follow the step-by-step instructions to connect your router to the internet.
- 3. To enjoy a more complete service from TP-Link (remote management, TP-Link DDNS, and more.), log in with your TP-Link ID or click Sign Up Now to get one. Then follow the instructions to bind the cloud router to your TP-Link ID.



#### Note:

- To learn more about the TP-Link Cloud service, please refer to the TP-Link Cloud Service section.
- If you do not want to register a TP-Link ID now, you may click Skip to proceed.
- If you have changed the preset wireless network name (SSID) and wireless password during the Quick Setup process, all your wireless devices must use the new SSID and password to connect to the router.

### 4. 2. Quick Setup Via 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.



OR







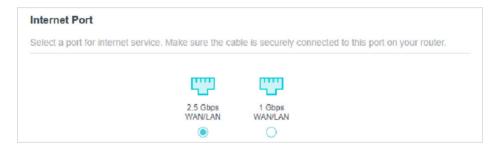
- 2. Open the Tether app and log in with your TP-Link ID. If you don't have an account, create one first.
- 3. Tap the + button and select Router > Wireless Router. Follow the steps to complete the setup and connect to the internet.
- 4. Connect your devices to the newly configured wireless networks of the router and enjoy the internet!

# 4. 3. Manually Set Up Your Internet Connection

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

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

- 1. Visit <a href="http://tplinkwifi.net">http://tplinkwifi.net</a>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Internet.
- 3. Select a port for internet service. Make sure the cable is securely connected to this port on your router.

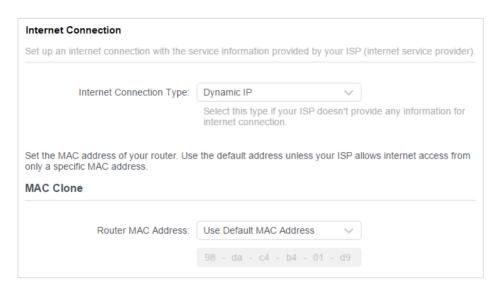


4. Select your internet connection type from the drop-down list.

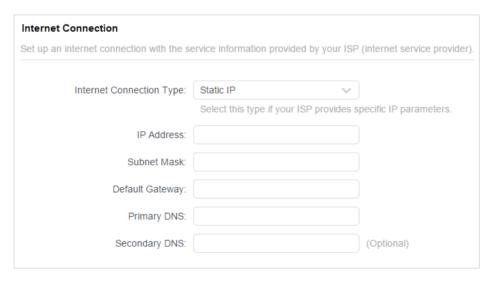


5. Follow the instructions on the page to continue the configuration. Parameters on the figures are just used for demonstration.

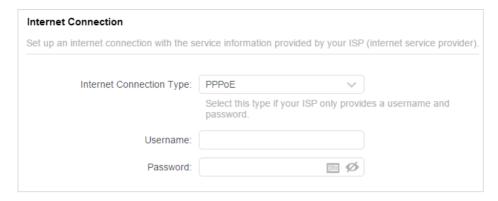
1) If you choose Dynamic IP, you need to select whether to clone the MAC address. Dynamic IP users are usually equipped with a cable TV or fiber cable.



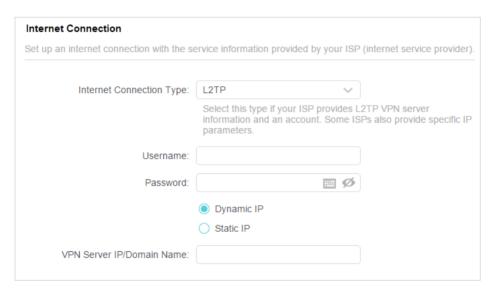
2) If you choose Static IP, enter the information provided by your ISP in the corresponding fields.



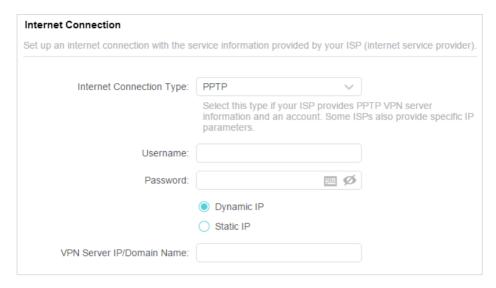
3) If you choose PPPoE, enter the username and password provided by your ISP. PPPoE users usually have DSL cable modems.



4) If you choose L2TP, enter the username and password and choose the Secondary Connection provided by your ISP. Different parameters are needed according to the Secondary Connection you have chosen.



5) If you choose PPTP, enter the username and password, and choose the Secondary Connection provided by your ISP. Different parameters are needed according to the Secondary Connection you have chosen.



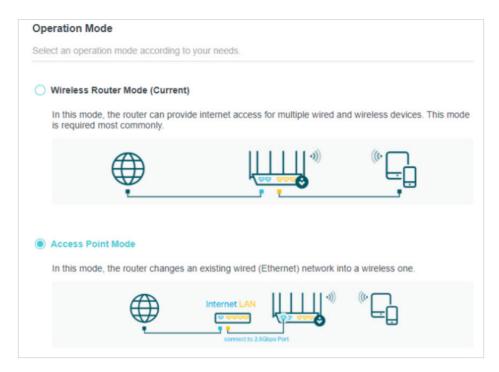
#### 6. Click Save.

