



User Guide

AC750 Wi-Fi Travel Router
TL-WR902AC

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About This Guide

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

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

Conventions

In this guide the following conventions are used:

Convention	Description
<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 and so on.
>	The menu structures to show the path to load the corresponding page. For example, Advanced > Wireless > MAC Filtering means the MAC Filtering function page is under the Wireless menu that is located in the Advanced tab.
 Note:	Ignoring this type of note might result in a malfunction or damage to the device.
 Tips:	Indicates important information that helps you make better use of your device.

Speed/Coverage Disclaimer

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

More Info

The latest software, management app and utility are available from the [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:

- [Product Overview](#)
- [Appearance](#)

1.1. Product Overview

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

1.2. Appearance



LED Explanation

LED	Status	Indication
⏻ (Power)	On	The router is on.
	Blinking	The router is initializing or being upgraded.
🌐 (Internet)	On	The internet is available.
	Off	The internet is unavailable.
📶 (Wireless)	On	The wireless network is enabled.
	Blinking	The router is connecting to the host network when in Range Extender or Client Mode.
	Off	The wireless network is disabled.
🔌 (USB)	On	A USB device is connected.
	Off	No USB device is connected

LED	Status	Indication
WPS	On	The light stays on for 5 minutes when a WPS connection is established, then goes off.
	Blinking	WPS connection is in progress.
	Off	No WPS connection is established.

Port and Button Description

Item	Description
Mode Switch	This button is used to switch the operating mode of the router.
WAN/LAN	This port functions as the WAN port in Router mode and as the LAN port in Hotspot, Access Point, Range Extender and Client mode.
Power	The port is used to connect the power adapter.
3G/4G USB	This port is used to plug a 3G/4G modem or a USB disk into. * 3G/4G modem is only supported in some regions.
WPS	To establish WPS connection, press this button.

Chapter 2

Connect the Hardware

This chapter contains the following sections:

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

2.1. Position Your Router

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

2.2. Connect Your Router

There are five operating modes supported by this router: Standard Wireless Router, Access Point, Range Extender, Client and Hotspot Router. Please choose an operating mode you need and carry out the corresponding steps.

2.2.1. Standard Wireless Router Mode

Create an instant private wireless network and share internet to multiple Wi-Fi devices. This mode is suitable for hotel rooms and home networks.

1. Switch the operating mode to **Share ETH** and connect the hardware according to Step A to D.
2. Connect your device to the router wirelessly. The Wi-Fi network name and password are on the router's label.

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



2.2.2. Access Point Mode

Create a wireless network from an Ethernet connection. This mode is suitable for dorm rooms or homes where there's already a wired router but you need a wireless network.

1. Switch the operating mode to **AP/Rng Ext/Client** and connect the hardware according to Step A to D.
2. Connect your device to the router wirelessly. The Wi-Fi network name and password are on the router's label.

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



2.2.3. Range Extender Mode

Repeat signal from an existing wireless network. This mode is suitable to extend wireless coverage, reaching devices that were previously too far from your primary router to maintain a stable wireless connection.

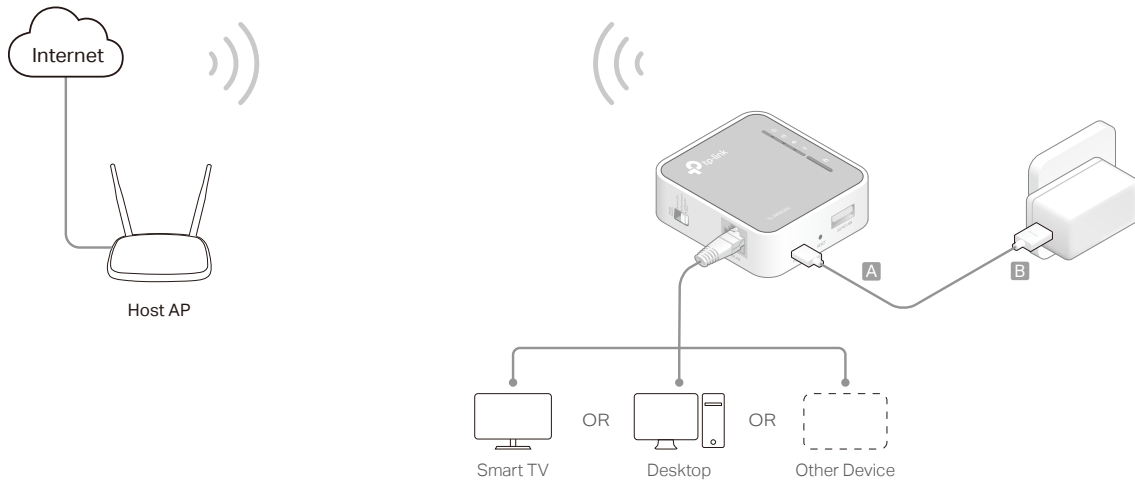
1. Switch the operating mode to **AP/Rng Ext/Client** and plug the router into an electrical outlet near your host AP.
2. Connect your device to the router wirelessly or via an Ethernet cable. The Wi-Fi network name and password are on the router's label.



2.2.4. Client Mode

In this mode, this device can be connected to another device via an Ethernet cable and act as an adapter to grant your wired devices access to a wireless network, especially for a smart TV, media player, or game console.

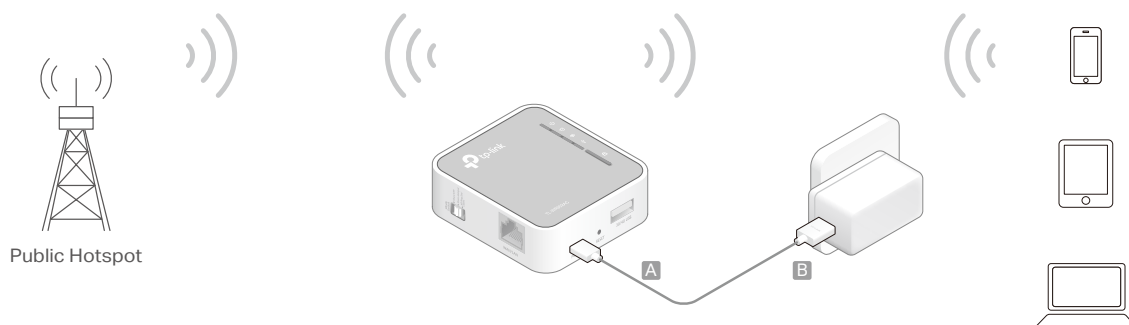
1. Switch the operating mode to **AP/Rng Ext/Client** and plug the router into an electrical outlet within the signal range of your host AP.
2. Connect your device to the router wirelessly or via an Ethernet cable. The Wi-Fi network name and password are on the router's label.



2. 2. 5. Hotspot Router Mode

In Hotspot Router mode, the router enables multiple users to share internet connection from WISP.

1. Switch the operating mode to **Share Hotspot** and plug the router into an electrical outlet within the range of the public hotspot.
2. Connect your device to the router wirelessly or via an Ethernet cable. The Wi-Fi network name and password are on the router's label.



Chapter 3

Set Up Internet Connection Via Quick Setup Wizard

This chapter introduces how to connect your router to the internet via the web-based Quick Setup Wizard.

It contains the following sections:

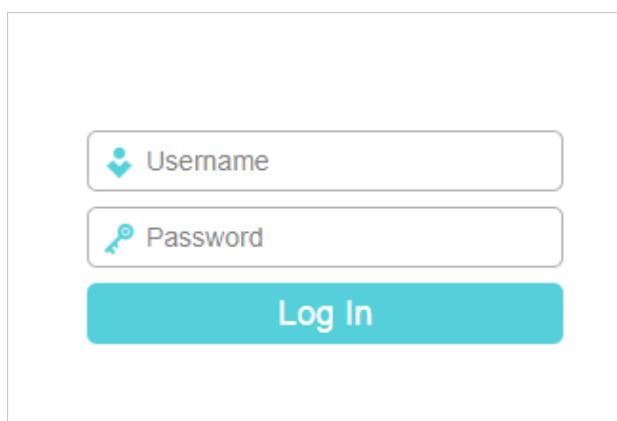
- [Log In to the Router](#)
- [Configure the Router](#)

3. 1. Log In to the Router

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

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 log in with the username and password you set for the router. The default one is [admin](#) (all lowercase) for both username and password.

A screenshot of a web-based login form for a router. It features two input fields: the top one is labeled 'Username' with a user icon, and the bottom one is labeled 'Password' with a key icon. Below these fields is a prominent teal button labeled 'Log In'.

■ **Note:** If the login window does not appear, please refer to [FAQ](#).

3. 2. Configure the Router

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

3. 2. 1. Standard Wireless Router Mode

1. Select the [WAN Connection Type](#). When using the router in a hotel room or a small office, select [Dynamic IP](#).

■ **Note:**

- If you use DSL line and you are only provided an account name and a password by your ISP, choose [PPPoE](#).
- If you use cable TV or fiber cable, choose [Dynamic IP](#).
- If you are provided more information such as IP address, Subnet Mask and Default Gateway, choose [Static IP](#).
- Contact your ISP if you are not sure about the WAN connection information. You can also select [Auto-Detect](#) to let the router detect your connection type automatically.

Quick Setup - WAN Connection Type

The Quick Setup is preparing to set up your internet connection, please choose one type below according to your ISP. The detailed description will be displayed after you choose the corresponding type.

- Auto-Detect
- Dynamic IP (Most Common Cases)
- Static IP
- PPPoE
- L2TP
- PPTP

Note: For users in some areas, please contact your ISP to choose connection type manually.

2. In this case, we take **Dynamic IP** for instance. Please select to clone the mac address or not and click **Next**. For other connection types, please enter the parameters provided by your ISP, and then click **Next**.

Quick Setup - MAC Clone

MAC(Media Access Control) address is a unique identifier that identifies your computer or device in the network. Some of the ISPs may register the MAC address of your computer which firstly connects to their services, and would not allow the Internet connection for any new computer or router.TP-LINK router can help you to "clone" or replicate the registered MAC address of your first computer.

In most of the cases, there is no need to clone the MAC address. But if you can't get the Internet connection after Quick Setup, please run it again and clone the MAC address for a try.

- No, I do NOT need to clone MAC address.
- YES, I need to clone MAC address.

Note: please make sure your current computer is the one initially connected to your modem or ISP's device.

3. Select the wireless band you want to enable. It's suggested to keep the two bands both enabled. And click **Next**.

Quick Setup - Wireless Dual Band Selection

Please select or clear the check box to enable or disable a given radio band.

- 2.4GHz
- 5GHz

4. Either customize your **Wireless Network Name** and **Wireless Password** for the 2.4GHz/5GHz wireless network or keep the default ones , and then click **Next**.

Quick Setup - Wireless 2.4GHz

Wireless Network Name: (Also called SSID)

Security:

- WPA2-PSK (Recommended)
Wireless Password
(Enter ASCII characters between 8 and 63 or Hexadecimal characters between 8 and 64.)
- Disable Wireless Security

More Advanced Wireless Settings

5. Click [Save](#) to apply the settings.

3.2.2. Access Point Mode

1. Select [Access Point](#) for the operation mode of the router.

Quick Setup - Operation Mode

Choose Operation Mode:

- Access Point
Set up Wi-Fi on an existing wired network
- Range Extender
- Client

2. Either customize your [Wireless Network Name](#) and [Wireless Password](#) for the 2.4GHz/5GHz wireless network or keep the default ones, and then click [Next](#).

Quick Setup - Wireless 2.4G

Wireless Network Name: (Also called SSID)

Security:

- WPA2-PSK (Recommended)
Wireless Password
(Enter ASCII characters between 8 and 63 or Hexadecimal characters between 8 and 64.)
- Disable Wireless Security

More Advanced Wireless Settings

3. Select the LAN IP type of the router or leave the default settings [Smart IP](#) for most cases, and then click [Next](#).

Quick Setup - Network Setting

LAN Type:

Note: The IP parameters cannot be configured if you have chosen Smart IP(DHCP)
(In this situation the device will help you configure the IP parameters automatically as you need).

IP Address:

Subnet Mask:

We recommend you configure this AP with the same IP subnet and subnet mask, but different IP address from your root AP/Router.

DHCP Server: Enable Disable

4. Click **Finish** to apply the settings.

3. 2. 3. Range Extender Mode

1. Select **Range Extender** for the operation mode of the router.

Quick Setup - Operation Mode

Choose Operation Mode:

Access Point

Range Extender
Extend the range of an existing Wi-Fi

Client

2. Click **Connect** to connect to the host network in the **AP List** page.

AP List

The scanned APs are as follows

AP numbers: 8

ID	Band	BSSID	SSID	Signal strength	Channel	Encryption	Connect
1	2.4GHz	50:C7:BF:7C:8B:41	TP-LINK_8B42	87	11	WPA2-PSK/AES	Connect
2	2.4GHz	56:C7:BF:7C:8B:42	AD7200	86	11	WPA2-PSK/AES	Connect
3	2.4GHz	50:C7:BF:FE:21:34	Archer_C5400X_2_4G	86	2	WPA2-PSK/AES	Connect
4	2.4GHz	BC:5F:F6:12:2A:FF	MERCUSYS_2B00	85	3	None	Connect
5	2.4GHz	56:C7:BF:74:FE:4B		83	8	WPA2-PSK/AES	Connect
6	2.4GHz	50:C7:BF:74:FE:4B	Deco M5	83	8	WPA-PSK/AES	Connect
7	2.4GHz	70:4F:57:02:DB:40		82	3	WPA2-PSK/AES	Connect
8	2.4GHz	76:4F:57:02:DB:40	Deco (PW: 12345678)	82	3	WPA-PSK/AES	Connect

3. Enter the password of the host network and then either copy the **Wireless Name** from the host network or customize it.

Quick Setup - Wireless

SSID(to be bridged):

MAC Address(to be bridged): e.g. 00:1D:0F:11:22:33

Key Type:

Encryption:

Password:

Wireless Name of Range Extender: Copy from Root AP

 Customize

4. Select the LAN IP type of the router or leave the default settings **Smart IP** for most cases, and then click **Next**.

Quick Setup - Network Setting

LAN Type:

Note: The IP parameters cannot be configured if you have chosen Smart IP(DHCP)
(In this situation the device will help you configure the IP parameters automatically as you need).

IP Address:

Subnet Mask:

We recommend you configure this AP with the same IP subnet and subnet mask, but different IP address from your root AP/Router.

DHCP Server: Enable Disable

5. Click **Finish** to apply the settings.
6. Relocate the router about **halfway** between your host network and the Wi-Fi dead zone. The extended network **shares** the **same Wi-Fi password** as that of your host network, but may have different wireless network name if you have customized it during the configuration.

3. 2. 4. Client Mode

1. Select **Client** for the operation mode of the router.

Quick Setup - Operation Mode

Choose Operation Mode:

Access Point

Range Extender

Client

Act as a "Wireless Adapter" to connect your wired devices(e.g.Blu-ray player,smart TV) to existing Wi-Fi

2. Click **Connect** to connect to the host network in the **AP List** page.

AP List

The scanned APs are as follows

AP numbers: 8

ID	Band	BSSID	SSID	Signal strength	Channel	Encryption	Connect
1	2.4GHz	50:C7:BF:7C:8B:41	TP-LINK_8B42	87	11	WPA2-PSK/AES	Connect
2	2.4GHz	56:C7:BF:7C:8B:42	AD7200	86	11	WPA2-PSK/AES	Connect
3	2.4GHz	50:C7:BF:FE:21:34	Archer_C5400X_2.4G	86	2	WPA2-PSK/AES	Connect
4	2.4GHz	BC:5F:F6:12:2A:FF	MERCUSYS_2B00	85	3	None	Connect
5	2.4GHz	56:C7:BF:74:FE:4B		83	8	WPA2-PSK/AES	Connect
6	2.4GHz	50:C7:BF:74:FE:4B	Deco M5	83	8	WPA-PSK/AES	Connect
7	2.4GHz	70:4F:57:02:DB:40		82	3	WPA2-PSK/AES	Connect
8	2.4GHz	76:4F:57:02:DB:40	Deco (PW: 12345678)	82	3	WPA-PSK/AES	Connect

3. Enter the password of the host network.

Quick Setup - Wireless

SSID(to be bridged):

MAC Address(to be bridged): e.g. 00:1D:0F:11:22:33

Key Type:

Encryption:

Password:

4. Select the LAN IP type of the router or leave the default settings **Smart IP** for most cases, and then click **Next**.

Quick Setup - Network Setting

LAN Type:

Note: The IP parameters cannot be configured if you have chosen Smart IP(DHCP)

(In this situation the device will help you configure the IP parameters automatically as you need.)

IP Address:

Subnet Mask:

We recommend you configure this AP with the same IP subnet and subnet mask, but different IP address from your root AP/Router.

DHCP Server: Enable Disable

5. Click **Finish** to apply the settings. Now connect your wired-only device to the router with an Ethernet cable.

3.2.5. Hotspot Router Mode

1. Select the **WAN Connection Type**. When using the router in a hotel room or a small office, select **Dynamic IP**. In this case, we take **Dynamic IP** that requires no more parameters for instance. For other connection types, please enter the parameters provided by your ISP.

Quick Setup - WAN Connection Type

The Quick Setup is preparing to set up your internet connection, please choose one type below according to your ISP. The detailed description will be displayed after you choose the corresponding type.

Dynamic IP (Most Common Cases)
For Cable/DSL/Broadband connection which makes your computer immediately online without any setting or signing-in.

Static IP

PPPoE

L2TP

PPTP

Note: For users in some areas, please contact your ISP to choose connection type manually.

[Back](#) [Next](#)

2. Click [Connect](#) to connect to the public Wi-Fi in the [AP List](#) page.

AP List

The scanned APs are as follows

AP numbers: **8** [Refresh](#)

ID	Band	BSSID	SSID	Signal strength	Channel	Encryption	Connect
1	2.4GHz	50:C7:BF:7C:8B:41	TP-LINK_8B42	87	11	WPA2-PSK/AES	Connect
2	2.4GHz	56:C7:BF:7C:8B:42	AD7200	86	11	WPA2-PSK/AES	Connect
3	2.4GHz	50:C7:BF:FE:21:34	Archer_C5400X_2.4G	86	2	WPA2-PSK/AES	Connect
4	2.4GHz	BC:5F:F6:12:2A:FF	MERCUSYS_2B00	85	3	None	Connect
5	2.4GHz	56:C7:BF:74:FE:4B		83	8	WPA2-PSK/AES	Connect
6	2.4GHz	50:C7:BF:74:FE:4B	Deco M5	83	8	WPA-PSK/AES	Connect
7	2.4GHz	70:4F:57:02:DB:40		82	3	WPA2-PSK/AES	Connect
8	2.4GHz	76:4F:57:02:DB:40	Deco (PW: 12345678)	82	3	WPA-PSK/AES	Connect

[Back](#)

3. Enter the password of the public Wi-Fi in the [Password](#) field of the [Client Setting](#) section. In the [Wireless 2.4GHz/5GHz](#) section, either customize your [Local Network SSID](#) and [Wireless Password](#) for the 2.4GHz/5GHz network or keep the default ones, and then click [Next](#).

Quick Setup - Wireless

Client Setting

SSID(to be bridged):

MAC Address(to be bridged): e.g. 00:1D:0F:11:22:33

Key Type:

Encryption:

Password:

Wireless 2.4GHz

Local Network SSID:

Security:

WPA2-PSK (Recommended)

Wireless Password
(Enter ASCII characters between 8 and 63 or Hexadecimal characters between 8 and 64.)

Disable Wireless Security

Wireless 5GHz

Local Network SSID:

Security:

WPA2-PSK (Recommended)

Wireless Password
(Enter ASCII characters between 8 and 63 or Hexadecimal characters between 8 and 64.)

Disable Wireless Security

4. Click [Finish](#) to apply the settings.

Chapter 4

Configure the Router in Wireless Router Mode

This chapter presents how to configure the various features of the router working as a standard wireless router.

It contains the following sections:

- [Status](#)
- [Network](#)
- [Wireless](#)
- [Guest Network](#)
- [DHCP](#)
- [USB Settings](#)
- [Port Forwarding](#)
- [Security](#)
- [Parental Controls](#)
- [Access Control](#)
- [Advanced Routing](#)
- [Bandwidth Control](#)
- [IP&MAC Binding](#)
- [Dynamic DNS](#)
- [IPv6](#)
- [System Tools](#)
- [Log Out](#)

4. 1. Status

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Status](#). You can view the current status information of the router.

Status	
Firmware Version:	[REDACTED]
Hardware Version:	[REDACTED]
LAN	
MAC Address:	00:0A:EB:13:09:69
IP Address:	192.168.0.1
Subnet Mask:	255.255.255.0
Wireless 2.4GHz	
Operation Mode:	Router
Wireless Radio:	Enabled
Name(SSID):	TP-Link_0969
Mode:	11bgn mixed
Channel:	1
Channel Width:	Auto
MAC Address:	00:0A:EB:13:09:69
Wireless 5GHz	
Operation Mode:	Router
Wireless Radio:	Enabled
Name(SSID):	TP-Link_0969_5G
Mode:	11a/n/ac mixed
Channel:	36
Channel Width:	Auto
MAC Address:	00:0A:EB:13:09:68
WAN	
MAC Address:	00:0A:EB:13:09:6A
IP Address:	192.168.1.100(Dynamic IP)
Subnet Mask:	255.255.255.0
Default Gateway:	192.168.1.40
DNS Server:	192.168.1.40 0.0.0.0
System Up Time:	0 day(s) 00:17:03 <input type="button" value="Refresh"/>

- **Firmware Version** - The version information of the router's firmware.
- **Hardware Version** - The version information of the router's hardware.
- **LAN** - This field displays the current settings of the LAN, and you can configure them on the [Network > LAN](#) page.
 - **MAC Address** - The physical address of the router.

- **IP Address** - The LAN IP address of the router.
- **Subnet Mask** - The subnet mask associated with the LAN IP address.
- **Wireless 2.4GHz/5GHz** - This field displays the basic information or status of the wireless function, and you can configure them on the [Wireless 2.4GHz/5GHz > Basic Settings](#) page.
 - **Operation Mode** - The current operation mode of the router.
 - **Wireless Radio** - Indicates whether the wireless feature is enabled or not.
 - **Name (SSID)** - The SSID of the network.
 - **Mode** - The current wireless working mode in use.
 - **Channel Width** - The current wireless channel width in use.
 - **Channel** - The current wireless channel in use.
 - **MAC Address** - The physical address of the router.
- **WAN** - This field displays the current settings of the WAN, and you can configure them on the [Network > WAN](#) page.
 - **MAC Address** - The physical address of the WAN port.
 - **IP Address** - The current WAN (Internet) IP Address. This field will be blank or 0.0.0.0 if the IP Address is assigned dynamically and there is no internet connection.
 - **Subnet Mask** - The subnet mask associated with the WAN IP Address.
 - **Default Gateway** - The Gateway currently used is shown here. When you use Dynamic IP as the internet connection type.
 - **DNS Server** - The IP addresses of DNS (Domain Name System) server.
- **System Up Time** - The length of the time since the router was last powered on or reset.

Click [Refresh](#) to get the latest status and settings of the router.

4.2. Network

4.2.1. WAN

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Network > WAN](#).
3. Configure the IP parameters of the LAN and click [Save](#).

Dynamic IP

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

Click [Renew](#) to renew the IP parameters from your ISP.

Click [Release](#) to release the IP parameters.

WAN Settings

Connection Type:

IP Address: 192.168.1.100
Subnet Mask: 255.255.255.0
Gateway: 192.168.1.40

MTU(Bytes): (1500 as default, do not change unless necessary)

Enable IGMP Proxy:

IGMP Version: v2 v3

Get IP with Unicast: (It is usually not required)

Set DNS server manually:

Host Name:

- **MTU(Bytes)** - The normal MTU (Maximum Transmission Unit) value for most Ethernet networks is 1500 Bytes. It is not recommended that you change the default MTU size unless required by your ISP.
- **IGMP Proxy** - Select to enable the IGMP Proxy feature if the IPTV service provided by the ISP is IGMP technology-based.
- **Get IP with Unicast DHCP** - A few ISPs' DHCP servers do not support the broadcast applications. If you cannot get the IP address normally, you can choose this option. (It is rarely required.)
- **Set DNS server manually** - If your ISP provides you one or two DNS addresses, select **Set DNS server manually** and enter the primary and secondary addresses. Otherwise, the DNS servers will be assigned dynamically from your ISP.
- **Host Name** - This option specifies the name of the router.

Static IP

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

WAN Settings

Connection Type: **Static IP**

IP Address:

Subnet Mask:

Gateway:

Primary DNS Server:

Secondary DNS Server: (optional)

MTU(Bytes): (1500 as default, do not change unless necessary)

Enable IGMP Proxy:

IGMP Version: v2 v3

- **IP Address** - Enter the IP address in dotted-decimal notation provided by your ISP.
- **Subnet Mask** - Enter the subnet mask in dotted-decimal notation provided by your ISP. Normally 255.255.255.0 is used as the subnet mask.
- **Gateway** - Enter the gateway IP address in dotted-decimal notation provided by your ISP.
- **Primary/Secondary DNS Server** - (Optional) Enter one or two DNS addresses in dotted-decimal notation provided by your ISP.
- **MTU(Bytes)** - The normal MTU (Maximum Transmission Unit) value for most Ethernet networks is 1500 Bytes. It is not recommended that you change the default MTU size unless required by your ISP.
- **IGMP Proxy** - Select to enable the IGMP Proxy feature if the IPTV service provided by the ISP is IGMP technology-based.

PPPoE/Russia PPPoE

If your ISP provides PPPoE connection, select [PPPoE/Russia PPPoE](#).

WAN Settings

Connection Type: **PPPoE**

PPP Username:

PPP Password:

Confirm password:

Secondary Connection: Disabled Dynamic IP Static IP (For Dual Access)

Connection Mode: Always on
 Connect on demand
 Connect manually

Max Idle Time: minutes (0 meaning connection remains active at all times)

Authentication Type: **AUTO_AUTH**

- **PPP Username/Password** - Enter the username and password provided by your ISP. These fields are case-sensitive.
- **Confirm Password** - Enter the Password provided by your ISP again to ensure the password you entered is correct.
- **Secondary Connection** - It's available only for PPPoE connection. If your ISP provides an extra connection type, select **Dynamic IP** or **Static IP** to activate the secondary connection.
- **Connection Mode**
 - **Always On** - Connect automatically after the router is connected.
 - **Connect on demand** - In this mode, the internet connection can be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the internet again. If you want to keep your internet connection active all the time, please enter 0 in the **Max Idle Time** field. Otherwise, enter the number of minutes you want to have elapsed before your internet access disconnects.
 - **Connect manually** - You can click **Connect/Disconnect** to connect/disconnect immediately. This mode also supports the **Max Idle Time** function as **Connect on demand** mode. The internet connection can be disconnected automatically after a specified inactivity period (Max Idle Time) and not be able to re-establish when you attempt to access the internet again.

Note:

- Only when you have configured the system time on the **System Tools > Time Settings** page, will the time-based connecting function take effect.
- Sometimes the connection cannot be terminated although you have specified the **Max Idle Time** because some applications are visiting the internet continually in the background.

If you want to do some advanced configurations, please click **Advanced**.

Service Name:	<input type="text"/>	(do not change unless necessary)
Server Name:	<input type="text"/>	(do not change unless necessary)
MTU(Bytes):	<input type="text" value="1480"/>	(1480 as default, do not change unless necessary)
Enable IGMP Proxy:	<input checked="" type="checkbox"/>	
IGMP Version:	<input type="radio"/> v2 <input checked="" type="radio"/> v3	
Use IP address specified by ISP:	<input type="checkbox"/>	
Echo request interval:	<input type="text" value="0"/>	(0-120 seconds, 0 meaning no request)
Set DNS server manually:	<input type="checkbox"/>	

- **Service Name/Server Name** - The service name and server name should not be configured unless you are sure it is necessary for your ISP. In most cases, leaving these fields blank will work.
- **MTU(Bytes)**- The default MTU size is 1480 bytes. It is not recommended that you change the default MTU size unless required by your ISP.

- **IGMP Proxy** - Select to enable the IGMP Proxy feature if the IPTV service provided by the ISP is IGMP technology-based.
- **Use IP address specified by ISP** - If your ISP does not automatically assign IP addresses to the router, please select **Use IP address specified by ISP** and enter the IP address provided by your ISP in dotted-decimal notation.
- **Set DNS server manually** - If your ISP does not automatically assign DNS addresses to the router, please select **Set DNS server manually** and enter the IP address in dotted-decimal notation of your ISP's primary DNS server. If a secondary DNS server address is available, enter it as well.

BigPond Cable

If your ISP provides BigPond cable connection, please select **BigPond Cable**.

The screenshot shows the WAN Settings page for a BigPond Cable connection. The page is titled "WAN Settings" and contains the following fields and options:

- Connection Type:** A dropdown menu set to "BigPond Cable" with a "Detect" button next to it.
- Username:** A text input field.
- Password:** A text input field.
- Auth Server:** A text input field.
- Auth Domain:** A text input field.
- MTU(Bytes):** A text input field set to "1500" with a note "(1500 as default, do not change unless necessary)".
- Enable IGMP Proxy:** A checked checkbox.
- IGMP Version:** Radio buttons for "v2" and "v3", with "v3" selected.
- Connection Mode:** Radio buttons for "Always on", "Connect on demand", and "Connect manually", with "Always on" selected.
- Max Idle Time:** A text input field set to "15" minutes with a note "(0 meaning connection remains active at all times)".
- Buttons:** "Connect" and "Disconnect" buttons are located below the Max Idle Time field. A "Save" button is located at the bottom of the page.

- **Username/Password** - Enter the username and password provided by your ISP. These fields are case-sensitive.
- **Auth Server** - Enter the authenticating server IP address or host name.
- **Auth Domain** - Type in the domain suffix server name based on your location.
- **MTU(Bytes)** - The default MTU size is 1480 bytes. It is not recommended that you change the default MTU size unless required by your ISP.
- **IGMP Proxy** - Select to enable the IGMP Proxy feature if the IPTV service provided by the ISP is IGMP technology-based.
- **Connection Mode**
 - **Always On** - Connect automatically after the router is connected.
 - **Connect on demand** - In this mode, the internet connection can be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the internet again. If you want to keep

your internet connection active all the time, please enter 0 in the **Max Idle Time** field. Otherwise, enter the number of minutes you want to have elapsed before your internet access disconnects.

- **Connect manually** - You can click **Connect/Disconnect** to connect/disconnect immediately. This mode also supports the **Max Idle Time** function as **Connect on demand** mode. The internet connection can be disconnected automatically after a specified inactivity period (**Max Idle Time**) and not be able to re-establish when you attempt to access the internet again.

Note: Sometimes the connection cannot be terminated although you have specified the **Max Idle Time** because some applications are visiting the internet continually in the background.

L2TP

If your ISP provides L2TP connection, please select **L2TP**.

The screenshot shows the WAN Settings page with the following configuration options:

- Connection Type:** L2TP (selected in a dropdown menu), with a Detect button.
- Username:** [Empty text field]
- Password:** [Empty text field]
- Connect/Disconnect:** Two buttons.
- Addressing Type:** Dynamic IP (selected), Static IP (unselected).
- Server IP Address/Name:** [Empty text field]
- IP Address:** 0.0.0.0
- Subnet Mask:** 0.0.0.0
- Gateway:** 0.0.0.0
- DNS Server:** 0.0.0.0, 0.0.0.0
- Internet IP Address:** 0.0.0.0
- Internet DNS:** 0.0.0.0, 0.0.0.0
- MTU(Bytes):** 1460 (1460 as default, do not change unless necessary)
- Enable IGMP Proxy:**
- IGMP Version:** v2 (selected), v3 (unselected)
- Connection Mode:** Always on (selected), Connect on demand (unselected), Connect manually (unselected)
- Max Idle Time:** 15 minutes (0 meaning connection remains active at all times)

A Save button is located at the bottom of the form.

- **Username/Password** - Enter the username and password provided by your ISP. These fields are case-sensitive.
- **Confirm Password** - Enter the Password provided by your ISP again to ensure the password you entered is correct.
- **Connect/Disconnect** - Click this button to connect or disconnect immediately.
- **Addressing Type** - Select either as required by your ISP. If **Static IP** is selected, please enter the IP address, subnet mask, gateway and DNS also provided by your ISP.
- **Internet IP Address/ Internet DNS** - The internet IP address and DNS server address assigned by L2TP server.

- **MTU(Bytes)** - The default MTU size is 1480 bytes. It is not recommended that you change the default MTU size unless required by your ISP.
- **IGMP Proxy** - Select to enable the IGMP Proxy feature if the IPTV service provided by the ISP is IGMP technology-based.
- **Connection Mode**
 - **Always On** - Connect automatically after the router is connected.
 - **Connect on demand** - In this mode, the internet connection can be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the internet again. If you want to keep your internet connection active all the time, please enter 0 in the **Max Idle Time** field. Otherwise, enter the number of minutes you want to have elapsed before your internet access disconnects.
 - **Connect manually** - You can click **Connect/Disconnect** to connect/disconnect immediately. This mode also supports the **Max Idle Time** function as **Connect on demand** mode. The internet connection can be disconnected automatically after a specified inactivity period (Max Idle Time) and not be able to re-establish when you attempt to access the internet again.

Note: Sometimes the connection cannot be terminated although you have specified the **Max Idle Time** because some applications are visiting the internet continually in the background.

PPTP

If your ISP provides PPTP connection, please select **PPTP**.

WAN Settings

Connection Type: **PPTP**

Username:

Password:

Addressing Type: Dynamic IP Static IP

Server IP Address/Name:

IP Address: 0.0.0.0

Subnet Mask: 0.0.0.0

Gateway: 0.0.0.0

DNS Server: 0.0.0.0, 0.0.0.0

Internet IP Address: 0.0.0.0

Internet DNS: 0.0.0.0, 0.0.0.0

MTU(Bytes): (1420 as default, do not change unless necessary)

Enable IGMP Proxy:

IGMP Version: v2 v3

Connection Mode: Always on
 Connect on demand
 Connect manually

Max Idle Time: minutes (0 meaning connection remains active at all times)

- **Username/Password** - Enter the username and password provided by your ISP. These fields are case-sensitive.
- **Confirm Password** - Enter the Password provided by your ISP again to ensure the password you entered is correct.
- **Connect/Disconnect** - Click this button to connect or disconnect immediately.
- **Addressing Type** - Select either as required by your ISP. If **Static IP** is selected, please enter the IP address, subnet mask, gateway and DNS also provided by your ISP.
- **Internet IP Address/ Internet DNS** - The internet IP address and DNS server address assigned by L2TP server.
- **MTU(Bytes)** - The default MTU size is 1480 bytes. It is not recommended that you change the default MTU size unless required by your ISP.
- **IGMP Proxy** - Select to enable the IGMP Proxy feature if the IPTV service provided by the ISP is IGMP technology-based.
- **Connection Mode**
 - **Always On** - Connect automatically after the router is connected.
 - **Connect on demand** - In this mode, the internet connection can be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the internet again. If you want to keep your internet connection active all the time, please enter 0 in the **Max Idle Time** field. Otherwise, enter the number of minutes you want to have elapsed before your internet access disconnects.
 - **Connect manually** - You can click **Connect/Disconnect** to connect/disconnect immediately. This mode also supports the **Max Idle Time** function as **Connect on demand** mode. The internet connection can be disconnected automatically after a specified inactivity period (Max Idle Time) and not be able to re-establish when you attempt to access the internet again.

Note: Sometimes the connection cannot be terminated although you have specified the **Max Idle Time** because some applications are visiting the internet continually in the background.

4. 2. 2. 3G/4G Settings

To use the 3G/4G function, you should first insert a 3G/4G USB modem into the 3G/4G USB port of the router. There is already much 3G/4G USB modem information embedded in the router. The USB modem parameters will be set automatically if the SIM/UIM card is supported by the router.

Note: 3G/4G modem is only supported in some regions.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Network > 3G/4G Settings**.

3G/4G Settings

Enable 3G/4G as a backup solution for Internet access

USB 3G/4G modem: Unplugged

PIN Status: Unknown

Location: USA

Mobile ISP: AT&T

Set the Dial Number, APN, Username and Password manually

Dial Number: *99#

APN: broadband

Username: WAP@CINGULAR.CO (optional)

Password: CINGULAR1 (optional)

Authentication Type: AUTO_AUTH

Connect Disconnect Disconnected

Save Modem Settings

- **Location** - Please select the location where you are enjoying the 3G/4G service.
- **Mobile ISP** - Please select the ISP providing the 3G/4G service. The router will automatically fill in the default Dial Number and APN of that ISP.
- **Username/Password** - Enter the username and password provided by your ISP if any.
- **Authentication Type** - Some ISPs require authentication to access the internet. Please select Auto or consult your ISP.
 - **Auto** - The router will have dynamic negotiation with the dialing server and the authentication type doesn't need to be specified.
 - **PAP** - Password Authentication Protocol. Select **PAS** if required by your ISP.
 - **CHAP** - Challenge Handshake Authentication Protocol. Select **CHAP** if required by your ISP.

Click **Advance** to set advanced options.

MTU size (in bytes): 1480 (The default is 1480, do not change unless necessary)

Echo request interval: 0 (0-120 seconds, 0 meaning no request)

Use the following IP address

Static IP Address: 0.0.0.0

Use the following DNS Servers

Primary DNS: 0.0.0.0

Secondary DNS: 0.0.0.0 (optional)

- **MTU size (in bytes)** - The typical MTU (Maximum Transmission Unit) size for 3G or 4G network is 1480 Bytes.
- **Echo request interval** - Enter a time interval value between 0 and 120 (in seconds) for which the router requests Access Concentrator to echo at every interval. The default value is 30. 0 means no detection.

- **Use the following IP Address** - Select this option and enter the IP address provided by your ISP.
- **Use the Following DNS Servers** - Select this checkbox and enter the DNS server address(es) in dotted decimal notation provided by your ISP. This 3G/4G connection will only use the specified DNS server(s).

If your 3G/4G USB modem cannot be identified by the router, please follow the steps below to have further configuration.

1. Download a most recent 3G/4G USB modem configuration file from our website www.tp-link.com.
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
3. Go to **Network > 3G/4G Settings > Modem Settings**.
4. Click **Add New**.

ID	Vendor	Model	Delete
<input type="button" value="Add New"/> <input type="button" value="Delete All"/>			
<input type="button" value="Back"/>			

5. Click **Choose File** to locate the file you have downloaded and then click **Upload**.

File: No file chosen

Please Note: If you restore the device's factory default setting, the bin file will be lost. In the event that you do lose the bin file, you will need to re-upload it, or down

4.2.3. LAN

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

MAC Address: 00:0A:EB:13:09:69

IP Address:

Subnet Mask:

Enable IGMP Snooping:

- **MAC Address** - The physical address of the LAN ports. The value can not be changed.
- **IP Address** - Enter the IP address in dotted-decimal notation of your router (factory default - 192.168.0.254).
- **Subnet Mask** - An address code that determines the size of the network. Normally 255.255.255.0 is used as the subnet mask.
- **IGMP Snooping** - The IGMP Snooping feature allows the router to only forward multicast traffic to ports that have requested them.

Note:

- If you have changed the IP address, you must use the new IP address to log in.
- If the new IP address you set is not in the same subnet as the old one, the IP address pool in the DHCP Server will be configured automatically, but the Virtual Server and DMZ Host will not take effect until they are re-configured.

4.2.4. MAC Clone

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Network > MAC Clone**.
3. Configure the WAN MAC address and click **Save**.

MAC Clone	
WAN MAC Address:	<input type="text" value="00:0A:EB:13:09:6A"/> <input type="button" value="Restore Factory MAC"/>
Your PC's MAC Address:	<input type="text" value="14:CF:92:13:6D:78"/> <input type="button" value="Clone MAC Address"/>
<input type="button" value="Save"/>	

- **WAN MAC Address** - This field displays the current MAC address of the WAN port. If your ISP requires you to register the MAC address, please enter the correct MAC address in this field. Click **Restore Factory MAC** to restore the MAC address of WAN port to the factory default value.
- **Your PC's MAC Address** - This field displays the MAC address of the PC that is managing the router. If the MAC address is required, you can click **Clone MAC Address** and this MAC address will be filled in the **WAN MAC Address** field.

Note:

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

4.3. Wireless

4.3.1. Basic Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless 2.4GHz/5GHz > Basic Settings](#).
3. Configure the basic settings for the 2.4GHz/5GHz wireless network and click [Save](#).

Wireless Settings(2.4GHz)

Wireless: Enable Disable

Wireless Network Name: (Also called SSID)

Mode:

Channel:

Channel Width:

Enable SSID Broadcast

- **Wireless Network Name** - Enter a string of up to 32 characters. The default SSID is TP-Link_XXXX (XXXX indicates the last unique four numbers of each router's MAC address). It is strongly recommended that you change your network name (SSID). This value is case-sensitive. For example, TEST is NOT the same as test.
- **Mode** - Select the desired mode. It is strongly recommended that you keep the default setting [11bgn mixed](#) or [11a/n/ac mixed](#).
- **Channel Width** - Select any channel width from the drop-down list. The default setting is [Auto](#), which can automatically adjust the channel width for your clients.
- **Channel** - This field determines which operating frequency will be used. The default channel is set to [Auto](#). It is not necessary to change the wireless channel unless you notice interference problems with another nearby access point.
- **Enable SSID Broadcast** - If enabled, the router will broadcast the wireless network name (SSID).

4.3.2. WPS

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

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

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless 2.4GHz/5GHz > WPS](#).
3. Follow one of the following three methods to connect your client device to the router's Wi-Fi network.

Method ONE: Press the WPS Button on Your Client Device

1. Keep the WPS Status as [Enabled](#) and click [Add device](#).

WPS (Wi-Fi Protected Setup)

WPS: Enabled

Current PIN: 12345670

Disable device PIN

Add a new device:

2. Select [Press the button of the new device in two minutes](#) and click [Connect](#).

WPS Settings

Enter new device PIN.

PIN:

Press the WPS button of the new device within the next two minutes.

3. Within two minutes, press the WPS button on your client device.
4. A success message will appear on the WPS page if the client device has been successfully added to the router's network.

