



User Guide

AC1900 Wireless Dual Band Gigabit Router
Archer C9

Contents

About This Guide	1
Chapter 1. Get to Know About Your Router	2
1. 1. Product Overview.....	3
1. 2. Panel Layout.....	3
1. 2. 1.The Front Panel	3
1. 2. 2.The Side and Back Panel	5
Chapter 2. Connect the Hardware	6
2. 1. Position Your Router	7
2. 2. Connect Your Router.....	7
Chapter 3. Log in to Your Router.....	10
Chapter 4. Set Up Internet Connection	12
4. 1. Use Quick Setup Wizard	13
4. 2. Manually Set up Your Internet Connection	13
4. 3. Set Up an IPv6 Internet Connection	17
Chapter 5. TP-Link Cloud Service	21
5. 1. Register a TP-Link ID.....	22
5. 2. Change Your TP-Link ID Information.....	22
5. 3. Manage the User TP-Link IDs	23
5. 3. 1.Add an TP-Link ID to Manage the Router	24
5. 3. 2.Remove TP-Link ID(s) From Managing the Router	24
5. 4. Manage the Router via TP-Link Tether App	25
5. 4. 1.Install the Tether App on Your Smartphones or Tablets.....	25
5. 4. 2.Locally Manage Your Router Using the Tether App	25
5. 4. 3.Remotely Manage Your Router Using the Tether App	26
Chapter 6. Guest Network.....	29
6. 1. Create a Network for Guests	30
6. 2. Customize Guest Network Options.....	31
Chapter 7. USB Settings.....	32

7. 1.	Access the USB Storage Device	33
7. 1. 1.	Access the USB Device Locally	33
7. 1. 2.	Access the USB Device Remotely	34
7. 1. 3.	Customize the Access Settings	36
7. 2.	Media Sharing	40
7. 3.	Printer Sharing	40
7. 4.	Time Machine	44
Chapter 8. Parental Controls		45
Chapter 9. QoS		49
9. 1.	Prioritize Internet Traffic with QoS	50
9. 2.	Update the Database	51
Chapter 10. Network Security		53
10. 1.	Protect the Network from Cyber Attacks	54
10. 2.	Access Control	55
10. 3.	IP & MAC Binding	56
Chapter 11. NAT Forwarding		58
11. 1.	Share Local Resources on the Internet by Virtual Servers	59
11. 2.	Open Ports Dynamically by Port Triggering	60
11. 3.	Make Applications Free from Port Restriction by DMZ	61
11. 4.	Make Xbox Online Games Run Smoothly by UPnP	62
Chapter 12. VPN Server		64
12. 1.	Use OpenVPN to Access Your Home Network	65
12. 1. 1.	Step 1. Set up OpenVPN Server on Your Router	65
12. 1. 2.	Step 2. Configure OpenVPN Connection on Your Remote Device	66
12. 2.	Use PPTP VPN to Access Your Home Network	66
12. 2. 1.	Step 1. Set up PPTP VPN Server on Your Router	67
12. 2. 2.	Step 2. Configure PPTP VPN Connection on Your Remote Device	68
Chapter 13. Customize Your Network Settings		72
13. 1.	Change the LAN Settings	73
13. 2.	Configure to Support IPTV Service	73
13. 3.	Specify DHCP Server Settings	75
13. 4.	Set Up a Dynamic DNS Service Account	76
13. 5.	Create Static Routes	78

13. 6. Specify Wireless Settings	80
13. 7. Use WPS for Wireless Connection	81
13. 7. 1.Set the Router’s PIN.....	81
13. 7. 2.Use the WPS Wizard for Wi-Fi Connections.....	82
Chapter 14.Manage the Router	83
14. 1. Set Up System Time	84
14. 2. Control LEDs	85
14. 3. Test the Network Connectivity	86
14. 4. Upgrade the Firmware	87
14. 4. 1.Online Upgrade	87
14. 4. 2.Manual Upgrade	88
14. 4. 3.Restore Interrupted Upgrade after Power Failure	89
14. 5. Backup and Restore Configuration Settings	89
14. 6. Change the Administrator Account.....	90
14. 7. Password Recovery.....	91
14. 8. Local Management	92
14. 9. Remote Management.....	93
14. 10. System Log.....	94
14. 11. Monitor the Internet Traffic Statistics.....	96
FAQ	98

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

Conventions

In this guide the following conventions are used:

Convention	Description
<u>Underlined</u>	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	<ul style="list-style-type: none">✎ click to edit the corresponding entry.🗑 click to delete the corresponding entry.🔍 click to enable or disable the corresponding entry.📄 click to view more information about items on the page.

More Info

The latest software, management app and utility can be found at [Download Center](http://www.tp-link.com/support) at <http://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 <http://www.tp-link.com>.

A Technical Support Forum is provided for you to discuss our products at <http://forum.tp-link.com>.

Our Technical Support contact information can be found at the [Contact Technical Support](http://www.tp-link.com/support) page at <http://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:

- [Product Overview](#)
- [Panel Layout](#)

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. Panel Layout

1.2.1. The Front Panel



The router's LEDs (view from left to right) are located on the front. 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 firmware is being upgraded. Do not disconnect or power off your modem router.
	Off	Power is off.
 (2.4GHz Wireless)	On	The 2.4GHz wireless band is enabled.
	Off	The 2.4GHz wireless band is disabled.
 (5GHz Wireless)	On	The 5GHz wireless band is enabled.
	Off	The 5GHz wireless band is disabled.
 (Ethernet)	On	At least one powered-on device is connected to the router's LAN port.
	Off	No powered-on device is connected to the router's LAN 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.
 (WPS)	On/Off	This light remains on for 5 minutes when a WPS connection is established, then turns off.
	Flashing	WPS connection is in progress. This may take up to 2 minutes.
 (USB)	On	The inserted USB device is ready to use.
	Flashing	A USB device is being identified.
	Off	No device is plugged into the USB port.

1.2.2. The Side and Back Panel



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

Item	Description
WiFi Button	Press the WiFi button for about 2 seconds to turn on or off the wireless function of your router.
USB 3.0 Port	For connecting to a 3.0 USB device or a 3.0 USB printer. It is also compatible with USB 2.0 devices.
USB 2.0 Port	For connecting to a 2.0 USB device or a 2.0 USB printer.
Reset/WPS Button	Press this button for less than 5 seconds to enable the WPS function.
	Press this button for more than 5 seconds to reset the router to its factory default settings.
Internet Port	For connecting to the DSL/Cable modem, or an Ethernet.
Ethernet Ports (1/2/3/4)	For connecting the router to your PC or other Ethernet network devices.
Power On/Off Button	Press this button to power on or off the router.
Power Port	For connecting the router to power socket via the provided power adapter.
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:

- [Position Your Router](#)
- [Connect Your Router](#)

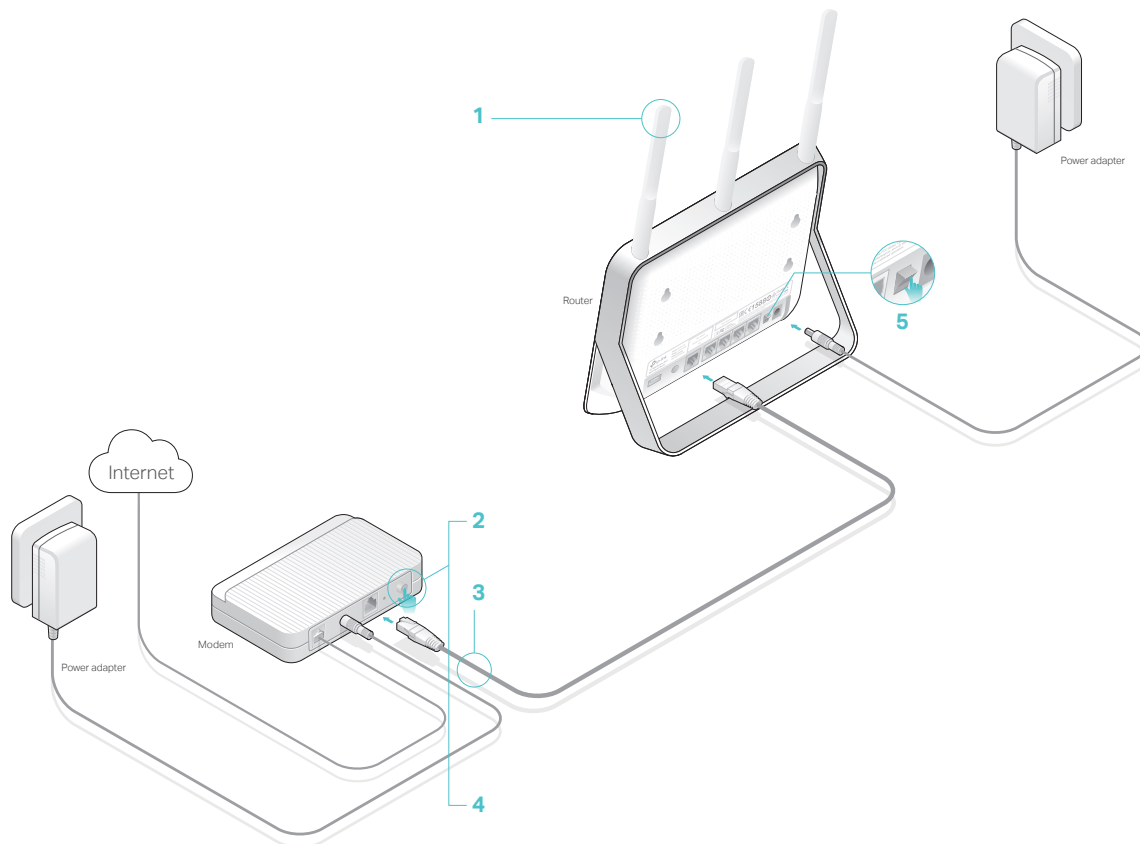
2.1. Position Your Router

- 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

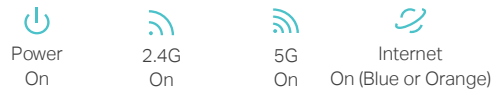
Follow the steps below to connect your router.

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 1, 5 and 6 to complete the hardware connection.





1. Install the antennas.

2. Turn off the modem, and remove the backup battery if it has one.
3. Connect the modem to your router's Internet port with an Ethernet cable.
4. Turn on the modem, and then wait about **2 minutes** for it to restart.
5. Connect the power adapter to the router and turn on the router.
6. Verify that the following LEDs are on and solid to confirm the hardware is connected correctly.



