# User Guide

MU-MIMO Wi-Fi Router
Archer C6/Archer A6

 1910013208 REV4.0.0

# Contents

# 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.

When using this guide, please note that features available of the router may vary by model and software version. Router's 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 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 > MAC Filtering means the MAC Filtering function page is under the Wireless menu that is located in the Advanced tab. |
| **Note:** | • Ignoring this type of note might result in a malfunction or damage to the device. |
| **Tips:** | Indicates important information that helps you make better use of your device. |
| Symbols on the web page | • Click to edit the corresponding entry.<br>• Click to delete the corresponding entry.<br>• Click to enable or disable the corresponding entry.<br>• Click to view more information about items on the page. |

*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 network conditions, client limitations, and environmental factors, including building materials, obstacles, volume and density of traffic, and client location.

*Use of MU-MIMO requires clients to also support MU-MIMO.

## More Info

- The latest software, management app and utility can be found at Download Center at https://www.tp-link.com/support.
- 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 https://www.tp-link.com.
- A TP-Link Community is provided for you to discuss our products at https://community.tp-link.com.
- Our Technical Support contact information can be found at the Contact Technical Support page at https://www.tp-link.com/support.

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:

# 1. 1. Product Overview

The TP-Link router is designed to fully meet the need of Small Office/Home Office (SOHO) networks and users demanding higher networking performance. The powerful antennas ensure continuous Wi-Fi signal to all your devices while boosting widespread coverage throughout your home, and the built-in Ethernet ports supply high-speed connection to your wired devices.

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. The Front Panel

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

### LED Explanation

| Name | Status | Indication |
|---|---|---|
| (Power) | On | The system has started up successfully. |
| | Flashing | The system is starting up or the firmware is being upgraded. Do not disconnect or power off your router. |
| | Off | Power is off. |

| Name | Status | Indication |
|---|---|---|
| (2.4 GHz Wireless) | On | The 2.4 GHz wireless band is enabled. |
| | Off | The 2.4 GHz wireless band is disabled. |
| (5 GHz Wireless) | On | The 5 GHz wireless band is enabled. |
| | Off | The 5 GHz wireless band is disabled. |
| (Ethernet) | On | A powered-on device is connected to the router's corresponding Ethernet port. |
| | Off | No powered-on device is connected to the router's corresponding Ethernet port. |
| (Internet) | Green On | Internet service is available. |
| | Orange On | The router's Internet port is connected, but the internet service is not available. |
| | Off | The router's Internet port is unplugged. |

## 1. 2. 2. The Back Panel

The router's ports (view from left to right) are located on the rear panel.

| Item | Description |
|---|---|
| (Power On/Off Button) | Press this button to power on or off the router. |
| POWER Port | For connecting the router to a power socket via the provided power adapter. |

| Item | Description |
|---|---|
| WAN Port | For connecting to a DSL/Cable modem, or an Ethernet jack. |
| LAN Ports (1/2/3/4) | For connecting your PC or other Ethernet network devices to the router. |
| RESET Button | Press and hold this button for more than 5 seconds to reset the router to its factory default settings. |
| WPS/Wi-Fi | Press this button, and immediately press the WPS button on your device. The WPS LED of the router should change from flashing to solid on, indicating successful WPS connection. |
| | Press and hold the Wi-Fi button for about 5 seconds to turn on or off the wireless function of your router. |
| Antennas | Used for wireless operation and data transmit. Upright them for the best Wi-Fi performance. |

Chapter 2

# Connect the Hardware

This chapter contains the following sections:

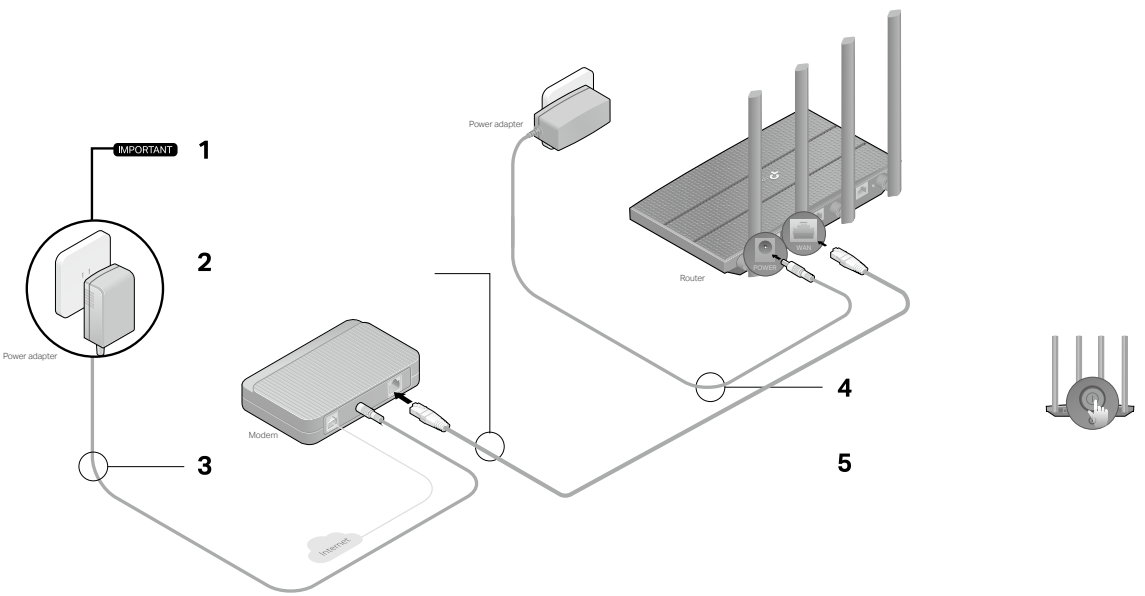
## 2. 1. Position Your Router

- 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 reference, such as Bluetooth devices, cordless phones and microwaves.

## 2. 2. Connect Your Router

Follow the steps below to connect your router.

If your internet connection is through an Ethernet cable directly from the wall instead of through a DSL / Cable / Satellite modem, connect the Ethernet cable to the router's Internet port, and then follow Step 4 and 5 to complete the hardware connection.




1. Unplug the modem, and remove the backup battery if it has one.
2. Connect the powered-off modem to your router's **WAN** port with an Ethernet cable.
3. Power on the modem, and then wait about **2 minutes** for it to restart.
4. Connect the power adapter to the router and turn on the router.

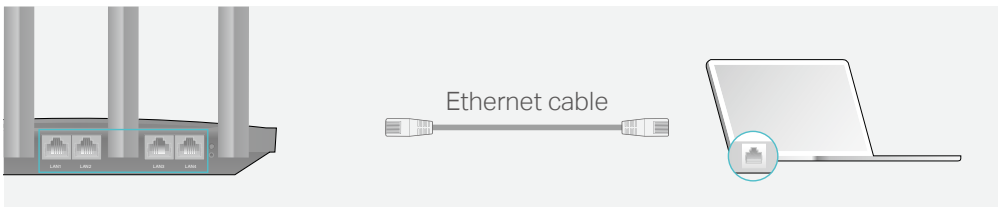
5. Verify that the following LEDs are on and solid to confirm the hardware is connected correctly.


**Note:**
If the 2.4G LED and 5G LED are off, press and hold the WPS/Wi-Fi button on the back for more than 5 seconds. Both the LEDs should turn solid on.

6. Connect your computer to the router.

- **Method 1: Wired**

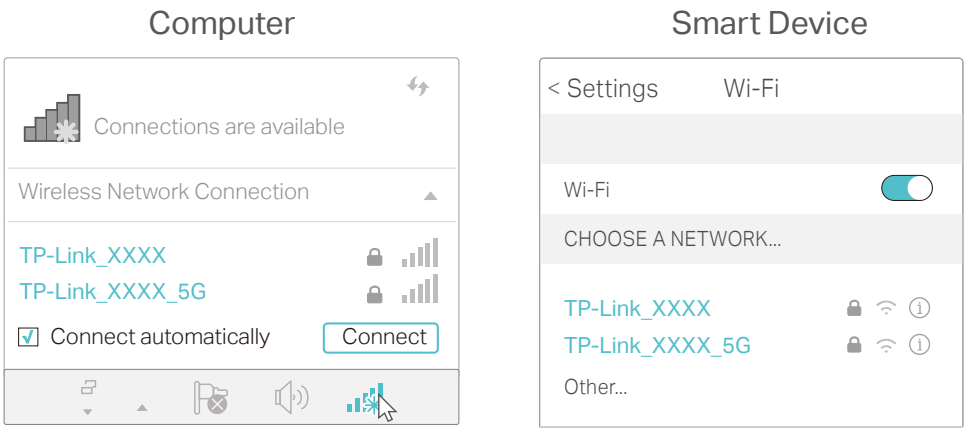
Turn off the Wi-Fi on your computer and connect the devices as shown below.