Method TWO: Enter the Client's PIN

1. Keep the WPS Status as [Enabled](#) and click [Add device](#).

WPS (Wi-Fi Protected Setup)

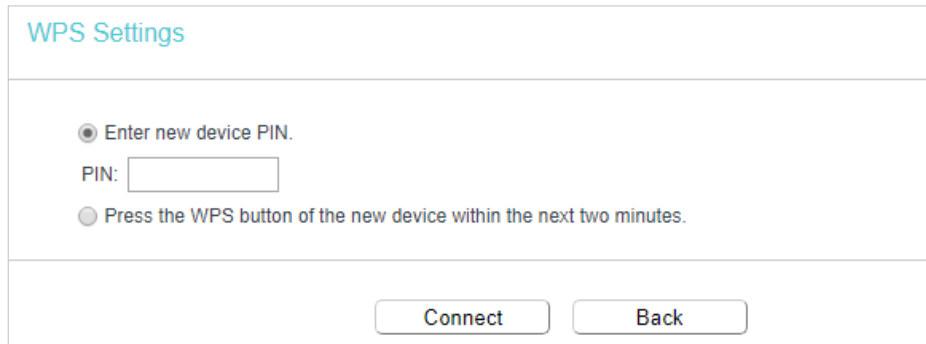
WPS: Enabled

Current PIN: 12345670

Disable device PIN

Add a new device:

2. Select [Enter new device PIN](#), enter your client device's current PIN in the [PIN](#) field and click [Connect](#).



WPS Settings

Enter new device PIN.

PIN:

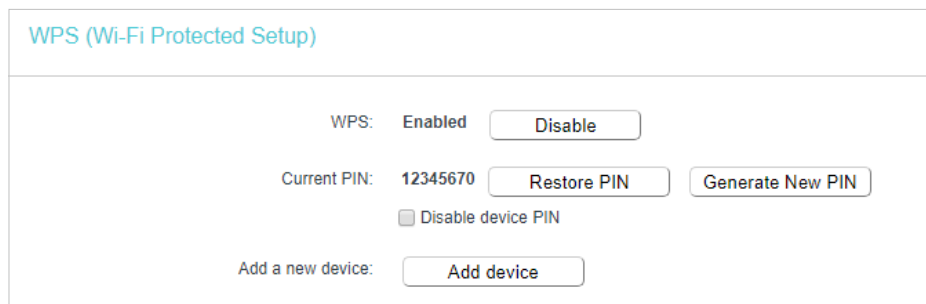
Press the WPS button of the new device within the next two minutes.

[Connect](#) [Back](#)

3. A success message will appear on the WPS page if the client device has been successfully added to the router's network.

Method Three: Enter the Router's PIN

1. Keep the WPS Status as [Enabled](#) and get the [Current PIN](#) of the router.



WPS (Wi-Fi Protected Setup)

WPS: Enabled [Disable](#)

Current PIN: 12345670 [Restore PIN](#) [Generate New PIN](#)

Disable device PIN

Add a new device: [Add device](#)

2. Enter the router's current PIN on your client device to join the router's Wi-Fi network.

4.3.3. Wireless Security

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless 2.4GHz/5GHz > Wireless Security](#).
3. Configure the security settings of your 2.4GHz/5GHz wireless network and click [Save](#).

Wireless Security Settings

Note: WEP security, WPA/WPA2 - Enterprise authentication and TKIP encryption are not supported with WPS enabled.
For network security, it is strongly recommended to enable wireless security and select WPA2-PSK AES encryption.

Disable Wireless Security

WPA/WPA2 - Personal(Recommended)

Version: WPA2-PSK
Encryption: AES
Wireless Password: 12345670
Group Key Update Period: 0

WPA/WPA2 - Enterprise

Version: Auto
Encryption: Auto
RADIUS Server IP:
RADIUS Server Port: 1812 (1-65535, 0 stands for default port 1812)
RADIUS Server Password:
Group Key Update Period:

WEP

Authentication Type: Open System
WEP Key Format: Hexadecimal

Selected Key:	WEP Key	Key Type
Key 1:	<input type="text"/>	Disabled
Key 2:	<input type="text"/>	Disabled
Key 3:	<input type="text"/>	Disabled
Key 4:	<input type="text"/>	Disabled

Save

- **Disable Wireless Security** - The wireless security function can be enabled or disabled. If disabled, wireless clients can connect to the router without a password. It's strongly recommended to choose one of the following modes to enable security.
- **WPA/WPA2-Personal** - It's the WPA/WPA2 authentication type based on pre-shared passphrase.
 - **Version** - Select **Auto**, **WPA-PSK** or **WPA2-PSK**.
 - **Encryption** - Select **Auto**, **TKIP** or **AES**.
 - **Wireless Password** - Enter ASCII or Hexadecimal characters. For Hexadecimal, the length should be between 8 and 64 characters; for ASCII, the length should be between 8 and 63 characters.
 - **Group Key Update Period** - Specify the group key update interval in seconds. The value can be 0 or at least 30. Enter 0 to disable the update.
- **WPA/WPA2-Enterprise** - It's based on Radius Server.
 - **Version** - Select **Auto**, **WPA** or **WPA2**.
 - **Encryption** - Select **Auto**, **TKIP** or **AES**.
 - **Radius Server IP** - Enter the IP address of the Radius server.
 - **Radius Port** - Enter the port that Radius server used.
 - **Radius Password** - Enter the password for the Radius server.
 - **Group Key Update Period** - Specify the group key update interval in seconds. The value should be 30 or above. Enter 0 to disable the update.
- **WEP** - It is based on the IEEE 802.11 standard.

- **Type** - The default setting is **Auto**, which can select Shared Key or Open System authentication type automatically based on the wireless client's capability and request.
- **WEP Key Format** - Hexadecimal and ASCII formats are provided here. Hexadecimal format stands for any combination of hexadecimal digits (0-9, a-f, A-F) in the specified length. ASCII format stands for any combination of keyboard characters in the specified length.
- **WEP Key (Password)** - Select which of the four keys will be used and enter the matching WEP key. Make sure these values are identical on all wireless clients in your network.
- **Key Type** - Select the WEP key length (64-bit, 128-bit or 152-bit) for encryption. **Disabled** means this WEP key entry is invalid.
- **64-bit** - Enter 10 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 5 ASCII characters.
- **128-bit** - Enter 26 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 13 ASCII characters.
- **152-bit** - Enter 32 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 16 ASCII characters.

4.3.4. Wireless MAC Filtering

Wireless MAC Filtering is used to deny or allow specific wireless client devices to access your network by their MAC addresses.

I want to:

Deny or allow specific wireless client devices to access my network by their MAC addresses.

For example, you want the wireless client A with the MAC address 00:0A:EB:B0:00:0B and the wireless client B with the MAC address 00:0A:EB:00:07:5F to access the router, but other wireless clients cannot access the router.

How can I do that?

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Wireless 2.4GHz/5GHz > Wireless MAC Filtering**.
3. Click **Enable** to enable the Wireless MAC Filtering function.
4. Select **Allow the stations specified by any enabled entries in the list to access** as the filtering rule.
5. Delete or disable all entries if there are any entries already.

6. Click [Add New](#) and fill in the blanks.

Add or Modify Wireless MAC Address Filtering entry

You can configure Wireless MAC Filtering which allows you to control wireless access on the network on this page.

MAC Address:

Description:

Status:

- 1) Enter the MAC address 00:0A:EB:B0:00:0B/00:0A:EB:00:07:5F in the MAC Address field.
 - 2) Enter Client A/B in the Description field.
 - 3) Leave the status as [Enabled](#).
 - 4) Click [Save](#) and click [Back](#).
7. The configured filtering rules should be listed as the picture shows below.

Wireless MAC Filtering

You can configure Wireless MAC Filtering which allows you to control wireless access on the network on this page.

Wireless MAC Filtering:

Filtering Rules

Deny the stations specified by any enabled entries in the list to access.

Allow the stations specified by any enabled entries in the list to access.

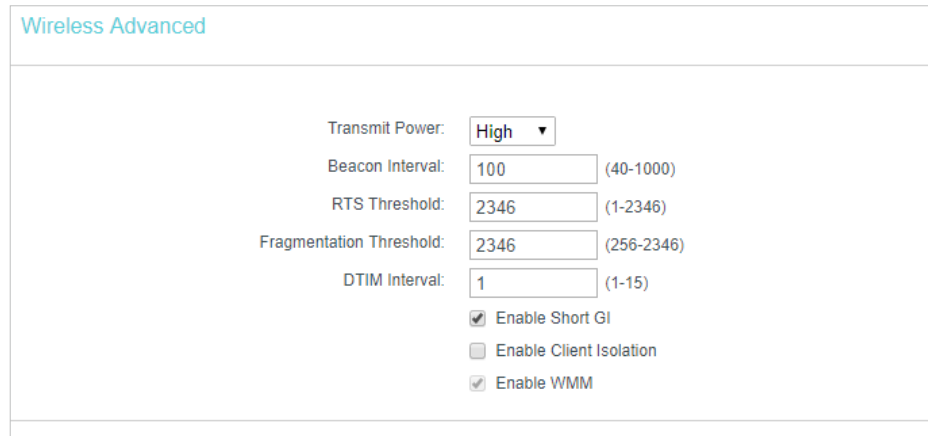
<input type="checkbox"/>	MAC Address	Status	Host	Description	Edit
<input type="checkbox"/>	00:0A:EB:B0:00:0B	Enabled	TP-Link_0969	CLient A	Edit
<input type="checkbox"/>	00:0A:EB:00:07:5F	Enabled	TP-Link_0969	Client B	Edit

Done! Now only client A and client B can access your network.

4.3.5. Wireless Advanced

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless 2.4GHz/5GHz](#) > [Wireless Advanced](#).
3. Configure the advanced settings of your wireless network and click [Save](#).

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



The screenshot shows the 'Wireless Advanced' configuration page. It contains the following settings:

- Transmit Power: High (dropdown menu)
- Beacon Interval: 100 (input field, range 40-1000)
- RTS Threshold: 2346 (input field, range 1-2346)
- Fragmentation Threshold: 2346 (input field, range 256-2346)
- DTIM Interval: 1 (input field, range 1-15)
- Enable Short GI:
- Enable Client Isolation:
- Enable WMM:

- **Transmit Power** - Select **High**, **Middle** or **Low** which you would like to specify for the router. **High** is the default setting and recommended.
- **Beacon Interval** - Enter a value between 40-1000 milliseconds for Beacon Interval here. Beacon Interval value determines the time interval of the beacons. The beacons are the packets sent by the router to synchronize a wireless network. The default value is 100.
- **RTS Threshold** - Here you can specify the RTS (Request to Send) Threshold. If the packet is larger than the specified RTS Threshold size, the router will send RTS frames to a particular receiving station and negotiate the sending of a data frame. The default value is 2346.
- **Fragmentation Threshold** - This value is the maximum size determining whether packets will be fragmented. Setting a low value for the Fragmentation Threshold may result in poor network performance because of excessive packets. 2346 is the default setting and is recommended.
- **DTIM Interval** - This value determines the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the router has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. You can specify the value between 1-255 Beacon Intervals. The default value is 1, which indicates the DTIM Interval is the same as Beacon Interval.
- **Enable Short GI** - It is recommended to enable this function, for it will increase the data capacity by reducing the guard interval time.
- **Enable Client Isolation** - This function isolates all connected wireless stations so that wireless stations cannot access each other through WLAN. This function will be disabled if WDS/Bridge is enabled.
- **Enable WMM** - WMM function can guarantee the packets with high-priority messages being transmitted preferentially. It is strongly recommended to enable this function.

4.3.6. Wireless Statistics

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless 2.4GHz/5GHz > Wireless Statistics](#) to check the data packets sent and received by each client device connected to the router.

Wireless Statistics					
Wireless Stations Currently Connected: 1 <input type="button" value="Refresh"/>					
ID	MAC Address	Current Status	Received Packets	Sent Packets	SSID
1	██████████	Associated	13,149	7,489	TP-Link_0969

- **MAC Address** - The MAC address of the connected wireless client.
- **Current Status** - The running status of the connected wireless client.
- **Received Packets** - Packets received by the wireless client.
- **Sent Packets** - Packets sent by the wireless client.
- **SSID** - SSID that the wireless client is connected to.

4.4. Guest Network

Guest Network allows you to provide Wi-Fi access for guests without disclosing your main network. When you have guests in your home, apartment, or workplace, you can create a guest network for them.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Guest Network](#).

Guest Network	
Allow Guests To Access My Local Network:	<input type="button" value="Disable"/>
Guest Network Isolation:	<input type="button" value="Disable"/>
Guest Network Bandwidth Control:	<input type="button" value="Disable"/>
Band Select: <input type="button" value="2.4GHz"/>	
Guest Network:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Network Name:	<input type="text" value="TP-Link_Guest_0969"/>
Max Guests number:	<input type="text" value="32"/>
Security:	<input type="button" value="Disable Wireless Security"/>

- **Allow Guests To Access My Local Network** - If enabled, guests can communicate with hosts.

- **Guest Network Isolation** - If enabled, one guest can not communicate with another.
- **Guest Network Bandwidth Control** - If enabled, the Guest Network Bandwidth Control rules will take effect.
- **Band Select** - Select the wireless band 2.4GHz or 5GHz for the guest network.
- **Guest Network** - Enable or disable the guest network .
- **Network Name** - Enter a value of up to 32 characters. The same Name(SSID) must be assigned to all wireless devices in your guest network.
- **Max Guests number** - Maximum guests (1-32).
- **Security** - You can configure the security of the guest network here.
- **Access Time** - You can also specify when or how long a guest device can access the internet.
 - **Schedule** - During this time the wireless stations could not access the guest network.

Access Time:

Click the schedule table or use the 'Add' button to choose the period on which you need the guest network off automatically!
The Schedule is based on the time of the Router. The time can be set in "System Tools -> Time Settings".

Wireless Schedule: Enable Disable

Apply To: Start Time: End Time:

Mon. Tues. Wed. Thur. Fri. Sat. Sun.

Time	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00
Sun.															
Mon.															
Tues.															
Wed.															
Thur.															
Fri.															
Sat.															

- **Timeout** - If the countdown timer hits zero, the guest network will be closed.

Access Time:

Hours Minutes

4.5. DHCP

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

4.5.1. DHCP Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **DHCP > DHCP Settings**.
3. Specify DHCP server settings and click **Save**.

DHCP Settings

DHCP Server: Disable Enable

Start IP Address:

End IP Address:

Lease Time: minutes (1~2880 minutes, the default value is 120)

Default Gateway: (optional)

Default Domain: (optional)

DNS Server: (optional)

Secondary DNS Server: (optional)

- **DHCP Server** - Enable or disable the DHCP server. If disabled, you must have another DHCP server within your network or else you must configure the computer manually.
- **Start IP Address** - Specify an IP address for the DHCP Server to start with when assigning IP addresses. 192.168.0.100 is the default start address.
- **End IP Address** - Specify an IP address for the DHCP Server to end with when assigning IP addresses. 192.168.0.199 is the default end address.
- **Lease Time** - The Address Lease Time is the amount of time a network user will be allowed to connect to the router with the current dynamic IP Address. When time is up, the router will automatically assign the same IP address to the user. The range of the time is 1 ~ 2880 minutes. The default value is 120.
- **Default Gateway (Optional)** - It is suggested to input the IP address of the LAN port of the Router. The default value is 192.168.0.254.
- **Default Domain (Optional)** - Input the domain name of your network.
- **Primary DNS (Optional)** - Input the DNS IP address provided by your ISP.
- **Secondary DNS (Optional)** - Input the IP address of another DNS server if your ISP provides two DNS servers.

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

4.5.2. DHCP Client List

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

2. Go to **DHCP > DHCP Client List** to view the information of the clients connected to the router.

DHCP Clients List

This page displays information of all DHCP clients on the network.

ID	Client Name	MAC Address	Assigned IP	Lease Time
1	██████████	██████████	192.168.0.100	01:52:57

- **Client Name** - The name of the DHCP client.
- **MAC Address** - The MAC address of the DHCP client.
- **Assigned IP** - The IP address that the router has allocated to the DHCP client.
- **Lease Time** - The time of the DHCP client leased. After the dynamic IP address has expired, a new dynamic IP address will be automatically assigned to the user.

You cannot change any of the values on this page. To update this page and show the current connected devices, click [Refresh](#).

4. 5. 3. Address Reservation

You can reserve an IP address for a specific client. When you have specified a reserved IP address for a PC on the LAN, this PC will always receive the same IP address each time when it accesses the DHCP server.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **DHCP > Address Reservation**.
3. Click **Add New** and fill in the blanks.

DHCP Address Reservation

The static IP address of the DHCP Server can be configured on this page.

MAC Address:

IP Address:

Status:

- 1) Enter the MAC address (in XX:XX:XX:XX:XX:XX format) of the client for which you want to reserve an IP address.
- 2) Enter the IP address (in dotted-decimal notation) which you want to reserve for the client.
- 3) Leave the status as **Enabled**.

4) Click [Save](#).

4. 6. USB Settings

You can insert a USB drive to share files among users on the LAN, access the USB drive remotely on the internet and enjoy videos and photos stored in the USB drive.

4. 6. 1. Storage Sharing

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

- **To access the USB disk:**

1. Connect Your USB Disk

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

☞ Tips:

- If you use USB hubs, make sure no more than 2 devices are connected to the router.
- If the USB storage device requires using bundled external power, make sure the external power has been connected.
- If you use a USB hard drive, make sure its file system is FAT32 or NTFS.
- Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to [USB Settings](#) > [USB Mass Storage](#) and click [Disconnect](#).

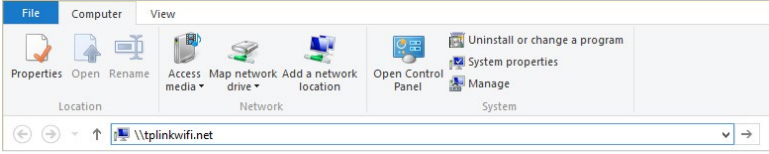
2. Access Your USB Disk

By default, all the network clients can access your USB disk. Refer to the following table for access instructions. You can customize user accounts by referring to [User Accounts](#).

Windows

Open the [Windows Explorer](#) (or go to [Computer](#)), type the server address [\\tplinkwifi.net](#) in the address bar, enter a username and password if required and then press [[Enter](#)].

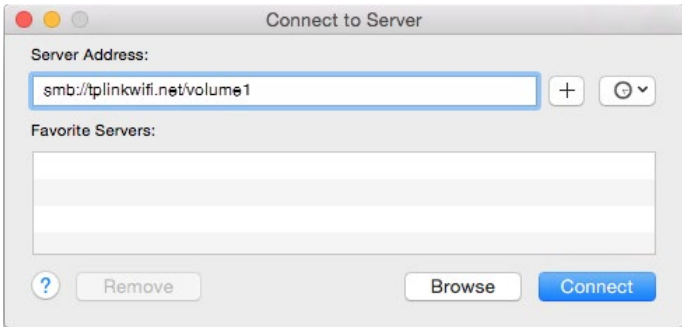
📌 **Note:** Here we take Windows 8 as an example.



The screenshot shows the Windows Explorer interface. The address bar contains the text \\tplinkwifi.net. The ribbon at the top includes 'File', 'Computer', and 'View' tabs. The 'File' tab is active, showing options like Properties, Open, Rename, Access media, Map network drive, Add a network location, Open Control Panel, and Manage. The 'Computer' tab shows options like Uninstall or change a program, System properties, and Manage. The 'View' tab is also visible.

Mac

- 1) Click [Go](#) in the top left corner of the desktop and go to [Connect to Server](#).
- 2) Type the server address [smb://tplinkwifi.net/volume1](#).
Note: Here we take [volume1](#) for example.
- 3) Click [Connect](#).



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

Tablet

Use a third-party app for network files management.

- **To customize your settings:**

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [USB Settings](#) > [Storage Sharing](#).

[Storage Sharing Settings](#)

Storage Sharing enables you to share files saved on a USB storage device with other computers on the local network.

Server Status: Enabled

Anonymous access to all volumes.

Folder Table: (Any modifications to this table will not take effect until you Apply these changes.)

	Share Name	Directory	User Access					Status	Edit
			1*	2	3	4	5		
<input type="checkbox"/>	PPT	/3. PPT	F	F	-	-	-	Enabled	Edit
<input type="checkbox"/>	pics	/1. photos	F	R	-	-	-	Enabled	Edit

*: "Super User" has full-access permission (Read & Write) to all shared folders.

- **Server Status** - the Storage Sharing's current status.
- **Anonymous access to all volumes** - This function is enabled by default, so users can access all activated volumes of Storage Sharing without accounts. If you want to add

a shared folder which does not allow anonymous login, uncheck the box to disable this function. And Folder Table will be displayed as shown below.

- **Share Name** - This folder's display name.
- **Directory** - The real full path of the specified folder.
- **User Access** - The authorization of the user is displayed. * users mean Super Users who have the full-access permission to all activated volumes and share folders. Grey users mean the users who have no right to use this function. Others are common users.
- **Status** - The status of the entry is enabled or disabled.
- **Edit** - Click Edit in the table, and then you can modify the entry.

4.6.2. FTP Server

You can share specific folders on you USB drive on the LAN or access your USB drive outside the local area network.

For example:

- Only share specific folders with clients on the LAN.
- 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 material for a presentation.
- **To set up your FTP server:**

FTP Server Settings

Server Status: Enabled Disable

Internet Access: Enable Disable

Internet Address: 0.0.0.0

Service Port: (The default is 21. Do not change unless necessary.)

1. Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
3. Go to **USB Settings > FTP Server**.
4. Click **Enable** to enable the FTP Server.
5. Click **Enable** to enable the internet access to the FTP server.
6. Specify a port number for the **Service Port**. The default value is 21.
7. Click **Apply**.

- **To specify a folder to be accessed via the FTP server:**

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **USB Settings > FTP Server**.
3. Click **Add New Folder**.
4. Specify a name for the folder to be shared in the **Share Name** field. And select the folder you want to share. And determine the access right of user accounts.

Folder Browse

This page allows you to set shared folders along with authorization access for FTP services.

Share Name:

Directory:

User Access Control Table:

Index	Username	Authorization Access
1*	123	<input checked="" type="radio"/> Full-Access <input type="radio"/> Read-Only <input type="radio"/> No-Access
2	admin	<input type="radio"/> Full-Access <input type="radio"/> Read-Only <input checked="" type="radio"/> No-Access
3		
4		
5		

*: "Super User". It has full-access permission (Read & Write) to all active volume(s) and share folder(s).

5. Click **Apply**.
6. You can check which folder is shared and also edit or delete the folder.

	Share name	Directory	User Index (F: Full-Access, R: Read-Only, N: No-Access)					Status	Edit
			1*	2	3	4	5		
<input type="checkbox"/>	volume	/	F	N	-	-	-	Enabled	Edit
<input type="checkbox"/>	remoteaccess	/2. accommodation	F	F	-	-	-	Enabled	Edit

*: "Super User". It has full-access permission (Read & Write) to all active volume(s) and share folder(s).

- **To access the USB disk locally:**

1. **Connect Your USB Disk**

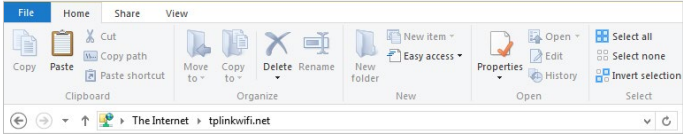
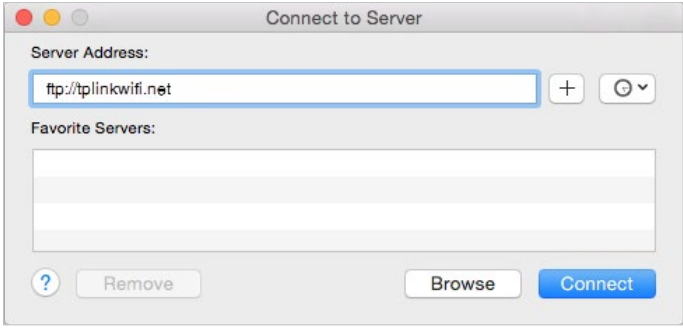
Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.

 **Tips:**

- If you use USB hubs, make sure no more than 2 devices are connected to the router.
- If the USB storage device requires using bundled external power, make sure the external power has been connected.
- If you use a USB hard drive, make sure its file system is FAT32 or NTFS.
- Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to **USB Settings > USB Mass Storage** and click **Disconnect**.

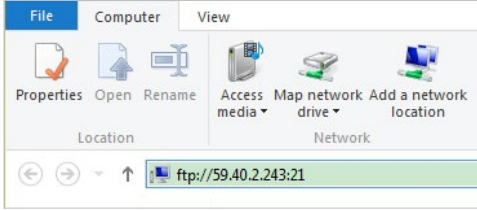
2. **Access Your USB Disk Locally**

Refer to the following table for access instructions. You can customize user accounts by referring to [User Accounts](#).

Windows	<p>Open the Windows Explorer (or go to Computer), type the server address ftp://tplinkwifi.net in the address bar, enter a username and password and then press [Enter].</p> <p>Note: Here we take Windows 8 as an example.</p> 
Mac	<ol style="list-style-type: none"> 1) Click Go in the top left corner of the desktop and go to Connect to Server. 2) Type the server address ftp://tplinkwifi.net. 3) Click Connect.  <ol style="list-style-type: none"> 4) When prompted, select the Registered User radio box and enter a username and password (To learn how to set up an account for the access, refer to User Accounts).
Tablet	<p>Use a third-party app for network files management.</p>

- **To access the USB disk remotely:**

Refer to the following table for access instructions. You can customize user accounts by referring to [User Accounts](#).

Windows	<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 <code>ftp://<WAN IP address of the router>:<port number></code> (such as <code>ftp://59.40.2.243:21</code>). If you have specified a domain name for the router, you can also type in <code>ftp://<domain name>:<port number></code> (such as <code>ftp://MyDomainName:21</code>)  <p style="text-align: center;">The Windows Explorer (Windows 8)</p> <ol style="list-style-type: none"> 3) Press [Enter]. 4) Access with the username and password by referring to User Accounts. <p>Tips: You can also access the USB disk via a third-party app for network files management, which can resume broken file transfers.</p>
Tablet	Use a third-party app for network files management.

4.6.3. Media Server

The Media Server feature allows to view photos, play music and watch movies on the USB drive directly with DLNA-supported devices, such as on your computer, pad and PS2/3/4.

- **To share specific folders:**

1. Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
3. Go to [USB Settings](#) > [Media Server](#).
4. Click [Enable](#) to enable the Media Server.

Media Server Settings

Server Enable: Enable Disable

Server Name:

Content Scan: Manual Scan:

Auto Scan: Every hour(s)

5. Click [Add New Folder](#). Specify a name for the folder to be shared in the [Share Name](#) field. And select the folder you want to share.

Folder Browse

This page allows you to set a scan folder for DLNA media services.

Share Name:

Directory:

Select Volume: KINGSTON (DT 101 G2), sda(7.3 GB,FAT32) ▼

/sda/4_videos/

[.._UP08F](#)

6. Click [Apply](#).

- **To access the USB disk:**

1. Connect Your USB Disk

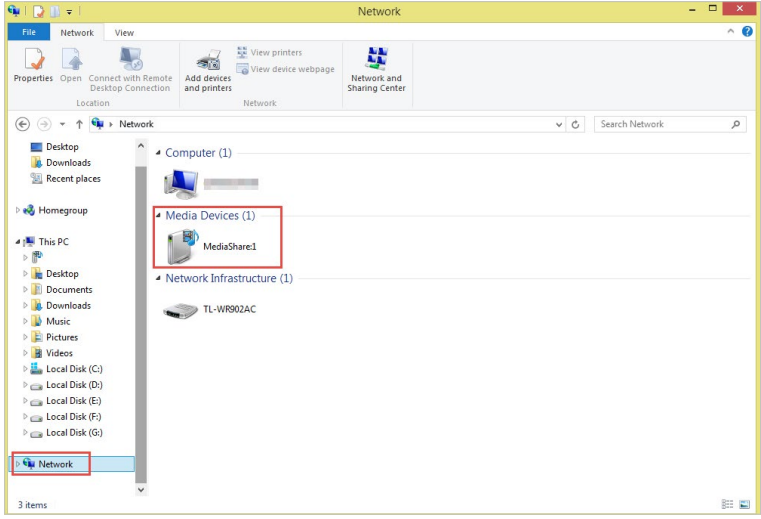
Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.

 Tips:

- If you use USB hubs, make sure no more than 2 devices are connected to the router.
- If the USB storage device requires using bundled external power, make sure the external power has been connected.
- If you use a USB hard drive, make sure its file system is FAT32 or NTFS.
- Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to [USB Settings](#) > [USB Mass Storage](#) and click [Disconnect](#).

2. Access the Media Files on Your USB Disk

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

Windows	<ul style="list-style-type: none"> • Go to Computer > Network, and click the Media Server Name in the Media Devices section. <p>Note: Here we take Windows 8 as an example.</p> 
	Tablet

4. 6. 4. User Accounts

You can specify the username and password for Storage Sharing and FTP Server access.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **USB Settings > User Accounts**.
3. Choose the **Index** for the account and specify a new username and password in the **New Username** and **New Password** fields, and reenter the password for confirmation.

Note: For an account with Index 1, it is the Super User with full access to all active volumes and shared folders.

<p>Choose Index: <input style="width: 80px;" type="text" value="1"/></p> <p>New Username: <input style="width: 300px;" type="text"/></p> <p>New Password: <input style="width: 300px;" type="password"/></p> <p>Confirm password: <input style="width: 300px;" type="password"/></p>
<input style="width: 100px; height: 25px;" type="button" value="Set"/>

4. Click **Set**.

5. You can check the newly added account and also edit or delete the account.

User Accounts			
This page allows you to configure user accounts for Storage Sharing/FTP Server. Please click Set to ensure your configurations take effect.			
Index	Username	Status	Action
1	123*	Enabled	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
2	admin	Enabled	<input checked="" type="radio"/> Enable <input type="radio"/> Disable Delete
3			
4			
5			

*: "Super User" has full-access permission to all active volumes and shared folders.

4.7. Port Forwarding

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

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

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

4.7.1. Virtual Servers

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

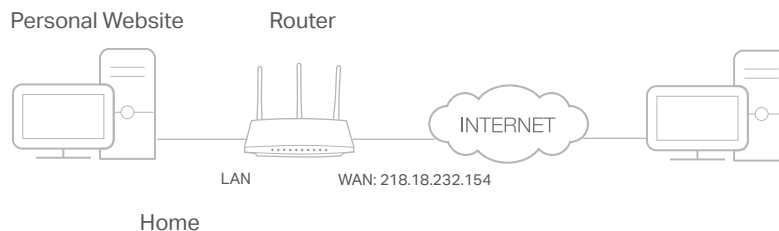
Virtual Servers can be used to set up public services in your local network, such as HTTP, FTP, DNS, POP3/SMTP and Telnet. Different service uses different service port. Port 80 is used in HTTP service, port 21 in FTP service, port 25 in SMTP service and port 110 in POP3 service. Please verify the service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

I want to:

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

[For example](#), the personal website has been built in my home PC (192.168.0.100).

I hope that my friends on the internet can visit my website in some way. My PC is connected to the router with the WAN IP address 218.18.232.154.



How can I do that?

1. Set your PC to a static IP address, for example 192.168.0.100.
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
3. Go to **Forwarding > Virtual Servers**.
4. Click **Add New**. Select **HTTP** from the **Common Service Port** list. The service port, internal port and protocol will be automatically filled in. Enter the PC's IP address 192.168.0.100 in the **IP Address** field.

Virtual Server

Service Port:	<input type="text" value="80"/>	(XX-XX or XX)
IP Address:	<input type="text" value="192.168.0.100"/>	
Internal Port:	<input type="text" value="80"/>	(XX or keep empty. If it's empty, Internal port equals to Service port)
Protocol:	<input type="text" value="TCP"/>	
Status:	<input type="text" value="Enabled"/>	
Common Service Port:	<input type="text" value="HTTP"/>	

5. Leave the status as **Enabled** and click **Save**.

Note:

- 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 Service Port** list, you can enter the corresponding parameters manually. You should verify the port number that the service needs.
- You can add multiple virtual server rules if you want to provide several services in a router. Please note that the **Service Port** should not be overlapped.

Done!

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

Note:

- If you have changed the default **Service Port**, you should use [http:// WAN IP: Service Port](http://WAN IP: Service Port) to visit the website.
- Some specific service ports are forbidden by the ISP, if you fail to visit the website, please use another service port.

4.7.2. Port Triggering

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

Follow the steps below to configure the port triggering rules:

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Forwarding > Port Triggering**.
3. Click **Add New**. Select the desired application from the **Common Applications** list. The trigger port and incoming ports will be automatically filled in. The following picture takes application **MSN Gaming Zone** as an example.

Port Trigger

Trigger Port: 47624 (XX)

Trigger Protocol: ALL

Open Port: 2300-2400,28800-2900 (XX or XX-XX or XX-XX,XX)

Open Protocol: ALL

Status: Enabled

Common Service Port: MSN Gaming Zone

Save Back

4. Leave the status as **Enabled** and click **Save**.

Note:

- You can add multiple port triggering rules as needed.
- The triggering ports can not be overlapped.
- If the application you need is not listed in the **Common Applications** list, please enter the parameters manually. You should verify the incoming ports the application uses first and enter them in **Incoming Ports** field. You can input at most 5 groups of ports (or port sections). Every group of ports must be set apart with ",". For example, 2000-2038, 2050-2051, 2085, 3010-3030.

4.7.3. DMZ

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

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

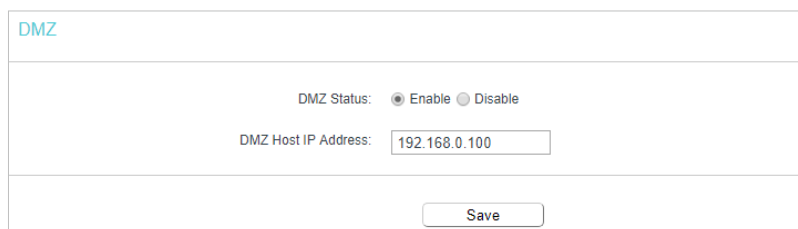
I want to:

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 opened.

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 the username and password you set for the router.
3. Go to **Forwarding > DMZ**.
4. Select **Enable** and enter the IP address 192.168.0.100 in the **DMZ Host IP Address** filed.



DMZ

DMZ Status: Enable Disable

DMZ Host IP Address:

Save

5. Click **Save**.

Done!

You've set your PC to a DMZ host and now you can make a team to game with other players.

4.7.4. UPnP

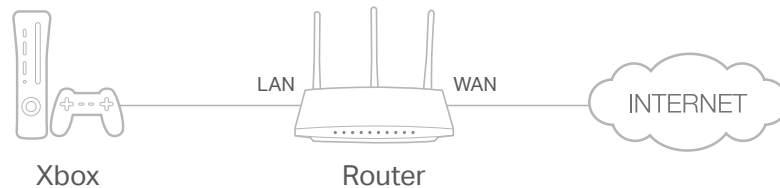
The UPnP (Universal Plug and Play) protocol allows the applications or host devices to automatically find the front-end NAT device and send request to it to open the corresponding ports. With UPnP enabled, the applications or host devices on the local network and the internet can freely communicate with each other realizing the seamless connection of the network. You may need to enable the UPnP if you want to use applications for multiplayer gaming, peer-to-peer connections, real-time communication (such as VoIP or telephone conference) or remote assistance, etc.

Tips:

- 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 is connected to the internet to play online games, UPnP will send request to the router to open the corresponding ports allowing the following data penetrating the NAT to transmit. Therefore, you can play Xbox online games without a hitch.



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

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Forwarding > UPnP**.
3. Click **Disable** or **Enable** according to your needs.

UPnP

Current UPnP Status: Enabled Disable

Current UPnP Settings List

ID	App Description	External Port	Protocol	Internal Port	IP Address	Status

Refresh

4. 8. Security

This function allows you to protect your home network from cyber attacks and unauthorized users by implementing these network security functions.

4. 8. 1. Basic Security

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Security > Basic Security**, and you can enable or disable the security functions.

Basic Security

Firewall

Enable SPI Firewall:

VPN

PPTP Pass-through: Enable Disable

L2TP Pass-through: Enable Disable

IPSec Pass-through: Enable Disable

ALG

FTP ALG: Enable Disable

TFTP ALG: Enable Disable

H323 ALG: Enable Disable

SIP ALG: Enable Disable

RTSP ALG: Enable Disable

Save

- **Firewall** - A firewall protects your network from internet attacks.
 - **SPI Firewall** - SPI (Stateful Packet Inspection, also known as dynamic packet filtering) helps to prevent cyber attacks by tracking more state per session. It validates that the traffic passing through the session conforms to the protocol. SPI Firewall is enabled by default.
- **VPN** - VPN Passthrough must be enabled if you want to allow VPN tunnels using IPSec, PPTP or L2TP protocols to pass through the router's firewall.
 - **PPTP Passthrough** - Point-to-Point Tunneling Protocol (PPTP) allows the Point-to-Point Protocol (PPP) to be tunneled through an IP network. If you want to allow PPTP tunnels to pass through the router, you can keep the default (Enabled).
 - **L2TP Passthrough** - Layer 2 Tunneling Protocol (L2TP) is the method used to enable Point-to-Point sessions via the internet on the Layer 2 level. If you want to allow L2TP tunnels to pass through the router, you can keep the default (Enabled).
 - **IPSec Passthrough** - Internet Protocol Security (IPSec) is a suite of protocols for ensuring private, secure communications over Internet Protocol (IP) networks, through the use of cryptographic security services. If you want to allow IPSec tunnels to pass through the router, you can keep the default (Enabled).
- **ALG** - It is recommended to enable Application Layer Gateway (ALG) because ALG allows customized Network Address Translation (NAT) traversal filters to be plugged

into the gateway to support address and port translation for certain application layer "control/data" protocols such as FTP, TFTP, H323 etc.

- **FTP ALG** - To allow FTP clients and servers to transfer data across NAT, keep the default **Enable**.
- **TFTP ALG** - To allow TFTP clients and servers to transfer data across NAT, keep the default **Enable**.
- **H323 ALG** - To allow Microsoft NetMeeting clients to communicate across NAT, keep the default **Enable**.
- **SIP ALG** - To allow some multimedia clients to communicate across NAT, click **Enable**.
- **RTSP ALG** - To allow some media player clients to communicate with some streaming media servers across NAT, click **Enable**.

3. Click **Save**.

4. 8. 2. Advanced Security

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Security > Advanced Security**, and you can protect the router from being attacked by ICMP-Flood, UDP Flood and TCP-SYN Flood.

Advanced Security

DoS Protection: Enable Disable

Enable ICMP-Flood Attack Filtering
ICMP-Flood Packets Threshold (5~3600): packets/second

Enable UDP-Flood Attack Filtering
UDP-Flood Packets Threshold (5~3600): packets/second

Enable TCP-SYN-Flood Attack Filtering
TCP-SYN-Flood Packets Threshold (5~3600): packets/second

Forbid Ping Packet From WAN Port
 Forbid Ping Packet From LAN Port

[Blocked DOS Host List](#)

- **DoS Protection** - Denial of Service protection. Select Enable or Disable to enable or disable the DoS protection function. Only when it is enabled, will the flood filters be enabled.

Note: Dos Protection will take effect only when the Statistics in **System Tool > Statistics** is enabled.

- **Enable ICMP-FLOOD Attack Filtering** - Check the box to enable or disable this function.

- **ICMP-FLOOD Packets Threshold (5~3600)** - The default value is 50. Enter a value between 5 ~ 3600. When the number of the current ICMP-FLOOD packets is beyond the set value, the router will startup the blocking function immediately.
 - **Enable UDP-FLOOD Filtering** - Check the box to enable or disable this function.
 - **UDP-FLOOD Packets Threshold (5~3600)** - The default value is 500. Enter a value between 5 ~ 3600. When the number of the current UPD-FLOOD packets is beyond the set value, the router will startup the blocking function immediately.
 - **Enable TCP-SYN-FLOOD Attack Filtering** -Check the box to enable or disable this function.
 - **TCP-SYN-FLOOD Packets Threshold (5~3600)** - The default value is 50. Enter a value between 5 ~ 3600. When the number of the current TCP-SYN-FLOOD packets is beyond the set value, the router will startup the blocking function immediately.
 - **Forbid Ping Packet From WAN Port** - The default setting is disabled. If enabled, the ping packet from the internet cannot access the router.
 - **Forbid Ping Packet From LAN Port** - The default setting is disabled. If enabled, the ping packet from LAN cannot access the router. This function can be used to defend against some viruses.
3. Click **Save**.
 4. Click **Blocked DoS Host List** to display the DoS host table by blocking.

4.8.3. Local Management

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Security > Local Management**, and you can block computers in LAN from accessing the router.

Local Management

Management Rules

All the PCs on the LAN are allowed to access the Router's Web-Based Utility

Only the PCs listed can browse the built-in web pages to perform Administrator tasks

MAC:

Your PC's MAC Address:


For example, if you want to allow PCs with specific MAC addresses to access the router's web management page locally from inside the network, please follow the instructions below:

- 1) Select [Only the PCs listed can browse the built-in web pages to perform Administrator tasks](#).
- 2) Enter the MAC address of each PC separately. The format of the MAC address is XX:XX:XX:XX:XX:XX (X is any hexadecimal digit). Only the PCs with the listed MAC addresses can use the password to browse the built-in web pages to perform administrator tasks.
- 3) Click [Set](#), and your PC's MAC address will also be listed.
- 4) Click [Save](#).

Note: If your PC is blocked but you want to access the router again, press and hold the [Reset](#) button to reset the router to the factory defaults.

4.8.4. Remote Management

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Security > Remote Management](#), and you can manage your router from a remote device via the internet.



Remote Management

Web Management Port:

Remote Management IP Address: (Enter 255.255.255.255 for all)

- **Web Management Port** - Web browser access normally uses the standard HTTP service port 80. This router's default remote management web port number is 80. For higher security, you can change the remote management web port to a custom port by entering a number between 1 and 65534 but do not use the number of any common service port.
- **Remote Management IP Address** - This is the address you will use when accessing your router via a remote device. This function is disabled when the IP address is set to the default value of 0.0.0.0. To enable this function, change 0.0.0.0 to a valid IP address. If it is set to 255.255.255.255, then all the remote devices can access the router from the internet.

Note:

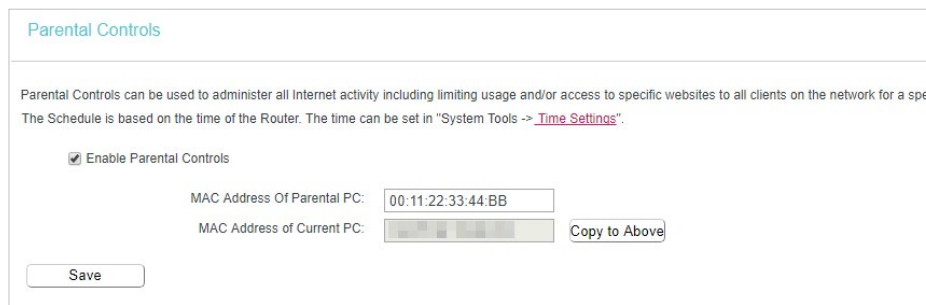
- To access the router, enter your router's WAN IP address in your browser's address bar, followed by a colon and the custom port number. For example, if your router's WAN address is 202.96.12.8, and the port number used is 8080, please enter <http://202.96.12.8:8080> in your browser. Later, you may be asked for the router's password. After successfully entering the username and password, you will be able to access the router's web management page.
- Be sure to change the router's default password for security purposes.