- @ Tips:
- If you use Dynamic IP and PPPoE and you are provided with any other parameters that are not required on the page, please go to Advanced > Network > Internet to complete the configuration.
- If you still cannot access the internet, refer to the FAQ section for further instructions.

### 4. 4. Set Up the Router as an Access Point

The router can work as an access point, transforming your existing wired network to a wireless one.

- 1. Visit <a href="http://tplinkwifi.net">http://tplinkwifi.net</a>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Operation Mode, select Access Point and click Save. The router will reboot and switch to Access Point mode.



- 3. After rebooting, connect the router to your existing wired router via an Ethernet cable.
- 4. Log in again to the web management page <a href="http://tplinkwifi.net">http://tplinkwifi.net</a>, and go to Advanced > Quick Setup.
- 5. Configure your wireless settings and click Next.
- 6. Confirm the information and click Save. Now, you can enjoy Wi-Fi.
- ∅ Tips
- Functions, such as Parental Controls, QoS and NAT Forwarding, are not supported in the Access Point mode.
- Functions, such as Guest Network, are the same as those in the Router mode.

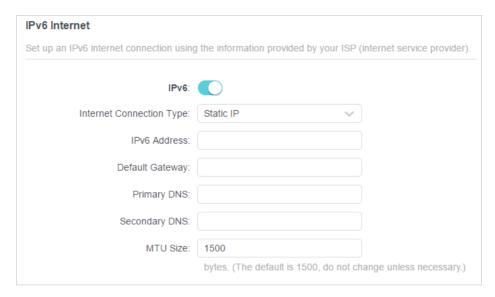
# 4. 5. Set Up an IPv6 Internet Connection

Your ISP provides information about one of the following IPv6 internet connection types: PPPoE, Dynamic IP(SLAAC/DHCPv6), Static IP, 6to4 tunnel, Pass-Through (Bridge).

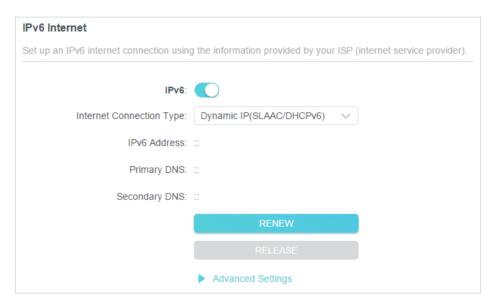
- 1. Visit <a href="http://tplinkwifi.net">http://tplinkwifi.net</a>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > IPv6.
- 3. Enable IPv6 and select the internet connection type provided by your ISP.
- Tips

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

- 4. Fill in information as required by different connection types.
  - 1) Static IP: Fill in blanks and click Save.



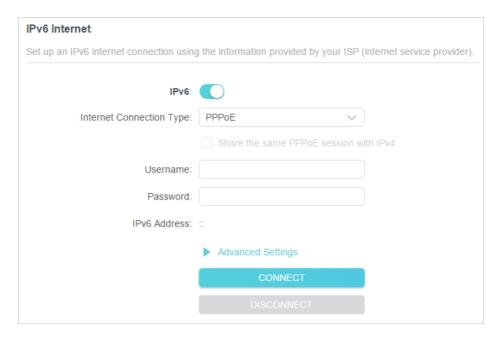
2) Dynamic IP(SLAAC/DHCPv6): Click Advanced to input further information if your ISP requires. Click Save and then click Renew.



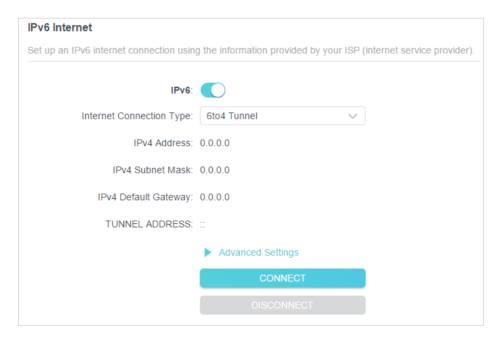
3) PPPoE: By default, the router uses the IPv4 account to connect to the IPv6 server. Click Advanced to input further information if your ISP requires. Click Save and then click Connect.

#### Note:

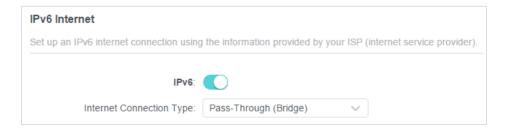
If your ISP provides two separate accounts for the IPv4 and IPv6 connections, manually enter the username and password for the IPv6 connection.



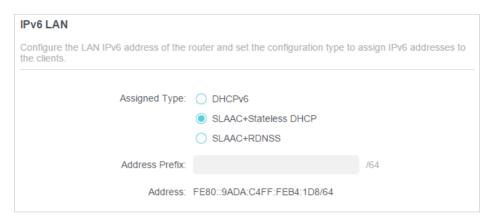
4) 6to4 Tunnel: An IPv4 internet connection type is a prerequisite for this connection type (Manually Set Up Your Internet Connection). Click Advanced to input further information if your ISP requires. Click Save and then click Connect.



