Tenda

# Web User Guide

Wi-Fi 5 Dual-band Wireless Router

www.tendacn.com

## Copyright statement



## Disclaimer

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# Preface

This guide describes how to configure each feature of the following Tenda Wireless router.

- AC8 v5.0
- AC8 v6.0
- AC10 v5.0
- AC10 v6.0
- AC3 v1.0

NOTE

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

In this guide, unless otherwise specified, all screenshots are taken from AC10 v5.0.

The firmware version uses V16.03.55.10_multi of AC10 V5.0 as an example.

## Conventions

The typographical elements that may be found in this document are defined as follows.

| Item | Presentation | Example |
| --- | --- | --- |
| Cascading menus | > | Navigate to **System** > **Live Users** |
| Parameter and value | Bold | Set **User Name** to **Tom**. |
| Variable | Italic | Format: *XX*:*XX*:*XX*:*XX*:*XX*:*XX* |
| UI control | Bold | On the **Policy** page, click the **OK** button. |
| Message | “ ” | The “Success” message appears. |

The symbols that may be found in this document are defined as follows.

| Symbol | Meaning |
| --- | --- |
|  | This format is used to highlight information of importance or special interest. Ignoring this type of note may result in ineffective configuration, loss of data or damage to device. |
|  | This format is used to highlight a procedure that will save time or resources. |

## More information and support

Visit www.tendacn.com and search for the product model to get your questions answered and get the latest documents.

## Revision history

Tenda is constantly searching for ways to improve its products and documentation. The following table indicates any changes that might have been made since the router was introduced.

| Version | Date | Description |
| --- | --- | --- |
| V1.1 | 2025-04-18 | 1. Supports all functions of AC3 v1.0<br>2. Optimized sentence expression. |
| V1.0 | 2024-11-22 | Original publication. |

# Contents

# 1 Connect the client to the router’s network

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

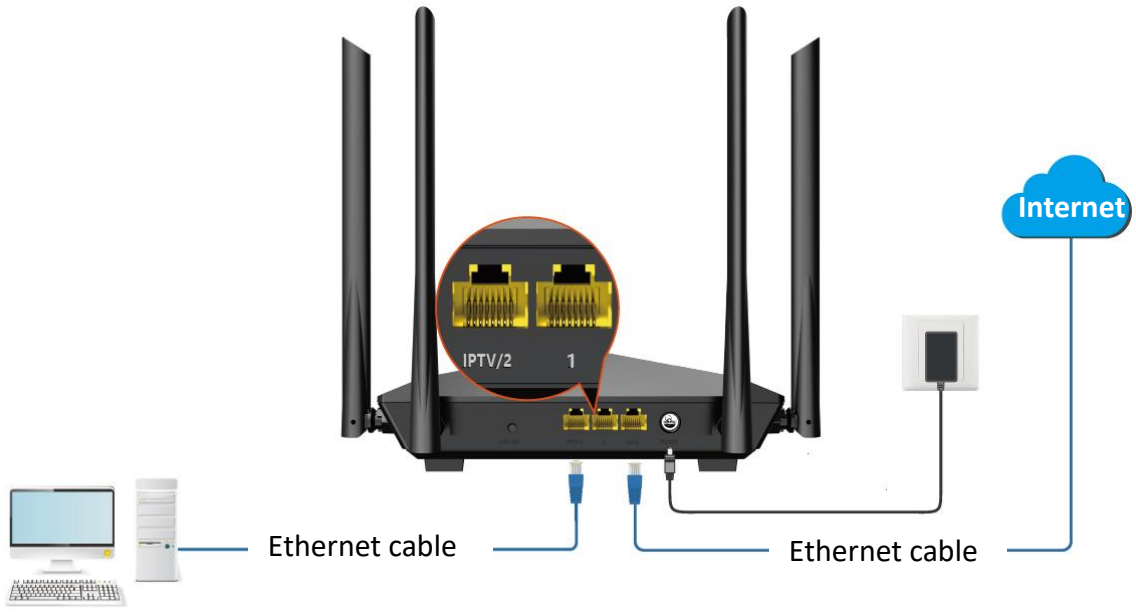
This chapter introduces how to connect the clients to the router’s network in the following sections:

# 1.1 Wired connection

Connect the computer to the LAN port of the router.

TIP

After the IPTV function is enabled on the router, the **IPTV/2** (For AC3, the IPTV port is port **1)** on the router only functions as the IPTV port to connect to the set-top box.

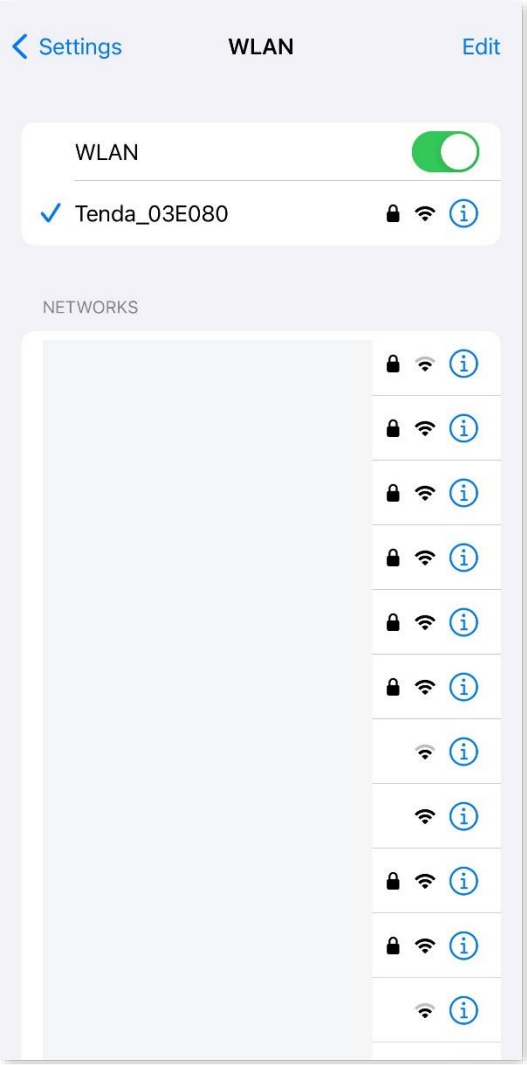



Example: AC10

## 1.2 Wireless connection

The smartphone is taken as an example.

Connect the smartphone to the router’s wireless network.




TIP

- At the first login, connect the SSID (Wi-Fi name) on the label of the device.
- When you log in to the router again, use the new Wi-Fi name and Wi-Fi password to connect to the wireless network.

# 1.3 WPS connection

The WPS function enables Wi-Fi-enabled devices, such as smartphones, to connect to Wi-Fi networks of the router without entering the password.

## 1.3.1 Method 1: Connect to the router's Wi-Fi via PBC

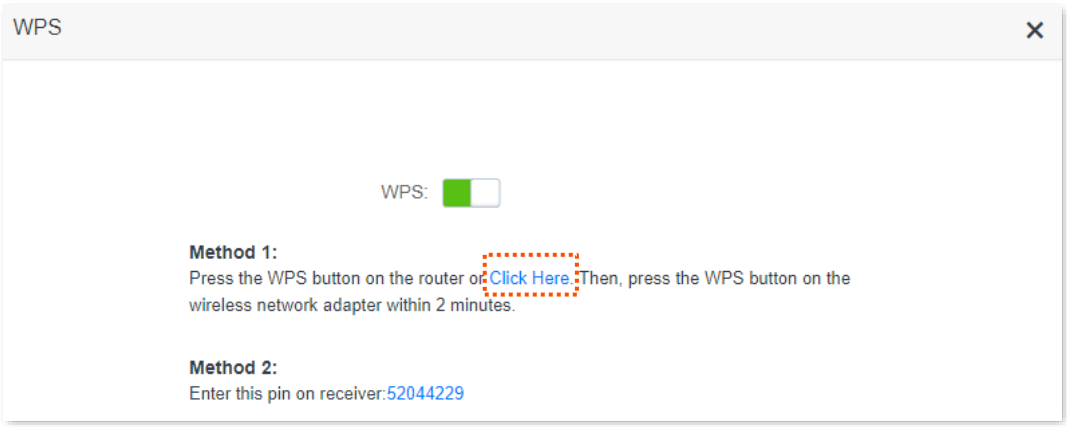
1. Enable the WPS-PBC function on the router.

   **Method 1:** Press the **WPS/RST** button on the router, and the Wi-Fi indicator blinks fast.


Example: AC10

**Method 2:** Through WPS button on the router's web UI.

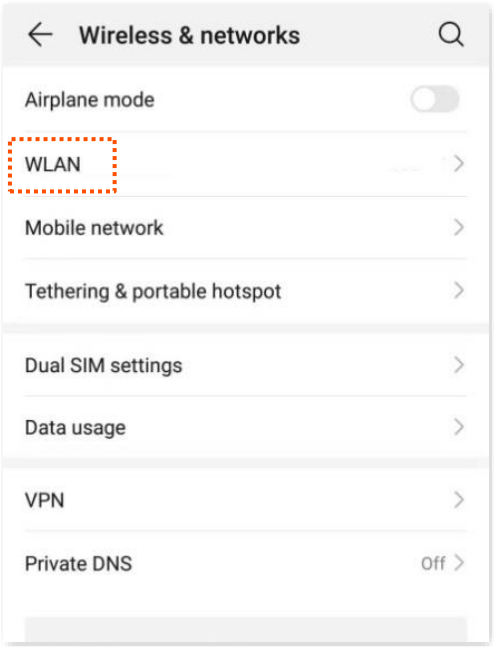
1) Log in to the web UI of the router.
2) Navigate to **WiFi Settings** > **WPS**.
3) Enable the WPS function, and click **Click here** in **Method 1**. The router's Wi-Fi indicator blinks fast.

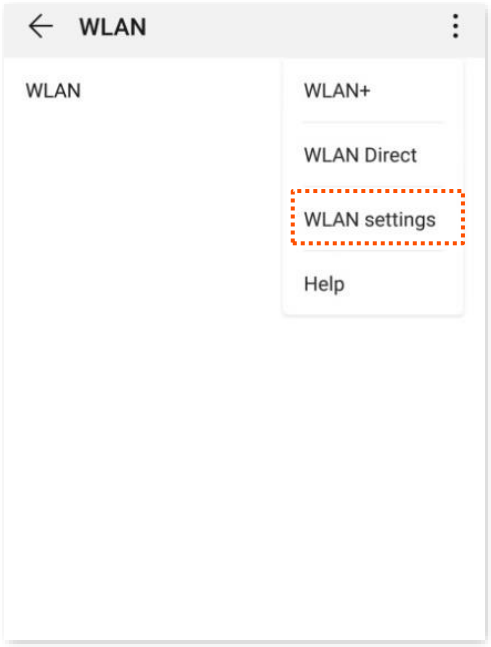


1. Configure the WPS function on your Wi-Fi-enabled devices **within 2 minutes**. Configuration on various devices may differ (Example: HUAWEI P10).

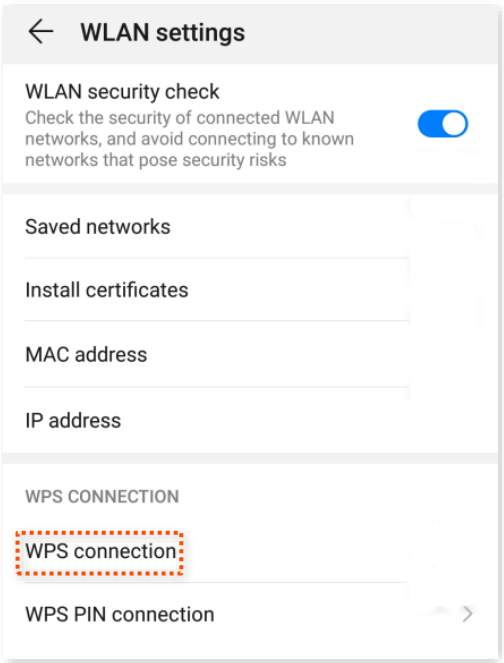
   1) Find **WLAN** settings on your phone.

   2) Tap ⋮, and choose **WLAN settings**.



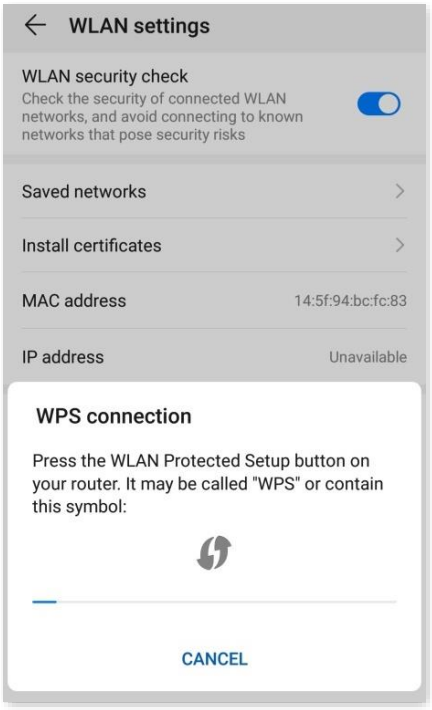




   3) Choose **WPS connection**.




   **---End**

Wait until the WPS negotiation completes.




## 1.3.2 Method 2: Connect to the router's Wi-Fi via PIN code

NOTE

This method only supports entering the WPS PIN code of the router on the wireless clients to connect to the router's Wi-Fi. It is usually used for wireless network adapter to connect to the router's Wi-Fi. For details, see the user guide of the corresponding wireless network adapter.

1. Check and record the WPS **PIN code** (**Pin No.**) on the label of the router.
2. Enter the WPS PIN code of the router on the wireless clients for connection. The connection is successful within 2 minutes.

**---End**

# 2 Web UI

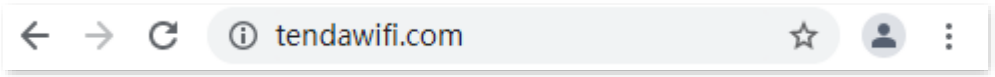
Features available in the router may vary by model and software version. Router availability may also vary by region or ISP. All images, steps, and descriptions in this guide are only examples and may not reflect your actual router experience.

This chapter introduces basic information of the web UI in the following sections:

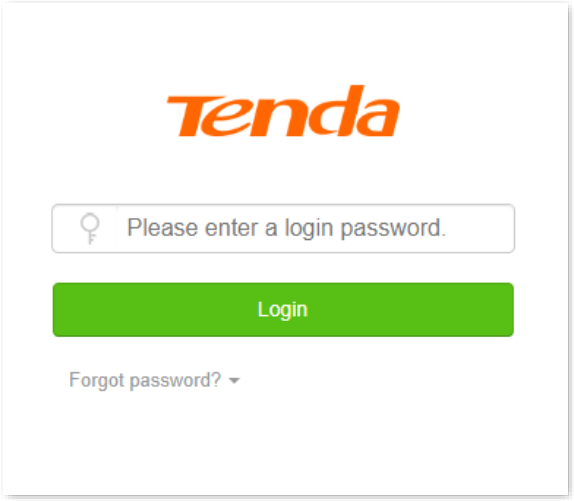


## 2.1 Log in to the web UI

1. Connect the device to the router.
   - Smartphone/tablet: Connect to the Wi-Fi of the router (Wireless connection).
   - Computer: Connect to the Wi-Fi of the router (Wireless connection), or use an Ethernet cable to connect your computer to the LAN port of the router(Wired connection).
2. Start a browser and enter **tendawifi.com** in the address bar to log in to the web UI.



3. Enter the login password, and click **Login**.




**---End**

TIP

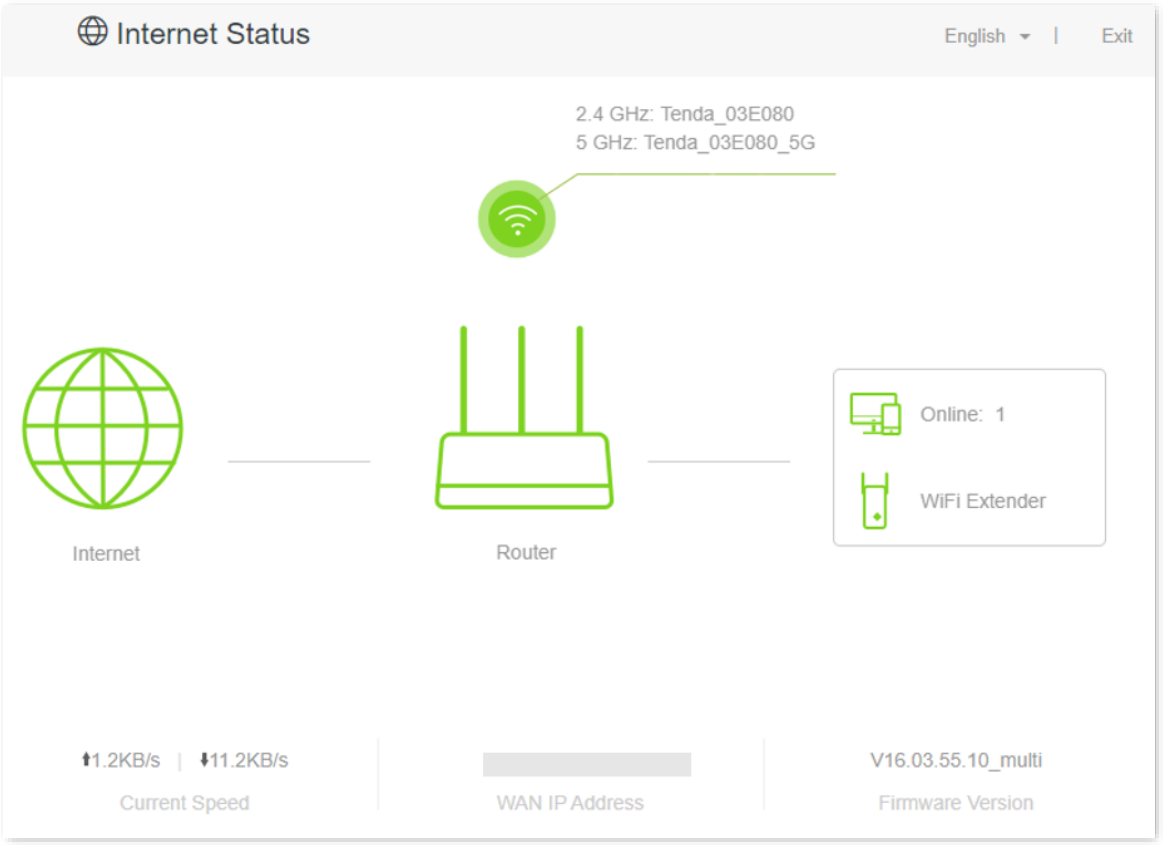
If the login page does not appear, try the following solutions.

- Ensure that the router is powered on properly.
- Use the default IP address (**http://192.168.0.1**) or **http://tendawifi.com** to log in to the router.
- For wired devices, such as a computer:
  - Ensure that the computer is connected to the router's LAN port, and the Ethernet cable is connected properly.
  - Ensure that the computer is set to **Obtain an IP address automatically** and **Obtain DNS server address automatically**.
- For Wi-Fi-enabled devices, such as a smartphone:
  - Ensure that your smartphone is connected to the Wi-Fi network of the router.
  - Ensure that the cellular network (mobile data) of the smartphone is disabled.
- Restore the router to factory settings and try again.

If you forgot the login password, try the following solutions.

- The Wi-Fi password may be set as the login password of the router. Try to use the Wi-Fi password to log in to the router.
- If the problem persists, restore the router to factory settings and try again.

After logging in to the router's web UI, you can configure the router as required.

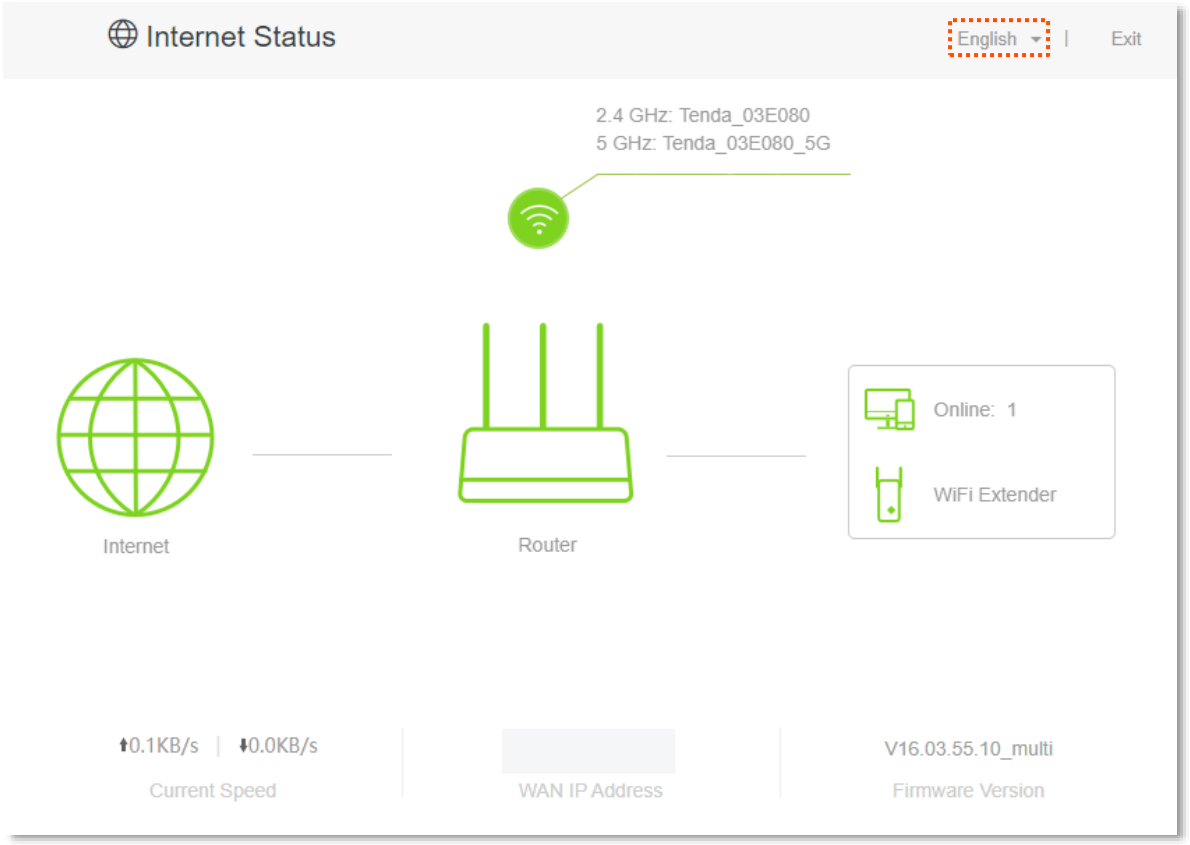



## 2.2 Log out of the web UI

If you log in to the web UI of the router and perform no operation within 5 minutes, the router logs you out automatically. You can also log out by clicking **Exit** at the top right corner of the web UI.

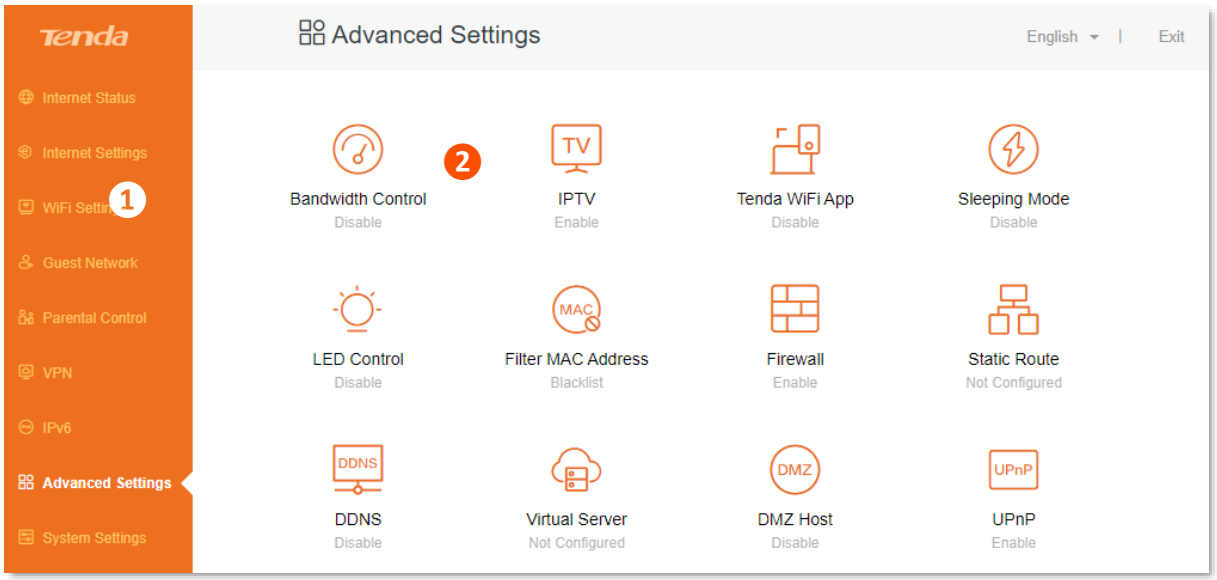
## 2.3 Change the language

By default, the router automatically adapts its web UI to the language of the region where your device is located. You can choose another language from the drop-down list on the login page.



# 2.4 Web UI layout

The web UI of the router consists of two sections, including the navigation bar and the configuration area.




TIP

Features displayed in gray are not available or cannot be configured under the current condition.

| No. | Name | Description |
|---|---|---|
| 1 | Navigation bar | Used to display the function menu of the router. Users can select functions in the navigation bar. |
| 2 | Configuration area | Used to modify or view your configuration. |

# 3 Internet settings

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

This chapter includes the following parts:

# 3.1 Modify IPv4 internet settings

By configuring the internet settings, you can achieve shared internet access (IPv4) for multiple users within the LAN.

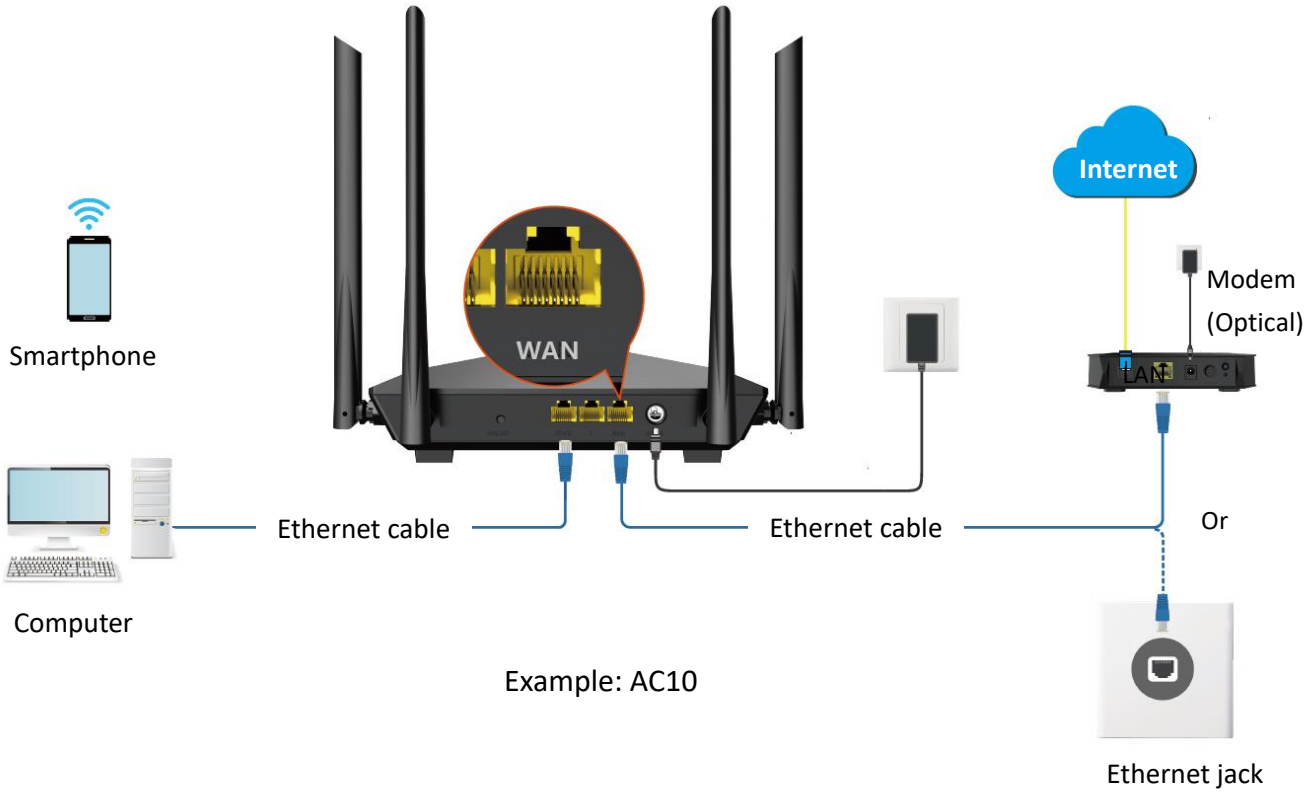
For initial router setup or after a factory reset, configure your internet connection using the quick installation guide provided with your router. After that, you can change the internet settings by following the instructions in this chapter.

TIP

Parameters for internet access are provided by your ISP. Contact your ISP for any doubt.

## 3.1.1 Access the internet with a PPPoE account

If the ISP provides you with the PPPoE user name and password, you can choose this connection type to access the internet. The application scenario is shown below.




Example: AC10

**To access the internet with a PPPoE account:**

1. Log in to the web UI of the router, and navigate to **Internet Settings**.
2. Set **ISP Type**.

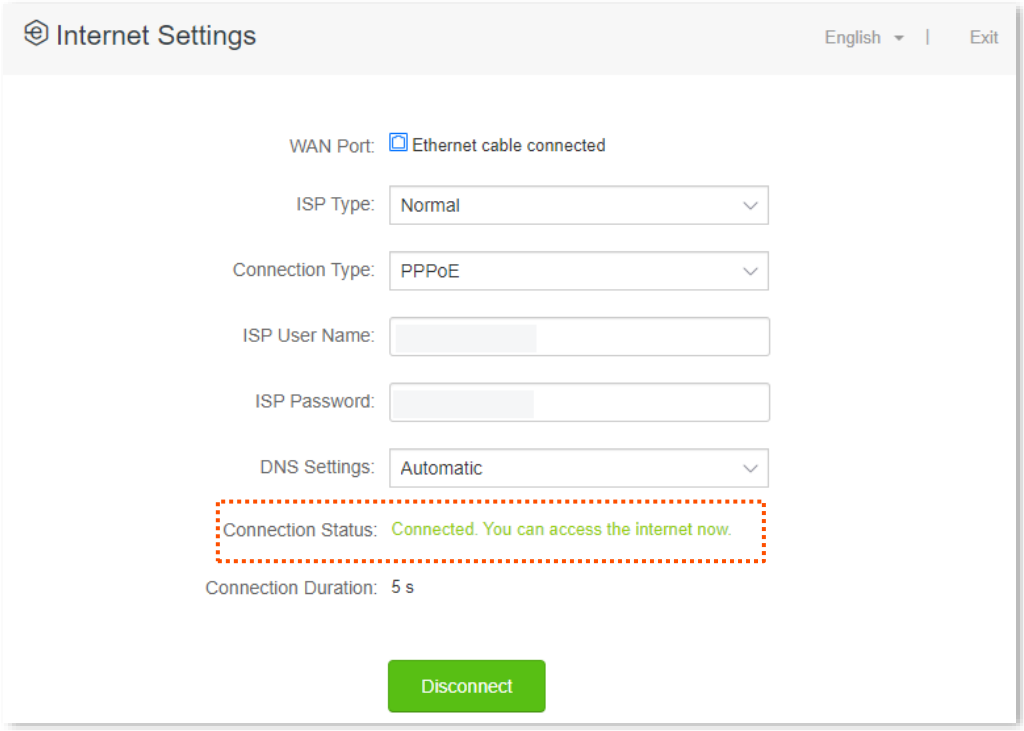
TIP

If you select **Manual** for **ISP Type**, enter **Internet VLAN ID** and **IPTV VLAN ID** (if any) provided by your ISP. **Blank VLAN ID** indicates that the IPTV function is disabled.

3. Set **Connection Type** to **PPPoE**.
4. Enter the **ISP User Name** and **ISP Password** provided by your ISP.
5. Click **Connect**.

**---End**

Wait until the connection status changes to **Connected**. **You can access the internet**. You can access the internet.




If you cannot access the internet, try the following solutions:

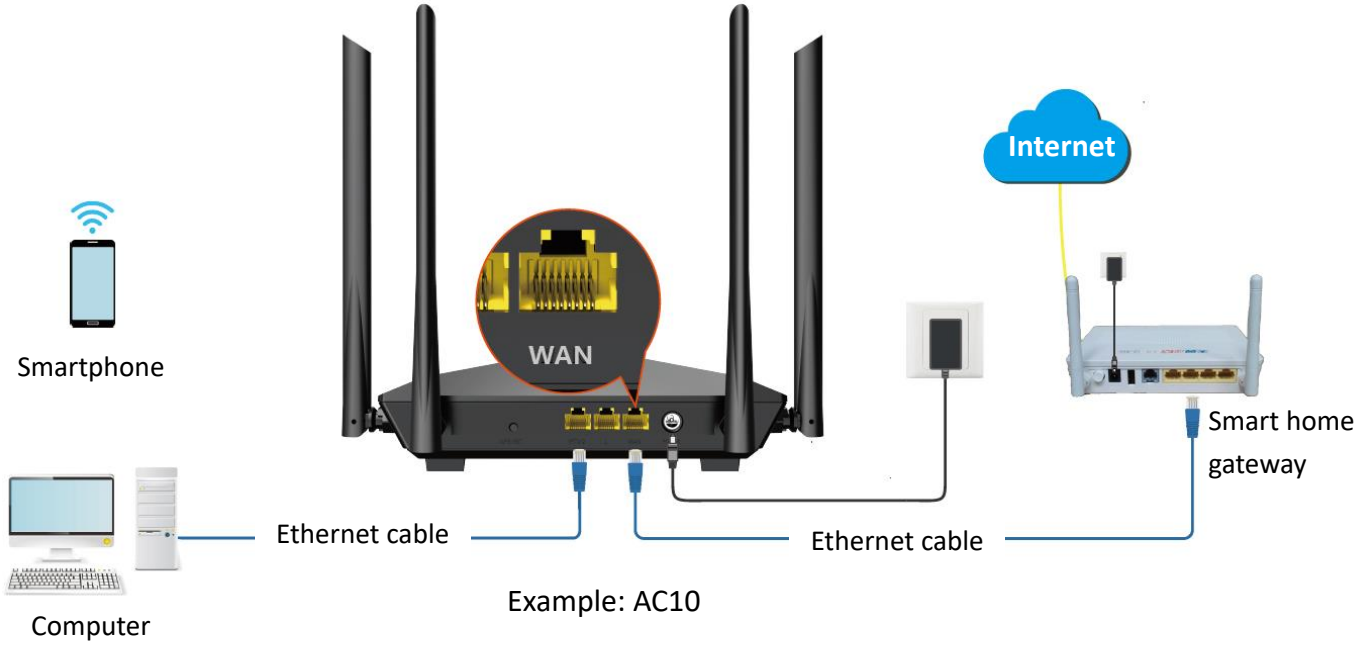
- If No response from the remote server. Please check whether your computer can access the internet directly using your Modem. If no, contact your ISP for help. displays in **Connection Status**, you are recommended to set the router to Dynamic IP for internet access.
- If the problem persists, refer to Router disconnected from the internet to resolve the problem.

## 3.1.2 Access the internet through dynamic IP

Generally, accessing the internet through dynamic IP. It is applicable in the following situations:

- Your ISP does not provide the PPPoE user name and password, or any other information including IP address, subnet mask, default gateway and DNS server.
- You already have a router with internet access and want to add another router.

The application scenario is shown below.




Example: AC10

**To access the internet through dynamic IP:**

1. Log in to the web UI of the router, and navigate to **Internet Settings**.
2. Set **ISP Type**.

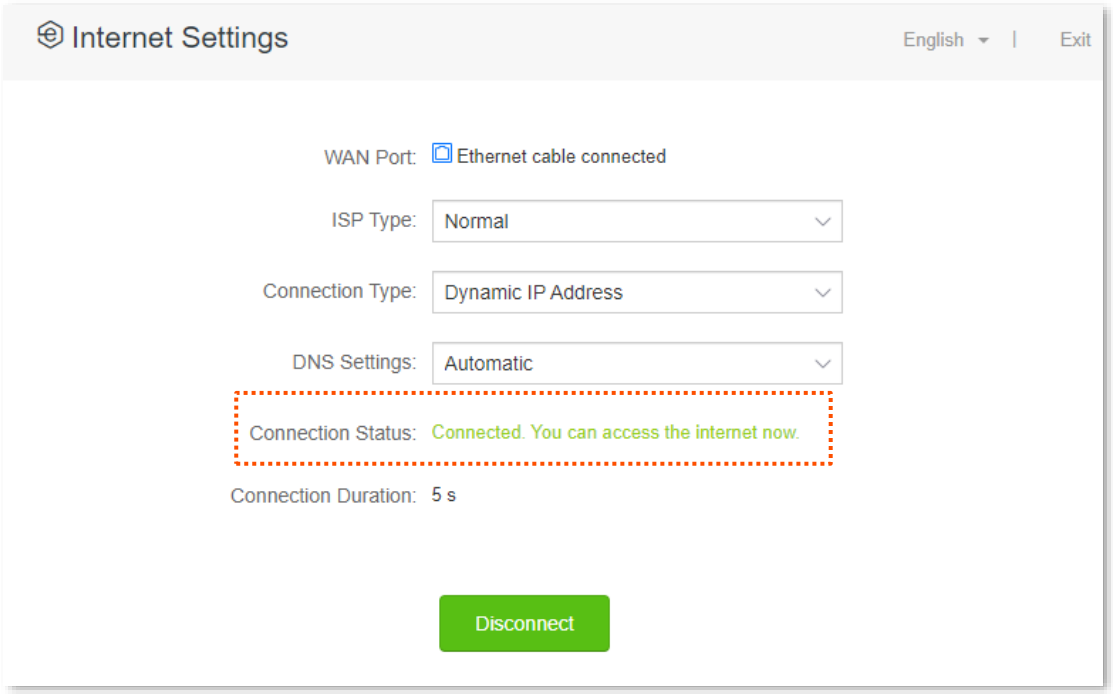
   TIP

   If you select **Manual** for **ISP Type**, enter **Internet VLAN ID** and **IPTV VLAN ID** (if any) provided by your ISP. **Blank VLAN ID** indicates that the IPTV function is disabled.

3. Set **Connection Type** to **Dynamic IP Address**.
4. Click **Connect.**

**---End**

Wait until the connection status changes to **Connected**. **You can access the internet**. You can access the internet.




If you cannot access the internet, refer to Router disconnected from the internet to resolve the problem.

## 3.1.3 Access the internet with a set of static IP information

When your ISP provides you with information including IP address, subnet mask, default gateway and DNS server, you can choose this connection type to access the internet.

**To access the internet with a set of static IP information:**

1. Log in to the web UI of the router, and navigate to **Internet Settings**.
2. Set **ISP Type**.

   TIP

   If you select **Manual** for **ISP Type**, enter **Internet VLAN ID** and **IPTV VLAN ID** (if any) provided by your ISP. **Blank VLAN ID** indicates that the IPTV function is disabled.

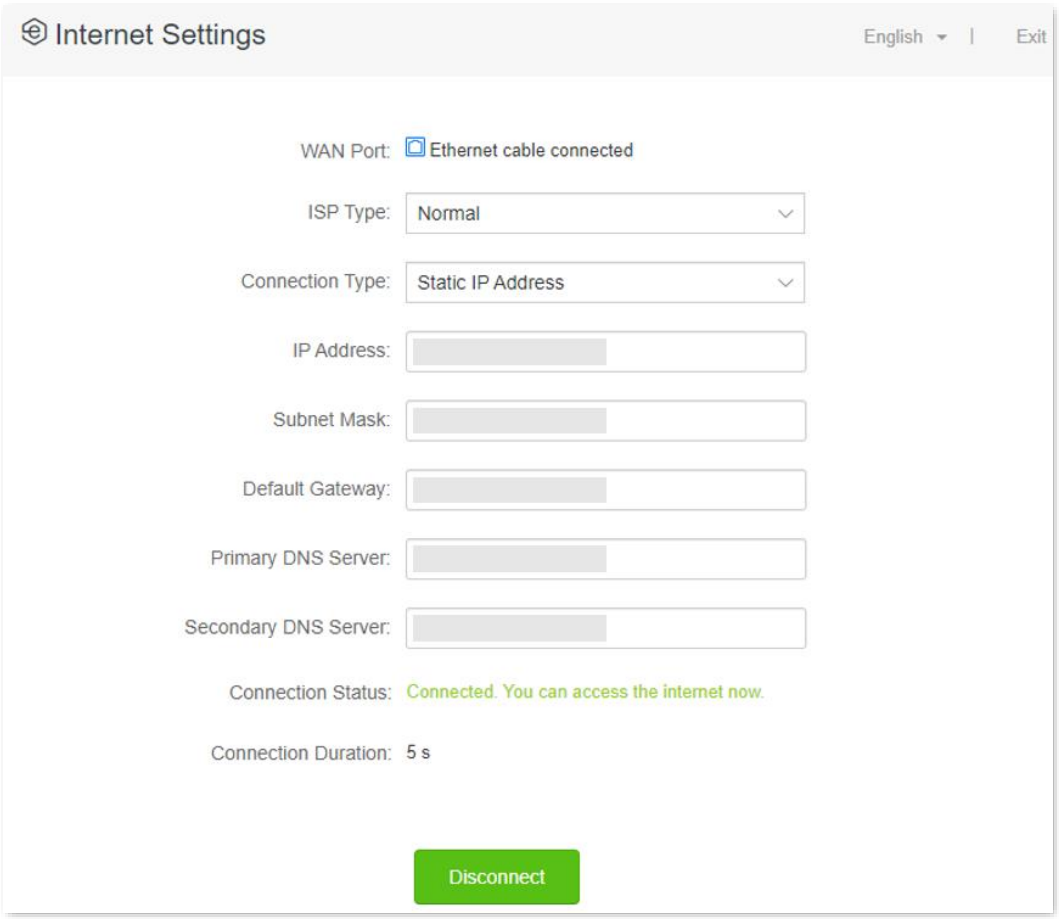
3. Set **Connection Type** to **Static IP**.
4. Set **IP Address**, **Subnet Mask**, **Default gateway** and **Primary DNS Server**, and **Secondary DNS Server** with the information provided by your ISP.

   If your ISP provides only one DNS address, fill in the **Primary DNS Server**.

5. Click **Connect.**

**---End**

Wait until the connection status changes to **Connected**. **You can access the internet**. You can access the internet.




If you cannot access the internet, refer to Router disconnected from the internet to resolve the problem.