- **Method 2: Wirelessly**

1 ) Find the SSIDs (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.

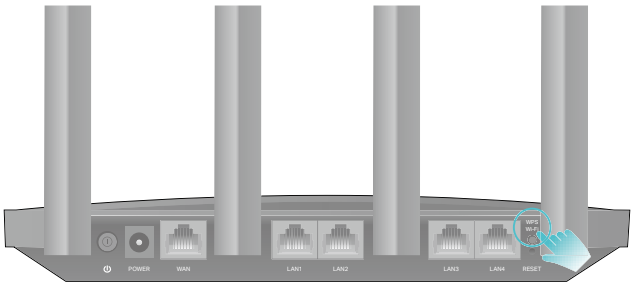
**Note:**

- 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/Wi-Fi button on your router.

close to



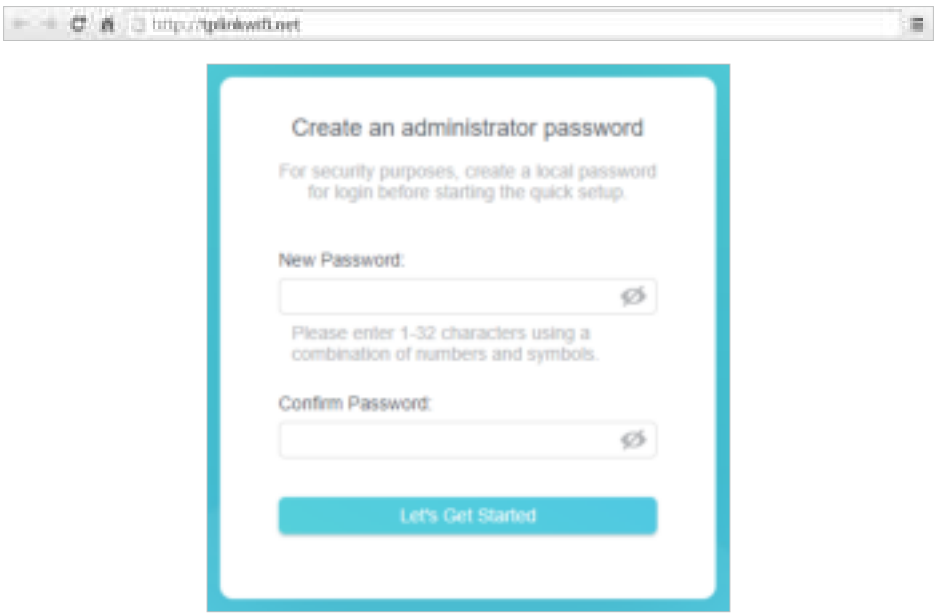
Chapter 3

# 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.

1. Set up the TCP/IP Protocol in Obtain an IP address automatically mode on your computer.
2. Visit http://tplinkwifi.net, 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.
- If you have registered a TP-Link ID and bound your cloud router to it, the login password you created here will be invalid. Please log in to the cloud router using your TP-Link ID.

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:

# 4. 1. Use Quick Setup Wizard

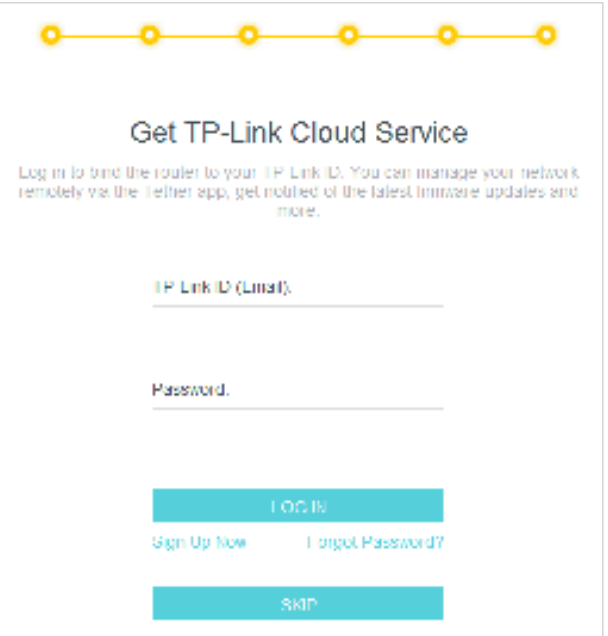
The Quick Setup Wizard will guide you to set up your router.

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 http://tplinkwifi.net, 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.

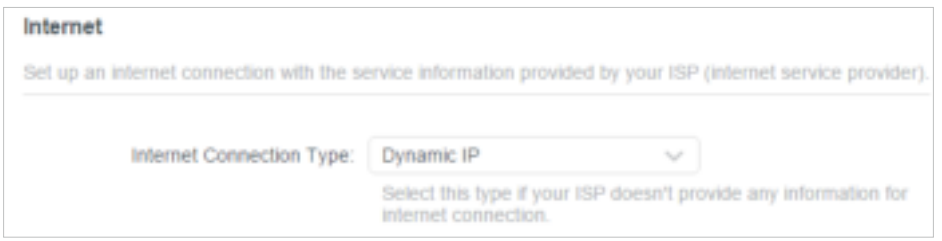

2. Connect your device to the router's wireless network.
3. Launch the Tether app, tap the + button and select Router > Wireless Router. Follow the steps to complete the setup and connect to the internet.
4. Connect your devices to the newly configured wireless networks of the router and enjoy the internet!

## 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.

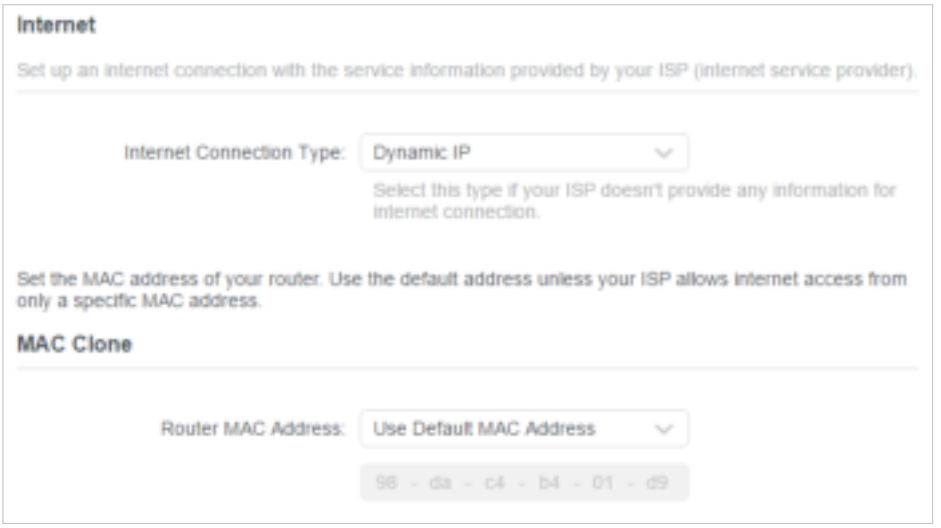
Follow the steps below to check or modify your internet connection settings.

1. Visit http://tplinkwifi.net, and log in with your TP-Link ID or the password you set for the router.
2. Go to Internet.
3. Select your internet connection type from the drop-down list.

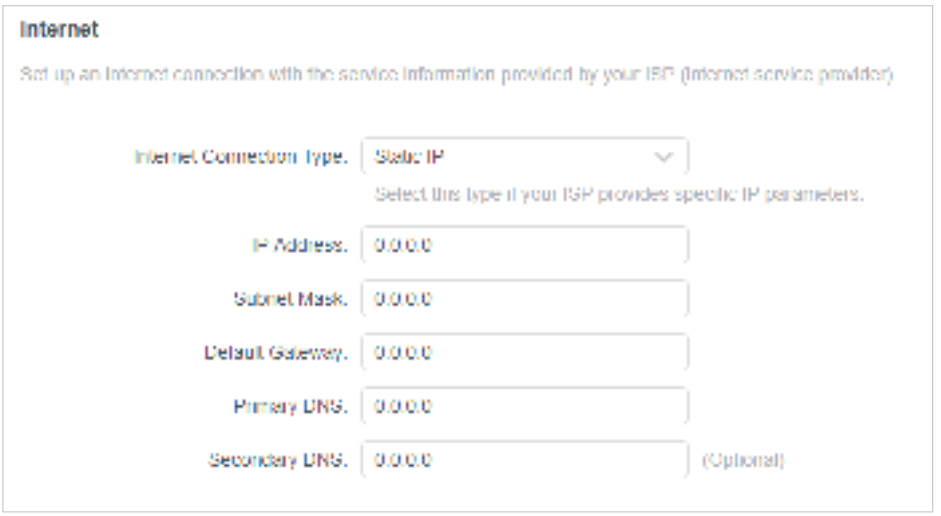



4. Follow the instructions on the page to continue the configuration. Parameters on the figures are just used for demonstration.

