User Guide

N300 Wi-Fi 4G LTE Router

4G03 Pro/4G05

www.tendacn.com

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Preface

Thank you for choosing Tenda! This user guide walks you through all functions of the N300 Wi-Fi 4G LTE Router.

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.

Symbol	Meaning
	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 device.
	This format is used to highlight a procedure that will save time or resources.

For more documents

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

Technical support

Contact us if you need more help. We will be glad to assist you as soon as possible.

Email address: support@tenda.cn

Website: www.tendacn.com

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 this guide was first published.

Version	Date	Description
V1.1	2023-11-17	1. Optimized the description of the Internet status, Internet settings and SIM PIN function. 2. Optimized sentence expression.
V1.0	2023-07-10	Original publication.

Contents

1 Get to know your device

1.1 Introduction

The N300 Wi-Fi 4G LTE Router, powered by built-in 4G module, provides fast 4G LTE internet access. It realizes instant internet access with just a SIM card and achieves simultaneous communication with multiple devices.

Feature / Model	4G LTE category	Wi-Fi network	Wireless rate	4G antennas	Ethernet port	App management
4G03 Pro/4G05	CAT4	2.4 GHz	2.4 GHz: 300 Mbps	Two external antennas	2*FE	Support

1.2 LED indicators

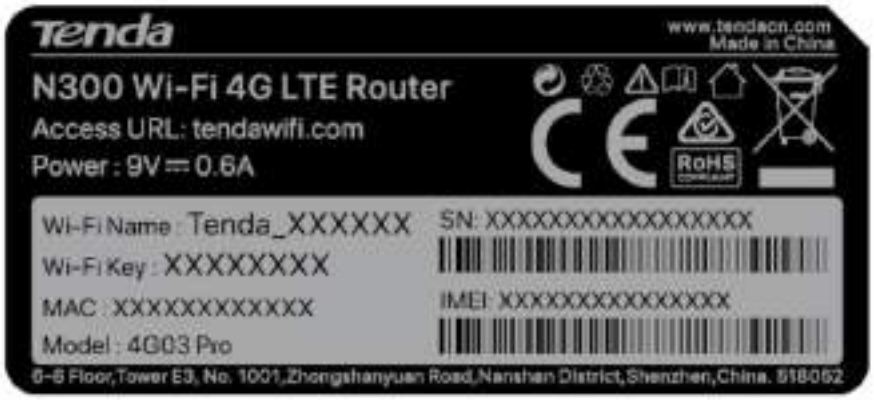
LED indicator		Status	Description
	Internet LED indicator	Solid on	Connected to internet
		Blinking	No internet access
		Off	Powered off
	Wi-Fi LED indicator	Solid on	Wi-Fi enabled
		Blinking	Ready for WPS negotiation
		Off	Wi-Fi disabled
	Ethernet port LED indicator	Solid on	Device connected to the Ethernet port
		Off	No device connected to the Ethernet port
4G	Signal strength LED indicator	3 bars	Excellent signal
		2 bars	Good signal
		1 bar	Fair signal
		Off	No signal

1.3 Ports and buttons

Port/Button	Description
PWR	Power jack
WPS/RST	Used to reset the router, or start WPS negotiation of the router. - WPS: Press the button, and the Wi-Fi LED indicator ( ) blinks. Within 2 minutes, you can enable the WPS function of the client device (such as a smartphone) to connect to the Wi-Fi network of the router without entering the Wi-Fi password. - Reset: Hold down the button for about 8 seconds, and release it when all LED indicators light off and then light up. The router is reset.
WAN/LAN	WAN/LAN multiplexing port. LAN port by default. Used to connect to such devices as computers, switches or game machines. When the Failover function is enabled, the WAN/LAN port only serves as a WAN port.
LAN	Used to connect to such devices as computers, switches or game machines.
NANO SIM	Nano SIM card slot. Insert your Nano SIM card into this slot.

1.4 Label

The bottom label shows the access URL, power, Wi-Fi name, Wi-Fi key, MAC address, model, SN, and IMEI of the router. See the following figure.



Access URL: URL used to log in to the web UI of the router

Power: Power supply for the router

Wi-Fi Name: Default Wi-Fi name of the router

Wi-Fi Key: Default Wi-Fi password of the router

MAC: MAC address of the router.

Model: Model of the router

SN: Serial number of the router

IMEI: Unique mobile device identification code of the router

2 Quick setup

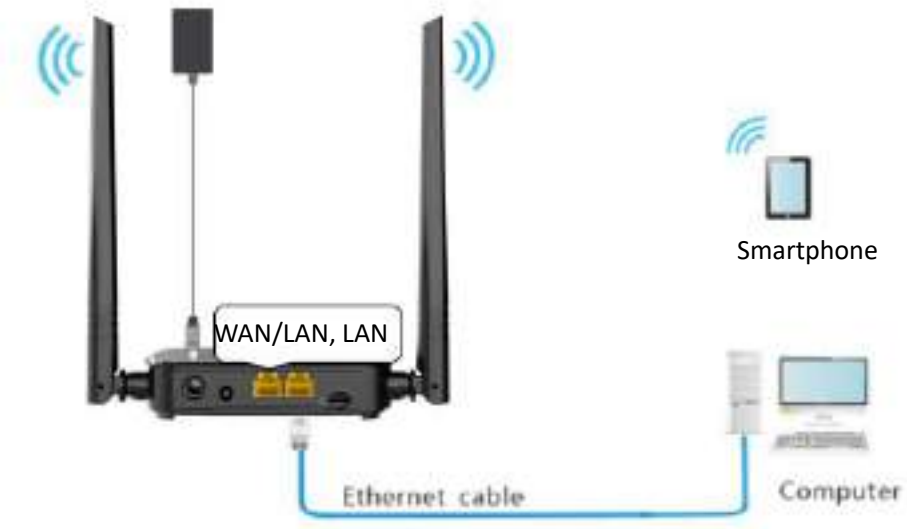
This chapter describes how to connect the devices and enable internet access through the quick setup wizard. You can complete quick setup for internet access by following the instructions on the web UI wizard. This wizard only occurs upon your first setup.

Procedure:

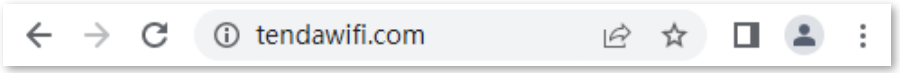
Step 1 Connect your smartphone to the Wi-Fi network, or connect your computer to a LAN port of the router.

TIP

By default, the WAN/LAN and LAN ports are both LAN ports. When the Failover function is enabled, the WAN/LAN port only serves as a WAN port.



Step 2 Start a web browser on the device connected to the router, and visit **tendawifi.com** (computer used as an example).



Step 3 Click **Start**.

TIP

- If the SIM card is inserted properly and the internet connection is normal, you can continue the setup in **Step 4**.
- If **No SIM Card** is shown on the page, refer to No SIM card detected.
- If **SIM card blocked** is shown on the page, refer to Unlock the SIM card in the quick setup wizard.

Step 4 Set parameters as required, and click **Next**.

TIP

- If you do not want to use a password, tick **No Password**. In this case, any client can access the network without a password. **No Password** is not recommended as it leads to low network security.
- To use the same password for Wi-Fi access and web UI login, tick **Sync the login password with the Wi-Fi password**.
- To use different passwords for Wi-Fi access and web UI login, set Wi-Fi name and Wi-Fi password for Wi-Fi login and login password for web UI login.

Step 5 If the following information is displayed, the quick setup for internet access is finished. Click **More**.

---End

Now you can access the internet with:

- Wired devices: Connect to the LAN port of your router
- Wireless devices: Connect to your Wi-Fi network using the Wi-Fi name and password you set

3 Web UI

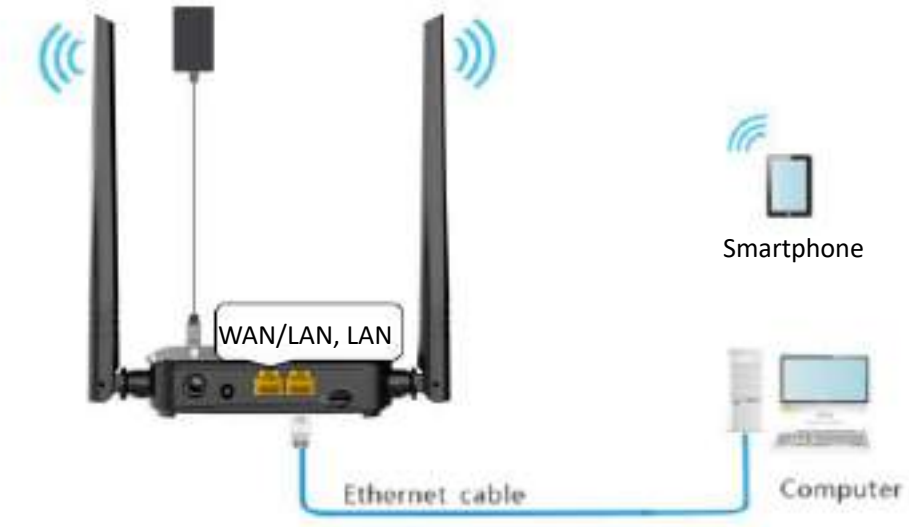
3.1 Log in to the web UI

Procedure:

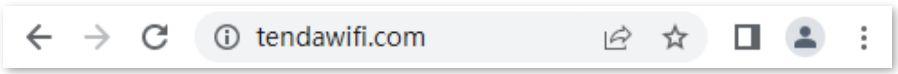
Step 1 Connect your smartphone to the Wi-Fi network, or connect your computer to a LAN port of the router.

TIP

By default, the WAN/LAN and LAN port are both LAN ports. When the Failover function is enabled, the WAN/LAN port only serves as a WAN port.



Step 2 Start a web browser on the device connected to the router, and visit **tendawifi.com** (computer used as an example).



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

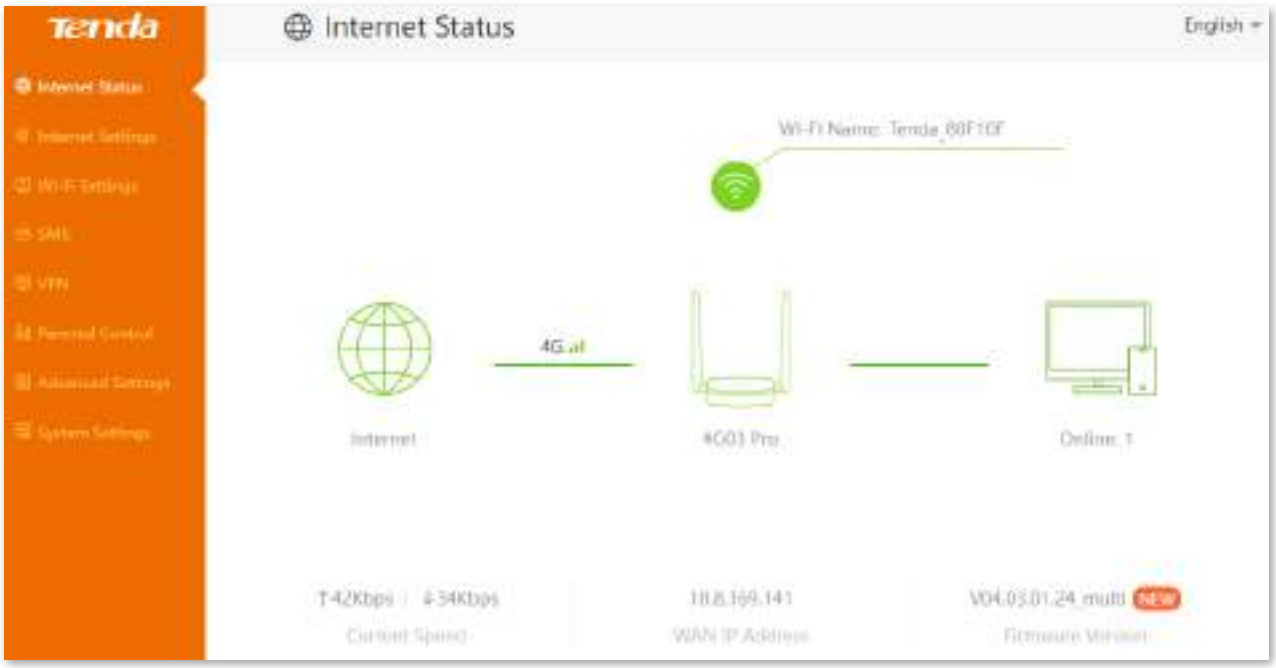
---End

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 of the router, and Configure the computer to obtain an IP address automatically.
- Restore the router to factory settings and try again.

The following page appears.



3.2 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.

4 Internet status

Log in to the web UI of the router, and navigate to **Internet Status** to enter the page. On this page, you can:

- View the internet status
- View wireless information
- View system information
- View online or blacklist devices information

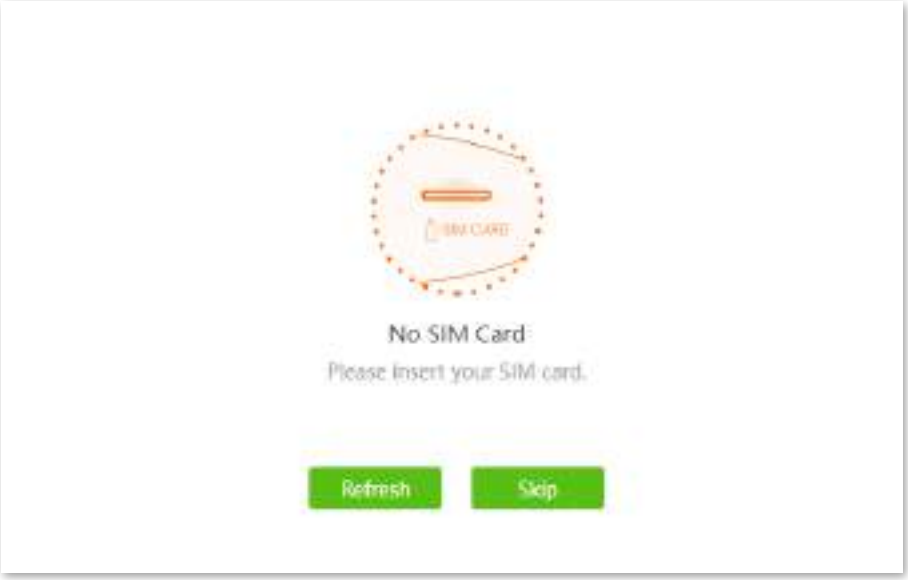
4.1 View internet status

4.1.1 Access the internet with a SIM card

To access the page, log in to the web UI of the router, and you can perform troubleshooting as prompted on the page when you access the internet through the SIM card.

No SIM card detected

When **No SIM Card** is shown on the page, ensure the SIM card is inserted properly.



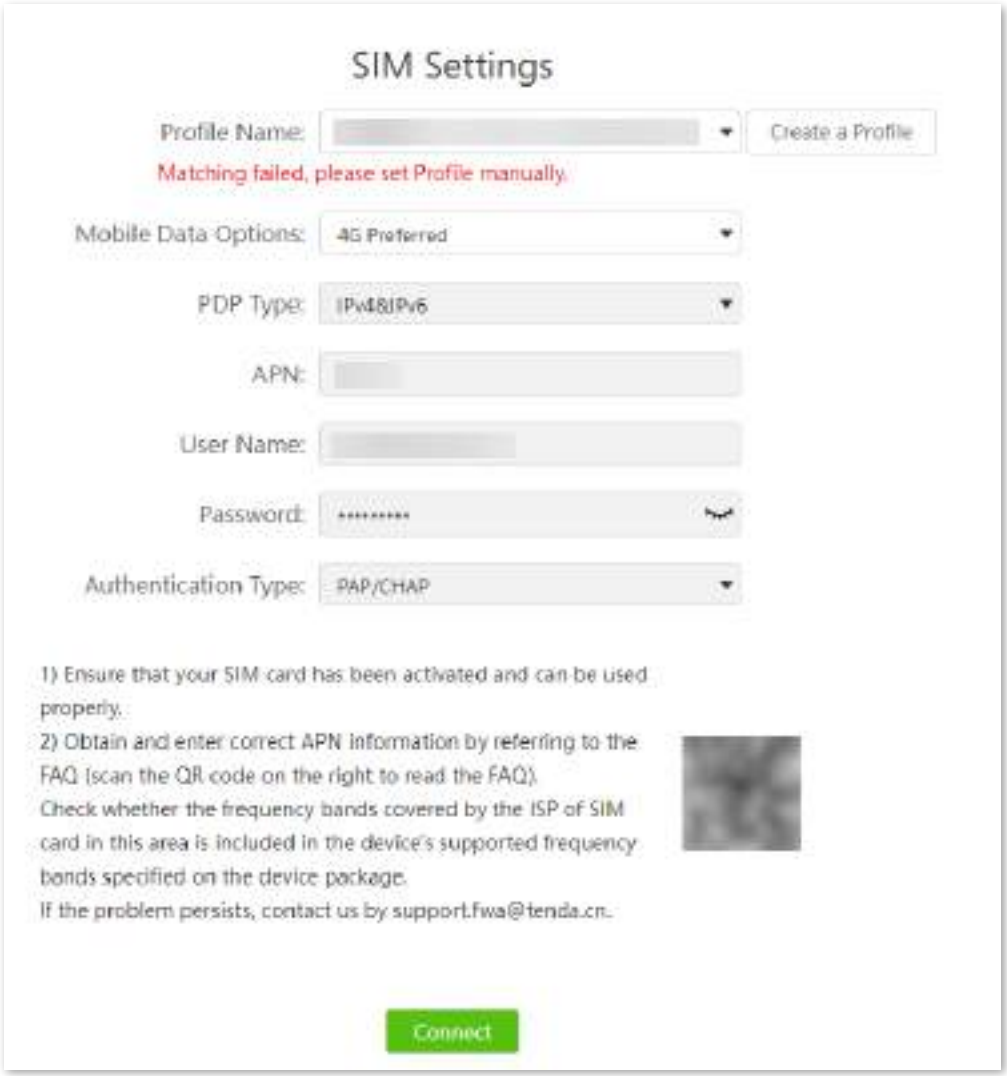
If you click **Skip**, the following figure is shown.

SIM card blocked

When **SIM card blocked** is shown on the page, refer to Unlock the SIM card in the quick setup wizard.

Automatically matching APN failed

On the **SIM Settings** page, automatic matching of APN parameters is available. Manually selecting Profile name or creating Profile will suspend the matching. When "Matching failed, please set Profile manually." is shown on the page, you need to manually configure the correct APN parameters according to the page prompts.



APN not correctly identified

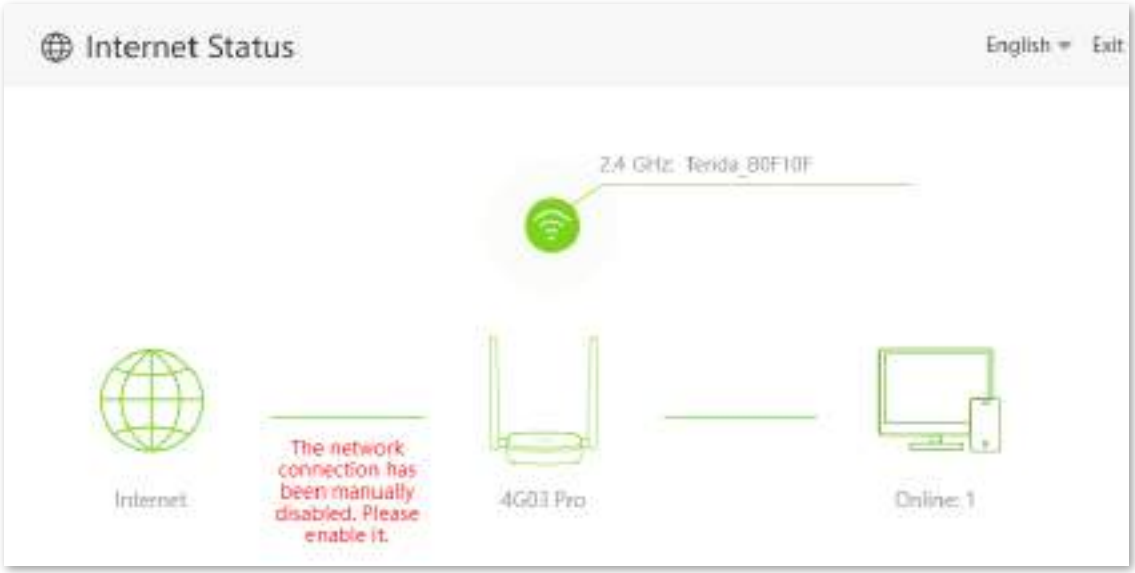
When a red cross and "APN not correctly identified" are shown between the internet and the router, it indicates that you need to configure the correct APN parameters. Click APN not correctly identified to navigate to the **Internet Settings** page and modify APN parameters.

Data traffic disabled

When "The data traffic has been manually disabled. Please enable it." is shown between the internet and the router, ensure that the **Mobile Data** function is enabled on the **Internet Settings** page.

Network connection disabled

When “The network connection has been manually disabled. Please enable it.” is shown between the internet and the router, you can click **Connect** to connect to the internet again on the **Internet Settings** page.



Monthly data limit reached

When “The monthly data limit is reached.” is shown between the internet and the router, it indicates that the router will disconnect from the internet automatically when the limit is reached. Refer to Mobile Data to modify the related parameters.

Connection failed

When “Connection failed.” is shown between the internet and the router, it indicates that the connection is abnormal.

Try the following solutions:

- Navigate to **Internet Settings**, and ensure that the **Mobile Data** and **Data Roaming** functions are enabled, and the mobile data option is set to **4G Preferred**.
- Navigate to **Internet Settings**, and ensure that the dial-up settings parameters are identified by the router automatically. If not, ensure that the SIM card is inserted properly, or refer to Create an APN profile manually to access the internet to configure the router.
- If the SIM card is identified successfully but no internet access is available, your SIM card may have run out of money. Contact your Internet Service Provider (ISP) for help. If the SIM card balance is sufficient, it is recommended that contact our technical support for help.

4.1.2 Access the internet through the WAN port (Example: PPPoE)

To access the page, log in to the web UI of the router, and you can perform troubleshooting as prompted on the page when you access the internet through the WAN port.

Before checking the internet status, you should connect the WAN/LAN port to the internet using an Ethernet cable, enable the Failover function and configure internet parameters on the **Internet Settings** page.

Ethernet cable disconnected

When “No Ethernet cable is connected to the WAN port” is shown between the internet and the router, ensure the Ethernet cable is connected to the WAN port properly.

Incorrect user name and password

When “The user name and password are incorrect.” is shown between the internet and the router, ensure the PPPoE user name and password are entered correctly.

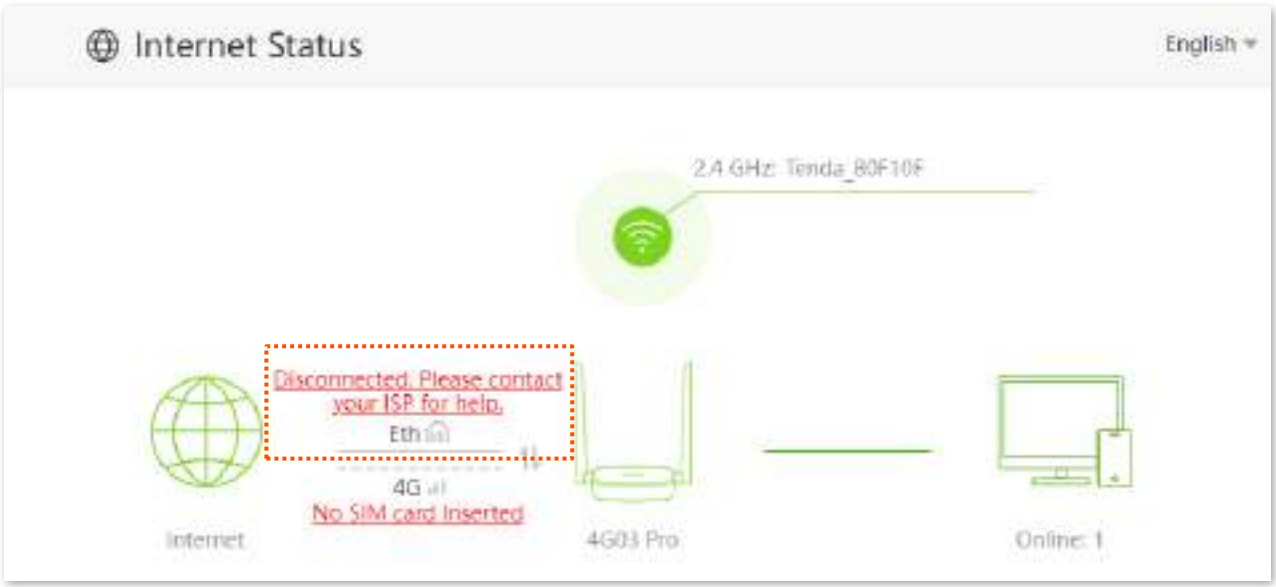
No response from the remote server

When “No response from the remote server.” is shown between the internet and the router, you are recommended to access the internet through dynamic IP address or contact our technical support for help.