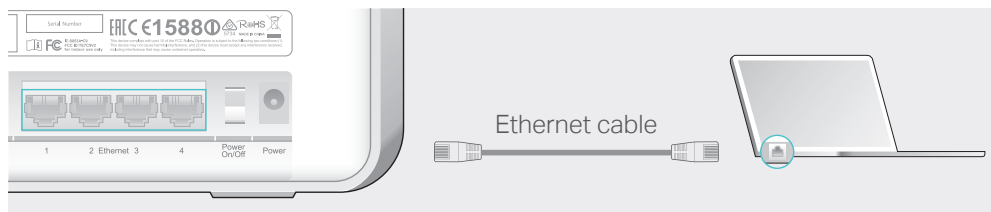
Note:

If the 2.4G LED  and 5G LED  are off, press and hold the WiFi button on the side panel for about 2 seconds. Within a few seconds, both the LEDs should turn solid on.

7. Connect your computer to the router.

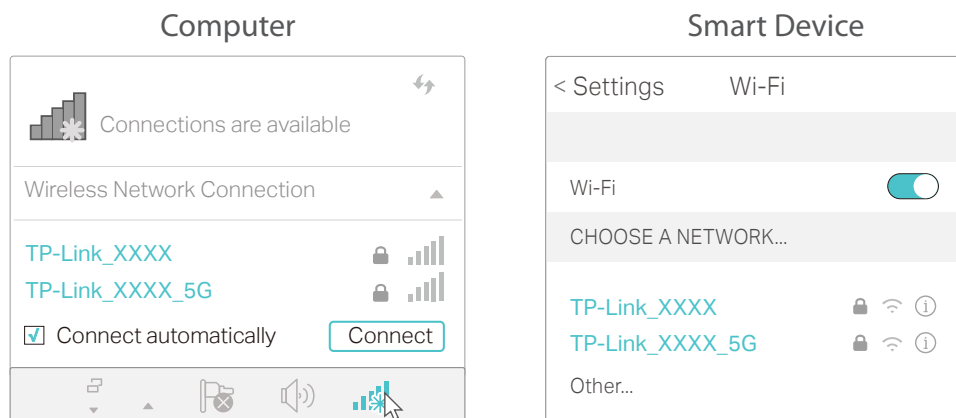
• **Method 1: Wired**

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**

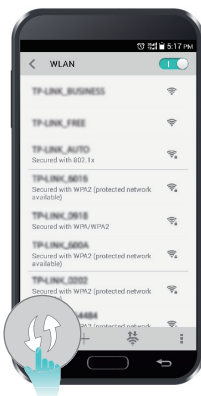
Wireless devices that support WPS, including Android phones, tablets, most USB network adapters, can be connected to your router through this method.

Note:

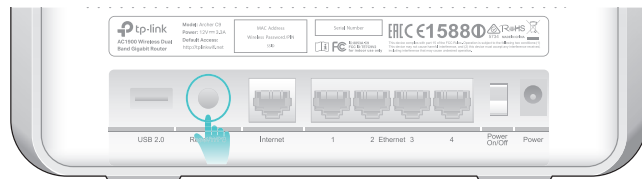
- WPS is not supported by iOS devices.
- The WPS function cannot be configured if the wireless function of the router is disabled. Also, the WPS function will be disabled if your wireless encryption is WEP. Please make sure the wireless function is enabled and is configured with the appropriate encryption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

1) Tab the WPS icon on the device's screen. Here we take the Android phone for instance.

2) Within two minutes, press the WPS button on your router.



close to



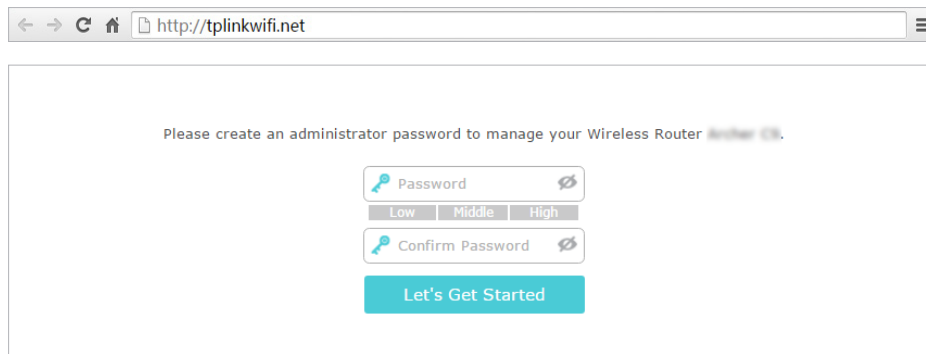
Chapter 3

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, Macintosh 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 purpose. Then click [Let's Get Started](#) to log in.



The screenshot shows a web browser window with the address bar displaying <http://tplinkwifi.net>. The main content area contains the following text and form elements:

Please create an administrator password to manage your Wireless Router Router OS.

There are two password input fields, each with a key icon on the left and a toggle icon on the right:

- The first field is labeled "Password". Below it are three buttons: "Low", "Middle", and "High".
- The second field is labeled "Confirm Password".

Below the input fields is a teal button labeled "Let's Get Started".

Note:

- If the login window does not appear, please refer to the [FAQ](#) Section.
- If you have registered a TP-Link ID and bind your cloud router to it, the login password you created here should be ineffective. 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:

- [Use Quick Setup Wizard](#)
- [Manually Set up Your Internet Connection](#)
- [Set Up an IPv6 Internet Connection](#)

4.1. Use Quick Setup Wizard

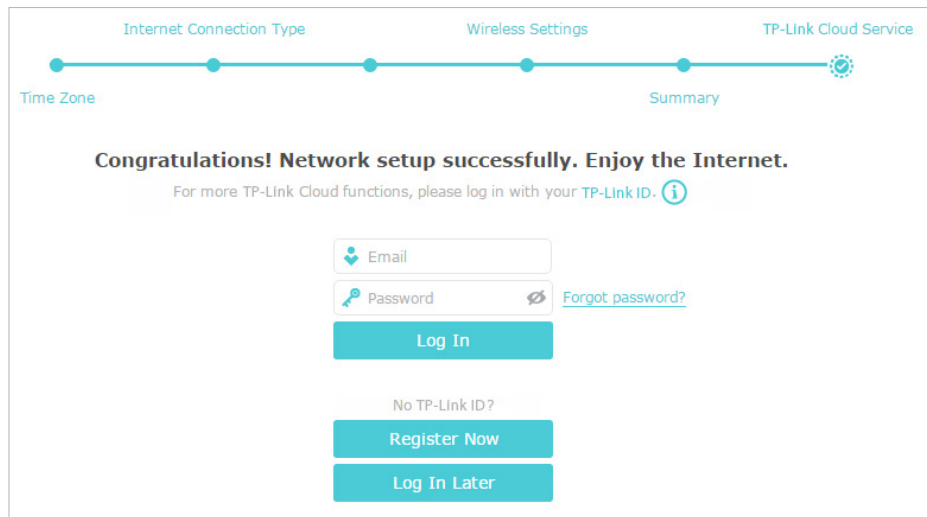
The Quick Setup Wizard will guide you through the process to set up your router.

☞ **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 your TP-Link ID or the password you set for the router.
2. Click **Quick Setup** on the top of the page. 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, etc.), log in with your TP-Link ID or click **Resigter 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](#) section.
- If you do not want to register a TP-Link ID for now, you may click **Log In Later** 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.

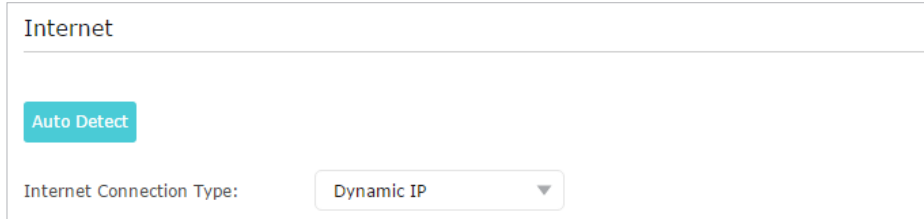
4.2. Manually Set up Your Internet Connection

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 **Basic > Internet**.

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



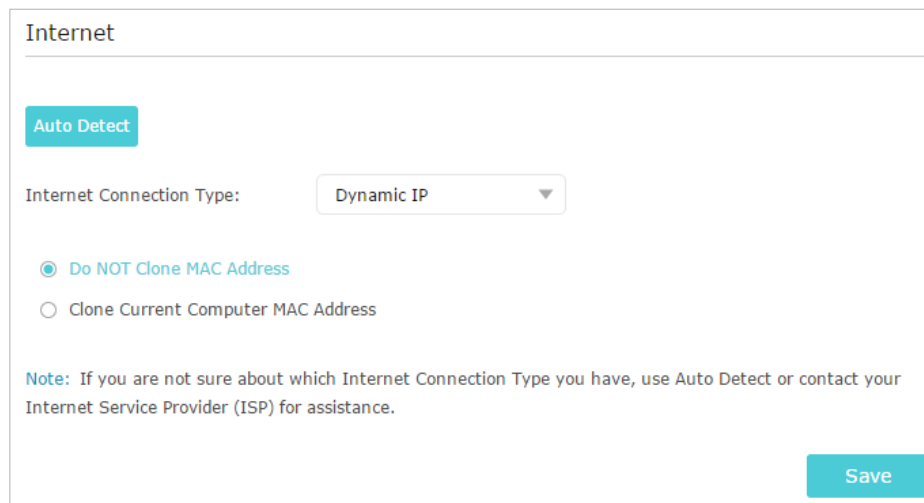
The screenshot shows a web interface titled "Internet". At the top left is a teal "Auto Detect" button. Below it, the text "Internet Connection Type:" is followed by a dropdown menu currently displaying "Dynamic IP".

Note:

If you are unsure of what your connection type is, click [Auto Detect](#). Since different connection types need different cables and connection information, you can also refer to the demonstrations in Step 4 to determine your connection type.

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

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



The screenshot shows the same "Internet" configuration page. The "Auto Detect" button is still present. The "Internet Connection Type:" dropdown menu is set to "Dynamic IP". Below this, there are two radio button options: "Do NOT Clone MAC Address" (which is selected) and "Clone Current Computer MAC Address". A blue note below the options reads: "Note: If you are not sure about which Internet Connection Type you have, use Auto Detect or contact your Internet Service Provider (ISP) for assistance." At the bottom right, there is a teal "Save" button.

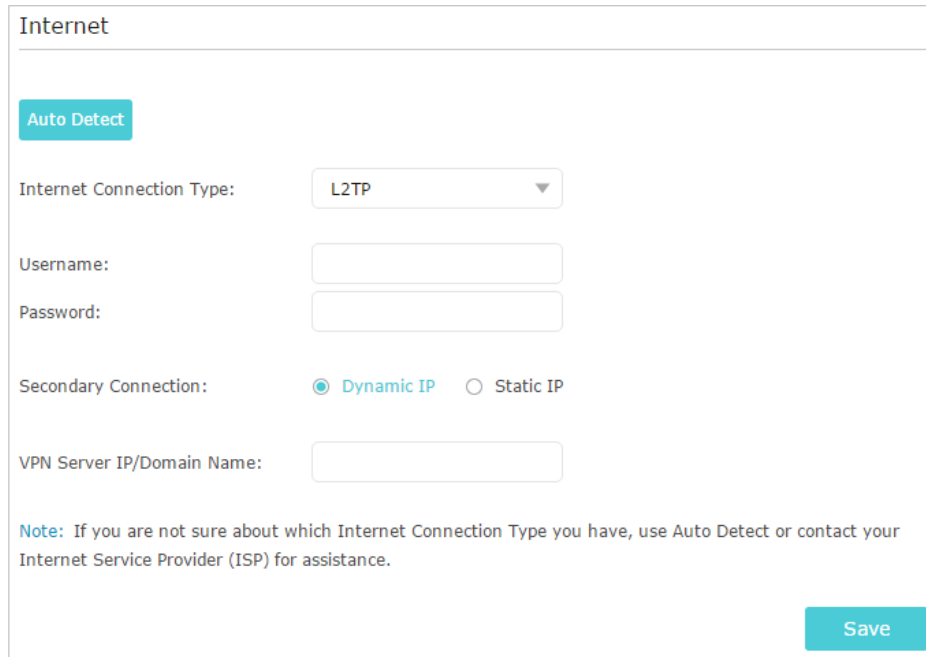
- 2) If you choose [Static IP](#), enter the information provided by your ISP in the corresponding fields.

The screenshot shows the 'Internet' configuration page. At the top left, there is a teal button labeled 'Auto Detect'. Below it, the 'Internet Connection Type:' is set to 'Static IP' in a dropdown menu. There are five input fields for 'IP Address:', 'Subnet Mask:', 'Default Gateway:', 'Primary DNS:', and 'Secondary DNS:'. The 'Secondary DNS:' field has '(Optional)' written next to it. A teal 'Save' button is located at the bottom right. A blue note at the bottom left reads: 'Note: If you are not sure about which Internet Connection Type you have, use Auto Detect or contact your Internet Service Provider (ISP) for assistance.'

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

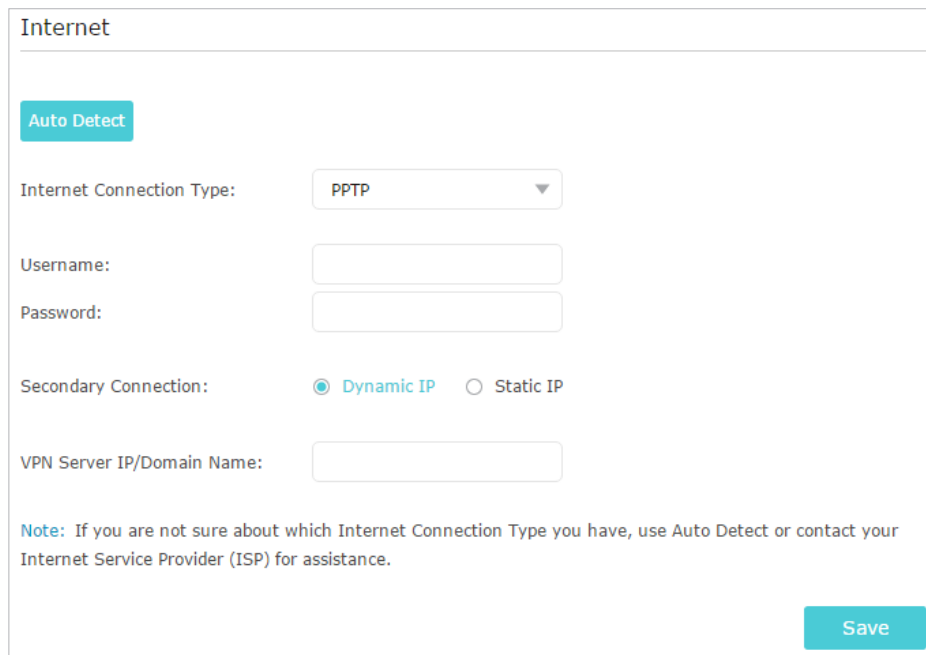
The screenshot shows the 'Internet' configuration page. At the top left, there is a teal button labeled 'Auto Detect'. Below it, the 'Internet Connection Type:' is set to 'PPPoE' in a dropdown menu. There are two input fields for 'Username:' and 'Password:'. A teal 'Save' button is located at the bottom right. A blue note at the bottom left reads: 'Note: If you are not sure about which Internet Connection Type you have, use Auto Detect or contact your Internet Service Provider (ISP) for assistance.'

- 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.



The screenshot shows the 'Internet' configuration page. At the top left is a teal 'Auto Detect' button. Below it, the 'Internet Connection Type' dropdown menu is set to 'L2TP'. There are empty input fields for 'Username:' and 'Password:'. The 'Secondary Connection' section has 'Dynamic IP' selected with a radio button, and 'Static IP' is unselected. A 'VPN Server IP/Domain Name:' input field is also empty. A teal 'Save' button is located at the bottom right. A blue note at the bottom left reads: 'Note: If you are not sure about which Internet Connection Type you have, use Auto Detect or contact your Internet Service Provider (ISP) for assistance.'

- 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.

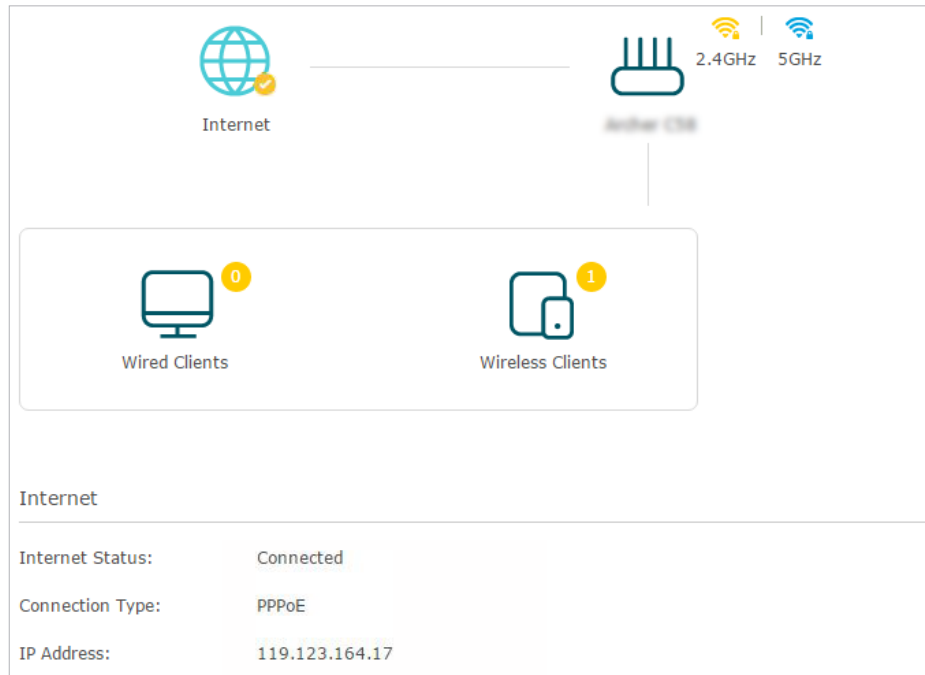


The screenshot shows the 'Internet' configuration page. At the top left is a teal 'Auto Detect' button. Below it, the 'Internet Connection Type' dropdown menu is set to 'PPTP'. There are empty input fields for 'Username:' and 'Password:'. The 'Secondary Connection' section has 'Dynamic IP' selected with a radio button, and 'Static IP' is unselected. A 'VPN Server IP/Domain Name:' input field is also empty. A teal 'Save' button is located at the bottom right. A blue note at the bottom left reads: 'Note: If you are not sure about which Internet Connection Type you have, use Auto Detect or contact your Internet Service Provider (ISP) for assistance.'

5. Click **Save**.
6. To check your internet connection, click **Network Map** on the left of the page. After the connection succeeds, the screen will display as follows. Here we take PPPoE as an example.

Note:

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



Tips:

- If your internet connection type is [BigPond Cable](#), please go to [Advanced > Network > Internet](#) to set your router.
- 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.

4.3. 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 <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. 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. Red blanks must be filled in.
 - 1) [Static IP](#): Fill in blanks and click [Save](#).

The screenshot shows the 'Internet' configuration page. At the top, the title 'Internet' is displayed. Below it, there is a toggle switch for 'IPv6' which is turned on. The 'Internet Connection Type' is set to 'Static IP' in a dropdown menu. Below this, there are four empty text input fields for 'IPv6 Address:', 'Default Gateway:', 'Primary DNS:', and 'Secondary DNS:'. The 'MTU Size' is set to '1500' bytes, with a note that says '(The default is 1500, do not change unless necessary.)'. A 'Save' button is located at the bottom right of the form.

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

The screenshot shows the 'Internet' configuration page. At the top, the title 'Internet' is displayed. Below it, there is a toggle switch for 'IPv6' which is turned on. The 'Internet Connection Type' is set to 'Dynamic IP (SLAAC/DHCPv6)' in a dropdown menu. Below this, there are three text input fields for 'IPv6 Address:', 'Primary DNS:', and 'Secondary DNS:', each containing '::.'. There are two buttons: 'Renew' (highlighted in blue) and 'Release' (grey). Below these buttons is a section for 'Advanced' settings, which is currently collapsed. A 'Save' button is located at the bottom right of the form.

- 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, please uncheck the box for [Use the same session with IPv4 connection](#) and manually enter the username and password for the IPv6 connection.

The screenshot shows the 'Internet' configuration panel. At the top, the title 'Internet' is displayed. Below it, the 'IPv6' toggle switch is turned on. The 'Internet Connection Type' dropdown menu is set to 'PPPoE'. A checkbox labeled 'PPPoE same session with IPv4 connection' is checked. The 'IPv6 Address' field contains '::'. There is an 'Advanced' section with a downward arrow icon. At the bottom, there are three buttons: 'Connect' (highlighted in teal), 'Disconnect' (greyed out), and 'Save' (teal).

- 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**.

The screenshot shows the 'Internet' configuration panel. The title 'Internet' is at the top. The 'IPv6' toggle switch is turned on. The 'Internet Connection Type' dropdown menu is set to '6to4 Tunnel'. Below this, there are three fields: 'IPv4 Address' with value '0.0.0.0', 'IPv4 Subnet Mask' with value '0.0.0.0', and 'IPv4 Default Gateway' with value '0.0.0.0'. The 'TUNNEL ADDRESS' field contains '::'. There is an 'Advanced' section with a downward arrow icon. At the bottom, there are three buttons: 'Connect' (highlighted in teal), 'Disconnect' (greyed out), and 'Save' (teal).

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

The screenshot shows the 'Internet' configuration panel. The title 'Internet' is at the top. The 'IPv6' toggle switch is turned on. The 'Internet Connection Type' dropdown menu is set to 'Pass-Through (Bridge)'. At the bottom right, there is a 'Save' button (teal).

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](#).

Tips:

Find [Help](#) on the management interface to know more about items.

LAN


Assigned Type: DHCPv6 SLAAC+Stateless DHCP SLAAC+RDNSS

Address Prefix: /64

Address: ::/0

[Save](#)

6. Click [Status](#) to check whether you have successfully set up an IPv6 connection. The following figure is an example of a successful PPPoE configuration.

Internet 		IPv4 IPv6
MAC Address:	00-0A-EB-AC-25-01	
IP Address:	2001:c68:202:2111::120/64	
Default Gateway:	fe80::edd0:80d2:7f5e:6be7	
Primary DNS:	2001:c68:202:2111::1	
Secondary DNS:	2001:c68:202:2111::2	
Connection Type:	PPPoE	

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 on your smartphone or tablet. 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.

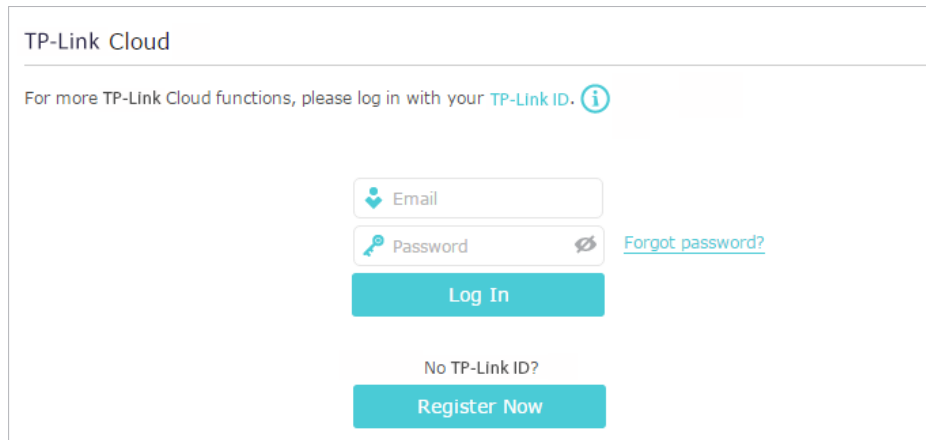
It contains the following sections:

- [Register a TP-Link ID](#)
- [Change Your TP-Link ID Information](#)
- [Manage the User TP-Link IDs](#)
- [Manage the Router via TP-Link Tether App](#)


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 [Basic > TP-Link Cloud](#).
3. Click [Register Now](#) and follow the instructions to register a TP-Link ID.



TP-Link Cloud

For more TP-Link Cloud functions, please log in with your TP-Link ID. 

Email

Password [Forgot password?](#)


Log In

No TP-Link ID?

Register Now

4. After activating your TP-Link ID, come back to the TP-Link Cloud page to log in. The first-time login TP-Link ID will be bound automatically to your cloud router as an [Admin](#).

■ Note:


- Once the router is bound to your TP-Link ID, you need to log in to the router with the TP-Link ID.
- The TP-Link ID also can be registered via the TP-Link Tether app. Please refer to [Install the Tether App on Your Smartphones or Tablets](#) to install the app. Launch the app, tap  in the top-left corner of the screen and tap [Login](#), and then click [New User](#) to register a new one.
- If you want to unbind the admin TP-Link ID from your router, please go to [Basic > TP-Link Cloud](#), click [Unbind](#) in the [Device Information](#) section.

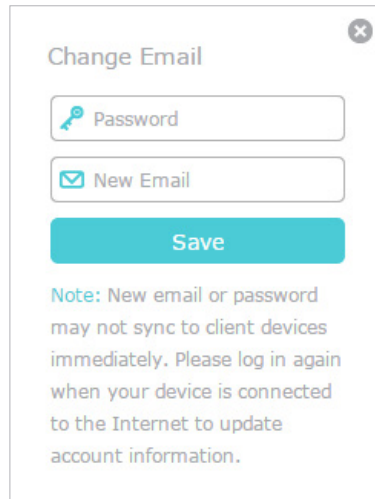
5.2. Change Your TP-Link ID Information

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 [Basic > TP-Link Cloud](#), and focus on the [Account Information](#) section.

➤ **Change your email address**

1. Click  behind the Email.
2. Enter the password of your TP-Link ID, then the new email address. And click [Save](#).



Change Email


Password

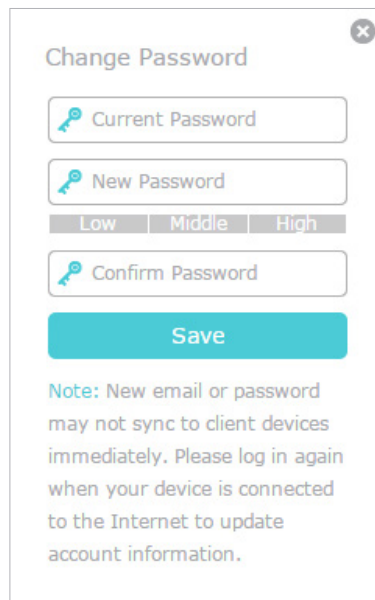
New Email

Save

Note: New email or password may not sync to client devices immediately. Please log in again when your device is connected to the Internet to update account information.

➤ **Change your password**

1. Click  behind the Password.
2. Enter the current password, then a new password twice. And click [Save](#).



Change Password

Current Password

New Password

Low Middle High

Confirm Password

Save

Note: New email or password may not sync to client devices immediately. Please log in again when your device is connected to the Internet to update account information.

5.3. Manage the User TP-Link IDs

The first-time login TP-Link ID will be bound automatically to your router as an [Admin](#) account. An admin account can add or remove other TP-Link IDs to the same router as [Users](#). Admin account and User accounts both can monitor and manage the router locally or remotely, except that user accounts cannot:

- Reset the router to its factory default settings from the web management page or the Tether app.

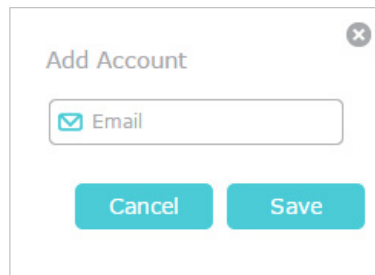
- Add/remove other TP-Link IDs to/from the router.

5.3.1. Add an TP-Link ID to Manage the Router

1. Visit <http://tplinkwifi.net>, and log in with your TP-Link ID.
2. Go to **Basic** > **TP-Link Cloud**, 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 refer to [Install the Tether App on Your Smartphones or Tablets](#) to install the app. Launch the app, tap  in the top-left corner of the screen and tap **Login**, and then click **New User** to register a new one.



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

Bound Accounts				
+ Bind - Unbind				
<input type="checkbox"/>	ID	Email	Binding Date	Role
<input type="checkbox"/>	1	zhengun_100@163.com	16/11/2016	Admin
<input type="checkbox"/>	2	zhengun100@163.com	16/11/2016	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 **Basic** > **TP-Link Cloud**, and focus on the **Bound Accounts** section.
3. Check the box(es) of the TP-Link ID(s) you want to remove and click **Unbind**.

Bound Accounts				
+ Bind - Unbind				
<input type="checkbox"/>	ID	Email	Binding Date	Role
<input type="checkbox"/>	1	zhengun_100@163.com	16/11/2016	Admin
<input type="checkbox"/>	2	zhengun100@163.com	16/11/2016	User

(Update)

5.4. Manage the Router via TP-Link Tether App


5.4.1. Install the Tether App on Your Smartphones or Tablets

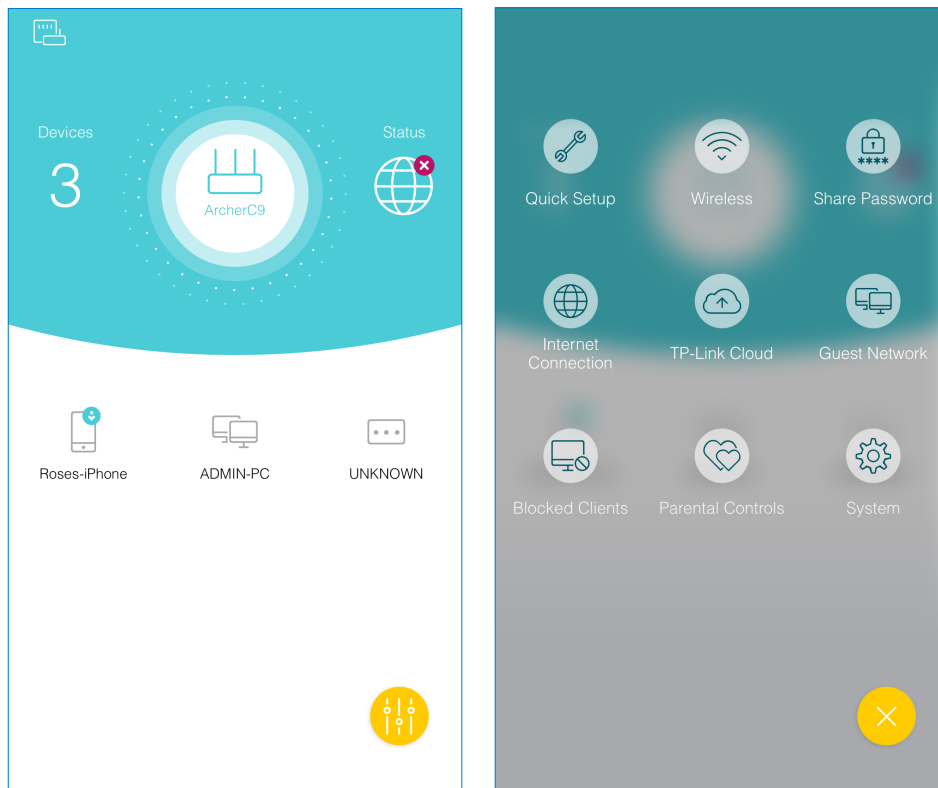
The Tether app runs on iOS and Android devices like smartphones and tablets.

Open the Apple App Store or Google Play and search the key word “TP-Link Tether” or simply scan the QR code to download and install the app.



5.4.2. Locally Manage Your Router Using the Tether App

1. Connect your device to the router's wireless network.
2. 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.
3. On the home page, you can check your internet status and connected devices, or click  to manage your router locally as needed.

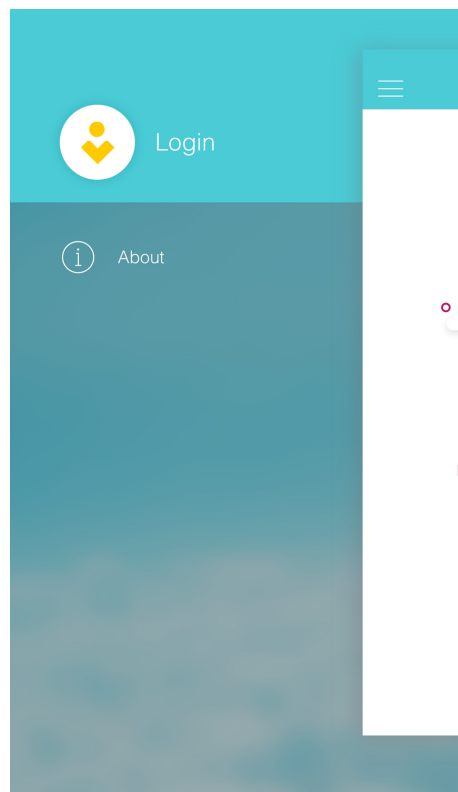


5.4.3. Remotely Manage Your Router Using the Tether App

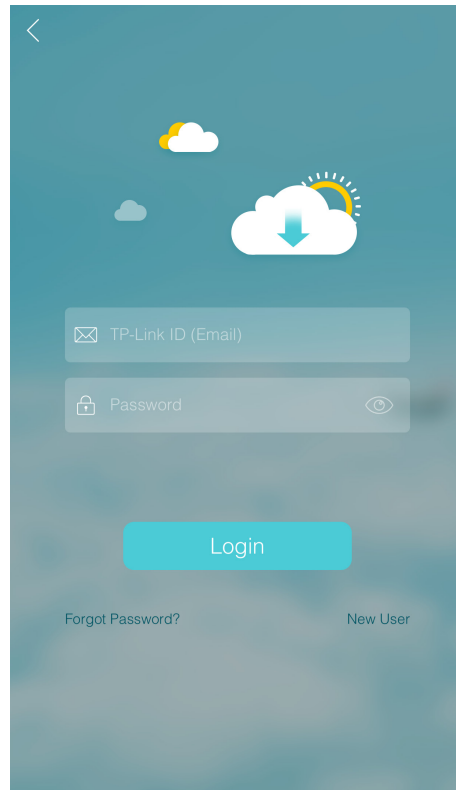
- **To remotely access your router on the Tether app, you need the following:**
 - **TP-Link Tether app with latest version:** Refer to [Install the Tether App on Your Smartphones or Tablets](#) to install the Tether app, or update the installed one to its latest version.
 - **TP-Link Cloud router with the latest firmware:** Refer to [Upgrade the Firmware](#) to update your router with the latest firmware version.
 - **The TP-Link ID bound to your router:** If you don't have a TP-Link ID, refer to [Register a TP-Link ID](#) to register one.
 - **Internet Access:** Make sure your smartphone can access the internet whether through the mobile network or a Wi-Fi network.

- **To remotely access your router from your smart devices:**

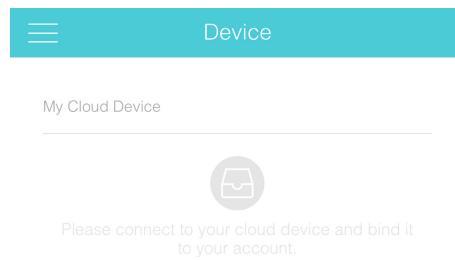
1. Launch the Tether app. Tap  in the top-left corner of the screen and tap [Login](#).




2. Enter the email address and the password of your TP-Link ID, and then tap [Login](#).

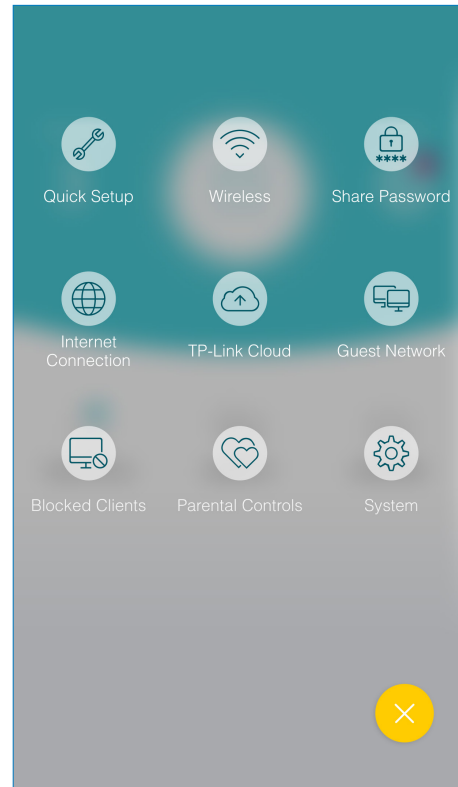
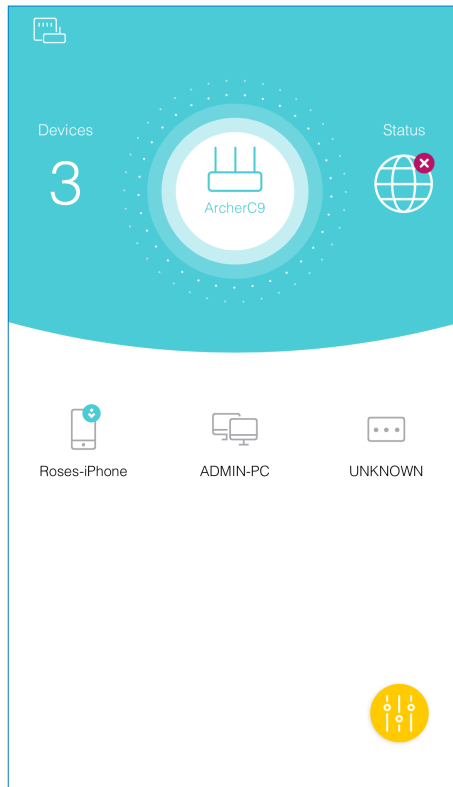


3. Select the model of your router from the [My Cloud Device](#) list.



(Update)

4. On the home page, you can check your internet status and connected devices, or click  to manage your router locally as needed.



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](#)

6.1. 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](#) > [Guest Network](#). Locate the [Wireless](#) section.
3. Create a guest network as needed.
 - 1) Select [2.4GHz](#) or [5GHz](#) network and tick the [Enable Guest Network](#) checkbox.
 - 2) Customize the SSID. Don't select [Hide SSID](#) unless you want your guests to manually input the SSID for guest network access.
 - 3) Set [Security](#) to [WPA/WPA2 Personal](#), keep the default [Version](#) and [Encryption](#) values, and customize your own password.

Wireless 2.4GHz | 5GHz

2.4GHz Wireless: Enable Guest Network

Network Name (SSID): Hide SSID

Security: No Security WPA/WPA2-Personal

Version: Auto WPA-PSK WPA2-PSK

Encryption: Auto TKIP AES

Password:

[Save](#)

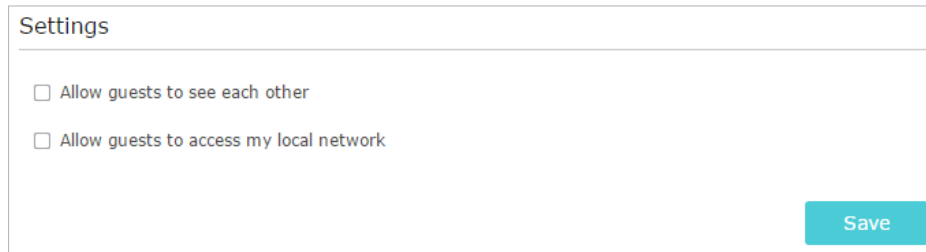
4. Click [Save](#). Now your guests can access your guest network using the SSID and password you set!

 **Tips:**

To view guest network information, go to [Advanced](#) > [Status](#) and locate the [Guest Network](#) section.

6.2. 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](#) > [Guest Network](#). Locate the [Settings](#) section.
3. Customize guest network options according to your needs.



Settings

Allow guests to see each other

Allow guests to access my local network

Save

- [Allow guests to see each other](#)

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

- [Allow guests to access my local network](#)

Check this box 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!

 **Tips:**

To view guest network information, go to [Advanced](#) > [Status](#) and locate the [Guest Network](#) section.

Chapter 7

USB Settings

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

The router supports USB external flash drives, hard drives and USB printers.

It contains the following sections:

- [Access the USB Storage Device](#)
- [Media Sharing](#)
- [Printer 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 Settings](#) > [Device Settings](#) and click [Safely 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.

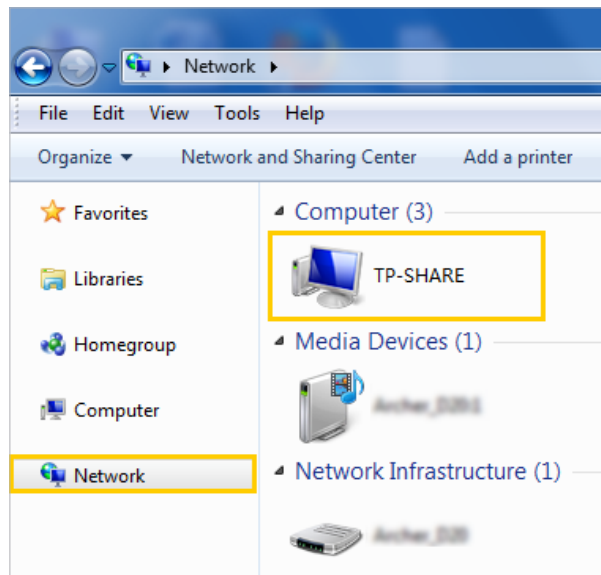
Windows computer

➤ **Method 1:**

Go to [Computer](#) > [Network](#), then click the Network Server Name ([TP-SHARE](#) by default) in the [Computer](#) section.

■ **Note:**

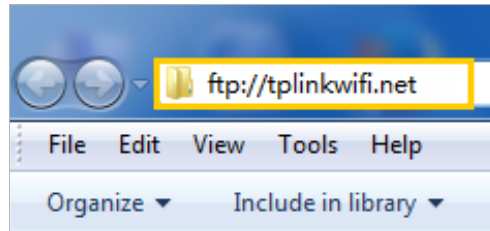
Operations in different systems are similar. Here we take Windows 7 as an example.



Windows computer

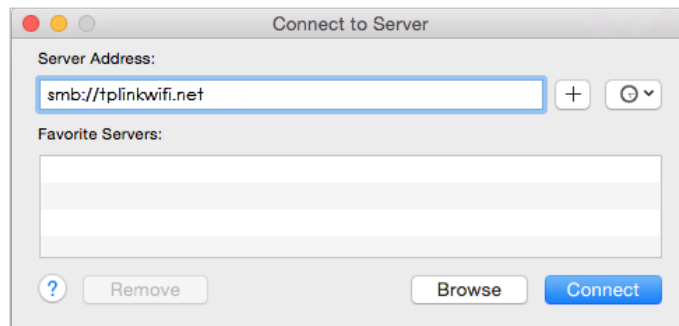
➤ Method 2:

Open the [Windows Explorer](#) (or go to [Computer](#)) and type the server address `\\tplinkwifi.net` or `ftp://tplinkwifi.net` in the address bar, then press [Enter](#).



Mac

- 1) Select [Go](#) > [Connect to Server](#).
- 2) Type the server address `smb://tplinkwifi.net`.
- 3) Click [Connect](#).



- 4) When prompted, select the [Guest](#) radio box. (If you have set up a username and a password to deny anonymous access to the USB disks, you should select the [Registered User](#) radio box. To learn how to set up an account for the access, refer to [To Set up Authentication for Data Security](#).)

Tablet

Use a third-party app for network files management.

📌 Tips:

You can also access your USB disk by using your Network/Media Server Name as the server address. Refer to [To Customize the Address of the USB Disk](#) 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.

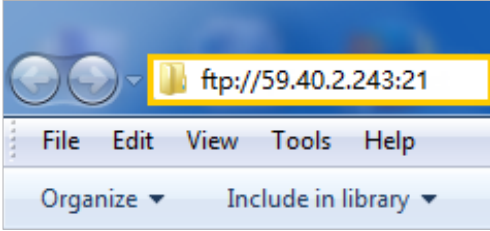
1. Visit <http://tplinkwifi.net>, and log in with your TP-Link ID or the password you set for the router.
2. Go to **Advanced > USB Settings > Sharing Access** page.
3. Select the check box to enable **FTP(via Internet)**, and then click **Save**.

Sharing Settings

Network/Media Server Name:

Enable	Access Method	Link	Port
<input checked="" type="checkbox"/>	Network Neighborhood	\\TP-Share	---
<input checked="" type="checkbox"/>	FTP	ftp://192.168.0.99:21	21
<input checked="" type="checkbox"/>	FTP (Via Internet)	ftp://0.0.0.0:21 Edit	<input type="text" value="21"/>

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

Computer	<ol style="list-style-type: none"> 1) Open the Windows Explorer (or go to Computer, only for Windows users) or open a web browser. 2) Type the server address in the address bar: Type in ftp://<WAN IP address of the router>:<port number> (such as ftp://59.40.2.243:21). If you have specified the domain name of the router, you can also type in ftp://<domain name>:<port number> (such as ftp://MyDomainName:21) <div data-bbox="644 527 1134 756" style="text-align: center; margin: 10px 0;">  </div> <ol style="list-style-type: none"> 3) Press Enter on the keyboard. 4) Access with the username and password you set in To Set up Authentication for Data Security. <p><small>🔗 Tips:</small> You can also access the USB disk via a third-party app for network files management, which can resume broken file transfers.</p>
	Tablet

🔗 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 <http://tplinkwifi.net>, and log in with your TP-Link ID or the password you set for the router.
2. Go to [Advanced](#) > [USB Settings](#) > [Sharing Access](#) page.

➤ **To Customize the Address of the USB Disk**

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

1. On the Sharing Settings part, make sure [Network Neighborhood](#) is ticked, and enter a Network/Media Server Name as you like, such as [MyShare](#), then click [Save](#).

Sharing Settings

Network/Media Server Name:

Enable	Access Method	Link	Port
<input checked="" type="checkbox"/>	Network Neighborhood	\\MyShare	---
<input checked="" type="checkbox"/>	FTP	ftp://192.168.0.99:21	21
<input type="checkbox"/>	FTP (Via Internet)	ftp://0.0.0.0:21 Edit	<input type="text" value="21"/>

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

➤ **To Only Share Specific Content**

1. Focus on the **Folder Sharing** section. Click the button to disable **Share All**, then click **Add** to add a new sharing folder.

Folder Sharing

Share All: Toggle On to share all files and folders or keep it Off to only share the specified folders. [+ Add](#) [- Delete](#)

<input type="checkbox"/>	ID	Folder Name	Folder Path	Media Sharing	Volume Name	Status	Modify
<input type="checkbox"/>	--	--	--	--	--	--	--

Volume Name:

Folder Path:

Folder Name:

Allow Guest Network Access

Enable Authentication

Enable Write Access

Enable Media Sharing


2. Select the **Volume Name** and **Folder Path**, then enter a **Folder Name** as you like.

3. Decide the way you share the folder:

- **Enable Authentication:** Tick to enable authentication for this folder sharing, and you will be required to log in to the Sharing Account to access the USB disk. Refer to [To Set up Authentication for Data Security](#) to learn more.
- **Enable Write Access:** If you tick this check box, network clients can modify this folder.
- **Enable Media Sharing:** Tick to enable media sharing for this folder, and you can view photos, play music and watch movies stored on the USB disk directly from DLNA-supported devices. Click [Media Sharing](#) to learn more.


4. Click **OK**.


Tips:

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

USB Storage Device

Scan

Kingston DataTraveler G2  Safely Remove

ID	Volume Name	Capacity	Free Space	Active
1	sda1	7.5 GB	1.6 GB	

➤ **To Set up Authentication for Data Security**

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


1. On the Sharing Account part, Choose [Use Default Account](#) or [Use New Account](#). The username and password are both **admin** for default account. If your choose [Use New Account](#), you have to customize the username and a password.

Sharing Account

Content sharing requires a sharing account. You can use the default account or create a new one

Account: [Use Default Account](#) [Use New Account](#)

Username:

Password: 

Save

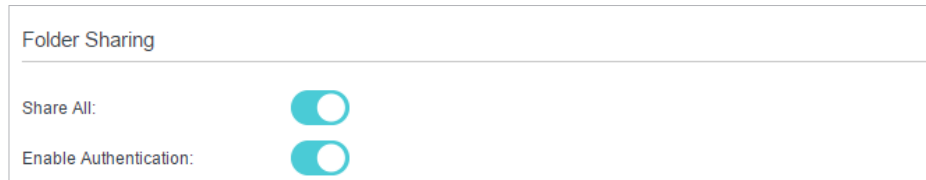
Note:

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. Enable **Authentication** to apply the account you just set.

- If you leave **Share All** enabled, click the button to enable **Authentication** for all folders.

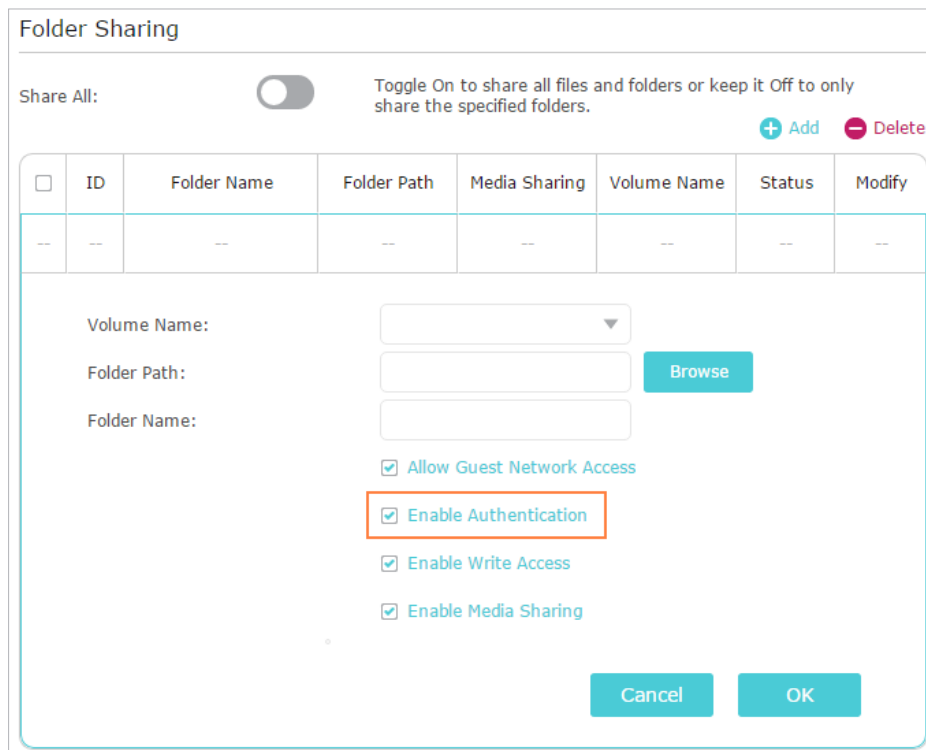


Folder Sharing

Share All:

Enable Authentication:

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



Folder Sharing

Share All: Toggle On to share all files and folders or keep it Off to only share the specified folders. + Add - Delete

<input type="checkbox"/>	ID	Folder Name	Folder Path	Media Sharing	Volume Name	Status	Modify
--	--	--	--	--	--	--	--

Volume Name:

Folder Path: Browse

Folder Name:

Allow Guest Network Access

Enable Authentication

Enable Write Access

Enable Media Sharing

Cancel OK

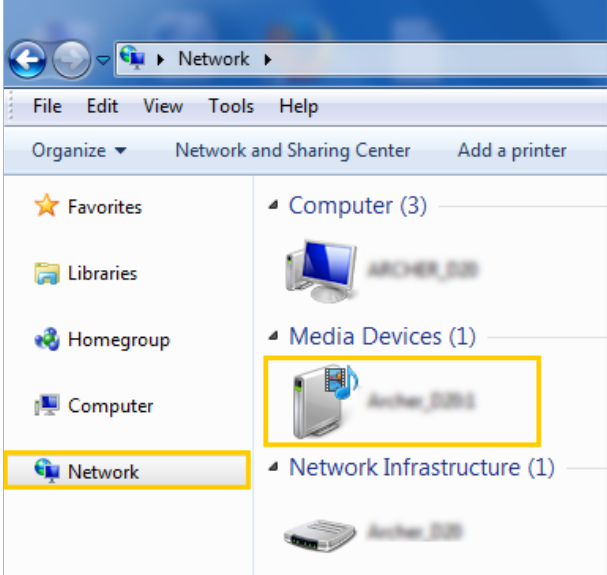
Note:

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 Disk](#).

7.2. Media Sharing

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

1. When your USB disk 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 disks.
2. Refer to the following table for detailed instructions.

Windows Computer	<ul style="list-style-type: none"> • Go to Computer > Network, then click the Media Server Name (Model number-share by default) in the Media Devices section. <p>Note: Here we take Windows 7 as an example.</p>  <p>The screenshot shows the Windows 7 Network and Sharing Center window. The 'Network' link in the left sidebar is highlighted with a yellow box. In the main content area, under the 'Media Devices (1)' section, a device icon is also highlighted with a yellow box. The device name is partially visible as 'Archer_2011'.</p>
Tablet	<ul style="list-style-type: none"> • Use a third-party DLNA-supported player.

7.3. Printer Sharing

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

Note:

Printers unlisted on this page may be incompatible with the router:

<http://www.tp-link.com/common/compatible/print-server/>.

1. **Install the Driver of the Printer**

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

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

2. Connect the Printer

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

3. Install the TP-Link USB Printer Controller Utility

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


- 1) Visit <http://www.tp-link.com/app/usb/>.
- 2) Click **PC Utility** (for Windows users) or **Mac Utility** to download the installation file and uncompress it.

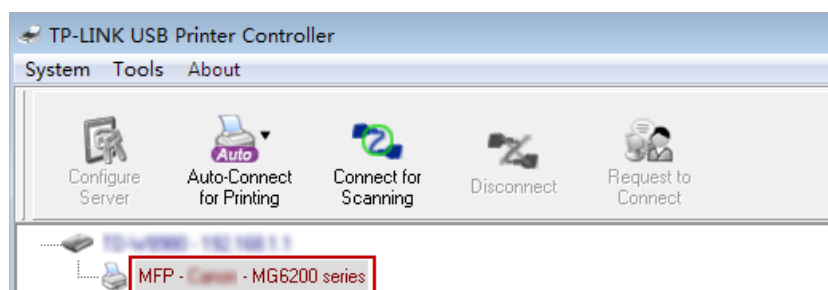


- 3) Open the uncompressed folder, then click **TP-Link USB Printer Controller Setup** (for Windows users) or **TP-Link UDS Printer Controller Installer** (for Mac users) to install the utility.

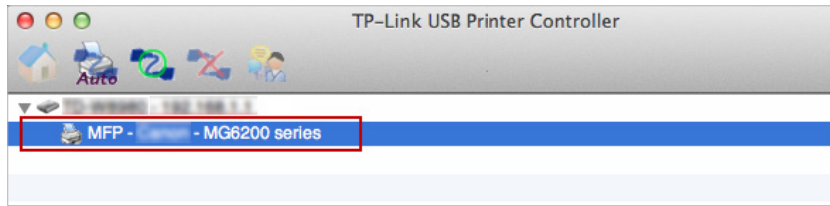
4. Access the Printer

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

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

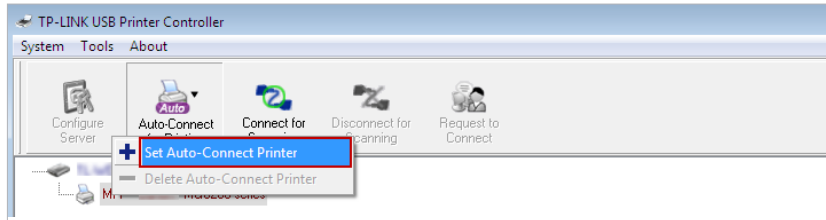


Windows

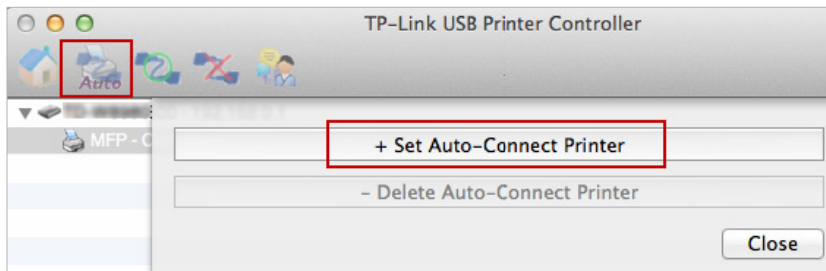


Mac

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

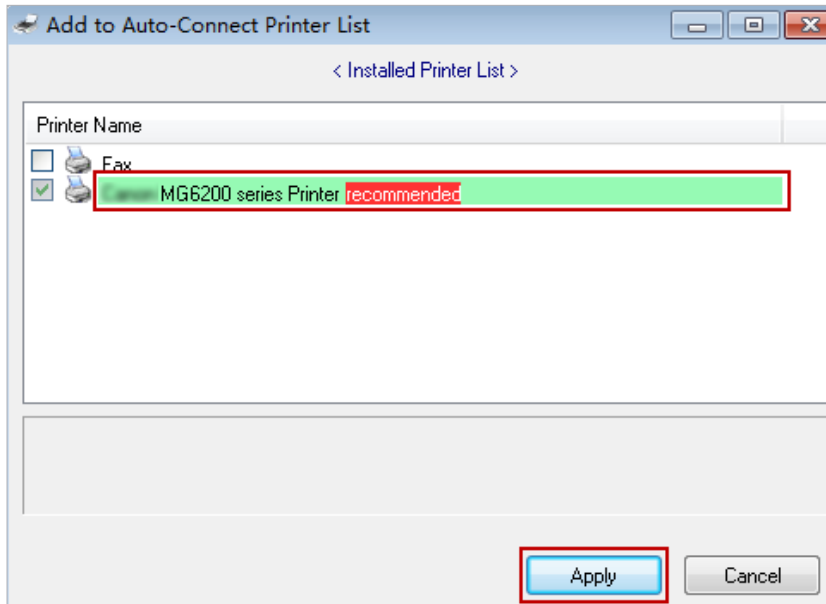


Windows

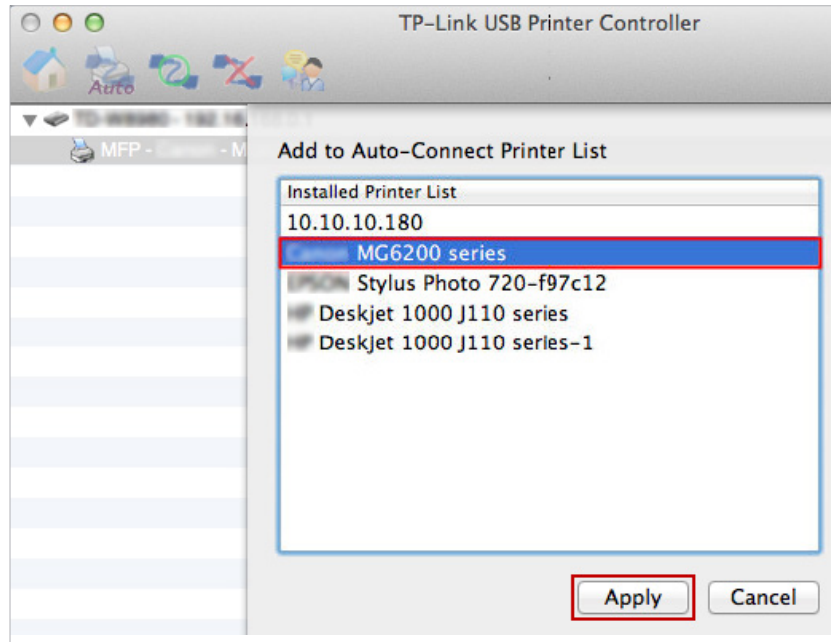


Mac

- 4) Select the printer you share, then click [Apply](#).

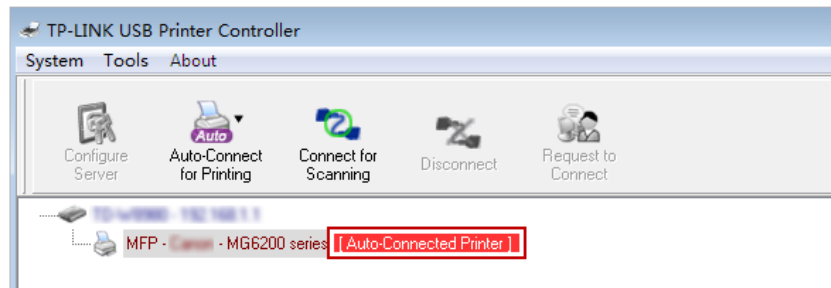


Windows

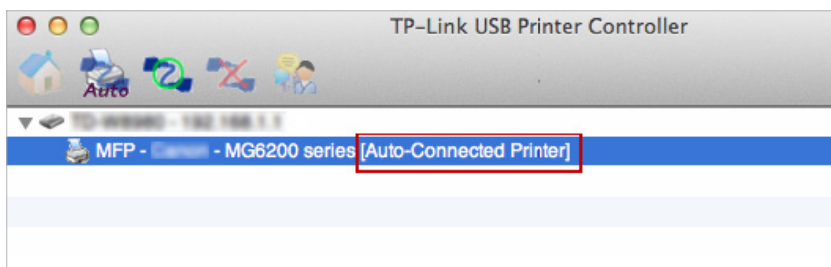


Mac

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



Windows



Mac

Tips:

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

7.4. Time Machine

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

1. Visit <http://tplinkwifi.net>, and log in with your TP-Link ID or the password you set for the router.
2. Go to [Advanced](#) > [USB Settings](#) > [Time Machine](#) page.
3. Check the box to enable Time Machine.

Time Machine: [Enable](#)

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

Parental Controls

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

I want to:

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

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

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** and enable **Parental Controls**.

3. Click **Add**. And then Click **View Existing Devices**, and select the access device. Or, input the **Device Name** and **MAC Address** manually.

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

Device Name: **View Existing Devices**

MAC Address:

Internet Access Time: (Optional)

Enable This Entry

Cancel **OK**

ID	Device Name	MAC Address	Internet Access Time	Description	Status	Modify
1	PC1	C0-4A-00-1A-C3-46				

4. Click the icon to set the Internet Access Time. Drag the cursor over the appropriate cell(s) and click **OK**.

System Time: Sat 25th Jun 2016 02:31:34 undefined

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
00:00							
01:00							
02:00							
03:00							
04:00							
05:00							
06:00							
07:00							
08:00							
09:00							
10:00							
11:00							
12:00							
13:00							
14:00							
15:00							
16:00							
17:00							
18:00							
19:00							
20:00							
21:00							
22:00							
23:00							
24:00							

Time

Cancel Reset Save

- Enter a **Description** for the entry, check the box for **Enable This Entry**, and then click **OK**.
- Select **Whitelist** as the restriction policy.

Content Restriction

Restriction Policy: Blacklist **Whitelist**

Tips:

- With **Blacklist** selected, the controlled devices cannot access any websites containing the specified keywords during the Internet Access Time period.
- With **Whitelist** selected, the controlled devices can only access websites containing the specified keywords during the Internet Access Time period.

- Click **+ Add a New Domain Name**. Enter a website and click **Save**.

You can add up to 32 keywords for either Blacklist or Whitelist. Below are some sample entries to allow access.

- For Whitelist:** Enter a web address (e.g. wikipedia.org) to allow access only to its related websites. If you wish to block all Internet browsing access, do not add any keyword to the **Whitelist**.
- For Blacklist:** Specify a web address (e.g. wikipedia.org), a web address keyword (e.g. wikipedia) or a domain suffix (eg. .edu or .org) to block access only to the websites containing that keyword or suffix.

Content Restriction

Restriction Policy: Blacklist Whitelist

[+ Add a New Domain Name](#)

[-](#)

[Save](#)

Done!

Now you can control your children's Internet access as needed.

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.

It contains the following sections:

- [Prioritize Internet Traffic with QoS](#)
- [Update the Database](#)

9.1. Prioritize Internet Traffic with QoS

QoS (Quality of Service) is designed to ensure the efficient operation of the network when come across network overload or congestion.

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 phone.

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](#) > [Settings](#).
 - 3) Select [Enable QoS](#).
 - 4) Input the maximum upload and download bandwidth provided by your Internet service provider. 1Mbps equal s to 1000Kbps.
 - 5) Click [Advanced](#) and drag the scroll bar to set the bandwidth priority percentage.
 - 6) Click [Save](#).

The screenshot shows the QoS configuration page. At the top, there is a section for 'QoS' with a checkbox for 'Enable QoS' which is checked. Below this, there are two input fields for bandwidth: 'Upload Bandwidth' and 'Download Bandwidth', both set to '1000' with a unit dropdown menu set to 'Mbps'. There is an 'Advanced' toggle switch which is turned on. Below the toggle, there are three horizontal sliders for priority levels: 'High Priority' is set to 60%, 'Middle Priority' is set to 30%, and 'Low Priority' is set to 10%. A 'Save' button is located at the bottom right of the form.

2. Add a middle priority QoS rule for the phone.
 - 1) Select [By Device](#) and then click [View Existing Devices](#).

QoS Rule

Type: By Device By Application

Device Name: [View Existing Devices](#)

MAC Address:

[Cancel](#) [OK](#)

2) Choose the respective device from the list.

Access Devices List

ID	Device Name	IP Address	MAC Address	Operation
1	iPhone	192.168.0.175	1C-1A-C0-3B-28-4B	Choose
2	ASUS AC	192.168.0.157	C0-4A-00-1A-C3-45	Choose

3) Click **OK**.

QoS Rule

Type: By Device By Application

Device Name: [View Existing Devices](#)

MAC Address:

[Cancel](#) [OK](#)

3. Refer to the steps above to apply other QoS rules if any.

Note:

If you want to delete a QoS rule, click to remove the responding rule from the list.

Done!

Now QoS is implemented to prioritize Internet traffic.

9.2. Update the Database

This function can help to add or update the applications the router supports. If the applications you need are not listed in the Application list, you can try to download the new version and upgrade the database. New database versions are posted at www.tp-link.com and can be downloaded for free.

1. Download the latest QoS database from our website www.tp-link.com.
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](#) > [QoS](#) > [Database](#). Click [Browse](#) to select the database upgrade file, and then click [Upgrade](#). Wait until the upgrade is completed and do not operate during the process.

Database Upgrade

New Database File: [Browse](#)

Database Version: Qos database 1.5.0

[Upgrade](#)

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 against DoS (Denial of Service) attacks from flooding your network with server requests using DoS Protection, block or allow specific client devices to access your network using Access Control, or you can prevent ARP spoofing and ARP attacks using IP & MAC Binding.

It contains the following sections:

- [Protect the Network from Cyber Attacks](#)
- [Access Control](#)
- [IP & MAC Binding](#)

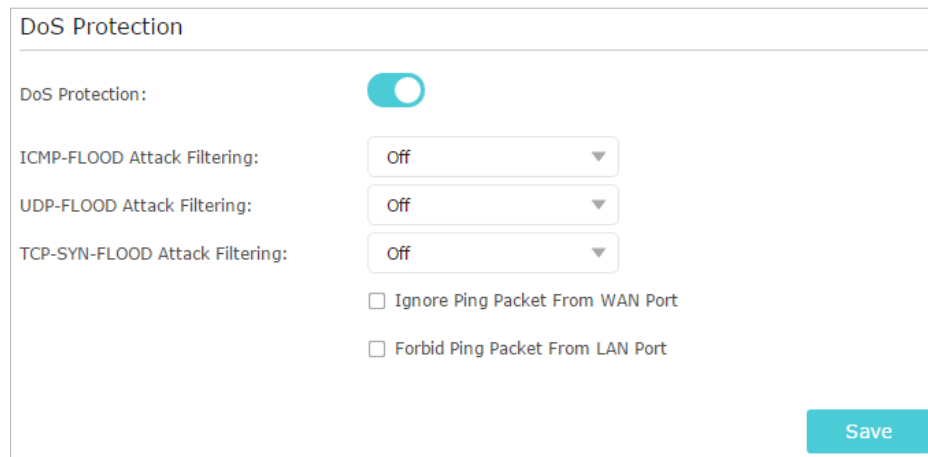
10.1. Protect the Network from Cyber Attacks

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

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

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

1. Visit <http://tplinkwifi.net>, and log in with your TP-Link ID or the password you set for the router.
2. Go to [Advanced](#) > [Security](#) > [Settings](#).



DoS Protection

DoS Protection:

ICMP-FLOOD Attack Filtering:

UDP-FLOOD Attack Filtering:

TCP-SYN-FLOOD Attack Filtering:

Ignore Ping Packet From WAN Port

Forbid Ping Packet From LAN Port

Save

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

 **Tips:**

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

Blocked DoS Host List			
Host Number: 0		Refresh Delete	
<input type="checkbox"/>	ID	IP Address	MAC Address
--	--	--	--

- If you want to ignore the ping packets from the WAN port, select [Ignore Ping Packet From WAN Port](#); if you want to ignore the ping packets form the LAN port, select [Ignore Ping Packet From LAN Port](#).
- Click [Save](#).

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?

- Visit <http://tplinkwifi.net>, and log in with your TP-Link ID or the password you set for the router.
- Go to [Advanced](#) > [Security](#) > [Access Control](#).
- Enable [Access Control](#).

Access Control	
Access Control:	<input checked="" type="checkbox"/>

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

To block specific device(s)

- Select [Blacklist](#) and click [Save](#).

Access Mode	
Default Access Mode:	<input checked="" type="radio"/> Blacklist <input type="radio"/> Whitelist
Save	

- Select the device(s) to be blocked in the [Online Devices](#) table by ticking the box.

- 3) Click **Block** above the **Online Devices** table. The selected devices will be added to **Devices in Blacklist** automatically.

Online Devices							
						Refresh	Block
<input checked="" type="checkbox"/>	ID	Device Name	IP Address	MAC Address	Connection Type	Modify	
<input checked="" type="checkbox"/>	1	Roses-iPhone	192.168.0.175	1C-1A-C0-3B-28-4B	Wireless		
--	2	ADMIN-PC	192.168.0.157	C0-4A-00-1A-C3-45	Wireless		

To allow specific device(s)

- 1) Select **Whitelist** and click **Save**.

Access Mode	
Default Access Mode:	<input type="radio"/> Blacklist <input checked="" type="radio"/> Whitelist
<input type="button" value="Save"/>	

- 2) Click **Add** in the **Devices in Whitelist** section. Enter the **Device Name** and **MAC Address** (You can copy and paste the information from the **Online Devices** list if the device is connected to your network).

Devices in Whitelist					
				+ Add	- Delete
<input type="checkbox"/>	ID	Device Name	MAC Address	Modify	
--	--	--	--	--	
Device Name:		<input type="text"/>			
MAC Address:		<input type="text"/>			
				<input type="button" value="Cancel"/>	<input type="button" value="OK"/>

- 3) Click **OK**.

Done!

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

10.3. IP & MAC Binding

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