## 3.1.4 Set up dual access connection

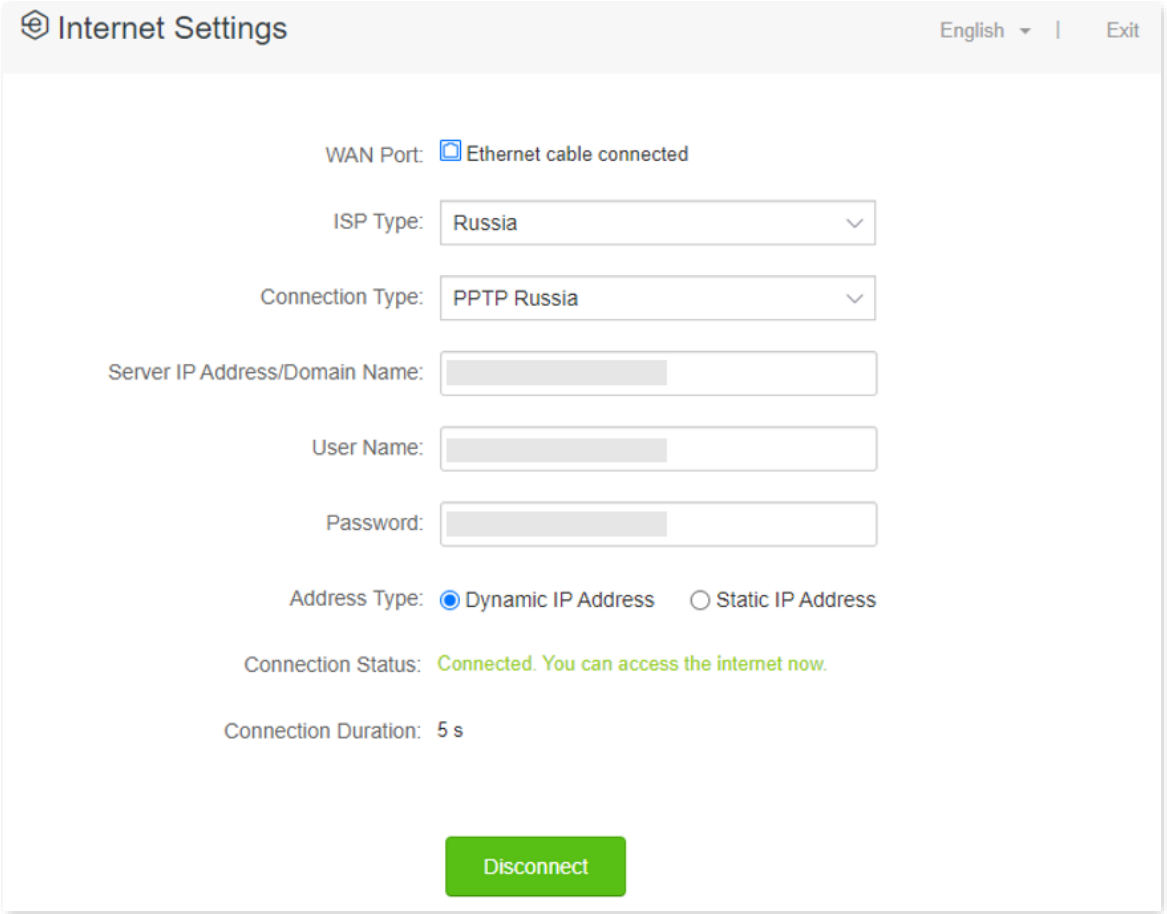
In countries like Russia, the ISP may require you to set up dual access. One is for access to the internet through PPPoE, PPTP or L2TP, and the other is for access to the “local” resources where the ISP is located through DHCP or static IP address. If your ISP provides such connection information, you can set up dual access to access the internet.

**To set up dual access connection:**

1. Log in to the web UI of the router, and navigate to **Internet Settings**.
2. Set **ISP Type** to **Russia**.
3. Set **Connection Type**, which is **PPTP Russia** in this example, and fill in required parameters.
4. Set **Address type**, and fill in required parameters.
5. Click **Connect**.

**---End**

Wait until the connection status changes to **Connected**. **You can access the internet**. You can access the internet.



# 3.2 IPv6 settings (Example: AC10 v6.0)

## 3.2.1 Overview

IPv6, abbreviated for Internet Protocol Version 6, is the second-generation network layer protocol. IPv6 is an upgraded version of Internet Protocol version 4 (IPv4), which is the solution that addresses the relatively limited number of IP addresses possible under IPv4.

An IPv6 address is 128 bits long and is arranged in eight groups, each of which is 16 bits. Each group is expressed as four hexadecimal digits and the groups are separated by colons. An IPv6 address is split into two parts:

- Network Prefix: n bits, equivalent to the network ID in the IPv4 address.
- Interface Identifier: 128-n bits, equivalent to the host ID in the IPv4 address.

This router supports IPv4 and IPv6. You can connect to the IPv6 network of ISPs through IPv6 WAN settings.

The router can access the IPv6 network of ISPs through three connection types. Choose the connection type by referring to the following table.

| Scenario | Connection Type |
| --- | --- |
| - The ISP does not provide any PPPoEv6 user name and password and information about the IPv6 address.<br>- You have a router that can access the IPv6 network. | DHCPv6 |
| IPv6 service is included in the PPPoE user name and password. | PPPoEv6 |
| The ISP provides you with a set of information including IPv6 address, subnet mask, default gateway and DNS server. | Static IPv6 address |

TIP

- Before configuring the WAN port IPv6 internet connect type to **DHCPv6**, **PPPoEv6** or **Static IPv6 address**, ensure that you are within the coverage of the IPv6 network and already subscribe to the IPv6 internet service. Contact your ISP for any doubt about it.
- The router supports automatic NAT66. If the LAN port cannot obtain a prefix after IPv6 is configured, the upstream device may not support PD prefix delivery. In this case, the router automatically enables the NAT66 function.

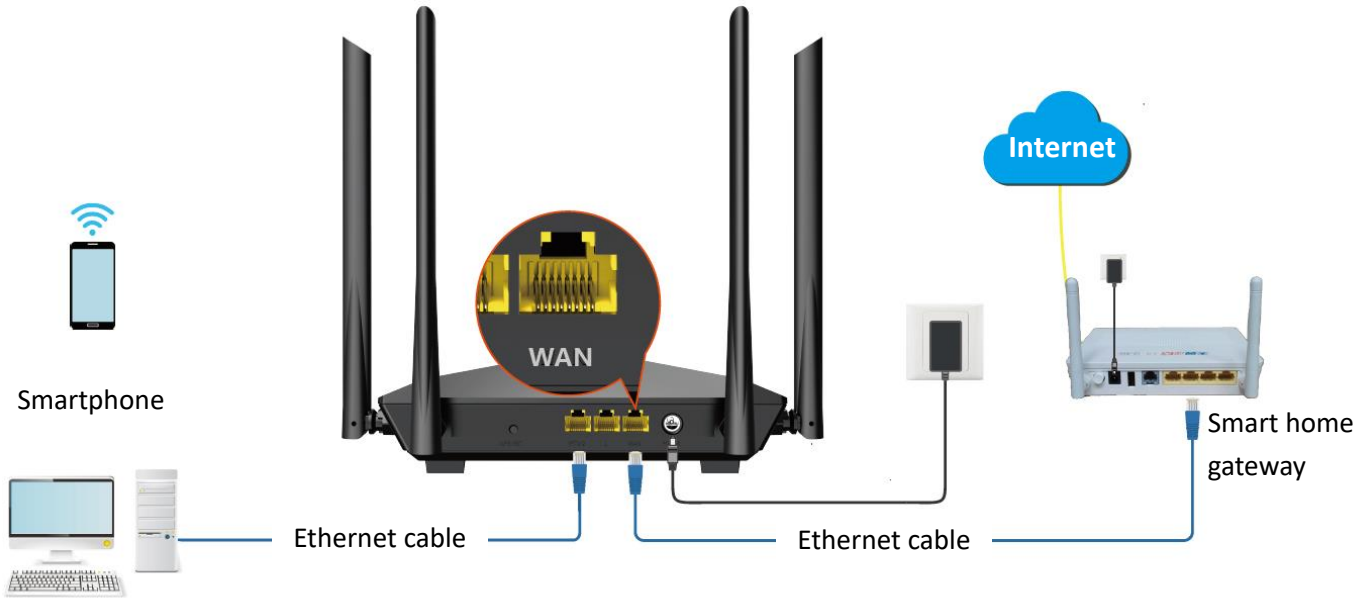
## 3.2.2 IPv6 WAN settings

### DHCPv6

DHCPv6 enables the router to obtain an IPv6 address from the DHCPv6 server to access the internet. It is applicable in the following scenarios:

- The ISP does not provide any PPPoEv6 user name and password and information about the IPv6 address.
- You have a router that can access the IPv6 network, and this router is used as a new router.

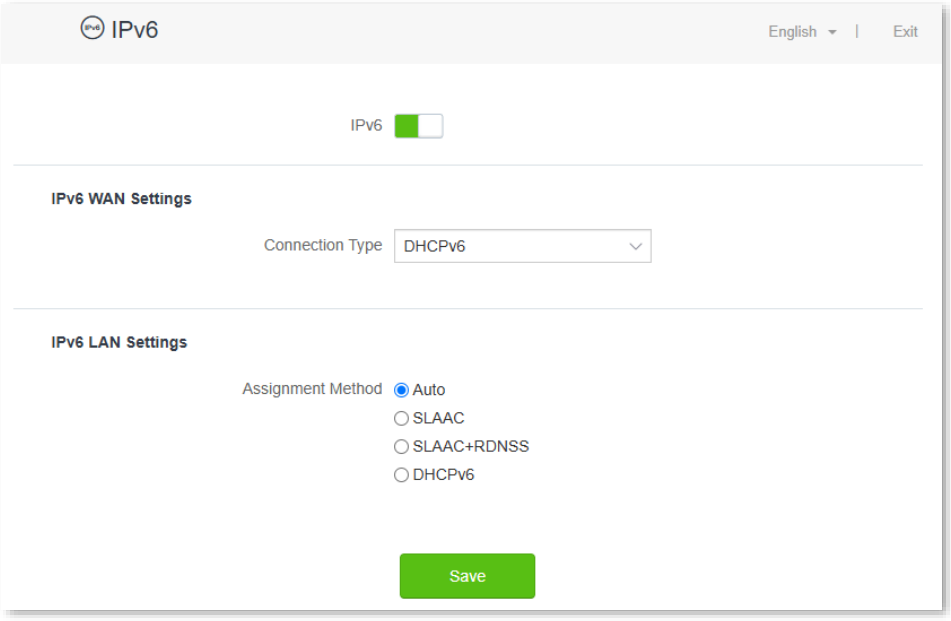
The application scenario is shown below.




Example: AC10

**Configuration procedure:**

1. Log in to the web UI of the router, and click **IPv6**.
2. Enable the **IPv6** function.
3. Set **Connection Type** to **DHCPv6**.
4. Click **Save**.

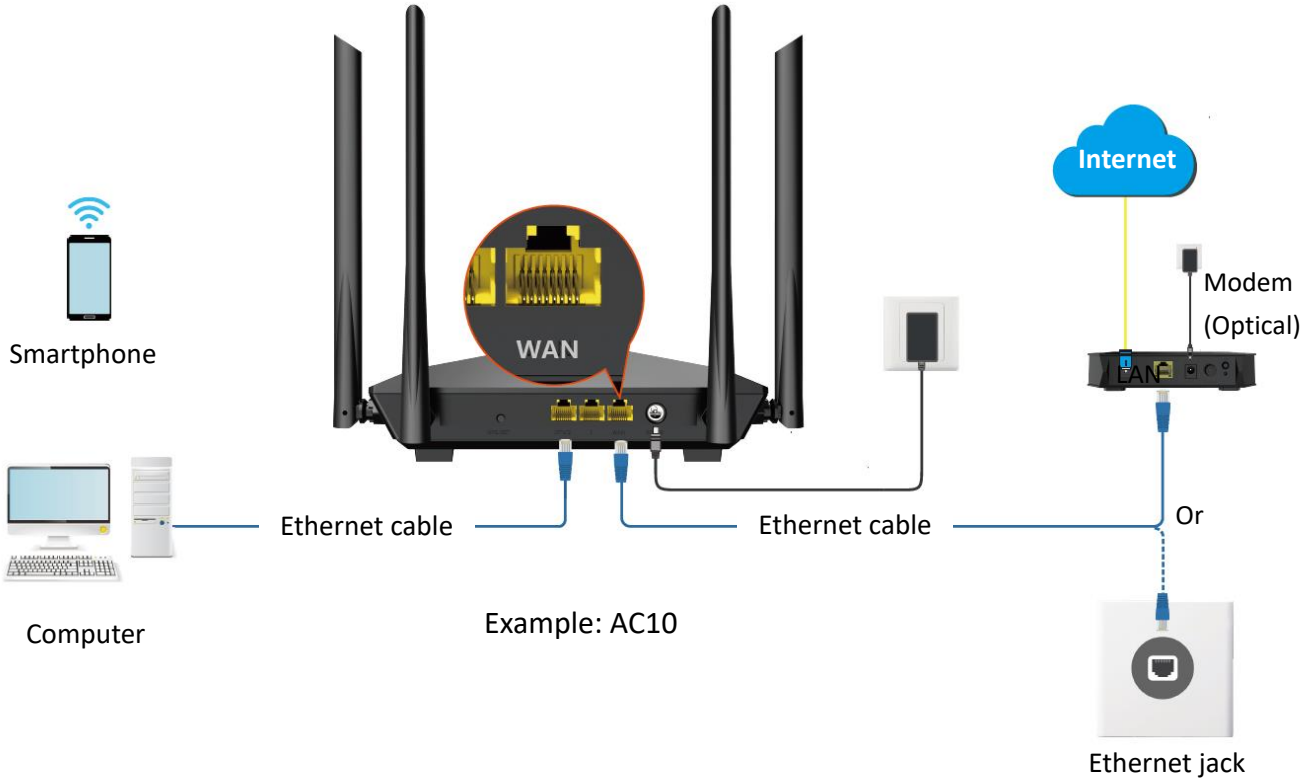



**---End**

After the settings are completed, you can perform IPv6 network test to check whether IPv6 network settings are successful.

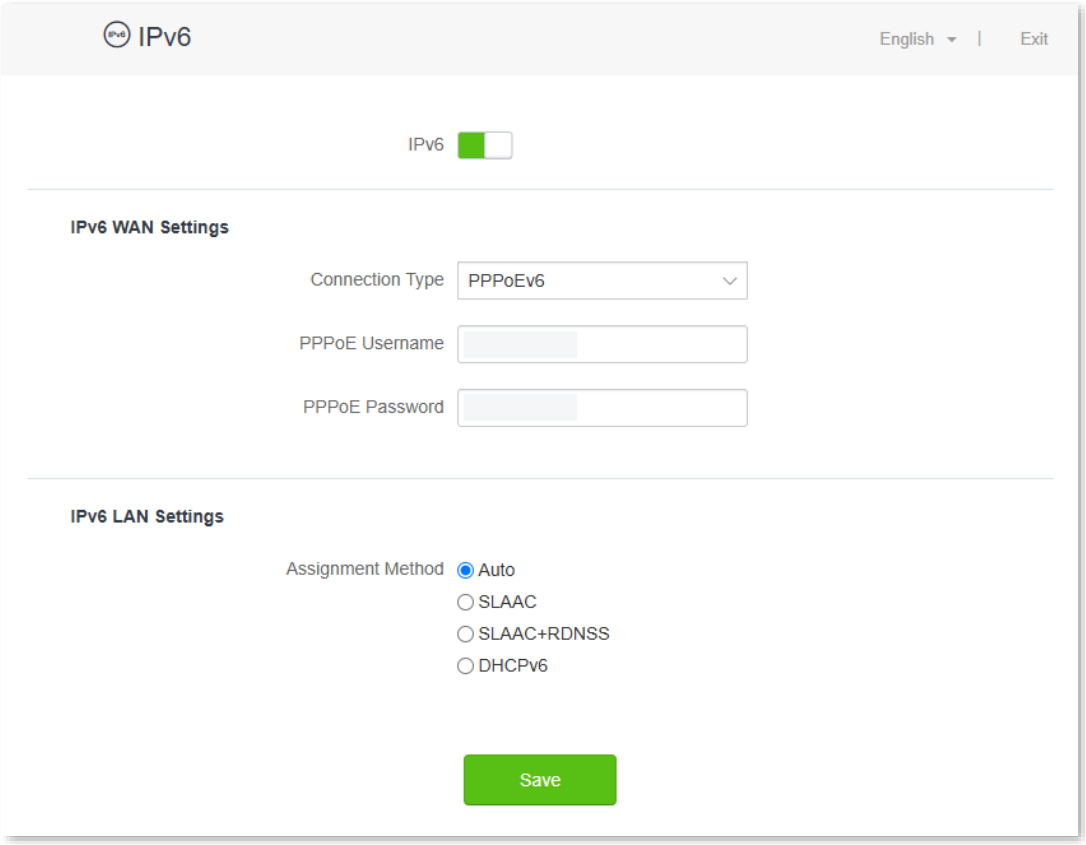
## PPPoEv6

If your ISP provides you with the PPPoE user name and password with IPv6 service, you can choose PPPoEv6 to access the internet.




**Configuration procedure:**

1. Log in to the web UI of the router, and click **IPv6**.
2. Enable the **IPv6** function.
3. Set **Connection Type** to **PPPoEv6**.
4. Set **PPPoE Username** and **PPPoE Password**.
5. Click **Save**.




**---End**

The following table describes the parameters displayed on this page.

**Parameter description**

| Parameter | Description |
| --- | --- |
| PPPoE Username | Specify the PPPoE user name and password provided by your ISP. |
| PPPoE Password | TIP<br>IPv4 and IPv6 services share the same PPPoE account. |

After the settings are completed, you can perform IPv6 network test to check whether IPv6 network settings are successful.

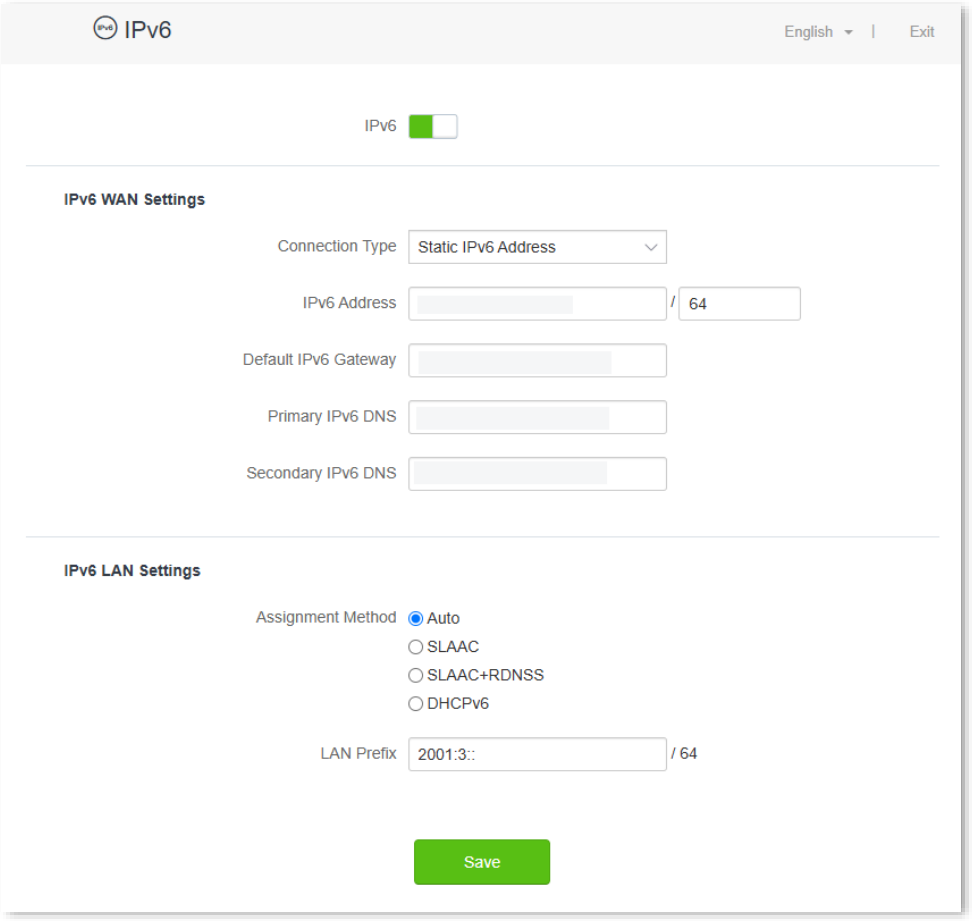
## Static IPv6 address

When your ISP provides you with information including IPv6 address, subnet mask, default gateway and DNS server, you can choose this connection type to access the internet with IPv6.

**Configuration procedure:**

1. Log in to the web UI of the router, and click **IPv6**.
2. Enable the **IPv6** function.
3. Set the **Connection Type** to **Static IPv6 Address**.
4. Enter the required parameters under **IPv6 WAN Settings**.

   If your ISP only provides one DNS address, leave the secondary IPv6 DNS blank.
5. Click **Save**.



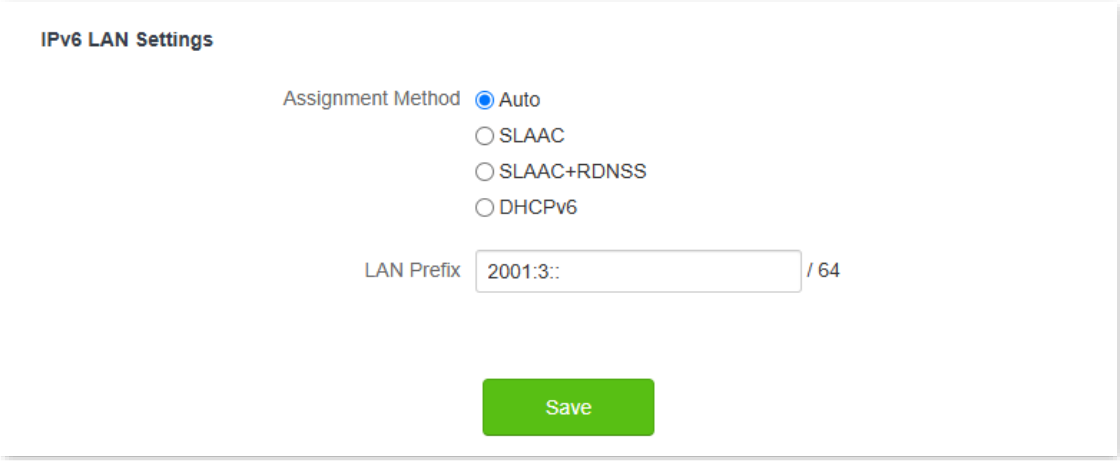

**---End**

After the settings are completed, you can perform IPv6 network test to check whether IPv6 network settings are successful.

## 3.2.3 IPv6 LAN settings

To access the configuration page, log in to the web UI of the router, and click **IPv6**.

Locate the **IPv6 LAN Settings** module, you can configure the method for LAN IPv6 clients to obtain IPv6 addresses, and LAN port prefix addresses, to achieve multiple clients in the LAN to share your broadband service to access internet.




The following table describes the parameters displayed on this page.

**Parameter description**

| Parameter | | Description |
|---|---|---|
| Assignment Method | Auto | Specifies the stateful configuration and stateless configuration. The IPv6 prefix address, and DNS server address of the client can be obtained from the DHCPv6 server or through Route Advertisement (RA). The gateway address can be obtained from RA. |
| | SLAAC | Specifies the DHCPv6 stateless configuration. The IPv6 prefix address and gateway address of the client are obtained through RA, the interface address is generated based on the standard, and the DNS server address is obtained from the DHCPv6 server. |
| | SLAAC+RDNSS | Specifies the stateless address automatic configuration. The IPv6 prefix address and gateway address of the client are obtained through RA, the interface address is generated based on the standard, and the DNS server address is obtained from the RDNSS option in the RA packet. |

| Parameter | Description |
| --- | --- |
| DHCPv6 | Specifies the stateful configuration of Dynamic Host Configuration Protocol for IPv6 (DHCPv6). The client obtains the complete IPv6 address information, including the DNS server address, from the DHCPv6 server. The gateway address is obtained through RA. |
| LAN Prefix | Specifies the IPv6 address prefix of LAN port.<br>TIP<br>It can be configured only when the **Connection Type** of **IPv6 WAN Settings** is **Static IPv6 Address**. |

# 3.3 Modify MTU

Maximum Transmission Unit (MTU) is the largest data packet that a network device transmits.

Generally, keep the default MTU value. Try to change the MTU value when:

- You cannot access some specific websites or encrypted websites (such as E-banking or PayPal websites).
- You cannot receive and send Emails or access an FTP or POP server.

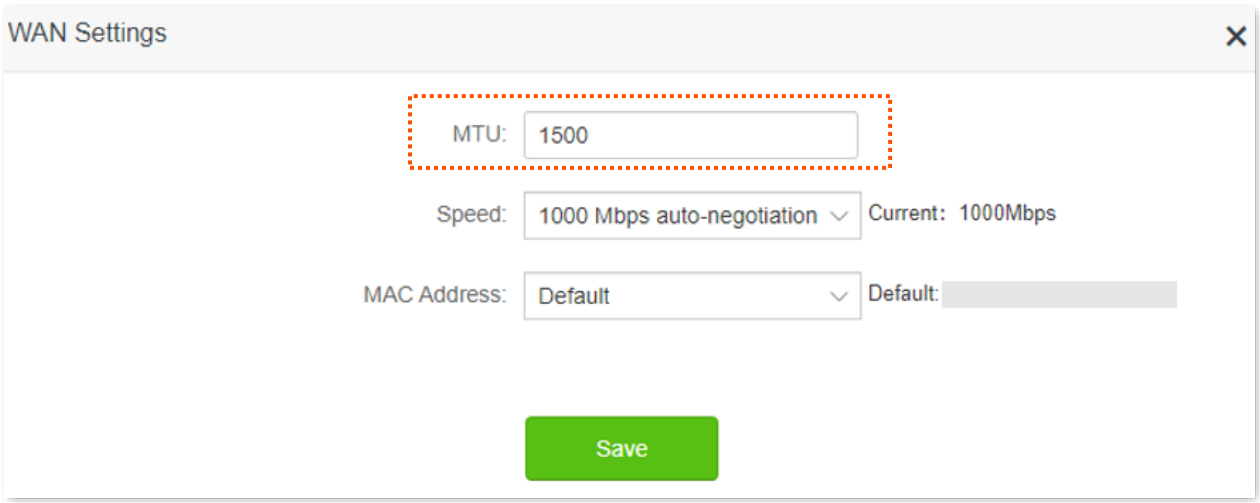
You can try reducing the value of MTU gradually from 1500 until the problem is resolved (The recommended range is 1400 to 1500).

**MTU application description**

| MTU | Application |
|---|---|
| 1500 | Used for the most common settings in non-PPPoE connections and non-VPN connections. |
| 1492, 1480 | Used for PPPoE connections. |
| 1472 | It is the maximum value for the ping command. A packet with a larger size is fragmented. |
| 1468 | Used for DHCP connections. |
| 1436 | Used for VPN connections. |

To access the configuration page, log in to the web UI of the router, and navigate to **System Settings > WAN Settings**.

When the internet connection type is **PPPoE**, the default MTU value is **1480**. If the internet connection type is set to **Dynamic IP** or **Static IP**, the default MTU value is **1500**.



# 3.4 Clone MAC address

When the internet settings are completed, if the router is still cannot be connected to the internet, it is possible that the ISP is bound to a certain MAC address (physical address). You can try to solve the problem through MAC address cloning.

**Clone WAN MAC address**

TIP

Use the correct MAC address to clone. The correct MAC address is the MAC address of the computer that can access the internet when the router is not in use, or the MAC address of the router's WAN port that can access the internet before.

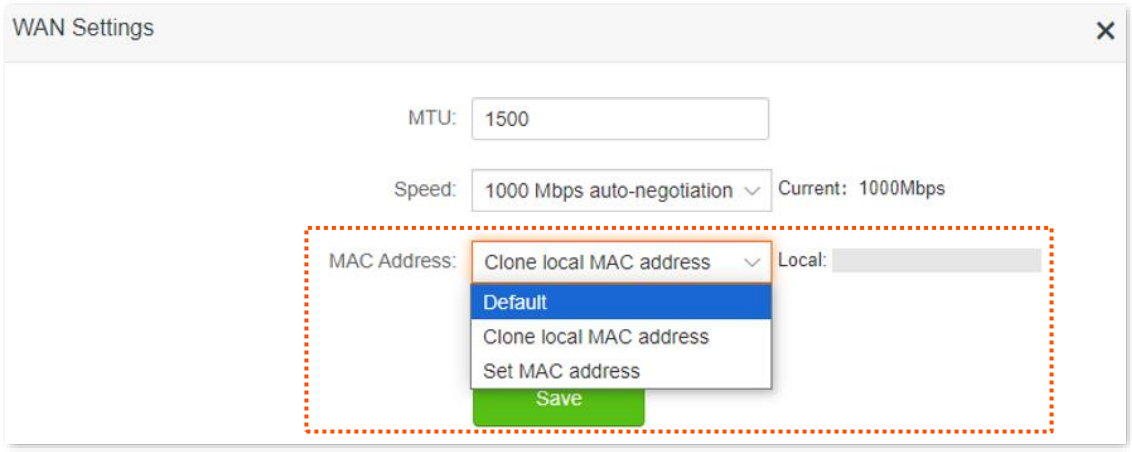
**Configuration procedure:**

1. Log in to the web UI of the router.
2. Navigate to **System Settings > WAN Settings**.
3. Click the drop-down menu of **MAC Address** to change the MAC address.
   - If you are using "a computer that can access the internet when the router is not in use to configure the router", select **Clone local MAC address**.
   - If you are using another computer to configure the router, select **Set MAC address** and fill in the correct MAC address (this could be "MAC address of the computer that successfully connected to the internet when connected directly to the Ethernet cable" or "MAC address of the router's WAN port that was previously connected to the internet").

TIP

To restore the MAC address of the WAN port to the factory MAC address, set **MAC Address** to **Default**.

4. Click **Save**.

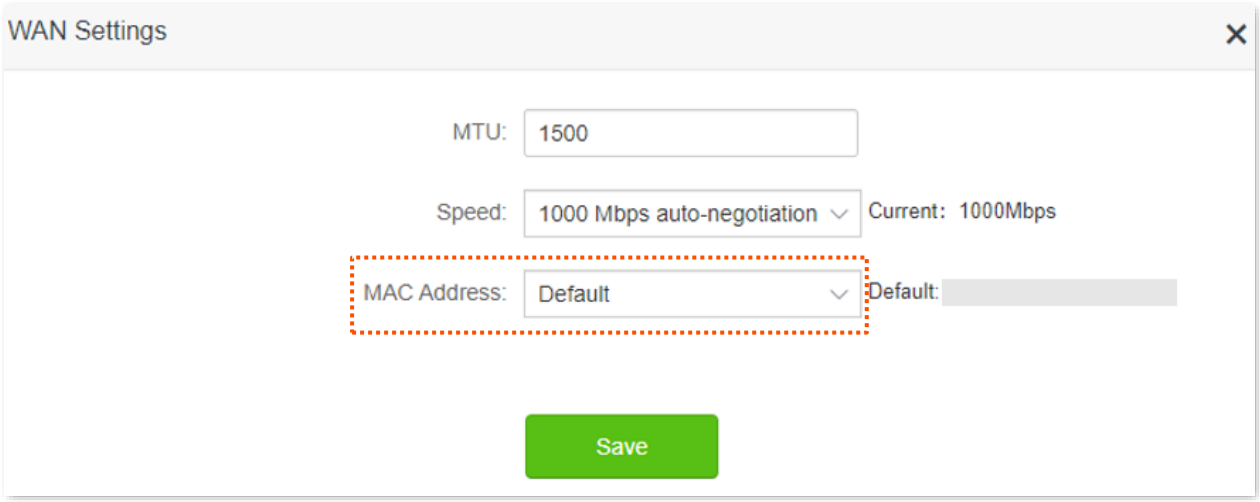



**---End**

# 3.5 Modify WAN speed

When the Ethernet cable is intact and connected to the WAN port properly, but the WAN port status on the router web UI still indicates that it is disconnected, you can try to change the WAN port speed to solve the problem. Otherwise, keep the default settings.

To access the configuration page, log in to the web UI of the router, and navigate to **System Settings > WAN Settings**. The following figure is for reference only.




The following table describes the parameters displayed on this page.

**Parameter description**

| Speed | Application |
|---|---|
| 1000 Mbps auto-negotiation | Indicates that the speed and duplex mode are determined through the negotiation with the peer port. The maximum negotiation speed is up to 1000 Mbps. |
| 100 Mbps auto-negotiation | Indicates that the speed and duplex mode are determined through the negotiation with the peer port. The maximum negotiation speed is up to 100 Mbps. |
| 100 Mbps FDX | Indicates that the WAN port is working at the speed of 100 Mbps, and the port can receive and send data packets at the same time. |
| 100 Mbps HDX | Indicates that the WAN port is working at the speed of 100 Mbps, and the port can only send packets or receive packets at the same time. |
| 10 Mbps FDX | Indicates that the WAN port is working at the speed of 10 Mbps, and the port can receive and send data packets at the same time. |
| 10 Mbps HDX | Indicates that the WAN port is working at the speed of 10 Mbps, and the port can only send packets or receive packets at the same time. |

# 3.6 Change the device working mode

By default, this device works in router mode. You can select a working mode based on the following scenarios:

- To specify the network connection mode, select the Router mode.
- To use an upstream router, select the AP mode.
- To bridge the hotspot of ISPs, select the WISP mode.
- To bridge all kinds of Wi-Fi networks, select the Client+AP mode.

## 3.6.1 AP mode

When you have a smart home gateway that only provides wired network, you can set the router to work in AP mode to provide wireless coverage.

TIP

When the router is set to AP mode:

– Every physical port can be used as a LAN port.

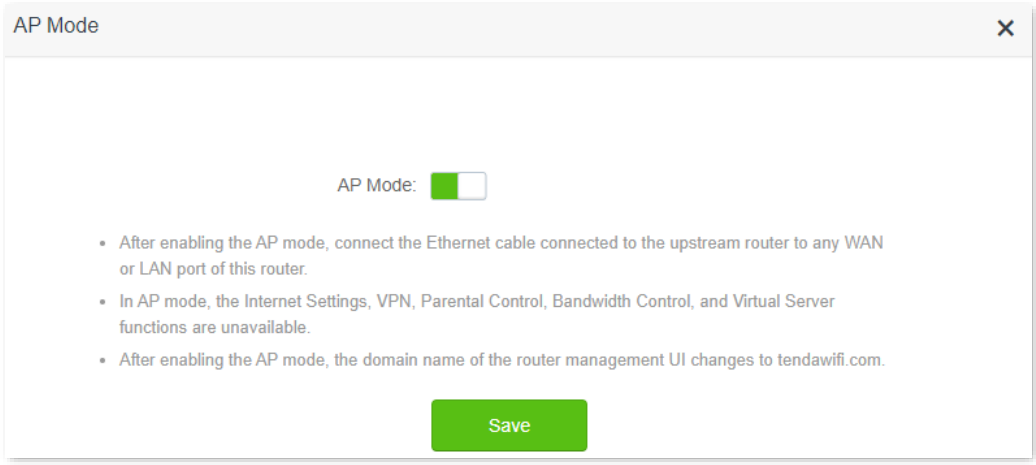
– Functions, such as bandwidth control and virtual server will be unavailable. Refer to the web UI for available functions.

**To switch the working mode to AP mode:**

1. Power on the router.
2. Log in to the web UI of the router.

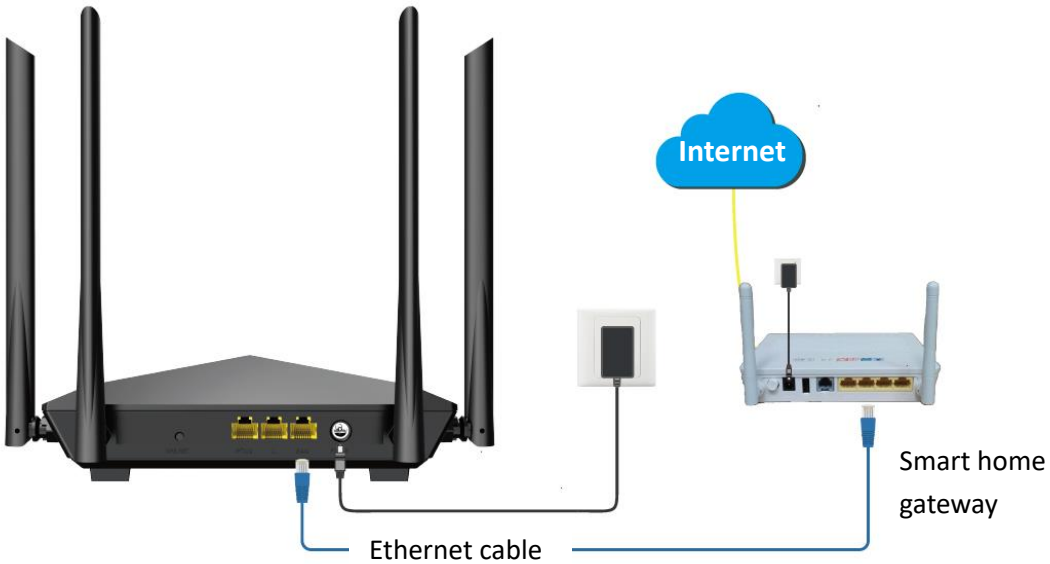
   If you are setting the router for the first time or have restored the router to factory settings. Refer to log in to the web UI of the router and complete the initial configuration.
3. Set the router to **AP Mode**.

   1) Navigate to **WiFi Settings** > **AP Mode**, enable the **AP Mode** function, and click **Save**.




2) Confirm the prompt message, and click **OK**. Wait for the router to reboot automatically for the configuration to take effect.

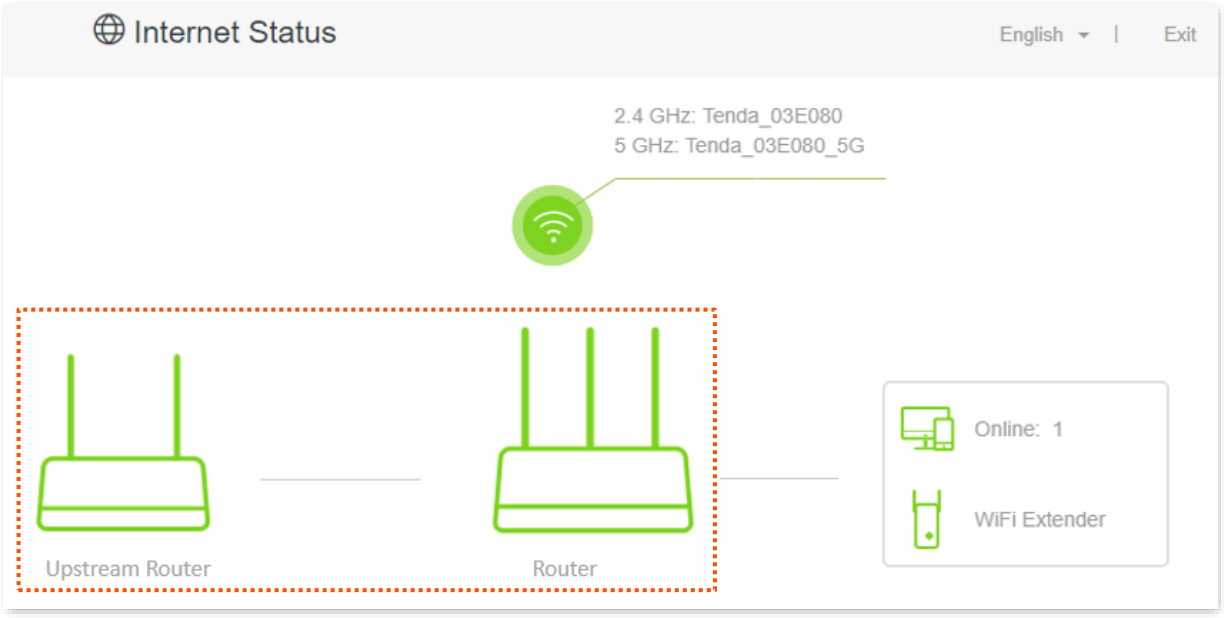
4. Connect the upstream device, such as a gateway, to any port of the router.




Example: AC10

---End

Log in to the web UI of the router again, and navigate to **Internet Status** to check whether the AP mode is configured successfully as shown below.




TIP

If there is another network device with the same login domain name (**tendawifi.com**) as the router, log in to the upstream router and find the IP address obtained by the router in the client list. Then you can log in to the web UI of the router by visiting the IP address.

To access the internet, connect your computer to any Ethernet port, or connect your smartphone to the Wi-Fi network.

You can find the Wi-Fi name and Wi-Fi password on the **WiFi Settings > WiFi Name & Password** page. If the network is not encrypted, you can also set a Wi-Fi password on this page for security.

TIP

If you cannot access the internet, try the following solutions:

- Ensure that the upstream router is connected to the internet.
- Ensure that your Wi-Fi-enabled clients are connected to the correct Wi-Fi network of the router.
- If the computer connected to the router cannot access the internet, ensure that the computer is set to **Obtain an IP address automatically** and **Obtain DNS server address automatically**.

## 3.6.2 Router mode

**Scenario:** The router is working in AP mode.

**Goal:** Now you have moved to a new home, the ISP provides a PPPoE username and password for internet access, or provides internet access information such as an IP address, subnet mask, default gateway, and DNS server.

**Solution:** Reconfigure the router and set its working mode to **Router Mode**.

**To switch the working mode from the other modes to router mode:**

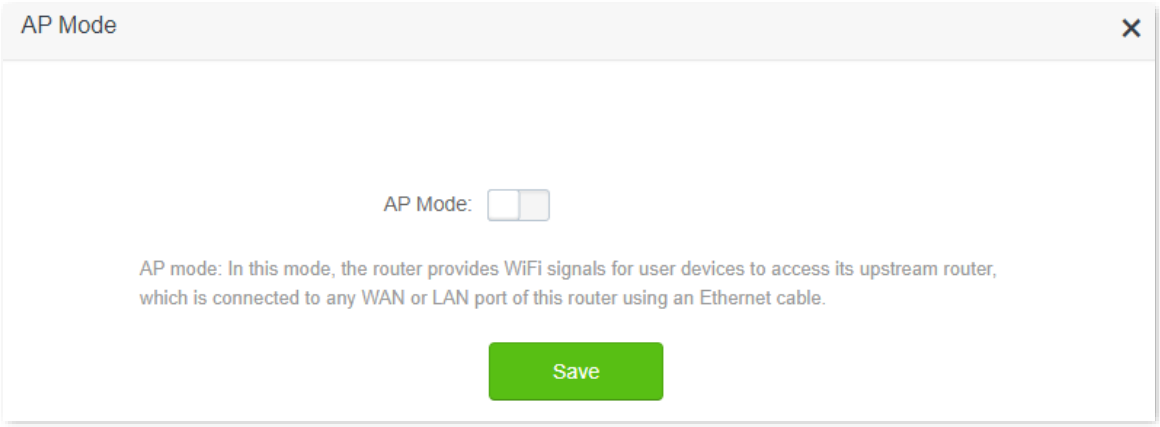
1. Power on the router.
2. Log in to the web UI of the router.

TIP

If the login fails, or the login domain name of the upstream router is also **tendawifi.com**, log in to the upstream router, view the IP address obtained by the router in the client list, and then use the IP address to log in to the web UI.

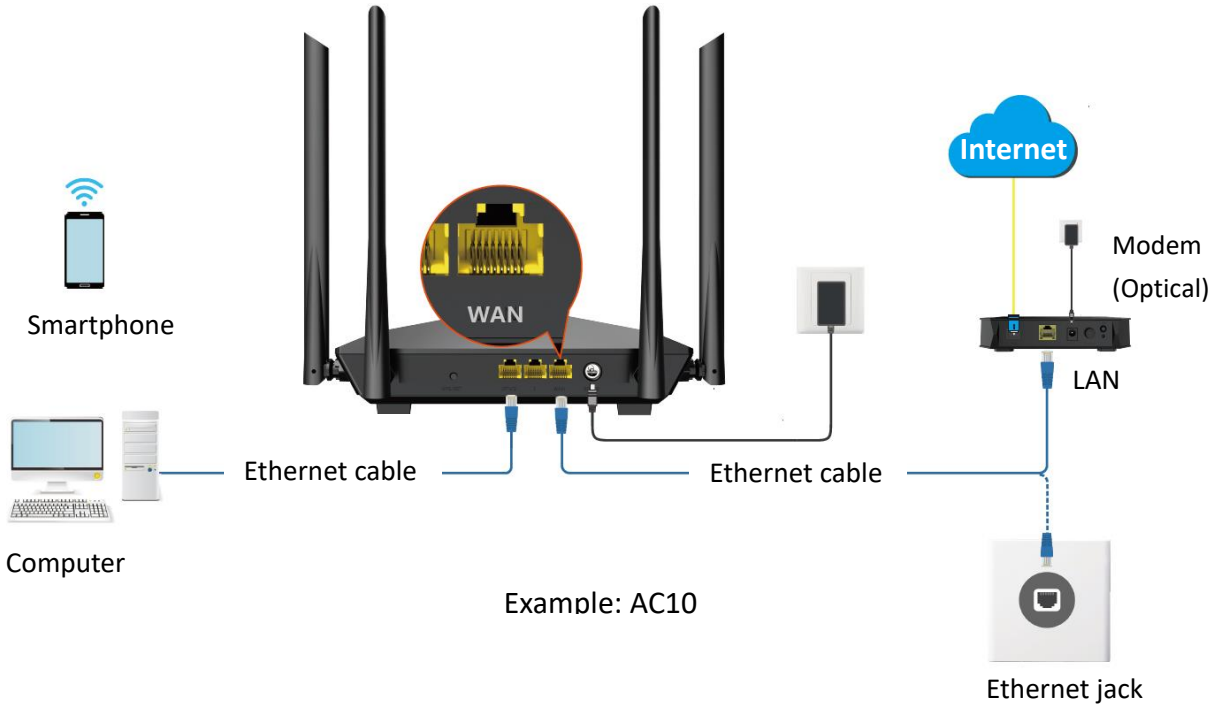
3. Disable the **AP Mode** function.