Connection disconnected

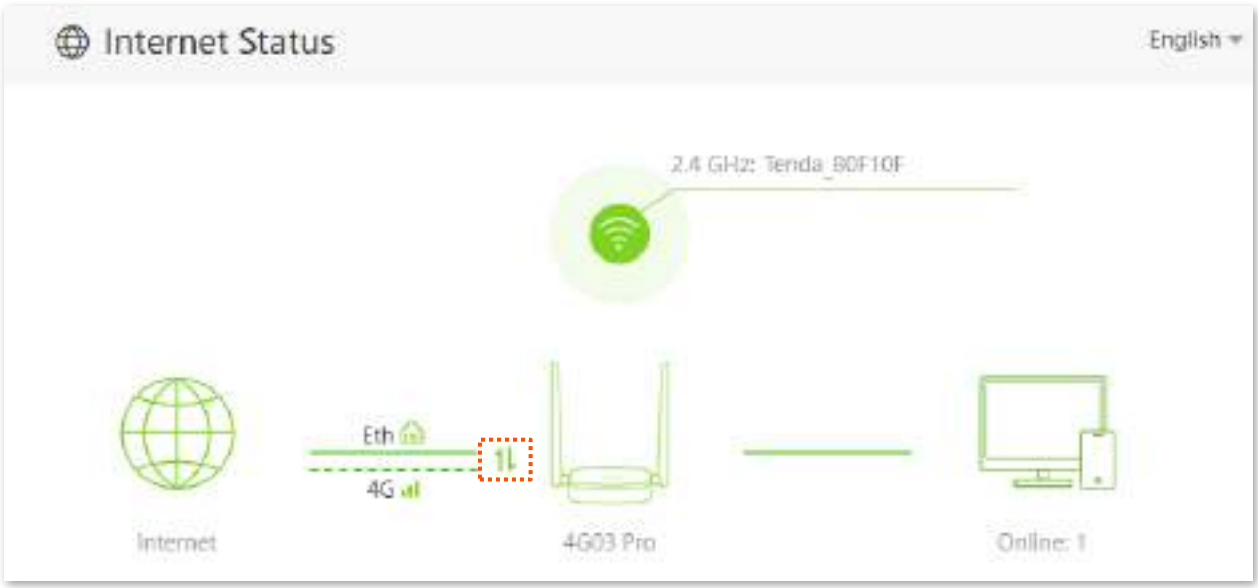
When “Disconnected” is shown between the internet and the router, you can click **Connect** to connect to the internet again on the **Internet Settings** page.

When “Disconnected. Please contact your ISP for help.” is shown between the internet and the router, it indicates that the connection is abnormal. Contact your ISP for help.



4.1.3 Access the internet with SIM card and WAN port

When you access the internet through the SIM card and WAN port, the WAN port is prioritized for internet access by default. You can click ⇅ to manually switch the current internet connection mode on the **Internet Status** page as required.



TIP

- If there is a network failure, the router will automatically switch to an available internet connection mode.
- If the other abnormal information is shown between the internet and the router, refer to Access the internet with a SIM card or Access the internet through the WAN port (Example: PPPoE) to find a solution.

4.2 View wireless information

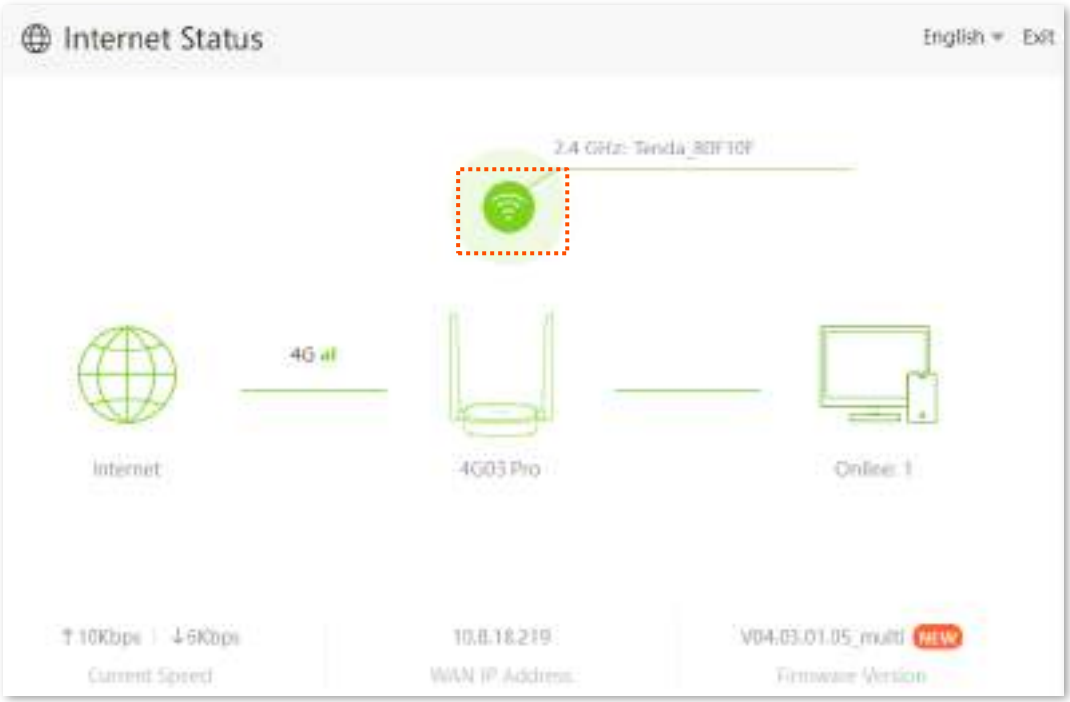
On this page, you can view or configure the wireless information.

Procedure:

Step 1 Log in to the web UI of the router.

Step 2 Navigate to **Internet Status**.

Step 3 Click .



---End

You can change wireless parameters as required.

4.3 View WAN status

On this page, you can view the WAN status, including 3G/4G and Ethernet WAN status.

> Before checking the WAN status, you should connect the WAN/LAN port to the internet using an Ethernet cable, enable the Failover function and configure internet parameters on the **Internet Settings** page.

Procedure:

Step 1 Log in to the web UI of the router.

Step 2 Navigate to **Internet Status**.

Step 3 Click .

---End

4.3.1 3G/4G WAN status

In this part, you can view the information of the SIM card and 3G/4G network.

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

Parameter description

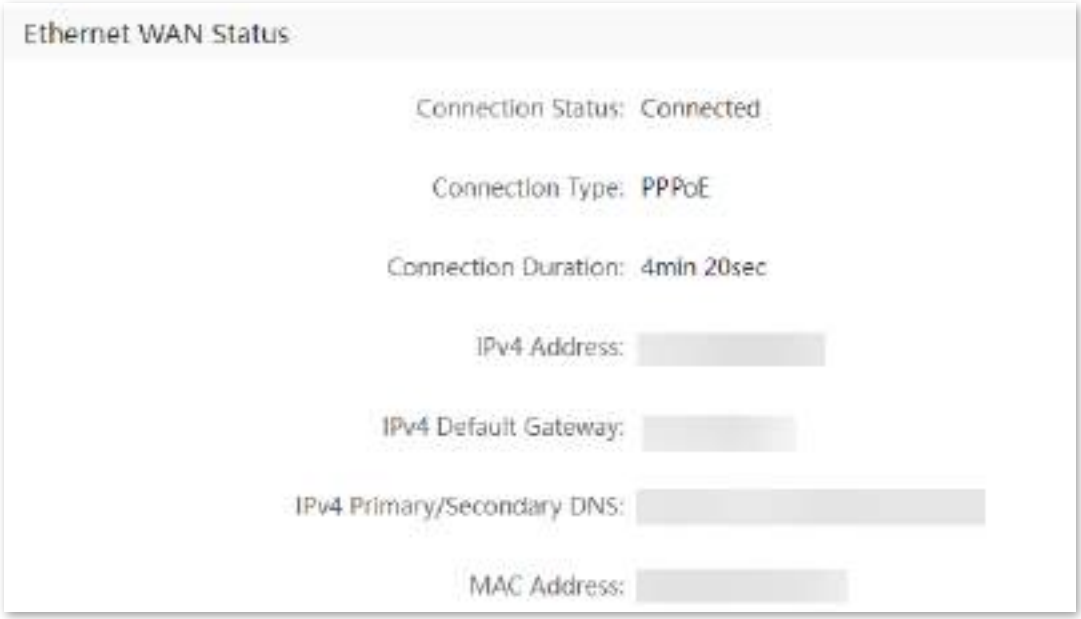
Parameter	Description
SIM Card Status	Specifies the SIM card status inserted in the router.
Connection Status	Specifies internet connection status of 3G/4G mobile network.
Signal Strength	Specifies the signal strength of 3G/4G mobile network, including **Excellent**, **Good** and **Fair**.
ISP	Specifies the ISP name of the SIM card.
Mobile Network	Specifies the current network type for internet access.
Statistics	Specifies the data traffic of the SIM card that has been used.

Parameter	Description
IPv4/IPv6 Address	Specifies the IP address of the router obtained from the ISP. TIP After the IPv6 function is configured, the WAN port of the router obtains a global unicast IPv6 address or a tunnel address.
IPv4/IPv6 Default Gateway	Specifies the gateway IP address of the router.
IPv4/IPv6 Primary/Secondary DNS	Specifies the primary and secondary DNS server address of the router.
MAC Address	Specifies the 3G/4G MAC address of the router.
Access Band	Specifies the access band of the mobile network of the router.

4.3.2 Ethernet WAN status

In this part, you can view the information of the WAN/LAN port connected to the Ethernet cable.

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



Parameter description

Parameter	Description
Connection Status	Specifies internet connection status of WAN/LAN port connected to the Ethernet cable.
Connection Type	Specifies how your router connects to the internet, including: - **PPPoE**: Select this type if you access the internet using the PPPoE account and PPPoE password. - **Dynamic IP Address**: Select this type if you can access the internet by simply plugging in an Ethernet cable. - **Static IP Address**: Select this type if you want to access the internet using fixed IP information.
Connection Duration	Specifies the connection duration of WAN/LAN port connected to the Ethernet cable.
IPv4 Address	Specifies the IP address of the router obtained from the ISP.
IPv4 Default Gateway	Specifies the gateway IP address of the router.
IPv4 Primary/Secondary DNS	Specifies the IP address of primary and secondary DNS servers of the router.
MAC Address	Specifies the Ethernet MAC address of the router.

4.4 View system information

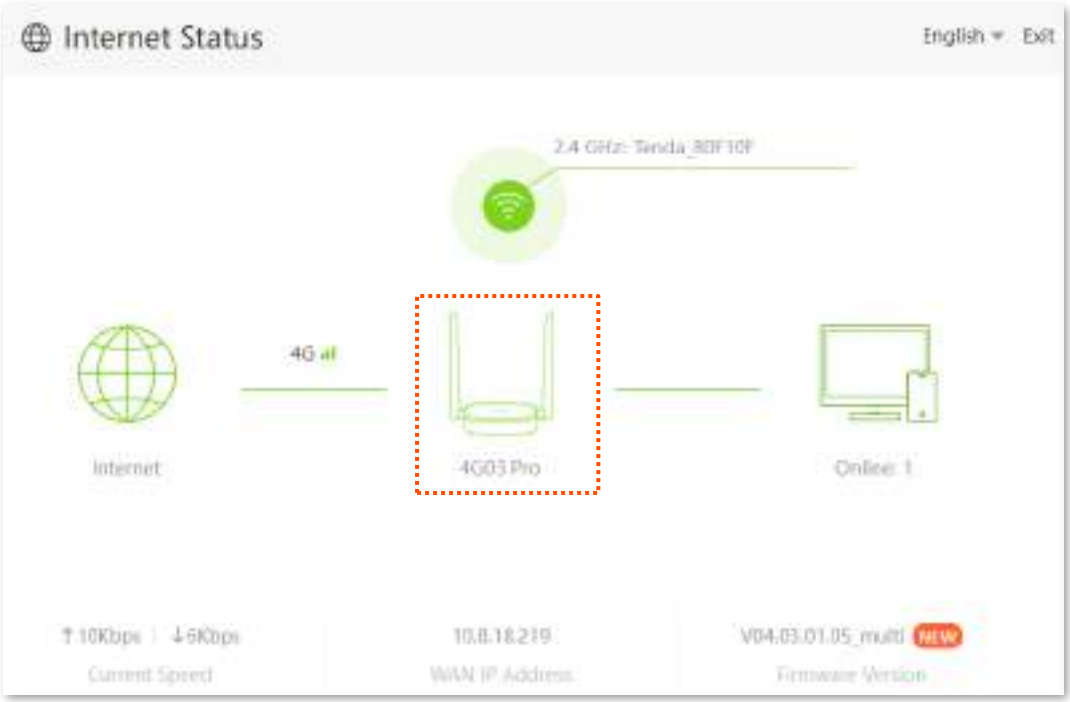
On this page, you can view the system information, including system time, uptime, firmware version, hardware version, LAN status, Wi-Fi status and IPv6 status.

Procedure:

Step 1 Log in to the web UI of the router.

Step 2 Navigate to **Internet Status**.

Step 3 Click .

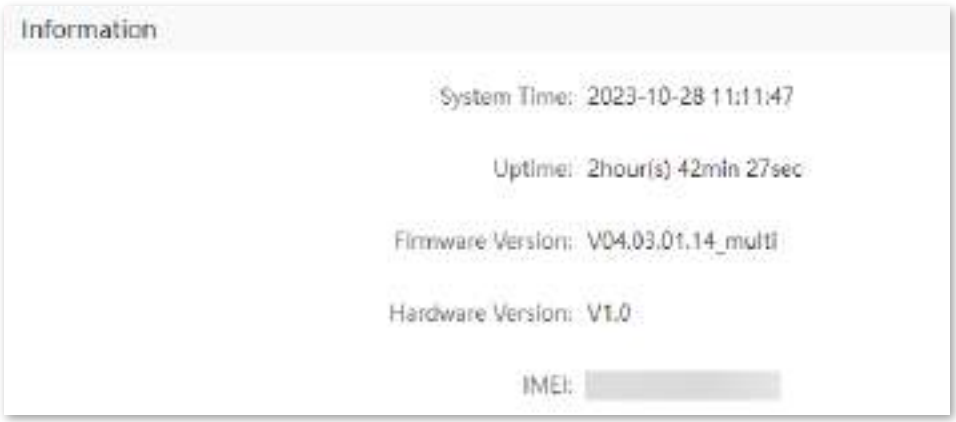


---End

4.4.1 Basic information

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

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



Parameter description

Parameter	Description
System Time	Specifies the system time of the router.
Uptime	Specifies operating time of the router since it is powered on.
Firmware Version	Specifies the firmware version of the router.
Hardware Version	Specifies the hardware version of the router.
IMEI	Specifies the International Mobile Equipment Identity (IMEI) of the mobile device.

4.4.2 LAN status

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

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

Parameter description

Parameter	Description
IP Address	Specifies the LAN IP address of the router which is the IP address for logging in to the web UI of the router.
IPv6 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 or a tunnel address, and a link local address.
MAC Address	Specifies the LAN MAC address of the router.

4.4.3 Wi-Fi status

In this part, you can view the information of 2.4 GHz Wi-Fi network, including the visibility, Wi-Fi name, bandwidth, channel and MAC address.

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

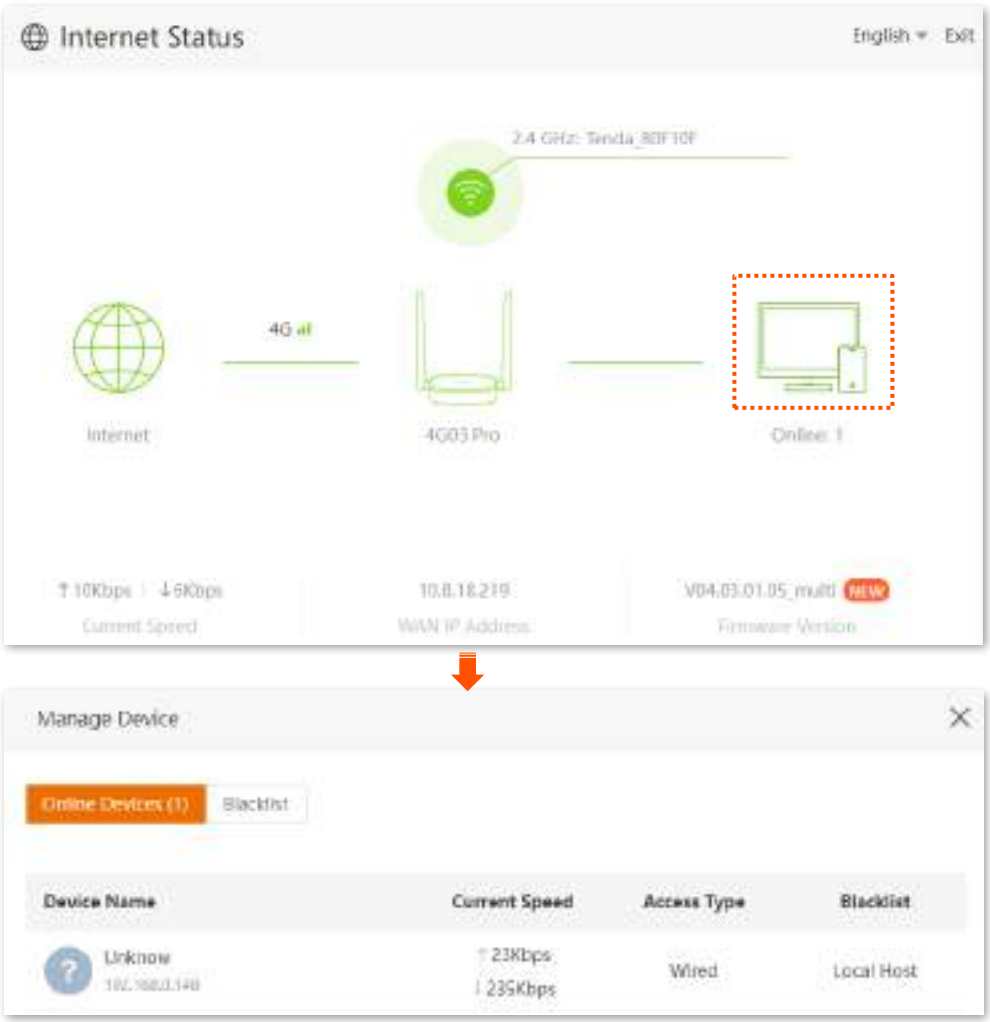
Parameter description

Parameter	Description
Wi-Fi Network	Specifies whether the Wi-Fi network is hidden.
Wi-Fi Name	Specifies the Wi-Fi name of the router.
Bandwidth	Specifies the bandwidth of the Wi-Fi network.
Channel	Specifies the channel that the Wi-Fi network works in.
MAC Address	Specifies the MAC address of the Wi-Fi network.

4.5 View online or blacklist device information

On this page, you can view the information of devices connected to the router, including the current speed and access type. You can also view and add devices to the blacklist.

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



Parameter description

Parameter		Description
Online Devices	Device Name	Specifies the name of online device connected to the router.
	Current Speed	Specifies the upload speed and download speed of the device.
	Access Type	Specifies the access type of online device connected to the router.
	Blacklist	Specifies Whether to add other online devices to the blacklist.

Parameter		Description
Blacklist	Device Name	Specifies the name of the blacklist device.
	MAC Address	Specifies the MAC address of the blacklist device.
	Remove from Blacklist	Specifies Whether to remove the device from the blacklist.

4.5.1 Add devices to the blacklist

On this page, you can add devices to the blacklist to block the internet access.

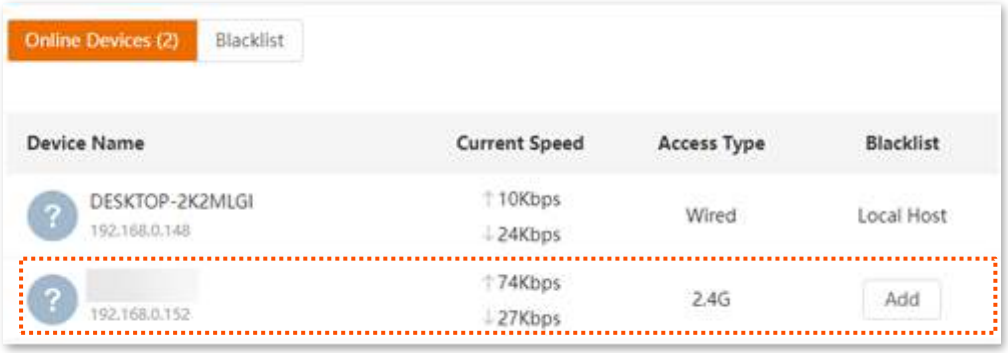
Procedure:

Step 1 Log in to the web UI of the router.

Step 2 Navigate to **Internet Status**.

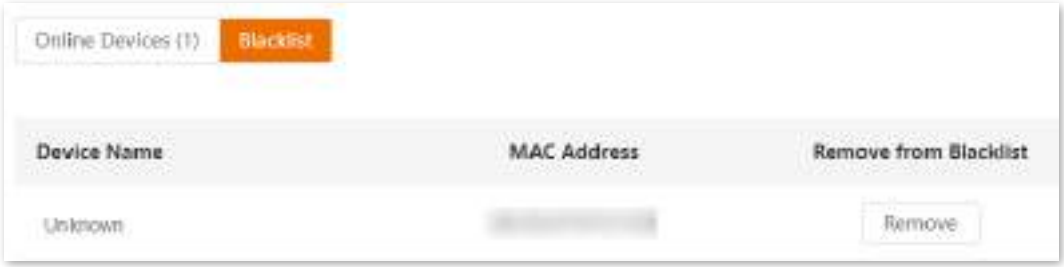
Step 3 Click .

Step 4 Target the device to be added in **Online Devices** and click **Add**.



---End

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



4.5.2 Remove devices from the blacklist

On this page, you can remove devices from the blacklist as required.

Procedure:

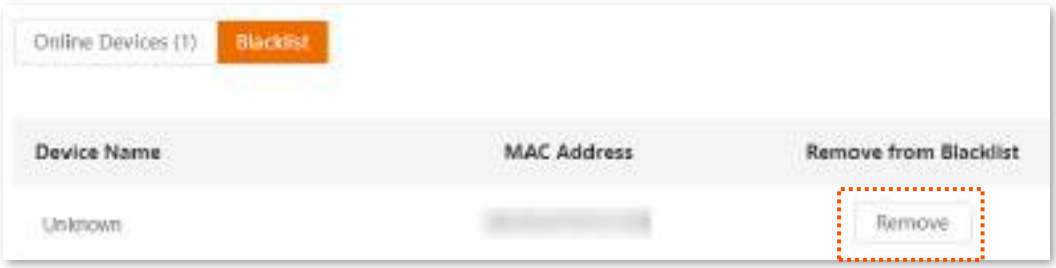
Step 1 Log in to the web UI of the router.

Step 2 Navigate to **Internet Status**.

Step 3 Click .

Step 4 Choose **Blacklist**, and target the device to be removed from the blacklist.

Step 5 Click **Remove**.



---End

After the configuration is completed, the device is removed from the blacklist and can be connected to the router again.

5 Internet settings

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

5.1 Access the internet with a SIM card

On this page, you can change the internet settings by following the instructions here.

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

Parameter description

Parameter		Description
Internet Settings	Mobile Data	Used to enable or disable the mobile data traffic. When it is disabled, you cannot access the internet through the router.
	Data Roaming	Used to enable or disable data roaming for the SIM card inserted in the router. Data roaming means the data usage produced when you are outside the coverage of your ISP. You can disable data roaming to avoid roaming data usage and charges.
	Mobile Data Options	Specifies the mobile network type for internet access. - **4G Preferred:** Priority to sign up for the 4G Wi-Fi network to access the internet. - **4G Only:** Only access the internet by signing up for the 4G Wi-Fi network. - **3G Only:** Only access the internet by signing up for the 3G Wi-Fi network.
	Band	Specifies whether to enable the Lock Band function to improve the internet experience. With the function enabled, it will scan and match the band supported by the SIM card and ISP according to the surrounding network environment.
	Band List	Used to select single or multiple bands according to your needs. Selecting a single band can only register the specified band to improve the internet experience. Selecting multiple bands will use a band from the selected options according to the actual network conditions (signal strength, signal quality and so on).
Dial-up Settings	Profile Name PDP Type APN User Name Password Authentication Type	Generally, all these parameters are predefined in the SIM card. The router will identify these parameters automatically, which cannot be changed, and use them for dial-up. If the router fails to identify these parameters of your SIM card, you must enter them manually by clicking **Create a Profile** and dial up for internet access. TIP If the router cannot identify these parameters, contact your ISP for them.
	Create a Profile	Used to create an APN dial-up profile when the router fails to identify these parameters automatically.

Parameter		Description
	MTU	Maximum Transmission Unit (MTU) is the largest data packet transmitted by a network device. The default MTU value is 1460. Do not change the value unless necessary.
	Compatibility Mode	Used to share the hotspot and traffic of the SIM card for internet access, which can solve the problem of ISP traffic restrictions. The SIM card package includes traffic and hotspot. If the traffic can only be used for mobile devices (such as smartphones) and the hotspot can only be used for the router, you can enable the compatibility mode on the web UI to modify the Time to Live (TTL) and Hop Limit (HL) values to share the hotspot and traffic for internet access.  It is applicable to some ISPs limited plans. The TTL and HL values can be modified for packet capture analysis according to your needs.

5.1.1 Change mobile network preference

When you use a SIM card to access the internet, you can also change the preference towards mobile data, data roaming and preferred network type.

Assume that you are using the router outside the coverage of the ISP of your SIM card and want to use 4G network only.

Procedure:

Step 1 Log in to the web UI of the router.