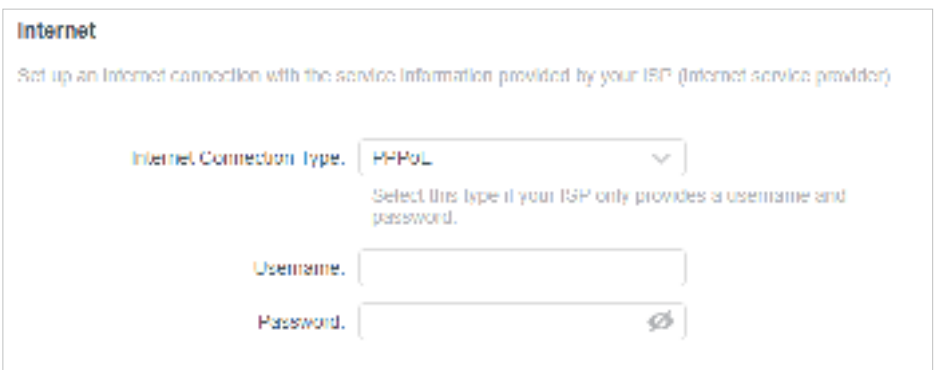
   1 ) If you choose Dynamic IP, you need to select whether to clone the MAC address. Dynamic IP users are usually equipped with a cable TV or fiber cable.



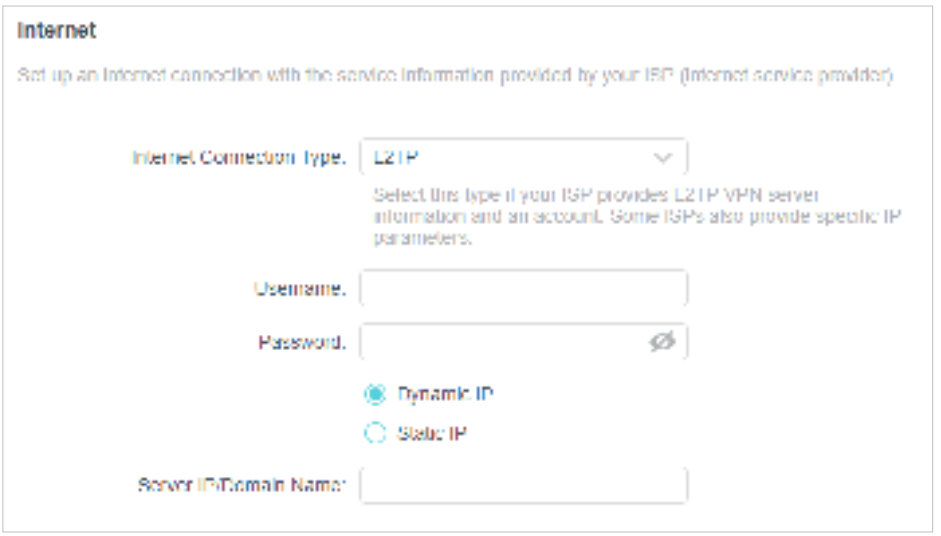

2) If you choose Static IP, enter the information provided by your ISP in the corresponding fields.



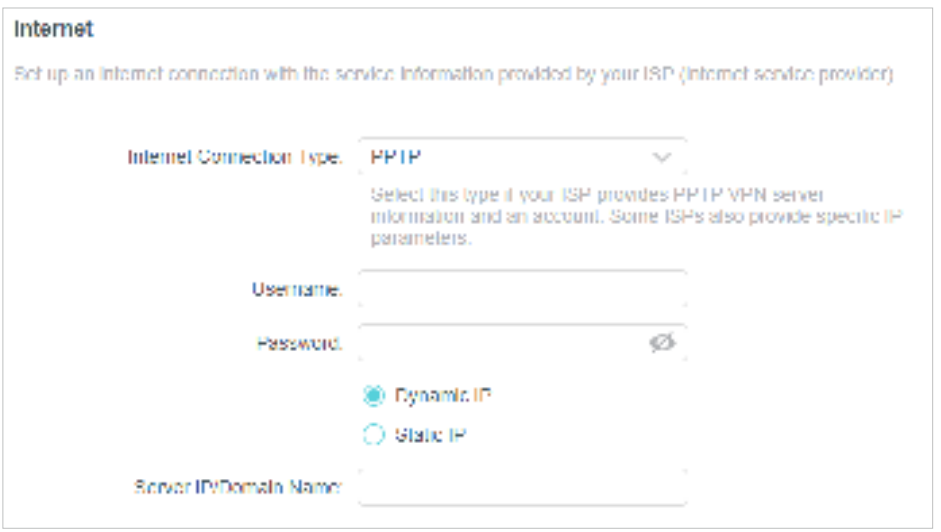

3) If you choose PPPoE, enter the username and password provided by your ISP. PPPoE users usually have DSL cable modems.



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.




5. Click Save.

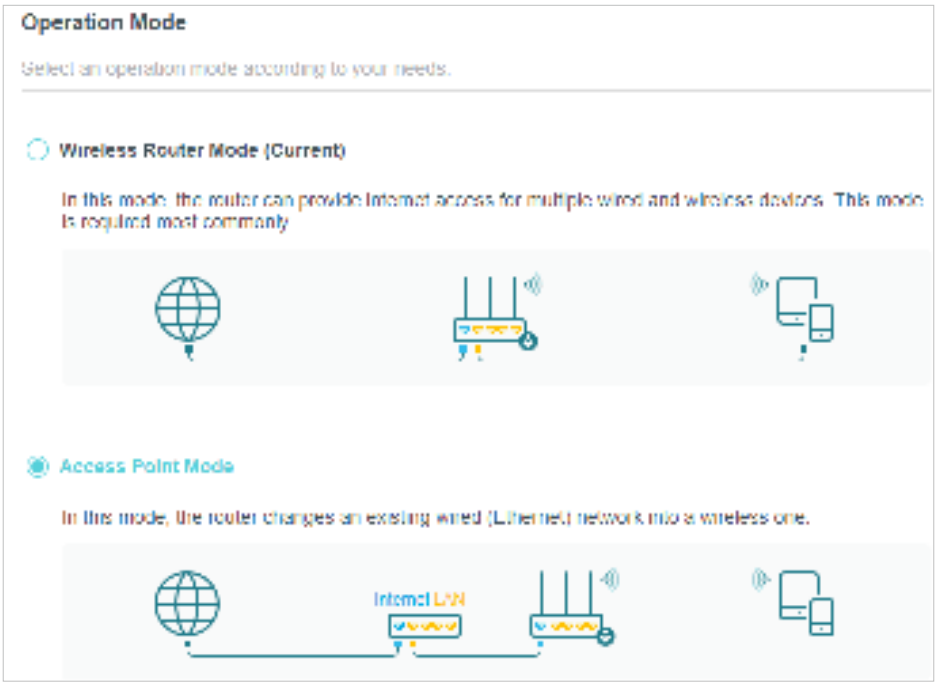
Tips:

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

Set up an IPv6 connection if your ISP provides IPv6 service.

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 > IPv6.