5) Pass-Through (Bridge): Click Save and skip to Step 6.



5. Configure LAN ports. Windows users are recommended to choose from the first two types. Fill in Address Prefix provided by your ISP, and click Save.



6. Click Status to check whether you have successfully set up an IPv6 connection.

@ Tips:

Visit the FAQ section if there is no internet connection.

# Chapter 5

# **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 chapter 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.

It contains the following sections:

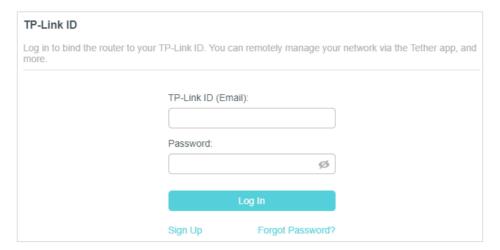
- Register a TP-Link ID
- Change Your TP-Link ID Information
- Manage the User TP-Link IDs
- Manage the Router via the TP-Link Tether App

Chapter 5 TP-Link Cloud Service

# 5. 1. Register a TP-Link ID

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

- 1. Visit <a href="http://tplinkwifi.net">http://tplinkwifi.net</a>, 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.
- 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:

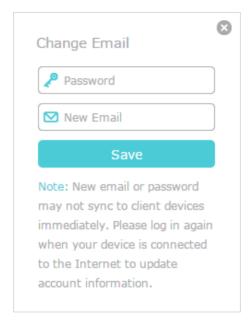
- To learn more about the Admin and User TP-Link ID, refer to Manage the User TP-Link IDs.
- Once the router is bound to your TP-Link ID, you need to log in to the router with the TP-Link ID.
- Once you have registered a TP-Link ID on the web management page, you can only register another TP-Link ID via the Tether APP. Please refer to Manage the Router via the TP-Link Tether App 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. 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.

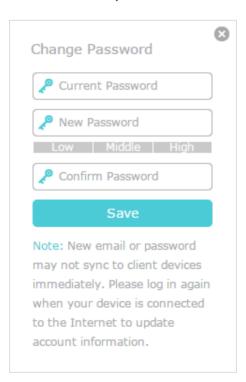
- 1. Visit http://tplinkwifi.net, and log in with your TP-Link ID.
- 2. Go to Advanced > TP-Link ID, and focus on the Account Information section.
- To change your email address:
- 1. Click Mehind the Email.
- 2. Enter the password of your TP-Link ID, then a new email address. And click Save.

Chapter 5 TP-Link Cloud Service



#### To change your password:

- 1. Click Mehind the Password.
- 2. Enter the current password, then a new password twice. And click Save.



# 5. 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 Admin account. An admin account can add or remove other TP-Link IDs to or

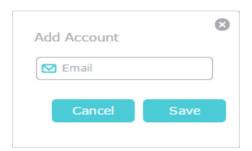
from the same router as Users. All accounts can monitor and manage the router locally or remotely, but user accounts cannot:

- 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.

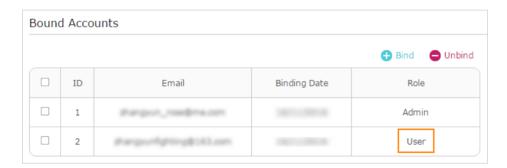
#### 5. 3. 1. Add TP-Link ID to Manage the Router

- 1. Visit <a href="http://tplinkwifi.net">http://tplinkwifi.net</a>, and log in with your TP-Link ID.
- 2. Go to Advanced > TP-Link ID, and focus on the Bound Accounts section.
- 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 Manage the Router via the TP-Link Tether App to install the app and register a new TP-Link ID.



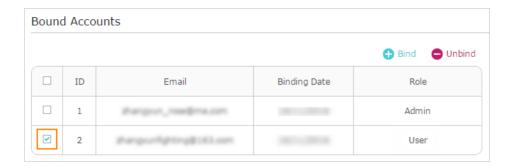
4. The new TP-Link ID will be displayed in the Bound Accounts table as a User.



#### 5. 3. 2. Remove TP-Link ID(s) from Managing the Router

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

Chapter 5 TP-Link Cloud Service



# 5. 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.



OR







- 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.

# Chapter 6

# **Wireless Settings**

This chapter guides you on how to configure the wireless settings.

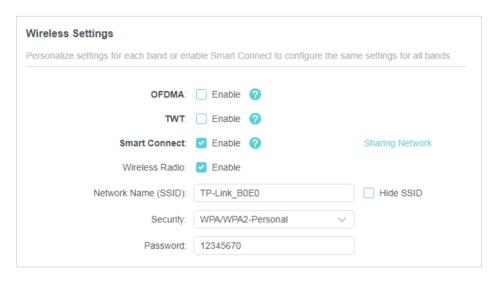
It contains the following sections:

- Specify Wireless Settings
- Schedule Your Wireless Function
- Use WPS for Wireless Connection
- Advanced Wireless Settings

### 6. 1. Specify Wireless Settings

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

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



#### > To enable or disable OFDMA:

OFDMA 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. It is disabled by default.