4.9. Parental Controls

Parental Controls allows you to block inappropriate and malicious websites, and control access to specific websites at specific time for your children's devices.

For example, you want the children's PC with the MAC address 00:11:22:33:44:AA can access www.tp-link.com on Saturday only while the parent PC with the MAC address 00:11:22:33:44:BB is without any restriction.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Parental Controls](#).
3. Select [Enable Parental Controls](#) and enter the MAC address 00:11:22:33:44:BB in the [MAC Address of Parental PC](#) field. And click [Save](#).



The screenshot shows the 'Parental Controls' configuration page. At the top, there is a title 'Parental Controls' and a brief description: 'Parental Controls can be used to administer all Internet activity including limiting usage and/or access to specific websites to all clients on the network for a spe... The Schedule is based on the time of the Router. The time can be set in "System Tools -> Time Settings".' Below this, there is a checkbox labeled 'Enable Parental Controls' which is checked. Underneath, there are two input fields: 'MAC Address Of Parental PC:' with the value '00:11:22:33:44:BB' and 'MAC Address of Current PC:' which is empty. A 'Copy to Above' button is located to the right of the second field. At the bottom left, there is a 'Save' button.

4. Enter appropriate parameters in corresponding fields.

- Enter 00-11-22-33-44-BB in the **MAC Address -1** field.
- Select the allowed access time.
- Enter www.tp-link.com in the **Add URL** field and click **Add**.

5. Click **Save**.

4. 10. Access Control

Access Control is used to deny or allow specific client devices to access your network with access time and content restrictions.

I want to:

Deny or allow specific client devices to access my network with access time and content restrictions.

For example, If you want to restrict the internet activities of host with MAC address 00:11:22:33:44:AA on the LAN to access www.tp-link.com only, please follow the steps below.

How can I do that?

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Access Control** > **Host** and configure the host settings:

- 1) Click [Add New](#).
- 2) Select [MAC Address](#) as the mode type. Create a unique description (e.g. [host_1](#)) for the host in the [Host Description](#) field and enter 00:11:22:33:44:AA in the [MAC Address](#) field.

- 3) Click [Save](#).
3. Go to [Access Control](#) > [Target](#) and configure the target settings:
 - 1) Click [Add New](#).
 - 2) Select [URL Address](#) as the mode type. Create a unique description (e.g. [target_1](#)) for the target in the [Target Description](#) field and enter the URL address, either the full name or the keywords (for example TP-Link) in the [Add URL Address](#) field and click [Add](#).

■ **Note:** Any domain name with keywords in it (e.g. [www.tp-link.com](#)) will be blocked or allowed.

- 3) Click [Save](#).
4. Go to [Access Control](#) > [Schedule](#) and configure the schedule settings:
 - 1) Click [Add New](#).
 - 2) Create a unique description (e.g. [schedule_1](#)) for the schedule in the [Description](#) field and set the applied time and click [Add](#).

Add or Edit A Schedule Entry

The Schedule is based on the time of the Router. The time can be set in "System Tools -> Time Settings".

Description:

Apply To:

Start Time:

End Time:

Time	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00
Sun.															
Mon.															
Tues.															
Wed.															
Thur.															
Fri.															
Sat.															

- 3) Click **Save**.
5. Go to **Access Control > Rule** and add a new access control rule.
 - 1) Click **Add New**.
 - 2) Give a name for the rule in the **Description** field. Select **host_1** from the host drop-down list; select **target_1** from the target drop-down list; select **schedule_1** from the schedule drop-down list.

Add Internet Access Control Entry

Description:

LAN Host: [Add LAN Host](#)

Target: [Add Target](#)

Schedule: [Add Schedule](#)

Rule:

Status:

Direction:

- 3) Leave the status as **Enabled** as click **Save**.
6. Select **Enable Internet access control** to enable Access Control function.
7. Select **Deny the packets not specified by any filtering rules to passthrough this device** as the default filter rules and click **Save**.

Access Control Rule Management

This device can restrict Internet activity for specified LAN hosts. You can set and combine access control rules to effectively manage your network.

Enable Internet access control

Default Filtering Rules:

Allow the packets not specified by any filtering rules to passthrough this device.

Deny the packets not specified by any filtering rules to passthrough this device.

Done!

Now only the specific host(s) can visit the target(s) within the scheduled time period.

4. 11. Advanced Routing

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

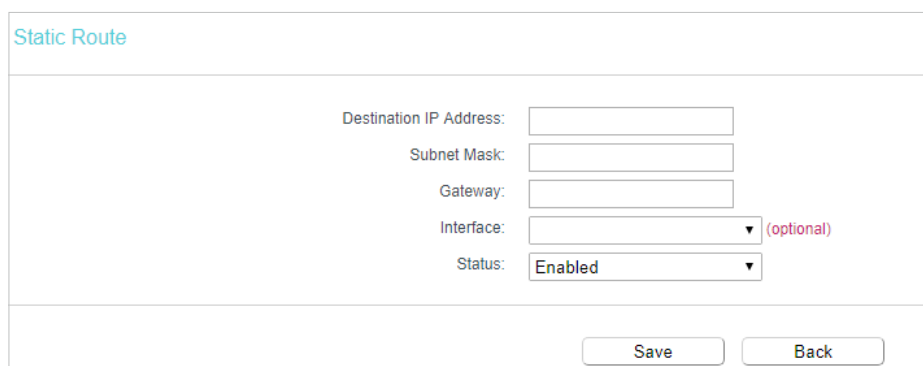
4. 11. 1. Static Routing List

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

2. Go to [Advanced Routing](#) > [Static Routing](#).

- **To add static routing entries:**

1. Click [Add New](#).



The screenshot shows a web form titled "Static Route". It contains the following fields and controls:

- Destination IP Address:
- Subnet Mask:
- Gateway:
- Interface: (optional)
- Status:

At the bottom right of the form are two buttons: "Save" and "Back".

2. Enter the following information.

- **Destination IP Address** - The Destination IP Address is the address of the network or host that you want to assign to a static route.
- **Subnet Mask** - The Subnet Mask determines which portion of an IP address is the network portion, and which portion is the host portion.
- **Gateway** - This is the IP address of the default gateway device that allows the contact between the router and the network or host.
- **Interface** - It is empty by default. Please select a connection from the drop-down list if the Gateway is left empty or is not on the same network segment as LAN/WAN interface.

3. Select **Enabled** or **Disabled** for this entry on the **Status** drop-down list.

4. Click [Save](#).

You can also do the following operations to modify the current settings.

- Click [Delete Selected](#) to delete selected entries.

- Click [Enable Selected](#) to enable selected entries.
- Click [Disable Selected](#) to disable selected entries.

4. 11. 2. System Routing Table

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Advanced Routing > System Routing Table](#), and you can view all the valid route entries in use.

System Routing Table				
ID	Destination Network	Subnet Mask	Gateway	Interface
1	192.168.0.0	255.255.255.0	0.0.0.0	LAN & WLAN
2	239.0.0.0	255.0.0.0	0.0.0.0	LAN & WLAN

[Refresh](#)

- **Destination Network** - The Destination Network is the address of the network or host to which the static route is assigned.
- **Subnet Mask** - The Subnet Mask determines which portion of an IP address is the network portion, and which portion is the host portion.
- **Gateway** - This is the IP address of the gateway device that allows for contact between the Router and the network or host.
- **Interface** - This interface tells you whether the Destination IP Address is on the LAN & WLAN (internal wired and wireless networks), or the WAN (Internet).
- Click [Refresh](#) to refresh the data displayed.

4. 12. Bandwidth Control

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Bandwidth Control](#).
3. Configure the bandwidth as needed and click [Save](#).

Bandwidth Control	
<input checked="" type="checkbox"/> Enable Bandwidth Control	
Egress Bandwidth:	<input type="text"/> Kbps
Ingress Bandwidth:	<input type="text"/> Kbps
Save	

The values you configure for the Egress Bandwidth and Ingress Bandwidth should be less than 100,000Kbps. For optimal control of the bandwidth, please select the right Line Type and consult your ISP for the total egress and ingress bandwidth.

- **Enable Bandwidth Control** - Check this box so that the Bandwidth Control settings can take effect.
- **Egress Bandwidth** - The upload speed through the WAN port.
- **Ingress Bandwidth** - The download speed through the WAN port.

Bandwidth Control Rule List						
ID	Description	Egress Bandwidth(Kbps)		Ingress Bandwidth(Kbps)		Enable
		Min	Max	Min	Max	
The current list is empty.						
Add New...		Delete All				
Previous		Next		Current No. 1 Page		

- **Description** - This is the information about the rules such as address range.
- **Priority** - Priority of Bandwidth Control rules. '1' stands for the highest priority while '8' stands for the lowest priority. The total Upstream/ Downstream Bandwidth is first allocated to guarantee all the Min Rate of Bandwidth Control rules. If there is any bandwidth left, it is first allocated to the rule with the highest priority, then to the rule with the second highest priority, and so on.
- **Egress Bandwidth** - This field displays the max and min upload bandwidth through the WAN port. The default is 0.
- **Ingress Bandwidth** - This field displays the max and min download bandwidth through the WAN port. The default is 0.
- **Status** - Rule status, show whether the rule takes effect.
- **Edit** - Choose to edit or delete an existing entry.

- **To add a Bandwidth control rule:**

1. Click **Add New**.
2. Enter the information as the figure shown below.

Bandwidth Control	
Enable:	<input checked="" type="checkbox"/>
IP Range:	<input type="text"/> -- <input type="text"/>
Port Range:	<input type="text"/> -- <input type="text"/>
Protocol:	ALL
Priority:	5 (1 meaning highest priority)
	Min Bandwidth(Kbps) Max Bandwidth(Kbps)
Egress Bandwidth:	<input type="text"/> <input type="text"/>
Ingress Bandwidth:	<input type="text"/> <input type="text"/>
<input type="button" value="Save"/> <input type="button" value="Back"/>	

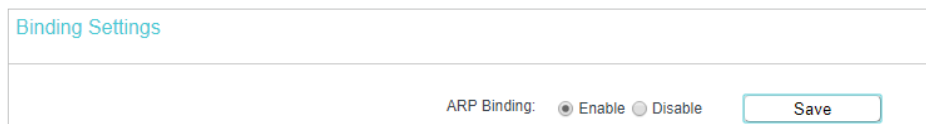
3. Click [Save](#).

4. 13. IP&MAC Binding

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

4. 13. 1. Binding Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [IP & MAC Binding > Binding Settings](#).
3. Select [Enable](#) for ARP Binding.

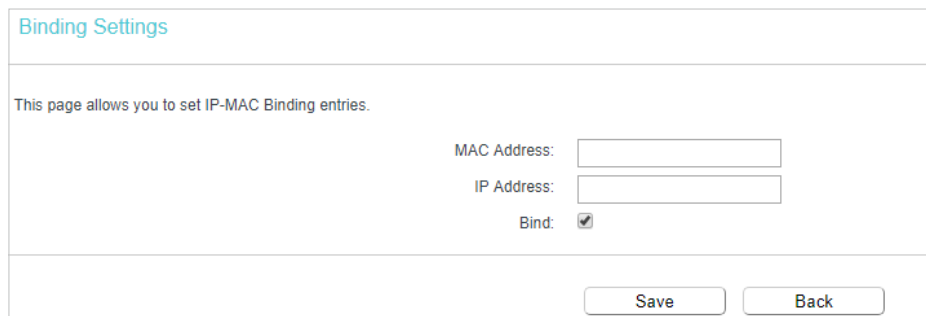


The screenshot shows the 'Binding Settings' page. At the bottom, there is a section for 'ARP Binding' with two radio buttons: 'Enable' (which is selected) and 'Disable'. To the right of these buttons is a 'Save' button.

4. Click [Save](#).

- **To add IP & MAC Binding entries:**

1. Click [Add New](#).



The screenshot shows the 'Binding Settings' page with a form for adding a new entry. The form includes a text area with the instruction 'This page allows you to set IP-MAC Binding entries.' Below this, there are three input fields: 'MAC Address:', 'IP Address:', and 'Bind:'. The 'Bind:' checkbox is checked. At the bottom of the form, there are 'Save' and 'Back' buttons.

2. Enter the MAC address and IP address and select the [Bind](#) checkbox.
3. Click [Save](#).

- **To modify or delete an existing entry:**

1. Find the desired entry in the table.
2. Click [Edit](#) or click [Delete Selected](#).

4.13.2. ARP List

To manage a device, you can observe the device on the LAN by checking its MAC address and IP address on the ARP list, and you can also configure the items. This page displays the ARP list which shows all the existing IP & MAC Binding entries.

ARP List			
	MAC Address	IP Address	Status
<input type="checkbox"/>	00:E0:4C:00:07:BE	192.168.0.11	Bound
<input type="checkbox"/>	14:CF:92:13:6D:78	192.168.0.100	Unloaded

- **MAC Address** - The MAC address of the listed computer on the LAN.
- **IP Address** - The assigned IP address of the listed computer on the LAN.
- **Status** - Indicates whether or not the MAC and IP addresses are bound.
- **Load Selected** - Load selected items to the ARP list.
- **Delete Selected** - Delete selected items.

Note: An item can not be loaded to the IP & MAC Binding list if the IP address of the item has been loaded before. Error warning will prompt as well.

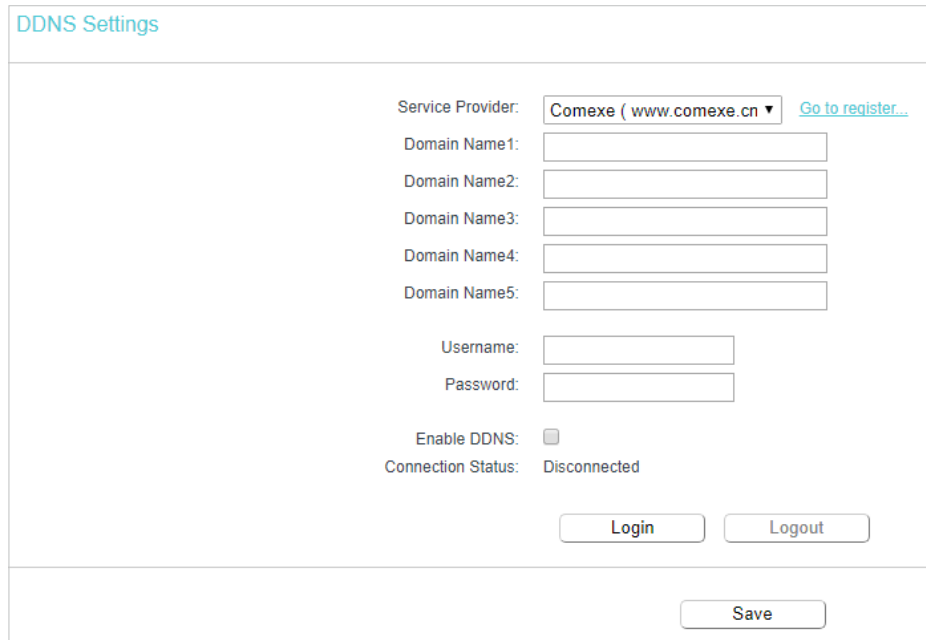
4.14. Dynamic DNS

The router offers the DDNS (Dynamic Domain Name System) feature, which allows the hosting of a website, FTP server, or e-mail server with a fixed domain name (named by yourself) and a dynamic IP address. Thus your friends can connect to your server by entering your domain name no matter what your IP address is. Before using this feature, you need to sign up for DDNS service providers such as www.comexe.cn, www.dyndns.org, or www.noip.com. The Dynamic DNS client service provider will give you a password or key.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Dynamic DNS](#).

Comexe DDNS

If the dynamic DNS Service Provider you select is www.comexe.cn, the following page will appear.



The screenshot shows the DDNS Settings page for the Comexe service provider. The page title is "DDNS Settings". The "Service Provider" dropdown is set to "Comexe (www.comexe.cn)" with a "Go to register..." link. There are five "Domain Name" input fields (1-5), a "Username" field, and a "Password" field. The "Enable DDNS" checkbox is unchecked. The "Connection Status" is "Disconnected". There are "Login" and "Logout" buttons, and a "Save" button at the bottom.

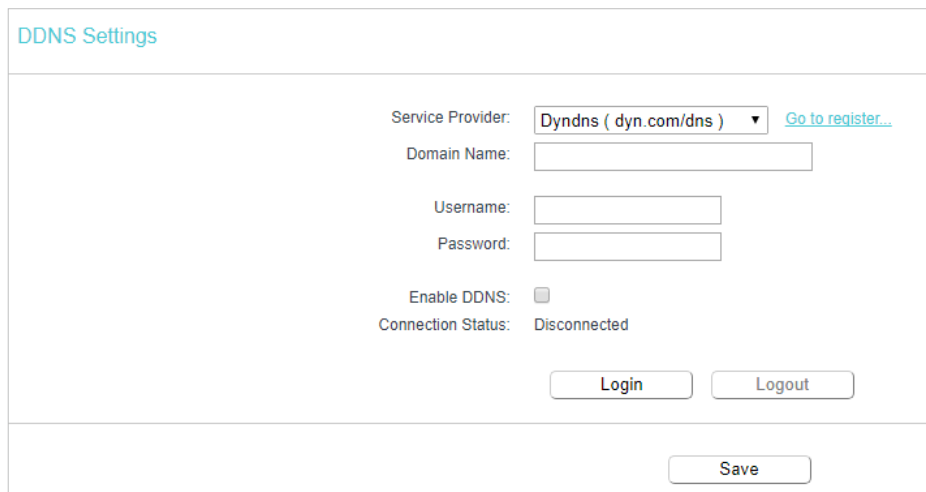
To set up for DDNS, follow these instructions:

1. Enter the [Domain Name](#) received from your dynamic DNS service provider.
2. Enter the [Username](#) for your DDNS account.
3. Enter the [Password](#) for your DDNS account.
4. Click [Login](#).
5. Click [Save](#).

- [Connection Status](#) - The status of the DDNS service connection is displayed here.
- [Logout](#) - Click [Logout](#) to log out of the DDNS service.

Dyndns DDNS

If the dynamic DNS Service Provider you select is www.dyn.com, the following page will appear.



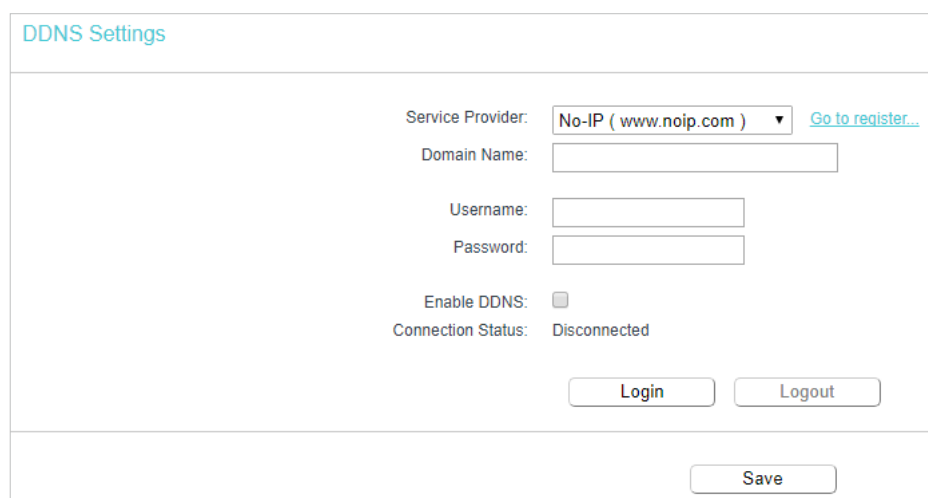
The screenshot shows the DDNS Settings page for the DynDNS service provider. The page title is "DDNS Settings". The "Service Provider" dropdown is set to "Dyndns (dyn.com/dns)" with a "Go to register..." link. There is one "Domain Name" input field, a "Username" field, and a "Password" field. The "Enable DDNS" checkbox is unchecked. The "Connection Status" is "Disconnected". There are "Login" and "Logout" buttons, and a "Save" button at the bottom.

To set up for DDNS, follow these instructions:

1. Enter the [Username](#) for your DDNS account.
 2. Enter the [Password](#) for your DDNS account.
 3. Enter the [Domain Name](#) you received from dynamic DNS service provider here.
 4. Click [Login](#).
 5. Click [Save](#).
- [Connection Status](#) - The status of the DDNS service connection is displayed here.
 - [Logout](#) - Click [Logout](#) to log out of the DDNS service.

No-ip DDNS

If the dynamic DNS Service Provider you select is www.noip.com, the following page will appear.



The screenshot shows the 'DDNS Settings' page. At the top left, the title 'DDNS Settings' is displayed in blue. Below the title, there are several input fields and controls:

- Service Provider:** A dropdown menu is set to 'No-IP (www.noip.com)'. To its right is a blue link that says 'Go to register...'
- Domain Name:** An empty text input field.
- Username:** An empty text input field.
- Password:** An empty text input field.
- Enable DDNS:** A checkbox that is currently unchecked.
- Connection Status:** The text 'Disconnected' is displayed.

At the bottom of the form area, there are two buttons: 'Login' and 'Logout'. Below the form area, centered, is a 'Save' button.

To set up for DDNS, follow these instructions:

1. Enter the [Username](#) for your DDNS account.
 2. Enter the [Password](#) for your DDNS account.
 3. Enter the [Domain Name](#) you received from dynamic DNS service provider.
 4. Click [Login](#).
 5. Click [Save](#).
- [Connection Status](#) - The status of the DDNS service connection is displayed here.
 - [Logout](#) - Click [Logout](#) to log out of the DDNS service.

4. 15. IPv6

Your ISP provides information about one of the following IPv6 internet connection types: Dynamic IPv6, Static IPv6, PPPoEv6 and Tunnel 6to4.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **IPv6 > IPv6 WAN**.
3. Enable IPv6 and select the internet connection type provided by your ISP.
Note: If you do not know what your internet connection type is, contact your ISP or judge according to the already known information provided by your ISP.
4. Fill in the blanks as required by different connection types.
 - 1) **Dynamic IPv6:** the router will automatically get related parameters from your ISP.

IPv6 WAN

Enable IPv6:

Connection Type: Dynamic IPv6

IPv6 Address:

Prefix Length:

IPv6 Gateway:

Addressing Type: DHCPv6

MTU(Bytes): (1500 as default, do not change unless necessary) Hide

Enable MLD Proxy:

Set IPv6 DNS Server manually:

Host Name:

Save

- 2) **Static IPv6:** Fill in the IPv6 address, gateway (optional) and DNS servers (optional) and click **Save**.

IPv6 WAN

Enable IPv6:

Connection Type: Static IPv6

IPv6 Address:

Prefix Length:

IPv6 Gateway: (optional)

IPv6 DNS Server: (optional)

Secondary IPv6 DNS Server: (optional)

MTU(Bytes): (1500 as default, do not change unless necessary) Hide

Enable MLD Proxy:

Save

- 3) **PPPoEv6:** By default, the router uses the IPv4 account to connect to the IPv6 server. Click **Advance** to input further information if your ISP requires.

Note: If your ISP provides two separate accounts for the IPv4 and IPv6 connections, please untick the PPPoE same session with IPv4 connection checkbox and manually enter the username and password for the IPv6 connection.

- 4) Tunnel 6to4: An IPv4 connection type is a prerequisite for this connection type.

IPv6 WAN

Enable IPv6:

Connection Type: Tunnel 6to4

WAN Connection: ewan_ipoe_d

Save

5. Configure the LAN settings. Select an [Address Auto-Configuration Type](#) to assign IPv6 addresses to the computers in your LAN. [RADVD](#) and [DHCPv6 Server](#) are provided. If RADVD is selected, it doesn't need to be configured. If DHCPv6 Server is selected, please fill in the following parameters.

IPv6 LAN Settings

The parameters of IPv6 LAN can be configured on this page when IPv6 enabled.
Note: Only the default group will support IPv6 at this moment.

Group: Default

Address Auto-Configuration Type: RADVD DHCPv6 Server

Start IPv6 Address: ::1 (1~FFFE)

End IPv6 Address: ::FFFE (1~FFFE)

Leased Time: 86400 seconds (The default value is 86400)

Site Prefix Configuration Type: Delegated Static

Prefix Delegated WAN Connection: ewan_ipoev6_d

Save

- [Start IPv6 Address](#) - Enter a value for the DHCPv6 server to start with when issuing IPv6 addresses.
- [End IPv6 Address](#) - Enter a value for the DHCPv6 server to end with when issuing IPv6 addresses.
- [Leased Time](#) - The Leased Time is the amount of time in which a network user will be allowed connection to the router with their current dynamic IPv6 address. Enter the amount of time, in hours, then the user will be leased this dynamic IPv6 address. After the dynamic IPv6 address has expired, the user will be automatically assigned a new dynamic IPv6 address. The default is 86400 seconds.
- [Site Prefix Configuration Type](#) - Select a type to assign IPv6 prefix addresses to the computers in your LAN. [Delegated](#) and [Static](#) are provided.

Note: If your IPv6 wan connection type is "Tunnel 6to4", the Site Prefix Configuration Type should be "Static" to make sure "Tunnel 6to4" works properly.

- 1) If [Delegated](#) is selected:

- [Prefix Delegated WAN Connection](#) - Displays the WAN connection selected to assign prefix.

- 2) If **Static** is selected,
 - **Site Prefix** - Enter a value for the site prefix.
 - **Site Prefix Length** - Enter a value for the site prefix length.
6. Go to **IPv6 > IPv6 Status** to check whether you have successfully set up an IPv6 connection.

4. 16. System Tools

4. 16. 1. Time Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Time Settings** and configure the system time as needed.

Time Settings

Time Settings:

Time Zone: (GMT) Greenwich Mean Time: Dublin, Edinburgh, London, Lisbon ▼

Date: 1970 Year 1 Month 1 Day

Time 4 Hour 28 Minute 45 Second Get from PC

NTP Server 1: (optional)

NTP Server 2: (optional)

Get GMT (Only when the Internet connection is active).

Save

Daylight Saving:

Enable Daylight Saving:

Start: Mar ▼ Last ▼ Sun ▼ 01:00 ▼

End: Oct ▼ Last ▼ Sun ▼ 02:00 ▼

Save

- **To set time manually:**

1. Select your local **time zone**.
2. Enter the **Date** in Month/Day/Year format.
3. Enter the **Time** in Hour/Minute/Second format.
4. Click **Save**.

- **To set time automatically:**

1. Select your local **time zone**.
2. Enter the address or domain of the **NTP Server I** or **NTP Server II**.

3. Click [Get GMT](#) to get time from the internet if you have connected to the internet.

- **To set Daylight Saving Time:**

1. Select [Enable Daylight Saving](#).
2. Select the start time from the drop-down list in the [Start](#) field.
3. Select the end time from the drop-down list in the [End](#) field.
4. Click [Save](#).

Note: This setting will be used for some time-based functions such as firewall. You must specify your time zone once you log in to the router successfully; otherwise, time-based functions will not take effect.

4.16.2. Diagnostic

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

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Diagnostic](#).

Diagnostic Tools

Diagnostic Parameters

Diagnostic Tool:	<input checked="" type="radio"/> Ping <input type="radio"/> Traceroute
IP Address/ Domain Name:	<input style="width: 100%;" type="text"/>
Ping Count:	<input style="width: 50px;" type="text" value="4"/> (1-50)
Ping Packet Size:	<input style="width: 50px;" type="text" value="64"/> (4-1472 Bytes)
Ping Timeout:	<input style="width: 50px;" type="text" value="800"/> (100-2000 Milliseconds)
Traceroute Max TTL:	<input style="width: 50px;" type="text" value="20"/> (1-30)

- **Diagnostic Tool** - Select one diagnostic tool.
 - **Ping** - This diagnostic tool troubleshoots connectivity, reachability, and name resolution to a given host or gateway.
 - **Tracerouter** - This diagnostic tool tests the performance of a connection.

Note: You can use ping/traceroute to test both numeric IP address or domain name. If pinging/tracerouting the IP address is successful, but pinging/tracerouting the domain name is not, you might have a name resolution problem. In this case, ensure that the domain name you are specifying can be resolved by using Domain Name System (DNS) queries.

- **IP address/Domain name** - Enter the destination IP address (such as 192.168.0.1) or Domain name (such as www.tp-link.com).
- **Pings Count** - The number of Ping packets for a Ping connection.
- **Ping Packet Size** - The size of Ping packet.
- **Ping Timeout** - Set the waiting time for the reply of each Ping packet. If there is no reply in the specified time, the connection is overtime.

- **Traceroute Max TTL** - The max number of hops for a Traceroute connection.
3. Click **Start** to check the connectivity of the internet.
 4. The **Diagnostic Results** page displays the diagnosis result. If the result is similar to the following figure, the connectivity of the internet is fine.

```

Diagnostic Results
-----
Pinging 192.168.0.1 with 64 bytes of data:

Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=1
Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=2
Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=3
Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=4

Ping statistics for 192.168.0.1
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss)
Approximate round trip times in milliseconds:
  Minimum = 1, Maximum = 1, Average = 1
  
```

Note: Only one user can use this tool at one time. Options “Number of Pings”, “Ping Size” and “Ping Timeout” are used for the Ping function. Option “Tracert Hops” is used for the Tracert function.

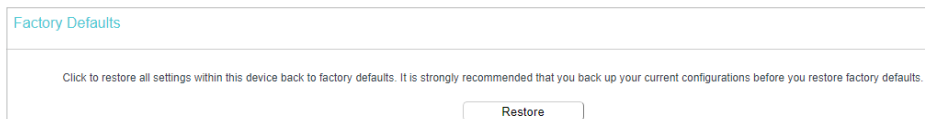
4. 16. 3. Firmware Upgrade

TP-Link is dedicated to improving and enriching the product features, giving users a better network experience. We will release the latest firmware at TP-Link official website. You can download the latest firmware file from the **Support** page of our website www.tp-link.com and upgrade the firmware to the latest version.

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

4. 16. 4. Factory Defaults

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Factory Defaults**. Click **Restore** to reset all settings to the default values.

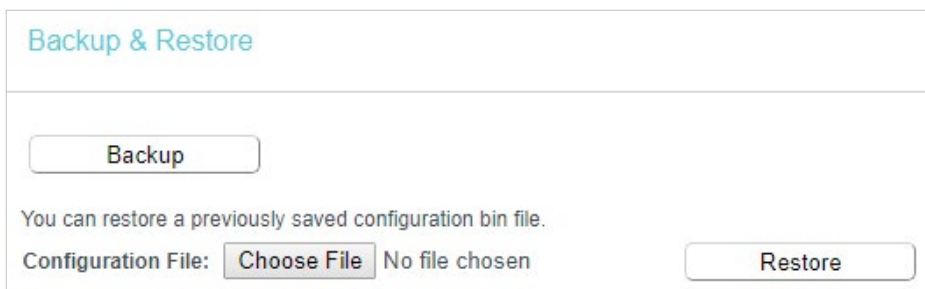


- The default **Username**: admin
- The default **Password**: admin
- The default **IP Address**: 192.168.0.1
- The default **Subnet Mask**: 255.255.255.0

4. 16. 5. Backup & Restore

The configuration settings are stored as a configuration file in the router. You can backup the configuration file in your computer for future use and restore the router to the previous settings from the backup file when needed.

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



- **To backup configuration settings:**

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

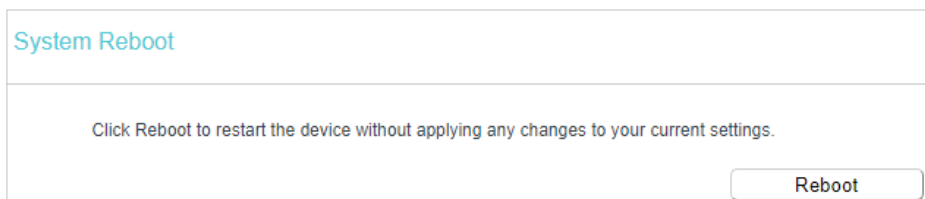
- **To restore configuration settings:**

1. Click **Choose File** to locate the backup configuration file stored in your computer, and click **Restore**.
2. Wait a few minutes for the restoring and rebooting.

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

4. 16. 6. Reboot

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Reboot**, and you can restart your router.

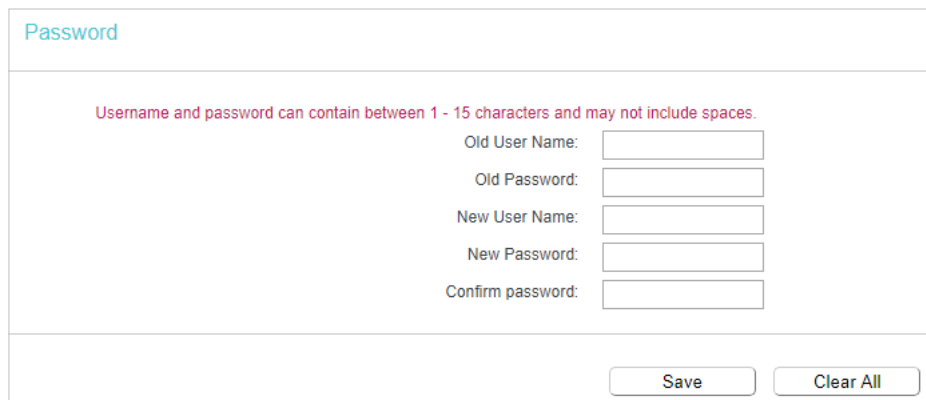


Some settings of the router will take effect only after rebooting, including:

- Change the LAN IP Address (system will reboot automatically).
- Change the DHCP Settings.
- Change the Web Management Port.
- Upgrade the firmware of the router (system will reboot automatically).
- Restore the router to its factory defaults (system will reboot automatically).
- Update the configuration with the file (system will reboot automatically).

4. 16. 7. Password

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Password**, and you can change the factory default username and password of the router.



The screenshot shows the 'Password' configuration page. At the top, the title 'Password' is displayed. Below the title, a red warning message states: 'Username and password can contain between 1 - 15 characters and may not include spaces.' There are five input fields: 'Old User Name:', 'Old Password:', 'New User Name:', 'New Password:', and 'Confirm password:'. At the bottom right, there are two buttons: 'Save' and 'Clear All'.

It is strongly recommended that you change the default username and password of the router, for all users that try to access the router's web-based utility or Quick Setup will be prompted for the router's username and password.

Note: The new username and password must not exceed 15 characters and not include any spacing.

3. Click **Save**.

4. 16. 8. System Log

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > System Log**, and you can view the logs of the router.

System Log

Log Type: **ALL** Log Level: **Debug**

Index	Time	Type	Level	Content
1	1970-01-01 04:37:15	DHCPC	Notice	Recv no OFFER, DHCP Service unavailable
2	1970-01-01 04:37:12	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
3	1970-01-01 04:37:09	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
4	1970-01-01 04:37:04	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
5	1970-01-01 04:37:01	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
6	1970-01-01 04:36:58	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
7	1970-01-01 04:36:44	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
8	1970-01-01 04:36:41	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
9	1970-01-01 04:36:36	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
10	1970-01-01 04:36:33	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
11	1970-01-01 04:36:30	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
12	1970-01-01 04:36:16	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
13	1970-01-01 04:36:13	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
14	1970-01-01 04:36:08	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
15	1970-01-01 04:36:05	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
16	1970-01-01 04:36:02	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
17	1970-01-01 04:35:51	DHCPC	Notice	Recv no OFFER, DHCP Service unavailable
18	1970-01-01 04:35:48	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
19	1970-01-01 04:35:45	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1

Refresh Clear Log Save Log Log Settings

- **Refresh** - Refresh the page to show the latest log list.
- **Clear Log** - All the logs will be deleted from the router permanently, not just from the page.
- **Save Log** - Click to save all the logs in a txt file.
- **Log Settings** - Click to set the logs in the screen.
 - **Save Locally** - If Save Locally is selected, events will be recorded in the local memory.
 - **Minimum Level** - Select the Minimum level in the drop-down list, for the Minimum Level, all logged events above or equal to the selected level will be displayed.
 - **Save Remotely** - If Save Remotely is selected, events will be sent to the specified IP address and UDP port of the remote system log server.

4. 16. 9. Statistics

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Statistics**, and you can view the statistics of the router, including total traffic and the value of the last Packet Statistic Interval in seconds.

Traffic Statistics

Traffic Statistics--LAN

Traffic Statistics: Enable Disable

Statistics Interval: seconds

Statistics List

IP Address MAC Address	Total		Current				Operation
	Packets	Bytes	Packets	Bytes	ICMP Tx	UDP Tx	
Current list is blank							

- **Traffic Statistics** - Enable or Disable. The default value is disabled. To enable, click the Enable button. If disabled, the function of DoS protection in Security settings will be disabled.
- **Statistics Interval** - The default value is 10. Select a value between 5 and 60 in the drop-down list. The Packets Statistic Interval indicates the time section of the packets statistic.
- Click **Refresh** to refresh immediately.
- Click **Reset All** to reset the values of all the entries to zero.
- Click **Delete All** to delete all entries in the table.

Statistics Table

IP/MAC Address		The IP and MAC address are displayed with related statistics.
Total	Packets	The total number of packets received and transmitted by the router.
	Bytes	The total number of bytes received and transmitted by the router.
Current	Packets	The total number of packets received and transmitted in the last Packets Statistic interval seconds.
	Bytes	The total number of bytes received and transmitted in the last Packets Statistic interval seconds.
	ICMP Tx	The number of the ICMP packets transmitted to WAN per second at the specified Packets Statistics interval. It is shown like "current transmitting rate / Max transmitting rate".
	UDP Tx	The number of UDP packets transmitted to the WAN per second at the specified Packets Statistics interval. It is shown like "current transmitting rate / Max transmitting rate".
	TCP SYN Tx	The number of TCP SYN packets transmitted to the WAN per second at the specified Packets Statistics interval. It is shown like "current transmitting rate / Max transmitting rate".
Operation	Reset	Reset the value of the entry to zero.
	Delete	Delete the existing entry in the table.

4. 17. Log Out

Click **Logout** at the bottom of the main menu, and you will log out of the web management page and return to the login window.

Chapter 5

Configure the Router in Access Point Mode

This chapter presents how to configure the various features of the router working as an access point.

It contains the following sections:

- [Status](#)
- [Operation Mode](#)
- [Network](#)
- [Wireless](#)
- [DHCP](#)
- [USB Settings](#)
- [System Tools](#)
- [Log Out](#)

5.1. Status

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Status](#). You can view the current status information of the router in Access Point Mode.

The screenshot shows the 'Status' page of a TP-Link router in Access Point Mode. The page is divided into four main sections: Status, LAN, Wireless 2.4GHz, and Wireless 5GHz. At the bottom, there is a 'System Up Time' field and a 'Refresh' button.

Section	Parameter	Value
Status	Firmware Version:	[Redacted]
	Hardware Version:	[Redacted]
LAN	MAC Address:	00:0A:EB:13:09:69
	IP Address:	192.168.0.1
	Subnet Mask:	255.255.255.0
Wireless 2.4GHz	Operation Mode:	Access Point
	Wireless Radio:	Enabled
	Name(SSID):	TP-Link_0969
	Mode:	11bgn mixed
	Channel:	Auto(Channel 1)
	Channel Width:	Auto
Wireless 5GHz	Operation Mode:	Access Point
	Wireless Radio:	Enabled
	Name(SSID):	TP-Link_0969_5G
	Mode:	11a/n/ac mixed
	Channel:	Auto(Channel 36)
	Channel Width:	Auto
System Up Time:		0 day(s) 00:01:26
		<input type="button" value="Refresh"/>

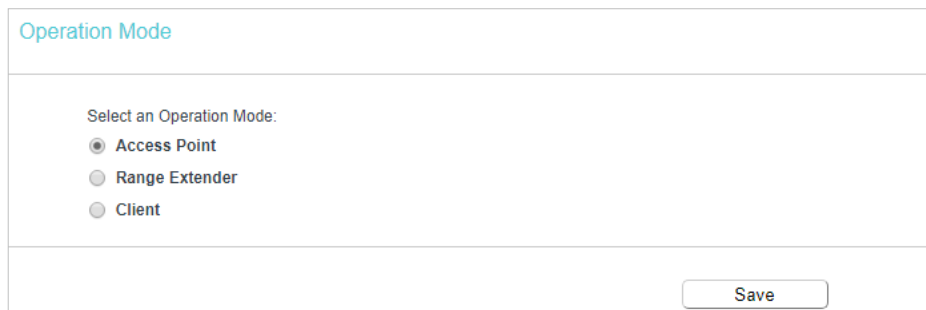
- **Firmware Version** - The version information of the router's firmware.
- **Hardware Version** - The version information of the router's hardware.
- **LAN**- This field displays the current settings of the LAN, and you can configure them on the [Network > LAN](#) page.
 - **MAC Address** - The physical address of the router.
 - **IP Address** - The LAN IP address of the router.
 - **Subnet Mask** - The subnet mask associated with the LAN IP address.

- **Wireless 2.4GHz/5GHz** - This field displays the basic information or status of the wireless function, and you can configure them on the [Wireless 2.4GHz/5GHz > Basic Settings](#) page.
 - **Operation Mode** - The current operation mode of the router.
 - **Wireless Radio** - Indicates whether the wireless feature is enabled or not
 - **Name (SSID)** - The SSID of the network.
 - **Mode** - The current wireless working mode in use.
 - **Channel** - The current wireless channel in use.
 - **Channel Width** - The current wireless channel width in use.
 - **MAC Address** - The physical address of the router.
- **System Up Time** - The length of the time since the router was last powered on or reset.

Click [Refresh](#) to get the latest status and settings of the router.

5. 2. Operation Mode

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Operation Mode](#).
3. Select the operation mode as needed and click [Save](#).



Operation Mode

Select an Operation Mode:

- Access Point
- Range Extender
- Client

Save

5. 3. Network

5. 3. 1. LAN

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Network > LAN](#).
3. Configure the IP parameters of the LAN and click [Save](#).

LAN Settings

LAN Type:

Note: The IP parameters cannot be configured if you have chosen Smart IP(DHCP)
(In this situation the device will help you configure the IP parameters automatically as you need).

MAC Address: 00:0A:EB:13:09:69

IP Address:

Subnet Mask:

- **LAN Type** - Either select **Smart IP(DHCP)** to get IP address from DHCP server, or **Static IP** to configure IP address manually.
- **MAC Address** - The physical address of the LAN port. The value can not be changed.
- **IP Address** - Enter the IP address in dotted-decimal notation if your select **Static IP** (factory default - 192.168.0.254).
- **Subnet Mask** - An address code that determines the size of the network. Normally 255.255.255.0 is used as the subnet mask.

Note:

- If you have changed the IP address, you must use the new IP address to login.
- If you select **Smart IP(DHCP)**, the DHCP server of the router will not start up.
- If the new IP address you set is not in the same subnet as the old one, the IP Address pool in the DHCP Server will be configured automatically, but the Virtual Server and DMZ Host will not take effect until they are re-configured.

5.4. Wireless

5.4.1. Basic Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Wireless 2.4GHz/5GHz > Basic Settings**.
3. Configure the basic settings for the 2.4GHz/5GHz wireless network and click **Save**.

Wireless Settings(2.4GHz)

Wireless: Enable Disable

Wireless Network Name: (Also called SSID)

Mode:

Channel Width:

Channel:

Enable SSID Broadcast

- **Wireless Network Name** - Enter a string of up to 32 characters. The default SSID is TP-Link_XXXX (XXXX indicates the last unique four numbers of each router's MAC address). It is strongly recommended that you change your network name (SSID). This value is case-sensitive. For example, TEST is NOT the same as test.
- **Mode** - Select the desired mode. It is strongly recommended that you keep the default setting **11bgn mixed** or **11a/n/ac mixed**.
- **Channel Width** - Select any channel width from the drop-down list. The default setting is **Auto**, which can automatically adjust the channel width for your clients.
- **Channel** - This field determines which operating frequency will be used. The default channel is set to **Auto**. It is not necessary to change the wireless channel unless you notice interference problems with another nearby access point.
- **Enable SSID Broadcast** - If enabled, the router will broadcast the wireless network name (SSID).

5.4.2. WPS

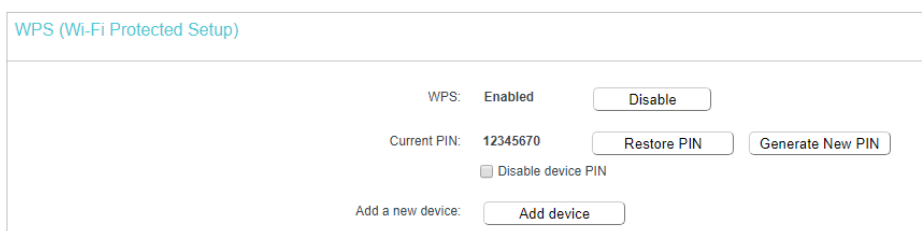
WPS (Wi-Fi Protected Setup) can help you to quickly and securely connect to a network. This section will guide you to add a new wireless device to your router's network quickly via WPS.

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

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Wireless 2.4GHz/5GHz > WPS**.
3. Follow one of the following three methods to connect your client device to the router's Wi-Fi network.

Method ONE: Press the WPS Button on Your Client Device

1. Keep the WPS Status as **Enabled** and click **Add Device**.



WPS (Wi-Fi Protected Setup)

WPS: Enabled

Current PIN: 12345670

Disable device PIN

Add a new device:

2. Select **Press the WPS button of the new device within the next two minutes** and click **Connect**.

WPS Settings

Enter new device PIN.
PIN:

Press the WPS button of the new device within the next two minutes.

3. Within two minutes, press the WPS button on your client device.
4. A success message will appear on the WPS page if the client device has been successfully added to the router's network.

Method TWO: Enter the Client's PIN

1. Keep the WPS Status as **Enabled** and click **Add Device**.

WPS (Wi-Fi Protected Setup)

WPS: **Enabled**

Current PIN: **12345670**

Disable device PIN

Add a new device:

2. Select **Enter the new device's PIN**, enter your client device's current PIN in the **PIN** field and click **Connect**.

WPS Settings

Enter new device PIN.
PIN:

Press the WPS button of the new device within the next two minutes.

3. A success message will appear on the WPS page if the client device has been successfully added to the router's network.

Method Three: Enter the Router's PIN

1. Keep the WPS Status as **Enabled** and get the **Current PIN** of the router.

WPS (Wi-Fi Protected Setup)

WPS: **Enabled**

Current PIN: **12345670**

Disable device PIN

Add a new device:

2. Enter the router's current PIN on your client device to join the router's Wi-Fi network.

5.4.3. Wireless Security

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless 2.4GHz/5GHz > Wireless Security](#).
3. Configure the security settings of your 2.4GHz/5GHz wireless network and click [Save](#).

Wireless Security Settings

Note: WEP security, WPA/WPA2 - Enterprise authentication and TKIP encryption are not supported with WPS enabled.
For network security, it is strongly recommended to enable wireless security and select WPA2-PSK AES encryption.

Disable Wireless Security
 WPA/WPA2 - Personal(Recommended)

Version:
 Encryption:
 Wireless Password:
 Group Key Update Period:

WPA/WPA2 - Enterprise

Version:
 Encryption:
 RADIUS Server IP:
 RADIUS Server Port: (1-65535, 0 stands for default port 1812)
 RADIUS Server Password:
 Group Key Update Period:

WEP

Authentication Type:
 WEP Key Format:

Selected Key:	WEP Key	Key Type
Key 1: <input checked="" type="radio"/>	<input type="text"/>	<input type="text" value="Disabled"/>
Key 2: <input type="radio"/>	<input type="text"/>	<input type="text" value="Disabled"/>
Key 3: <input type="radio"/>	<input type="text"/>	<input type="text" value="Disabled"/>
Key 4: <input type="radio"/>	<input type="text"/>	<input type="text" value="Disabled"/>

- **Disable Wireless Security** - The wireless security function can be enabled or disabled. If disabled, wireless clients can connect to the router without a password. It's strongly recommended to choose one of the following modes to enable security.
- **WPA/WPA2-Personal** - It's the WPA/WPA2 authentication type based on pre-shared passphrase.
 - **Version** - Select [Auto](#), [WPA-PSK](#) or [WPA2-PSK](#).
 - **Encryption** - Select [Auto](#), [TKIP](#) or [AES](#).
 - **Wireless Password** - Enter ASCII or Hexadecimal characters. For Hexadecimal, the length should be between 8 and 64 characters; for ASCII, the length should be between 8 and 63 characters.
 - **Group Key Update Period** - Specify the group key update interval in seconds. The value can be 0 or at least 30. Enter 0 to disable the update.
- **WPA/WPA2-Enterprise** - It's based on Radius Server.

- **Version** - Select **Auto**, **WPA** or **WPA2**.
- **Encryption** - Select **Auto**, **TKIP** or **AES**.
- **Radius Server IP** - Enter the IP address of the Radius server.
- **Radius Port** - Enter the port that Radius server used.
- **Radius Password** - Enter the password for the Radius server.
- **Group Key Update Period** - Specify the group key update interval in seconds. The value should be 30 or above. Enter 0 to disable the update.
- **WEP** - It is based on the IEEE 802.11 standard.
 - **Type** - The default setting is **Auto**, which can select Shared Key or Open System authentication type automatically based on the wireless client's capability and request.
 - **WEP Key Format** - Hexadecimal and ASCII formats are provided here. Hexadecimal format stands for any combination of hexadecimal digits (0-9, a-f, A-F) in the specified length. ASCII format stands for any combination of keyboard characters in the specified length.
 - **WEP Key (Password)** - Select which of the four keys will be used and enter the matching WEP key. Make sure these values are identical on all wireless clients in your network.
 - **Key Type** - Select the WEP key length (64-bit, 128-bit or 152-bit) for encryption. **Disabled** means this WEP key entry is invalid.
 - **64-bit** - Enter 10 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 5 ASCII characters.
 - **128-bit** - Enter 26 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 13 ASCII characters.
 - **152-bit** - Enter 32 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 16 ASCII characters.

5.4.4. Wireless MAC Filtering

Wireless MAC Filtering is used to deny or allow specific wireless client devices to access your network by their MAC addresses.

I want to:

Deny or allow specific wireless client devices to access my network by their MAC addresses.

For example, you want the wireless client A with the MAC address 00:0A:EB:B0:00:0B and the wireless client B with the MAC address 00:0A:EB:00:07:5F to access the router, but other wireless clients cannot access the router.

How can I do that?

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless 2.4GHz/5GHz > Wireless MAC Filtering](#).
3. Click [Enable](#) to enable the Wireless MAC Filtering function.
4. Select [Allow the stations specified by any enabled entries in the list to access](#) as the filtering rule.
5. Delete all or disable all entries if there are any entries already.
6. Click [Add New](#) and fill in the blank.

Add or Modify Wireless MAC Address Filtering entry

You can configure Wireless MAC Filtering which allows you to control wireless access on the network on this page.

MAC Address:

Description:

Status:

- 1) Enter the MAC address 00:0A:EB:B0:00:0B/00:0A:EB:00:07:5F in the MAC Address field.
 - 2) Enter wireless client A/B in the Description field.
 - 3) Select [Enabled](#) in the Status drop-down list.
 - 4) Click [Save](#) and click [Back](#).
7. The configured filtering rules should be listed as the picture shows below.

Wireless MAC Filtering

You can configure Wireless MAC Filtering which allows you to control wireless access on the network on this page.

Wireless MAC Filtering:

Filtering Rules

Deny the stations specified by any enabled entries in the list to access.

Allow the stations specified by any enabled entries in the list to access.

<input type="checkbox"/>	MAC Address	Status	Host	Description	Edit
<input type="checkbox"/>	00:0A:EB:B0:00:0B	Enabled	TP-Link_0969	Client A	Edit
<input type="checkbox"/>	00:0A:EB:00:07:5F	Enabled	TP-Link_0969	Client B	Edit

Done! Now only client A and client B can access your network.

5.4.5. Wireless Advanced

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

2. Go to [Wireless 2.4GHz/5GHz > Wireless Advanced](#).

3. Configure the advanced settings of your wireless network and click [Save](#).

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

Wireless Advanced

Transmit Power: (High)

Beacon Interval: (40-1000)

RTS Threshold: (1-2346)

Fragmentation Threshold: (256-2346)

DTIM Interval: (1-15)

Enable Short GI

Enable Client Isolation

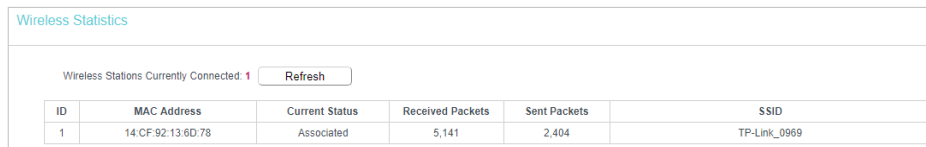
Enable WMM

- **Transmit Power** - Select [High](#), [Middle](#) or [Low](#) which you would like to specify for the router. [High](#) is the default setting and recommended.
- **Beacon Interval** - Enter a value between 40-1000 milliseconds for Beacon Interval here. Beacon Interval value determines the time interval of the beacons. The beacons are the packets sent by the router to synchronize a wireless network. The default value is 100.
- **RTS Threshold** - Here you can specify the RTS (Request to Send) Threshold. If the packet is larger than the specified RTS Threshold size, the router will send RTS frames to a particular receiving station and negotiate the sending of a data frame. The default value is 2346.
- **Fragmentation Threshold** - This value is the maximum size determining whether packets will be fragmented. Setting a low value for the Fragmentation Threshold may result in poor network performance because of excessive packets. 2346 is the default setting and is recommended.
- **DTIM Interval** - This value determines the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the router has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. You can specify the value between 1-255 Beacon Intervals. The default value is 1, which indicates the DTIM Interval is the same as Beacon Interval.
- **Enable Short GI** - It is recommended to enable this function, for it will increase the data capacity by reducing the guard interval time.
- **Enable Client Isolation** - This function isolates all connected wireless stations so that wireless stations cannot access each other through WLAN. This function will be disabled if WDS/Bridge is enabled.

- **Enable WMM** - WMM function can guarantee the packets with high-priority messages being transmitted preferentially. It is strongly recommended to enable this function.

5.4.6. Wireless Statistics

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Wireless 2.4GHz/5GHz > Wireless Statistics** to check the data packets sent and received by each client device connected to the router.



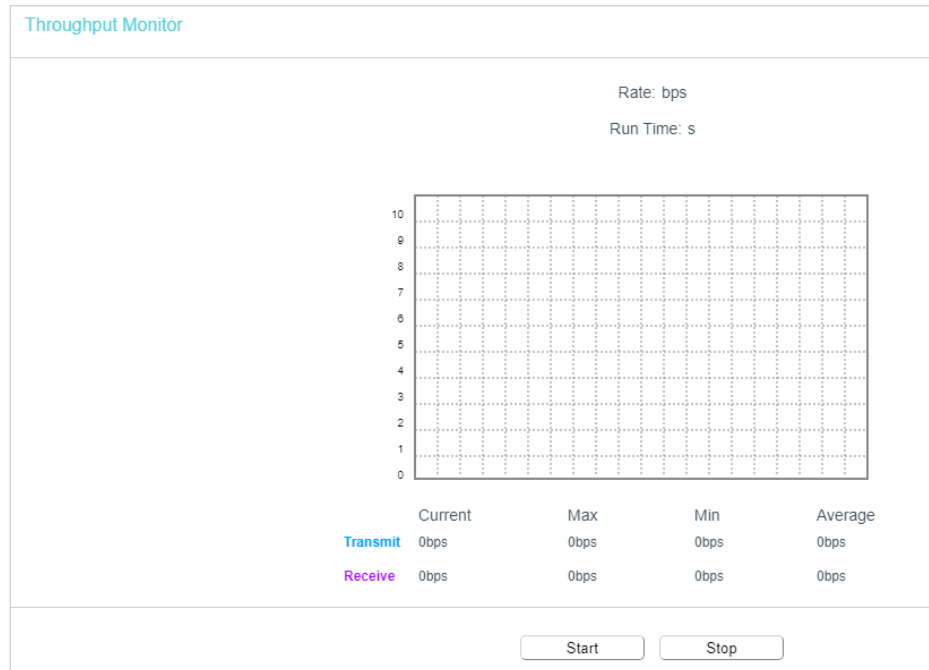
The screenshot shows the 'Wireless Statistics' page. At the top, it says 'Wireless Stations Currently Connected: 1' next to a 'Refresh' button. Below this is a table with the following data:

ID	MAC Address	Current Status	Received Packets	Sent Packets	SSID
1	14:CF:92:13:6D:78	Associated	5,141	2,404	TP-Link_0969

- **MAC Address** - The MAC address of the connected wireless client.
- **Current Status** - The running status of the connected wireless client.
- **Received Packets** - Packets received by the wireless client.
- **Sent Packets** - Packets sent by the wireless client.
- **SSID** - SSID that the wireless client is connected to.

5.4.7. Throughput Monitor

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Wireless 2.4GHz/5GHz > Throughput Monitor** to view the wireless throughput information.



- **Rate** - The Throughput unit.
- **Run Time** - How long this function is running.
- **Transmit** - Wireless transmit rate information.
- **Receive** - Wireless receive rate information.

Click **Start/Stop** to start or stop wireless throughput monitor.

5.5. DHCP

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

5.5.1. DHCP Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **DHCP > DHCP Settings**.
3. Specify DHCP server settings and click **Save**.

DHCP Settings

DHCP Server: Disable Enable

Start IP Address:

End IP Address:

Address Lease Time: minutes (1~2880 minutes, the default value is 1)

Default Gateway: (optional)

Default Domain: (optional)

DNS Server: (optional)

Secondary DNS Server: (optional)

Note: The DHCP Settings function cannot be configured if you have chosen Smart IP (DHCP) in [Network->LAN](#) (in this situation the device will help you configure the DHCP automatically as you need).

- **DHCP Server** - Enable or disable the DHCP server. If disabled, you must have another DHCP server within your network or else you must configure the computer manually.
- **Start IP Address** - Specify an IP address for the DHCP Server to start with when assigning IP addresses. 192.168.0.100 is the default start address.
- **End IP Address** - Specify an IP address for the DHCP Server to end with when assigning IP addresses. 192.168.0.199 is the default end address.
- **Address Lease Time** - The Address Lease Time is the amount of time a network user will be allowed to connect to the router with the current dynamic IP Address. When time is up, the user will be automatically assigned a new dynamic IP address. The range of the time is 1 ~ 2880 minutes. The default value is 120.
- **Default Gateway (Optional)** - It is suggested to input the IP address of the LAN port of the router. The default value is 192.168.0.254.
- **Default Domain (Optional)** - Input the domain name of your network.
- **Primary DNS (Optional)** - Input the DNS IP address provided by your ISP.
- **Secondary DNS (Optional)** - Input the IP address of another DNS server if your ISP provides two DNS servers.

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

5. 5. 2. DHCP Client List

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **DHCP > DHCP Client List** to view the information of the clients connected to the router.

DHCP Clients List				
This page displays information of all DHCP clients on the network.				
ID	Client Name	MAC Address	Assigned IP	Lease Time
1			192.168.0.100	00:00:59
Refresh				

- **Client Name** - The name of the DHCP client.
- **MAC Address** - The MAC address of the DHCP client.
- **Assigned IP** - The IP address that the router has allocated to the DHCP client.
- **Lease Time** - The time of the DHCP client leased. After the dynamic IP address has expired, a new dynamic IP address will be automatically assigned to the user.

You cannot change any of the values on this page. To update this page and show the current attached devices, click [Refresh](#).

5.5.3. Address Reservation

You can reserve an IP address for a specific client. When you specify a reserved IP address for a PC on the LAN, this PC will always receive the same IP address each time when it accesses the DHCP server.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **DHCP > Address Reservation**.
3. Click **Add New** and fill in the blank.

DHCP Address Reservation	
The static IP address of the DHCP Server can be configured on this page.	
MAC Address:	<input type="text"/>
IP Address:	<input type="text"/>
Status:	<input type="text" value="Enabled"/>
<input type="button" value="Save"/> <input type="button" value="Back"/>	

- 1) Enter the MAC address (in XX:XX:XX:XX:XX:XX format) of the client for which you want to reserve an IP address.
- 2) Enter the IP address (in dotted-decimal notation) which you want to reserve for the client.
- 3) Leave the **Status** as **Enabled**.
- 4) Click **Save**.

5.6. USB Settings

You can insert a USB drive to share files among users on the LAN, access the USB drive remotely on the internet and enjoy videos and photos stored in the USB drive.

5.6.1. Storage Sharing

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

- **To access the USB disk:**

1. Connect Your USB Disk

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

 **Tips:**


- If you use USB hubs, make sure no more than 2 devices are connected to the router.
- If the USB storage device requires using bundled external power, make sure the external power has been connected.
- If you use a USB hard drive, make sure its file system is FAT32 or NTFS.
- Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to [USB Settings > USB Mass Storage](#) and click [Disconnect](#).

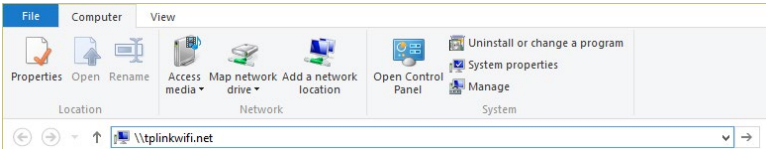
2. Access Your USB Disk

By default, all the network clients can access your USB disk. Refer to the following table for access instructions. You can customize user accounts by referring to [User Accounts](#).

Windows

Open the [Windows Explorer](#) (or go to [Computer](#)), type the server address `\\tplinkwifi.net` in the address bar, enter a username and password if required and then press **[Enter]**.

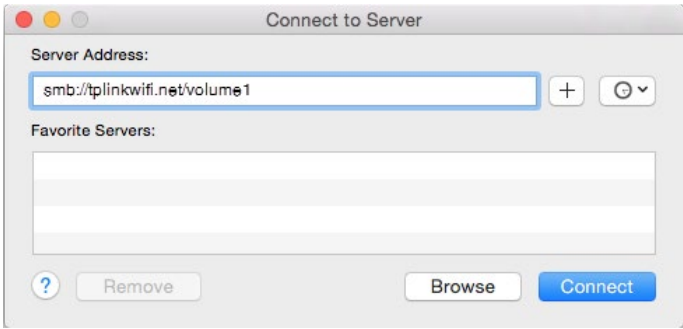
 **Note:** Here we take Windows 8 as an example.



The screenshot shows a Windows Explorer window with the address bar containing the text `\\tplinkwifi.net`. The window title is 'Computer' and the address bar has navigation arrows and a search icon.

Mac

- 1) Click [Go](#) in the top left corner of the desktop and go to [Connect to Server](#).
- 2) Type the server address [smb://tplinkwifi.net/volume1](#).
Note: Here we take [volume1](#) for example.
- 3) Click [Connect](#).



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

Tablet

Use a third-party app for network files management.

- **To customize your settings:**

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [USB Settings](#) > [Storage Sharing](#).

[Storage Sharing Settings](#)

Storage Sharing enables you to share files saved on a USB storage device with other computers on the local network.

Server Status: Enabled

Anonymous access to all volumes.

Folder Table: (Any modifications to this table will not take effect until you Apply these changes.)

	Share Name	Directory	User Access (F:Full-Access, R:Read-Only, N:No-Access)					Status	Edit
			1*	2	3	4	5		
<input type="checkbox"/>	PPT	/3. PPT	F	F	-	-	-	Enabled	Edit
<input type="checkbox"/>	pics	/1. photos	F	R	-	-	-	Enabled	Edit

*: "Super User" has full-access permission (Read & Write) to all shared folders.

- [Server Status](#) - the Storage Sharing's current status.
- [Anonymous access to all volumes](#) - This function is enabled by default, so users can access all activated volumes of Storage Sharing without accounts. If you want to add

a shared folder which does not allow anonymous login, uncheck the box to disable this function. And Folder Table will be displayed as shown below.

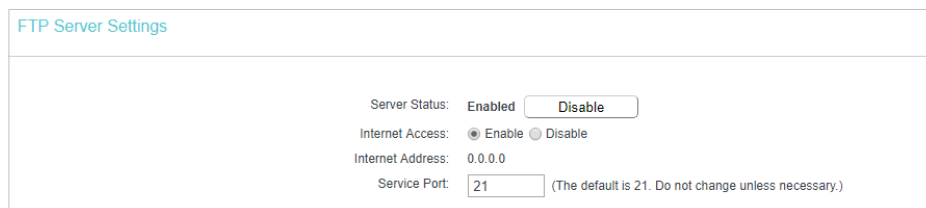
- **Share Name** - This folder's display name.
- **Directory** - The real full path of the specified folder.
- **User Access** - The authorization of the user is displayed. * users mean Super Users who have the full-access permission to all activated volumes and share folders. Grey users mean the users who have no right to use this function. Others are common users.
- **Status** - The status of the entry is enabled or disabled.
- **Edit** - Click Edit in the table, and then you can modify the entry.

5.6.2. FTP Server

You can share specific folders on you USB drive on the LAN or access your USB drive outside the local area network.

For example:

- Only share specific folders with clients on the LAN.
- 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 material for a presentation.
- **To set up your FTP server:**



FTP Server Settings

Server Status: Enabled

Internet Access: Enable Disable

Internet Address: 0.0.0.0

Service Port: (The default is 21. Do not change unless necessary.)

1. Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
3. Go to **USB Settings > FTP Server**.
4. Click **Enable** to enable the FTP Server.
5. Click **Enable** to enable the internet access to the FTP server.
6. Specify a port number for the **Service Port**. The default value is 21.
7. Click **Apply**.

- **To specify a folder to be accessed via the FTP server:**

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **USB Settings > FTP Server**.
3. Click **Add New Folder**.
4. Specify a name for the folder to be shared in the **Share Name** field. And select the folder you want to share. And determine the access right of user accounts.

Folder Browse

This page allows you to set shared folders along with authorization access for FTP services.

Share Name:

Directory:

User Access Control Table:

Index	Username	Authorization Access
1*	123	<input checked="" type="radio"/> Full-Access <input type="radio"/> Read-Only <input type="radio"/> No-Access
2	admin	<input type="radio"/> Full-Access <input type="radio"/> Read-Only <input checked="" type="radio"/> No-Access
3		
4		
5		

*: "Super User". It has full-access permission (Read & Write) to all active volume(s) and share folder(s).

5. Click **Apply**.
6. You can check which folder is shared and also edit or delete the folder.

	Share name	Directory	User Index (F: Full-Access, R: Read-Only, N: No-Access)					Status	Edit
			1*	2	3	4	5		
<input type="checkbox"/>	volume	/	F	N	-	-	-	Enabled	Edit
<input type="checkbox"/>	remoteaccess	/2. accommodation	F	F	-	-	-	Enabled	Edit

*: "Super User". It has full-access permission (Read & Write) to all active volume(s) and share folder(s).

- **To access the USB disk locally:**

1. **Connect Your USB Disk**

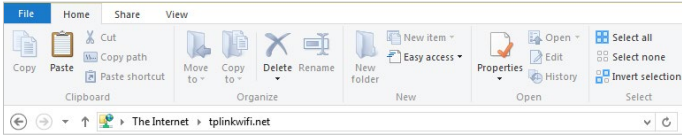
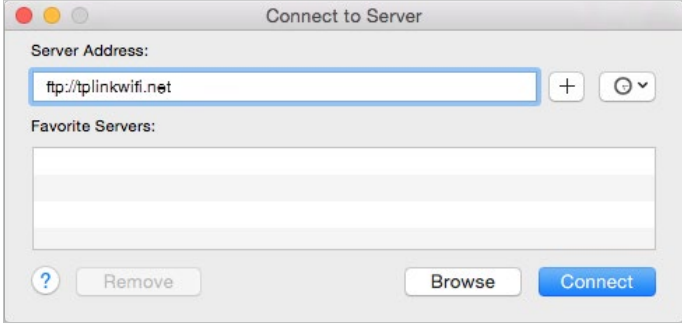
Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.

 **Tips:**

- If you use USB hubs, make sure no more than 2 devices are connected to the router.
- If the USB storage device requires using bundled external power, make sure the external power has been connected.
- If you use a USB hard drive, make sure its file system is FAT32 or NTFS.
- Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to **USB Settings > USB Mass Storage** and click **Disconnect**.

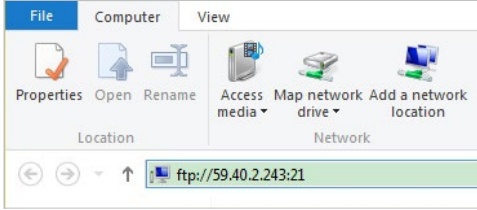

2. **Access Your USB Disk Locally**

Refer to the following table for access instructions. You can customize user accounts by referring to [User Accounts](#).

Windows	<p>Open the Windows Explorer (or go to Computer), type the server address ftp://tplinkwifi.net in the address bar, enter a username and password and then press [Enter].</p> <p>Note: Here we take Windows 8 as an example.</p> 
Mac	<ol style="list-style-type: none"> 1) Click Go in the top left corner of the desktop and go to Connect to Server. 2) Type the server address ftp://tplinkwifi.net. 3) Click Connect.  <ol style="list-style-type: none"> 4) When prompted, select the Registered User radio box and enter a username and password (To learn how to set up an account for the access, refer to User Accounts).
Tablet	<p>Use a third-party app for network files management.</p>

- **To access the USB disk remotely:**

Refer to the following table for access instructions. You can customize user accounts by referring to [User Accounts](#).

Windows	<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 <code>ftp://<WAN IP address of the router>:<port number></code> (such as <code>ftp://59.40.2.243:21</code>). If you have specified a domain name for the router, you can also type in <code>ftp://<domain name>:<port number></code> (such as <code>ftp://MyDomainName:21</code>)  <p style="text-align: center;">The Windows Explorer (Windows 8)</p> <ol style="list-style-type: none"> 3) Press [Enter]. 4) Access with the username and password by referring to User Accounts. <p> Tips: You can also access the USB disk via a third-party app for network files management, which can resume broken file transfers.</p>
Tablet	Use a third-party app for network files management.

5.6.3. Media Server

The Media Server feature allows to view photos, play music and watch movies on the USB drive directly with DLNA-supported devices, such as on your computer, pad and PS2/3/4.

- **To share specific folders:**

1. Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
3. Go to [USB Settings](#) > [Media Server](#).
4. Click [Enable](#) to enable the Media Server.

Media Server Settings

Server Enable: Enable Disable

Server Name:

Content Scan: Manual Scan:

Auto Scan: Every hour(s)

5. Click [Add New Folder](#). Specify a name for the folder to be shared in the [Share Name](#) field. And select the folder you want to share.

Folder Browse

This page allows you to set a scan folder for DLNA media services.

Share Name:

Directory:

Select Volume: KINGSTON (DT 101 G2), sda(7.3 GB,FAT32) ▼

/sda/4_videos/

[.._UP08F](#)

6. Click [Apply](#).

- **To access the USB disk:**

1. Connect Your USB Disk

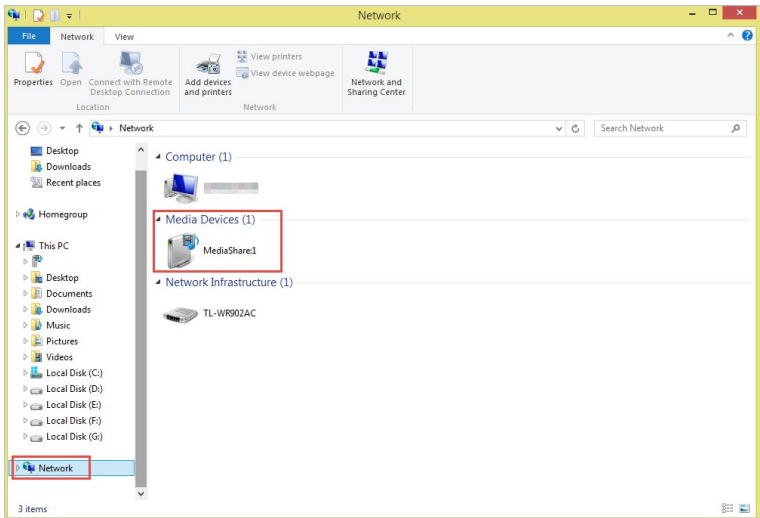
Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.

Tips:

- If you use USB hubs, make sure no more than 2 devices are connected to the router.
- If the USB storage device requires using bundled external power, make sure the external power has been connected.
- If you use a USB hard drive, make sure its file system is FAT32 or NTFS.
- Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to [USB Settings](#) > [USB Mass Storage](#) and click [Disconnect](#).

2. Access the Media Files on Your USB Disk

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

Windows	<ul style="list-style-type: none"> Go to Computer > Network, and click the Media Server Name in the Media Devices section. <p>Note: Here we take Windows 8 as an example.</p> 
Tablet	<ul style="list-style-type: none"> Use a third-party DLNA-supported player.

5.6.4. User Accounts

You can specify the username and password for Storage Sharing and FTP Server access.

- Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
- Go to **USB Settings > User Accounts**.
- Choose the **Index** for the account and specify a new username and password in the **New Username** and **New Password** fields, and reenter the password for confirmation.

Note: For an account with Index 1, it is the Super User with full access to all active volumes and shared folders.

<p>Choose Index: <input style="width: 80px;" type="text" value="1"/></p> <p>New Username: <input style="width: 300px;" type="text"/></p> <p>New Password: <input style="width: 300px;" type="text"/></p> <p>Confirm password: <input style="width: 300px;" type="text"/></p>
<input style="width: 100px; height: 25px;" type="button" value="Set"/>

- Click **Set**.

5. You can check the newly added account and also edit or delete the account.

User Accounts			
This page allows you to configure user accounts for Storage Sharing/FTP Server. Please click Set to ensure your configurations take effect.			
Index	Username	Status	Action
1	123*	Enabled	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
2	admin	Enabled	<input checked="" type="radio"/> Enable <input type="radio"/> Disable Delete
3			
4			
5			

*: "Super User" has full-access permission to all active volumes and shared folders.

5.7. System Tools

5.7.1. Diagnostic

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

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

Diagnostic Tools

Diagnostic Parameters

Diagnostic Tool: Ping Traceroute

IP Address/ Domain Name:

Ping Count: (1-50)

Ping Packet Size: (4-1472 Bytes)

Ping Timeout: (100-2000 Milliseconds)

Traceroute Max TTL: (1-30)

Diagnostic Results

This device is ready.

- **Diagnostic Tool** - Select one diagnostic tool.
 - **Ping** - This diagnostic tool troubleshoots connectivity, reachability, and name resolution to a given host or gateway.
 - **Tracerouter** - This diagnostic tool tests the performance of a connection.

Note: You can use ping/traceroute to test both numeric IP address or domain name. If pinging/tracerouting the IP address is successful, but pinging/tracerouting the domain name is not, you might have a name resolution problem. In this case, ensure that the domain name you are specifying can be resolved by using Domain Name System (DNS) queries.

- **IP Address/Domain Name** - Enter the destination IP address (such as 192.168.0.1) or Domain name (such as www.tp-link.com).
 - **Pings Count** - The number of Ping packets for a Ping connection.
 - **Ping Packet Size** - The size of Ping packet.
 - **Ping Timeout** - Set the waiting time for the reply of each Ping packet. If there is no reply in the specified time, the connection is overtime.
 - **Traceroute Max TTL** - The max number of hops for a Traceroute connection.
3. Click **Start** to check the connectivity of the internet.
 4. The **Diagnostic Results** page displays the diagnosis result. If the result is similar to the following figure, the connectivity of the internet is fine.

```

Diagnostic Results
-----
Pinging 192.168.0.1 with 64 bytes of data:

Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=1
Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=2
Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=3
Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=4

Ping statistics for 192.168.0.1
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss)
Approximate round trip times in milliseconds:
Minimum = 1, Maximum = 1, Average = 1

```

Note: Only one user can use this tool at one time. Options "Number of Pings", "Ping Size" and "Ping Timeout" are used for the Ping function. Option "Tracert Hops" is used for the Tracert function.

5.7.2. Ping Watch Dog

The Ping Watch Dog is dedicated for continuous monitoring of the particular connection to remote host using the Ping tool. It makes the router continuously ping a user defined IP address (it can be the internet gateway for example). If it is unable to ping under the user defined constraints, the router will automatically reboot.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Ping Watch Dog**. Configure the settings and click **Save**.

Ping WatchDog Settings

Ping WathDog will be the monitor to detect AP's network, reboot device while AP disconnected.

Switch: Disable Enable

Destination IP:

Interval: (10-300)s

Startup Delay: (60-300)s

Fail Count: (1-65535)

Save

- **Switch**- Enable or disable Ping Watch Dog.
- **Destination IP** - The IP address of the target host where the Ping Watch Dog Utility is sending ping packets.
- **Interval** - Time interval between two ping packets which are sent out continuously.
- **Startup Delay** - Time delay before first ping packet is sent out when the router is restarted.
- **Fail Count** - Upper limit of the ping packets the router can drop continuously. If this value is overrun, the router will restart automatically.

5.7.3. Firmware Upgrade

TP-Link is dedicated to improving and enriching the product features, giving users a better network experience. We will release the latest firmware at TP-Link official website. You can download the latest firmware file from the [Support](#) page of our website www.tp-link.com and upgrade the firmware to the latest version.

1. Download the latest firmware file for the router from our website www.tp-link.com.
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
3. Go to [System Tools > Firmware Upgrade](#).
4. Click [Choose File](#) to locate the downloaded firmware file, and click [Upgrade](#).

Firmware Upgrade

Firmware File Path: No file chosen

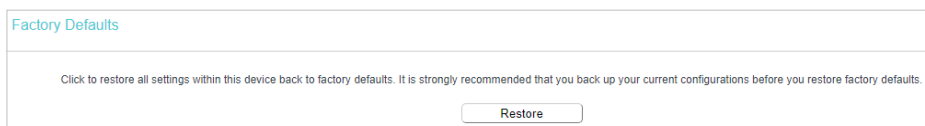
Firmware version: 0.9.1 0.1 v0089.0 Build 170717 Rel.42170n

Hardware version: TL-WR902AC v3 00000001

Upgrade

5.7.4. Factory Defaults

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Factory Defaults**. Click **Restore** to reset all settings to the default values.

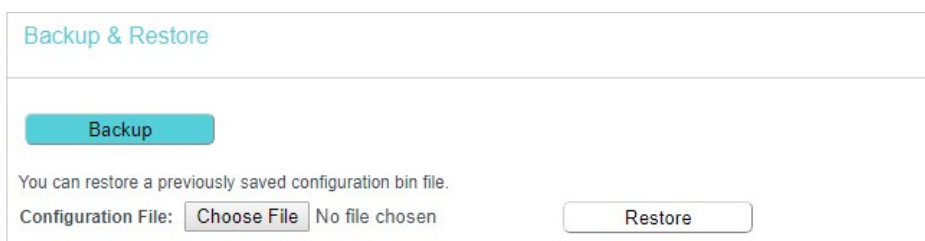


- The default **Username**: admin
- The default **Password**: admin
- The default **IP Address**: 192.168.0.254
- The default **Subnet Mask**: 255.255.255.0

5.7.5. Backup & Restore

The configuration settings are stored as a configuration file in the router. You can backup the configuration file in your computer for future use and restore the router to the previous settings from the backup file when needed.

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



- **To backup configuration settings:**

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

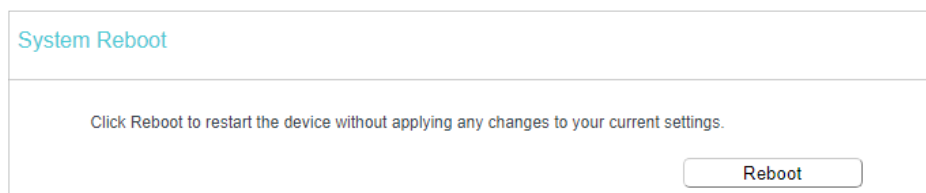
- **To restore configuration settings:**

1. Click **Choose File** to locate the backup configuration file stored in your computer, and click **Restore**.
2. Wait a few minutes for the restoring and rebooting.

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

5.7.6. Reboot

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Reboot**, and you can restart your router.



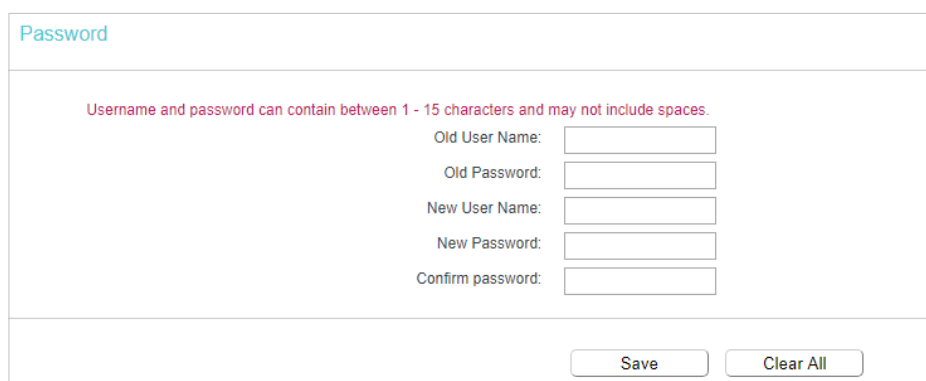
The screenshot shows a web page titled "System Reboot". Below the title, there is a message: "Click Reboot to restart the device without applying any changes to your current settings." At the bottom right of the page, there is a button labeled "Reboot".

Some settings of the router will take effect only after rebooting, including:

- Change the LAN IP Address (system will reboot automatically).
- Change the DHCP settings.
- Change the operation mode.
- Change the web management port.
- Upgrade the firmware of the router (system will reboot automatically).
- Restore the router to its factory defaults (system will reboot automatically).
- Update the configuration with the file (system will reboot automatically).

5.7.7. Password

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Password**, and you can change the factory default username and password of the router.



The screenshot shows a web page titled "Password". Below the title, there is a message: "Username and password can contain between 1 - 15 characters and may not include spaces." Below this message, there are five input fields: "Old User Name:", "Old Password:", "New User Name:", "New Password:", and "Confirm password:". At the bottom right of the page, there are two buttons: "Save" and "Clear All".

It is strongly recommended that you change the default username and password of the router, for all users that try to access the router's web-based utility or Quick Setup will be prompted for the router's username and password.

Note: The new username and password must not exceed 15 characters and not include any spacing.

3. Click **Save**.

5.7.8. System Log

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > System Log**, and you can view the logs of the router.

System Log

Log Type: Log Level:

Index	Time	Type	Level	Content
1	1970-01-01 04:37:15	DHCPC	Notice	Recv no OFFER, DHCP Service unavailable
2	1970-01-01 04:37:12	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
3	1970-01-01 04:37:09	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
4	1970-01-01 04:37:04	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
5	1970-01-01 04:37:01	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
6	1970-01-01 04:36:58	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
7	1970-01-01 04:36:44	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
8	1970-01-01 04:36:41	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
9	1970-01-01 04:36:36	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
10	1970-01-01 04:36:33	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
11	1970-01-01 04:36:30	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
12	1970-01-01 04:36:16	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
13	1970-01-01 04:36:13	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
14	1970-01-01 04:36:08	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
15	1970-01-01 04:36:05	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
16	1970-01-01 04:36:02	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
17	1970-01-01 04:35:51	DHCPC	Notice	Recv no OFFER, DHCP Service unavailable
18	1970-01-01 04:35:48	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
19	1970-01-01 04:35:45	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1

Refresh Clear Log Save Log Log Settings

- **Refresh** - Refresh the page to show the latest log list.
- **Clear Log** - All the logs will be deleted from the router permanently, not just from the page.
- **Save Log** - Click to save all the logs in a txt file.
- **Log Settings** - Click to set the logs in the screen.
 - **Save Locally** - If Save Locally is selected, events will be recorded in the local memory.
 - **Minimum Level** - Select the Minimum level in the drop-down list, for the Minimum Level, all logged events above or equal to the selected level will be displayed.
 - **Save Remotely** - If Save Remotely is selected, events will be sent to the specified IP address and UDP port of the remote system log server.

5.8. Log Out

Click **Logout** at the bottom of the main menu, and you will log out of the web page and return to the login window.

Chapter 6

Configure the Router in Range Extender Mode

This chapter presents how to configure the various features of the router working as a range extender.

It contains the following sections:

- [Status](#)
- [Operation Mode](#)
- [Network](#)
- [Wireless](#)
- [DHCP](#)
- [USB Settings](#)
- [System Tools](#)
- [Log Out](#)

6.1. Status

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Status](#). You can view the current status information of the router in Range Extender Mode.