   1) Navigate to **WiFi Settings** > **AP Mode**, disable the **AP Mode**, and click **Save**.




   2) Confirm the prompt message, and click **OK**. Wait until the device is rebooted for the configuration to take effect.

4. Connect the WAN port of the router to the Ethernet jack or the LAN port of the Modem using an Ethernet cable.

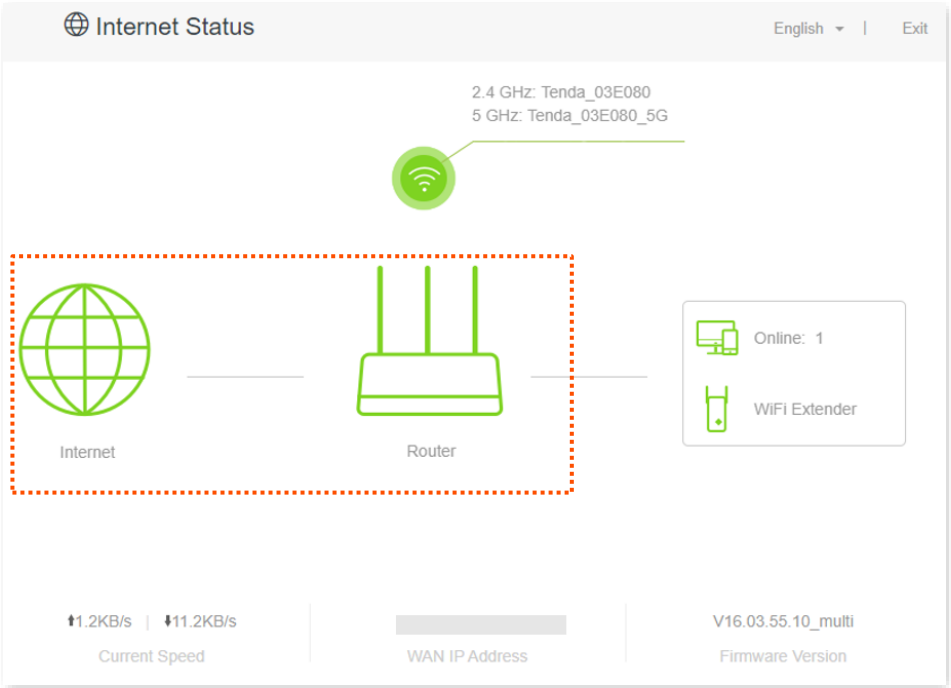



Example: AC10

5. Configure the router to the internet. For details, see Modify IPv4 internet settings.

**---End**

Log in to the web UI of the router again, and navigate to **Internet Status** to check whether the router mode is configured successfully as shown below.



To access the internet, connect your computer to the router's LAN port or connect your smartphone to the Wi-Fi network.

You can find the Wi-Fi name and Wi-Fi password on the **WiFi Settings > WiFi Name & Password** page.

TIP

If you cannot access the internet, try the following solutions:

- Ensure that your Wi-Fi-enabled clients are connected to the correct Wi-Fi network of the router.
- If the computer connected to the router's LAN port cannot access the internet, ensure that the computer is set to **Obtain an IP address automatically** and **Obtain DNS server address automatically**.

## 3.6.3 Wireless repeating

NOTE

In wireless repeating mode:

- Some functions, such as IPTV, and WPS are unavailable. For details, see functions displayed on the device web UI.
- When WISP mode is chosen and the LAN IP of the router is at the same network segment as that of the upstream device, the router will change the LAN IP address to a different network segment to avoid conflict.
- When Client+AP mode is chosen, the LAN IP address of this device may change. Visit **tendawifi.com** to log in to the web UI of this device.

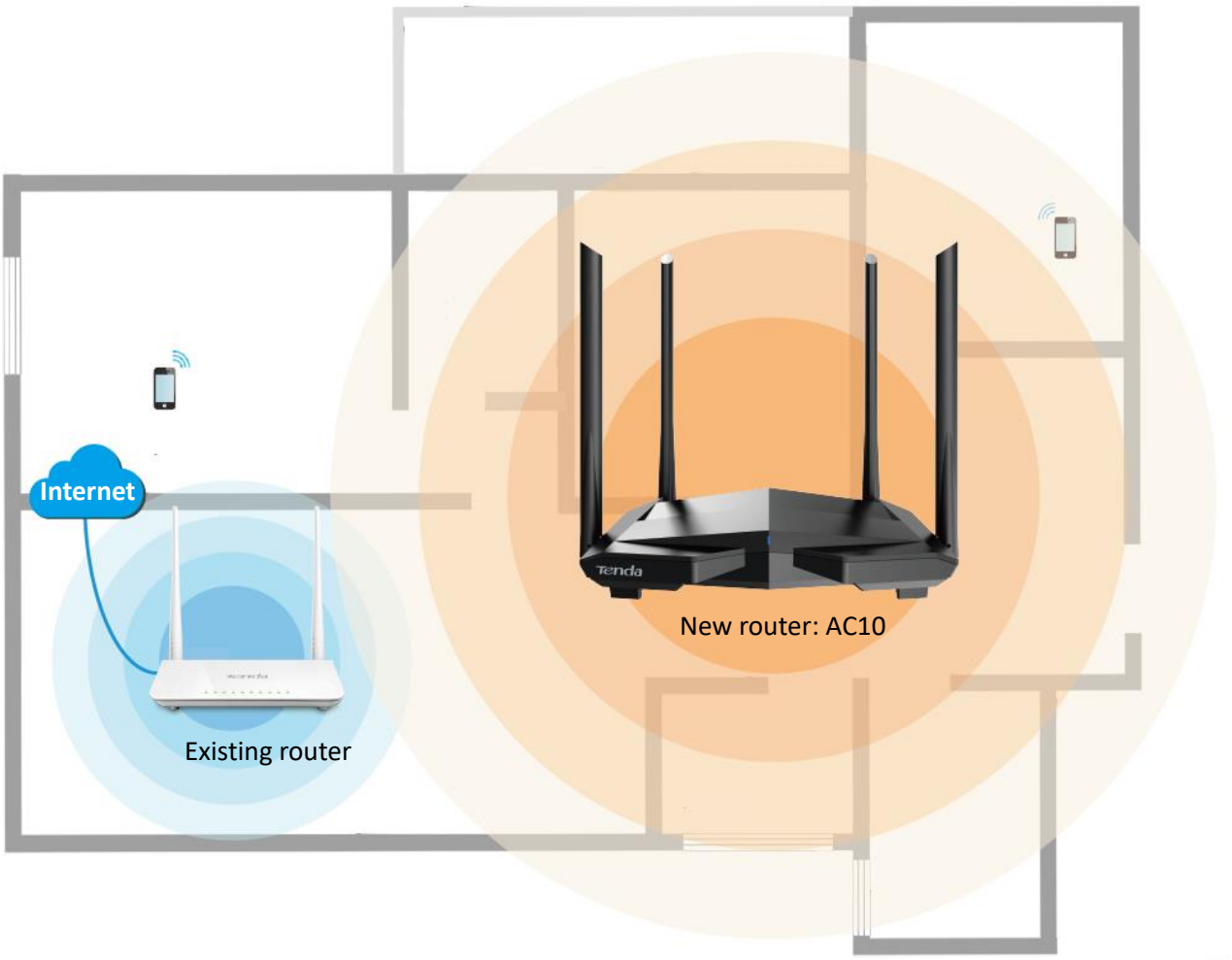
**Scenario:** You have a wireless router at home and it has been successfully connected to the internet.

**Goal:** The signal is weak in the room far from the router. Now a new wireless router is added to extend the wireless network coverage at home.

**Solution:** The new router can be set to the WISP or Client+AP to reach the goal.

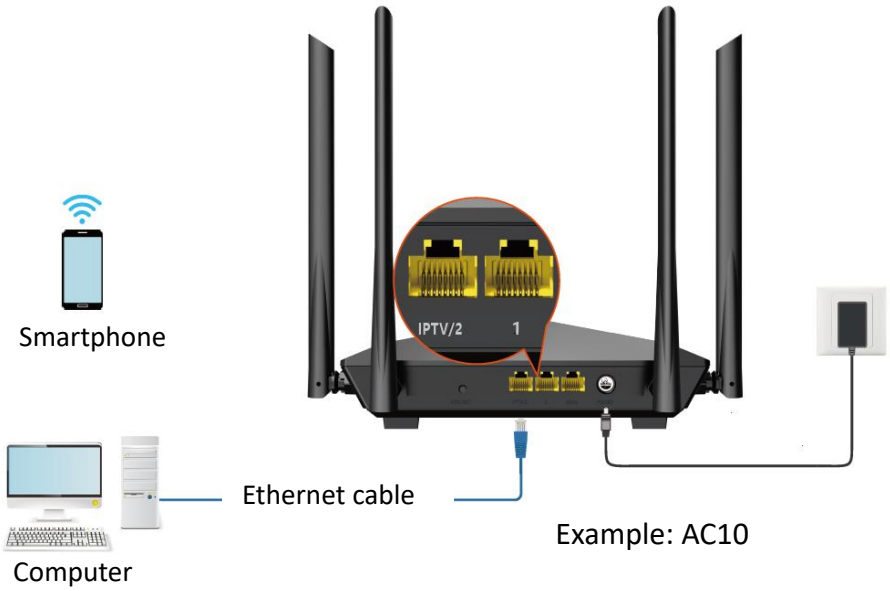
Assume that the wireless network information of the existing router is as follows:

- Wi-Fi name: Tenda123
- Wi-Fi password: UmXmL9UK

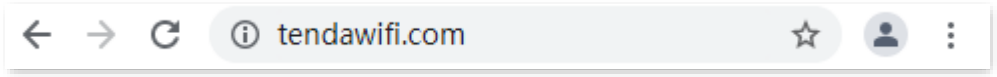



## Set the router to WISP mode

1. Place the new router near the existing router and power it on.
2. Log in to the web UI of the new router and complete the initial configuration.
   1) Connect your Wi-Fi-enabled device to the Wi-Fi network of your new router, or connect a computer to a LAN port of the router.



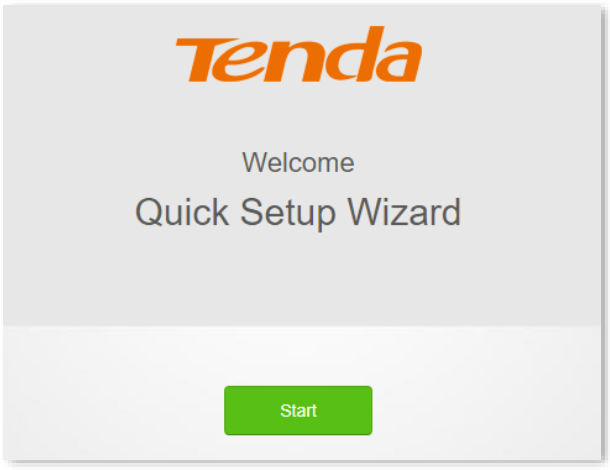

**2)** On the smartphone or computer connected to the router, start the browser and enter **tendawifi.com** to access the web UI of the router. The following uses computer settings as an example.



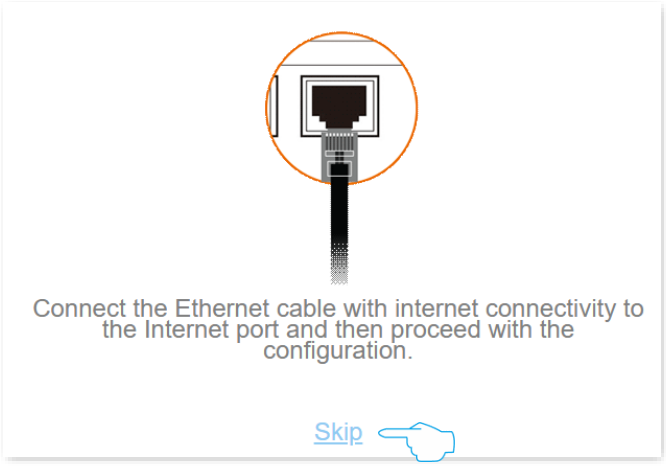

TIP

If you are setting up the router for the first time or have restored the router to factory settings, please refer to the following to continue setting. If you have finished the quick setup wizard before, start a web browser and visit **tendawifi.com** on a connected client, then start from step 3.

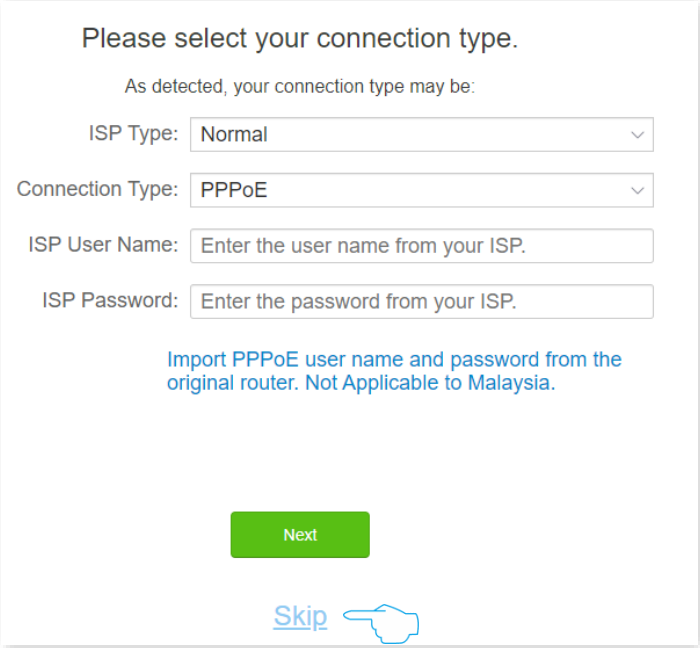
3) Click **Start**.



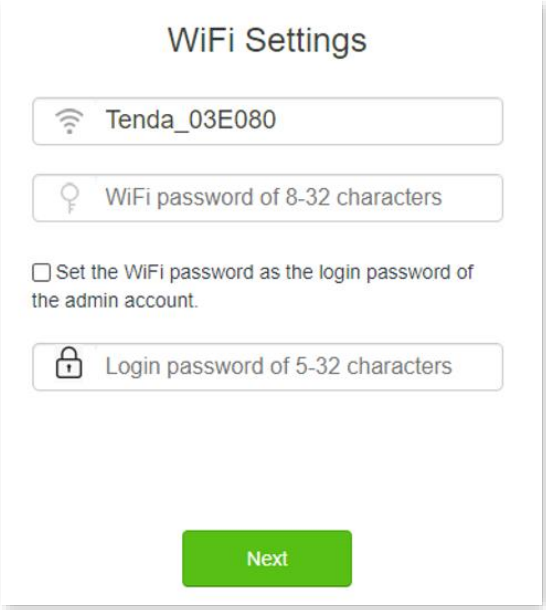

4) Click **Skip**.



5) Click **Skip**.




6) Set the Wi-Fi name, Wi-Fi password and login password, and click **Next**.



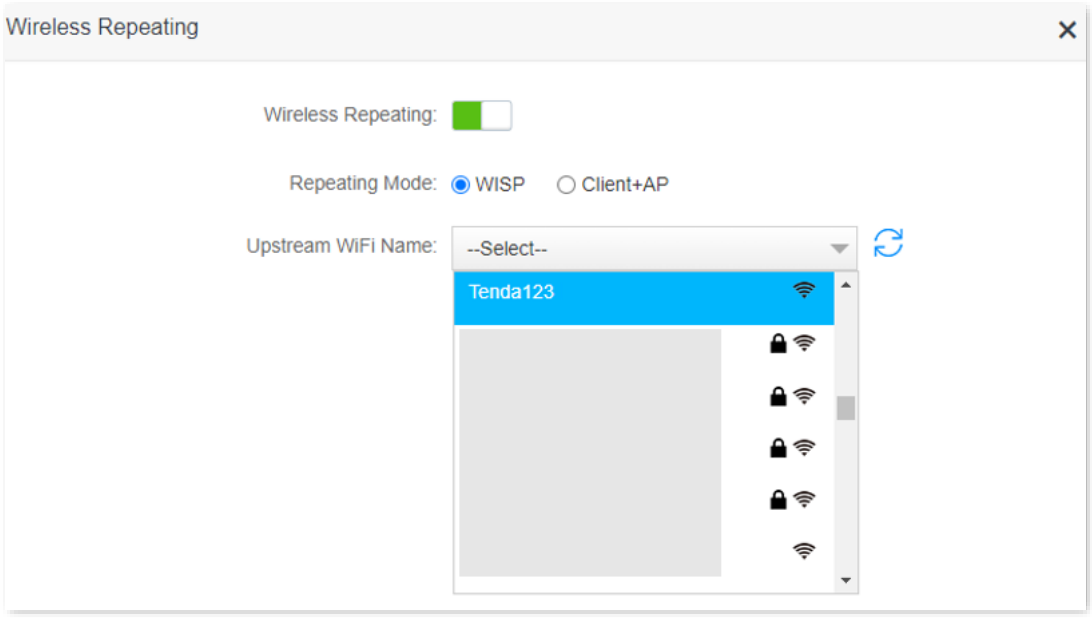
3. Log in to the web UI of the router again, and set the new router to **WISP** mode.

   1) Navigate to **WiFi Settings** > **Wireless Repeating**.

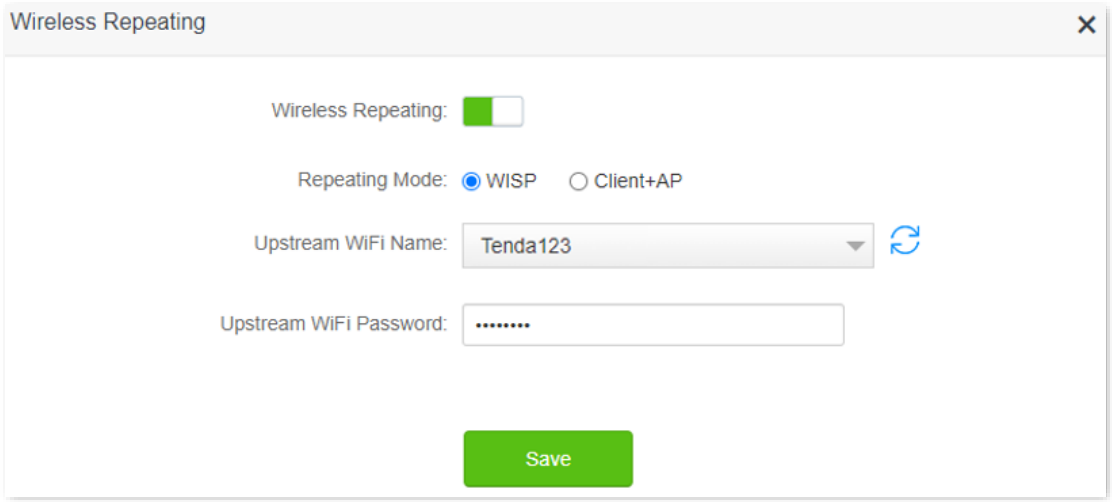
   2) Enable the **Wireless Repeating** function.

   3) Set **Repeating Mode** to **WISP**.

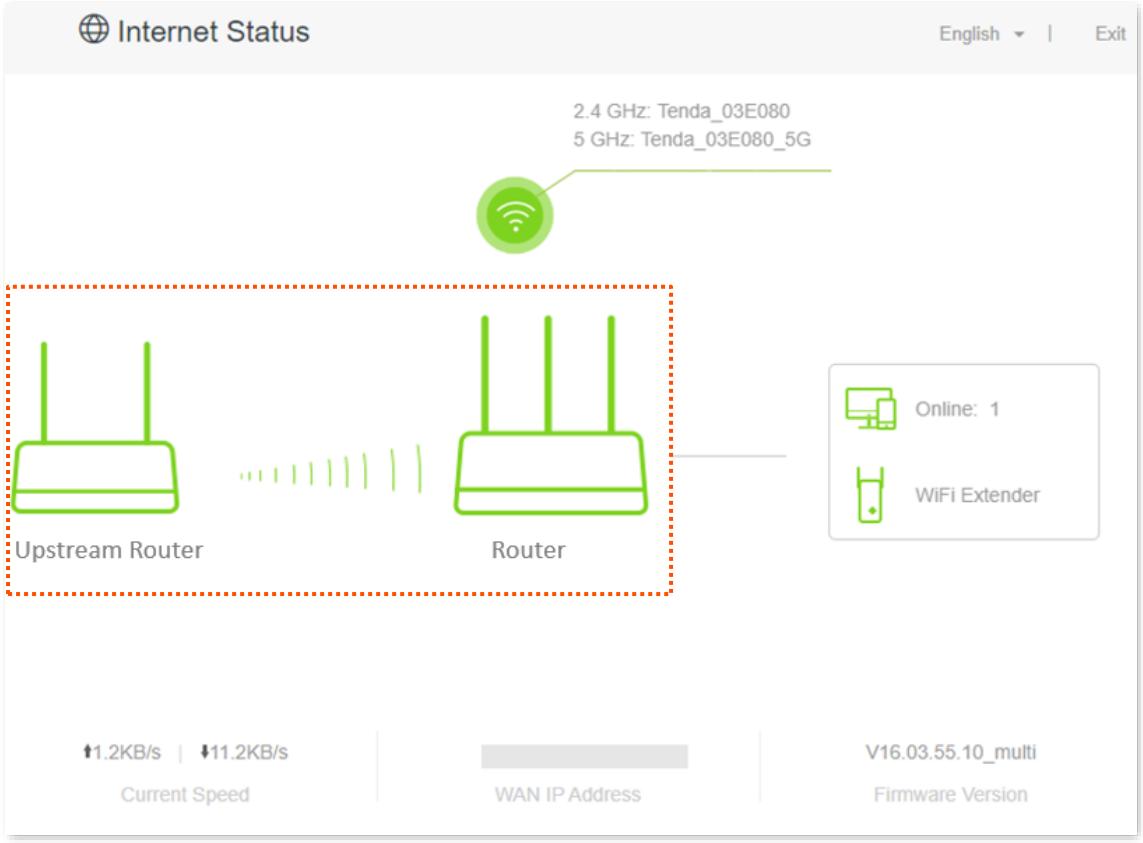
   4) Select the Wi-Fi name of your existing router, which is **Tenda123 i**n this example. If the SSIDs for both 2.4 GHz and 5 GHz bands are identical, select the desired network as required.




   5) Enter the Wi-Fi password of your existing router, which is **UmXmL9UK** in this example, and click **Save**.



6) Log in to the web UI of the router again, and navigate to **Internet Status** to check whether the WISP mode is configured successfully as shown below.




TIP

If the connection between the **Upstream Router** and **Router** failed, try the following solutions:

- Ensure that you have entered the correct Wi-Fi password of the Wi-Fi network, and mind case sensitivity.
- Ensure that **Router** is within the wireless coverage of the existing router.

4. Relocate the new router by referring to the following suggestions and power it on.
   - Between the existing router and the uncovered area, but within the coverage of the existing router.
   - Away from microwave ovens, electromagnetic ovens, and refrigerators.
   - Above the ground with few obstacles.

**---End**

To access the internet, connect your computer to a LAN port of the new router, or connect your smartphone to the Wi-Fi network of the new router.

You can find the Wi-Fi name and password on the **WiFi Settings** > **WiFi Name & Password** page. If the network is not encrypted, you can also set a Wi-Fi password on this page for security.

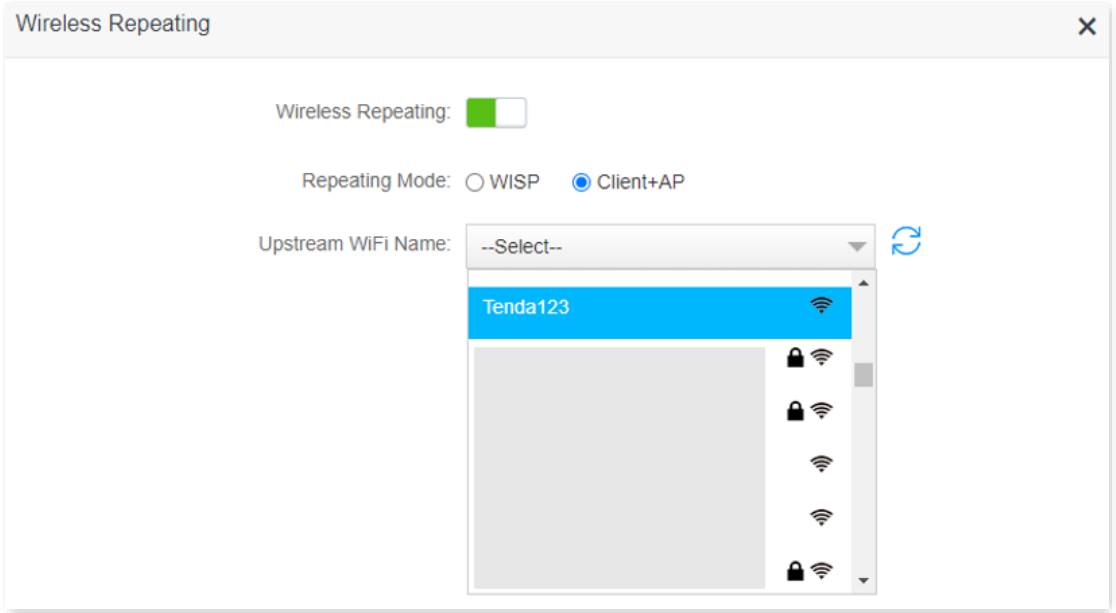
TIP

If you cannot access the internet, try the following solutions:

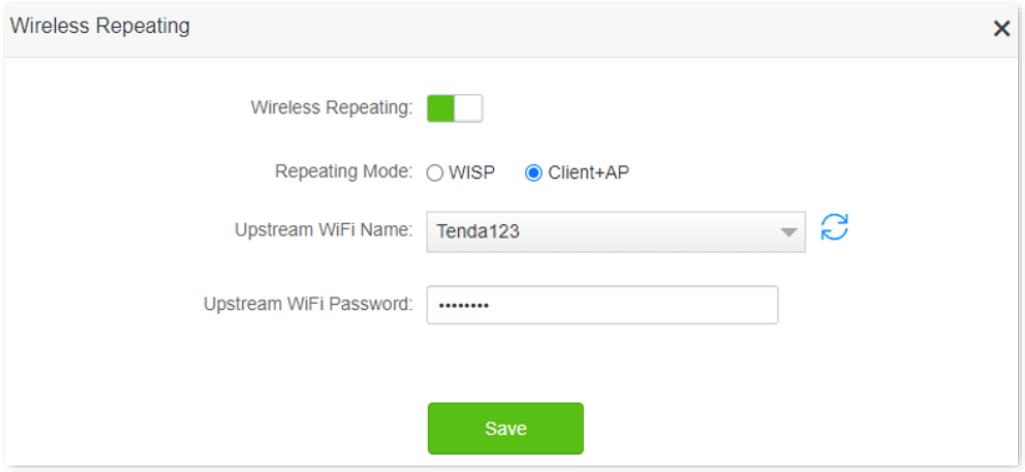
- Ensure that the upstream router is connected to the internet successfully.
- Ensure that your Wi-Fi-enabled devices are connected to the Wi-Fi network of the new router.
- If the computer connected to the router's LAN port cannot access the internet, ensure that the computer is set to **Obtain an IP address automatically** and **Obtain DNS server address automatically**.

## Set the router to Client+AP mode

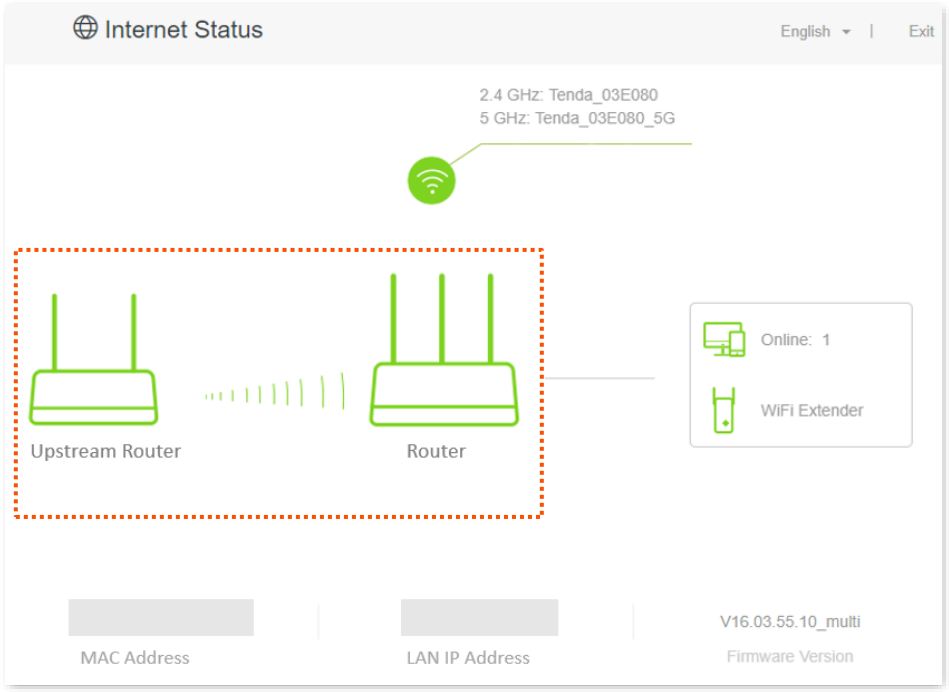
1. Place the new router near the existing router and power it on.
2. Log in to the web UI of the new router and complete the initial configuration.
3. Set the new router to **Client+AP** mode.
   1) Navigate to **WiFi Settings** > **Wireless Repeating**.
   2) Enable the **Wireless Repeating** function.
   3) Set **Repeating Mode** to **Client+AP** mode.
   4) Select the Wi-Fi name of your existing router, which is **Tenda123 i**n this example. If the SSIDs for both 2.4 GHz and 5 GHz bands are identical, select the desired network as required.



5) Enter the Wi-Fi name of your existing router, which is **UmXmL9UK** in this example, and click **Save**.




6) Log in to the web UI of the router again, and navigate to **Internet Status** to check whether the **Client+AP** mode is configured successfully as shown below.




TIP

If there is another network device with the same login domain name (**tendawifi.com**) with the router, log in to the upstream router and find the IP address obtained by the new router in the client list. Then you can log in to the web UI of the router by visiting the IP address.

4. Relocate the new router by referring to the following suggestions and power it on.
   - Between the existing router and the uncovered area, but within the coverage of the existing router.
   - Away from microwave ovens, electromagnetic ovens, and refrigerators.
   - Above the ground with few obstacles.

   **---End**

To access the internet, connect your computer to any Ethernet port of the new router, or connect your smartphone to the Wi-Fi network of the new router. You can find the Wi-Fi name and password on the **WiFi Settings > WiFi Name & Password** page. If the network is not encrypted, you can also set a Wi-Fi password on this page for security.

TIP

If you cannot access the internet, try the following solutions:

- Ensure that the upstream router is connected to the internet successfully.
- Ensure that your Wi-Fi-enabled devices are connected to the Wi-Fi network of the new router.
- If the computer connected to the router's LAN port cannot access the internet, ensure that the computer is set to **Obtain an IP address automatically** and **Obtain DNS server address automatically**.

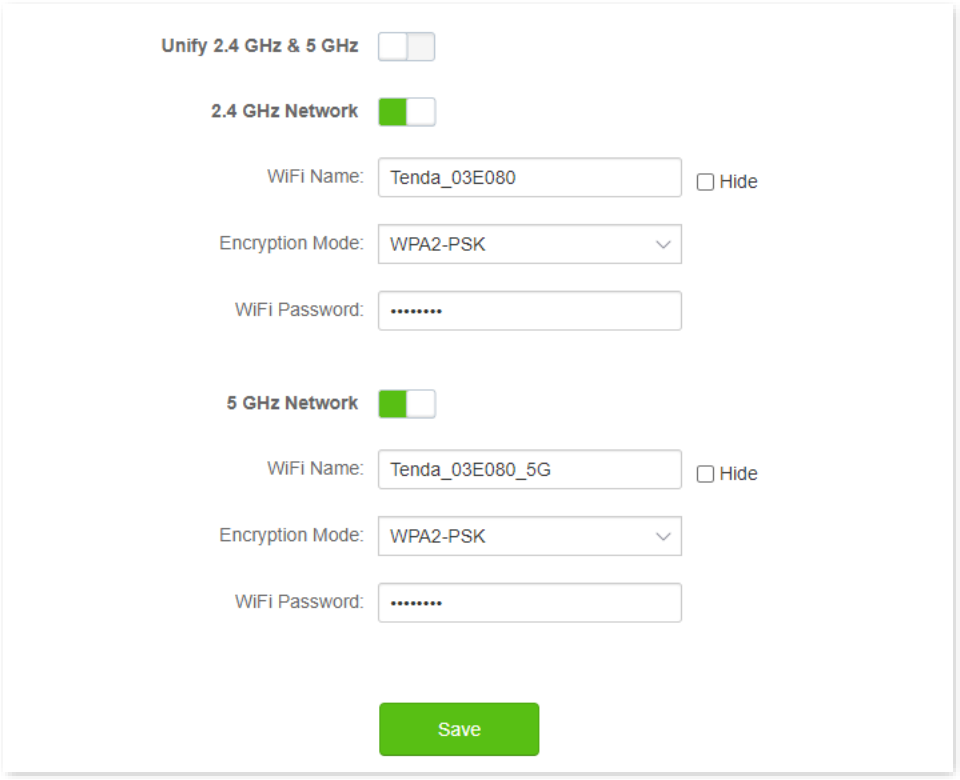
# 4 Wi-Fi settings

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

This chapter includes the following sections:

# 4.1 Change Wi-Fi name and Wi-Fi password

1. Log in to the web UI of the router.
2. Navigate to **WiFi Settings > WiFi Name & Password**.
3. Enable or disable the **Unify 2.4 GHz & 5 GHz** as required. The following figure shows an example of enabling the **Unify 2.4 GHz & 5 GHz**.
   - Enable **Unify 2.4 GHz & 5 GHz**: The Wi-Fi name and password of the 2.4 GHz and 5 GHz network on the router are the same, and only one Wi-Fi name is displayed. When you connect to your router's wireless network, you will automatically connect to the best quality Wi-Fi.
   - Disable **Unify 2.4 GHz & 5 GHz**: The 2.4 GHz and 5 GHz networks on the router are displayed separately. You can access the internet through either wireless network. If you have wireless devices that only support 2.4GHz networks, you need to connect to the router's Wi-Fi network, such as security cameras, you are recommended to disable the **Unify 2.4 GHz & 5 GHz**.
4. Set **WiFi Name**, **Encryption Mode**, and **WiFi Password** as required.
5. Click **Save**.




**---End**

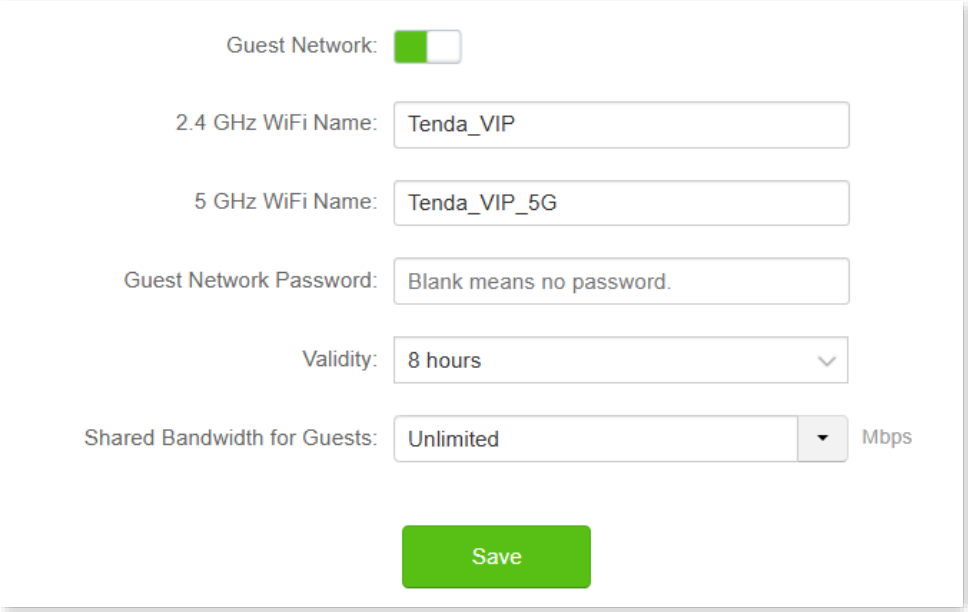
After the settings are completed, your Wi-Fi-enabled devices (such as smartphone) need to connect to the new wireless network to access the internet.

## 4.2 Set up a guest Wi-Fi

The router's guest Wi-Fi is isolated from other networks. The clients connected to the guest Wi-Fi can access the internet, but cannot access the router's web UI or other networks.

**Configuration procedure:**

1. Log in to the web UI of the router.
2. Click **Guest Network**, and enable **Guest Network**.
3. Change the Wi-Fi name and Wi-Fi password. The following figure is for reference only.
4. Click **Save**.




**---End**

After the settings are completed, the guest's smartphone and other Wi-Fi-enabled devices can connect to the guest Wi-Fi for internet access you set, and the validity period is 8 hours.

The following table describes the parameters displayed on this page.

**Parameter description**

| Parameter | Description |
| --- | --- |
| Guest Network | Used to enable or disable the guest network function. |
| 2.4 GHz WiFi Name | Specify the Wi-Fi name of the router's guest network.<br>TIP<br>You can change the Wi-Fi names (SSIDs) as required. To distinguish the Wi-Fi name of the router's main network, it is recommended that the guest network's Wi-Fi name is not set the same as the router's main network's Wi-Fi name. |
| 5 GH WiFi Name | |
| Guest Network Password | Specifies the password for the router's guest network.<br>TIP<br>A Wi-Fi password that contains 8-32 characters. |
| Validity | Specifies the validity period of the guest networks.<br>The guest network function will be disabled automatically (The Wi-Fi enabled devices cannot scan the router's guest Wi-Fi.) out of the validity period. If the guest's visit is 8 hours, it can be set to 8 hours. |
| Shared Bandwidth for Guests | Allows you to specify the maximum upload and download speed for all clients connected to the guest networks. By default, the bandwidth is unlimited. You can modify it as required. |

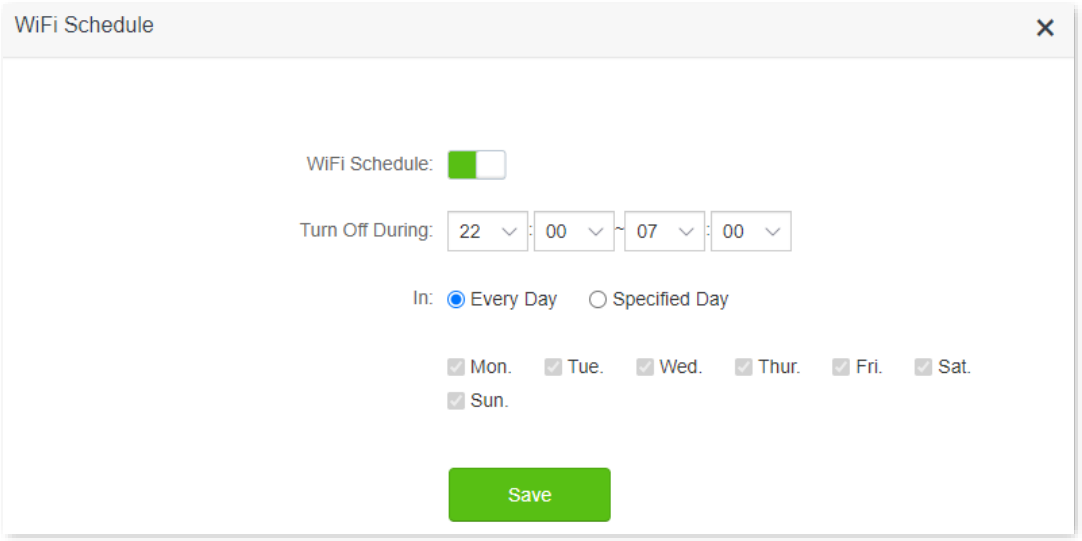
# 4.3 Schedule disable Wi-Fi

With the **WiFi Schedule** function, you can set the router to disable the Wi-Fi for a specified period, leaving the router in a power-saving state. At other times, Wi-Fi is restored. This function is disabled by default.

Assume that you want to enable the router's Wi-Fi from 22:00 to 7:00 each day.

**Configuration procedure:**

1. Log in to the web UI of the router.
2. Navigate to **WiFi Settings** > **WiFi Schedule**, and enable the **WiFi Schedule** function.
3. Set a period, which is **22:00-07:00** in this example.
4. Choose a date, which is **Every Day** in this example.
5. Click **Save**.




**---End**

After the setup is completed, the router's Wi-Fi is not available from 22:00 to 07:00 every day, and the Wi-Fi-enabled devices such as a smartphone cannot search the router's Wi-Fi and cannot connect to the router's Wi-Fi to access the internet.

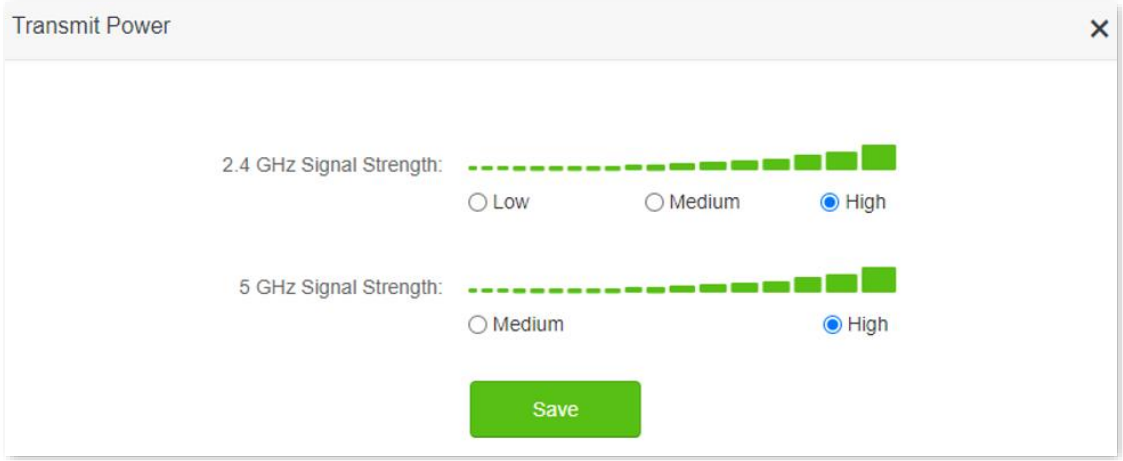
# 4.4 Change the Wi-Fi signal strength

The Wi-Fi signal strength function regulates the through-the-wall capability and coverage of the router's wireless network.

To access the configuration page, log in to the web UI of the router, and navigate to **WiFi Settings** > **Transmit power**.

Wi-Fi signal strength mode description:

- **Low:** Routers use lower wireless transmit power, which is usually used to meet the wireless coverage requirements of small area or obstacle-free environments.
- **Medium:** Routers use standard wireless transmit power, which is usually used to meet the wireless coverage requirements of medium area or few obstacles environments.
- **High:** Routers use higher wireless transmit power, which is usually used to meet the wireless coverage requirements of large areas or multi-obstacle environments.