- 1. Go to Advanced > Wireless > Wireless Settings.
- 2. Enable OFDMA.

#### To enable or disable TWT:

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. It is disabled by default.

- 1. Go to Advanced > Wireless > Wireless Settings.
- 2. Enable TWT.

#### To use the Smart Connect function:

The Smart Connect function lets you enjoy a more high-speed network by assigning your devices to best wireless bands based on actual conditions to balance network demands.

- 1. Go to Advanced > Wireless > Wireless Settings.
- 2. Enable Smart Connect.



3. Keep the default values or set a new SSID and password, and click SAVE. This SSID and password will be applied for the 2.4GHz and 5GHz wireless networks. If you want to configure the wireless settings separately for each band, untick the checkbox to disable this feature.

#### > To enable or disable the wireless function:

- 1. Go to Wireless or Advanced > Wireless > Wireless Settings.
- 2. The wireless function is enabled by default. If you want to disable the wireless function of the router, just untick the Enable checkbox of each wireless network. In this case, all the wireless settings will be invalid.

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

- 1. Go to Wireless or Advanced > Wireless > Wireless Settings.
- 2. Create a new SSID in Network Name (SSID) and customize the password for the network in Password. The value is case-sensitive.
- Note: If you change the wireless settings with a wireless device, you will be disconnected when the settings are effective. Please write down the new SSID and password for future use.

#### > To hide SSID:

- 1. Go to Wireless or Advanced > Wireless > Wireless Settings.
- 2. Select Hide SSID, and your SSID won't display when you scan for local wireless networks on your wireless device and you need to manually join the network.

#### > To change the security option:

- 1. Go to Advanced > Wireless > Wireless Settings.
- 2. Select an option from the Security drop-down list: None, WPA/WPA2-Personal, WPA2/WPA3-Personal, WPA/WPA2-Enterprise. We recommend you don't change the default settings unless necessary.

#### In addition

- Transmit Power Select either 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. It is recommended
  to leave the channel to Auto, if you are not experiencing the intermittent wireless
  connection issue.

 Mode - Select a transmission mode according to your wireless client devices. It is recommended to just leave it as default.

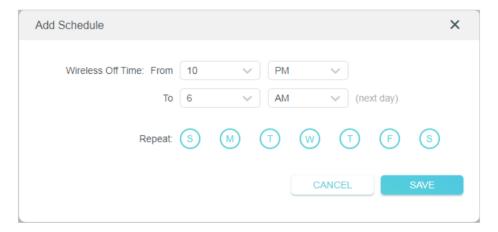
#### 6. 2. Schedule Your Wireless Function

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

- 1. Visit <a href="http://tplinkwifi.net">http://tplinkwifi.net</a>, 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 feature.



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



#### Note:

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

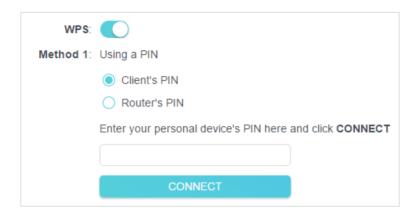
### 6. 3. Use WPS for Wireless Connection

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

- 1. Visit <a href="http://tplinkwifi.net">http://tplinkwifi.net</a>, and log in with your TP-Link ID or the password you set for the router.
- 2. Make sure the Wi-Fi of your router is on and go to Advanced > Wireless > WPS.

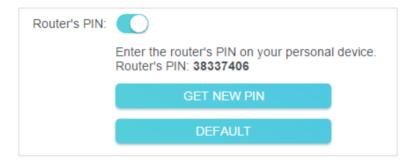
#### 6. 3. 1. Connect via the Client's PIN

Enter the PIN of your device and click Connect. Then your device will get connected to the router.



#### 6. 3. 2. Connect via the Router's PIN

Select Router's PIN in Method 1 to enable Router's PIN. You can use the default PIN or 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. The default PIN is printed on the label of the router.

#### 6. 3. 3. Push the WPS Button

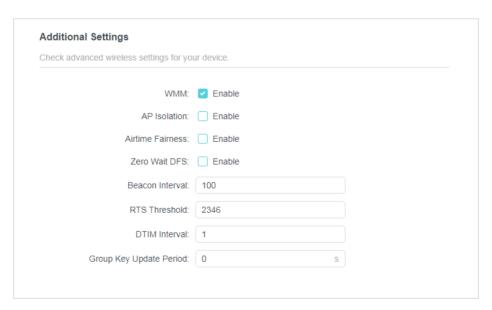
Click Start on the screen or directly press the router's WPS button. Within two minutes, enable WPS on your personal device. Success will appear on the screen and the WPS LED of the router should change from flashing to solid on, indicating successful WPS connection.



# 6. 4. Advanced Wireless Settings

Check advanced wireless settings for your device.

- 1. Visit <a href="http://tplinkwifi.net">http://tplinkwifi.net</a>, 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 advanced wireless settings.