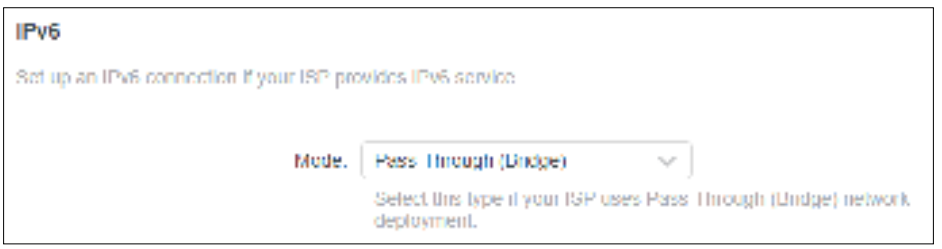

3. Select the mode provided by your ISP to enable IPv6 connection.

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

- Pass-Through (Bridge):

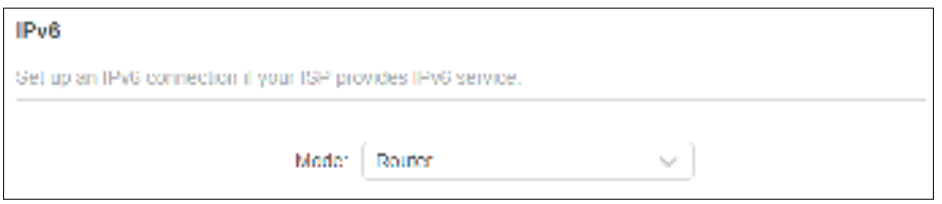
  1 ) Select Pass-Through (Bridge) and click Save.

  2 ) Go to Network > Status to check whether you have successfully set up an IPv6 connection.

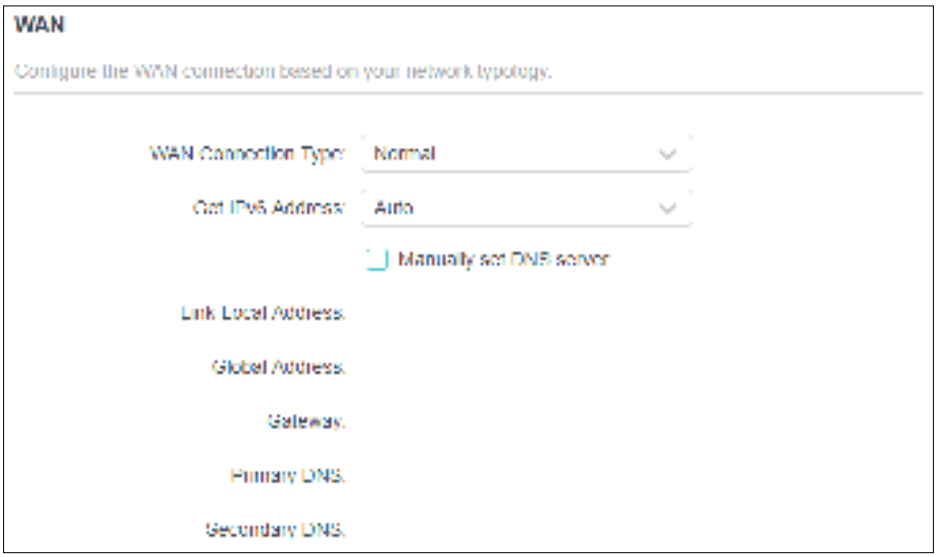



- Router:

  1 ) Select Router mode.



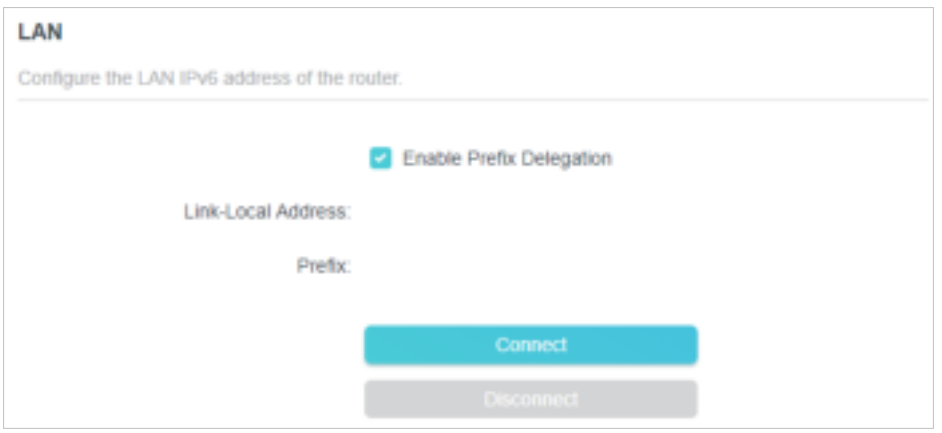
2 ) Configure the WAN connection.




Notes:

1. If you do not know what your internet connection mode is, contact your ISP or judge according to the already known information provided by your ISP.
2. If your ISP provides two separate accounts for the IPv4 and IPv6 connections, manually enter the username and password for the IPv6 connection.

3 ) Keep the default settings of LAN.




4 ) Click Connect then click Save to apply your settings.

5 ) Go to Network > 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.

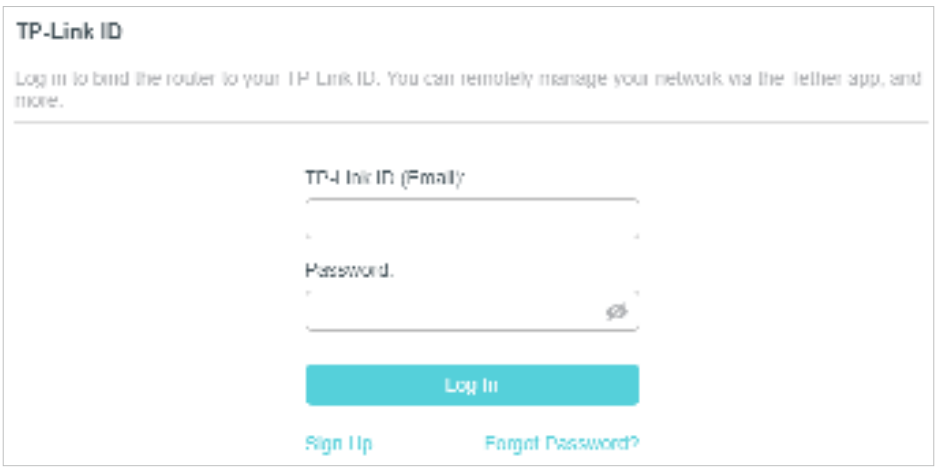
This chapter introduces how to register a new TP-Link ID, bind or unbind TP-Link IDs to manage your router, and the Tether app with which you can manage your home network no matter where you may find yourself.

It contains the following sections:

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

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

1. Visit http://tplinkwifi.net, 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 Router via the TP-Link Tether App.
- 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.

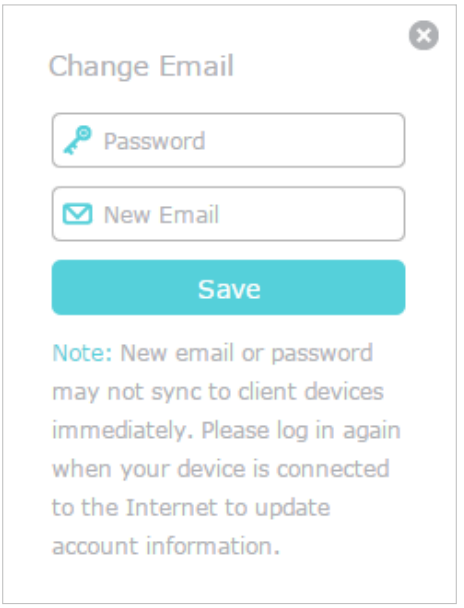
## 5. 2. Change Your TP-Link ID Information

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.

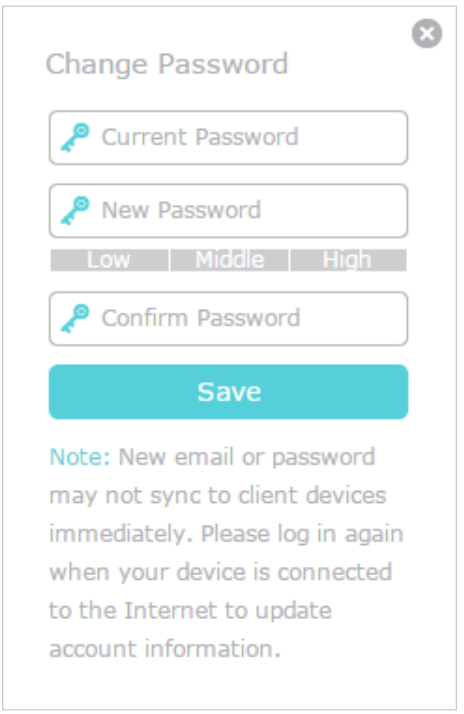
- **To change your email address**:

1. Click behind the Email.
2. Enter the password of your TP-Link ID, then a new email address. And click Save.




- **To change your password:**

1. Click behind 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

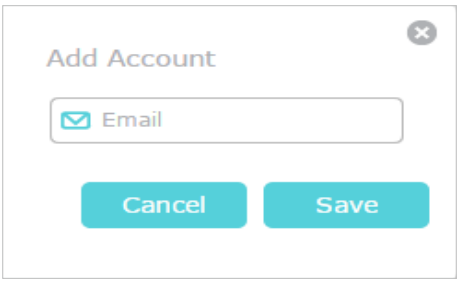
from the same router as Users. All accounts can monitor and manage the router locally or remotely, but user accounts cannot:

- 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 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. 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.