# 5 Network status

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

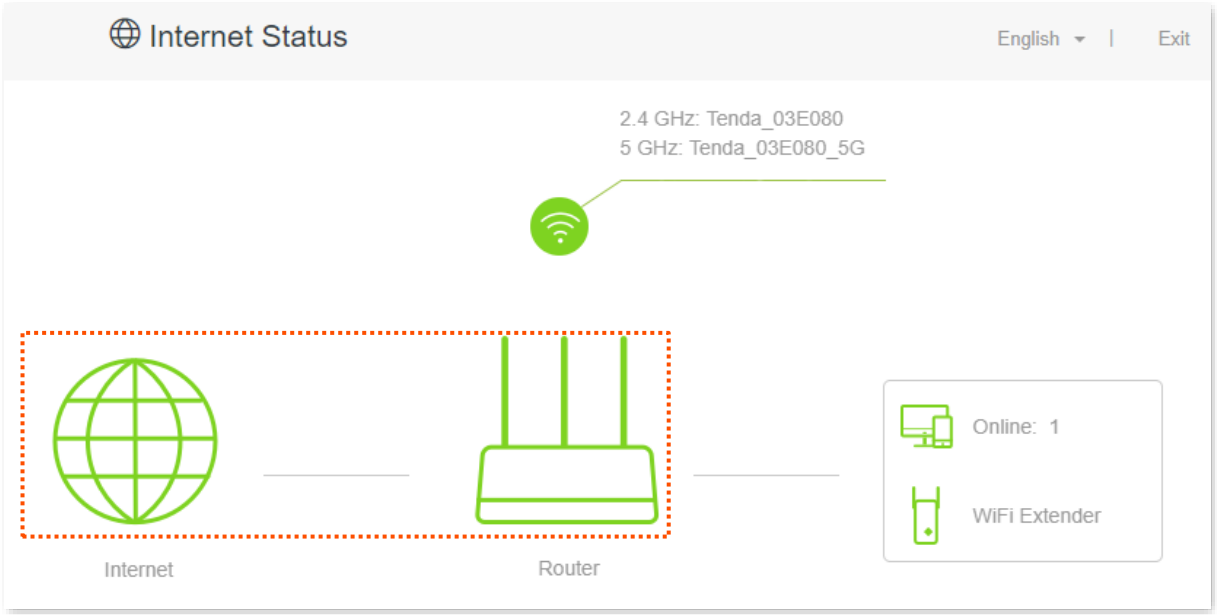
This chapter includes the following sections:

# 5.1 View internet status

To access the configuration page, log in to the web UI of the router, and navigate to **Internet Status**.

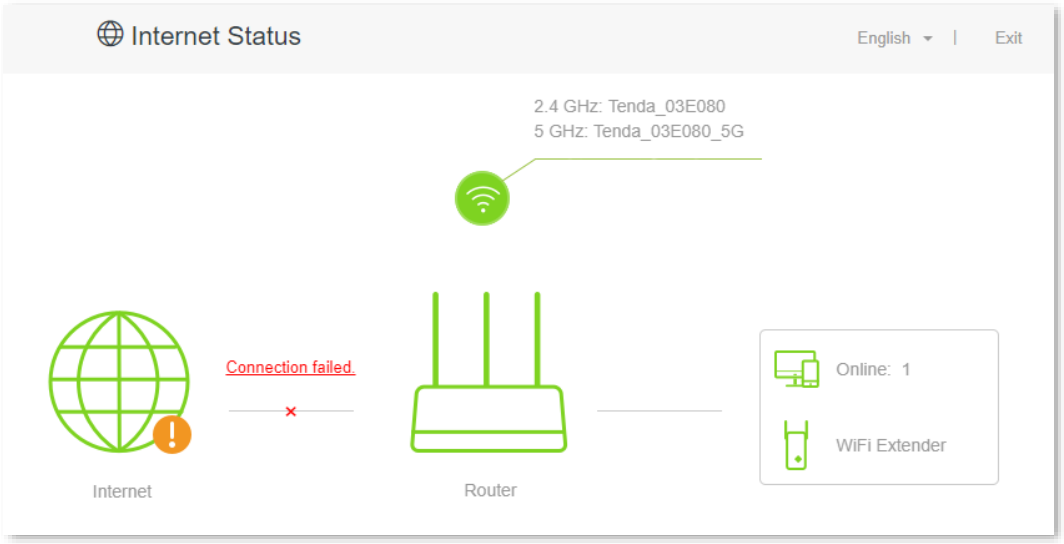
## 5.1.1 Router connected to internet

If the connection between **Internet** and **Router** is normal, as shown in the following figure, the router is successfully connected. You can connect to the router for internet access.



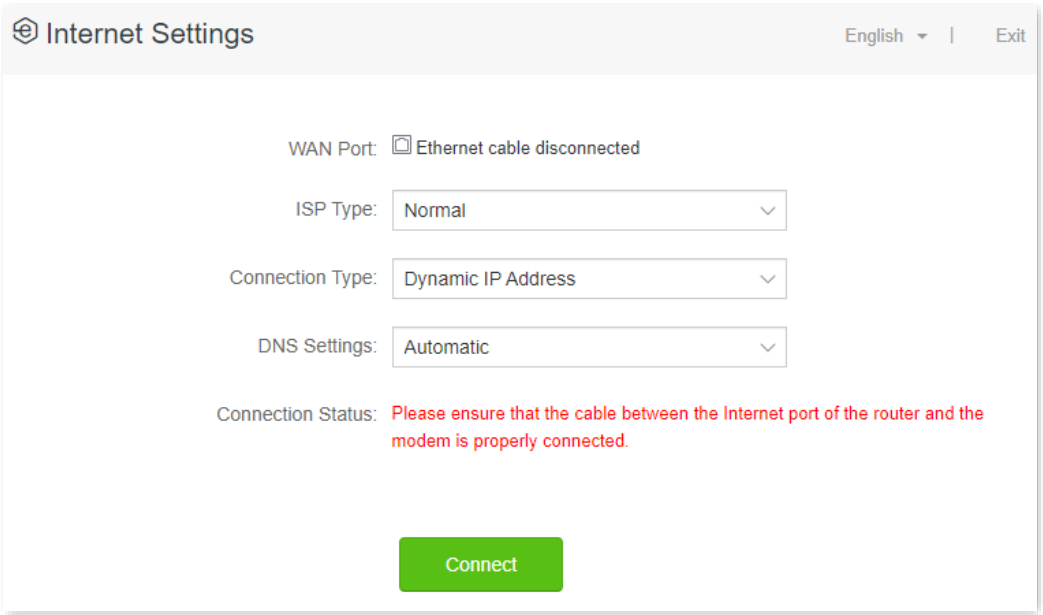
## 5.1.2 Router disconnected from the internet

If Connection failed is displayed in the **Internet Status**, it indicates that the network is abnormal, as shown in the following figure. Click **Connection failed** to view the specific cause of failure and solve it according to the on-screen prompts.




### No Ethernet cable is connected to the WAN port

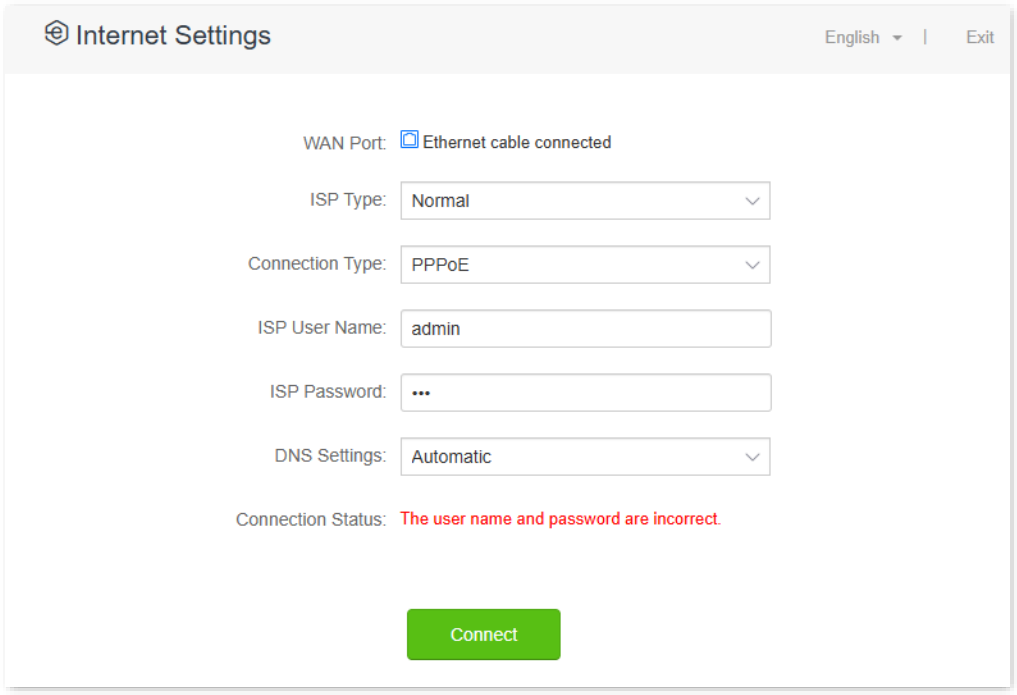
If Please ensure that the cable between the Internet port if the router and the modem is properly connected is displayed in the **Connection Status**, as shown in the following figure. Try to solve the problem according to the on-screen prompts. If the problem persists, Modify WAN speed or contact Tenda technical support for help.



## Incorrect PPPoE username or password

If The user name and password are incorrect is displayed in the **Connection Status**, as shown in the following figure. Try the following solutions:

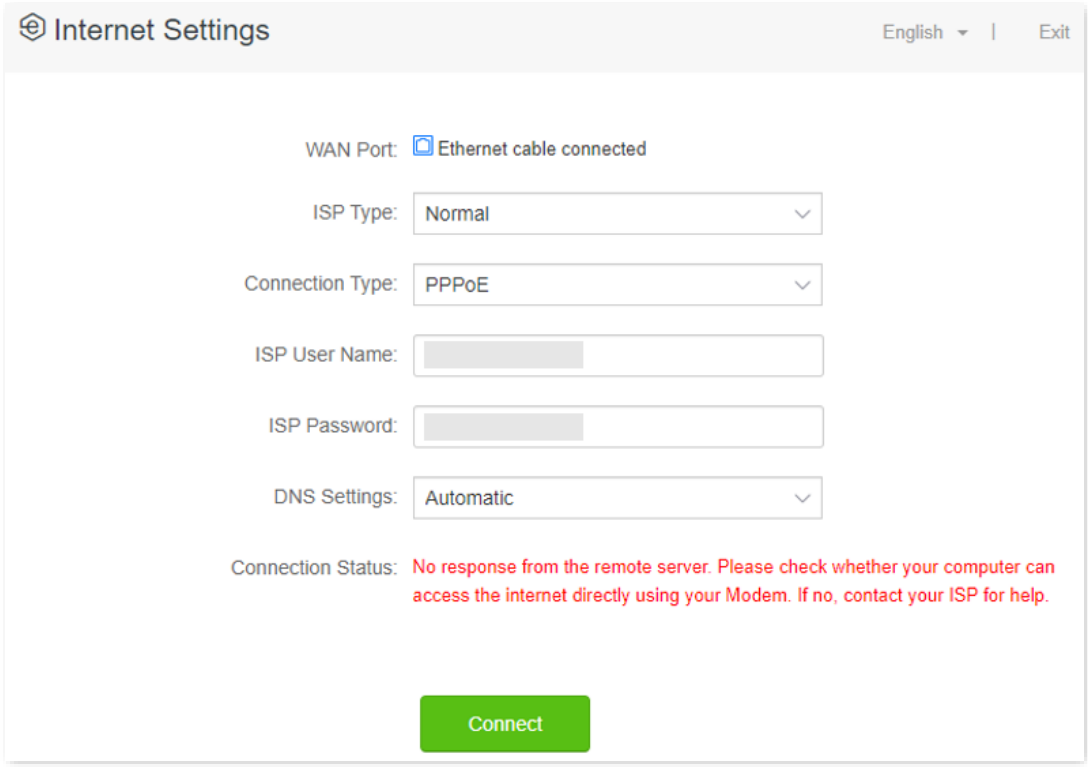
- Note the following when entering the PPPoE username and password:
  - Case sensitive, such as "Z" and "z".
  - Distinguish between similar letters and numbers, such as the letter "l" and the number "1".
  - Enter the complete PPPoE username.
- If the PPPoE username and password are entered correctly, but the problem persists, you are recommended to Modify WAN MAC Address, and try again. If the problem persists, contact your ISP for help.



## No response from the remote server

If the No response from the remote server. Please check whether your computer can access the internet directly using your Modem. If no, contact your ISP for help. is displayed in **Network Status**, as shown in the following figure. Try to solve the problem according to the on-screen prompts. If the problem persists, try the following solutions:

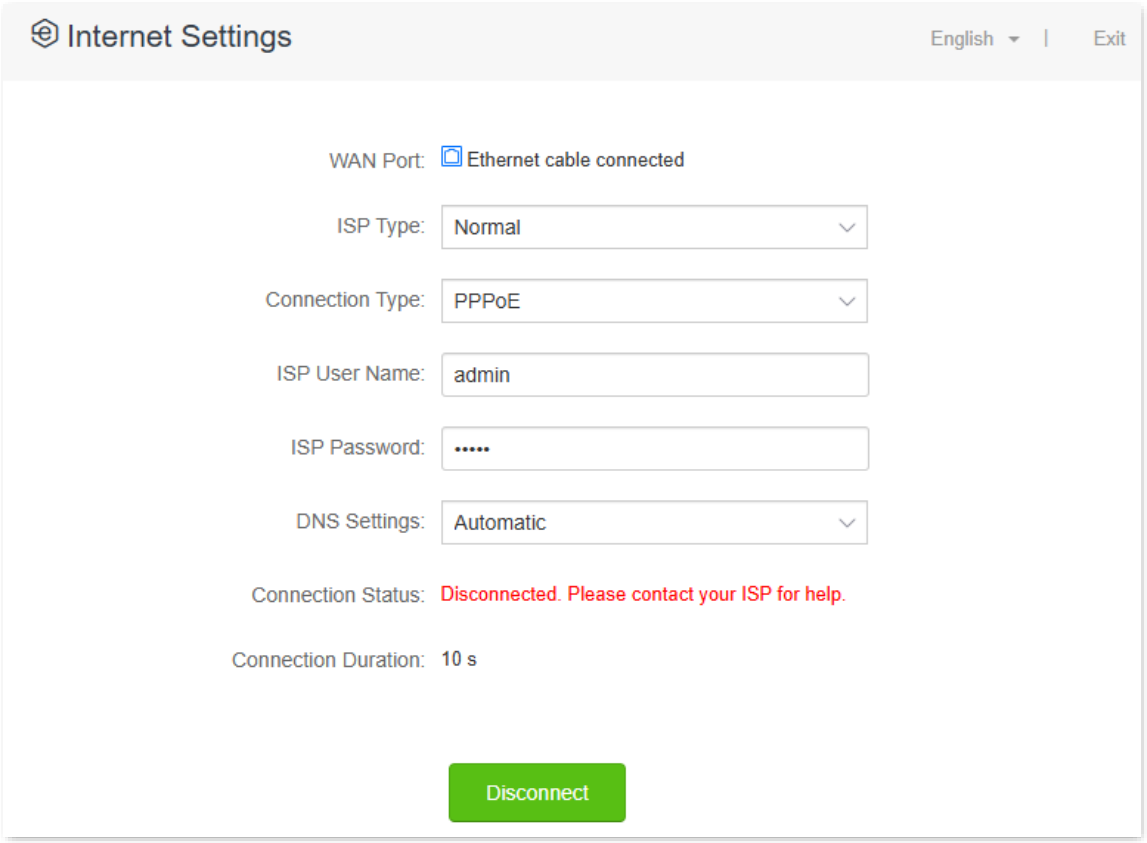
- Ensure that your Ethernet cable is connected correctly.
- If your Ethernet cable is connected correctly, ensure that your internet connection type is correct. If not, contact your ISP.
- If the internet connection type is correct, but still cannot access the internet. Power off the router for a few minutes and then configure it again.



## Disconnectd

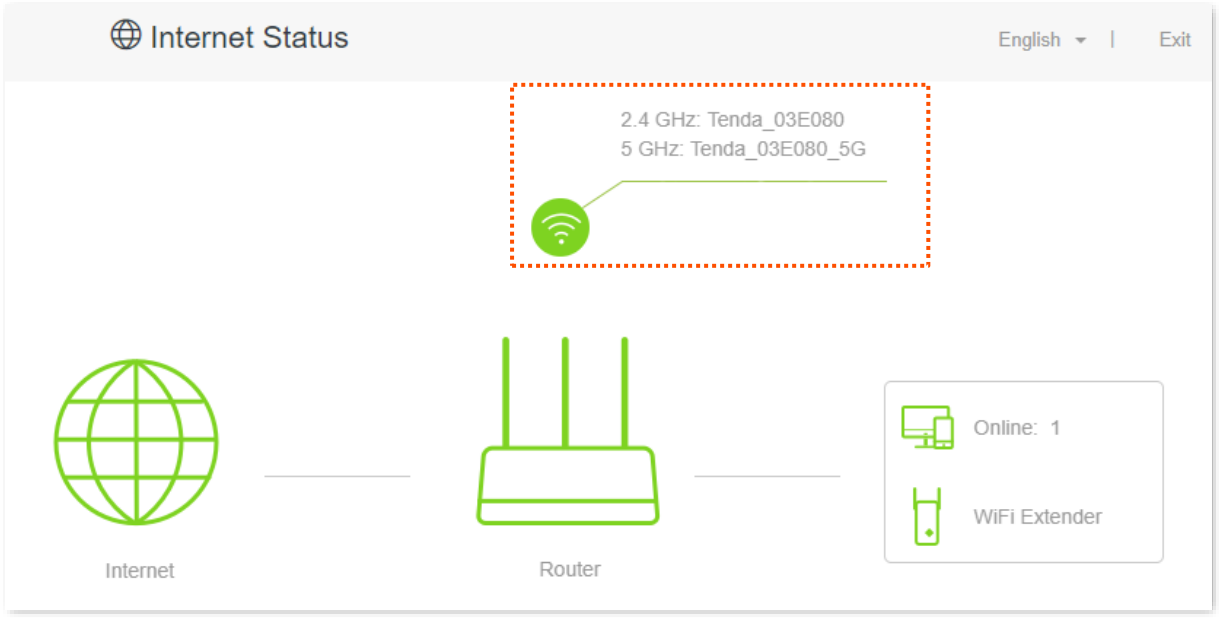
If the Disconnected. Please contact your ISP for help. is displayed in **Network Status**, as shown in the following figure. Try to solve the problem according to the on-screen prompts. If the problem persists, try the following solutions:

- Modify WAN MAC Address.
- Use a different computer to reconfigure the router.



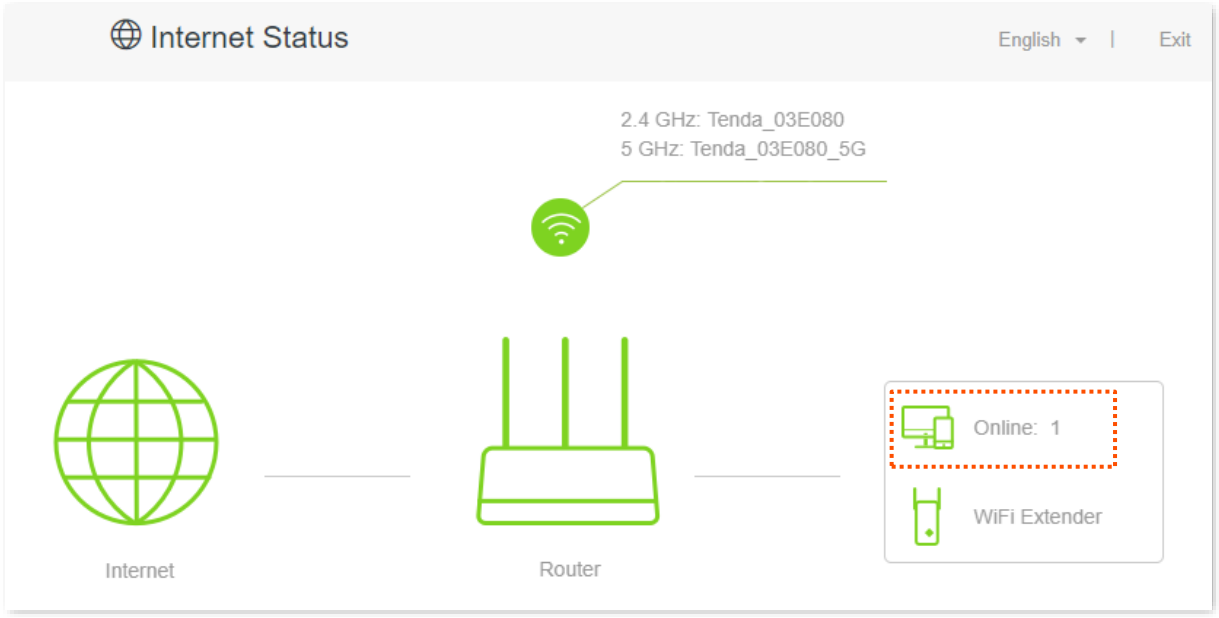
## 5.2 View Wi-Fi name

After logging in to the web UI of the router, on the **Internet Status** page, you can view the Wi-Fi name of the primary network. Click the Wi-Fi icon to view or set more Wi-Fi information. The following figure is for reference only.




## 5.3 View client details

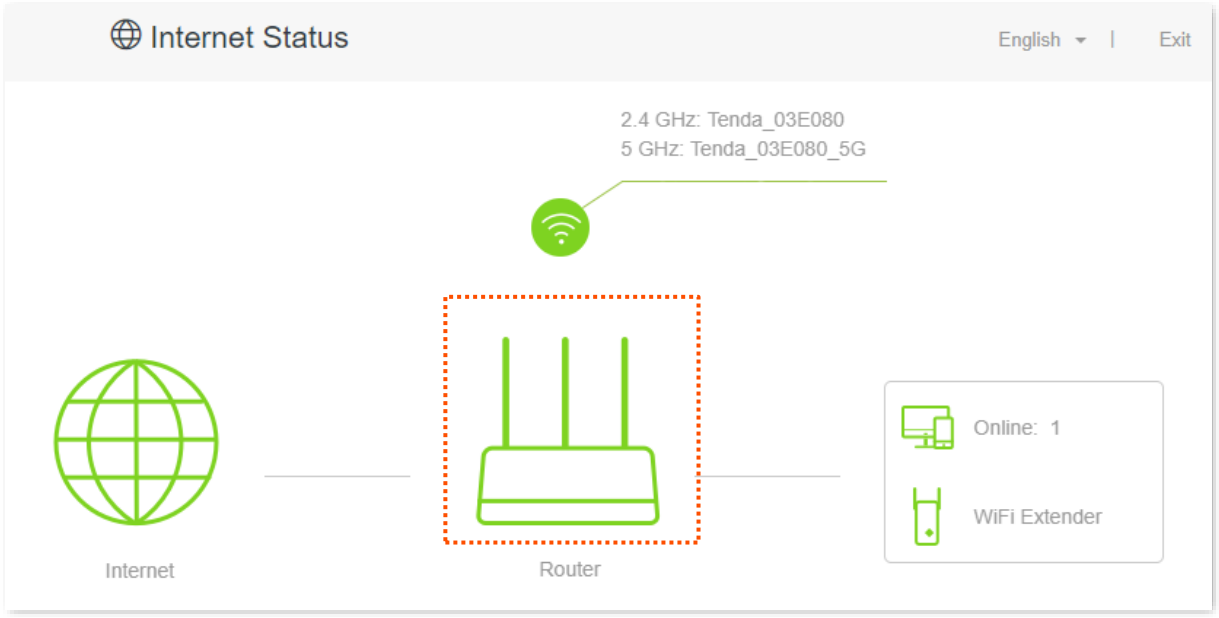
After logging in to the web UI of the router, navigate to the **Internet Status** to view the number of clients. Click the client's icon to enter the client management page to view or configure more information. The following figure is for reference only.



# 5.4 View system information

After logging in to the web UI of the router, click the router's icon in **Network Status** page to view the system information of the router, including basic information, WAN port status, LAN status, wireless status and IPv6 status. The following figure is for reference only.

- Basic information: Displays the system time, running time, firmware version, and hardware version of the router.
- WAN port status: Displays the IPv4 internet connection type, connection status, and IP address of the current WAN port on the router.
- LAN status: Displays the IPv4 address, subnet mask, and MAC address of the router's LAN port.
- Wi-Fi status: Displays basic information about the 2.4 GHz and 5 GHz wireless networks, including wireless network status, Wi-Fi name, and security.
- IPv6 status: Displays the IPv6 internet connection type, IP address, and DNS information of the current WAN port on the router.



# 6 Client management

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

This chapter describes how to manage your clients, including:

Add a client to the blacklist

Add the client to the whitelist

Remove a client from the blacklist/whitelist

Internet access speed control

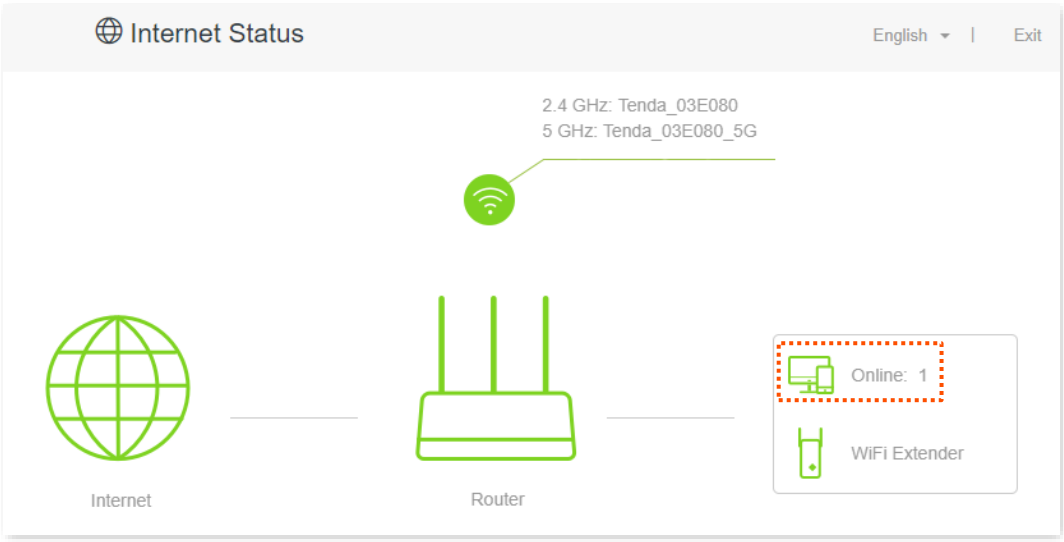
Internet access rule control

# 6.1 Add the client to the blacklist

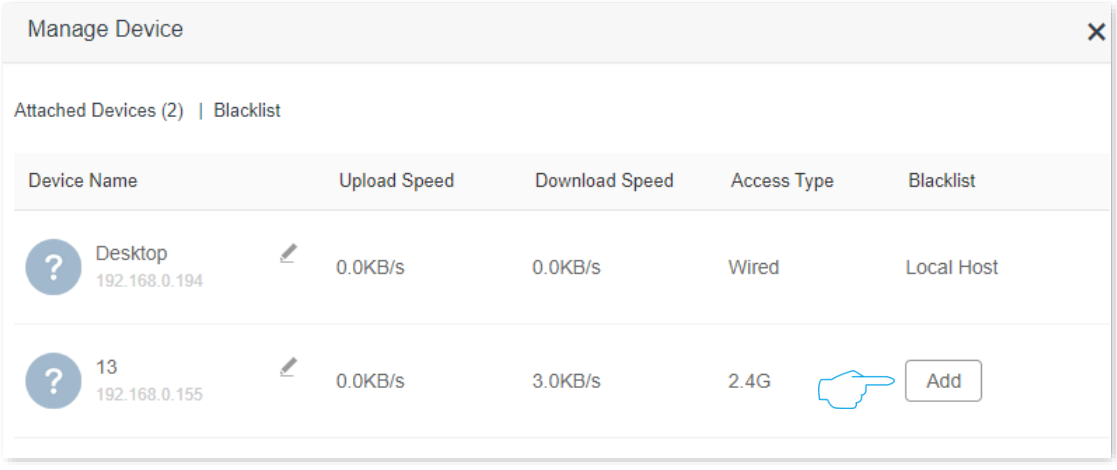
The blacklisted devices cannot access the internet through the router.

## 6.1.1 Add the online clinet to the blacklist

1. Log in to the web UI of the router.
2. Click the client icon in **Internet Status**.

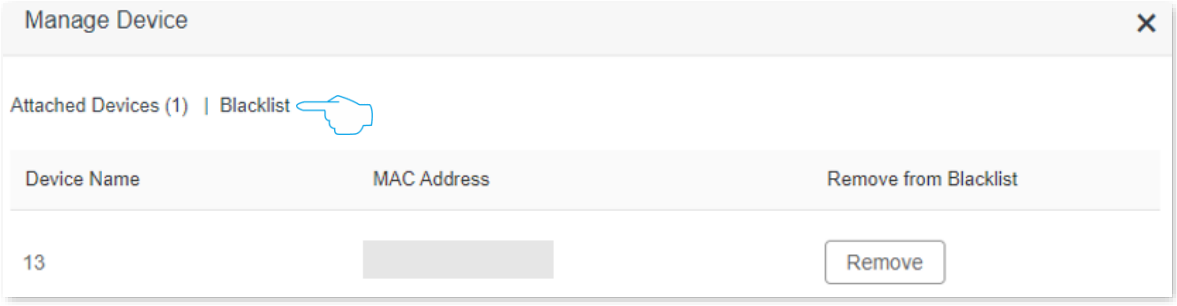



3. Locate the device that not allowed to access the internet and click **Add**. The following figure is for reference only.



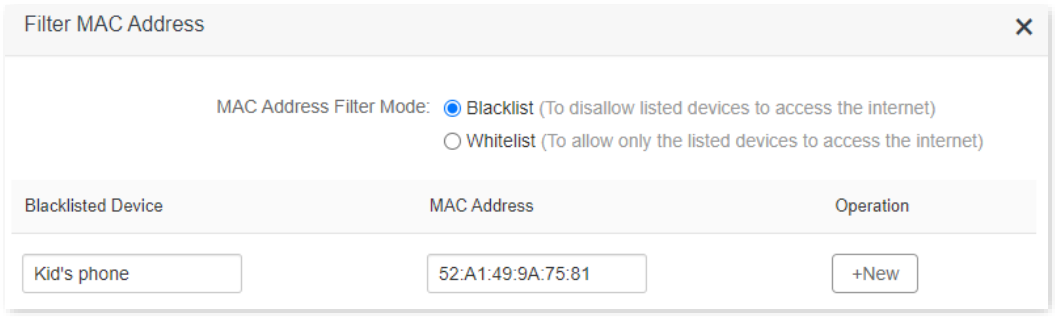

**---End**

After the settings are completed, the device will appear in the **Blacklist** tab and cannot access the internet through the router.

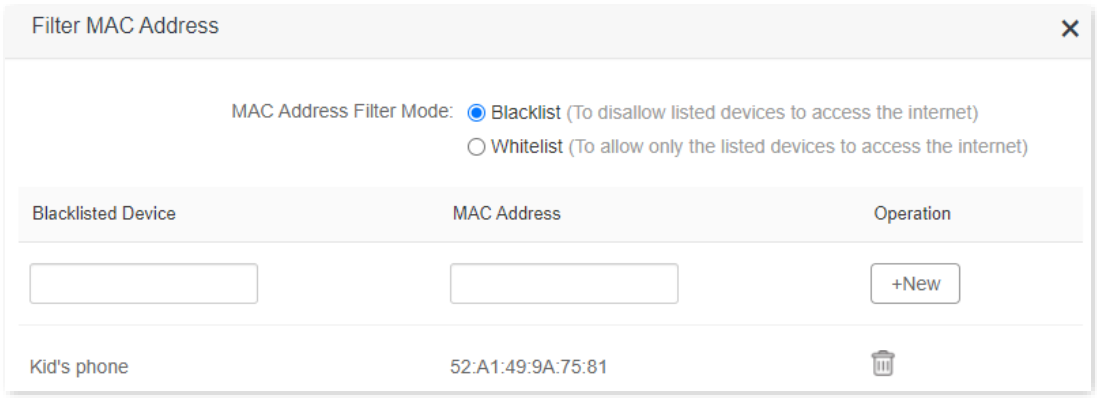



## 6.1.2 Add the clients to blacklist that are not connected to the internet

1. Log in to the web UI of the router.
2. Navigate to **Advanced Settings** > **Filter MAC Address**.
3. Set **MAC Address Filter Mode** to **Blacklist**.
4. Enter the MAC address of the clients to be added to the blacklist. The device name can be customized. The following figure is for reference only.
5. Click **+New**.




6. Click **Save** at the bottom of the page.



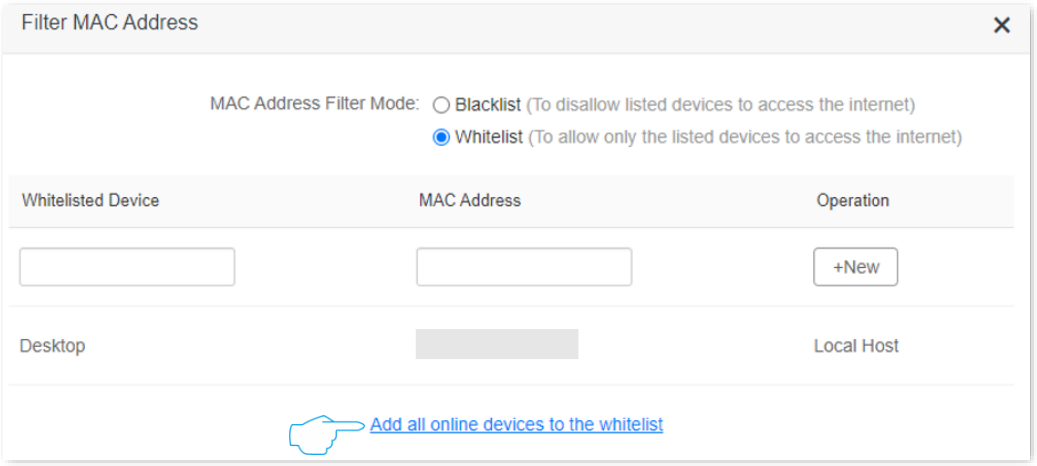

**---End**

## 6.2 Add the client to the whitelist

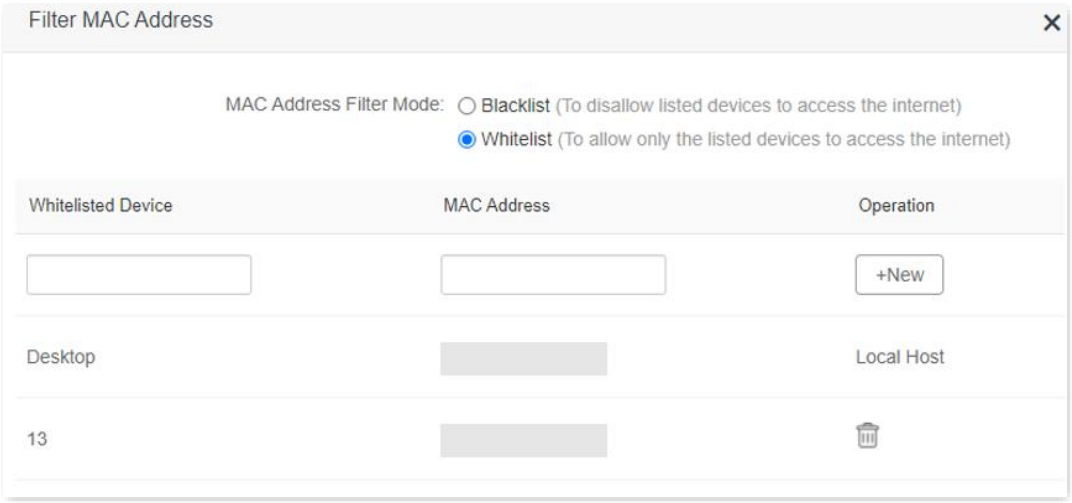
Devices that add to the whitelist can access the internet through the router, while other devices cannot access the internet through the router.

### 6.2.1 Add online clients to the whitelist

1. Log in to the web UI of the router.
2. Navigate to **Advanced Settings** > **Filter MAC Address**.
3. Set **MAC Address Filter Mode** to **Whitelist**.
4. Click **Add all online devices to the whitelist**, and all currently online devices will be added to the whitelist. The following figure is for reference only.



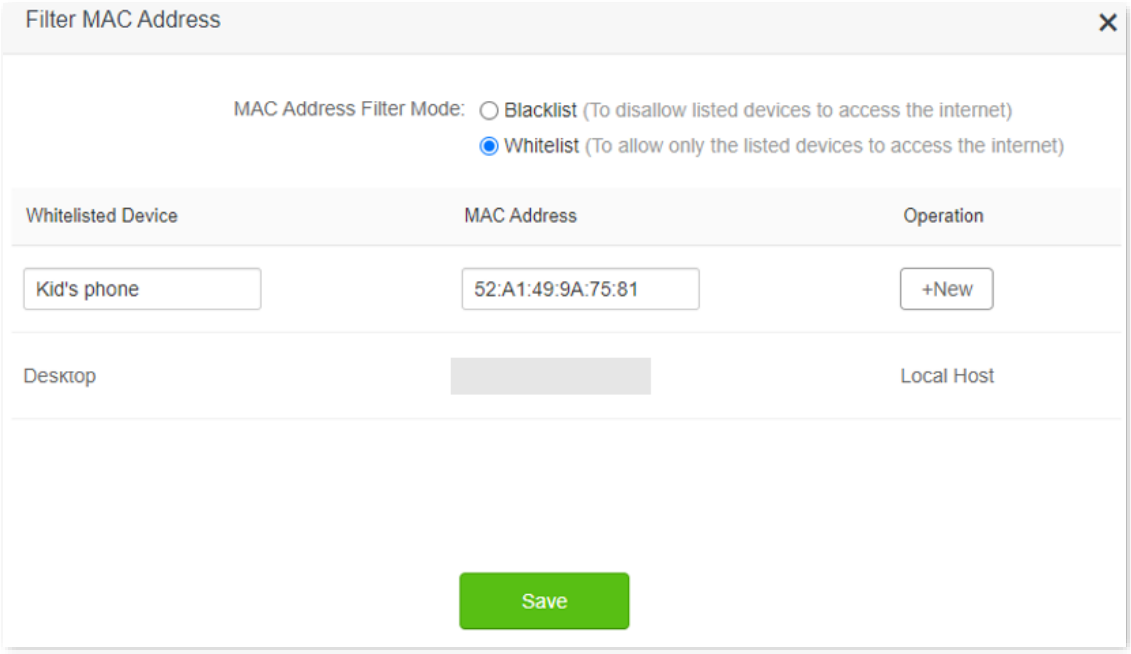

5. Click **Save** at the bottom of the page.




**---End**

### 6.2.2 Add the clients to whitelist that are not connected to the internet

1. Log in to the web UI of the router.
2. Navigate to **Advanced Settings** > **Filter MAC Address**.
3. Set **MAC Address Filter Mode** to **Whitelist**.
4. Enter the MAC address of the clients to be added to the whitelist. The device name can be customized. The following figure is for reference only.
5. Click **Save**.

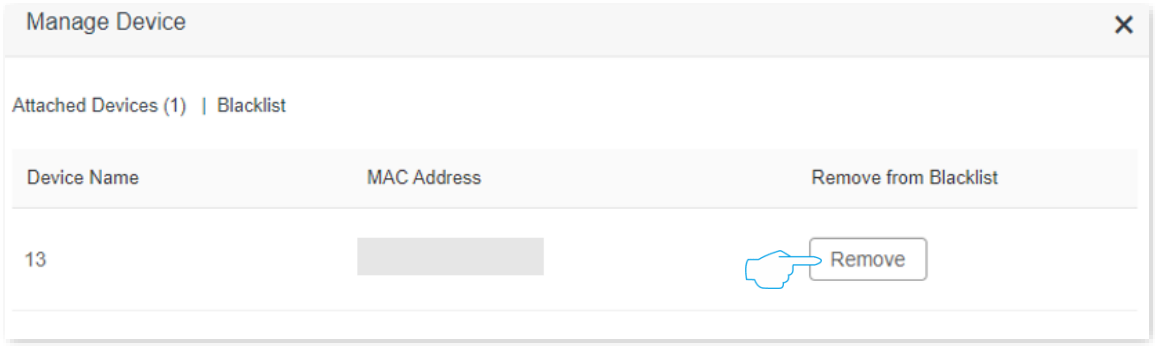



**---End**

# 6.3 Remove a client from the blacklist

## 6.3.1 Method 1 (For blacklist only)

1. Log in to the web UI of the router.
2. Click the client icon in **Internet Status**.
3. Locate the device that you want to allow it to access the internet again in the **Blacklist** tab, and click **Remove**. The following figure is for reference only.



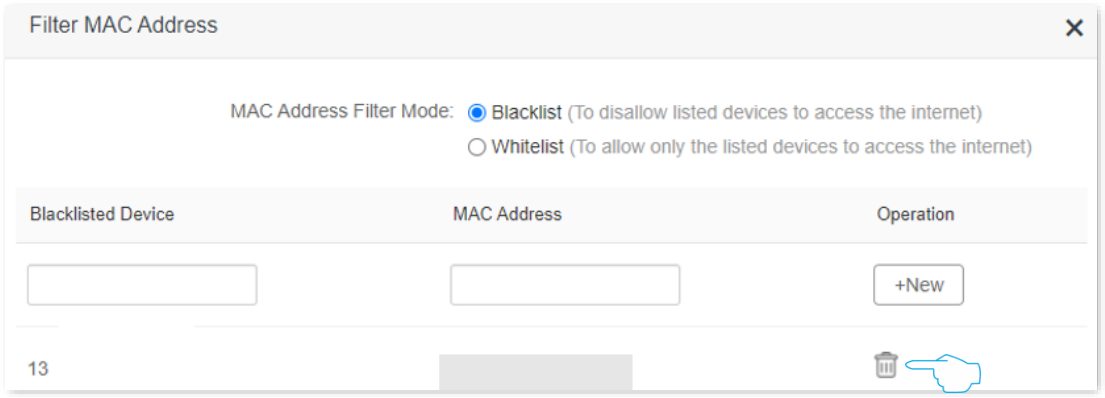

**---End**

After the settings are completed, the device can reconnect to the router to access the internet.

## 6.3.2 Method 2

Removing a blacklist/whitelist operates similarly. Take removing a blacklist as an example here.

1. Log in to the web UI of the router.
2. Navigate to **Advanced Settings** > **Filter MAC Address**.
3. Locate the device you want to remove from the blacklist in the **Blacklist**, and click .
4. Click **Save** at the bottom of the page.

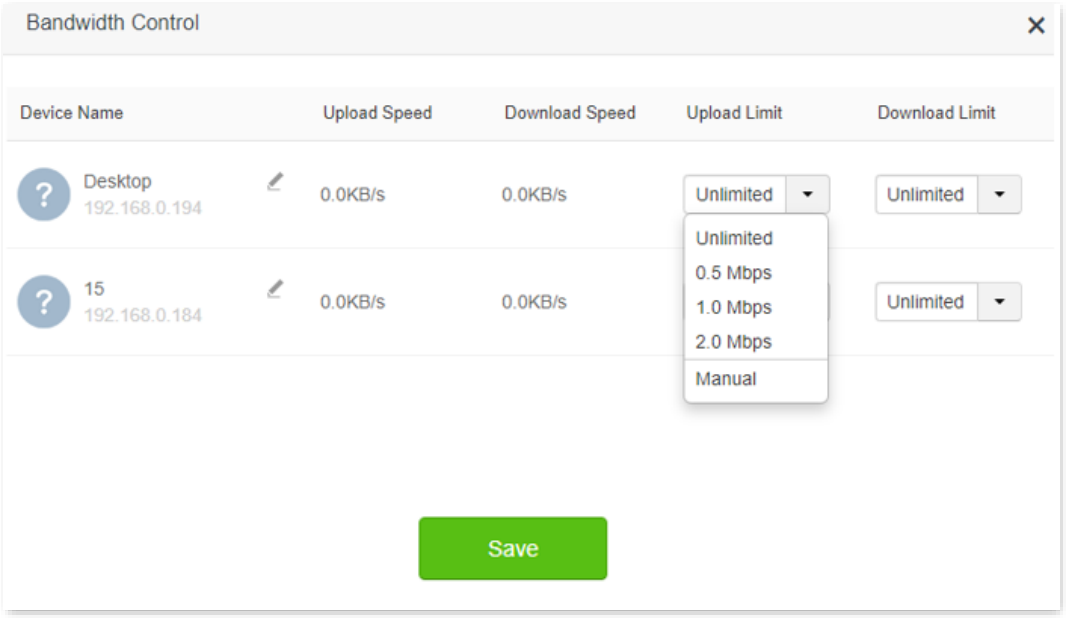



**---End**

# 6.4 Internet access speed control

You can control the bandwidth of the devices connected to the router, so that the limited bandwidth is properly allocated.