 WMM - WMM function can guarantee the packets with high-priority messages being transmitted preferentially. Chapter 6 Wireless Settings

 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.
- Zero Wait DFS Zero Wait DFS (Dynamic Frequency Selection) allows the router to immediately reselect a new channel once the radar signal is detected on a channel allocated to radar devices to ensure lag-free network experience.
- Beacon Interval Enter a value between 40 and 1000 in milliseconds to determine the duration between beacon packets that are broadcasted by the router to synchronize the wireless network. The default value is 100 milliseconds.
- RTS Threshold- Enter a value between 1 and 2346 to determine the packet size of data transmission through the router. By default, the RTS (Request to Send) Threshold size is 2346. If the packet size is greater than the preset threshold, the router will send RTS frames to a particular receiving station and negotiate the sending of a data frame.
- DTIM Interval The value determines the interval of DTIM (Delivery Traffic Indication Message). Enter a value between 1 and 15 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.

### Chapter 6

## **Guest Network**

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

It contains the following sections:

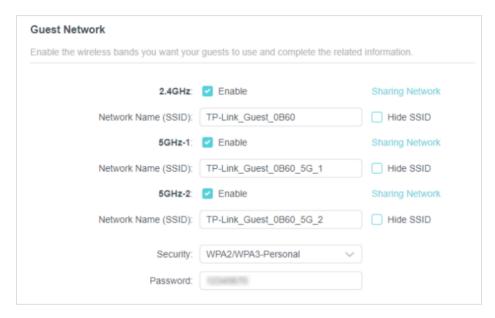
- Create a Network for Guests
- Customize Guest Network Options

Chapter 6 Guest Network

### 6. 1. Create a Network for Guests

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

- 2. Go to Advanced > Wireless > Guest Network or click Wireless on the top page. Locate the Guest Network section.
- 3. Create a guest network as needed.
  - 1) Tick the Enable checkbox for the 2.4GHz, 5GHz-1, or 5GHz-2 wireless network.
  - 2) Customize the SSID. Don't select Hide SSID unless you want your guests to manually input the SSID for guest network access.
  - 3) Select the Security type and customize your own password. If No security is selected, no password is needed to access your guest network.



- 4. Click Save. Now your guests can access your guest network using the SSID and password you set!
- 5. You can also click Sharing Network to share the SSID and password to your guests.



Tips:

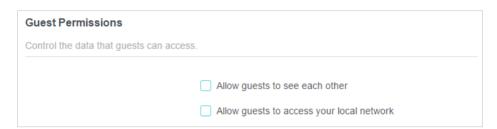
To view guest network information, go to Network Map and locate the Guest Network section. You can turn on or off the quest network function conveniently.

Chapter 6 Guest Network

### 6. 2. Customize Guest Network Options

1. Visit <a href="http://tplinkwifi.net">http://tplinkwifi.net</a>, 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 your 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!

### Chapter 7

## **USB Settings**

This chapter describes how to use the USB ports to share files and media from the USB storage devices over your home network locally, or remotely through the internet.

The router supports USB external flash drives and hard drives.

It contains the following sections:

- Access the USB Storage Device
- Media Sharing
- Time Machine

### 7. 1. Access the USB Storage Device

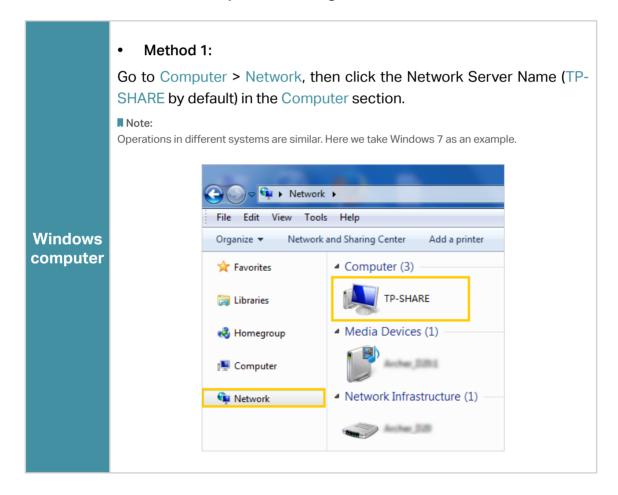
Insert your USB storage device into the router's USB port and then access files stored there locally or remotely.

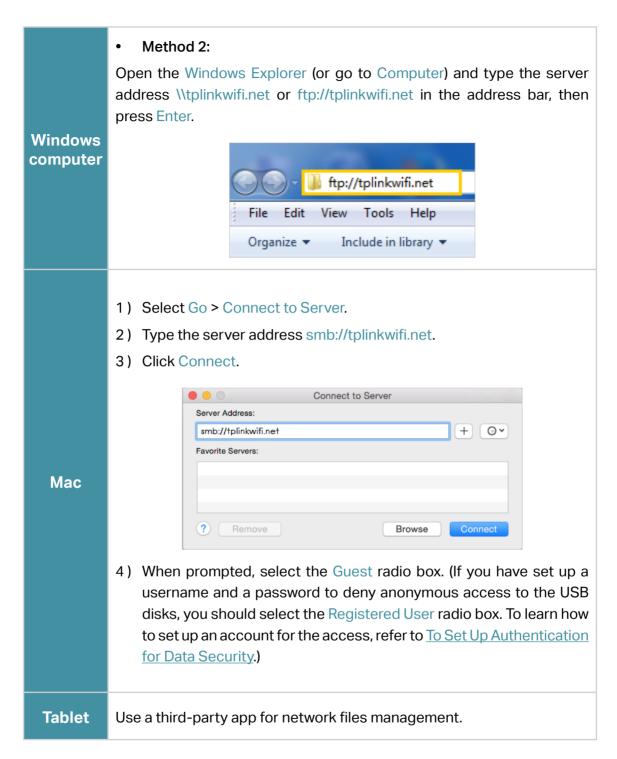
#### Tips

- 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. 1. 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.