Step 2 Navigate to **Internet Settings**.

Step 3 Enable **Mobile Data** and **Data Roaming**.

Step 4 Set **Mobile Data Options** to **4G Only**.

Step 5 Click **Connect**.

---End

After the configuration is completed, you can refresh the configuration page and use the 4G network only to access the internet outside the coverage of your ISP.

5.1.2 Create an APN profile manually to access the internet

If the router cannot identify APN parameters automatically and access the internet, you can add a new APN profile manually for dial-up. Contact your ISP for help.

Procedure:

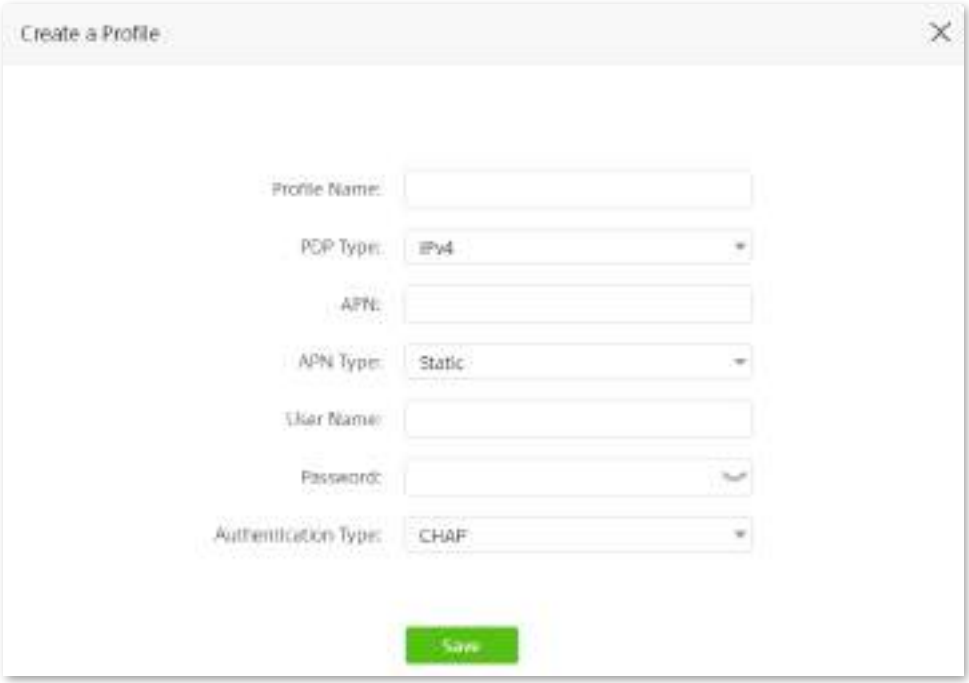
Step 1 Log in to the web UI of the router.

Step 2 Navigate to **Internet Settings**.

Step 3 Click **Create a Profile**.

Step 4 Enter required parameters inquired from your ISP.

Step 5 Click **Save**.



---End

Wait a moment. The router will use the parameters you entered to dial up for internet access, and you can access the internet with the APN profile you create.

5.2 Access the internet through the WAN port

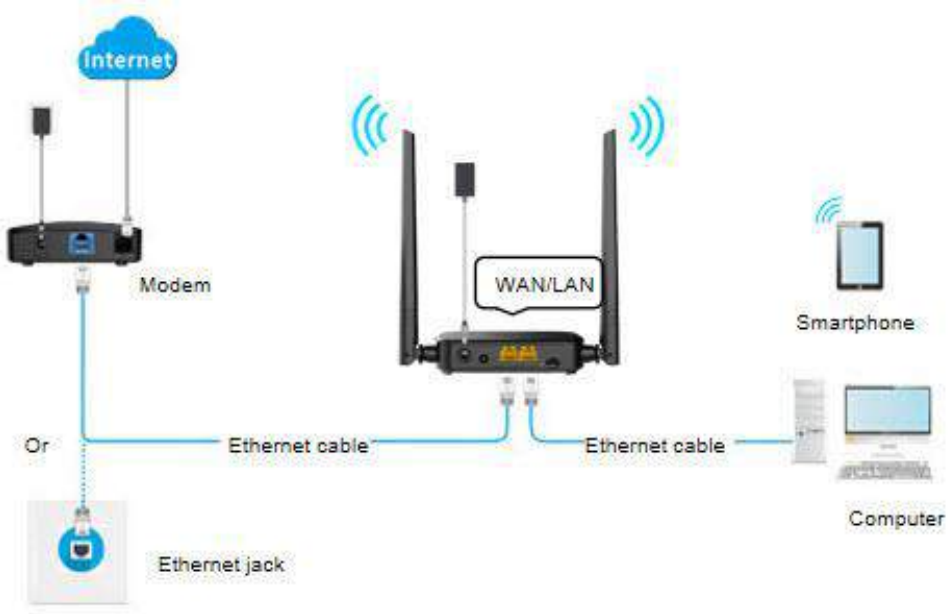
If you want to connect your broadband to the router to access the internet, you can access the internet through the WAN port.

TIP

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

5.2.1 Access the internet with a PPPoE account

If the ISP provides you with 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 of the router.

Step 2 Navigate to **Internet Settings**.

Step 3 Enable the **Failover** function.

Step 4 Set **Connection Type** to **PPPoE**.

Step 5 Enter the **PPPoE Username** and **PPPoE Password**.

Step 6 Click **Connect**.

---End

Wait a moment until "Eth" is shown on the **Internet Status** page, and you can access the internet.

TIP

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

- If "No response from the remote server." is shown on the page, you are recommended to choose access the internet through dynamic IP address or contact our technical support for help.
- If the problem persists, refer to View internet status to find a solution.

Parameter description

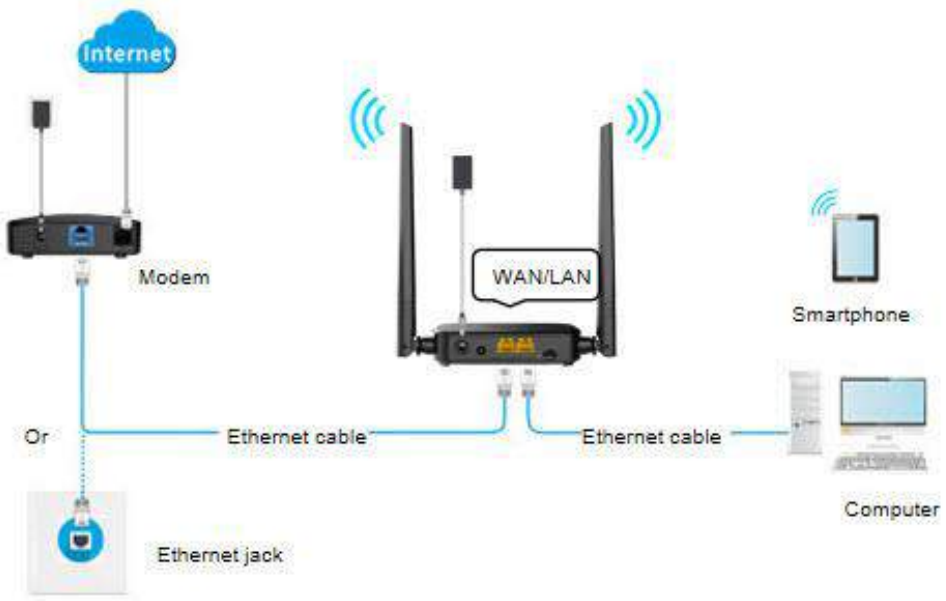
Parameter	Description
Failover	Specifies whether the Failover function is enabled.
Connection Type	Specifies how your router connects to the internet, including: - **PPPoE**: Select this type if you access the internet using the PPPoE account and PPPoE password. - **Dynamic IP Address**: Select this type if you can access the internet by simply plugging in an Ethernet cable. - **Static IP Address**: Select this type if you want to access the internet using fixed IP information.
PPPoE Username	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.
PPPoE Password	
DNS Settings	Specifies the obtaining method of 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.

5.2.2 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 4G03 Pro as the other one.

The application scenario is shown below.



Procedure:

Step 1 Log in to the web UI of the router.

Step 2 Navigate to **Internet Settings**.

Step 3 Enable the **Failover** function.

Step 4 Set **Connection Type** to **Dynamic IP Address**.

Step 5 Click **Connect.**

---End

Wait a moment until "Eth " is shown on the **Internet Status** page, and you can access the internet.

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

Parameter description

Parameter	Description
Failover	Specifies whether the Failover function is enabled.
Connection Type	Specifies how your router connects to the internet, including: - **PPPoE**: Select this type if you access the internet using the PPPoE account and PPPoE password. - **Dynamic IP Address**: Select this type if you can access the internet by simply plugging in an Ethernet cable. - **Static IP Address**: Select this type if you want to access the internet using fixed IP information.
DNS Settings	Specifies the obtaining method of 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.

5.2.3 Access the internet with static IP address information

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

Procedure:

Step 1 Log in to the web UI of the router.

Step 2 Navigate to **Internet Settings**.

Step 3 Enable the **Failover** function.

Step 4 Set **Connection Type** to **Static IP Address**.

Step 5 Enter **IP Address**, **Subnet Mask**, **Default Gateway** and **Primary/Secondary DNS Server**.

Step 6 Click **Connect**.

---End

Wait a moment until "Eth " is shown on the **Internet Status** page, and you can access the internet.

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

Parameter description

Parameter	Description
Failover	Specifies whether the Failover function is enabled.
Connection Type	Specifies how your router connects to the internet, including: - **PPPoE**: Select this type if you access the internet using the PPPoE account and PPPoE password. - **Dynamic IP Address**: Select this type if you can access the internet by simply plugging in an Ethernet cable. - **Static IP Address**: Select this type if you want to access the internet using fixed IP information.
IP Address	When static IP address is chosen as the connection type, enter the fixed IP address information provided by your ISP.  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	

5.3 Set Failover connection

5.3.1 Overview

By configuring the Failover function, you can set parameters of the internet connection mode other than the current one. If there is a network failure, the router will automatically switch to an available internet connection mode, therefore ensuring an uninterrupted internet access for clients under the router.

> Before setting the Failover function, ensure that you insert a SIM card into the router, and connect the WAN port of the router to the internet at the same time.

To access the page, log in to the web UI of the router, navigate to **Internet Settings**, and locate the **Failover Settings** part. This function is disabled by default.

When the failover function is enabled, the page is shown as below. You can configure the failover connection by referring to Access the internet through the WAN port.

5.3.2 Example of setting up Failover connection

Scenario: You used to insert a SIM card in the router to access the internet, but you install a smart home gateway after subscribing to the broadband service recently.

Goal: Set the router to access the internet through the broadband, and use the SIM card as backup in case of broadband failure.

Solution: Connect the broadband to the router and insert the SIM card into the router, and configure the Failover function.

Assume that the ISP provides a PPPoE user name and PPPoE password for setting up internet connection.

Procedures:

Step 1 Connect the WAN/LAN port of the router to the LAN port of your smart home gateway.

Step 2 Log in to the web UI of the router.

Step 3 Navigate to **Internet Settings**.

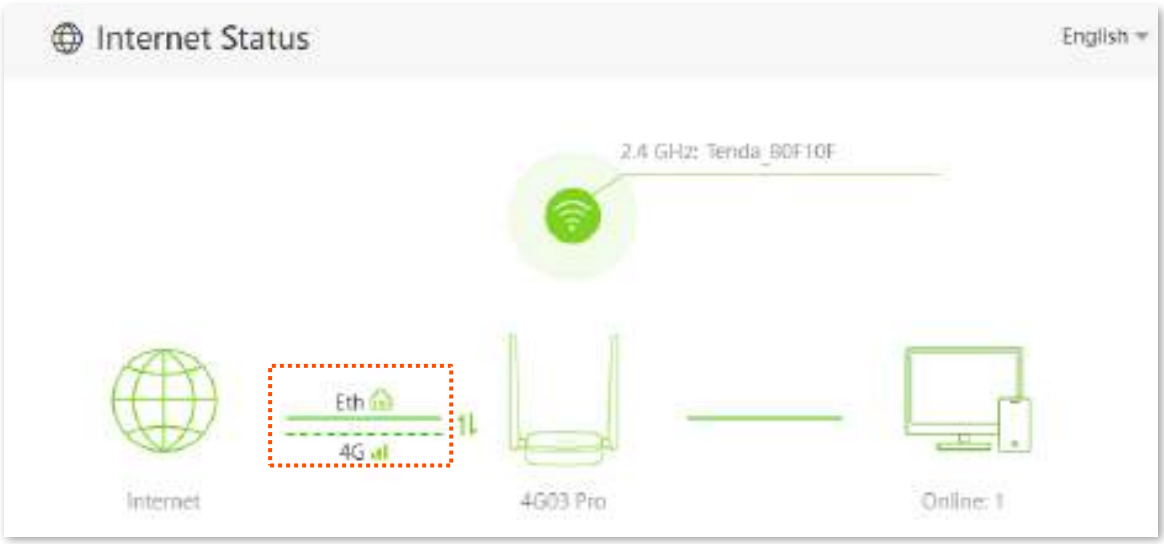
Step 4 Enable the **Failover** function.

Step 5 Set **Connection Type** to **PPPoE**, and enter the **PPPoE Username** and **PPPoE Password** provided by your ISP.

Step 6 Click **Connect**.

---End

When the figure is shown below on the **Internet Status** page, the router is connected to the internet successfully and you can enjoy uninterrupted internet access guaranteed by both the broadband and SIM card.



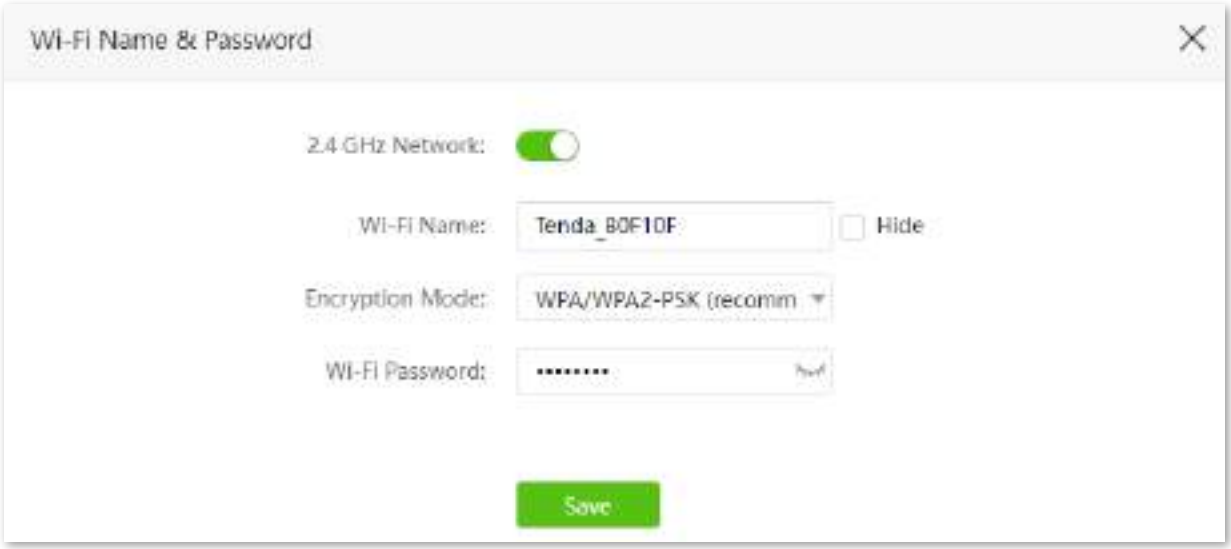
6 Wi-Fi settings

6.1 Wi-Fi name & password

6.1.1 Overview

To access the page, log in to the web UI of the router, and navigate to **Wi-Fi Settings** > **Wi-Fi Name & Password**.

On this page, you can configure basic Wi-Fi parameters, such as the Wi-Fi name and password.



Parameter description

Parameter	Description
2.4 GHz Network	Used to enable or disable the 2.4 GHz Wi-Fi network of the router.
Wi-Fi Name	Specifies the Wi-Fi name of the 2.4 GHz Wi-Fi network.
Hide	Used to hide the Wi-Fi name of the Wi-Fi network to improve the security level of the Wi-Fi network. When this function is enabled, the Wi-Fi network is invisible to wireless devices. You need to enter the Wi-Fi name of the network on your wireless devices (such as a smartphone) manually if you want to join the network.

Parameter	Description
Encryption Mode	Specifies the encryption modes supported by the router, including: - **None**: The Wi-Fi 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. - **WPA-PSK**: The network is encrypted with WPA-PSK/AES, which has a better compatibility than WPA2-PSK. - **WPA2-PSK**: The network is encrypted with WPA2-PSK/AES, which has a higher security level than WPA-PSK. - **WPA/WPA2-PSK (recommended):** WPA-PSK and WPA2-PSK are adopted to encrypt the network, providing both security and compatibility.
Wi-Fi Password	Specifies the password for connecting to the Wi-Fi network. You are strongly recommended to set a Wi-Fi password for security.  It is recommended to use the combination of digits, uppercase letters, lowercase letters, and special symbols in the password to enhance the security of the Wi-Fi network.

6.1.2 Change the Wi-Fi name and Wi-Fi password

Assume that you want to change the 2.4 GHz Wi-Fi name and password to **John_Doe_2.4GHz** and **Tenda+Wireless24**. And **WPA/WPA2-PSK (recommended)** is set to the encryption mode.

Procedure:

Step 1 Log in to the web UI of the router.

Step 2 Navigate to **Wi-Fi Settings** > **Wi-Fi Name & Password.**

Step 3 Change the parameters of the 2.4 GHz network.

1. Change the **Wi-Fi Name** of the 2.4 GHz network, which is **John_Doe_2.4GHz** in this example.
2. Set the **Encryption Mode**, which is **WPA/WPA2-PSK (recommended)** in this example.
3. Set the **Wi-Fi Password** of the 2.4 GHz network, which is **Tenda+Wireless24** in this example.

Step 4 Click **Save**.

---End

After the configuration is completed, you can connect your wireless devices to the Wi-Fi network of the router to access the internet.

6.1.3 Hide the Wi-Fi network

The hidden Wi-Fi network is invisible to the wireless device, thus improving the security of the network.

Procedure:

Step 1 Log in to the web UI of the router.

Step 2 Navigate to **Wi-Fi Settings** > **Wi-Fi Name & Password.**

Step 3 Tick **Hide**.

Step 4 Click **Save**.

---End

After the configuration is completed, the 2.4 GHz Wi-Fi network name is invisible to the wireless device.

6.1.4 Connect to a hidden Wi-Fi network

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

Assume that the parameters are:

- Wi-Fi name: Jone_Doe
- Encryption type: WPA/WPA2-PSK (recommended)
- Wi-Fi password: Tenda+Wireless24

TIP

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

Procedure for connecting to the Wi-Fi network on your wireless device (Example: iPhone):

Step 1 Tap **Settings** on your smartphone, and tap **WLAN**.

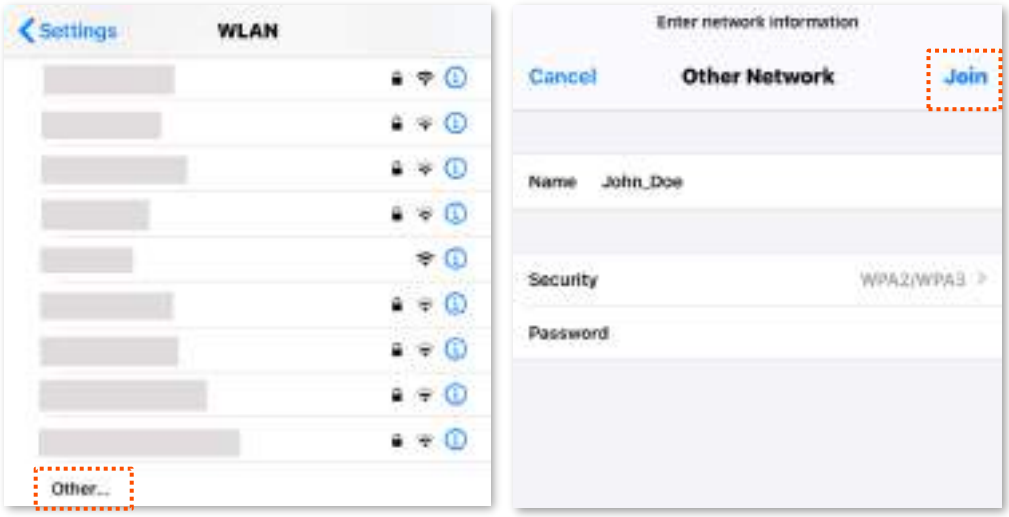
Step 2 Enable **WLAN**.

Step 3 Scroll the Wi-Fi list to the bottom, and tap **Other…**.

Step 4 Enter the Wi-Fi name and password, which are **John_Doe** and **Tenda+Wireless24** in this example.

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

Step 6 Tap **Join**.



---End

After the configuration is completed, you can connect to the hidden Wi-Fi network to access the internet.

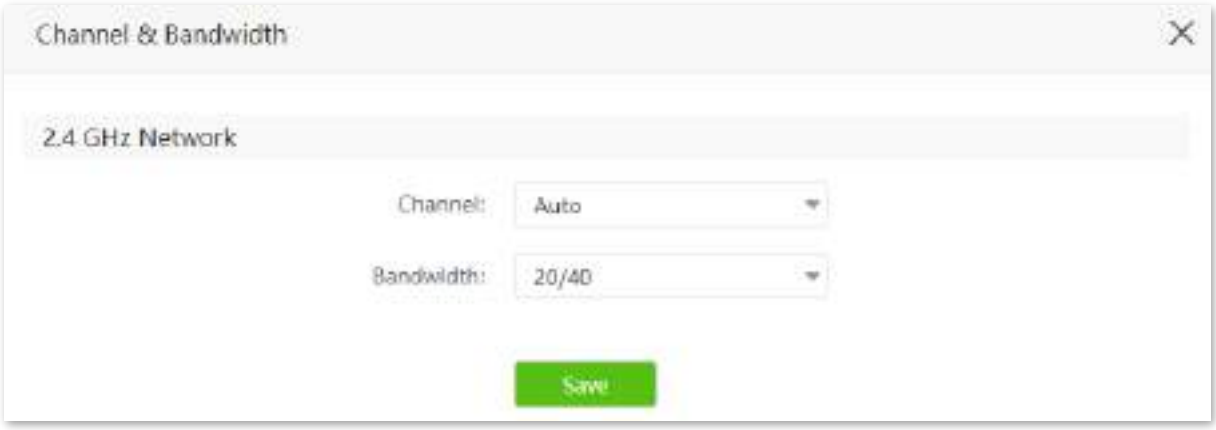
6.2 Channel & bandwidth

In this section, you can change the wireless channel and wireless bandwidth of 2.4 GHz Wi-Fi network.

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

TIP

To ensure the wireless performance, it is recommended to maintain the default settings on this page without professional instructions.



Parameter description

Parameter	Description
Channel	Specifies the channel of 2.4 GHz Wi-Fi network. By default, the wireless channel is **Auto**, which indicates that the router selects a channel for the Wi-Fi 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 Wi-Fi signals nearby to understand the channel usage situations.
Bandwidth	Specifies the bandwidth of the wireless channel of a Wi-Fi 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**: It specifies that a router can switch its channel bandwidth between 20 MHz and 40 MHz based on the ambient environment.

6.3 WPS

6.3.1 Overview

The WPS function enables wireless devices, such as smartphones, to quickly and easily connect to Wi-Fi network of the router without entering the Wi-Fi password. There are two ways to connect devices to the Wi-Fi network.

- Connect devices to the Wi-Fi network using the WPS button
- Connect devices to the Wi-Fi network through the web UI of the router

To enable or disable the WPS function, log in to the web UI of the router, and navigate to **Wi-Fi Settings** > **WPS**.

NOTE

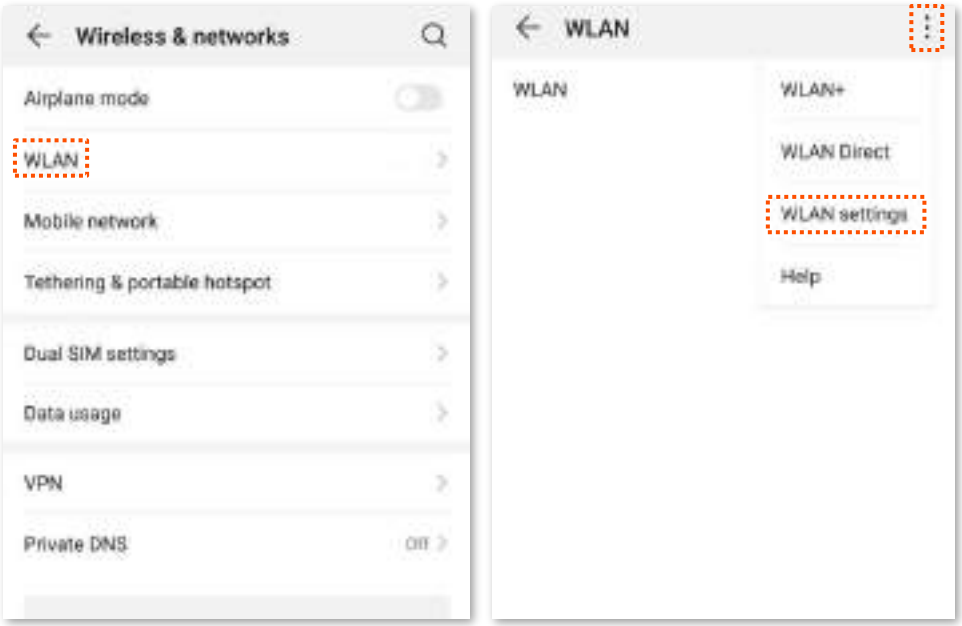
- This function is only applicable to WPS-enabled wireless devices.
- If the WPS function is disabled, the internet cannot be connected through the WPS function of the router.

6.3.2 Connect devices to the Wi-Fi network using the WPS button

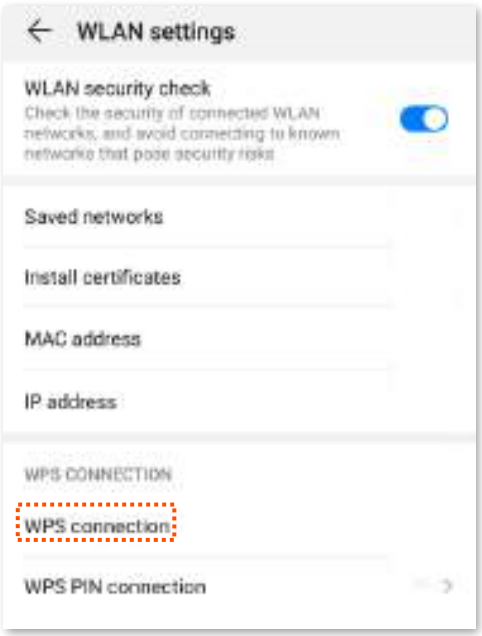
Step 1 Find the **WPS/RST** button on the rear panel of the router, and hold it down for 1 to 3 seconds. The Wi-Fi indicator blinks slow.

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

1. Find **Settings** on the smartphone.
2. Tap **WLAN**.
3. Tap ⋮, and choose **WLAN settings**.



4. Tap **WPS connection**.



---End

Wait a moment until the WPS negotiation is completed, and the smartphone is connected to the Wi-Fi network.


WLAN settings
WLAN security check
Saved networks
Install certificates
MAC address
IP address
WPS connection
Press the WLAN Protected Setup button on your router. It may be called "WPS" or contain this symbol.
CANCEL

6.3.3 Connect devices to the Wi-Fi network through the web UI of the router

Step 1 Log in to the web UI of the router.

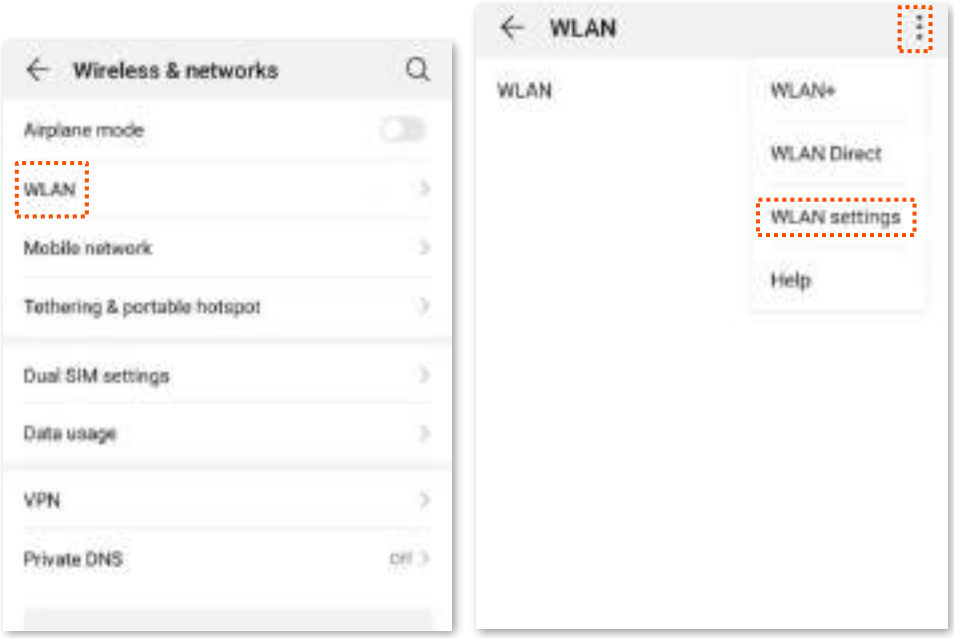
Step 2 Navigate to **Wi-Fi Settings** > **WPS.**

Step 3 Enable **WPS**.

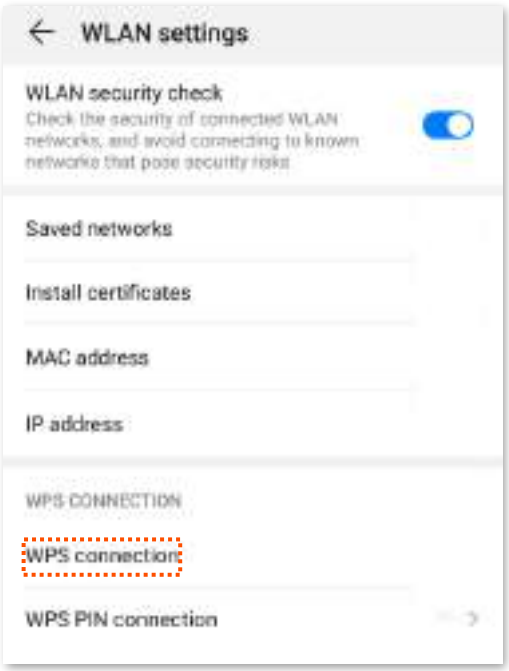
Step 4 Click Click Here.

Step 5 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 smartphone.
2. Tap ⋮, and choose **WLAN settings**.



3. Tap **WPS connection**.



---End

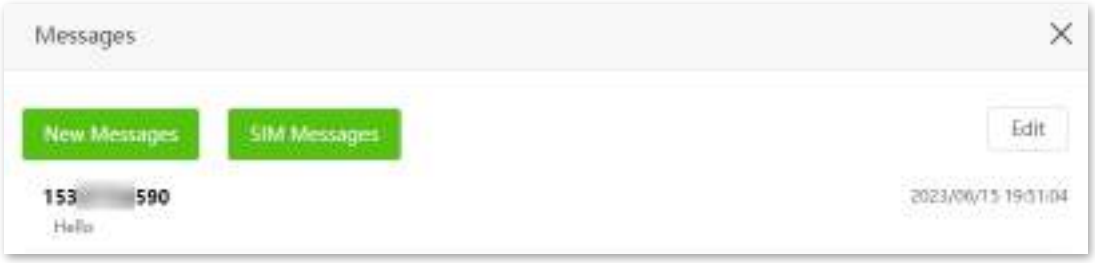
Wait a moment until the WPS negotiation is completed, and the smartphone is connected to the Wi-Fi network.

7 SMS

7.1 Manage SMS messages

This router supports sending, receiving, deleting and exporting SMS messages on the web UI.

To access the page, log in to the web UI of the router, and navigate to **SMS** > **Messages**.



7.1.1 Send SMS messages

Send SMS messages to a new smartphone number

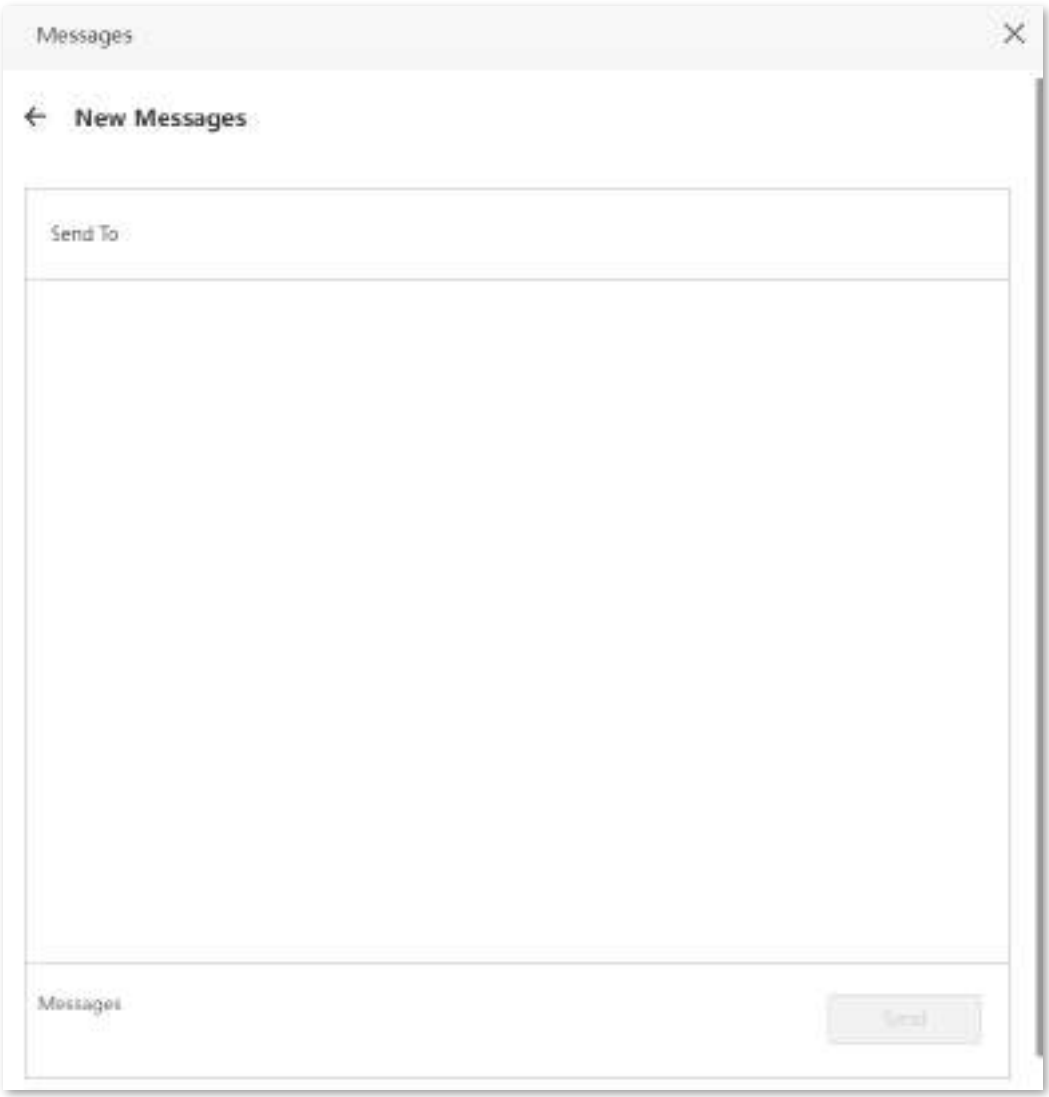
Step 1 Log in to the web UI of the router.

Step 2 Navigate to **SMS** > **Messages.**

Step 3 Click **New Messages**.

Step 4 Enter the smartphone number in the **Send To** column.

Step 5 Enter the message content in the **Messages** column at the bottom.



Step 6 Click **Send** at the bottom right corner.

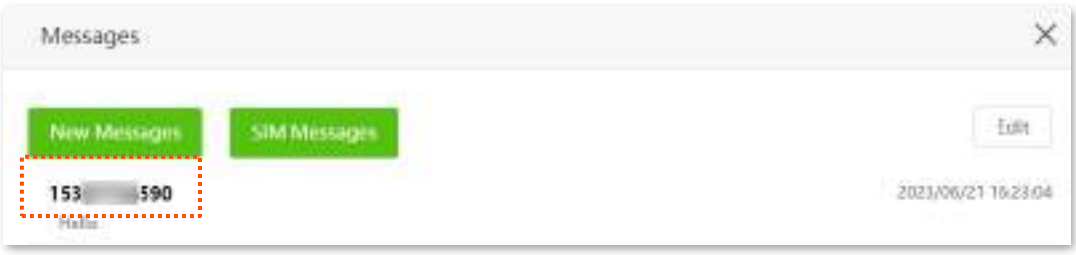
---End

Send messages to an existing smartphone number

Step 1 Log in to the web UI of the router.

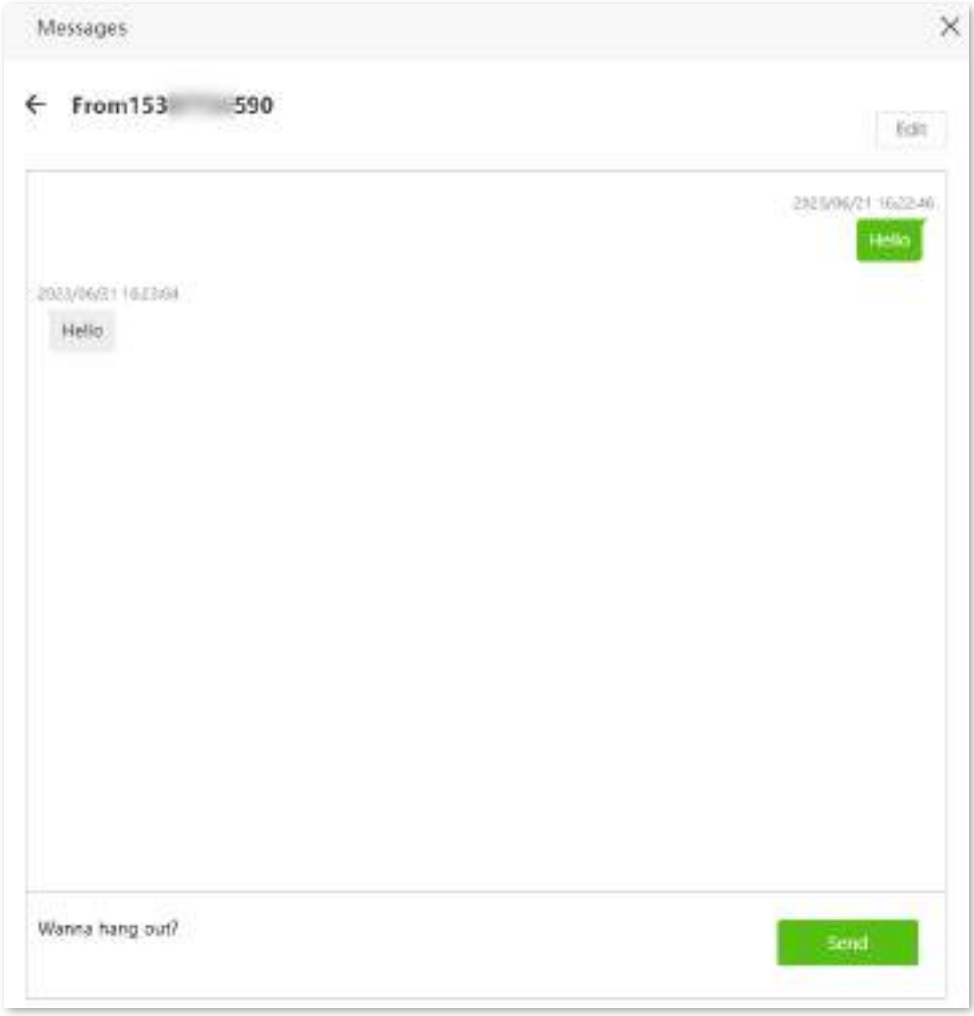
Step 2 Navigate to **SMS** > **Messages.**

Step 3 Click the targeted smartphone number.



Step 4 Enter the message content in the **Messages** column at the bottom.

Step 5 Click **Send**.



---End

After the messages are sent, you can view them on the same page.

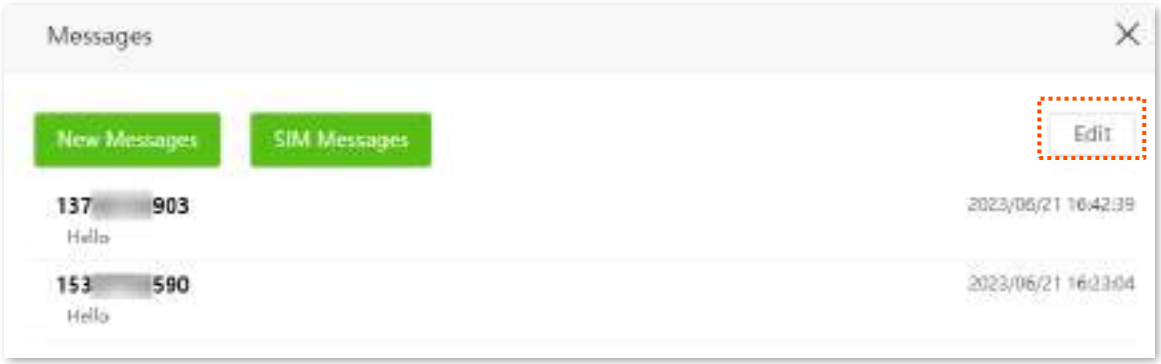
7.1.2 Delete SMS messages

Delete all messages of the same smartphone numbers

Step 1 Log in to the web UI of the router.

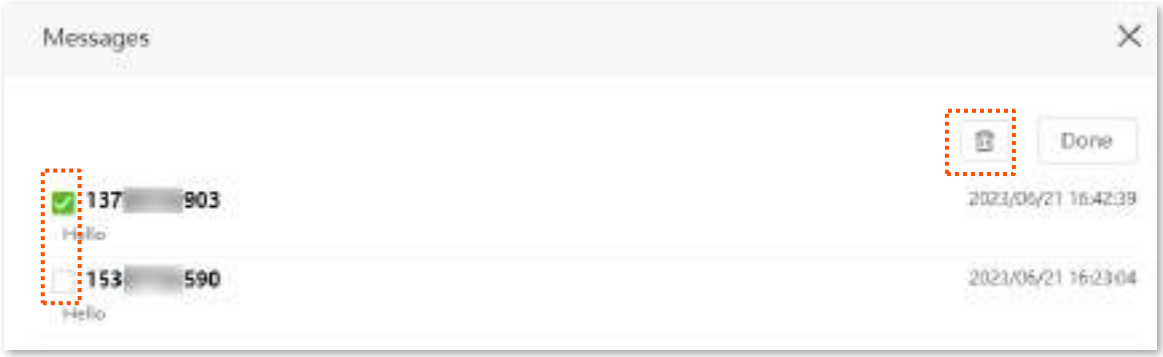
Step 2 Navigate to **SMS** > **Messages.**

Step 3 Click **Edit** in the upper right corner.



Step 4 Select the smartphone number to be deleted.

Step 5 Click 🗑.



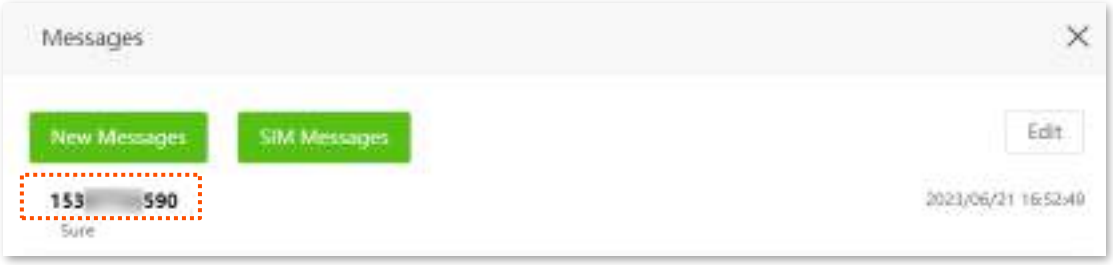
---End

Delete certain messages of the same smartphone number

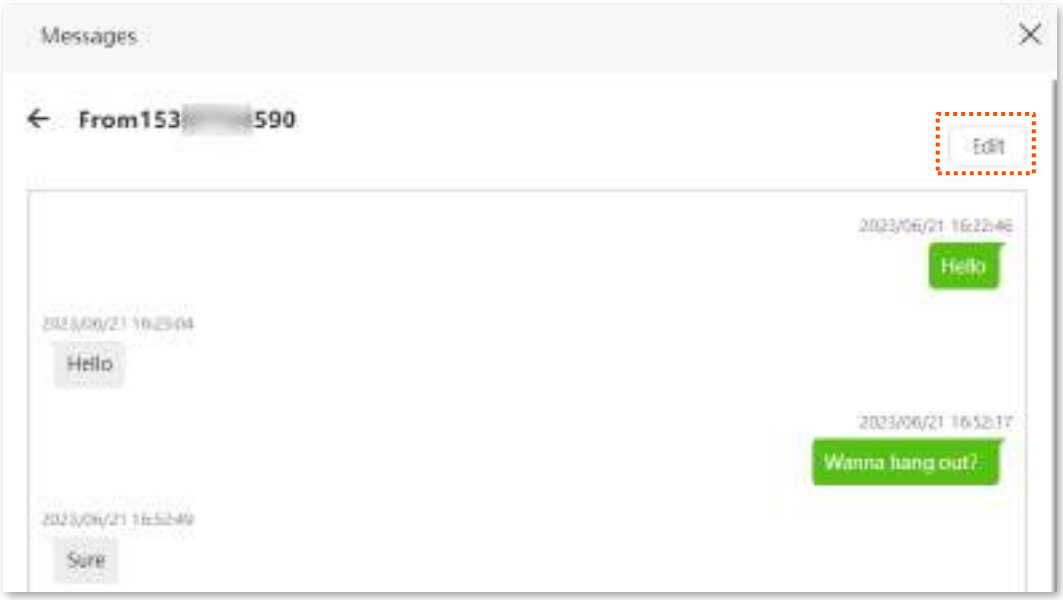
Step 1 Log in to the web UI of the router.

Step 2 Navigate to **SMS** > **Messages.**

Step 3 Click the targeted smartphone number.

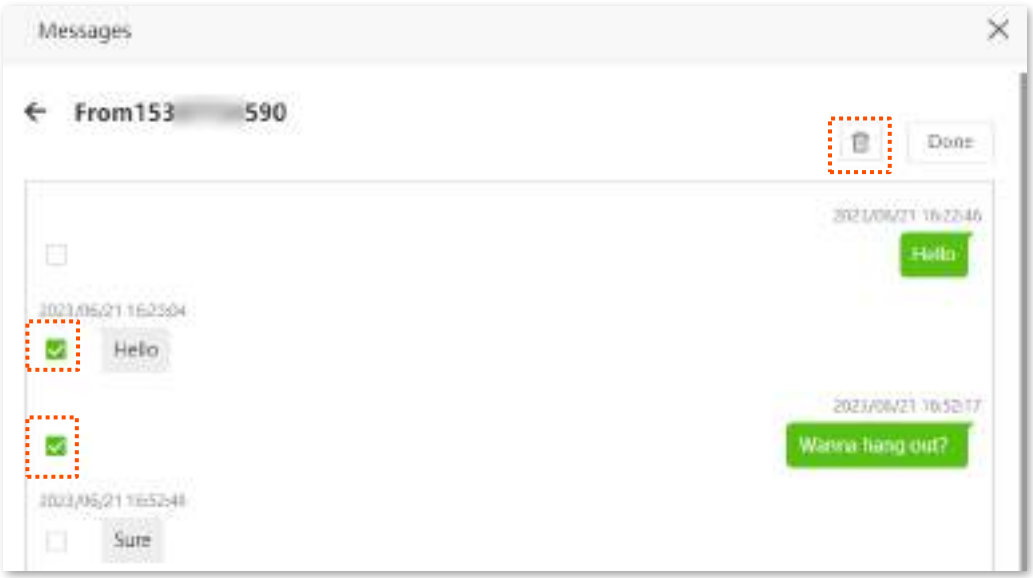


Step 4 Click **Edit**.



Step 5 Select the messages to be deleted.

Step 6 Click .



---End

Delete certain messages of the SIM card

TIP

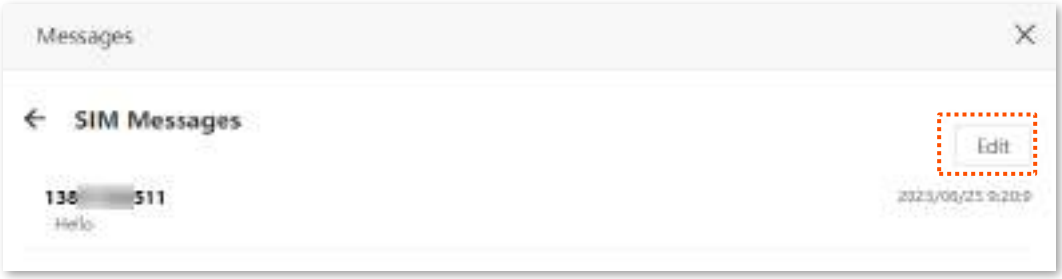
This function is available only when messages are stored in the SIM card.

Step 1 Log in to the web UI of the router.

Step 2 Navigate to **SMS** > **Messages.**

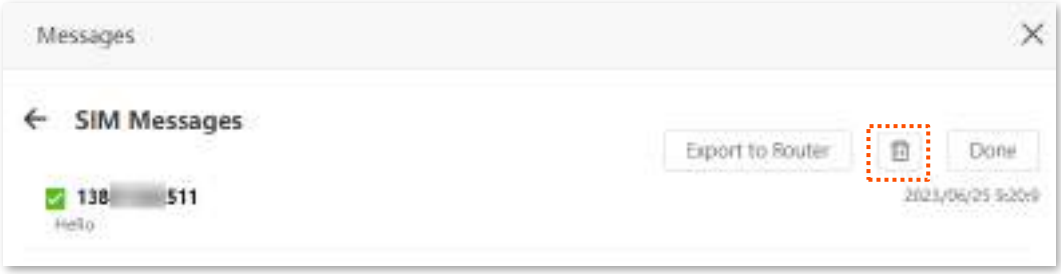
Step 3 Click **SIM Messages**.

Step 4 Click **Edit** in the upper right corner.



Step 5 Select the smartphone number to be deleted.

Step 6 Click 🗑.



---End

7.1.3 Export SMS messages

For wireless devices (such as smartphones), SMS messages can be stored on the SIM card. When the SIM card is inserted into the router, you can export messages in the SIM card to the router to view them on the web UI of the router.

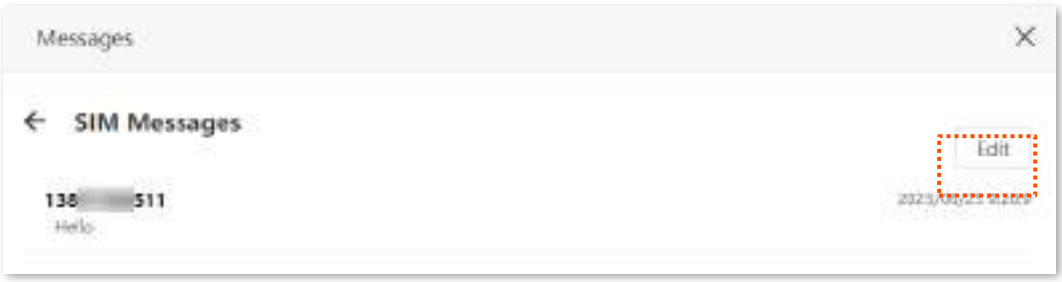
Procedure:

Step 1 Log in to the web UI of the router.

Step 2 Navigate to **SMS** > **Messages.**

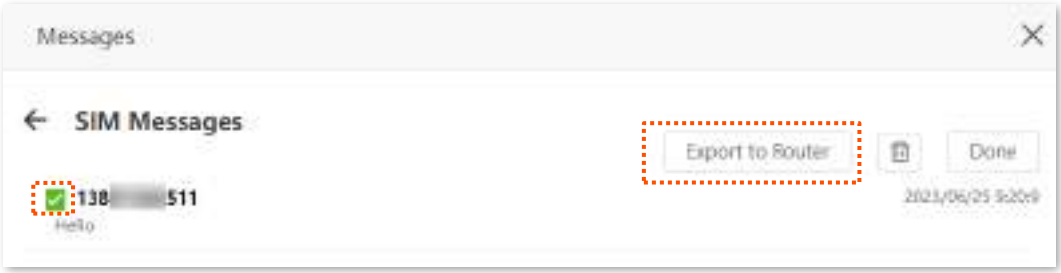
Step 3 Click **SIM Messages**.

Step 4 Click **Edit** in the upper right corner.



Step 5 Select the smartphone number to export messages.

Step 6 Click **Export to Router** (click **Done** to cancel).



---End

After the messages are exported, you can view them on the **Messages** page.

7.2 Set the message center number

Message center is the short message server for SMS messages. You will be unable to send SMS messages with a wrong message center number.

The router can automatically detect the message center number after you insert a SIM card. If you have problems in sending SMS messages, you are recommended to inquire your ISP for the message center number and change it on the web UI of the router if it is wrong.

Procedure:

Step 1 Log in to the web UI of the router.

Step 2 Navigate to **SMS** > **Messages Settings**.

Step 3 Enable **Message Settings**.

Step 4 Enter the correct **Message Center Number**.

TIP

Contact your ISP for correct message center number.

Step 5 Click **Save**.

---End

After the configuration is completed, you can send SMS messages with a correct message center number.

7.3 Inquire information by sending USSD commands

With **USSD** function, you can inquire specific information or perform specific operations by send a special code or command to your ISP.

NOTE

Such codes or commands are predetermined. You can contact your ISP to find those codes or commands.

Procedure:

Step 1 Log in to the web UI of the router.

Step 2 Navigate to **SMS** > **USSD**.

Step 3 Set the **USSD CMD**, which is ***108#** in this example.

Step 4 Click **Send**.

---End

Wait a moment, you will get the desired information you want in the **USSD Read** box.

8 VPN

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

The typology of a VPN network is shown below.

8.1 PPTP server

8.1.1 Overview

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

To access the page, log in to the web UI of the router, and navigate to **VPN** > **PPTP Server**. This function is disabled by default. When it is enabled, the page is shown as below.

Parameter description

Parameter	Description
PPTP Server	Used to enable or disable the PPTP server. When it is enabled, the router functions as a PPTP server, which can accept the connections from PPTP clients.
IP Address Pool	Specifies the range of IP address range within which the PPTP server can assign to PPTP clients. It is recommended to keep the default settings.
MPPE Encryption	Used to enable or disable 128-bit data encryption. The encryption settings should be the same between the PPTP server and PPTP clients. Otherwise, the communication cannot be achieved normally.
User Name	Specify the VPN user name and password, which the VPN user needs to enter when making PPTP dial-ups (VPN connections).
Password	
Connection Status	Specifies the connection status of the VPN connection.
Operation	The available operations include: + Add : Used to add new PPTP user accounts. : Used to disable the PPTP user account. : Used to enable the PPTP user account. : Used to delete the PPTP user account.

8.1.2 Enable internet users to access resources of the LAN

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

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

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

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

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

Procedure:

Step 1 Log in to the web UI of the router.

Step 2 Enable the PPTP server function.

1. Navigate to **VPN** > **PPTP Server**.
2. Enable the **PPTP Server**.
3. Enable the **MPPE Encryption**, which means that the encryption digit remains the default value “128”.
4. Click **Save**.

Step 3 Add PPTP user name and password.

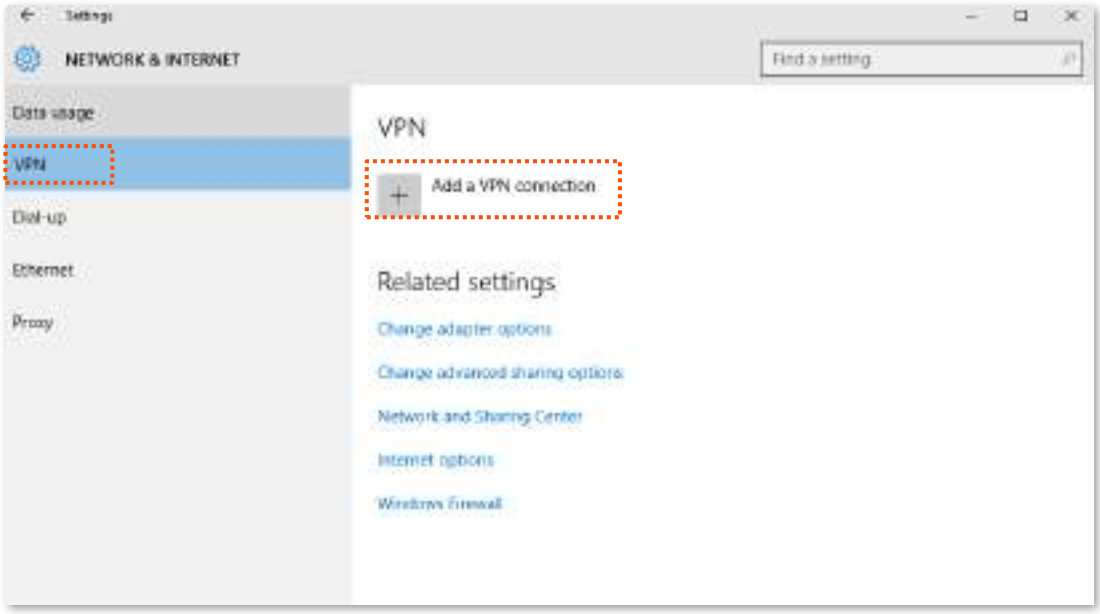
1. Set the **User Name** and **Password** of the PPTP server, which are **admin1** in this example.
2. Click **+Add**.

---End

After the configuration is completed, internet users can access the FTP server by following these steps:

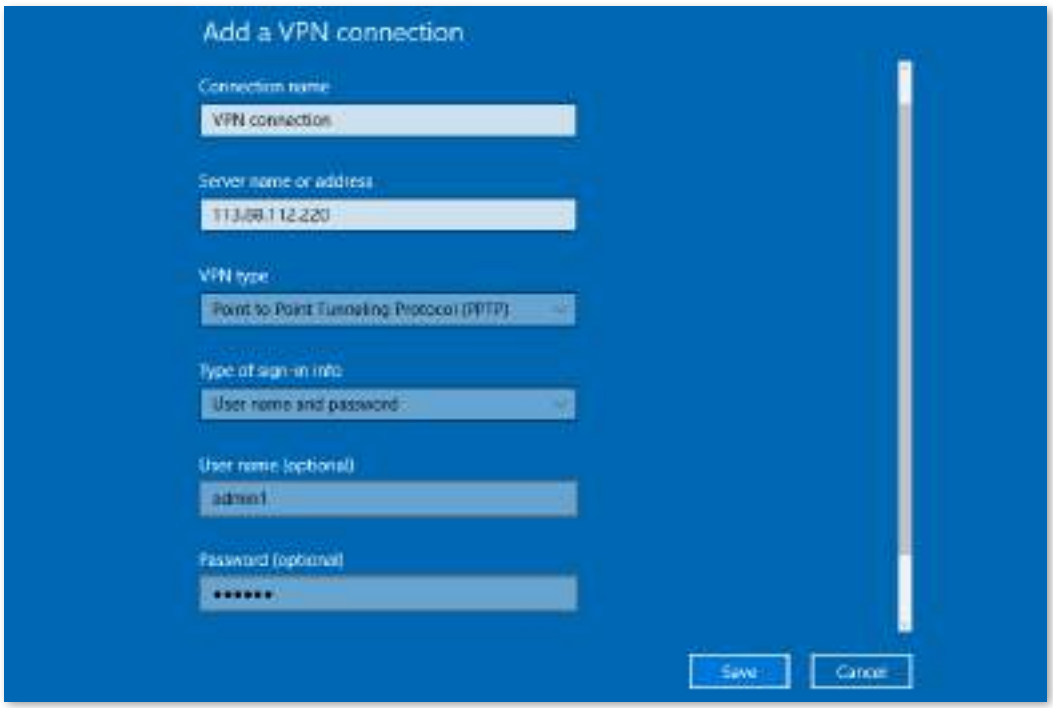
Step 1 Click the icon at the bottom right corner on the desktop, and then click **Network settings**.

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

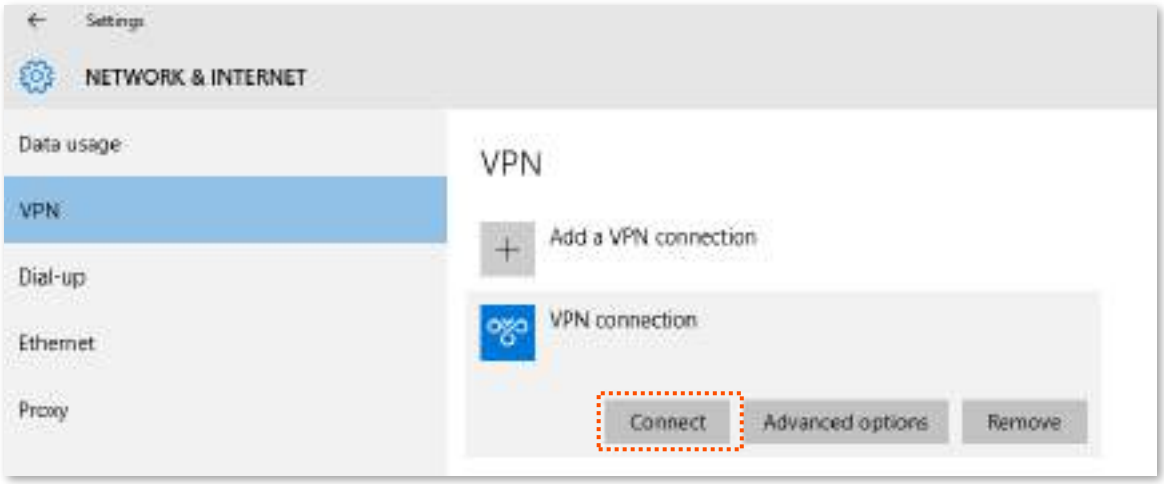


Step 3 Configure the VPN parameters.

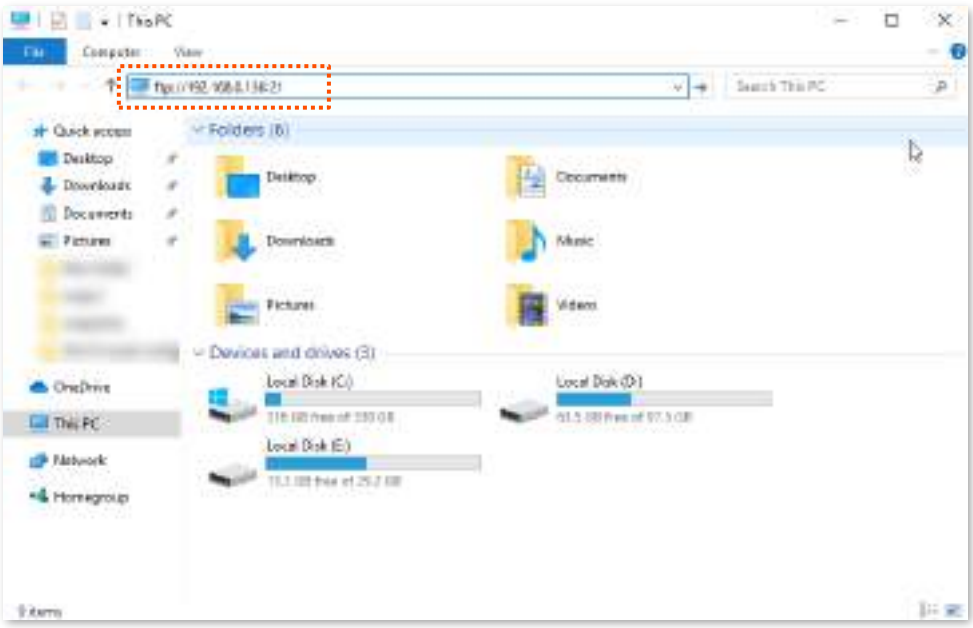
1. Enter a connection name, such as **VPN connection**.
2. Enter the server address, which is **113.88.112.220** in this example.
3. Select a VPN type, which is **Point to Point Tunneling Protocol (PPTP)** in this example.
4. Select a type of sign-in info, which is **User name and password** in this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



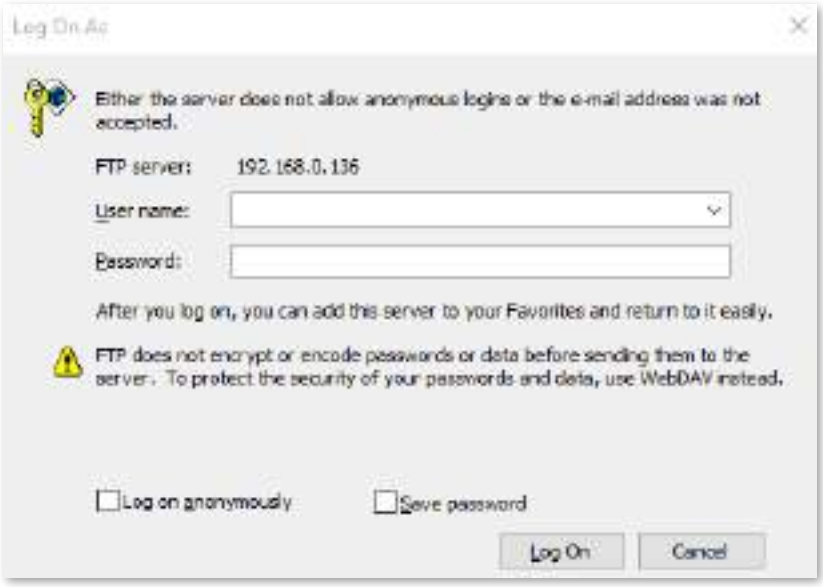
Step 4 Target the VPN connection added, and click **Connect**.



Step 5 Click the icon on the desktop, and enter the address in the address bar to access the FTP server, which is **ftp://192.168.0.136:21** in this example.



Step 6 Enter the user name and password for logging in to the FTP server, which are both **JohnDoe** in this example, and click **Log On**.



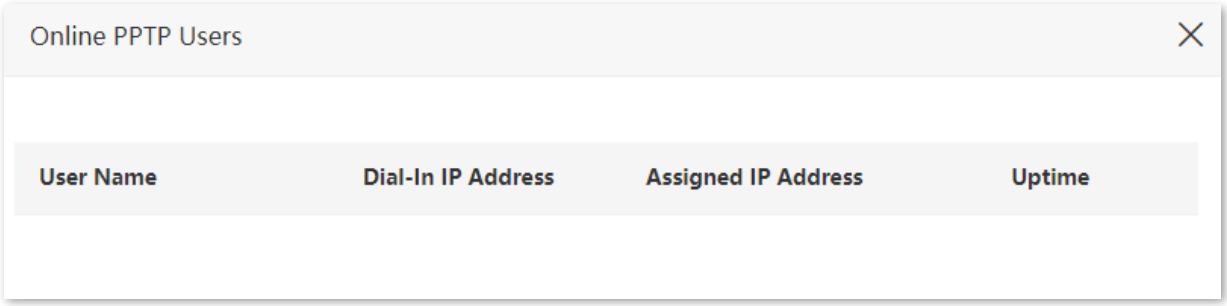
---End

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

8.2 Online PPTP users

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

To access the page, log in to the web UI of the router, and navigate to **VPN** > **Online PPTP Users**.



Parameter description

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

8.3 PPTP/L2TP client

8.3.1 Overview

This router can function as a PPTP/L2TP client and connect to PPTP/L2TP servers.

The PPTP/L2TP client function is disabled by default. When it is enabled, the page is shown as below.

Parameter description

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

8.3.2 Access VPN resources with the router

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

Goal: Access the VPN resources of your ISP.

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

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

Procedure:

Step 1 Log in to the web UI of the router.

Step 2 Navigate to **VPN** > **PPTP/L2TP Client**.

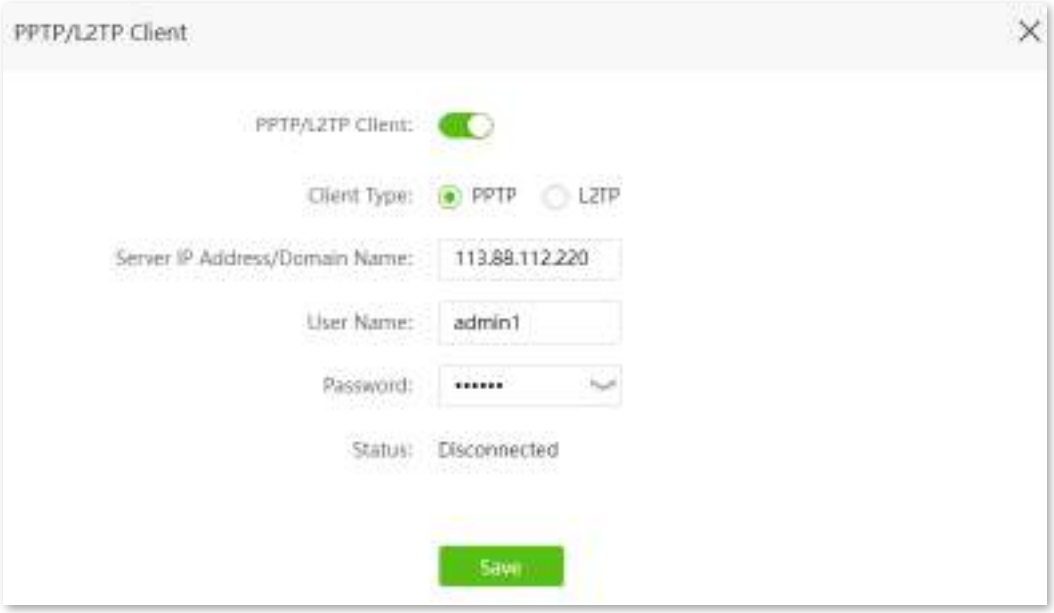
Step 3 Enable the **PPTP/L2TP Client**

Step 4 Choose **PPTP** as the **Client Type**.

Step 5 Set the **Server IP Address/Domain Name**, which is **113.88.112.220** in this example.

Step 6 Set the **User Name** and **Password**, which are both **admin1** in this example.

Step 7 Click **Save**.



---End

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

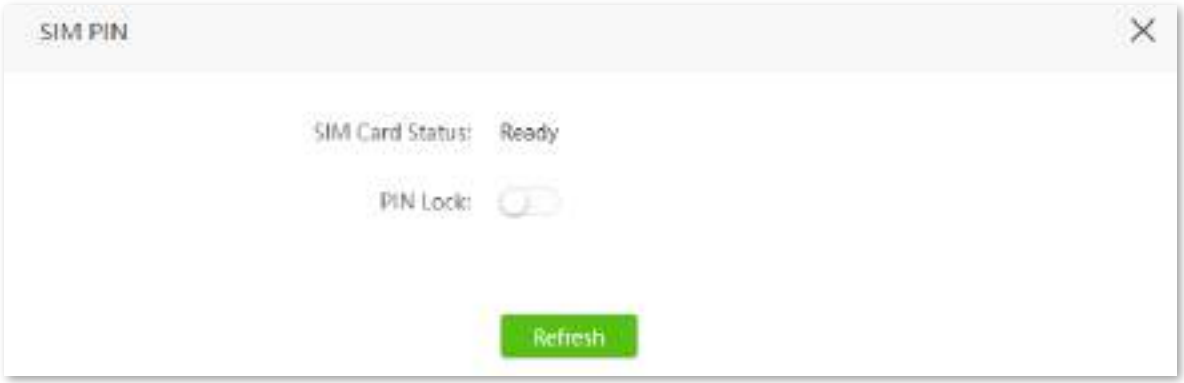
9 Advanced settings

9.1 SIM PIN

SIM PIN is a protective measure to prevent your SIM card from misuse. If your SIM card is locked when you insert it into the router, you are required to unlock it for internet access. You can also enable the PIN lock and specify a PIN code for an unlocked SIM card.

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

When the SIM card is not set with PIN code, the page is shown as below.



9.1.1 Unlock the SIM card

If you want to use a locked SIM card to access the internet, you need to unlock it first.

Unlock the SIM card in the quick setup wizard

Assume that you are required to unlock the SIM card in the quick setup wizard, the PIN code is needed.

Procedure:

Step 1 Log in to the web UI of the router.

Step 2 Click **Start**.

Step 3 Enter the **PIN Code**, and click **Save**.

NOTE

- It is recommended to enable the Auto-unlock PIN function.
- Contact your ISP for the original PIN code.
- You can try the PIN code for only 3 times. If you fail all, you must use PUK code to reset the PIN code. Contact your ISP for the PUK code. Otherwise the SIM card will be locked permanently after you enter the wrong PUK code for 10 times.

Step 4 Perform operations as prompted to complete the setup process.

---End

After the configuration is completed, you can log in to the web UI of the router to view and complete other configurations.

Unlock the SIM card on the web UI

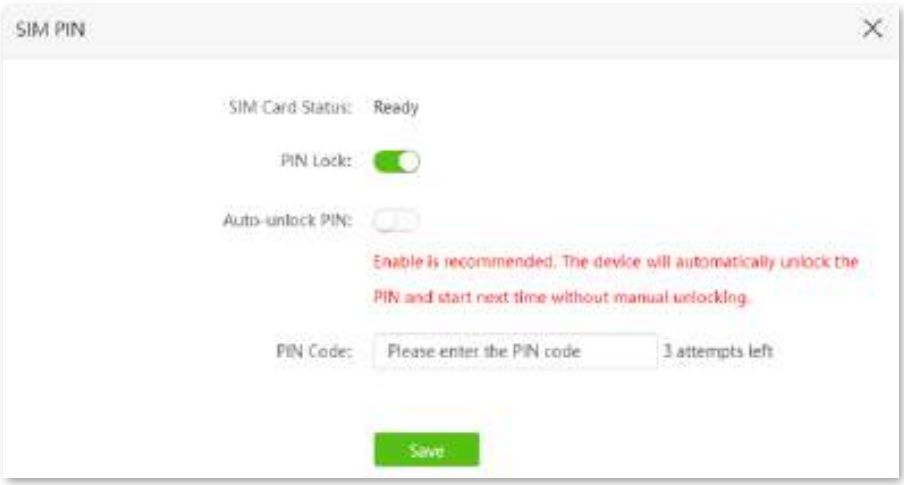
When “Please unlock the SIM card” is shown between the internet and the router, it indicates that you need to enter the PIN code. Click Please unlock the SIM card to navigate to the **SIM PIN** page and configure the related parameters.

Procedure:

Step 1 Log in to the web UI of the router.

Step 2 Click Please unlock the SIM card, or navigate to **Advanced Settings** > **SIM PIN**.

Step 3 Enter the **PIN Code**, and click **Save**.



NOTE

- It is recommended to enable the Auto-unlock PIN function.
- Contact your ISP for the original PIN code.
- You can try the PIN code for only 3 times. If you fail all, you must use PUK code to reset the PIN code. Contact your ISP for the PUK code. Otherwise the SIM card will be locked permanently after you enter the wrong PUK code for 10 times.

---End

After the configuration is completed, you can access the internet normally.

9.1.2 Enable PIN lock for the SIM card

You can enable a PIN lock for a SIM card. SIM PIN is a protective measure to prevent your SIM card from misuse.

NOTE

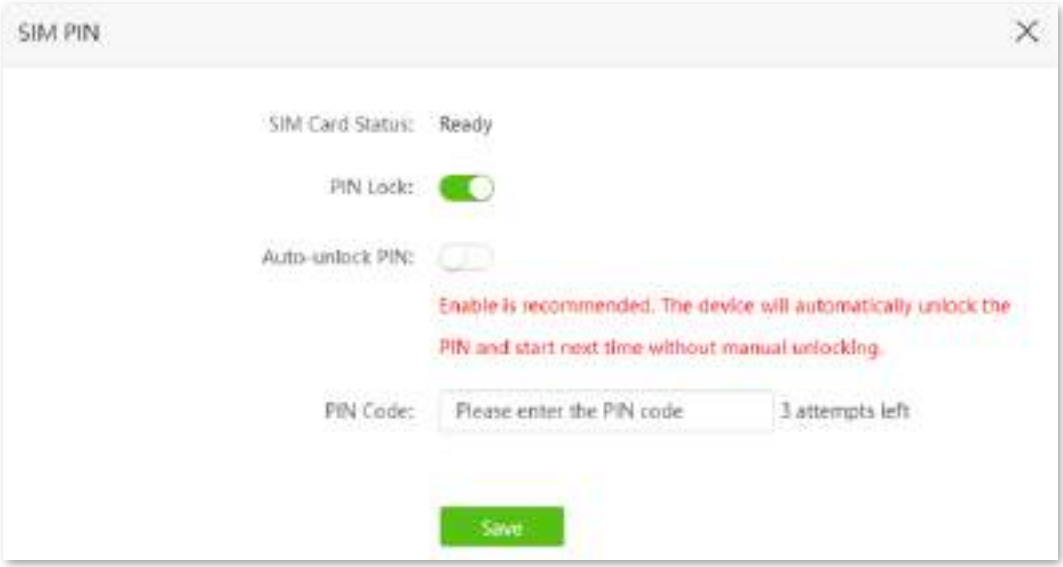
- It is recommended to enable the Auto-unlock PIN function.
- Contact your ISP for the original PIN code.
- You can try the PIN code for only 3 times. If you fail all, you must use PUK code to reset the PIN code. Contact your ISP for the PUK code. Otherwise the SIM card will be locked permanently after you enter the wrong PUK code for 10 times.

Procedure:

Step 1 Log in to the web UI of the router.

Step 2 Enable **PIN Lock**.

Step 3 Specify a **PIN Code**, and click **Save**.



---End

After the configuration is completed, the SIM card is protected by PIN lock.

9.1.3 Disable PIN lock for the SIM card

After PIN lock is disabled for the SIM card, your SIM card will not be protected by PIN lock.

NOTE

- Contact your ISP for the original PIN code.
- You can try the PIN code for only 3 times. If you fail all, you must use PUK code to reset the PIN code. Contact your ISP for the PUK code. Otherwise the SIM card will be locked permanently after you enter the wrong PUK code for 10 times.

Procedure:

Step 1 Log in to the web UI of the router.

Step 2 Navigate to **Advanced Settings** > **SIM PIN**.

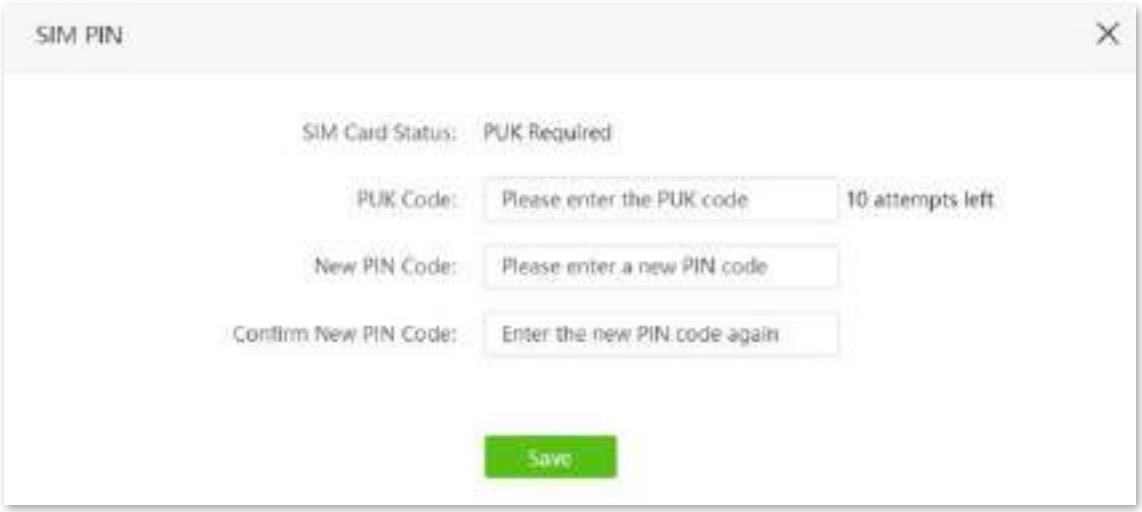
Step 3 Disable **PIN Lock**, enter the original **PIN Code**, and click **Save**.

---End

After the configuration is completed, the PIN lock function is disabled and the SIM card is not protected by PIN lock.

9.1.4 Use PUK code to set PIN code

If you fail to enter PIN code for three times, you must use PUK code to reset the PIN code. Contact your ISP for the PUK code. Otherwise the SIM card will be locked permanently after you enter the wrong PUK code for 10 times. And then set a new PIN code for the SIM card.



9.2 Tenda WiFi App

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

- Manage your router within the LAN.
- Manage your router through the internet.

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

Procedure:

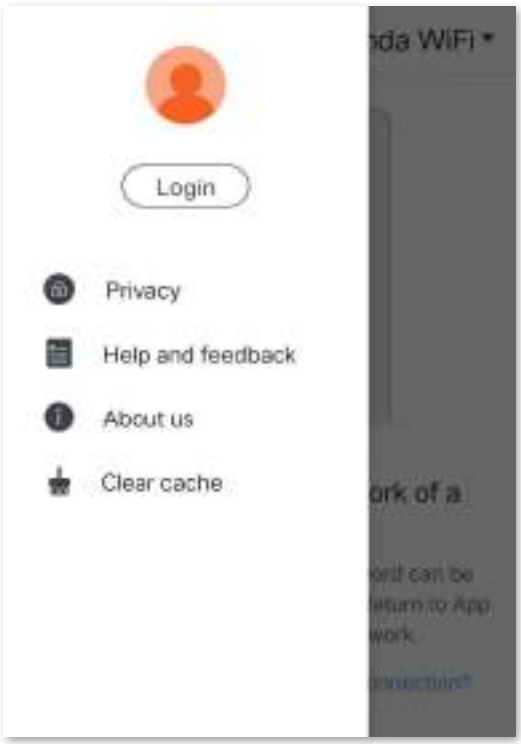
Step 1 Scan the QR code or search in the App store for the **Tenda WiFi** App. Download and install it on your smartphone.

TIP

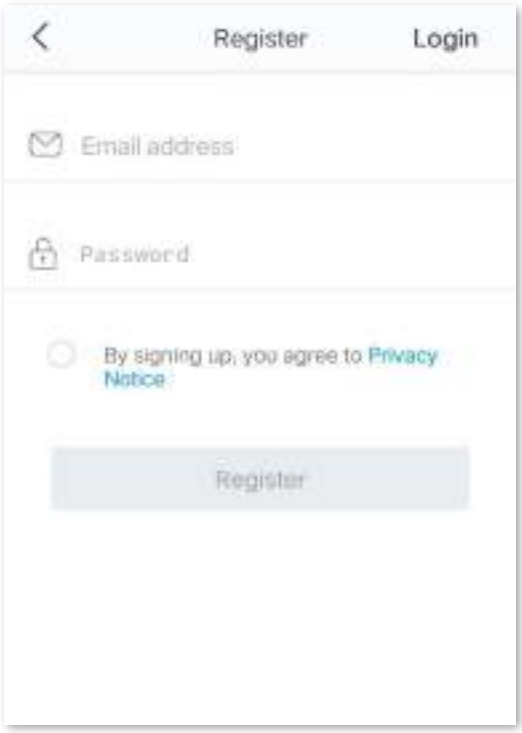
If you already have a **Tenda WiFi** App account or want to use the fast login approach, skip to **Step 3** and proceed with the settings.

Step 2 (Optional) Register an account in the **Tenda WiFi** App.

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

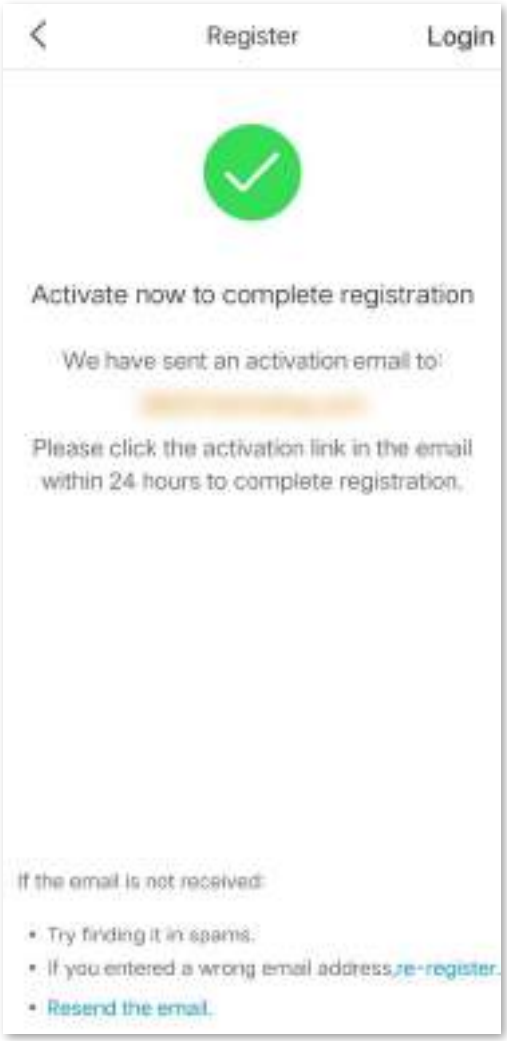


2. Tap **Register** at the top right corner, and register with an Email account.



3. Check the Email sent to your Email account and follow the instruction to finish the Email account confirmation process.

4. Tap **Login** at the top right corner of the registration page.



Step 3 Log in with a registered account.

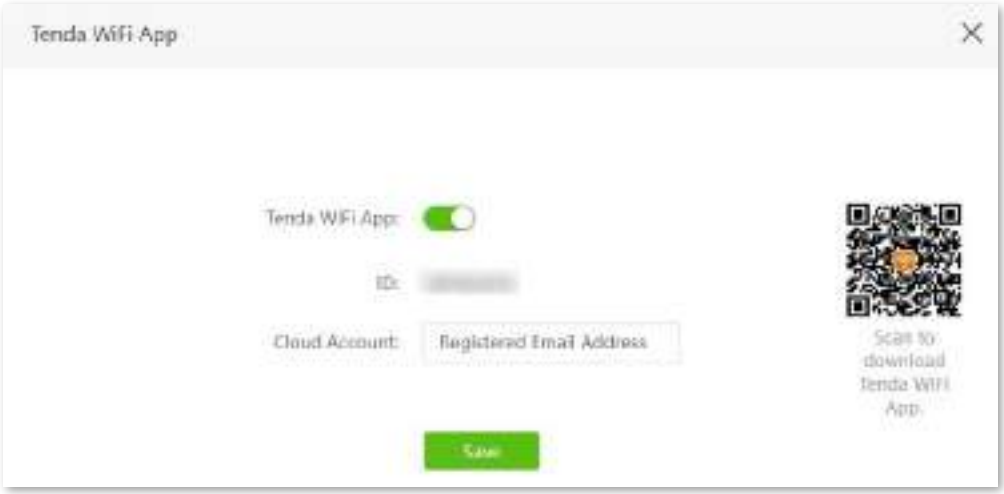
Follow the instructions on the home page of the **Tenda WiFi** App to add the router.

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**.

Step 4 Bind your router with your smartphone.

1. Log in to the web UI of the router.
2. Navigate to **Advanced Settings** > **Tenda WiFi App**.
3. Enable the **Tenda WiFi App**.
4. Enter an account registered in the **Tenda WiFi** App in **Cloud Account**.
5. Click **Save**.



---End

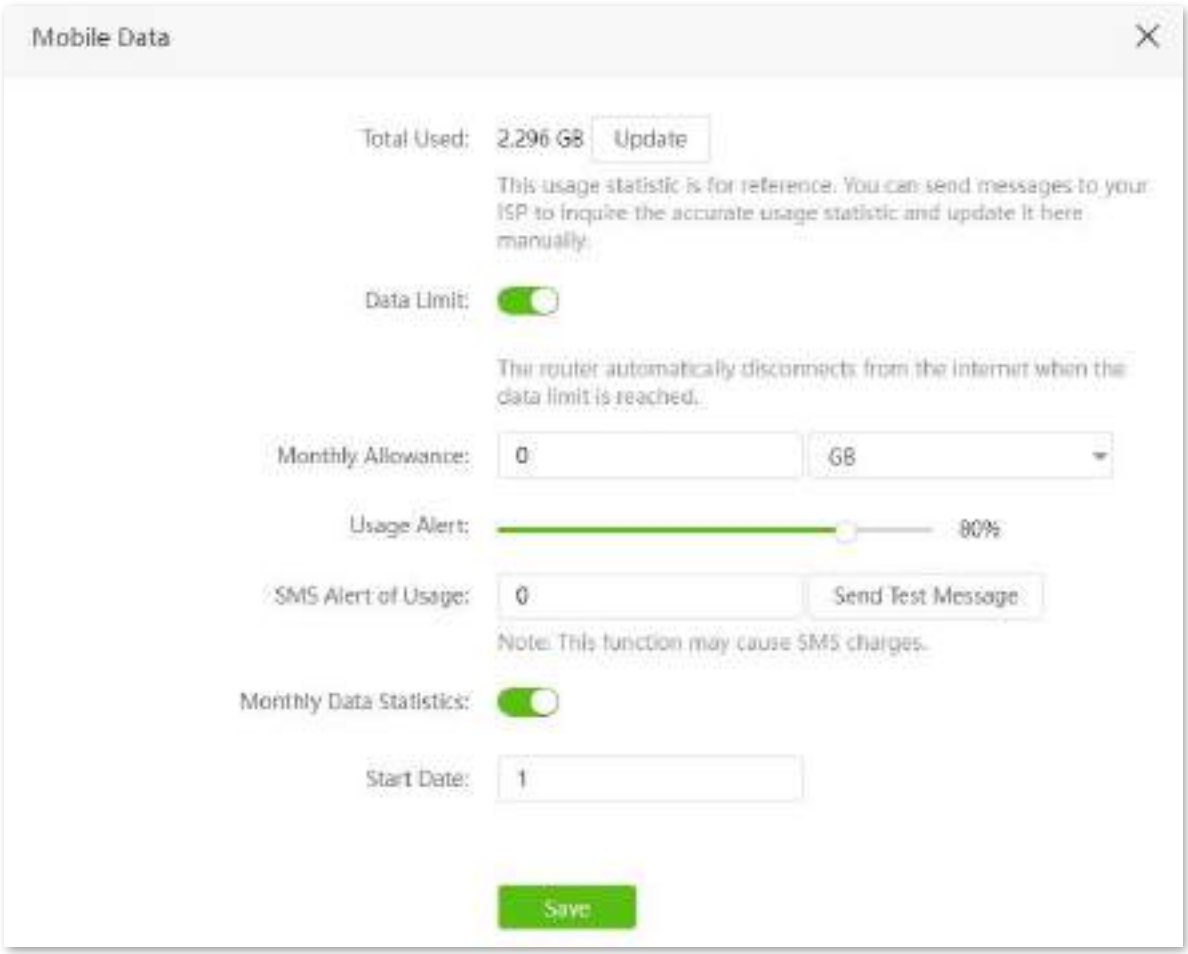
After the configuration is completed, you can manage your router with **Tenda WiFi** App on your smartphone anywhere and anytime through the internet.

9.3 Mobile data

9.3.1 Overview

You can view and update data usage statistics, and configure data usage settings, such as data usage limit and usage alert.

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



Parameter description

Parameter	Description
Total Used	Specifies the total data traffic that has been used. You can correct it by consulting you ISP and clicking **Update** to change it manually. When the **Monthly Data Statistics** function is enabled, the router will clear the number at the date specified in **Start Date**.

Parameter	Description
Data Limit	Used to enable or disable the data limit function. When the limit is reached, the router will disconnect from the internet automatically.
Monthly Allowance	Specifies the specific maximum data usage allowed for each month.
Usage Alert	When the percentage of data traffic used reaches the limit, the router will send an alert SMS message to a specified smartphone number.
SMS Alert of Usage	Specifies the smartphone number for receiving the alert SMS message. You can click **Send Test Message** to test the smartphone number you entered.
Monthly Data Statistics	Used to enable or disable the Monthly Data Statistics. When it is enabled, the router will clear the data of **Total Used** at the date specified in **Start Date.**
Start Date	Specifies the date at which the router clears the data statistics of the last month and start to record in the following month.

9.3.2 An example of mobile data configurations

Scenario: You inserted a SIM card in the router to provide mobile internet access for your smartphone, iPad and laptop.

Goal: You want to receive SMS message alert on your smartphone and get prepared when the usage reaches a certain amount every month.

Solution: You can configure mobile data settings to reach the goal.

Assume that:

- Available data traffic: 10 GB
- Start date of data usage record: 1st each month
- Smartphone number: 188****5555
- Alert percentage: 80%

Procedure:

Step 1 Log in to the web UI of the router.

Step 2 Navigate to **Advanced Settings** > **Mobile Data**.

Step 3 (Optional) Click **Update** to update the current usage data in **Total Used**.

Step 4 Enable **Data Limit**.

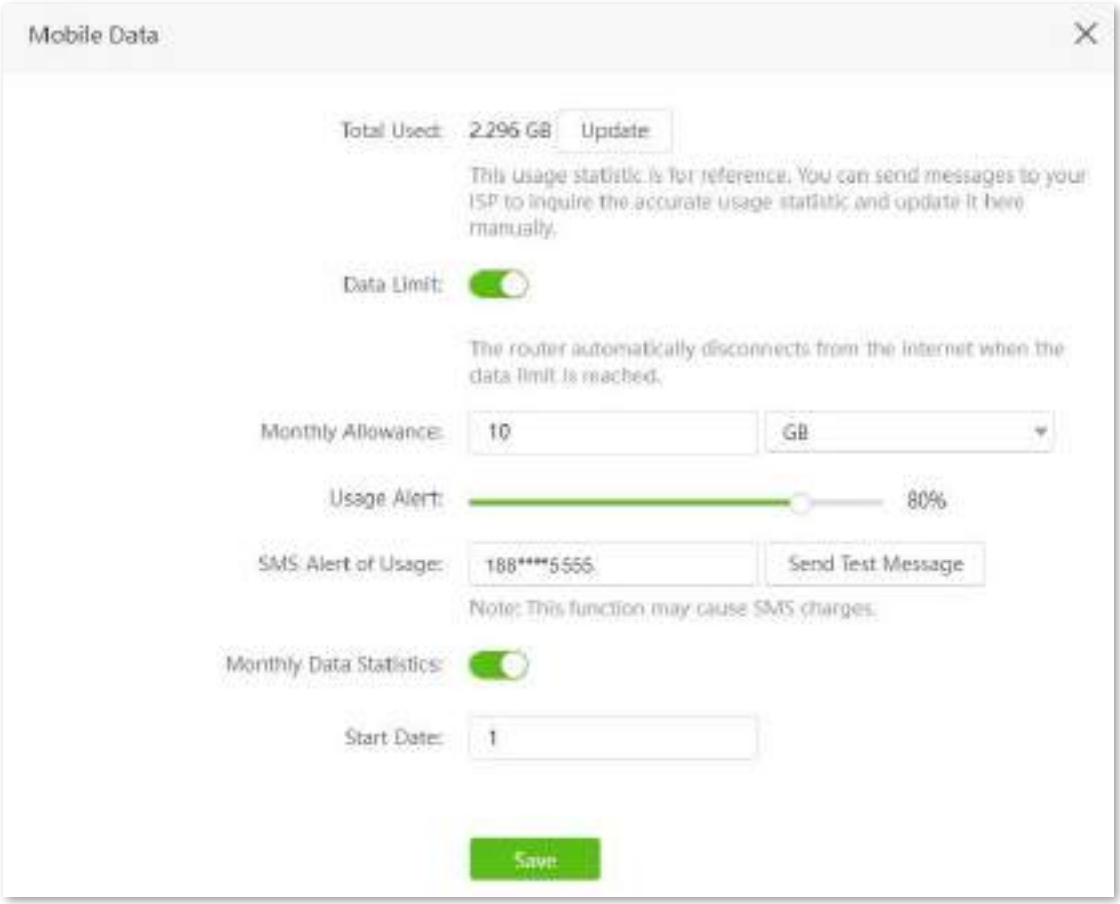
Step 5 Set **Monthly Allowance** to **10**, and choose **GB** in the drop-down box.

Step 6 Set **Usage Alert** to **80%**.

Step 7 Set **SMS Alert of Usage** to **188****5555**.

Step 8 Enable **Monthly Data Statistics**.

Step 9 Set **Start Date** to **1**, and click **Save**.



---End

After the configuration is completed, you will receive a SMS message when the data traffic usage reached 8 GB and cannot access the internet through the router when the data traffic usage reached 10 GB.

TIP

If you want to connect to the internet again after the data limit is reached, try the following methods:

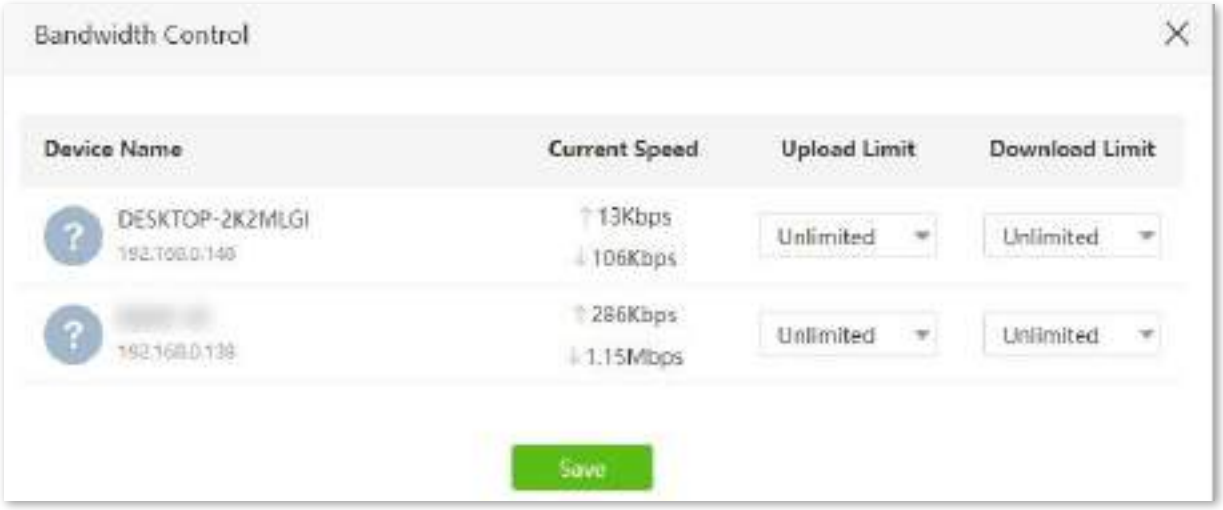
- Change the **Total Usage** by clicking **Update**.
- Disable **Data Limit**.
- Navigate to **Internet Settings**, and click **Connect** at the bottom of the page.

9.4 Bandwidth control

9.4.1 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 page, log in to the web UI of the router 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 the device name to change it.
Current Speed	Specifies the current upload and download speed of the device.
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	

9.4.2 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 of the router.

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

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

Step 4 Click **Save**.

---End

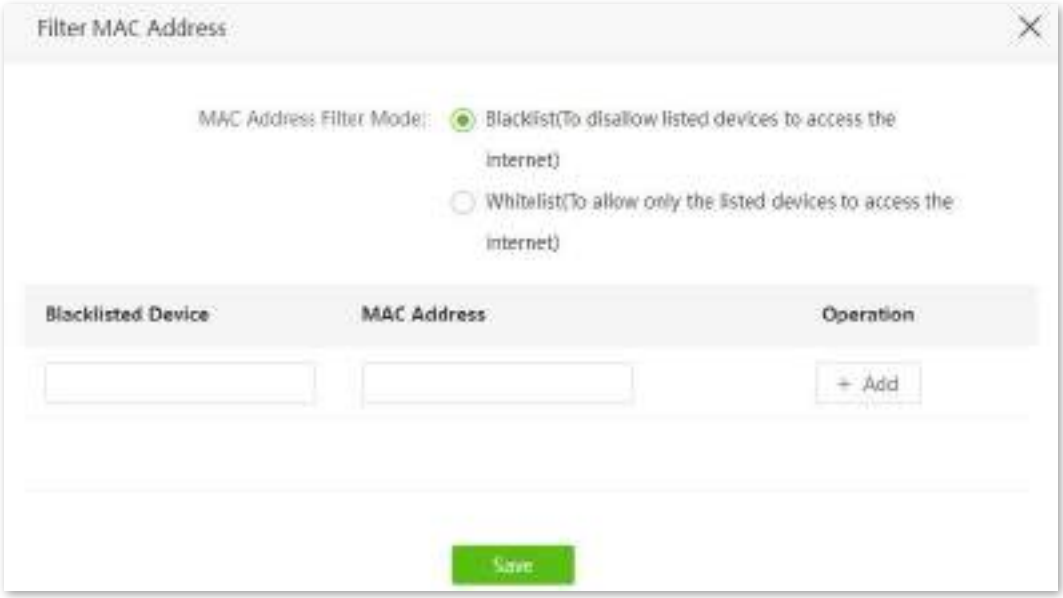
After the configuration is completed, the highest speed for the device is 4 Mbps (or 512 KB/s) and the requirement of 720p videos can be satisfied.

9.5 Filter MAC address

9.5.1 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 page, log in to the web UI of the router, 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 Wi-Fi network of the router, and wired devices listed are unable to access the internet. - **Whitelist**: Wireless devices listed can connect to the Wi-Fi network of the router, and wired devices listed are able to 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	+ Add : Used to add new devices to the blacklist or whitelist. : Used to remove devices from the blacklist or whitelist.

Parameter	Description
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.

9.5.2 Only allow specified device to access the internet

Scenario: The Wi-Fi 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 smartphone	8C:EC:4B:B3:04:92	Connected
Kid 1’s smartphone	94:C6:91:29:C2:12	Disconnected
Kid 2’s smartphone	98:9C:57:19:D0:1B	Disconnected

Procedure:

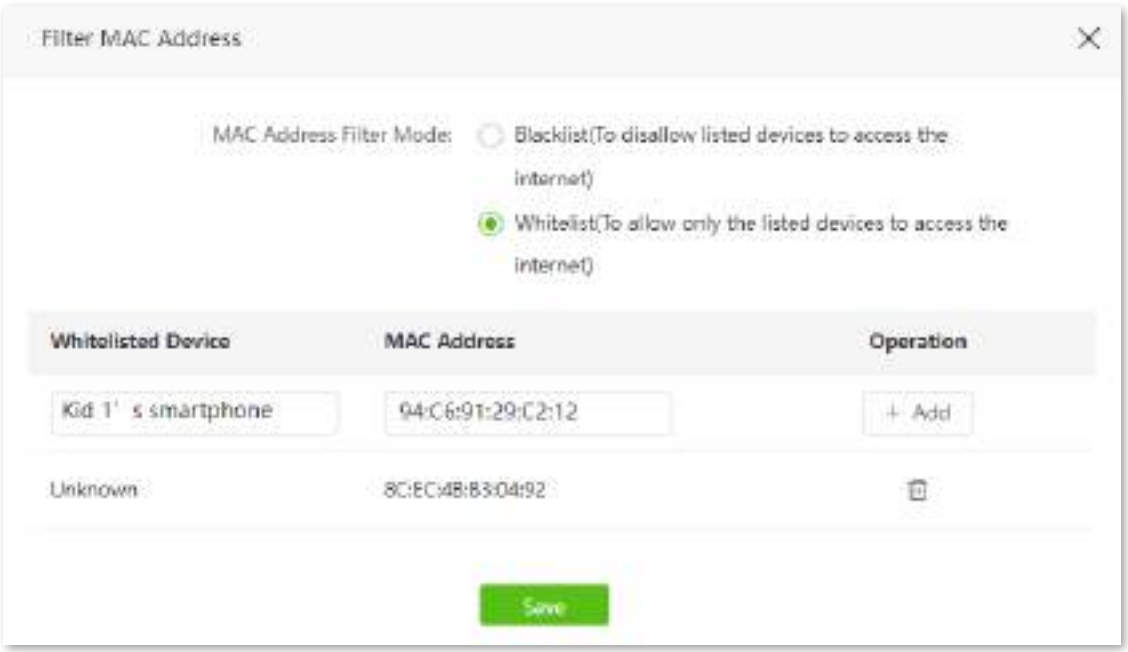
Step 1 Log in to the web UI of the router.

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

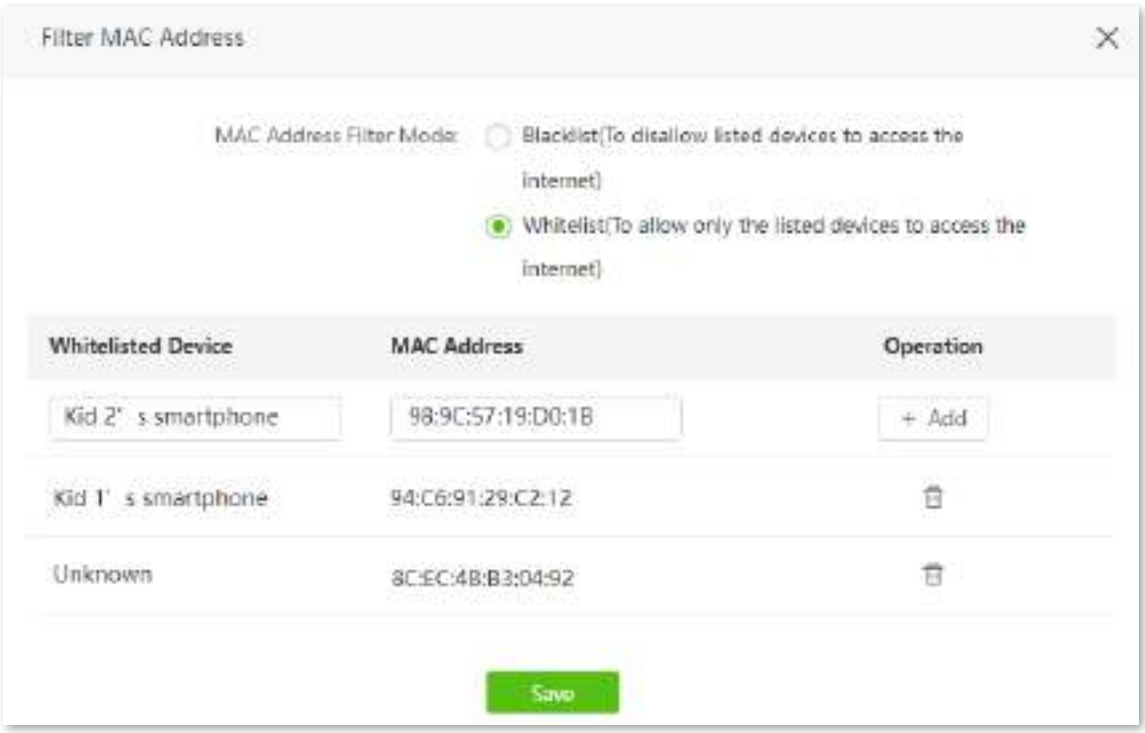
Step 3 Set the **MAC Address Filter Mode** to **Whitelist**.

Step 4 (Optional) Enter the device name in the **Whitelist Device** field, which is **Kid 1’s smartphone** in this example.

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



Step 6 Repeat **Step 4** to **Step 6** to add **Kid 2's smartphone** (**98:9C:57:19:D0:1B**) to the whitelist. Click **Save**.



---End

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

9.5.3 Disallow specified device to access the internet

Scenario: The final exam for your kid is approaching and you want to restrict the internet access through the router.

Goal: Disallow the certain device of family member to access the internet.

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

Assume that:

Device	MAC address	Status
Kid's smartphone	94:C6:91:29:C2:12	Disconnected

Procedure:

Step 1 Log in to the web UI of the router.

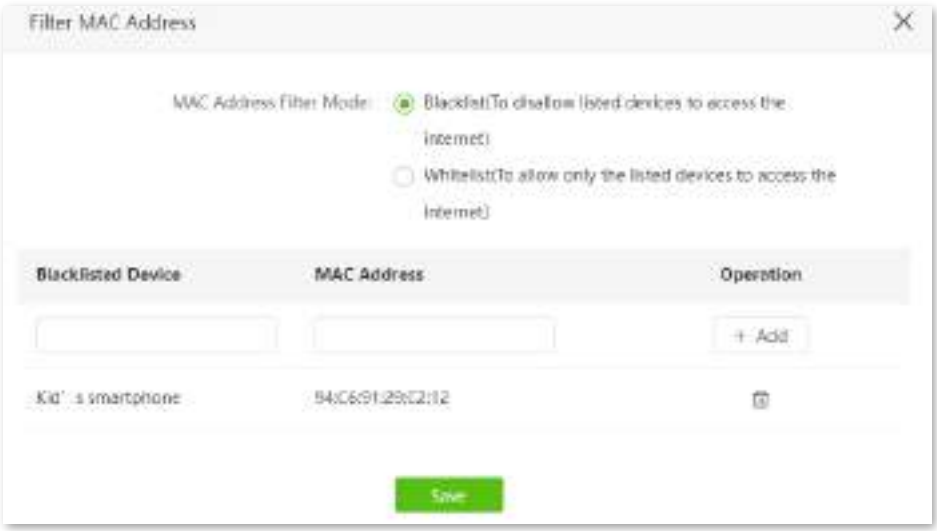
Step 2 Navigate to **Advanced Settings** > **Filter MAC Address**.

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

Step 4 (Optional) Enter the device name in the **Blacklisted Device** field, which is **Kid's smartphone** in this example.

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

Step 6 Click **Save**.



---End

After the configuration is completed, the device added cannot access the internet through the router.

9.6 Firewall

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

To access the page, log in to the web UI of the router, 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 of time, and then suspends in a semi-connected state, thereby occupying a large amount 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 in a similar way with ICMP flood attack, during which the attacker sends many UDP packets to the target host, causing the target host to be busy processing these UDP packets, but unable to process normal packet requests or responses.

Parameter	Description
Ignore Ping Packet From WAN Port	Used to enable or disable the Ignore Ping packet from WAN Port function. When it is enabled, the router automatically ignores the ping to its WAN from hosts from the internet and prevent itself from being exposed, while preventing external ping attacks.

9.7 ISP update

On this page, you can update the ISP information to obtain the better user experience. When you cannot access the internet or the APN mismatch appears, you can try to use this function to solve the problem.

NOTE

To prevent the router from being damaged:

- Ensure that the update file is applicable to the router.
- When you are updating the ISP information, do not power off the router.

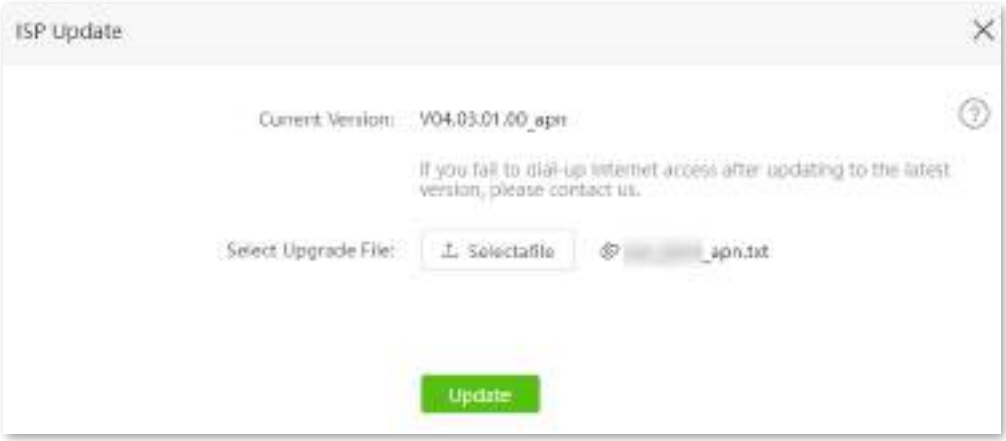
Procedure:

Step 1 Go to www.tendacn.com. Download an applicable ISP update file to your local computer and unzip it.

Step 2 Log in to the web UI of the router.

Step 3 Navigate to **Advanced Settings** > **ISP Update.**

Step 4 Click **Selectafile**. Select and upload the ISP update file that has been downloaded in Step 1, and click **Update**.



---End

Wait for a moment until the ongoing process finishes. Log in to the web UI of the router again, you can check whether the upgrade is successful based on the **Current Version** on the **ISP Update** page.

10 System settings

10.1 DHCP reservation

10.1.1 Overview

Through the DHCP reservation function, specified clients can always obtain the same IP address when connecting to the router. This function takes effect only when the DHCP server function of the router is enabled.

To access the page, log in to the web UI of the router, 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: + Add : It is used to add a new DHCP reservation rule. : It is used to bind the MAC address to the reserved IP address. : It is used to unbind the MAC address from the reserved IP address. : It is used to delete the DHCP reservation rule.

10.1.2 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: 192.168.0.136
- MAC address of the FTP server host: D4:61:DA:1B:CD:89

Procedure:

Step 1 Log in to the web UI of the router.

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

Step 3 (Optional) Set the device name for the host.

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

Step 5 Set the **IP Address** reserved for the host, which is **192.168.0.136** in this example.

Step 6 Click **+Add**.

---End

After the configuration is completed, the page is shown as below and the FTP server host always gets the same IP address when connecting to the router, which is **192.168.0.136** in this example.

10.2 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.

10.2.1 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.

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

Procedure:

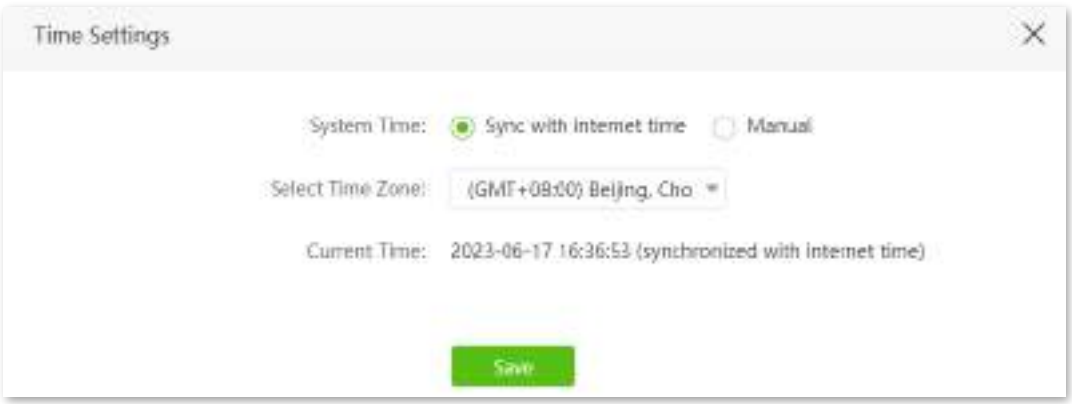
Step 1 Log in to the web UI of the router.

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

Step 3 Select **Sync with internet time** for **System Time**.

Step 4 Set **Select Time Zone** as required.

Step 5 Click **Save**.



---End

After the configuration is completed, you can refresh the page to check whether the system time of the router is correct.

10.2.2 Set the time manually

When the system time is set to **Manual**, you can set a desired time or 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.

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

Procedure:

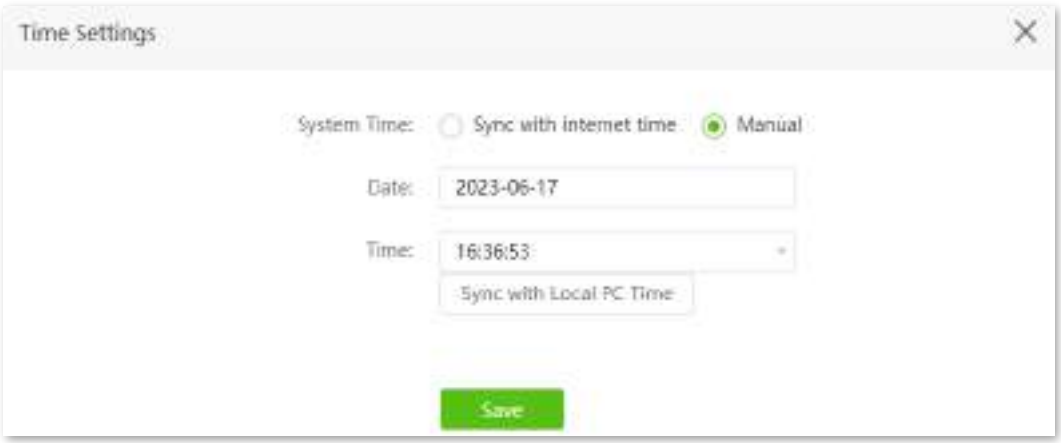
Step 1 Log in to the web UI of the router.

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

Step 3 Select **Manual** for **System Time**.

Step 4 Set **Date** and **Time** as required.

Step 5 Click **Save**.



---End

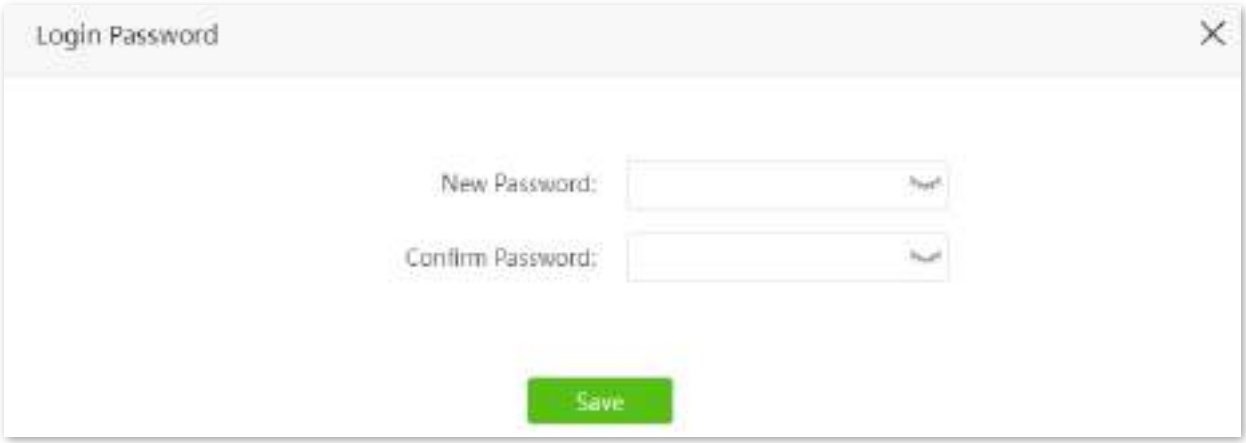
After the configuration is completed, you can refresh the page to check whether the system time of the router is correct.

10.3 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 page, log in to the web UI of the router, and navigate to **System Settings** > **Login Password**.

When you use the router for the first time and the login password is not set in the quick setup wizard 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 password.

10.4 Reboot and reset

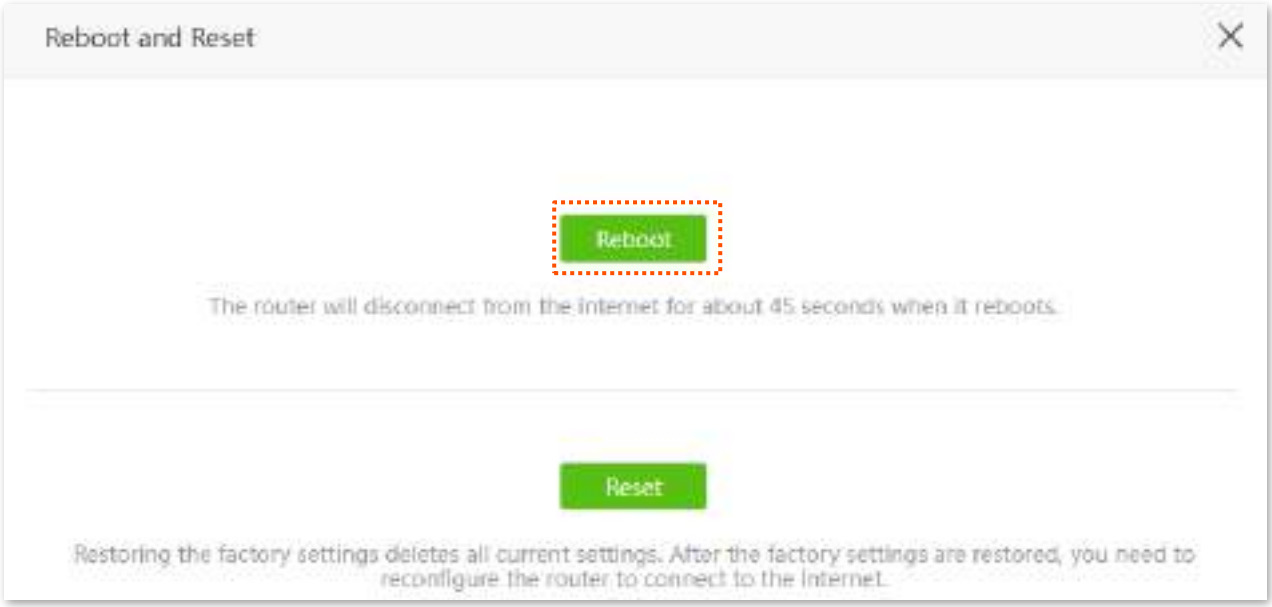
10.4.1 Reboot the router

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 times.

Log in to the web UI of the router, navigate to **System Settings** > **Reboot and Reset**, and click **Reboot**.



Wait for a moment until the ongoing process finishes.

10.4.2 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

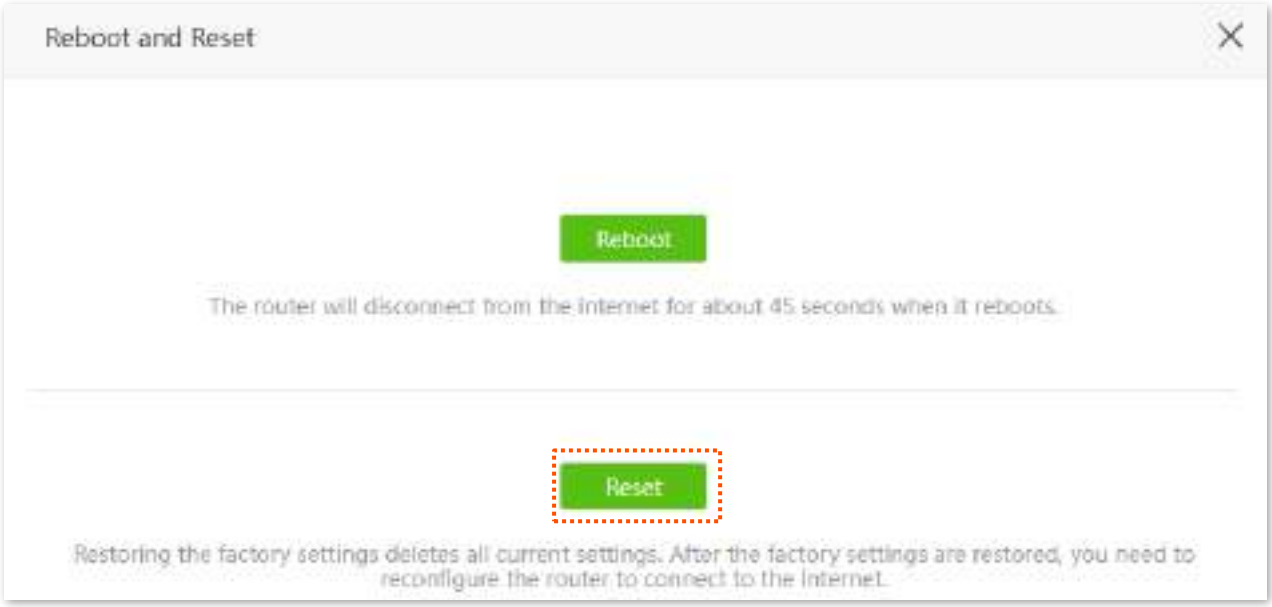
- Resetting the router is not recommended unless you cannot find a solution for the current problem anyway. You need to reconfigure the router after it is reset.
- Ensure that the power supply of the router is normal when the router is reset. Otherwise the router could be damaged.
- The default login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

Reset the router using the reset button

Hold down the **WPS/RST** button on the rear panel of the router for about 8 seconds and release when all LED indicators blink once. The router is reset and restored to factory settings.

Reset the router on the web UI

Log in to the web UI of the router, navigate to **System Settings** > **Reboot and Reset**, and click **Reset**.



Wait for a moment until the ongoing process finishes.

10.5 Firmware upgrade

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

10.5.1 Online upgrade

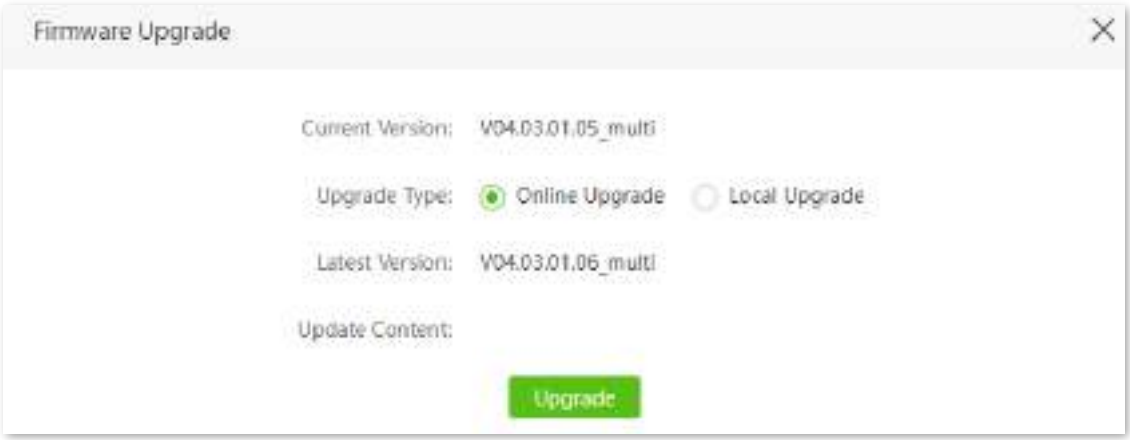
When the router is connected to the internet, it auto-detects whether there is a new firmware and displays the detected information on the page. You can choose whether to upgrade to the latest firmware.

Procedure:

Step 1 Log in to the web UI of the router.

Step 2 Navigate to System Settings > Firmware Upgrade.

Step 3 Wait until a new firmware version is detected.



Step 4 Click **Upgrade**.

---End

Wait for a moment until the ongoing process finishes. Log in to the web UI of the router again, you can check whether the upgrade is successful based on the **Firmware Version** on the Internet Status page.

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.

10.5.2 Local upgrade

NOTE

To prevent the router from being damaged:

- Ensure that the firmware is applicable 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.

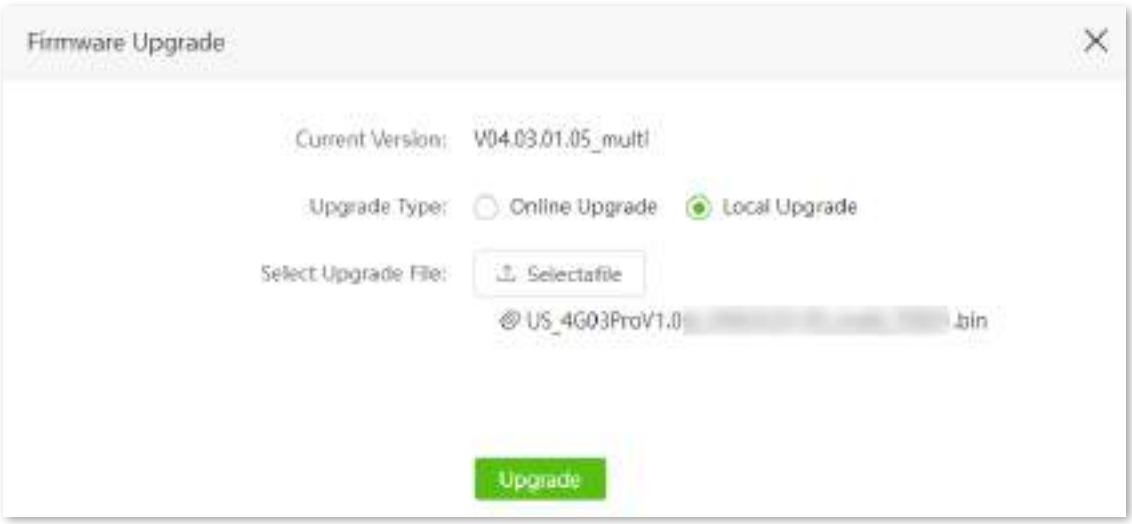
Step 1 Go to www.tendacn.com. Download an applicable firmware of the router to your local computer and unzip it.

Step 2 Log in to the web UI of the router.

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

Step 4 Choose **Local Upgrade**.

Step 5 Click **Selectafile**. Select and upload the firmware that has been downloaded to your computer in step 1, and click **Upgrade**.



---End

Wait for a moment until the ongoing process finishes. Log in to the web UI of the router again, you can check whether the upgrade is successful based on the **Firmware Version** on the Internet Status page.

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.

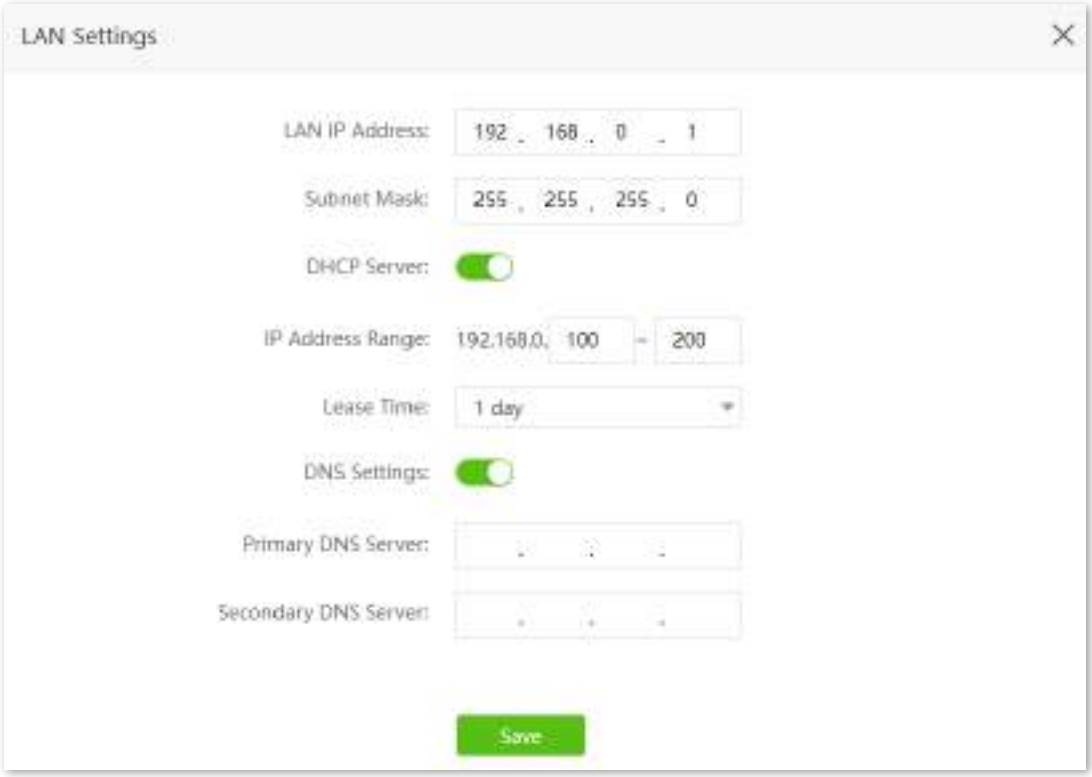
10.6 LAN settings

To access the page, log in to the web UI of the router, 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 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, which is used to identify the IP address range of the local area network.

Parameter	Description
DHCP Server	Used to enable or disable the DHCP server. Once enabled, the DHCP server automatically assigns internet parameters such as IP address, subnet mask and gateway address to the terminal device. This function is recommended to be enabled.
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.  It is available only when **DHCP Server** is enabled.
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 again 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. The default value is recommended.  It is available only when **DHCP Server** is enabled.
DNS Settings	Specifies whether to allocate another DNS address to the client. When it is disabled, the LAN port IP address of the router is used as the DNS address of the client. When it is enabled, **Primary DNS Server** must be set and **Secondary DNS Server** is optional.  – It is available only when **DHCP Server** is enabled. – This router has the DNS proxy function.
Primary DNS Server	Specifies the primary DNS address of the router, which is assigned to the clients. You can change it if necessary. 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.  It is available only when **DNS Settings** is enabled.
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.  It is available only when **DNS Settings** is enabled.

10.7 Automatic maintenance

Automatic maintenance enables you to make the router restart regularly, improving the stability and service life of the router. This function is enabled by default.

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

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 enters the sleeping mode during the 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 reboot when the traffic requirement for rebooting is met.

Appendix

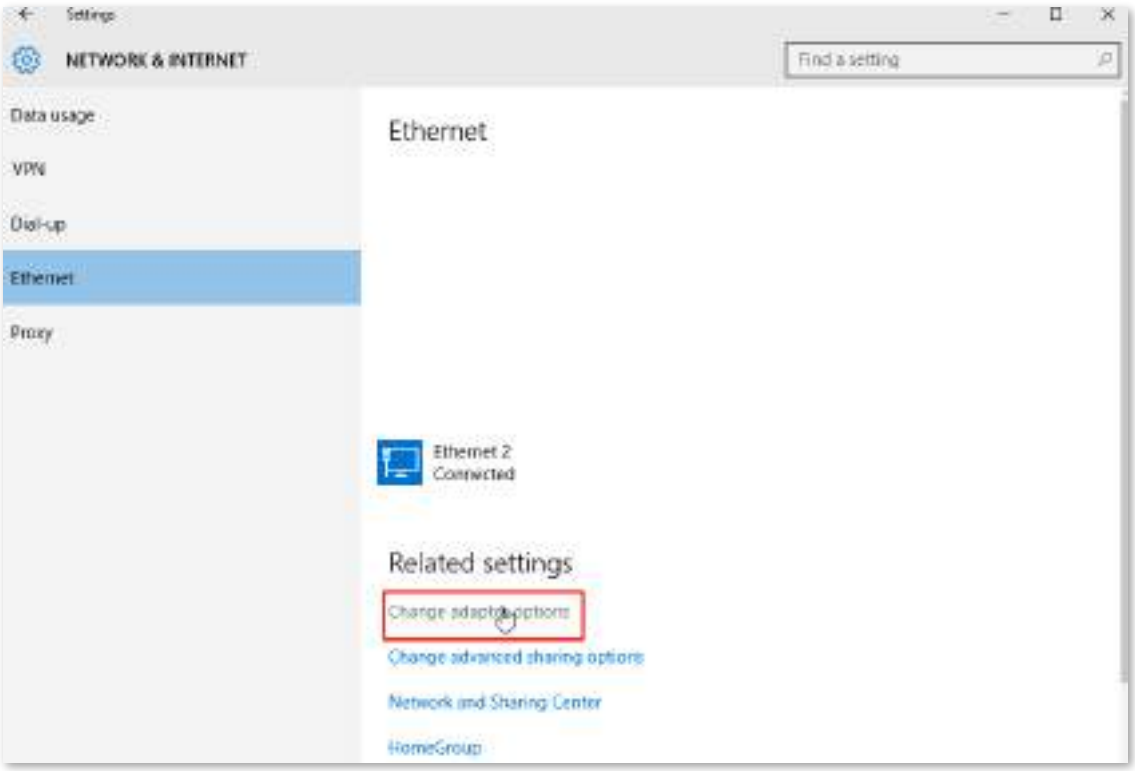
A.1 Configuring the computer to obtain an IPv4 address automatically

Perform the configuration procedures corresponding to Windows 10, Windows 8 and Windows 7 and 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 Wi-Fi network adapter are similar.

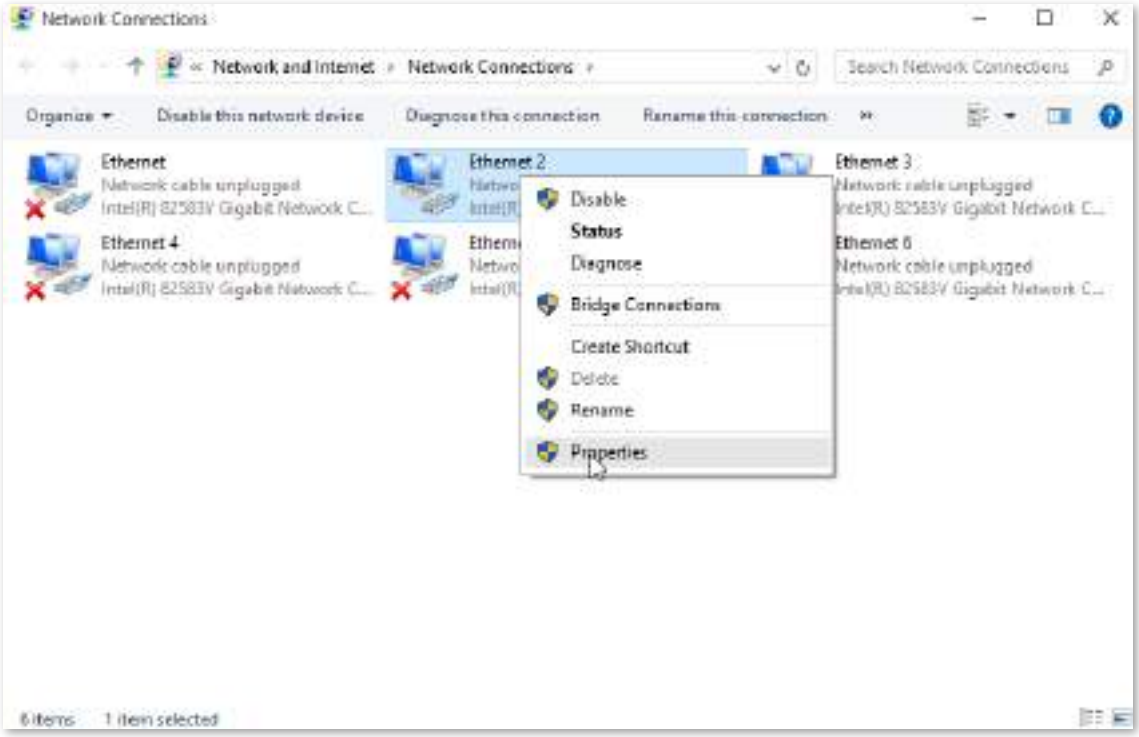
A.1.1 Windows 10

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

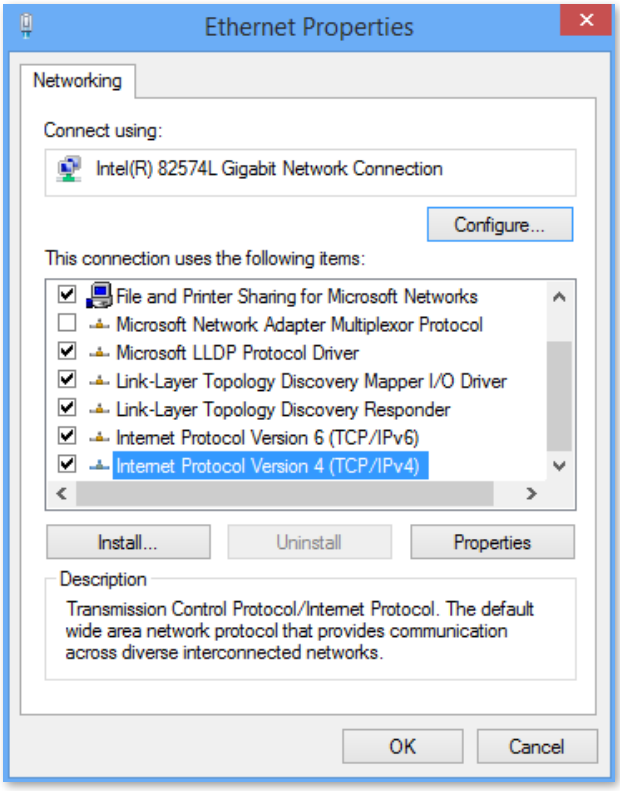
Step 2 Click **Change adapter options**.



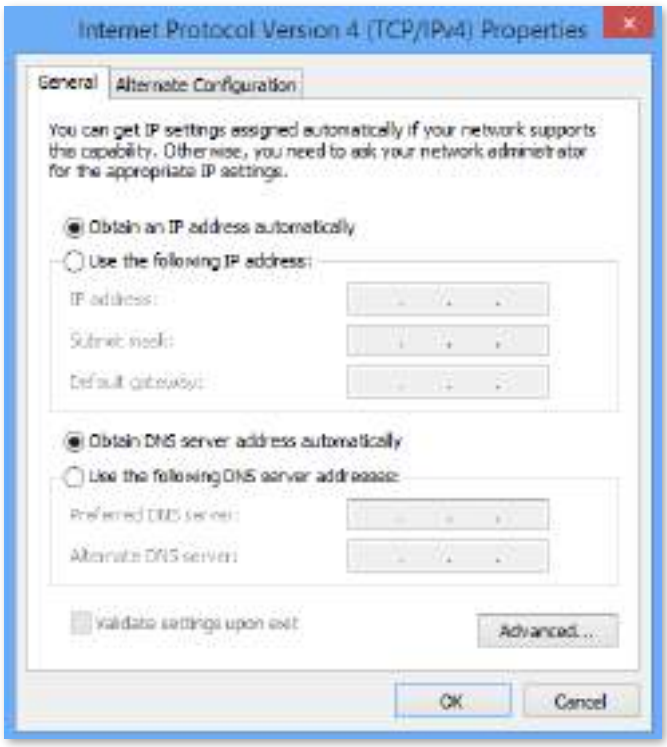
Step 3 Right click on the connection which is being connected, and then click **Properties**.



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**.

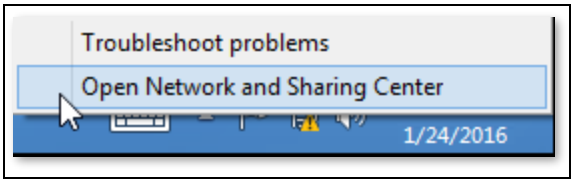


Step 6 Click **Close** in the **Ethernet Properties** window.

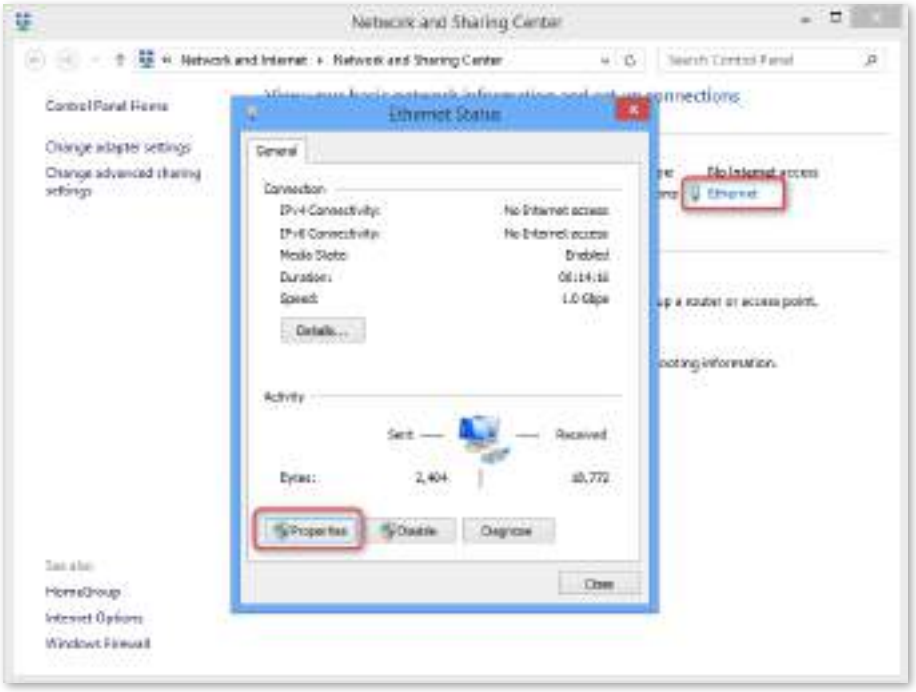
---End

A.1.2 Windows 8

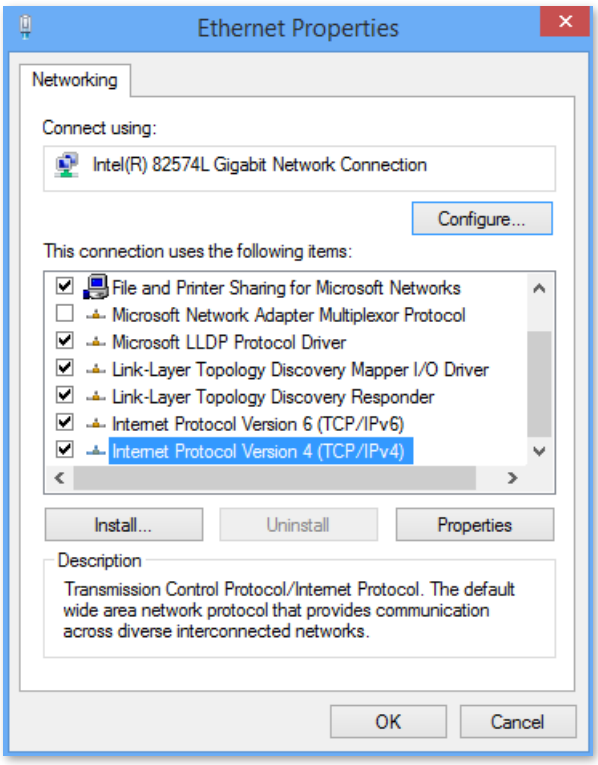
Step 1 Right-click in the bottom right corner of the desktop and navigate to **Open Network and Sharing Center**.



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



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



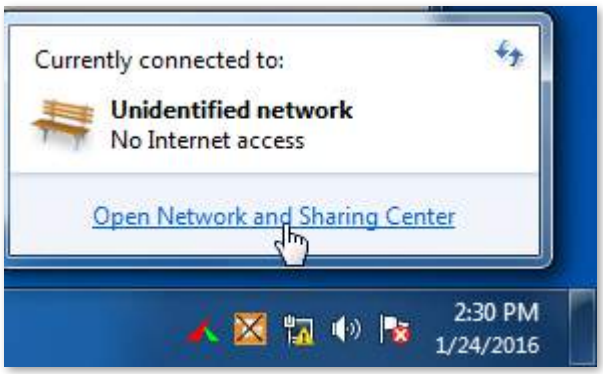
Step 4 Select **Obtain an IP address automatically** and **Obtain DNS server address automatically**, and click **OK**.

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

---End

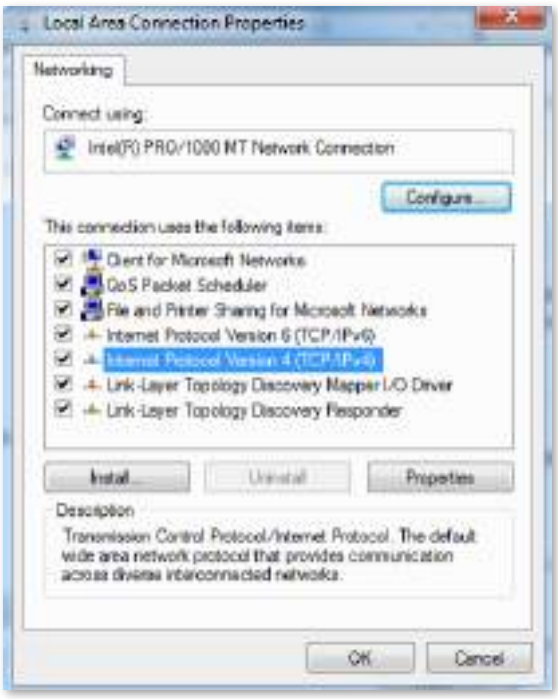
A.1.3 Windows 7

Step 1 Click in the bottom right corner of the desktop and navigate to **Open Network and Sharing Center**.

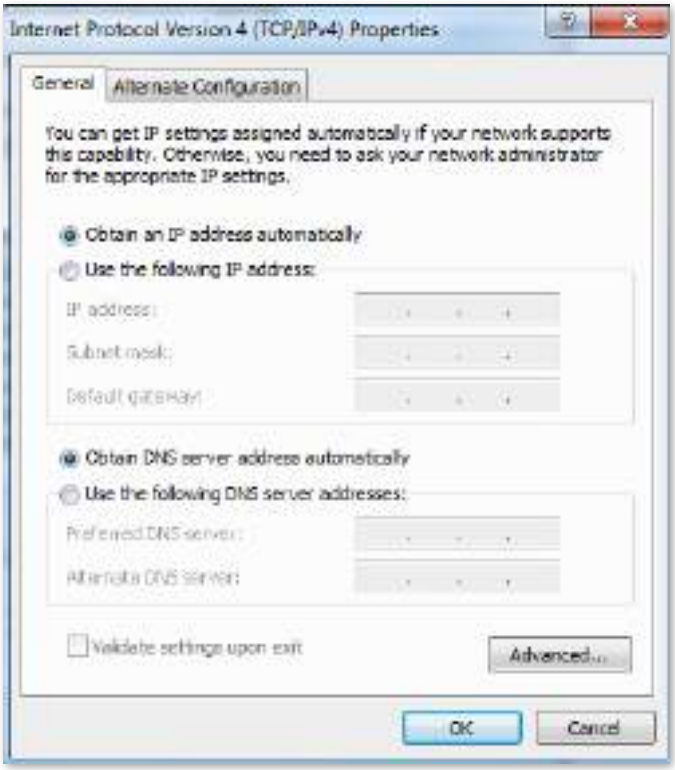


Step 2 Click **Local Area Connection** and then **Properties**.

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 **Local Area Connection Properties** window.

---End

A.2 Acronyms and abbreviations

Acronym or Abbreviation	Full Spelling
AES	Advanced Encryption Standard
DDNS	Dynamic Domain Name System
DHCP	Dynamic Host Configuration Protocol
DMZ	Demilitarized Zone
DNS	Domain Name System
HL	Hop Limit
IP	Internet Protocol
IPv4	Internet Protocol Version 4
IPv6	Internet Protocol Version 6
ISP	Internet Service Provider
L2TP	Layer 2 Tunneling Protocol
LAN	Local Area Network
MAC	Medium Access Control
MTU	Maximum Transmission Unit
PIN	Personal Identification Number
PPTP	Point to Point Tunneling Protocol
PUK	Personal Identification Number Unlock Key
SIM	Subscriber Identity Module
SMS	Short Message Service
SSID	Service Set Identifier
TCP	Transmission Control Protocol
TTL	Time to Live

Acronym or Abbreviation	Full Spelling
UDP	User Datagram Protocol
UPnP	Universal Plug and Play
USSD	Unstructured Supplementary Service Data
WAN	Wide Area Network
WPA-PSK	WPA-Pre-shared Key