## 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.


2. Connect your device to the router's wireless network.
3. Launch the Tether app, select the model of your router and log in with your TP-Link ID or the password you set for the router.
4. 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.

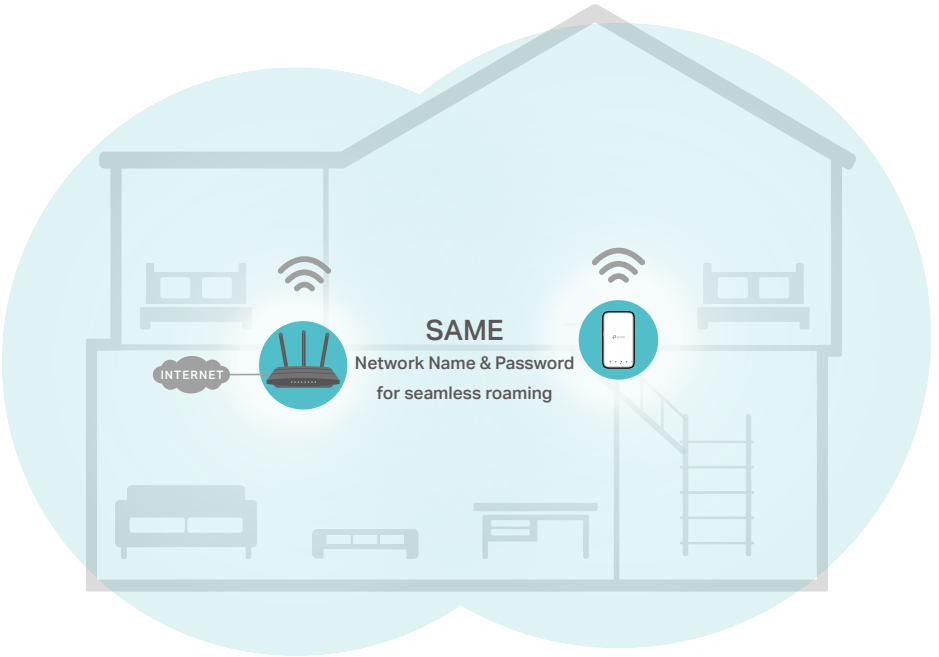
Chapter 6

# OneMesh with Seamless Roaming

This chapter introduces the TP-Link OneMesh™ feature.

It contains the following sections:

TP-Link OneMesh router and TP-Link OneMesh extenders work together to form one unified Wi-Fi network. Walk through your home and stay connected with the fastest possible speeds thanks to OneMesh's seamless coverage.




### Unified Wi-Fi Network

Router and extenders share the same wireless settings, including network name, password, access control settings and more.

### Seamless Roaming

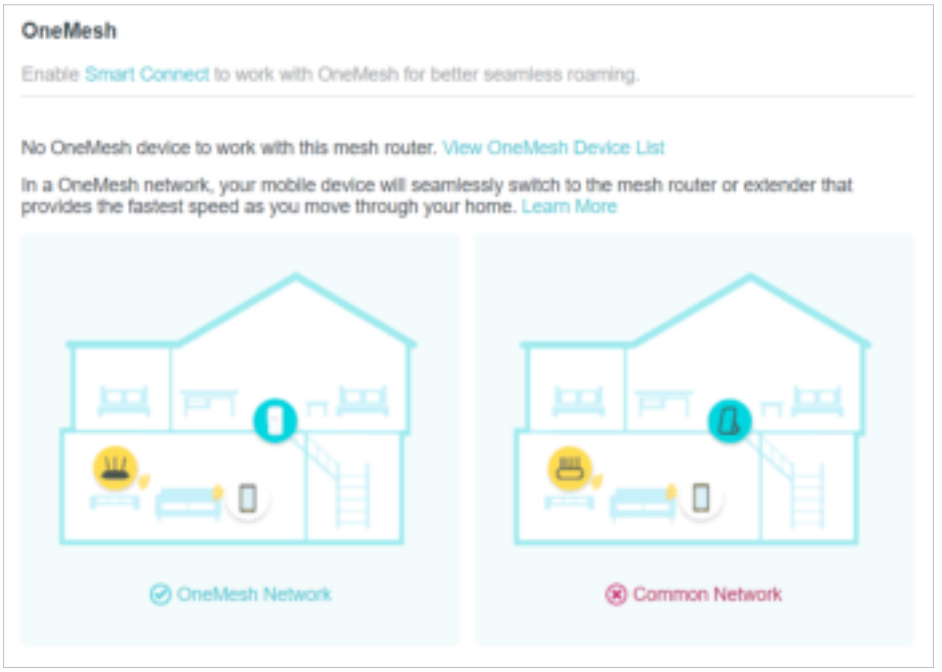
Devices automatically switch between your router and extenders as you move through your home for the fastest possible speeds.

### Easy Setup and Management

Set up a OneMesh network with a push of WPS buttons. Manage all network devices on the Tether app or at your router's web management page.

## 6. 1. Set Up a OneMesh Network

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 > Wireless > OneMesh.




3. Connect a OneMesh extender to this router by following the setup instructions in the extender's manual. The extender will be listed on the router's OneMesh page.

   Note: To check full list of TP-Link OneMesh devices, visit https://www.tp-link.com/onemesh/compatibility.

4. If you have set up the extender to join the OneMesh network, it will be listed on the router's OneMesh page.


   Otherwise, you need to find it in the Available OneMesh Devices list and click Add to add it to the OneMesh network.


**Done!** Now your router and extender successfully form a OneMesh network!

## 6. 2. Manage Devices in the OneMesh Network

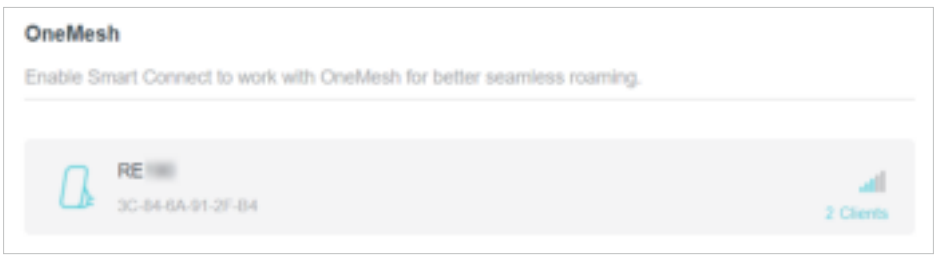
In a OneMesh network, you can manage all mesh devices and connected clients on your router's web page.

- **To view mesh devices and connected clients in the network:**

1. Visit http://tplinkwifi.net, and log in with your TP-Link ID or the password you set for the router.
2. Go to Network Map.
3. Click  to view all mesh devices, and click  to view all connected clients.


- **To manage a OneMesh device in the network:**

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 > Wireless > OneMesh.




3. Click the OneMesh device to view detailed information.

4. Manage the OneMesh device as needed. You can:

- Change device information.
- Click Manage Device to redirect to the web management page of this device.
- Click Leave OneMesh to delete this device from the OneMesh network.

Chapter 7

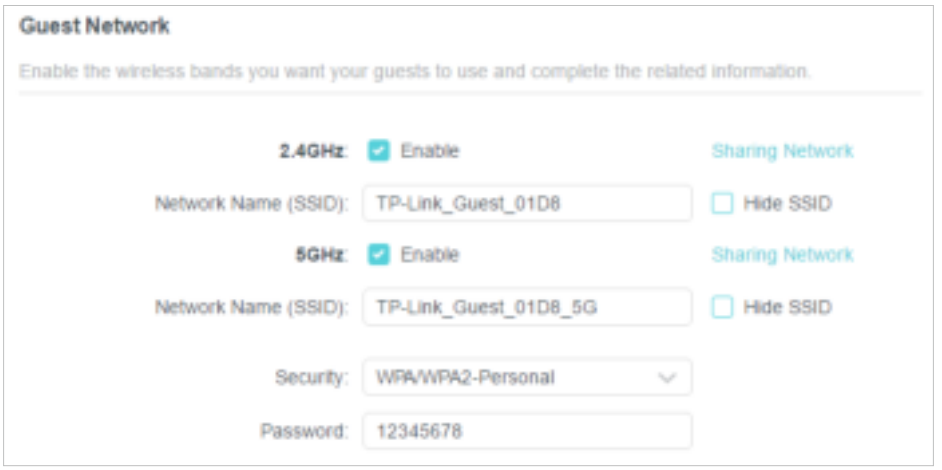
# Guest Network

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:

## 7. 1. Create a Network for Guests

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 > 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 or 5GHz 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.
   - If No security is selected, no password is needed to access your guest network.
   - If WAP/WPA2-Personal is selected, customize your own password.