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. 1. 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.

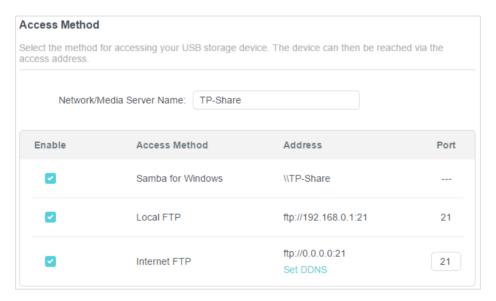
- Get a safe backup for the materials for a presentation.
- Remove the files on your camera's memory card from time to time during the journey.

#### Note:

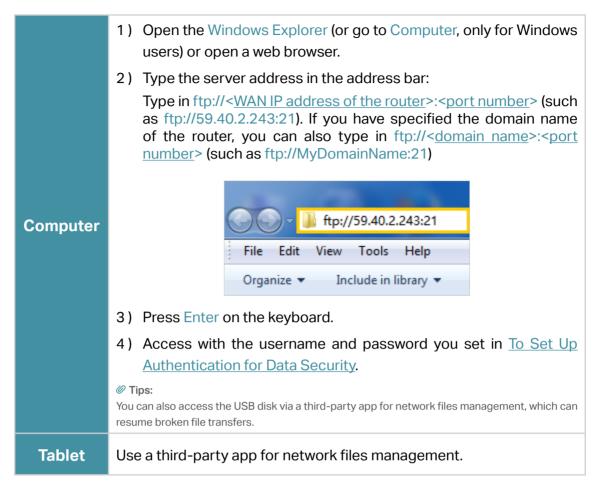
If your ISP assigns a private WAN IP address (such as 192.168.x.x or 10.x.x.x), you cannot use this feature because private addresses are not routed on the internet.

Follow the steps below to configure remote access settings.

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



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



Tips:

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

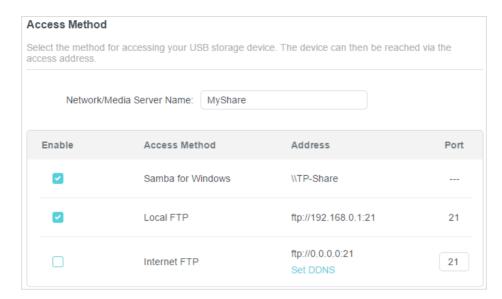
### 7. 1. 3. Customize the Access Settings

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 <a href="http://tplinkwifi.net">http://tplinkwifi.net</a>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > USB > USB 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.

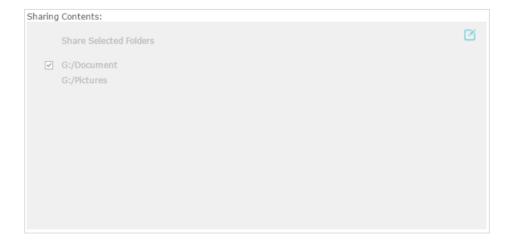
1. In the Access Method session, make sure Samba for Windows is ticked, and enter a Network/Media Server Name as you like, such as MyShare, then click Save.



2. Now you can access the USB storage device by visiting \\MyShare (for Windows) or smb://MyShare (for Mac).

### To Only Share Specific Content

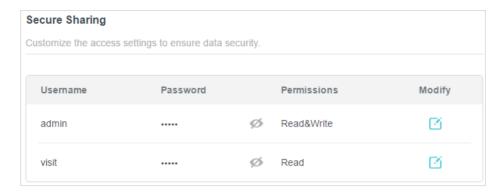
Focus on the File Sharing section. Specify sharing folders that you want to share and click Save.



### • 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.



2. Click ☑ 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.

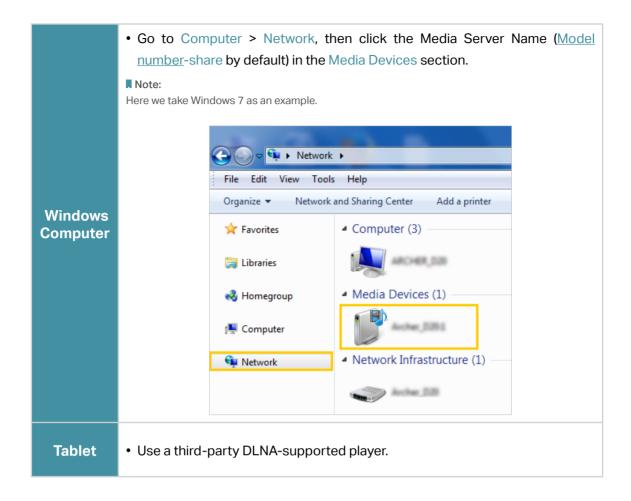
### 7. 2. Media Sharing

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



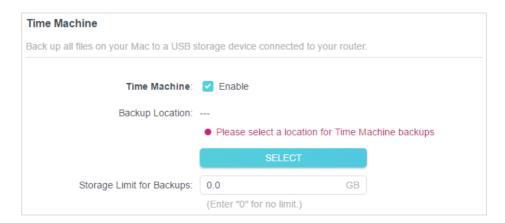
- 4. When your USB storage device is inserted into the router, your DLNA-supported devices (such as your computer and pad) connected to the router can detect and play the media files on the USB storage devices.
- **5.** Refer to the following table for detailed instructions.



### 7. 3. Time Machine

Time Machine backs up all files on your Mac computer to a USB storage device connected to your router.

- Visit <a href="http://tplinkwifi.net">http://tplinkwifi.net</a>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > USB > Time Machine.



- 3. Tick the checkbox to enable Time Machine.
- 4. Click Select to select a location for Time Machine backups.
- 5. Set the Size Limit for Backups.

Note: 0 means no limit for the space.

6. Click Save.

### Chapter 8

## **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 Security
- Parental Controls
- Network Analysis & Optimization

Chapter 8 HomeShield

### 8. 1. Network Security

TP-Link HomeShield provides many tools to protect your network from malicious attacks.



### **Network Analysis**

Analyze and optimize your network



### **IoT Protection**

Get real-time security for your Internet of Things



### **Intrusion Prevention System**

Identifies and block network intruders



### **Malicious Content Filter**

Block malicious content



### **DDoS Protection**

Protects your home network from DDoS attacks

### To use this feature, download Tether to enjoy the HomeShield service

1. Scan the QR code or get the Tether app from the Apple App Store or Google Play.



OR







- 2. Launch the Tether app and log in with your TP-Link ID. If you don't have an account, create one first.
- 3. Log in to your router and tap the HomeShield tab to use this feature.

### 8. 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.

Chapter 8 HomeShield



### **Child Protection**

Keep your child away from inappropriate content



### **Family Incentive Program**

Manage screen time and create rewards



### **Family Time**

Pause the internet to enjoy family time

### > To use this feature, download Tether to enjoy the HomeShield service

1. Scan the QR code or get the Tether app from the Apple App Store or Google Play.



OR







- 2. Launch the Tether app and log in with your TP-Link ID. If you don't have an account, create one first.
- 3. Log in to your router and tap the HomeShield tab to use this feature.

### 8. 3. Network Analysis & Optimization

TP-Link HomeShield provides many tools for you to analyze and optimize your network.



### Weekly and Monthly Reports

Get weekly and monthly reports of your network usage



### Quality of Service (QoS)

Prioritizes devices to give faster performance



#### Scan

Run a scan for a better network performance and security anytime

#### To use this feature, download Tether to enjoy the HomeShield service

1. Scan the QR code or get the Tether app from the Apple App Store or Google Play.



OR







Chapter 8 HomeShield

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

3. Log in to your router and tap the HomeShield tab to use this feature.

### Chapter 9

## **Network Security**

This chapter guides you on how to protect your home network from cyber attacks and unauthorized users by implementing these three network security functions. You can protect your home network from cyber attacks, block or allow specific client devices to access your network using Access Control, or you can prevent ARP spoofing and ARP attacks using IP & MAC Binding.

It contains the following sections:

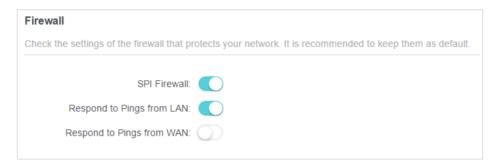
- Protect the Network from Cyber Attacks
- Access Control
- IP & MAC Binding

Tips: You can go to HomeShield to get a more comprehensive network protection system for your home network.

### 9. 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.

- Visit <a href="http://tplinkwifi.net">http://tplinkwifi.net</a>, 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.



### 9. 2. Access Control

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

#### I want to:

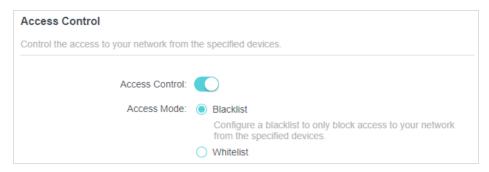
Block or allow specific client devices to access my network (via wired or wireless).

#### How can I do that?

- Visit <a href="http://tplinkwifi.net">http://tplinkwifi.net</a>, 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.** Select the access mode to either block (recommended) or allow the device(s) in the list.

### To block specific device(s):

1) Select Blacklist.

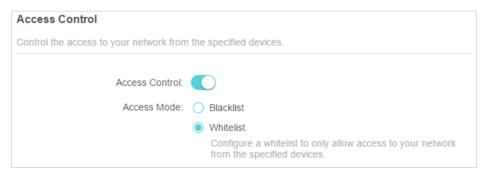


- 2) Click Add and select devices you want to be blocked and Click ADD.
- 3) The Operation Succeeded message will appear on the screen, which means the selected devices have been successfully added to the blacklist.



