User Guide

AC1200 Dual Band Gigabit WiFi Router

AC8V4.0

www.tendacn.com

Copyright Statement

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Preface

Thank you for choosing Tenda! Please read this user guide before you start.

Applicable Model

This user guide is applicable to the AC1200 dual band WiFi router AC8V4.0. The contained images and UI screenshots are subject to the actual products.

Conventions

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

Item	Presentation	Example
Cascading Menus	>	Click **Status** > **Device Status.**
Parameter and value	Bold	Set **User Name** to **Tom**.
UI control	Bold	On the **Policy** page, click the **OK** button.
Variable	Italic	Format: *XX:XX:XX:XX:XX:XX*
Message	“ ”	The “Success” message appears.

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

Item	Meaning
NOTE	This format is used to highlight information of importance or special interest. Ignoring this type of note may result in ineffective configurations, loss of data or damage to the device.
TIP	This format is used to highlight a procedure that will save time or resources.

For more documents

If you want to get more documents about the device, visit www.tendacn.com and search for the corresponding product model.

The related documents are listed as below.

Document	Description
Datasheet	It introduces the basic information of the router, including product overview, selling points, and specifications.
Quick Installation Guide	It introduces how to set up the device quickly for internet access, the descriptions of LED indicators, ports, and buttons, FAQ, statement information, and so on.
User Guide	It introduces how to set up the device functions on the web for more requirements.

Technical Support

If you need more help, contact us by any of the following means. We will be glad to assist you as soon as possible.

Hotline

Global: (86) 755-27657180

(China Time Zone)

United States: 1-800-570-5892

(Toll-Free: 7 x 24 hours)

Canada: 1-888-998-8966

(Toll Free: Mon - Fri 9 am - 6 pm PST)

Hong Kong: 00852-81931998

Email

support@tenda.cn

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 user guide was released.

Version	Description	Date
V1.0	Original publication.	2022-09-20

Content

1 Web UI

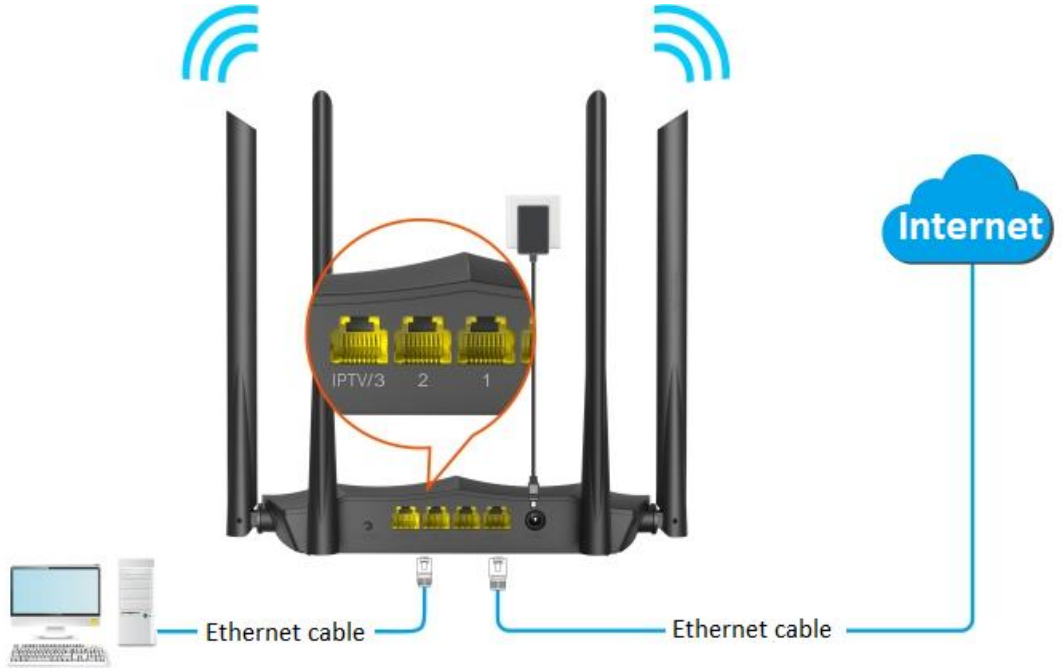
Upon your first use or reset of the router, please set up the router by referring to the router's quick installation guide (visit www.tendacn.com to download). If you want to log in to the web UI of the router, follow the procedures below.

1.1 Log in to the web UI

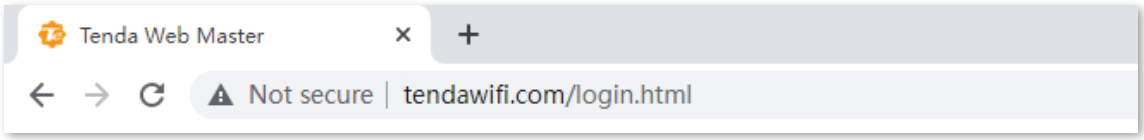
Step 1 Connect your smartphone to the WiFi network of the router, or connect your computer to a LAN port (1, 2 and IPTV/3) of the router.

TIP

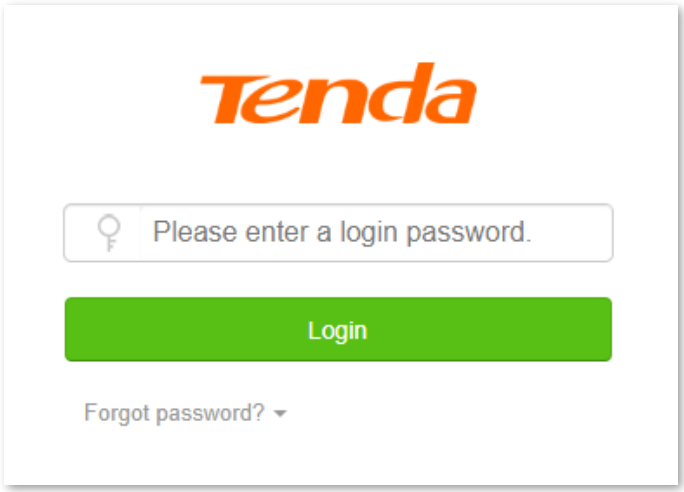
The IPTV/3 port is the LAN port by default. After the IPTV function is enabled, it can only serve as an IPTV port to be connected to a set-top box.



Step 2 Launch a web browser on the device connected to the router and visit **tendawifi.com** to log in to the web UI of the router. A computer is used for the illustration below.



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



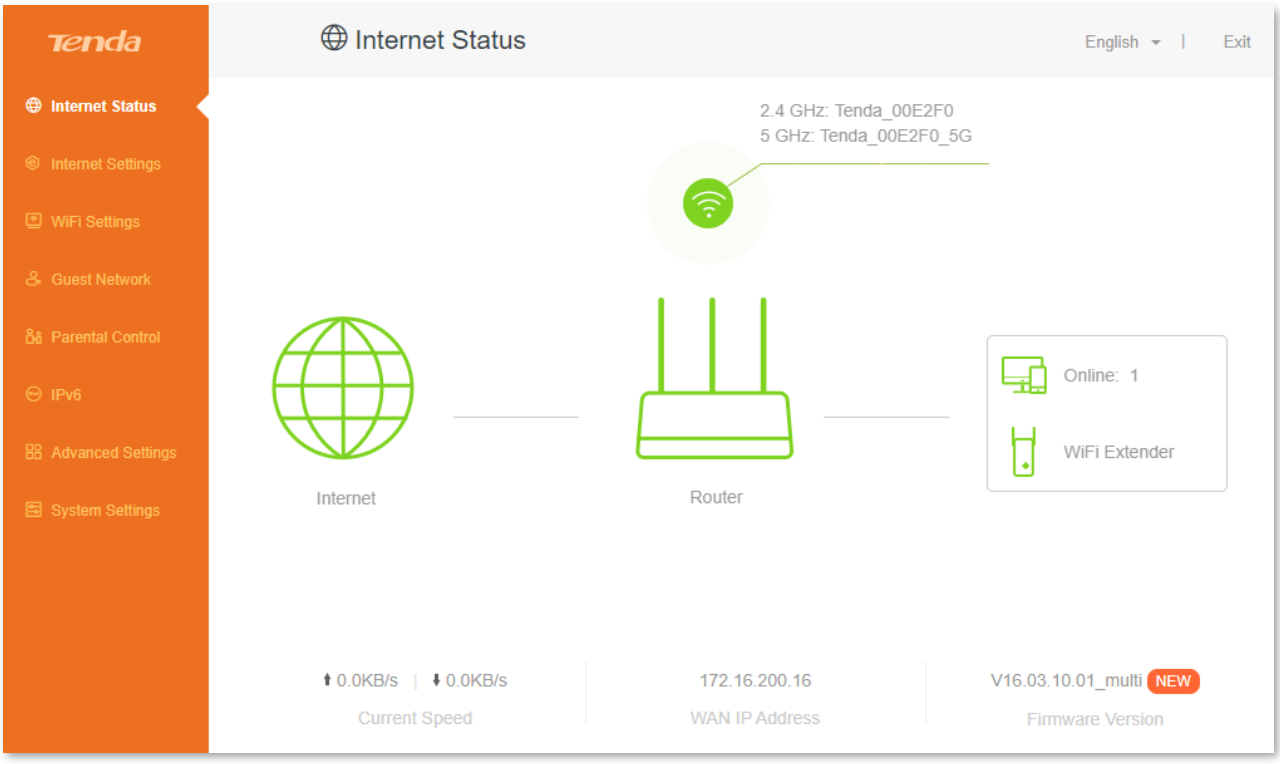
---End

TIP

If the above page does not appear, try the following solutions:

- Ensure that the router is powered on properly.
- Ensure that the computer is connected to a LAN port (1, 2 and IPTV/3) of the router, and Configuring the computer to obtain an IP address automatically.
- Try to use the default login IP address (192.168.0.1) to log in to the web UI.
- Restore the router to factory settings and try again.

The following page appears.

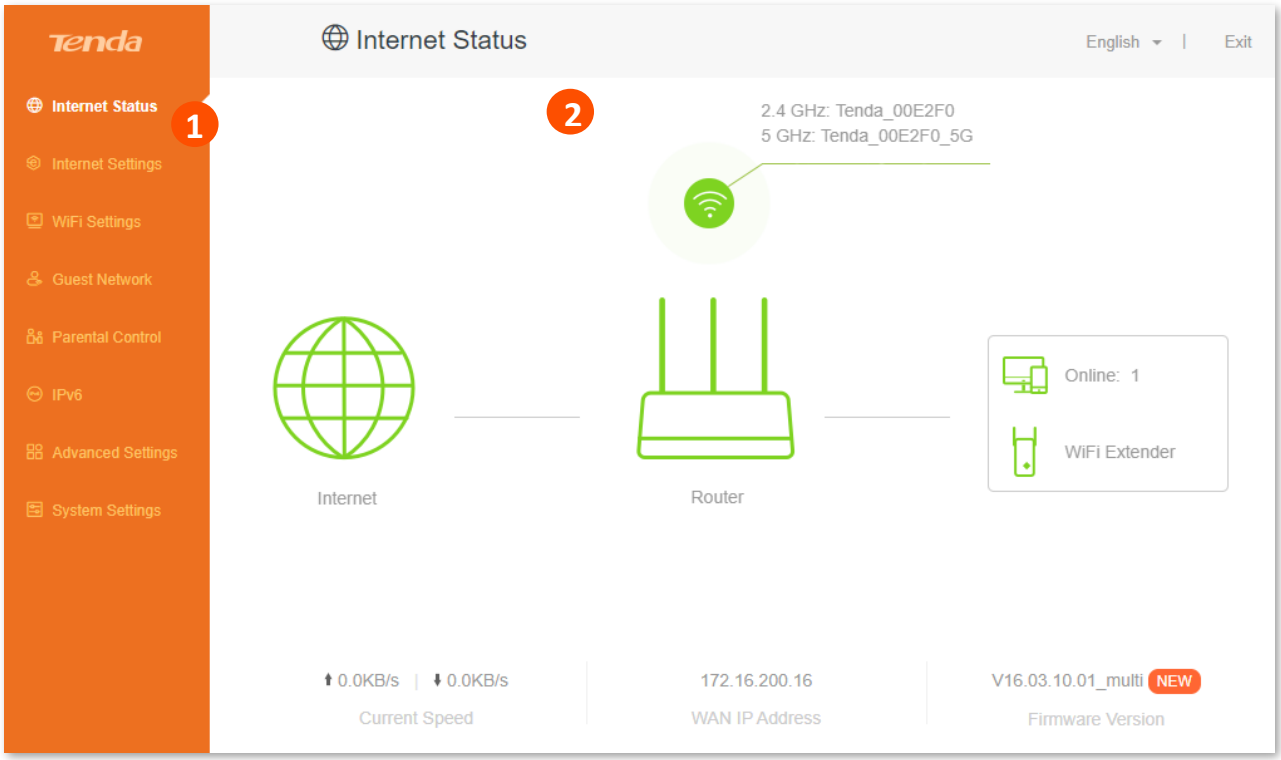


1.2 Log out of the web UI

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.

1.3 Web UI layout

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



TIP

The functions and parameters shown in gray indicate that the functions are not supported or cannot be modified.

SN	Name	Description
1	Navigation bar	Used to display the function menu of the router. Users can select functions in the navigation bar and the configuration page appears in the configuration area.
2	Configuration area	Used to modify or view your configurations.

1.4 Common element

The common elements used on the web UI are as follows.

Common element	Description
Save	Used to save the current configurations and enable them to take effect.
Cancel	Used to cancel the current configurations and restore the previous settings.

2 Internet status

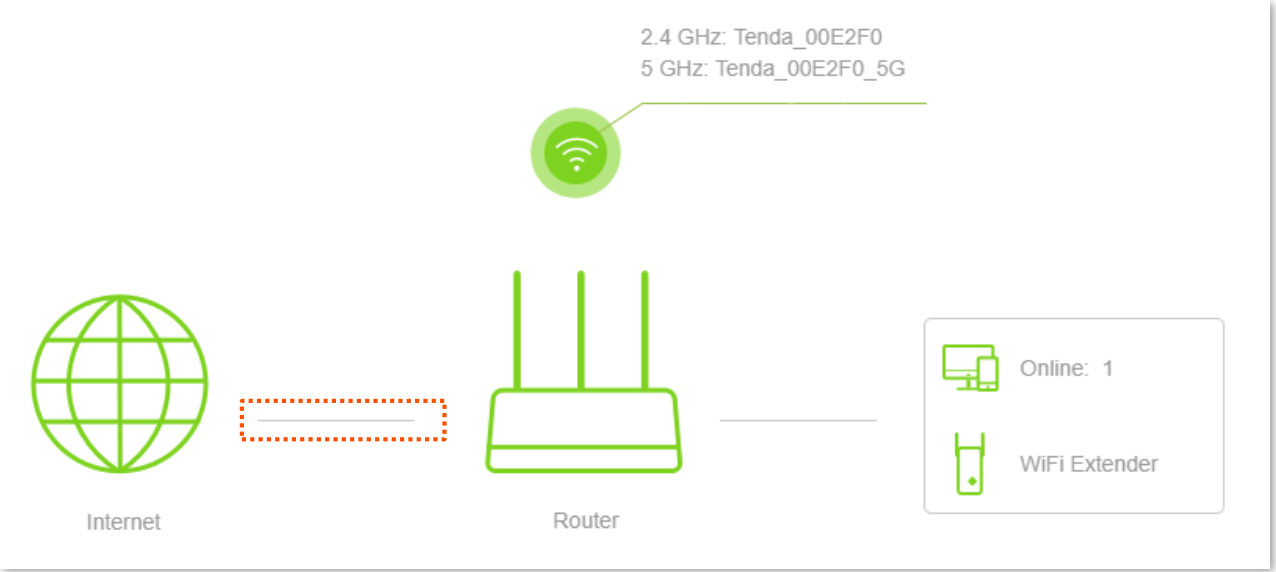
Log in to the web UI of the router and choose **Internet Status** to enter the page. On this page, you can find the following information.

- Internet status
- Wireless information
- System information
- Online devices information

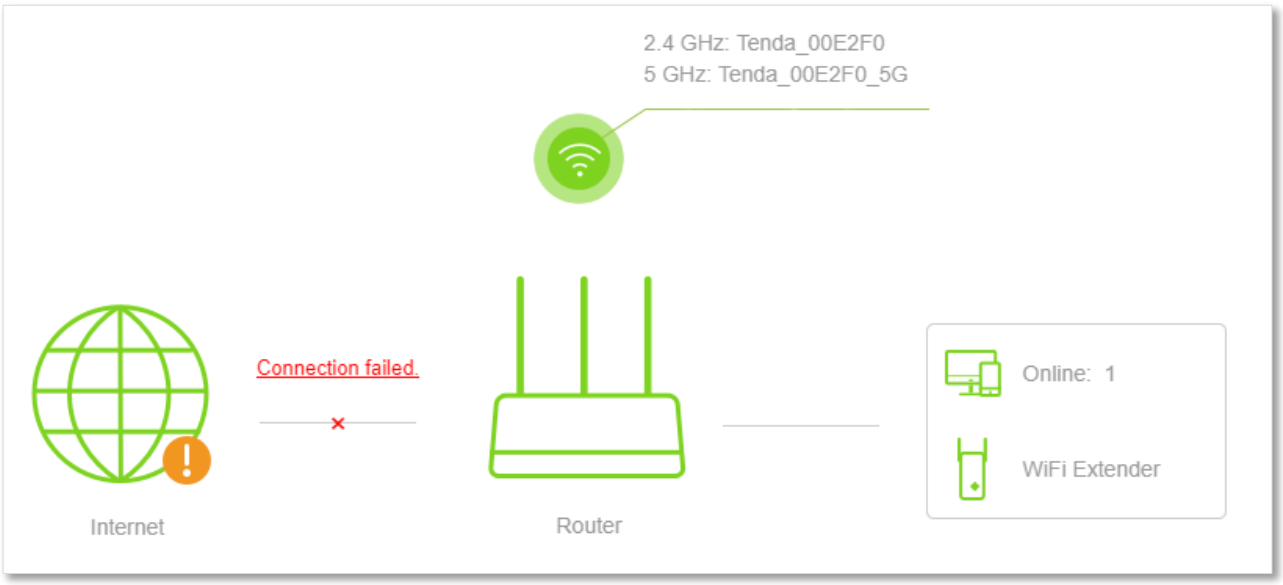
2.1 Internet status

Log in to the web UI, and click **Internet Status**.

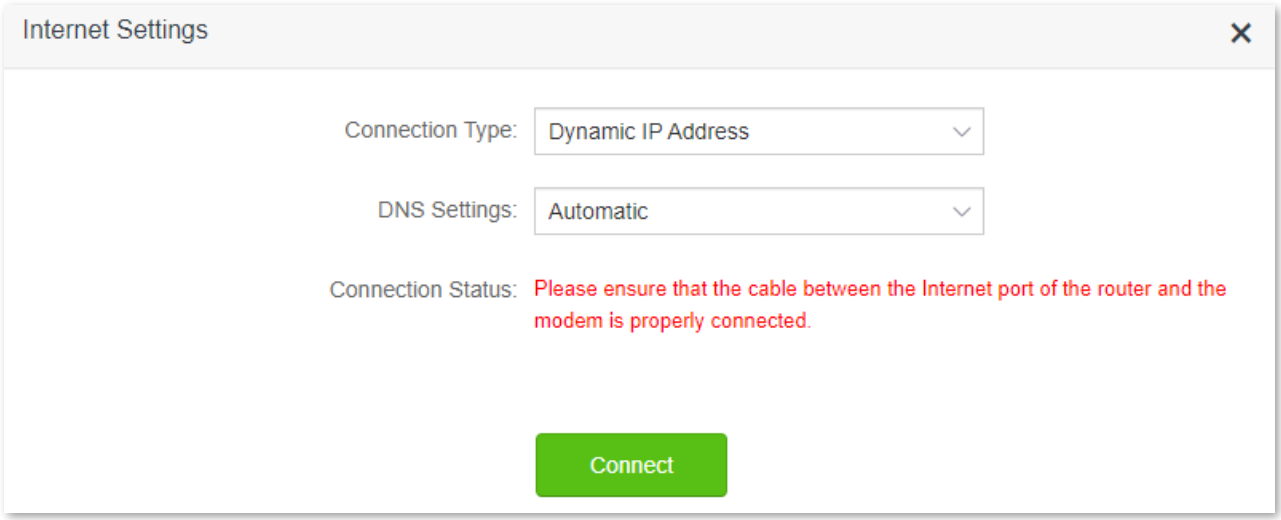
When the link between the **Internet** and the **Router** is clear as shown below, the router is connected to the internet successfully and you can access the internet through the router.



When a red cross and "Connection failed." are shown between the **Internet** and the **Router**, it indicates that the internet connection is abnormal. Please click Connection failed. to navigate to the **Internet Settings** page and follow the instructions to solve the problem.



When "Please ensure that the cable between the Internet port of the router and the modem is properly connected." is shown on the page, ensure that the WAN port of the router and the LAN port of the modem or the Ethernet jack is connected properly. If the problem persists, contact technical support for help.



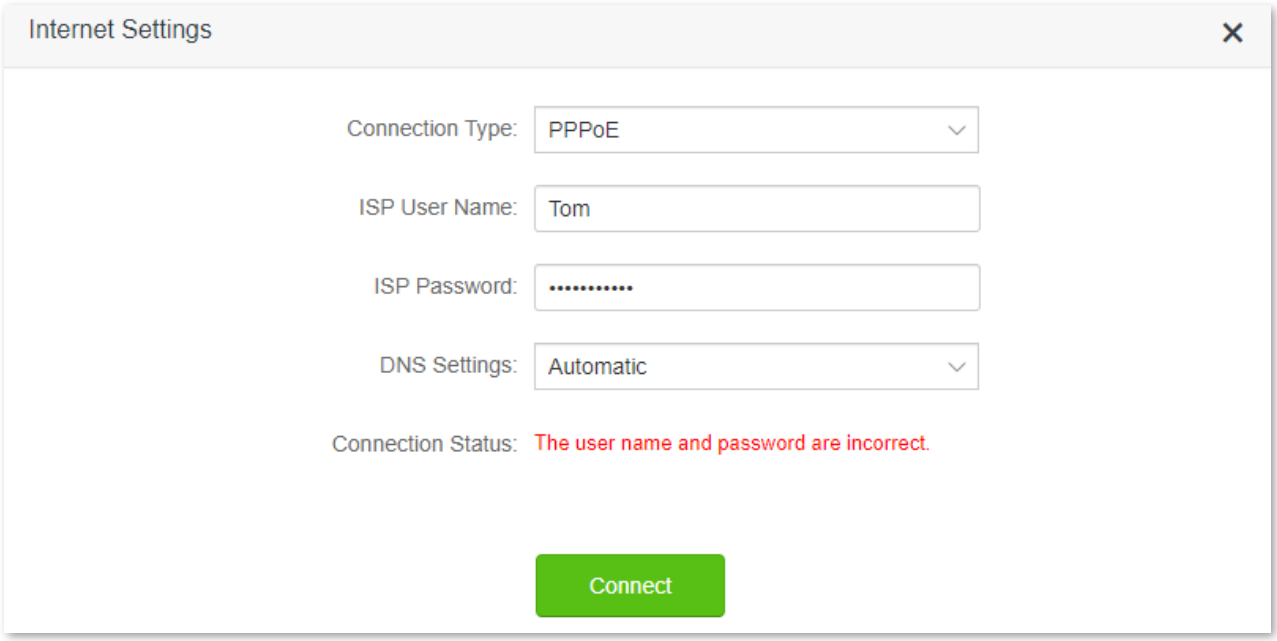
When “The user name and password are incorrect.” is shown on the page, it indicates that the user name and password you entered are incorrect. Please re-enter the user name and password.

TIP

Please consider the following tips when entering the user name and password:

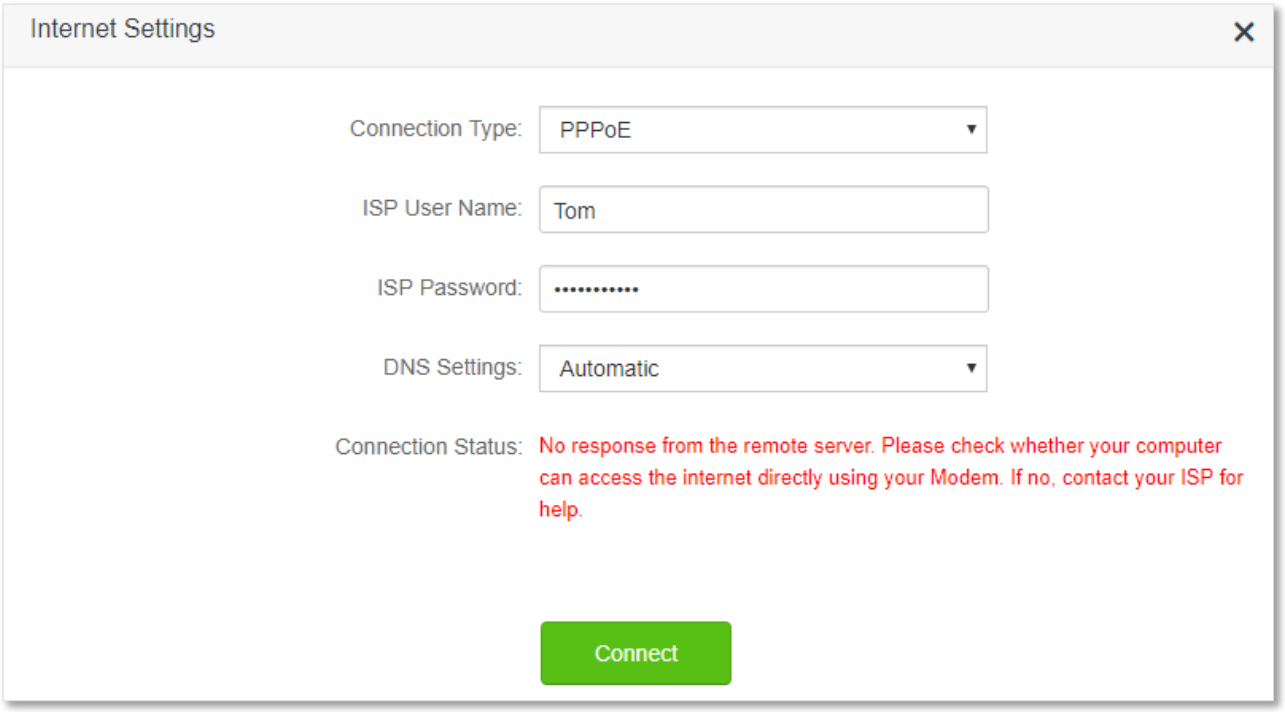
- Pay attention to case sensitivity, such as “Z” and “z”.
- Pay attention to similar letters and numbers, such as “I” and “1”.
- Ensure the completeness of account parameters.

If the problem persists, contact your ISP for help.



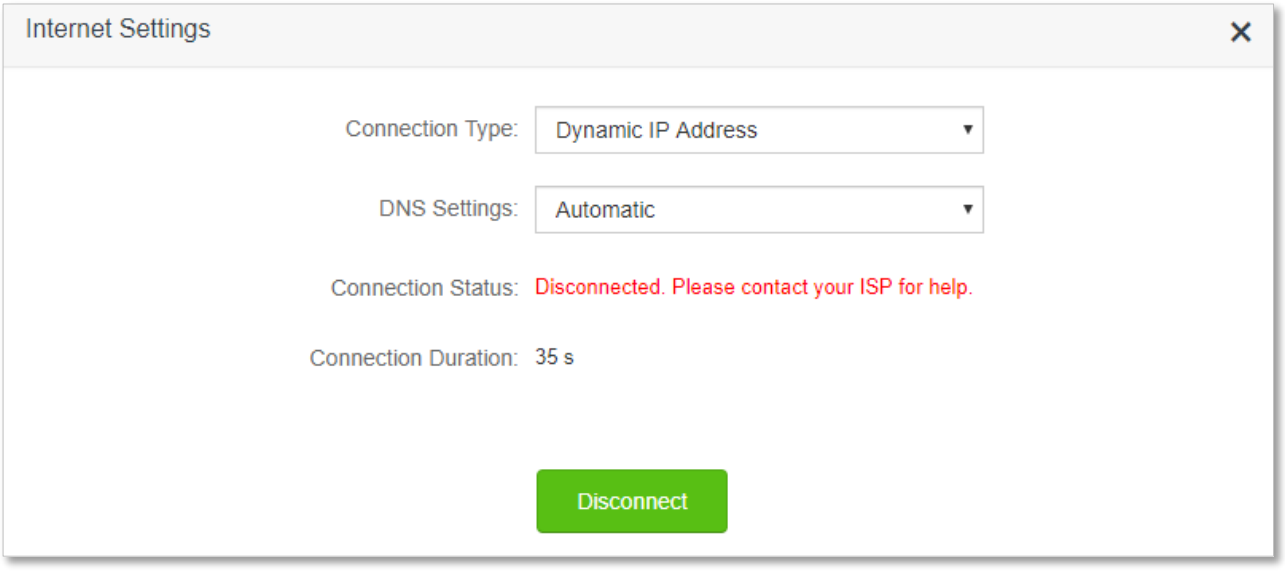
When “No response from the remote server. Please check whether your computer can access the internet directly using your Modem. If no, contact your ISP for help.” is shown on the page below, try the following methods:

- Ensure that the Ethernet cable is connected properly.
- Ensure that you choose the proper connection type. Contact your ISP for any doubt about the connection type.
- Power off the router for several minutes, then power it on and try again.
- If the problem persists, contact your ISP for help.



When "Disconnected. Please contact your ISP for help." is shown on the page as below, try the following methods:

- Modify the MAC address of the WAN port by referring to Change the MAC address of the WAN port.
- Use another device to configure the router again.
- Ensure that your internet service does not expire.
- If the problem persists, contact Tenda technical support.



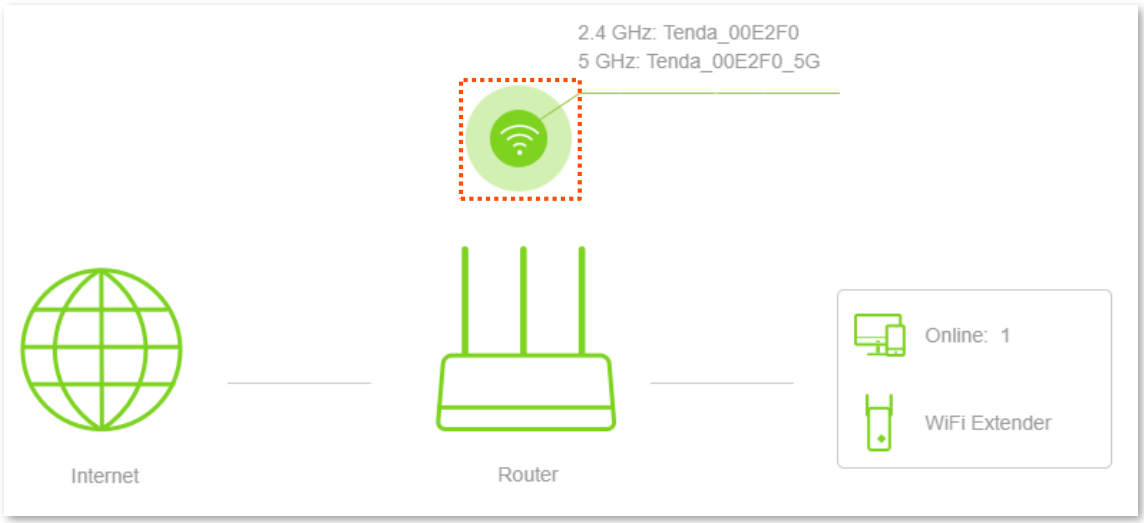
2.2 Wireless information

You can view or configure the basic information of the router's wireless network, such as the WiFi name and WiFi password.

To view or configure the wireless information:

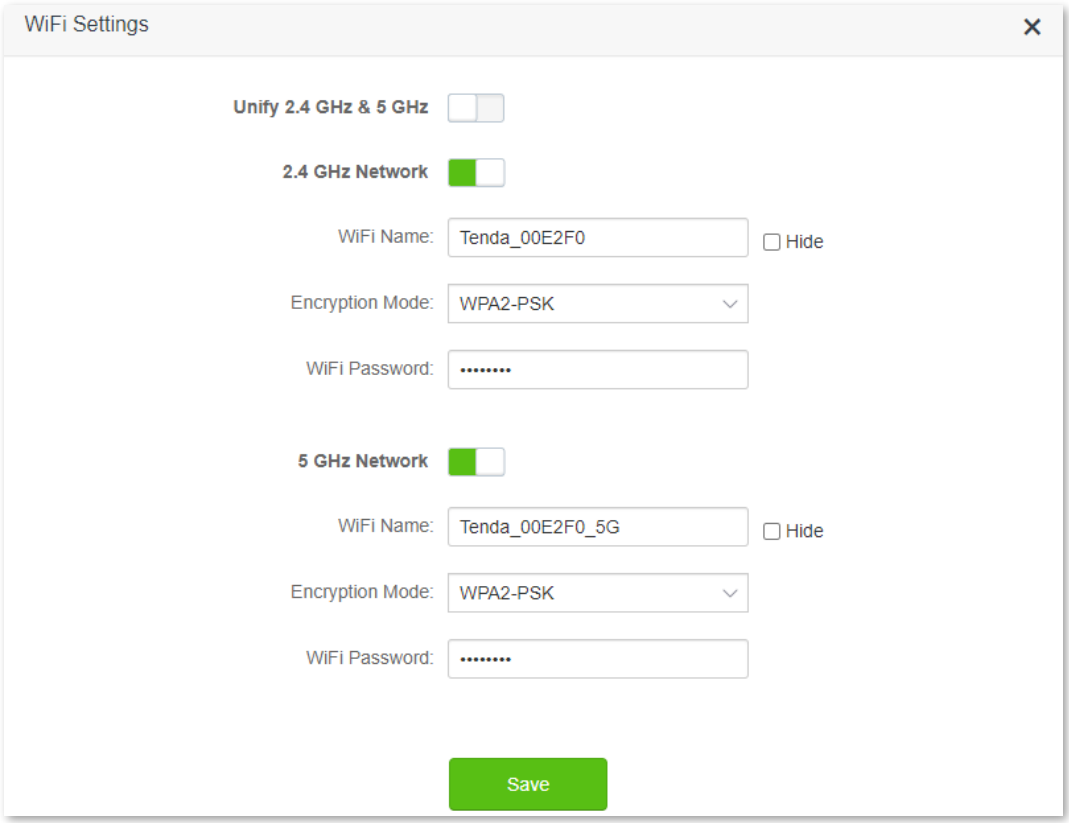
Step 1 Log in to the web UI.

Step 2 Click **Internet Status**, and then click .



---End

You can change wireless parameters as required.



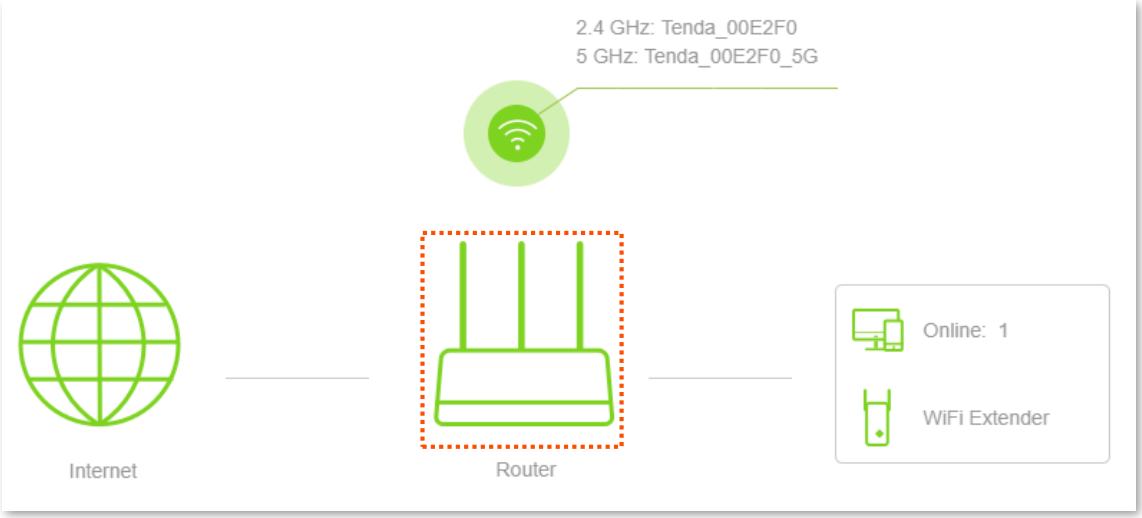
2.3 System information

You can view the basic information, WAN port status, LAN status, WiFi status and IPv6 status here.

To view the system information:

Step 1 Log in to the web UI.

Step 2 Click **Internet Status**, and then click .



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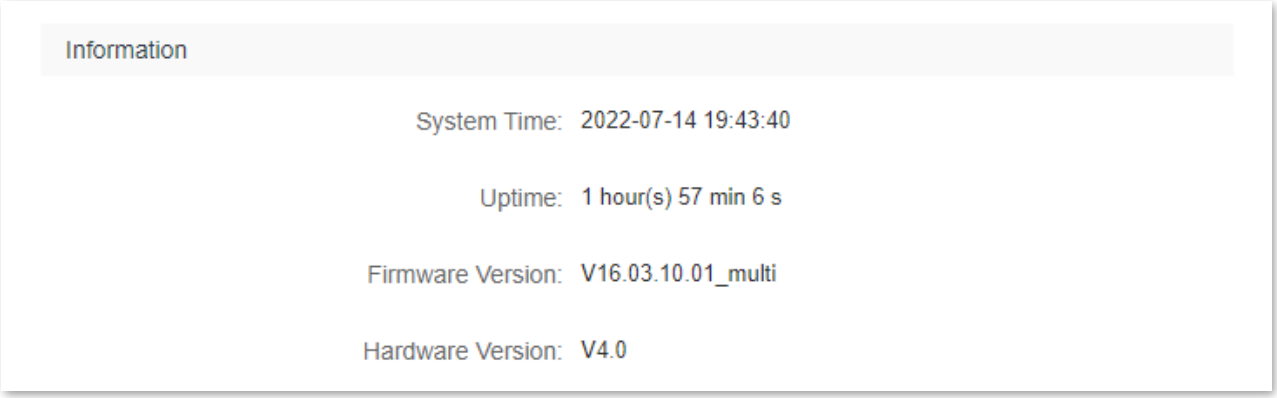
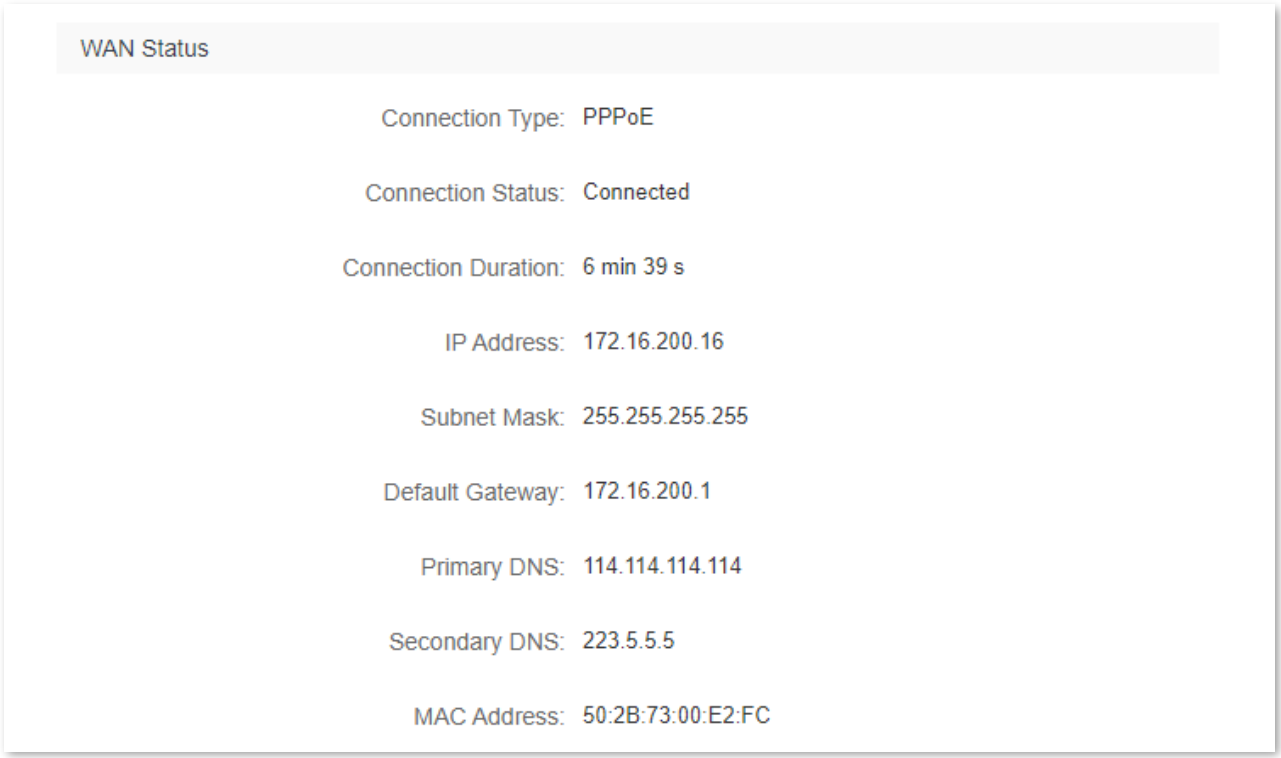
2.3.1 Basic information

In this part, you can view such basic information as system time, uptime, firmware version and hardware version of the router.



2.3.2 WAN status

In this part, you can view such information as connection type, connection status and connection duration of the WAN port.

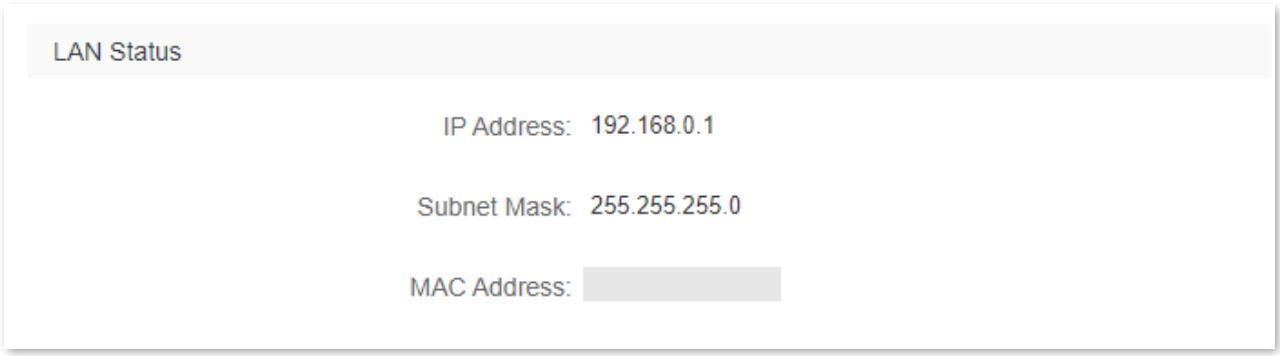


Parameter description

Parameter	Description
Connection Type	Specifies the internet IPv4 connection type of the WAN port.
Connection Status	Specifies the internet connection status of the WAN port.
Connection Duration	Specifies the duration since the router is connected to the internet.
IP Address	Specifies the WAN IP address of the router.
Subnet Mask	Specifies the WAN subnet mask of the router.
Default Gateway	Specifies the gateway IP address of the router.
Primary DNS	Specify the IP address of the primary and secondary DNS servers of the router.
Secondary DNS	
MAC Address	Specifies the MAC address of the WAN port of the router.

2.3.3 LAN status

In this part, you can view such information as the LAN IPv4 address, subnet mask and MAC address of the LAN port.

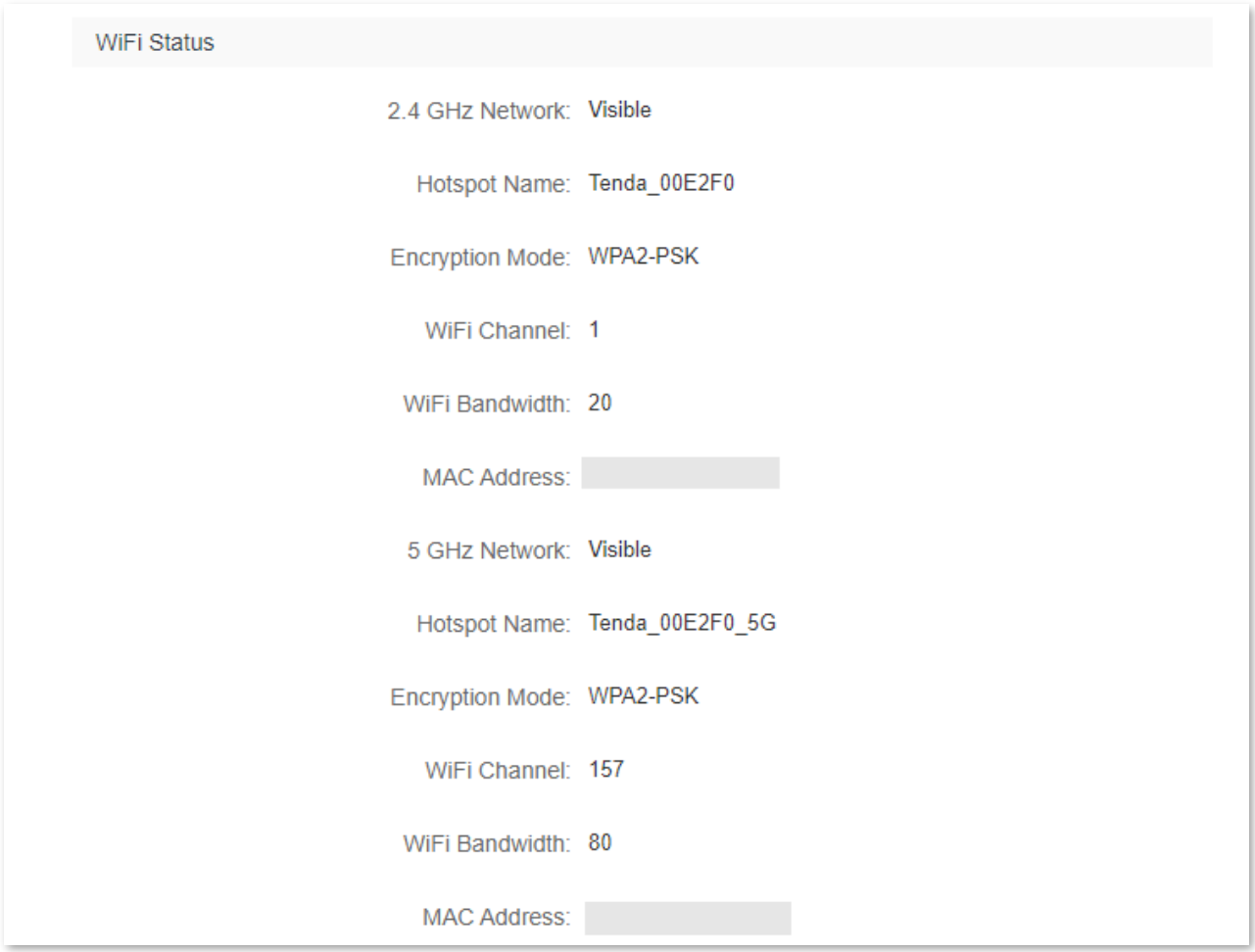


Parameter description

Parameter	Description
IP Address	Specifies the LAN IP address of the router, and also the IP address for logging in to the web UI of the router.
Subnet Mask	Specifies the LAN subnet mask of the router.
MAC Address	Specifies the LAN MAC address of the router.

2.3.4 WiFi status

In this part, you can view such information as the status, visibility, hotspot name and encryption mode of the 2.4 GHz and 5 GHz WiFi network.

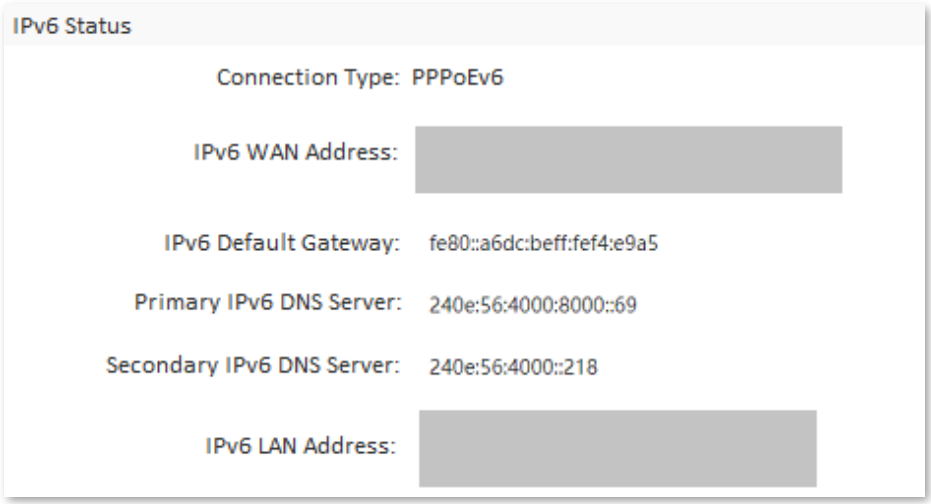


Parameter description

Parameter	Description
2.4 GHz Network	Specify whether the corresponding WiFi network is enabled or disabled, and the visibility of the WiFi network.
5 GHz Network	
Hotspot Name	Specifies the WiFi name of the respective WiFi network.
Encryption Mode	Specifies the encryption mode of the respective WiFi network.
WiFi Channel	Specifies the channel that the respective WiFi network works in.
WiFi Bandwidth	Specifies the bandwidth of the respective WiFi network.
MAC Address	Specifies the MAC address of the respective WiFi network.

2.3.5 IPv6 status

This part is only displayed when the IPv6 function is enabled. You can view the information of IPv6 connection, including connection type, IPv6 WAN address and IPv6 LAN address.



Parameter description

Parameter	Description
Connection Type	Specifies the IPv6 connection type of the router.
IPv6 WAN Address	Specifies the WAN IPv6 address of the router. After the IPv6 function is configured, the WAN port of the router obtains a global unicast IPv6 address.
IPv6 Default Gateway	Specifies the IPv6 default gateway of the router.
Primary IPv6 DNS Server	Specify the primary/secondary IPv6 DNS server of the router.
Secondary IPv6 DNS Server	
IPv6 LAN Address	Specifies the LAN IPv6 address of the router. After the IPv6 function is configured, the LAN port of the router obtains a global unicast IPv6 address.

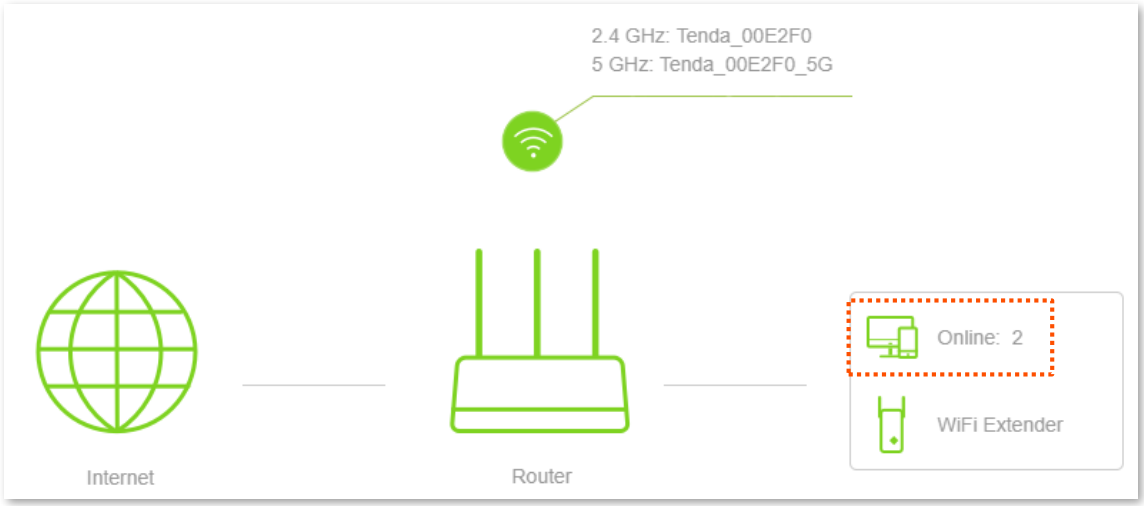
2.4 Online device information

On this page, you can view such information as the upload speed, download speed and access type of devices connected to the router. You can also add devices to the blacklist.

To access the page:

Step 1 Log in to the web UI.

Step 2 Click **Internet Status**, and then click  .



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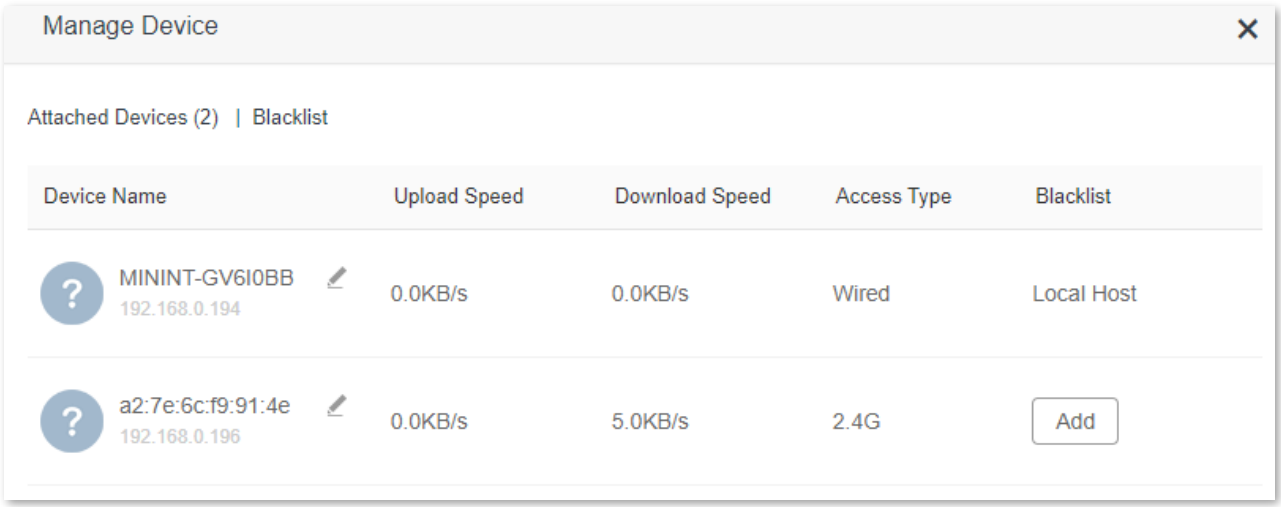
The figure is shown below.



Parameter description

Parameter		Description
Attached Devices	Device Name	Specifies the name and IP address of the client device. The name of the client device is the name recognized by the router. If it is not recognized, it will display **Unknown**. Click to modify the device name.
	Upload Speed	Specify the current upload/download speed of the client device.
	Download Speed	
	Access Type	Specifies the connection type of the client device connected to the router. • **Wired:** The client device is connected to the router with an Ethernet cable. • **2.4G:** The client device is connected to the 2.4 GHz wireless network. • **5G:** The client device is connected to the 5 GHz wireless network.
	Blacklist	Specifies the client devices added to the blacklist. Click **Add** to add the client device to the blacklist.
Blacklist	Device Name	Specifies the name of the client device automatically recognized by the router.
	MAC Address	Specifies the MAC address of the client device.
	Remove from Blacklist	Click **Remove** to remove the client device from the blacklist.

2.4.1 Add devices to the blacklist

The client devices added to the blacklist cannot access the internet through the router.

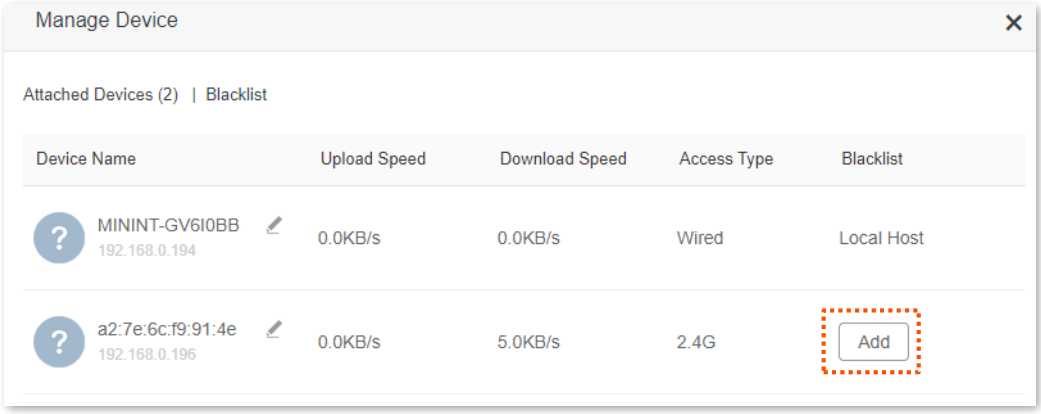
Procedure:

Step 1 Log in to the web UI.

Step 2 Click **Internet Status**, and then click  .

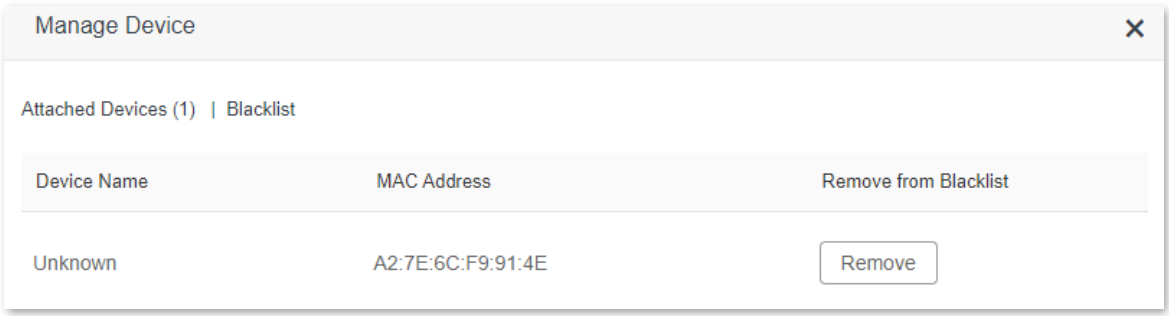
Step 3 Select **the Attached Devices**, and target the device to be added.

Step 4 Click **Add**.



---End

On the **Internet Status** page, click , and then click **Blacklist**, you can view devices that are added to the blacklist.



2.4.2 Remove devices from the blacklist

Devices removed from the blacklist can be reconnected to the router to access the internet.

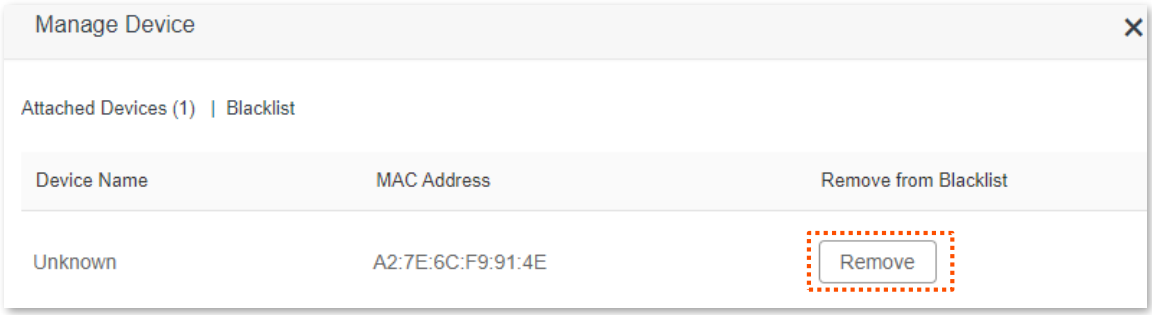
Procedure:

Step 1 Log in to the web UI.

Step 2 Click **Internet Status**, and then click .

Step 3 Click **Blacklist**, and target the device to be removed from the blacklist.

Step 4 Click **Remove**.



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3 Internet settings

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

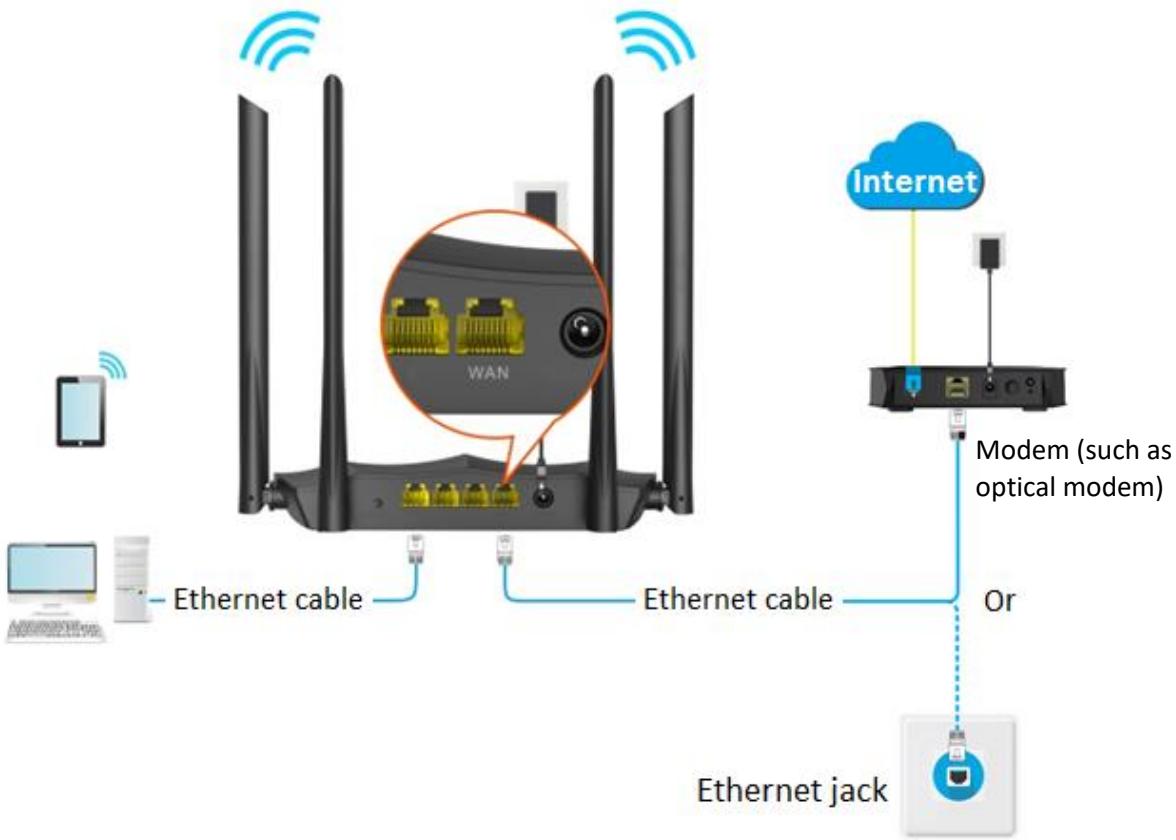
Upon your first use or reset of the router, set up the router by referring to the router's quick installation guide. You can change the internet settings by following the instructions in this chapter.

TIP

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

3.1 Access the internet with a PPPoE account

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



Procedure:

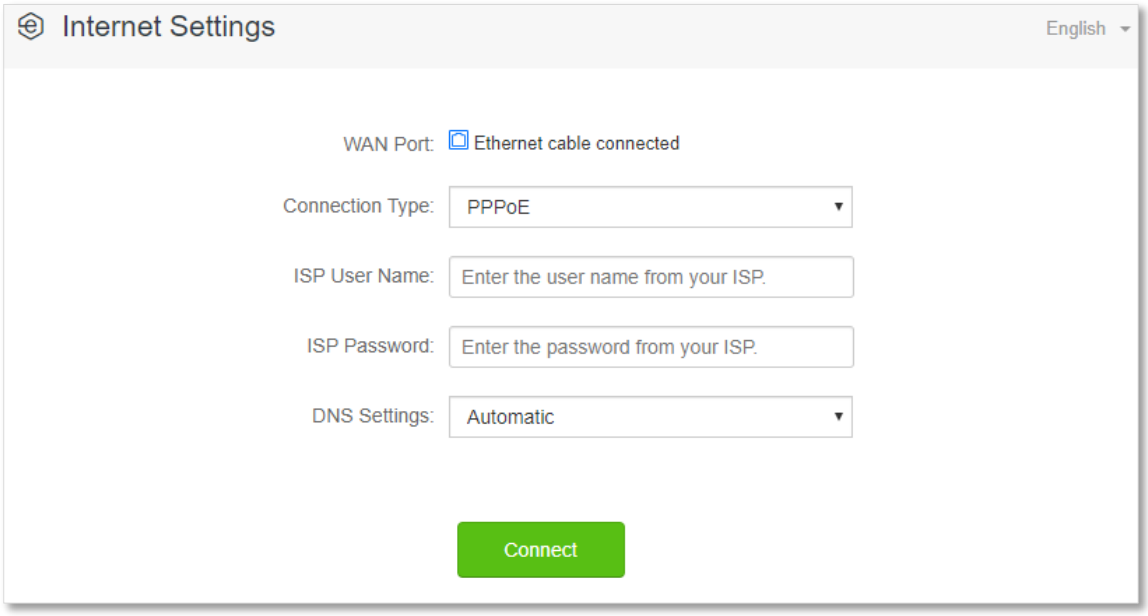
Step 1 Log in to the web UI.

Step 2 Click **Internet Settings**.

Step 3 Set **Connection Type** to **PPPoE**.

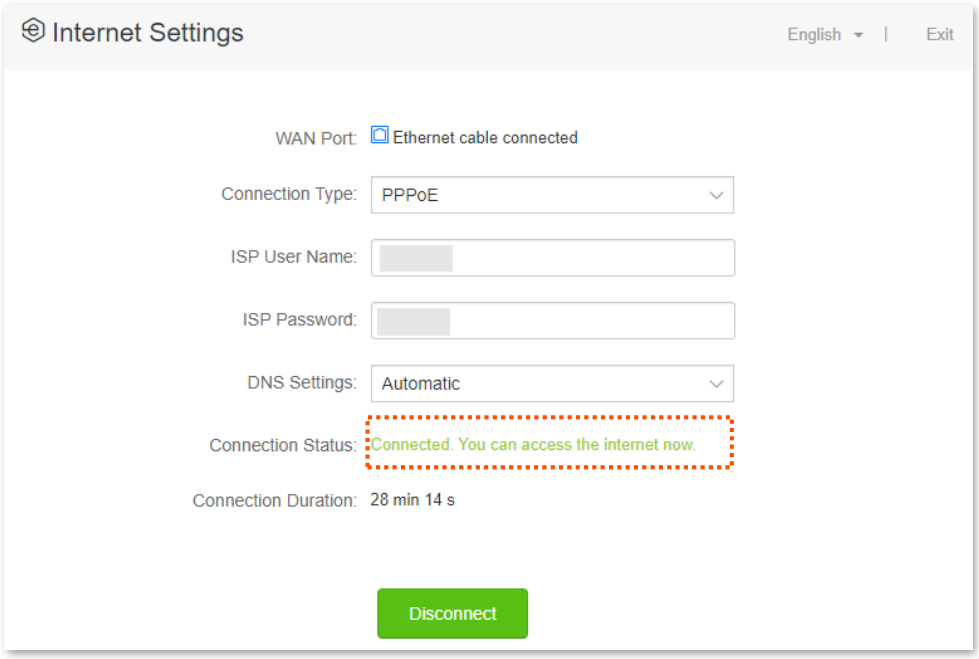
Step 4 Enter the **ISP User Name** and **ISP Password**.

Step 5 Click **Connect**.



---End

Wait a moment until "Connected. You can access the internet now." is shown on the page, and you can access the internet.



If you fail to access the internet, try the following methods:

- 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." is shown on the page, you are recommended to choose Dynamic IP Address to access the internet.
- If the problem persists, refer to View the internet status to find a solution.

Parameter description

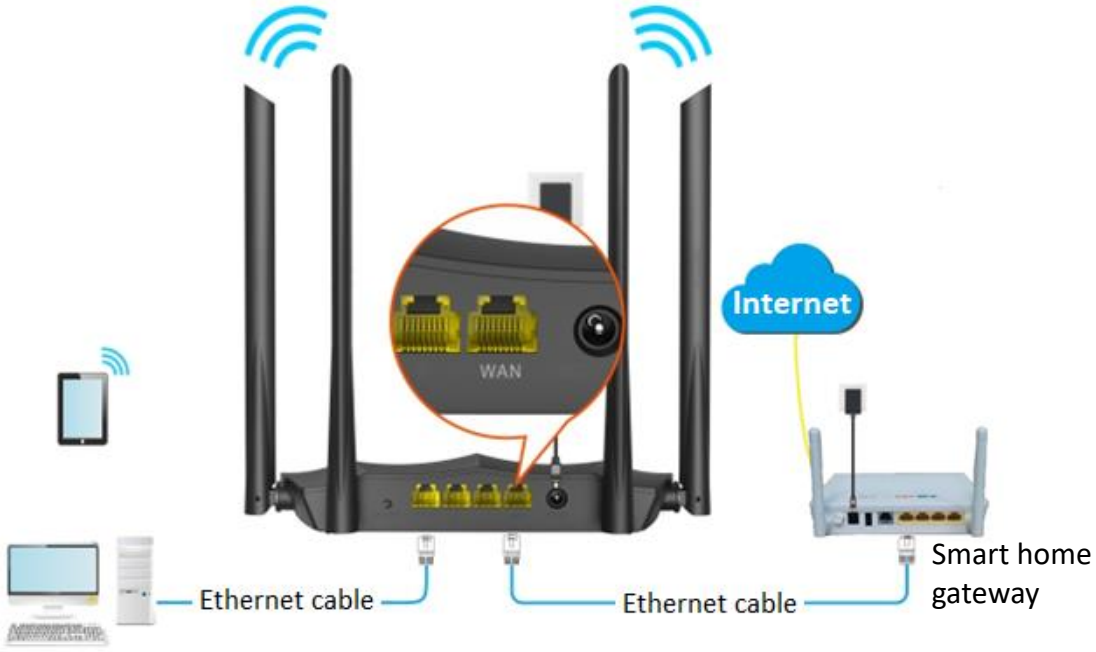
Parameter	Description
ISP User Name	When PPPoE is chosen as the connection type, you need to enter the user name and password provided by your ISP to access the internet.
ISP Password	
DNS Settings	Specifies the obtaining method of the WAN port DNS address, which is **Automatic** by default. • **Automatic:** The router obtains a DNS server address from the DHCP server of the upstream network automatically. • **Manual:** The DNS server address is configured manually.
Connection Status	Specifies the internet connection status. • When "Connected. You can access the internet now." is shown here, the router is connected to the internet successfully. • When other information is shown here, the router fails to connect to the internet. Please take corresponding measures according to the tips provided.
Connection Duration	Specifies the duration since the router is connected to the internet.

3.2 Access the internet through dynamic IP address

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

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

The application scenario is shown below.



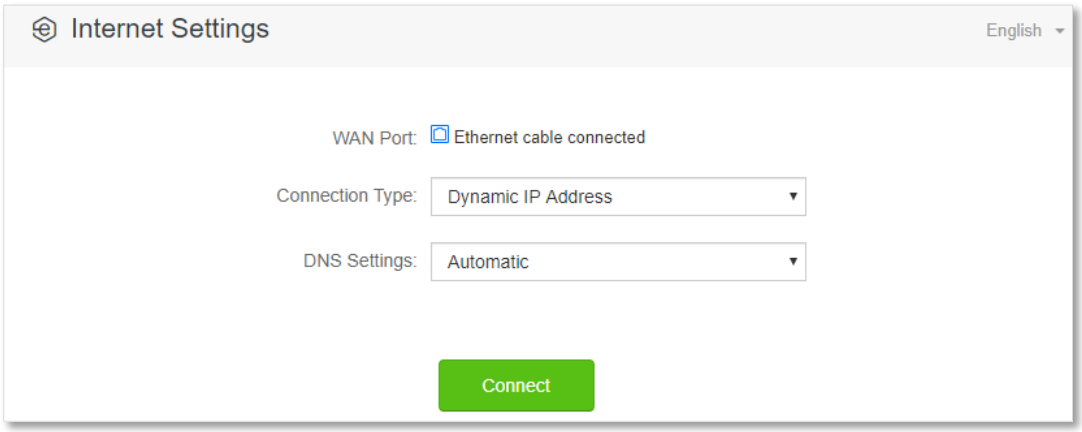
Procedure:

Step 1 Log in to the web UI.

Step 2 Click **Internet Settings**.

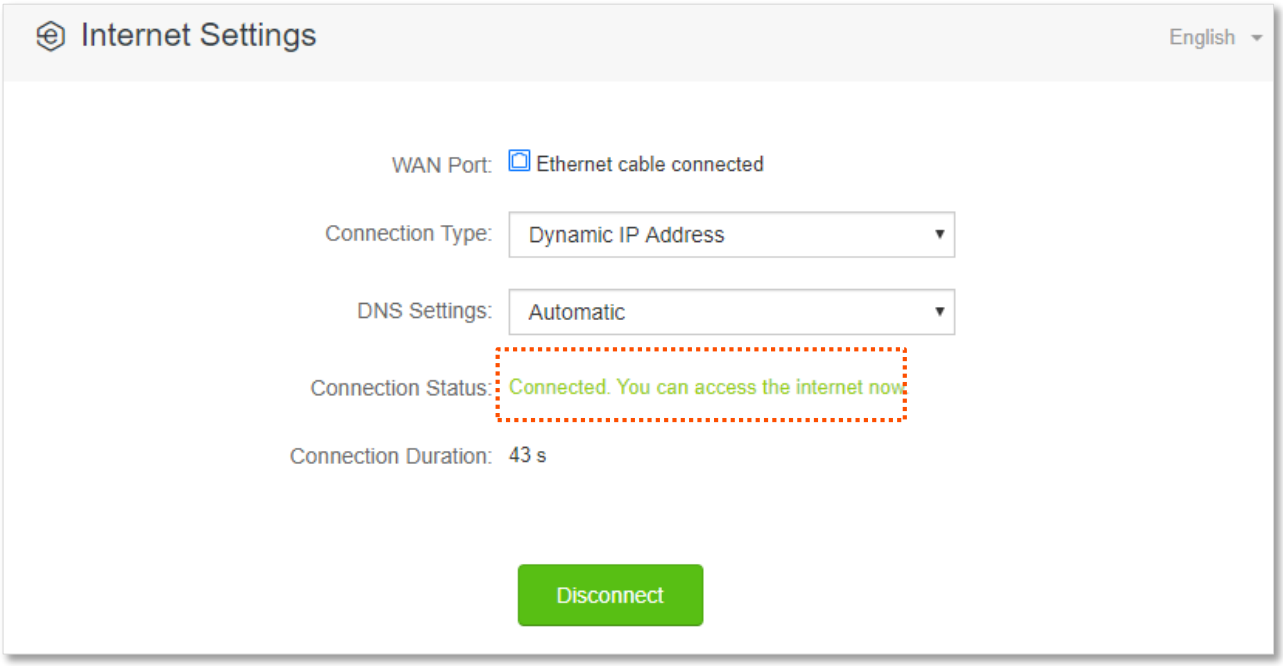
Step 3 Set **Connection Type** to **Dynamic IP Address**.

Step 4 Click **Connect.**



---End

Wait a moment until "Connected. You can access the internet now." is shown on the page, and you can access the internet.



If you fail to access the internet, refer to View the internet status to find a solution.

Parameter description

Parameter	Description
DNS Settings	Specifies the obtaining method of the WAN DNS address, which is **Automatic** by default. • **Automatic**: Obtain a DNS server address from the DHCP server of the upstream network. • **Manual**: Configure the DNS server address manually.
Connection Status	Specifies the internet connection status. • When "Connected. You can access the internet now." is shown here, the router is connected to the internet successfully. • When other information is shown here, the router fails to connect to the internet. Please take corresponding measures according to the tips provided.
Connection Duration	Specifies the duration since the router is connected to the internet.

3.3 Access the internet through static IP address

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.

Procedure:

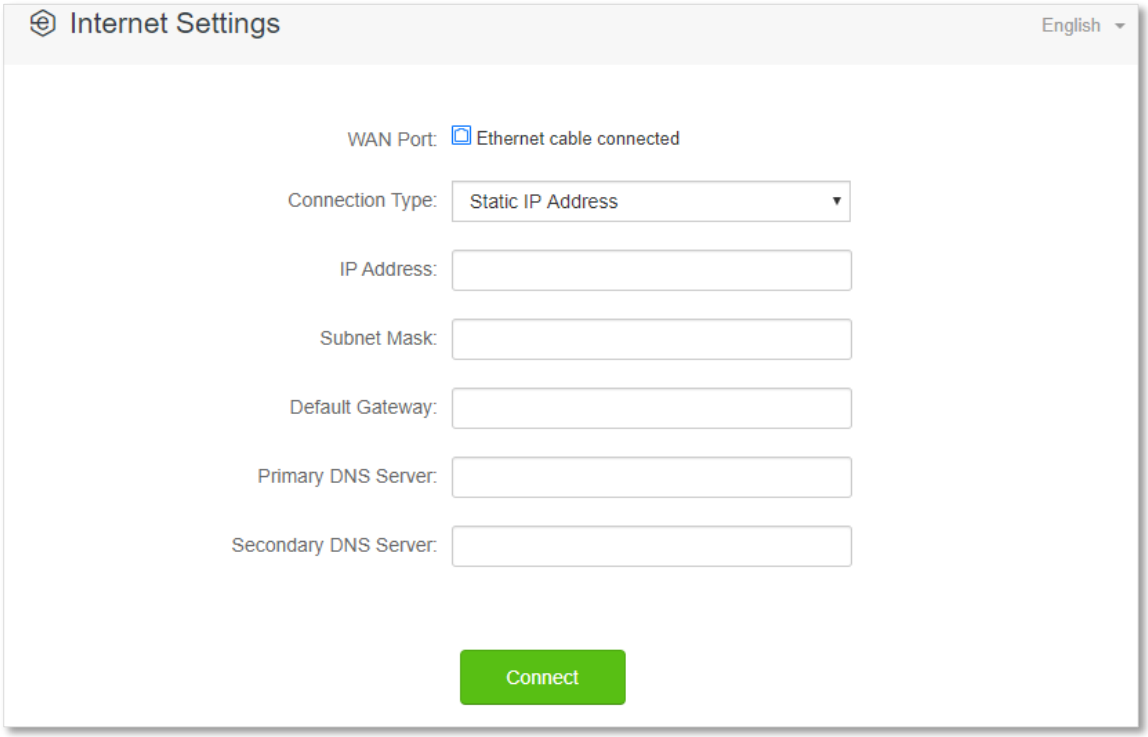
Step 1 Log in to the web UI.

Step 2 Click **Internet Settings**.

Step 3 Set **Connection Type** to **Static IP Address**.

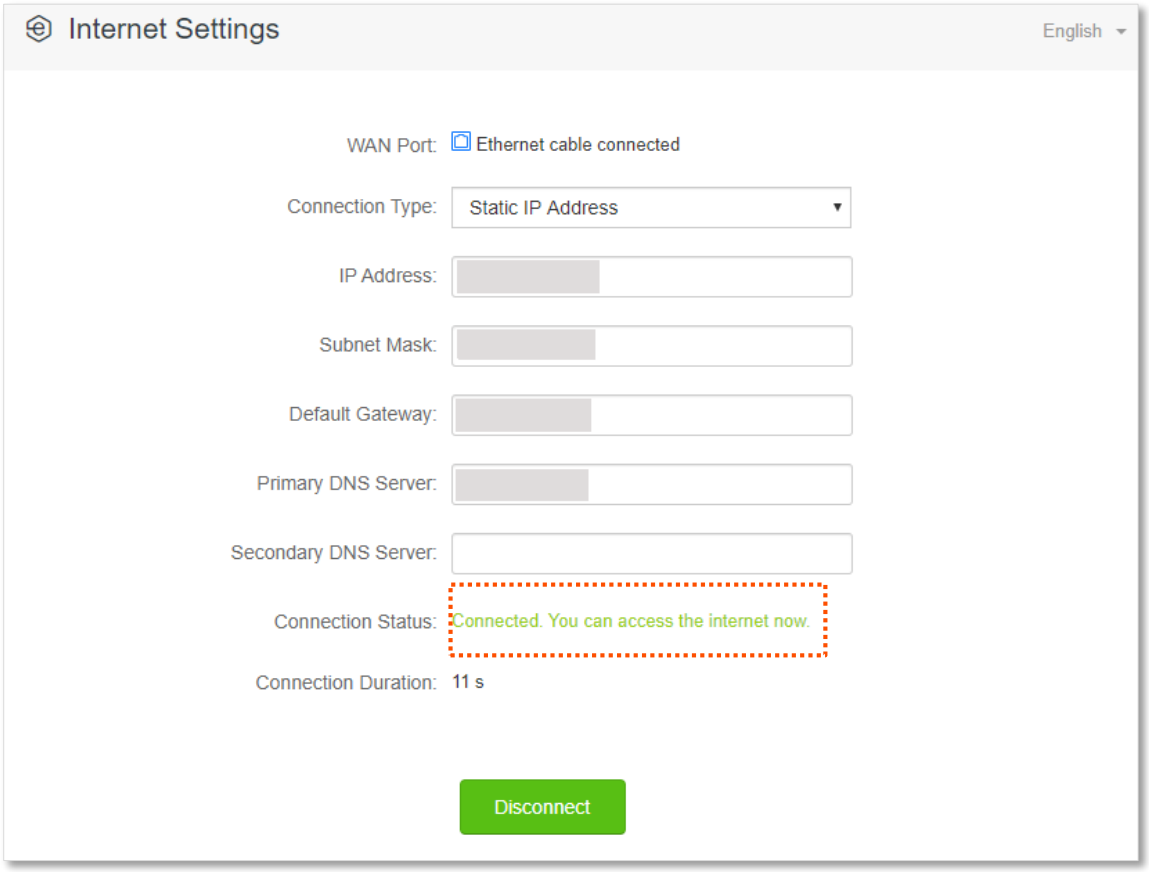
Step 4 Enter **IP Address**, **Subnet Mask**, **Default Gateway** and **Primary/Secondary DNS server**.

Step 5 Click **Connect**.



---End

Wait a moment until "Connected. You can access the internet now." is shown on the page, you can access the internet.



If you fail to access the internet, refer to View the internet status to find a solution.

Parameter description

Parameter	Description
IP Address	When the static IP address is chosen as the connection type, enter the fixed IP address information provided by your ISP. TIP If your ISP only provides one DNS server, you can leave the **Secondary DNS Server** blank.
Subnet Mask	
Default Gateway	
Primary DNS Server	
Secondary DNS Server	
Connection Status	Specifies the internet connection status. • When "Connected. You can access the internet now." is shown here, the router is connected to the internet successfully. • When other information is shown here, the router fails to connect to the internet. Please take corresponding measures according to the tips provided.
Connection Duration	Specifies the duration since the router is connected to the internet.

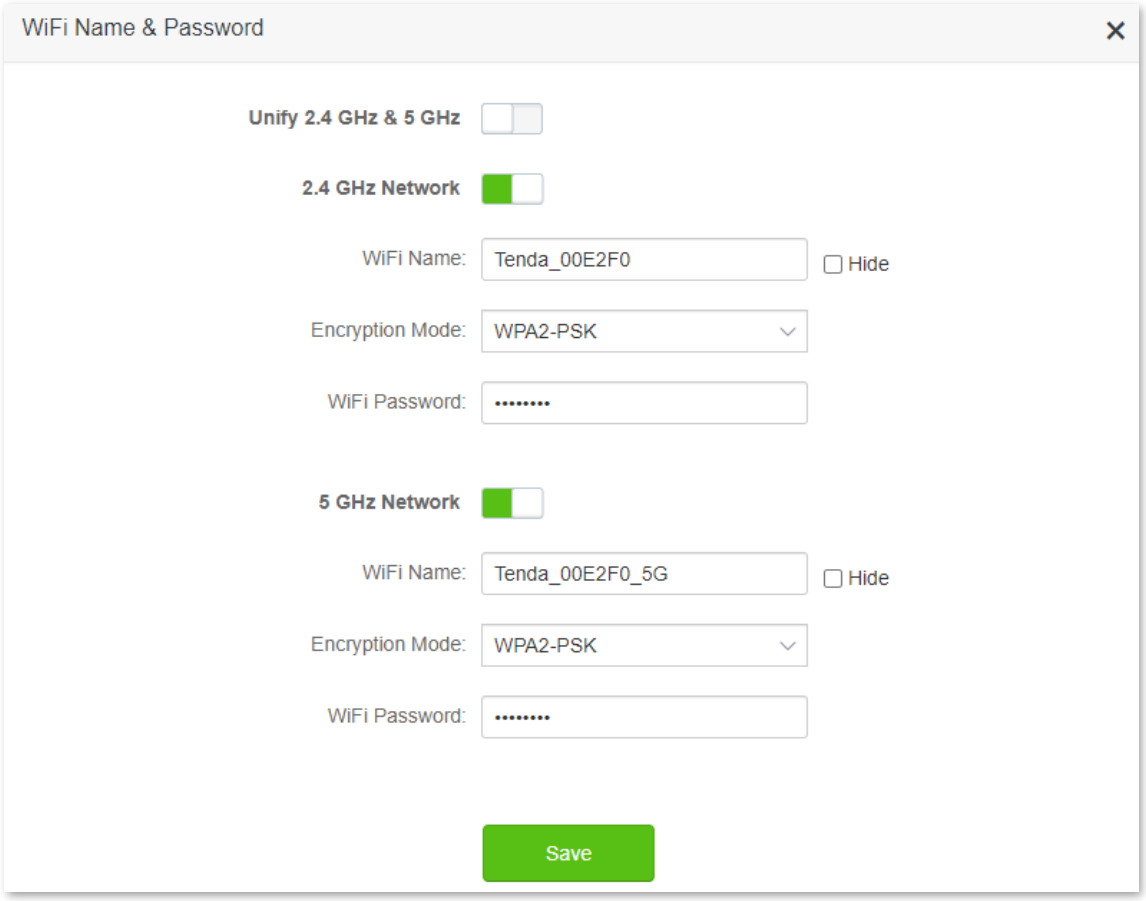
4 WiFi settings

4.1 WiFi name & password

4.1.1 Overview

To access the configuration page, log in to the web UI, and navigate to **WiFi Settings** > **WiFi Name & Password**.

On this page, you can configure basic WiFi parameters, such as enabling/disabling the WiFi network, modifying the WiFi name, and setting the WiFi password.



Parameter description

Parameter	Description
Unify 2.4 GHz & 5 GHz	Used to enable or disable the **Unify 2.4 GHz & 5 GHz** function, which is disabled by default. When this function is enabled, the 2.4 GHz and 5 GHz WiFi networks share the same SSID and password. Devices connected to the WiFi network will use the network with better connection quality automatically.
Enable WiFi Network	Used to enable or disable the WiFi networks of the router when the **Unify 2.4 GHz & 5GHz** function is enabled.
2.4 GHz Network 5 GHz Network	You can enable or disable the 2.4 GHz network and 5 GHz network separately when the **Unify 2.4 GHz & 5 GHz** function is disabled. • If wireless devices such as smartphones are far away from the router or blocked from the router by a wall, it is recommended to connect to the 2.4 GHz WiFi network. • If the wireless devices are close to the router, it is recommended to connect to the 5 GHz WiFi network.
WiFi Name	Specifies the WiFi network name (SSID) of the corresponding WiFi network.
Hide	Used to hide the WiFi name of the WiFi network, to improve the security level of the WiFi network. When this function is enabled, the WiFi network is invisible to wireless devices. You need to enter the WiFi name of the network on your wireless devices (such as a smartphone) manually if you want to join the WiFi network.
Encryption Mode	Specifies the encryption modes supported by the router, including: • **None**: It indicates that the WiFi network is not encrypted and any clients can access the network without a password. This option is not recommended as it leads to low network security. • **WPA2-PSK**: The network is encrypted with WPA2-PSK/AES.
WiFi Password	Specifies the password for connecting to the WiFi network. You are strongly recommended to set a WiFi password for security. TIP It is recommended to use the combination of numbers, uppercase letters, lowercase letters and special symbols in the password to enhance the security of the WiFi network.

4.1.2 Unify the 2.4 GHz WiFi name from 5 GHz WiFi name

The router supports both 2.4 GHz and 5 GHz WiFi networks. The Unify 2.4 GHz & 5 GHz function is disabled by default, and two WiFi network names are displayed. If you want to unify the WiFi names of one network, follow the procedures below.

Procedure:

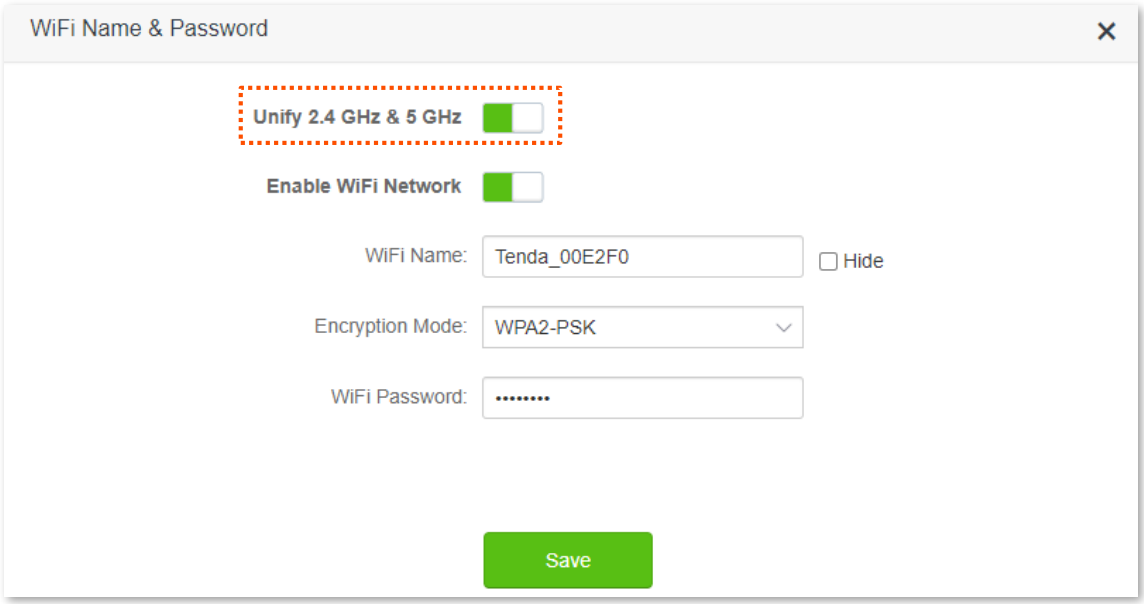
Step 1 Log in to the web UI.

Step 2 Navigate to **WiFi Settings** > **WiFi Name & Password.**

Step 3 Enable the **Unify 2.4 GHz & 5 GHz** function.

Step 4 Customize the **WiFi Name**, **Encryption Mode** and **WiFi Password** of the WiFi network.

Step 5 Click **Save**.



---End

After the configuration is completed, the 2.4 GHz WiFi network and 5 GHz WiFi network of the router have the same WiFi name and password, and when you connect to the WiFi network of the router, it will automatically connect to the WiFi network with the best network quality.

4.1.3 Change the WiFi name and WiFi password

The router supports both 2.4 GHz and 5 GHz WiFi networks.

Assume that you want to change the 2.4 GHz WiFi name and password to **John_Doe_2.4GHz** and **Tenda+Wireless24,** and the 5 GHz WiFi name and password to **John_Doe_5GHz** and **Tenda+Wireless5**. Both networks adopt **WPA2-PSK** as the encryption type.

Procedure:

Step 1 Log in to the web UI.

Step 2 Navigate to **WiFi Settings** > **WiFi Name & Password.**

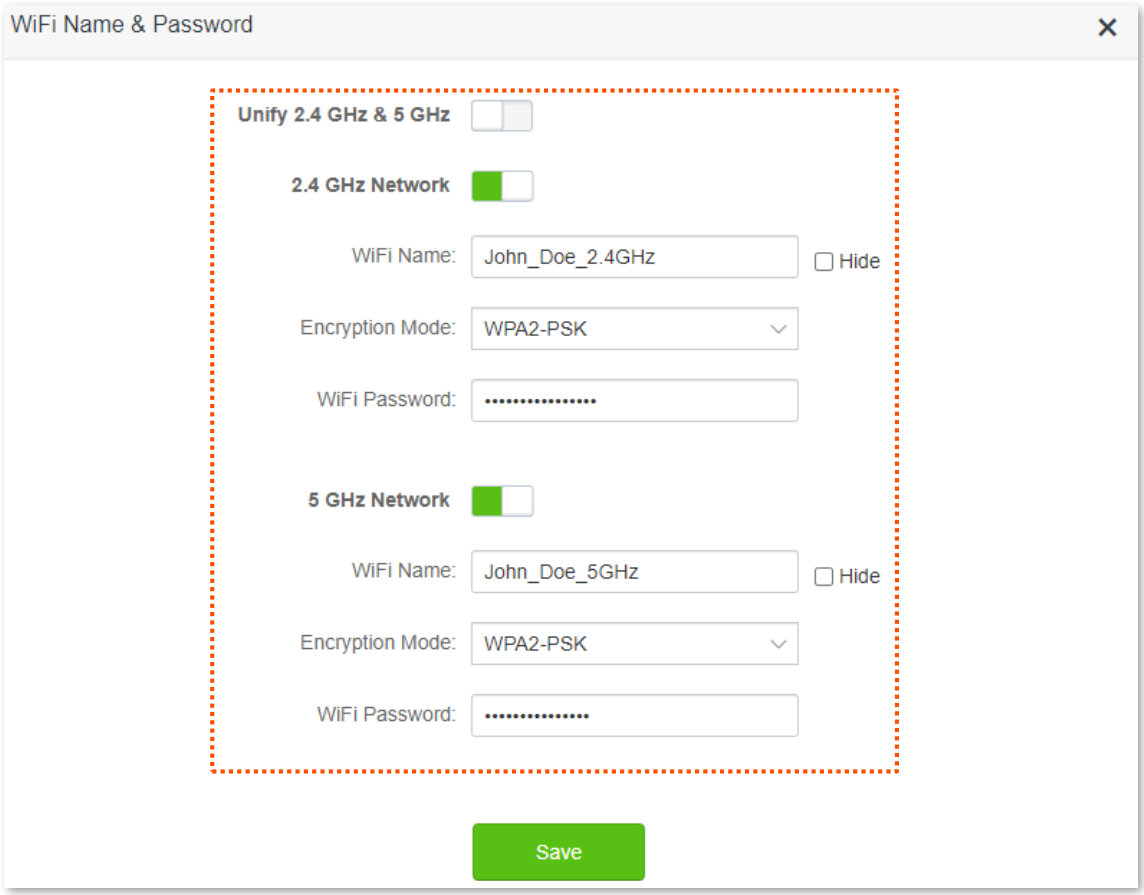
Step 3 Change the parameters of the 2.4 GHz network.

1. Change the **WiFi Name** of the 2.4 GHz network, which is **John_Doe_2.4GHz** in this example.
2. Select an **Encryption Mode**, which is **WPA2-PSK** in this example.
3. Change the **WiFi Password** of the 2.4 GHz network, which is **Tenda+Wireless24** in this example.

Step 4 Change the parameters of the 5 GHz network.

1. Change the **WiFi Name** of the 5 GHz network, which is **John_Doe_5GHz** in this example.
2. Select an **Encryption Mode**, which is **WPA2-PSK** in this example.
3. Change the **WiFi Password** of the 5 GHz network, which is **Tenda+Wireless5** in this example.

Step 5 Click **Save**.



---End

After the configuration is completed, your wireless device, such as your smartphone, needs to be connected to a new WiFi network to access the internet.

4.1.4 Hide the WiFi network

The hidden WiFi networks are invisible to wireless devices, thus improving the security of the networks.

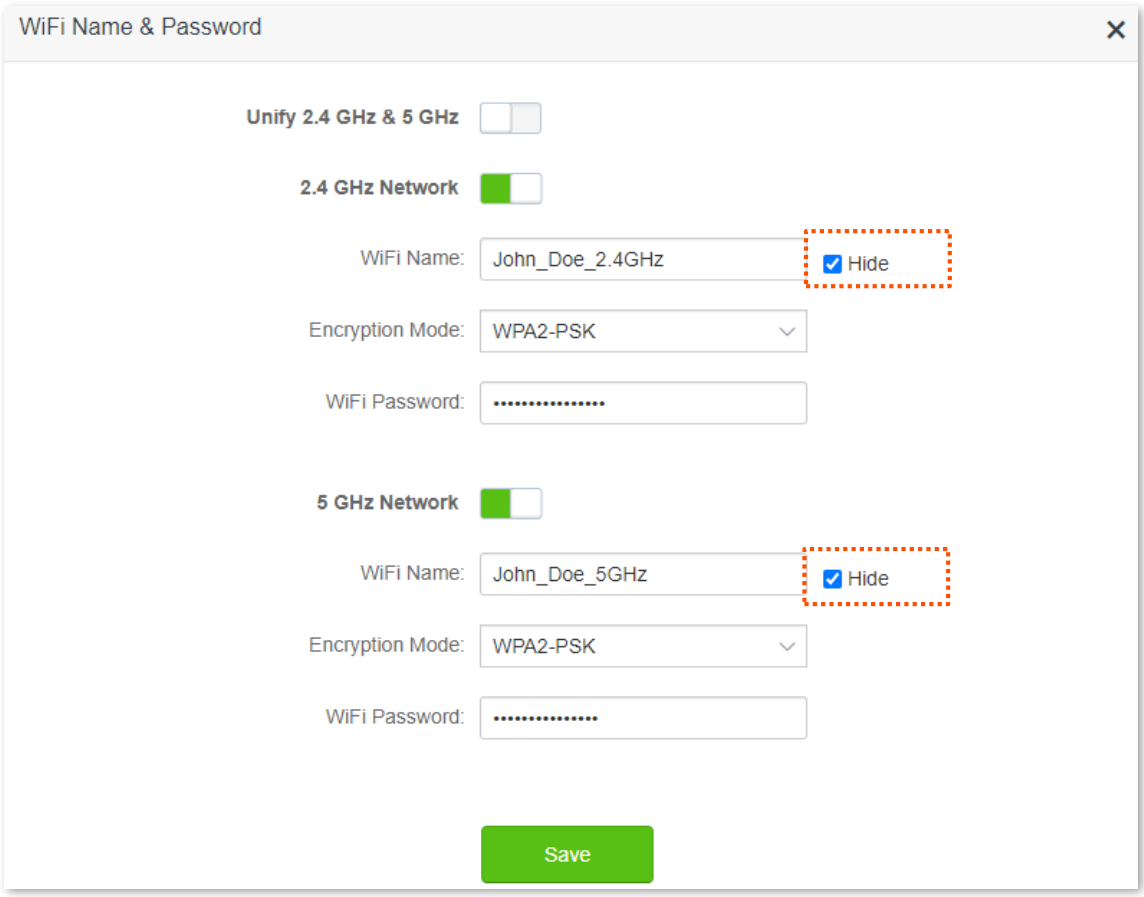
Procedure:

Step 1 Log in to the web UI.

Step 2 Navigate to **WiFi Settings** > **WiFi Name & Password.**

Step 3 Tick **Hide** of the target network.

Step 4 Click **Save**.



---End

After the configuration is completed, the corresponding WiFi network is invisible to wireless devices.

4.1.5 Connect to a hidden WiFi network

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

Assume that the Unify 2.4 GHz & 5 GHz function is enabled and the parameters are:

- WiFi name: Jone_Doe
- Encryption type: WPA2-PSK
- WiFi password: Tenda+Wireless245

TIP

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

Procedure for connecting to the WiFi network on your wireless device (Example: iPhone).

Step 1 Tap **Settings** on your phone, and find **WLAN**.

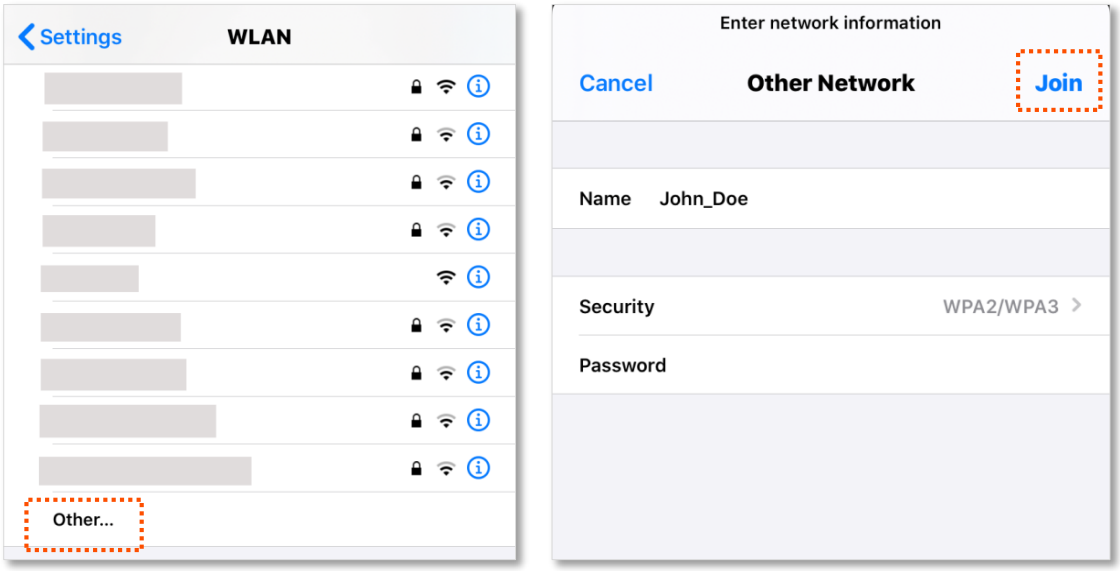
Step 2 Enable the **WLAN**.

Step 3 Scroll the WiFi list to the bottom, and tap **Other…**.

Step 4 Enter the WiFi name and password, which are **John_Doe** and **Tenda+Wireless245** in this example.

Step 5 Set security to **WPA2/WPA3** (If WPA2/WPA3 is not available, choose WPA2).

Step 6 Tap **Join**.



---End

After the configuration is completed, you can connect to the hidden WiFi network to access the internet.

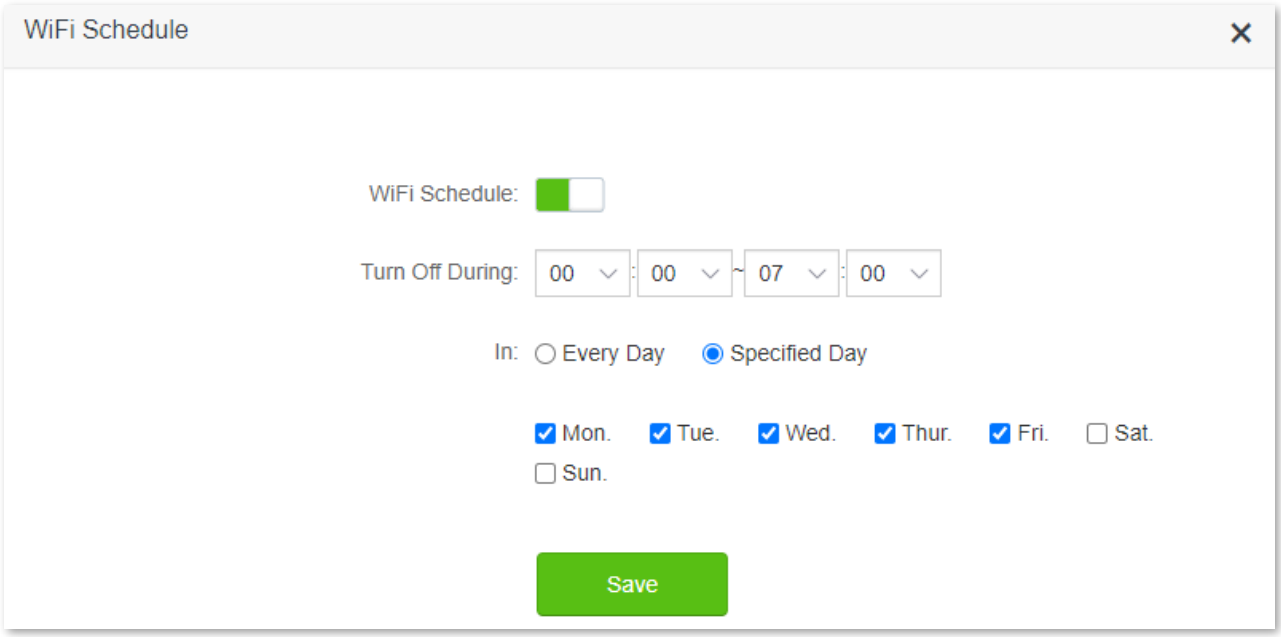
4.2 WiFi schedule

4.2.1 Overview

This WiFi Schedule function allows you to disable the WiFi networks of the router at the specified period.

To access the configuration page, log in to the web UI, and navigate to **WiFi Settings** > **WiFi Schedule**.

This function is disabled by default. When it is enabled, the page is shown as below.



NOTE

To make the WiFi schedule work properly, please ensure the system time is synchronized with the internet time. Refer to Sync the system time with the internet time for configuration.

Parameter description

Parameter	Description
WiFi Schedule	Used to enable/disable the WiFi schedule function.
Turn Off During	Specifies the period when the WiFi networks are disabled. During this period, the WiFi network of the router is unavailable, and the router's WiFi network cannot be searched by the WiFi-enabled devices. Outside this period, the WiFi network of the router is normal, and the router's WiFi network can be searched by WiFi-enabled devices.
In	Specifies the day(s) on which the WiFi networks are disabled during the specified period.

4.2.2 An example of configuring WiFi schedule

Assume that you want to disable the WiFi network from 22:00 to 7:00 every day.

Procedure:

Step 1 Log in to the web UI.

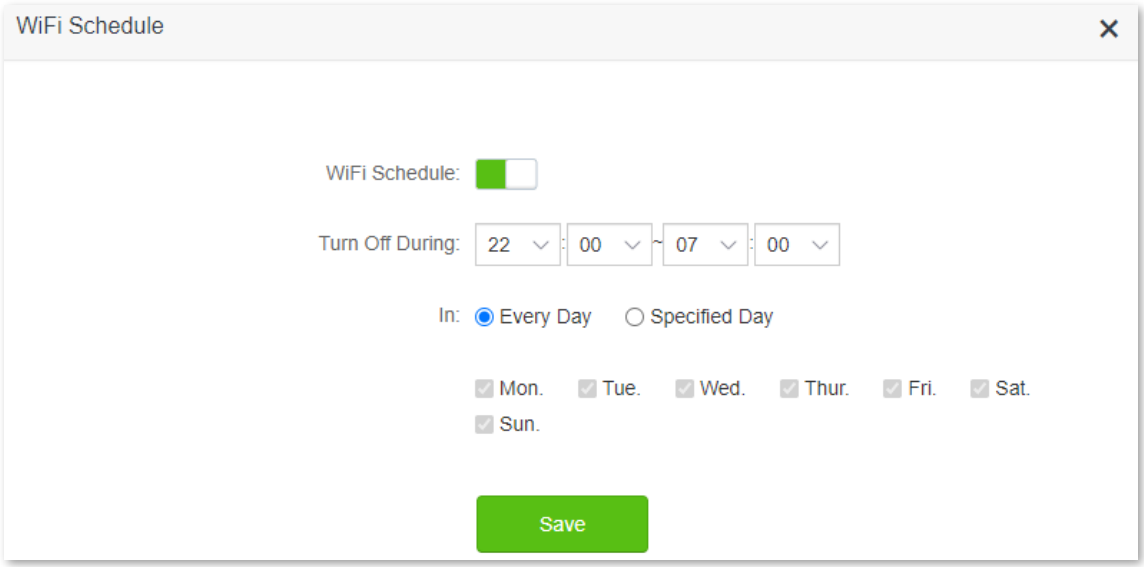
Step 2 Navigate to **WiFi Settings** > **WiFi Schedule.**

Step 3 Enable the **WiFi Schedule** function.

Step 4 Set a period for the WiFi networks to be disabled, which is **22:00~07:00** in this example.

Step 5 Set the days when the functions work, which is **Every Day** in this example.

Step 6 Click **Save**.



---End

After the configuration is completed, the WiFi networks of the router will be disabled from 10 pm to 7 am every day, and the WiFi-enabled devices such as smartphones cannot connect to the WiFi network of the router.

4.3 Wireless repeating

4.3.1 Overview

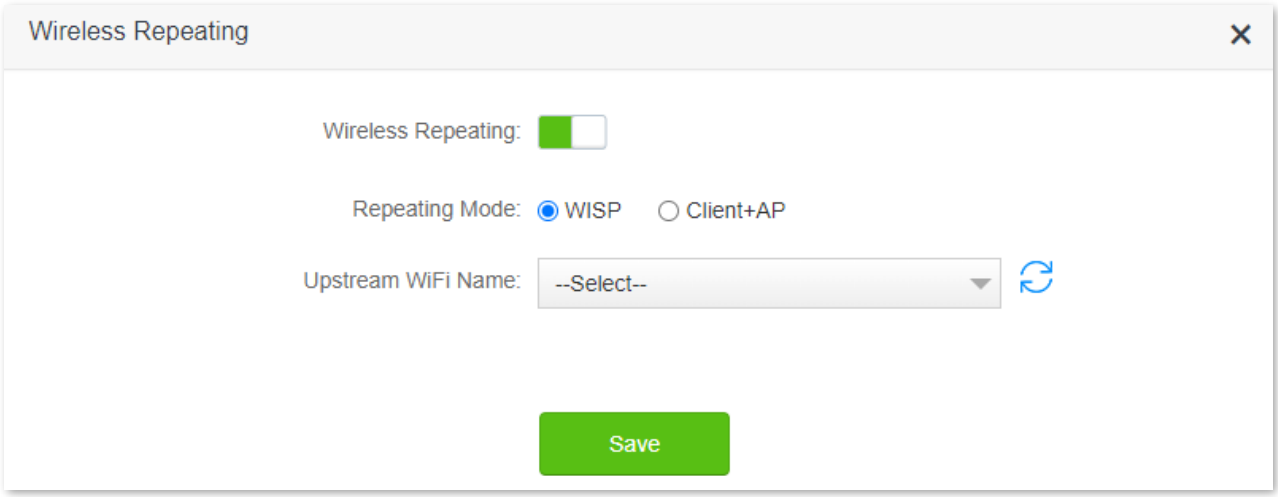
The wireless repeating function enables you to extend the coverage of an existing network.

To access the configuration page, log in to the web UI, and navigate to **WiFi Settings** > **Wireless Repeating**.

This function is disabled by default. When it is enabled, the page is shown as below.

NOTE

- When the wireless repeating function is enabled, some other functions will be unavailable, such as WiFi schedule, guest network, WPS and IPTV.
- When wireless repeating is enabled, do not connect any device to the WAN port of the router.



Parameter description

Parameter	Description
Wireless Repeating	Used to enable/disable the wireless repeating function.
Repeating Mode	Two repeating modes are available: • **WISP:** Generally used to bridge the hotspot of ISPs. • **Client+AP:** Able to bridge all kinds of WiFi networks. TIP • 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. • After the router is set to **WISP** mode, you are required to access the internet by referring to the configuring procedures in Internet settings according to the connection type you choose. • After the router is set to **Client+AP** mode, the LAN IP address of this router may be changed.

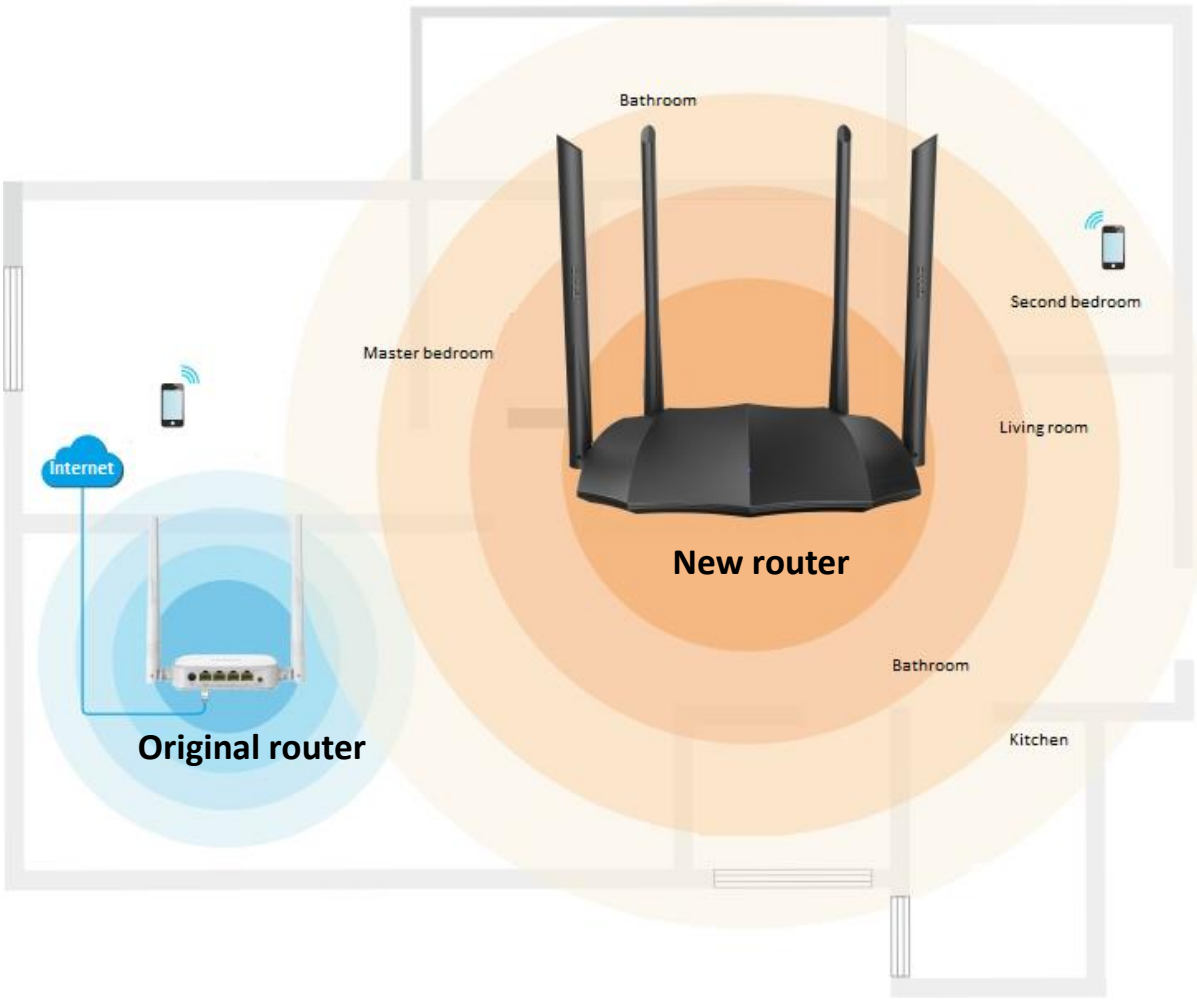
Parameter	Description
Upstream WiFi Name	Specifies the WiFi name that you want to bridge. If you choose **Enter a WiFi name manually**, you are required to enter the **WiFi Name**, **Frequency Band** and **Encryption Mode, Encryption Algorithm** and **Upstream WiFi Password** manually.
Upstream WiFi Password	Specifies the WiFi password of the WiFi name that you want to bridge.

4.3.2 Extend the existing WiFi network

When there is already a router with internet access in your home, you can refer to the configurations in this part to extend the WiFi network coverage.

Assume that your existing WiFi name and password are:

- WiFi name: Home_WiFi
- WiFi password: Tenda+245



Method 1: Set the new router to WISP mode

Procedure:

Step 1 Place the new router near the existing router and power it on. Connect your wireless device to the WiFi network of your new router, or connect a computer to a LAN port of the router (1, 2, IPTV/3). Do not connect any device to the WAN port of the new router.

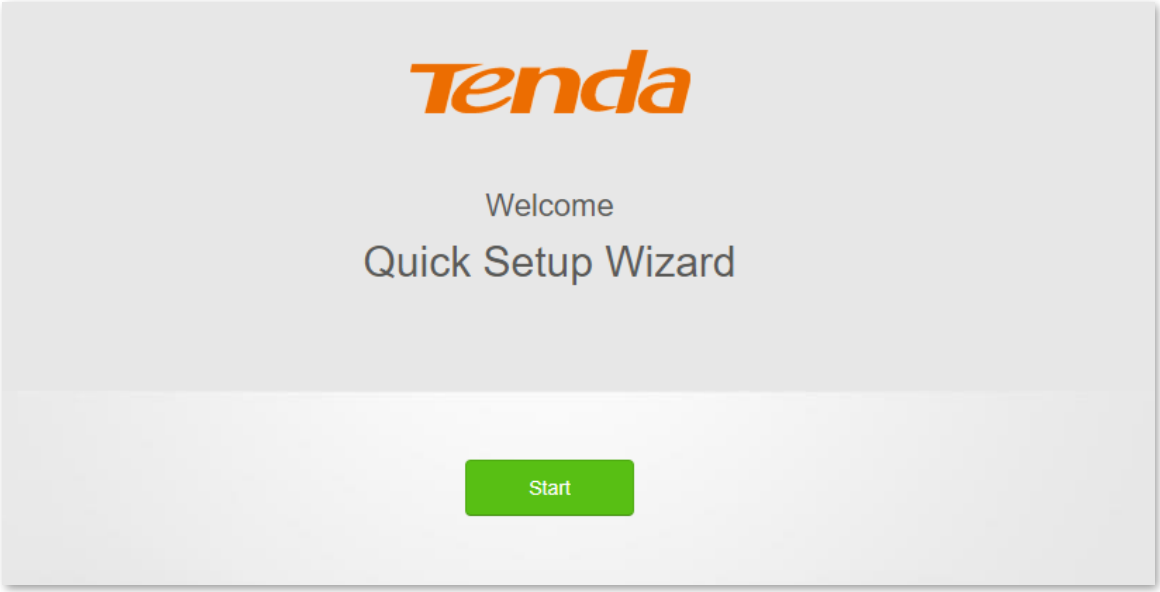
Step 2 Log in to the web UI.

TIP

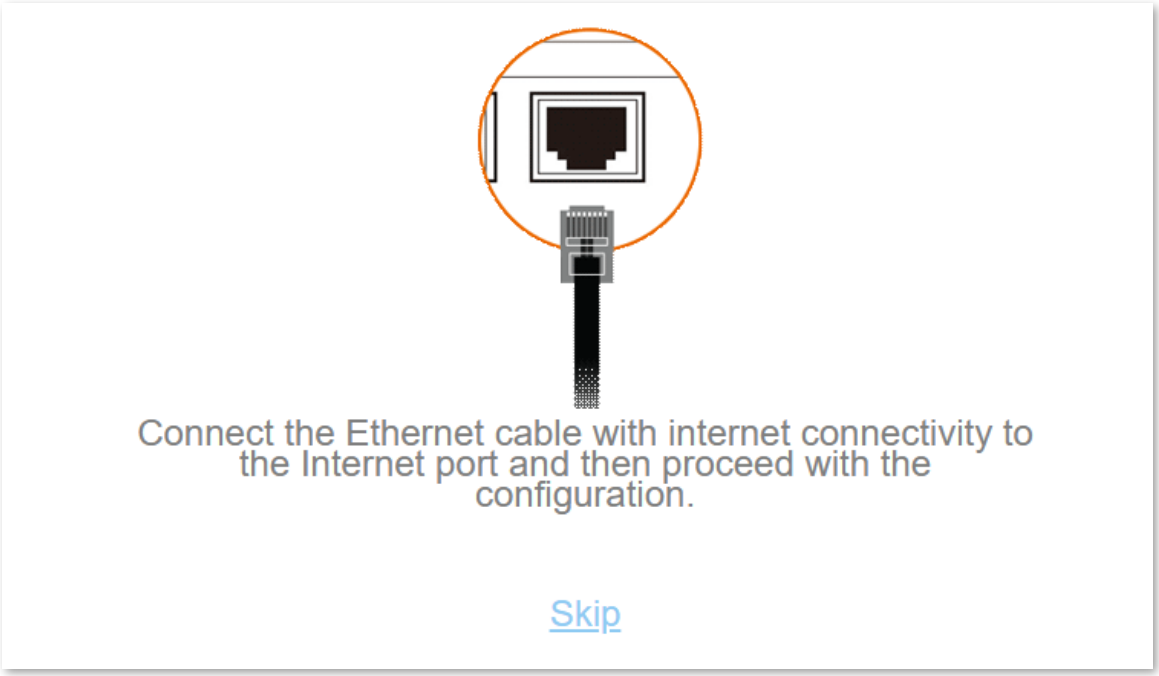
If you have finished the quick setup wizard before, skip **Step 3**.

Step 3 (Optional) Ignore the quick setup wizard.

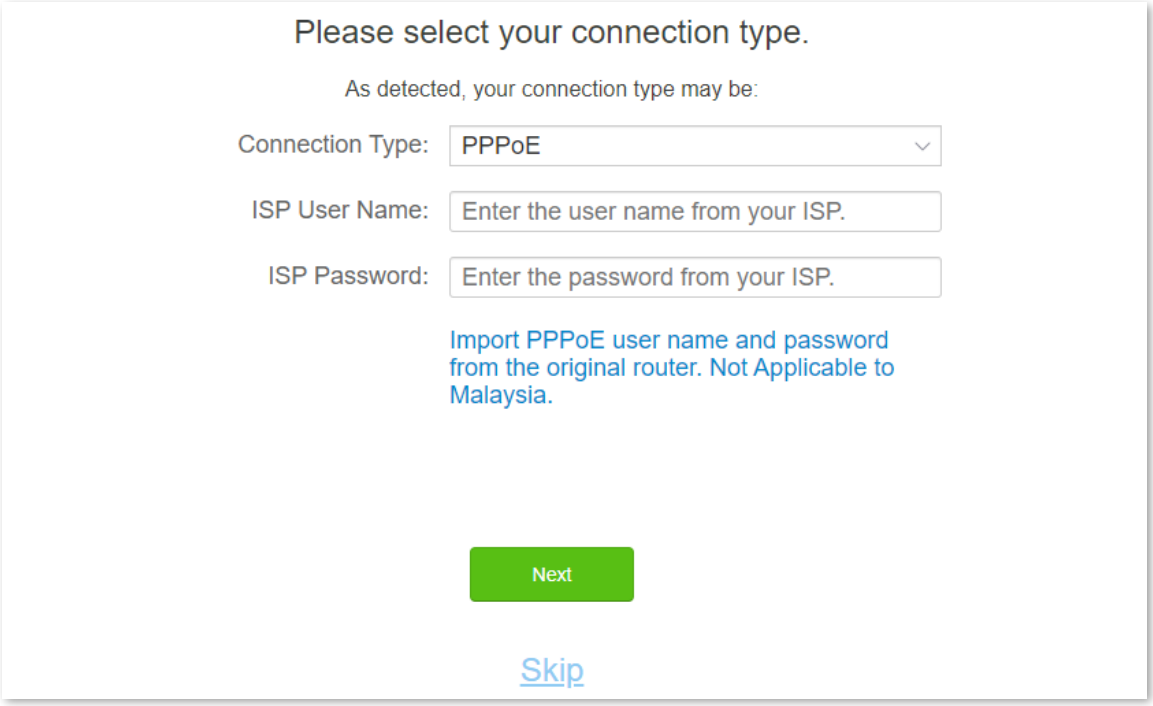
1. Click **Start**.



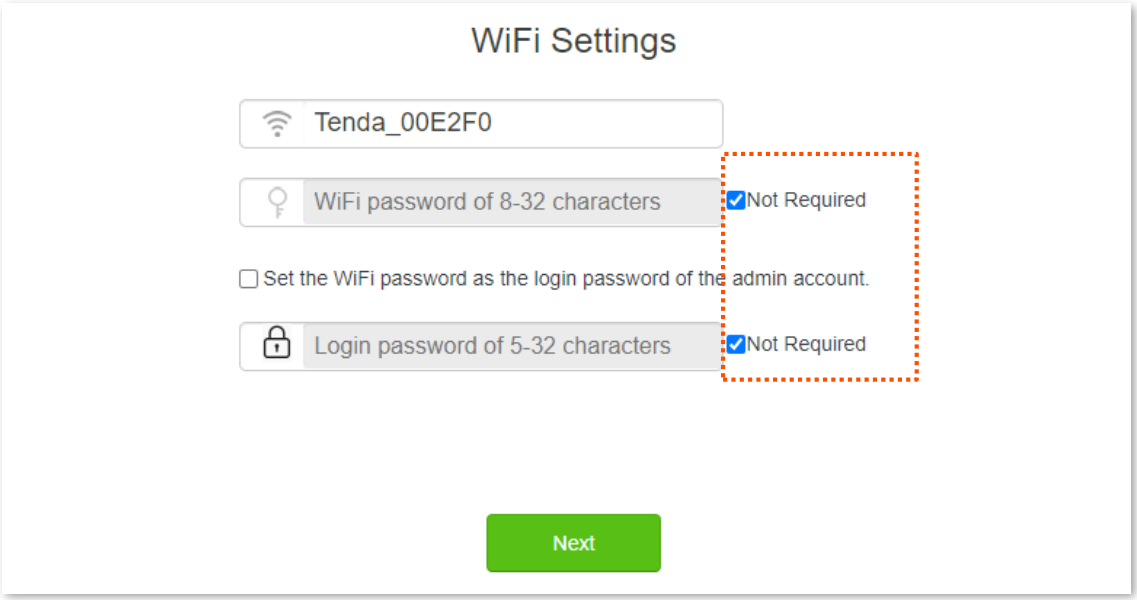
2. Click **Skip**.



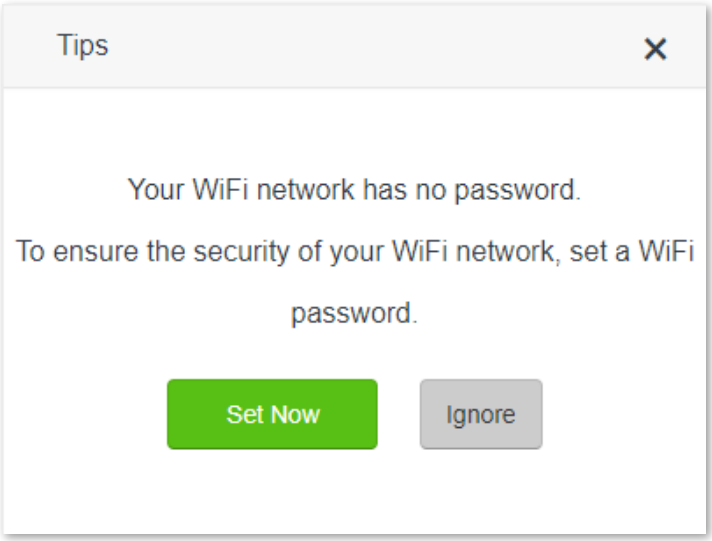
3. Click **Skip**.



4. Do not set login and WiFi password now by ticking **Not Required**, and click **Next**.

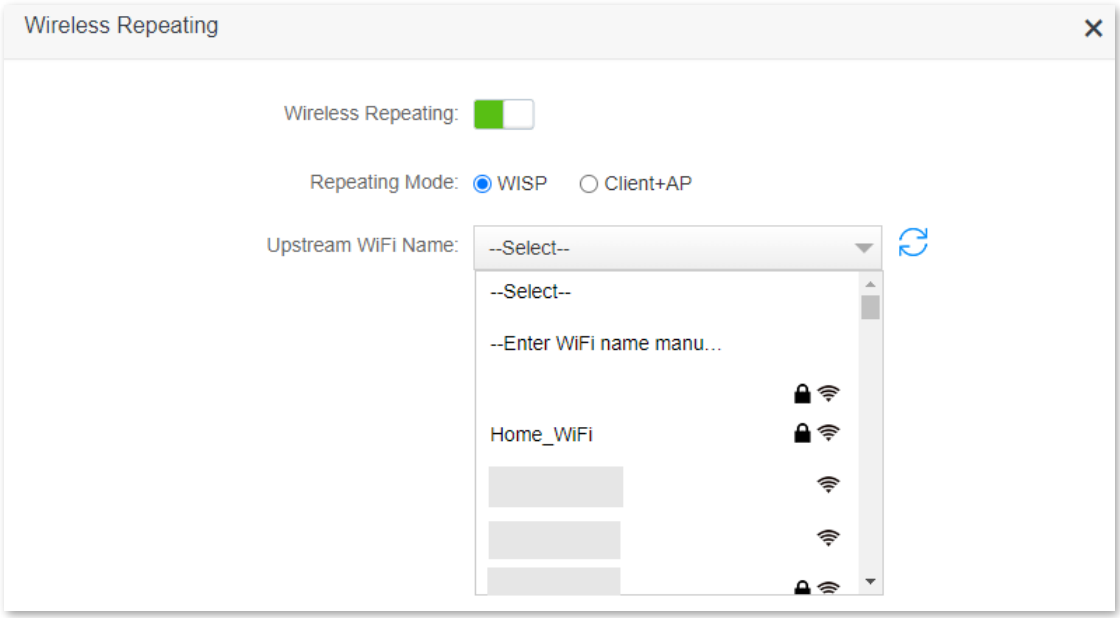


5. Click **Ignore**.

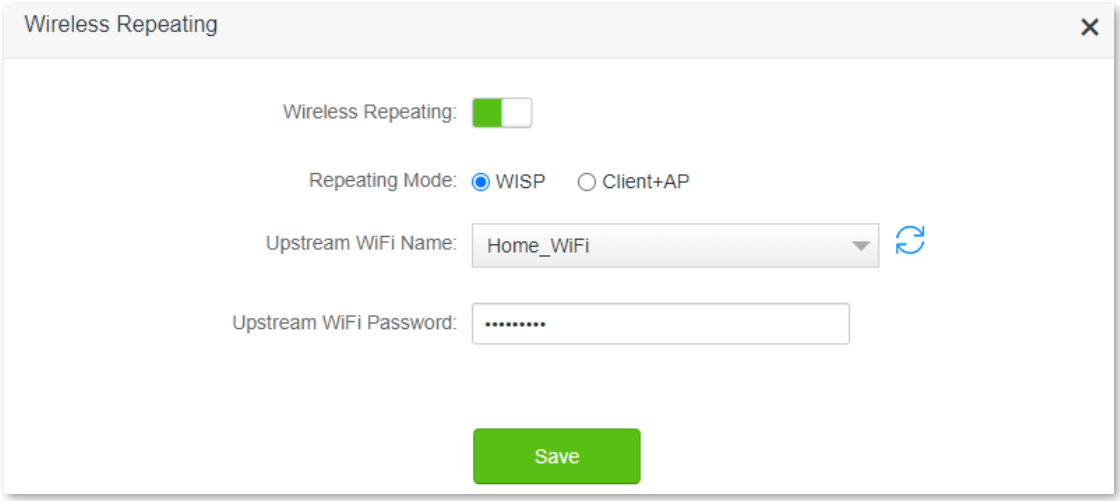


Step 4 Set the new router to **WISP** mode.

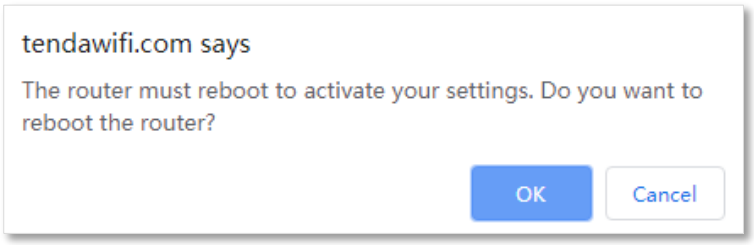
1. Navigate to **WiFi Settings** > **Wireless Repeating**.
2. Enable the **Wireless Repeating** function.
3. Set **Repeating Mode** to **WISP**.
4. Click **Select** to select an existing WiFi network, which is **Home_WiFi** in this example.



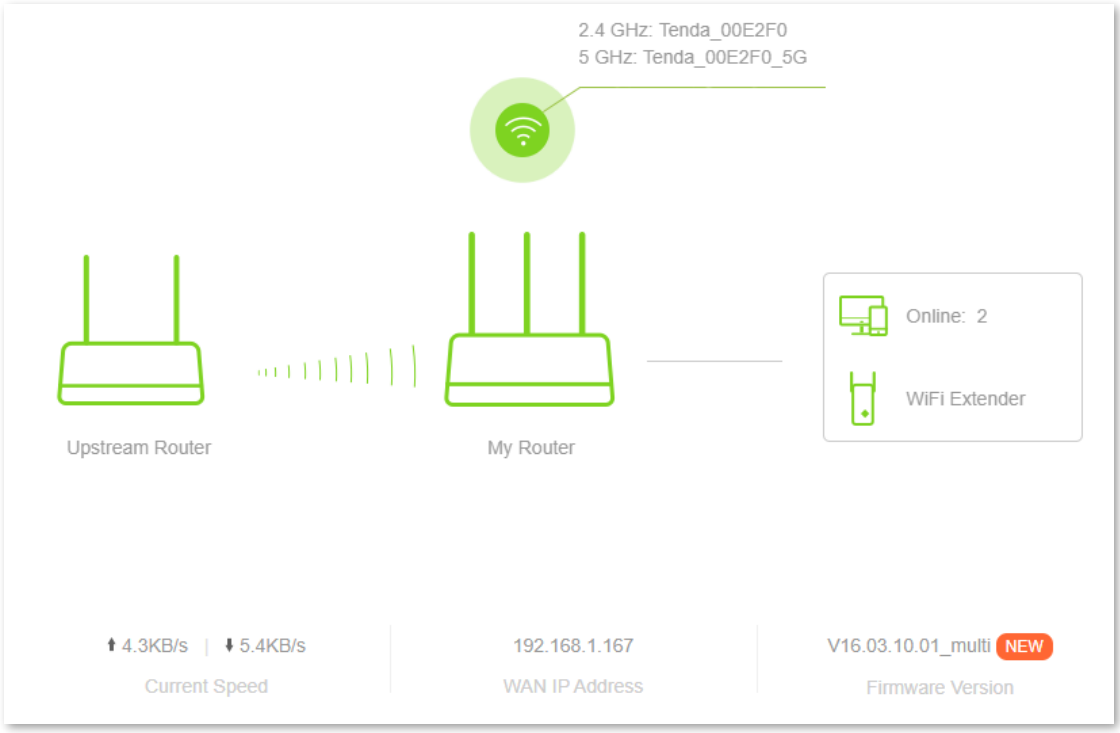
5. Enter the **Upstream WiFi Password**, which is **Tenda+245** in this example, and then click **Save**.



6. Click **OK**, and wait for the router to reboot.



7. Log in to the web UI of the router again, and navigate to **Internet Status** to check if the wireless repeating succeeds.



TIP

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

- Ensure that you have entered the correct WiFi password of the WiFi, and mind case sensitivity.
- Ensure that **My router** is within the wireless coverage of the **Upstream router**.

Step 5 Relocate the new router and power it on by referring to the following suggestions.

- Between the original router and the uncovered area, but within the coverage of the original router.
- Away from the microwave oven, electromagnetic oven, and refrigerator.
- Above the ground with few obstacles.

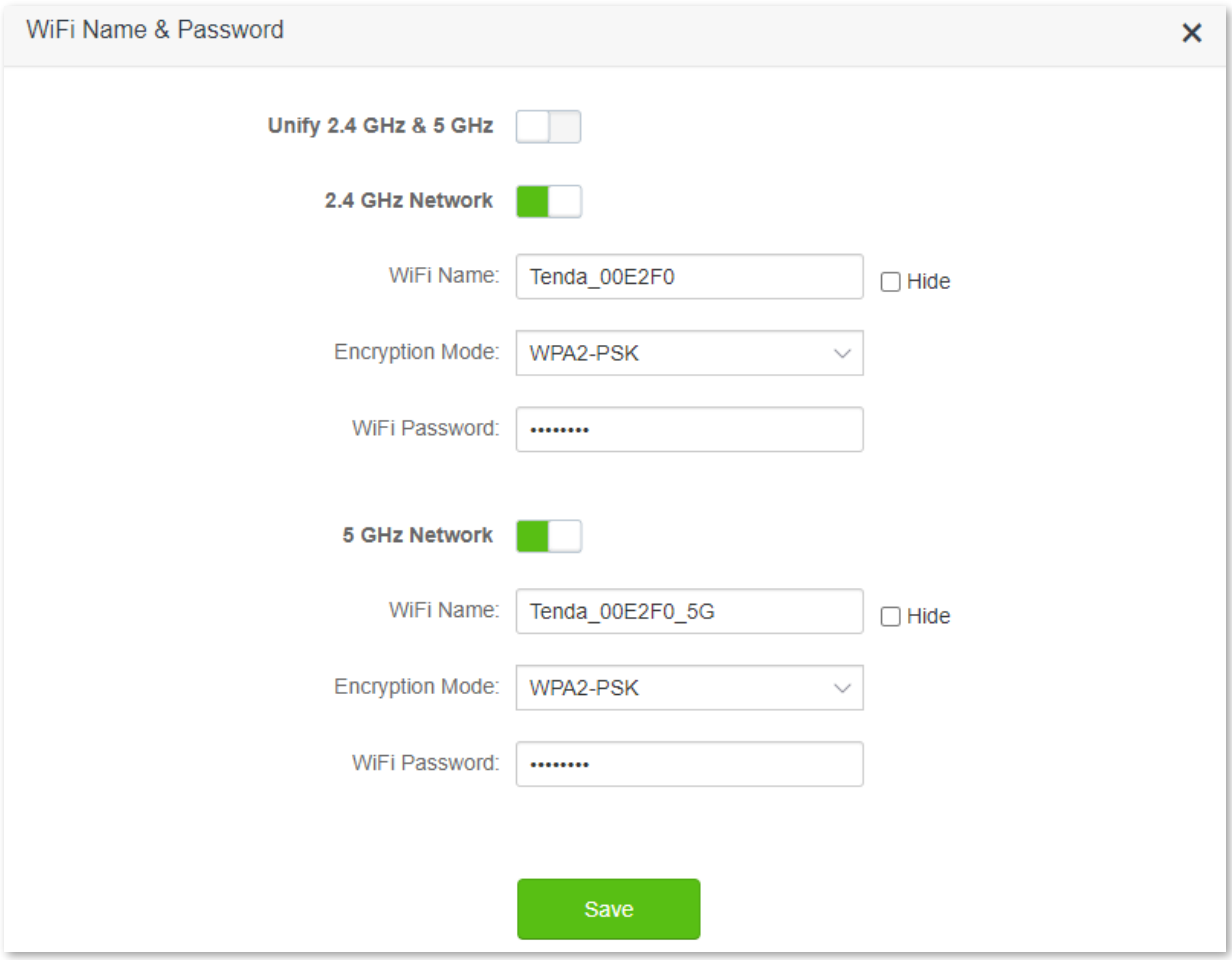
NOTE

Do not connect any device to the WAN port of the new router after setting the router to WISP mode.

---End

To access the internet, connect your computer to a LAN port of the new router (1, 2, IPTV/3), or connect your smartphone to the WiFi network of the new router.

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



TIP

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

- Ensure that the existing router is connected to the internet successfully.
- Ensure that your wireless devices are connected to the correct WiFi network of the new router.
- If the computer connected to the router for repeating cannot access the internet, ensure that the computer is configured to obtain an IP address and DNS server automatically.

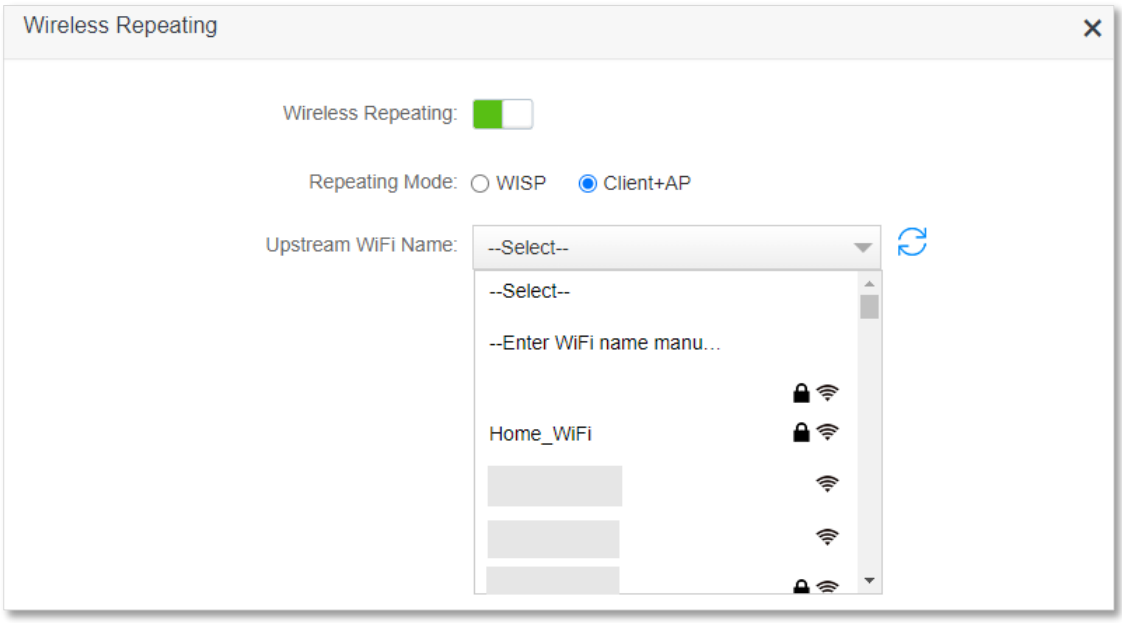
Method 2: Set the new router to Client+AP mode

Procedure:

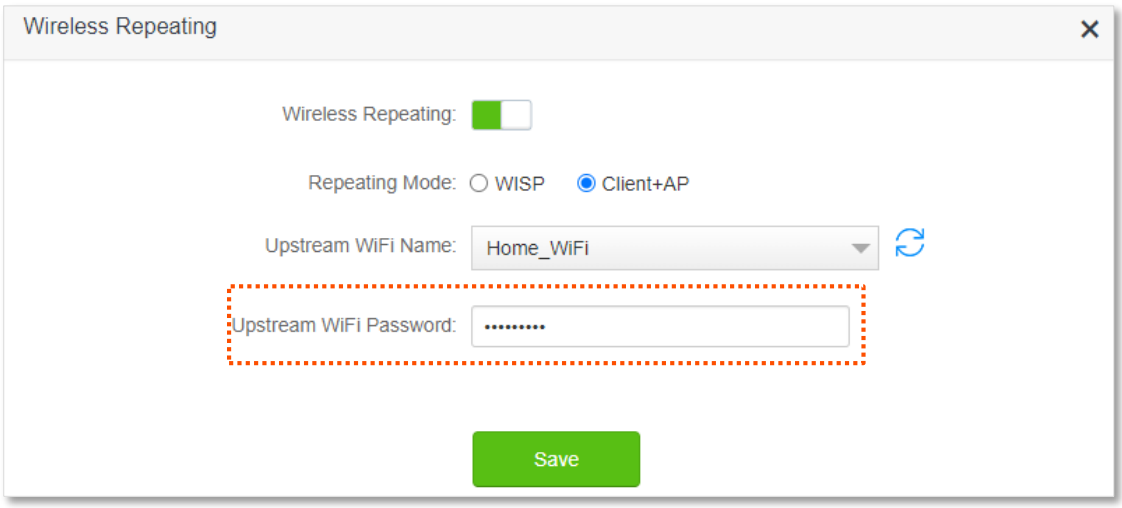
Step 1 Repeat **Step 1** to **Step 3** in Method 1 to connect and configure your router.

Step 2 Set the new router to **Client+AP** mode.

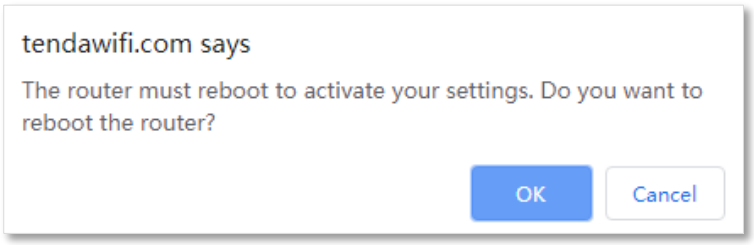
1. Navigate to **WiFi Settings** > **Wireless Repeating**.
2. Enable the **Wireless Repeating** function.
3. Set **Repeating Mode** to **Client+AP**.
4. Click **Select** to select the existing WiFi network, which is **Home_WiFi** in this example.



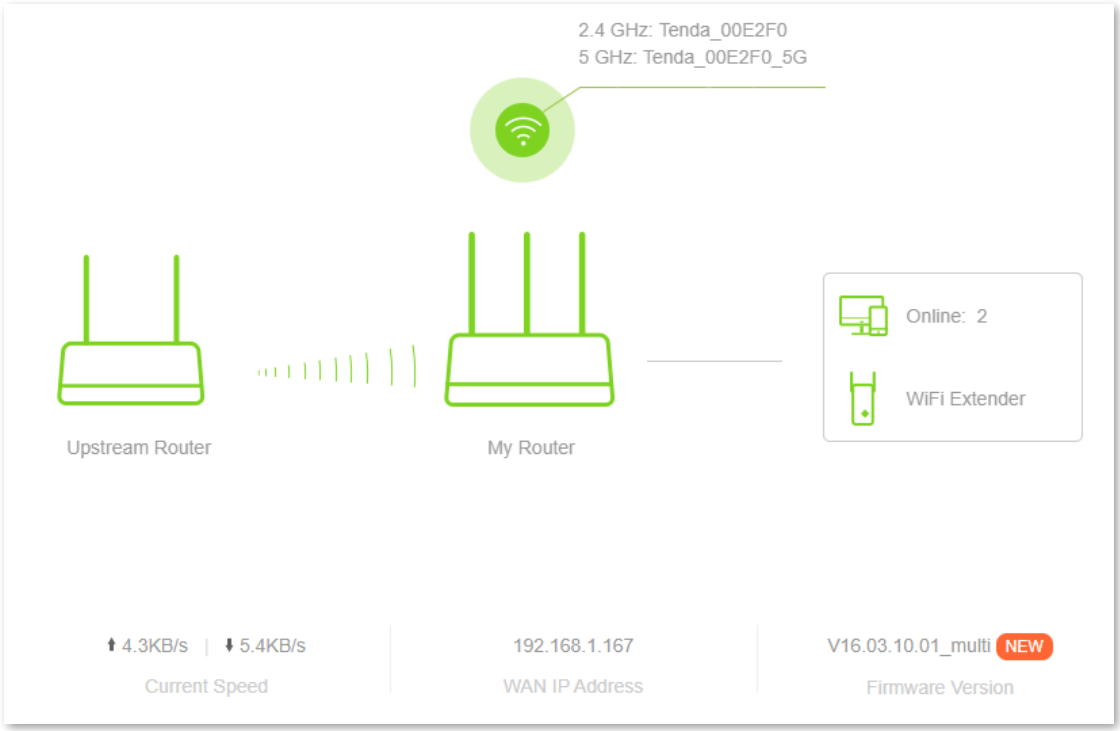
5. Enter the **Upstream WiFi Password**, which is **Tenda+245** in this example, and then click **Save**.



6. Click **OK**, and wait for the router to reboot.



7. Log in to the web UI of the router again, and navigate to **Internet Status** to check if the wireless repeating succeeds.



TIP

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

- Ensure that you have entered the correct WiFi password of the WiFi, and mind case sensitivity.
- Ensure that **My router** is within the wireless coverage of the **Upstream router**.

Step 3 Relocate the new router and power it on by referring to the following suggestions to solve.

- Locate the new router between the original router and the uncovered area but within the coverage of the original router.
- Away from the microwave oven, electromagnetic oven, and refrigerator.
- Above the ground with few obstacles.

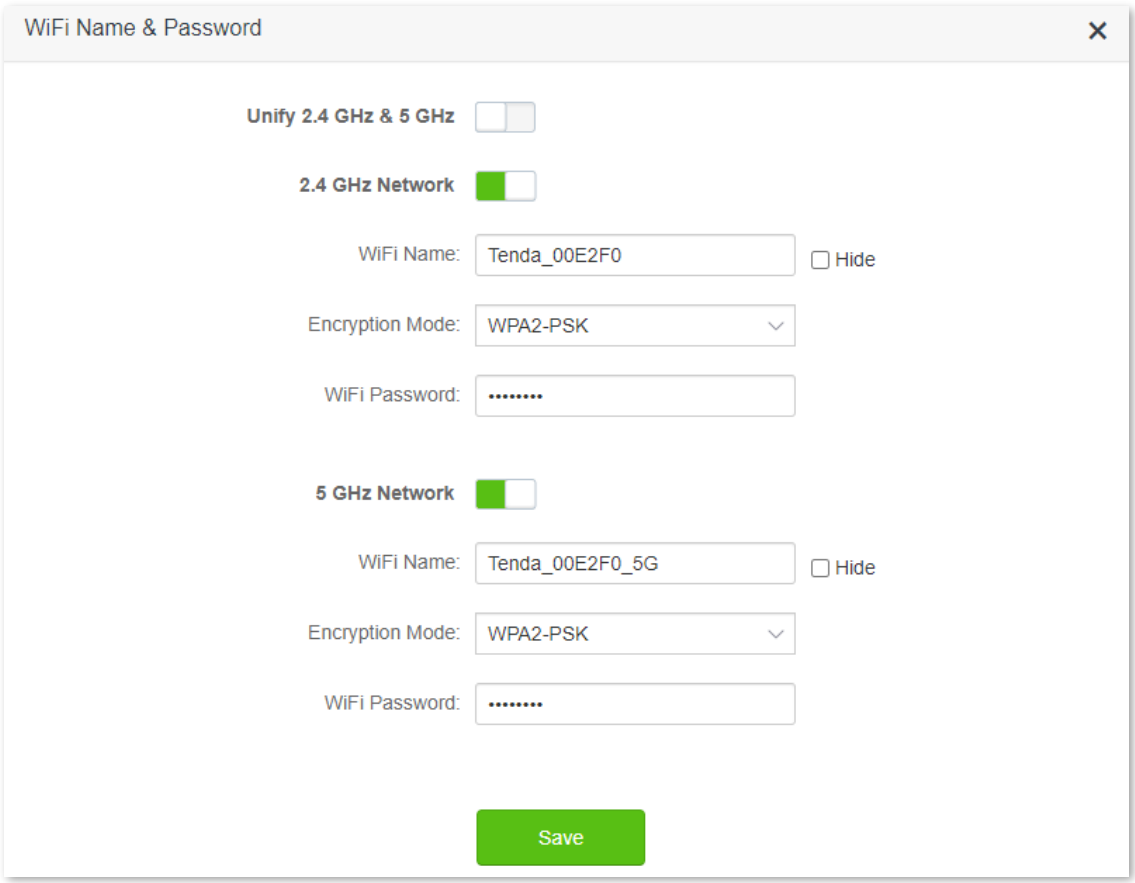
NOTE

After the new router is set to **Client+AP** mode:

- Do not connect any device to the WAN port of the new router.
- The LAN IP address of the router will change. Please log in to the web UI of the router by visiting **tendawifi.com**. 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 new 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 a LAN port of the new router (1, 2, IPTV/3), or connect your smartphone to the WiFi network of the new router.

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



TIP

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

- Ensure that the existing router is connected to the internet successfully.
- Ensure that your wireless devices are connected to the correct WiFi network of the new router.
- If the computer connected to the router cannot access the internet, ensure that the computer is configured to obtain an IP address and DNS server automatically.

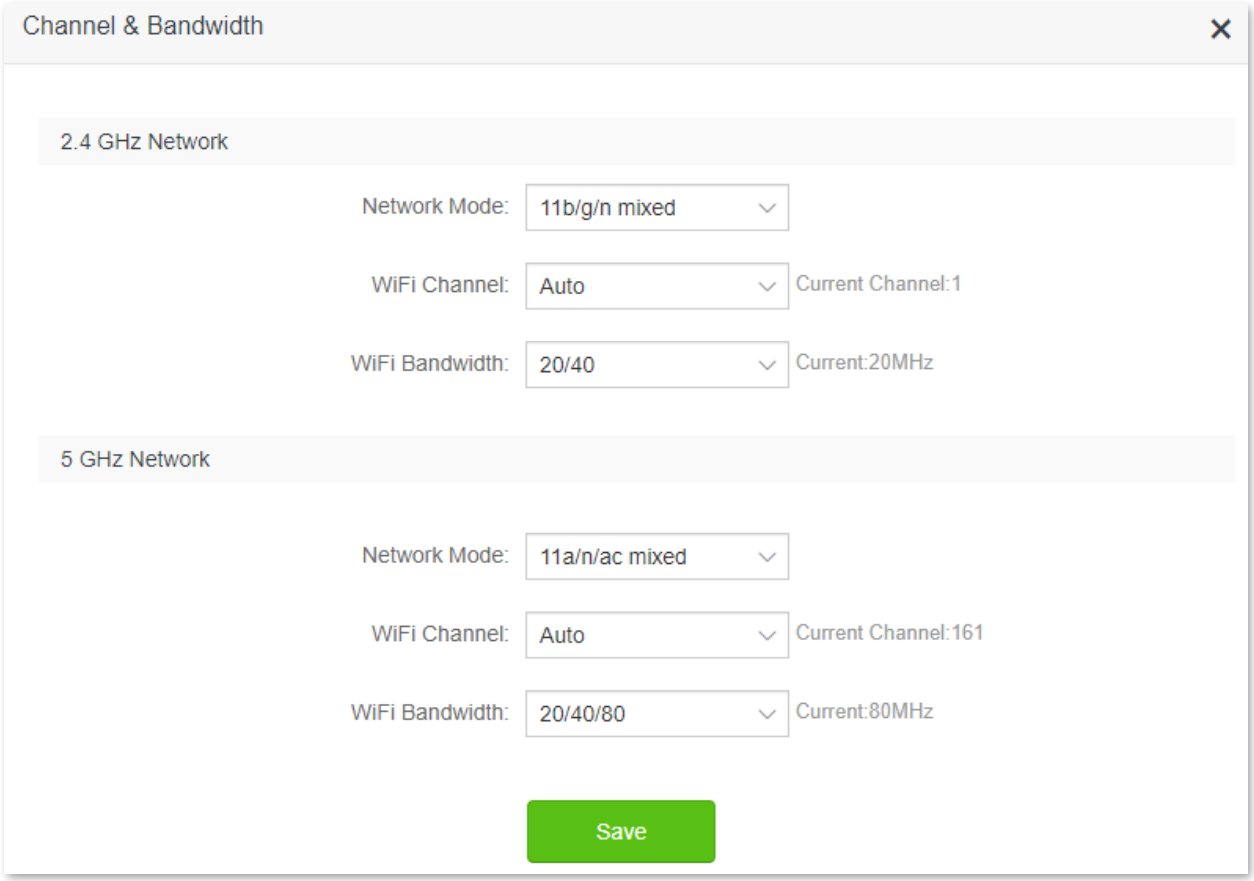
4.4 Channel & bandwidth

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

In this module, you are allowed to change network mode, WiFi channel, and WiFi bandwidth of 2.4 GHz and 5 GHz WiFi networks.

TIP

In order not to influence the wireless performance, it is recommended to maintain the default settings on this page without professional instructions.



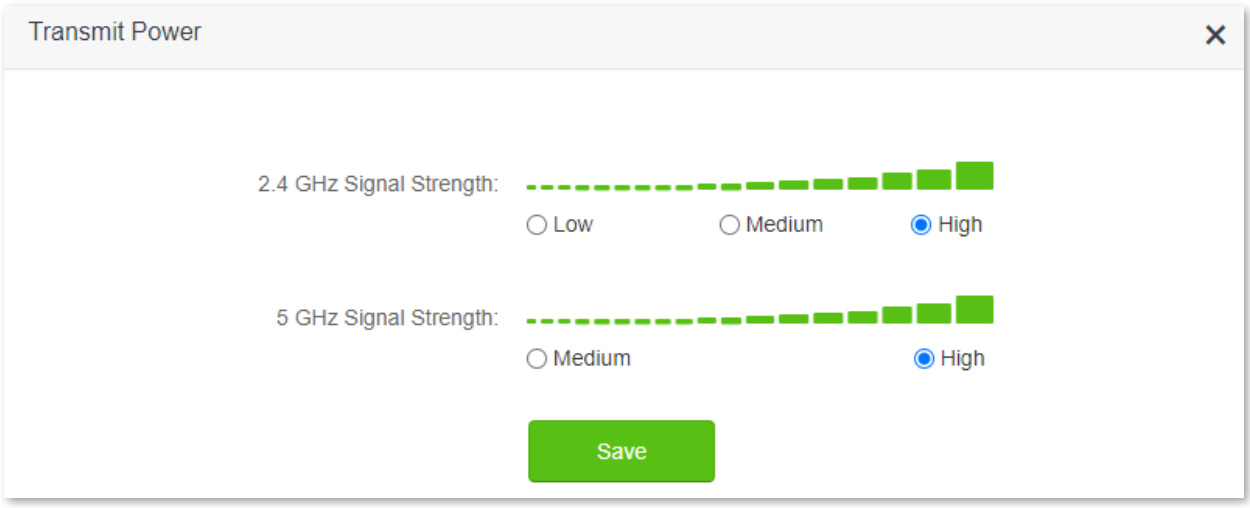
Parameter description

Parameter	Description
Network Mode	Specifies various protocols adopted for wireless transmission. 2.4 GHz WiFi network supports 11n, 11b/g mixed and 11b/g/n mixed modes. • **11n**: It indicates that devices compliant with IEEE 802.11n protocol can connect to the 2.4 GHz WiFi network of the router, enjoying a maximum transmission rate of 11 Mbps. • **11b/g mixed**: It indicates that devices compliant with IEEE 802.11b or IEEE 802.11g protocol can connect to the 2.4 GHz WiFi network of the router, enjoying a maximum transmission rate of 54 Mbps. • **11b/g/n mixed**: It indicates that all devices can connect to the router if they are compliant with IEEE 802.11b or IEEE 802.11g protocol, or work at 2.4 GHz with IEEE 802.11n protocol, therefore enjoying a maximum transmission rate of 300 Mbps. 5 GHz WiFi network supports 11ac, 11a/n/ac mixed modes. • **11ac**: It indicates that devices compliant with IEEE 802.11ac protocol can connect to the router, enjoying a maximum transmission rate of 866 Mbps. • **11a/n/ac mixed**: It indicates that all devices that are compliant with IEEE 802.11a or IEEE 802.11ac protocol, or work at 5 GHz with IEEE 802.11n protocol can connect to the router, enjoying a maximum transmission rate of 866 Mbps.
WiFi Channel	Specifies the channel in which the WiFi network works. By default, the wireless channel is **Auto**, which indicates that the router selects a channel for the WiFi network automatically. 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 WiFi signals nearby to understand the channel usage situations.
WiFi Bandwidth	Specifies the bandwidth of the wireless channel of a WiFi network. Please change the default settings only when necessary. • **20**: It indicates that the channel bandwidth used by the router is 20 MHz. • **40**: It indicates that the channel bandwidth used by the router is 40 MHz. • **20/40**: 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. • **80**: It indicates that the channel bandwidth used by the router is 80 MHz. This option is available only at 5 GHz. • **20/40/80**: Specifies that a router can switch its channel bandwidth between 20 MHz, 40 MHz, and 80 MHz based on the ambient environment. This option is available only at 5 GHz.

4.5 Transmit power

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

In this module, you can adjust the wall-penetration capability and wireless coverage of the router by setting the transmit power.



Parameter description

Parameter	Description
Signal Strength	Specifies the mode of signal strength. The default mode is **High**. • **High**: It is typically used to meet wireless coverage requirements in large or multi-barrier environments. • **Medium**: It is typically used to meet wireless coverage requirements in medium-area or less-obstacle environments. • **Low**: It is typically used to meet wireless coverage requirements in a small area or barrier-free environments. TIP It is recommended to choose the Low mode if the network experience is satisfactory enough under this mode.

4.6 WPS

The WPS function enables wireless devices, such as smartphones, to connect to the WiFi networks of the router quickly and easily.

To access the configuration page, log in to the web UI, and navigate to **WiFi Settings** > **WPS**.

NOTE

This function is only applicable to WPS-enabled wireless devices.

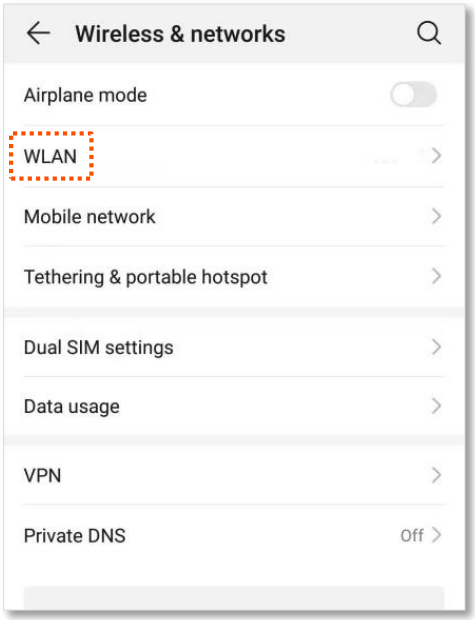
4.6.1 Connect devices to the WiFi network using the WPS button

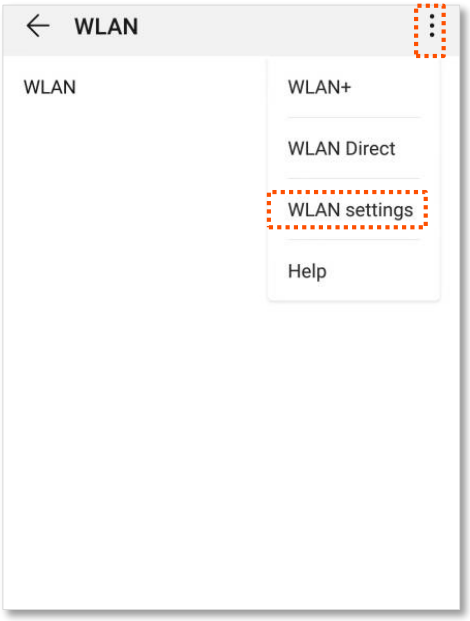
Procedure:

Step 1 Find the **WPS/RST** button on the rear panel of the router, and hold it down for 1 to 3 seconds. The LED indicator blinks fast.

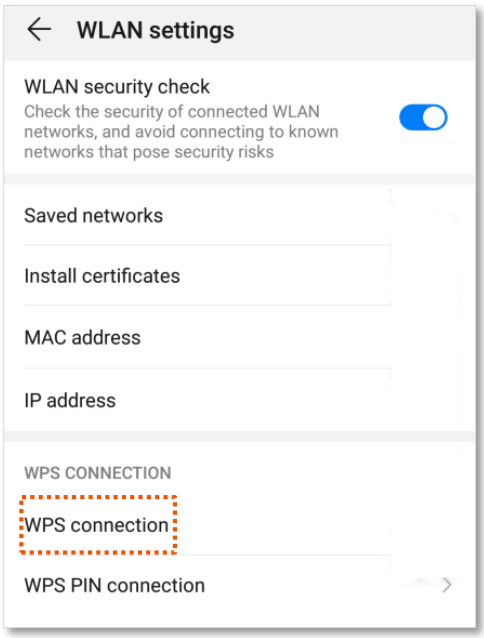
Step 2 Configure the WPS function on your wireless devices within 2 minutes. Configurations on various devices may differ (Example: HUAWEI P10).

1. Find **WLAN** settings on the phone.
2. Tap ⋮, and select **WLAN settings**.



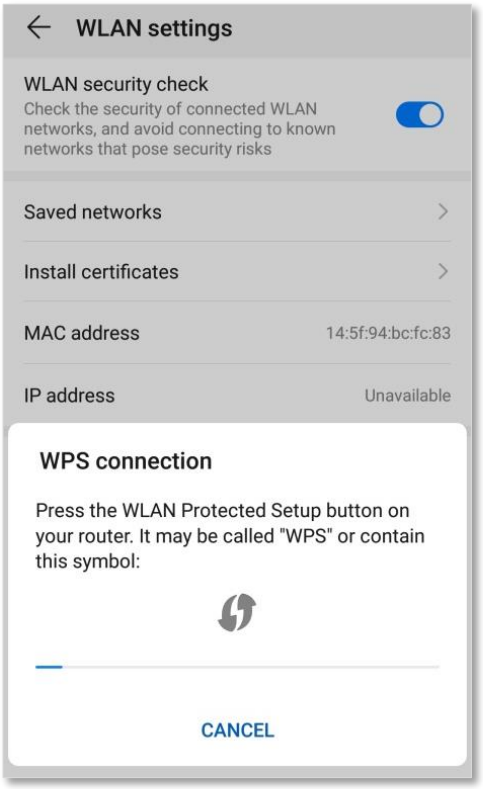


3. Select **WPS connection**.



---End

Wait a moment until the WPS negotiation is completed, and the phone is connected to the WiFi network.



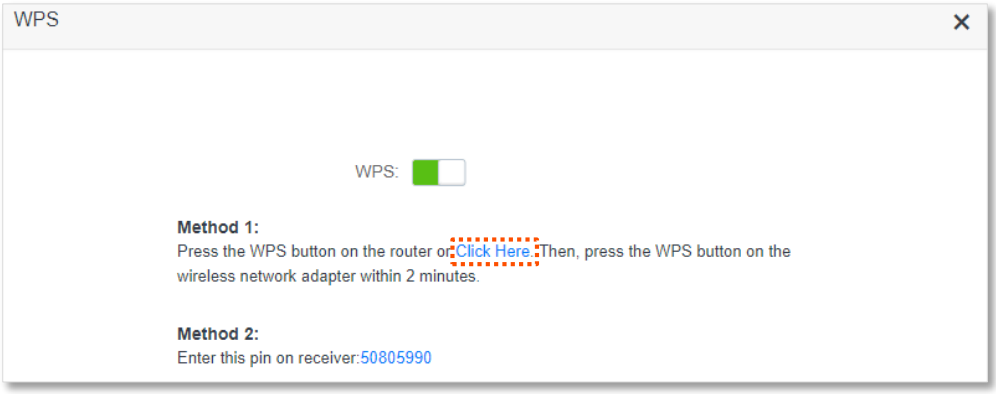
4.6.2 Connect devices to the WiFi network through the web UI of the router

Procedure:

Step 1 Log in to the web UI.

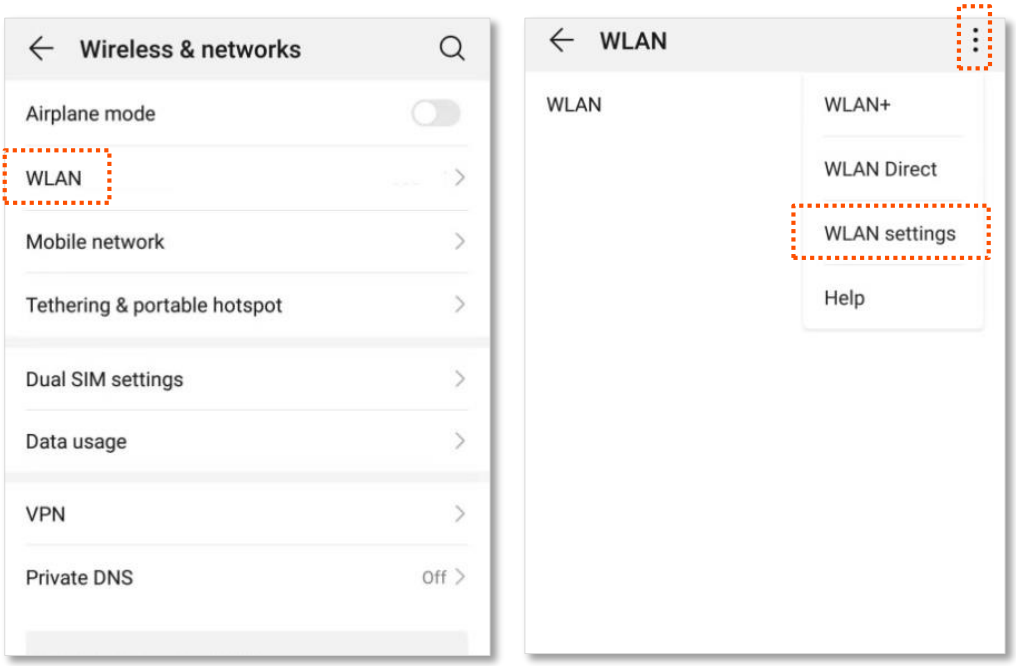
Step 2 Navigate to **WiFi Settings** > **WPS.**

Step 3 Click Click Here under **Method 1**.

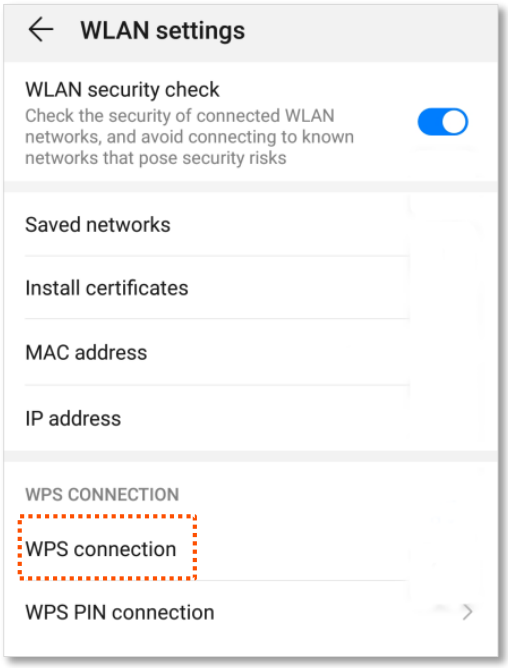


Step 4 Configure the WPS function on your wireless devices within 2 minutes. Configurations on various devices may differ (Example: HUAWEI P10).

1. Find **WLAN** settings on the phone.
2. Tap ⋮, and select **WLAN settings**.

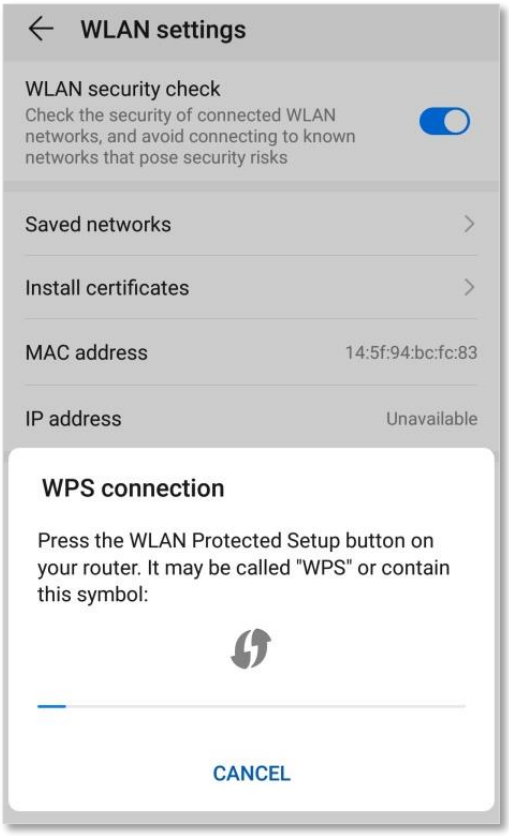


3. Select **WPS connection**.



---End

Wait a moment until the WPS negotiation is completed, and the phone is connected to the WiFi network.



4.6.3 Connect devices to the WiFi network using the PIN code of the router

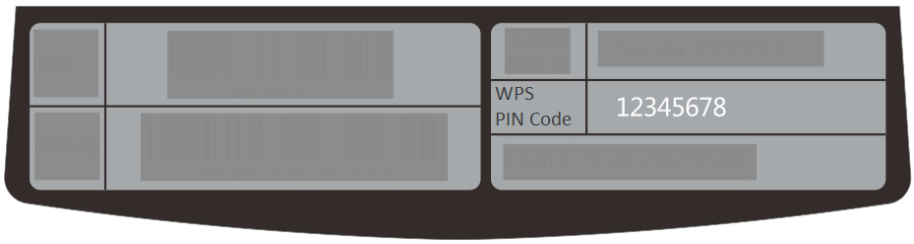
NOTE

The router only supports WPS connection by entering the PIN-code on wireless devices, which is usually used on WiFi network adapters. Please refer to the user guide of the WiFi network adapter for configuration details.

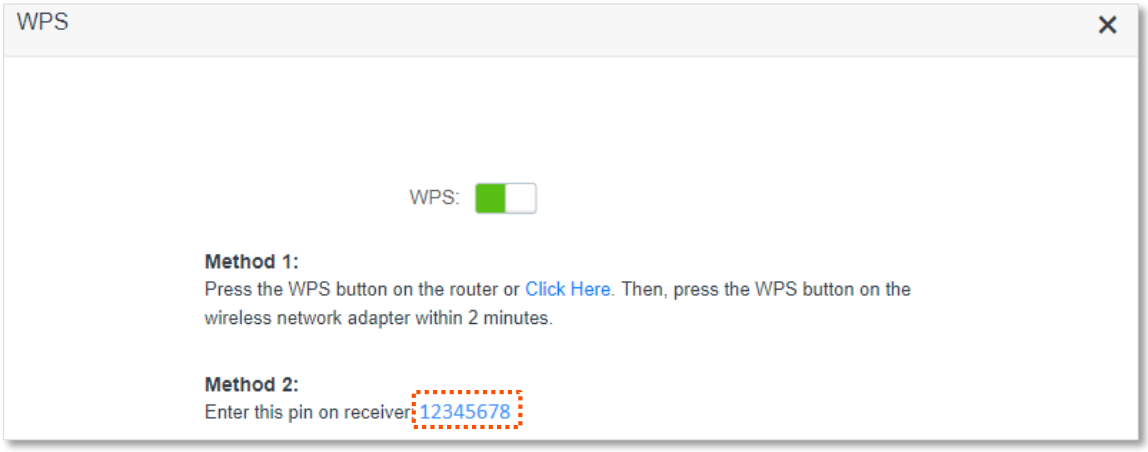
Procedure:

Step 1 Find the PIN code of the router. (The following PIN code is only an example. The actual product prevails.)

You can find the PIN-code on the label on the bottom panel of the router.



You can also log in to the web UI, and navigate to **WiFi Settings** > **WPS**. The PIN code is shown under **Method 2**.



Step 2 Enter the PIN-code on the wireless device that supports WPS connection using the PIN code within 2 minutes.

---End

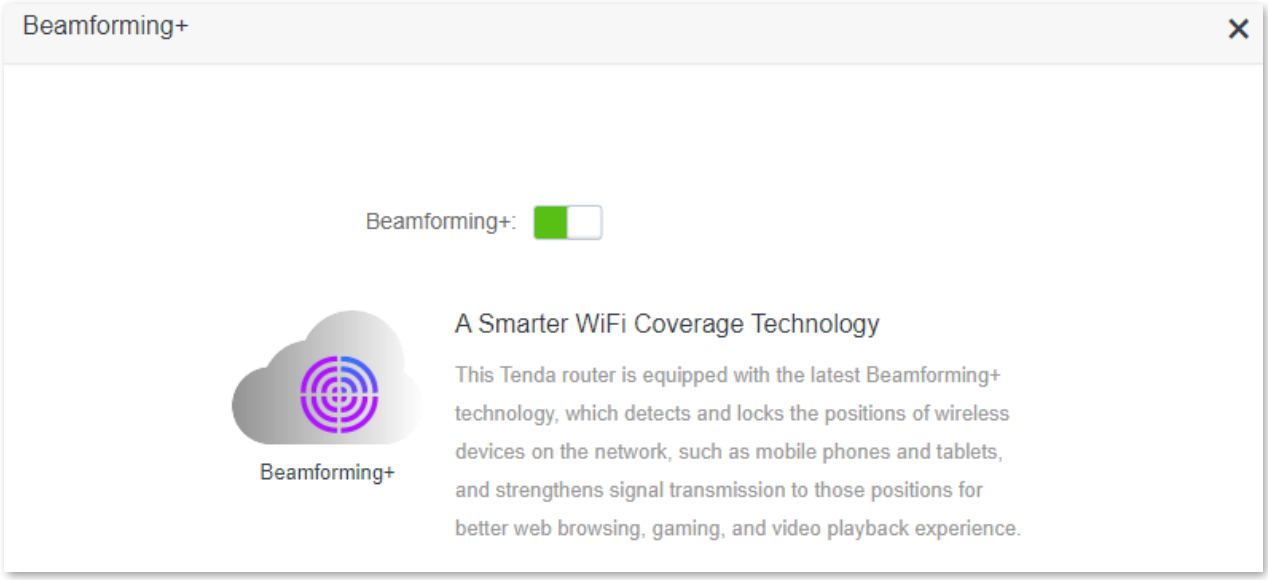
Wait a moment until the WPS negotiation is completed, and the wireless device is connected to the WiFi network.

4.7 Beamforming+

Beamforming+ is a radio wave technology written into the IEEE 802.11ac standard. Traditionally, the router broadcasts the data in all directions when broadcasting a WiFi signal. With beamforming, the router transmits radio signals in the direction of the client, thus creating stronger, faster and more reliable wireless communication.

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

This function is enabled by default.



The following figure shows the wireless transmission when Beamforming+ is enabled.

The following figure shows the wireless transmission when Beamforming+ is disabled.

4.8 AP mode

When you have a smart home gateway and it has been successfully connected to the internet,

which only provides wired internet access, you can set the router to work in AP mode to provide wireless coverage.

TIP

When the router is set to AP mode:

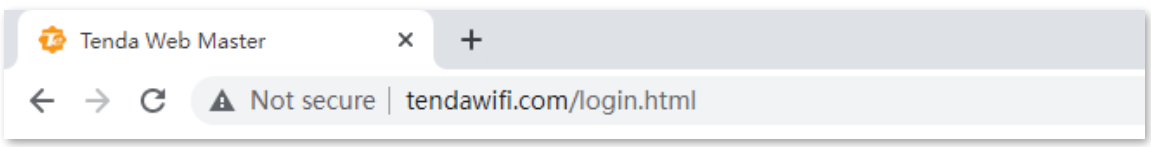
- Every physical port can be used as a LAN port.
- The LAN IP address of the router will be changed. Please log in to the web UI of the router by visiting **tendawifi.com**.
- Functions, such as bandwidth control and the virtual server will be unavailable. Refer to the web UI for available functions.

Procedure:

Step 1 Power on the router. Connect a computer to a LAN port (1, 2 and IPTV/3) of the router, or connect your smartphone to the WiFi network of the router.

Step 2 Log in to the web UI.

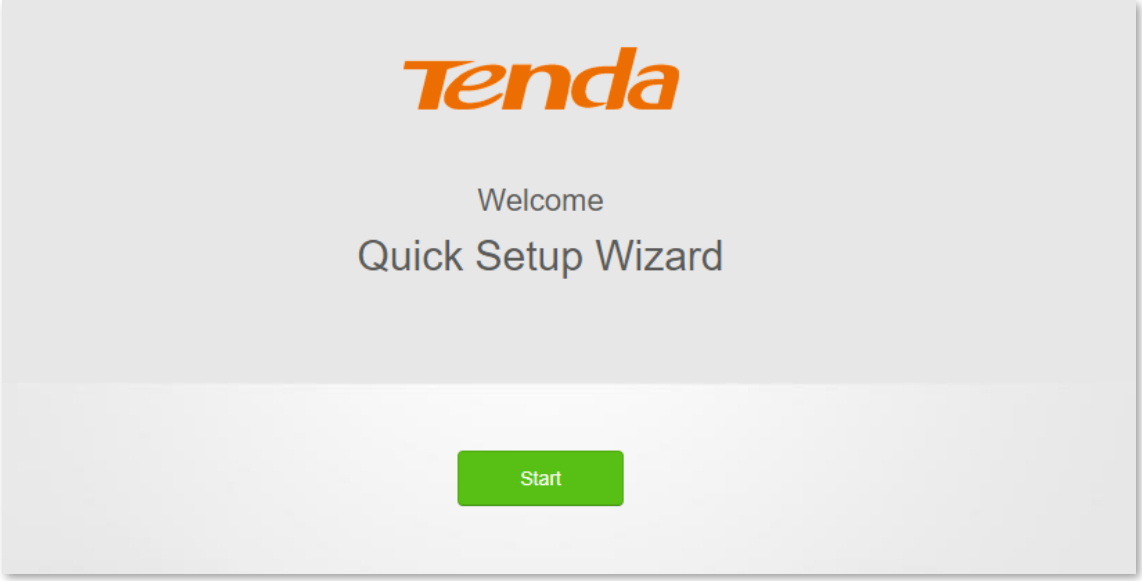
1. Launch a web browser on the device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.



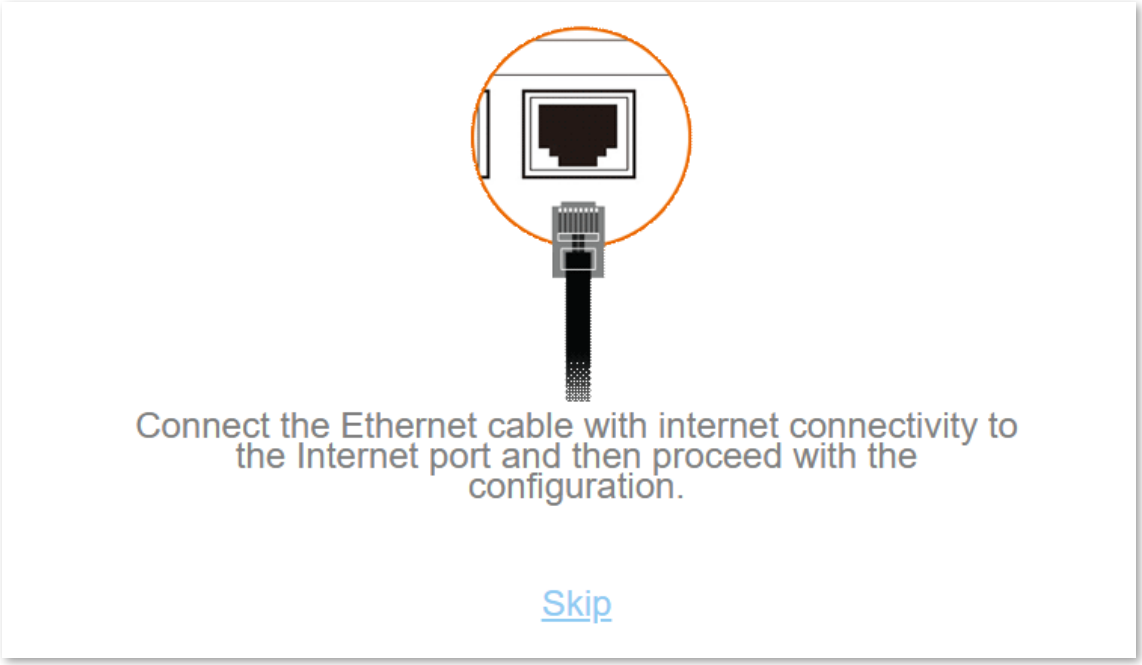
TIP

If you have finished the quick setup wizard before, launch a web browser and visit **tendawifi.com** or **192.168.0.1** on a connected device, then start from Step 3.

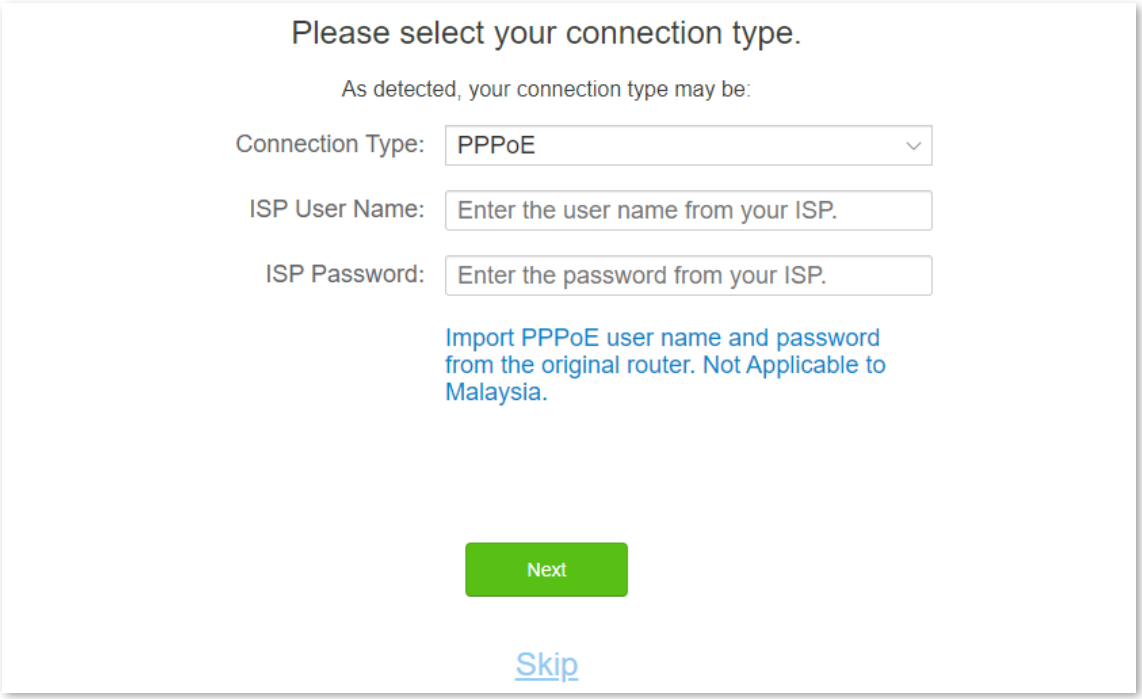
2. Click **Start**.



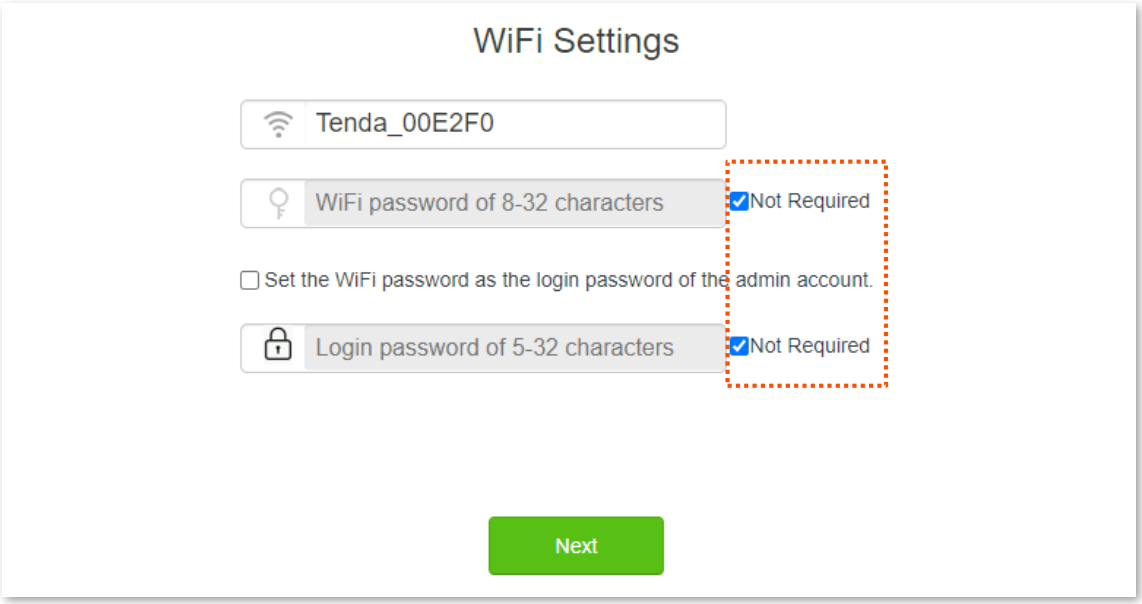
3. Click **Skip**.



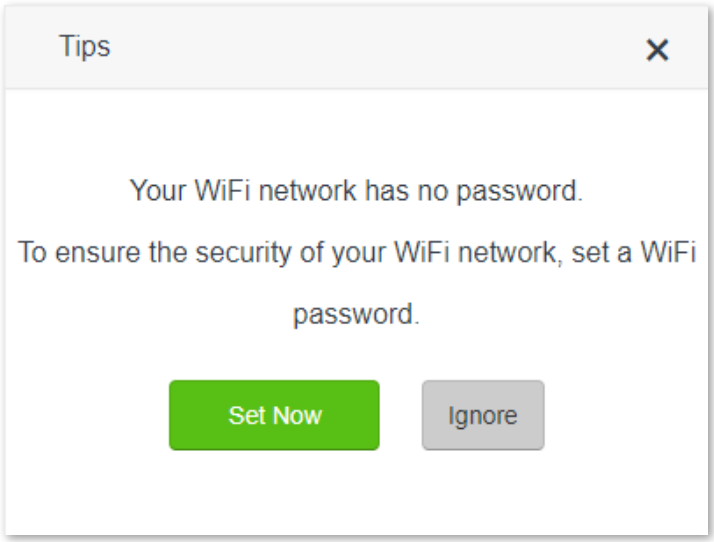
4. Click **Skip**.



5. Do not set login and WiFi password now by ticking **No Password**, and click **Next**.

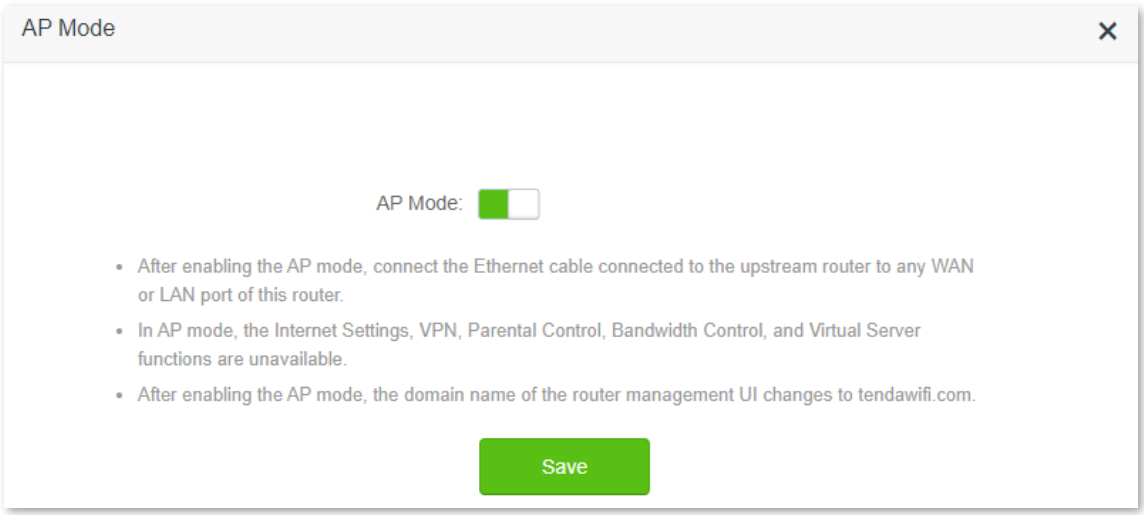


6. Click **Ignore**.

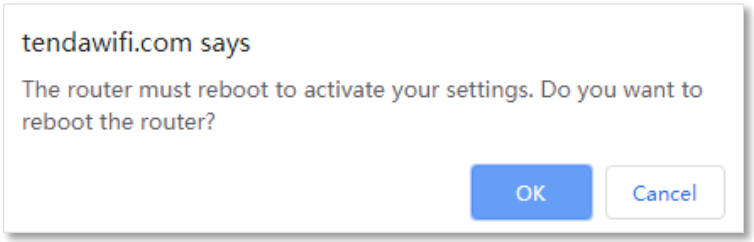


Step 3 Set the router to **AP Mode**.

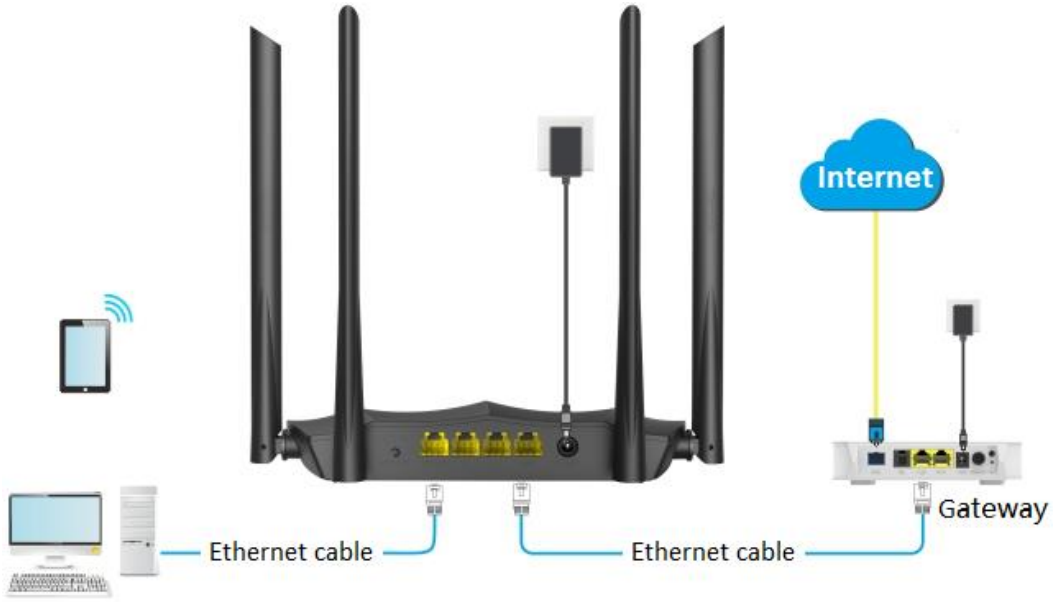
1. Navigate to **WiFi Settings** > **AP Mode**.
2. Enable the **AP Mode** function.
3. Click **Save**.



4. Click **OK**, and wait for the router to reboot.

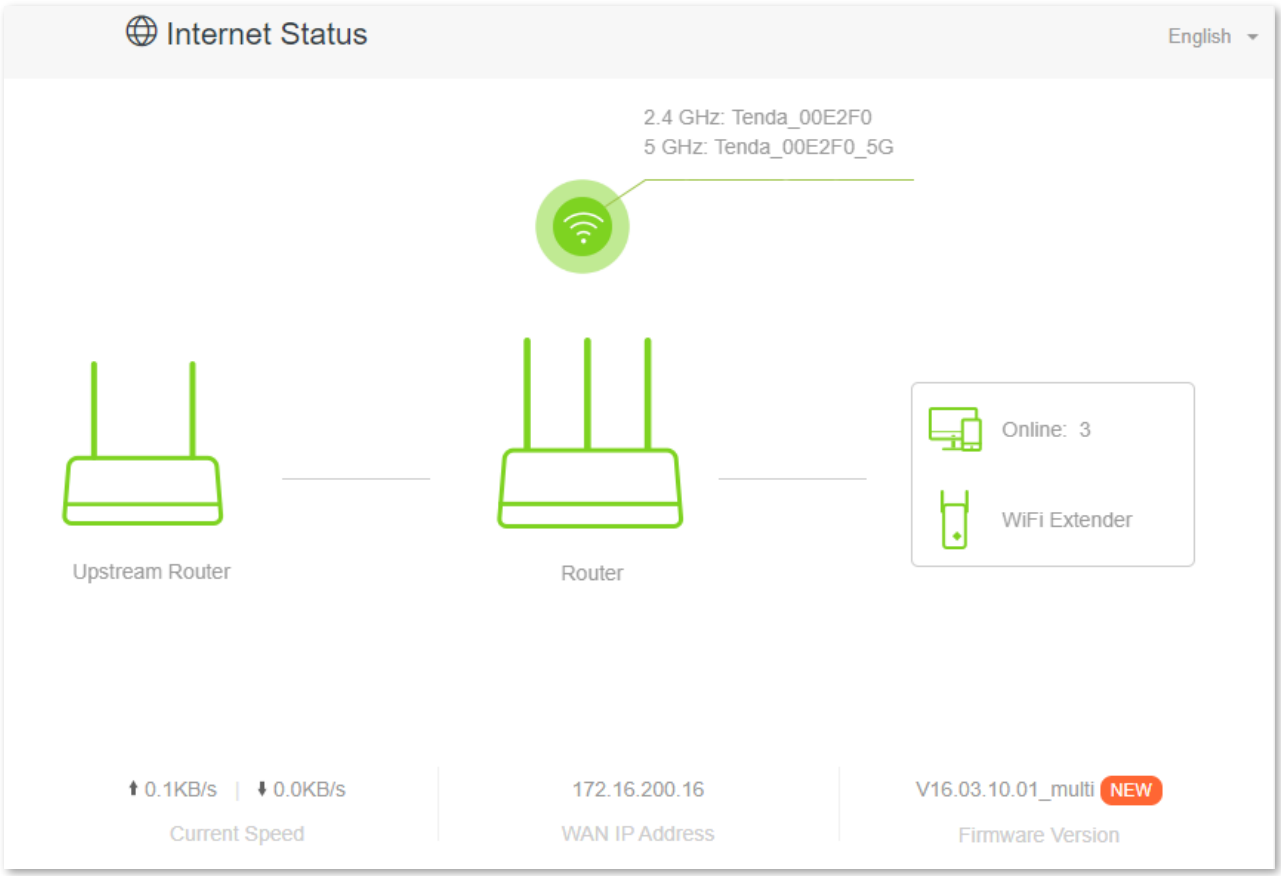


Step 4 Connect the upstream device, such as a gateway, to any port of the router.



---End

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

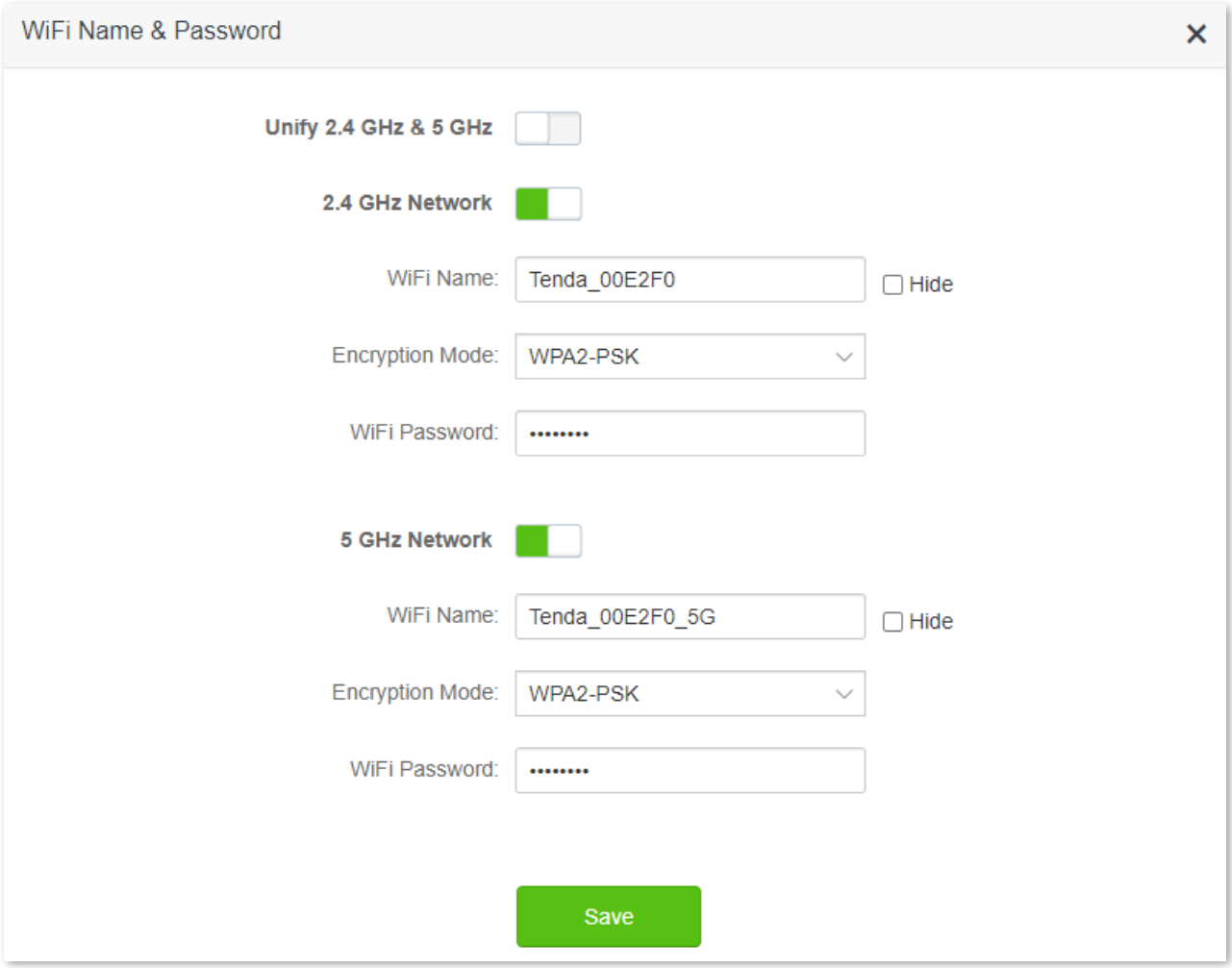


NOTE

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.

To access the internet, connect your computer to a physical port, or connect your smartphone to the WiFi network.

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



TIP

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

- Ensure that the existing router is connected to the internet successfully.
- Ensure that your wireless devices are connected to the correct WiFi network of the new router.
- If the computer connected to the router cannot access the internet, ensure that the computer is configured to obtain an IP address and DNS server automatically.

5 Guest network

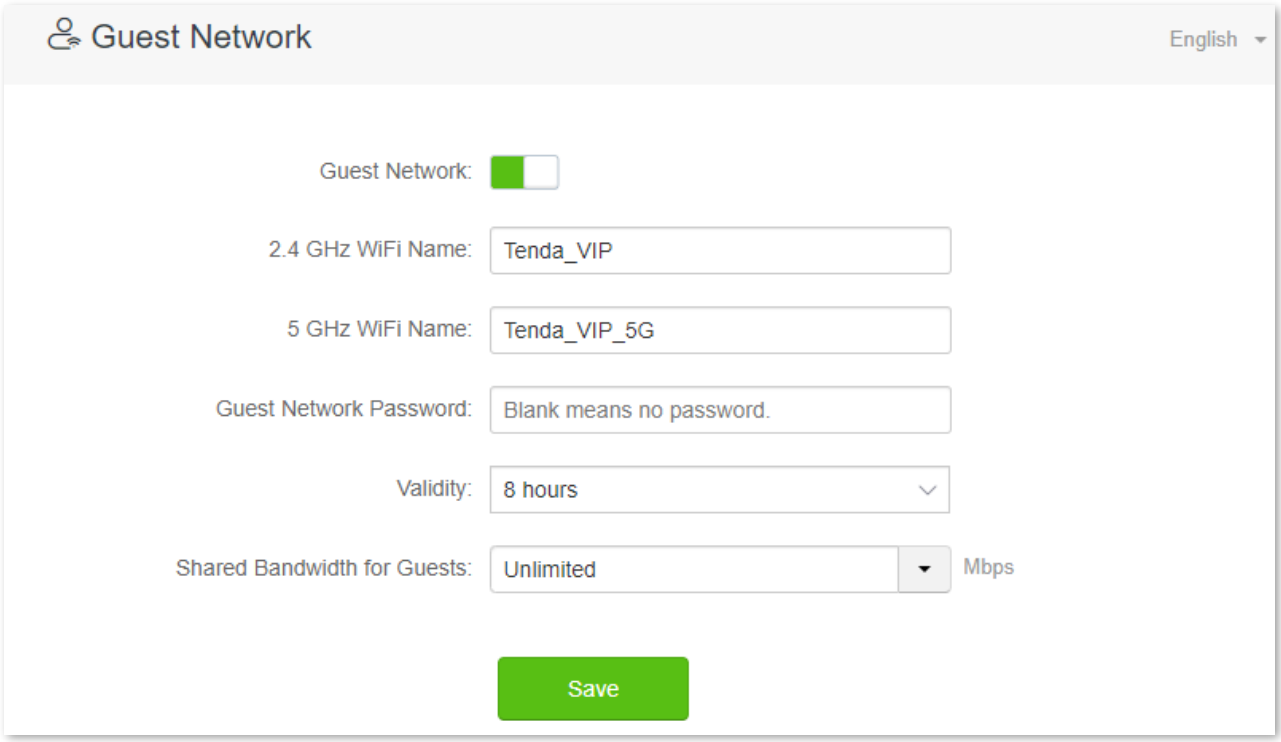
5.1 Overview

In this module, you can enable/disable the guest network function and change the WiFi name and password of the guest network.

A guest network can be set up with a shared bandwidth limit for visitors to access the internet, and isolated from the main network. It protects the security of the main network and ensures the bandwidth of your main network.

To access the configuration page, log in to the web UI, and navigate to the **Guest Network**.

This function is disabled by default. When it is enabled, the page is shown as below.



Parameter description

Parameter	Description
Guest Network	Used to enable or disable the guest network function.
2.4 GHz WiFi Name 5 GHz WiFi Name	Specifies the WiFi name of the router's guest network. By default, Tenda_VIP is for the 2.4 GHz WiFi network and Tenda_VIP_5G is for the 5 GHz WiFi network. TIP You can change the SSIDs (WiFi names) as required. To distinguish the guest network from the main network, you are recommended to set different WiFi network names.
Guest Network Password	Specifies the password for the router's two guest networks. TIP It is recommended to use the combination of numbers, uppercase letters, lowercase letters and special symbols in the password to enhance the security of the WiFi network.
Validity	Specifies the validity of the guest networks. The guest network function will be disabled automatically out of the validity period.
Shared Bandwidth for Guests	Allows you to specify the maximum download speed for all devices connected to the guest networks. By default, the bandwidth is not limited.

5.2 An example of configuring the guest network

Scenario: A group of friends is going to visit your home and stay for about 8 hours.

Goal: Prevent the use of the WiFi network by guests from affecting the network speed of your computer for work purposes.

Solution: You can configure the guest network function and let your guests use the guest networks.

Assume that the parameters you are going to set for the guest WiFi network:

- WiFi names for 2.4 GHz and 5 GHz networks: John_Doe and John_Doe_5G.
- WiFi password for 2.4 GHz and 5 GHz networks: Tenda+245.
- The shared bandwidth for guests: 2 Mbps.

Procedure:

Step 1 Log in to the web UI.

Step 2 Click **Guest Network**, and enable the **Guest Network** function.

Step 3 Set the **2.4 GHz WiFi Name**, which is **John_Doe** in this example.

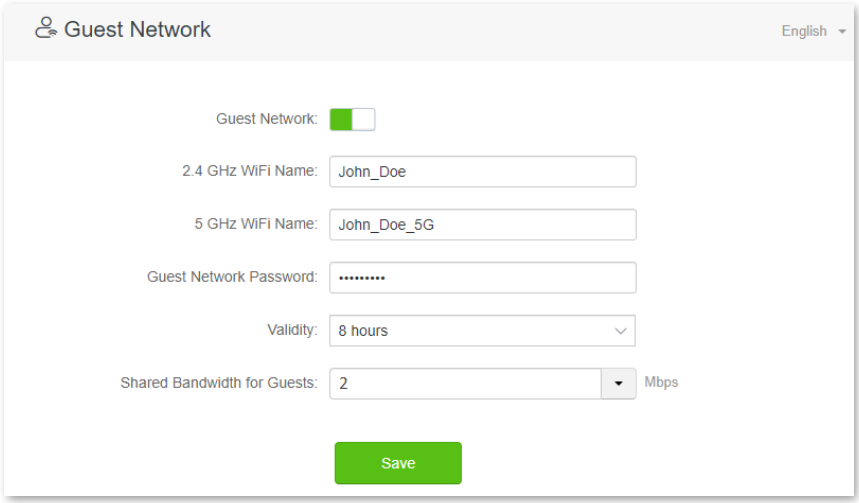
Step 4 Set the **5 GHz WiFi Name**, which is **John_Doe_5G** in this example.

Step 5 Set **Guest Network Password**, which is **Tenda+245** in this example.

Step 6 Select a validity time from the **Validity** drop-down box, which is **8 hours** in this example.

Step 7 Set the bandwidth in the **Shared Bandwidth for Guests** drop-down box, which is **2** in this example.

Step 8 Click **Save**.



---End

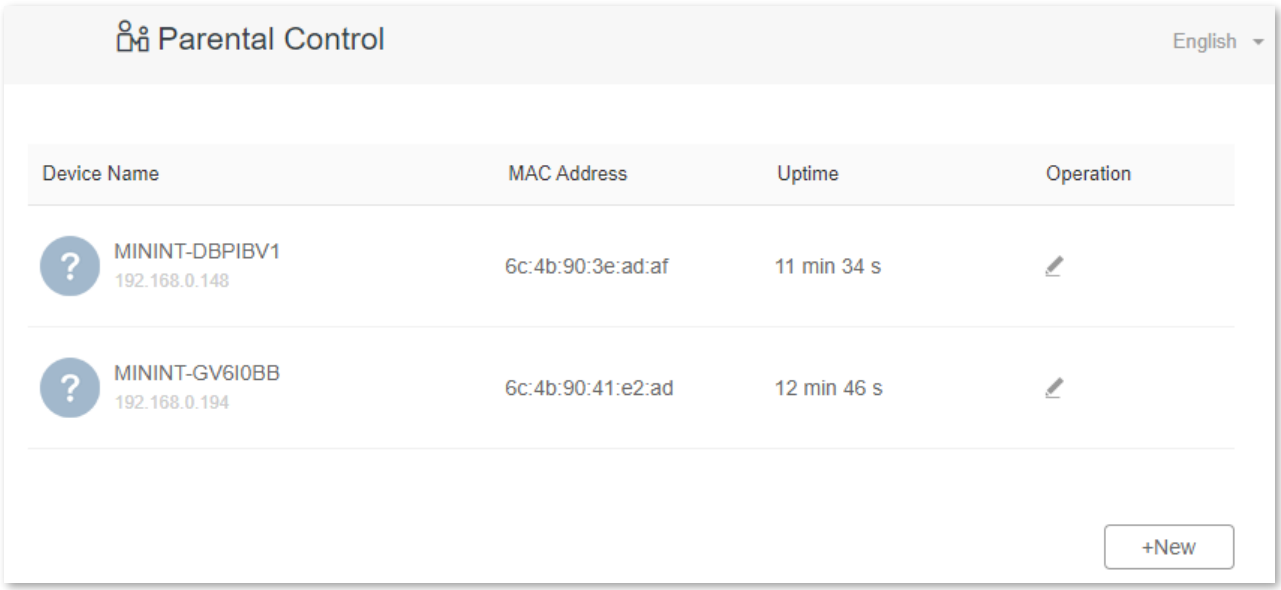
During the 8 hours after the configuration, guests can connect their wireless devices, such as smartphones, to **John_Doe** or **John_Doe_5G** to access the internet and enjoy the shared bandwidth of 2 Mbps.

6 Parental control

6.1 Overview

To access the configuration page, log in to the web UI, and navigate to the **Parental Control** page.

On the parental control page, you can view the information on the online devices and configure their internet access options.

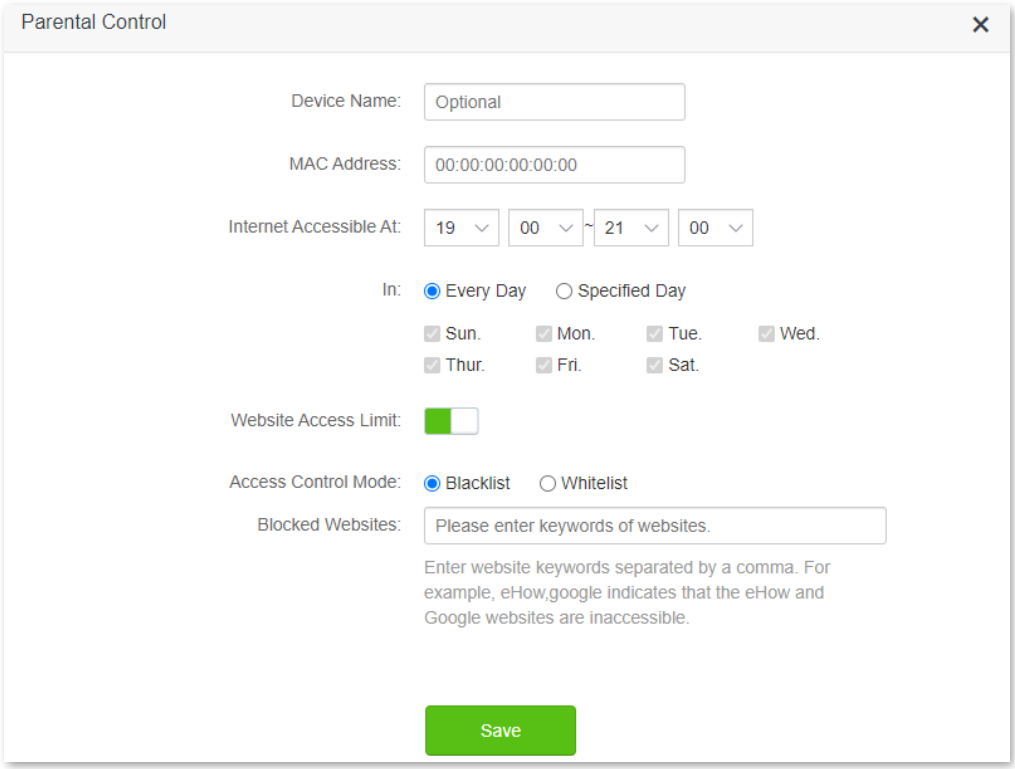


Parameter description

Parameter	Description
Device Name	Specifies the name of the online device.
MAC Address	Specifies the MAC address of the online device.
Uptime	Specifies the online duration of the device.
Operation	Click to configure the parental control rule for the device. After you have configured the parental control rule for the device, there should be a or button, which is used to enable or disable the configured rule.
+New	Click +New to add parental control rules for devices that are not connected to the router at the time.

6.2 Configure the parental control rule

Click or **+New** to edit or add a parental control rule. **+New** is used for illustration here.



Parameter description

Parameter	Description
Device Name	Specifies the name of the device to which the parental control rule applies.
MAC Address	Specifies the MAC address of the device to which the parental control rule applies.
Internet Accessible At	Specifies the period during which the device can access the internet.
In	Specifies the days when the rule takes effect.
Website Access Limit	Used to enable or disable the website access limit function.
Access Control Mode	When the website access limit function is enabled, there are two access control modes available. • **Blacklist**: The device is blocked from accessing the websites specified in the rule during the specified period, but can access other websites. The device cannot access the internet out of the specified period. • **Whitelist**: The device is allowed to access the websites specified in the rule during the specified period, but cannot access other websites. The device cannot access any website out of the specified period.
Blocked Websites	Specify the websites that the device is blocked from accessing or allowed to access during the specified period.
Unblocked Websites	

6.3 An example of adding parental control rules

Scenario: The final exam for your child is approaching and you want to limit his internet access through the router.

Goal: Websites, such as Facebook, Twitter, Youtube and Instagram, are inaccessible from 8:00 to 22:00 on weekends using the computer in his room, and no internet access is available from 22:00 to 8:00.

Solution: You can configure the parental control function to reach the goal.

Procedure:

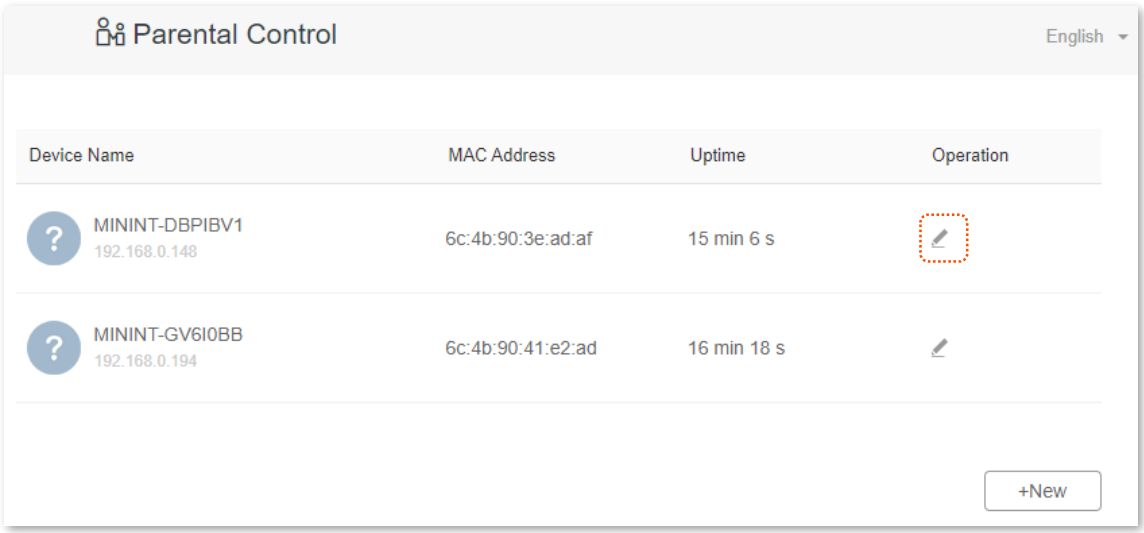
Step 1 Log in to the web UI.

Step 2 Click **Parental Control**.

Step 3 Find the device to which the rule applies, and click .

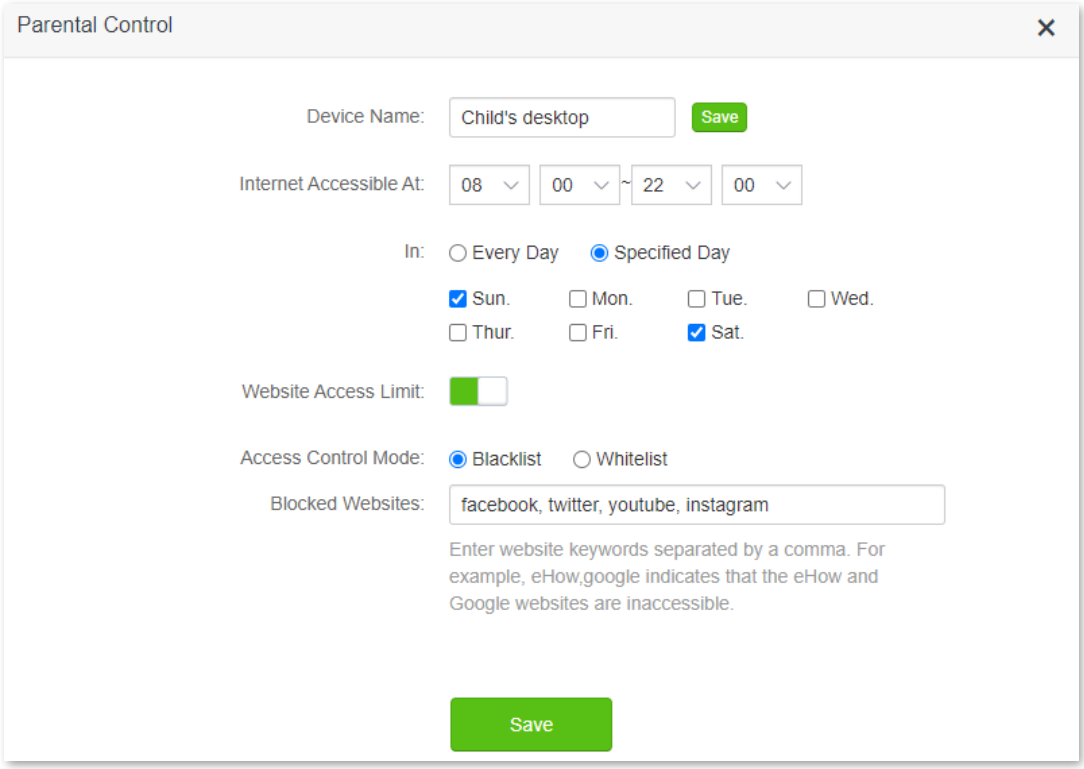
TIP

If the device to which the rule applies is not online at the time, you can click **+New** to add a parental control rule for the device.



Step 4 Set parental control rules as required, and then click **Save**.

1. Click to set the name of the client device, which is the **Child's desktop** in this example.
2. Specify the period when the target websites cannot be accessed, which is **8:00 ~ 22:00** in this example.
3. Select **Specified Day**, and tick the days when the rule is applied, which are **Sun.** and **Sat.** in this example.
4. Enable the **Website Access Limit** function.
5. Set **Access Control Mode** to **Blacklist**.
6. Set **Blocked Websites**, which are **facebook, twitter, youtube, instagram** in this example.



Step 5 Refer to **Step 3** to **Step 4** to configure the parental control function for the child's smartphone.

---End

After the configuration is completed, your child can access any websites except for Facebook, Twitter, Youtube and Instagram from 8:00 to 22:00 on weekends, and he cannot access the internet at any other time.

7 IPv6

This router supports IPv4 and IPv6 dual-stack protocols. In the IPv6 part, you can connect to the IPv6 network of ISPs.

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

Scenario	Connection Type
• The ISP does not provide any PPPoEv6 user name and password. • The ISP does not provide information about the IPv6 address. • 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, and so on.	Static IPv6 address

TIP

Before configuring the IPv6 function, please 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.

7.1 DHCPv6

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

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

The application scenario is shown below.

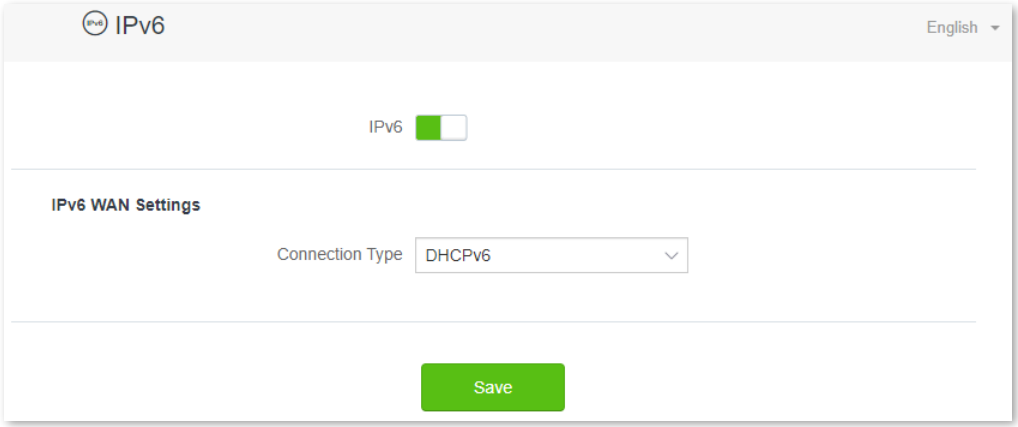
Procedure:

Step 1 Log in to the web UI.

Step 2 Click **IPv6**, and enable the **IPv6** function.

Step 3 Set the **Connection Type** to **DHCPv6**.

Step 4 Click **Save** at the bottom of the page.



---End

Verification:

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.

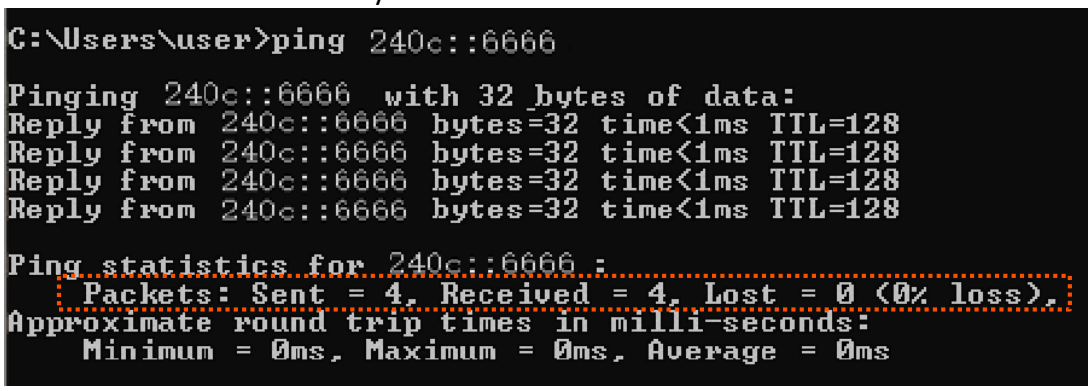
Step 1 On a computer connected to the router, press **Windows** + **R** to open the **Run** dialog box.

Step 2 Type **cmd** and then click **OK** to open a regular Command Prompt.

Step 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:

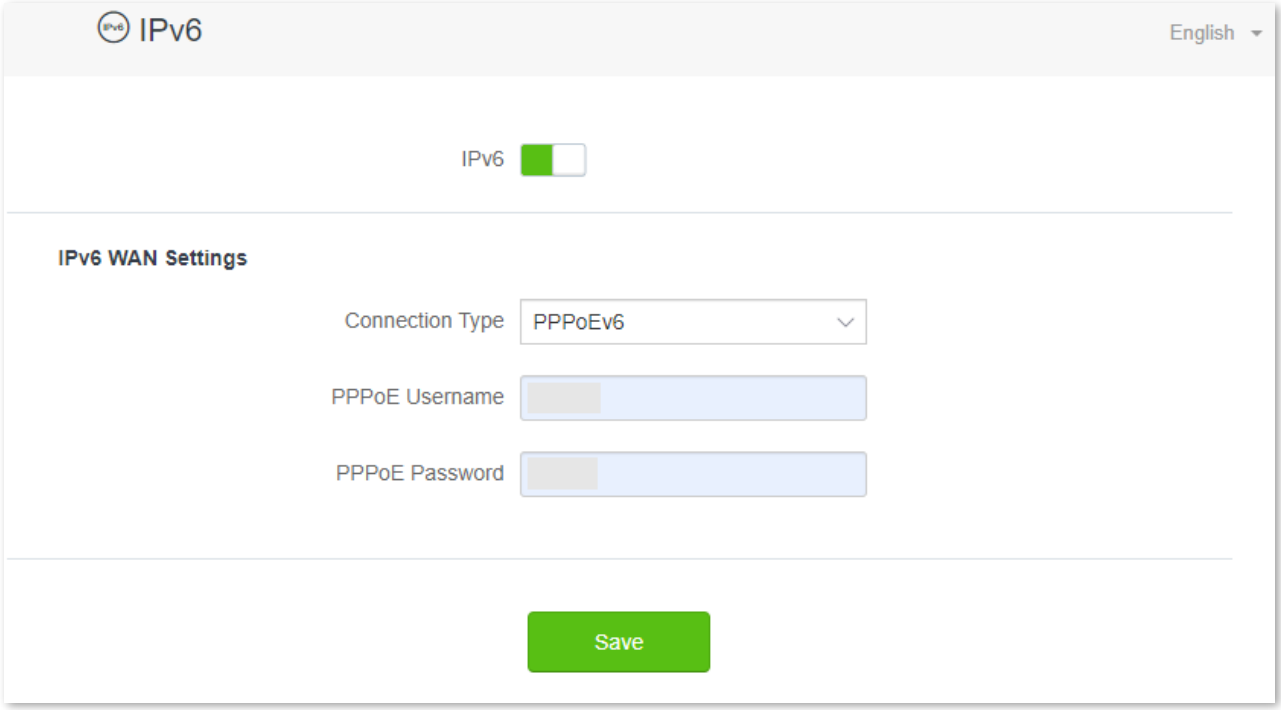
- Ensure that devices connected to the router obtain their IPv6 address through DHCPv6.
- Consult your ISP for help.

7.2 PPPoEv6

7.2.1 Overview

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

Log in to the web UI, and navigate to the **IPv6**. When the connection type is set to **PPPoEv6**, the page is shown below.

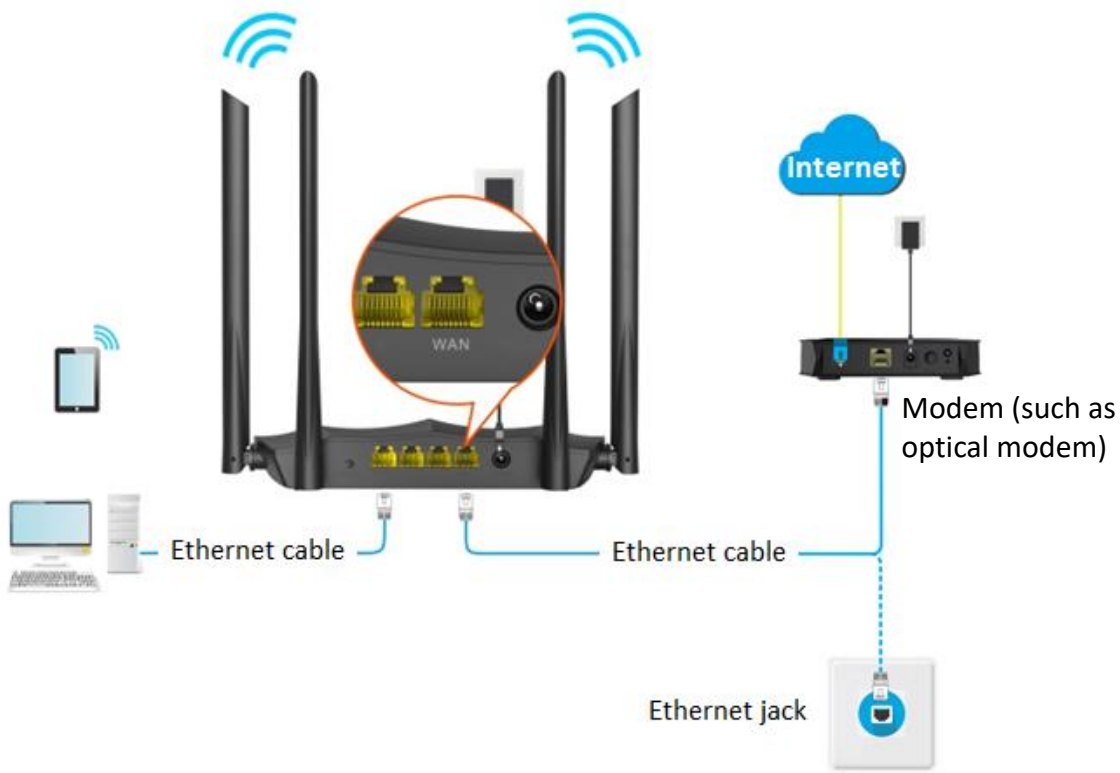


Parameter description

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

7.2.2 Access the internet through PPPoEv6

If the PPPoE account provided by your ISP includes IPv6 service, you can choose PPPoEv6 to access the IPv6 service. The application scenario is shown below.



Procedure:

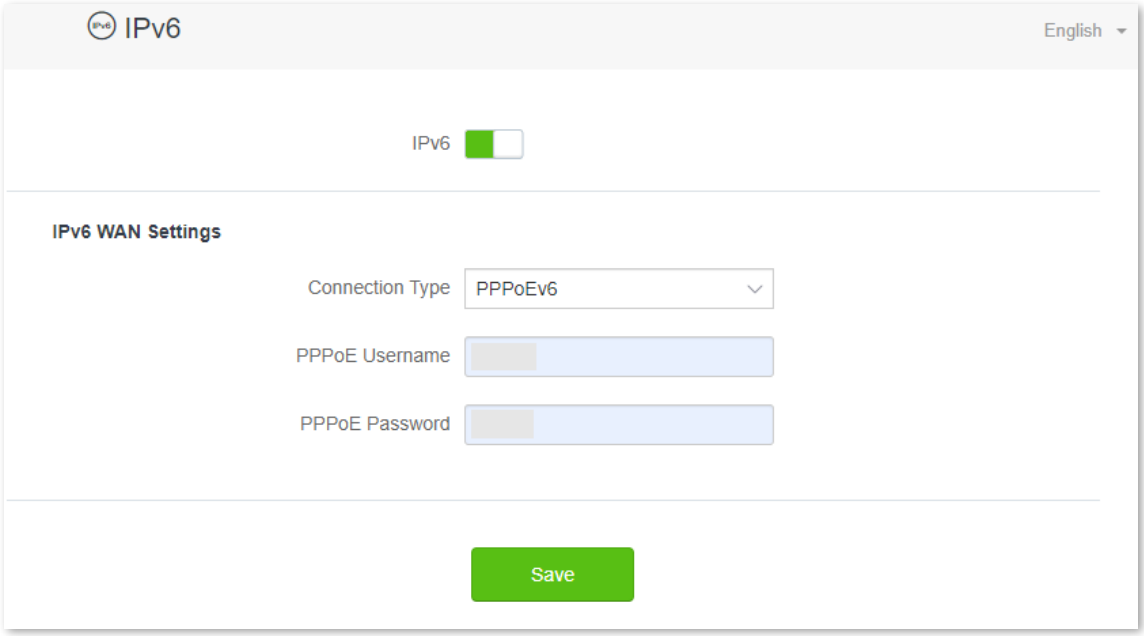
Step 1 Log in to the web UI.

Step 2 Click **IPv6**, and enable the **IPv6** function.

Step 3 Set the **Connection Type** to **PPPoEv6**.

Step 4 Enter the **PPPoE Username** and **PPPoE Password**.

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



---End

Verification:

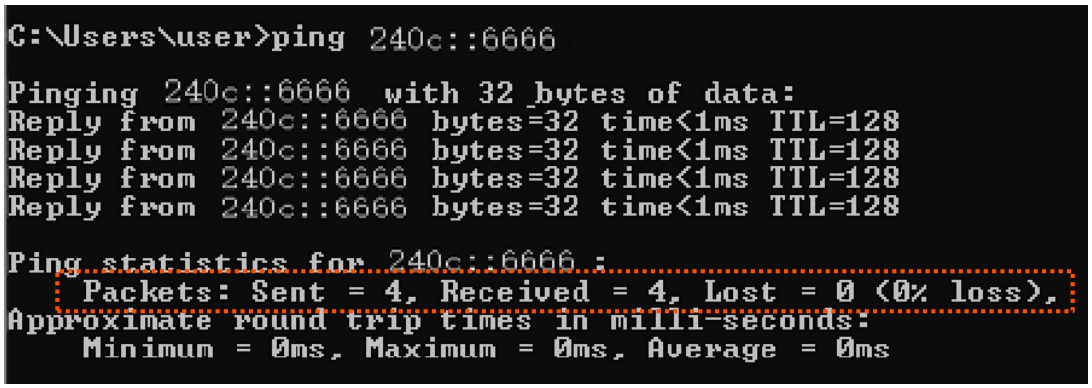
You can ping an IPv6 website (240c::6666 for example) to check whether the router accesses the IPv6 network successfully. The following steps are for your reference.

Step 1 On a computer connected to the router, press **Windows** + **R** to open the **Run** dialog box.

Step 2 Type **cmd** and then click **OK** to open a regular Command Prompt.

Step 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:

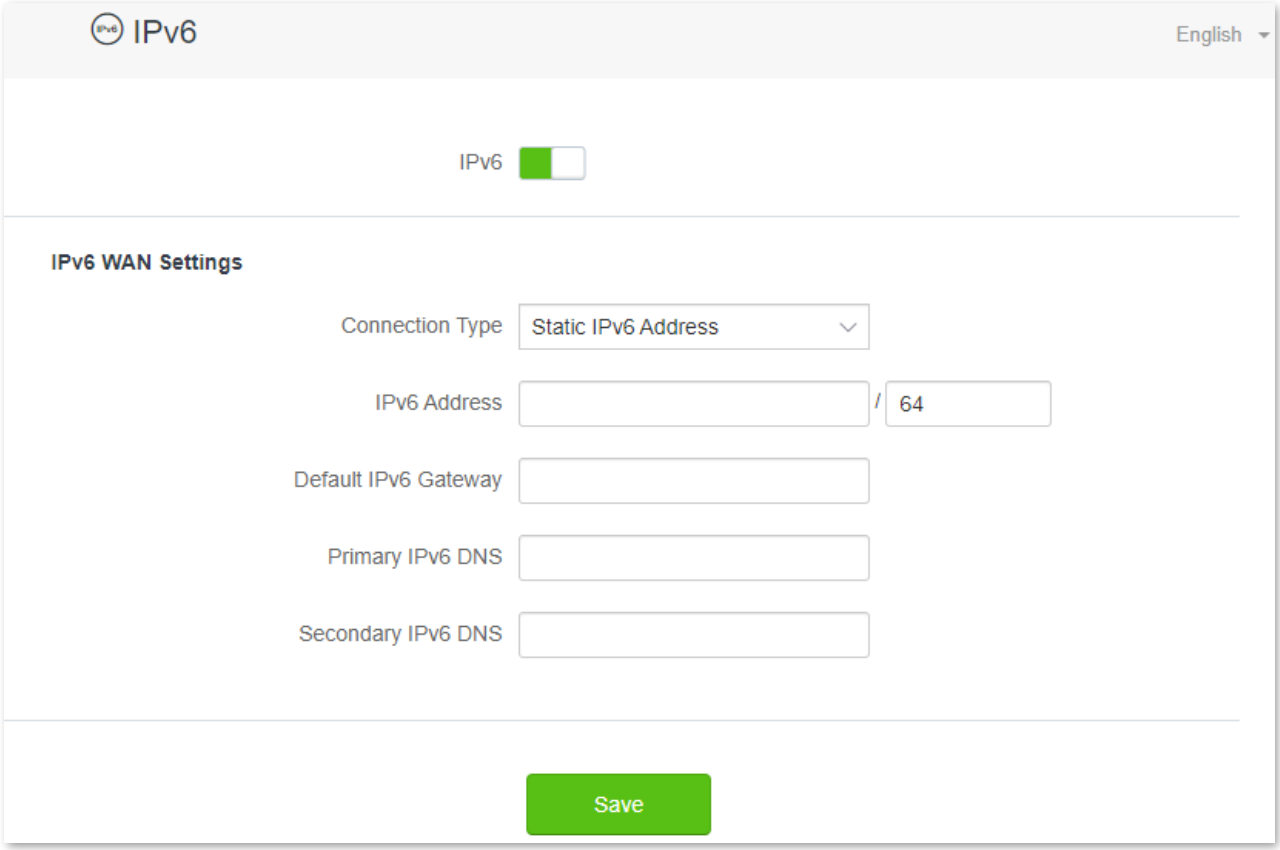
- Ensure that devices connected to the router obtain their IPv6 address through DHCPv6.
- Consult your ISP for help

7.3 Static IPv6 address

7.3.1 Overview

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

Log in to the web UI, and navigate to the **IPv6**. When the connection type is set to **Static IPv6 Address**, the page is shown below.



Parameter description

Parameter	Description
IPv6 Address	Specify the fixed IP address information provided by your ISP. TIP If your ISP only provides one DNS address, leave the secondary IPv6 DNS blank.
Default IPv6 Gateway	
Primary IPv6 DNS	
Secondary IPv6 DNS	

7.3.2 Access the internet through PPPoEv6

Procedure:

Step 1 Log in to the web UI.

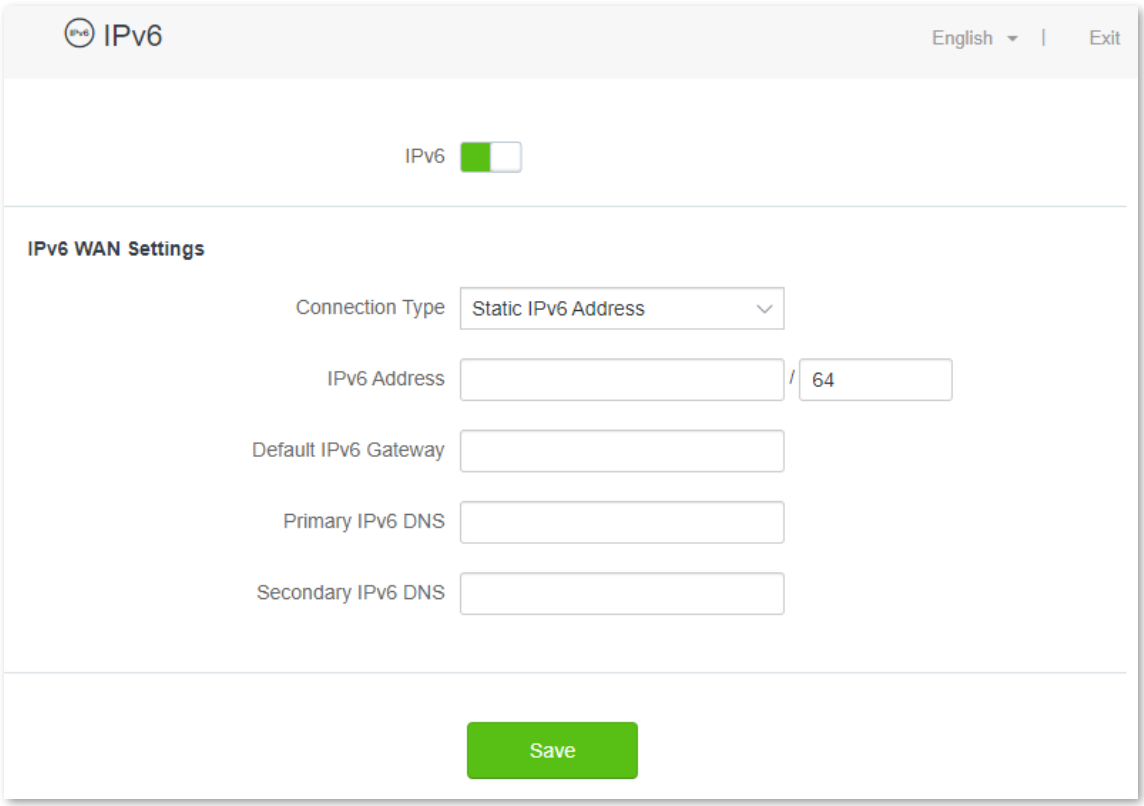
Step 2 Click **IPv6**, and enable the **IPv6** function.

Step 3 Set the **Connection Type** to **Static IPv6 Address**.

Step 4 Enter the required parameters under **IPv6 WAN Settings**.

Step 5 Enter the IPv6 LAN prefix length provided by your ISP in **IPv6 Address**.

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



---End

Verification:

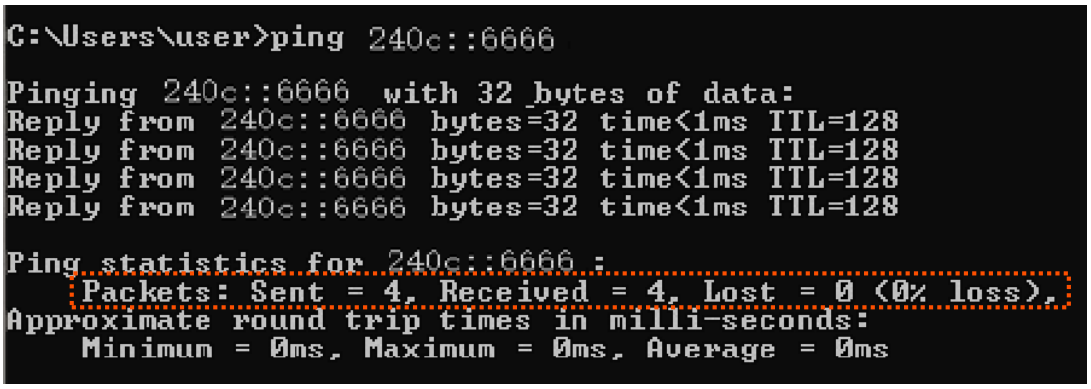
You can ping an IPv6 website (240c::6666 for example) to check whether the router accesses the IPv6 network successfully. The following steps are for your reference.

Step 1 On a computer connected to the router, press **Windows** + **R** to open the **Run** dialog box.

Step 2 Type **cmd** and then click **OK** to open a regular Command Prompt.

Step 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 you have entered the correct WAN IPv6 address subnet prefix length, default gateway, and DNS server.
- Ensure that devices connected to the router obtain their IPv6 address automatically.
- Consult your ISP for help.

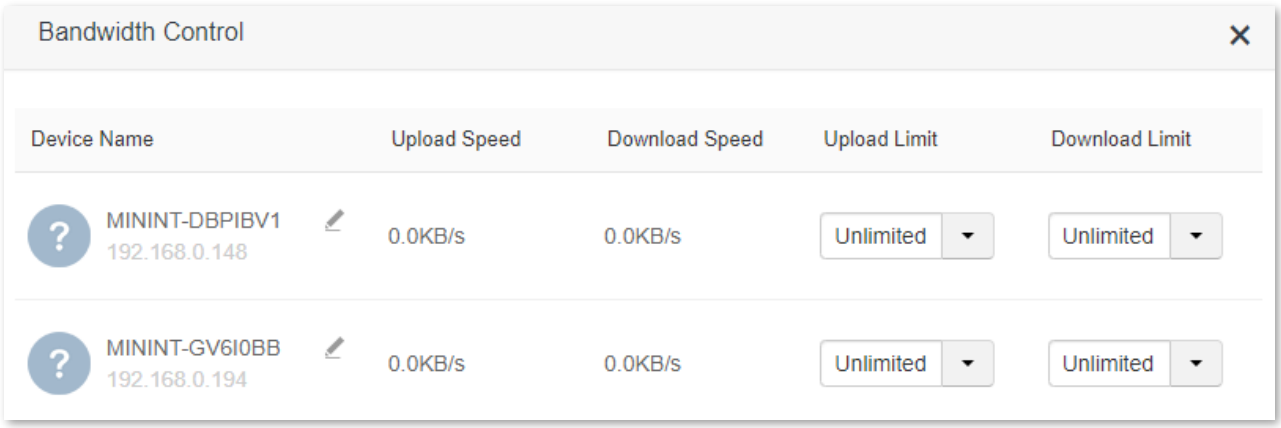
8 Advanced settings

8.1 Bandwidth control

8.1.1 Overview

By configuring this function, you can limit the upload and download speed of devices connected to the router and allocate the bandwidth reasonably.

To access the configuration page, log in to the web UI, and navigate to **Advanced Settings** > **Bandwidth Control**.



Parameter description

Parameter	Description
Device Name	Specifies the name and IP address of the device. You can click to change the name of the device.
Upload Speed	Specify the current upload and download speed of the device.
Download Speed	
Upload Limit	Specify the upload and download speed limit for the device. You can click the drop-down box to choose a number or set it manually.
Download Limit	

8.1.2 Set the upload and download speed limit for users

Scenario: You want to allocate bandwidth equally among connected and enable all connected devices to enjoy smooth 720p videos.

Solution: Configure the bandwidth control function to meet the requirement.

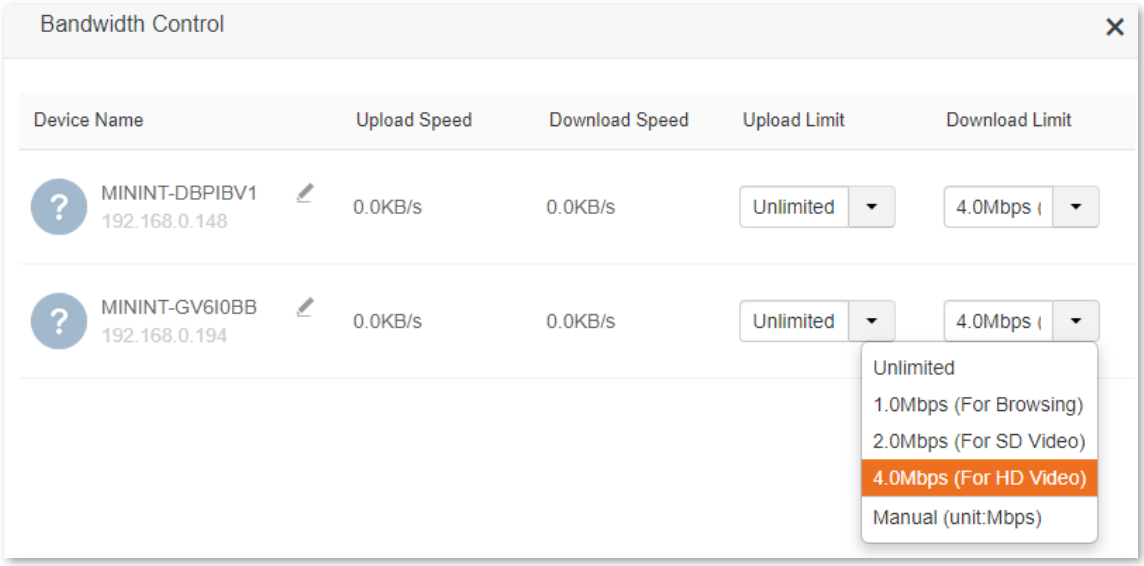
Procedure:

Step 1 Log in to the web UI.

Step 2 Navigate to **Advanced Settings** > **Bandwidth Control**.

Step 3 Target the devices to be controlled, and set the **Download Limit** to **4.0Mbps (For HD Video).**

Step 4 Click **Save** at the bottom of the page.



---End

After the configuration is completed, the highest speed for the device is 4 Mbps (or 512 KB/s) and satisfies the requirement of 720p videos.

8.2 IPTV

8.2.1 Overview

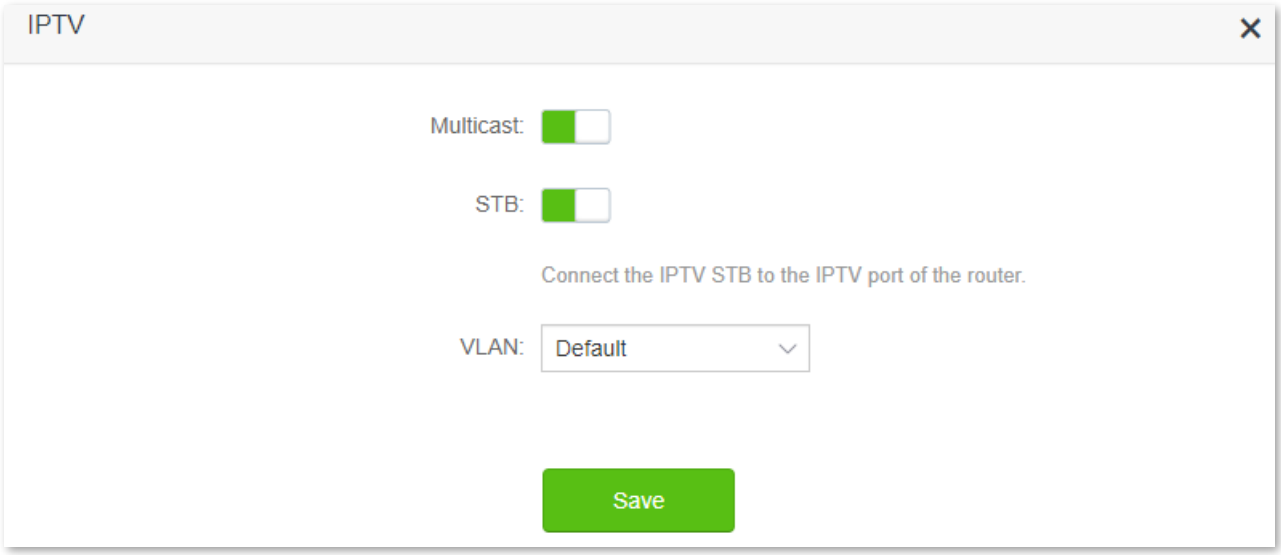
Internet Protocol Television (IPTV) is the technology integrating internet, multimedia, telecommunication and many other technologies, providing interactive services, including digital TV, to family users by internet broadband lines.

You can set the multicast and Set Top Box (STB) functions here.

- **Multicast**: 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.
- **STB**: If the IPTV service is included in your broadband service, you are enabled to enjoy both internet access through the router and rich IPTV contents with a set top box.

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

This function is disabled by default. When it is enabled, the page is shown as below.



Parameter description

Parameter	Description
Multicast	Used to enable and disable the multicast function of the router.
STB	Used to enable and disable the STB function of the router. When this function is enabled, the port **IPTV/3** port can be used only as an IPTV port and be connected to an IPTV set top box.

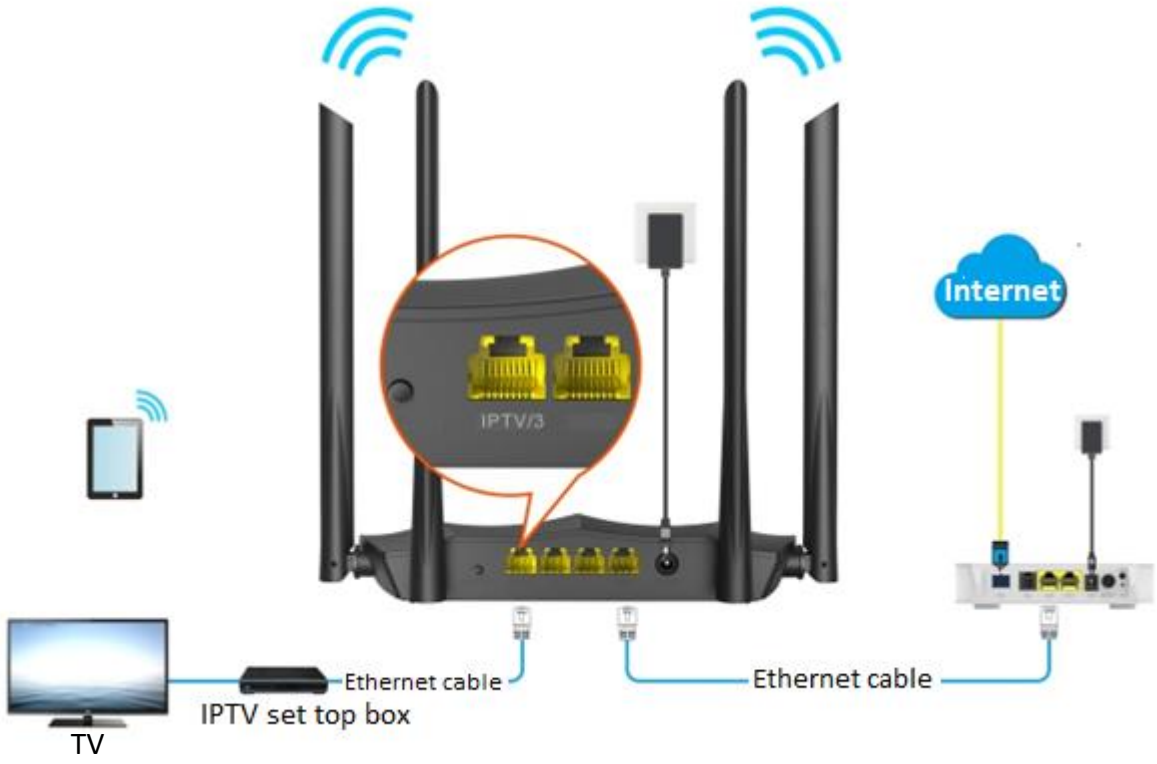
Parameter	Description
VLAN	Specifies the VLAN ID of your IPTV service. • If your ISP does not provide any VLAN ID information when the IPTV service is available, please keep **Default**. • If you have obtained a VLAN ID from your ISP when the IPTV service is available, please select **Custom** VLAN and enter the VLAN value. • If you purchased the IPTV service in **Shanghai**, select **Shanghai VLAN** and the desired VLAN ID.

8.2.2 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, but no VLAN information.

Goal: Be able to watch IPTV programs through the router.

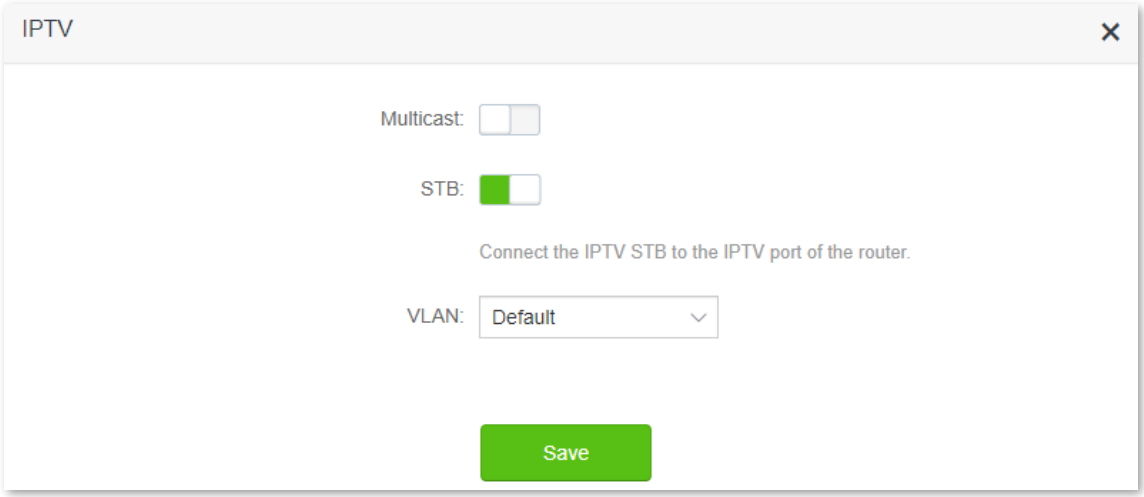
Solution: You can configure the IPTV function to reach the goal.



Procedure:

Step 1 Set your router.

1. Log in to the web UI. A computer is used for illustration here.
2. Navigate to **Advanced Settings** > **IPTV**.
3. Enable the **STB** function.
4. Click **Save**.



Step 2 Configure the set top box.

Use the IPTV user name and password to dial up on the set top box.

---End

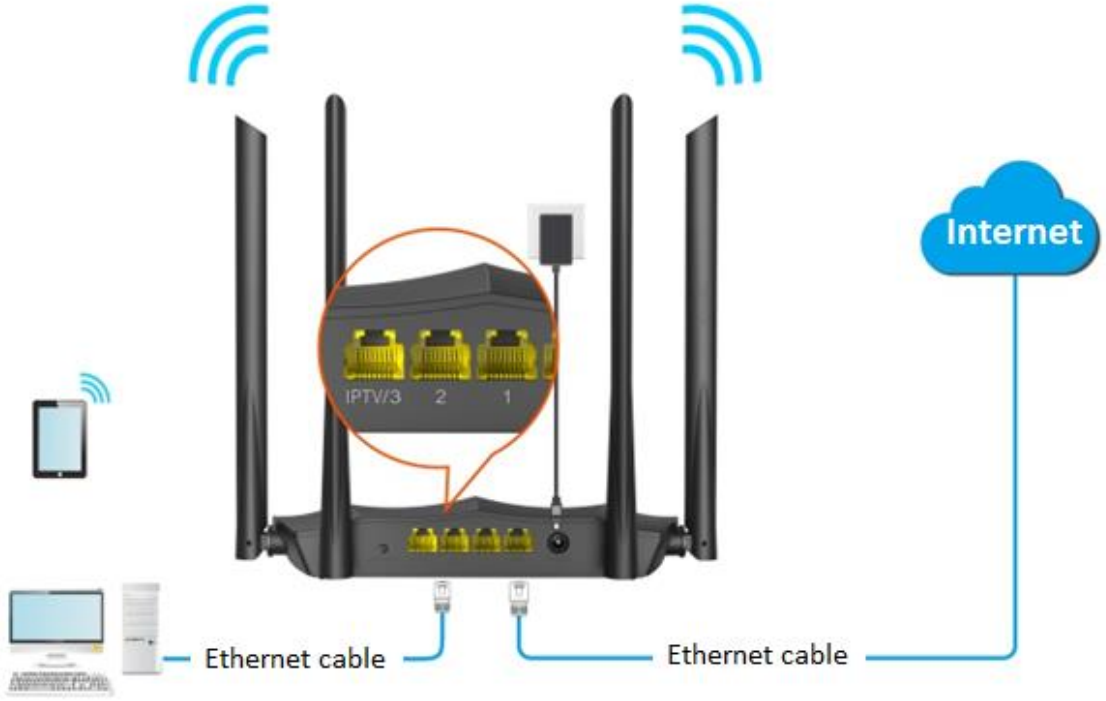
When the configuration is completed, you can watch IPTV programs on your TV.

8.2.3 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.



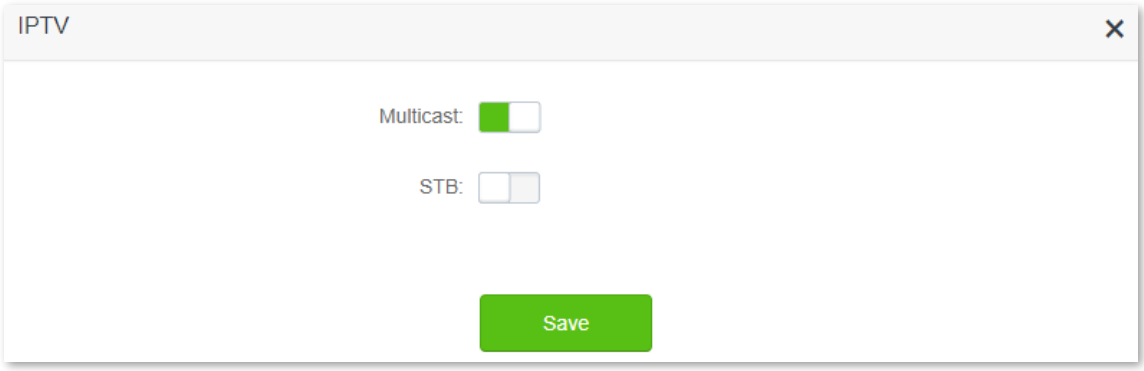
Procedure:

Step 1 Log in to the web UI.

Step 2 Navigate to **Advanced Settings** > **IPTV**.

Step 3 Enable the **Multicast** function.

Step 4 Click **Save**.



---End

After the configuration is completed, you can watch multicast videos on your computer.

8.3 Tenda WiFi App

8.3.1 Overview

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

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

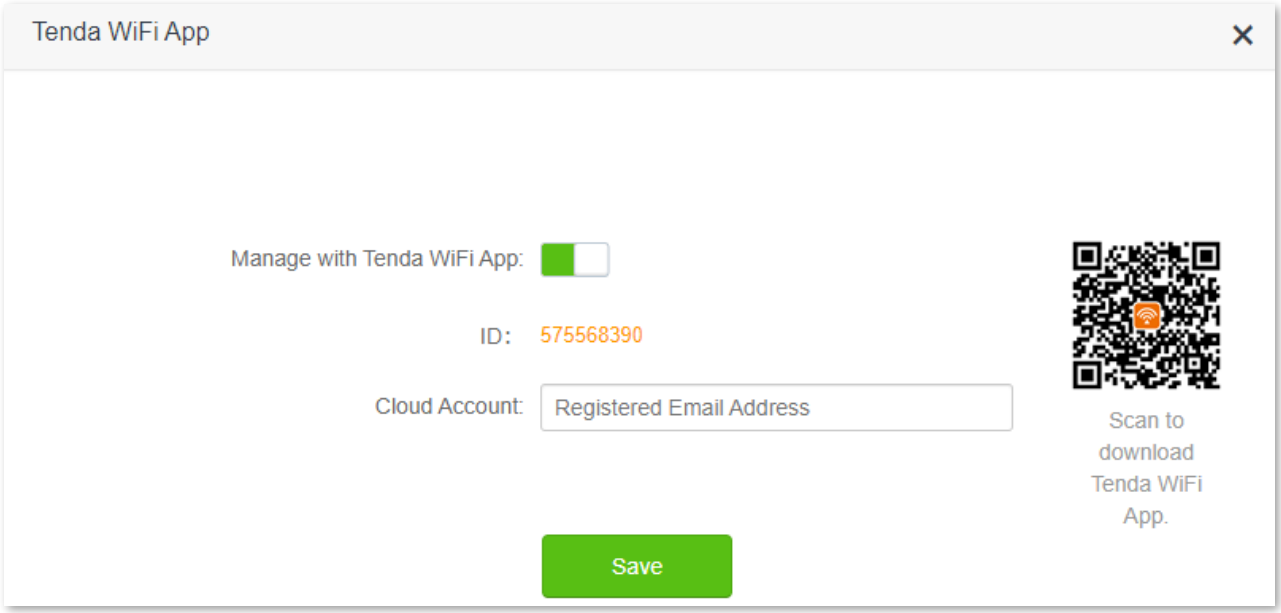
Your smartphone has been connected to the Internet.

The Tenda WiFi App is installed on your smartphone.

You can enable/disable the **Manage with Tenda WiFi App** function here.

To access the configuration page, log in to the web UI, and navigate to **Advanced Settings** > **Tenda WiFi App**.

This function is disabled by default. When it is enabled, the page is shown as below.



Parameter description

Parameter	Description
Manage with Tenda WiFi App	Used to enable and disable the App remote management function.
ID	Specifies the ID number generated after the router is successfully registered with the cloud server, which is used by the cloud server to identify the router. TIP After the router is successfully connected to the internet, it will automatically register to the cloud server.
Cloud Account	Specifies the account of the Tenda WiFi App. When the smartphone is connected to the internet, you can log in to the Tenda WiFi App to remotely manage the router through the cloud account.

8.3.2 Remote App management

Method 1 (Recommended)

To remotely manage the router with Tenda WiFi App, follow the steps below (Example: iPhone).

Procedure:

Step 1 Connect your smartphone to the WiFi network of the router.

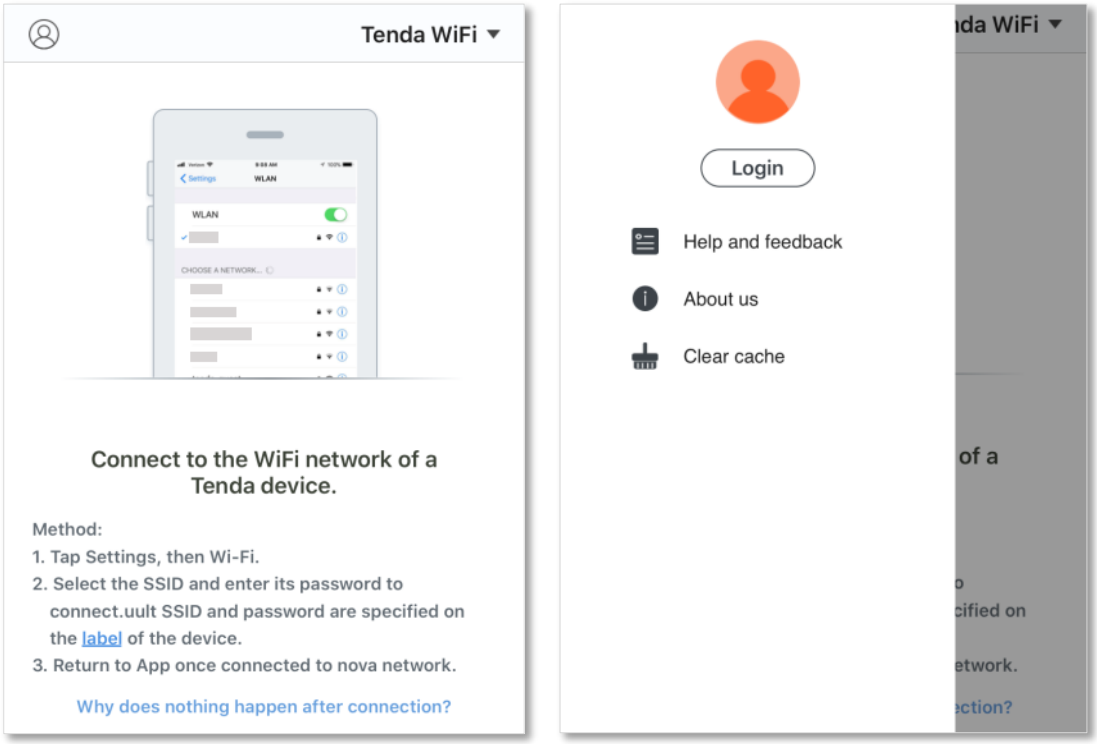
Step 2 Go to the App Store and search for the **Tenda WiFi** App. Download and install it on your phone.

TIP

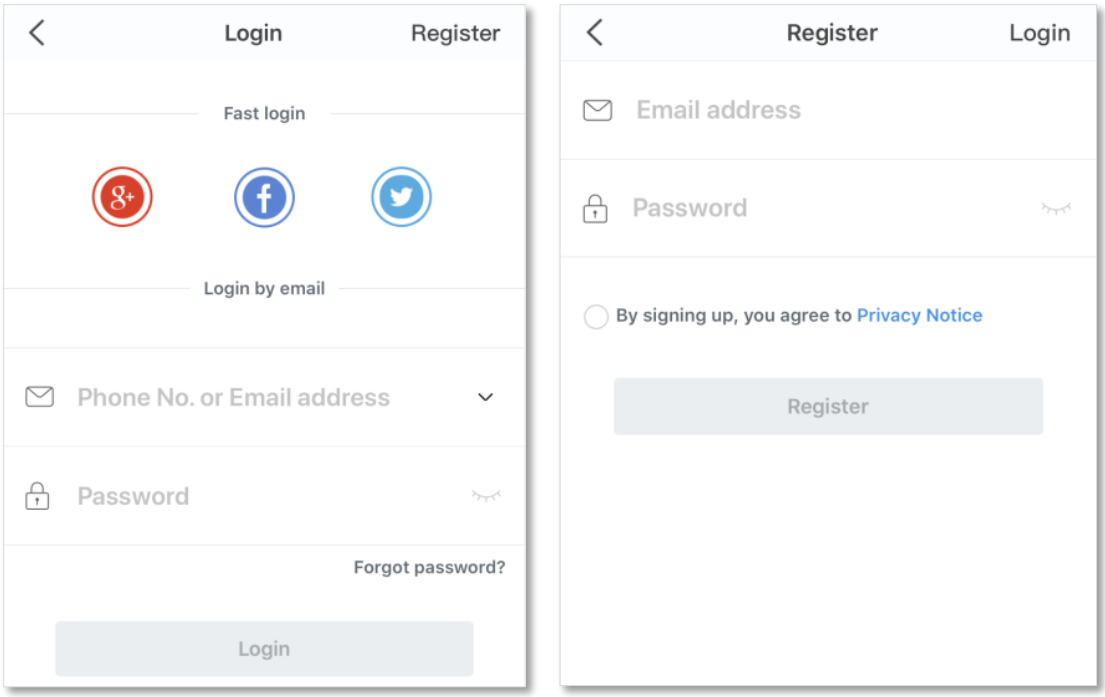
If you already have a Tenda WiFi App account or want to use the fast login approach, skip to Step 4 and proceed with the settings.

Step 3 (Optional) Register an account in the Tenda WiFi App.

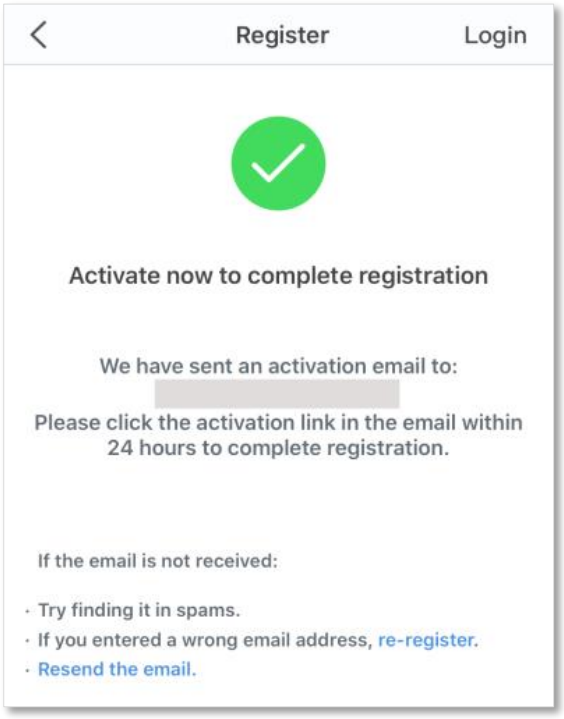
1. Open the Tenda WiFi App, tap the at the upper-left corner and tap **Login**.



2. Tap **Register** at the upper-right corner, and register with an email account.



3. Check the Email sent to your email account and follow the instruction to finish the Email account confirmation process.
4. Click **Login** at the upper-right corner of the registration page.

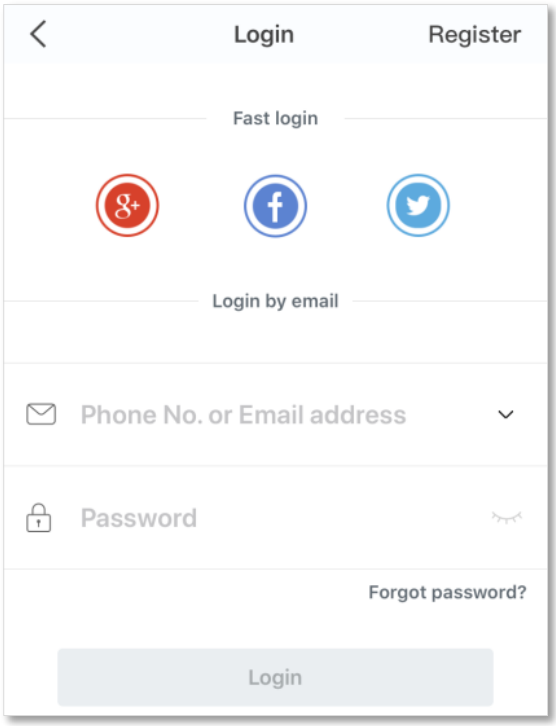


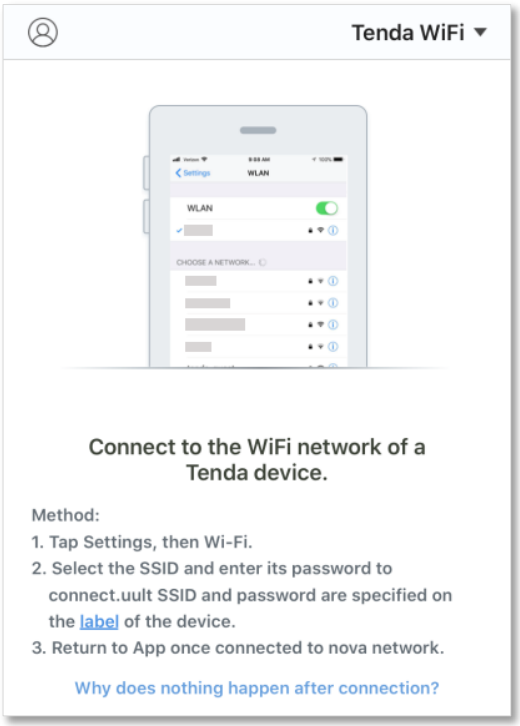
Step 4 Log in with the confirmed account.

Follow the instructions on the home page of the Tenda WiFi App to add the router.

TIP

You can also choose to log in with your Google, Facebook and Twitter account without registering a Tenda WiFi App account. Choose an option in **Fast login**.





---End

After the configuration is completed, you can remotely manage your router with Tenda WiFi App

on your smartphone through the internet. The Manage with Tenda WiFi App function on the web UI of the router has been enabled synchronously, and your Tenda WiFi App account will be automatically filled in.

Method 2

Step 1 Log in to the web UI.

Step 2 Navigate to **Advanced Settings** > **Tenda WiFi App**.

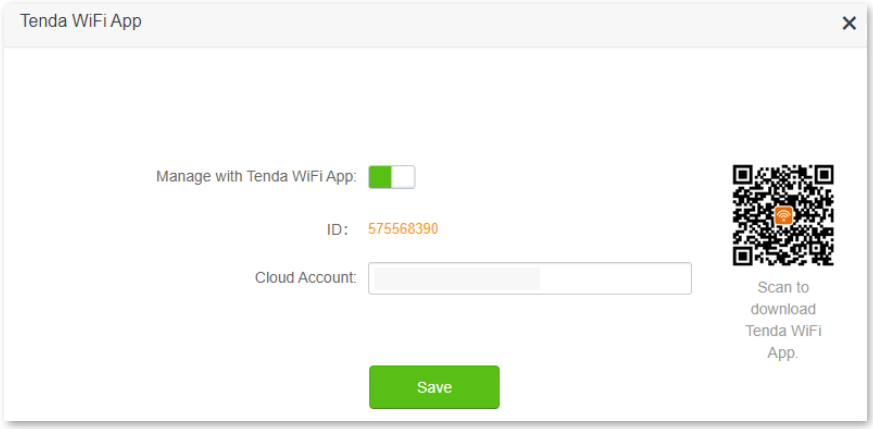
Step 3 Enable the **Manage with Tenda WiFi App** function.

Step 4 Enter an account registered in the Tenda WiFi App in **Cloud Account** (The email address is an example here).

TIP

You can click **Obtain account** to automatically obtain the App account that has remotely managed the router, or manually enter the App account. The system cannot obtain the App account when **Manage with Tenda WiFi App** function is enabled through the web UI for the first time.

Step 5 Click **Save**.



---End

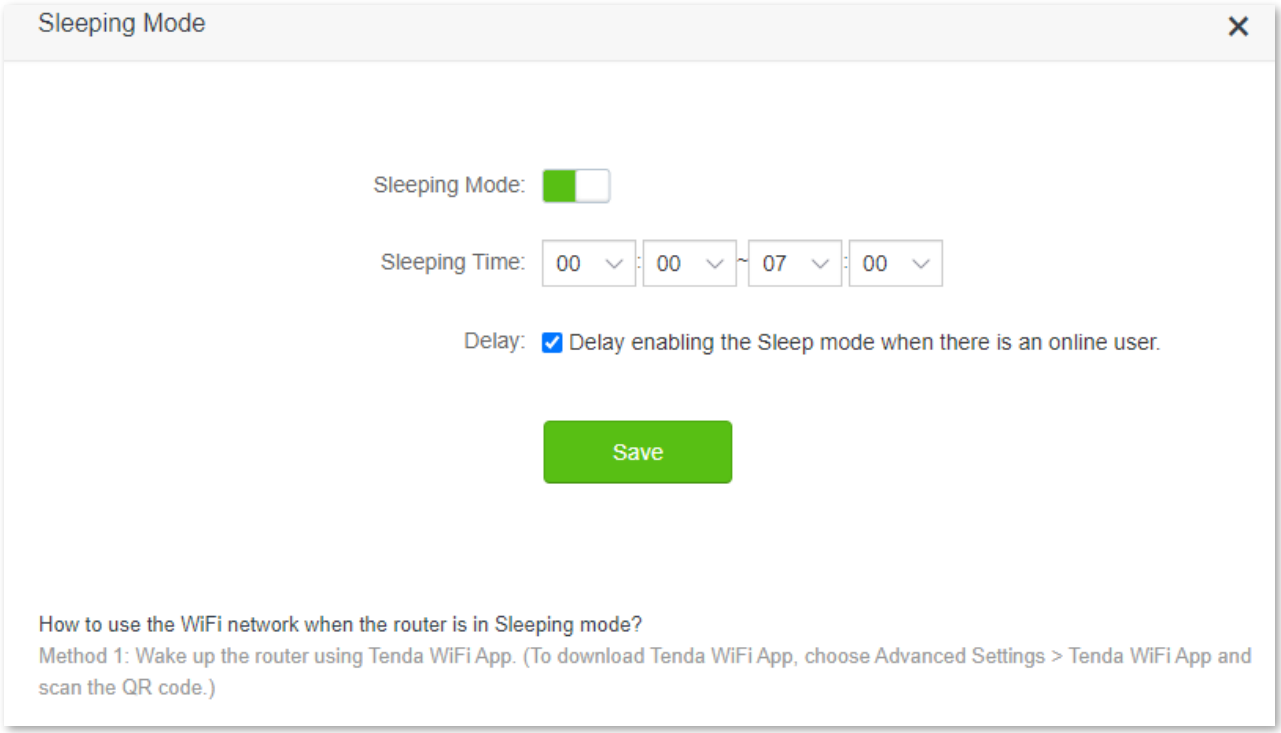
After the configuration is completed, you can manage your router with Tenda WiFi App on your phone anywhere and anytime through the internet.

8.4 Sleeping mode

When the sleeping mode function is enabled, the router turns off its LED indicators and disables the WiFi network during the specified period.

To access the configuration page, log in to the web UI, and navigate to **Advanced Settings** > **Sleeping Mode**.

This function is disabled by default. When it is enabled, the page is shown as below.



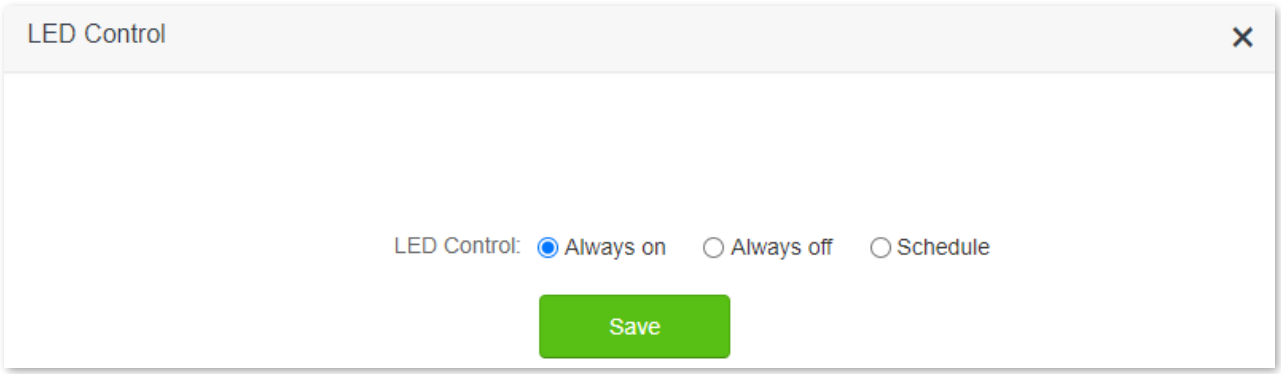
Parameter description

Parameter	Description
Sleeping Mode	Used to enable/disable the sleeping mode function. When the router is under sleeping mode and you want to use the WiFi network, use the Tenda WiFi App to wake up the router.
Sleeping Time	Specifies the period during which the router is under sleeping mode.
Delay	Used to enable or disable the Delay function. • Ticked: The function is enabled. During the sleeping time, if there is any user connected to the router and the traffic over the router's WAN port exceeds 3 KB/s within 30 minutes, the router will delay entering the sleeping mode. If there is no user connected to the router and the traffic over the router's WAN port is slower than 3 KB/s within 3 minutes, the router will enter sleeping mode. • Unticked: The function is disabled. The router enters the sleeping mode during the sleeping time.

8.5 LED control

With the LED control function, you can control the status of the LED indicators.

To access the configuration page, log in to the web UI, and navigate to **Advanced Settings** > **LED Control**.



Parameter description

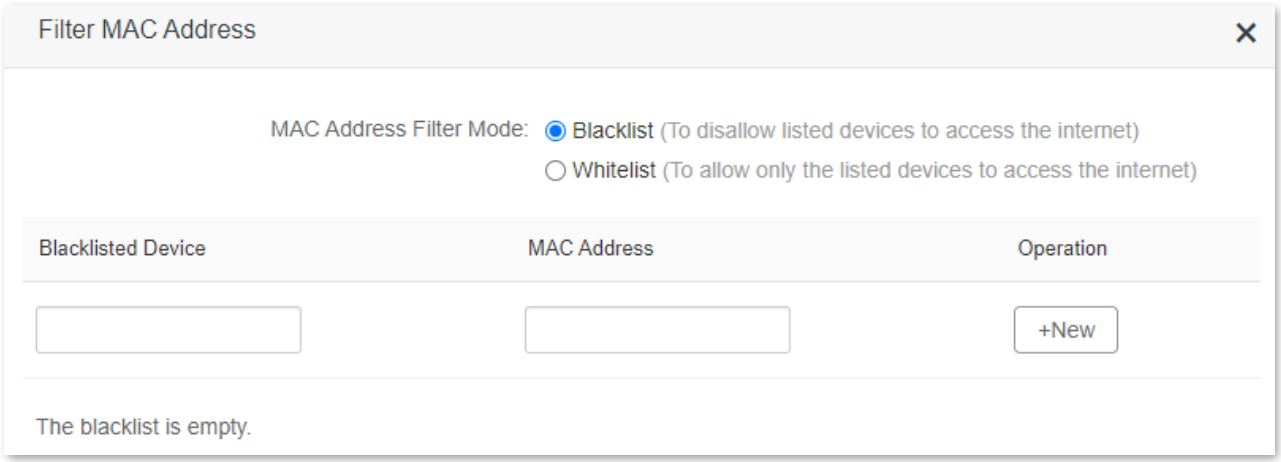
Parameter	Description
Always on	All LED indicators stay in their normal status.
Always off	All LED indicators are turned off.
Schedule	LED indicators are only turned off during the specified period.

8.6 Filter MAC address

8.6.1 Overview

This function enables you to add devices to the whitelist or blacklist to enable or disable specified users to access the internet through the router.

To access the configuration page, log in to the web UI, and navigate to **Advanced Settings** > **Filter MAC address**.



Parameter description

Parameter	Description
MAC Address Filter Mode	Specifies the MAC address filter mode. • **Blacklist**: Wireless devices listed are unable to connect to the WiFi network of the router, and wired devices listed are unable to access the internet. • **Whitelist**: Wireless devices listed can connect to the WiFi network of the router, and wired devices listed can access the internet.
Blacklisted Device	Specify the name or remark for the device.
Whitelisted Device	
MAC Address	Specifies the MAC addresses of devices added to the list.
Operation	• +New : Used to add new devices to the blacklist or whitelist. • : Used to remove devices from the blacklist or whitelist.
Add all online devices to the whitelist	It is only available when you set the whitelist for the first time. By clicking it, you can add all currently connected devices to the whitelist.

8.6.2 Only allow specified device to access the internet

Scenario: The WiFi in your home is misused by unknown users sometimes.

Goal: Only allow certain devices of family members to access the internet.

Solution: You can configure the MAC address filter function to reach the goal.

Assume that:

Device	MAC address	Status
Your own phone	8C:EC:4B:B3:04:92	Connected
Wife's phone	94:C6:91:29:C2:12	Disconnected
Child's phone	98:9C:57:19:D0:1B	Disconnected

Procedure:

Step 1 Log in to the web UI.

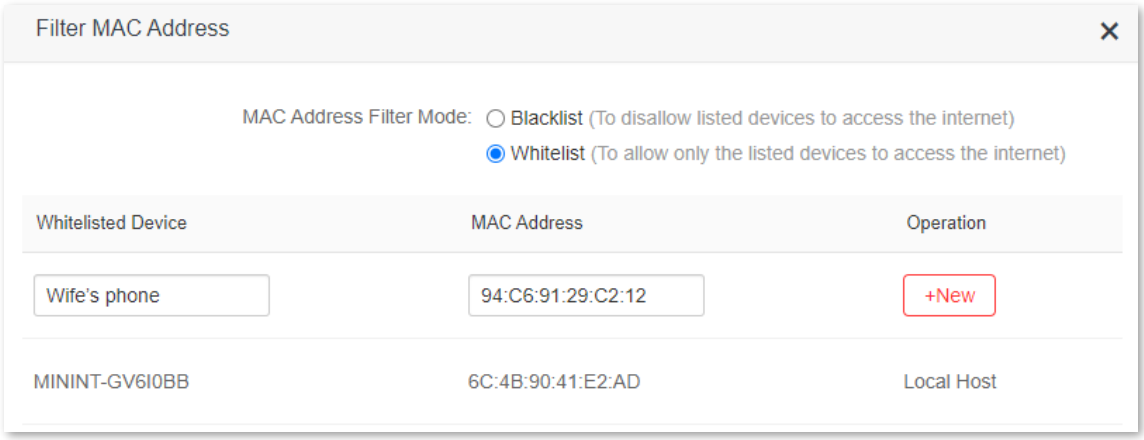
Step 2 Navigate to **Advanced Settings** > **Filter MAC Address**.

Step 3 Set the **MAC Address Filter Mode** to **Whitelist**.

Step 4 (Optional) Enter the device name in the **Whitelisted Device** field, which is **Wife's phone** in this example.

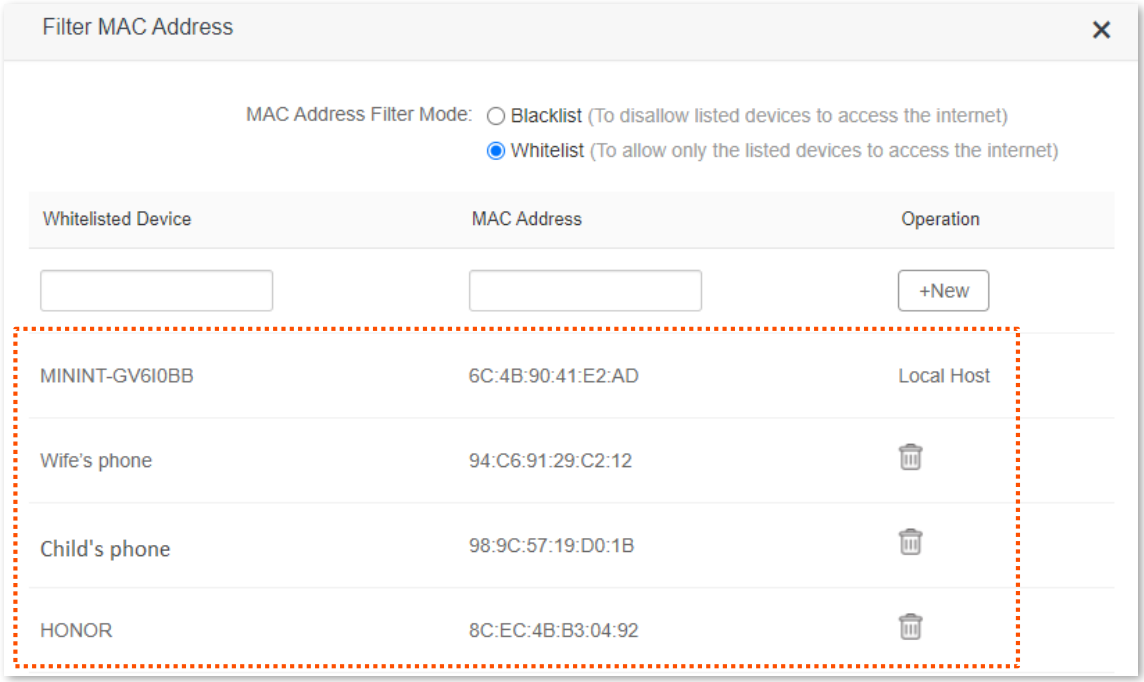
Step 5 Enter the **MAC Address** of the device, which is **94:C6:91:29:C2:12** in this example.

Step 6 Click **+New**.



Step 7 Repeat Step 4 to Step 6 to add the child's phone (98:9C:57:19:D0:1B) to the whitelist.

Step 8 Click **Save**.



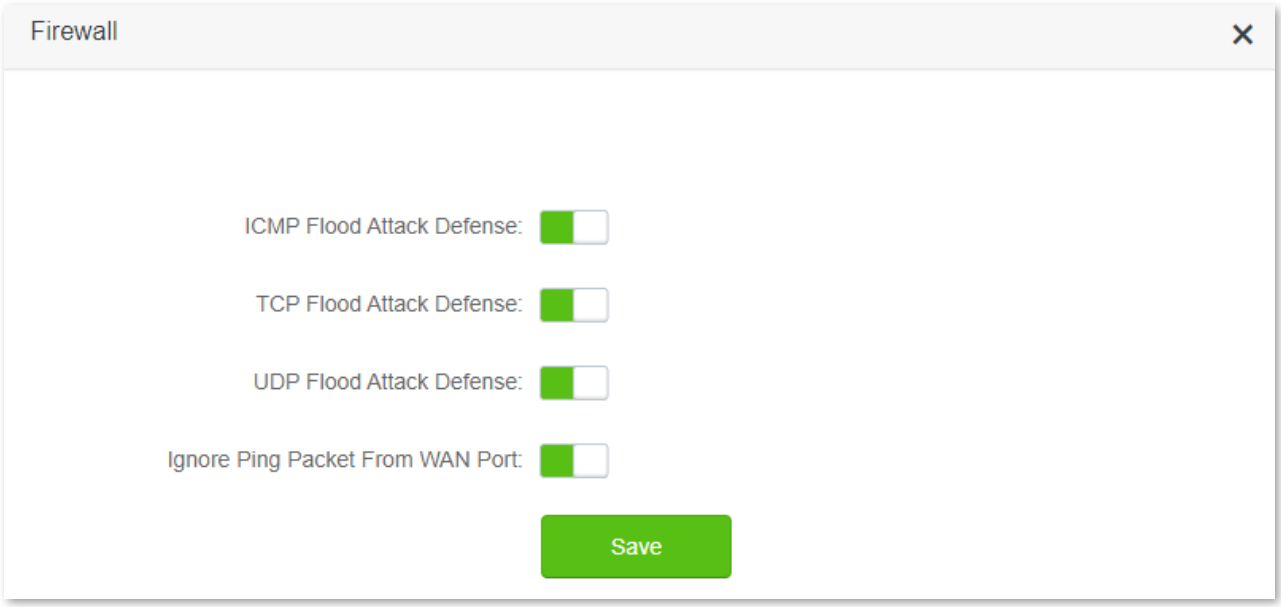
---End

After the configuration is completed, only the three devices added can access the internet through the router.

8.7 Firewall

The firewall function helps the router detect and defend the ICMP flood attack, TCP flood attack and UDP flood attack, 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, and navigate to **Advanced Settings** > **Firewall**.



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 a large number of 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 a large number of TCP connection requests in a short period, and then suspends them in a semi-connected state, thereby occupying a large number of 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 to the ICMP flood attack, during which the attacker sends a large number of 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 Ignore Ping packet from the WAN Port function. 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.

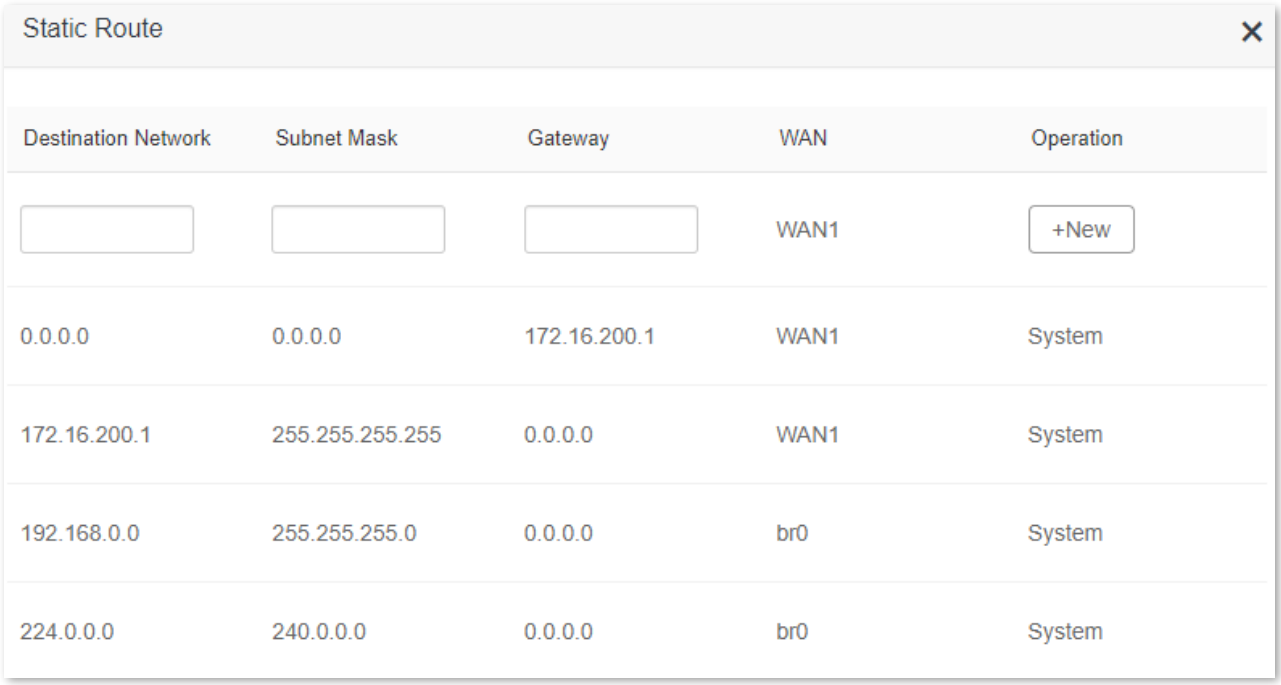
8.8 Static route

8.8.1 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 target network, subnet mask, default gateway, and interface. The target network and subnet mask are used to determine a target 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, and navigate to **Advanced Settings** > **Static Route**.



Parameter description

Parameter	Description
Destination Network	Specifies the IP address of the destination network. When the Destination Network and Subnet Mask are both 0.0.0.0, it indicates that this is the default route. TIP When the route of packets cannot be found in the routing table, the router will forward the packets using the default route.
Subnet Mask	Specifies the subnet mask of the destination network.

Parameter	Description
Gateway	Specifies the ingress IP address of the next-hop route after the data packet exits from the interface of the router. **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 add or delete static route rules.

8.8.2 Add a static route rule

Scenario: You have an AC8 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.

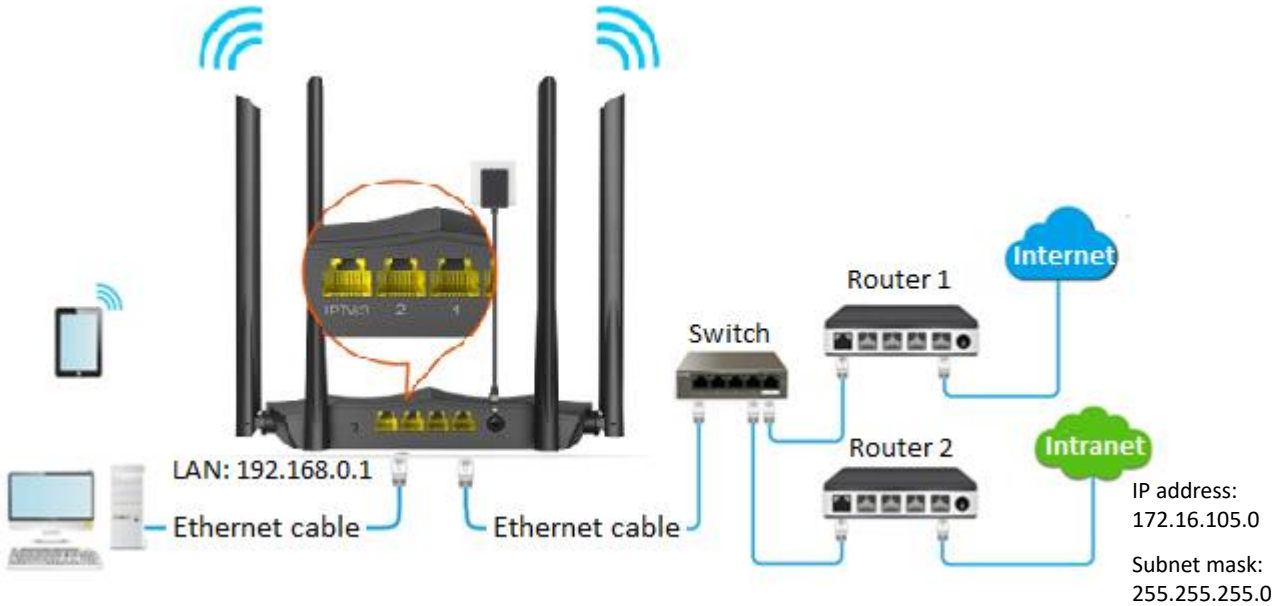
Solution: You can configure the static route function to reach the goal.

Assume the LAN IP addresses of these devices are:

- AC8: 192.168.0.1
- Router1: 192.168.10.10
- Router2: 192.168.10.20

The information about the intranet:

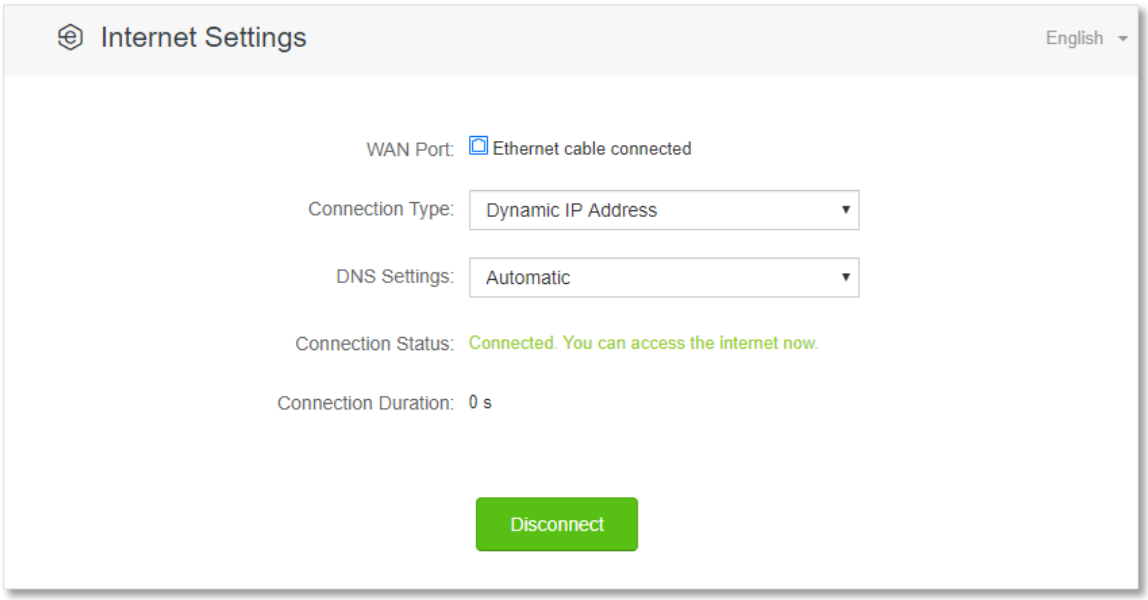
- IP address: 172.16.105.0
- Subnet mask: 255.255.255.0



Procedure:

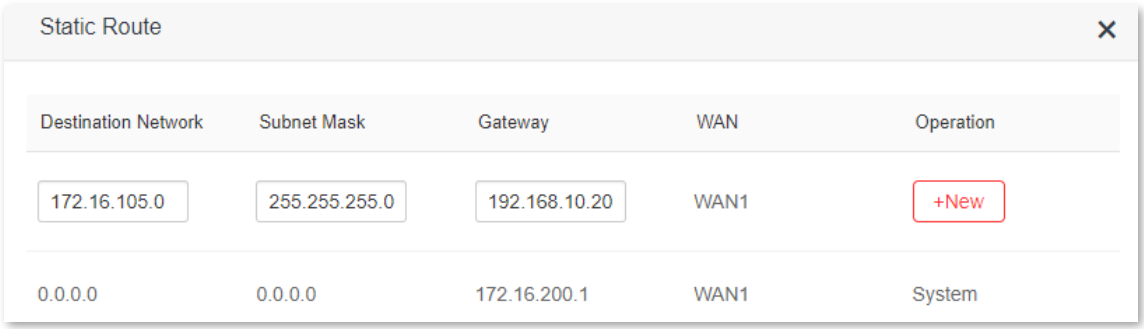
Step 1 Log in to the web UI.

Step 2 Refer to Access the internet with a dynamic IP address to configure the internet access for AC8.



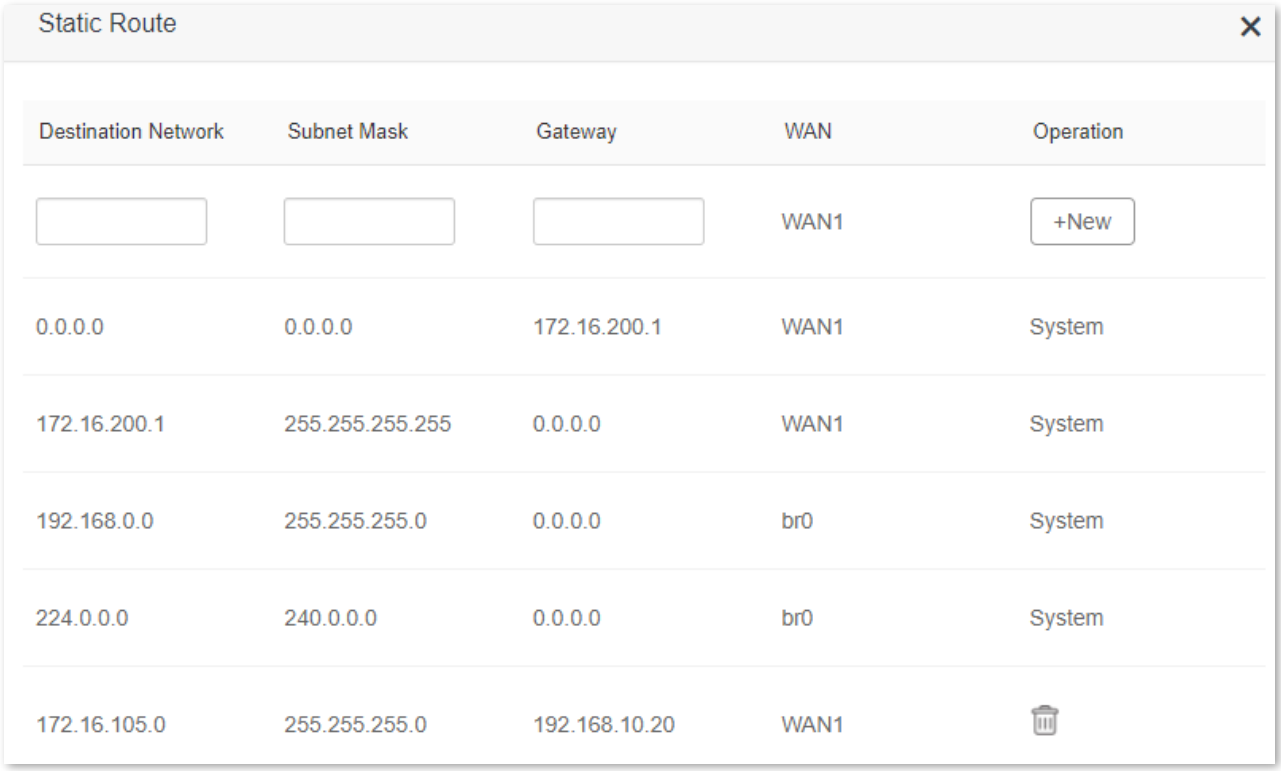
Step 3 Add a static route rule.

1. Navigate to **Advanced Settings** > **Static Route**.
2. Enter the IP address of the destination network, which is **172.16.105.0** in this example.
3. Enter the subnet mask of the destination network, which is **255.255.255.0** in this example.
4. Enter the ingress IP address of the next-hop route, which is **192.168.10.20** in this example.
5. Click **+New**.



---End

Added successfully.



After the configuration is completed, you can access both the internet and intranet through AC8 at the same time.

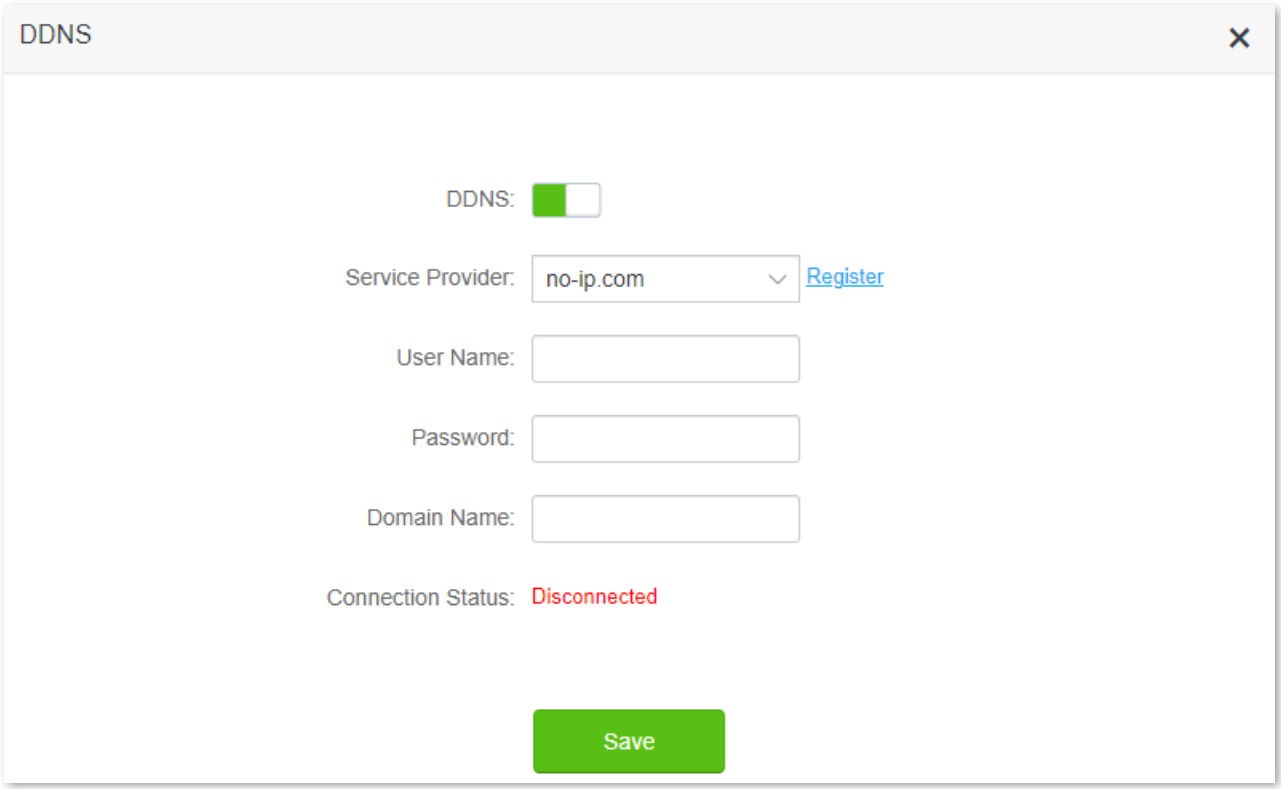
8.9 DDNS

8.9.1 Overview

DDNS normally interworks with the virtual server, DMZ host, and remote management, so that the 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.

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

This function is disabled by default. When it is enabled, the page is shown as below.



Parameter description

Parameter	Description
DDNS	Used to enable or disable the DDNS function.
Service Provider	Specifies the DDNS service provider.
User Name	Specify the user name and password registered on a DDNS service provider's website for logging in to the DDNS service.
Password	
Domain Name	Specifies the domain name registered on the DDNS service provider's website. If this field is invisible after choosing the service provider, it is not required.
Connection Status	Specifies the current connection status of the DDNS service.

8.9.2 Enable internet users to access LAN resources using a domain name

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 plus virtual server functions to reach the goal.

Assume that the information of the FTP server includes:

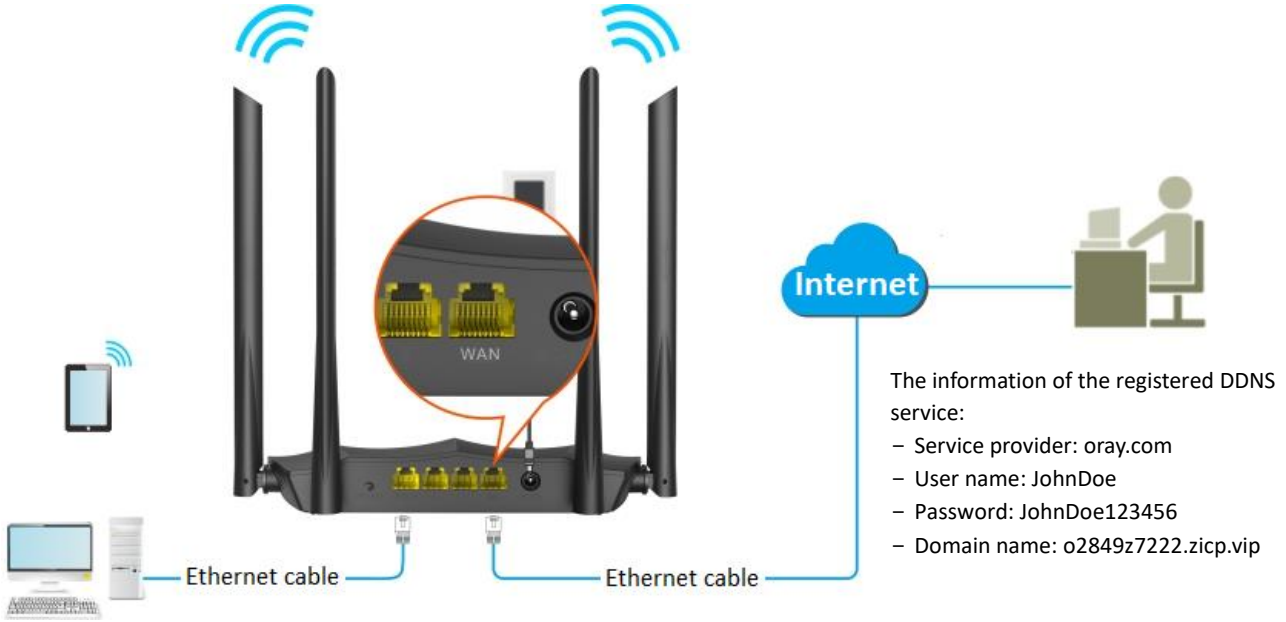
- IP address: 192.168.0.101
- MAC address of the host: D4:61:DA:1B:CD:89
- Service port: 21

The information of the registered DDNS service:

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

TIP

Please 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.



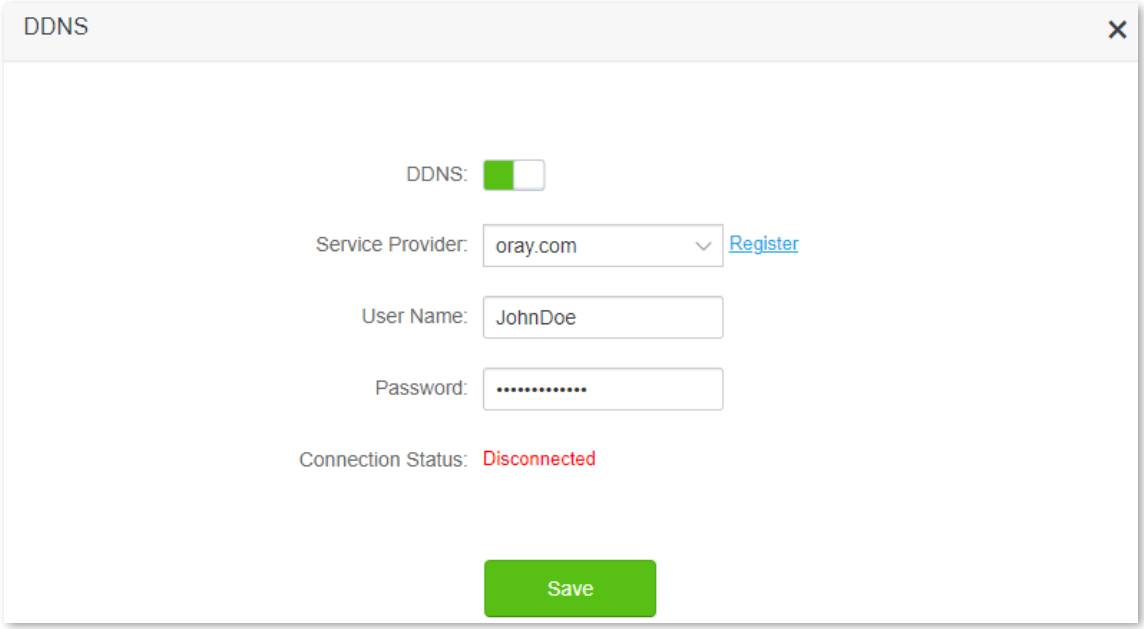
FTP server IP address: 192.168.0.101
MAC address of the host: D4:61:DA:1B:CD:89
Service port: 21

Procedure:

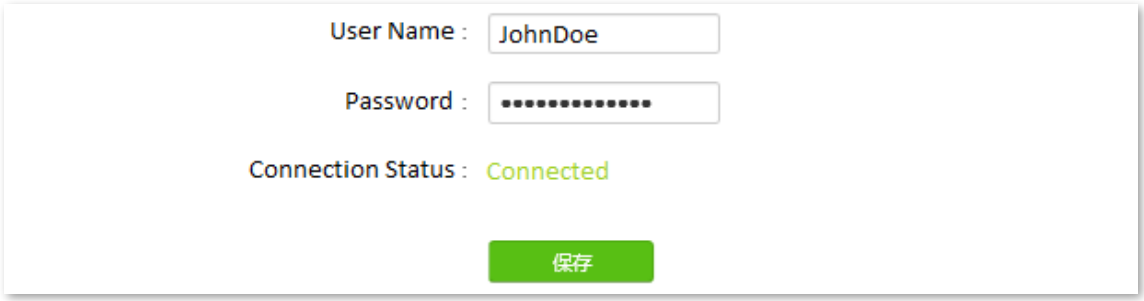
Step 1 Log in to the web UI.

Step 2 Configure the DDNS function.

1. Navigate to **Advanced Settings** > **DDNS**.
2. Enable the **DDNS** function.
3. Select a **Service Provider**, which is **oray.com** in this example.
4. Enter the **User Name** and **Password**, which are **JohnDoe** and **JohnDoe123456** in this example.
5. Click **Save**.



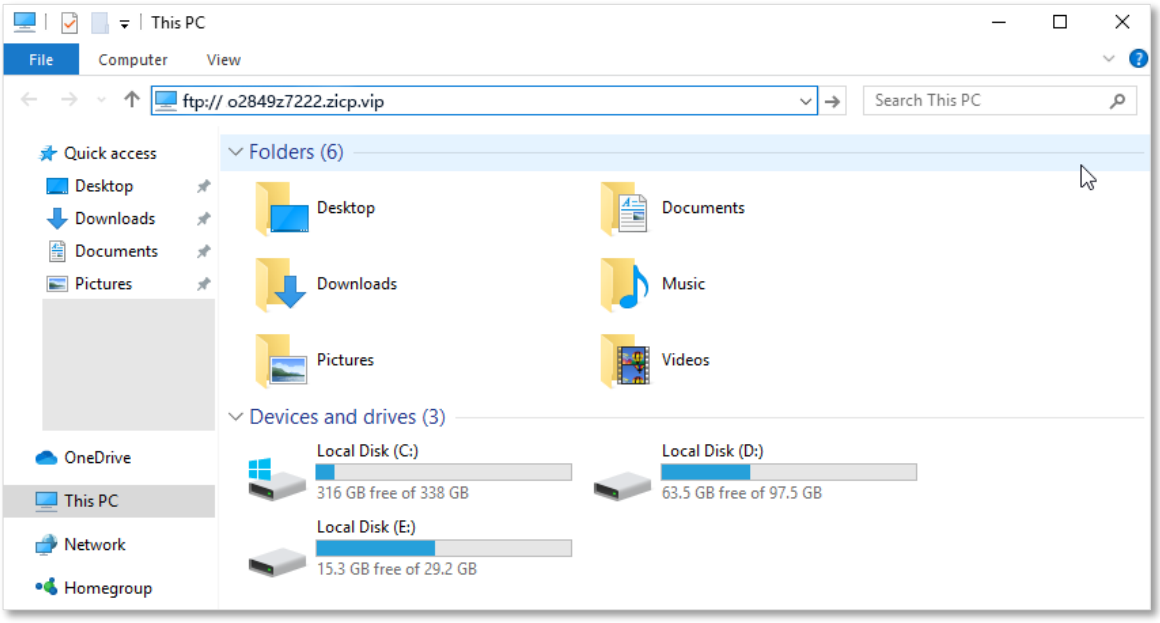
Wait a moment, when the **Connection Status** turns Connected, the configurations succeed.



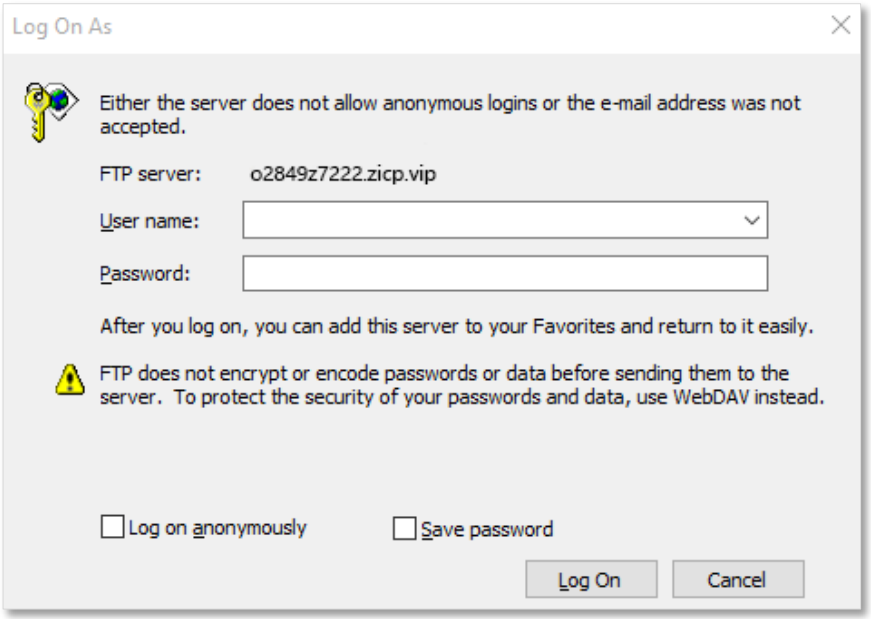
Step 3 Configure the virtual server function (refer to Virtual server)

---End

When the configuration is completed, users from the internet can access the FTP server by visiting "*Intranet service application layer protocol name*://*the 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*://*the domain name:WAN port number*". 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 configurations, if internet users still cannot access the FTP server, try the following methods:

- Ensure that the LAN port number configured in the virtual server function is the same as the service port number set on the server.
- Close the firewall, antivirus software and security guards on the host of the FTP server and try again.

8.10 Virtual server

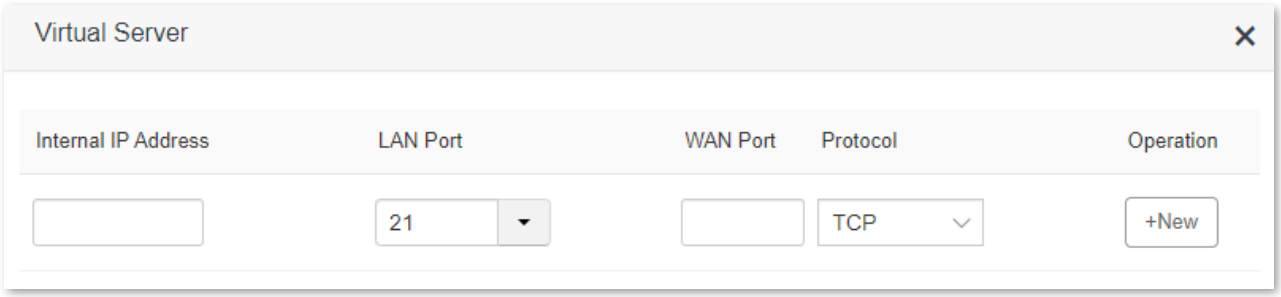
8.10.1 Overview

By default, internet users cannot actively access the LAN of the router.

The virtual server function opens a port of the router and binds the LAN server to the port using the server's IP address and intranet service port. All access requests to the WAN port of the router will be directed to the server. Therefore, the server within the LAN can be accessed by internet users and the LAN can be free from attacks from the internet.

For example, the virtual server function enables internet users to access web servers or FTP servers within the LAN.

To access the configuration page, log in to the web UI, and navigate to **Advanced Settings** > **Virtual Server**.



Parameter description

Parameter	Description
Internal IP Address	Specifies the IP address of the server within the LAN of the router.
LAN Port	Specifies the service port number of the server under the LAN of the router. You can either choose a service port number in the drop-down box or enter a service port number manually.
WAN Port	Specifies the port of the router which is opened and accessible to internet users.
Protocol	Specifies the transport layer protocol of the service. If you are not sure about this parameter, TCP&UDP is recommended.
Operation	Available operations include: • +New: Used to add a new virtual server rule. • : Used to delete existing virtual server rules.

8.10.2 Enable internet users to access LAN resources

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.

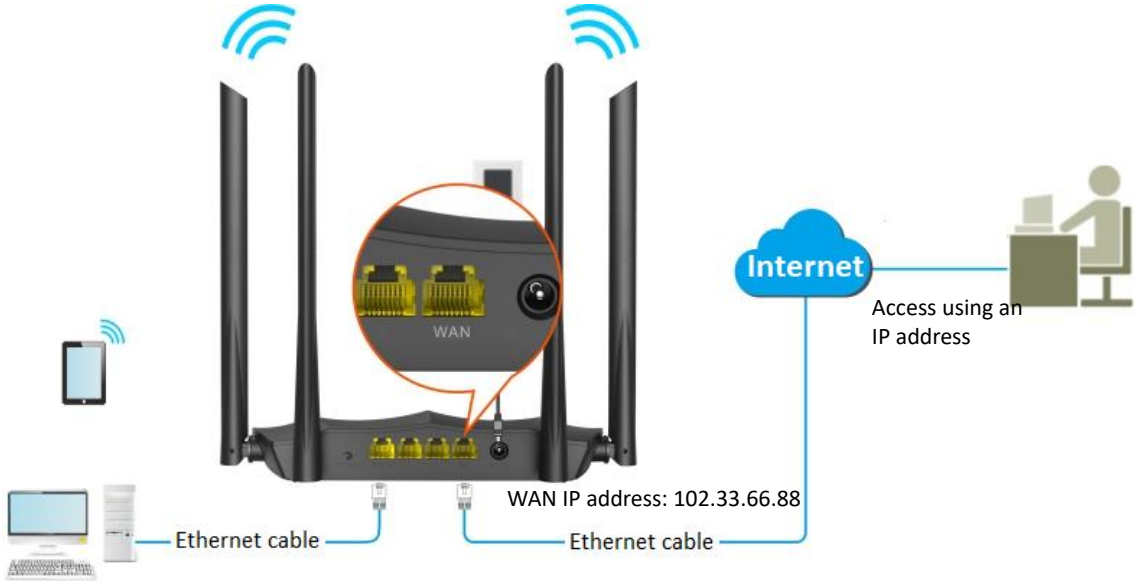
Solution: You can configure the virtual server function to reach the goal.

Assume that the information of the FTP server includes:

- IP address: 192.168.0.101
- MAC address: D4:61:DA:1B:CD:89
- Service port: 21
- The WAN IP address of the router: 102.33.66.88.

TIP

- Please 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.
- ISPs may block unreported web services to be accessed with the default port number 80. Therefore, when the default LAN port number is 80, please change it to an uncommon port number (1024-65535) manually, such as 9999.
- The LAN port number can be different from the WAN port number.



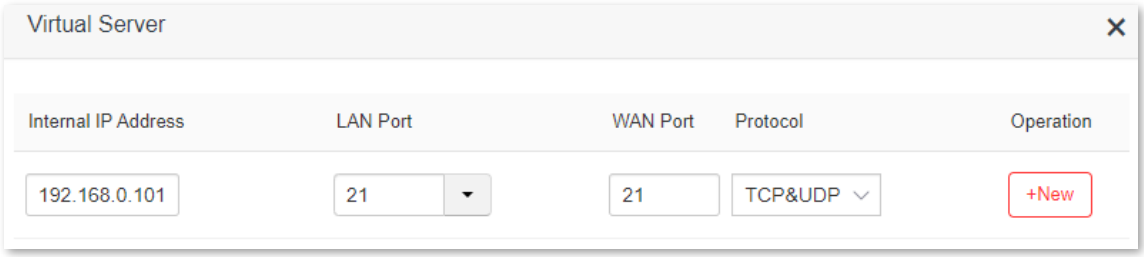
FTP server IP address: 192.168.0.101
MAC address: D4:61:DA:1B:CD:89
Service port: 21

Procedure:

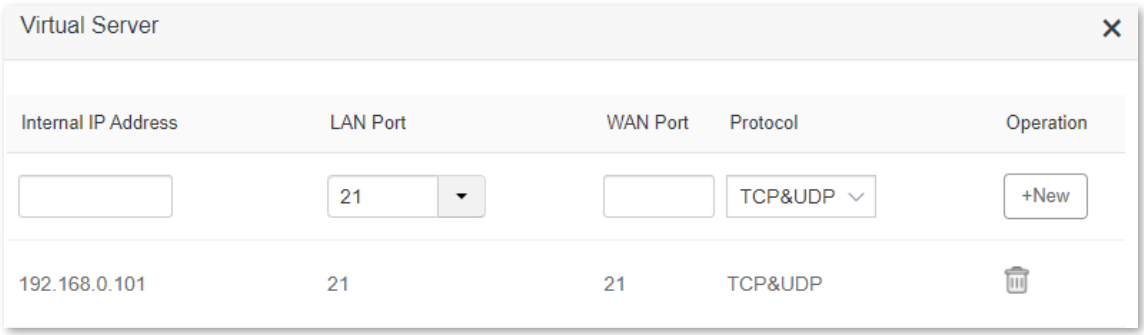
Step 1 Log in to the web UI.

Step 2 Add a virtual server rule.

1. Navigate to **Advanced Settings** > **Virtual Server**.
2. Enter the **Internal IP Address**, which is **192.168.0.101** in this example.
3. Select a **LAN Port** in the drop-down box, which is **21** in this example.
4. Select a protocol, which is **TCP&UDP** in this example.
5. Click **+New**.

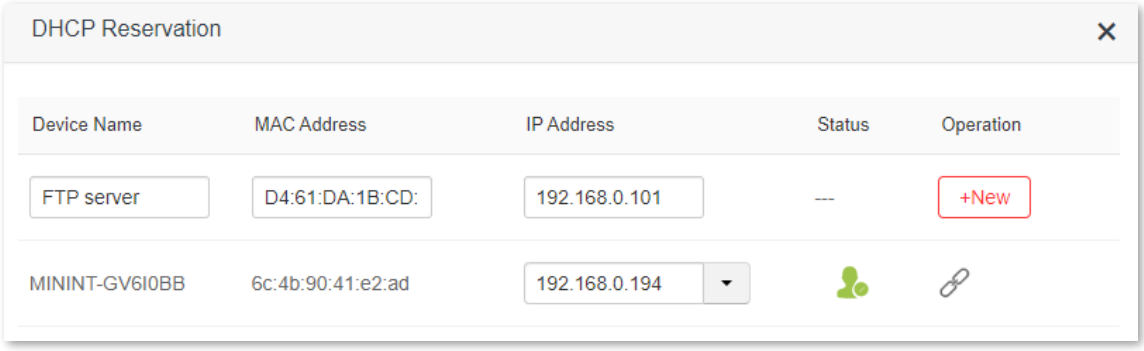


Added successfully.



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

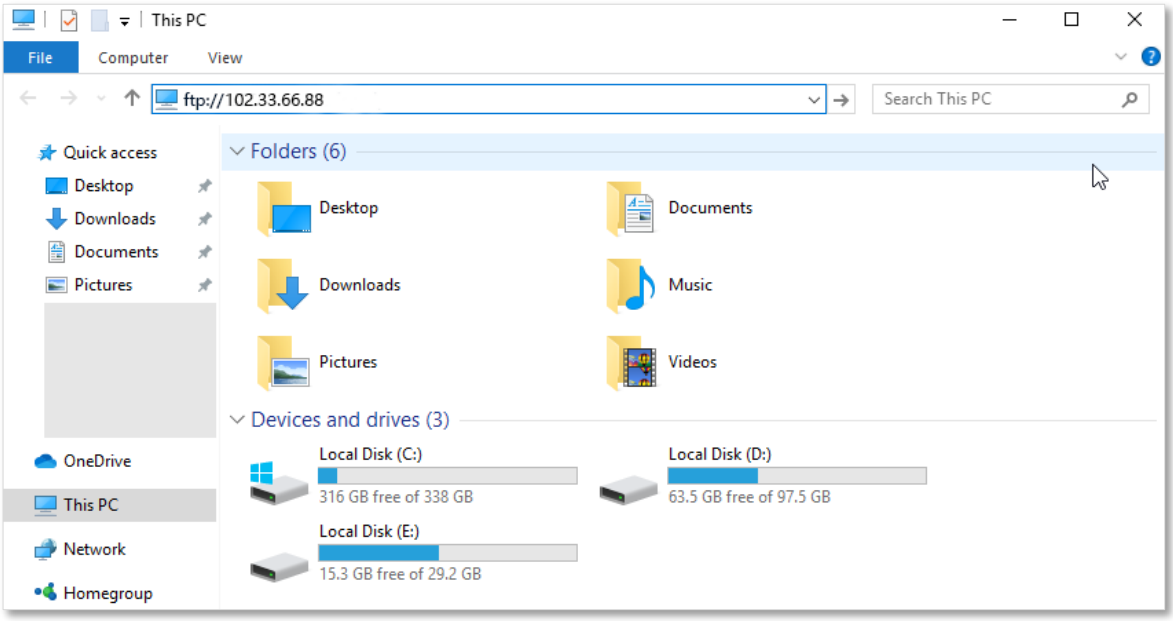
1. Navigate to **System Settings** > **DHCP Reservation**.
2. (Optional) Specifies a **Device Name** for the host of the server, which is **FTP server** in this example.
3. Enter the **MAC Address** of the host of the server, which is **D4:61:DA:1B:CD:89** in this example.
4. Enter the **IP Address** of the host of the server, which is **192.168.0.101** in this example.
5. Click **+New**.



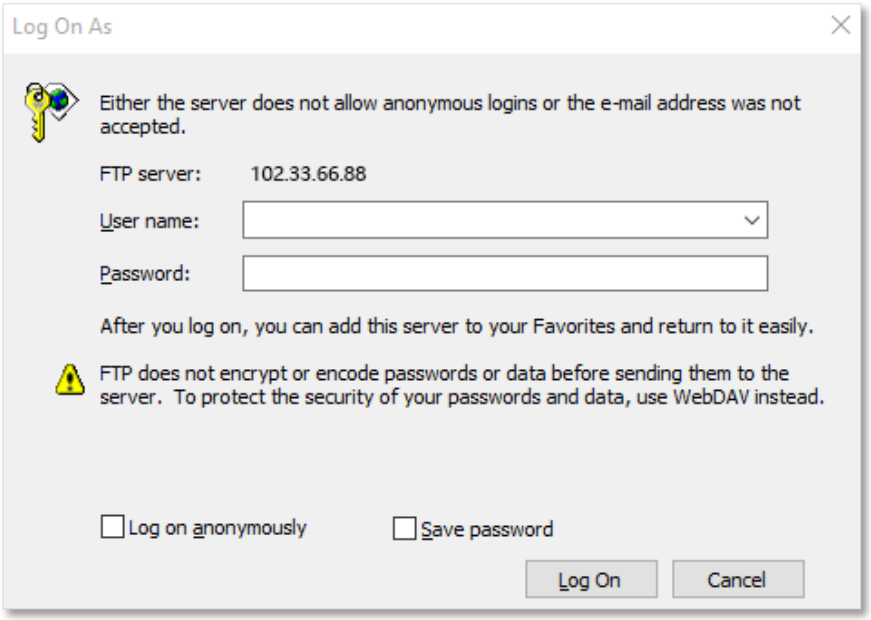
Added successfully. The figure is shown below.

---End

After the configuration is completed, users from the internet can access the FTP server by visiting the "*Intranet service application layer protocol name*://*WAN IP address of the router*". 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 IP address of the router*:*WAN port number*". In this example, the address is "**ftp://102.33.66.88**". You can find the WAN IP address of the router in WAN status.



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, refer to the solution DDNS + Virtual server.

TIP

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

- Ensure that the LAN port number configured in the virtual server function is the same as the service port number set on the server.
- Close the firewall, antivirus software and security guards on the host of the FTP server and try again.

8.11 DMZ host

8.11.1 Overview

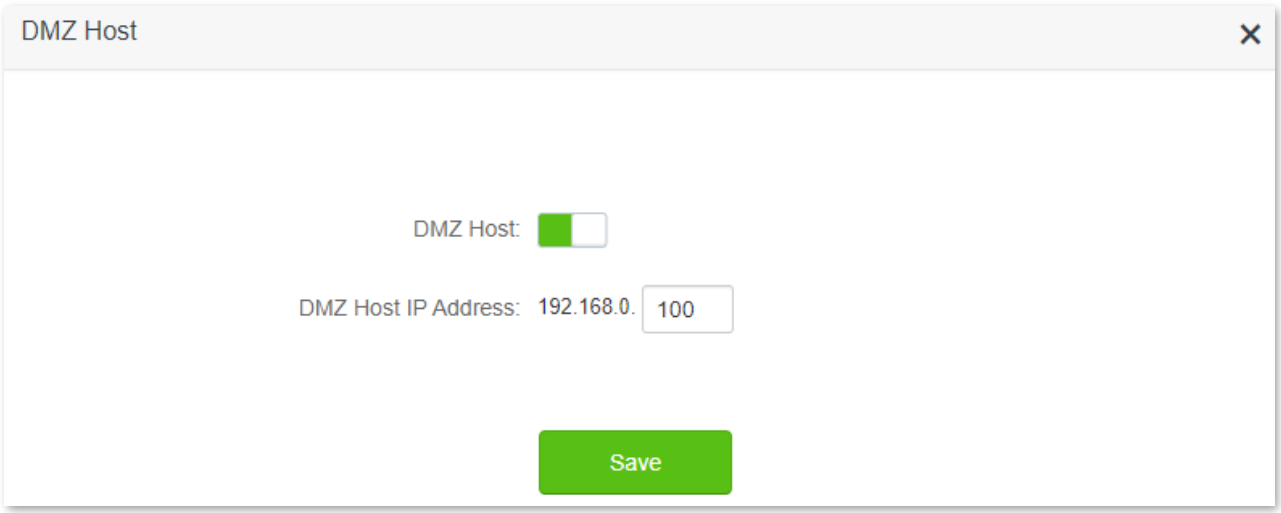
A DMZ host on a LAN is free from restrictions in communicating with the internet. It is useful for getting a better and smoother experience in video conferences and online games. You can also set the host of a server within the LAN as a DMZ host when in need of accessing the server from the internet.

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.

To access the configuration page, log in to the web UI, and navigate to **Advanced Settings** > **DMZ Host**.

This function is disabled by default. When it is enabled, the page is shown as below.



Parameter description

Parameter	Description
DMZ Host	Used to enable or disable the DMZ host function.
DMZ Host IP Address	Specifies the IP address of the host that is to be set as the DMZ host.

8.11.2 Enable internet users to access LAN resources

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.

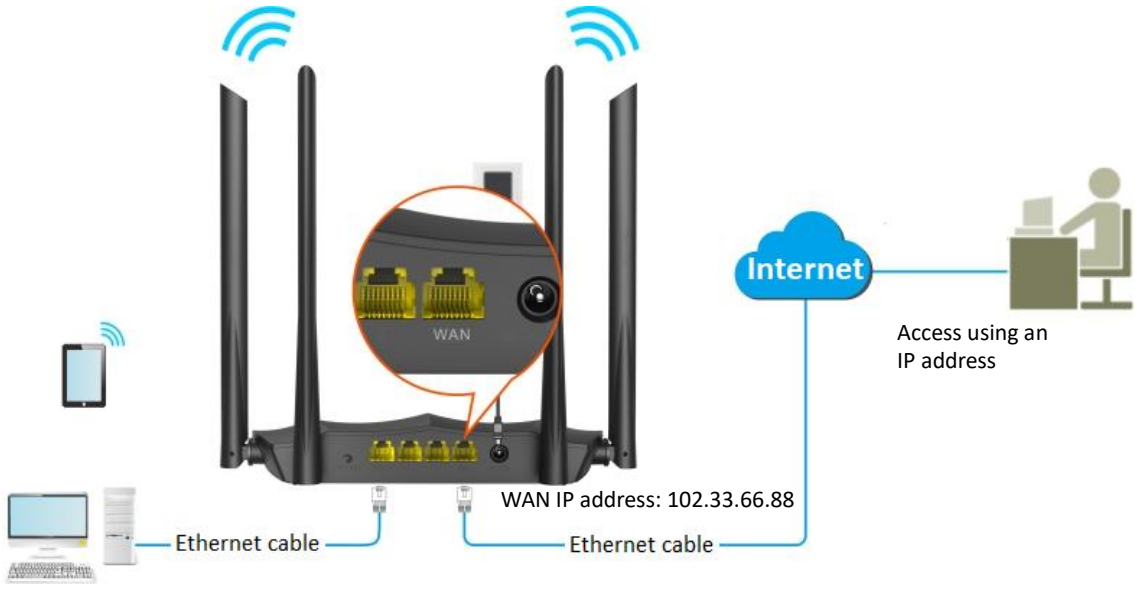
Solution: You can configure the DMZ host function to reach the goal.

Assume that the information of the FTP server includes:

- IP address: 192.168.0.101
- MAC address: D4:61:DA:1B:CD:89
- Service port: 21
- The WAN IP address of the router: 102.33.66.88.

TIP

Please 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.



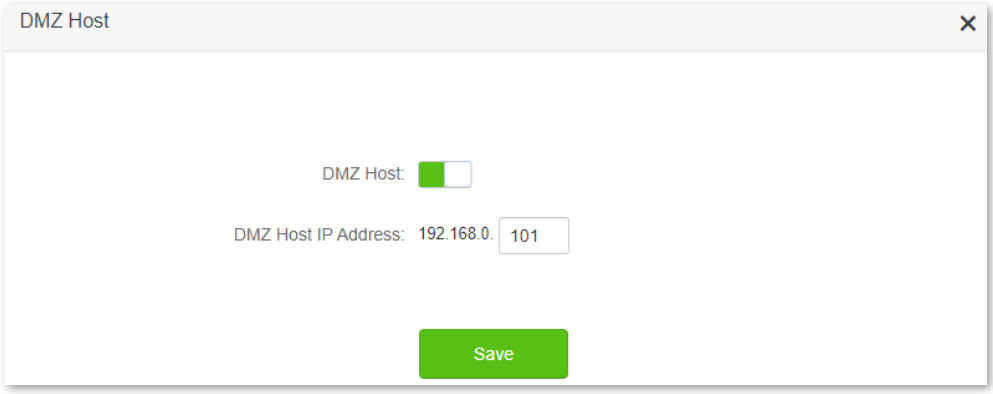
FTP server IP address: 192.168.0.101
MAC address: D4:61:DA:1B:CD:89
Service port: 21

Procedure:

Step 1 Log in to the web UI.

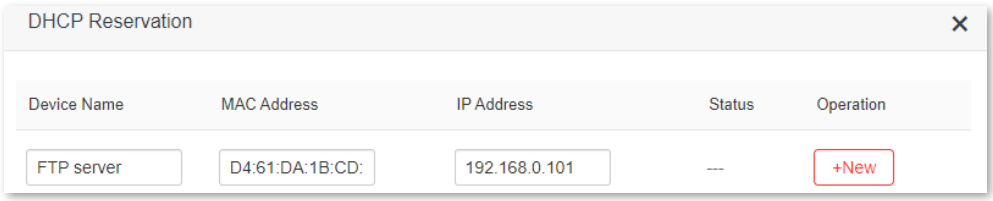
Step 2 Set the server host as the DMZ host.

1. Navigate to **Advanced Settings** > **DMZ Host**.
2. Enable the **DMZ Host** function.
3. Enter the IP address of the host, which is **192.168.0.101** in this example.
4. Click **Save**.

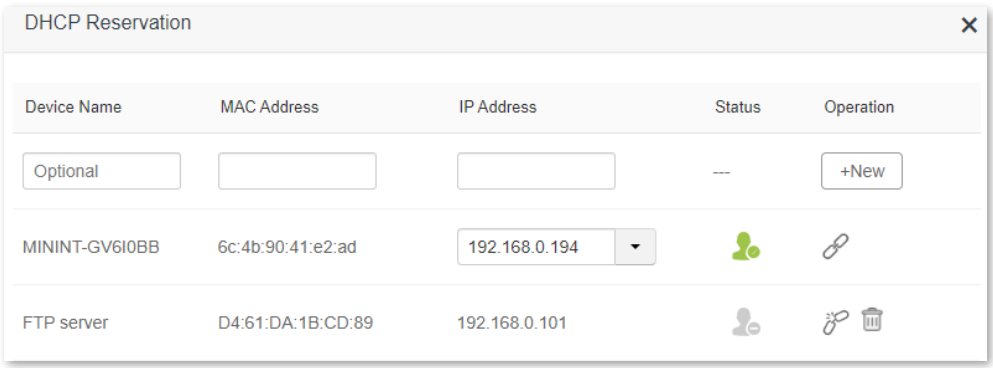


Step 3 Assign a fixed IP address to the host where the server locates.

1. Navigate to **System Settings** > **DHCP Reservation**.
2. (Optional) Specifies a **Device Name** for the server host, which is **FTP server** in this example.
3. Enter the **MAC Address** of the host of the server, which is **D4:61:DA:1B:CD:89** in this example.
4. Enter the reserved **IP Address** for the server host, which is **192.168.0.101** in this example.
5. Click **+New**.



Added successfully. The figure is shown below.



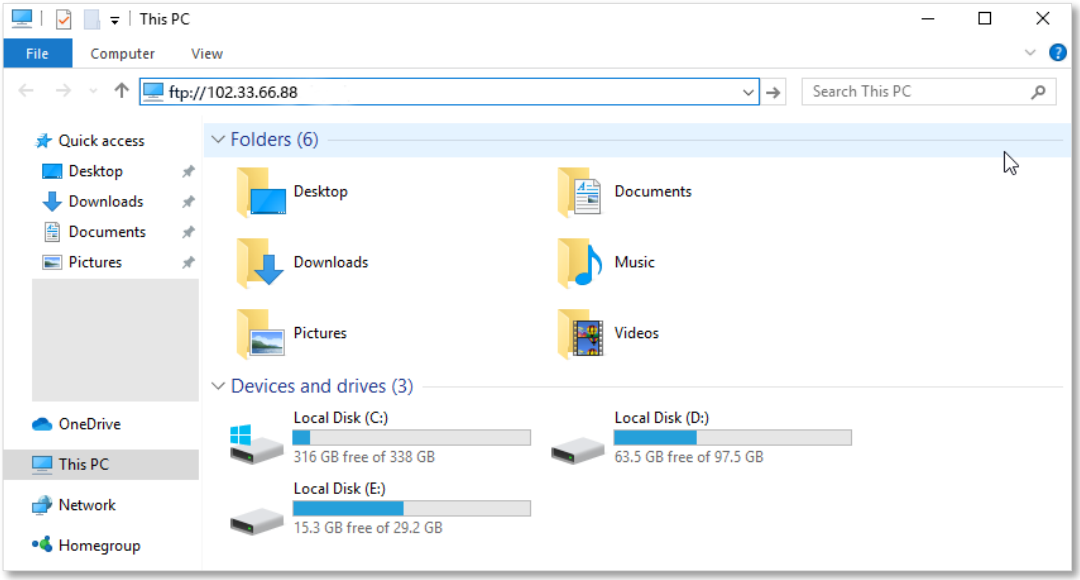
----End

When the configurations are completed, users from the internet can access the DMZ host by visiting the "*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*".

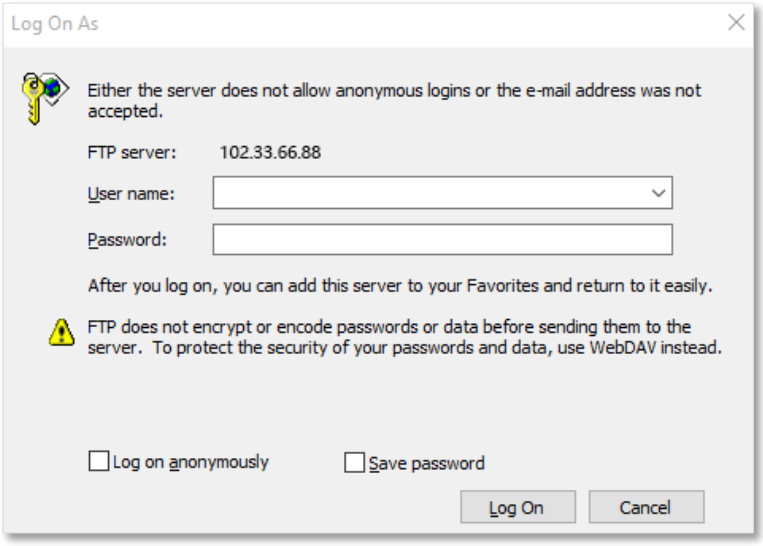
In this example, the address is "**ftp://102.33.66.88**". You can find the WAN IP address of the router in WAN status.

TIP

When the default intranet service port number is 80, please 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, refer to the solution DMZ host + DDNS.

TIP

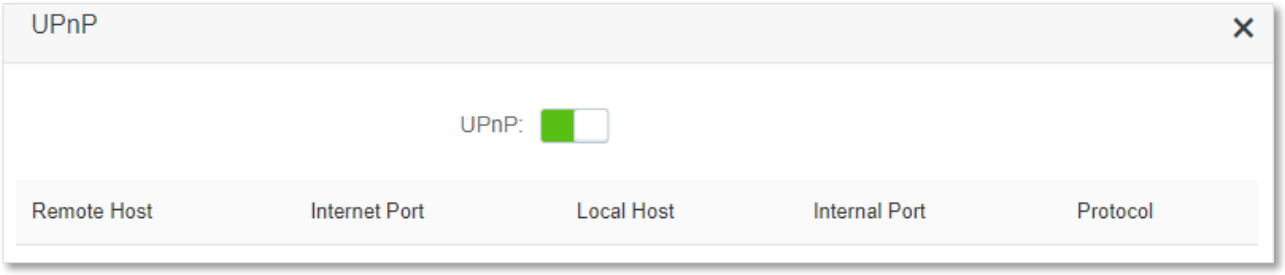
After the configurations, if internet users still cannot access the FTP server, close the firewall, antivirus software and security guards on the host of the FTP server and try again.

8.12 UPnP

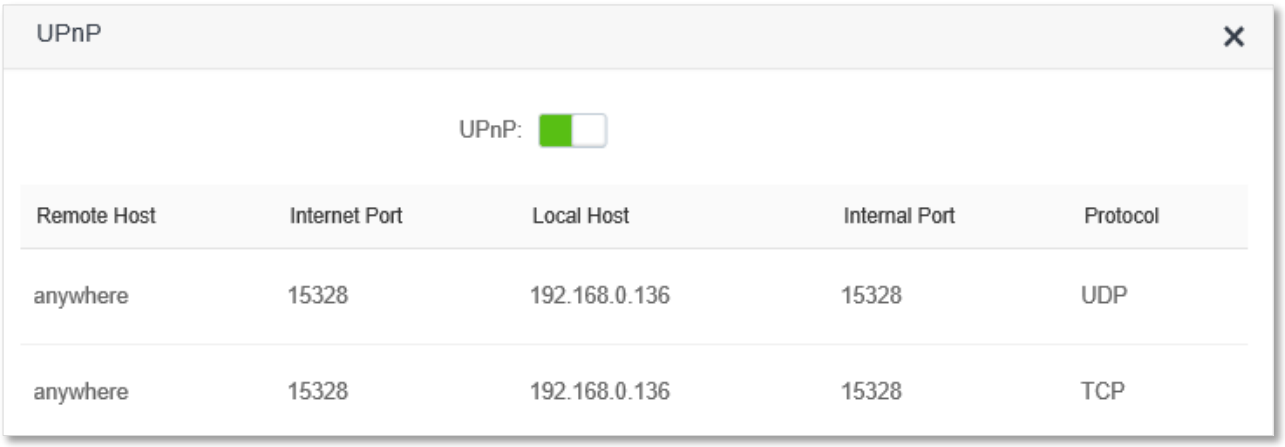
Universal Plug and Play (UPnP). This function enables the router open port automatically for UPnP-based programs. It is generally used for P2P programs, such as BitComet and AnyChat, and helps increase the download speed.

To access the configuration page, log in to the web UI, 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.



9 System settings

9.1 LAN settings

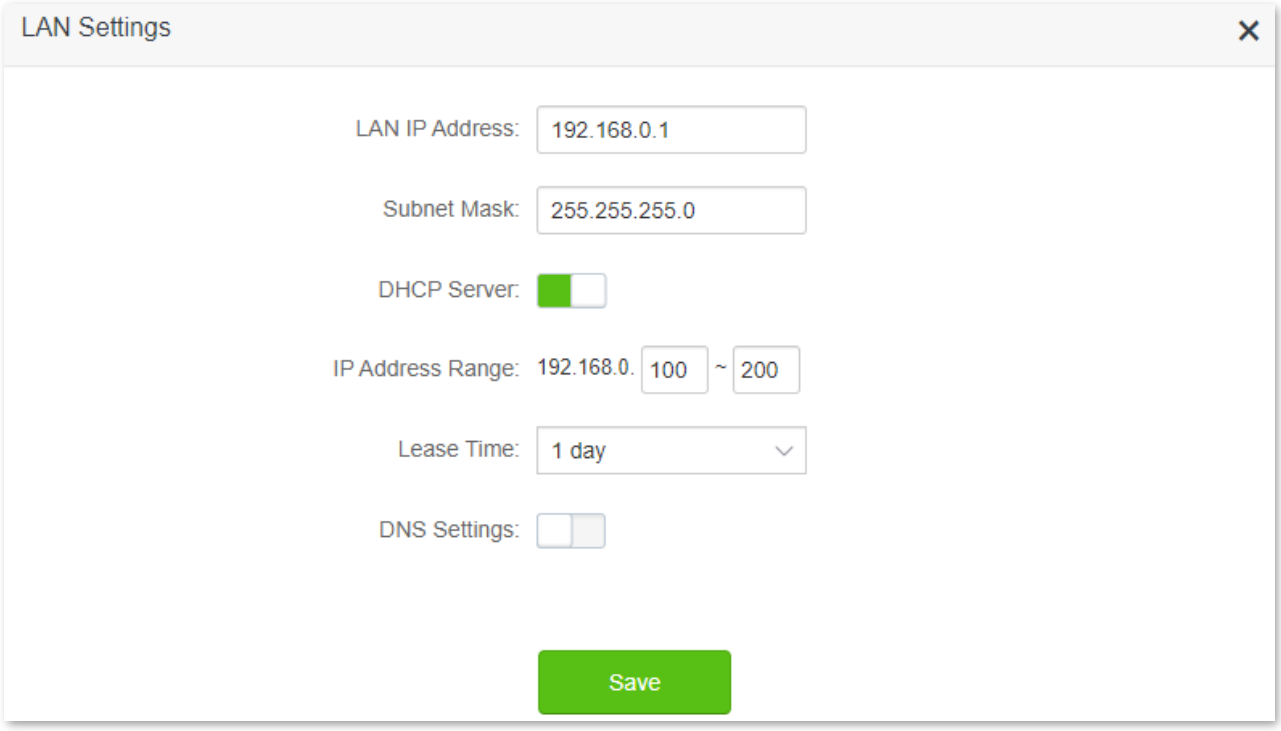
9.1.1 Overview

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

On this page, you can:

- **Change the LAN IP address and subnet mask of the router.**
- **Change the DHCP server parameters of the router.**

  The DHCP server can automatically assign the IP address, subnet mask, gateway and other information to clients within the LAN. If you disable this function, you need to manually configure the IP address information on the client to access the Internet. Do not disable the DHCP server function unless necessary
- **Configure the DNS information assigned to clients.**

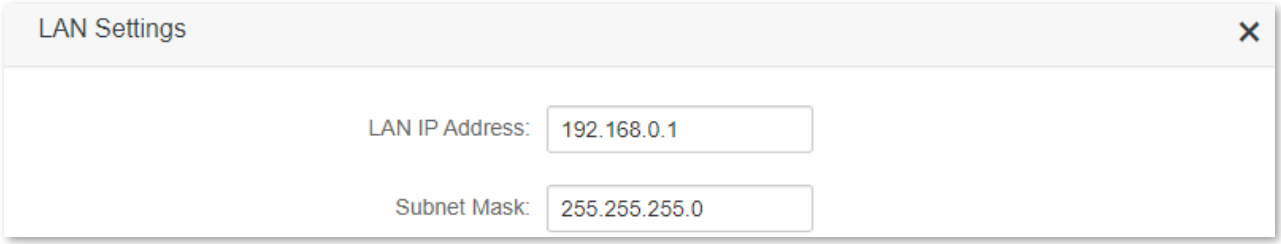


Parameter description

Parameter		Description
LAN IP Address		Specifies the LAN IP address of the router, which is also the management IP address for logging in to the web UI of the router.
Subnet Mask		Specifies the subnet mask of the LAN port, used to identify the IP address range of the local area network.
DHCP Server	IP Address Range	Specifies the range of IP addresses that can be assigned to devices connected to the router. The default range is 192.168.0.100 to 192.168.0.200.
	Lease Time	Specifies the valid duration of the IP address that is assigned to a client. When the lease time reaches half, the client will send a DHCP Request to the DHCP server for renewal. If the renewal succeeds, the lease is renewed based on the time of the renewal application; if the renewal fails, the renewal process is repeated at 7/8 of the lease period. If it succeeds, the lease is renewed based on the time of the renewal application. If it still fails, the client needs to reapply for IP address information after the lease expires. It is recommended to keep the default value.
DNS Settings	Primary DNS Server	Specifies the primary DNS address of the router, which is assigned to the clients. You can change it as required. TIP Make sure 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 address of the router used to assign to the clients. It is an optional field and is left blank by default.

9.1.2 Modify LAN IP address

The LAN IP address is the LAN port's IP address of this router, it is also the management IP address of the router. The user in the local area network can use this IP address to log in to the web UI of the router. By default, the LAN port's IP address of this router is 192.168.0.1, and the subnet mask is 255.255.255.0.



TIP

In case of IP address conflict, for example, if the WAN port IP obtained by the router and its LAN port IP is in the same network segment, the LAN port IP segment will be automatically incremented by 1, for example, 192.168.0.1 will be changed to 192.168.1.1.

Generally, you do not need to modify the LAN IP address of the router. When there are other network management devices on the LAN, the IP address needs to be set to 192.168.0.*X*. You can modify the IP address of the LAN port and 192.168.0.*X* are not in the same network segment.

Assume that you want to modify the router login address to 192.168.0.111 and keep the default subnet mask.

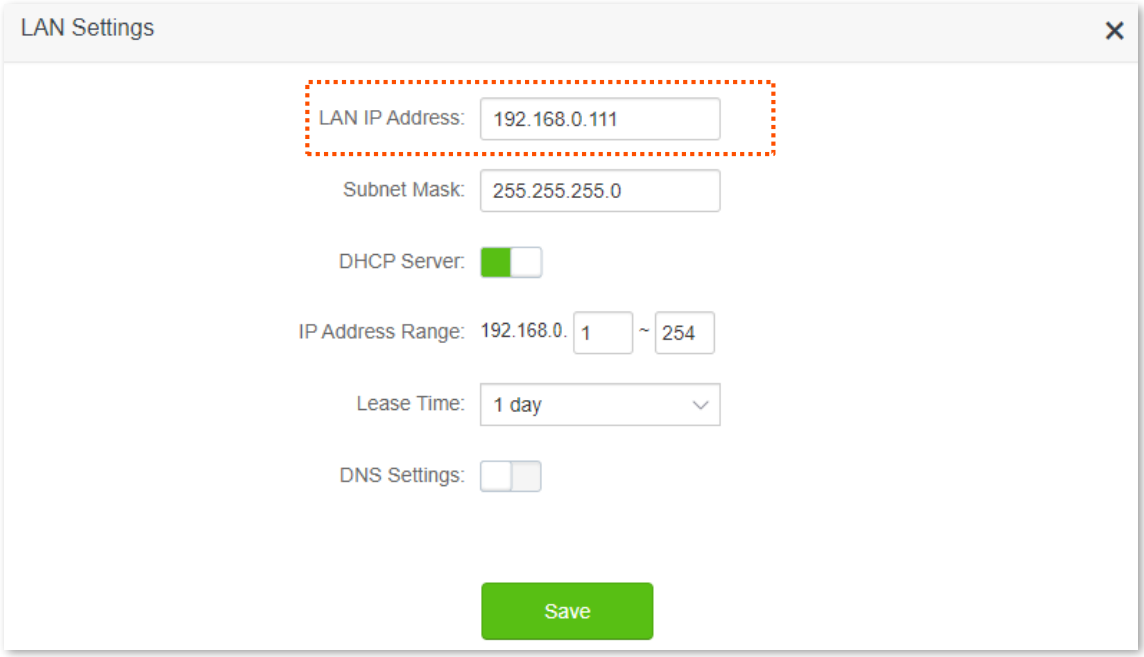
Procedure:

Step 1 Log in to the web UI.

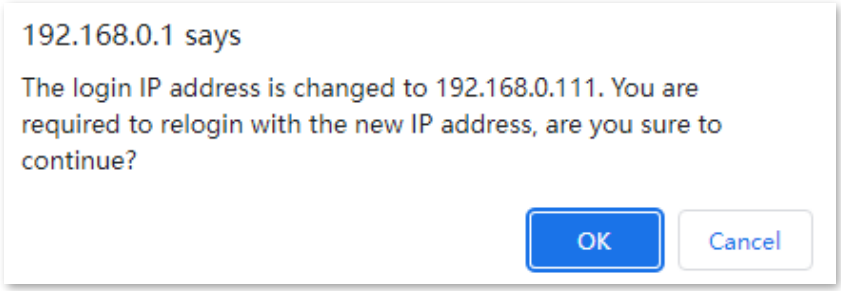
Step 2 Navigate to **System Management** > **LAN Settings**.

Step 3 Modify the LAN IP address, which is **192.168.0.111** in this example.

Step 4 Click **Save**.



Step 5 Click **OK** in the pop-up window.



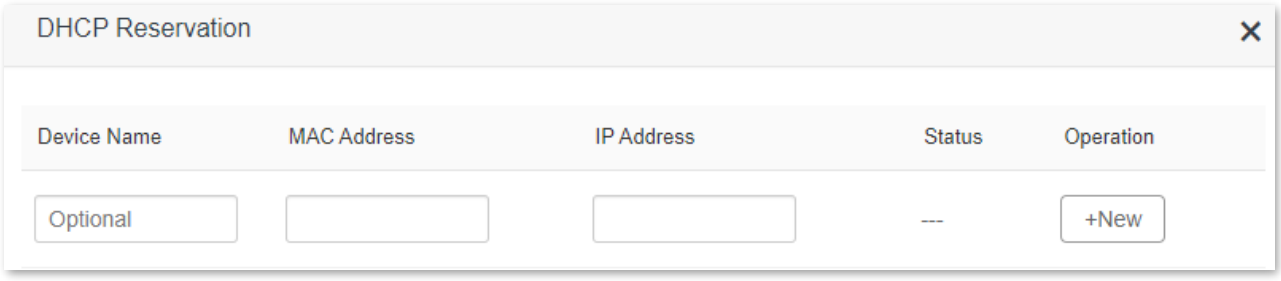
---End

9.2 DHCP reservation

9.2.1 Overview

Through the DHCP reservation function, specified clients can always obtain the same IP address when connecting to the router, ensuring that the router's "Virtual server", "DDNS", "DMZ host" and other functions can function normally. This function takes effect only when the DHCP server function of the router is enabled.

To access the configuration page, log in to the web UI, and navigate to **System Settings** > **DHCP Reservation**.



Parameter description

Parameter	Description
Device Name	Specifies the device name of the client.
MAC Address	Specifies the MAC address of the client.
IP Address	Specifies the IP address reserved for the client.
Status	Specifies whether the client is online or not.
Operation	The available options include: • +New: Used to add a new DHCP reservation rule. • 🔗: Used to bind the MAC address to the reserved IP address. • 🔗: Used to unbind the MAC address from the reserved IP address. • 🗑: Used to delete the DHCP reservation rule.

9.2.2 Assign static IP addresses to LAN clients

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

Goal: Assign a fixed IP address to the host of the FTP server and prevent the failure of access to the FTP server owing to the change of IP address.

Solution: You can configure the DHCP reservation function to reach the goal.

Assume that the information of the FTP server includes:

- The fixed IP address for the server: 192.168.0.101
- MAC address of the FTP server host: D4:61:DA:1B:CD:89

Procedure:

Step 1 Log in to the web UI.

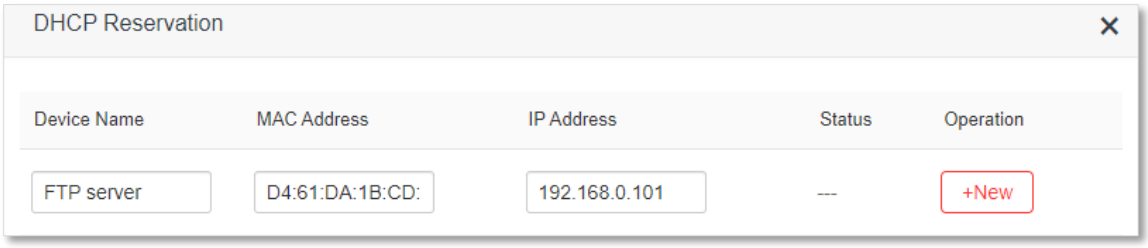
Step 2 Navigate to **System Settings** > **DHCP Reservation**.

Step 3 (Optional) Enter the **Device Name** for the host, which is **FTP server** in this example.

Step 4 Enter the **MAC Address** of the host, which is **D4:61:DA:1B:CD:89** in this example.

Step 5 Enter the **IP Address** reserved for the host, which is **192.168.0.101** in this example.

Step 6 Click **+New**.



---End

After the configuration is completed, the page is shown below and the FTP server host always gets the same IP address when connecting to the router, which is 192.168.0.101 in this example.

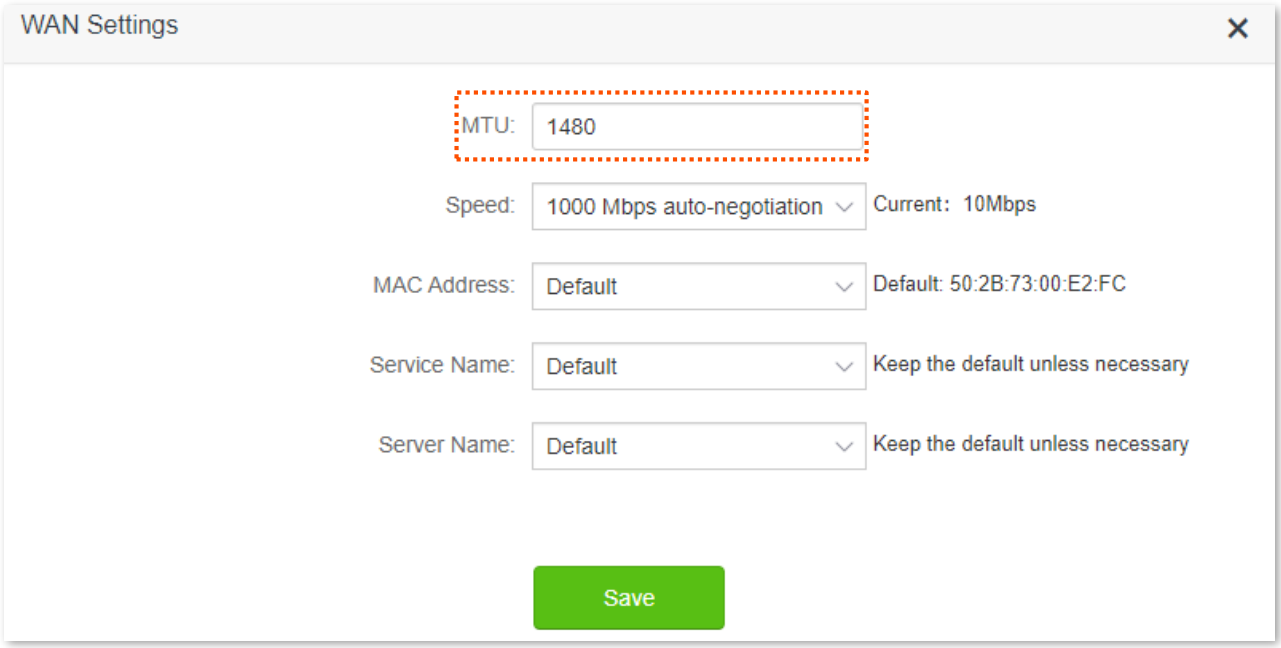
9.3 WAN settings

In the WAN settings module, you can check and modify MTU value, WAN speed, duplex mode, MAC address, service name and server name.

9.3.1 Change MTU value

The Maximum Transmission Unit (MTU) is the largest data packet transmitted by a network device. When the connection type is PPPoE, the default MTU value is 1480. When the connection type is the dynamic IP address or static IP address, the default MTU value is 1500. Do not change the value unless necessary. If you need to, please refer to the following instructions.

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



Generally, the default value is recommended. 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

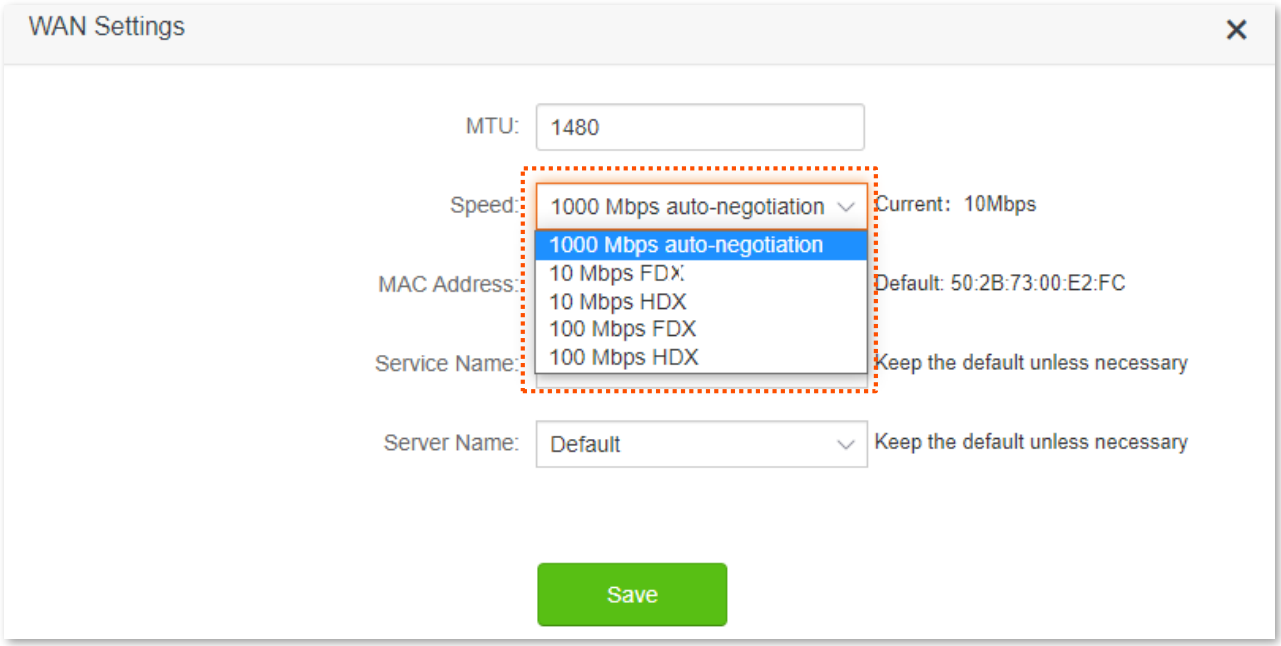
MTU	Application
1500	Used for non-ADSL and non-VPN dial-up connections.
1492, 1480	Used for ADSL dial-up connections.
1472	It is the maximum value for the ping command. A packet with a larger size is fragmented.
1468	Used for DHCP connections.

MTU	Application
1436	Used for VPN or PPTP connections.

9.3.2 Change the WAN speed and duplex mode

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

When the Ethernet cable is intact and connected to the WAN port properly, but **Ethernet cable disconnected** is still shown on the **Internet Settings** page, you can try to change the **Speed** to **10 Mbps FDX** or **10 Mbps HDX** to solve the problem. Otherwise, keep the default settings.



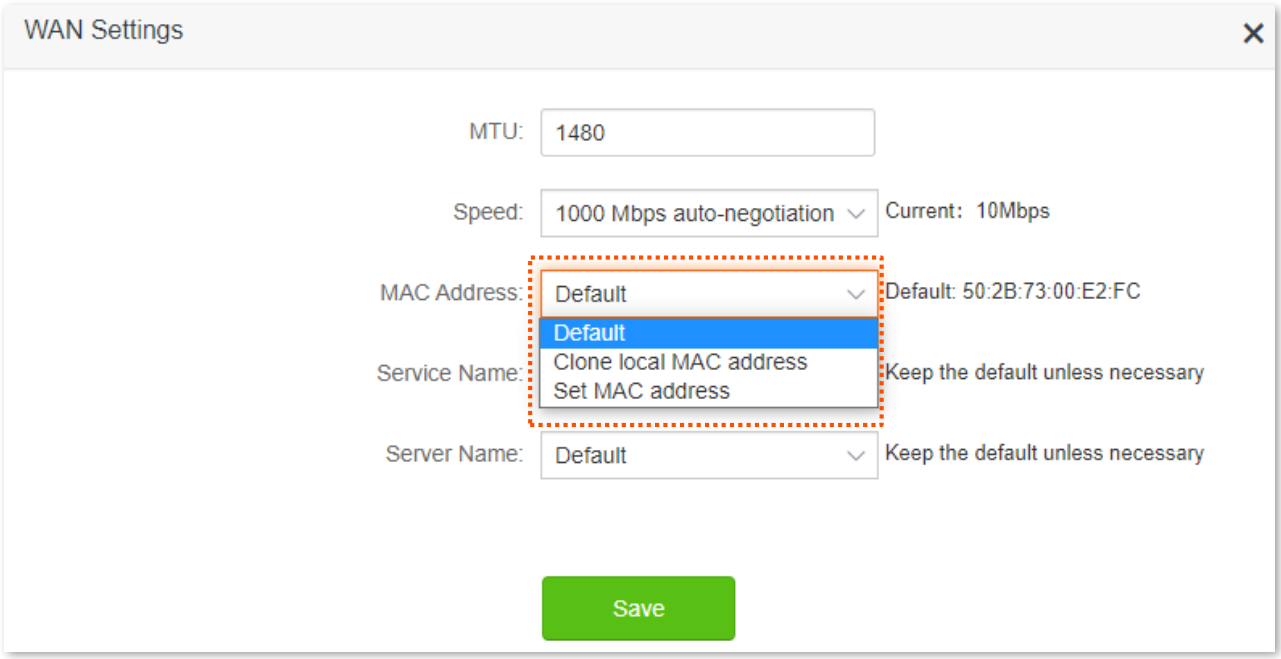
MTU parameter description

MTU	Description
1000 Mbps auto-negotiation	Indicates that the speed and duplex mode are determined through negotiation with the peer port.
10 Mbps FDX	10 Mbps Full Duplex. It 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	10 Mbps Half Duplex. It indicates that the WAN port is working at the speed of 10 Mbps, but the port can only receive or send data packets alternately.
100 Mbps FDX	100 Mbps Full Duplex. It 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	100 Mbps Half Duplex. It indicates that the WAN port is working at the speed of 100 Mbps, but the port can only receive or send data packets alternately.

9.3.3 Change the MAC address of the WAN port

If you still cannot access the internet after completing Internet settings, it could be the result of the ISP's configuration to bind the internet account information with a fixed MAC address. In this case, you can clone and change the MAC address of the router to solve the problem.

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



- **Default**: Keep the factory setting of the MAC address.
- **Clone local MAC address**: Set the MAC address of the router to the same as that of the device which is configuring the router.
- **Set MAC address**: Manually set a MAC address.

NOTE

Please ensure the cloned MAC address is that of the computer or the router which is already able to access the internet.

Procedure:

Step 1 Log in to the web UI.

Step 2 Navigate to **System Settings** > **WAN Settings.**

Step 3 Click the drop-down box of **MAC Address**, select **Clone local MAC address**, or **Set MAC address** and enter the desired MAC address.

Step 4 Click **Save**.

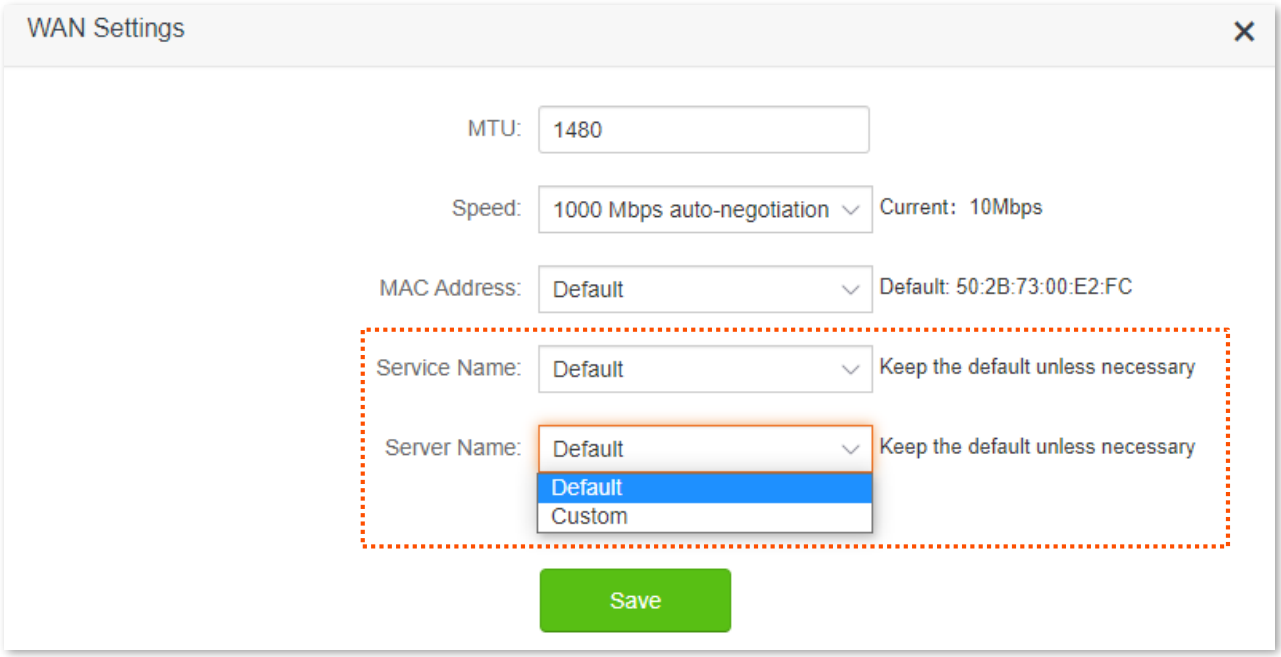
---End

9.3.4 Change the service name and server name

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

Only when the connection type is PPPoE, you may need to change the service name and server name of the broadband service.

If you obtain the service name and server name from your ISP when purchasing the broadband service, you can change them on this page after completing the internet settings. Otherwise, keep the default settings.



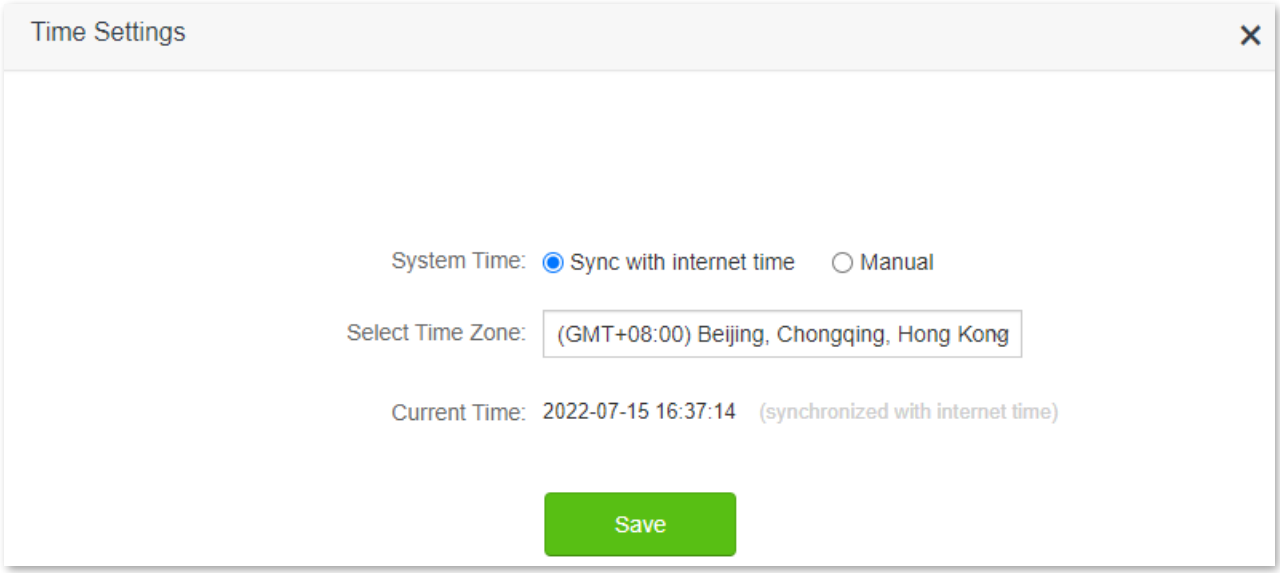
9.4 Time settings

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

You can change the time settings on this page. The functioning of functions based on time requires an accurate system time. The system time of the router can be synchronized with the internet or set manually. By default, it is synchronized with the internet.

9.4.1 Sync system time with the internet time

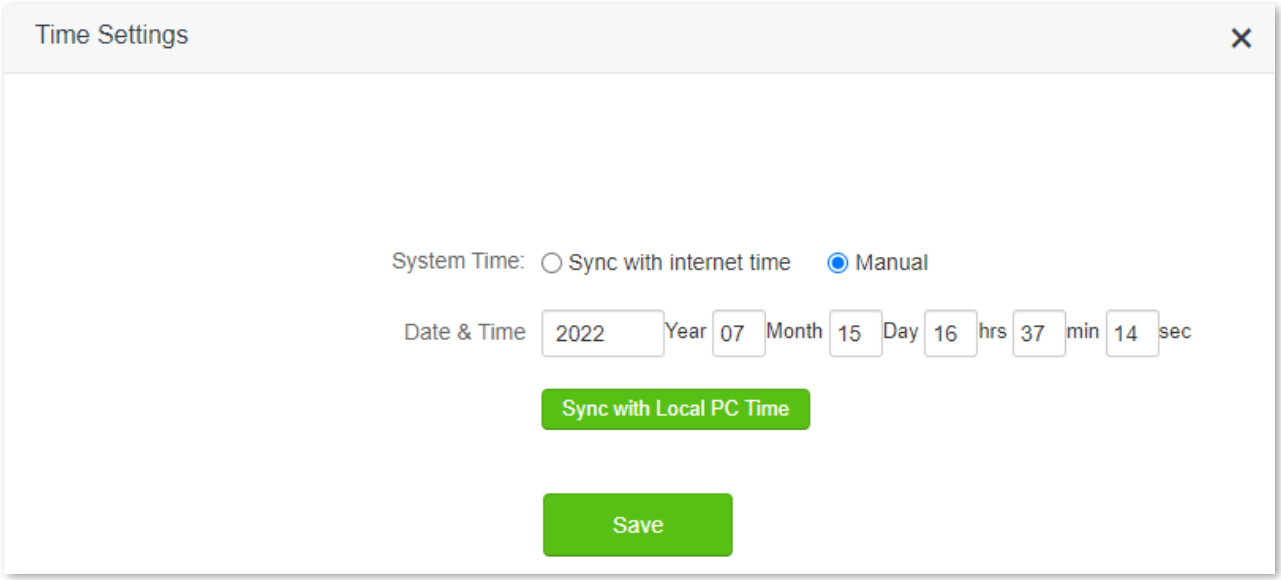
Under this mode, the router will automatically sync its time with the internet time when it is connected to the internet. You can also choose the time zone to be synchronized.



9.4.2 Set the time manually

When the system time is set to **Manual**, you can enter the desired time or click **Sync with Local PC Time** to sync the system time of the router with the device that is configuring the router. Besides, you need to correct it every time after you reboot the router to ensure the accuracy of system time.

After the settings are completed, you can navigate to **Internet Status** > **System Status** to check whether the system time is correct.

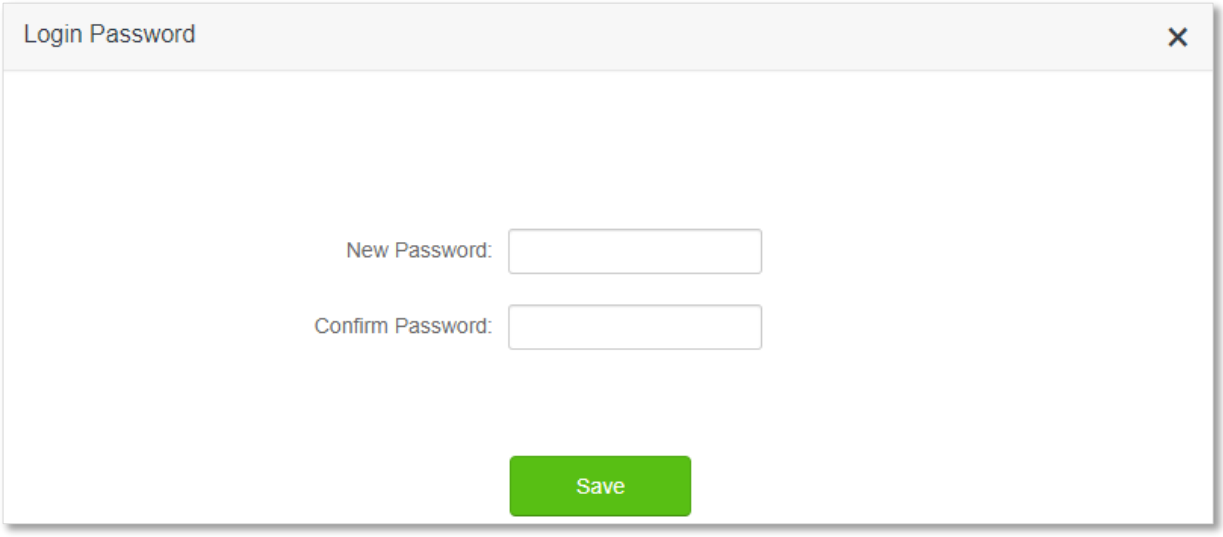


9.5 Login password

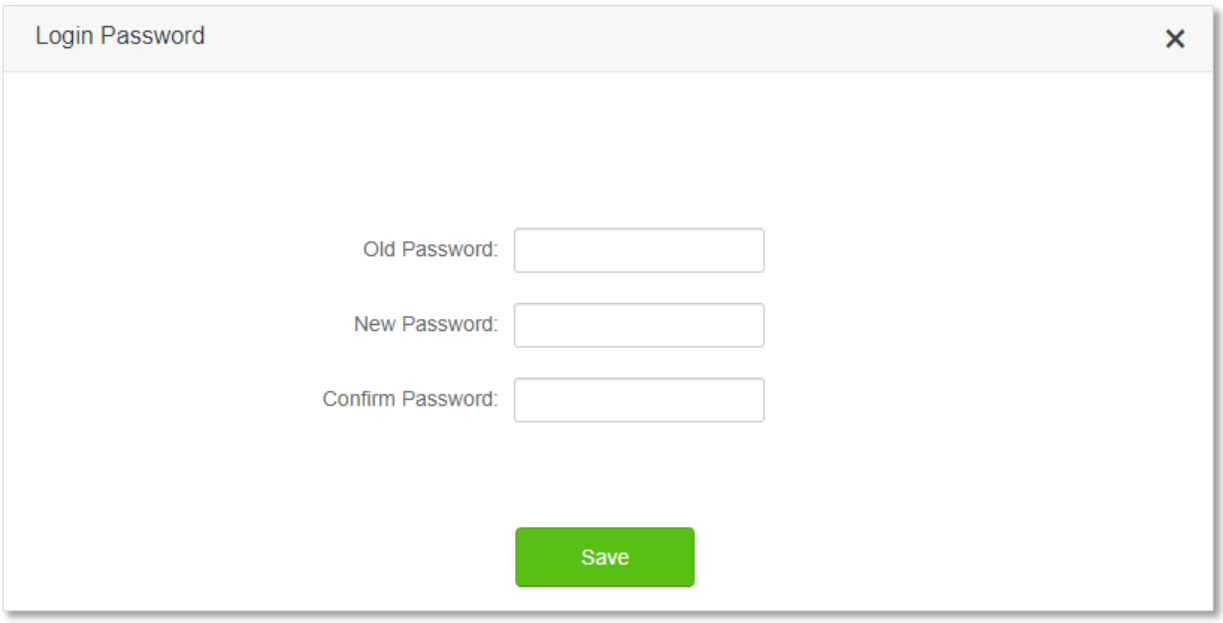
To ensure network security, a login password is recommended. A login password consisting of more types of characters, such as uppercase letters and lowercase letters, brings higher security.

To access the login password configuration page, log in to the web UI, and navigate to **System Settings** > **Login Password**.

When you use the router for the first time, no password is required to log in to the web UI of the router and you can set a login password on this page.



If you have already set a login password, you can change the password on this page and the old password is required.



TIP

If you forget your login password and cannot log in to the web UI of the router, refer to Reset the router to restore the router to factory settings and log in to the web UI without a password.

9.6 Reboot and reset

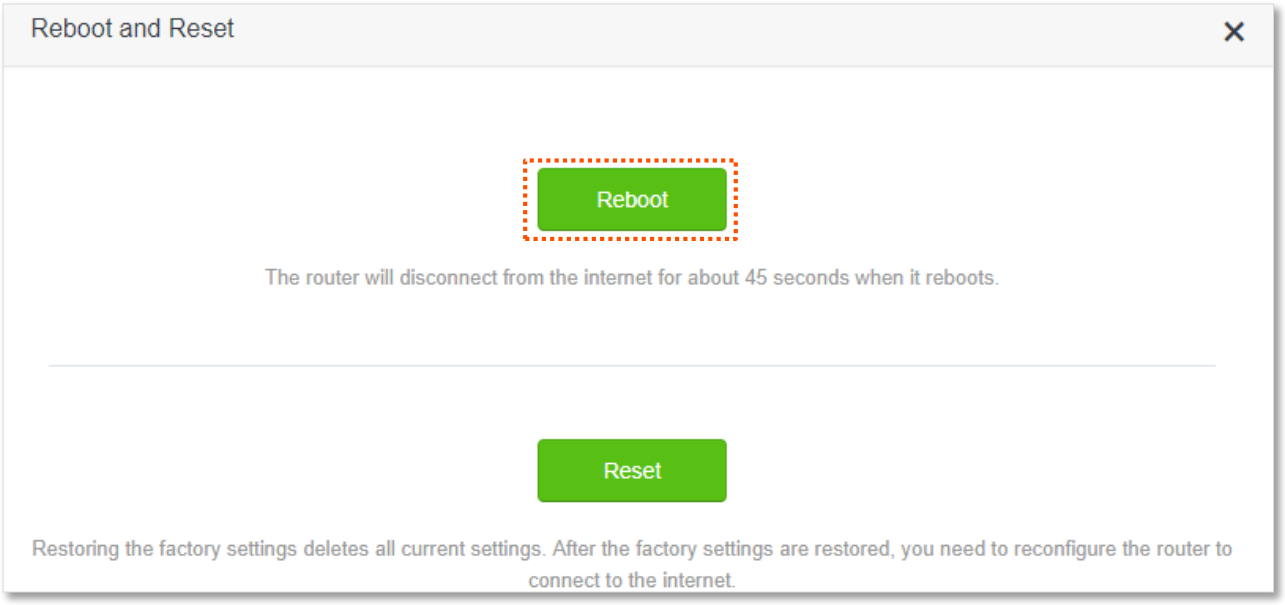
9.6.1 Reboot the router

If any parameter fails to take effect or the router does not work properly, you can try rebooting the router.

TIP

Rebooting the router will disconnect all connections to the router. Reboot the router during leisure time.

To reboot the router, log in to the web UI, and navigate to **System Settings** > **Reboot and Reset**. Click **Reboot** to reboot the router.



Wait for a moment until the ongoing process finishes.

9.6.2 Reset the router

If you are uncertain about why the internet is inaccessible through the router or you forget the login password of the router, you can reset the router.

NOTE

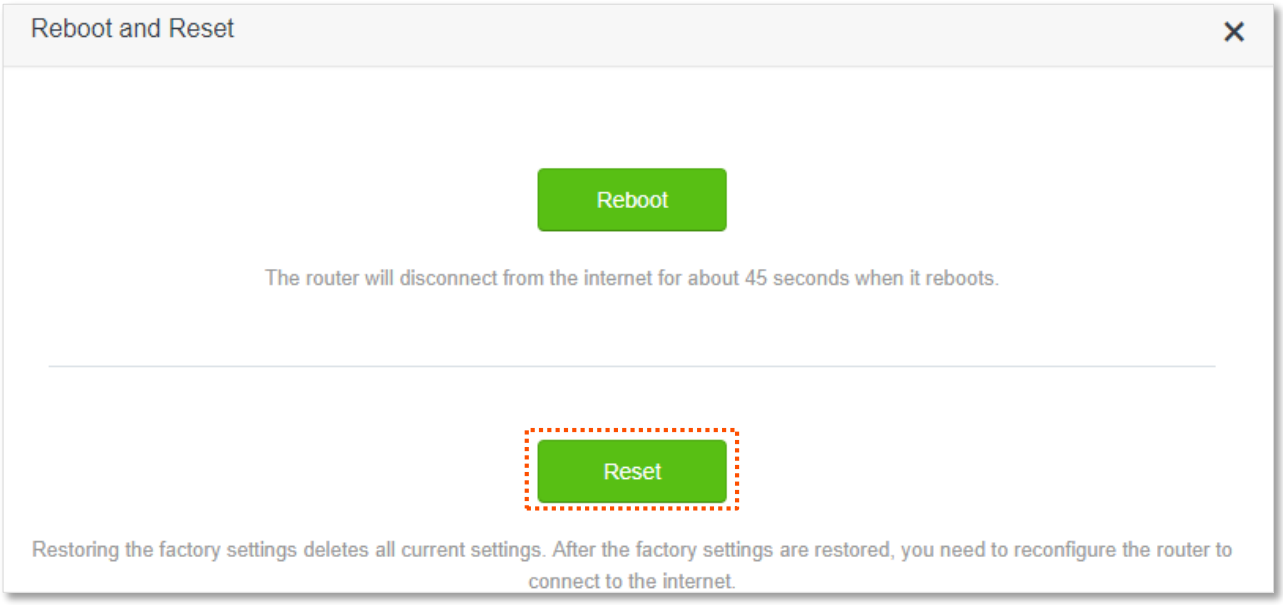
- Resetting the router is not recommended unless you cannot find a solution for the current problem anyway. You need to reconfigure the router after it is reset.
- Ensure that the power supply of the router is normal when the router is reset. Otherwise, the router could be damaged.
- The default login IP address is 192.168.0.1 after resetting, and no password is required.

Reset the router using the reset button

When the SYS LED indicator blinks, hold down the button for about 8 seconds, and then release it when all the LED indicators light up. The router is restored to factory settings.

Reset the router on the web UI

To reset the router, log in to the web UI, navigate to **System Settings** > **Reboot and Reset**, and click **Reset**.



Wait for a moment until the ongoing process finishes.

9.7 Upgrade firmware

This function enables the router to obtain the latest functions and more stable performance. The router supports online firmware upgrade and local firmware upgrade.

9.7.1 Online upgrade

When the router is connected to the internet, it auto-detects whether there is a new firmware and displays the detected information on the page. You can choose whether to upgrade to the latest firmware.

Procedure:

Step 1 Log in to the web UI.

Step 2 Navigate to **System Settings** > **Firmware upgrade**.

Step 3 Wait until a new firmware version is detected.

Step 4 Click **Update**.

---End

Wait for a moment until the ongoing process finishes. Log in to the web UI of the router again. Navigate to **System Settings** > **System Status** and check whether the upgrade is successful based on the **Firmware Version**.

TIP

For better performance of the new firmware of the router, you are recommended to reset the router to factory default settings and re-configure the router when the upgrading is completed.

9.7.2 Local upgrade

NOTE

To prevent the router from being damaged:

- Ensure that the firmware applies to the router.
- It is recommended to upgrade the firmware by connecting a LAN port to a computer and performing the upgrade on the web UI.
- When you are upgrading the firmware, do not power off the router.

Procedure:

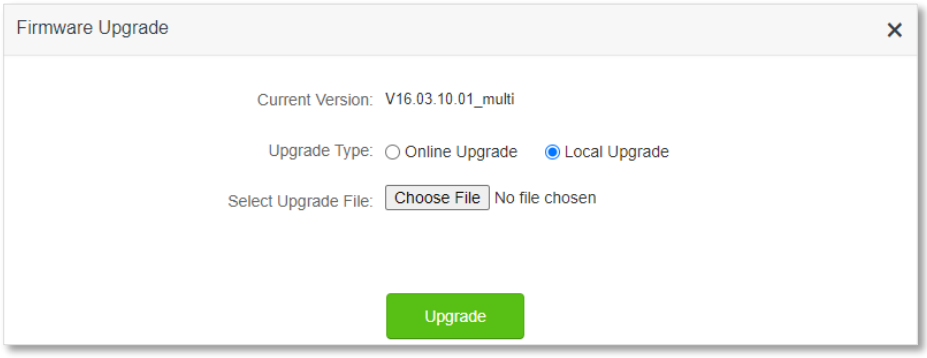
Step 1 Go to www.tendacn.com. Download an applicable firmware of the router to your local computer and unzip it.

Step 2 Log in to the web UI.

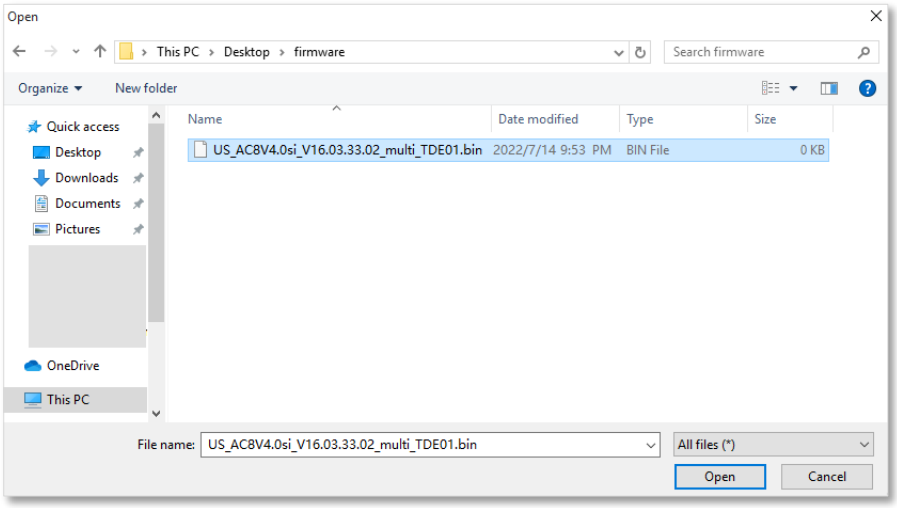
Step 3 Navigate to **System Settings** > **Firmware Upgrade.**

Step 4 Select **Local Upgrade**.

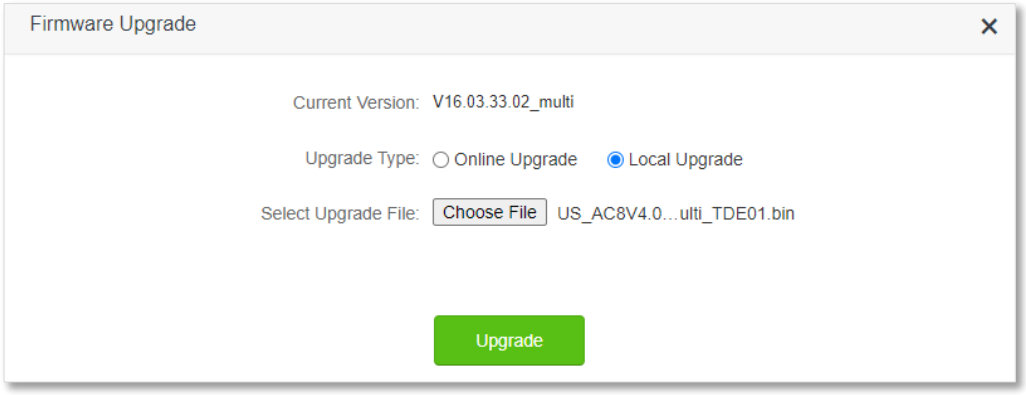
Step 5 Click **Choose File**.



Step 6 Target the firmware file downloaded previously (extension: bin), and click **Open**.



Step 7 Click **Upgrade**.



---End

Wait for a moment until the ongoing process finishes. Log in to the web UI of the router again. Navigate to **System Settings** > **System Status** and check whether the upgrade is successful based on the **Firmware Version**.

TIP

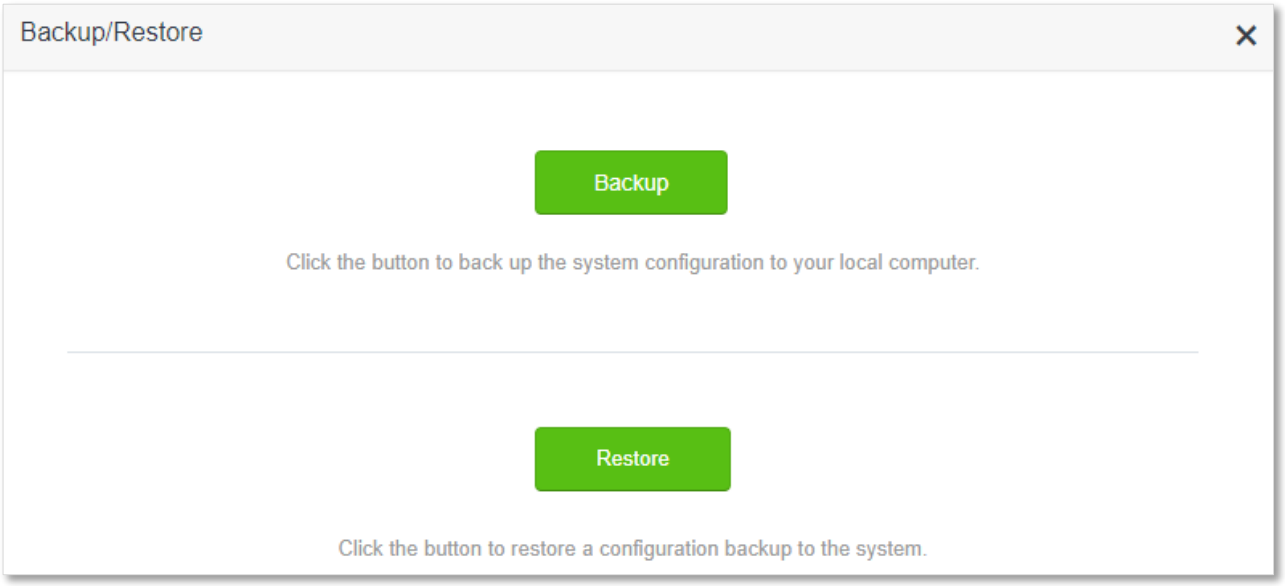
For better performance of the new firmware, you are recommended to reset the router to factory default settings and re-configure the router when the upgrading is completed.

9.8 Backup/Restore

In this module, you can back up the current configurations 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.

After you restore the router to factory settings or upgrade it, you can use this function to restore the configurations that have been backed up.

To access the configuration page, log in to the web UI, and navigate to **System Settings** > **Backup/Restore.**



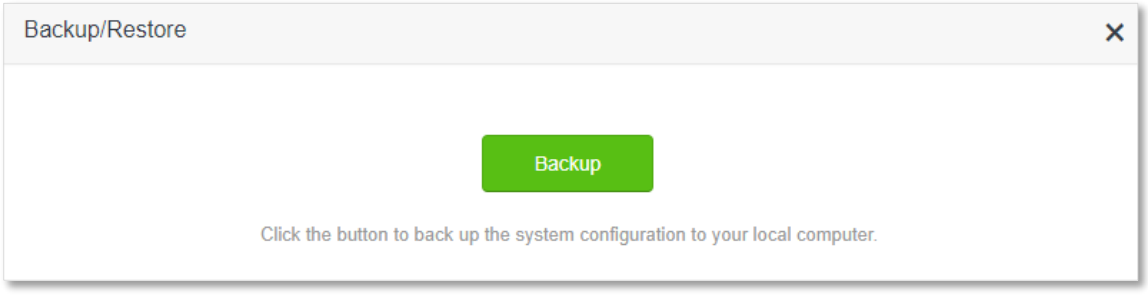
9.8.1 Backup the configurations of the router

Procedure:

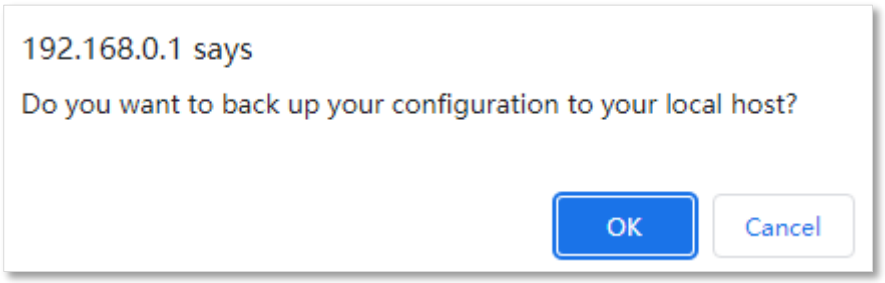
Step 1 Log in to the web UI.

Step 2 Navigate to **System Settings** > **Backup/Restore.**

Step 3 Click **Backup**.



Step 4 Click **OK** in the pop-up window.



---End

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

TIP

If a message like "RouterCfm.cfg is blocked because this type of file may damage your device." appears on the page, select **Keep**.

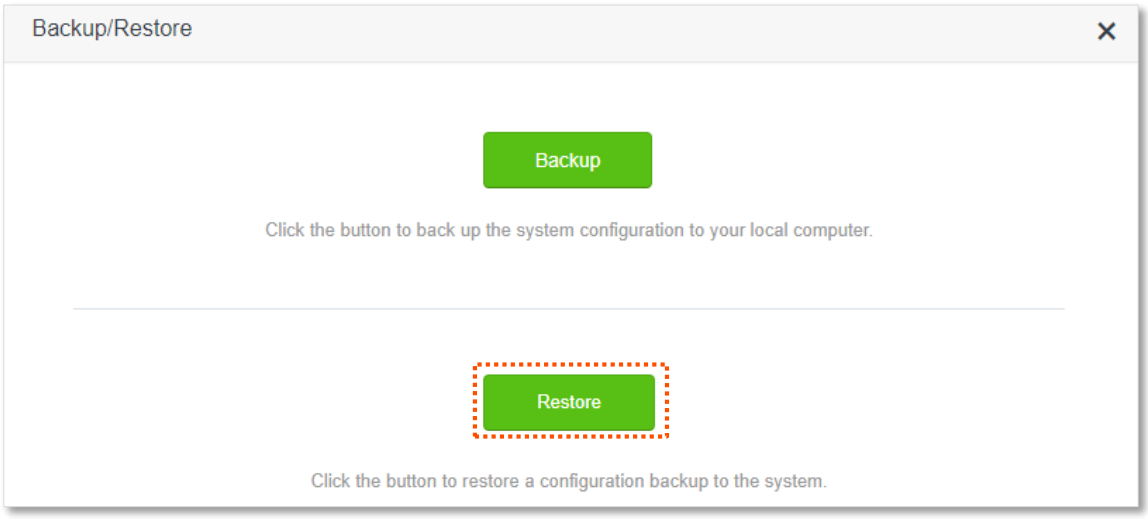
9.8.2 Restore previous configurations of the router

Procedure:

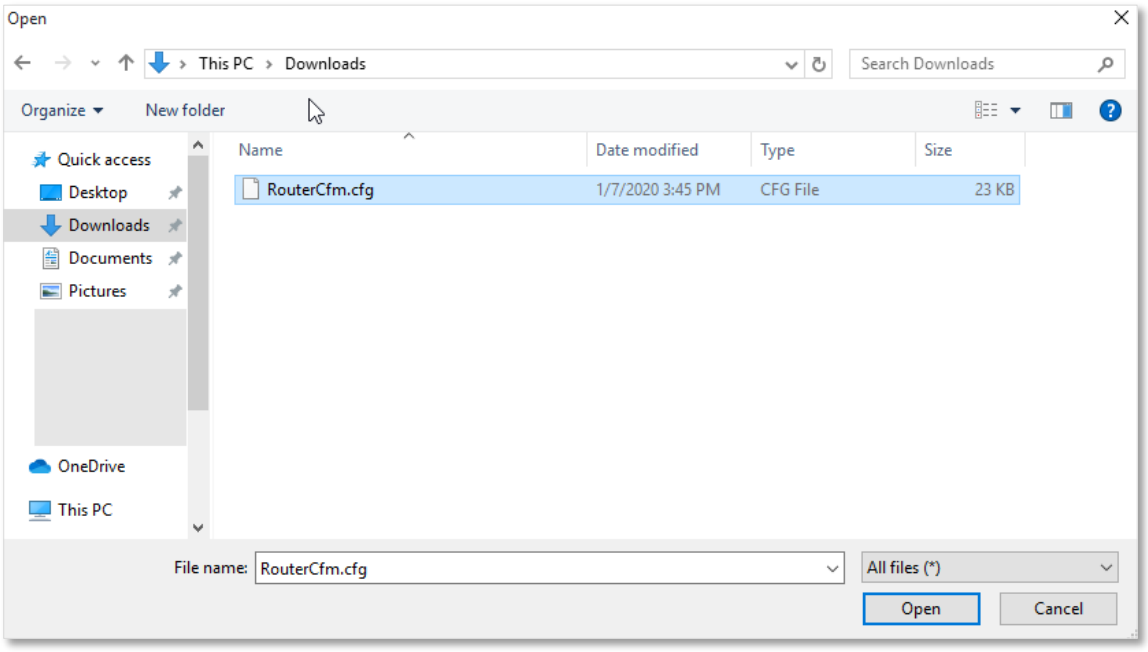
Step 1 Log in to the web UI.

Step 2 Navigate to **System Settings** > **Backup/Restore**.

Step 3 Click **Restore**.



Step 4 Select the configuration file to be restored (extension: cfg), and click **Open**.



---End

Wait for a moment until the ongoing process finishes, and the router restores previous settings.

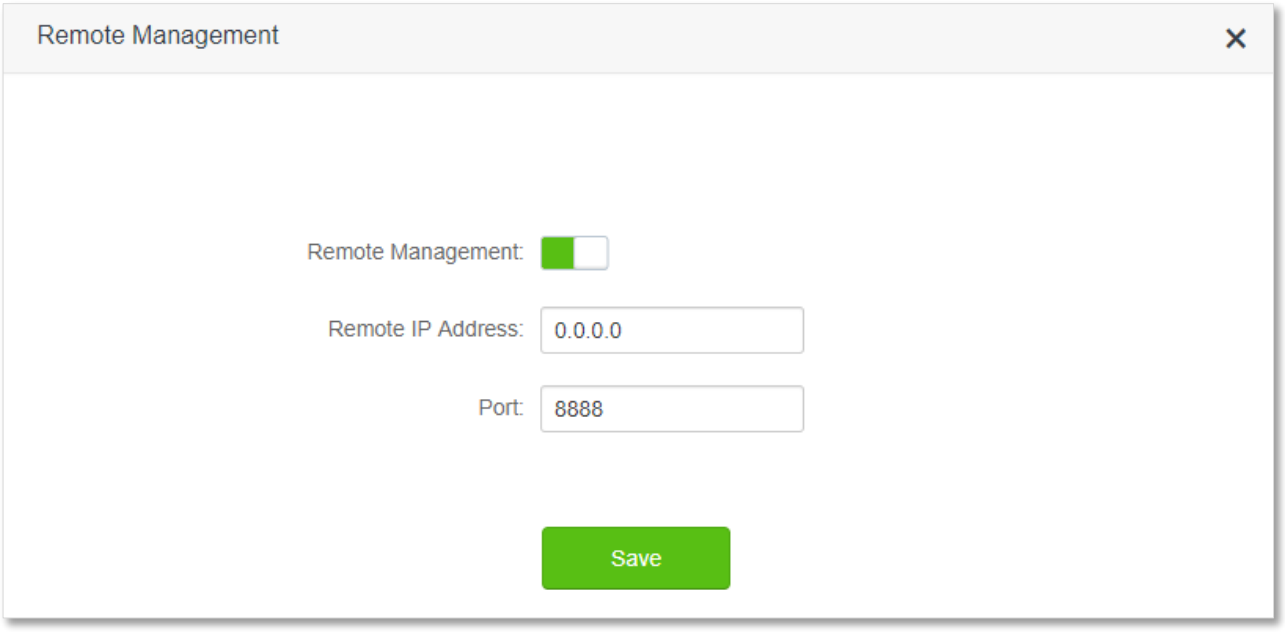
9.9 Remote management

9.9.1 Overview

Generally, the web UI of the router can only be accessed on devices that are connected to the router by a LAN port or wireless connection. When you encounter a network fault, you can ask for remote technical assistance, which improves efficiency and reduces costs and efforts.

To access the configuration page, log in to the web UI, and navigate to **System Settings** > **Remote Management.**

This function is disabled by default. When it is enabled, the page is shown as below.



Parameter description

Parameter	Description
Remote Management	Used to enable or disable the remote 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. • **0.0.0.0:** It indicates that hosts with any IP address from the internet can access the web UI of the router. It is not recommended for security. • **Other 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. Change it as required. TIP • The port number from 1 to 1024 has been occupied by familiar services. It is strongly recommended to enter a port number from 1025 to 65535 to prevent confliction • Remote management can be achieved by visiting “http://the WAN IP address of the router:port number”. If the DDNS host function is enabled, the web UI can also be accessed through “http://the domain name of the router’s WAN port:port number”.

9.9.2 Enable Tenda technical support to access and manage the web UI

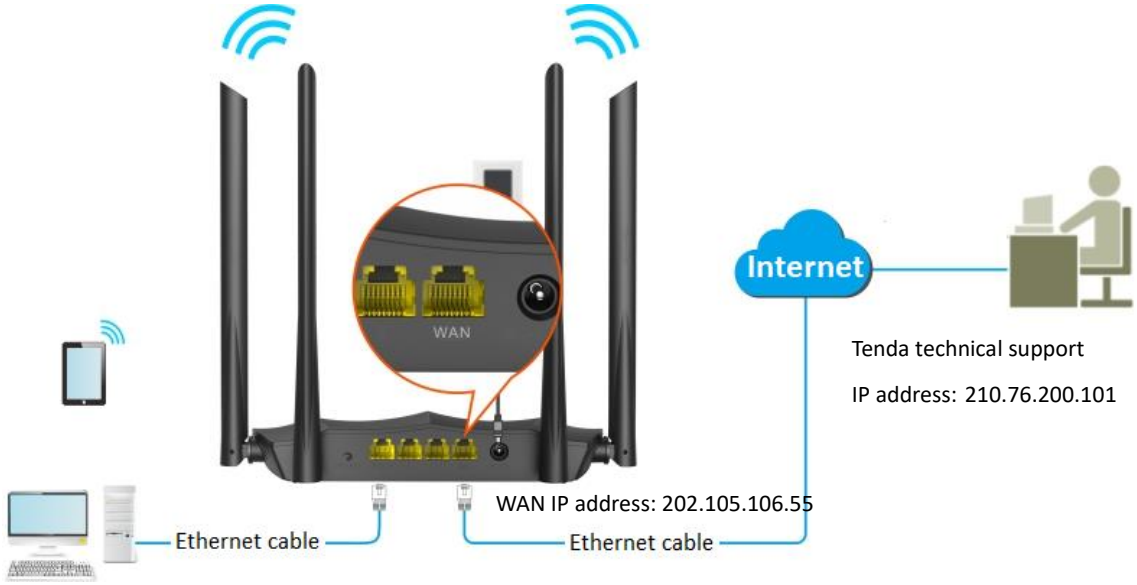
Scenario: You encounter a problem in configuring the router, and the router can access internet access.

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

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

Assume that:

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



Procedure:

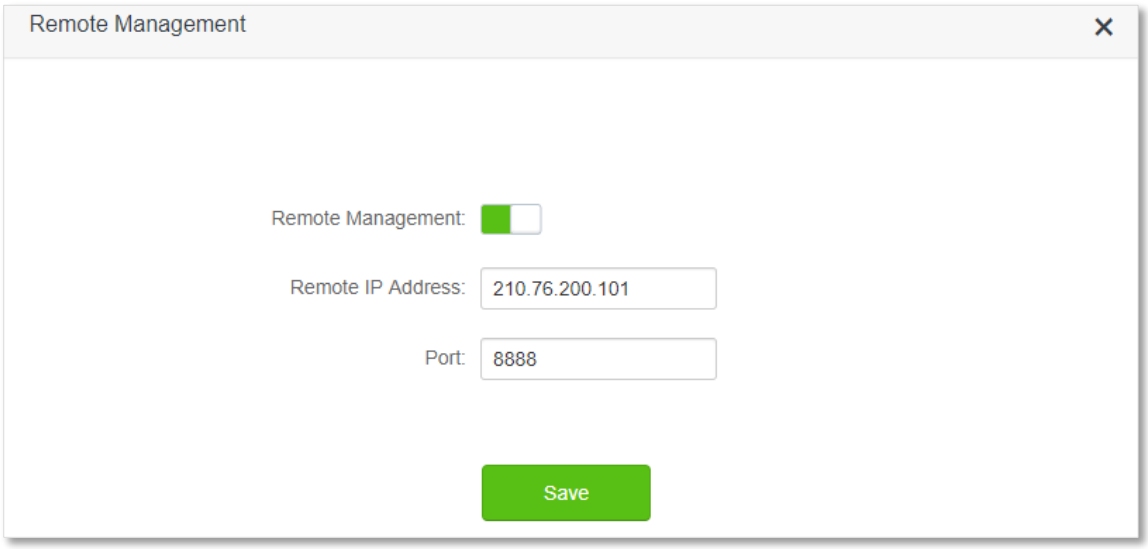
Step 1 Log in to the web UI.

Step 2 Navigate to **System Settings** > **Remote Management**.

Step 3 Enable the **Remote Management** function.

Step 4 Enter the IP address that is allowed to access the web UI remotely, which is **210.76.200.101** in this example.

Step 5 Click **Save**.



---End

When the configurations are completed, the Tenda technical support (IP address: 210.76.200.101) can access and manage the web UI of the router by visiting “http://202.105.106.55:8888” on the computer.

9.10 System status

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

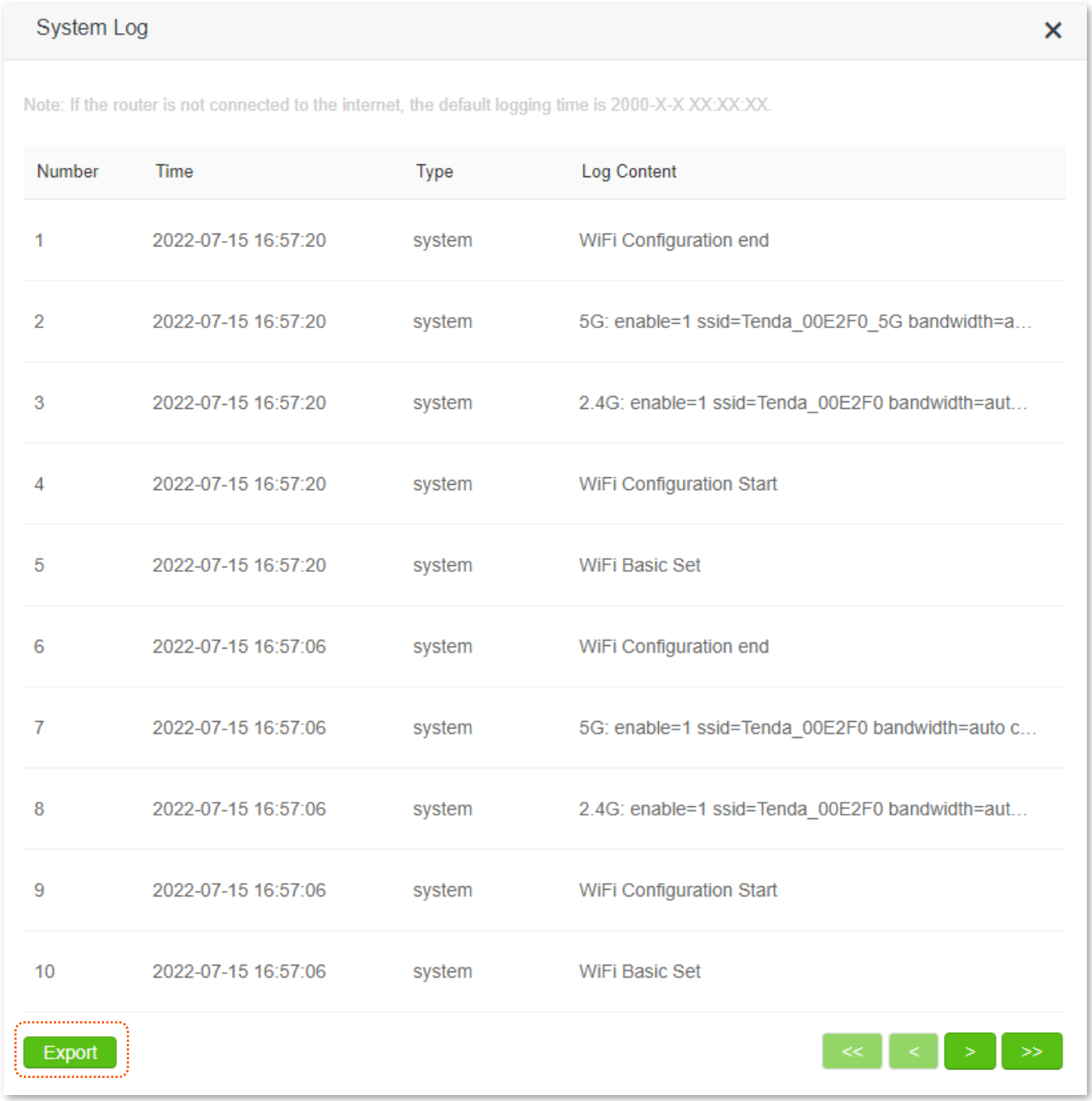
On this page, you can find the basic information about the router, WAN status, LAN status, WiFi status and IPv6 status. Refer to System information for details.

9.11 System log

To access the configuration page, log in to the web UI, 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.

If necessary, you can also export the system logs to your local computer by clicking **Export**.



TIP

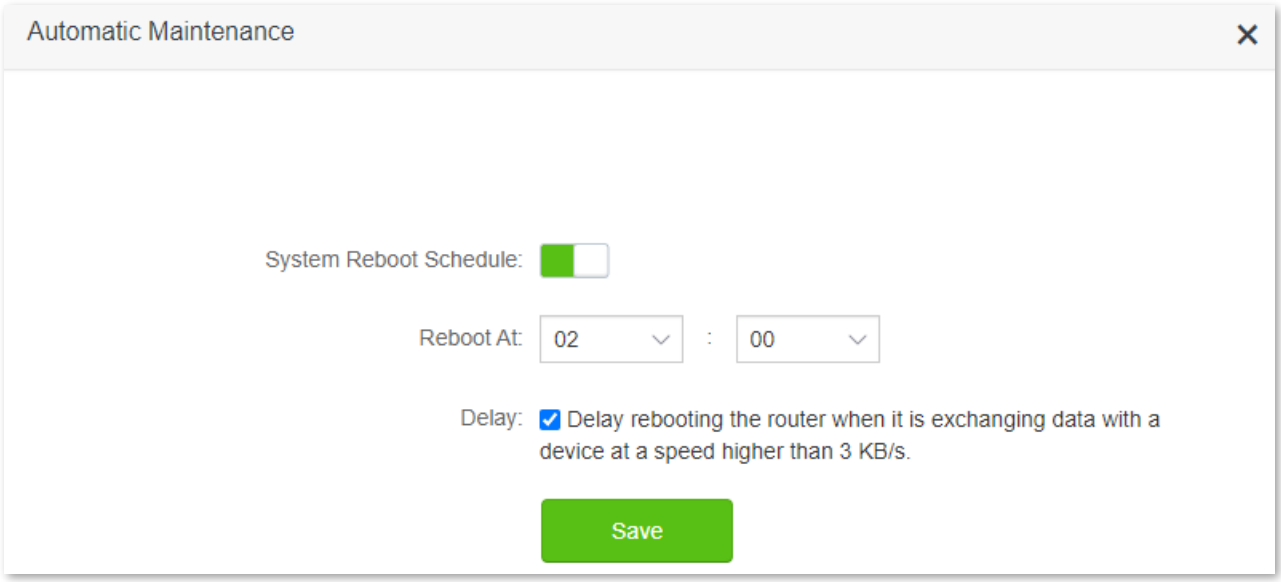
- Rebooting the router will clear all previous system logs.
- Operations such as power on the router, firmware upgrade, restore settings, and reset after a power failure will cause the router to reboot.

9.12 Automatic maintenance

Automatic maintenance enables you to make the router restart regularly. It helps improve the stability and service life of the router.

To access the configuration page, log in to the web UI, and navigate to **System Settings** > **Automatic Maintenance.**

This function is enabled by default.



Parameter description

Parameter	Description
System Reboot Schedule	Used to enable or disable the automatic reboot function.
Reboot At	Specifies the time when the router reboots automatically every day.
Delay	Used to enable or disable the delay function. • 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 within 30 minutes, the router will delay rebooting. If there is any user connected to the router and the traffic over the WAN port does not exceed 3 KB/s within 30 minutes, or there is no user connected to the router and the traffic over the router's WAN port is slower than 3 KB/s within 3 minutes, the router will reboot automatically. • Unticked: The function is disabled. The router reboots during sleeping time. TIP When the system reboot schedule function is enabled, the router detects the traffic over the WAN port continuously within 2 hours after the specified reboot time and reboots when the traffic requirement for rebooting is met.

Appendix

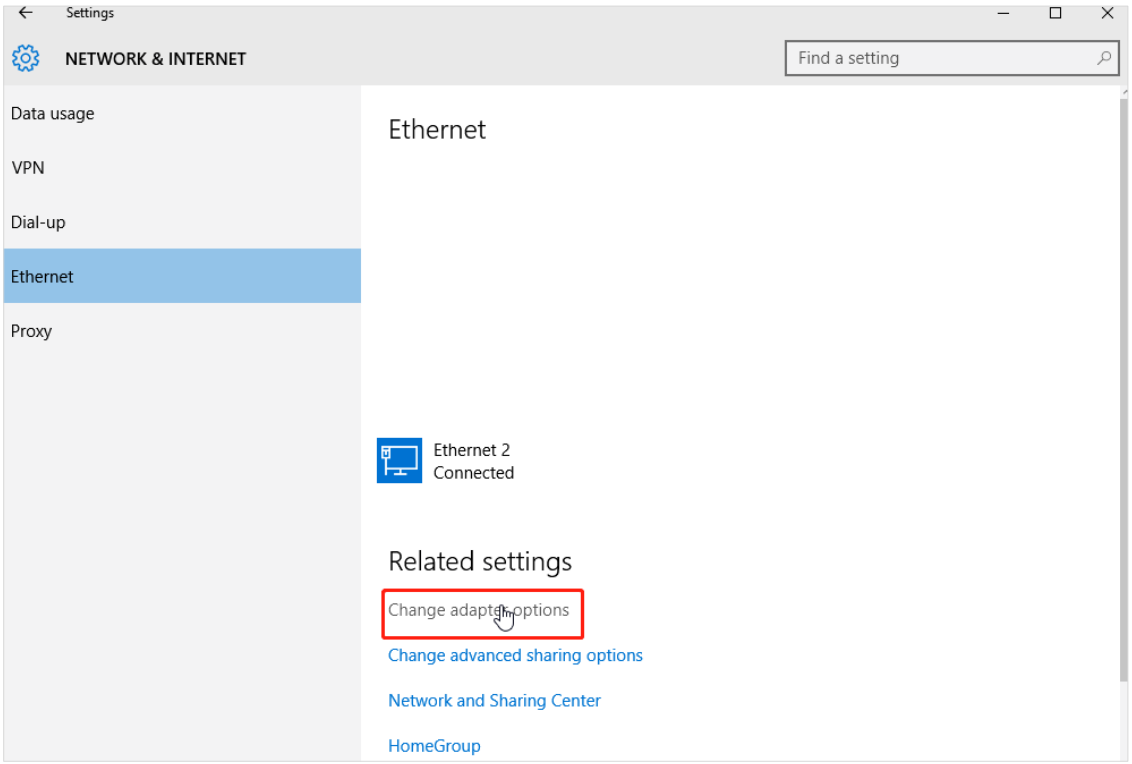
A.1 Configuring the computer to obtain an IPv4 address automatically

Perform the configuration procedures corresponding to Windows 10 and Windows 8 as required. A computer installed with a wired network adapter is used as an example to describe the procedures. The procedures for configuring computers installed with a WiFi network adapter are similar.

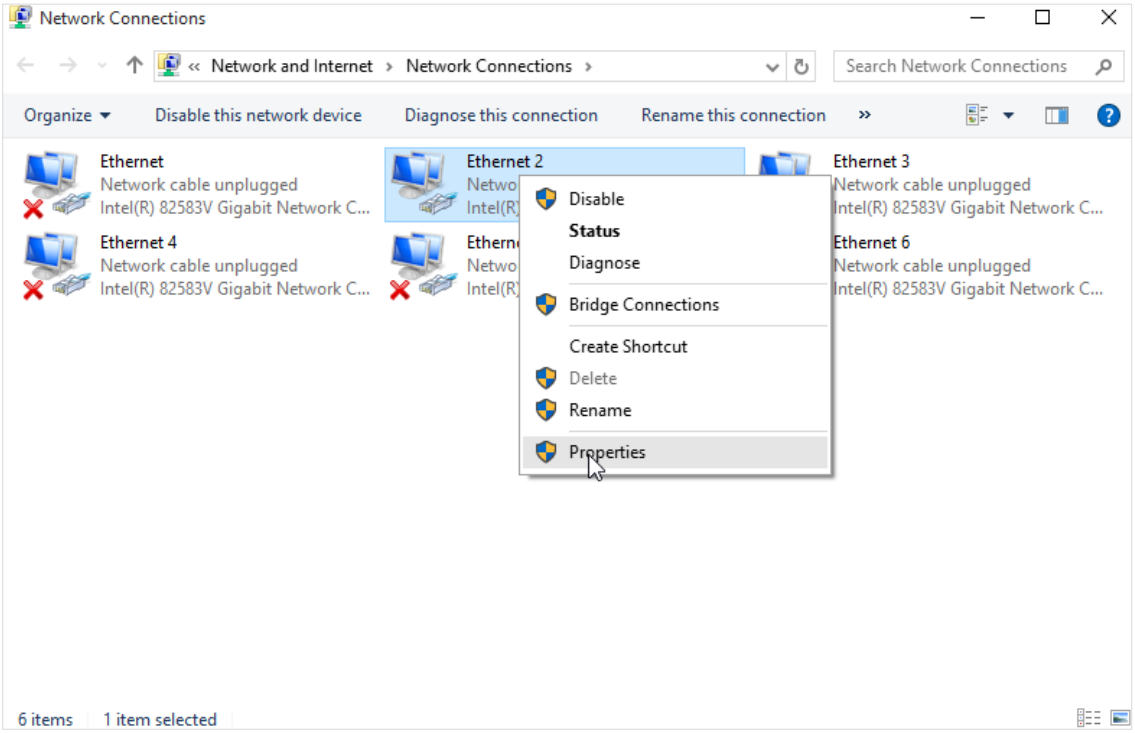
A.1.1 Windows 10

Step 1 Click  in the bottom right corner of the desktop and choose **Network settings**.

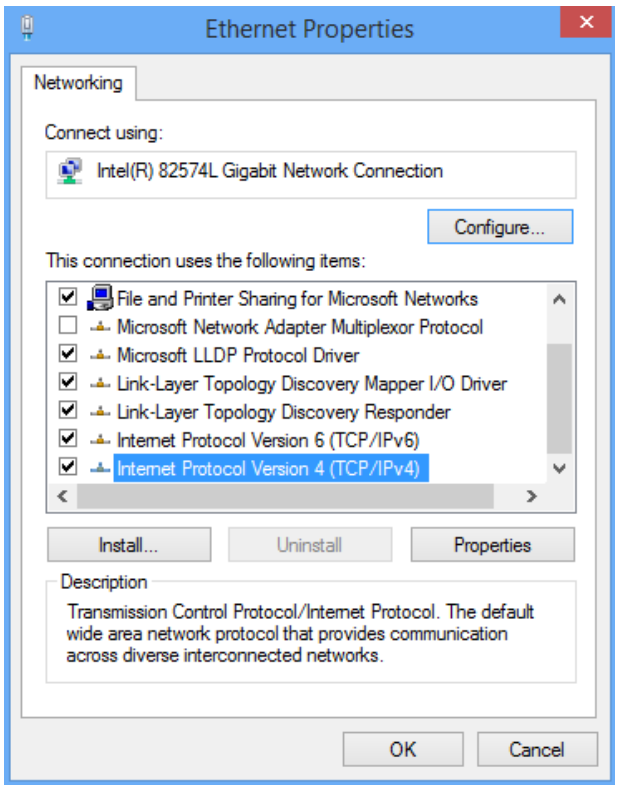
Step 2 Click **Change adapter options**.



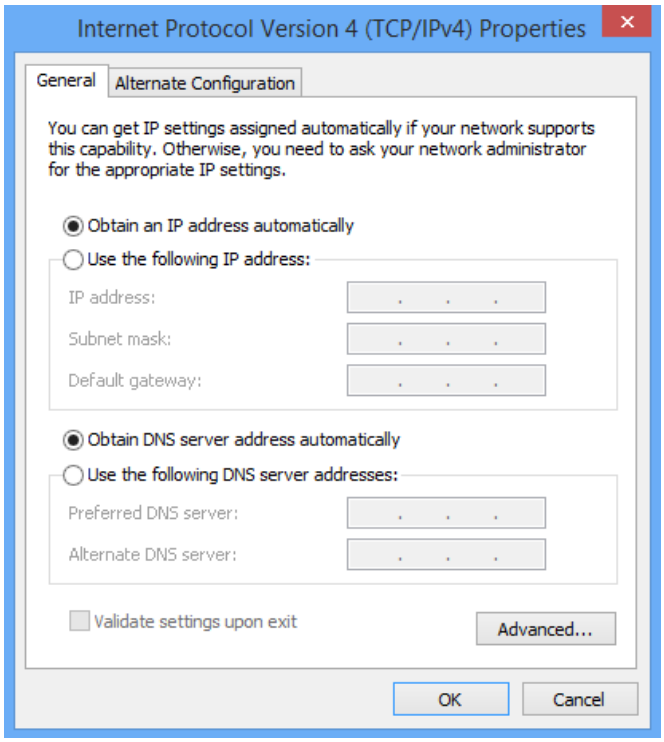
Step 3 Right-click on the connection which is being connected, and then click **Properties**.



Step 4 Double-click **Internet Protocol Version 4 (TCP/IPv4)**.



Step 5 Select **Obtain an IP address automatically** and **Obtain DNS server address automatically**, and click **OK**.

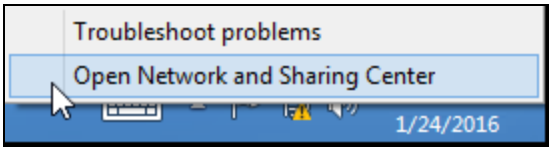


Step 6 Click **OK** in the **Ethernet Properties** window.

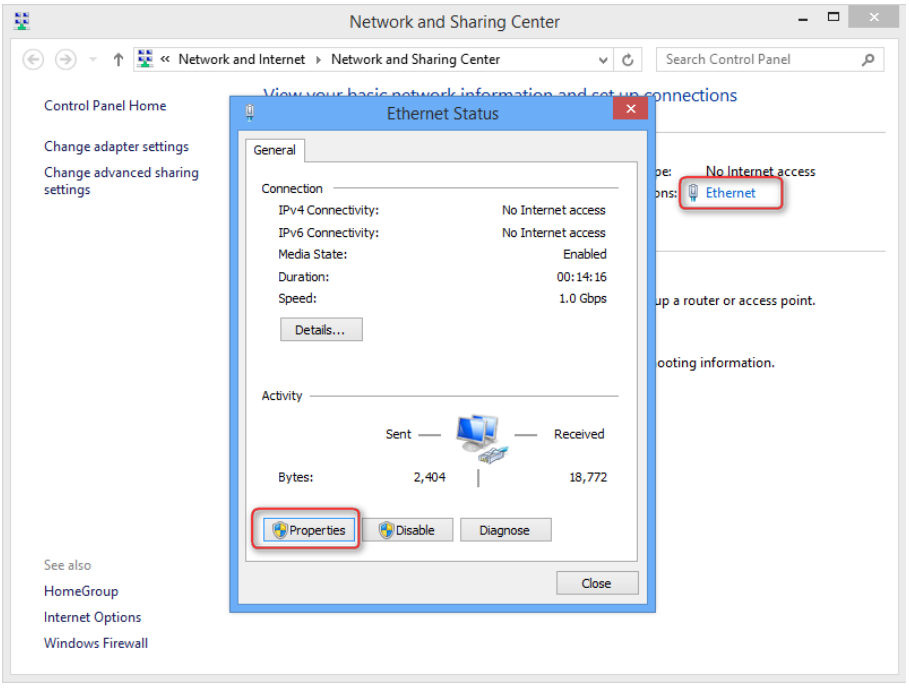
---End

A.1.2 Windows 8

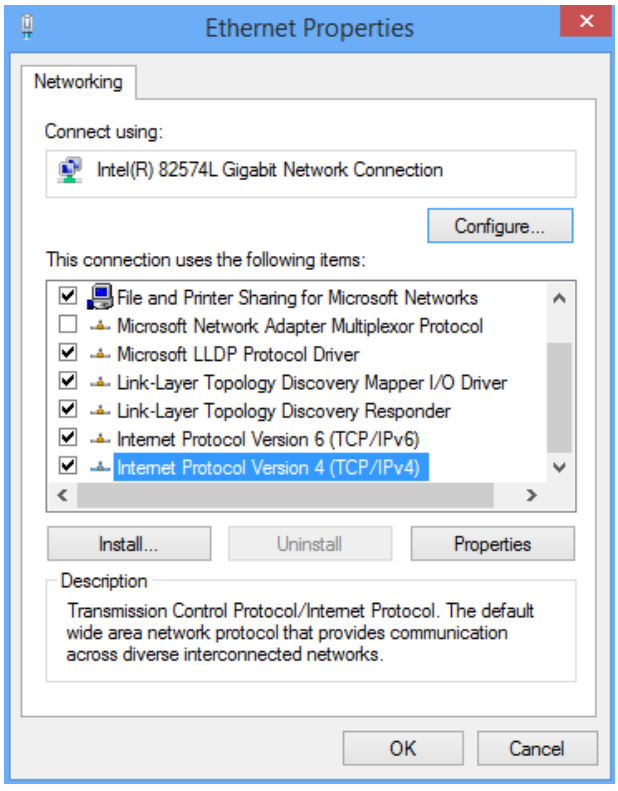
Step 1 Right-click in the bottom right corner of the desktop and choose **Open Network and Sharing Center**.



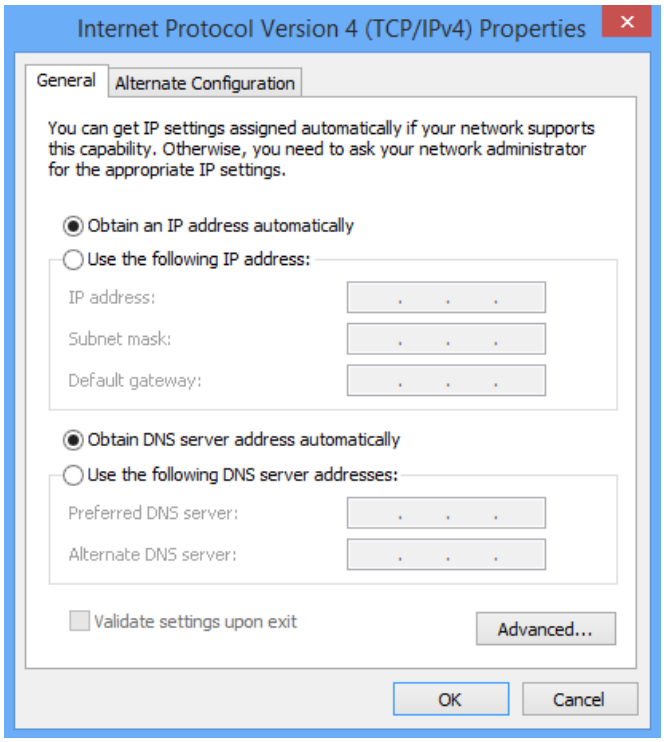
Step 2 Click **Ethernet** and then **Properties**.



Step 3 Double-click **Internet Protocol Version 4 (TCP/IPv4)**.



Step 4 Select **Obtain an IP address automatically** and **Obtain DNS server address automatically**, and click **OK**.



Step 5 Click **OK** in the **Ethernet Properties** window.

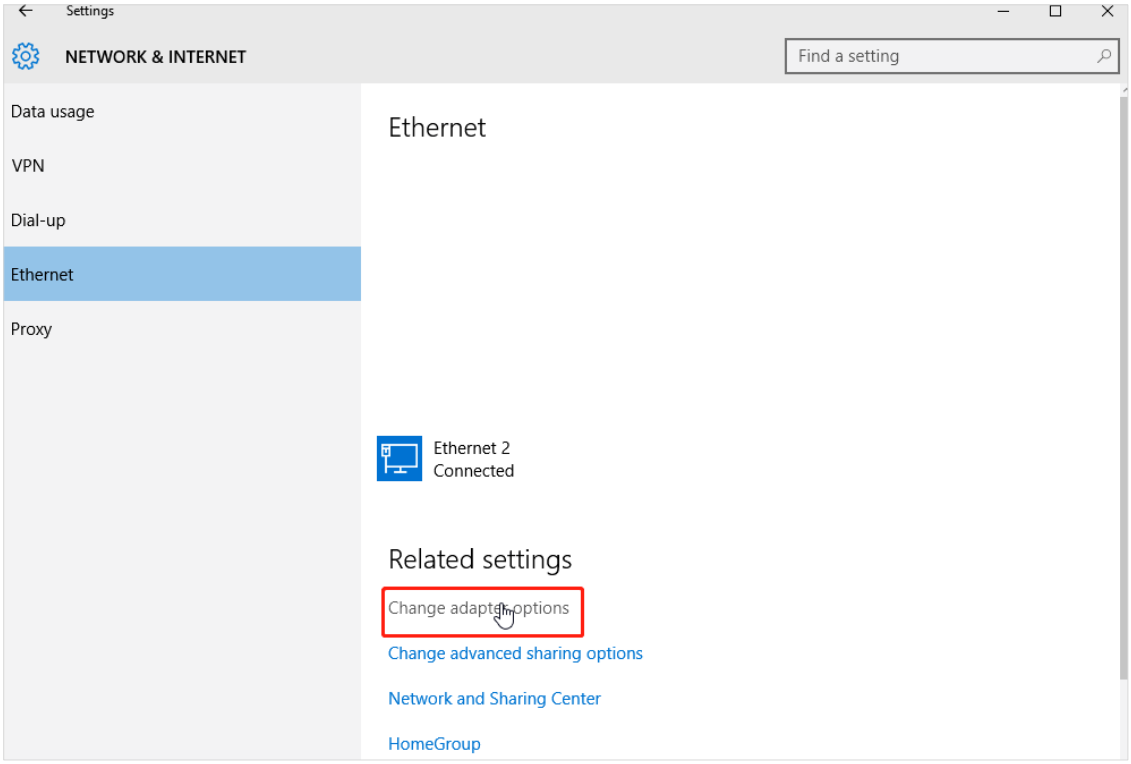
---End

A.2 Configuring the computer to obtain an IPv6 address automatically

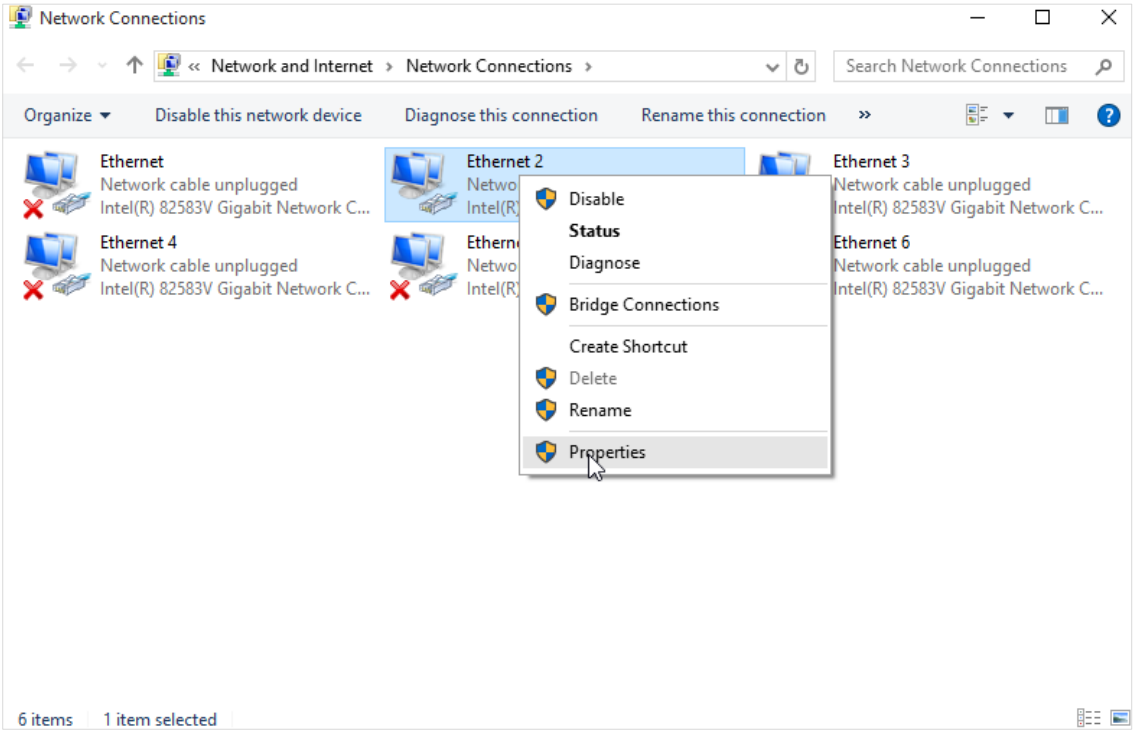
Perform the configuration procedures corresponding to Windows 10. A computer installed with a wired network adapter is used as an example to describe the procedures. The procedures for configuring computers installed with a WiFi network adapter are similar.

Step 1 Click  in the bottom right corner of the desktop and choose **Network settings**.

Step 2 Click **Change adapter options**.



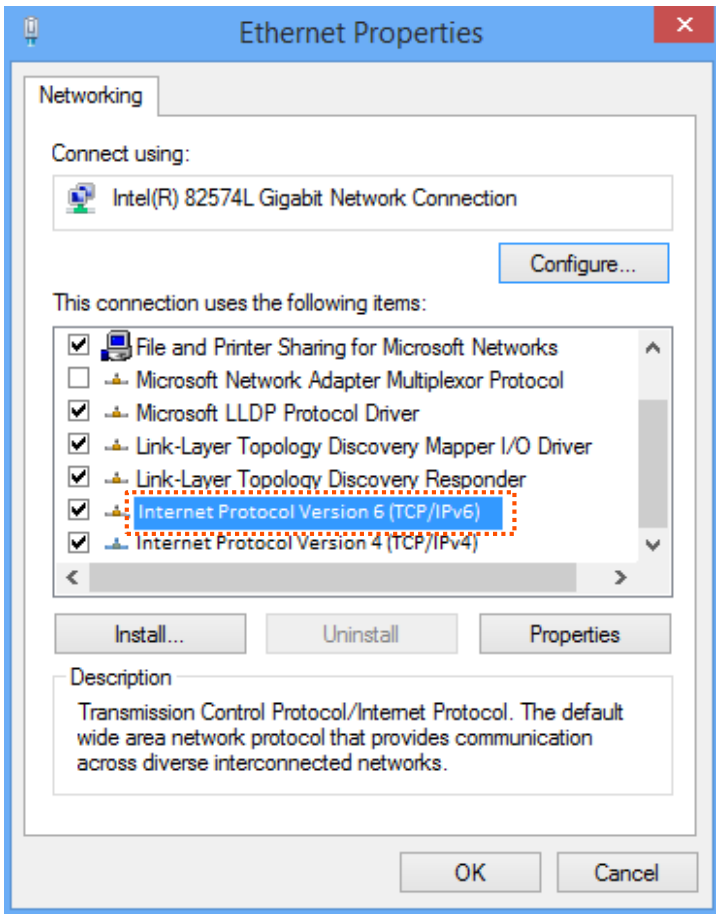
Step 3 Right-click on the connection which is being connected, and then click **Properties**.



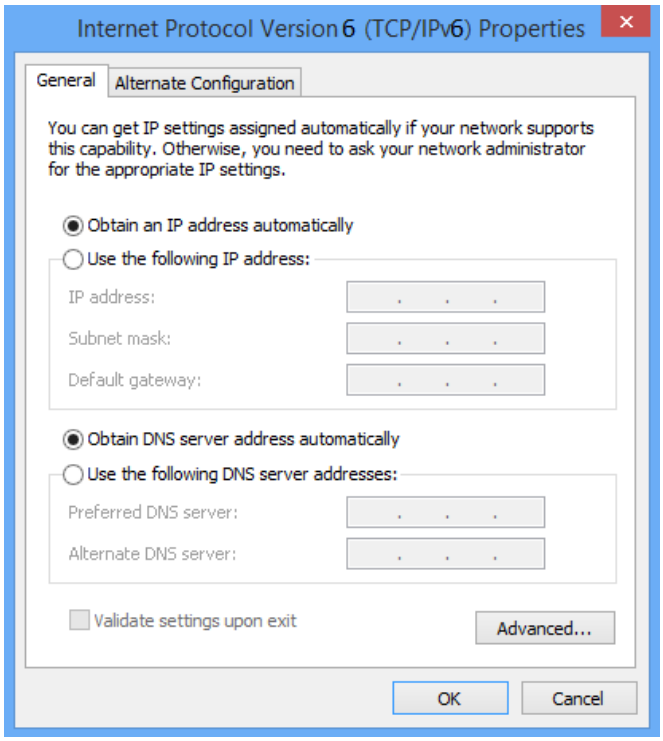
Step 4 Double-click **Internet Protocol Version 6 (TCP/IPv6)**.

TIP

Make sure that the box of the **Internet Protocol Version** is ticked.



Step 5 Select **Obtain an IP address automatically** and **Obtain DNS server address automatically**, and click **OK**.



Step 6 Click **OK** in the **Ethernet Properties** window.

---End

A.3 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
GMT	Greenwich Mean Time
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
LAN	Local Area Network
MAC	Medium Access Control
MIMO	Multiple Input Multiple Output
MTU	Maximum Transmission Unit
PPPoE	Point-to-Point Protocol over Ethernet
PPTP	Point to Point Tunneling Protocol
SSID	Service Set Identifier
TCP	Transmission Control Protocol
UDP	User Datagram Protocol
UPnP	Universal Plug and Play
WAN	Wide Area Network
WISP	Wireless Internet Service Provider
WPA-PSK	WPA-Preshared Key