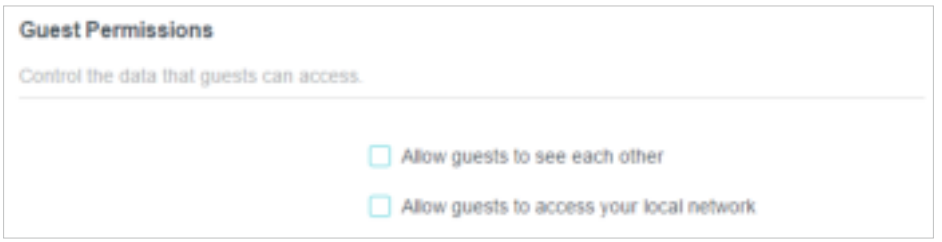



4. Click Save. Now your guests can access your guest network using the SSID and password you set!
5. You can also click Sharing Network to share the SSID and password to your guests.


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

## 7. 2. Customize Guest Network Options

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 > 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 8

# Parental Controls

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

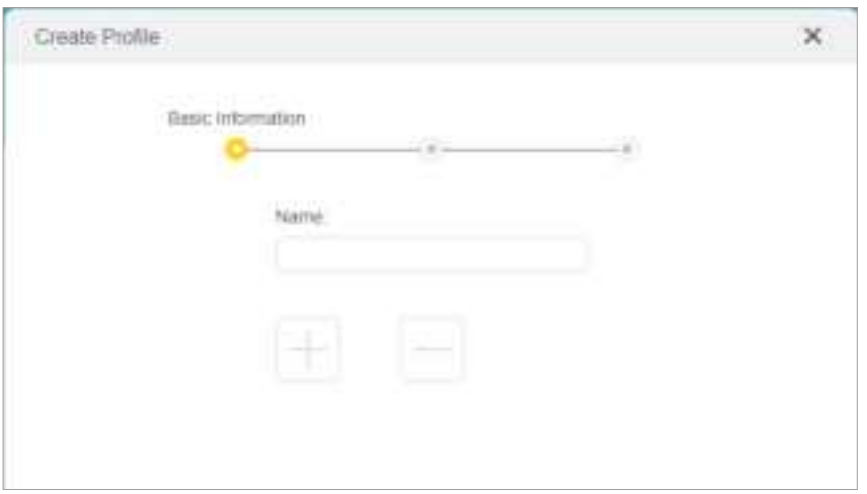
# 8. 1. Setting Up Access Restrictions

## I want to:

Block access to inappropriate online content for my child's devices, restrict internet access to 2 hours every day and block internet access during bed time (10 PM to 7 AM) on weekdays.

## How can I do that?

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 > Parental Controls.
3. Click Add to create a profile for a family member.
4. Add basic profile information.



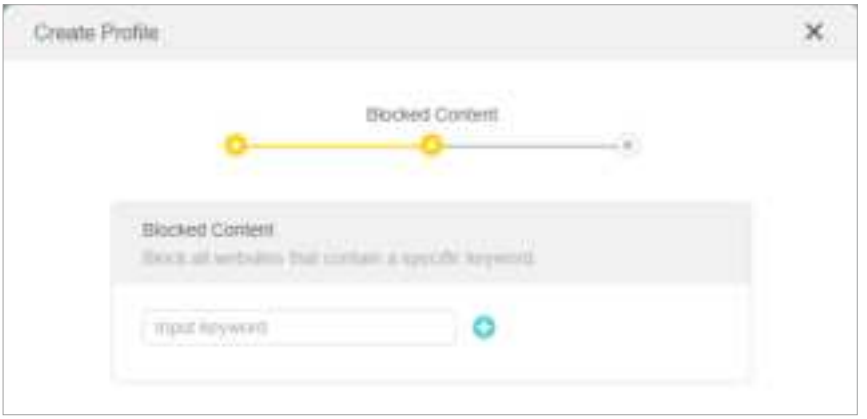

   1 ) Enter a Name for the profile to make it easier to identify.

   2 ) Click to select the devices that belong to this profile. Access restrictions will be applied to these devices. Click ADD when finished.

   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.

   3 ) Click Next.

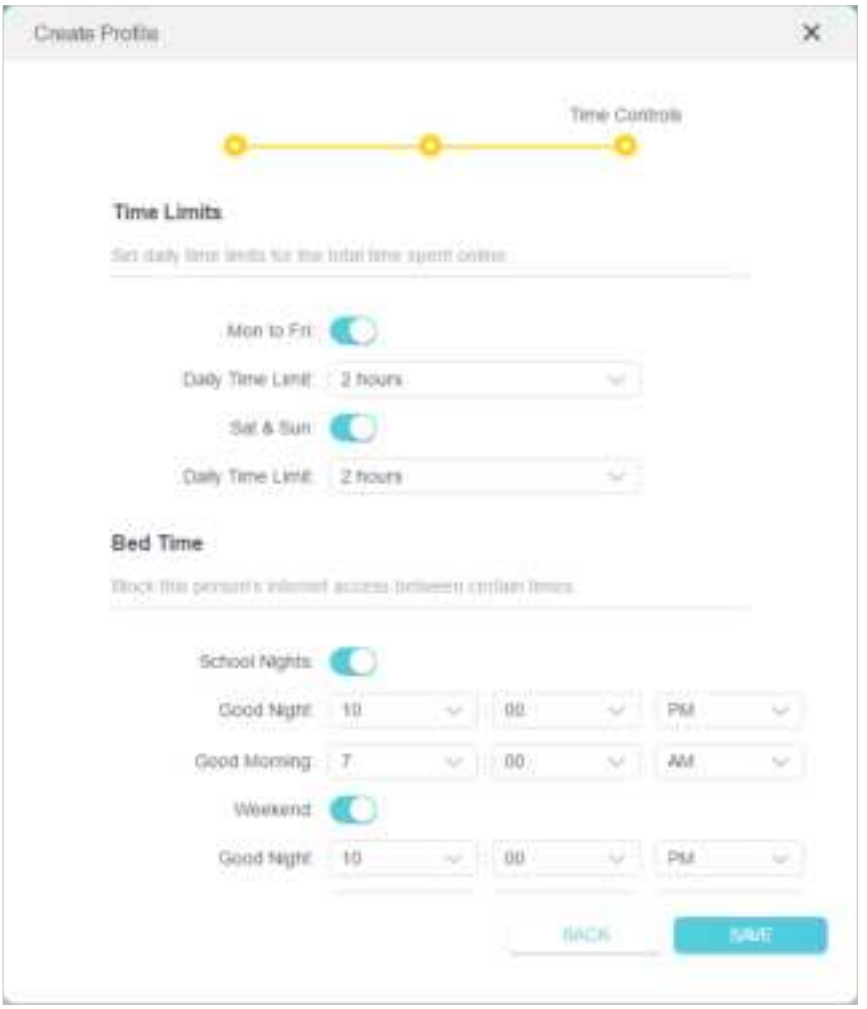
5. Customize the Blocked Content according to your needs for this profile.




1 ) Enter a keyword (for example, “Facebook”) or a URL (for example, “www.facebook.com”). All websites containing the keywords will be blocked.

2 ) Click Next.

6. Set time restrictions on internet access.




1 ) Enable Time Limits on Monday to Friday and Saturday & Sunday then set the allowed online time to 2 hours each day.

2 ) Enable Bed Time 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.

3 ) Click Save.

### Done!

The amount of time your child spends online is controlled and inappropriate content is blocked on their devices.

Chapter 9

# QoS

This chapter introduces how to create a QoS (Quality of Service) rule to specify prioritization of traffic and minimize the impact caused when the connection is under heavy load.