### To allow specific device(s):

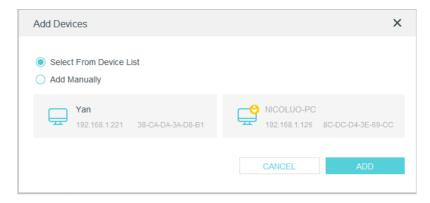
1) Select Whitelist and click SAVE.



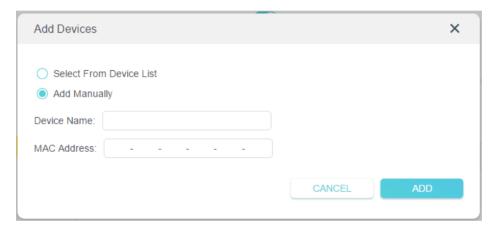
2) Your own device is in the whitelist by default and cannot be deleted. Click • Add to add other devices to the whitelist.



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



- 3) The Operation Succeeded message will appear on the screen, which means the selected devices have been successfully added to the whitelist.
- 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.



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

#### Done!

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

### 9. 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.

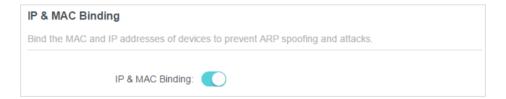
### I want to:

Prevent ARP spoofing and ARP attacks.

#### How can I do that?

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

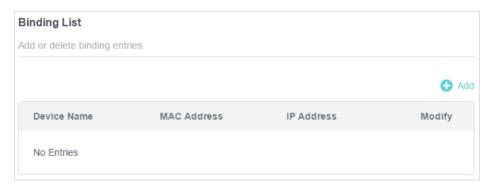
- 2. Go to Advanced > Security > IP & MAC Binding.
- 3. Enable IP & MAC Binding.



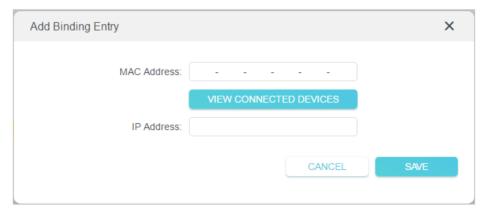
4. Bind your device(s) according to your need.

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

1) Click • Add in the Binding List section.



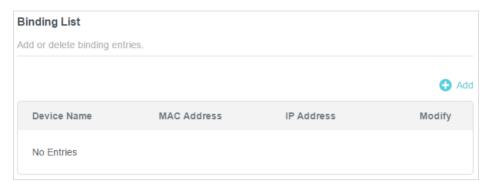
2) Click VIEW CONNECTED DEVICES and select the device you want to bind. The MAC Address and IP Address fields will be automatically filled in.



3) Click SAVE.

### To bind the unconnected device:

1) Click • Add in the Binding List section.



- 2) Enter the MAC Address and IP Address that you want to bind.
- 3) Click SAVE.

### Done!

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

### Chapter 10

## **NAT Forwarding**

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. However, it also brings about the problem that an external host cannot initiatively communicate with a specified device on the local network.

With the forwarding feature the router can penetrate the isolation of NAT and allows devices on the internet to initiatively communicate with devices on the local network, thus realizing some special functions.

The TP-Link router supports 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.

It contains the following sections:

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

Chapter 10 NAT Forwarding

# 10. 1. Share Local Resources on the Internet by Port Forwarding

When you build up a server on 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 for setting up public services on your local network, such as HTTP, FTP, DNS, POP3/SMTP and Telnet. Different services use different service ports. 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.

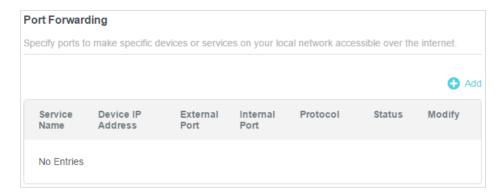
For example, the personal website has been built on my home PC (192.168.0.100). I hope that my friends on the internet can visit my website in some way. The PC is connected to the router with the WAN IP address 218.18.232.154.



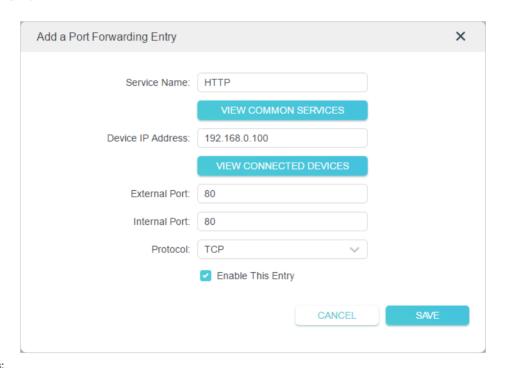
### How can I do that?

- 1. Assign a static IP address to your PC, for example 192.168.0.100.
- 2. Visit <a href="http://tplinkwifi.net">http://tplinkwifi.net</a>, and log in with your TP-Link ID or the password you set for the router.
- 3. Go to Advanced > NAT Forwarding > Port Forwarding.
- 4. Click Add.

Chapter 10 NAT Forwarding



- 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.



#### 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.