Status	
Firmware Version:	████████████████████
Hardware Version:	████████████████████
LAN	
MAC Address:	00:0A:EB:13:09:69
IP Address:	192.168.0.1
Subnet Mask:	255.255.255.0
Wireless 2.4GHz	
Operation Mode:	Range Extender
Wireless Radio:	Enabled
Name(SSID) of Root AP:	
Name(SSID):	TP-Link_0969
Mode:	11bgn mixed
Channel:	6
Channel Width:	Auto
MAC Address:	00:0A:EB:13:09:68
Wireless 5GHz	
Operation Mode:	Range Extender
Wireless Radio:	Enabled
Name(SSID) of Root AP:	
Name(SSID):	TP-Link_0969_5G
Mode:	11a/n/ac mixed
Channel:	36
Channel Width:	Auto
MAC Address:	00:0A:EB:13:09:67
System Up Time:	0 day(s) 00:35:50 <input type="button" value="Refresh"/>

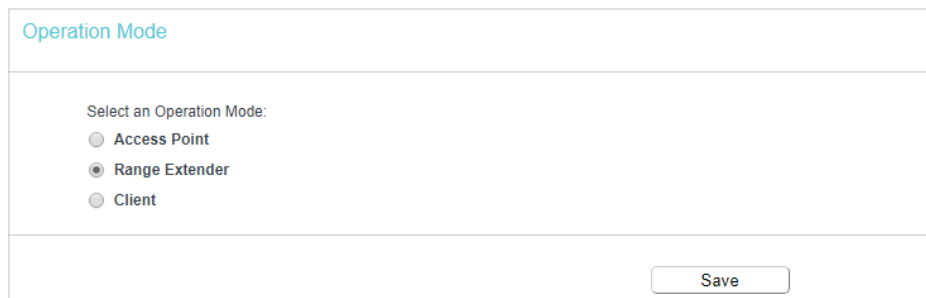
- **Firmware Version** - The version information of the router's firmware.
- **Hardware Version** - The version information of the router's hardware.
- **LAN** - This field displays the current settings of the LAN, and you can configure them on the [Network > LAN](#) page.
 - **MAC Address** - The physical address of the router.
 - **IP Address** - The LAN IP address of the router.
 - **Subnet Mask** - The subnet mask associated with the LAN IP address.

- **Wireless 2.4GHz/5GHz** - This field displays the basic information or status of the wireless function, and you can configure them on the [Wireless 2.4GHz/5GHz > Basic Settings](#) page.
 - **Operation Mode** - The current operation mode of the router.
 - **Wireless Radio** - Indicates whether the wireless feature is enabled or not.
 - **Name (SSID) of Root AP** - The SSID of the connected host network.
 - **Name (SSID)** - The SSID of the network.
 - **Mode** - The current wireless working mode in use.
 - **Channel Width** - The current wireless channel width in use.
 - **Channel** - The current wireless channel in use.
 - **MAC Address** - The physical address of the router.
- **System Up Time** - The length of the time since the router was last powered on or reset.

Click [Refresh](#) to get the latest status and settings of the router.

6.2. Operation Mode

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Operation Mode](#).
3. Select the operation mode as needed and click [Save](#).



Operation Mode

Select an Operation Mode:

Access Point

Range Extender

Client

Save

6.3. Network

6.3.1. LAN

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Network > LAN](#).
3. Configure the IP parameters of the LAN and click [Save](#).

LAN Settings

LAN Type:

Note: The IP parameters cannot be configured if you have chosen Smart IP(DHCP)
(In this situation the device will help you configure the IP parameters automatically as you need).

MAC Address: 00:0A:EB:13:09:69

IP Address:

Subnet Mask:

- **LAN Type** - Either select **Smart IP(DHCP)** to get IP address from DHCP server, or **Static IP** to configure IP address manually.
- **MAC Address** - The physical address of the LAN port. The value can not be changed.
- **IP Address** - Enter the IP address in dotted-decimal notation if your select **Static IP** (factory default - 192.168.0.254).
- **Subnet Mask** - An address code that determines the size of the network. Normally 255.255.255.0 is used as the subnet mask.

Note:

- If you have changed the IP address, you must use the new IP address to login.
- If you select **Smart IP(DHCP)**, the DHCP server of the router will not start up.
- If the new IP address you set is not in the same subnet as the old one, the IP Address pool in the DHCP Server will be configured automatically, but the Virtual Server and DMZ Host will not take effect until they are re-configured.

6.4. Wireless

6.4.1. Connect to Network

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Wireless 2.4GHz/5GHz > Connect to Network**.
3. Configure the settings for the host network you want to connect to and click **Save**.

Connect to Host Network

Network: Enable

SSID(to be bridged):

MAC Address(to be bridged):

Security:

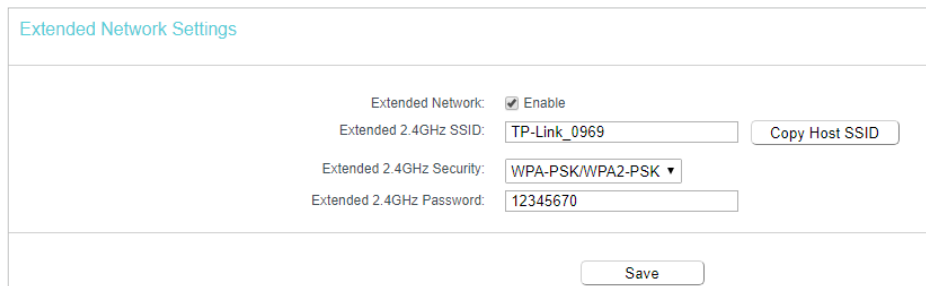
The configuration modified here will be automatically synchronized to the extended network settings

- **Scan** - Click to scan for wireless networks. When a host network is selected, the **SSID**, **MAC Address** and **Security** type will be automatically filled in.

- **Password** - Enter the password of the host network you want to connect to if it is encrypted.

6.4.2. Extended Network

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless 2.4GHz/5GHz > Extended Network](#).
3. Configure the settings of the 2.4GHz/5GHz extended network and click [Save](#).



The screenshot shows the 'Extended Network Settings' page. It contains the following fields and controls:

- Extended Network:** A checkbox labeled 'Enable' which is checked.
- Extended 2.4GHz SSID:** A text input field containing 'TP-Link_0969' and a 'Copy Host SSID' button to its right.
- Extended 2.4GHz Security:** A dropdown menu currently set to 'WPA-PSK/WPA2-PSK'.
- Extended 2.4GHz Password:** A text input field containing '12345670'.
- Save:** A button located at the bottom center of the form.

- **Extended 2.4GHz/5GHz SSID** - Either use the [Copy Host SSID](#) button to copy the SSID of the host network or enter a new one (up to 32 characters). This field is case-sensitive.
- **Extended 2.4GHz/5GHz Security** - Select one of the security options for the extended wireless network.

6.4.3. Wireless MAC Filtering

Wireless MAC Filtering is used to deny or allow specific wireless client devices to access your network by their MAC addresses.

I want to:

Deny or allow specific wireless client devices to access my network by their MAC addresses.

For example, you want the wireless client A with the MAC address 00:0A:EB:B0:00:0B and the wireless client B with the MAC address 00:0A:EB:00:07:5F to access the router, but other wireless clients cannot access the router.

How can I do that?

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless 2.4GHz/5GHz > Wireless MAC Filtering](#).
3. Click [Enable](#) to enable the Wireless MAC Filtering function.

4. Select [Allow the stations specified by any enabled entries in the list to access](#) as the filtering rule.
5. Delete all or disable all entries if there are any entries already.
6. Click [Add New](#) and fill in the blank.

[Add or Modify Wireless MAC Address Filtering entry](#)

You can configure Wireless MAC Filtering which allows you to control wireless access on the network on this page.

MAC Address:

Description:

Status:

- 1) Enter the MAC address 00:0A:EB:B0:00:0B/00:0A:EB:00:07:5F in the MAC Address field.
 - 2) Enter wireless client A/B in the Description field.
 - 3) Leave the status as [Enabled](#).
 - 4) Click [Save](#) and click [Back](#).
7. The configured filtering rules should be listed as the picture shows below.

[Wireless MAC Filtering](#)

You can configure Wireless MAC Filtering which allows you to control wireless access on the network on this page.

Wireless MAC Filtering: Disabled

Filtering Rules

Deny the stations specified by any enabled entries in the list to access.
 Allow the stations specified by any enabled entries in the list to access.

	MAC Address	Status	Host	Description	Edit
<input type="checkbox"/>	00:0A:EB:B0:00:0B	Enabled	TP-Link_0969	Client A	Edit
<input type="checkbox"/>	00:0A:EB:00:07:5F	Enabled	TP-Link_0969	Client B	Edit

Done! Now only client A and client B can access your network.

6.4.4. Wireless Advanced

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless 2.4GHz/5GHz](#) > [Wireless Advanced](#).
3. Configure the advanced settings of your wireless network and click [Save](#).

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

Wireless Advanced

Transmit Power: High ▾

Beacon Interval: 100 (40-1000)

RTS Threshold: 2346 (1-2346)

Fragmentation Threshold: 2346 (256-2346)

DTIM Interval: 1 (1-15)

Enable Short GI

Enable Client Isolation

Enable WMM

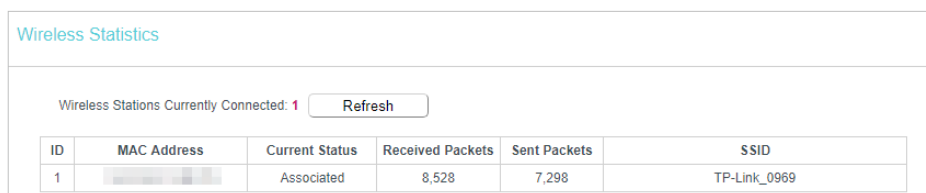
Save

- **Transmit Power** - Select **High**, **Middle** or **Low** which you would like to specify for the router. **High** is the default setting and recommended.
- **Beacon Interval** - Enter a value between 40-1000 milliseconds for Beacon Interval here. Beacon Interval value determines the time interval of the beacons. The beacons are the packets sent by the router to synchronize a wireless network. The default value is 100.
- **RTS Threshold** - Here you can specify the RTS (Request to Send) Threshold. If the packet is larger than the specified RTS Threshold size, the router will send RTS frames to a particular receiving station and negotiate the sending of a data frame. The default value is 2346.
- **Fragmentation Threshold** - This value is the maximum size determining whether packets will be fragmented. Setting a low value for the Fragmentation Threshold may result in poor network performance because of excessive packets. 2346 is the default setting and is recommended.
- **DTIM Interval** - This value determines the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the router has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. You can specify the value between 1-255 Beacon Intervals. The default value is 1, which indicates the DTIM Interval is the same as Beacon Interval.
- **Enable Short GI** - It is recommended to enable this function, for it will increase the data capacity by reducing the guard interval time.
- **Enable Client Isolation** - This function isolates all connected wireless stations so that wireless stations cannot access each other through WLAN. This function will be disabled if WDS/Bridge is enabled.

- **Enable WMM** - WMM function can guarantee the packets with high-priority messages being transmitted preferentially. It is strongly recommended to enable this function.

6.4.5. Wireless Statistics

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Wireless 2.4GHz/5Ghz > Wireless Statistics** to check the data packets sent and received by each client device connected to the router.



The screenshot shows the 'Wireless Statistics' page. At the top, it says 'Wireless Stations Currently Connected: 1' with a 'Refresh' button. Below this is a table with the following data:

ID	MAC Address	Current Status	Received Packets	Sent Packets	SSID
1	[REDACTED]	Associated	8,528	7,298	TP-Link_0969

- **MAC Address** - The MAC address of the connected wireless client.
- **Current Status** - The running status of the connected wireless client.
- **Received Packets** - Packets received by the wireless client.
- **Sent Packets** - Packets sent by the wireless client.
- **SSID** - SSID that the wireless client is connected to.

6.5. DHCP

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

6.5.1. DHCP Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **DHCP > DHCP Settings**.
3. Specify DHCP server settings and click **Save**.

DHCP Settings

DHCP Server: Disable Enable

Start IP Address:

End IP Address:

Address Lease Time: minutes (1~2880 minutes, the default value is 1)

Default Gateway: (optional)

Default Domain: (optional)

DNS Server: (optional)

Secondary DNS Server: (optional)

Note: The DHCP Settings function cannot be configured if you have chosen Smart IP (DHCP) in [Network->LAN](#) (in this situation the device will help you configure the DHCP automatically as you need).

- **DHCP Server** - Enable or disable the DHCP server. If disabled, you must have another DHCP server within your network or else you must configure the computer manually.
- **Start IP Address** - Specify an IP address for the DHCP Server to start with when assigning IP addresses. 192.168.0.100 is the default start address.
- **End IP Address** - Specify an IP address for the DHCP Server to end with when assigning IP addresses. 192.168.0.199 is the default end address.
- **Address Lease Time** - The Address Lease Time is the amount of time a network user will be allowed to connect to the router with the current dynamic IP Address. When time is up, the user will be automatically assigned a new dynamic IP address. The range of the time is 1 ~ 2880 minutes. The default value is 120.
- **Default Gateway (Optional)** - It is suggested to input the IP address of the LAN port of the router. The default value is 192.168.0.254.
- **Default Domain (Optional)** - Input the domain name of your network.
- **Primary DNS (Optional)** - Input the DNS IP address provided by your ISP.
- **Secondary DNS (Optional)** - Input the IP address of another DNS server if your ISP provides two DNS servers.

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

6.5.2. DHCP Client List

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **DHCP > DHCP Client List** to view the information of the clients connected to the router.

DHCP Clients List				
This page displays information of all DHCP clients on the network.				
ID	Client Name	MAC Address	Assigned IP	Lease Time
1			192.168.0.100	00:00:40
<input type="button" value="Refresh"/>				

- **Client Name** - The name of the DHCP client.
- **MAC Address** - The MAC address of the DHCP client.
- **Assigned IP** - The IP address that the router has allocated to the DHCP client.
- **Lease Time** - The time of the DHCP client leased. After the dynamic IP address has expired, a new dynamic IP address will be automatically assigned to the user.

You cannot change any of the values on this page. To update this page and show the current attached devices, click [Refresh](#).

6. 6. USB Settings

You can insert a USB drive to share files among users on the LAN, access the USB drive remotely on the internet and enjoy videos and photos stored in the USB drive.

6. 6. 1. Storage Sharing

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

- **To access the USB disk:**

1. Connect Your USB Disk

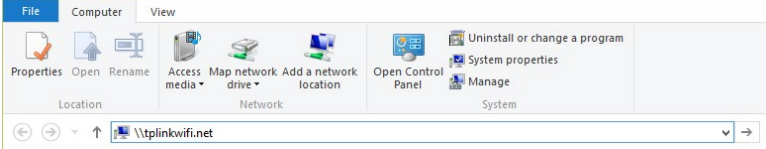
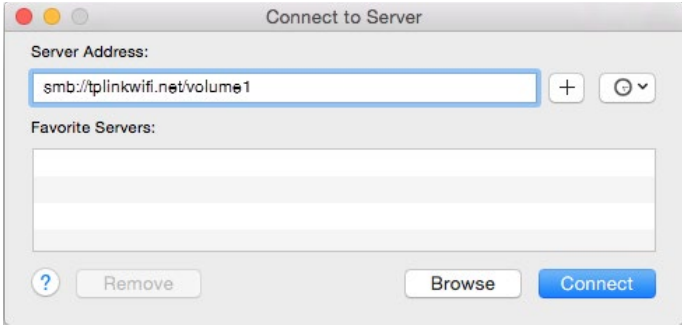
Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.

 Tips:

- If you use USB hubs, make sure no more than 2 devices are connected to the router.
- If the USB storage device requires using bundled external power, make sure the external power has been connected.
- If you use a USB hard drive, make sure its file system is FAT32 or NTFS.
- Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to [USB Settings > USB Mass Storage](#) and click [Disconnect](#).

2. Access Your USB Disk

By default, all the network clients can access your USB disk. Refer to the following table for access instructions. You can customize user accounts by referring to [User Accounts](#).

Windows	<p>Open the Windows Explorer (or go to Computer), type the server address <code>\\tplinkwifi.net</code> in the address bar, enter a username and password if required and then press [Enter].</p> <p>Note: Here we take Windows 8 as an example.</p> 
Mac	<ol style="list-style-type: none"> 1) Click Go in the top left corner of the desktop and go to Connect to Server. 2) Type the server address <code>smb://tplinkwifi.net/volume1</code>. <p>Note: Here we take <code>volume1</code> for example.</p> <ol style="list-style-type: none"> 3) Click Connect.  <ol style="list-style-type: none"> 4) When prompted, select the Guest radio box (If you have set up a username and password to deny anonymous access to the USB disk, you should select the Registered User radio box. To learn how to set up an account for the access, refer to User Accounts).
Tablet	<p>Use a third-party app for network files management.</p>

- **To customize your settings:**

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [USB Settings](#) > [Storage Sharing](#).

Storage Sharing Settings

Storage Sharing enables you to share files saved on a USB storage device with other computers on the local network.

Server Status: Enabled

Anonymous access to all volumes.

Folder Table: (Any modifications to this table will not take effect until you Apply these changes.)

	Share Name	Directory	User Access (F: Full-Access, R: Read-Only, N: No-Access)					Status	Edit
			1*	2	3	4	5		
<input type="checkbox"/>	PPT	/3_PPT	F	F	-	-	-	Enabled	Edit
<input type="checkbox"/>	pics	/1_photos	F	R	-	-	-	Enabled	Edit

*: "Super User" has full-access permission (Read & Write) to all shared folders.

- **Server Status** - the Storage Sharing's current status.
- **Anonymous access to all volumes** - This function is enabled by default, so users can access all activated volumes of Storage Sharing without accounts. If you want to add a shared folder which does not allow anonymous login, uncheck the box to disable this function. And Folder Table will be displayed as shown below.
- **Share Name** - This folder's display name.
- **Directory** - The real full path of the specified folder.
- **User Access** - The authorization of the user is displayed. * users mean Super Users who have the full-access permission to all activated volumes and share folders. Grey users mean the users who have no right to use this function. Others are common users.
- **Status** - The status of the entry is enabled or disabled.
- **Edit** - Click Edit in the table, and then you can modify the entry.

6.6.2. FTP Server

You can share specific folders on you USB drive on the LAN or access your USB drive outside the local area network.

For example:

- Only share specific folders with clients on the LAN.
- 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 material for a presentation.
- **To set up your FTP server:**

FTP Server Settings

Server Status: Enabled

Internet Access: Enable Disable

Internet Address: 0.0.0.0

Service Port: (The default is 21. Do not change unless necessary.)

1. Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.
 2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
 3. Go to **USB Settings > FTP Server**.
 4. Click **Enable** to enable the FTP Server.
 5. Click **Enable** to enable the internet access to the FTP server.
 6. Specify a port number for the **Service Port**. The default value is 21.
 7. Click **Apply**.
- **To specify a folder to be accessed via the FTP server:**
 1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
 2. Go to **USB Settings > FTP Server**.
 3. Click **Add New Folder**.
 4. Specify a name for the folder to be shared in the **Share Name** field. And select the folder you want to share. And determine the access right of user accounts.

Folder Browse

This page allows you to set shared folders along with authorization access for FTP services.

Share Name:

Directory:

User Access Control Table:

Index	Username	Authorization Access
1*	123	<input checked="" type="radio"/> Full-Access <input type="radio"/> Read-Only <input type="radio"/> No-Access
2	admin	<input type="radio"/> Full-Access <input type="radio"/> Read-Only <input checked="" type="radio"/> No-Access
3		
4		
5		

* : "Super User". It has full-access permission (Read & Write) to all active volume(s) and share folder(s).

5. Click **Apply**.
6. You can check which folder is shared and also edit or delete the folder.

	Share name	Directory	User Index (F: Full-Access, R: Read-Only, N: No-Access)					Status	Edit
			1*	2	3	4	5		
<input type="checkbox"/>	volume	/	F	N	-	-	-	Enabled	Edit
<input type="checkbox"/>	remoteaccess	/2. accommodation	F	F	-	-	-	Enabled	Edit

* : "Super User". It has full-access permission (Read & Write) to all active volume(s) and share folder(s).

- **To access the USB disk locally:**

1. Connect Your USB Disk

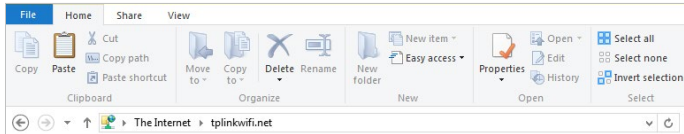
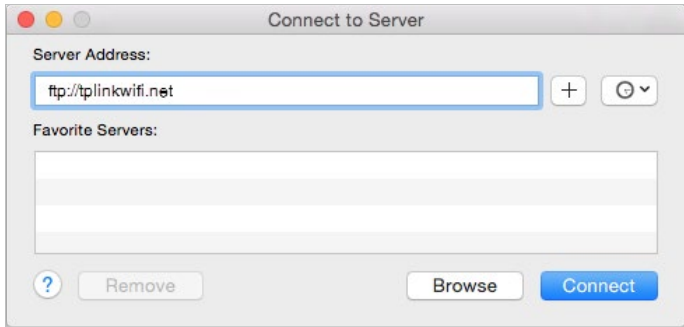
Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.

☞ **Tips:**

- If you use USB hubs, make sure no more than 2 devices are connected to the router.
- If the USB storage device requires using bundled external power, make sure the external power has been connected.
- If you use a USB hard drive, make sure its file system is FAT32 or NTFS.
- Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to [USB Settings > USB Mass Storage](#) and click [Disconnect](#).

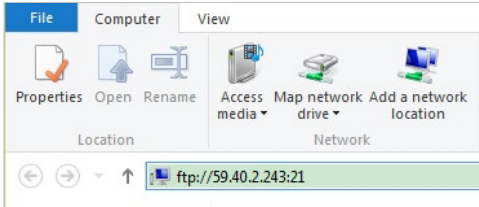

2. Access Your USB Disk Locally

Refer to the following table for access instructions. You can customize user accounts by referring to [User Accounts](#).

Windows	<p>Open the Windows Explorer (or go to Computer), type the server address ftp://tplinkwifi.net in the address bar, enter a username and password and then press [Enter].</p> <p>📌 Note: Here we take Windows 8 as an example.</p> 
Mac	<ol style="list-style-type: none"> 1) Click Go in the top left corner of the desktop and go to Connect to Server. 2) Type the server address ftp://tplinkwifi.net. 3) Click Connect.  <ol style="list-style-type: none"> 4) When prompted, select the Registered User radio box and enter a username and password (To learn how to set up an account for the access, refer to User Accounts).
Tablet	Use a third-party app for network files management.

- **To access the USB disk remotely:**

Refer to the following table for access instructions. You can customize user accounts by referring to [User Accounts](#).

Windows	<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 <code>ftp://<WAN IP address of the router>:<port number></code> (such as <code>ftp://59.40.2.243:21</code>). If you have specified a domain name for the router, you can also type in <code>ftp://<domain name>:<port number></code> (such as <code>ftp://MyDomainName:21</code>)  <p style="text-align: center;">The Windows Explorer (Windows 8)</p> <ol style="list-style-type: none"> 3) Press [Enter]. 4) Access with the username and password by referring to User Accounts. <p> Tips: You can also access the USB disk via a third-party app for network files management, which can resume broken file transfers.</p>
Tablet	Use a third-party app for network files management.

6.6.3. Media Server

The Media Server feature allows to view photos, play music and watch movies on the USB drive directly with DLNA-supported devices, such as on your computer, pad and PS2/3/4.

- **To share specific folders:**

1. Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
3. Go to [USB Settings](#) > [Media Server](#).
4. Click [Enable](#) to enable the Media Server.

Media Server Settings

Server Enable: Enable Disable

Server Name:

Content Scan: Manual Scan:

Auto Scan: Every hour(s)

- Click [Add New Folder](#). Specify a name for the folder to be shared in the [Share Name](#) field. And select the folder you want to share.

Folder Browse

This page allows you to set a scan folder for DLNA media services.

Share Name:

Directory:

Select Volume: KINGSTON (DT 101 G2), sda(7.3 GB,FAT32) ▼

/sda/4_videos/

[.._UP08F](#)

- Click [Apply](#).

- To access the USB disk:**

1. Connect Your USB Disk

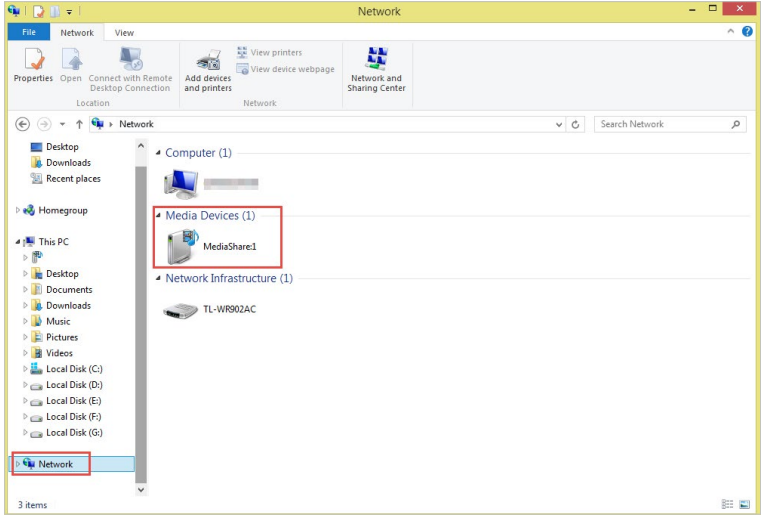
Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.

 Tips:

- If you use USB hubs, make sure no more than 2 devices are connected to the router.
- If the USB storage device requires using bundled external power, make sure the external power has been connected.
- If you use a USB hard drive, make sure its file system is FAT32 or NTFS.
- Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to [USB Settings](#) > [USB Mass Storage](#) and click [Disconnect](#).

2. Access the Media Files on Your USB Disk

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

Windows	<ul style="list-style-type: none"> Go to Computer > Network, and click the Media Server Name in the Media Devices section. <p>Note: Here we take Windows 8 as an example.</p> 
Tablet	<ul style="list-style-type: none"> Use a third-party DLNA-supported player.

6.6.4. User Accounts

You can specify the username and password for Storage Sharing and FTP Server access.

- Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
- Go to **USB Settings > User Accounts**.
- Choose the **Index** for the account and specify a new username and password in the **New Username** and **New Password** fields, and reenter the password for confirmation.

Note: For an account with Index 1, it is the Super User with full access to all active volumes and shared folders.

<p>Choose Index: <input style="width: 80px;" type="text" value="1"/></p> <p>New Username: <input style="width: 300px;" type="text"/></p> <p>New Password: <input style="width: 300px;" type="password"/></p> <p>Confirm password: <input style="width: 300px;" type="password"/></p>
<input style="width: 100px; height: 25px;" type="button" value="Set"/>

- Click **Set**.

5. You can check the newly added account and also edit or delete the account.

User Accounts			
This page allows you to configure user accounts for Storage Sharing/FTP Server. Please click Set to ensure your configurations take effect.			
Index	Username	Status	Action
1	123*	Enabled	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
2	admin	Enabled	<input checked="" type="radio"/> Enable <input type="radio"/> Disable Delete
3			
4			
5			

*: "Super User" has full-access permission to all active volumes and shared folders.

6.7. System Tools

6.7.1. Diagnostic

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

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

Diagnostic Tools	
Diagnostic Parameters	
Diagnostic Tool:	<input checked="" type="radio"/> Ping <input type="radio"/> Traceroute <input type="button" value="Start"/>
IP address/Domain name:	<input type="text"/>
Ping Count:	<input type="text" value="4"/> ping(1 - 50)
Ping Packet Size:	<input type="text" value="64"/> (0 - 65500 Bytes)
Ping Timeout:	<input type="text" value="1"/> (1 - 60 Seconds)
Traceroute Max TTL:	<input type="text" value="20"/> (1 - 30)

- **Diagnostic Tool** - Select one diagnostic tool.
 - **Ping** - This diagnostic tool troubleshoots connectivity, reachability, and name resolution to a given host or gateway.
 - **Tracerouter** - This diagnostic tool tests the performance of a connection.

Note: You can use ping/traceroute to test both numeric IP address or domain name. If pingging/tracerouting the IP address is successful, but pingging/tracerouting the domain name is not, you might have a name resolution problem. In this case, ensure that the domain name you are specifying can be resolved by using Domain Name System (DNS) queries.

- **IP Address/Domain Name** - Enter the destination IP address (such as 192.168.0.1) or Domain name (such as www.tp-link.com).
- **Pings Count** - The number of Ping packets for a Ping connection.
- **Ping Packet Size** - The size of Ping packet.

- **Ping Timeout** - Set the waiting time for the reply of each Ping packet. If there is no reply in the specified time, the connection is overtime.
 - **Traceroute Max TTL** - The max number of hops for a Traceroute connection.
3. Click **Start** to check the connectivity of the internet.
 4. The **Diagnostic Results** page displays the diagnosis result. If the result is similar to the following figure, the connectivity of the internet is fine.

```

Diagnostic Results
-----
Pinging 192.168.0.1 with 64 bytes of data:

Reply from 192.168.0.1: bytes=64 time=1    TTL=64  seq=1
Reply from 192.168.0.1: bytes=64 time=1    TTL=64  seq=2
Reply from 192.168.0.1: bytes=64 time=1    TTL=64  seq=3
Reply from 192.168.0.1: bytes=64 time=1    TTL=64  seq=4

Ping statistics for 192.168.0.1
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss)
    Approximate round trip times in milliseconds:
        Minimum = 1, Maximum = 1, Average = 1

```

Note: Only one user can use this tool at one time. Options "Number of Pings", "Ping Size" and "Ping Timeout" are used for the Ping function. Option "Tracert Hops" is used for the Tracert function.

6.7.2. Firmware Upgrade

TP-Link is dedicated to improving and enriching the product features, giving users a better network experience. We will release the latest firmware at TP-Link official website. You can download the latest firmware file from the [Support](#) page of our website www.tp-link.com and upgrade the firmware to the latest version.

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

Firmware Upgrade

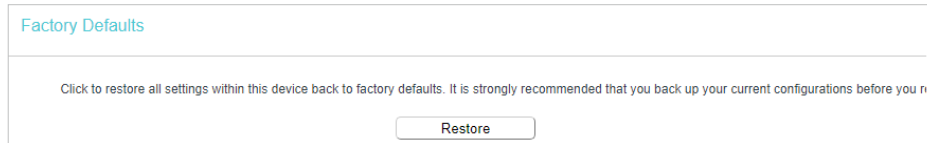
Firmware File Path: No file chosen

Firmware version: 0.9.1 0.1 v0089.0 Build 170717 Rel.42170n

Hardware version: TL-WR902AC v3 00000001

6.7.3. Factory Defaults

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Factory Defaults](#). Click [Restore](#) to reset all settings to the default values.

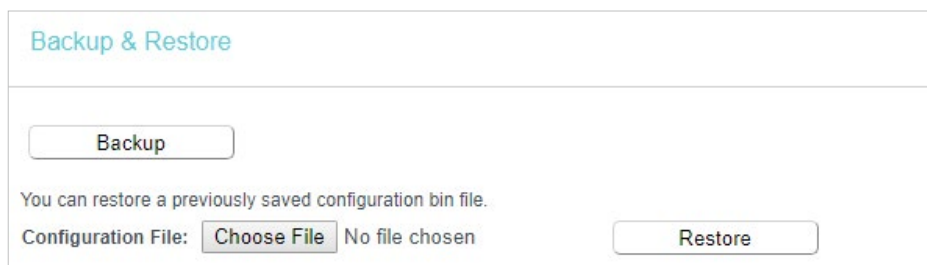


- The default [Username](#): admin
- The default [Password](#): admin
- The default [IP Address](#): 192.168.0.254
- The default [Subnet Mask](#): 255.255.255.0

6.7.4. Backup & Restore

The configuration settings are stored as a configuration file in the router. You can backup the configuration file in your computer for future use and restore the router to the previous settings from the backup file when needed.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Backup & Restore](#).



- **To backup configuration settings:**

Click [Backup](#) to save a copy of the current settings in your local computer. A ".bin" file of the current settings will be stored in your computer.

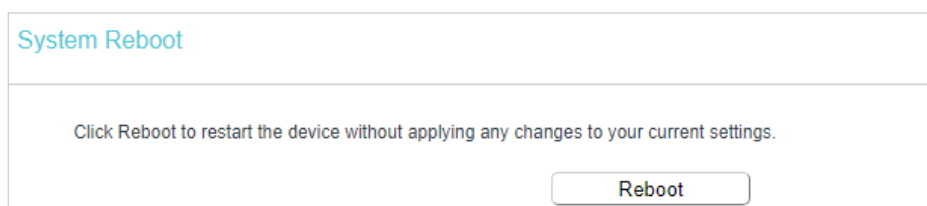
- **To restore configuration settings:**

1. Click [Choose File](#) to locate the backup configuration file stored in your computer, and click [Restore](#).
2. Wait a few minutes for the restoring and rebooting.

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

6.7.5. Reboot

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools](#) > [Reboot](#), and you can restart your router.



Some settings of the router will take effect only after rebooting, including:

- Change the LAN IP address (system will reboot automatically).
- Change the DHCP settings.
- Change the operation mode.
- Change the web management port.
- Upgrade the firmware of the router (system will reboot automatically).
- Restore the router to its factory defaults (system will reboot automatically).
- Update the configuration with the file (system will reboot automatically).

6.7.6. Password

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools](#) > [Password](#), and you can change the factory default username and password of the router.

Password

Username and password can contain between 1 - 15 characters and may not include spaces.

Old User Name:

Old Password:

New User Name:

New Password:

Confirm password:

It is strongly recommended that you change the default username and password of the router, for all users that try to access the router's web-based utility or Quick Setup will be prompted for the router's username and password.

Note: The new username and password must not exceed 15 characters and not include any spacing.

3. Click **Save**.

6.7.7. System Log

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > System Log**, and you can view the logs of the router.

System Log

Log Type: ALL Log Level: Debug

Index	Time	Type	Level	Content
1	1970-01-01 04:37:15	DHCPC	Notice	Recv no OFFER, DHCP Service unavailable
2	1970-01-01 04:37:12	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
3	1970-01-01 04:37:09	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
4	1970-01-01 04:37:04	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
5	1970-01-01 04:37:01	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
6	1970-01-01 04:36:58	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
7	1970-01-01 04:36:44	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
8	1970-01-01 04:36:41	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
9	1970-01-01 04:36:36	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
10	1970-01-01 04:36:33	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
11	1970-01-01 04:36:30	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
12	1970-01-01 04:36:16	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
13	1970-01-01 04:36:13	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
14	1970-01-01 04:36:08	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
15	1970-01-01 04:36:05	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
16	1970-01-01 04:36:02	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
17	1970-01-01 04:35:51	DHCPC	Notice	Recv no OFFER, DHCP Service unavailable
18	1970-01-01 04:35:48	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
19	1970-01-01 04:35:45	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1

- **Refresh** - Refresh the page to show the latest log list.
- **Clear Log** - All the logs will be deleted from the router permanently, not just from the page.
- **Save Log** - Click to save all the logs in a txt file.

- [Log Settings](#) - Click to set the logs in the screen.
 - [Save Locally](#) - If Save Locally is selected, events will be recorded in the local memory.
 - [Minimum Level](#) - Select the Minimum level in the drop-down list, for the Minimum Level, all logged events above or equal to the selected level will be displayed.
 - [Save Remotely](#) - If Save Remotely is selected, events will be sent to the specified IP address and UDP port of the remote system log server.

6.8. Log Out

Click [Logout](#) at the bottom of the main menu, and you will log out of the web page and return to the login window.

Chapter 7

Configure the Router in Client Mode

This chapter presents how to configure the various features of the router working as a client.

It contains the following sections:

- [Status](#)
- [Operation Mode](#)
- [Network](#)
- [Wireless](#)
- [DHCP](#)
- [System Tools](#)
- [Log Out](#)

7.1. Status

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Status](#). You can view the current status information of the router in Client Mode.

Status	
Firmware Version:	██████████
Hardware Version:	██████████
LAN	
MAC Address:	00:0A:EB:13:09:69
IP Address:	192.168.0.1
Subnet Mask:	255.255.255.0
Wireless 2.4GHz	
Operation Mode:	Client
Wireless Radio:	Enabled
Name(SSID) of Root AP:	
Mode:	11bgn mixed
Channel:	6
Channel Width:	Auto
MAC Address:	00:0A:EB:13:09:68
Wireless 5GHz	
Operation Mode:	Client
Wireless Radio:	Enabled
Name(SSID) of Root AP:	
Mode:	11a/n/ac mixed
Channel:	36
Channel Width:	Auto
MAC Address:	00:0A:EB:13:09:67
System Up Time:	0 day(s) 00:12:55 <input type="button" value="Refresh"/>

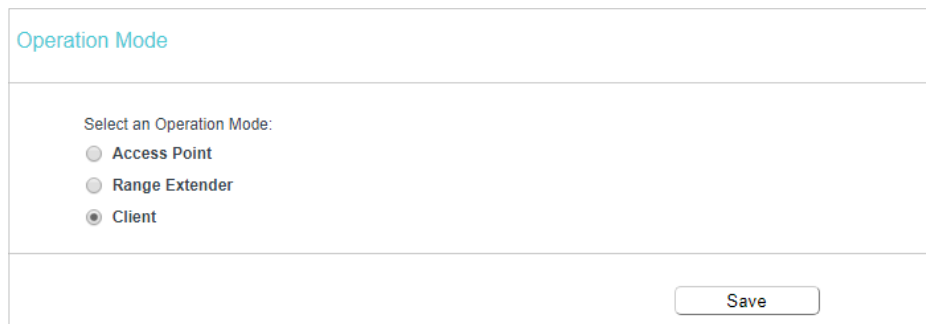
- **Firmware Version** - The version information of the router's firmware.
- **Hardware Version** - The version information of the router's hardware.
- **LAN** - This field displays the current settings of the LAN, and you can configure them on the [Network > LAN](#) page.
 - **MAC Address** - The physical address of the router.
 - **IP Address** - The LAN IP address of the router.
 - **Subnet Mask** - The subnet mask associated with the LAN IP address.

- **Wireless 2.4GHz/5GHz** - This field displays the basic information or status of the wireless function, and you can configure them on the [Wireless 2.4GHz/5GHz > Wireless Settings](#) page.
 - **Operation Mode** - The current operation mode of the router.
 - **Wireless Radio** - Indicates whether the wireless feature is enabled or not.
 - **Name (SSID) of Root AP** - The SSID of the connected host network.
 - **Mode** - The current wireless working mode in use.
 - **Channel** - The current wireless channel in use.
 - **Channel Width** - The current wireless channel width in use.
 - **MAC Address** - The physical address of the router.
- **System Up Time** - The length of the time since the router was last powered on or reset.

Click [Refresh](#) to get the latest status and settings of the router.

7.2. Operation Mode

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Operation Mode](#).
3. Select the operation mode as needed and click [Save](#).



Operation Mode

Select an Operation Mode:

Access Point

Range Extender

Client

Save

7.3. Network

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Network > LAN](#).
3. Configure the IP parameters of the LAN and click [Save](#).

- **LAN Type** - Either select **Smart IP(DHCP)** to get IP address from DHCP server, or **Static IP** to configure IP address manually.
- **MAC Address** - The physical address of the LAN port. The value can not be changed.
- **IP Address** - Enter the IP address in dotted-decimal notation if your select **Static IP** (factory default - 192.168.0.254).
- **Subnet Mask** - An address code that determines the size of the network. Normally 255.255.255.0 is used as the subnet mask.

■ **Note:**

- If you have changed the IP address, you must use the new IP address to login.
- If you select **Smart IP(DHCP)**, the DHCP server of the router will not start up.
- If the new IP address you set is not in the same subnet as the old one, the IP Address pool in the DHCP Server will be configured automatically, but the Virtual Server and DMZ Host will not take effect until they are re-configured.

7.4. Wireless

7.4.1. Wireless Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Wireless 2.4GHz/5GHz > Basic Settings**.
3. Configure the settings for the host network you want to connect to and click **Save**.

- **Scan** - Click to scan for wireless networks. When a host network is selected, the **SSID**, **MAC Address** and **Security** type will be automatically filled in.

- **Password** - Enter the password of the host network you want to connect to if it is encrypted.

7.5. DHCP

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

7.5.1. DHCP Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **DHCP > DHCP Settings**.
3. Specify DHCP server settings and click **Save**.

DHCP Settings

DHCP Server: Disable Enable

Start IP Address:

End IP Address:

Address Lease Time: minutes (1~2880 minutes, the default value is 1)

Default Gateway: (optional)

Default Domain: (optional)

DNS Server: (optional)

Secondary DNS Server: (optional)

Note: The DHCP Settings function cannot be configured if you have chosen Smart IP (DHCP) in [Network->LAN](#) (in this situation the device will help you configure the DHCP automatically as you need).

- **DHCP Server** - Enable or disable the DHCP server. If disabled, you must have another DHCP server within your network or else you must configure the computer manually.
- **Start IP Address** - Specify an IP address for the DHCP Server to start with when assigning IP addresses. 192.168.0.100 is the default start address.
- **End IP Address** - Specify an IP address for the DHCP Server to end with when assigning IP addresses. 192.168.0.199 is the default end address.
- **Address Lease Time** - The Address Lease Time is the amount of time a network user will be allowed to connect to the router with the current dynamic IP Address. When time is up, the user will be automatically assigned a new dynamic IP address. The range of the time is 1 ~ 2880 minutes. The default value is 120.
- **Default Gateway (Optional)** - It is suggested to input the IP address of the LAN port of the router. The default value is 192.168.0.254.

- **Default Domain (Optional)** - Input the domain name of your network.
- **Primary DNS (Optional)** - Input the DNS IP address provided by your ISP.
- **Secondary DNS (Optional)** - Input the IP address of another DNS server if your ISP provides two DNS servers.

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

7.5.2. DHCP Client List

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **DHCP > DHCP Client List** to view the information of the clients connected to the router.

ID	Client Name	MAC Address	Assigned IP	Lease Time
1			192.168.0.100	00:00:59

- **Client Name** - The name of the DHCP client.
- **MAC Address** - The MAC address of the DHCP client.
- **Assigned IP** - The IP address that the router has allocated to the DHCP client.
- **Lease Time** - The time of the DHCP client leased. After the dynamic IP address has expired, a new dynamic IP address will be automatically assigned to the user.

You cannot change any of the values on this page. To update this page and show the current attached devices, click [Refresh](#).

7.6. USB Settings

You can insert a USB drive to share files among users on the LAN, access the USB drive remotely on the internet and enjoy videos and photos stored in the USB drive.

7.6.1. Storage Sharing

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

- **To access the USB disk:**

1. Connect Your USB Disk

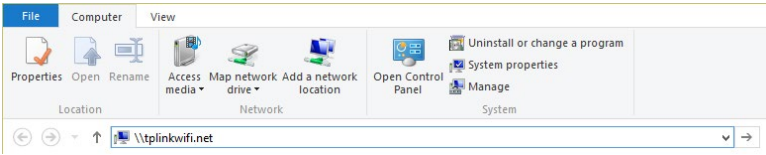
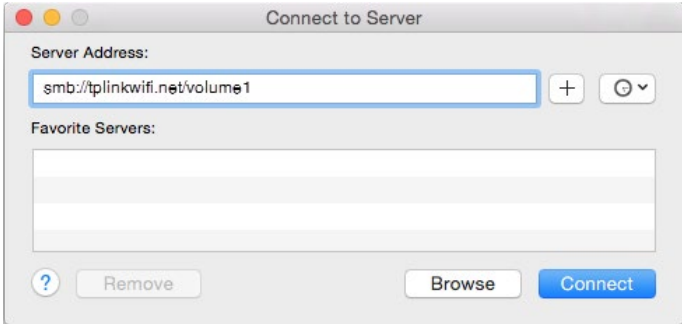
Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.

☞ **Tips:**

- If you use USB hubs, make sure no more than 2 devices are connected to the router.
- If the USB storage device requires using bundled external power, make sure the external power has been connected.
- If you use a USB hard drive, make sure its file system is FAT32 or NTFS.
- Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to [USB Settings > USB Mass Storage](#) and click [Disconnect](#).

2. Access Your USB Disk

By default, all the network clients can access your USB disk. Refer to the following table for access instructions. You can customize user accounts by referring to [User Accounts](#).

Windows	<p>Open the Windows Explorer (or go to Computer), type the server address \\tplinkwifi.net in the address bar, enter a username and password if required and then press [Enter].</p> <p>📌 Note: Here we take Windows 8 as an example.</p> 
Mac	<ol style="list-style-type: none"> 1) Click Go in the top left corner of the desktop and go to Connect to Server. 2) Type the server address smb://tplinkwifi.net/volume1. 📌 Note: Here we take volume1 for example. 3) Click Connect.  <ol style="list-style-type: none"> 4) When prompted, select the Guest radio box (If you have set up a username and password to deny anonymous access to the USB disk, you should select the Registered User radio box. To learn how to set up an account for the access, refer to User Accounts).
Tablet	Use a third-party app for network files management.

- **To customize your settings:**

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **USB Settings > Storage Sharing**.

Storage Sharing Settings

Storage Sharing enables you to share files saved on a USB storage device with other computers on the local network.

Server Status: Enabled

Anonymous access to all volumes.

Folder Table: (Any modifications to this table will not take effect until you Apply these changes.)

	Share Name	Directory	User Access (F: Full-Access, R: Read-Only, N: No-Access)					Status	Edit
			1*	2	3	4	5		
<input type="checkbox"/>	PPT	/3. PPT	F	F	-	-	-	Enabled	Edit
<input type="checkbox"/>	pics	/1. photos	F	R	-	-	-	Enabled	Edit

*: "Super User" has full-access permission (Read & Write) to all shared folders.

- **Server Status** - the Storage Sharing's current status.
- **Anonymous access to all volumes** - This function is enabled by default, so users can access all activated volumes of Storage Sharing without accounts. If you want to add a shared folder which does not allow anonymous login, uncheck the box to disable this function. And Folder Table will be displayed as shown below.
- **Share Name** - This folder's display name.
- **Directory** - The real full path of the specified folder.
- **User Access** - The authorization of the user is displayed. * users mean Super Users who have the full-access permission to all activated volumes and share folders. Grey users mean the users who have no right to use this function. Others are common users.
- **Status** - The status of the entry is enabled or disabled.
- **Edit** - Click Edit in the table, and then you can modify the entry.

7.6.2. FTP Server

You can share specific folders on you USB drive on the LAN or access your USB drive outside the local area network.

For example:

- Only share specific folders with clients on the LAN.
- 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 material for a presentation.
- **To set up your FTP server:**

FTP Server Settings

Server Status: Enabled Disable

Internet Access: Enable Disable

Internet Address: 0.0.0.0

Service Port: (The default is 21. Do not change unless necessary.)

1. Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
3. Go to **USB Settings > FTP Server**.
4. Click **Enable** to enable the FTP Server.
5. Click **Enable** to enable the internet access to the FTP server.
6. Specify a port number for the **Service Port**. The default value is 21.
7. Click **Apply**.

- **To specify a folder to be accessed via the FTP server:**

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **USB Settings > FTP Server**.
3. Click **Add New Folder**.
4. Specify a name for the folder to be shared in the **Share Name** field. And select the folder you want to share. And determine the access right of user accounts.

Folder Browse

This page allows you to set shared folders along with authorization access for FTP services.

Share Name:

Directory:

User Access Control Table:

Index	Username	Authorization Access
1*	123	<input checked="" type="radio"/> Full-Access <input type="radio"/> Read-Only <input type="radio"/> No-Access
2	admin	<input type="radio"/> Full-Access <input checked="" type="radio"/> Read-Only <input type="radio"/> No-Access
3		
4		
5		

*: "Super User". It has full-access permission (Read & Write) to all active volume(s) and share folder(s).

5. Click **Apply**.
6. You can check which folder is shared and also edit or delete the folder.

	Share name	Directory	User Index (F: Full-Access, R: Read-Only, N: No-Access)					Status	Edit
			1*	2	3	4	5		
<input type="checkbox"/>	volume	/	F	N	-	-	-	Enabled	Edit
<input type="checkbox"/>	remoteaccess	/2. accommodation	F	F	-	-	-	Enabled	Edit

* : "Super User". It has full-access permission (Read & Write) to all active volume(s) and share folder(s).

- **To access the USB disk locally:**

1. Connect Your USB Disk

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

 **Tips:**


- If you use USB hubs, make sure no more than 2 devices are connected to the router.
- If the USB storage device requires using bundled external power, make sure the external power has been connected.
- If you use a USB hard drive, make sure its file system is FAT32 or NTFS.
- Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to [USB Settings](#) > [USB Mass Storage](#) and click [Disconnect](#).

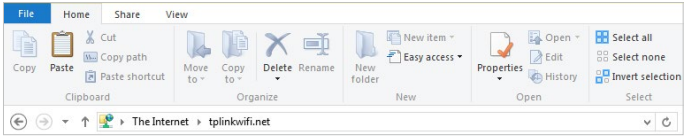
2. Access Your USB Disk Locally

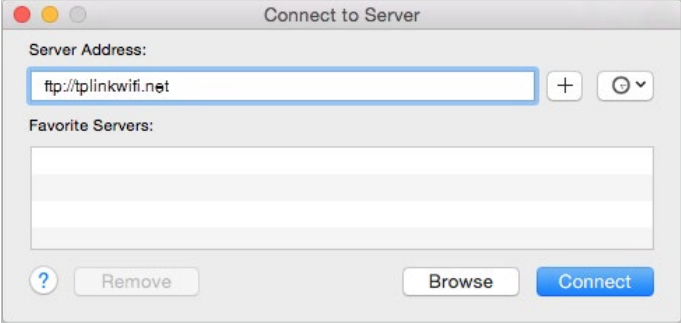
Refer to the following table for access instructions. You can customize user accounts by referring to [User Accounts](#).

Windows

Open the [Windows Explorer](#) (or go to [Computer](#)), type the server address <ftp://tplinkwifi.net> in the address bar, enter a username and password and then press **[Enter]**.

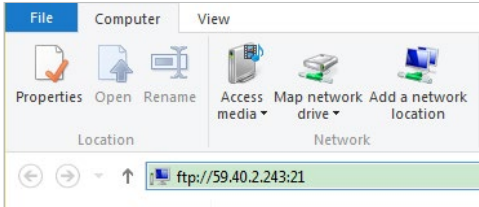

 **Note:** Here we take Windows 8 as an example.



Mac	<ol style="list-style-type: none">1) Click Go in the top left corner of the desktop and go to Connect to Server.2) Type the server address ftp://tplinkwifi.net.3) Click Connect.  <ol style="list-style-type: none">4) When prompted, select the Registered User radio box and enter a username and password (To learn how to set up an account for the access, refer to User Accounts).
Tablet	Use a third-party app for network files management.

- **To access the USB disk remotely:**

Refer to the following table for access instructions. You can customize user accounts by referring to [User Accounts](#).

Windows	<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 <code>ftp://<WAN IP address of the router>:<port number></code> (such as <code>ftp://59.40.2.243:21</code>). If you have specified a domain name for the router, you can also type in <code>ftp://<domain name>:<port number></code> (such as <code>ftp://MyDomainName:21</code>)  <p style="text-align: center;">The Windows Explorer (Windows 8)</p> <ol style="list-style-type: none"> 3) Press [Enter]. 4) Access with the username and password by referring to User Accounts. <p> Tips: You can also access the USB disk via a third-party app for network files management, which can resume broken file transfers.</p>	
	<table border="1"> <tr> <td style="background-color: #007080; color: white; text-align: center; font-weight: bold;">Tablet</td> <td>Use a third-party app for network files management.</td> </tr> </table>	Tablet
Tablet	Use a third-party app for network files management.	

7.6.3. Media Server

The Media Server feature allows to view photos, play music and watch movies on the USB drive directly with DLNA-supported devices, such as on your computer, pad and PS2/3/4.

- **To share specific folders:**

1. Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
3. Go to [USB Settings](#) > [Media Server](#).
4. Click [Enable](#) to enable the Media Server.

Media Server Settings

Server Enable: Enable Disable

Server Name:

Content Scan: Manual Scan:

Auto Scan: Every hour(s)

5. Click [Add New Folder](#). Specify a name for the folder to be shared in the [Share Name](#) field. And select the folder you want to share.

Folder Browse

This page allows you to set a scan folder for DLNA media services.

Share Name:

Directory:

Select Volume: KINGSTON (DT 101 G2), sda(7.3 GB,FAT32) ▼

/sda/4_videos/

[._VIDEO](#)

6. Click [Apply](#).

- **To access the USB disk:**

1. Connect Your USB Disk

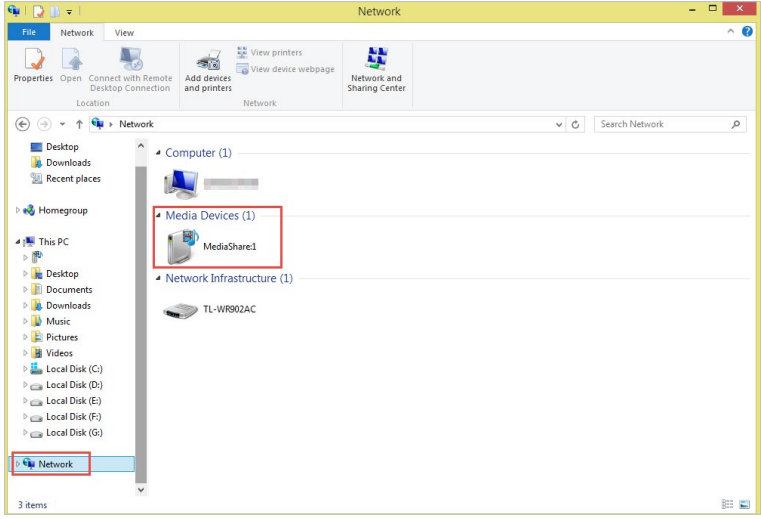
Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.

Tips:

- If you use USB hubs, make sure no more than 2 devices are connected to the router.
- If the USB storage device requires using bundled external power, make sure the external power has been connected.
- If you use a USB hard drive, make sure its file system is FAT32 or NTFS.
- Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to [USB Settings](#) > [USB Mass Storage](#) and click [Disconnect](#).

2. Access the Media Files on Your USB Disk

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

Windows	<ul style="list-style-type: none"> Go to Computer > Network, and click the Media Server Name in the Media Devices section. <p>Note: Here we take Windows 8 as an example.</p> 
Tablet	<ul style="list-style-type: none"> Use a third-party DLNA-supported player.

7.6.4. User Accounts

You can specify the username and password for Storage Sharing and FTP Server access.

- Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
- Go to **USB Settings > User Accounts**.
- Choose the **Index** for the account and specify a new username and password in the **New Username** and **New Password** fields, and reenter the password for confirmation.

Note: For an account with Index 1, it is the Super User with full access to all active volumes and shared folders.

<p>Choose Index: <input style="width: 80px;" type="text" value="1"/></p> <p>New Username: <input style="width: 300px;" type="text"/></p> <p>New Password: <input style="width: 300px;" type="password"/></p> <p>Confirm password: <input style="width: 300px;" type="password"/></p>
<input style="width: 100px; height: 25px;" type="button" value="Set"/>

- Click **Set**.

5. You can check the newly added account and also edit or delete the account.

User Accounts			
This page allows you to configure user accounts for Storage Sharing/FTP Server. Please click Set to ensure your configurations take effect.			
Index	Username	Status	Action
1	123*	Enabled	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
2	admin	Enabled	<input checked="" type="radio"/> Enable <input type="radio"/> Disable Delete
3			
4			
5			

*: "Super User" has full-access permission to all active volumes and shared folders.

7.7. System Tools

7.7.1. Diagnostic

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

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Diagnostic](#).

Diagnostic Tools	
Diagnostic Parameters	
Diagnostic Tool:	<input checked="" type="radio"/> Ping <input type="radio"/> Traceroute <input type="button" value="Start"/>
IP address/Domain name:	<input type="text"/>
Ping Count:	<input type="text" value="4"/> ping(1 - 50)
Ping Packet Size:	<input type="text" value="64"/> (0 - 65500 Bytes)
Ping Timeout:	<input type="text" value="1"/> (1 - 60 Seconds)
Traceroute Max TTL:	<input type="text" value="20"/> (1 - 30)

- **Diagnostic Tool** - Select one diagnostic tool.
 - **Ping** - This diagnostic tool troubleshoots connectivity, reachability, and name resolution to a given host or gateway.
 - **Tracerouter** - This diagnostic tool tests the performance of a connection.

Note: You can use ping/traceroute to test both numeric IP address or domain name. If pinging/tracerouting the IP address is successful, but pinging/tracerouting the domain name is not, you might have a name resolution problem. In this case, ensure that the domain name you are specifying can be resolved by using Domain Name System (DNS) queries.

- **IP Address/Domain Name** - Enter the destination IP address (such as 192.168.0.1) or Domain name (such as www.tp-link.com).
- **Pings Count** - The number of Ping packets for a Ping connection.
- **Ping Packet Size** - The size of Ping packet.

- **Ping Timeout** - Set the waiting time for the reply of each Ping packet. If there is no reply in the specified time, the connection is overtime.
 - **Traceroute Max TTL** - The max number of hops for a Traceroute connection.
3. Click **Start** to check the connectivity of the internet.
 4. The **Diagnostic Results** page displays the diagnosis result. If the result is similar to the following figure, the connectivity of the Internet is fine.

```

Diagnostic Results
-----
Pinging 192.168.0.1 with 64 bytes of data:

Reply from 192.168.0.1: bytes=64 time=1    TTL=64  seq=1
Reply from 192.168.0.1: bytes=64 time=1    TTL=64  seq=2
Reply from 192.168.0.1: bytes=64 time=1    TTL=64  seq=3
Reply from 192.168.0.1: bytes=64 time=1    TTL=64  seq=4

Ping statistics for 192.168.0.1
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss)
Approximate round trip times in milliseconds:
  Minimum = 1, Maximum = 1, Average = 1

```

Note: Only one user can use this tool at one time. Options "Number of Pings", "Ping Size" and "Ping Timeout" are used for the Ping function. Option "Tracert Hops" is used for the Tracert function.

7.7.2. Firmware Upgrade

TP-Link is dedicated to improving and enriching the product features, giving users a better network experience. We will release the latest firmware at TP-Link official website. You can download the latest firmware file from the [Support](#) page of our website www.tp-link.com and upgrade the firmware to the latest version.

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

Firmware Upgrade

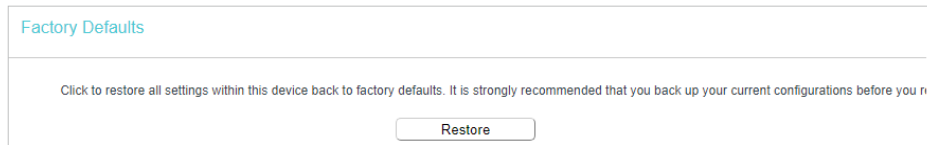
Firmware File Path: No file chosen

Firmware version: 0.9.1 0.1 v0089.0 Build 170717 Rel.42170n

Hardware version: TL-WR902AC v3 00000001

7.7.3. Factory Defaults

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Factory Defaults](#). Click [Restore](#) to reset all settings to the default values.

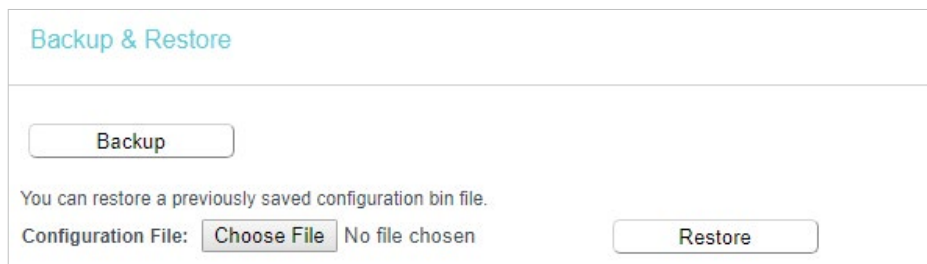


- The default [Username](#): admin
- The default [Password](#): admin
- The default [IP Address](#): 192.168.0.254
- The default [Subnet Mask](#): 255.255.255.0

7.7.4. Backup & Restore

The configuration settings are stored as a configuration file in the router. You can backup the configuration file in your computer for future use and restore the router to the previous settings from the backup file when needed.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Backup & Restore](#).



- **To backup configuration settings:**

Click [Backup](#) to save a copy of the current settings in your local computer. A ".bin" file of the current settings will be stored in your computer.

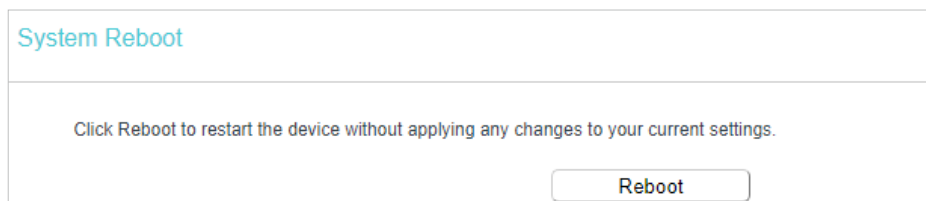
- **To restore configuration settings:**

1. Click [Choose File](#) to locate the backup configuration file stored in your computer, and click [Restore](#).
2. Wait a few minutes for the restoring and rebooting.

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

7.7.5. Reboot

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Reboot**, and you can restart your router.



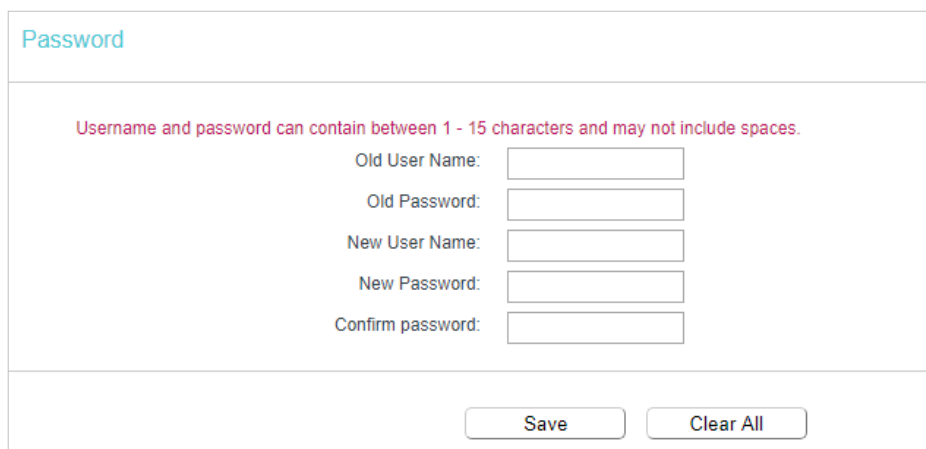
The screenshot shows a web page titled "System Reboot". Below the title, there is a message: "Click Reboot to restart the device without applying any changes to your current settings." At the bottom right of the page, there is a button labeled "Reboot".

Some settings of the router will take effect only after rebooting, including:

- Change the LAN IP address (system will reboot automatically).
- Change the DHCP settings.
- Change the operation mode.
- Change the web management port.
- Upgrade the firmware of the router (system will reboot automatically).
- Restore the router to its factory defaults (system will reboot automatically).
- Update the configuration with the file (system will reboot automatically).

7.7.6. Password

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Password**, and you can change the factory default username and password of the router.



The screenshot shows a web page titled "Password". Below the title, there is a message: "Username and password can contain between 1 - 15 characters and may not include spaces." Below this message, there are five input fields: "Old User Name:", "Old Password:", "New User Name:", "New Password:", and "Confirm password:". At the bottom of the page, there are two buttons: "Save" and "Clear All".

It is strongly recommended that you change the default username and password of the router, for all users that try to access the router's web-based utility or Quick Setup will be prompted for the router's username and password.

Note: The new username and password must not exceed 15 characters and not include any spacing.

3. Click [Save](#).

7.7.7. System Log

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools](#) > [System Log](#), and you can view the logs of the router.

- [Refresh](#) - Refresh the page to show the latest log list.
- [Clear Log](#) - All the logs will be deleted from the router permanently, not just from the page.
- [Save Log](#) - Click to save all the logs in a txt file.
- [Log Settings](#) - Click to set the logs in the screen.
 - [Save Locally](#) - If Save Locally is selected, events will be recorded in the local memory.
 - [Minimum Level](#) - Select the Minimum level in the drop-down list, for the Minimum Level, all logged events above or equal to the selected level will be displayed.
 - [Save Remotely](#) - If Save Remotely is selected, events will be sent to the specified IP address and UDP port of the remote system log server.

7.8. Log Out

Click [Logout](#) at the bottom of the main menu, and you will log out of the web page and return to the login window.

Chapter 8

Configure the Router in Hotspot Router Mode

This chapter presents how to configure the various features of the router working as a hotspot router.

It contains the following sections:

- [Status](#)
- [Network](#)
- [Wireless](#)
- [Guest Network](#)
- [DHCP](#)
- [USB Settings](#)
- [Port Forwarding](#)
- [Security](#)
- [Parental Controls](#)
- [Access Control](#)
- [Advanced Routing](#)
- [Bandwidth Control](#)
- [IP&MAC Binding](#)
- [Dynamic DNS](#)
- [System Tools](#)
- [Log Out](#)

8.1. Status

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Status](#). You can view the current status information of the router.

Status
Firmware Version: 0.9.1 0.1 v0089.0 Build 170717 Rel.42170n Hardware Version: TL-WR902AC v3 00000001
LAN MAC Address: 00:0A:EB:13:09:69 IP Address: 192.168.0.1 Subnet Mask: 255.255.255.0
Wireless 2.4GHz Operation Mode: Hotspot Wireless Radio: Enabled Name(SSID): TP-Link_0969 Mode: 11bgn mixed Channel: 6 Channel Width: Auto MAC Address: 00:0A:EB:13:09:69
Wireless 5GHz Operation Mode: Hotspot Wireless Radio: Enabled Name(SSID): TP-Link_0969_5G Mode: 11a/n/ac mixed Channel: 36 Channel Width: Auto MAC Address: 00:0A:EB:13:09:68
WAN MAC Address: 00:0A:EB:13:09:6A IP Address: 0.0.0.0(Dynamic IP) Subnet Mask: 0.0.0.0 Default Gateway: 0.0.0.0 DNS Server: 0.0.0.0 0.0.0.0
System Up Time: 0 day(s) 00:05:27 <input type="button" value="Refresh"/>

- **Firmware Version** - The version information of the router's firmware.
- **Hardware Version** - The version information of the router's hardware.
- **LAN** - This field displays the current settings of the LAN, and you can configure them on the [Network > LAN](#) page.

- [MAC Address](#) - The physical address of the router.
- [IP Address](#) - The LAN IP address of the router.
- [Subnet Mask](#) - The subnet mask associated with the LAN IP address.
- [Wireless 2.4GHz/5GHz](#) - This field displays the basic information or status of the wireless function, and you can configure them on the [Wireless 2.4GHz/5GHz > Basic Settings](#) page.
 - [Operation Mode](#) - The current operation mode of the router.
 - [Wireless Radio](#) - Indicates whether the wireless feature is enabled or not.
 - [Name \(SSID\)](#) - The SSID of the network.
 - [Mode](#) - The current wireless working mode in use.
 - [Channel Width](#) - The current wireless channel width in use.
 - [Channel](#) - The current wireless channel in use.
 - [MAC Address](#) - The physical address of the router.
- [WAN](#) - This field displays the current settings of the WAN, and you can configure them on the [Network > WAN](#) page.
 - [MAC Address](#) - The physical address of the WAN port.
 - [IP Address](#) - The current WAN (Internet) IP Address. This field will be blank or 0.0.0.0 if the IP Address is assigned dynamically and there is no internet connection.
 - [Subnet Mask](#) - The subnet mask associated with the WAN IP Address.
 - [Default Gateway](#) - The Gateway currently used is shown here. When you use Dynamic IP as the internet connection type.
 - [DNS Server](#) - The IP addresses of DNS (Domain Name System) server.
- [System Up Time](#) - The length of the time since the router was last powered on or reset.

Click [Refresh](#) to get the latest status and settings of the router.

8.2. Network

8.2.1. WAN

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Network > WAN](#).
3. Configure the IP parameters of the LAN and click [Save](#).

Dynamic IP

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

Click [Renew](#) to renew the IP parameters from your ISP.

Click [Release](#) to release the IP parameters.

WAN Settings

Connection Type:

IP Address: 192.168.1.100
Subnet Mask: 255.255.255.0
Gateway: 192.168.1.40

MTU(Bytes): (1500 as default, do not change unless necessary)

Enable IGMP Proxy:
IGMP Version: v2 v3
Get IP with Unicast: (It is usually not required)
Set DNS server manually:
Host Name:

- [MTU\(Bytes\)](#) - The normal MTU (Maximum Transmission Unit) value for most Ethernet networks is 1500 Bytes. It is not recommended that you change the default MTU size unless required by your ISP.
- [IGMP Proxy](#) - Select to enable the IGMP Proxy feature if the IPTV service provided by the ISP is IGMP technology-based.
- [Get IP with Unicast DHCP](#) - A few ISPs' DHCP servers do not support the broadcast applications. If you cannot get the IP address normally, you can choose this option. (It is rarely required.)
- [Set DNS server manually](#) - If your ISP provides you one or two DNS addresses, select [Set DNS server manually](#) and enter the primary and secondary addresses. Otherwise, the DNS servers will be assigned dynamically from your ISP.
- [Host Name](#) - This option specifies the name of the router.

Static IP

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

WAN Settings

Connection Type:

IP Address:

Subnet Mask:

Gateway:

Primary DNS Server:

Secondary DNS Server: (optional)

MTU(Bytes): (1500 as default, do not change unless necessary)

Enable IGMP Proxy:

IGMP Version: v2 v3

- **IP Address** - Enter the IP address in dotted-decimal notation provided by your ISP.
- **Subnet Mask** - Enter the subnet mask in dotted-decimal notation provided by your ISP. Normally 255.255.255.0 is used as the subnet mask.
- **Gateway** - Enter the gateway IP address in dotted-decimal notation provided by your ISP.
- **Primary/Secondary DNS Server** - (Optional) Enter one or two DNS addresses in dotted-decimal notation provided by your ISP.
- **MTU(Bytes)** - The default MTU size is 1480 bytes. It is not recommended that you change the default MTU size unless required by your ISP.
- **IGMP Proxy** - Select to enable the IGMP Proxy feature if the IPTV service provided by the ISP is IGMP technology-based.

PPPoE/Russia PPPoE

If your ISP provides PPPoE connection, select [PPPoE/Russia PPPoE](#).

WAN Settings

Connection Type:

PPP Username:

PPP Password:

Confirm password:

Secondary Connection: Disabled Dynamic IP Static IP (For Dual Access)

Connection Mode: Always on
 Connect on demand
 Connect manually

Max. Idle Time: minutes (0 meaning connection remains active at all times)

Authentication Type:

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

- **Confirm Password** - Enter the Password provided by your ISP again to ensure the password you entered is correct.
- **Secondary Connection** - It's available only for PPPoE connection. If your ISP provides an extra connection type, select **Dynamic IP** or **Static IP** to activate the secondary connection.
- **Connection Mode**
 - **Always On** - Connect automatically after the router is connected.
 - **Connect on demand** - In this mode, the internet connection can be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the Internet again. If you want to keep your Internet connection active all the time, please enter 0 in the **Max Idle Time** field. Otherwise, enter the number of minutes you want to have elapsed before your Internet access disconnects.
 - **Connect manually** - You can click **Connect/Disconnect** to connect/disconnect immediately. This mode also supports the **Max Idle Time** function as **Connect on demand** mode. The internet connection can be disconnected automatically after a specified inactivity period (Max Idle Time) and not be able to re-establish when you attempt to access the internet again.

Note:

- Only when you have configured the system time on the **System Tools > Time Settings** page, will the time-based connecting function take effect.
- Sometimes the connection cannot be terminated although you have specified the **Max Idle Time** because some applications are visiting the Internet continually in the background.

If you want to do some advanced configurations, please click **Advanced**.

Service Name:	<input type="text"/>	(do not change unless necessary)
Server Name:	<input type="text"/>	(do not change unless necessary)
MTU(Bytes):	<input type="text" value="1480"/>	(1480 as default, do not change unless necessary)
Enable IGMP Proxy:	<input checked="" type="checkbox"/>	
IGMP Version:	<input type="radio"/> v2 <input checked="" type="radio"/> v3	
Use IP address specified by ISP:	<input type="checkbox"/>	
Echo request interval:	<input type="text" value="0"/>	(0-120 seconds, 0 meaning no request)
Set DNS server manually:	<input type="checkbox"/>	

- **Service Name/Server Name** - The service name and server name should not be configured unless you are sure it is necessary for your ISP. In most cases, leaving these fields blank will work.
- **MTU(Bytes)** - The default MTU size is 1480 bytes. It is not recommended that you change the default MTU size unless required by your ISP.
- **IGMP Proxy** - Select to enable the IGMP Proxy feature if the IPTV service provided by the ISP is IGMP technology-based.

- **Use IP address specified by ISP** - If your ISP does not automatically assign IP addresses to the router, please select **Use IP address specified by ISP** and enter the IP address provided by your ISP in dotted-decimal notation.
- **Set DNS server manually** - If your ISP does not automatically assign DNS addresses to the router, please select **Set DNS server manually** and enter the IP address in dotted-decimal notation of your ISP's primary DNS server. If a secondary DNS server address is available, enter it as well.

BigPond Cable

If your ISP provides BigPond cable connection, please select **BigPond Cable**.

The screenshot shows the WAN Settings configuration page for BigPond Cable. The configuration includes the following fields and options:

- Connection Type:** BigPond Cable (dropdown menu) with a Detect button.
- Username:** (text input field)
- Password:** (text input field)
- Auth Server:** (text input field)
- Auth Domain:** (text input field)
- MTU(Bytes):** 1500 (1500 as default, do not change unless necessary)
- Enable IGMP Proxy:**
- IGMP Version:** v2 v3
- Connection Mode:** Always on, Connect on demand, Connect manually
- Max Idle Time:** 15 minutes (0 meaning connection remains active at all times)
- Buttons:** Connect, Disconnect, Save

- **Username/Password** - Enter the username and password provided by your ISP. These fields are case-sensitive.
- **Auth Server** - Enter the authenticating server IP address or host name.
- **Auth Domain** - Type in the domain suffix server name based on your location.
- **MTU(Bytes)** - The default MTU size is 1480 bytes. It is not recommended that you change the default MTU size unless required by your ISP.
- **IGMP Proxy** - Select to enable the IGMP Proxy feature if the IPTV service provided by the ISP is IGMP technology-based.
- **Connection Mode**
 - **Always On** - Connect automatically after the router is connected.
 - **Connect on demand** - In this mode, the internet connection can be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the Internet again. If you want to keep your internet connection active all the time, please enter 0 in the **Max Idle Time** field. Otherwise, enter the number of minutes you want to have elapsed before your Internet access disconnects.

- **Connect manually** - You can click **Connect/Disconnect** to connect/disconnect immediately. This mode also supports the **Max Idle Time** function as **Connect on demand** mode. The internet connection can be disconnected automatically after a specified inactivity period (Max Idle Time) and not be able to re-establish when you attempt to access the internet again.

Note: Sometimes the connection cannot be terminated although you have specified the **Max Idle Time** because some applications are visiting the Internet continually in the background.

L2TP

If your ISP provides L2TP connection, please select **L2TP**.

The screenshot shows the WAN Settings configuration page for L2TP. The form includes the following fields and options:

- Connection Type:** L2TP (selected in a dropdown menu), with a Detect button.
- Username:** [Empty text input field]
- Password:** [Empty text input field]
- Connect/Disconnect:** Two buttons, Connect and Disconnect.
- Addressing Type:** Dynamic IP (selected), Static IP.
- Server IP Address/Name:** [Empty text input field]
- IP Address:** 0.0.0.0
- Subnet Mask:** 0.0.0.0
- Gateway:** 0.0.0.0
- DNS Server:** 0.0.0.0, 0.0.0.0
- Internet IP Address:** 0.0.0.0
- Internet DNS:** 0.0.0.0, 0.0.0.0
- MTU(Bytes):** 1460 (1460 as default, do not change unless necessary)
- Enable IGMP Proxy:**
- IGMP Version:** v2, v3 (selected)
- Connection Mode:** Always on (selected), Connect on demand, Connect manually
- Max Idle Time:** 15 minutes (0 meaning connection remains active at all times)
- Save:** A button at the bottom of the form.

- **Username/Password** - Enter the username and password provided by your ISP. These fields are case-sensitive.
- **Confirm Password** - Enter the Password provided by your ISP again to ensure the password you entered is correct.
- **Connect/Disconnect** - Click this button to connect or disconnect immediately.
- **Addressing Type** - Select either as required by your ISP. If **Static IP** is selected, please enter the IP address, subnet mask, gateway and DNS also provided by your ISP.
- **Internet IP Address/ Internet DNS** - The internet IP address and DNS server address assigned by L2TP server.
- **MTU(Bytes)** - The default MTU size is 1480 bytes. It is not recommended that you change the default MTU size unless required by your ISP.

- **IGMP Proxy** - Select to enable the IGMP Proxy feature if the IPTV service provided by the ISP is IGMP technology-based.
- **Connection Mode**
 - **Always On** - Connect automatically after the router is connected.
 - **Connect on demand** - In this mode, the internet connection can be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the Internet again. If you want to keep your Internet connection active all the time, please enter 0 in the **Max Idle Time** field. Otherwise, enter the number of minutes you want to have elapsed before your Internet access disconnects.
 - **Connect manually** - You can click **Connect/Disconnect** to connect/disconnect immediately. This mode also supports the **Max Idle Time** function as **Connect on demand** mode. The internet connection can be disconnected automatically after a specified inactivity period (Max Idle Time) and not be able to re-establish when you attempt to access the Internet again.

Note: Sometimes the connection cannot be terminated although you have specified the **Max Idle Time** because some applications are visiting the Internet continually in the background.

PPTP

If your ISP provides PPTP connection, please select **PPTP**.

WAN Settings

Connection Type: PPTP Detect

Username:

Password:

Connect Disconnect

Addressing Type: Dynamic IP Static IP

Server IP Address/Name:

IP Address: 0.0.0.0

Subnet Mask: 0.0.0.0

Gateway: 0.0.0.0

DNS Server: 0.0.0.0, 0.0.0.0

Internet IP Address: 0.0.0.0

Internet DNS: 0.0.0.0, 0.0.0.0

MTU(Bytes): (1420 as default, do not change unless necessary)

Enable IGMP Proxy:

IGMP Version: v2 v3

Connection Mode: Always on
 Connect on demand
 Connect manually

Max Idle Time: minutes (0 meaning connection remains active at all times)

Save

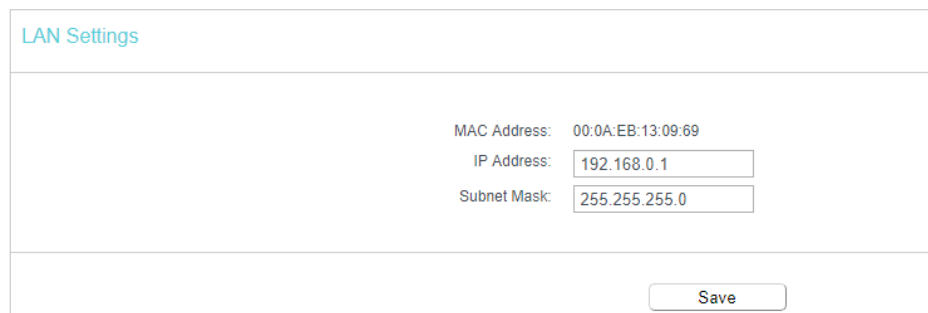
- **Username/Password** - Enter the username and password provided by your ISP. These fields are case-sensitive.

- **Confirm Password** - Enter the Password provided by your ISP again to ensure the password you entered is correct.
- **Connect/Disconnect** - Click this button to connect or disconnect immediately.
- **Addressing Type** - Select either as required by your ISP. If **Static IP** is selected, please enter the IP address, subnet mask, gateway and DNS also provided by your ISP.
- **Internet IP Address/ Internet DNS** - The internet IP address and DNS server address assigned by L2TP server.
- **MTU(Bytes)** - The default MTU size is 1480 bytes. It is not recommended that you change the default MTU size unless required by your ISP.
- **IGMP Proxy** - Select to enable the IGMP Proxy feature if the IPTV service provided by the ISP is IGMP technology-based.
- **Connection Mode**
 - **Always On** - Connect automatically after the router is connected.
 - **Connect on demand** - In this mode, the internet connection can be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the Internet again. If you want to keep your Internet connection active all the time, please enter 0 in the **Max Idle Time** field. Otherwise, enter the number of minutes you want to have elapsed before your Internet access disconnects.
 - **Connect manually** - You can click **Connect/Disconnect** to connect/disconnect immediately. This mode also supports the **Max Idle Time** function as **Connect on demand** mode. The internet connection can be disconnected automatically after a specified inactivity period (Max Idle Time) and not be able to re-establish when you attempt to access the Internet again.

Note: Sometimes the connection cannot be terminated although you have specified the **Max Idle Time** because some applications are visiting the Internet continually in the background.

8.2.2. LAN

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



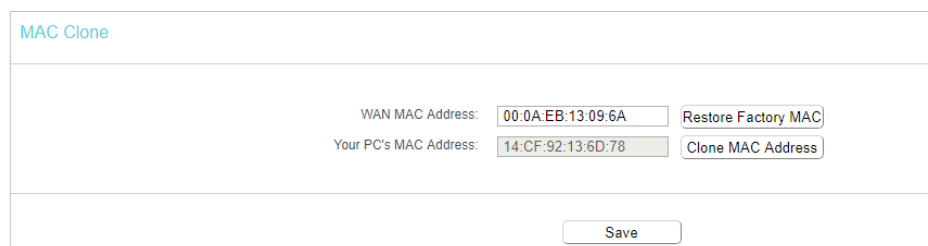
- **MAC Address** - The physical address of the LAN ports. The value can not be changed.
- **IP Address** - Enter the IP address in dotted-decimal notation of your router (factory default - 192.168.0.254).
- **Subnet Mask** - An address code that determines the size of the network. Normally 255.255.255.0 is used as the subnet mask.

Note:

- If you have changed the IP address, you must use the new IP address to log in.
- If the new IP address you set is not in the same subnet as the old one, the IP address pool in the DHCP Server will be configured automatically, but the Virtual Server and DMZ Host will not take effect until they are re-configured.

8.2.3. MAC Clone

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Network > MAC Clone**.
3. Configure the WAN MAC address and click **Save**.



- **WAN MAC Address** - This field displays the current MAC address of the WAN port. If your ISP requires you to register the MAC address, please enter the correct MAC address in this field. Click **Restore Factory MAC** to restore the MAC address of WAN port to the factory default value.
- **Your PC's MAC Address** - This field displays the MAC address of the PC that is managing the router. If the MAC address is required, you can click **Clone MAC Address** and this MAC address will be filled in the **WAN MAC Address** field.

Note:

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

8.3. Wireless

8.3.1. Basic Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless 2.4GHz/5GHz > Basic Settings](#).
3. Configure the basic settings for the 2.4GHz/5GHz wireless network and click [Save](#).

In the Client Setting section, you can change the settings for the public Wi-Fi that you want to connect to.

- [Scan](#) - Click to scan for wireless networks. When a public Wi-Fi is selected, the [SSID](#), [MAC Address](#) and other parameters except [Wireless Password](#) will be automatically filled in.
- [Wireless Password](#) - Enter the password of the public Wi-Fi you want to connect to.

In the AP Setting, you can change the settings for your 2.4GHz/5GHz wireless network.

- [Wireless Network Name](#) - Enter a string of up to 32 characters. The default SSID is TP-Link_XXXX (XXXX indicates the last unique four numbers of each router's MAC address). It is strongly recommended that you change your network name (SSID). This value is case-sensitive. For example, TEST is NOT the same as test.
- [Mode](#) - Select the desired mode. It is strongly recommended that you keep the default setting [11bgn mixed](#) or [11a/n/ac mixed](#).

- **Channel** - This field determines which operating frequency will be used. The default channel is set to **Auto**. It is not necessary to change the wireless channel unless you notice interference problems with another nearby access point.
- **Channel Width** - Select any channel width from the drop-down list. The default setting is **Auto**, which can automatically adjust the channel width for your clients.
- **Enable SSID Broadcast** - If enabled, the router will broadcast the wireless network name (SSID).

8.3.2. WPS

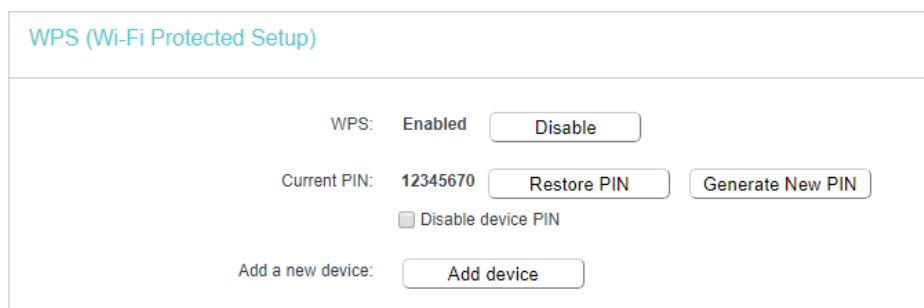
WPS (Wi-Fi Protected Setup) can help you to quickly and securely connect to a network. This section will guide you to add a new wireless device to your router's network quickly via WPS.

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

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Wireless 2.4GHz/5GHz > WPS**.
3. Follow one of the following three methods to connect your client device to the router's Wi-Fi network.

Method ONE: Press the WPS Button on Your Client Device

1. Keep the WPS Status as **Enabled** and click **Add device**.



WPS (Wi-Fi Protected Setup)

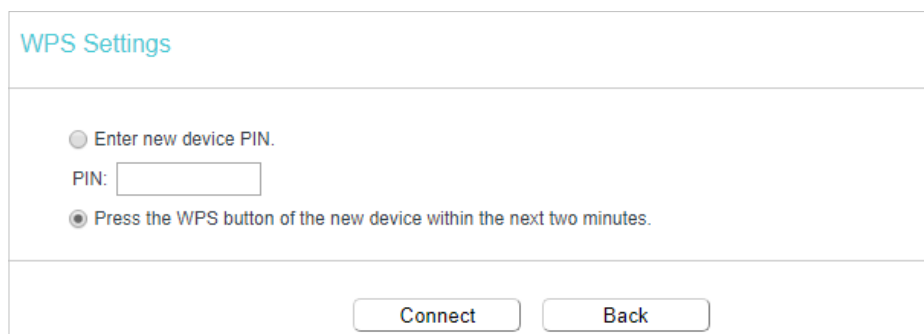
WPS: Enabled

Current PIN: 12345670

Disable device PIN

Add a new device:

2. Select **Press the button of the new device in two minutes** and click **Connect**.



WPS Settings

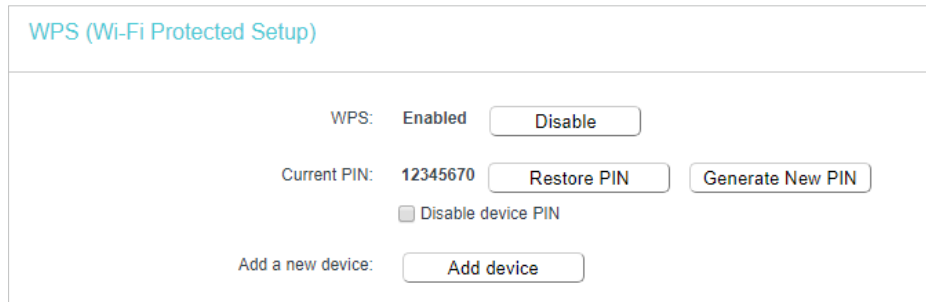
Enter new device PIN.
PIN:

Press the WPS button of the new device within the next two minutes.

3. Within two minutes, press the WPS button on your client device.
4. A success message will appear on the WPS page if the client device has been successfully added to the router's network.

Method TWO: Enter the Client's PIN

1. Keep the WPS Status as **Enabled** and click **Add device**.



WPS (Wi-Fi Protected Setup)

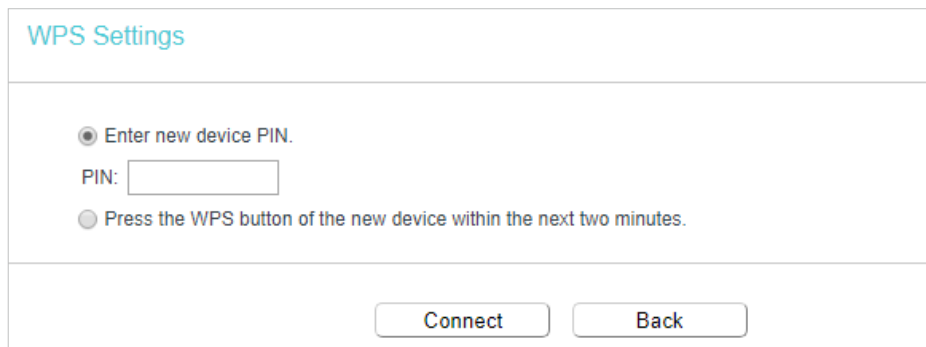
WPS: Enabled

Current PIN: 12345670

Disable device PIN

Add a new device:

2. Select **Enter new device PIN**, enter your client device's current PIN in the **PIN** field and click **Connect**.



WPS Settings

Enter new device PIN.

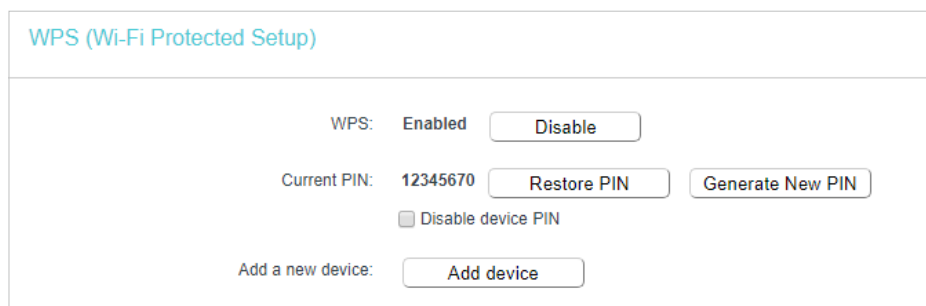
PIN:

Press the WPS button of the new device within the next two minutes.

3. A success message will appear on the WPS page if the client device has been successfully added to the router's network.

Method Three: Enter the Router's PIN

1. Keep the WPS Status as **Enabled** and get the **Current PIN** of the router.



WPS (Wi-Fi Protected Setup)

WPS: Enabled

Current PIN: 12345670

Disable device PIN

Add a new device:

2. Enter the router's current PIN on your client device to join the router's Wi-Fi network.

8.3.3. Wireless Security

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless 2.4GHz/5GHz > Wireless Security](#).
3. Configure the security settings of your 2.4GHz/5GHz wireless network and click [Save](#).

- **Disable Wireless Security** - The wireless security function can be enabled or disabled. If disabled, wireless clients can connect to the router without a password. It's strongly recommended to choose one of the following modes to enable security.
- **WPA/WPA2-Personal** - It's the WPA/WPA2 authentication type based on pre-shared passphrase.
 - **Version** - Select **Auto**, **WPA-PSK** or **WPA2-PSK**.
 - **Encryption** - Select **Auto**, **TKIP** or **AES**.
 - **Wireless Password** - Enter ASCII or Hexadecimal characters. For Hexadecimal, the length should be between 8 and 64 characters; for ASCII, the length should be between 8 and 63 characters.
 - **Group Key Update Period** - Specify the group key update interval in seconds. The value can be 0 or at least 30. Enter 0 to disable the update.
- **WPA/WPA2-Enterprise** - It's based on Radius Server.
 - **Version** - Select **Auto**, **WPA** or **WPA2**.
 - **Encryption** - Select **Auto**, **TKIP** or **AES**.
 - **Radius Server IP** - Enter the IP address of the Radius server.

- **Radius Port** - Enter the port that Radius server used.
- **Radius Password** - Enter the password for the Radius server.
- **Group Key Update Period** - Specify the group key update interval in seconds. The value should be 30 or above. Enter 0 to disable the update.
- **WEP** - It is based on the IEEE 802.11 standard.
 - **Type** - The default setting is **Auto**, which can select Shared Key or Open System authentication type automatically based on the wireless client's capability and request.
 - **WEP Key Format** - Hexadecimal and ASCII formats are provided here. Hexadecimal format stands for any combination of hexadecimal digits (0-9, a-f, A-F) in the specified length. ASCII format stands for any combination of keyboard characters in the specified length.
 - **WEP Key (Password)** - Select which of the four keys will be used and enter the matching WEP key. Make sure these values are identical on all wireless clients in your network.
 - **Key Type** - Select the WEP key length (64-bit, 128-bit or 152-bit) for encryption. **Disabled** means this WEP key entry is invalid.
 - **64-bit** - Enter 10 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 5 ASCII characters.
 - **128-bit** - Enter 26 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 13 ASCII characters.
 - **152-bit** - Enter 32 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 16 ASCII characters.

8.3.4. Wireless MAC Filtering

Wireless MAC Filtering is used to deny or allow specific wireless client devices to access your network by their MAC addresses.

I want to: Deny or allow specific wireless client devices to access my network by their MAC addresses.

For example, you want the wireless client A with the MAC address 00:0A:EB:B0:00:0B and the wireless client B with the MAC address 00:0A:EB:00:07:5F to access the router, but other wireless clients cannot access the router.

How can I do that?

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Wireless 2.4GHz/5GHz > Wireless MAC Filtering**.

3. Click [Enable](#) to enable the Wireless MAC Filtering function.
4. Select [Allow the stations specified by any enabled entries in the list to access](#) as the filtering rule.
5. Delete or disable all entries if there are any entries already.
6. Click [Add New](#) and fill in the blanks.

[Add or Modify Wireless MAC Address Filtering entry](#)

You can configure Wireless MAC Filtering which allows you to control wireless access on the network on this page.

MAC Address:

Description:

Status: Enabled ▾

- 1) Enter the MAC address 00:0A:EB:B0:00:0B/00:0A:EB:00:07:5F in the MAC Address field.
 - 2) Enter Client A/B in the Description field.
 - 3) Leave the status as [Enabled](#).
 - 4) Click [Save](#) and click [Back](#).
7. The configured filtering rules should be listed as the picture shows below.

[Wireless MAC Filtering](#)

You can configure Wireless MAC Filtering which allows you to control wireless access on the network on this page.

Wireless MAC Filtering: Disabled

Filtering Rules

Deny the stations specified by any enabled entries in the list to access.

Allow the stations specified by any enabled entries in the list to access.

<input type="checkbox"/>	MAC Address	Status	Host	Description	Edit
<input type="checkbox"/>	00:0A:EB:B0:00:0B	Enabled	TP-Link_0969	Client A	Edit
<input type="checkbox"/>	00:0A:EB:00:07:5F	Enabled	TP-Link_0969	Client B	Edit

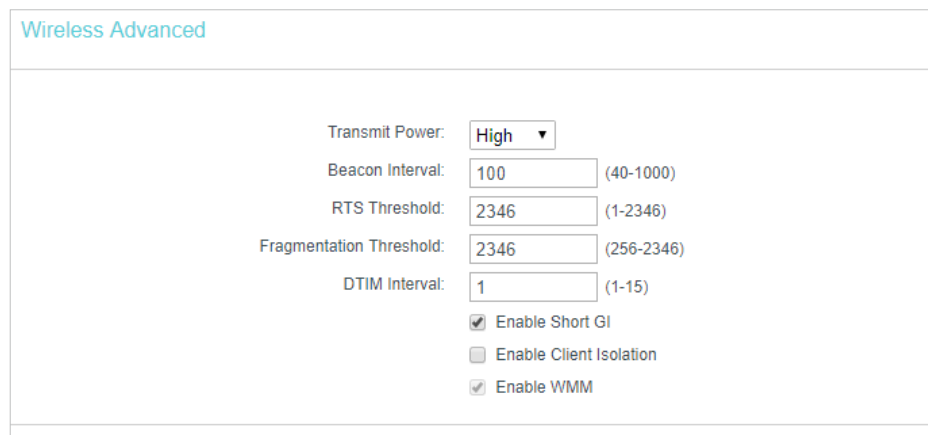
Done!

Now only client A and client B can access your network.

8.3.5. Wireless Advanced

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless 2.4GHz/5GHz > Wireless Advanced](#).
3. Configure the advanced settings of your wireless network and click [Save](#).

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



Wireless Advanced

Transmit Power: High ▾

Beacon Interval: 100 (40-1000)

RTS Threshold: 2346 (1-2346)

Fragmentation Threshold: 2346 (256-2346)

DTIM Interval: 1 (1-15)

Enable Short GI

Enable Client Isolation

Enable WMM

- **Transmit Power** - Select **High**, **Middle** or **Low** which you would like to specify for the router. **High** is the default setting and recommended.
- **Beacon Interval** - Enter a value between 40-1000 milliseconds for Beacon Interval here. Beacon Interval value determines the time interval of the beacons. The beacons are the packets sent by the router to synchronize a wireless network. The default value is 100.
- **RTS Threshold** - Here you can specify the RTS (Request to Send) Threshold. If the packet is larger than the specified RTS Threshold size, the router will send RTS frames to a particular receiving station and negotiate the sending of a data frame. The default value is 2346.
- **Fragmentation Threshold** - This value is the maximum size determining whether packets will be fragmented. Setting a low value for the Fragmentation Threshold may result in poor network performance because of excessive packets. 2346 is the default setting and is recommended.
- **DTIM Interval** - This value determines the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the router has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. You can specify the value between 1-255 Beacon Intervals. The default value is 1, which indicates the DTIM Interval is the same as Beacon Interval.
- **Enable Short GI** - It is recommended to enable this function, for it will increase the data capacity by reducing the guard interval time.
- **Enable Client Isolation** - This function isolates all connected wireless stations so that wireless stations cannot access each other through WLAN. This function will be disabled if WDS/Bridge is enabled.
- **Enable WMM** - WMM function can guarantee the packets with high-priority messages being transmitted preferentially. It is strongly recommended to enable this function.

8.3.6. Wireless Statistics

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless 2.4GHz/5GHz > Wireless Statistics](#) to check the data packets sent and received by each client device connected to the router.

Wireless Statistics					
Wireless Stations Currently Connected: 1 <input type="button" value="Refresh"/>					
ID	MAC Address	Current Status	Received Packets	Sent Packets	SSID
1	██████████	Associated	13,149	7,489	TP-Link_0969

- **MAC Address** - The MAC address of the connected wireless client.
- **Current Status** - The running status of the connected wireless client.
- **Received Packets** - Packets received by the wireless client.
- **Sent Packets** - Packets sent by the wireless client.
- **SSID** - SSID that the wireless client is connected to.

8.4. Guest Network

Guest Network allows you to provide Wi-Fi access for guests without disclosing your main network. When you have guests in your home, apartment, or workplace, you can create a guest network for them.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Guest Network](#).

Guest Network	
Allow Guests To Access My Local Network:	<input type="button" value="Disable"/>
Guest Network Isolation:	<input type="button" value="Disable"/>
Guest Network Bandwidth Control:	<input type="button" value="Disable"/>
Band Select: <input type="button" value="2.4GHz"/>	
Guest Network:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Network Name:	<input type="text" value="TP-Link_Guest_0969"/>
Max Guests number:	<input type="text" value="32"/>
Security:	<input type="button" value="Disable Wireless Security"/>

- **Allow Guests To Access My Local Network** - If enabled, guests can communicate with hosts.

- **Guest Network Isolation** - If enabled, one guest can not communicate with another.
- **Guest Network Bandwidth Control** - If enabled, the Guest Network Bandwidth Control rules will take effect.
- **Band Select** - Select the wireless band 2.4GHz or 5GHz for the guest network.
- **Guest Network** - Enable or disable the guest network .
- **Network Name** - Enter a value of up to 32 characters. The same Name(SSID) must be assigned to all wireless devices in your guest network.
- **Max Guests number** - Maximum guests (1-32).
- **Security** - You can configure the security of the guest network here.
- **Access Time** - You can also specify when or how long a guest device can access the internet.
 - **Schedule** - During this time the wireless stations could not access the guest network.

Access Time:

Click the schedule table or use the 'Add' button to choose the period on which you need the guest network off automatically!
The Schedule is based on the time of the Router. The time can be set in "System Tools -> Time Settings".

Wireless Schedule: Enable Disable

Apply To: Start Time: End Time:

Mon. Tues. Wed. Thur. Fri. Sat. Sun.

Time	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00
Sun.															
Mon.															
Tues.															
Wed.															
Thur.															
Fri.															
Sat.															

- **Timeout** - If the countdown timer hits zero, the guest network will be closed.

Access Time:

Hours Minutes

8.5. DHCP

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

8.5.1. DHCP Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **DHCP > DHCP Settings**.
3. Specify DHCP server settings and click **Save**.

DHCP Settings

DHCP Server: Disable Enable

Start IP Address:

End IP Address:

Lease Time: minutes (1~2880 minutes, the default value is 120)

Default Gateway: (optional)

Default Domain: (optional)

DNS Server: (optional)

Secondary DNS Server: (optional)

- **DHCP Server** - Enable or disable the DHCP server. If disabled, you must have another DHCP server within your network or else you must configure the computer manually.
- **Start IP Address** - Specify an IP address for the DHCP Server to start with when assigning IP addresses. 192.168.0.100 is the default start address.
- **End IP Address** - Specify an IP address for the DHCP Server to end with when assigning IP addresses. 192.168.0.199 is the default end address.
- **Lease Time** - The Address Lease Time is the amount of time a network user will be allowed to connect to the router with the current dynamic IP Address. When time is up, the router will automatically assign the same IP address to the user. The range of the time is 1 ~ 2880 minutes. The default value is 120.
- **Default Gateway (Optional)** - It is suggested to input the IP address of the LAN port of the Router. The default value is 192.168.0.254.
- **Default Domain (Optional)** - Input the domain name of your network.
- **Primary DNS (Optional)** - Input the DNS IP address provided by your ISP.
- **Secondary DNS (Optional)** - Input the IP address of another DNS server if your ISP provides two DNS servers.

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

8.5.2. DHCP Client List

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

2. Go to **DHCP > DHCP Client List** to view the information of the clients connected to the router.

DHCP Clients List

This page displays information of all DHCP clients on the network.

ID	Client Name	MAC Address	Assigned IP	Lease Time
1	██████████	██████████	192.168.0.100	01:52:57

- **Client Name** - The name of the DHCP client.
- **MAC Address** - The MAC address of the DHCP client.
- **Assigned IP** - The IP address that the router has allocated to the DHCP client.
- **Lease Time** - The time of the DHCP client leased. After the dynamic IP address has expired, a new dynamic IP address will be automatically assigned to the user.

You cannot change any of the values on this page. To update this page and show the current connected devices, click **Refresh**.

8.5.3. Address Reservation

You can reserve an IP address for a specific client. When you have specified a reserved IP address for a PC on the LAN, this PC will always receive the same IP address each time when it accesses the DHCP server.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **DHCP > Address Reservation**.
3. Click **Add New** and fill in the blanks.

DHCP Address Reservation

The static IP address of the DHCP Server can be configured on this page.

MAC Address:

IP Address:

Status:

- 1) Enter the MAC address (in XX:XX:XX:XX:XX:XX format) of the client for which you want to reserve an IP address.
- 2) Enter the IP address (in dotted-decimal notation) which you want to reserve for the client.
- 3) Leave the status as **Enabled**.

- 4) Click [Save](#).

8.6. USB Settings

You can insert a USB drive to share files among users on the LAN, access the USB drive remotely on the internet and enjoy videos and photos stored in the USB drive.

8.6.1. Storage Sharing

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

- **To access the USB disk:**

1. Connect Your USB Disk

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

☞ Tips:

- If you use USB hubs, make sure no more than 2 devices are connected to the router.
- If the USB storage device requires using bundled external power, make sure the external power has been connected.
- If you use a USB hard drive, make sure its file system is FAT32 or NTFS.
- Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to [USB Settings](#) > [USB Mass Storage](#) and click [Disconnect](#).

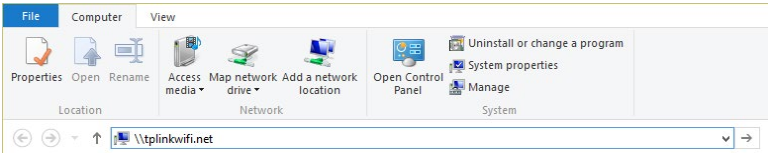
2. Access Your USB Disk

By default, all the network clients can access your USB disk. Refer to the following table for access instructions. You can customize user accounts by referring to [User Accounts](#).

Windows

Open the [Windows Explorer](#) (or go to [Computer](#)), type the server address [\\tplinkwifi.net](#) in the address bar, enter a username and password if required and then press [\[Enter\]](#).

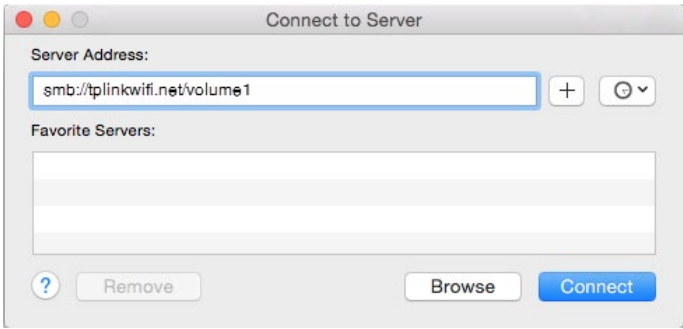
📌 Note: Here we take Windows 8 as an example.



The screenshot shows a Windows Explorer window with the address bar containing the text \\tplinkwifi.net. The window title is 'Computer' and the view is 'View'. The address bar has navigation buttons (back, forward, up, down) and a search icon. The address bar text is \\tplinkwifi.net. The window content shows various icons for location, network, and system management.

Mac

- 1) Click [Go](#) in the top left corner of the desktop and go to [Connect to Server](#).
- 2) Type the server address [smb://tplinkwifi.net/volume1](#).
Note: Here we take [volume1](#) for example.
- 3) Click [Connect](#).



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

Tablet

Use a third-party app for network files management.

- **To customize your settings:**

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [USB Settings](#) > [Storage Sharing](#).

[Storage Sharing Settings](#)

Storage Sharing enables you to share files saved on a USB storage device with other computers on the local network.

Server Status: Enabled

Anonymous access to all volumes.

Folder Table: (Any modifications to this table will not take effect until you Apply these changes.)

	Share Name	Directory	User Access					Status	Edit
			1*	2	3	4	5		
<input type="checkbox"/>	PPT	/3. PPT	F	F	-	-	-	Enabled	Edit
<input type="checkbox"/>	pics	/1. photos	F	R	-	-	-	Enabled	Edit

*: "Super User" has full-access permission (Read & Write) to all shared folders.

- [Server Status](#) - the Storage Sharing's current status.
- [Anonymous access to all volumes](#) - This function is enabled by default, so users can access all activated volumes of Storage Sharing without accounts. If you want to add

a shared folder which does not allow anonymous login, uncheck the box to disable this function. And Folder Table will be displayed as shown below.

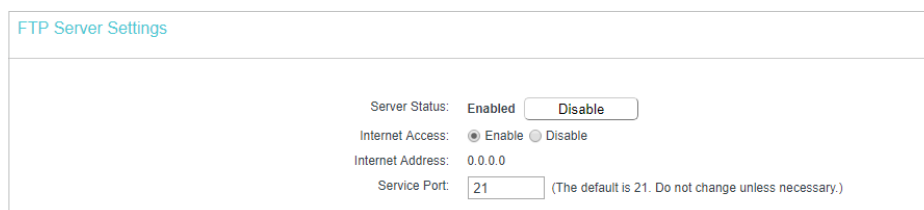
- **Share Name** - This folder's display name.
- **Directory** - The real full path of the specified folder.
- **User Access** - The authorization of the user is displayed. * users mean Super Users who have the full-access permission to all activated volumes and share folders. Grey users mean the users who have no right to use this function. Others are common users.
- **Status** - The status of the entry is enabled or disabled.
- **Edit** - Click Edit in the table, and then you can modify the entry.

8.6.2. FTP Server

You can share specific folders on you USB drive on the LAN or access your USB drive outside the local area network.

For example:

- Only share specific folders with clients on the LAN.
- 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 material for a presentation.
- **To set up your FTP server:**



FTP Server Settings

Server Status: Enabled

Internet Access: Enable Disable

Internet Address: 0.0.0.0

Service Port: (The default is 21. Do not change unless necessary.)

1. Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
3. Go to **USB Settings > FTP Server**.
4. Click **Enable** to enable the FTP Server.
5. Click **Enable** to enable the internet access to the FTP server.
6. Specify a port number for the **Service Port**. The default value is 21.
7. Click **Apply**.

- **To specify a folder to be accessed via the FTP server:**

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **USB Settings > FTP Server**.
3. Click **Add New Folder**.
4. Specify a name for the folder to be shared in the **Share Name** field. And select the folder you want to share. And determine the access right of user accounts.

Folder Browse

This page allows you to set shared folders along with authorization access for FTP services.

Share Name:

Directory:

User Access Control Table:

Index	Username	Authorization Access
1*	123	<input checked="" type="radio"/> Full-Access <input type="radio"/> Read-Only <input type="radio"/> No-Access
2	admin	<input type="radio"/> Full-Access <input type="radio"/> Read-Only <input checked="" type="radio"/> No-Access
3		
4		
5		

*: "Super User". It has full-access permission (Read & Write) to all active volume(s) and share folder(s).

5. Click **Apply**.
6. You can check which folder is shared and also edit or delete the folder.

	Share name	Directory	User Index (F: Full-Access, R: Read-Only, N: No-Access)					Status	Edit
			1*	2	3	4	5		
<input type="checkbox"/>	volume	/	F	N	-	-	-	Enabled	Edit
<input type="checkbox"/>	remoteaccess	/2. accommodation	F	F	-	-	-	Enabled	Edit

*: "Super User". It has full-access permission (Read & Write) to all active volume(s) and share folder(s).

- **To access the USB disk locally:**

1. **Connect Your USB Disk**

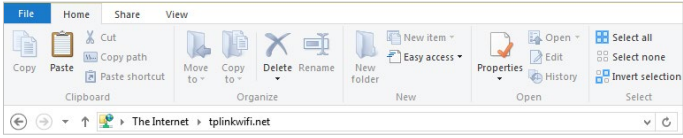
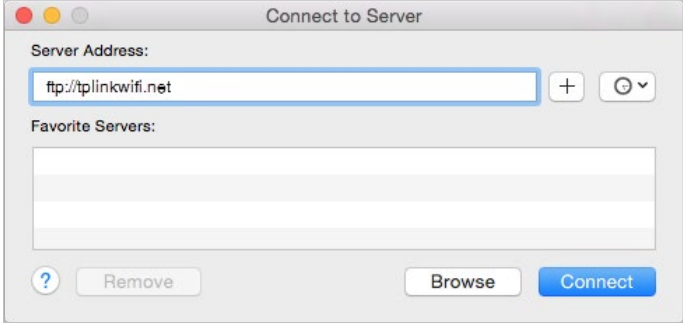
Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.

 **Tips:**

- If you use USB hubs, make sure no more than 2 devices are connected to the router.
- If the USB storage device requires using bundled external power, make sure the external power has been connected.
- If you use a USB hard drive, make sure its file system is FAT32 or NTFS.
- Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to **USB Settings > USB Mass Storage** and click **Disconnect**.

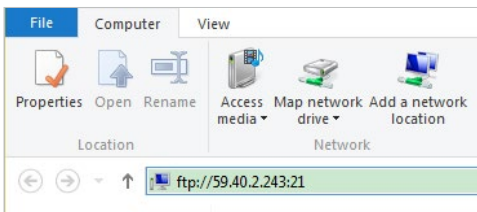

2. **Access Your USB Disk Locally**

Refer to the following table for access instructions. You can customize user accounts by referring to [User Accounts](#).

Windows	<p>Open the Windows Explorer (or go to Computer), type the server address ftp://tplinkwifi.net in the address bar, enter a username and password and then press [Enter].</p> <p>Note: Here we take Windows 8 as an example.</p> 
Mac	<ol style="list-style-type: none"> 1) Click Go in the top left corner of the desktop and go to Connect to Server. 2) Type the server address ftp://tplinkwifi.net. 3) Click Connect.  <ol style="list-style-type: none"> 4) When prompted, select the Registered User radio box and enter a username and password (To learn how to set up an account for the access, refer to User Accounts).
Tablet	<p>Use a third-party app for network files management.</p>

- **To access the USB disk remotely:**

Refer to the following table for access instructions. You can customize user accounts by referring to [User Accounts](#).

Windows	<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 <code>ftp://<WAN IP address of the router>:<port number></code> (such as <code>ftp://59.40.2.243:21</code>). If you have specified a domain name for the router, you can also type in <code>ftp://<domain name>:<port number></code> (such as <code>ftp://MyDomainName:21</code>)  <p style="text-align: center; color: #00728f;">The Windows Explorer (Windows 8)</p> <ol style="list-style-type: none"> 3) Press [Enter]. 4) Access with the username and password by referring to User Accounts. <p> Tips: You can also access the USB disk via a third-party app for network files management, which can resume broken file transfers.</p>
Tablet	Use a third-party app for network files management.

8.6.3. Media Server

The Media Server feature allows to view photos, play music and watch movies on the USB drive directly with DLNA-supported devices, such as on your computer, pad and PS2/3/4.

- **To share specific folders:**

1. Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
3. Go to [USB Settings](#) > [Media Server](#).
4. Click [Enable](#) to enable the Media Server.

Media Server Settings

Server Enable: Enable Disable

Server Name:

Content Scan: Manual Scan:

Auto Scan: Every hour(s)

5. Click [Add New Folder](#). Specify a name for the folder to be shared in the [Share Name](#) field. And select the folder you want to share.

Folder Browse

This page allows you to set a scan folder for DLNA media services.

Share Name:

Directory:

Select Volume: KINGSTON (DT 101 G2), sda(7.3 GB,FAT32) ▼

/sda/4_videos/

[.._UP08F](#)

6. Click [Apply](#).

- **To access the USB disk:**

1. Connect Your USB Disk

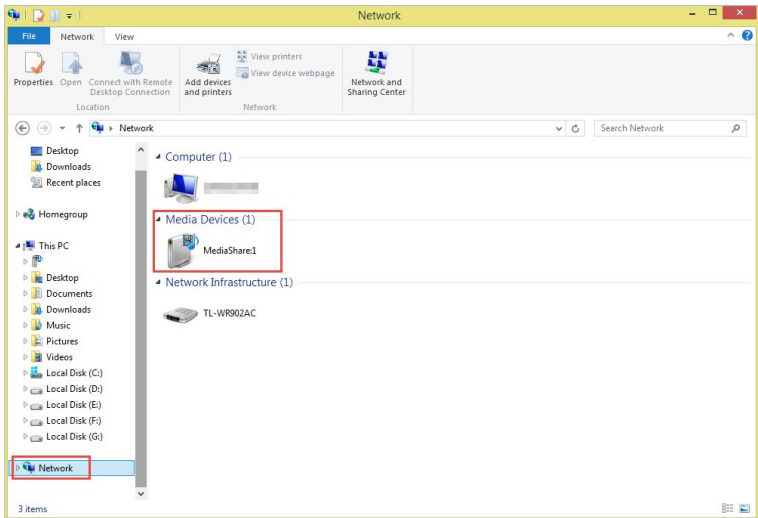
Insert your USB storage device into the router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.

 Tips:

- If you use USB hubs, make sure no more than 2 devices are connected to the router.
- If the USB storage device requires using bundled external power, make sure the external power has been connected.
- If you use a USB hard drive, make sure its file system is FAT32 or NTFS.
- Before you physically disconnect a USB device from the router, safely remove it to avoid data damage: Go to [USB Settings](#) > [USB Mass Storage](#) and click [Disconnect](#).

2. Access the Media Files on Your USB Disk

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

Windows	<ul style="list-style-type: none"> Go to Computer > Network, and click the Media Server Name in the Media Devices section. <p>Note: Here we take Windows 8 as an example.</p> 
Tablet	<ul style="list-style-type: none"> Use a third-party DLNA-supported player.

8.6.4. User Accounts

You can specify the username and password for Storage Sharing and FTP Server access.

- Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
- Go to **USB Settings > User Accounts**.
- Choose the **Index** for the account and specify a new username and password in the **New Username** and **New Password** fields, and reenter the password for confirmation.

Note: For an account with Index 1, it is the Super User with full access to all active volumes and shared folders.

<p>Choose Index: <input style="width: 80px;" type="text" value="1"/></p> <p>New Username: <input style="width: 300px;" type="text"/></p> <p>New Password: <input style="width: 300px;" type="text"/></p> <p>Confirm password: <input style="width: 300px;" type="text"/></p>
<input style="width: 100px; height: 25px;" type="button" value="Set"/>

- Click **Set**.

5. You can check the newly added account and also edit or delete the account.

User Accounts			
This page allows you to configure user accounts for Storage Sharing/FTP Server. Please click Set to ensure your configurations take effect.			
Index	Username	Status	Action
1	123*	Enabled	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
2	admin	Enabled	<input checked="" type="radio"/> Enable <input type="radio"/> Disable Delete
3			
4			
5			

*: "Super User" has full-access permission to all active volumes and shared folders.

8.7. Port Forwarding

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

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

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

8.7.1. Virtual Servers

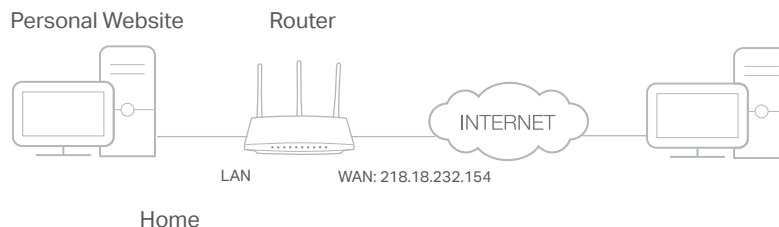
When you build up a server in the local network and want to share it on the Internet, Virtual Servers can realize the service and provide it to Internet users. At the same time virtual servers can keep the local network safe as other services are still invisible from the Internet.

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

I want to:

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

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



How can I do that?

1. Set your PC to a static IP address, for example 192.168.0.100.
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
3. Go to **Forwarding > Virtual Servers**.
4. Click **Add New**. Select **HTTP** from the **Common Service Port** list. The service port, internal port and protocol will be automatically filled in. Enter the PC's IP address 192.168.0.100 in the **IP Address** field.

Virtual Server

Service Port: (XX-XX or XX)

IP Address:

Internal Port: (XX or keep empty. If it's empty, Internal port equals to Service port)

Protocol:

Status:

Common Service Port:

5. Leave the status as **Enabled** and click **Save**.

Note:

- 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 Service Port** list, you can enter the corresponding parameters manually. You should verify the port number that the service needs.
- You can add multiple virtual server rules if you want to provide several services in a router. Please note that the **Service Port** should not be overlapped.

Done!

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

Note:

- If you have changed the default **Service Port**, you should use [http:// WAN IP: Service Port](http://WAN IP: Service Port) to visit the website.
- Some specific service ports are forbidden by the ISP, if you fail to visit the website, please use another service port.

8.7.2. Port Triggering

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

Follow the steps below to configure the port triggering rules:

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Forwarding > Port Triggering**.
3. Click **Add New**. Select the desired application from the **Common Applications** list. The trigger port and incoming ports will be automatically filled in. The following picture takes application **MSN Gaming Zone** as an example.

Port Trigger

Trigger Port: 47624 (XX)

Trigger Protocol: ALL

Open Port: 2300-2400,28800-2900 (XX or XX-XX or XX-XX,XX)

Open Protocol: ALL

Status: Enabled

Common Service Port: MSN Gaming Zone

Save Back

4. Leave the status as **Enabled** and click **Save**.

Note:

- You can add multiple port triggering rules as needed.
- The triggering ports can not be overlapped.
- If the application you need is not listed in the **Common Applications** list, please enter the parameters manually. You should verify the incoming ports the application uses first and enter them in **Incoming Ports** field. You can input at most 5 groups of ports (or port sections). Every group of ports must be set apart with ",". For example, 2000-2038, 2050-2051, 2085, 3010-3030.

8.7.3. DMZ

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

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

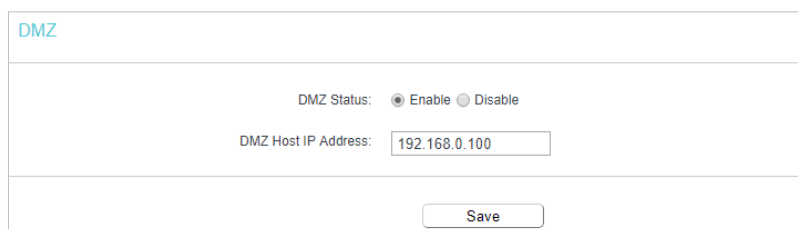
I want to:

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 opened.

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 the username and password you set for the router.
3. Go to **Forwarding > DMZ**.
4. Select **Enable** and enter the IP address 192.168.0.100 in the **DMZ Host IP Address** field.



DMZ

DMZ Status: Enable Disable

DMZ Host IP Address:

Save

5. Click **Save**.

Done!

You've set your PC to a DMZ host and now you can make a team to game with other players.

8.7.4. UPnP

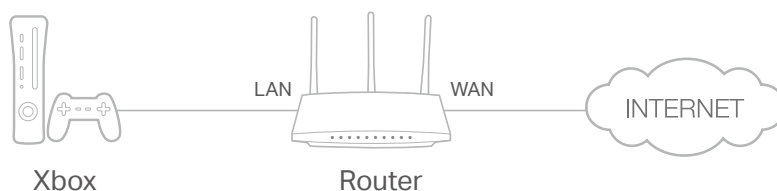
The UPnP (Universal Plug and Play) protocol allows the applications or host devices to automatically find the front-end NAT device and send request to it to open the corresponding ports. With UPnP enabled, the applications or host devices on the local network and the Internet can freely communicate with each other realizing the seamless connection of the network. You may need to enable the UPnP if you want to use applications for multiplayer gaming, peer-to-peer connections, real-time communication (such as VoIP or telephone conference) or remote assistance, etc.

Tips:

- 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 is connected to the Internet to play online games, UPnP will send request to the router to open the corresponding ports allowing the following data penetrating the NAT to transmit. Therefore, you can play Xbox online games without a hitch.



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

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Forwarding > UPnP**.
3. Click **Disable** or **Enable** according to your needs.

UPnP

Current UPnP Status: Enabled Disable

Current UPnP Settings List

ID	App Description	External Port	Protocol	Internal Port	IP Address	Status

Refresh

8.8. Security

This function allows you to protect your home network from cyber attacks and unauthorized users by implementing these network security functions.

8.8.1. Basic Security

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Security > Basic Security**, and you can enable or disable the security functions.

Basic Security

Firewall

Enable SPI Firewall:

VPN

PPTP Pass-through: Enable Disable

L2TP Pass-through: Enable Disable

IPSec Pass-through: Enable Disable

ALG

FTP ALG: Enable Disable

TFTP ALG: Enable Disable

H323 ALG: Enable Disable

SIP ALG: Enable Disable

RTSP ALG: Enable Disable

Save

- **Firewall** - A firewall protects your network from Internet attacks.
 - **SPI Firewall** - SPI (Stateful Packet Inspection, also known as dynamic packet filtering) helps to prevent cyber attacks by tracking more state per session. It validates that the traffic passing through the session conforms to the protocol. SPI Firewall is enabled by default.
- **VPN** - VPN Passthrough must be enabled if you want to allow VPN tunnels using IPSec, PPTP or L2TP protocols to pass through the router's firewall.
 - **PPTP Passthrough** - Point-to-Point Tunneling Protocol (PPTP) allows the Point-to-Point Protocol (PPP) to be tunneled through an IP network. If you want to allow PPTP tunnels to pass through the router, you can keep the default (Enabled).
 - **L2TP Passthrough** - Layer 2 Tunneling Protocol (L2TP) is the method used to enable Point-to-Point sessions via the Internet on the Layer 2 level. If you want to allow L2TP tunnels to pass through the router, you can keep the default (Enabled).
 - **IPSec Passthrough** - Internet Protocol Security (IPSec) is a suite of protocols for ensuring private, secure communications over Internet Protocol (IP) networks, through the use of cryptographic security services. If you want to allow IPSec tunnels to pass through the router, you can keep the default (Enabled).
- **ALG** - It is recommended to enable Application Layer Gateway (ALG) because ALG allows customized Network Address Translation (NAT) traversal filters to be plugged

into the gateway to support address and port translation for certain application layer "control/data" protocols such as FTP, TFTP, H323 etc.

- **FTP ALG** - To allow FTP clients and servers to transfer data across NAT, keep the default **Enable**.
- **TFTP ALG** - To allow TFTP clients and servers to transfer data across NAT, keep the default **Enable**.
- **H323 ALG** - To allow Microsoft NetMeeting clients to communicate across NAT, keep the default **Enable**.
- **SIP ALG** - To allow some multimedia clients to communicate across NAT, click **Enable**.
- **RTSP ALG** - To allow some media player clients to communicate with some streaming media servers across NAT, click **Enable**.

3. Click **Save**.

8.8.2. Advanced Security

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Security > Advanced Security**, and you can protect the router from being attacked by ICMP-Flood, UDP Flood and TCP-SYN Flood.

Advanced Security

DoS Protection: Enable Disable

Enable ICMP-Flood Attack Filtering
ICMP-Flood Packets Threshold (5~3600): packets/second

Enable UDP-Flood Attack Filtering
UDP-Flood Packets Threshold (5~3600): packets/second

Enable TCP-SYN-Flood Attack Filtering
TCP-SYN-Flood Packets Threshold (5~3600): packets/second

Forbid Ping Packet From WAN Port
 Forbid Ping Packet From LAN Port

[Blocked DOS Host List](#)

- **DoS Protection** - Denial of Service protection. Select Enable or Disable to enable or disable the DoS protection function. Only when it is enabled, will the flood filters be enabled.

Note: Dos Protection will take effect only when the Statistics in **System Tool > Statistics** is enabled.

- **Enable ICMP-FLOOD Attack Filtering** - Check the box to enable or disable this function.

- **ICMP-FLOOD Packets Threshold (5~3600)** - The default value is 50. Enter a value between 5 ~ 3600. When the number of the current ICMP-FLOOD packets is beyond the set value, the router will startup the blocking function immediately.
 - **Enable UDP-FLOOD Filtering** - Check the box to enable or disable this function.
 - **UDP-FLOOD Packets Threshold (5~3600)** - The default value is 500. Enter a value between 5 ~ 3600. When the number of the current UPD-FLOOD packets is beyond the set value, the router will startup the blocking function immediately.
 - **Enable TCP-SYN-FLOOD Attack Filtering** -Check the box to enable or disable this function.
 - **TCP-SYN-FLOOD Packets Threshold (5~3600)** - The default value is 50. Enter a value between 5 ~ 3600. When the number of the current TCP-SYN-FLOOD packets is beyond the set value, the router will startup the blocking function immediately.
 - **Forbid Ping Packet From WAN Port** - The default setting is disabled. If enabled, the ping packet from the Internet cannot access the router.
 - **Forbid Ping Packet From LAN Port** - The default setting is disabled. If enabled, the ping packet from LAN cannot access the router. This function can be used to defend against some viruses.
3. Click **Save**.
 4. Click **Blocked DoS Host List** to display the DoS host table by blocking.

8.8.3. Local Management

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Security > Local Management**, and you can block computers in LAN from accessing the router.

Local Management

Management Rules

All the PCs on the LAN are allowed to access the Router's Web-Based Utility

Only the PCs listed can browse the built-in web pages to perform Administrator tasks

MAC:

Your PC's MAC Address:

For example, if you want to allow PCs with specific MAC addresses to access the router's web management page locally from inside the network, please follow the instructions below:

- 1) Select [Only the PCs listed can browse the built-in web pages to perform Administrator tasks.](#)
- 2) Enter the MAC address of each PC separately. The format of the MAC address is XX:XX:XX:XX:XX:XX (X is any hexadecimal digit). Only the PCs with the listed MAC addresses can use the password to browse the built-in web pages to perform administrator tasks.
- 3) Click [Set](#), and your PC's MAC address will also be listed.
- 4) Click [Save](#).

Note: If your PC is blocked but you want to access the router again, press and hold the [Reset](#) button to reset the router to the factory defaults.

8.8.4. Remote Management

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Security > Remote Management](#), and you can manage your router from a remote device via the Internet.



Remote Management

Web Management Port:

Remote Management IP Address: (Enter 255.255.255.255 for all)

- **Web Management Port** - Web browser access normally uses the standard HTTP service port 80. This router's default remote management web port number is 80. For higher security, you can change the remote management web port to a custom port by entering a number between 1 and 65534 but do not use the number of any common service port.
- **Remote Management IP Address** - This is the address you will use when accessing your router via a remote device. This function is disabled when the IP address is set to the default value of 0.0.0.0. To enable this function, change 0.0.0.0 to a valid IP address. If it is set to 255.255.255.255, then all the remote devices can access the router from the Internet.

Note:

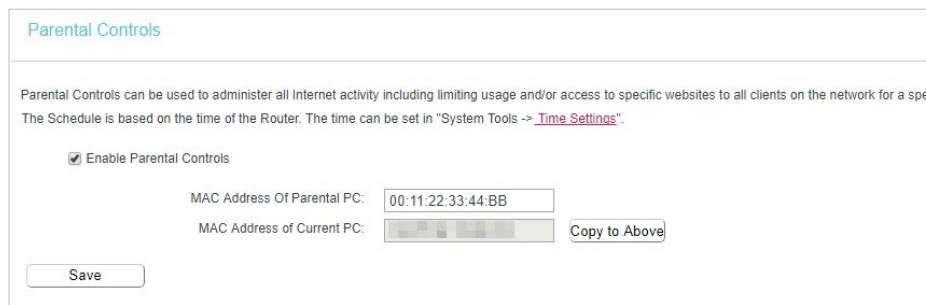
- To access the router, enter your router's WAN IP address in your browser's address bar, followed by a colon and the custom port number. For example, if your router's WAN address is 202.96.12.8, and the port number used is 8080, please enter <http://202.96.12.8:8080> in your browser. Later, you may be asked for the router's password. After successfully entering the username and password, you will be able to access the router's web management page.
- Be sure to change the router's default password for security purposes.

8.9. Parental Controls

Parental Controls allows you to block inappropriate and malicious websites, and control access to specific websites at specific time for your children's devices.

For example, you want the children's PC with the MAC address 00:11:22:33:44:AA can access www.tp-link.com on Saturday only while the parent PC with the MAC address 00:11:22:33:44:BB is without any restriction.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Parental Controls](#).
3. Select [Enable Parental Controls](#) and enter the MAC address 00:11:22:33:44:BB in the [MAC Address of Parental PC](#) field. And click [Save](#).



The screenshot shows the 'Parental Controls' configuration page. At the top, there is a title 'Parental Controls' and a brief description: 'Parental Controls can be used to administer all Internet activity including limiting usage and/or access to specific websites to all clients on the network for a spe... The Schedule is based on the time of the Router. The time can be set in "System Tools -> Time Settings".' Below this, there is a checkbox labeled 'Enable Parental Controls' which is checked. Underneath, there are two input fields: 'MAC Address Of Parental PC:' with the value '00:11:22:33:44:BB' and 'MAC Address of Current PC:' which is empty. A 'Copy to Above' button is located to the right of the second field. At the bottom left, there is a 'Save' button.

4. Enter appropriate parameters in corresponding fields.

- Enter 00-11-22-33-44-BB in the **MAC Address -1** field.
- Select the allowed access time.
- Enter www.tp-link.com in the **Add URL** field and click **Add**.

5. Click **Save**.

8. 10. Access Control

Access Control is used to deny or allow specific client devices to access your network with access time and content restrictions.

I want to:

Deny or allow specific client devices to access my network with access time and content restrictions.

For example, If you want to restrict the internet activities of host with MAC address 00:11:22:33:44:AA on the LAN to access www.tp-link.com only, please follow the steps below.

How can I do that?

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Access Control > Host** and configure the host settings:

- 1) Click [Add New](#).
- 2) Select [MAC Address](#) as the mode type. Create a unique description (e.g. [host_1](#)) for the host in the [Host Description](#) field and enter 00:11:22:33:44:AA in the [MAC Address](#) field.



Add or Modify a Host Entry

Mode: [IP Address](#) ▼

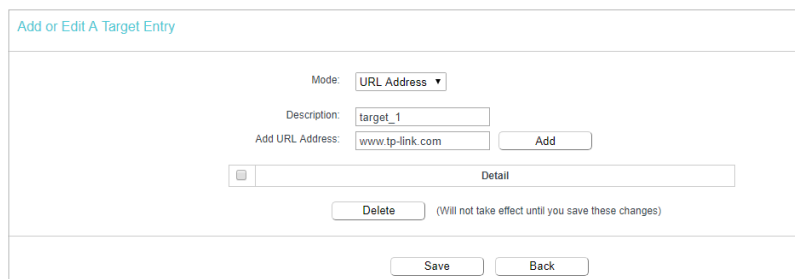
Host Description:

LAN IP Address: -

[Save](#) [Back](#)

- 3) Click [Save](#).
3. Go to [Access Control](#) > [Target](#) and configure the target settings:
 - 1) Click [Add New](#).
 - 2) Select [URL Address](#) as the mode type. Create a unique description (e.g. [target_1](#)) for the target in the [Target Description](#) field and enter the URL address, either the full name or the keywords (for example TP-Link) in the [Add URL Address](#) field and click [Add](#).

■ **Note:** Any domain name with keywords in it (e.g. [www.tp-link.com](#)) will be blocked or allowed.



Add or Edit A Target Entry

Mode: [URL Address](#) ▼

Description:

Add URL Address: [Add](#)

[Detail](#)

[Delete](#) (Will not take effect until you save these changes)

[Save](#) [Back](#)

- 3) Click [Save](#).
4. Go to [Access Control](#) > [Schedule](#) and configure the schedule settings:
 - 1) Click [Add New](#).
 - 2) Create a unique description (e.g. [schedule_1](#)) for the schedule in the [Description](#) field and set the applied time and click [Add](#).

Add or Edit A Schedule Entry

The Schedule is based on the time of the Router. The time can be set in "System Tools -> Time Settings".

Description:

Apply To:

Start Time:

End Time:

Time	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00
Sun.															
Mon.															
Tues.															
Wed.															
Thur.															
Fri.															
Sat.															

- 3) Click **Save**.
5. Go to **Access Control > Rule** and add a new access control rule.
 - 1) Click **Add New**.
 - 2) Give a name for the rule in the **Description** field. Select **host_1** from the host drop-down list; select **target_1** from the target drop-down list; select **schedule_1** from the schedule drop-down list.

Add Internet Access Control Entry

Description:

LAN Host: [Add LAN Host](#)

Target: [Add Target](#)

Schedule: [Add Schedule](#)

Rule:

Status:

Direction:

- 3) Leave the status as **Enabled** as click **Save**.
6. Select **Enable Internet access control** to enable Access Control function.
7. Select **Deny the packets not specified by any filtering rules to passthrough this device** as the default filter rules and click **Save**.

Access Control Rule Management

This device can restrict Internet activity for specified LAN hosts. You can set and combine access control rules to effectively manage your network.

Enable Internet access control

Default Filtering Rules:

Allow the packets not specified by any filtering rules to passthrough this device.

Deny the packets not specified by any filtering rules to passthrough this device.

Done!

Now only the specific host(s) can visit the target(s) within the scheduled time period.

8.11. Advanced Routing

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

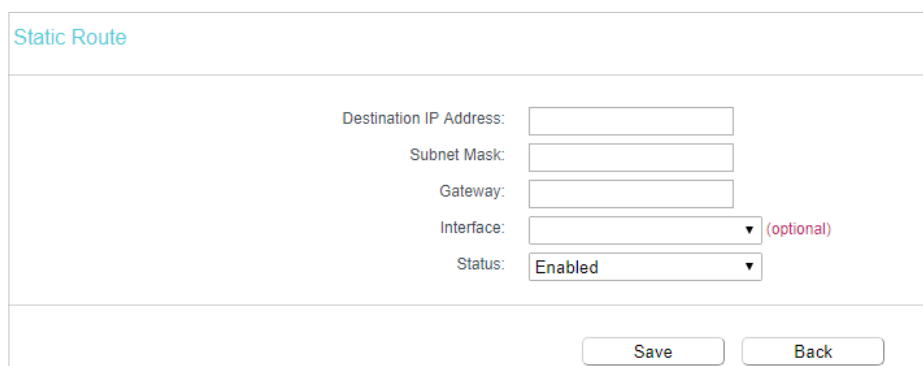
8.11.1. Static Routing List

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

2. Go to [Advanced Routing](#) > [Static Routing](#).

- **To add static routing entries:**

1. Click [Add New](#).



The screenshot shows the 'Static Route' configuration page. It contains the following fields and controls:

- Destination IP Address:
- Subnet Mask:
- Gateway:
- Interface: (optional)
- Status:

At the bottom right, there are two buttons: 'Save' and 'Back'.

2. Enter the following information.

- **Destination IP Address** - The Destination IP Address is the address of the network or host that you want to assign to a static route.
- **Subnet Mask** - The Subnet Mask determines which portion of an IP address is the network portion, and which portion is the host portion.
- **Gateway** - This is the IP address of the default gateway device that allows the contact between the router and the network or host.
- **Interface** - It is empty by default. Please select a connection from the drop-down list if the Gateway is left empty or is not on the same network segment as LAN/WAN interface.

3. Select **Enabled** or **Disabled** for this entry on the **Status** drop-down list.

4. Click [Save](#).

You can also do the following operations to modify the current settings.

- Click [Delete Selected](#) to delete selected entries.

- Click [Enable Selected](#) to enable selected entries.
- Click [Disable Selected](#) to disable selected entries.

8. 11. 2. System Routing Table

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Advanced Routing > System Routing Table](#), and you can view all the valid route entries in use.

System Routing Table				
ID	Destination Network	Subnet Mask	Gateway	Interface
1	192.168.0.0	255.255.255.0	0.0.0.0	LAN & WLAN
2	239.0.0.0	255.0.0.0	0.0.0.0	LAN & WLAN

[Refresh](#)

- **Destination Network** - The Destination Network is the address of the network or host to which the static route is assigned.
- **Subnet Mask** - The Subnet Mask determines which portion of an IP address is the network portion, and which portion is the host portion.
- **Gateway** - This is the IP address of the gateway device that allows for contact between the Router and the network or host.
- **Interface** - This interface tells you whether the Destination IP Address is on the LAN & WLAN (internal wired and wireless networks), or the WAN (Internet).
- Click [Refresh](#) to refresh the data displayed.

8. 12. Bandwidth Control

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Bandwidth Control](#).
3. Configure the bandwidth as needed and click [Save](#).

Bandwidth Control	
<input checked="" type="checkbox"/> Enable Bandwidth Control	
Egress Bandwidth:	<input type="text"/> Kbps
Ingress Bandwidth:	<input type="text"/> Kbps
Save	

The values you configure for the Egress Bandwidth and Ingress Bandwidth should be less than 100,000Kbps. For optimal control of the bandwidth, please select the right Line Type and consult your ISP for the total egress and ingress bandwidth.

- **Enable Bandwidth Control** - Check this box so that the Bandwidth Control settings can take effect.
- **Egress Bandwidth** - The upload speed through the WAN port.
- **Ingress Bandwidth** - The download speed through the WAN port.

Bandwidth Control Rule List							
ID	Description	Egress Bandwidth(Kbps)		Ingress Bandwidth(Kbps)		Enable	Modify
		Min	Max	Min	Max		
The current list is empty.							
Add New...		Delete All					
Previous		Next		Current No. 1 Page			

- **Description** - This is the information about the rules such as address range.
- **Priority** - Priority of Bandwidth Control rules. '1' stands for the highest priority while '8' stands for the lowest priority. The total Upstream/ Downstream Bandwidth is first allocated to guarantee all the Min Rate of Bandwidth Control rules. If there is any bandwidth left, it is first allocated to the rule with the highest priority, then to the rule with the second highest priority, and so on.
- **Egress Bandwidth** - This field displays the max and min upload bandwidth through the WAN port. The default is 0.
- **Ingress Bandwidth** - This field displays the max and min download bandwidth through the WAN port. The default is 0.
- **Status** - Rule status, show whether the rule takes effect.
- **Edit** - Choose to edit or delete an existing entry.

- **To add a Bandwidth control rule:**

1. Click **Add New**.
2. Enter the information as the figure shown below.

Bandwidth Control	
Enable:	<input checked="" type="checkbox"/>
IP Range:	<input type="text"/> -- <input type="text"/>
Port Range:	<input type="text"/> -- <input type="text"/>
Protocol:	ALL
Priority:	5 (1 meaning highest priority)
	Min Bandwidth(Kbps) Max Bandwidth(Kbps)
Egress Bandwidth:	<input type="text"/> <input type="text"/>
Ingress Bandwidth:	<input type="text"/> <input type="text"/>
<input type="button" value="Save"/> <input type="button" value="Back"/>	

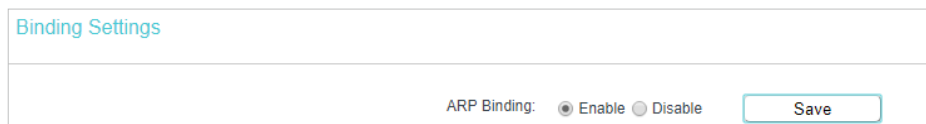
3. Click [Save](#).

8. 13. IP&MAC Binding

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

8. 13. 1. Binding Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [IP & MAC Binding > Binding Settings](#).
3. Select [Enable](#) for ARP Binding.

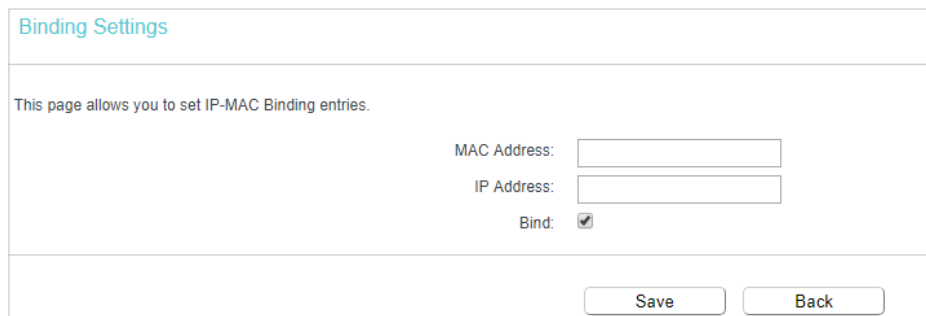


The screenshot shows the 'Binding Settings' page. At the bottom, there is a section for 'ARP Binding' with two radio buttons: 'Enable' (which is selected) and 'Disable'. To the right of these buttons is a 'Save' button.

4. Click [Save](#).

- **To add IP & MAC Binding entries:**

1. Click [Add New](#).



The screenshot shows the 'Binding Settings' page with a form for adding a new entry. The form includes a text area with the instruction 'This page allows you to set IP-MAC Binding entries.' Below this, there are three fields: 'MAC Address:' with an empty text box, 'IP Address:' with an empty text box, and 'Bind:' with a checked checkbox. At the bottom of the form are 'Save' and 'Back' buttons.

2. Enter the MAC address and IP address and select the [Bind](#) checkbox.
3. Click [Save](#).

- **To modify or delete an existing entry:**

1. Find the desired entry in the table.
2. Click [Edit](#) or click [Delete Selected](#).

8.13.2. ARP List

To manage a device, you can observe the device on the LAN by checking its MAC address and IP address on the ARP list, and you can also configure the items. This page displays the ARP list which shows all the existing IP & MAC Binding entries.

ARP List			
<input type="checkbox"/>	MAC Address	IP Address	Status
<input type="checkbox"/>	00:E0:4C:00:07:BE	192.168.0.11	Bound
<input type="checkbox"/>	14:CF:92:13:6D:78	192.168.0.100	Unloaded

- **MAC Address** - The MAC address of the listed computer on the LAN.
- **IP Address** - The assigned IP address of the listed computer on the LAN.
- **Status** - Indicates whether or not the MAC and IP addresses are bound.
- **Load Selected** - Load selected items to the ARP list.
- **Delete Selected** - Delete selected items.

Note: An item can not be loaded to the IP & MAC Binding list if the IP address of the item has been loaded before. Error warning will prompt as well.

8.14. Dynamic DNS

The router offers the DDNS (Dynamic Domain Name System) feature, which allows the hosting of a website, FTP server, or e-mail server with a fixed domain name (named by yourself) and a dynamic IP address. Thus your friends can connect to your server by entering your domain name no matter what your IP address is. Before using this feature, you need to sign up for DDNS service providers such as www.comexe.cn, www.dyndns.org, or www.noip.com. The Dynamic DNS client service provider will give you a password or key.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Dynamic DNS](#).

Comexe DDNS

If the dynamic DNS Service Provider you select is www.comexe.cn, the following page will appear.

The screenshot shows the 'DDNS Settings' interface. At the top left, the title 'DDNS Settings' is displayed in blue. Below the title, the 'Service Provider' is set to 'Comexe (www.comexe.cn)' with a dropdown arrow and a 'Go to register...' link. There are five empty text input fields for 'Domain Name1' through 'Domain Name5'. Below these are two more empty text input fields for 'Username' and 'Password'. An 'Enable DDNS' checkbox is currently unchecked. The 'Connection Status' is shown as 'Disconnected'. At the bottom right, there are two buttons: 'Login' and 'Logout'. At the very bottom center, there is a 'Save' button.

To set up for DDNS, follow these instructions:

1. Enter the [Domain Name](#) received from your dynamic DNS service provider.
2. Enter the [Username](#) for your DDNS account.
3. Enter the [Password](#) for your DDNS account.
4. Click [Login](#).
5. Click [Save](#).

- [Connection Status](#) - The status of the DDNS service connection is displayed here.
- [Logout](#) - Click [Logout](#) to log out of the DDNS service.

Dyndns DDNS

If the dynamic DNS Service Provider you select is www.dyn.com, the following page will appear.

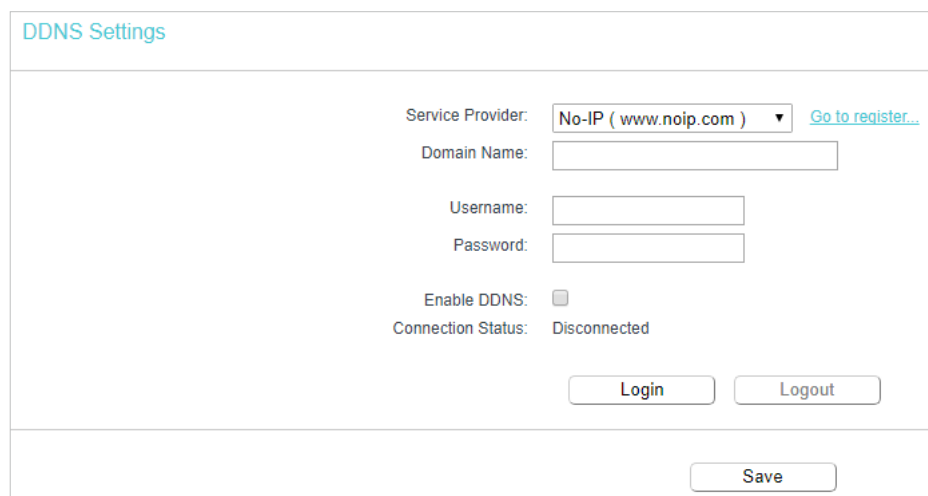
The screenshot shows the 'DDNS Settings' interface with 'DynDNS (dyn.com/dns)' selected as the service provider. The 'Domain Name' field is now a single text input field. The 'Username' and 'Password' fields remain. The 'Enable DDNS' checkbox is unchecked, and the 'Connection Status' is 'Disconnected'. The 'Login' and 'Logout' buttons are visible. The 'Save' button is partially visible at the bottom.

To set up for DDNS, follow these instructions:

1. Enter the [Username](#) for your DDNS account.
 2. Enter the [Password](#) for your DDNS account.
 3. Enter the [Domain Name](#) you received from dynamic DNS service provider here.
 4. Click [Login](#).
 5. Click [Save](#).
- [Connection Status](#) - The status of the DDNS service connection is displayed here.
 - [Logout](#) - Click [Logout](#) to log out of the DDNS service.

No-ip DDNS

If the dynamic DNS Service Provider you select is www.noip.com, the following page will appear.



The screenshot shows the 'DDNS Settings' page. At the top left, the title 'DDNS Settings' is displayed in blue. Below the title, there are several input fields and controls:

- Service Provider:** A dropdown menu is set to 'No-IP (www.noip.com)'. To its right is a blue link that says 'Go to register...'. Below this is a text input field for 'Domain Name'.
- Username:** A text input field.
- Password:** A text input field.
- Enable DDNS:** A checkbox that is currently unchecked.
- Connection Status:** The text 'Disconnected' is displayed.

At the bottom of the form area, there are two buttons: 'Login' and 'Logout'. Below the entire form area, centered, is a 'Save' button.

To set up for DDNS, follow these instructions:

1. Enter the [Username](#) for your DDNS account.
 2. Enter the [Password](#) for your DDNS account.
 3. Enter the [Domain Name](#) you received from dynamic DNS service provider.
 4. Click [Login](#).
 5. Click [Save](#).
- [Connection Status](#) - The status of the DDNS service connection is displayed here.
 - [Logout](#) - Click [Logout](#) to log out of the DDNS service.

8. 15. System Tools

8. 15. 1. Time Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Time Settings](#) and configure the system time as needed.

- **To set time manually:**

1. Select your local [time zone](#).
2. Enter the [Date](#) in Month/Day/Year format.
3. Enter the [Time](#) in Hour/Minute/Second format.
4. Click [Save](#).

- **To set time automatically:**

1. Select your local [time zone](#).
2. Enter the address or domain of the [NTP Server I](#) or [NTP Server II](#).
3. Click [Get GMT](#) to get time from the Internet if you have connected to the Internet.

- **To set Daylight Saving Time:**

1. Select [Enable Daylight Saving](#).
2. Select the start time from the drop-down list in the [Start](#) field.
3. Select the end time from the drop-down list in the [End](#) field.

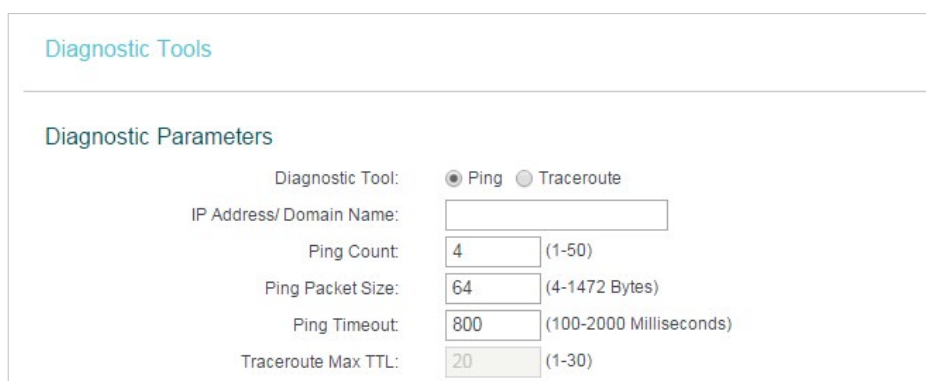
4. Click **Save**.

Note: This setting will be used for some time-based functions such as firewall. You must specify your time zone once you log in to the router successfully; otherwise, time-based functions will not take effect.

8.15.2. Diagnostic

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

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



Diagnostic Parameters	
Diagnostic Tool:	<input checked="" type="radio"/> Ping <input type="radio"/> Traceroute
IP Address/ Domain Name:	<input type="text"/>
Ping Count:	<input type="text" value="4"/> (1-50)
Ping Packet Size:	<input type="text" value="64"/> (4-1472 Bytes)
Ping Timeout:	<input type="text" value="800"/> (100-2000 Milliseconds)
Traceroute Max TTL:	<input type="text" value="20"/> (1-30)

- **Diagnostic Tool** - Select one diagnostic tool.
 - **Ping** - This diagnostic tool troubleshoots connectivity, reachability, and name resolution to a given host or gateway.
 - **Tracerouter** - This diagnostic tool tests the performance of a connection.

Note: You can use ping/traceroute to test both numeric IP address or domain name. If pinging/tracerouting the IP address is successful, but pinging/tracerouting the domain name is not, you might have a name resolution problem. In this case, ensure that the domain name you are specifying can be resolved by using Domain Name System (DNS) queries.

- **IP address/Domain name** - Enter the destination IP address (such as 192.168.0.1) or Domain name (such as www.tp-link.com).
- **Pings Count** - The number of Ping packets for a Ping connection.
- **Ping Packet Size** - The size of Ping packet.
- **Ping Timeout** - Set the waiting time for the reply of each Ping packet. If there is no reply in the specified time, the connection is overtime.
- **Traceroute Max TTL** - The max number of hops for a Traceroute connection.

3. Click **Start** to check the connectivity of the Internet.

4. The **Diagnostic Results** page displays the diagnosis result. If the result is similar to the following figure, the connectivity of the Internet is fine.

```

Diagnostic Results
-----
Pinging 192.168.0.1 with 64 bytes of data:

Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=1
Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=2
Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=3
Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=4

Ping statistics for 192.168.0.1
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss)
Approximate round trip times in milliseconds:
Minimum = 1, Maximum = 1, Average = 1

```

Note: Only one user can use this tool at one time. Options "Number of Pings", "Ping Size" and "Ping Timeout" are used for the Ping function. Option "Tracert Hops" is used for the Tracert function.

8.15.3. Firmware Upgrade

TP-Link is dedicated to improving and enriching the product features, giving users a better network experience. We will release the latest firmware at TP-Link official website. You can download the latest firmware file from the [Support](#) page of our website www.tp-link.com and upgrade the firmware to the latest version.

1. Download the latest firmware file for the router from our website www.tp-link.com.
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
3. Go to [System Tools > Firmware Upgrade](#).
4. Click [Choose File](#) to locate the downloaded firmware file, and click [Upgrade](#).

8.15.4. Factory Defaults

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Factory Defaults](#). Click [Restore](#) to reset all settings to the default values.

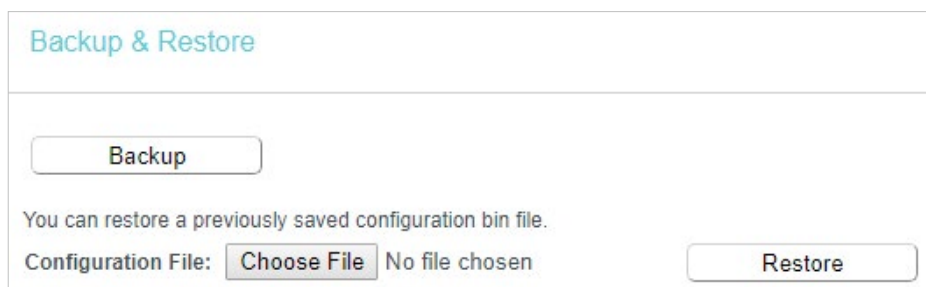
- The default **Username**: admin

- The default **Password**: admin
- The default **IP Address**: 192.168.0.1
- The default **Subnet Mask**: 255.255.255.0

8.15.5. Backup & Restore

The configuration settings are stored as a configuration file in the router. You can backup the configuration file in your computer for future use and restore the router to the previous settings from the backup file when needed.

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



- **To backup configuration settings:**

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

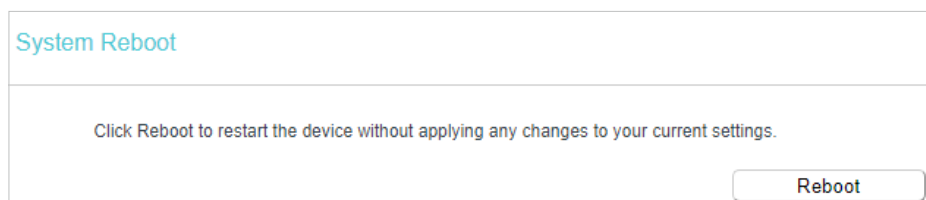
- **To restore configuration settings:**

1. Click **Choose File** to locate the backup configuration file stored in your computer, and click **Restore**.
2. Wait a few minutes for the restoring and rebooting.

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

8.15.6. Reboot

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Reboot**, and you can restart your router.

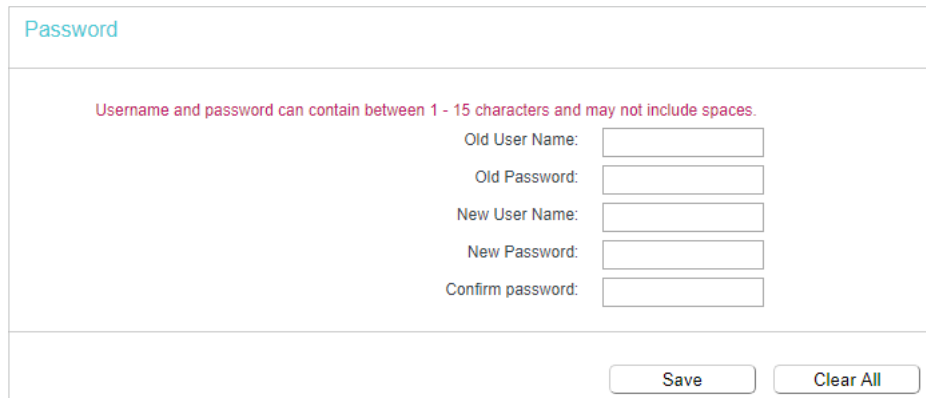


Some settings of the router will take effect only after rebooting, including:

- Change the LAN IP Address (system will reboot automatically).
- Change the DHCP Settings.
- Change the Web Management Port.
- Upgrade the firmware of the router (system will reboot automatically).
- Restore the router to its factory defaults (system will reboot automatically).
- Update the configuration with the file (system will reboot automatically).

8. 15. 7. Password

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Password**, and you can change the factory default username and password of the router.



The screenshot shows the 'Password' configuration page. At the top, the title 'Password' is displayed. Below the title, a red warning message states: 'Username and password can contain between 1 - 15 characters and may not include spaces.' There are five input fields: 'Old User Name:', 'Old Password:', 'New User Name:', 'New Password:', and 'Confirm password:'. At the bottom right, there are two buttons: 'Save' and 'Clear All'.

It is strongly recommended that you change the default username and password of the router, for all users that try to access the router's web-based utility or Quick Setup will be prompted for the router's username and password.

Note: The new username and password must not exceed 15 characters and not include any spacing.

3. Click **Save**.

8. 15. 8. System Log

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > System Log**, and you can view the logs of the router.

System Log

Log Type: **ALL** Log Level: **Debug**

Index	Time	Type	Level	Content
1	1970-01-01 04:37:15	DHCPC	Notice	Recv no OFFER, DHCP Service unavailable
2	1970-01-01 04:37:12	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
3	1970-01-01 04:37:09	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
4	1970-01-01 04:37:04	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
5	1970-01-01 04:37:01	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
6	1970-01-01 04:36:58	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
7	1970-01-01 04:36:44	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
8	1970-01-01 04:36:41	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
9	1970-01-01 04:36:36	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
10	1970-01-01 04:36:33	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
11	1970-01-01 04:36:30	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
12	1970-01-01 04:36:16	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
13	1970-01-01 04:36:13	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 0
14	1970-01-01 04:36:08	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
15	1970-01-01 04:36:05	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
16	1970-01-01 04:36:02	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
17	1970-01-01 04:35:51	DHCPC	Notice	Recv no OFFER, DHCP Service unavailable
18	1970-01-01 04:35:48	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1
19	1970-01-01 04:35:45	DHCPC	Notice	Send DISCOVER with request ip 0.0.0.0 and unicast flag 1

Refresh Clear Log Save Log Log Settings

- **Refresh** - Refresh the page to show the latest log list.
- **Clear Log** - All the logs will be deleted from the router permanently, not just from the page.
- **Save Log** - Click to save all the logs in a txt file.
- **Log Settings** - Click to set the logs in the screen.
 - **Save Locally** - If Save Locally is selected, events will be recorded in the local memory.
 - **Minimum Level** - Select the Minimum level in the drop-down list, for the Minimum Level, all logged events above or equal to the selected level will be displayed.
 - **Save Remotely** - If Save Remotely is selected, events will be sent to the specified IP address and UDP port of the remote system log server.

8.15.9. Statistics

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Statistics**, and you can view the statistics of the router, including total traffic and the value of the last Packet Statistic Interval in seconds.

Traffic Statistics

Traffic Statistics-LAN

Traffic Statistics: Enable Disable

Statistics Interval: seconds

Statistics List

IP Address MAC Address	Total		Current				Operation
	Packets	Bytes	Packets	Bytes	ICMP Tx	UDP Tx	
Current list is blank							

- **Traffic Statistics** - Enable or Disable. The default value is disabled. To enable, click the Enable button. If disabled, the function of DoS protection in Security settings will be disabled.
- **Statistics Interval** - The default value is 10. Select a value between 5 and 60 in the drop-down list. The Packets Statistic Interval indicates the time section of the packets statistic.
- Click **Refresh** to refresh immediately.
- Click **Reset All** to reset the values of all the entries to zero.
- Click **Delete All** to delete all entries in the table.

Statistics Table

IP/MAC Address		The IP and MAC address are displayed with related statistics.
Total	Packets	The total number of packets received and transmitted by the router.
	Bytes	The total number of bytes received and transmitted by the router.
Current	Packets	The total number of packets received and transmitted in the last Packets Statistic interval seconds.
	Bytes	The total number of bytes received and transmitted in the last Packets Statistic interval seconds.
	ICMP Tx	The number of the ICMP packets transmitted to WAN per second at the specified Packets Statistics interval. It is shown like "current transmitting rate / Max transmitting rate".
	UDP Tx	The number of UDP packets transmitted to the WAN per second at the specified Packets Statistics interval. It is shown like "current transmitting rate / Max transmitting rate".
	TCP SYN Tx	The number of TCP SYN packets transmitted to the WAN per second at the specified Packets Statistics interval. It is shown like "current transmitting rate / Max transmitting rate".
Operation	Reset	Reset the value of the entry to zero.
	Delete	Delete the existing entry in the table.

8. 16. Log Out

Click **Logout** at the bottom of the main menu, and you will log out of the web management page and return to the login window.

FAQ

Q1. What should I do if I cannot access the internet?

- If using a cable modem, unplug the Ethernet cable and reboot the modem. Wait until its Online LED is on and stable, then reconnect the Ethernet cable to the modem.
- If you're in a hotel room or on a trade show, the internet may be limited and requires that you authenticate for the service or purchase the Internet access.
- If your internet access is still not available, contact TP-Link Technical Support.

Q2. How do I restore the router to its factory default settings?

With the router powered on, press and hold the **RESET** button for about 5 seconds until all the LEDs start flashing and then release the button.

Note: You'll need to reconfigure the router to surf the Internet once the router is reset

Q3. What should I do if I forget my wireless password?

- If you have not changed the default Wireless Password, it can be found on the label of the router.
- Otherwise, connect a computer to the router via an Ethernet cable. Log in to the web management page, and go to **Wireless 2.4GHz/5GHz > Wireless Security** to retrieve or reset your wireless password.

Q4. What should I do if I forget my login password of the web management page?

The default username and password of the web management page are **admin** (in lowercase). If you have altered the password:

1. Refer to FAQ > Q2 to reset the router.
2. Visit <http://tplinkwifi.net>, and enter **admin** (in lowercase) as both username and password to log in.

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


Q5. What should I do if my wireless signal is unstable or weak?

It may be caused by too much interference.

- Set your wireless channel to a different one.
- Choose a location with less obstacles that may block the signal between the router and the host AP. An open corridor or a spacious location is ideal.

- Move the router to a new location away from Bluetooth devices and other household electronics, such as cordless phone, microwave, and baby monitor, etc., to minimize signal interference.
- When in Range Extender mode, the ideal location to place the router is halfway between your host AP and the Wi-Fi dead zone. If that is not possible, place the router closer to your host AP to ensure stable performance.

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FCC compliance information statement



Product Name: AC750 Wi-Fi Travel Router

Model Number: TL-WR902AC

Component Name	Model
I.T.E. Power	AMS135-0502000FU

Responsible party:

TP-Link USA Corporation, d/b/a TP-Link North America, Inc.

Address: 145 South State College Blvd. Suite 400, Brea, CA 92821

Website: <http://www.tp-link.com/us/>

Tel: +1 626 333 0234

Fax: +1 909 527 6803

E-mail: sales.usa@tp-link.com

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

FCC RF Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

"To comply with FCC RF exposure compliance requirements, this grant is applicable to only Mobile Configurations. The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter."

We, TP-Link USA Corporation, has determined that the equipment shown as above has been shown to comply with the applicable technical standards, FCC part 15. There is no unauthorized change is made in the equipment and the equipment is properly maintained and operated.

Issue Date: 2019.05.27

FCC compliance information statement

Product Name: I.T.E. Power Supply

Model Number: AMS135-0502000FU

Responsible party:

TP-Link USA Corporation, d/b/a TP-Link North America, Inc.

Address: 145 South State College Blvd. Suite 400, Brea, CA 92821

Website: <http://www.tp-link.com/us/>

Tel: +1 626 333 0234

Fax: +1 909 527 6803

E-mail: sales.usa@tp-link.com

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

We, TP-Link USA Corporation, has determined that the equipment shown as above has been shown to comply with the applicable technical standards, FCC part 15. There is no unauthorized change is made in the equipment and the equipment is properly maintained and operated.

Issue Date: 2019.05.27

CE Mark Warning



This is a class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

OPERATING FREQUENCY(the maximum transmitted power)

2412MHz—2472MHz(20dBm)

5180MHz—5240MHz(23dBm)

EU declaration of conformity

TP-Link hereby declares that the device is in compliance with the essential requirements and other relevant provisions of directives 2014/53/EU, 2009/125/EC and 2011/65/EU.

The original EU declaration of conformity may be found at

<https://www.tp-link.com/en/ce>

RF Exposure Information

This device meets the EU requirements (2014/53/EU Article 3.1a) on the limitation of exposure of the general public to electromagnetic fields by way of health protection.

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

National Restrictions

Attention: This device may only be used indoors in all EU member states and EFTA countries.

	AT	BE	BG	CH	CY	CZ	DE	DK
	EE	EL	ES	FI	FR	HR	HU	IE
	IS	IT	LI	LT	LU	LV	MT	NL
	NO	PL	PT	RO	SE	SI	SK	UK

Canadian Compliance Statement

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables

aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- 1) L'appareil ne doit pas produire de brouillage;
- 2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Caution:

The device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;

Avertissement:

Le dispositif fonctionnant dans la bande 5150-5250 MHz est réservé uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

Industry Canada Statement

CAN ICES-3 (B)/NMB-3(B)

Korea Warning Statements:

당해 무선설비는 운용중 전파혼신 가능성이 있음.

NCC Notice & BSMI Notice:

注意!

依據 低功率電波輻射性電機管理辦法

第十二條 經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性或功能。

第十四條 低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信規定作業之無線電信。低功率射頻電機需忍受合法通信或工業、科學以及醫療用電波輻射性電機設備之干擾。

4.7.9.1 應避免影響附近雷達系統之操作。

4.7.9.2 高增益指向性天線只得應用於固定式點對點系統。

安全諮詢及注意事項

- 請使用原裝電源供應器或只能按照本產品注明的電源類型使用本產品。
- 清潔本產品之前請先拔掉電源線。請勿使用液體、噴霧清潔劑或濕布進行清潔。
- 注意防潮，請勿將水或其他液體潑灑到本產品上。
- 插槽與開口供通風使用，以確保本產品的操作可靠並防止過熱，請勿堵塞或覆蓋開口。
- 請勿將本產品置放於靠近熱源的地方。除非有正常的通風，否則不可放在密閉位置中。
- 請不要私自打開機殼，不要嘗試自行維修本產品，請由授權的專業人士進行此項工作。

限用物質含有情況標示聲明書

產品元件名稱	限用物質及其化學符號					
	鉛 Pb	鎘 Cd	汞 Hg	六價鉻 CrVI	多溴聯苯 PBB	多溴二苯醚 PBDE
PCB	○	○	○	○	○	○
外殼	○	○	○	○	○	○
電源適配器	-	○	○	○	○	○

備考1. "超出0.1 wt %" 及 "超出0.01 wt %" 系指限用物質之百分比含量超出百分比含量基準值。

備考2. "○"系指該項限用物質之百分比含量未超出百分比含量基準值。

備考3. "-" 系指該項限用物質為排除項目。




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





Safety Information

- Keep the device away from water, fire, humidity or hot environments.
- Do not attempt to disassemble, repair, or modify the device.
- Do not use damaged charger or USB cable to charge the device.
- Do not use any other chargers than those recommended

- Do not use the device where wireless devices are not allowed.
- Adapter shall be installed near the equipment and shall be easily accessible.
-  Use only power supplies which are provided by manufacturer and in the original packing of this product. If you have any questions, please don't hesitate to contact us.

Please read and follow the above safety information when operating the device. We cannot guarantee that no accidents or damage will occur due to improper use of the device. Please use this product with care and operate at your own risk.

Explanations of the symbols on the product label

Symbol	Explanation
	DC voltage
	<p>RECYCLING</p> <p>This product bears the selective sorting symbol for Waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European directive 2012/19/EU in order to be recycled or dismantled to minimize its impact on the environment.</p> <p>User has the choice to give his product to a competent recycling organization or to the retailer when he buys a new electrical or electronic equipment.</p>