1. Log in to the web UI of the router.
2. Navigate to **Advanced Settings** > **Bandwidth Control**.
3. Locate the device according to the device name, and set the maximum speed for **Upload Speed** and **Download Speed**. The following figure is for reference only.
4. Click **Save**.




**---End**

# 6.5 Internet access rule control

With parental control function, you can configure various parental control rules to control access to certain websites or block certain clients from accessing the internet.

**Scenario**: You want to configure your kid's internet access through the router. Your kid cannot access such websites as Facebook, Twitter, YouTube and Instagram from 8:00 to 22:00 on Sunday.

**Goal:** Devices cannot access to websites include kid's computer.

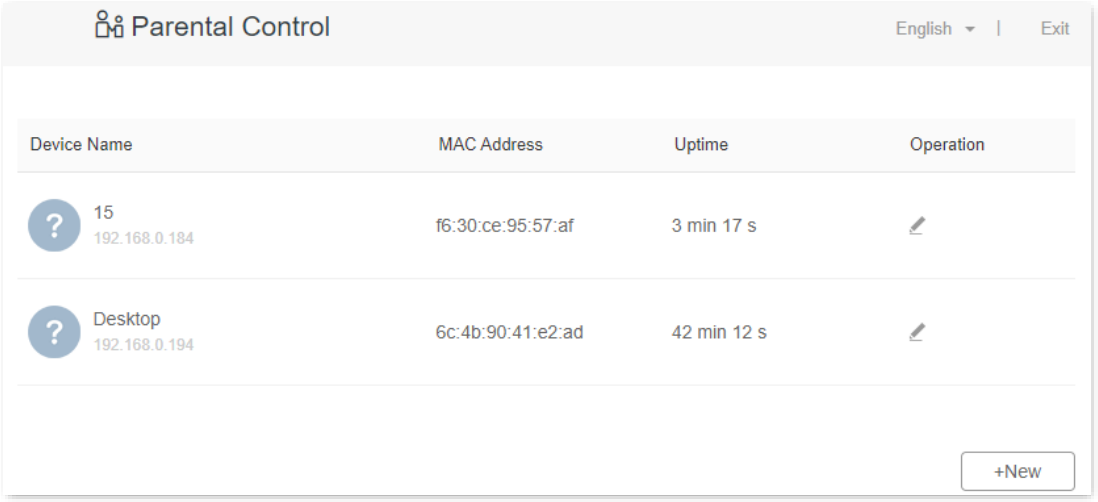
**Solution**: You can configure a parental control rule to reach the goal.

**To add such a rule:**

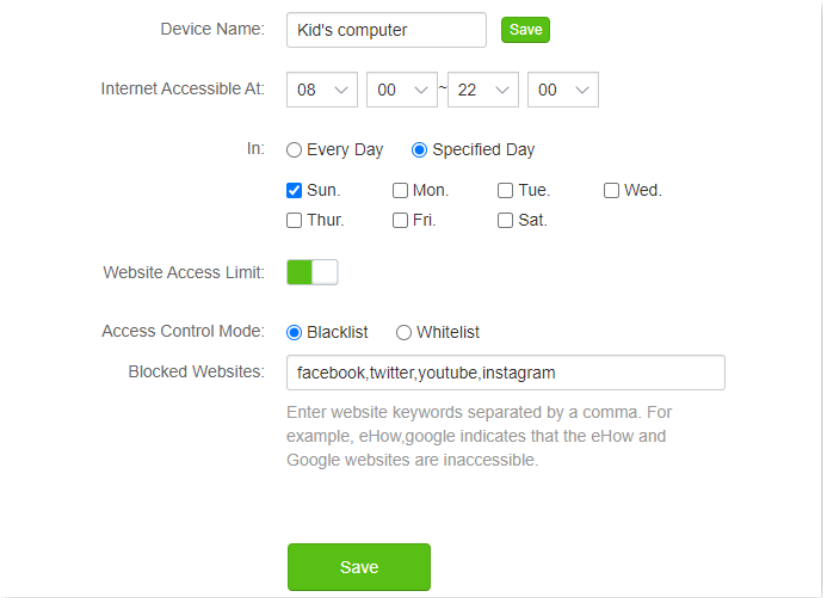
1. Log in to the web UI of the router, and click **Parental Control**.
2. Locate the device you want to control in the online devices list, and click .

TIP

If the device is not found in the online device list, click **+ New** to add it manually.




3. Set up parental control rule.
   1) Click to modify the client name, which is **Kid's computer** in this example.
   2) Set control period of the client, which are **08:00-22:00** in this example.
   3) Select a data for the client when it can access the internet, which is **Sun.** in this example.
   4) Enable **Website Access Limit,** and set **Access Control Mode** to **Blacklist**.
   5) Enter **facebook**, **twitter**, **youtube**, and **instagram** for **Blocked Websites**.
   6) Click **Save**.




**---End**

## Parameter description

| Parameter | Description |
|---|---|
| Device Name | Specifies the remarks of clients. It can be customized as required. |
| Internet Accessible At | Specifies the time that the client can access the internet. |
| In | |
| Website Access Limit | Used to enable or disable restricted access to specific URL. |
| Access Control Mode | Specifies the filtering mode of the URL.<br>– **Blacklist:** During the **Internet Accessible At**, only this client is prohibited from accessing the websites in the rules.<br>– **Whitelist:** During the **Internet Accessible At**, only this client can access the websites in the rules. |
| Blocked Websites | Specifies the URLs that are forbidden or allowed by the specified client during the **Internet Accessible At**. |
| Unblocked Websites | TIP<br>URL filtering supports keywords, not Chinese characters. If you want to be precise, include the full URL, such as www.google.com. |

After the settings are completed, your kid's computer can access any websites except for Facebook, Twitter, YouTube and Instagram from 8:00 to 22:00 on Sunday.

# 7 Optimize network performance

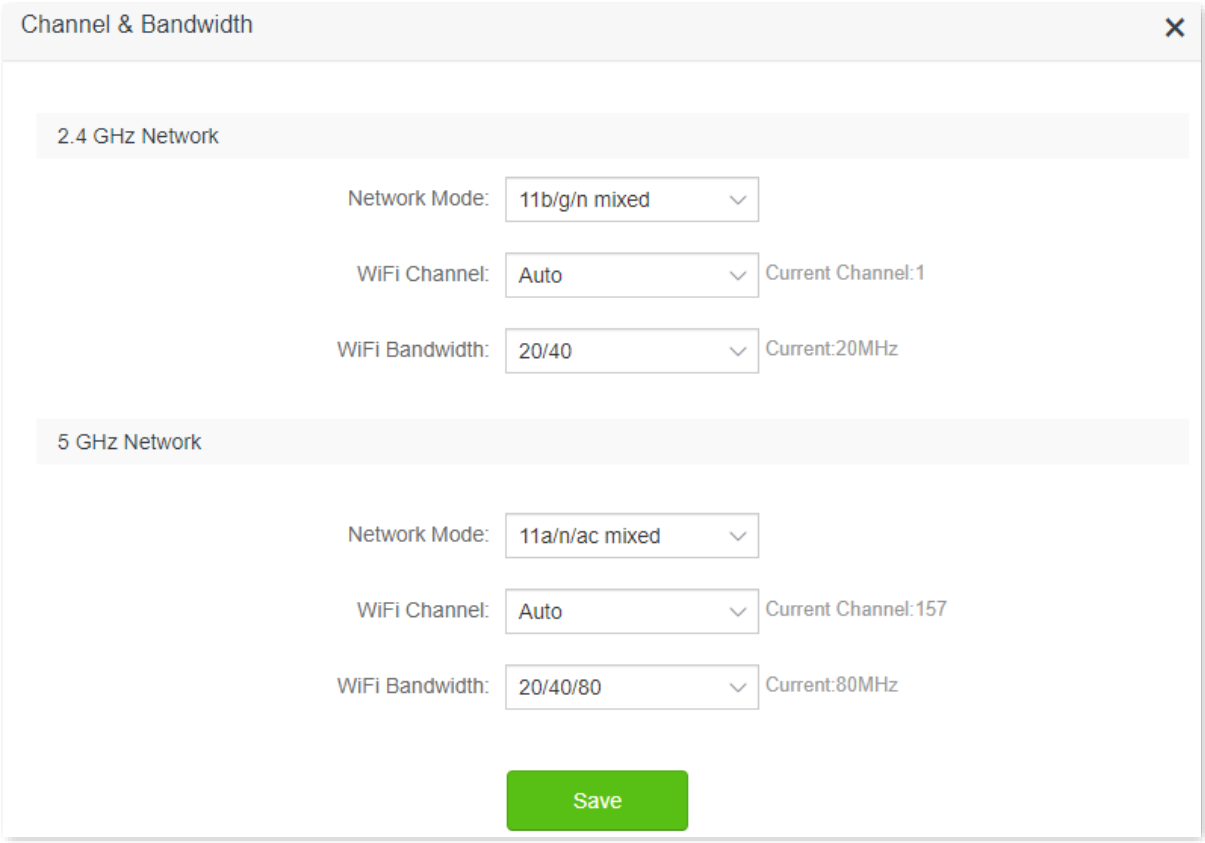
Features available in the router may vary by model and software version. Router availability may also vary by region or ISP. All images, steps, and descriptions in this guide are only examples and may not reflect your actual router experience.

This chapter includes the following sections:

# 7.1 Change channel and bandwidth

To access the configuration page, log in to the web UI of the router, and navigate to **WiFi Settings** > **Channel & Bandwidth**.

In this section, you can change the network mode, Wi-Fi channel, and Wi-Fi bandwidth. To ensure the wireless performance, it is recommended to maintain the default settings on this page without professional instructions.




The following table describes the parameters displayed on this page.

**Parameter description**

| Parameter | Description |
| --- | --- |
| Network Mode | Specifies various protocols used for wireless transmission. The maximum wireless rate varies from different standards. In general, it is recommended to keep the default setting. If you need to be compatible with some old devices, you can modify the corresponding network mode.<br>TIP<br>For the maximum wireless transmission speed, please visit www.tendacn.com and refer to the **Datasheet** of the corresponding product. |

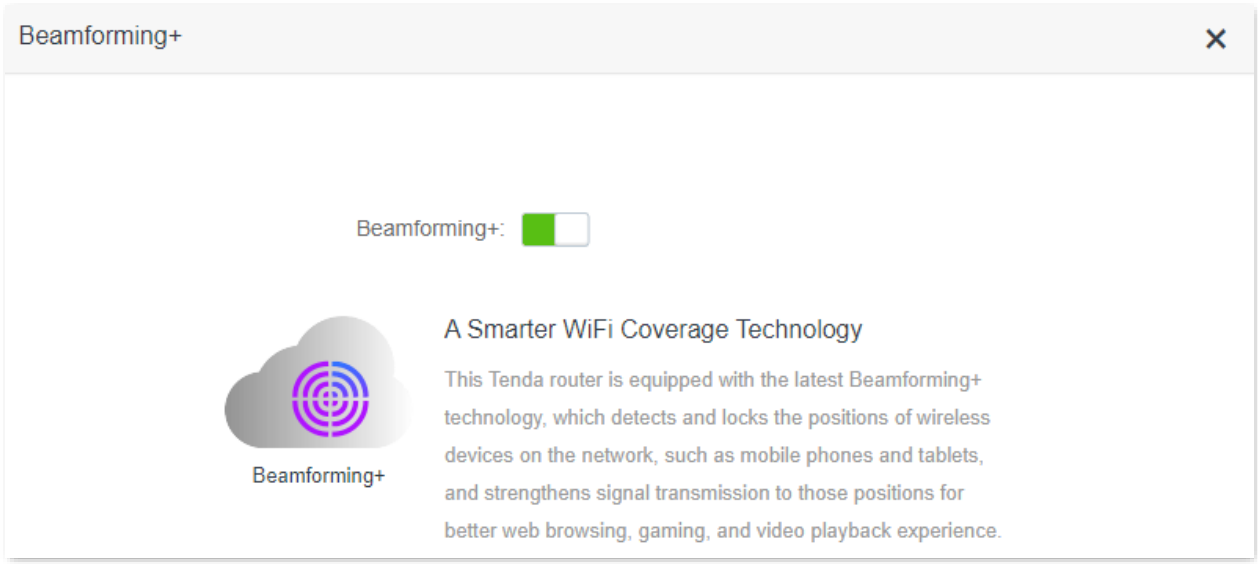
| Parameter | Description |
| --- | --- |
| WiFi Channel | Specifies the channel in which the Wi-Fi network works.<br>By default, the wireless channel is **Auto**, which indicates that the router selects a channel for the Wi-Fi network automatically.<br>You are recommended to choose a channel with less interference for better wireless transmission efficiency. You can use a third-party tool to scan the Wi-Fi signals nearby to understand the channel usage situations. |
| WiFi Bandwidth | Specifies the bandwidth of the wireless channel of a Wi-Fi network. Please change the default settings only when necessary.<br>- **20MHz**: Indicates that the channel bandwidth used by the router is 20 MHz.<br>- **40MHz**: Indicates that the channel bandwidth used by the router is 40 MHz.<br>- **20/40MHz**: Specifies that a router can switch its channel bandwidth between 20 MHz and 40 MHz based on the ambient environment. This option is available only at 2.4 GHz.<br>- **80MHz**: Indicates that the channel bandwidth used by the router is 80 MHz. This option is available only at 5 GHz.<br>- **20/40/80MHz**: Specifies that a router can switch its channel bandwidth among 20 MHz, 40 MHz, and 80 MHz based on the ambient environment. This option is available only at 5 GHz. |

# 7.2 Enable or disable Beamforming+

Beamforming+ is a wireless signal optimization technique. Once it is enabled, if the router communicates with the wireless client, it can accurately transmit Wi-Fi signals to the direction of the client to improve the internet experience.

To access the configuration page, log in to the web UI of the router, and navigate to **WiFi Settings** > **Beamforming+**.

This function is enabled by default.




When **Beamforming+** function is enabled on the router, the wireless network transmission is as follows.


Example: AC10

When **Beamforming+** function is disabled on the router, the wireless network transmission is as follows.


Example: AC10

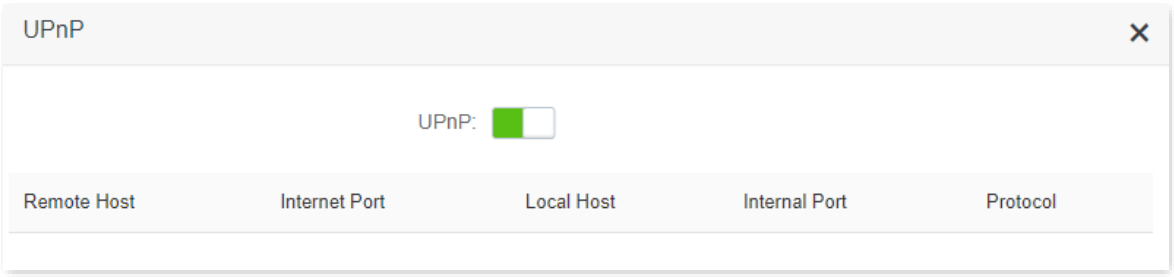
# 7.3 UPnP

UPnP is short for Universal Plug and Play. This function enables the router to open port automatically for UPnP-based programs. It is generally used for P2P programs, such as BitComet and AnyChat, and helps increase the download speed.

To access the configuration page, log in to the web UI of the router, and navigate to **Advanced Settings** > **UPnP**.

This function is enabled by default.

When any program that supports the UPnP function is launched, you can find the port conversion information on this page when the program sends any requests.



# 8 Remote access

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

This chapter includes the following sections:

# 8.1 Remotely manage the router via Tenda WiFi App

The router supports management through the **Tenda WiFi** App. With the App, you can:

- Manage your router within the LAN.
- Remotely manage your router through the internet (The figure is shown as below.).


Example: AC10

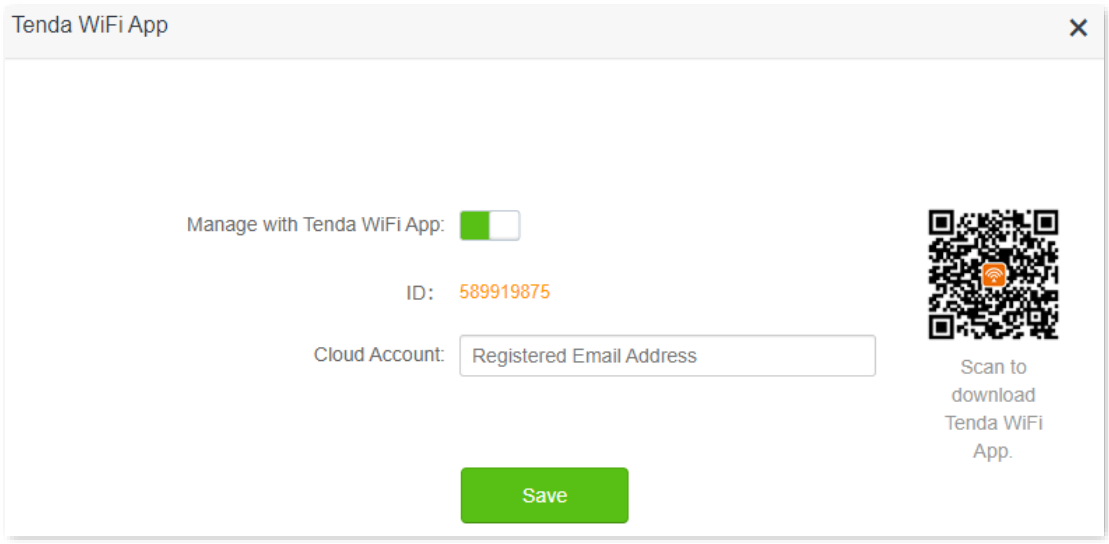
**Configuration procedure:**

1. Log in to the web UI of the router.
2. Click **Advanced Settings** > **Tenda WiFi App**.
3. Enable the **Manage with Tenda WiFi App** function.
4. Enter the account you registered on **Tenda WiFi** App in the **Cloud Account**.

   TIP

   You can download and install the **Tenda WiFi** App in the **Google Play** or **App Store** of your smartphone, and register.

5. Click **Save**.




**---End**

After the setting are completed, your smartphone can log in to the **Tenda WiFi** App with the cloud account to remotely manage the router when it has been connected to the internet.

# 8.2 Internet users access the router's web UI

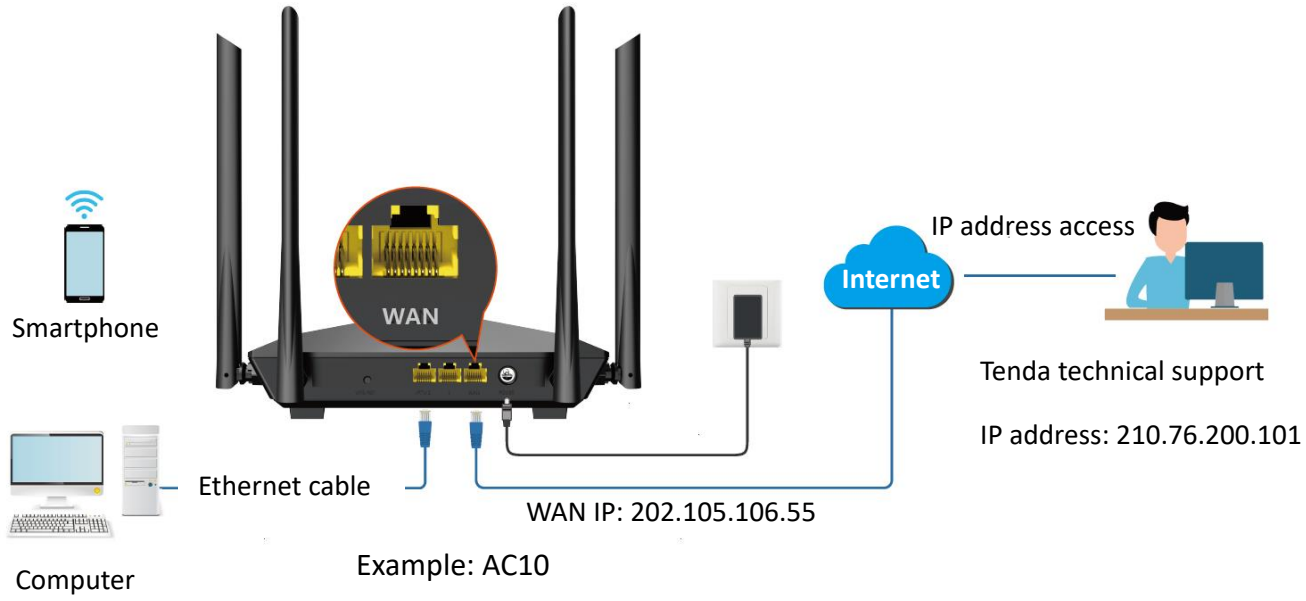
**Scenario:** You encounter a problem in configuring the router, and the router can access the internet.

**Goal**: Ask the Tenda technical support to help you configure the router remotely.

**Solution**: You can configure the remote web management function to reach the goal.

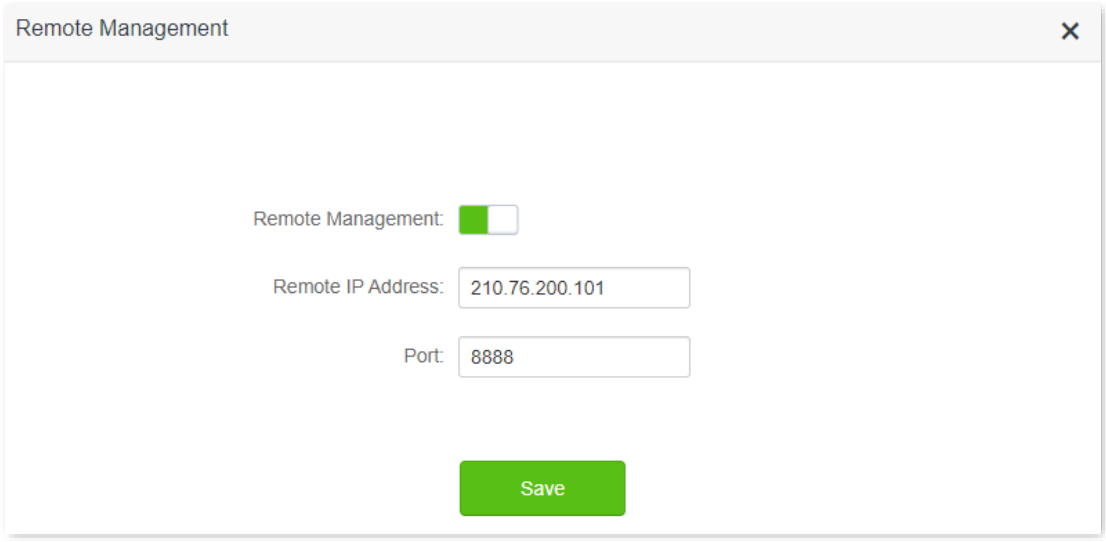
Assume that:

- IP address of Tenda technical support: **210.76.200.101**
- WAN port IP address of the router: **202.105.106.55**




**Configuration procedure:**

1. Log in to the web UI of the router.
2. Navigate to **System Settings** > **Remote Management**.
3. Enable **Remote Management**.
4. Enter the IP address of the device that can access the web UI remotely, which is **210.76.200.101** in this example.
5. Click **Save**.




**---End**

When the configuration is complete, the Tenda technical support can access and manage the web UI of the router by visiting "**http://202.105.106.55:8888**" on the computer (IP address is **210.76.200.101**). You can click the router icon on the **Network Status** page to view the current IP address of the router WAN port.

The following table describes the information displayed on this page.

**Parameter description**

| Parameter | Description |
| --- | --- |
| Remote Management | Used to enable or disable the remote web management function of the router. |
| Remote IP Address | Specifies the IP address of the host which can access the web UI of the router remotely.<br>- **Any IP Address**: Indicates that hosts with any IP address from the internet can access the web UI of the router. It is not recommended for security.<br>- **Specified IP Address**: Only the host with the specified IP address can access the web UI of the router remotely. If the host is under a LAN, ensure that the IP address is the IP address of the gateway of the host (a public IP address). |

| Parameter | Description |
| --- | --- |
| Port | Specifies the port number of the router which is opened for remote management. You can change it as required.<br><br>TIP<br><br>- The port number from 1 to 1023 has been occupied by familiar services. It is strongly recommended to enter a port number from 1024 to 65535 to prevent conflict.<br>- Remote web management can be achieved by visiting "http://*WAN IP address of the router*:*Port number*". If the DDNS function is enabled, the web UI can also be accessed through "http://*Domain name of the router's WAN port*:*Port number*". |

# 8.3 Internet users to access LAN resources using a domain name

Dynamic Domain Name Service (DDNS). When the service is running, the DDNS client on the router transmits the current WAN port IP address of the router to the DDNS server, and then the server updates the mapping relationship between the domain name and the IP address in the database to achieve dynamic domain name resolution.

Through the DDNS, the dynamic WAN port IP address (public network IP address) of the router can be mapped to a fixed domain name. DDNS function is usually combined with virtual server, DMZ host, remote web management and other functions, so that internet users can be free from the influence of dynamic WAN IP address and access the internal server or the router's web UI with a fixed domain name, without paying attention to the router's WAN port IP address changes.

**Scenario:** You have set up an FTP server within your LAN.

**Goal**: Open the FTP server to internet users and enable family members who are not at home to access the resources of the FTP server from the internet with a domain name.

**Solution**: You can configure the DDNS and virtual server functions to reach the goal.

Assume that the information of the FTP server includes:

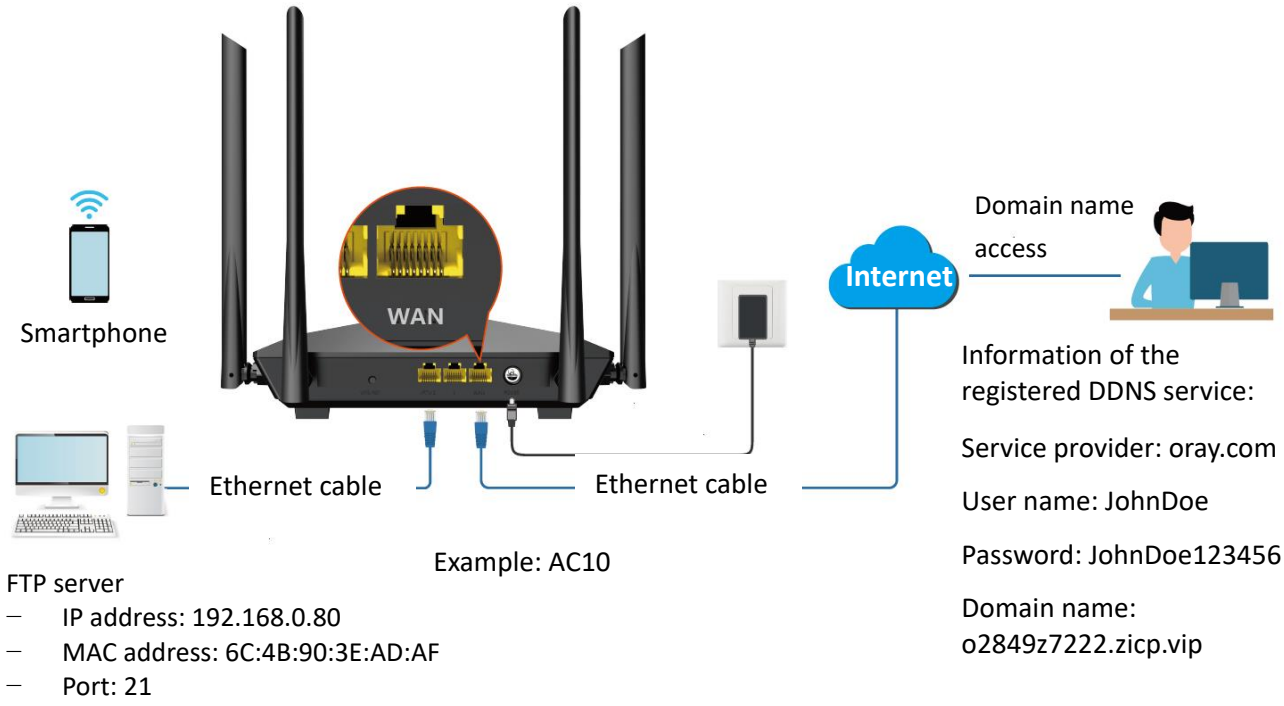
- IP address: **192.168.0.80**
- MAC address of the host: **6C:4B:90:3E:AD:AF**
- Service port: **21**

Information of the registered DDNS service:

- Service provider: **oray.com**
- User name: **JohnDoe**
- Password: **JohnDoe123456**
- Domain name: **o2849z7222.zicp.vip**

TIP

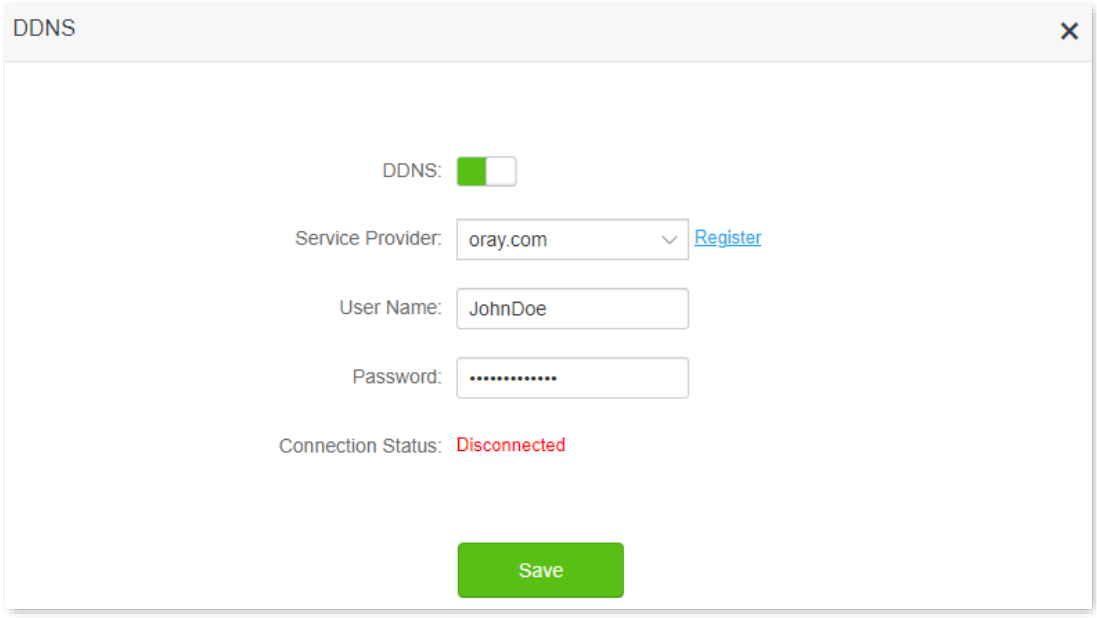
Ensure that the router obtains an IP address from the public network. This function may not work on a host with an IP address of a private network or an intranet IP address assigned by ISPs that start with 100. Common IPv4 addresses are classified into class A, class B and class C. Private IP addresses of class A range from 10.0.0.0 to 10.255.255.255. Private IP addresses of class B range from 172.16.0.0-172.31.255.255. Private IP addresses of class C range from 192.168.0.0-192.168.255.255.




Log in to the web UI > Configure DDNS > Configure virtual server rule > Assign a fixed IP address to the host where the intranet server resides

**Configuration procedure:**

1. Log in to the web UI of the router.
2. Configure the DDNS function.
   1) Navigate to **Advanced Settings** > **DDNS**, and enable **DDNS**.
   2) Click the **Service Provider** drop-down box and select the DDNS provider for your domain name, which is **oray.com** in this example.
   3) Enter the user name and password, which are **JohnDoe** and **JohnDoe123456** in this example.
   4) Click **Save**.



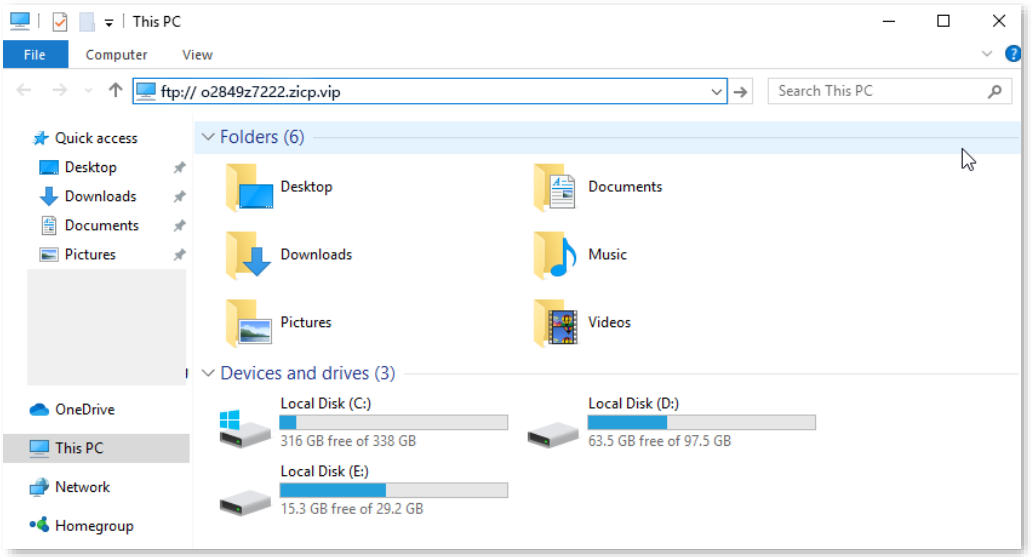

Wait until **Connected** is displayed after **Connection Status**, which indicates that the configuration is successful.

3. Configure the virtual server function by following the steps in Virtual Server.
4. Assign a fixed IP address to the host where the Intranet server resides.

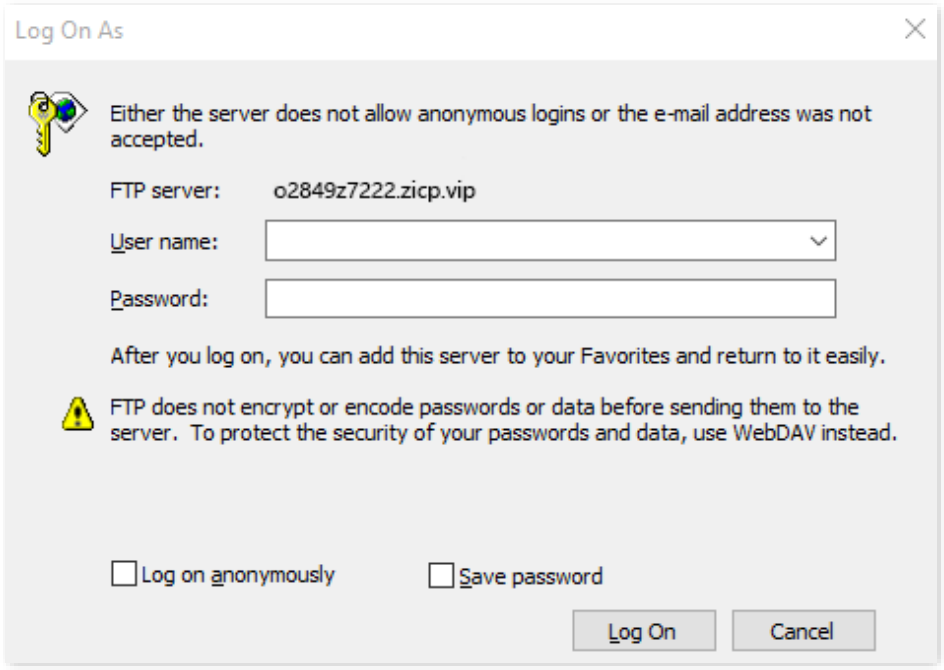
**---End**

When completing the configuration, users from the internet can access the FTP server by visiting "*Intranet service application layer protocol name*://*WAN port Domain name*". If the WAN port number is not the same as the default intranet service port number, the visiting address should be: "*Intranet service application layer protocol name*://*WAN port domain name: External port*".

In this example, the address is **ftp://o2849z7222.zicp.vip**.



Enter the user name and password to access the resources on the FTP server.




TIP

After the configuration, if internet users still cannot access the FTP server, try the following methods:

- Ensure that the Internal port you fill in is the correct corresponding service port.
- Close the firewall, antivirus software and security guards on the host of the FTP server and try again.

# 8.4 Internet users access LAN resources

## 8.4.1 Scenario

**Scenario**: You have set up an FTP server within your LAN.

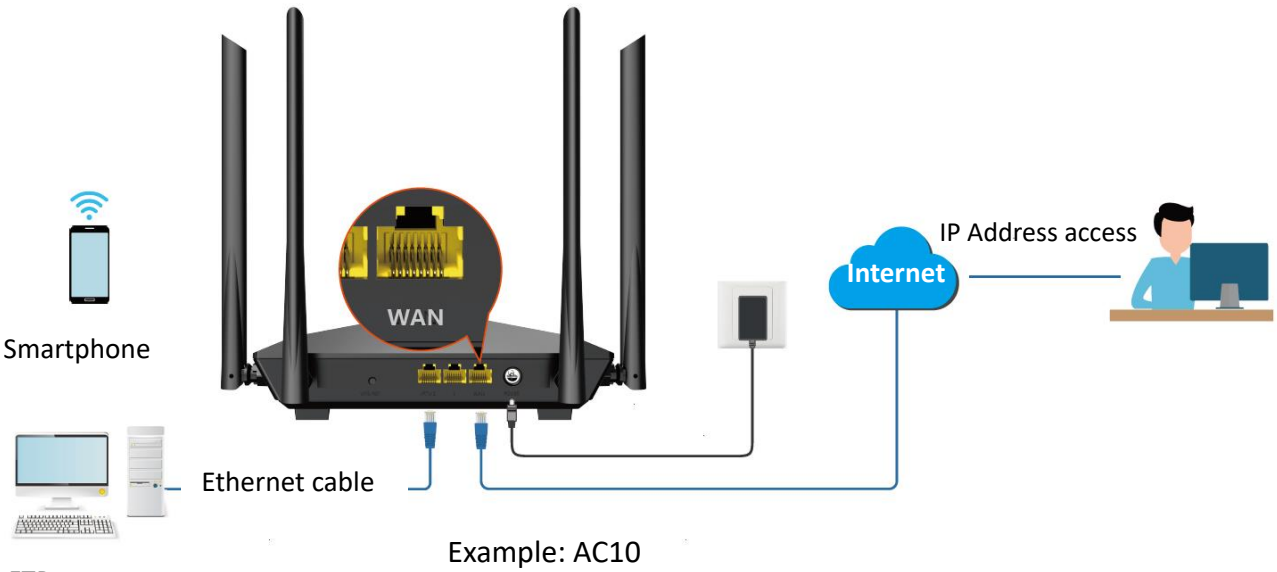
**Goal**: Set up your own PC as an FTP server and let your family members who are not at home can share resources on the server.

Assume that:

- IP address of the FTP server: 192.168.0.80
- MAC address of the FTP server: 6C:4B:90:3E:AD:AF
- Port of the FTP server: 21

TIP

- Ensure that the router's WAN port is connected to the internet and an IP address from the public network is obtained. This function may not work on a host with an IP address of a private network or an intranet IP address assigned by ISPs that start with 100. Common IPv4 addresses are classified into class A, class B and class C. Private IP addresses of class A range from 10.0.0.0 to 10.255.255.255. Private IP addresses of class B range from 172.16.0.0-172.31.255.255. Private IP addresses of class C range from 192.168.0.0-192.168.255.255.
- The ISP may not support unreported web services accessed using the default port 80. Therefore, when setting virtual server, you are recommended to set the external port to an unfamiliar port (1024 to 65535), such as 9999, to ensure normal access.
- The internal port number and external port number can be different.




Example: AC10

FTP server

- IP address: 192.168.0.80
- MAC address: 6C:4B:90:3E:AD:AF
- Port: 21

## 8.4.2 Through virtual server function

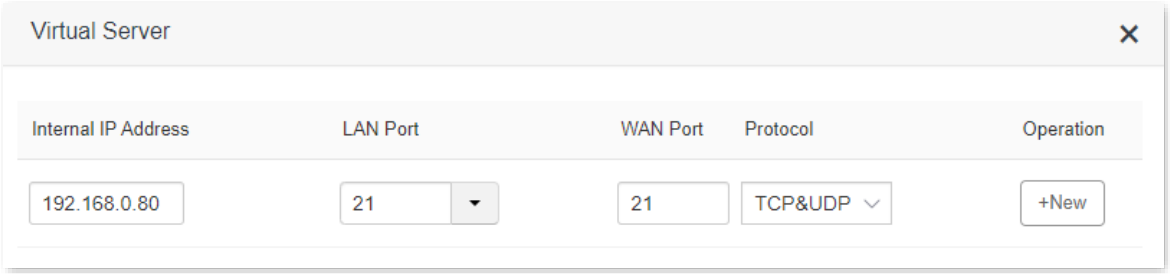
By default, WAN users cannot access devices within the LAN. With the virtual server function, you can open one or more TCP/UDP service ports of the router and map these ports to the designated LAN server, so that the router can forward service requests sent to the port to the corresponding LAN server. In this way, users in the WAN can access the LAN server, and the LAN can avoid being attacked.

Log in to the web UI > Configure virtual server rule > Assign a fixed IP address to the host where the intranet server resides

**Configuration procedure:**

1. Log in to the web UI of the router.
2. Configure virtual server rule, and click **Add**.
   1) Navigate to **Advanced Settings** > **Virtual Server**.
   2) Enter the IP address of internal server in **Internal IP Address**, which is **192.168.0.80** in this example.
   3) Click the drop-down list of **LAN Port** and select the service port of the Intranet server, which is **21 (FTP)** in this example.
   4) The **WAN Port** will be automatically filled, you can also customize it. Which is **21** in this example.
   5) Click the drop-down list of **Protocol** and select the protocol used by the intranet service. You are recommended to select **TCP&UDP**.

      The virtual server rule is successfully added, as shown in the following figure.




**Parameter description**

| Parameter | Description |
| --- | --- |
| Internal IP Address | Specifies the IP address of the intranet server. |

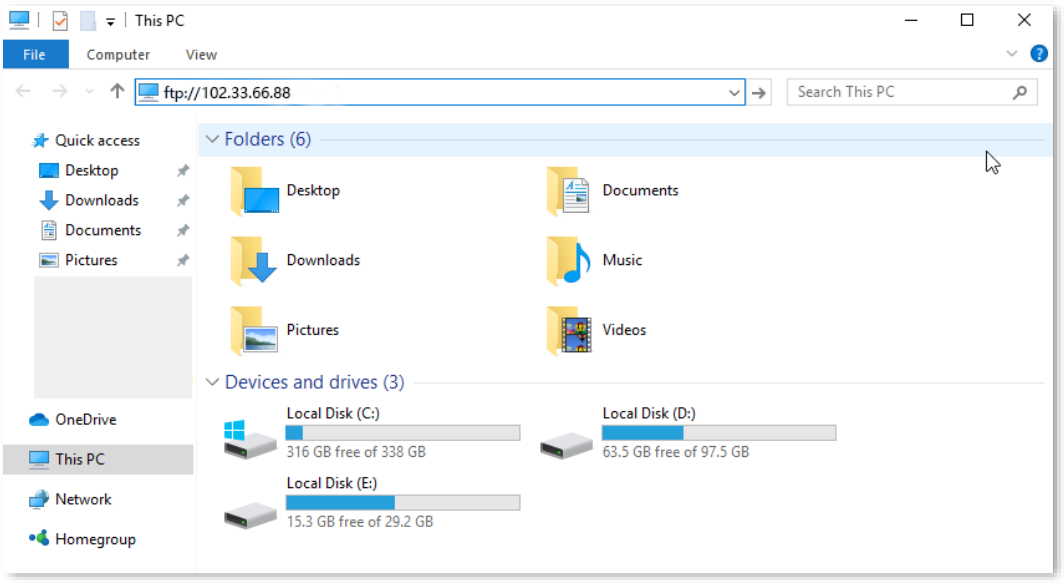
| Parameter | Description |
| --- | --- |
| LAN Port | Specifies the service port of the intranet server.<br>You can click the drop-down menu and select the corresponding service port number. You can also select **Custom** and manually enter the corresponding service port number. |
| WAN Port | Specifies the external port for the internal port to map with.<br>After selecting the internal port, the external port will be filled automatically, or you can enter it manually. |
| Protocol | Specifies the mapping protocol.<br>If you are not sure about the protocol type of the service, you are recommended to select **TCP&UDP**, which indicates that both TCP and UDP are selected. |

3. Assign a fixed IP address to the host where the Intranet server resides.

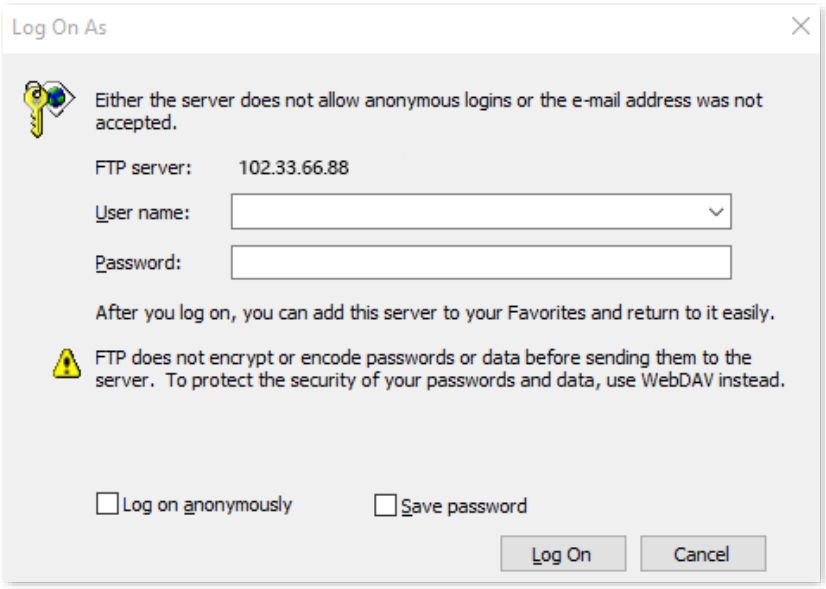
**---End**

Internet users can successfully access the intranet server by using the “Intranet service application layer protocol name://WAN port IP address”. If the intranet service port is not the default port number, the access address is “Intranet service application layer protocol name://WAN port IP address:External port”.

In this example, the address is **ftp://102.33.66.88**. You can find the current IP address of the router's WAN port on the System information page.



Enter the user name and password to access the resources on the FTP server.




If you want to access the server using a fixed domain name, refer to the solution Virtual Server + DDNS.

TIP

After the configuration, if internet users still cannot access the FTP server, try the following methods:

- Ensure that the Internal port you fill in is the correct corresponding service port.
- Close the firewall, antivirus software and security guards on the host of the FTP server and try again.

## 8.4.3 Through DMZ host function

A DMZ host on a LAN is free from restrictions in communicating with the internet. It is useful for getting better and smoother experiences in video conferences and online games. You can also set the host of a server within the LAN as a DMZ host when in need of accessing the server from the internet.

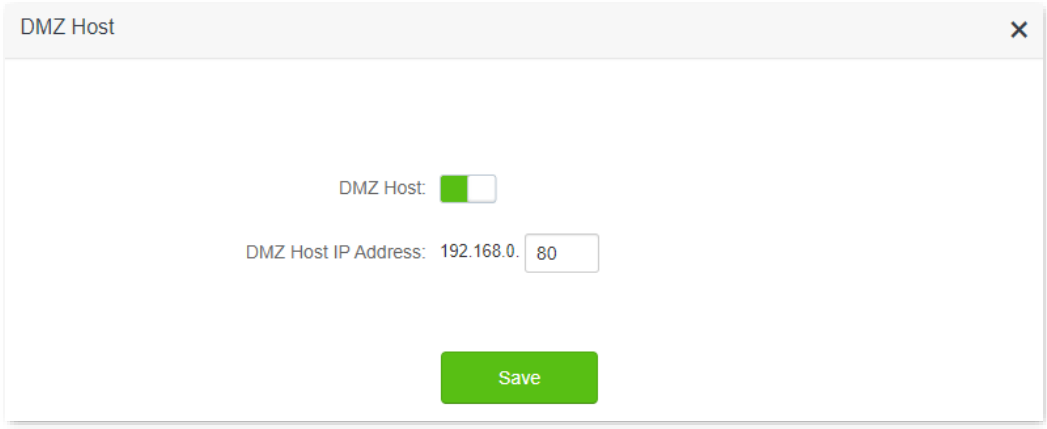
NOTE

- A DMZ host is not protected by the firewall of the router. A hacker may leverage the DMZ host to attack your LAN. Therefore, enable the DMZ function only when necessary.
- Hackers may leverage the DMZ host to attack the local network. Do not use the DMZ host function randomly.
- Security software, antivirus software, and the built-in OS firewall of the computer may cause DMZ function failures. Disable them when using the DMZ function. If the DMZ function is not required, you are recommended to disable it and enable your firewall, security, and antivirus software.

Log in to the web UI > Configure DMZ host > Assign a fixed IP address to a DMZ host

**Configuration procedure:**

1. Log in to the web UI of the router.
2. Set DMZ host.
   1) Navigate to **Advanced Settings** > **DMZ Host**, enable **DMZ Host**, and enter the IP address of the host, which is **192.168.0.80** in this example.
   2) Click **Save**.




3. Assign a fixed IP address to the host where the server locates.

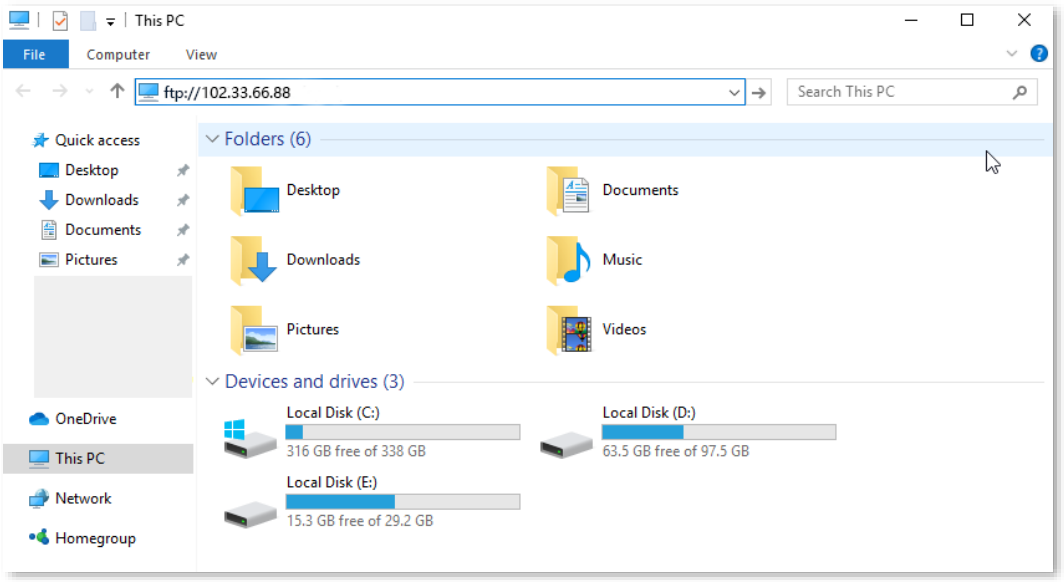
**----End**

When the configuration is complete, users from the internet can access the DMZ host by visiting "*Intranet service application layer protocol name*://*WAN IP address of the router*". If the intranet service port number is not the default number, the visiting address should be: "*Intranet service application layer protocol name*://*WAN IP address of the router*:*Intranet service port number*".

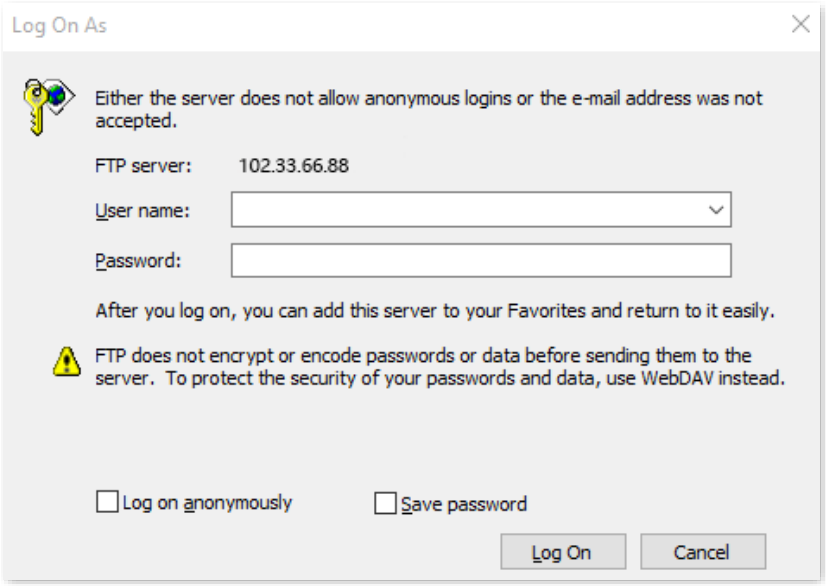
In this example, the address is "**ftp://102.33.66.88**". You can find the WAN IP address of the router on the router information page.

TIP

If the default intranet service port number is 80, change the service port number to an uncommon one (1024–65535), such as 9999.




Enter the user name and password to access the resources on the FTP server.




If you want to access the server within a LAN using a domain name, use the solution DMZ + DDNS.

TIP

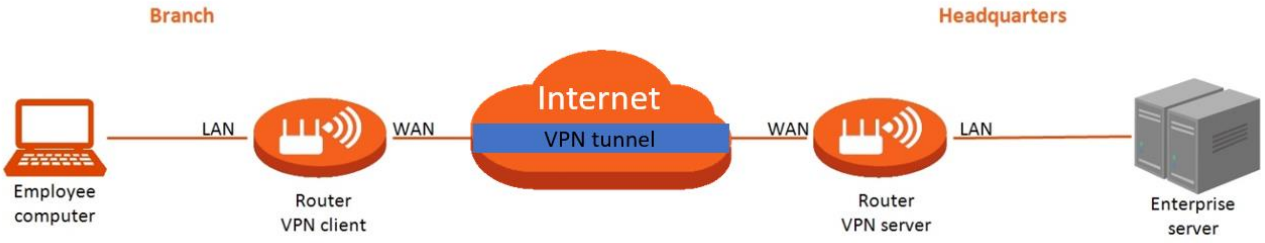
After the configuration, if internet users still cannot access the FTP server, close the firewall, antivirus software and security guards on the host of the FTP server and try again.

# 8.5 VPN

## 8.5.1 Overview

A Virtual Private Network (VPN) is a private network built on a public network (usually the Internet). This private network exists only logically and has no actual physical lines. VPN technology is widely used in corporate networks to share resources between corporate branches and headquarters, while ensuring that these resources are not exposed to other users on the internet.

The typology of a VPN network is shown below.




The router supports Point-to-Point Tunneling Protocol (PPTP) and Layer 2 Tunneling Protocol (L2TP).

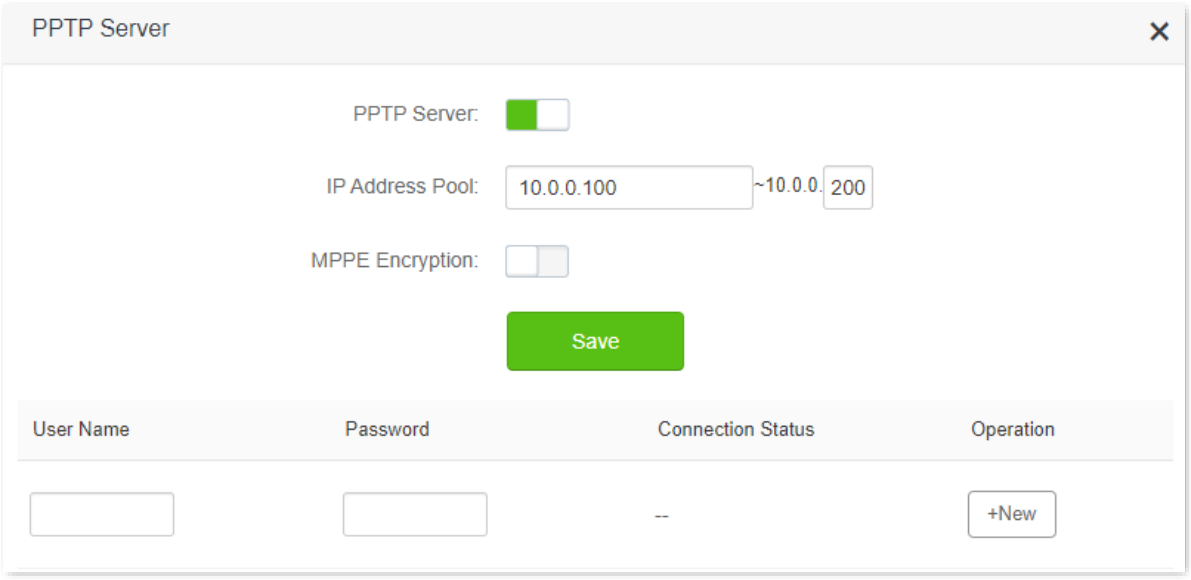
- PPTP encapsulates link-layer PPP frames in IP packets to transmit data over the IP network.
- L2TP encapsulates link-layer PPP frames in different packets for transmission based on different network types.

## 8.5.2 PPTP server

The routers can function as a PPTP server and accept connections from PPTP clients.

### Enable PPTP server

To access the configuration page, log in to the web UI of the router, and click **VPN**. Enable the **PPTP Server**, and click **Save**.



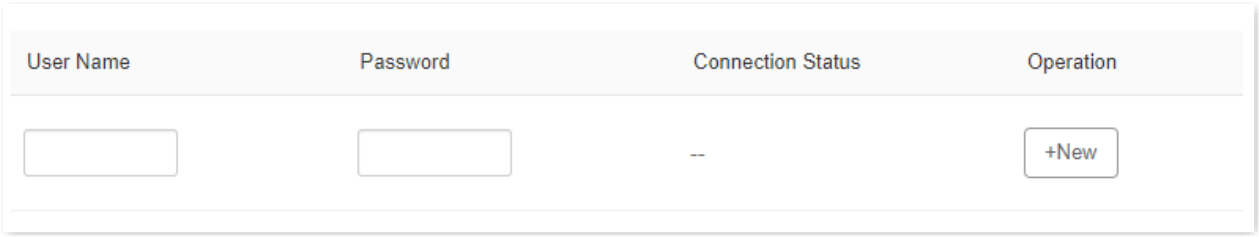

The following table describes the parameters displayed on this page.

**Parameter description**

| Parameter | Description |
|---|---|
| PPTP Server | Used to enable or disable the PPTP server.<br>When it is enabled, the router functions as a PPTP server, which can accept the connections from PPTP clients. |
| IP Address Pool | Specifies the IP address range within which the PPTP server can assign to PPTP clients. It is recommended to keep the default settings. |
| MPPE Encryption | Used to enable or disable MPPE encryption function.<br>The encryption settings should be the same between the PPTP server and PPTP clients. Otherwise, communication cannot be achieved normally. |

## Add PPTP user account

To access the configuration page, log in to the web UI of the router, click **VPN**, and enable the **PPTP Server**. Click **+New**, set the user name and password, and click **Save**.




The following table describes the parameters displayed on this page.

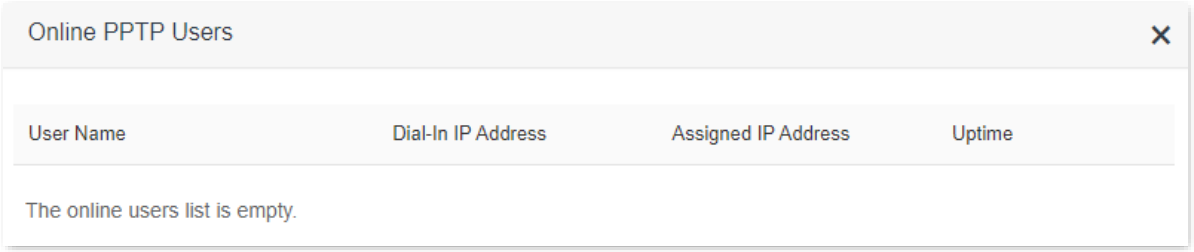
**Parameter description**

| Parameter | Description |
|---|---|
| User Name | Specify the VPN user name and password, which the VPN user needs to enter when making PPTP dial-ups (VPN connections). |
| Password | |
| Connection Status | Specifies the connection status of the VPN connection. |
| Operation | The available operations include:<br>- : Indicates that the PPTP user account is available. You can click it to disable the account.<br>- : Indicates that the PPTP user account is unavailable. You can click it to enable the account.<br>- : Used to delete a PPTP user account. |

## View online PPTP users

When the PPTP server function is enabled, you can view the detailed information of VPN clients that establish connections with the PPTP server.

To access the configuration page, log in to the web UI of the router, and click **Online PPTP Users**.



The following table describes the parameters displayed on this page.

**Parameter description**

| Parameter | Description |
| --- | --- |
| User Name | Specifies the VPN user name, which the VPN user uses when making PPTP dial-ups (VPN connection). |
| Dial-In IP Address | Specifies the IP address of the PPTP client.<br>If the client is a router, it will be the IP address of the WAN port whose VPN function is enabled. |
| Assigned IP Address | Specifies the IP address that the PPTP server assigns to the client. |
| Uptime | Specifies the online time since the VPN connection succeeds. |

## Internet users access resources

**Scenario:** You have set up an FTP server within the LAN of the router.

**Goal**: Open the FTP server to internet users and enable them to access the resources of the FTP server from the internet.

**Solution**: You can configure the PPTP server function to reach the goal. Assume that:

- The user name and password that the PPTP server assigns to the client are both **admin1**.
- The WAN IP address of router is **113.88.112.220**.
- The IP address of the FTP server is **192.168.0.136**.
- The FTP server port is **21**.
- The FTP login user name and password are both **JohnDoe**.

TIP

Ensure that the WAN IP address of router is public. This function may not work on a host with a private IP address. Common IPv4 addresses are classified into class A, class B and class C. Private IP addresses of class A range from 10.0.0.0 to 10.255.255.255. Private IP addresses of class B range from 172.16.0.0 to 172.31.255.255. Private IP addresses of class C range from 192.168.0.0 to 192.168.255.255.

**Configuration procedure:**

1. Log in to the web UI of the router.
2. Enable **PPTP Server.**

1) Navigate to **VPN** > **PPTP Server**.

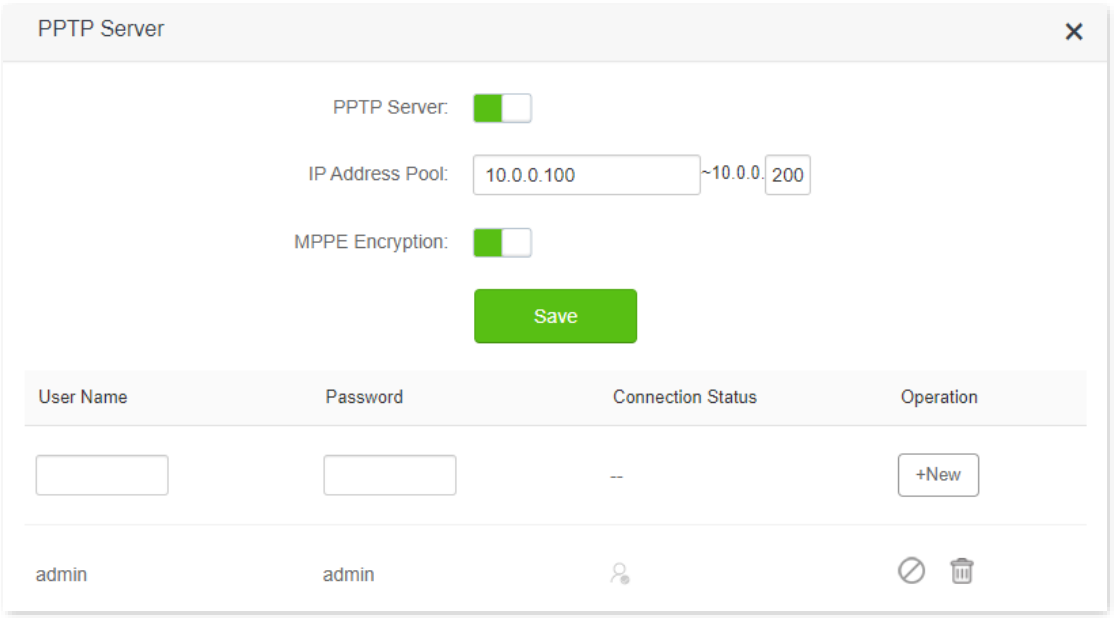
2) Enable **PPTP Server**.

3) Enable **MPPE Encryption**, which means that the encryption digit remains the default value **128**.

4) Click **Save**.

3. Add user name and password for the PPTP server.

   Click **+New**, and set the user name and password for the PPTP server, which are both **admin1** in this example. Then, click **Save**.



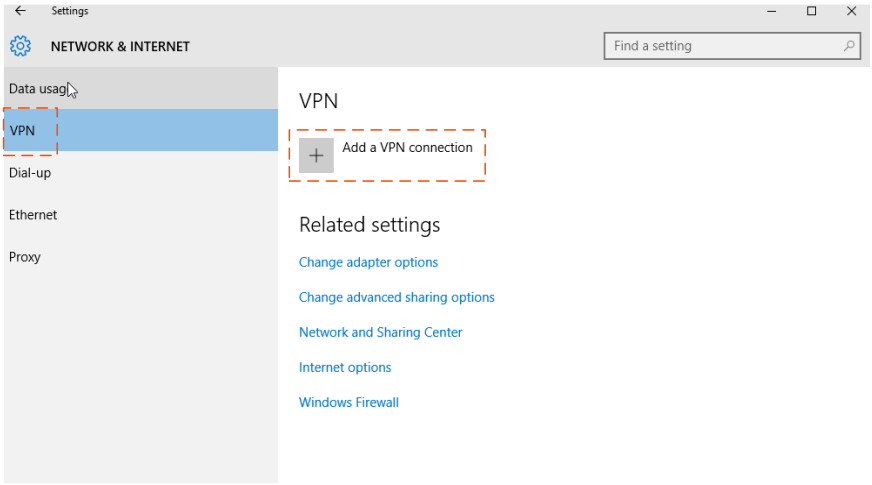

**---End**

After the settings are completed, internet users can access the FTP server by following these steps:

4. Perform VPN dial-up.

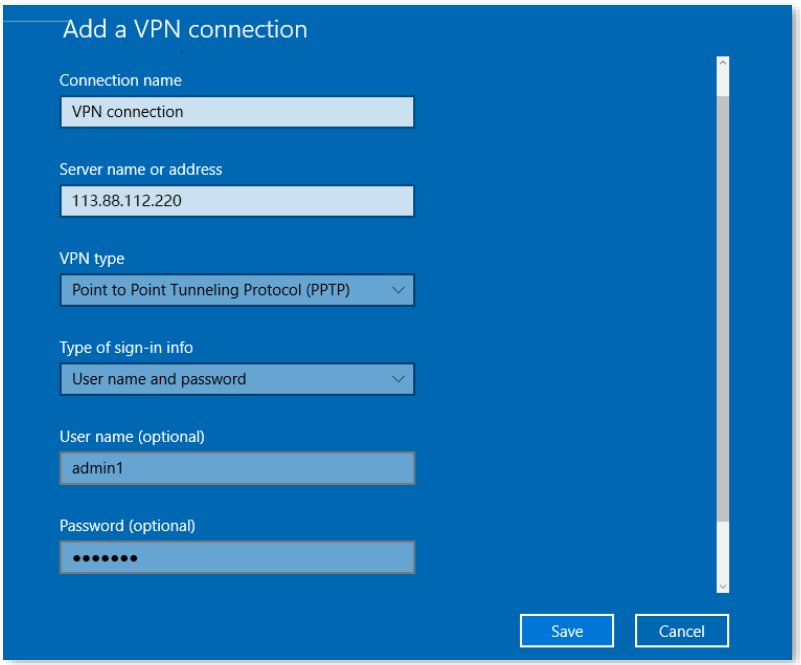
   1) Click the icon at the bottom right corner on the desktop of another computer with internet access, and then click Network settings.

2) Choose **VPN** on the left side, and click **Add a VPN connection**.

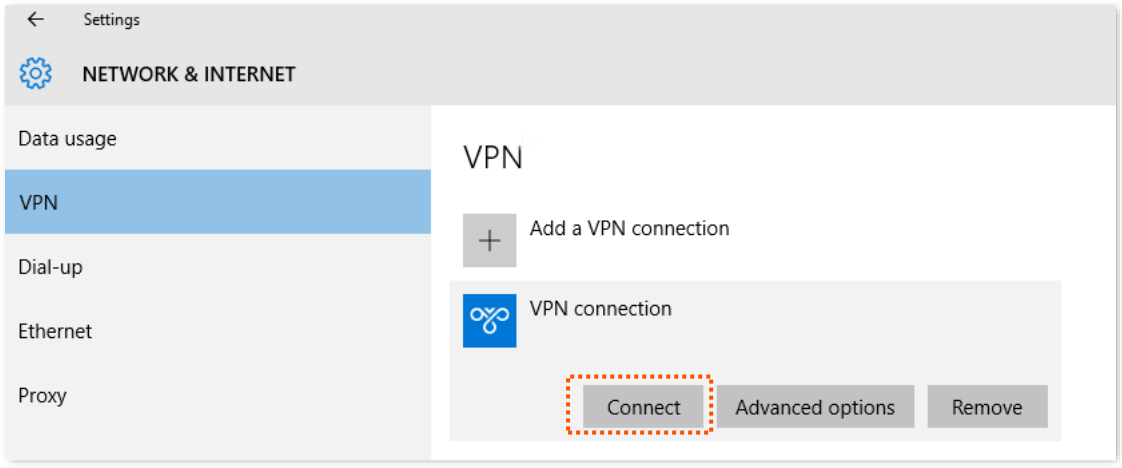



3) Configure the VPN parameters.

- Enter a connection name, such as **VPN connection**.
- Enter the server address, which is **113.88.112.220** in this example.
- Select a **VPN type**, which is **Point to Point Tunneling Protocol (PPTP)** in this example.
- Select a type of sign-in info, which is **User name and password** in this example.
- Enter the user name and password, which are both **admin1** in this example.
- Click **Save**.



4) Find the VPN connection added, and click **Connect**.



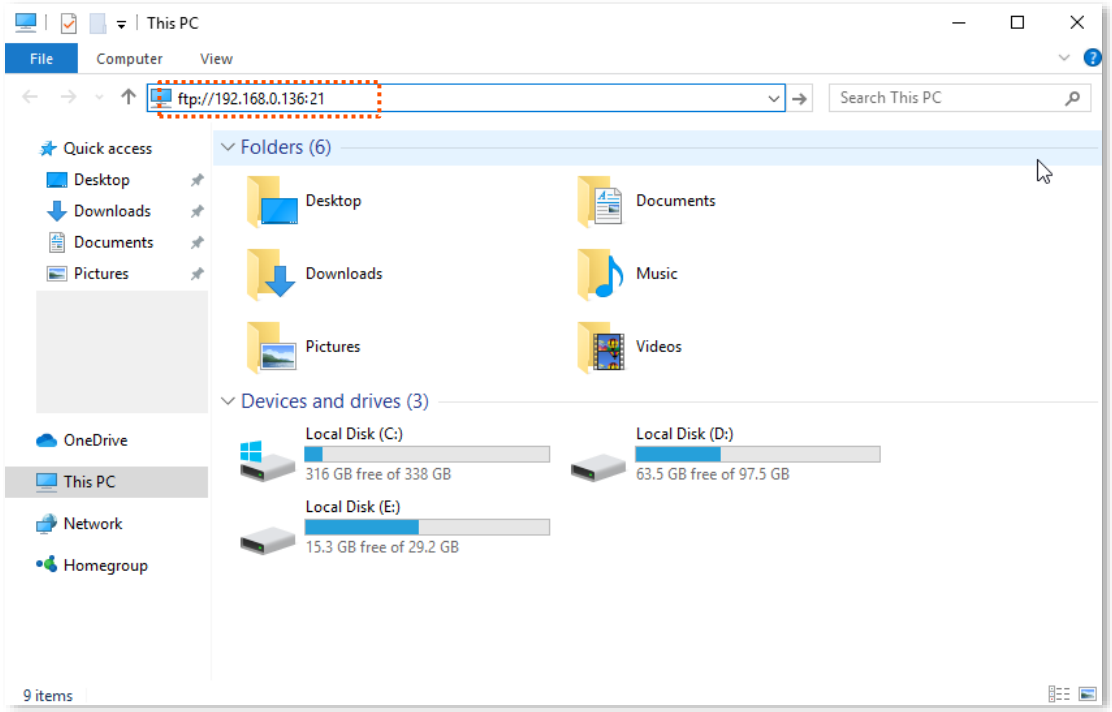

Wait a moment, the VPN connection is successful.

5. Access the FTP server.

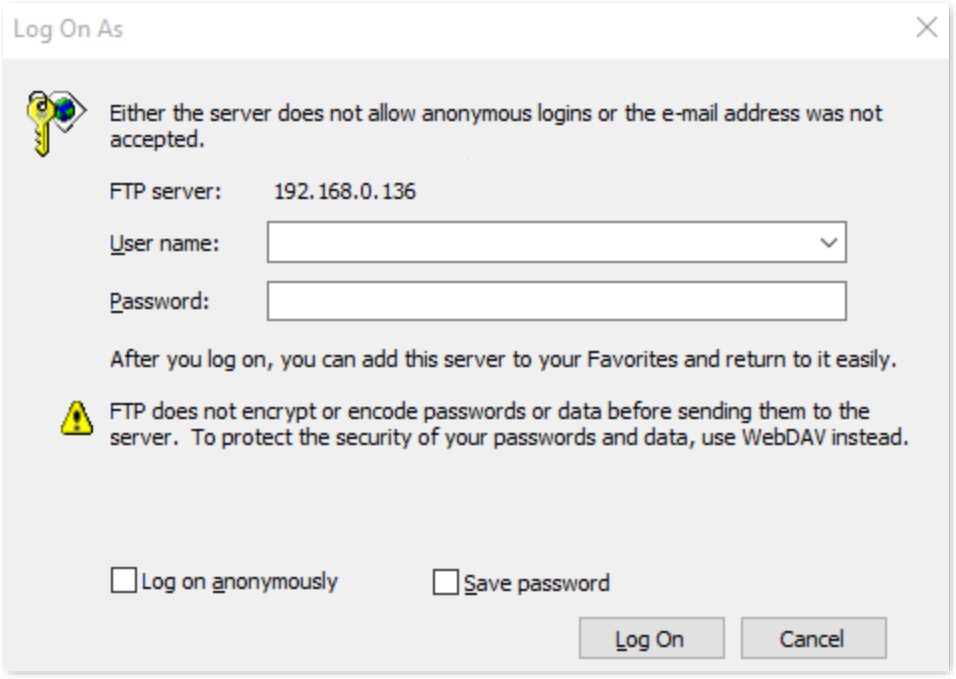
1) Click the icon on the desktop, and enter the address in the address bar to access the FTP server, which is **ftp://192.168.0.136:21** in this example.

TIP

If the LAN service port is not the default port number, the access format is "LAN service application layer protocol name://Server IP address: LAN service port".



2) Enter the user name and password for logging in to the FTP server, which are both **JohnDoe** in this example, and click **Log On**.




**---End**

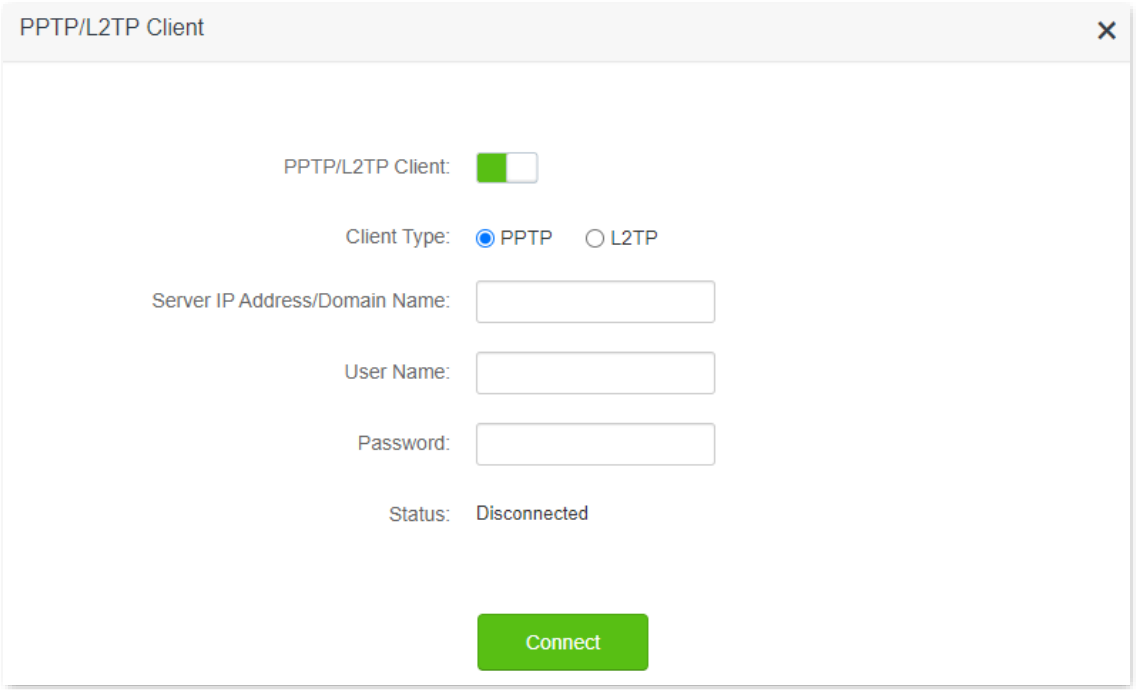
By performing the steps above, internet users can access the resources on the FTP server.

## 8.5.3 PPTP/L2TP client

The routers can function as PPTP/L2TP clients and connect to PPTP/L2TP servers.

### Enable PPTP/L2TP client

To access the configuration page, log in to the web UI of the router, navigate to **VPN** > **PPTP/L2TP Client**, and enable the **PPTP/L2TP Client**.




The following table describes the parameters displayed on this page.

**Parameter description**

| Parameter | Description |
|---|---|
| PPTP/L2TP Client | Used to enable or disable the PPTP/L2TP client function. |
| Client Type | Specifies the client type that the router serves as, either PPTP or L2TP.<br>- **PPTP**: When the router is connecting to a PPTP server, select this option.<br>- **L2TP**: When the router is connecting to an L2TP server, select this option. |
| Server IP Address/Domain Name | Specifies the IP address or domain name of the PPTP/L2TP server that the router connects to. Generally, when a router serves as the PPTP/L2TP server at the peer side, the domain name or IP address should be that of the WAN port whose PPTP/L2TP server function is enabled. |
| User Name | Specify the user name and password that the PPTP/L2TP server assigns to the PPTP/L2TP clients. |
| Password | |
| Status | Specifies the connection status of the VPN connection. |

## User access ISP's VPN resources

**Scenario:** You have subscribed to the PPTP VPN service when purchasing the broadband service from your ISP.

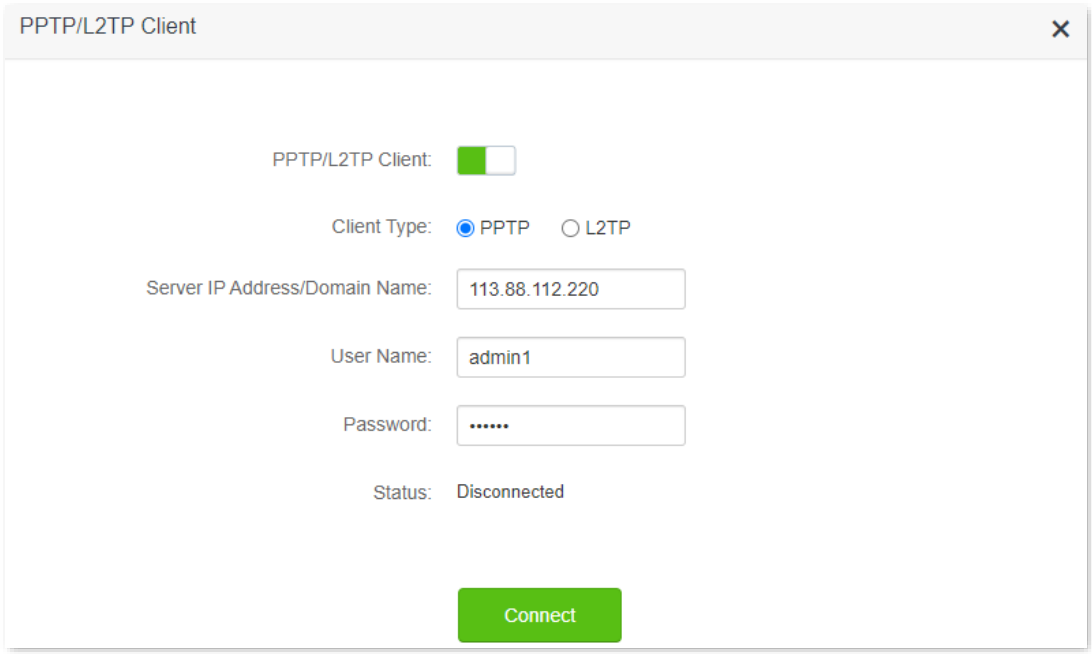
**Goal**: Access the VPN resources of your ISP more safely.

**Solution**: You can configure the PPTP/L2TP client function to reach the goal. Assume that:

- The IP address of the PPTP server is **113.88.112.220**.
- The user name and password assigned by the PPTP server are both **admin1**.

**Configuration procedure:**

1. Log in to the web UI of the router. Navigate to **VPN** > **PPTP/L2TP Client**.
2. Enable **PPTP/L2TP Client.**
3. Choose **PPTP** for **Client Type**.
4. Set **Server IP/Domain Name**, which is **113.88.112.220** in this example.
5. Set **User Name** and **Password**, which are both **admin1** in this example.
6. Click **Connect**.




**---End**

When **Connected** is shown behind **Status**, you can access the VPN resources of your ISP.

# 9 Network security

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

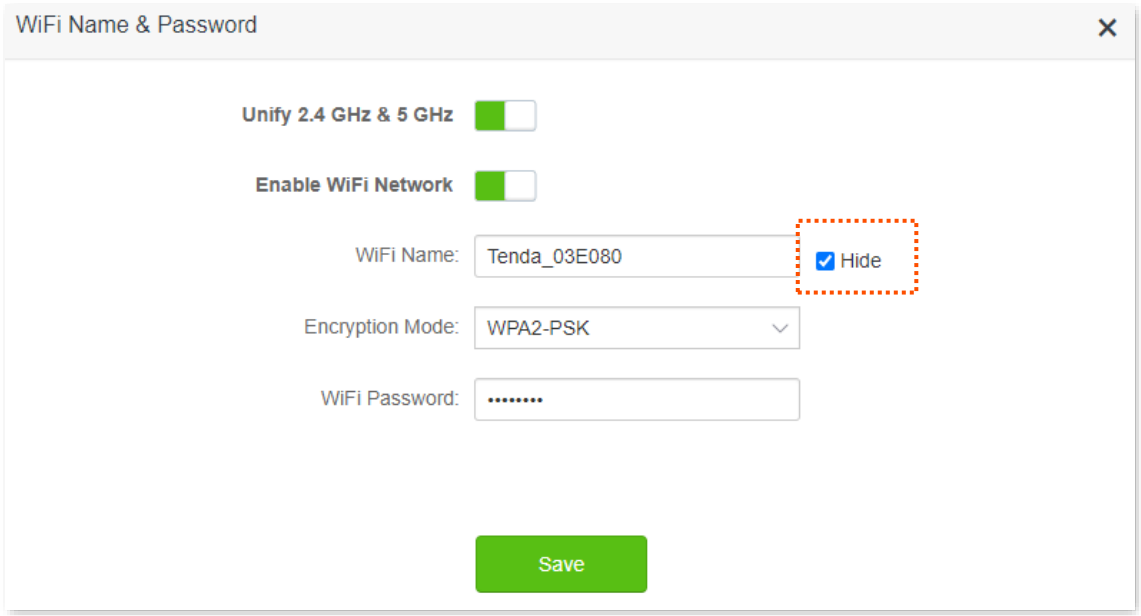
This chapter includes the following sections:

# 9.1 Hide the Wi-Fi network

The hidden Wi-Fi networks are invisible to Wi-Fi-enabled devices, thus improving the security of the networks.

**Configuration procedure:**

1. Log in to the web UI of the router.
2. Navigate to **WiFi Settings > WiFi Name & Password**.
3. Tick **Hide** to the right of **WiFi Name**. Take the enabling **Unify 2.4 GHz & 5 GHz** as an example. The following figure is for reference only.
4. Click **Save**.



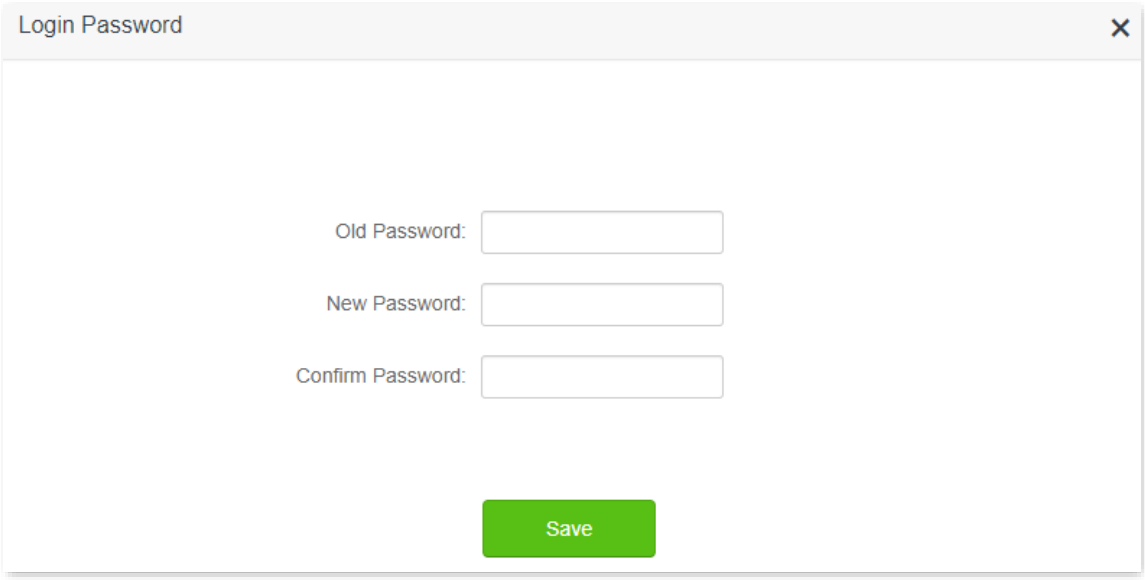

**---End**

After the settings are completed, the corresponding Wi-Fi network is invisible to Wi-Fi-enabled devices. If you want to connect to a hidden wireless network, you need to manually enter the wireless network name on a Wi-Fi-enabled device such as a smartphone. For details, see Connect to a hidden Wi-Fi Network.

# 9.2 Change the login password

To ensure network security, a login password is recommended. A login password consisting of more types of characters, such as uppercase and lowercase letters, brings higher security.

1. Log in to the web UI of the router.
2. Navigate to **System Settings** > **Login Password**.
3. Enter the current password for logging in to the router's web UI.
4. Set a new login password, and confirm the new password.
5. Click **Save**.



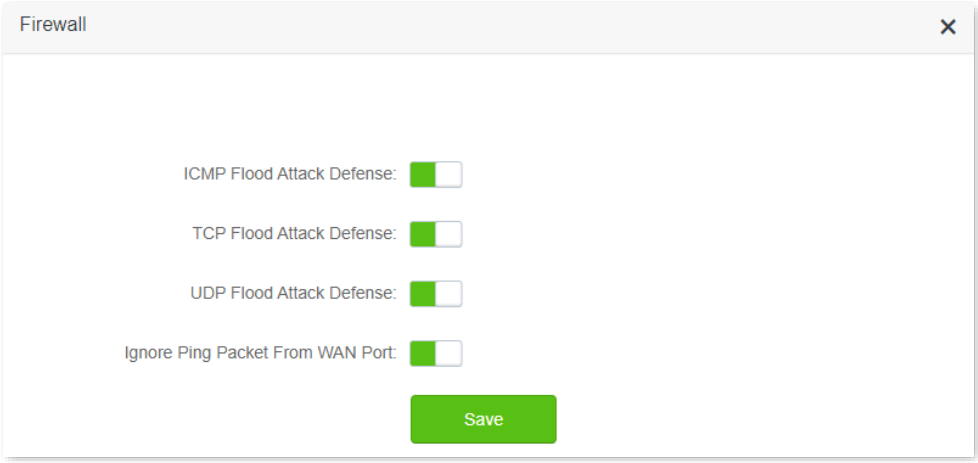

**---End**

The page will direct to the login page, enter the password just set, and click **Login**. you can re-log in to the router's web UI.

# 9.3 Firewall

The firewall function helps the router detect and defend ICMP flood attacks, TCP flood attacks and UDP flood attacks, and ignore Ping packets from the WAN port. It is recommended to keep the default settings.

To access the configuration page, log in to the web UI of the router, and navigate to **Advanced Settings** > **Firewall**.




The following table describes the parameters displayed on this page.

**Parameter description**

| Parameter | Description |
|---|---|
| ICMP Flood Attack Defense | Used to enable or disable the ICMP flood attack defense. The ICMP flood attack means that, to implement attacks on the target host, the attacker sends many ICMP Echo messages to the target host, which causes the target host to spend a lot of time and resources on processing ICMP Echo messages, but cannot process normal requests or responses. |
| TCP Flood Attack Defense | Used to enable or disable the TCP flood attack defense. The TCP flood attack means that, to implement attacks on the target host, the attacker quickly initiates many TCP connection requests in a short period, and then suspends in a semi-connected state, thereby occupying many server resources until the server denies any services. |
| UDP Flood Attack Defense | Used to enable or disable the UDP flood attack defense. The UDP flood attack is implemented similarly with the ICMP flood attack, during which the attacker sends many UDP packets to the target host, causing the target host to be busy processing these UDP packets, but unable to process normal packet requests or responses. |
| Ignore Ping Packet From WAN Port | Used to enable or disable the Block Ping from WAN function.<br>When it is enabled, the router automatically ignores the ping to its WAN from hosts from the internet and prevents itself from being exposed, while preventing external ping attacks. |

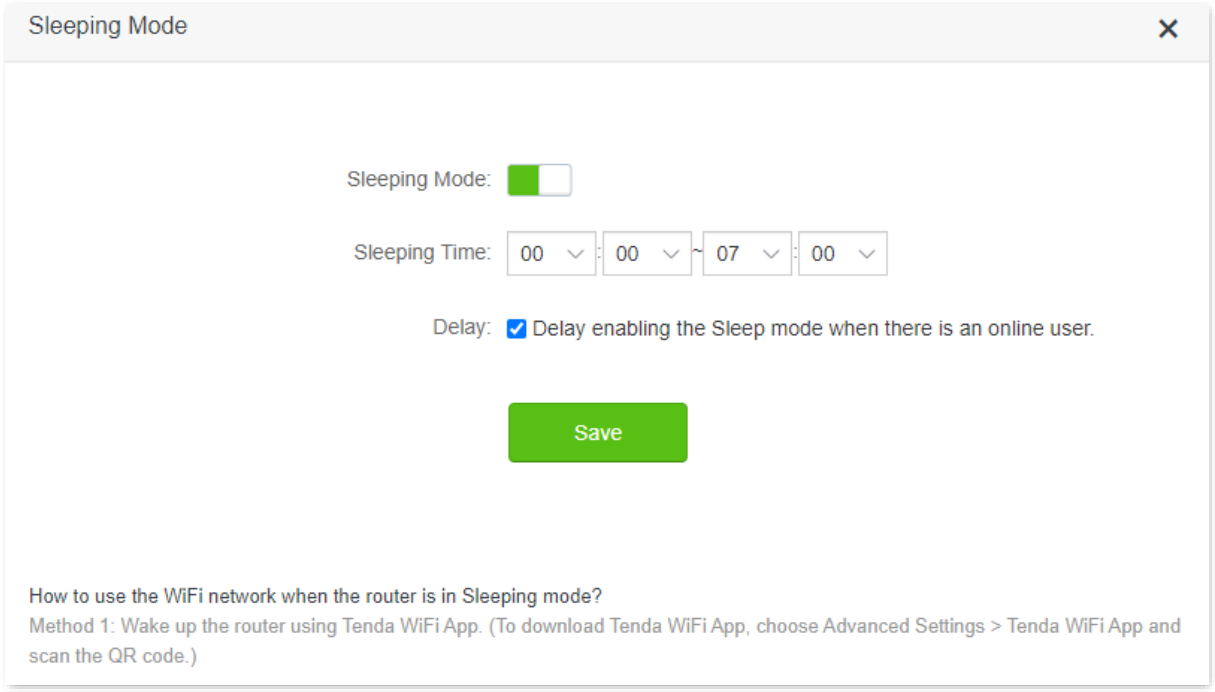
# 10 Advanced

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

This chapter includes the following sections:

# 10.1 Enable sleeping mode

To access the configuration page, log in to the web UI of the router, and navigate to **Advanced Settings** > **Sleeping Mode**. When the **Sleeping Mode** is enabled, the router will disable Wi-Fi and turn off all indicators to conserve energy.




The following table describes the parameters displayed on this page.

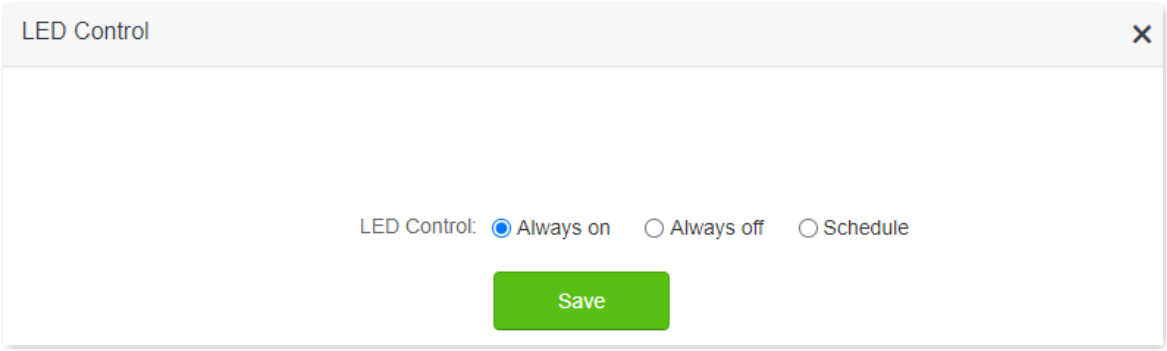
**Parameter description**

| Parameter | Description |
|---|---|
| Sleeping Mode | Used to enable or disable sleeping mode.<br>To connect to the router's Wi-Fi when the router is in sleeping mode, use the **Tenda WiFi** App to wake up the router remotely. |
| Sleeping Time | Specifies the period during which the **Sleeping Mode** function is in effect. |
| Delay | Used to enable or disable **Delay** function.<br>- Tick **Delay enabling the Sleep mode when there is an online user**: If the **Sleeping Mode** function is enabled, during the energy saving period, if a user is connected to the router and the traffic of the router's WAN port exceeds 3KB/s within 30 minutes, the router will be delayed into the power saving state. If no user is connected to the router and the WAN port traffic does not exceed 3KB/s within 3 minutes, the router will enter the power saving state.<br>- Untick **Delay enabling the Sleep mode when there is an online user**: When **Sleeping Mode** is enabled, the router will turn off the wireless network and the indicator during the **Sleeping Time** to save power. |

# 10.2 Turn on or turn off the indicator of router

## 10.2.1 Turn on or turn off the indicators of router

After logging to the web UI of the router, navigate to **Advanced Settings** > **LED Control**, and turn on or turn off the indicators of the router as required, and click **Save**.

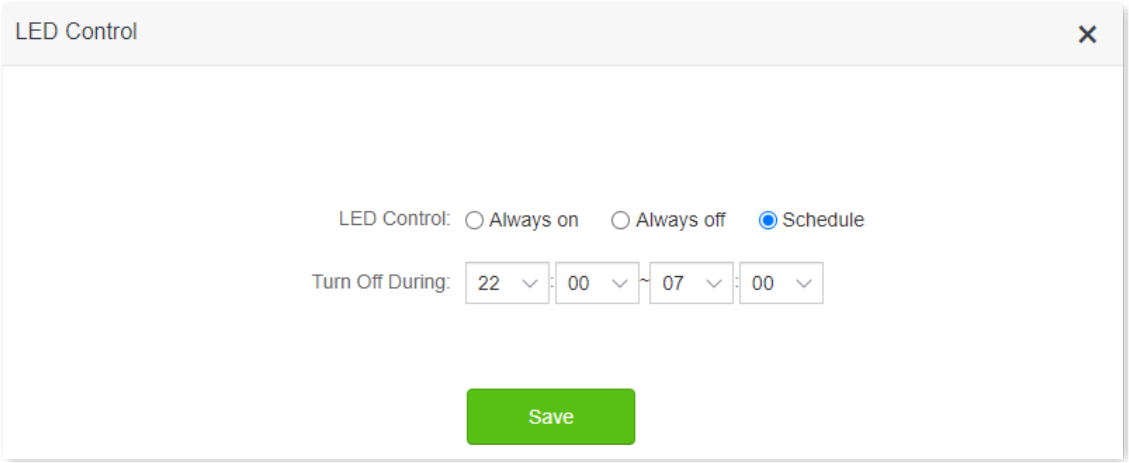



## 10.2.2 Schedule turn off the indicators of router

Assume that you want to turn off the router's indicator from 22:00 to 7:00, and other periods are normal. For details, see the following steps.

**Configuration procedure:**

1. Log in to the web UI of the router. Navigate to **Advanced Settings** > **LED Control**.
2. Set **Schedule**.
3. Select **Turn Off During** to **22:00** - **7:00**.
4. Click **Save**.




**---End**

# 10.3 IPTV

## 10.3.1 Overview

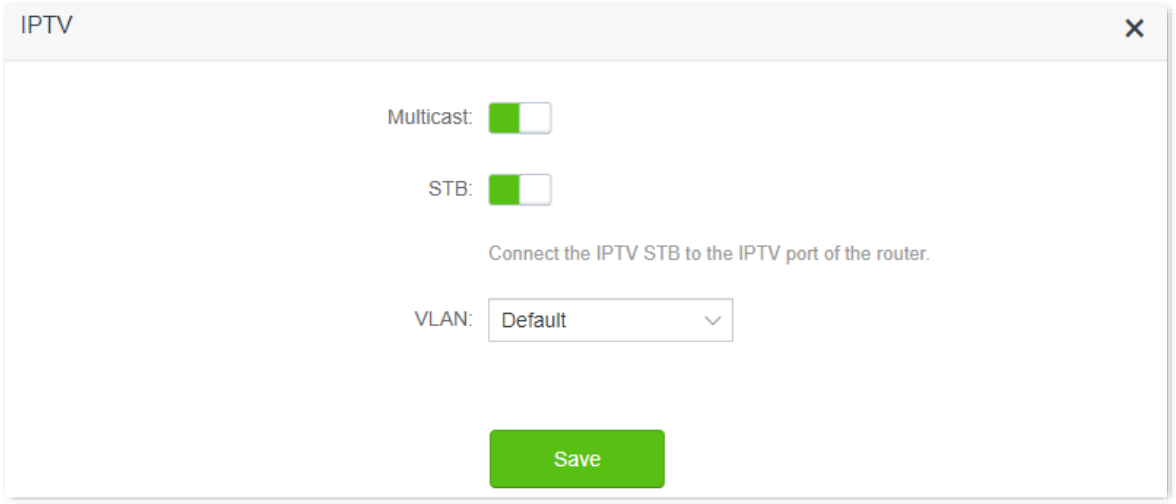
IPTV is the technology integrating internet, multimedia, telecommunication and many other technologies to provide interactive services, including digital TV, for family users by internet broadband lines.

If the IPTV service is included in your broadband service, you can enjoy both internet access through the router and rich IPTV contents with a set-top box when it is enabled.

If you want to watch multicast videos from the WAN side of the router on your computer, you can enable the multicast function of the router.

To access the configuration page, log in to the web UI of the router, and navigate to **Advanced Settings** > **IPTV**.

After enabling **Multicast** and **STB** functions, refer to the configuration diagram.




The following table describes the parameters displayed on this page.

**Parameter description**

| Parameter | Description |
|---|---|
| Multicast | Used to enable or disable the **Multicast** function. |
| STB | Used to enable or disable the **STB** function.<br>When this function is enabled, the port **IPTV/2** (For AC3, the IPTV port is port **1**.) can be used only as an IPTV port and be connected to an IPTV set-top box. |

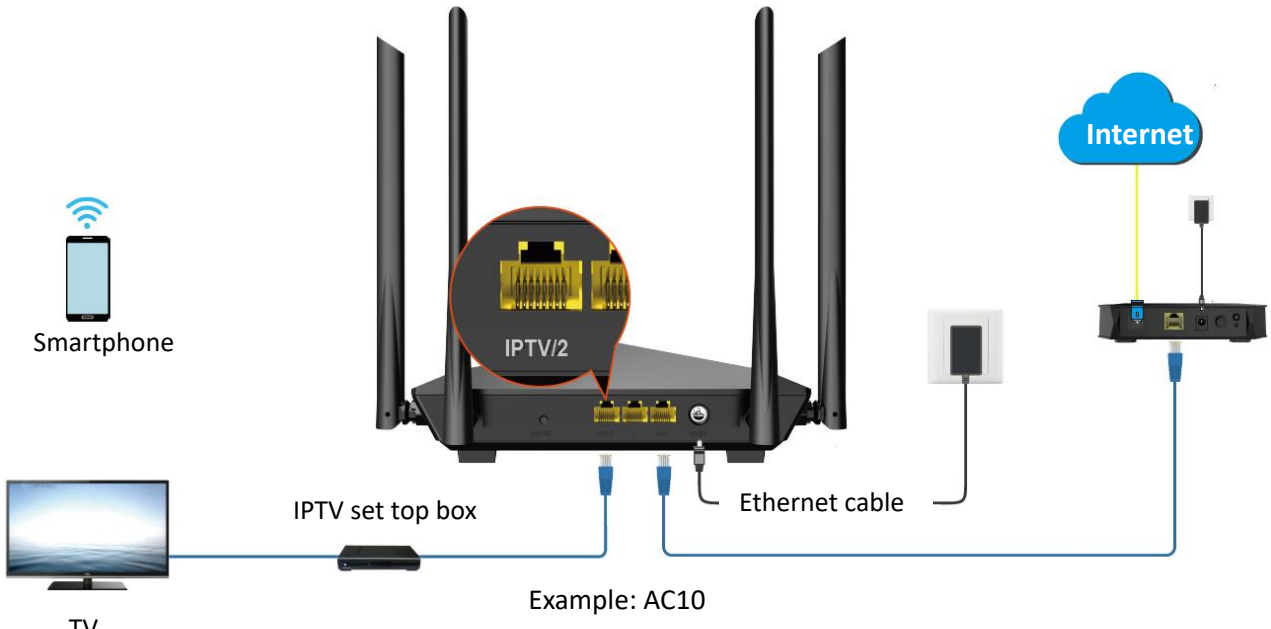
| Parameter | Description |
| --- | --- |
| VLAN | Specifies the VLAN ID of your IPTV service.<br>- If your ISP does not provide any VLAN ID information when the IPTV service is available, keep **Default**.<br>- If you have obtained the VLAN ID from your ISP when the IPTV service is available, choose **Custom** VLAN and enter the VLAN value.<br>TIP<br>If **Default** is not available, you are recommended to consult your ISP to provide the VLAN ID. |

## 10.3.2 Watch IPTV programs through the router

**Scenario:** The IPTV service is included in your broadband service. You have obtained the IPTV account and password from your ISP, and VLAN ID is 10.

**Goal**: Watch IPTV programs through the router.

**Solution**: You can configure the IPTV function to reach the goal.



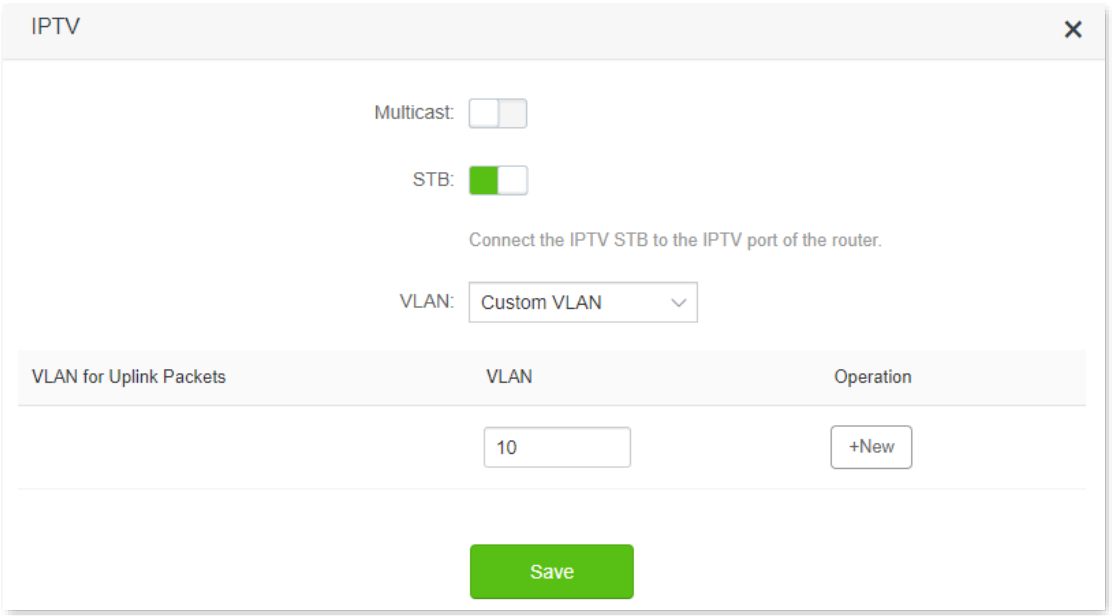

Example: AC10

**Configuration procedure:**

1. Set your router.
   1) Log in to the web UI of the router.
   2) Navigate to **Advanced Settings** > **IPTV**.
   3) Enable the **STB** function.

4) Select **Custom VLAN** for **VLAN**, set VLAN ID to **10**, and click **+New**.

5) Click **Save**.




2. Configure the set-top box.

   Use the IPTV user name and password provided by your ISP to dial up on the set-top box.

   **---End**

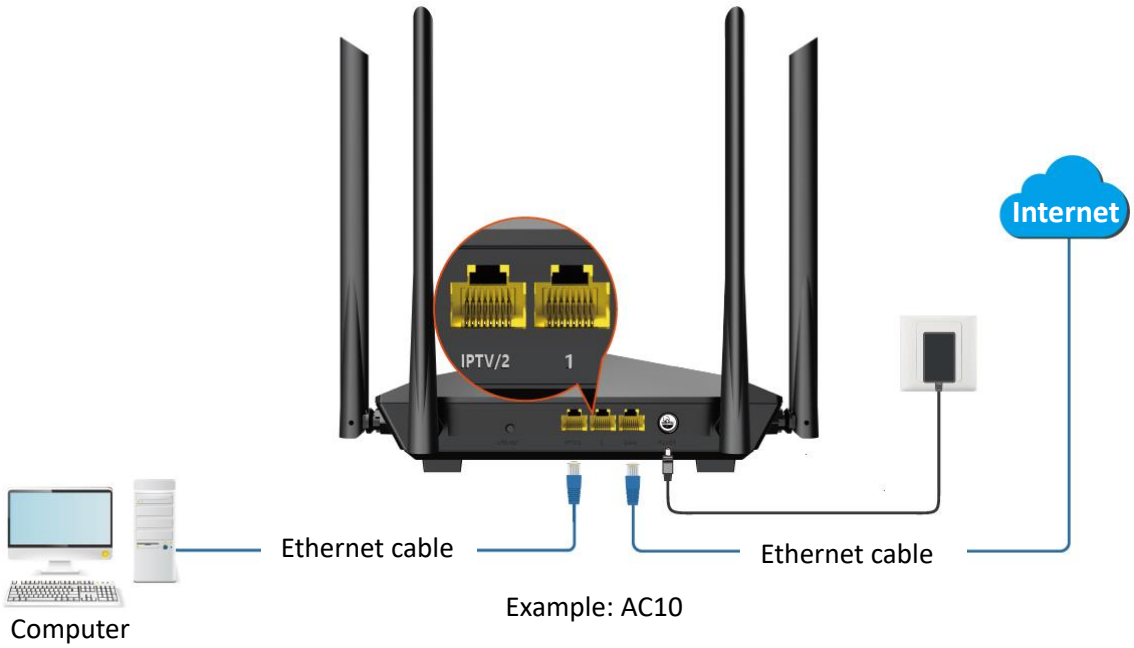
After the settings are completed, you can watch IPTV programs on your TV.

## 10.3.3 Watch multicast videos through the router

**Scenario:** You have the address of multicast videos.

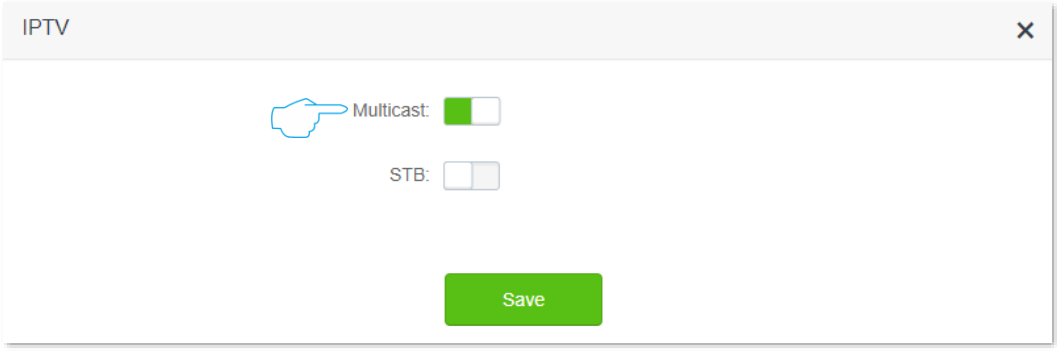
**Goal**: You can watch multicast videos.

**Solution**: You can configure the multicast function to reach the goal.




**Configuration procedure:**

1. Log in to the web UI of the router.
2. Navigate to **Advanced Settings** > **IPTV**.
3. Enable the **Multicast**.
4. Click **Save**.




**---End**

After the settings are completed, you can watch multicast videos on your terminal devices.

# 10.4 Change LAN IP address

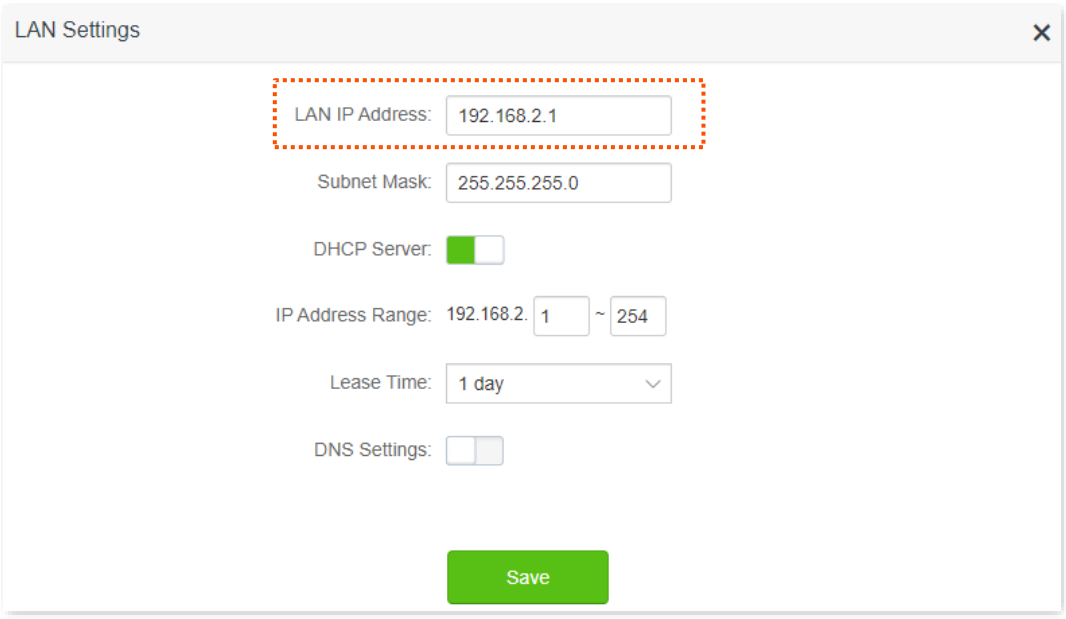
The LAN IP address is the router's IP address to the LAN and the router's management IP address. LAN users can log in to the web UI of the router using this IP address.

The default router's LAN IP address is 192.168.0.1 and the subnet mask is 255.255.255.0. Generally, you do not need to change the LAN port settings unless IP address conflicts occur. For example, the WAN IP address obtained by the router and the LAN IP address are on the same network segment. The IP address of other devices on the LAN is also 192.168.0.1.

Assume that you want to change the router login address to 192.168.2.1 and retain the default subnet mask.

**Configuration procedure:**

1. Log in to the web UI of the router, and navigate to **System Settings** > **LAN Settings**.
2. Change the LAN IP address in the **LAN IP Address**, which is **192.168.2.1** in this example.
3. Click **Save**.




4. Confirm the prompt message, and click **OK**.

**---End**

After the LAN IP address is successfully changed, the login page is automatically displayed. If not, ensure that the IP address of the Ethernet (or local connection) of the computer is set to **Obtain an IP address automatically** and **Obtain DNS server address automatically**, and then try again to access the new LAN IP address.

TIP

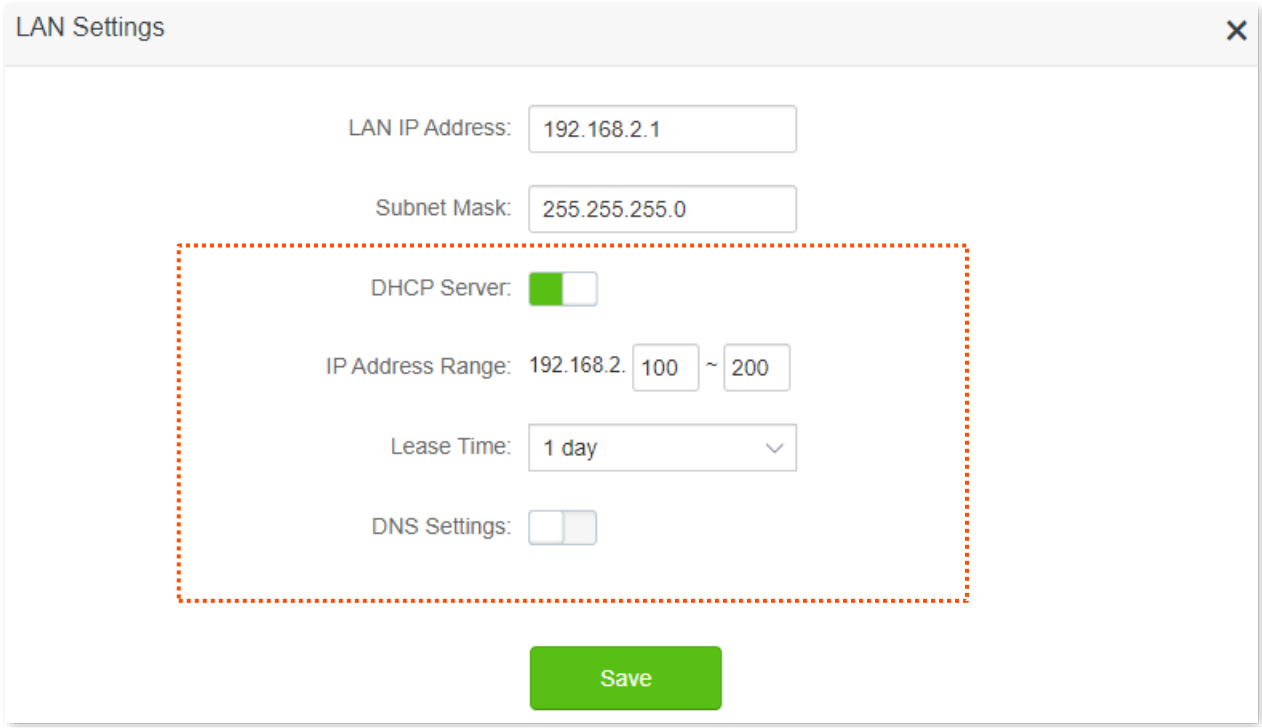
If the new LAN IP address is not on the same network segment as the IP address of the original LAN port, the system automatically changes the DHCP address pool to make it on the same network segment as the new LAN IP address.

## 10.5 Change DHCP server

DHCP is short for Dynamic Host Configuration Protocol. The DHCP server can automatically assign IP addresses, subnet masks, gateways, and DNS information to clients on the LAN.

If this function is disabled, you need to manually configure an IP address on the client to access the internet. Unless other specified, keep the DHCP server enabled.

To access the configuration page, log in to the web UI of the router, and navigate to **System Settings** > **LAN Settings**.



The following table describes the parameters displayed on this page.

**Parameter description**

| Parameter | Description |
| --- | --- |
| DHCP Server | Used to enable or disable the DHCP server. Once enabled, the DHCP server automatically assigns internet parameters such as IP address, subnet mask, and gateway address to the terminal device. You are recommended to enable this function. |
| IP Address Range | Specifies the range of IP addresses that can be assigned to clients connected to the router. |
| Lease Time | Specifies the valid duration of the IP address that is assigned to a client.<br>– If the client is still connected to the router after the IP address expires, the client will automatically renew and continue to occupy the IP address.<br>– When the IP address expires, the router will release the IP address if the client does not connect to the router (power off, Ethernet cable unplugged, wireless network disconnected, and so on). If another client requests the IP address information, the router can assign the IP address to another client.<br>It is recommended to keep the default value. |
| DNS Settings | Specifies whether to allocate another DNS address to the client. It is recommended to keep disabled.<br>– When it is disabled, the LAN port IP address of the router is used as the DNS address of the client.<br>– When it is enabled, **Primary DNS Server** must be set and **Secondary DNS Server** is optional. |
| Primary DNS Server | Specifies the primary DNS address allocated to the client by the router.<br>TIP<br>Ensure that the primary DNS server is the IP address of the correct DNS server or DNS proxy. Otherwise, you may fail to access the internet. |
| Secondary DNS Server | Specifies the secondary DNS server address of the router used to assign to the clients. It is optional. |

# 10.6 Assign static IP address to LAN client

The DHCP Reservation function enables the DHCP server to always assign a fixed IP address to the client, preventing IP address-based functions, such as network bandwidth control and virtual server, from becoming invalid when the client IP address changes.

NOTE,

**DHCP Reservation** function takes effect only when **DHCP Server** is enabled.

**Scenario:** You have set up an FTP server within your LAN.

**Goal:** To prevent the failure to access the FTP server due to IP address changes, you must assign a fixed IP address to the FTP server.

**Solution:** You can configure the static IP reservation function to reach the goal.

Assume that the information of the FTP server includes:

- MAC address: 6C:4B:90:3E:AD:AF
- IP address: 192.168.0.80

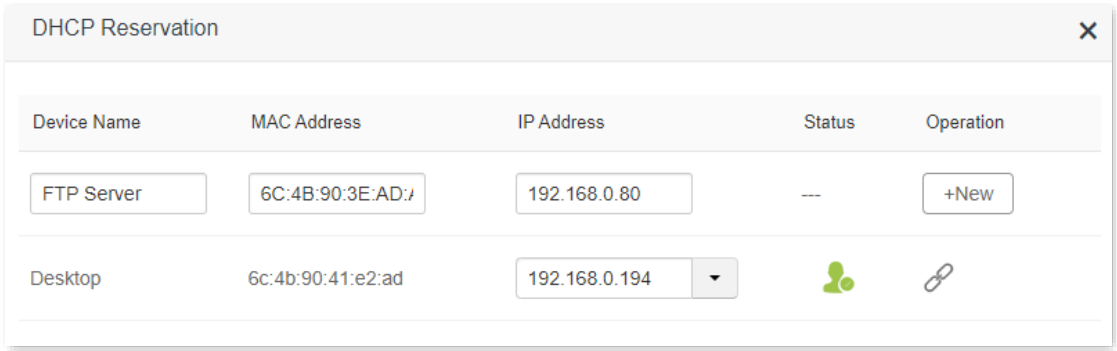
**Configuration procedure:**

1. Log in to the web UI of the router.
2. Navigate to **System Settings** > **DHCP Reservation**.
3. Assign a fixed IP address to the FTP server.

   If the FTP server host is connected to the router, modify the IP address you want to bind, and click 🔗. Otherwise, set the device name, enter the MAC address of the FTP server host and the IP address to be bound, and click **+New**. The following figure is for reference only.

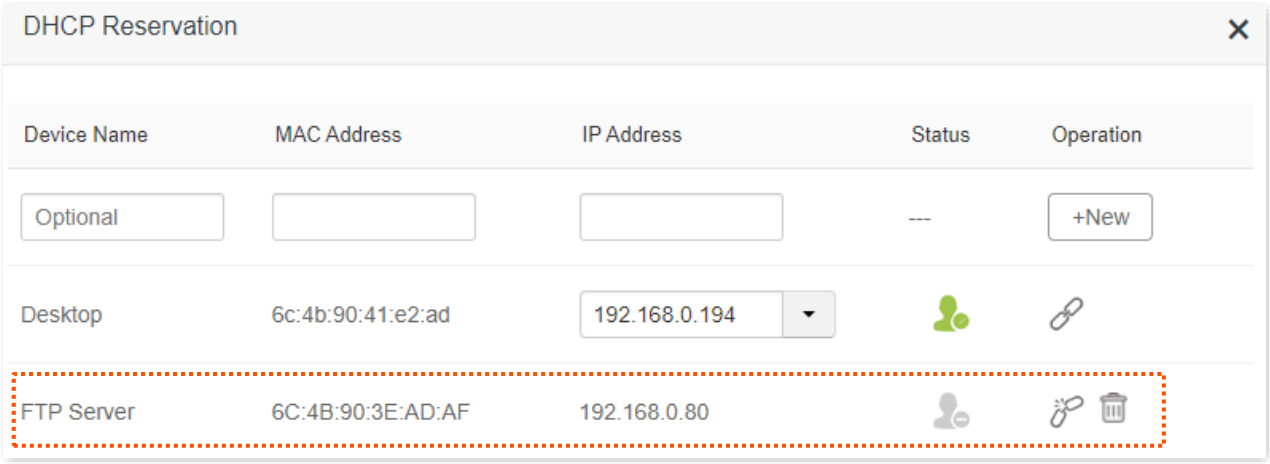
TIP

After the rule is added successfully, it takes effect the next time the device connects to the router.




**---End**

After the static IP reservation rule is successfully added, the following figure is displayed. After the host with the MAC address 6C:4B:90:3E:AD:AF is connected to the router, it always obtains the IP address 192.168.0.80.



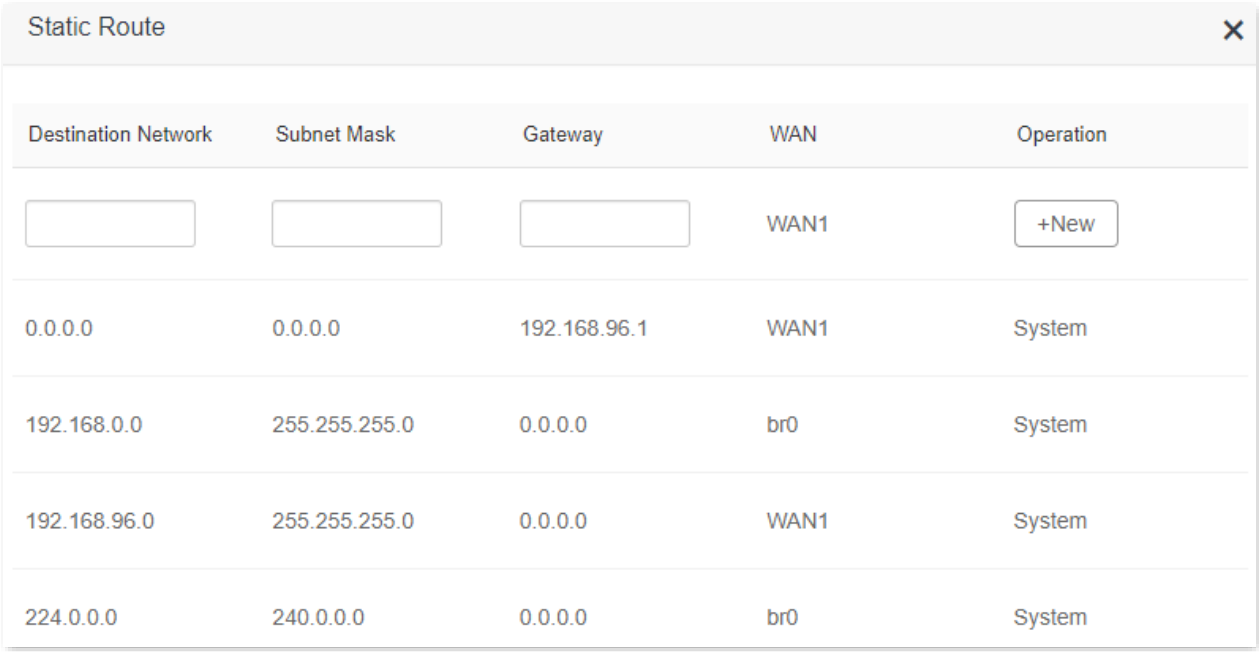
# 10.7 Static routing

## 10.7.1 Overview

Routing is the act of choosing an optimal path to transfer data from a source address to a destination address. A static route is a special route that is manually configured and has the advantages of simplicity, efficiency, and reliability. Proper static routing can reduce routing problems and overload of routing data flow, and improve the forwarding speed of data packets.

A static route is set by specifying the destination network, subnet mask, default gateway, and interface. The destination network and subnet mask are used to determine a destination network or host. After the static route is established, all data whose destination address is the destination network of the static route are directly forwarded to the gateway address through the static route interface.

To access the configuration page, log in to the web UI of the router, and navigate to **Advanced Settings** > **Static Route**.



The following table describes the parameters displayed on this page.

**Parameter description**

| Parameter | Description |
| --- | --- |
| Destination Network | Specifies the IP address of the destination network.<br>If **Destination Network** and **Subnet Mask** are both **0.0.0.0**, this is the default route.<br>TIP<br>When no route of packets can be found under **Routing Table**, the router will forward the packets using the default route. |
| Subnet Mask | Specifies the subnet mask of the destination network. |
| Gateway | Specifies the ingress IP address of the next hop router after the data packet exits from the interface of the router.<br>**0.0.0.0** indicates that the destination network is directly connected to the router. |
| WAN | Specifies the interface that the packet exits from. |
| Operation | Used to modify or delete a static routing rule. **System** means that the routing rule is automatically generated by the system. |

## 10.7.2 An example of adding a static routing rule

**Scenario:** You have a router and another two routers. Router1 is connected to the internet and its DHCP server is enabled. Router2 is connected to an intranet and its DHCP server is disabled.

**Goal**: You can access both the internet and intranet at the same time.

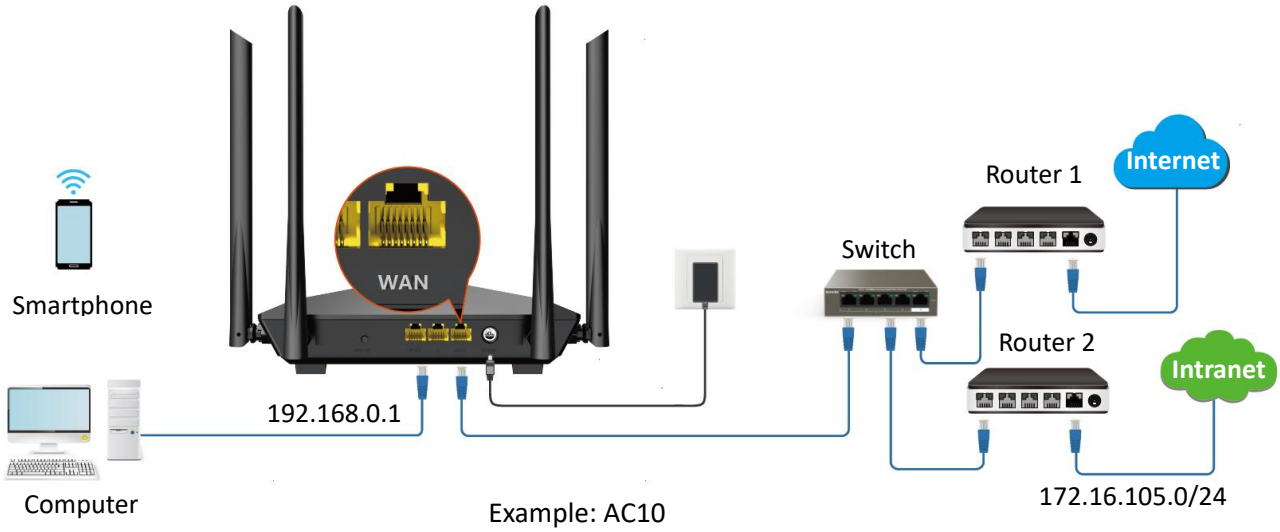
**Solution**: You can configure the static routing function to reach the goal.

Assume the LAN IP addresses of these devices are:

- Router: 192.168.0.1
- Router1: 192.168.10.10
- Router2: 192.168.10.20

Information about the intranet:

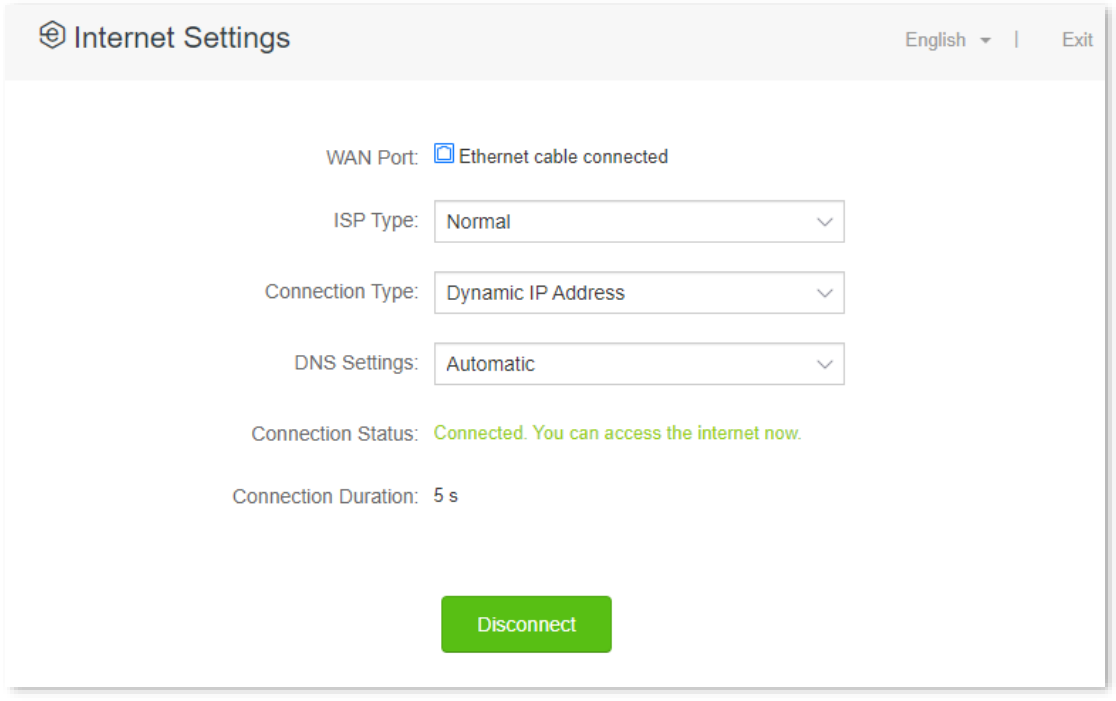
- IP address: 172.16.105.0
- Subnet mask: 255.255.255.0




Log in to the web UI > Configure the internet access > Set the static routing rule

**Configuration procedure:**

1. Log in to the web UI of the router.
2. Configure the router to access the internet in **Internet Settings**. For details, see Access the internet through dynamic IP.



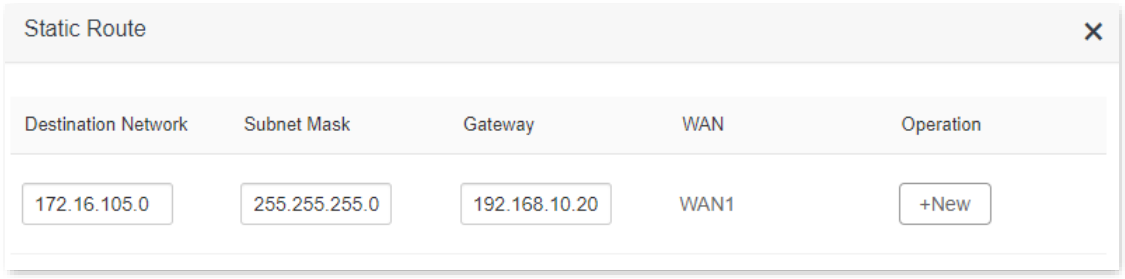
3. Add a static routing rule.

   1) Navigate to **Advanced Settings** > **Static Route**.

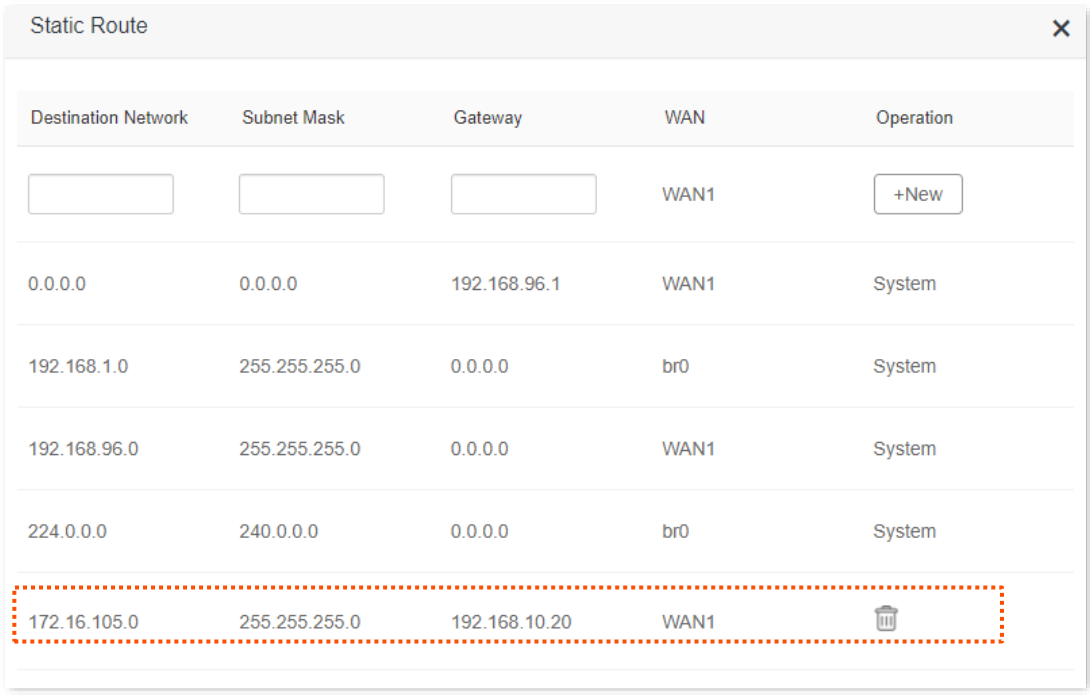
   2) Click **+New.**

      - Enter the IP address of the **Destination Networ**k, which is **172.16.105.0** in this example.
      - Enter the **Subnet Mask**, which is **255.255.255.0** in this example.
      - Enter the ingress IP address of the **Gateway**, which is **192.168.10.20** in this example.

   3) Click **OK**.




The new static routing rule is displayed under routing table.




**---End**

After the settings are completed, you can access both the internet and intranet through the router at the same time.

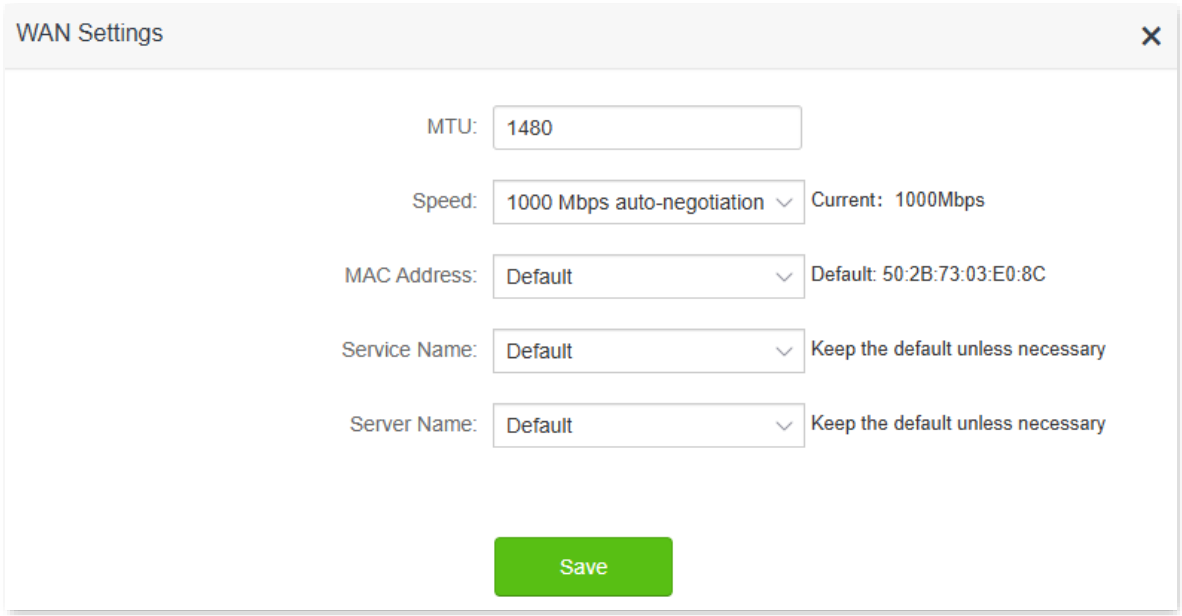
# 10.8 Modify the service name and server name

To access the configuration page, log in to the web UI of the router, and navigate to **System Settings** > **WAN Settings**.

Here, you can set the service name and server name for the broadband service.

The service name and server name may only need to be set if the internet connection type is **PPPoE**.

When the user deals with broadband, if the ISP provides the service name or server name, the user completes the internet settings, selects the service name or server name as **Custom** and enter the relevant information. Otherwise, keep the default settings.



# 11 System maintenance

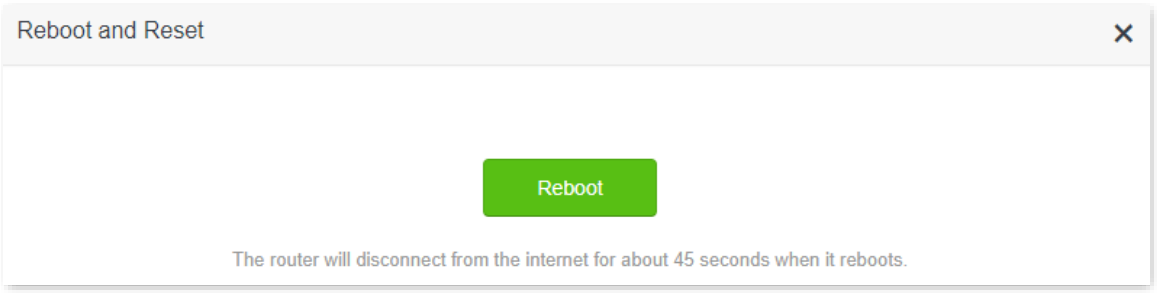
Features available in the router may vary by model and software version. Router availability may also vary by region or ISP. All images, steps, and descriptions in this guide are only examples and may not reflect your actual router experience.

This chapter includes the following sections:

# 11.1 Reboot device

If a parameter you set does not take effect or the router cannot be used, you can manually reboot the router to resolve the problem. The reboot will disconnect all connections. Perform this operation when the network is relatively idle.

1. Log in to the web UI of the router.
2. Navigate to **System Settings** > **Reboot and Reset**.
3. Click **Reboot**.




4. Confirm the prompt message, and click **OK**.

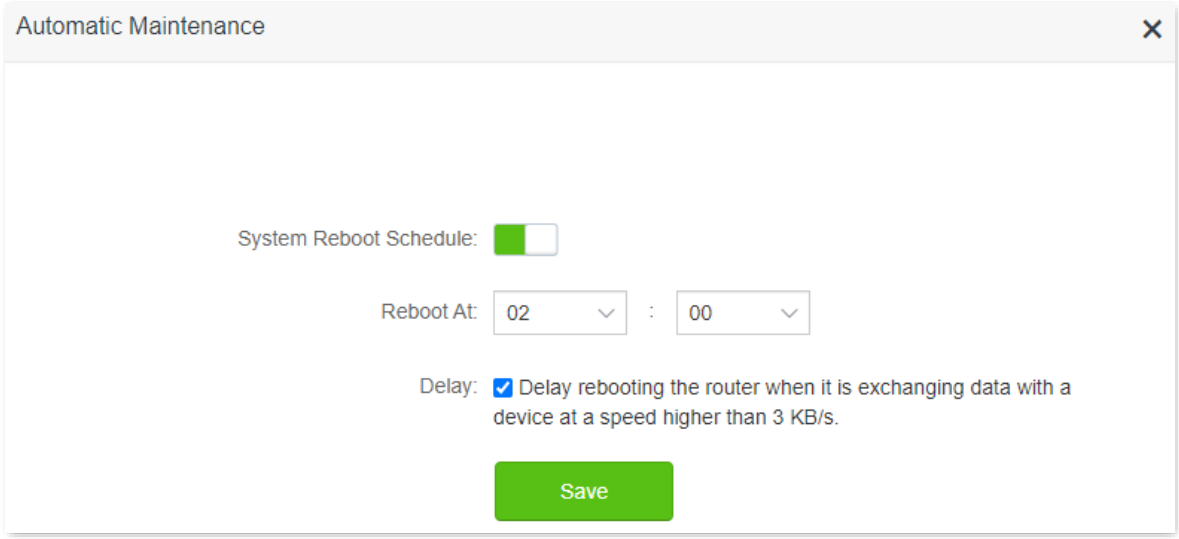
**---End**

Wait until the ongoing process finishes.

# 11.2 Auto system maintenance

Auto system maintenance enables you to reboot the router regularly. It helps improve the stability and service life of the router.

To access the configuration page, log in to the web UI of the router, and navigate to **System Settings** > **Automatic Maintenance**. This function is enabled by default.




The following table describes the parameters displayed on this page.

**Parameter description**

| Parameter | Description |
|---|---|
| System Reboot Schedule | Used to enable or disable the auto system maintenance function. |
| Reboot At | Specifies the time when the router reboots automatically every day. |
| Delay | Used to enable or disable the reboot delay function.<br>- Ticked: The function is enabled. When the time for rebooting approaches, if there is any user connected to the router and the traffic over the router's WAN port exceeds 3 KB/s, the router will delay rebooting.<br>- Unticked: The function is disabled. The router reboots immediately when the specified time for rebooting approaches.<br>TIP<br>After **Delay** function is enabled, the router continuously detects traffic within 2 hours after reboot time, and reboots once the conditions are met. |

# 11.3 Firmware upgrade

With this function, you can upgrade the firmware of the router to obtain the latest functions and more stable performance. The router supports online upgrade and local upgrade.

## 11.3.1 Online upgrade

NOTE

Do not disconnect the device from power or internet during this process. Otherwise, the upgrade may fail or the router may be damaged.

1. Log in to the web UI of the router.
2. Navigate to **System Settings** > **Firmware Upgrade**.
3. If a new firmware version is detected, click **Online Upgrade**.

**---End**

The system will download the upgrade firmware from the cloud and upgrade automatically. After the upgrade is completed, access the **Firmware Upgrade** page again and check whether the upgrade is successful based on **Current Version**.

## 11.3.2 Local upgrade

NOTE

To prevent the router from being damaged:

- Ensure that the firmware is applicable to the router. Generally, the firmware upgrade file suffixed with **.bin**.
- When you are upgrading the firmware, do not power off the router.

1. Go to www.tendacn.com. Download applicable firmware of the router to your local computer and unzip it.
2. Log in to the web UI of the router. Navigate to **System Settings** > **Firmware Upgrade**.
3. Click **Local Upgrade** in the line of the router to be upgraded.
4. Click **Select File**. Target the firmware file downloaded previously (suffixed with **.bin**).
5. Click **Upgrade**.

**---End**

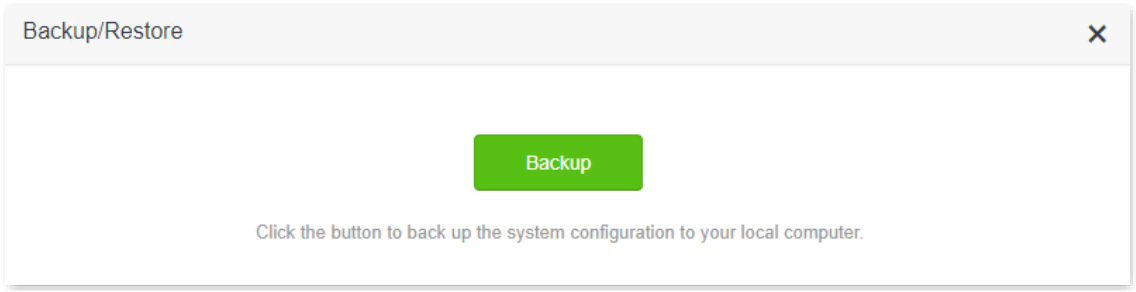
Wait until the upgrade completes. Then, access the **Firmware Upgrade** page again and check whether the upgrade is successful based on **Current Version**.

# 11.4 Backup & restore

- In this module, you can back up the current configuration of the router to your computer. You are recommended to back up the configuration after the settings of the router are significantly changed, or the router works in a good condition.
- If you forget your Wi-Fi password or fail to fix network connection problems with other solutions, you can reset the router to factory settings on this page.
- After you restored the router to factory settings or upgraded it, you can use this function to restore the configuration that has been backed up.

## 11.4.1 Back up the configuration of the router

1. Log in to the web UI of the router.
2. Navigate to **System Settings** > **Backup/Restore.**
3. Click **Backup**.




4. Confirm the prompt message, and click **OK**.

TIP

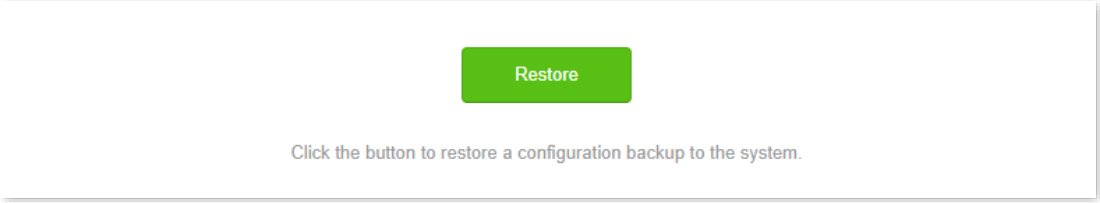
If the page appears something like **RouterCfm.cfg is blocked because this type of file may damage your device**. Please select **Keep**.

**---End**

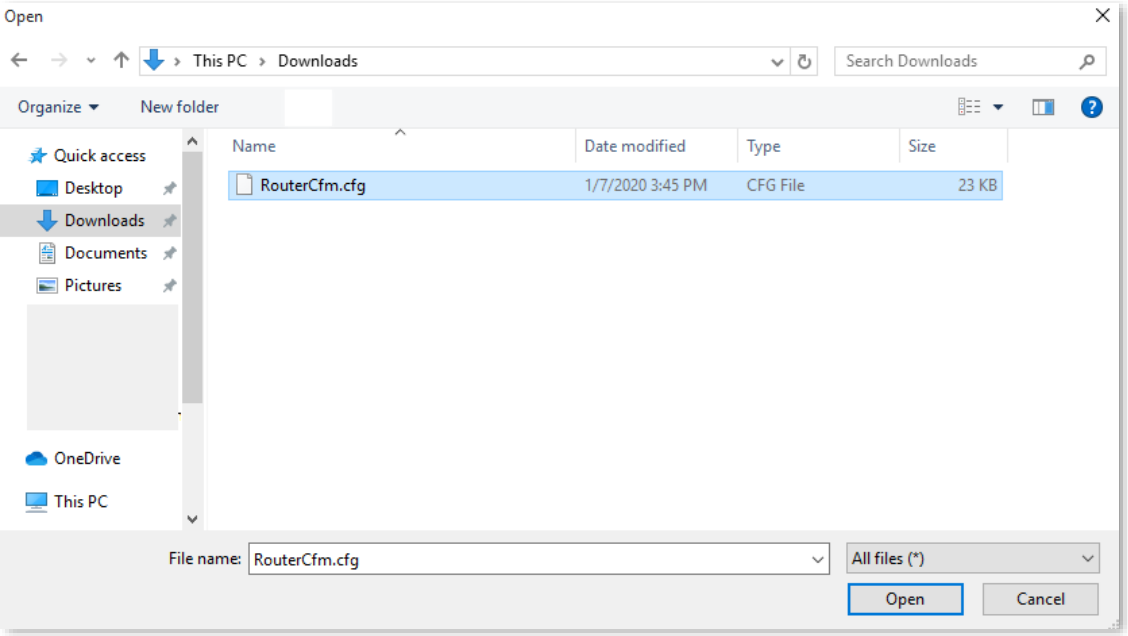
A file named **RouterCfm.cfg** will be downloaded to your local host.

## 11.4.2 Restore the previous configuration of the router

1. Log in to the web UI of the router.
2. Navigate to **System Settings** > **Backup & Restore.**
3. Click **Restore**.




4. Select the configuration file (suffixed with **.cfg**) to be restored, and click **Open**.




5. Click **Restore**.

**---End**

Wait until the ongoing process finishes, and previous settings are restored to the router.

## 11.4.3 Reset

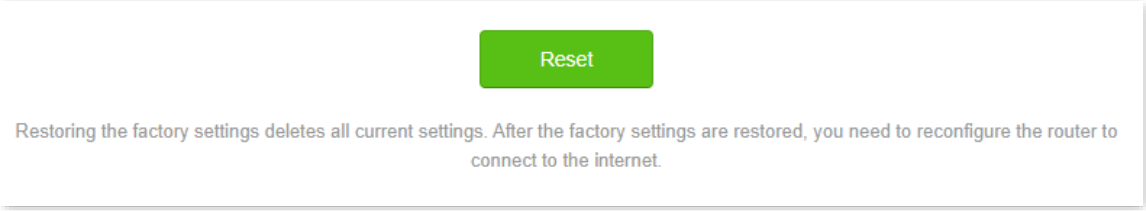
When the network cannot locate the problem or you want to log in to the web UI of the router but forgot the login password, you can restore the router to factory settings and reconfigure.

NOTE

- Resetting clears all configurations and restores the router to factory settings. You need to reconfigure the router. You are recommended to back up the configuration before restoring the factory settings.
- During the process of restoring factory settings, ensure that the router is powered properly to avoid damage to the router.
- After the router is restored to factory settings, the default login IP address of the router is **192.168.0.1**.

### Reset the router through web UI

1. Log in to the web UI of the router.
2. Navigate to **System Settings** > **Reboot and Reset**.
3. Click **Reset**.




4. Confirm the prompt message, and click **OK**.

**---End**

## Reset the router through the reset button

NOTE

After the router is restored to factory settings, it needs to be configured again to access the internet. It is recommended to back up your configuration first.

Use the reset button (such as **RESET**, **RST**) on the device body to restore the router to factory settings.

**Method:** Hold the reset button down for about 8 seconds and then release it. The device is restored to factory settings.

# 11.5 System time

To access the configuration page, log in to the web UI of the router, and navigate to **System Settings** > **Time Settings.**

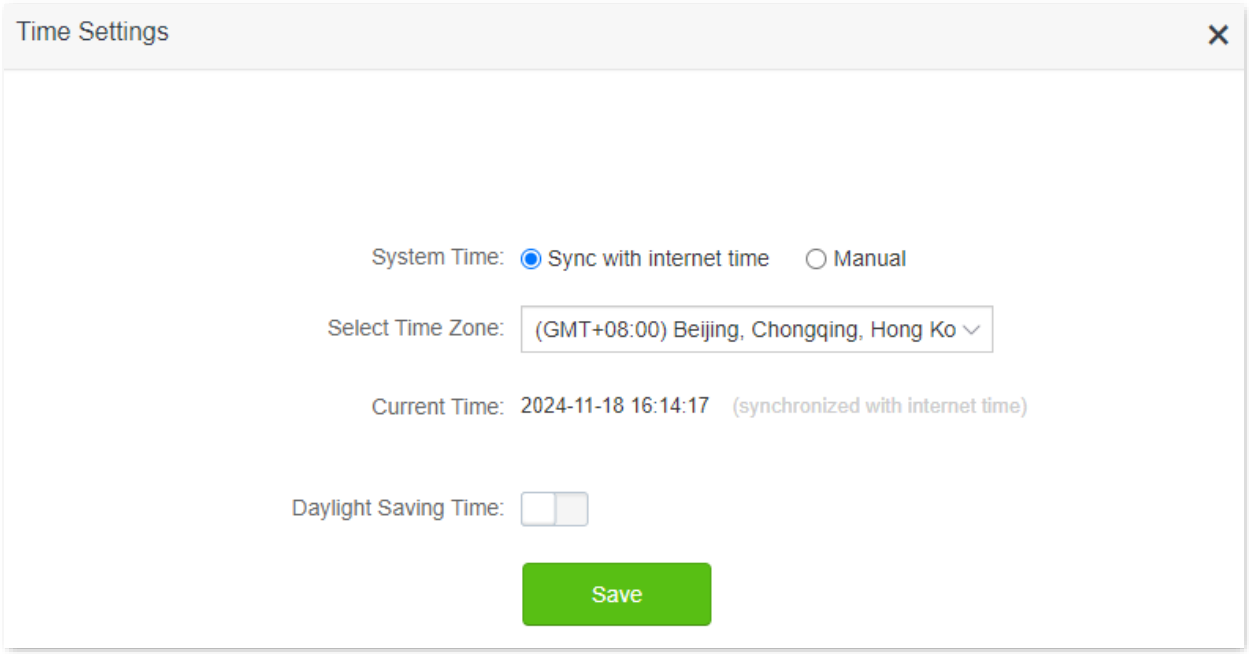
You can set the system time on this page.

The time-based functions require an accurate system time. The system time of the router can be synchronized with the internet or local time. By default, it is synchronized with the internet.

## Synchronize with the internet

In this mode, the system time automatically synchronizes with the internet time. Once the router is successfully connected to the internet, it automatically synchronizes its system time without configuring.

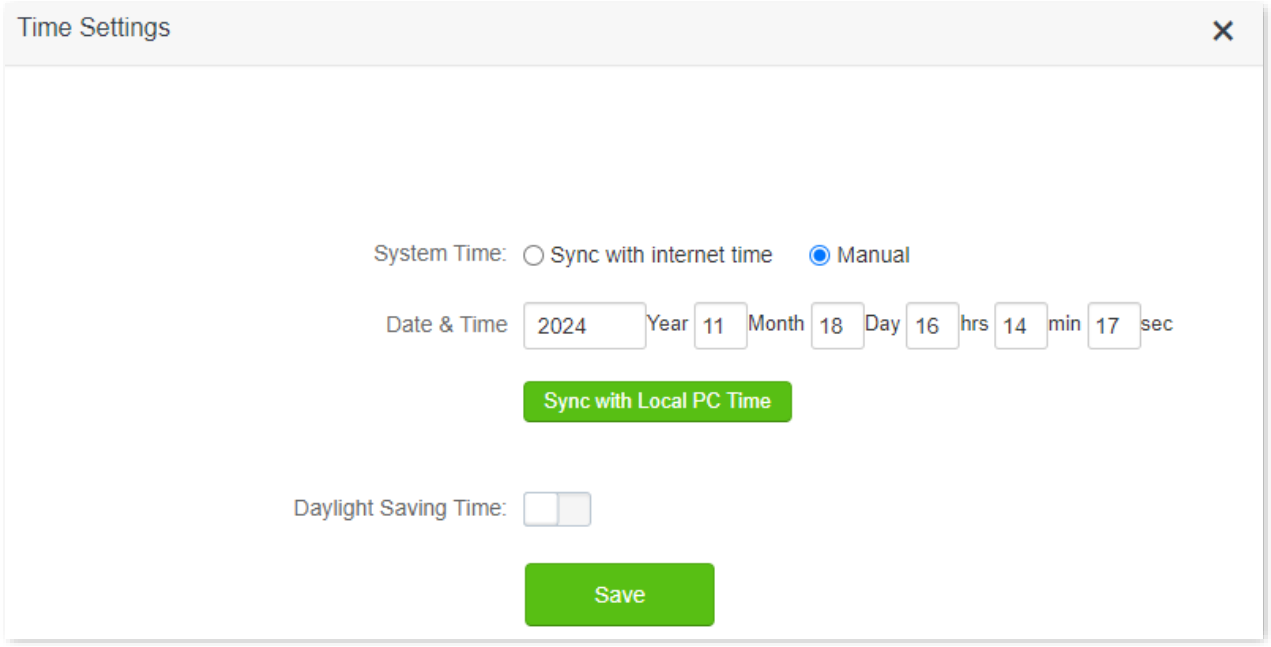
After the settings are completed, you can check whether **System Time** is correct.



## Synchronize with local time

In this mode, the system time is synchronized with the system time of the device that is managing the router. You need to reconfigure the system time every time your router reboots.

After the settings are completed, you can check whether **System Time** is correct.



# 11.6 View or export the system log

To access the configuration page, log in to the web UI of the router, and navigate to **System Settings** > **System Log.**

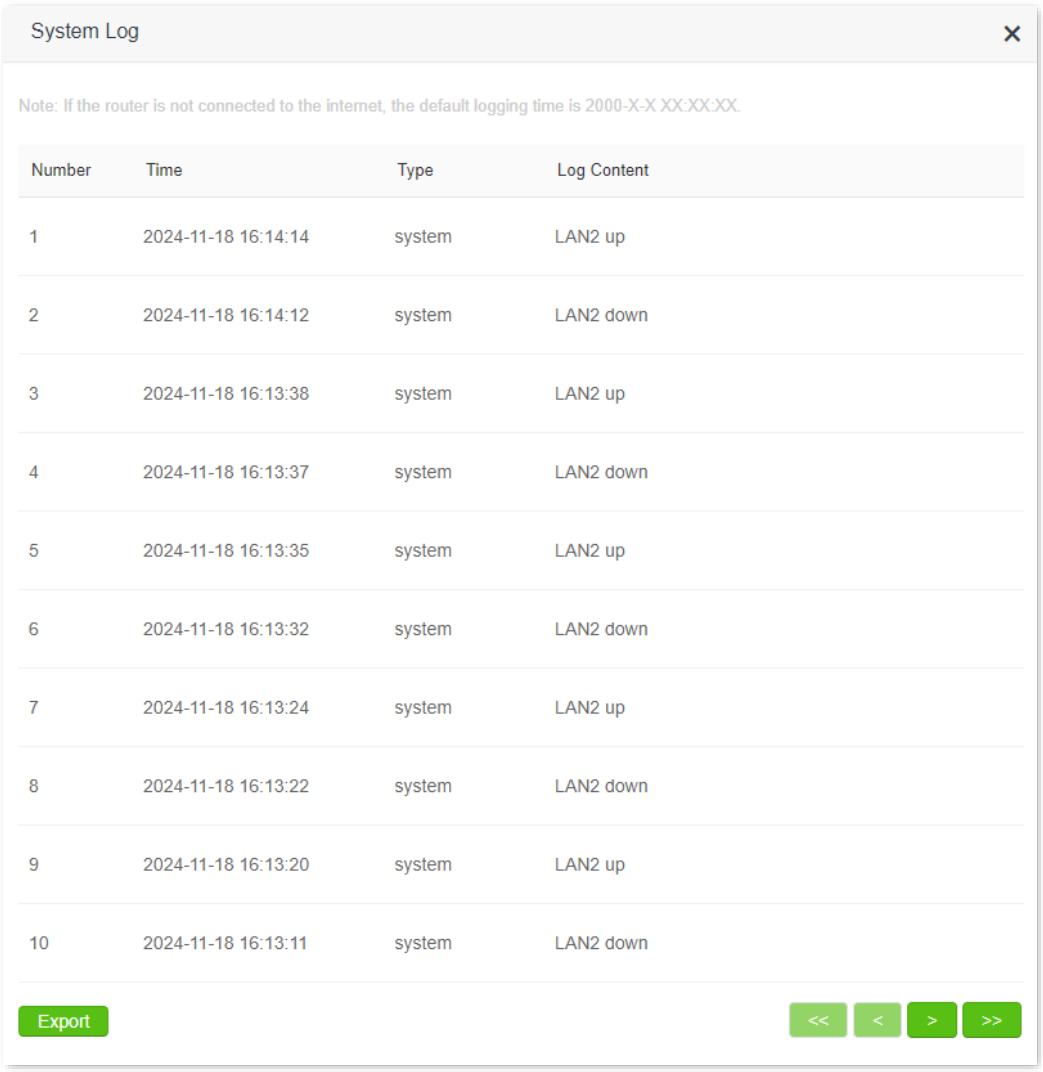
This function logs all key events that occur after the router is started. If you encounter a network fault, you can turn to system logs for fault rectification.

The log recording time depends on the system time of the router. To ensure that the log recording time is accurate, set the system time of the router first. Navigate to System time page to synchronize the router's clock.

NOTE

Rebooting the router will clear all previous system logs. Power-on after a power failure, firmware upgrade, restore settings, or reset may cause the system to reboot.

You can view and export the router’s log as required.



# Appendixes

## A.1 FAQ

**Q1: I cannot log in to the web UI by visiting tendawifi.com. What should I do?**

**A1:** First, try to visit **http://tendawifi.com** or **http://192.168.0.1** in the address bar (not the search bar).

If you are using a Wi-Fi-enabled device, such as a smartphone:

- Ensure that your smartphone is connected to the Wi-Fi network of the router.
  - The router is in reset status, connect the Wi-Fi name (**Tenda_*XXXXXX*** or **@Tenda_*XXXXXX*)** on the label of the device's body. There is no Wi-Fi password by default.
  - When logging in again after settings, use the changed Wi-Fi name and password to connect to the Wi-Fi network.
- Ensure that the cellular network (mobile data) of the smartphone is disabled.

If you are using a wired device, such as a computer:

- Ensure that the computer is connected to the router's LAN port properly.
- Ensure that the computer is set to **Obtain an IP address automatically** and **Obtain DNS server address automatically**.

If the problem persists, reset the router by referring to Q3 and try again.

**Q2: I cannot access the internet after the configuration. What should I do?**

**A2:** Try the following solutions:

- Ensure that the WAN port of the router is connected to a modem or Ethernet jack properly.
- Log in to the web UI of the router and navigate to the Internet settings page. Follow the instructions on the page to solve the problem. Refer to the Internet settings for specific information.
- If the problem persists, contact your ISP.

For Wi-Fi-enabled devices:

- Ensure that your devices are connected to the Wi-Fi network of the router.
- Log in to the web UI and change your Wi-Fi name and Wi-Fi password on the **WiFi Settings** page. Then try again.

- For wired devices:
  - Ensure that your wired devices are connected to the router's LAN port properly.
  - Ensure that your wired devices are set to **Obtain an IP address automatically** and **Obtain DNS server address automatically**.

**Q3: How to restore my device to factory settings?**

**A3:** Hold down the reset button (Marked as RST, RESET) of your device for about 8 seconds, and the router is reset successfully. For more details, see Reset.

**Q4: Why cannot I find the Wi-Fi signal of the router?**

**A4:** Connect your computer to the router's LAN port of the router, and log in to the web UI. Navigate to **WiFi Settings** and ensure that:

- The wireless function is enabled.
- The Hide function is not ticked.
- Your Wi-Fi name does not contain any Chinese characters.

**Q5: I cannot find the 5 GHz Wi-Fi network of the router on my Wi-Fi-enabled device. What should I do?**

**A5:** Try the following solutions:

- Only devices supporting 5 GHz network can find and connect to the 5 GHz Wi-Fi network.
- Check whether you have enabled **Unify 2.4 GHz & 5 GHz** on the **WiFi Settings** page. If it is enabled, disable it and try again. After it is enabled, the 5 GHz Wi-Fi name is the same as the 2.4 GHz Wi-Fi name.
- If the **Unify 2.4 & 5 GHz** function is disabled on the router but the smartphone can search for another 5 GHz Wi-Fi network, reset the router by referring to Q3 and try again.

**Q6: How to place the router to make the Wi-Fi signal coverage wider?**

**A6**: Try the following solutions:

- Place the router in a high position with few obstacles.
- Unfold the antenna of the router vertically.
- Keep your router away from electronics with strong interference, such as microwave ovens, induction cookers, and refrigerators.
- Keep your router away from metal barriers, such as weak current boxes, and metal frames.

**Q7: If the network speed is slow after I connect my device to the router. What should I do?**

**A7:** Try the following solutions:

- For Wi-Fi-enabled devices, such as a smartphone:
  - Use the Wi-Fi analyzer to scan the surrounding wireless signal information, set the router's channel to the less occupy channel, and then reduce the bandwidth, refer to Change channel and bandwidth.
  - Try to get close to your router to test the network speed when the wireless signal strength is full. If the network speed is fast when the signal is strong, it indicates that the signal coverage is weak, resulting in a slow network speed, and the wireless network can be extended by adding new routers or wireless adapters.
- For wired device, such as a computer:
  - Ensure that the Ethernet cable is connected properly.
  - Ensure that the Bandwidth control are not configured on the router. If yes, delete related configurations and check whether the network speed is restored.
  - Loading too many applications in the background will lead to insufficient computer system resources. Please load software properly or delete unnecessary programs and files to free up resources to improve network speed.

**Q8: If the device is disconnected from the router. What should I do?**

**A8:** Try the following solutions:

- If the Wi-Fi-enabled device goes offline, the wired device can access the internet normally:
  - Refer to Q6 to place the router in an appropriate position.
  - Check whether the wireless adapter driver of the Wi-Fi-enabled device is faulty. Replace the wireless adapter driver with another device or update the wireless adapter driver.

- If the problem persists, reset the router by referring to Q3 and try again.

- If the wired device goes offline, the Wi-Fi-enabled device can access the internet normally:
  - If the Ethernet cable between the computer and the router is too long or poor quality, it will cause the cable drop. Please replace the short Ethernet cable.
  - Try to replace the LAN port connection or use another computer connection.
- If both wired and Wi-Fi-enabled devices go offline:
  - Log in to the web UI of the router and ensure that the router is properly connected to the internet. If not, refer to Router disconnected from the internet to solve.
  - Refer to Q6 to place the router in an appropriate position.
  - Ensure that the Ethernet cable is connected properly, and replace a short Ethernet cable to connect to the router and Modem or Ethernet port.
  - When not connected to the router, directly connect the Ethernet cable to the computer to check whether the internet is disconnected. If the internet is disconnected from the internet, contact your ISP for help.
  - If the problem persists, reset the router by referring to Q3 and try again.

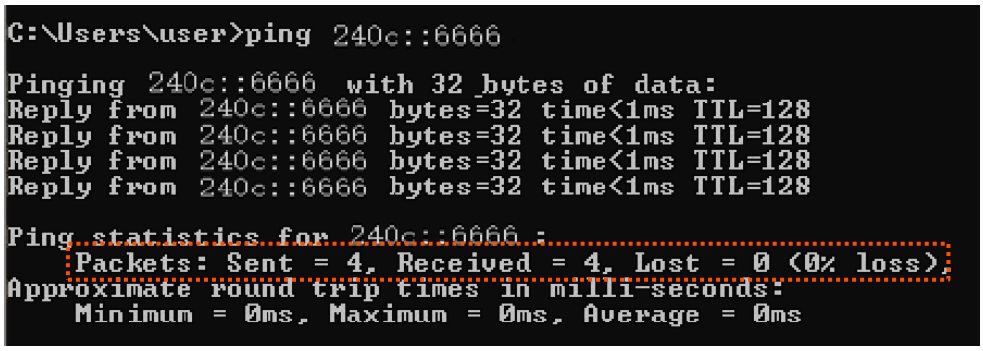
# A.2 IPv6 network test

You can ping an IPv6 website (240c::6666 for example) to check whether the router accesses the IPv6 network successfully. The following steps are for your reference.

1. On a computer connected to the router, press **Windows** + **R** to open the **Run** dialog box.
2. Type **cmd** and then click **OK** to open a regular Command Prompt.
3. Enter ping **240c::6666** and press **Enter**.

**---End**

As shown in the following figure, if the number of packets received is not 0, the router accesses the IPv6 network successfully.




If the IPv6 network test fails, try the following solutions:

- Ensure that the IPv6 address obtaining type of Wi-Fi-enabled devices such as smartphones or computers is set to **Obtain an IPv6 address automatically** and **Obtain DNS server address automatically**.
- If the internet connection type is static IPv6 address, ensure that the IPv6 address of the WAN port, subnet prefix length, default gateway, and DNS are correct.
- Consult your ISP for help.

# A.3 Connect to a hidden Wi-Fi network

When a Wi-Fi network is hidden, you need to enter the Wi-Fi name manually and connect to it.

Assume that the **Unify 2.4 GHz & 5 GHz** function is enabled and the Wi-Fi parameters are:

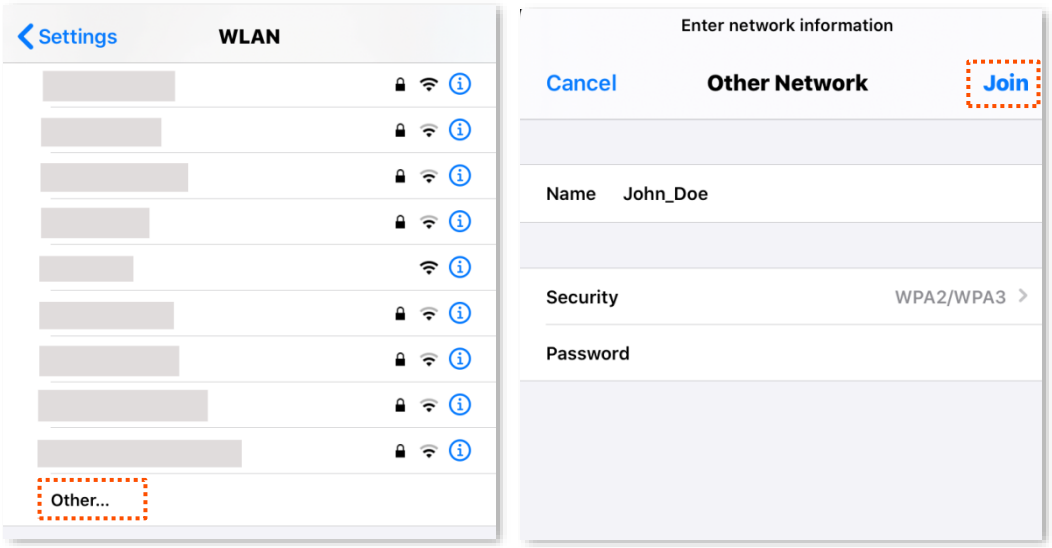
- Wi-Fi name: Jone_Doe
- Encryption type: WPA2
- Wi-Fi password: Tenda+Wireless245

TIP

If you do not remember the wireless parameters of the Wi-Fi network, log in to the web UI of the router and navigate to **WiFi Settings > WiFi Name & Password** to find them.

**Connect to the Wi-Fi network on your Wi-Fi-enabled device** (Example: iPhone):

1. Tap **Settings** on your phone, find **WLAN**, and enable **WLAN**.
2. Scroll the Wi-Fi list to the bottom, and tap **Other…**.
3. Enter the Wi-Fi name and password, which are **John_Doe** and **Tenda+Wireless245** in this example.
4. Set **Security** to **WPA2**. Tap **Join**.




**---End**

When the settings are completed, you can connect to the hidden Wi-Fi network to access the internet.

# A.4 Acronyms and Abbreviations

| Acronym or Abbreviation | Full Spelling |
|---|---|
| AES | Advanced Encryption Standard |
| AP | Access point |
| DDNS | Dynamic Domain Name System |
| DHCP | Dynamic Host Configuration Protocol |
| DHCPv6 | Dynamic Host Configuration Protocol for IPv6 |
| DMZ | Demilitarized zone |
| DNS | Domain Name System |
| DSL | Digital subscriber line |
| DST | Daylight Saving Time |
| FTP | File Transfer Protocol |
| ICMP | Internet Control Message Protocol |
| IP | Internet Protocol |
| IPTV | Internet Protocol television |
| IPv4 | Internet Protocol version 4 |
| IPv6 | Internet Protocol version 6 |
| ISP | Internet service provider |
| L2TP | Layer 2 Tunneling Protocol |
| LAN | Local area network |
| LED | Light-emitting diode |
| MAC | Medium access control |
| MLO | Multi-Link Operation |

| Acronym or Abbreviation | Full Spelling |
|---|---|
| MPPE | Microsoft Point-to-Point Encryption |
| MTU | Maximum Transmission Unit |
| OFDM | Orthogonal Frequency Division Multiplexing |
| OFDMA | Orthogonal Frequency Division Multiple Access |
| POP | Point of Presence |
| PPP | Point to Point Protocol |
| PPPoE | Point-to-Point Protocol over Ethernet |
| PPTP | Point to Point Tunneling Protocol |
| RA | Router Advertisement |
| RUs | Resource Units |
| SLAAC | Stateless Address Autoconfiguration |
| SN | Serial Number |
| SSID | Service Set Identifier |
| STB | Set-top box |
| TCP | Transmission Control Protocol |
| TWT | Target Wakeup Time |
| UDP | User Datagram Protocol |
| UI | User interface |
| UPnP | Universal Plug and Play |
| URL | Uniform Resource Locator |
| USB | Universal Serial Bus |
| VLAN | Virtual local area network |

| Acronym or Abbreviation | Full Spelling |
| --- | --- |
| VPN | Virtual private network |
| WAN | Wide area network |
| WISP | Wireless Internet Service Provider |
| WLAN | Wireless local area network |
| WPA | Wi-Fi Protected Access |
| WPA-PSK | WPA Pre-shared Key |
| WPA3-SAE | WPA3-Simultaneous Authentication of Equals |
| WPS | Wi-Fi Protected Setup |