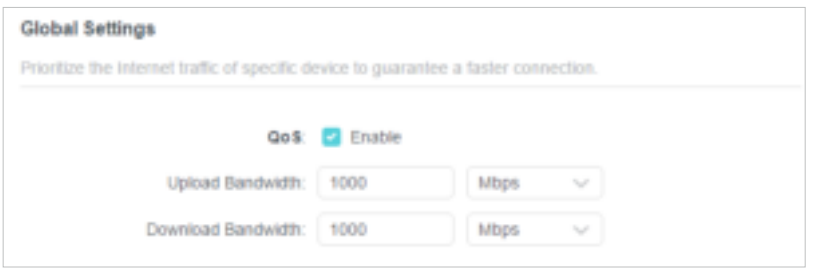
## I want to:

Specify priority levels for some devices or applications.

For example, I have several devices that are connected to my wireless network. I would like to set an intermediate speed on the internet for my computer for the next 2 hours.

## How can I do that?

1. Enable QoS and set bandwidth allocation.
   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 > QoS > Global Settings.
   3 ) Tick to enable QoS.
   Note: QoS and NAT Boost cannot be enabled at the same time. To disable NAT Boost, go to Advanced > Network > Internet >NAT.
   4 ) Input the maximum upload and download bandwidth provided by your internet service provider. 1Mbps equal s to 1000Kbps.
   5 ) Click SAVE.




2. In the Device Priority section, find your computer and toggle on Priority. Click the entry in the Timing column and select 2 hours as the duration you want the device to be prioritized for.


3. Click SAVE

**Done!** You can now enjoy using your computer for the next 2 hours.

Chapter 10

# 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:

## 10. 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 http://tplinkwifi.net, 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.


## 10. 2. Access Control

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

### I want to:

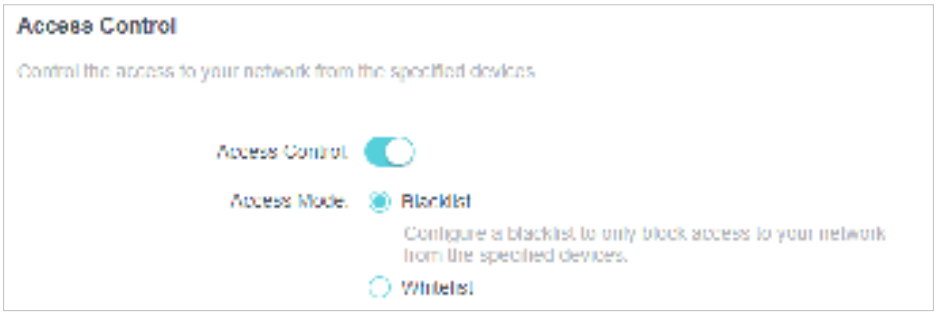
Block or allow specific client devices to access my network (via wired or wireless).

### How can I do that?

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 > 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.

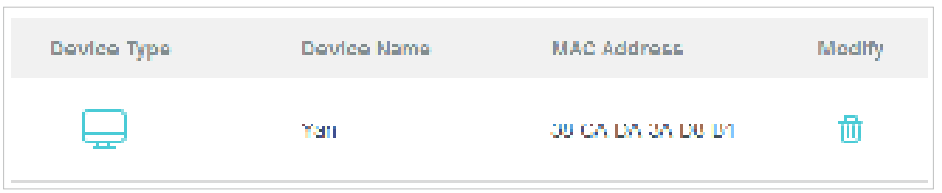
   **To block specific device(s):**

   1 ) Select Blacklist.



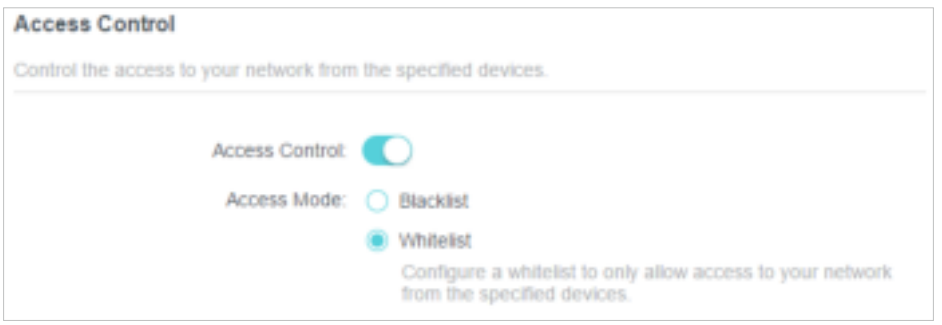

2 ) Click Add and select devices you want to be blocked and Click ADD.

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

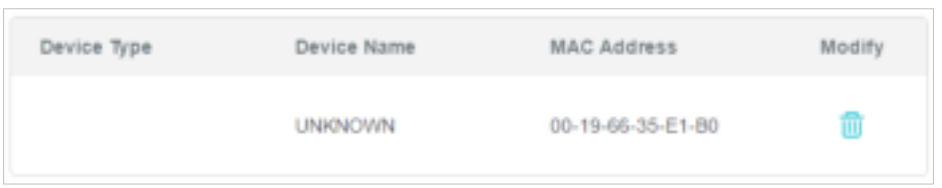



**To allow specific device(s):**

1 ) Select Whitelist and click SAVE.



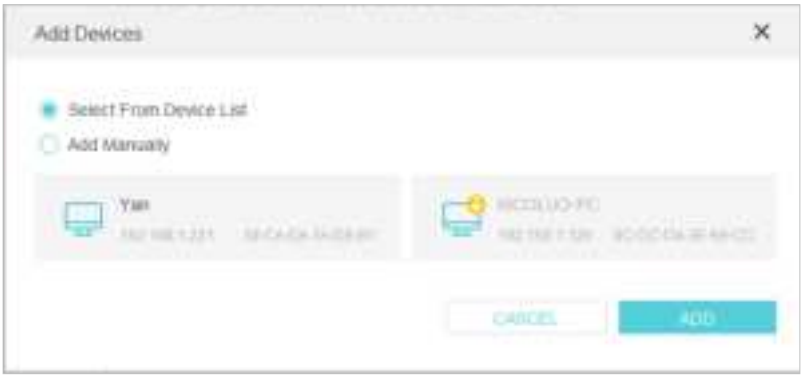

2 ) Your own device is in the whitelist by default and cannot be deleted. Click Add to add other devices to the whitelist.




- **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.

## 10. 3. IP & MAC Binding

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

## I want to:

Prevent ARP spoofing and ARP attacks.

## How can I do that?

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 > 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.

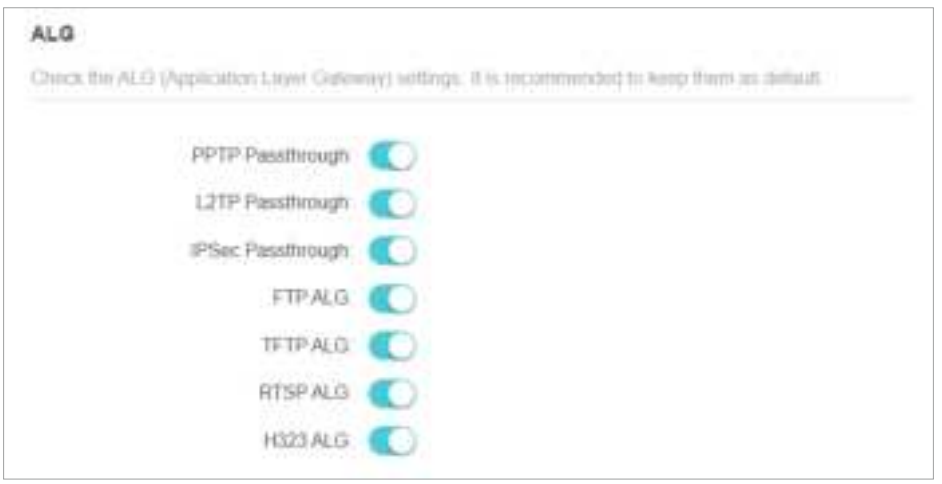
**Done!**

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

## 10. 4. ALG (Application Layer Gateway)

View your ALG (Application Layer Gateway) settings in this page. It is recommended to keep them as default.

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 > Security > ALG.



Chapter 11

# 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:

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

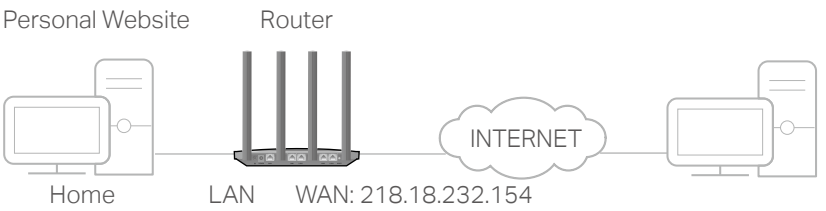
When you build up a server on the local network and want to share it on the internet, Port Forwarding can realize the service and provide it to internet users. At the same time Port Forwarding can keep the local network safe as other services are still invisible from the internet.

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:

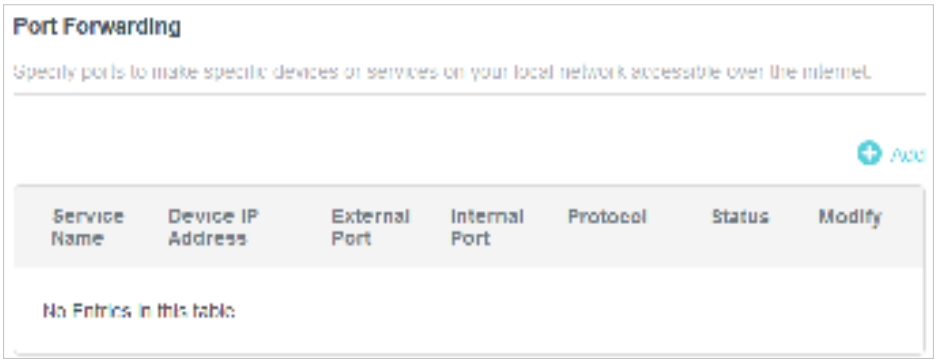
Share my personal website I've built in local network with my friends through the internet.

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.

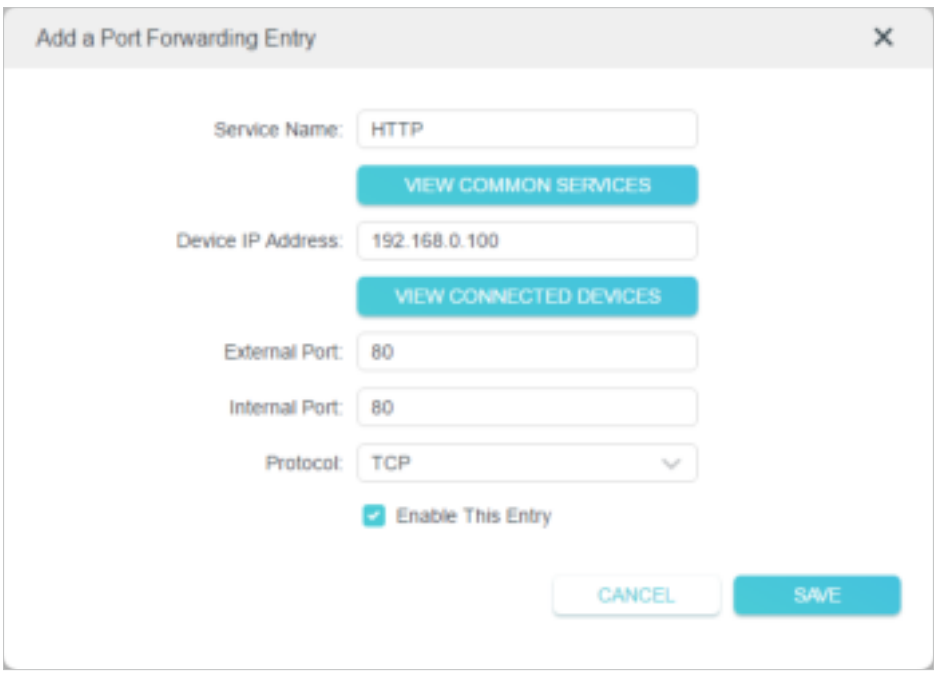



## How can I do that?

1. Assign a static IP address to your PC, for example 192.168.0.100.
2. Visit http://tplinkwifi.net, 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.




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 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.

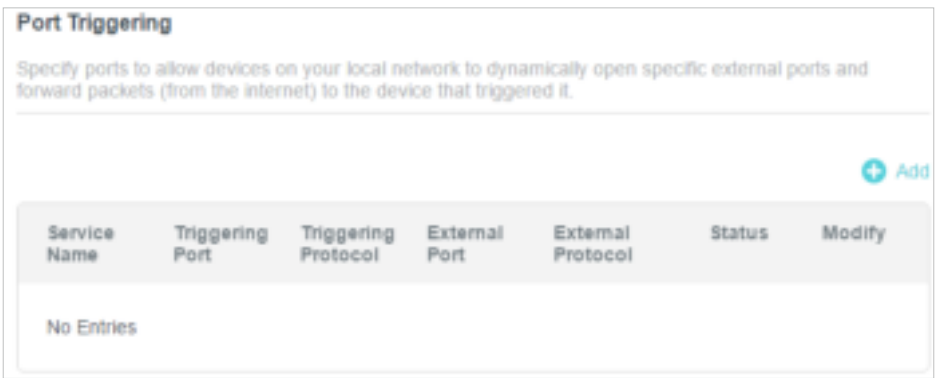
Tips:
- The WAN IP should be a public IP address. For the WAN IP is assigned dynamically by the ISP, it is recommended to apply and register a domain name for the WAN referring to Make Applications Free from Port Restriction by DMZ. Then users on the internet can use http:// domain name to visit the 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.

## 11. 2. Open Ports Dynamically by Port Triggering

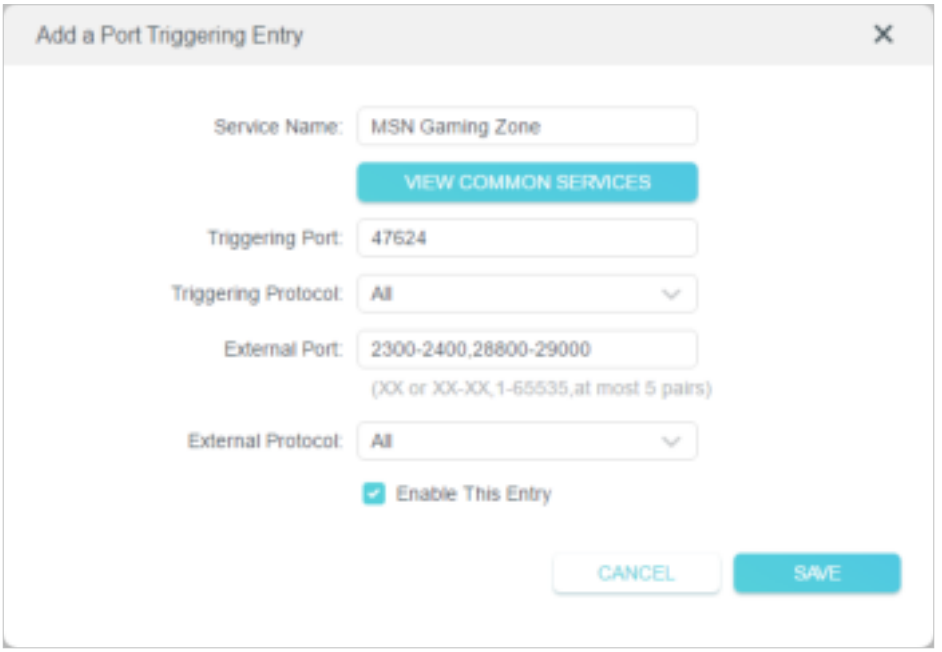
Port Triggering can specify a triggering port and its corresponding external ports. When a host on the local network initiates a connection to the triggering port, all the external ports will be opened for subsequent connections. The router can record the IP address of the host. When the data from the 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 http://tplinkwifi.net, 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.




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.




4. Click SAVE.

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.

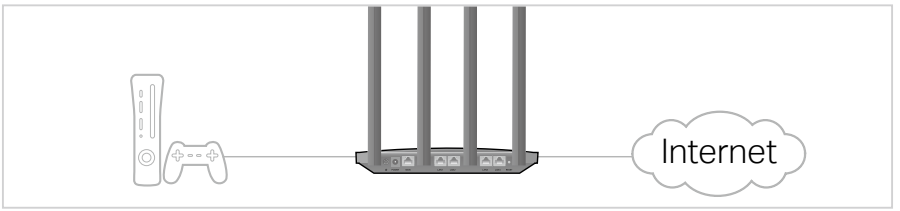
## 11. 3. Make Xbox Online Games Run Smoothly by UPnP

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 http://tplinkwifi.net, 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.


## 11. 4. Make Applications Free from Port Restriction by 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 http://tplinkwifi.net, 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.


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.

Chapter 12

# Customize Your Network Settings

This chapter guides you on how to configure advanced network features.

It contains the following sections: