



600Mbps Wireless N Router • F9

User Guide

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Preface



Thank you for choosing Tenda! Please read this user guide before you start with AC18.

Conventions

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

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

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

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

Acronyms and Abbreviations

Acronym or Abbreviation	Full Spelling
ISP	Internet Service Provider
WPS	WiFi Protected Setup
PPPoE	Point-to-Point Protocol over Ethernet
DHCP	Dynamic Host Configuration Protocol
ISP	Internet Service Provider
DNS	Domain Name System





AP	Access Point
WISP	Wireless Internet Service Provider
DDNS	Dynamic Domain Name System
DMZ	Demilitarized Zone

Additional Information

For more information, search this product model on our website at <http://www.tendacn.com>.

Technical Support

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

 Hotline	Global: (86) 755-27657180	 Email	support@tenda.com.cn
	Canada: 1-888-998-8966		
	Hong Kong: 00852-81931998		
 Website	http://www.tendacn.com	 Skype	tendasz

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1 Get to Know Your Device

1.1 Introduction



F9 is a wireless router that helps you quickly set up wired and wireless internet connections at home. It boasts four external antennas and offers a wireless transmission rate of as high as 600 Mbps. With excellent wall penetration performance, it provides high-quality WiFi coverage.

1.2 Features

- 4 * 100 Mbps auto-negotiation Ethernet port
- 4 * external omnidirectional antennas at 2.4GHz
- Supports WiFi Schedule, and turning on/off WiFi with one button
- Input: 9 V 1 A
- Up to 600 Mbps wireless transmission rate
- Supports Universal Repeater and Bandwidth Control features
- Supports PPPoE user name and password migration for effortless internet configuration

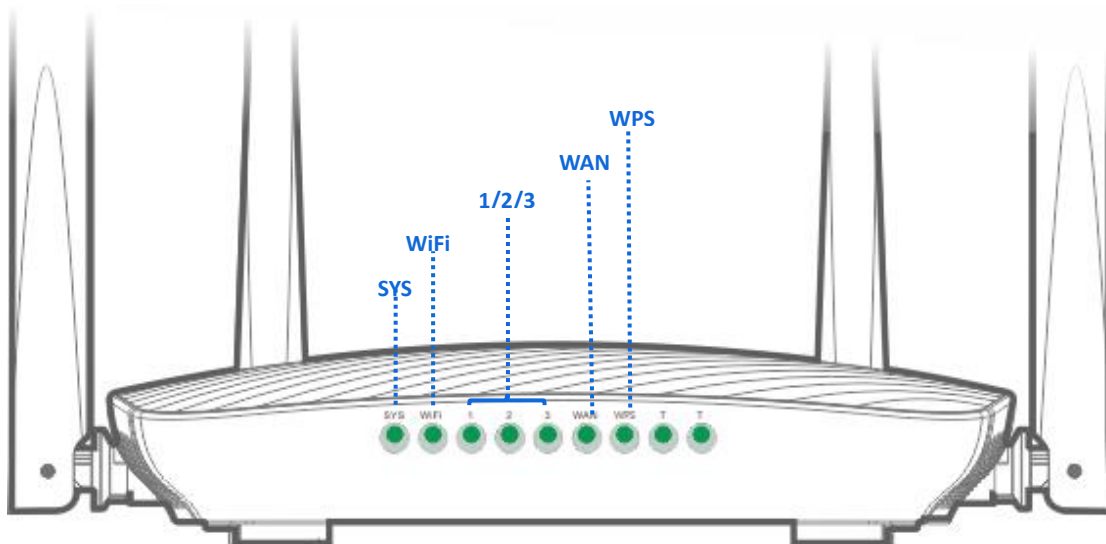
1.3 Environment

The router should be used in an indoor environment that meeting the following demands:

- Place it in an environment with the temperature of 0 °C - 40 °C, the humidity of 10 % - 90 %RH non-condensing and well-ventilation.
- Place it in an environment with minimum number of walls and ceilings between the router and smart phones and laptops.
- Keep it away from household applications, such as microwave oven, ceiling fan, and so on.
- Keep it away from any large metal surfaces, such as a solid metal door or aluminum studs.
- Keep it away from other materials, such as glass, brick, and so on.

1.4 Overview

LED Indicators

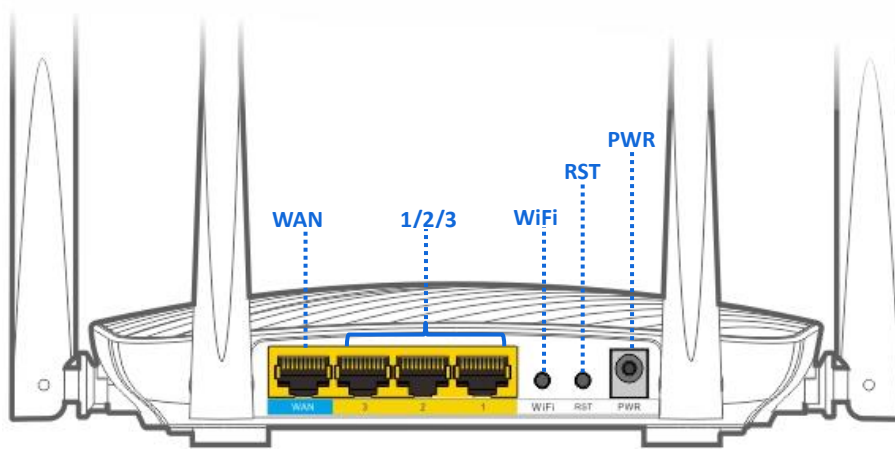


LED Indicator	Status	Description
SYS	Solid on	The system is not working properly.
	Blinking	The system is working properly.
	Off	The router is not connected to a power supply properly, or not connected to a power supply.
WiFi	Solid on	The wireless feature is enabled.
	Blinking	The router is transmitting or receiving wireless data.
	Off	The wireless feature is disabled.
1/2/3	Solid on	The LAN port is connected properly.
	Blinking	The LAN port is transmitting or receiving data.

LED Indicator	Status	Description
	Off	The LAN port is not connected, or not connected properly.
WAN	Solid on	The WAN port is connected properly.
	Blinking	The WAN port is transmitting or receiving data.
	Off	The WAN port is not connected, or not connected properly.

The LED indicator is reserved.

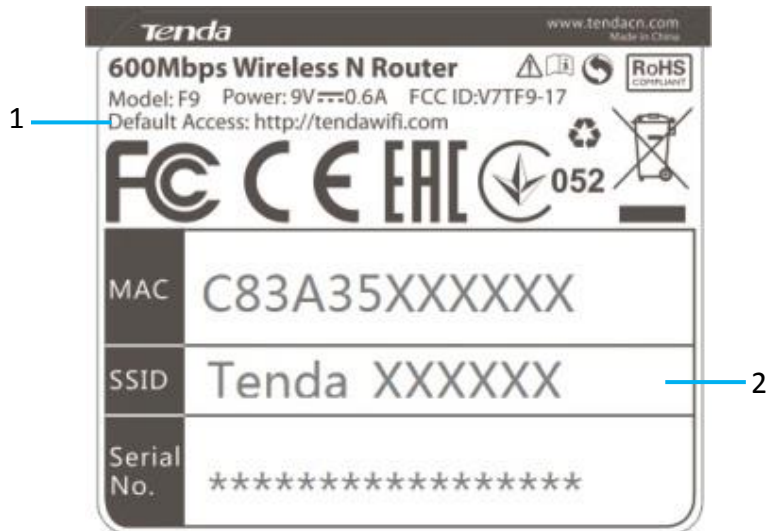
Port & Button



Port & Button	Description
WAN	It's used to connect to an Ethernet cable with internet connectivity.
1/2/3	It's used to connect to a wired device, such as a computer and so on.
WiFi	Press it to enable/disable WiFi feature.
RST	Hold it down for 8 seconds until all LEDs light up for once to restore to factory settings.
PWR	It's used to connect to the included power adapter for power supply.

Label

The label on the bottom panel of the router presents default access address, WiFi name, and so on.



1. The default login address. It is used to log in to the web UI of the router. You can also use 192.168.0.1 to log in to the web UI.

2. Default WiFi Name.

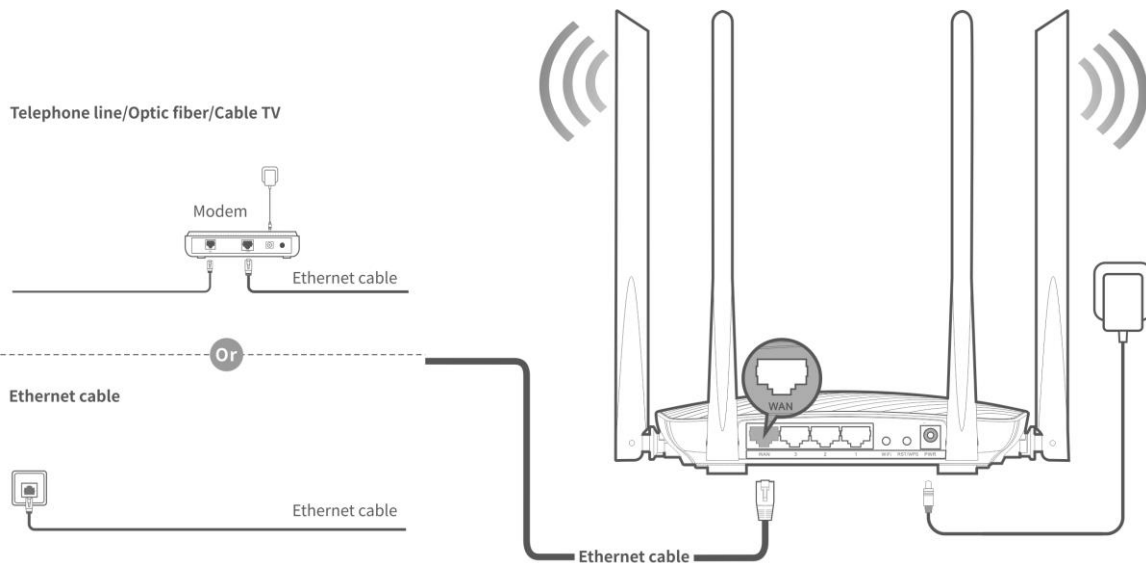
- When you use this router for the first time, the wireless devices, such as smart phone and so on, can search and connect to the wireless network, and log in to the web UI of the router to configure it for internet access.
- After the router access the internet, if you do not change the WiFi name, the wireless devices, such as smart phone and so on, can search and connect to the wireless network for internet access.

2 Quick Internet Setup

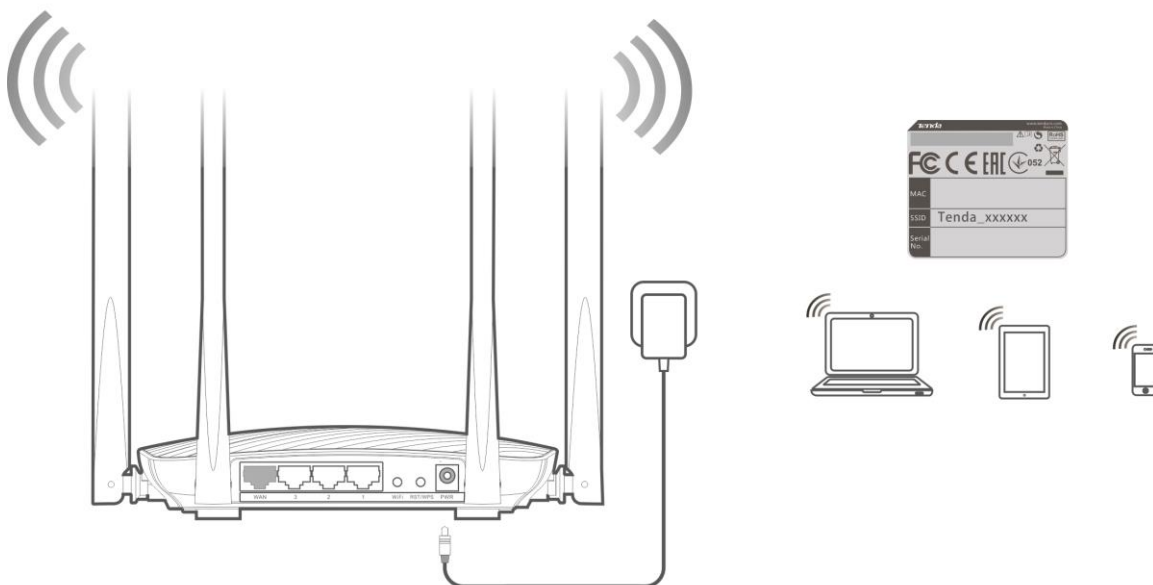
2.1 Internet Setup through a Smart Phone

Step 1 Connect the router.

1. Power on the router using the included powered adapter.
2. Connect the Ethernet cable with internet connectivity to the WAN port of the router.



Step 2 Use a wireless device, such as a smart phone, to connect to the WiFi name labeled on the bottom panel of the router.



Step 3 Start a web browser on the wireless device, and visit tendawifi.com or **192.168.0.1**.

Step 4 The router detects the connection type automatically. Enter the required information based on the onscreen instruction. Take PPPoE an example.

1. **Connection Type:** Select **PPPoE**.
2. **User Name:** Enter the PPPoE user name and password provided by your internet service provider (ISP).
3. **Password:** Enter the PPPoE password provided by your ISP.

Step 5 Customize a WiFi name and WiFi password.

Step 6 Click **OK** to apply the settings.

--End

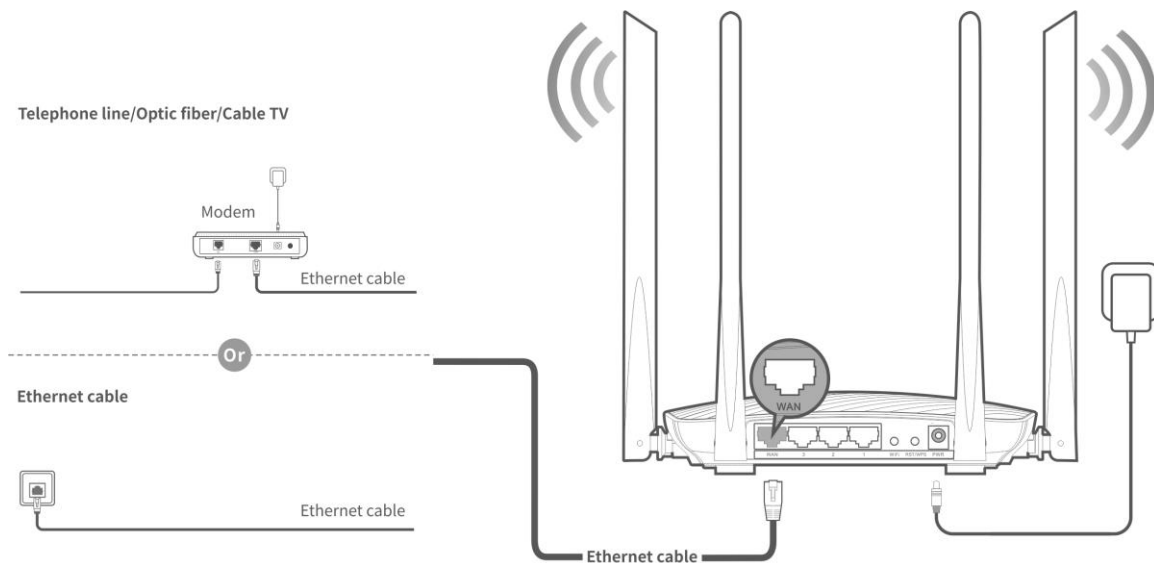
Wait for a minute, you can access the internet. You need to use your wireless device, such as smart phone, to connect to the wireless network again.

If you want to configure more functions, refer to the following parts in this user guide.

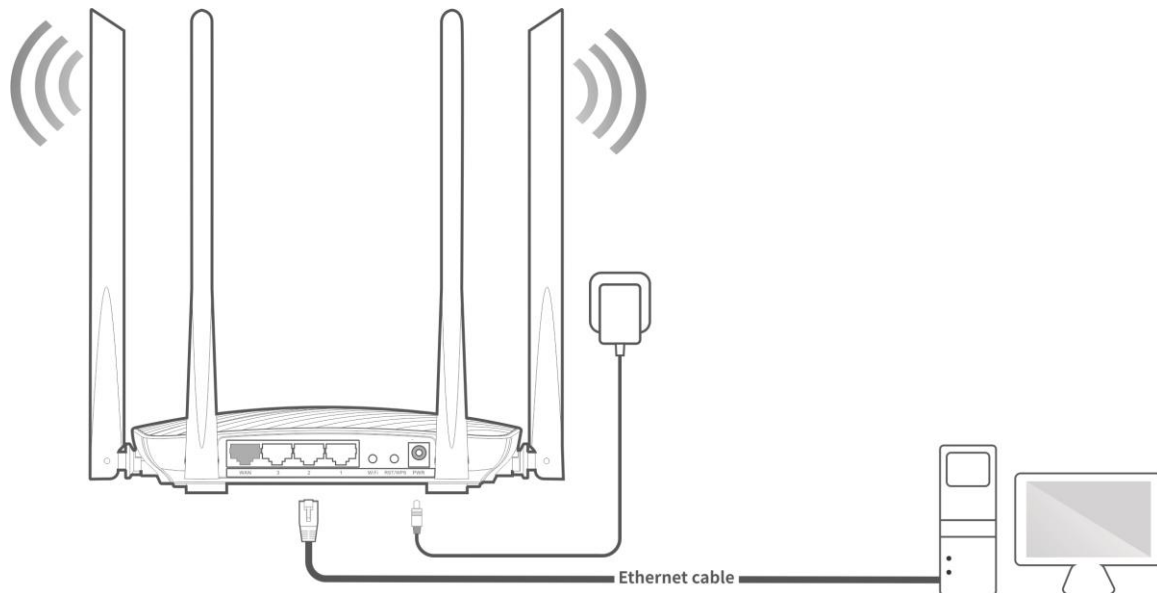
2.2 Internet Setup through a Computer

Step 1 Connect the router.

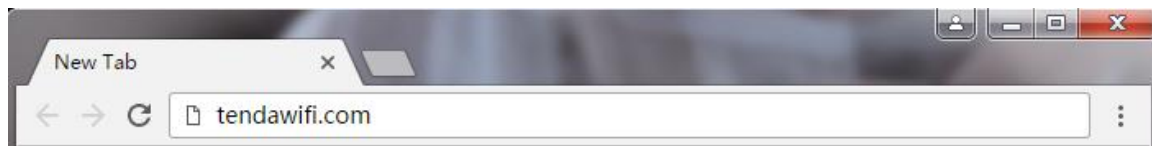
1. Power on the router using the included powered adapter.
2. Connect the Ethernet cable with internet connectivity to the WAN port of the router.



3. Connect the computer to port 1, 2, or 3 using an Ethernet cable.



Step 2 Start a web browser on the computer, enter **tendawifi.com** or **192.168.0.1** in the address bar, and press **Enter**.



Step 3 The router detects the connection type automatically. Enter the required information based on the onscreen instruction. Take PPPoE an example.

- 1. Connection Type:** Select **PPPoE**.
- 2. User Name:** Enter the PPPoE user name provided by your ISP.
- 3. Password:** Enter the PPPoE password provided by your ISP.

Step 4 Customize a WiFi name and WiFi password.

Step 5 Click **OK** to apply the settings.

As detected, your connection type is: **PPPoE**



Internet

Connection Type PPPoE DHCP Static IP Address

This type is applicable if you have a user name and password for setting up a broadband dial-up connection. you can [import them from your original router](#).

User Name

Password



Wireless

WiFi Name

WiFi Password

OK

--End

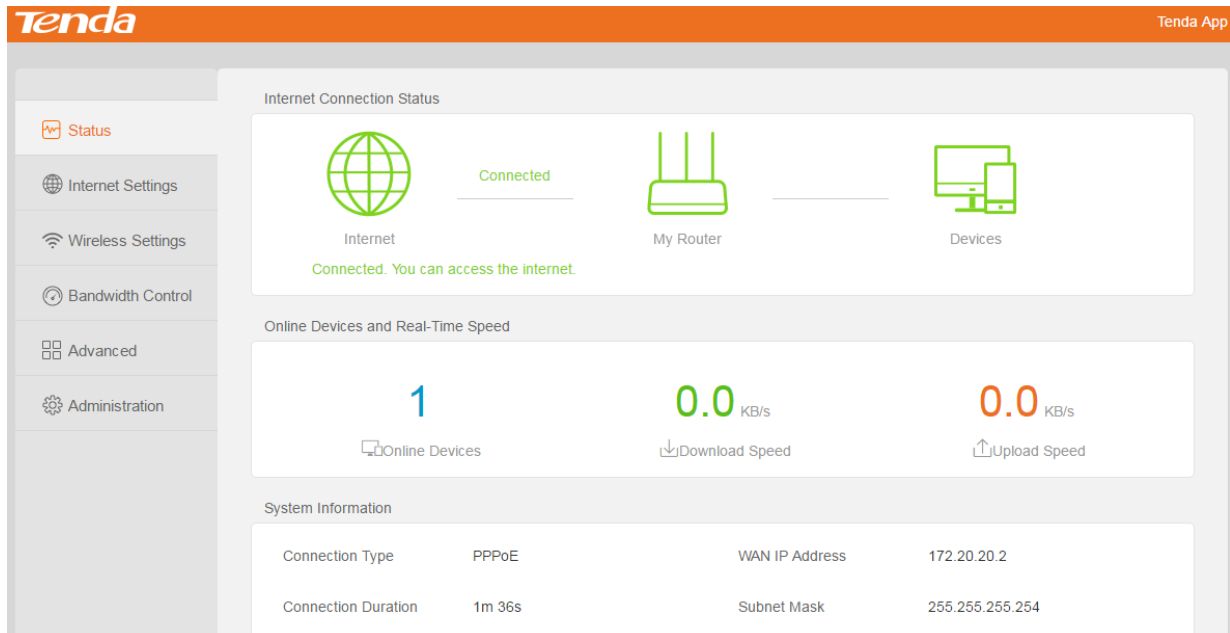
Configuration Succeeded.



Saved!

You will be redirected to the user interface after 3 seconds.

The router will redirect to the web UI of the router. If you want to configure more functions, refer to the following parts in this user guide.

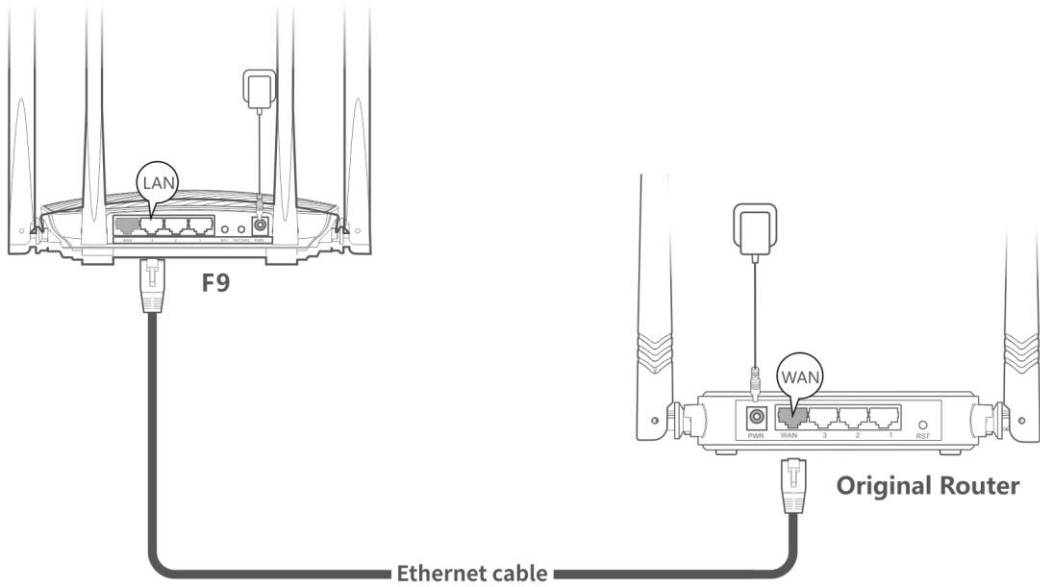


2.3 Importing the PPPoE User name and Password from the Original Router

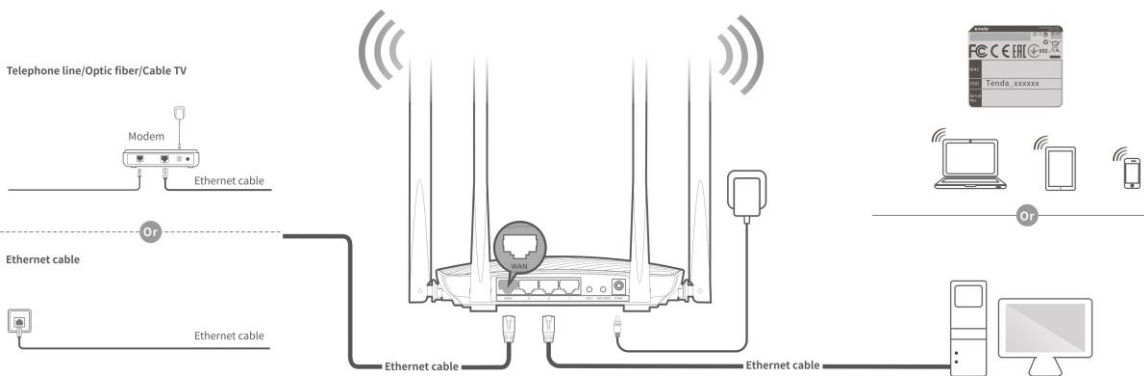
If you use this router to replace an original one and you have set up a dial-up connection on the original router, perform the following steps to import the PPPoE user name and password to this router from the original router.

Step 1 Power on the original router and this router.

Step 2 Connect the WAN port of the original router to any LAN port of this router using an Ethernet cable. When all the LAN LED indicators of this router turn to solid on for 3 seconds from quick blinking, the PPPoE user name and password are succeeded in importing.



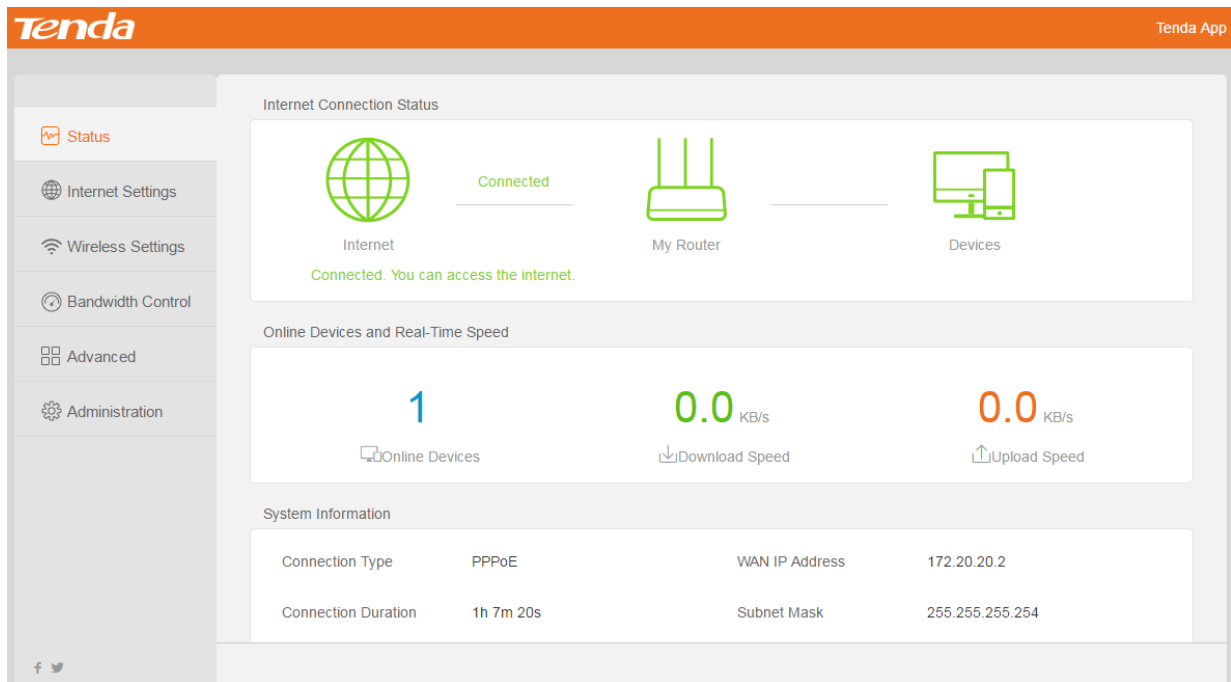
Step 3 After importing succeeded, connect the Ethernet cable with internet connectivity to the WAN port of this router.


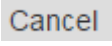





--End

3 Layout

This chapter introduces the layout of the web UI. The web UI consists of navigation bar and configuration area, which is shown as follows:

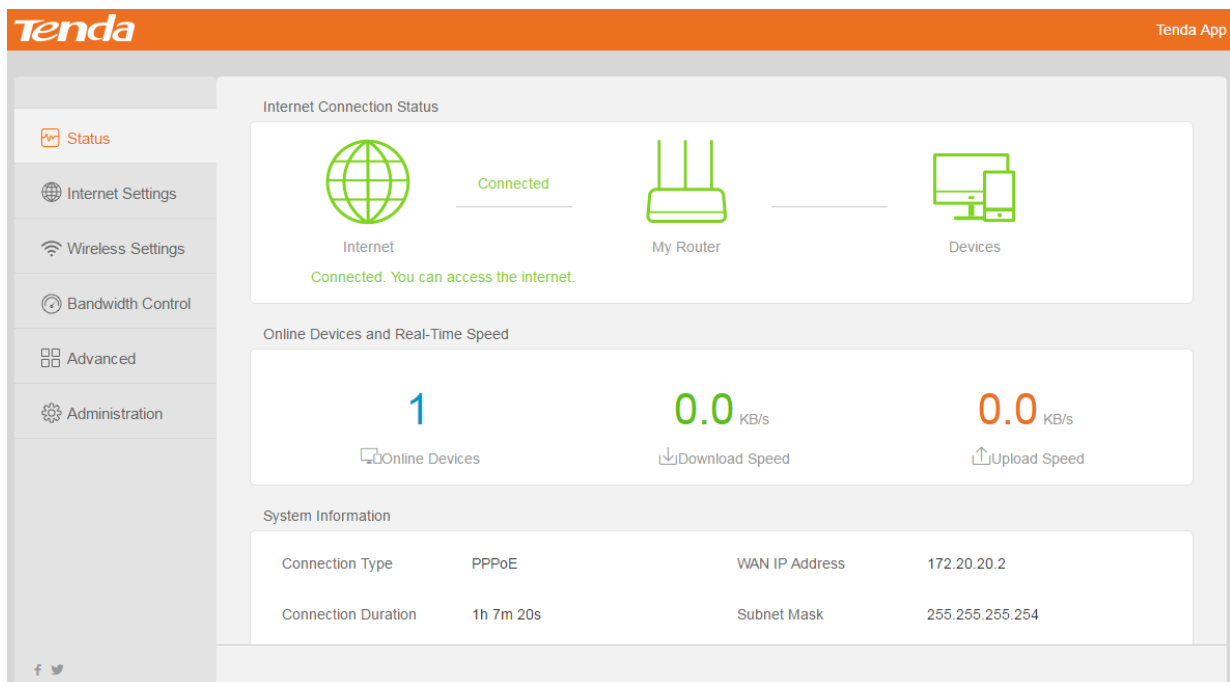


Parameters	Description
Navigation Bar	Functions menu is displayed on the left. When users select a function, the corresponding configuration area of the function is displayed on the right.
Configuration Area	This area is used to configure functions for users.
	This button is used to apply the settings you have configured.
	This button is used to cancel the settings you have configuration.
	A QR code will appear after clicking Tenda App . You can scan it to download Tenda App for remote management. Tenda App can help you configure the following functions: Accelerate WiFi, WiFi Schedule, Transmit Power, and so on.
	Click to visit Tenda Facebook.
	Click to visit Tenda Twitter.

4 Status

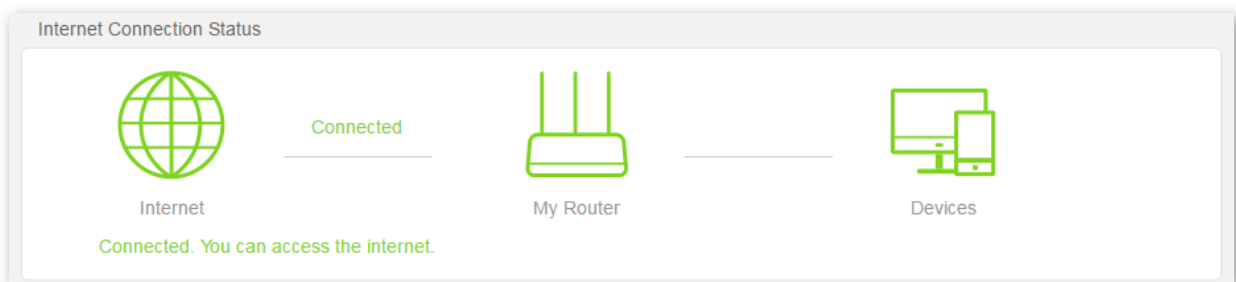
In Status page, you can check internet connection status, online devices, and real-time speed, and system information. When you configure the internet settings, but cannot access the internet, you can refer to the instructions on this page to solve the problem.

Choose **Status** to enter the page.



4.1 Internet Connection Status

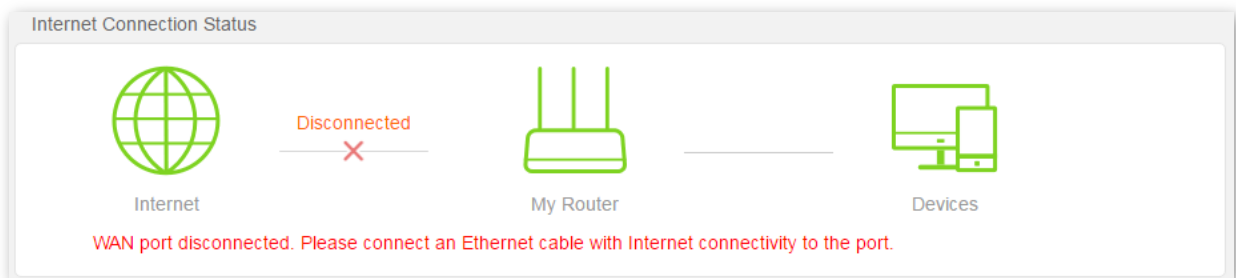
In this part, you can check the internet connection status. After configuring internet settings, you can check whether you can access the internet on this page.



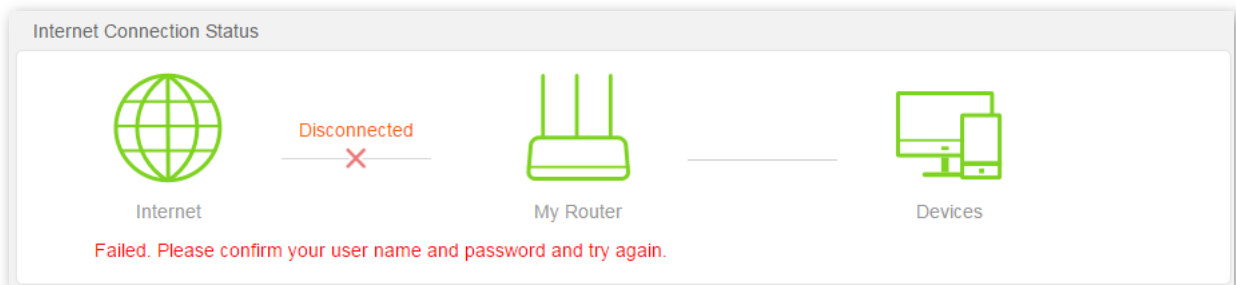
When “**Connected. You can access the internet.**” is displayed, the router is connected to the internet successfully. Computers can connect to the router using Ethernet cables for internet access. Wireless devices, such as smart phones, can connect to the wireless network for internet access.

When other information is displayed, refer to the instructions. Refer to the following details:

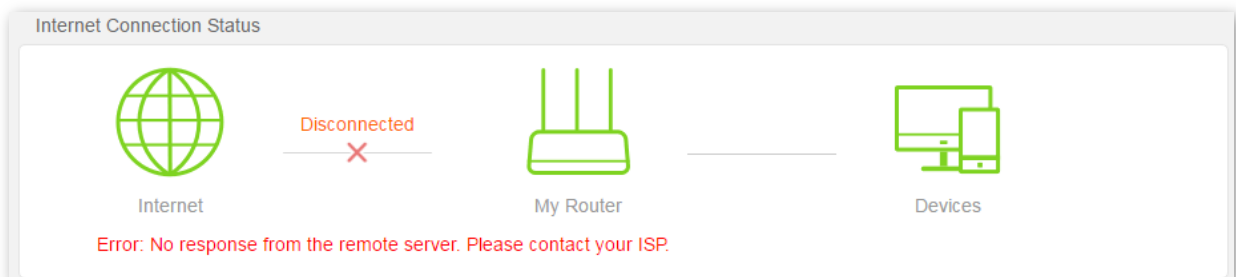
If **“WAN port disconnected. Please connect an Ethernet cable with internet connectivity to the port.”** is displayed, check whether the Ethernet cable with internet connectivity is connected to the WAN port of the router properly. If it is connected properly, but the WAN LED indicator is off, contact your ISP.



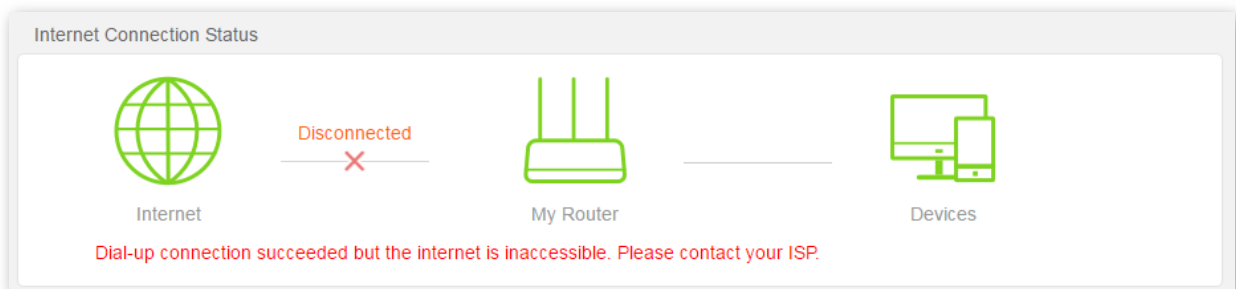
If **“Failed. Please confirm your user name and password and try again.”** is displayed, verify that the user name and password you entered are correct. If they are correct but the problem persists, contact your ISP.



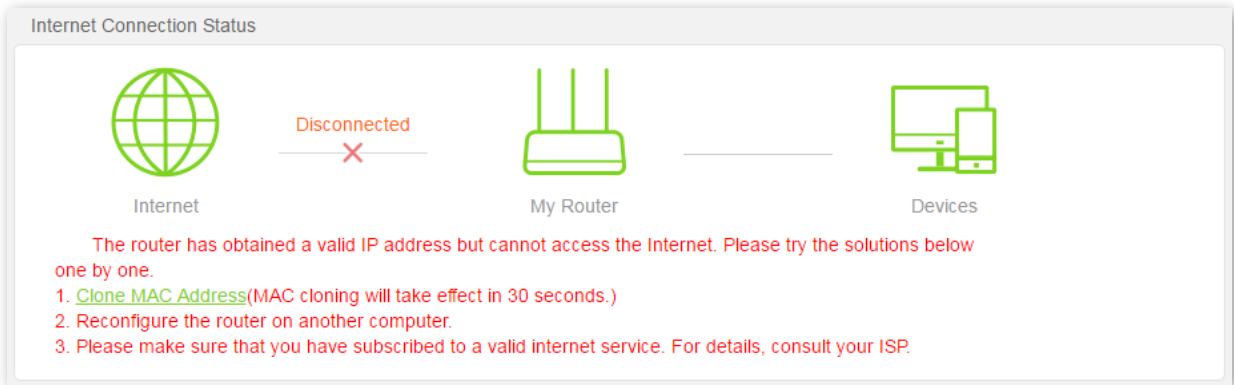
If **“Error: No response from the remote server. Please contact your ISP.”** is displayed, Please refer to the instructions to solve the problem.



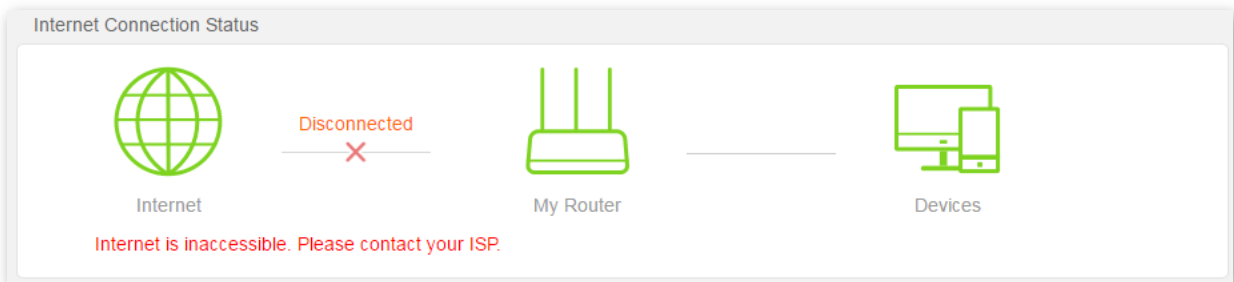
If **“Dial-up connection succeeded but internet is inaccessible. Please contact your ISP.”** is displayed, it indicates that the router is working properly but the remote server works improperly. Contact your ISP.



If **“The router has obtained a valid IP address but cannot access the internet. Please try the solutions below one by one.”** is displayed, Refer to the onscreen instructions to solve the problem.

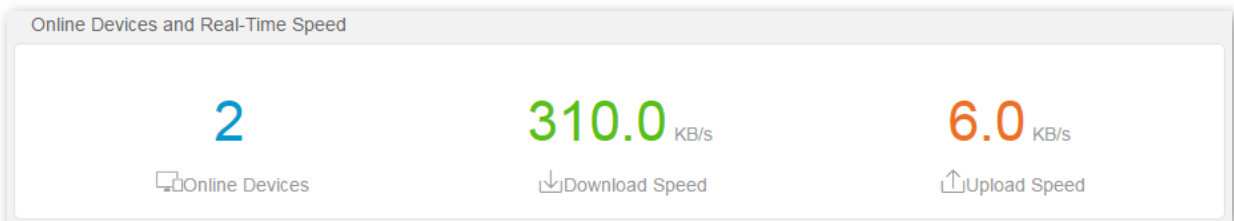


If “Internet is inaccessible. Please contact your ISP.” is displayed, please enter correct IP address and other parameters. If the parameters are correct but the problem persists, contact your ISP.



4.2 Online Devices and Real-Time Speed

In this part, you can check the number of clients and current downloading/uploading speed in LAN. If you want to know details about the downloading/uploading speed of each client, please refer to Bandwidth Control.



4.3 System Information

In this part, you can check the connection type, WAN MAC address, LAN/WAN IP address, and so on.

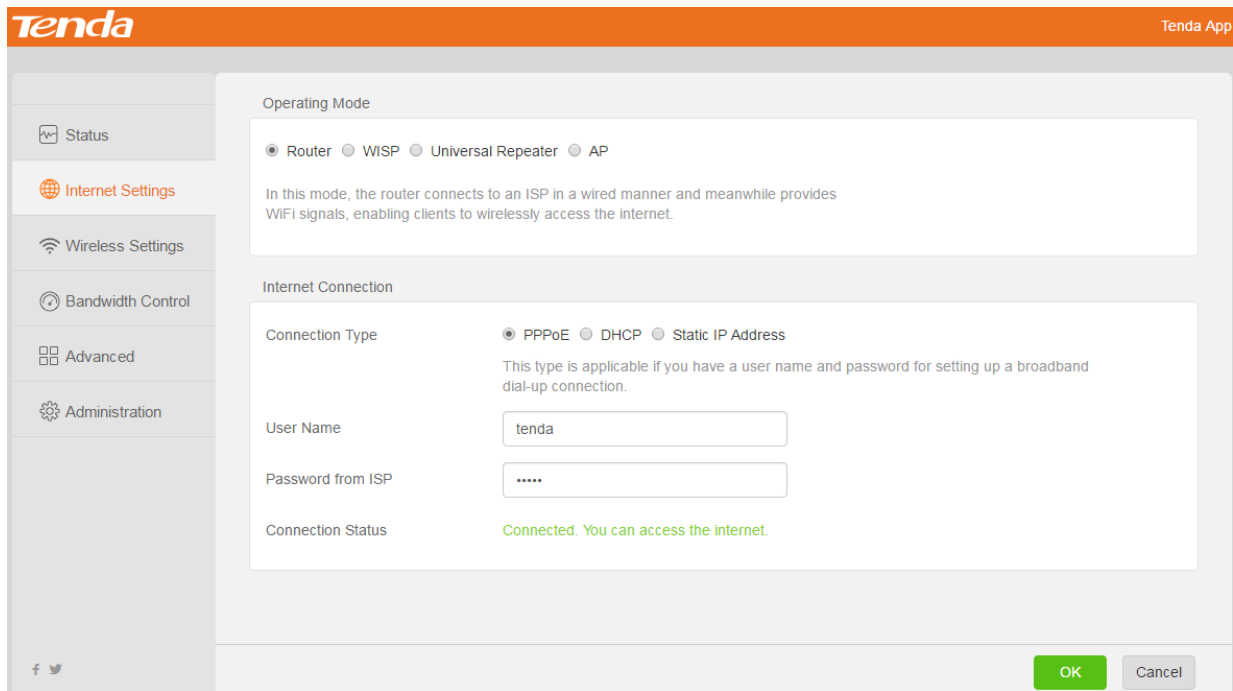
System Information			
Connection Type	PPPoE	WAN IP Address	172.20.20.2
Connection Duration	10m 48s	Subnet Mask	255.255.255.254
WAN MAC Address	C8:3A:35:1E:AC:60	Default Gateway	172.20.20.1
LAN IP Address	192.168.0.1	Preferred DNS Server	192.168.1.60
Firmware Version	V12.01.01.34_multi	Alternate DNS Server	8.8.8.8

Parameters Description

Parameters	Description
Connection Type	It specifies the connection type of the router.
Connection Duration	It specifies the connection duration that the router is connected to the internet.
WAN MAC Address	It specifies the MAC address of WAN port of the router. After you perform MAC address clone, you can check whether the WAN MAC address is changed to the one you clone.
LAN IP	It specifies the IP address of LAN port. It can be used to log in to the web UI of the router. You can use IP address 192.168.0.1 or domain name tendawifi.com to log in to the web UI.
Firmware Version	It specifies the firmware version of the router. After you perform firmware upgrade, you can check whether the firmware is the version you have upgraded.
WAN IP	It specifies the WAN IP address of the router.
Subnet Mask	It specifies the subnet mask corresponding to the WAN IP address.
Default Gateway	It specifies the gateway address the router obtains.
Preferred DNS Server	It specifies the preferred DNS server IP address the router obtains.
Alternate DNS Server	It specifies the alternate DNS server IP address the router obtains.


5 Internet Settings

In the Internet settings page, you can configure the settings to enable the router to access the internet. Choose **Internet Settings** to enter the page.



Parameters Description

Parameters	Description
Operating Mode	<p>Select an operating mode according to the following descriptions:</p> <ul style="list-style-type: none"> • Router: In this mode, the router connects to the internet in a wired manner through WAN port. Clients can connect to the router in a wireless or wired manner. • WISP: In this mode, the router extends a WiFi signal of ISP or any WiFi signals nearby. Clients can connect to the router in a wireless or wired manner. • Universal Repeater: The router extends any WiFi signals nearby. Clients can connect to the router in a wireless or wired manner. • AP: The router serves as an access point, and is connected to the internet in a wired manner. All ports are used to connect to wired devices, such as routers, switches, computers, and so on. Clients can connect to the router in a wireless or wired manner.
Connection Type	<p>Select a connection type according to the following description:</p> <ul style="list-style-type: none"> • PPPoE: The ISP provides PPPoE user name and password for internet access.

Parameters	Description
	<ul style="list-style-type: none"> • DHCP: The ISP does not provide any parameters for internet access. • Static IP address: The ISP provides a static IP address and other related parameters for internet access.
PPPoE user name and password	Enter the PPPoE user name and password provided by your ISP.
IP address, subnet mask, default gateway, preferred/alternate DNS server address	Enter the IP address, subnet mask, default gateway, and DNS server addresses provided by your ISP.
	Click this icon to the WiFi signals nearby.
Select	Select the WiFi name you want to extend.
WiFi Name	It specifies the name of wireless network.
MAC Address	It specifies the MAC address corresponding to a wireless network.
Channel	It specifies the wireless channel at which the wireless network works.
Security Mode	It specifies the security mode of the wireless network.
Strength	It specifies the WiFi signal strength of the wireless network.

5.1 PPPoE

Configuration Procedure

- Step 1** Choose **Internet Settings**.
- Step 2** **Connection Type:** Select **PPPoE**.
- Step 3** **User Name:** Enter the user name provided by your ISP.
- Step 4** **Password:** Enter the password provided by your ISP.
- Step 5** Click **OK** to apply the settings.

Internet Connection

Connection Type PPPoE DHCP Static IP Address

This type is applicable if you have a user name and password for setting up a broadband dial-up connection.

User Name

Password from ISP

Connection Status Connected. You can access the internet.

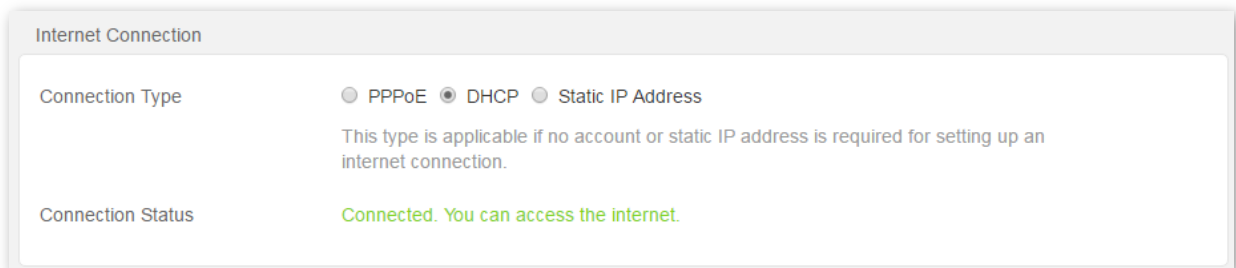
--End

Wait for a moment, when the **Connection Status** displays “**Connected. You can access the internet.**”, the router is connected to the internet successfully.

5.2 DHCP

Configuration Procedure

- Step 1** Choose **Internet Settings**.
- Step 2** **Connection Type**: Select **DHCP**.
- Step 3** Click **OK** to apply the settings.



--End

Wait for a moment. When the Connection Status displays “**Connected. You can access the internet.**”, the router is connected to the internet successfully.

5.3 Static IP Address

Configuration Procedure

- Step 1** Choose **Internet Settings**.
- Step 2** **Connection Type**: Select **Static IP address**.
- Step 3** **IP Address/Subnet Mask/Default Gateway/Preferred DNS/Alternate DNS**: Enter the IP address and other related parameters provided by your ISP.
- Step 4** Click **OK** to apply the settings.

Internet Connection

Connection Type PPPoE DHCP Static IP Address

This type is applicable if a static IP address is required for setting up an internet connection.

IP Address

Subnet Mask

Default Gateway

Preferred DNS

Alternate DNS (Optional)

Connection Status Connected. You can access the internet.

--End

Wait for a moment. When the Connection Status displays “Connected. You can access the internet.”, the router is connected to the internet successfully.

5.4 WISP Mode

In WISP mode, the router can extend a WiFi signal of ISP for internet access. Also, it can extend WiFi signals nearby.

WISP Mode Configuration

- Step 1** Choose **Internet settings**.
- Step 2** Select **WISP**.
- Step 3** Select the WiFi name you want to extend.

Operating Mode

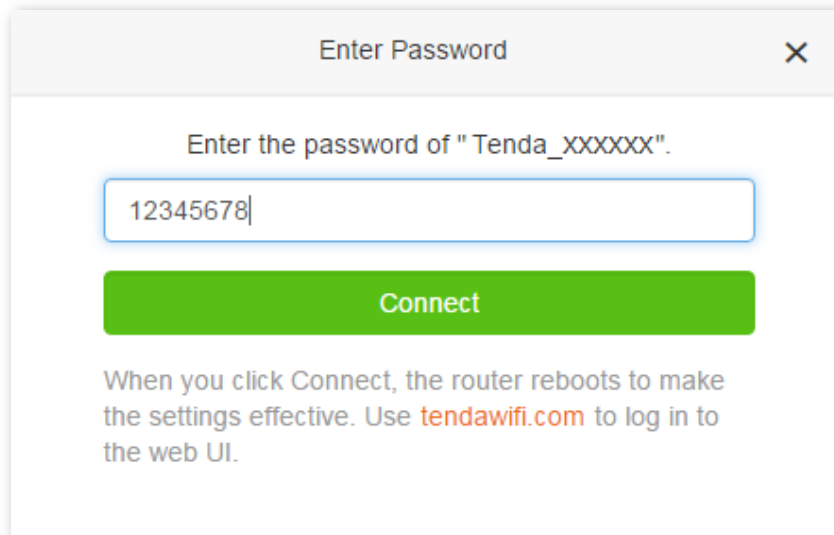
Router WISP Universal Repeater AP

In this mode, the router extends the WiFi signals of ISPs like CMCC, China Unicom, and ChinaNet.

Select WiFi Network

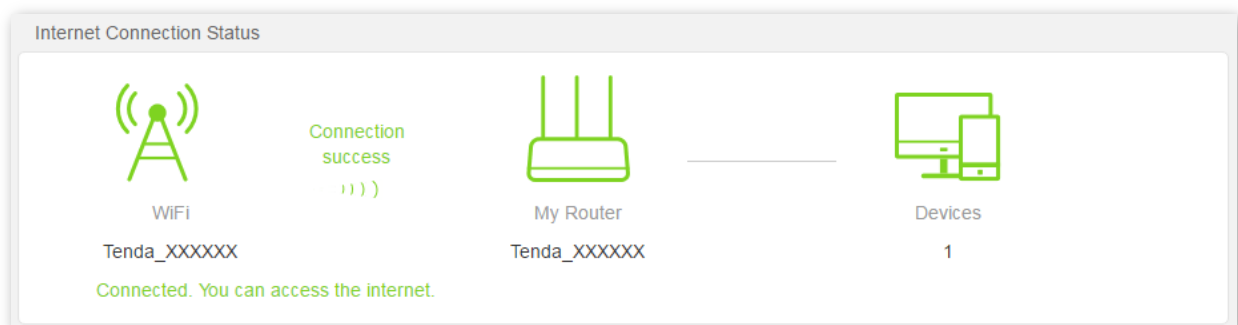
Select	WiFi Name	MAC Address	Channel	Security Mode	Strength
<input checked="" type="radio"/>	Tenda_XXXXXX	C8:3A:35:2E:4A:51	11	WPAWPA2/AES	95%
<input type="radio"/>	Tenda_VIP	C8:3A:35:2E:4A:52	11	WPAWPA2/AES	93%

- Step 4** Enter the WiFi password of the wireless network in the **Password of the upstream WiFi network** box, which is **12345678** in this example.
- Step 5** Click **Connect**.



--End

Wait for a moment and log in to the web UI again. When the page displays “**Connected. You can access the internet.**”, the router is connected to the internet successfully.



Application Scenario

Jack purchases F9 to provide wired and wireless networks. The ISP provides the following parameters:

- The Name of the Access Point: **Tenda_XXXXXX**
- Password: **12345678**

Solution

Set the operating mode to WISP for internet access.

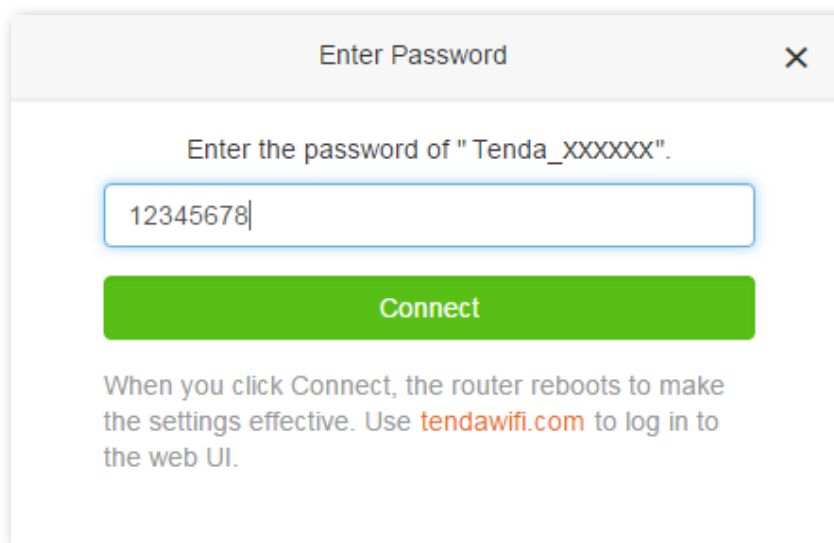
Configuration Procedure

- Step 1** Log in to the web UI of the router, and choose **Internet Settings**.
- Step 2** Select **WISP**.
- Step 3** Select the name of the access point, which is **Tenda_XXXXXX** in this example.



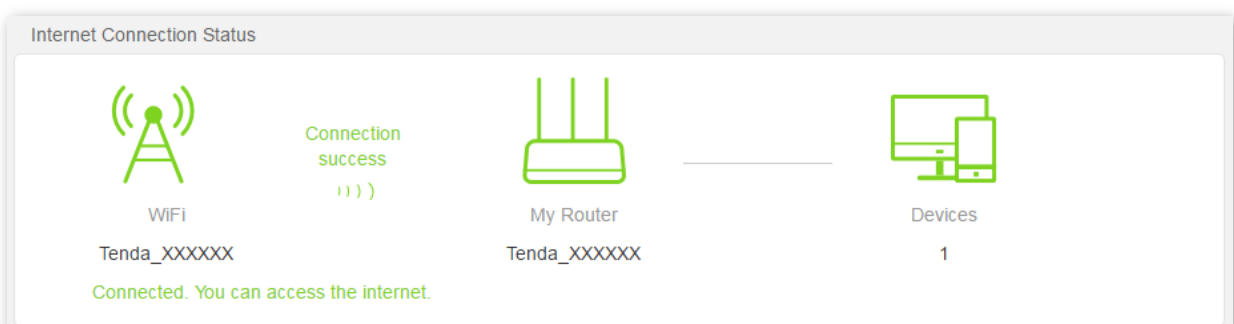
Step 4 Enter the password of the access point in the **Password of the upstream WiFi network** box, which is **12345678** in this example.

Step 5 Click **Connect**.



--End

Wait for a moment and log in to the web UI again. When the page displays "Connected. You can access the internet.", the router is connected to the internet successfully.



Verification

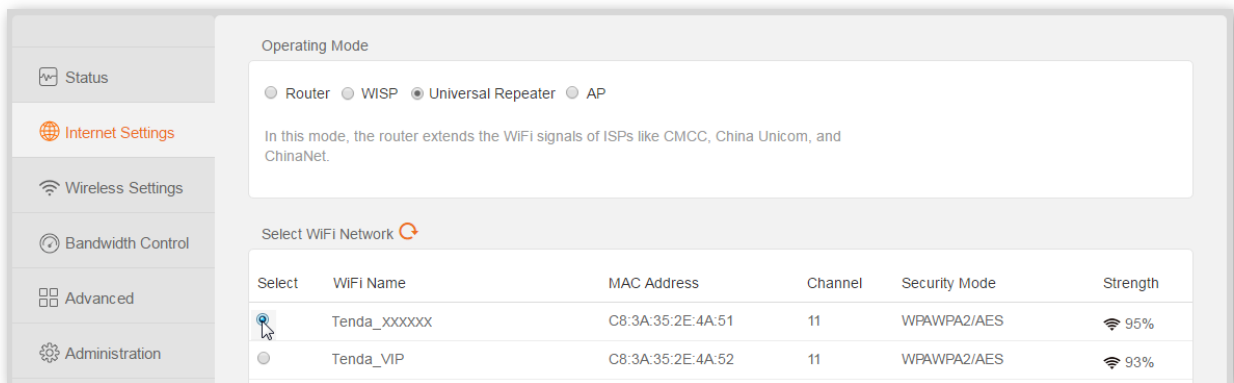
Check whether the wireless clients, such as smart phones, can connect to the wireless network of F9 for internet access.

5.5 Universal Repeater Mode

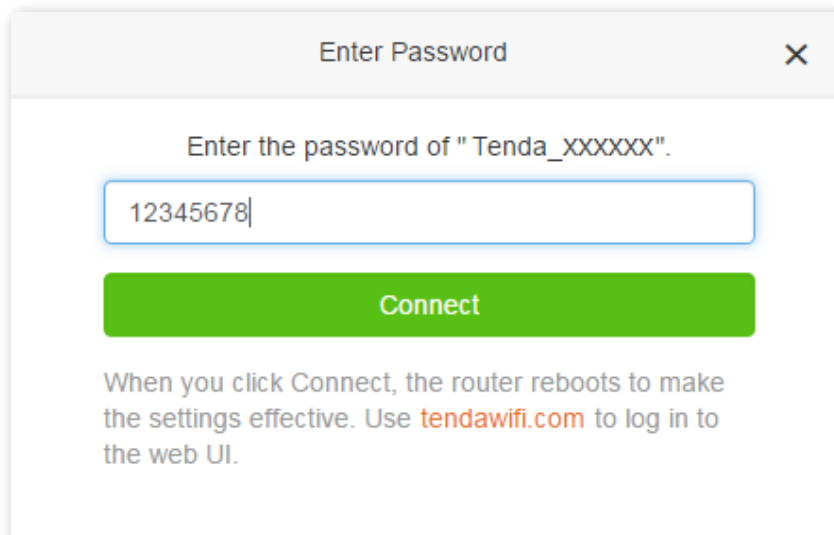
In Universal Repeater mode, the router extends the upstream wireless network to cover wider area for better internet surfing experience.

Universal Repeater Mode Configuration

- Step 1** Choose **Internet Settings**.
- Step 2** Select **Universal Repeater**.
- Step 3** Select the WiFi name of upstream router.

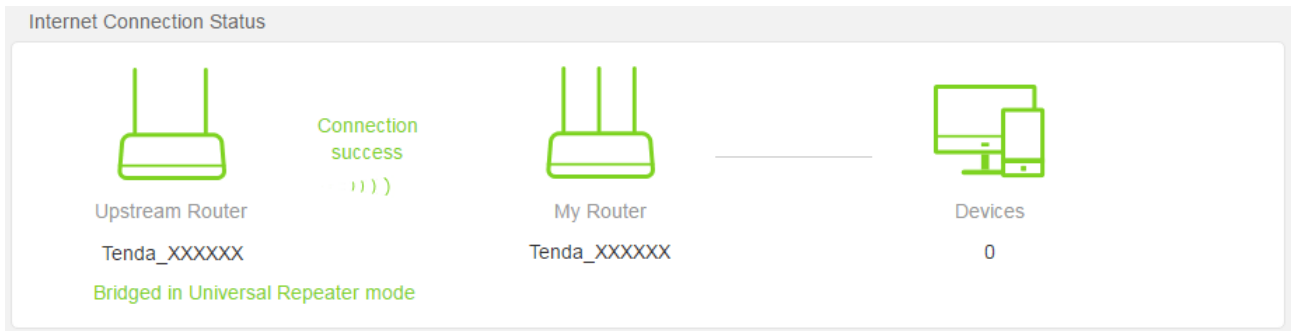


- Step 4** Enter the password of the upstream router in the **Password of the upstream WiFi network** box, which is **12345678** in this example.
- Step 5** Click **Connect**.



--End

Wait for a moment and log in to the web UI again. When the page displays “**Connected. You can access the internet.**”, the router is connected to the internet successfully.



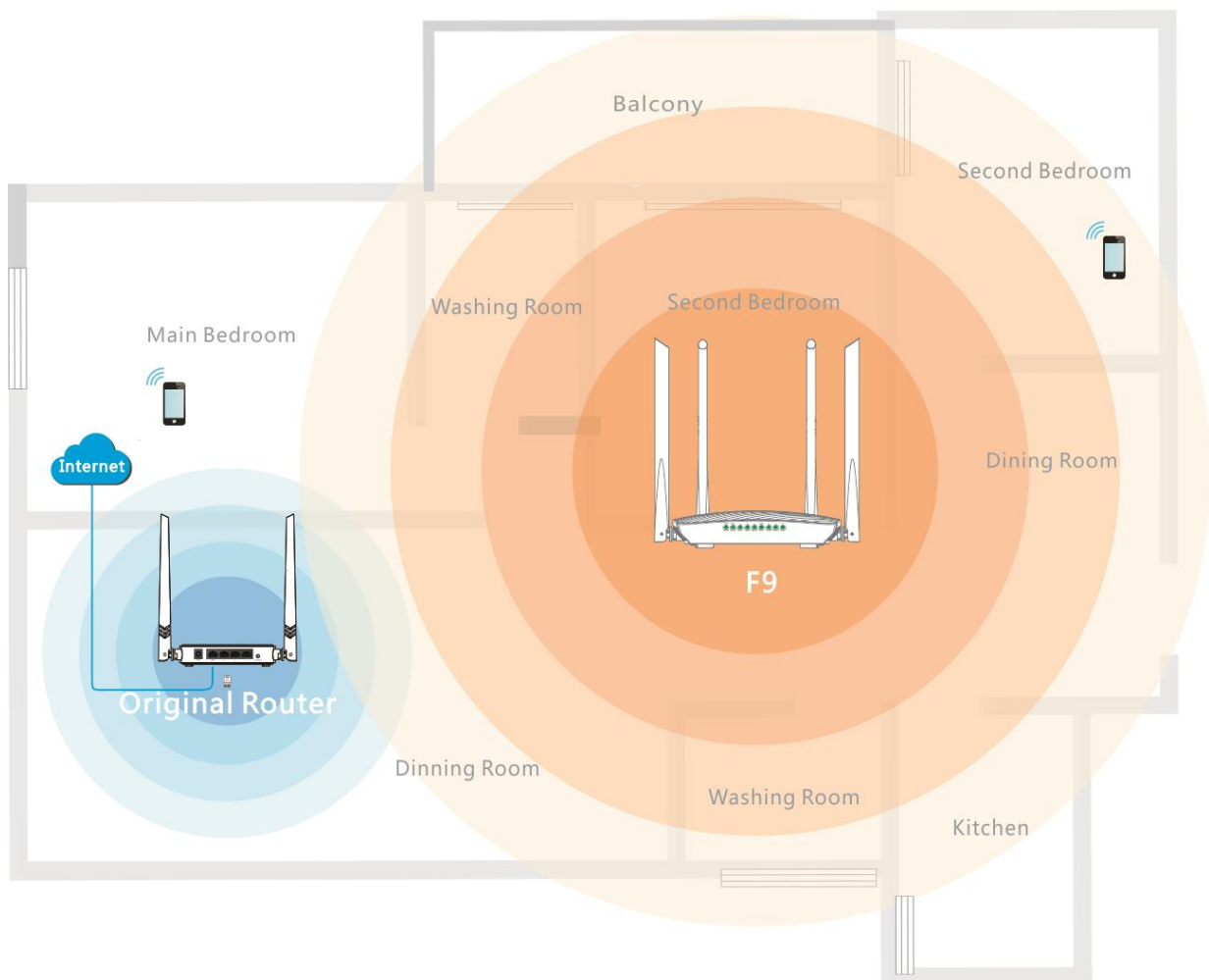
Application Scenario

Jack purchases F9 to provide wired and wireless networks. The router locates at living room, so the WiFi signal is strong in living room and main bedroom, but in washing room and second bedroom, the WiFi signal is too poor to surf the internet. Now, Jack wants to surf the internet anywhere at home.

Solution

Add a F9 and set the operating mode to Universal Repeater to extend the WiFi signal.

The following diagram is for reference.



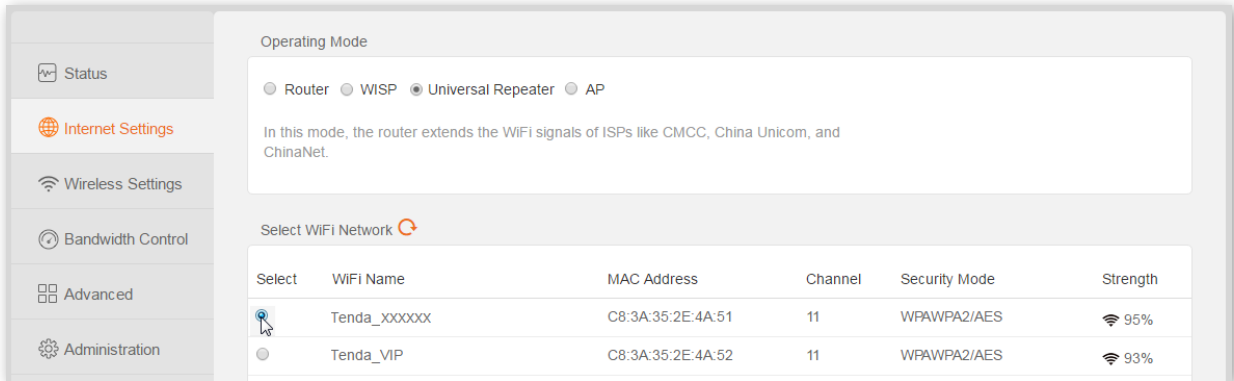
Assume that the WiFi name and password of the original router is shown as follows:

- WiFi Name: **Tenda_XXXXXX**

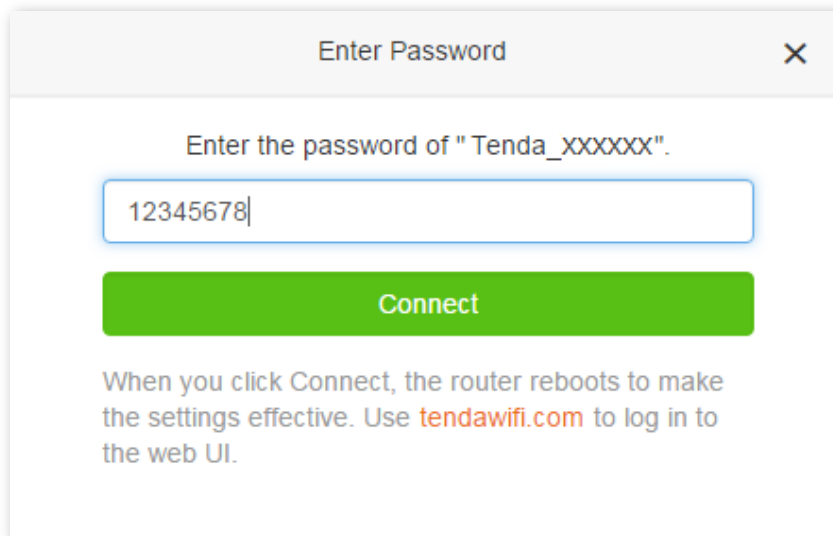
- WiFi Password: **12345678**

Configuration Procedure

- Step 1** Log in to the web UI of the router, and choose **Internet Settings**.
- Step 2** Select **Universal Repeater**.
- Step 3** Select the wireless name of original router, which is **Tenda_XXXXXX** in this example.

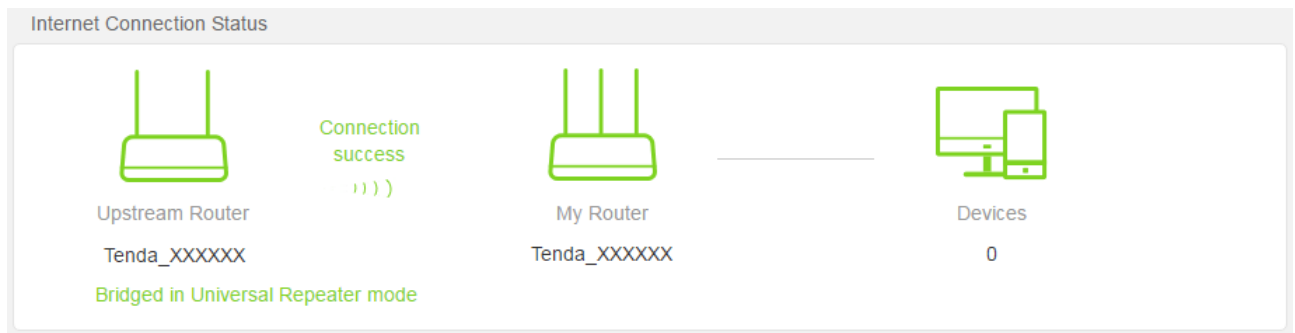


- Step 4** Enter the password of the original router in the **Password of the upstream WiFi network** box, which is **12345678** in this example.
- Step 5** Click **Connect**.



--End

Wait for a moment and log in to the web UI again. When the page displays "Connected. You can access the internet.", the router is connected to the internet successfully.



Verification

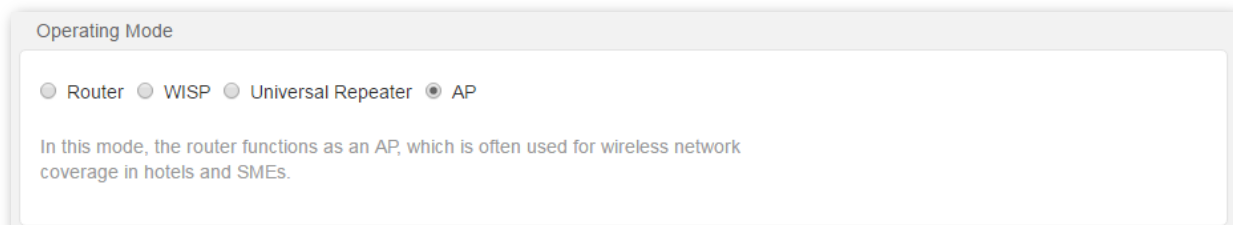
Connect to the WiFi signal anywhere at home using a smart phone and check whether it can surf the internet normally. The WiFi name and password of F9 can be checked in **Wireless Settings > WiFi Name and Password** part.

5.6 AP Mode

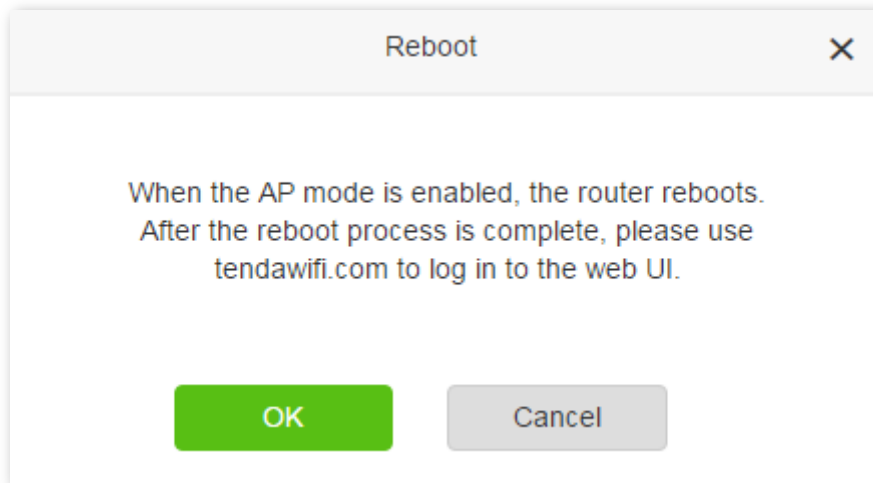
In AP mode, the router serves as an access point, and is connected to the internet in a wired manner. All ports are used to connect to wired devices, such as routers, switches, computers, and so on.

AP Mode Configuration

- Step 1** Choose **Internet Settings**.
- Step 2** Select **AP**.
- Step 3** Click **OK** to apply the settings.

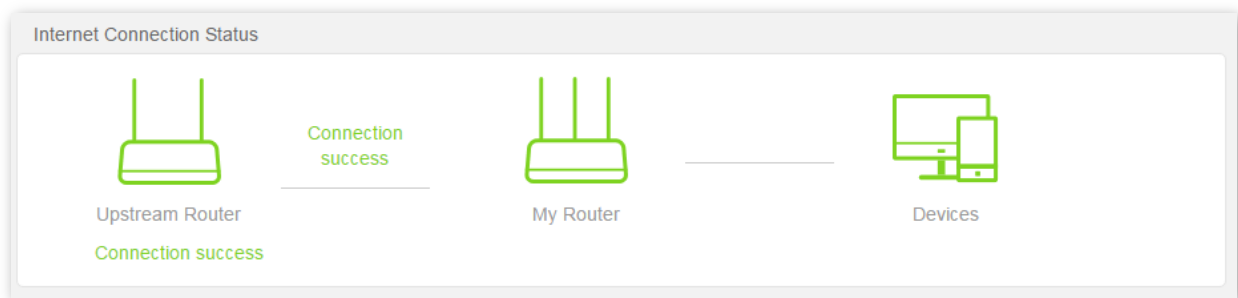


- Step 4** Click **OK** on the pop-up window.



--End

Wait for a moment and log in to the web UI again. When the page displays "Connected. You can access the internet.", the router is connected to the internet successfully.



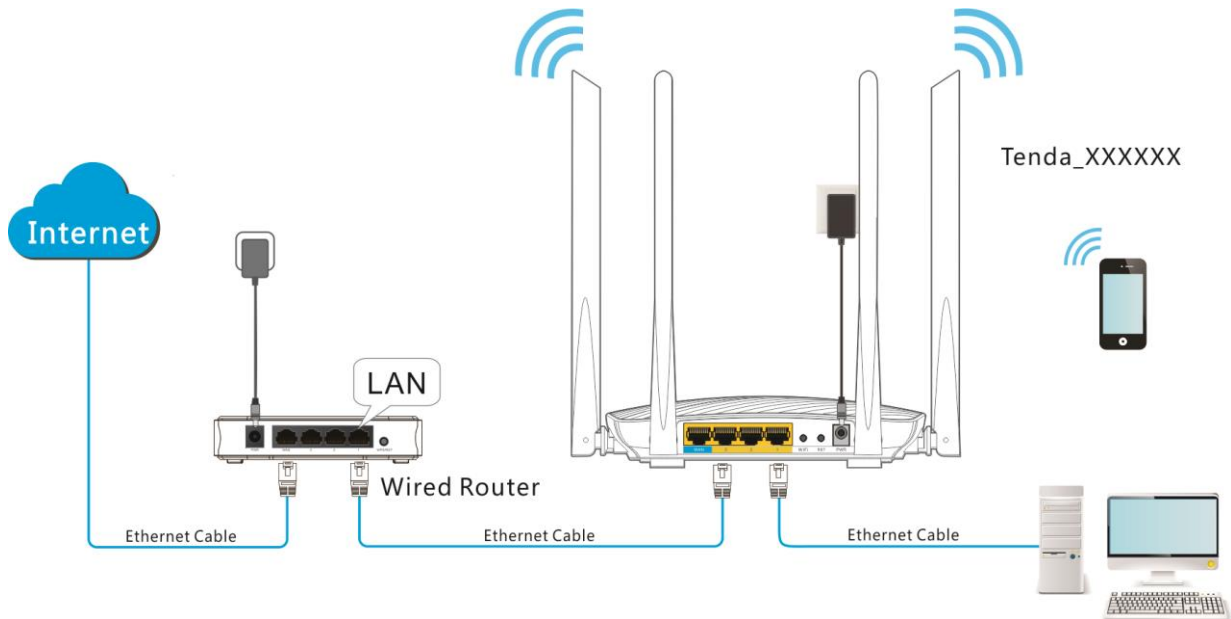
Application Scenario

Jack already has purchased a wired router to provide wired network. Now, wireless coverage is required.

Solution

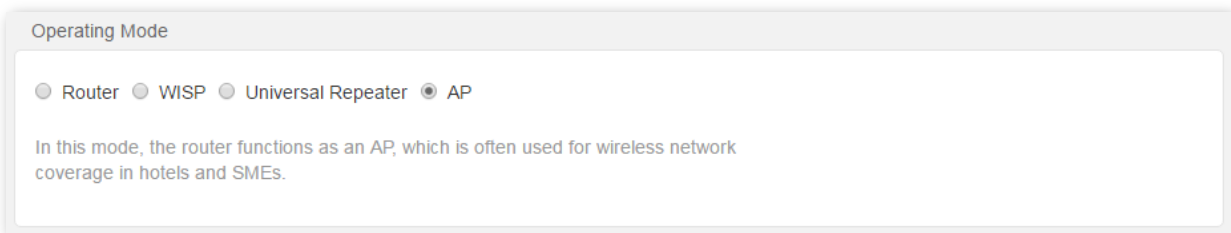
Add a F9 and set the operating mode to AP. Connect any port of F9 to the LAN port of the wired router.

The following diagram is for reference.

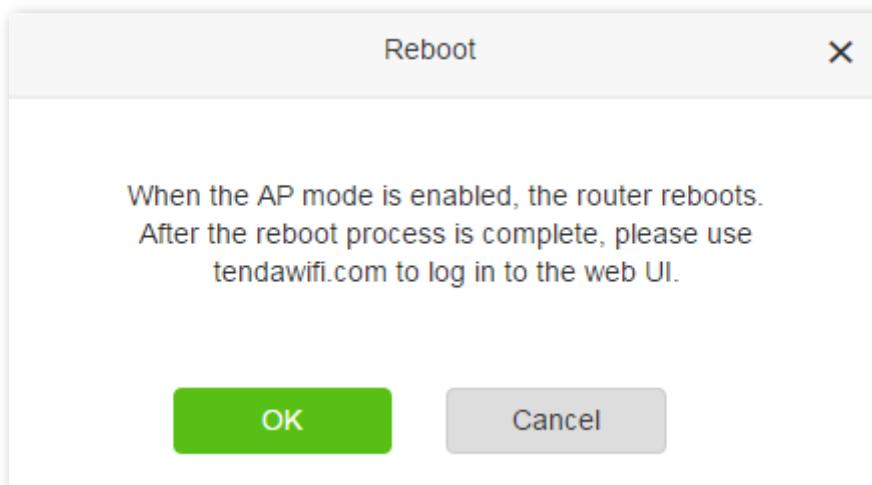


Configuration Procedure

- Step 1** Choose **Internet Settings**.
- Step 2** Select **AP**.
- Step 3** Click **OK** to apply the settings.

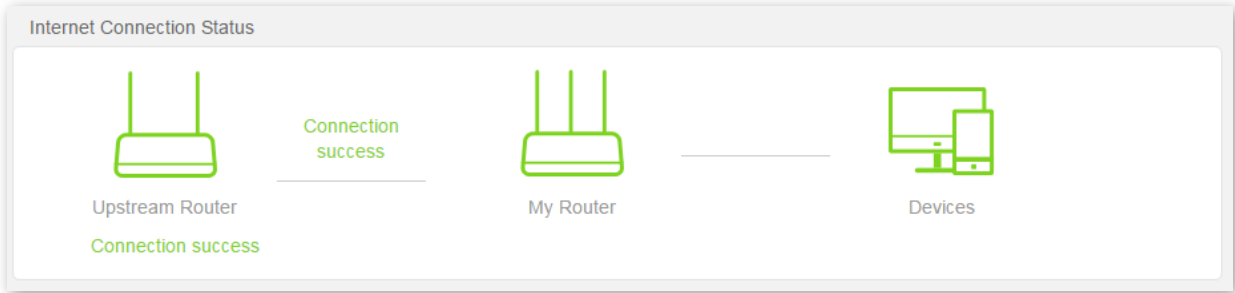


- Step 4** Click **OK** on the pop-up window.



--End

Wait for a moment and log in to the web UI again. When the page displays "Connected. You can access the internet.", the router is connected to the internet successfully.



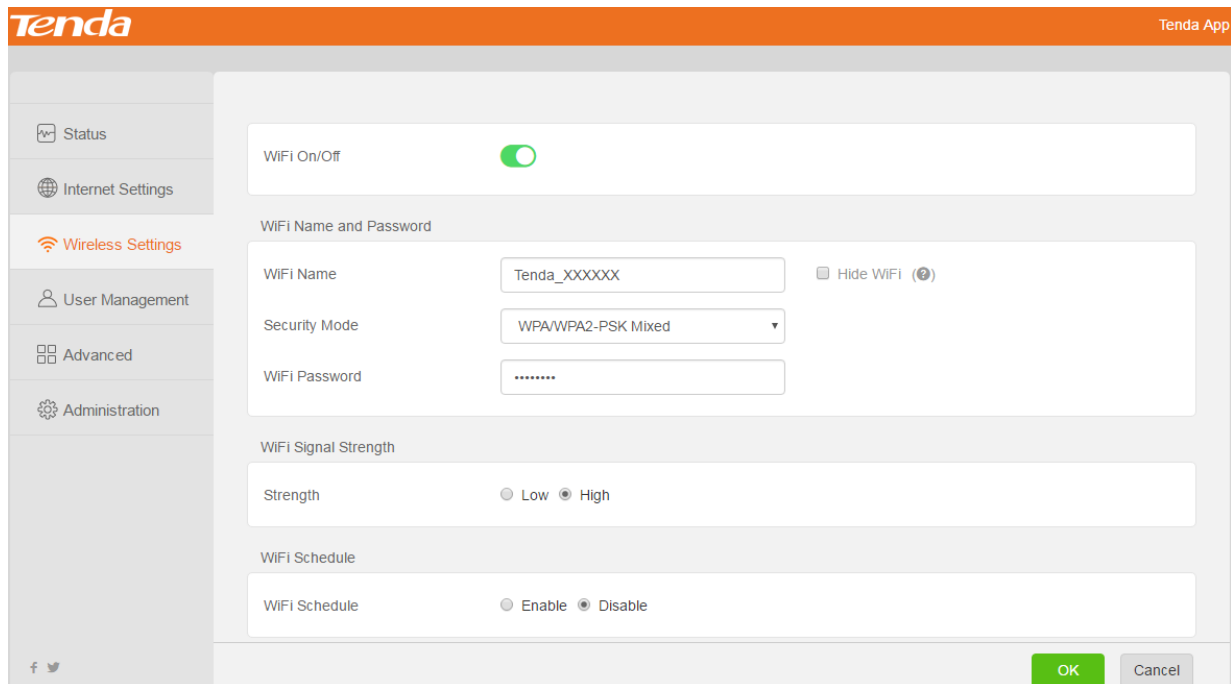
Verification

Check whether the wireless device, such as smart phones can connect to F9 for internet access.

6 Wireless Settings

In wireless Settings page, you can enable/disable wireless function of the router, change WiFi name and password, change WiFi signal strength, set WiFi schedule, and change the wireless parameters.


Choose **Wireless Settings** to enter the page.



6.1 WiFi On/Off Button


By default, the router enables WiFi function. You can also disable it according to you needs.

Configuration Procedure of Disabling WiFi

Method 1: Press the WiFi button on the rear panel of the router. Method 2: Choose **Wireless Settings**, find **WiFi On/Off** button, and click it to set it to . Observe the WiFi LED. When it turns off, the WiFi function is disabled.

Configuration Procedure of Enabling WiFi

Method 1: Press the WiFi router on the rear panel of the router.

Method 2: Choose **Wireless Settings**, find **WiFi On/Off** button, and set it to . Observe the WiFi LED. When it lights up again, the WiFi function is enabled.

WiFi On/Off



Status	Description
	The WiFi function is enabled.
	The WiFi function is disabled.

6.2 WiFi Name and Password

In this part, you can change the WiFi name, security mode, and WiFi password.

WiFi Name and Password

WiFi Name Hide WiFi (?)

Security Mode

WiFi Password

Parameters

Parameters	Description
WiFi Name	It specifies the wireless network name. When the router is connected to the internet successfully, wireless clients, such as smart phones, can connect to this name for internet access.
Hide WiFi	When this option is selected, the wireless clients cannot search the WiFi name of the router, and you need to enter it on your device manually.
Security Mode	It specifies the security mode of the wireless network. <ul style="list-style-type: none">• None: A wireless client can connect to the wireless network without a password.• WPA-PSK: The wireless clients can only use WPA-PSK security mode to connect to the wireless network.• WPA2-PSK: The wireless clients can only use WPA2-PSK security mode to connect to the wireless network.• WPA/WPA2-PSK Mixed: The wireless clients can use WPA-PSK or WPA2-PSK security mode to connect to the wireless network.
WiFi Password	It specifies the wireless password of the wireless network. To secure the wireless network, you'd better set a password for your wireless network.

Changing WiFi Name and WiFi Password

Step 1 Choose **Wireless Settings** to enter the page.

- Step 2 WiFi Name:** Set **WiFi Name** to **Tenda_XXXXXX**.
- Step 3 WiFi Password:** Set **WiFi Password** to **12345678**.
- Step 4** Click **OK** to apply the settings.

WiFi Name and Password

WiFi Name: Tenda_XXXXXX Hide WiFi (?)

Security Mode: WPA/WPA2-PSK Mixed

WiFi Password: 12345678

--End

After the configuration, wireless clients, such as smart phones, can connect to Tenda_XXXXXX for internet access.

6.3 WiFi Signal Strength

In this part, you can change WiFi signal strength.

WiFi Signal Strength

Strength: Low High

Parameters

Parameters	Description
Low	The wireless transmitting power is low. This mode is applicable to the environment of barrier free and with small area.
High	The wireless transmitting power is high. This mode is applicable to the environment of multi obstacle and with large area.

Changing WiFi Signal Strength

- Step 1** Choose **Wireless Settings** to enter the page.
- Step 2** Set **Strength** to **Low**.
- Step 3** Click **OK** to apply the settings.

WiFi Signal Strength

Strength: Low High

--End

6.4 WiFi Schedule

In this part, you can configure WiFi schedule. After the settings take effect, the WiFi will be turned off during the period you set. By default, the WiFi Schedule is disabled.



After the WiFi is turned off, if you want to turn it on, press the WiFi button on the rear panel of the router.

WiFi Schedule Configuration

- Step 1** Choose **Wireless Settings** to enter the page.
- Step 2** **WiFi Schedule**: Set **WiFi Schedule** to **Enable**.
- Step 3** **Turn WiFi Off At**: Set **Turn WiFi Off At** to **23:00 ~ 07:00**.
- Step 4** **Turn WiFi Off On**: Set **Turn WiFi Off On** to **Everyday**.
- Step 5** Click **OK** to apply the settings.

WiFi Schedule

WiFi Schedule Enable Disable

Turn WiFi Off At 23 : 00 ~ 07 : 00

Turn WiFi Off On Everyday Mon. Tue. Wed. Thu. Fri. Sat. Sun.

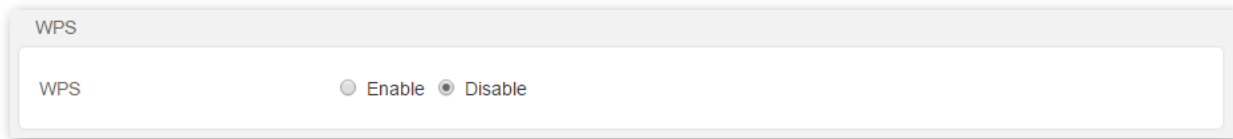
--End

Parameters

Parameters	Description
WiFi Schedule	Enable/Disable the WiFi Schedule Function.
Turn WiFi Off At	It specifies the time and date you will turn the WiFi off. In this period, the router does not provide WiFi.
Turn WiFi Off On	

6.5 WPS

In this part, you can configure WPS function. The WPS function enables wireless devices to quickly connect to an encrypted WiFi network of the router. This function is disabled by default.

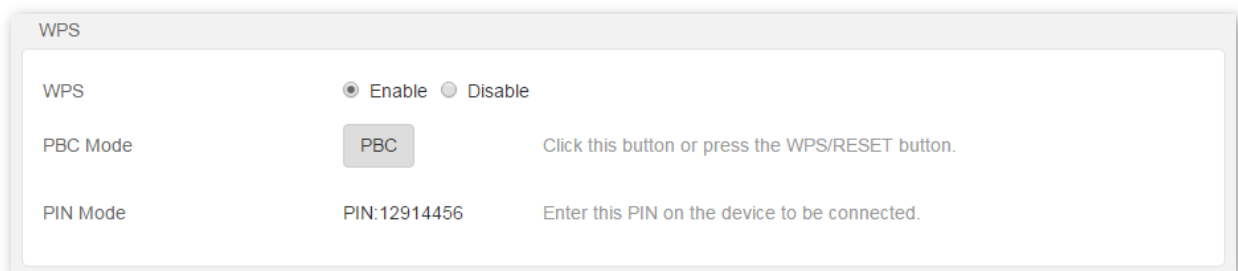


WPS

WPS Enable Disable

Enabling the WPS function via web UI

To connect a wireless device to the router using the WPS function, select the Enable, and follow the onscreen instruction.



WPS

WPS Enable Disable

PBC Mode Click this button or press the WPS/RESET button.

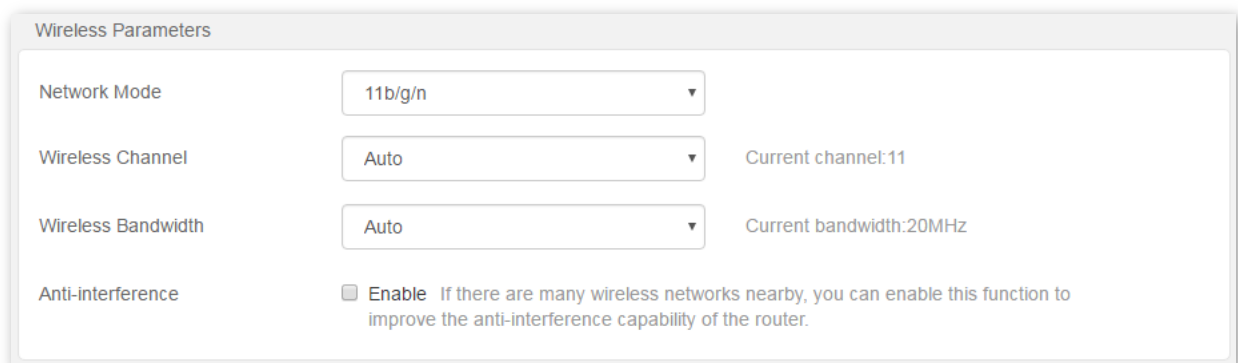
PIN Mode PIN:12914456 Enter this PIN on the device to be connected.

Enabling WPS function via WPS button

Hold on the **WPS/RST** button on the rear panel of the router for about 1 second and then release it to enable the WPS function.

6.6 Wireless Parameters

In this part, you can change network mode, wireless channel, wireless bandwidth, and anti-interference settings.



Wireless Parameters

Network Mode

Wireless Channel Current channel:11

Wireless Bandwidth Current bandwidth:20MHz

Anti-interference Enable If there are many wireless networks nearby, you can enable this function to improve the anti-interference capability of the router.

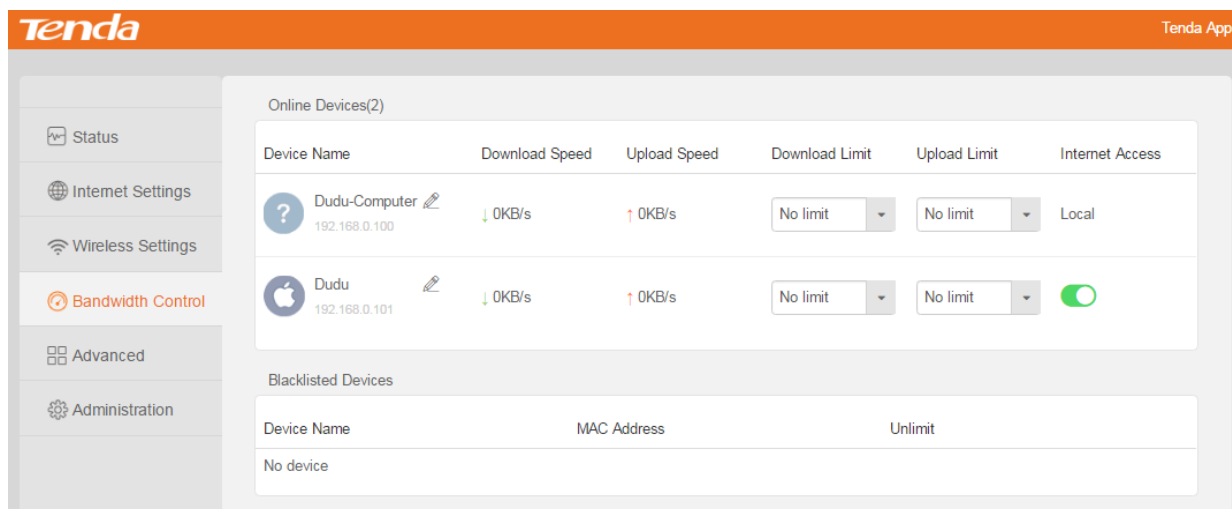
Parameters

Parameters	Description
Network Mode	<p>Network Mode</p> <ul style="list-style-type: none">• 11b: It indicates that clients compliant with 802.11b can connect to the router. The maximum wireless rate is 11 Mbps.• 11g: It indicates that clients compliant with 802.11g can connect to the router. The maximum wireless rate is 54 Mbps.• 11b/g: It indicates that clients compliant with the 802.11b or 802.11g protocol can connect to the router. The maximum wireless rate is 54 Mbps.• 11b/g/n: It indicates that clients compliant with the 802.11b, 802.11g, or 802.11n protocol can connect to the router. The maximum wireless rate is 600 Mbps.
Wireless Channel	<p>It specifies the operating channel of the WiFi network. A channel different from nearby channels are recommended for less interference and better wireless transmission efficiency. You can use a third-party tool to identify the channels different from nearby channels.</p>
Wireless Bandwidth	<p>It specifies the bandwidth of the operating channel of the WiFi network. Change the default setting only when necessary.</p> <ul style="list-style-type: none">• Auto: It specifies that a router can switch its channel bandwidth between 20 MHz and 40 MHz based on the ambient environment.• 20MHz: It indicates that the channel bandwidth of a router is 20MHz.• 40MHz: It indicates that the channel bandwidth of a router is 40MHz.
Anti-interference	<p>By default, the anti-interference function is disabled.</p> <p>If smart phones can search many WiFi signals nearby, you'd better enable this function.</p>

7 Bandwidth Control

In Bandwidth Control page, you can check the information of online devices, set the maximum download/upload speed for each device, and allow/disallow the devices to access the internet.

Choose **Bandwidth Control** to enter this page.



Parameters

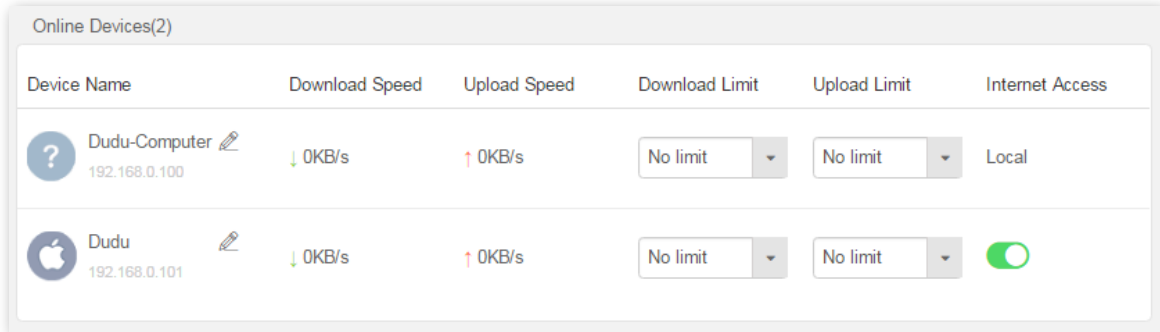
Parameters	Description	
Online Devices	Device Name	It displays the information of online devices including device name and IP address. If the router cannot identify a device, it displays . You can click to change the device name.
	Download/Upload Speed	It displays the current upload/download speed of the corresponding device.
	Download/Upload Limit	<ul style="list-style-type: none"> Upload Limit specifies the maximum upload speed at Mbps of the corresponding device. Download Limit specifies the maximum download speed at Mbps of the corresponding device.
	Internet Access	You can click the button under Internet Access to disallow the corresponding device to access the internet and add it to Blacklisted Devices list.
Blacklisted Devices	Device Name	It displays the name of the blacklisted device.
	MAC Address	It displays the MAC address of the blacklisted device.
	Unlimit	You can click this button to remove the blacklisted device from the Blacklisted Devices list.

7.1 Setting Download/Upload Limit

Step 1 Choose **Bandwidth Control** to enter the page.

Step 2 Find the corresponding device according to the device name and set the download or upload limit.

Step 3 Click **OK** to apply the settings.



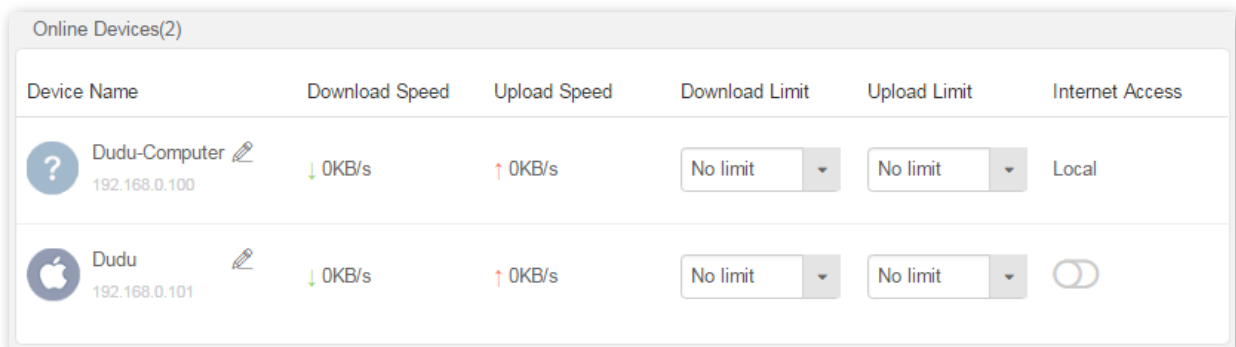
--End

7.2 Blocking a Device

Step 1 Choose **Bandwidth Control** to enter the page.

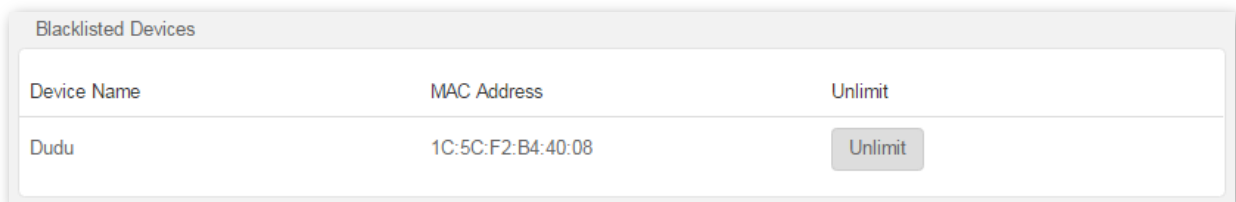
Step 2 Find the corresponding device according to the device name and set the button to .

Step 3 Click **OK** to apply the settings.



--End

The device is displayed in Blacklisted Devices list:

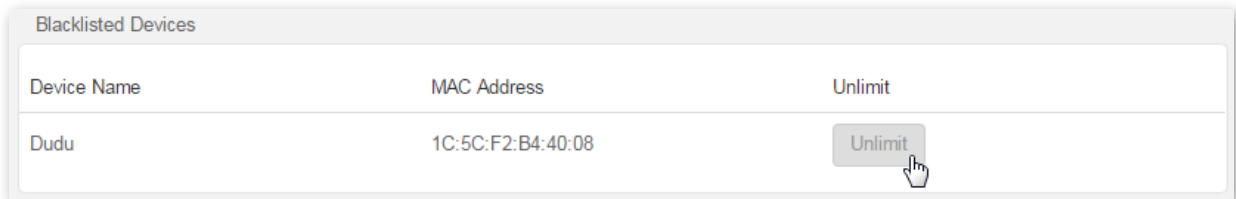


7.3 Removing a device from Blacklisted Devices List

Step 1 Choose **Bandwidth Control** to enter the page.

Step 2 Find the corresponding device according to the device name and click **Unlimit**.

Step 3 Click **OK** to apply the settings.



--End

7.4 Application Scenario

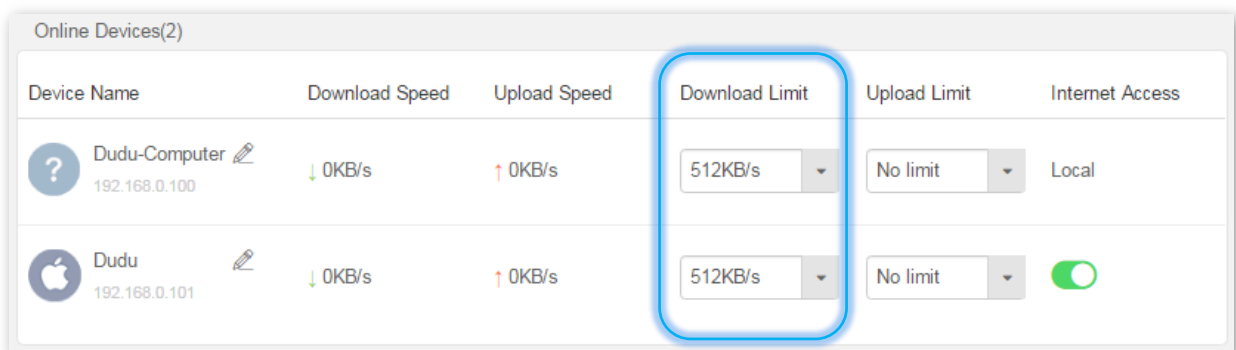
Jack purchases F9 to provide wired and wireless network. He finds multiple devices sharing the connection often compete for bandwidth. To ensure that every device can access the internet properly, he specifies the maximum download/upload speed for each device.

Configuration Procedure

Step 1 Choose **Bandwidth Control** to enter the page.

Step 2 Find the corresponding device according to the device name and set **Download Limit** to **512KB/s**.

Step 3 Click **OK** to apply the settings.



--End

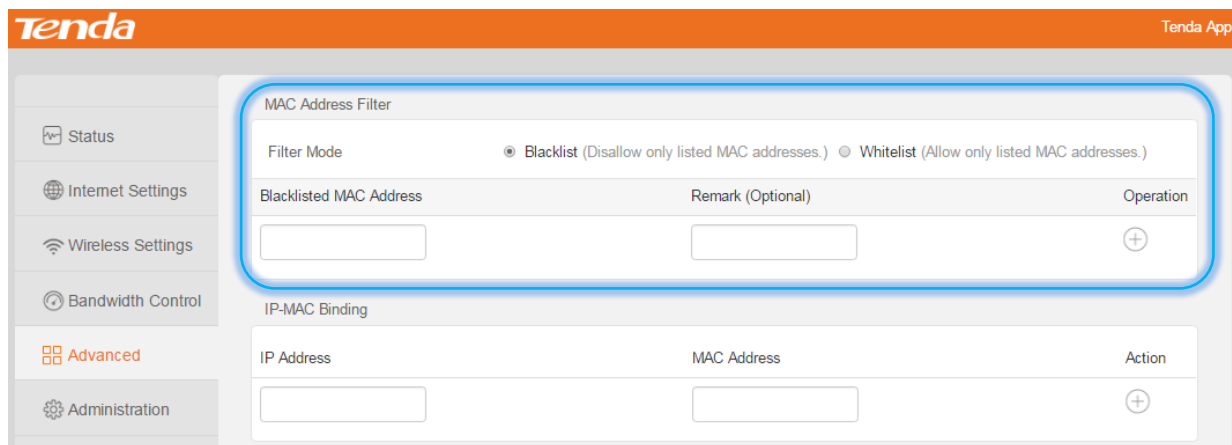
Verification

HD videos can be played on the devices normally.



8 MAC Address Filter

In MAC Address Filter part, you can allow/disallow the device to access the internet. If you find unknown devices are connected to your router in Bandwidth Control page, you can configure MAC Address Filter function to block the device. Meanwhile, you can only allow several devices to access the internet through your router.

Choose **Advanced** to enter the page.



Parameters

Parameters	Description
Filter Mode	<ul style="list-style-type: none">Blacklist: Disallowed only the devices with listed MAC addresses to access the internet.Whitelist: Allow only the devices with listed MAC addresses to access the internet.
Blacklisted MAC Address	Enter the MAC address of the blacklisted device.
Whitelisted MAC Address	Enter the MAC address of the whitelisted device.
Remark	Enter a note for the MAC address.
Operation	<p> : Add a MAC address filter rule.</p> <p> : Remove a MAC address filter rule.</p>
Whitelist all the online devices	<p>You can click this interlinkage to whitelist all online devices.</p> <p>This interlinkage is hidden after you configure Whitelist and apply the settings.</p>

8.1 Adding a MAC Address Filter Rule

Step 1 Choose **Advanced** to enter the page.

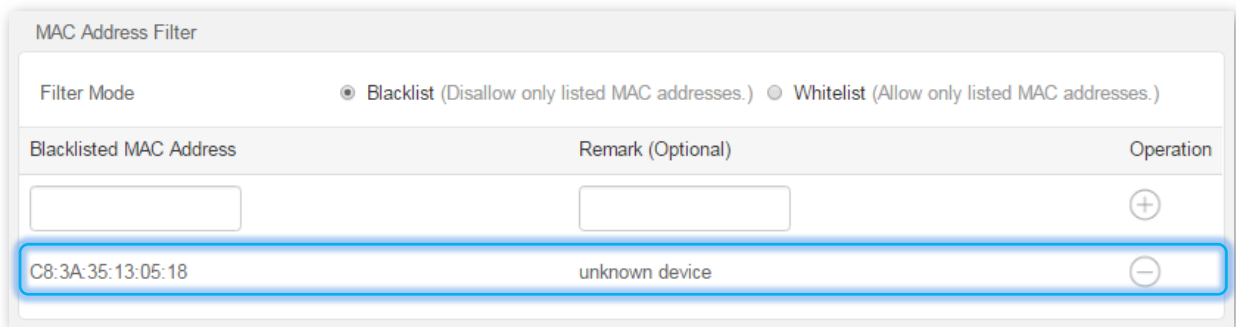
Step 2 **Filter Mode:** Set **Filter Mode** to **Blacklist**.

Step 3 **Blacklisted MAC Address:** Enter a MAC address of blacklisted device, which is **C8:3A:35:13:05:18** in this example.

Step 4 **Remark (Optional):** Enter a note for the MAC address, which is **unknown device** in this example.

Step 5 Click  .

Step 6 Click **OK** to apply the settings.




The screenshot shows the 'MAC Address Filter' configuration window. At the top, there are two radio buttons for 'Filter Mode': 'Blacklist (Disallow only listed MAC addresses.)' is selected, and 'Whitelist (Allow only listed MAC addresses.)' is unselected. Below this is a table with three columns: 'Blacklisted MAC Address', 'Remark (Optional)', and 'Operation'. The first row is empty, with input fields for the MAC address and remark, and a '+' icon in the operation column. The second row contains the MAC address 'C8:3A:35:13:05:18', the remark 'unknown device', and a '-' icon in the operation column. This second row is highlighted with a blue border.

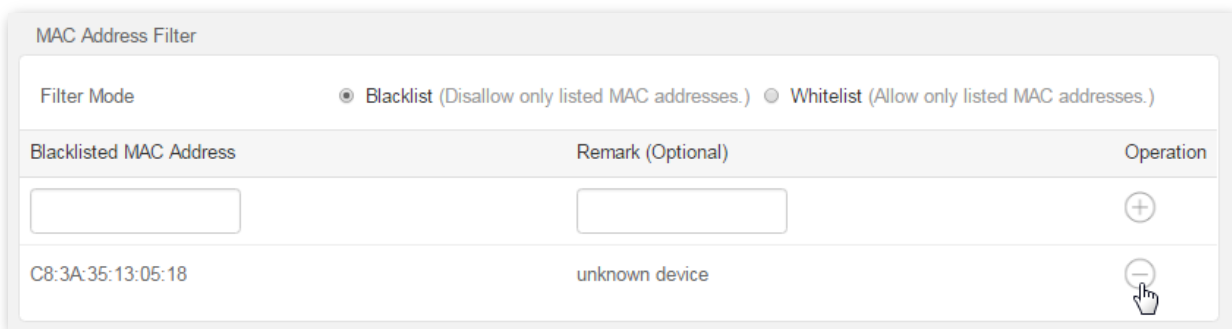
--End

8.2 Removing a MAC Address Filter Rule

Step 1 Choose **Advanced** to enter the page.

Step 2 Click  corresponding to the rule you want to remove.

Step 3 Click **OK** to apply the settings.



The screenshot shows the 'MAC Address Filter' configuration window. At the top, there are two radio buttons for 'Filter Mode': 'Blacklist (Disallow only listed MAC addresses.)' is selected, and 'Whitelist (Allow only listed MAC addresses.)' is unselected. Below this is a table with three columns: 'Blacklisted MAC Address', 'Remark (Optional)', and 'Operation'. The first row is empty, with input fields for the MAC address and remark, and a '+' icon in the operation column. The second row contains the MAC address 'C8:3A:35:13:05:18', the remark 'unknown device', and a '-' icon in the operation column. A mouse cursor is pointing at the '-' icon in the operation column.

--End

8.3 Application Scenario

Jack purchases F9 to provide wired and wireless network. He usually finds unknown devices are connected to his router in Bandwidth Control page. So he only allows the devices belonging to his families to access the internet through the router.

Solution

Configure the MAC Address Filter function to allow devices belonging to families to access the internet.

Assume that the MAC addresses of the devices are as follows:

- 14:5F:94:BC:FC:81
- 1C:5C:F2:B4:40:01

Configuration Procedure

Step 1 Choose **Advanced** to enter the page.

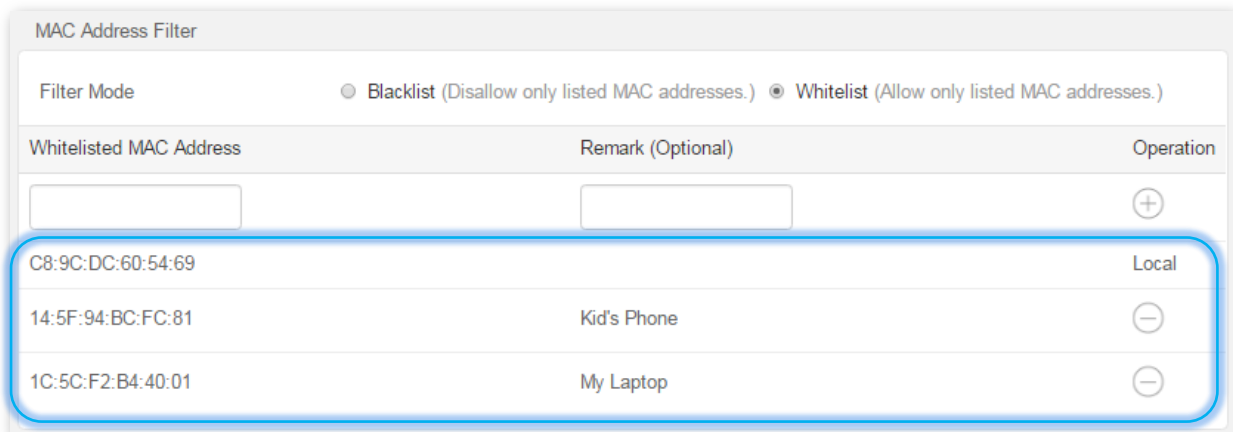
Step 2 **Whitelisted MAC Address:** Enter a MAC address of whitelisted device, which is **14:5F:94:BC:FC:81** in this example.

Step 3 **Remark (Optional):** Enter a note for the MAC address, which is **Kid's Phone** in this example.

Step 4 Click  .

Step 5 Perform **Step 2** to **Step 4** to add the MAC address **1C:5C:F2:B4:40:01**.

Step 6 Click **OK** to apply the settings.



Whitelisted MAC Address	Remark (Optional)	Operation
<input type="text"/>	<input type="text"/>	<input data-bbox="1295 1339 1327 1384" type="button" value="+"/>
C8:9C:DC:60:54:69	Local	<input data-bbox="1295 1406 1327 1451" type="button" value="-"/>
14:5F:94:BC:FC:81	Kid's Phone	<input data-bbox="1295 1473 1327 1518" type="button" value="-"/>
1C:5C:F2:B4:40:01	My Laptop	<input data-bbox="1295 1541 1327 1585" type="button" value="-"/>

--End

Verification

Only the devices listed in Whitelisted MAC Address can access the internet through the router. The other devices cannot connect to the router.

9 IP-MAC Binding

In IP-MAC Binding part, you can assign an IP address to a specified device in LAN. So when the device is connected to the router, it always obtains the fixed IP address.



This function is often used in combination with the Port Forwarding, DDNS functions.

Choose **Advanced** to enter the page.

Parameters

Parameters	Description
IP Address	Enter an IP address to be assigned to a specified device in LAN.
MAC Address	Enter the MAC address of the specified device.
Action	: Add an IP-MAC Binding rule. : Remove an IP-MAC Binding rule.

9.1 Adding an IP-MAC Binding Rule


Step 1 Choose **Advanced** to enter the page.


Step 2 **IP Address:** Enter an IP address to be assigned to a specified device in LAN, which is **192.168.0.110** in this example.

Step 3 **MAC Address:** Enter the MAC address of the specified device, which is **C8:3A:35:13:05:18** in this example.

Step 4 Click  .


Step 5 Click **OK** to apply the settings.





IP Address	MAC Address	Action
192.168.0.110	C8:3A:35:13:05:18	

--End


After the settings take effect, the device whose MAC address is **C8:3A:35:13:05:18** always obtains the IP address **192.168.0.110**.




IP Address	MAC Address	Action
		
192.168.0.110	C8:3A:35:13:05:18	



9.2 Removing an IP-MAC Binding Rule

Step 1 Choose **Advanced** to enter the page.

Step 2 Click  corresponding to the rule you want to remove.

Step 3 Click **OK** to apply the settings.



IP Address	MAC Address	Action
		
192.168.0.110	C8:3A:35:13:05:18	

--End

10 Port Forwarding

In Port Forwarding part, you can add Port Forwarding rules.

If computers are connected to the router to form a LAN and access the internet through the router, internet users cannot access the servers built on the hosts on the LAN, such as web servers, email servers, and FTP servers. To enable internet users to access a LAN server, enable the port forwarding function of the router, and map one service port to the IP address of the LAN server. This enables the router to forward the requests arriving at the port from the internet to the LAN server.

Choose **Advanced** to enter the page.

Internal IP Address	Internal Port	External Port	Protocol	Operation
<input type="text"/>	21	21	Both	+

Parameters


Parameters	Description
Internal IP Address	It specifies the IP address of a server that resides on the LAN of the router.
Internal Port	It specifies the service port number of a server that resides on the LAN of the router.
External Port	It specifies a router port accessible to internet users. When you select an internal port, the external port is auto-populated.
Protocol	It specifies the protocol of a service provided through the router for internet users. If you are uncertain about which service protocol is used, Both is recommended.
Operation	: Add a Port Forwarding rule. : Remove a Port Forwarding rule.


10.1 Adding a Port Forwarding Rule

Step 1 Choose **Advanced** to enter the page.


Step 2 **Internal IP Address:** Enter the IP address of the internal server, which is **192.168.0.110** in this example.

Step 3 **Internal Port:** Click and select an internal port from the drop-down list, or enter one manually, which is **21** in this example.

Step 4 Protocol: Click  and select a protocol, which is **Both** in this example.



Step 5 Click  .

Step 6 Click **OK** to apply the settings.

Port Forwarding				
Internal IP Address	Internal Port	External Port	Protocol	Operation
192.168.0.110	21	21	Both	


--End

Configuration succeeded.



Port Forwarding				
Internal IP Address	Internal Port	External Port	Protocol	Operation
	21	21	Both	
192.168.0.110	21	21	Both	

10.2 Removing a Port Forwarding Rule

Step 1 Choose **Advanced** to enter the page.

Step 2 Click  corresponding to the rule you want to remove.

Step 3 Click **OK** to apply the settings.

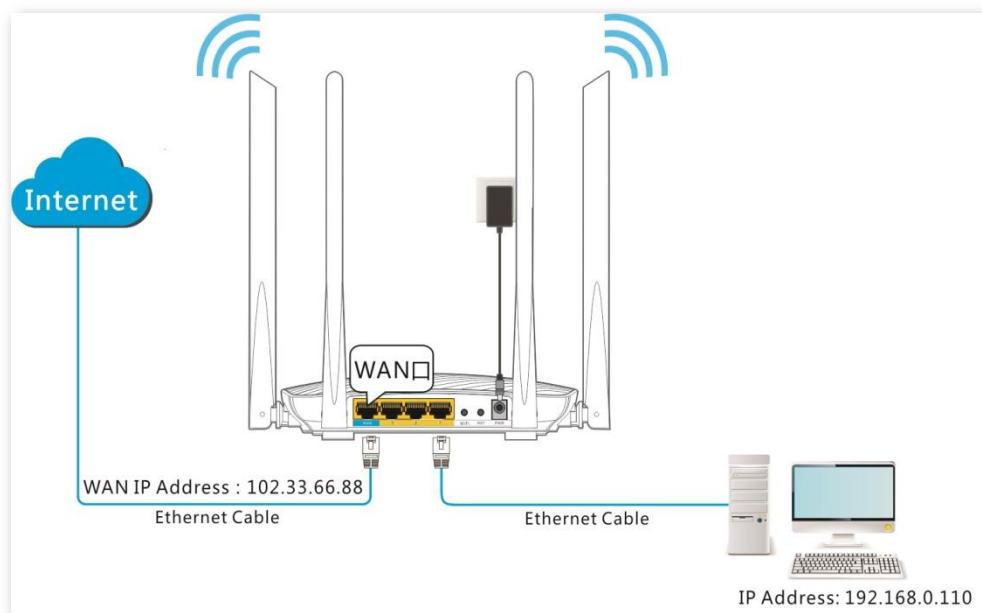
Port Forwarding				
Internal IP Address	Internal Port	External Port	Protocol	Operation
	21	21	Both	
192.168.0.110	21	21	Both	

--End

10.3 Application Scenario

Jack purchases F9 to provide wired and wireless network. Now, he wants internet users to access the web server built on his computer.

The following diagram is for reference.



Solution


Configure the Port Forwarding function to enable internet users to access the web server.


Assume that the information of the web server is as follows:

- IP Address of the Computer Built the Web Server: **192.168.0.110**
- MAC Address of the Computer Built the Web Server: **C8:3A:35:13:05:18**
- User Name and Password: **admin**
- Port of the Web Server: **80**


Configuration Procedure


Step 1 Configure the Port Forwarding function.

1. Choose **Advanced** to enter the page.
2. **Internal IP Address:** Enter the IP address of the web server, which is **192.168.0.110** in this example.
3. **Internal Port:** Select the corresponding internal port of the server, which is **80 (HTTP)** in this example.
4. **Protocol:** Select the protocol of the server, which is **Both** in this example.
5. Click .
6. Click **OK** to apply the settings.

Internal IP Address	Internal Port	External Port	Protocol	Operation
192.168.0.110	80	80	Both	

Step 2 Assign a fixed IP address to the computer built the web server.

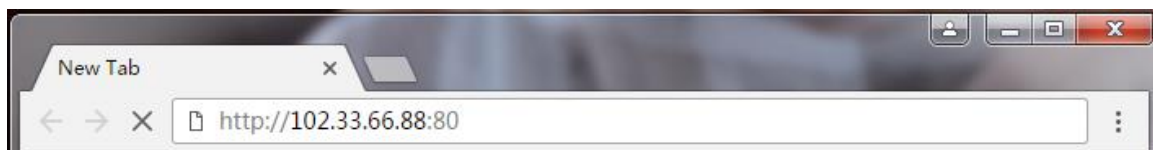
1. Choose **Advanced** to enter the page.
2. In IP-MAC Binding part, enter the IP address of the computer built the web server, which is **192.168.0.110** in this example.
3. Enter the MAC address of the computer built the web server, which is **C8:3A:35:13:05:18** in this example.
4. Click  .
5. Click **OK** to apply the settings.

IP Address	MAC Address	Action
<input type="text" value="192.168.0.110"/>	<input type="text" value="C8:3A:35:13:05:18"/>	

--End

Verification

Internet users use “Protocol name:// WAN IP address: External port” to visit the web server, which is **http://102.33.66.88:80** in this example.



If the WAN IP address is dynamic or you do not know it, you can refer to [DDNS](#).

11

DDNS

In DDNS part, you can add DDNS rules.

DDNS maps the WAN IP address (public IP address) of the router to a domain name for dynamic domain name resolution. This ensures proper operation of functions that involve the WAN IP address of the router, such as the port forwarding function.

Choose **Advanced** to enter the page. By default, the function is disabled. Select **Enable** and the page is as follows:

DDNS

DDNS Enable Disable

Service Provider [Register Now](#)

DDNS Username

DDNS Password

DDNS Host Name

Connection Status

Parameters

Parameters	Description
DDNS	It specifies whether to enable the DDNS function.
Service Provider	It specifies a DDNS service provider. The supported service providers include dyn.com, oray.com and no-ip.com.
DDNS Username	It specifies the user name registered on a DDNS service provider's website for logging in to the DDNS service.
DDNS Password	It specifies the password registered on a DDNS service provider's website for logging in to the DDNS service.
Domain Host Name	It specifies the DDNS domain name register on a DDNS service provider's website.
Connection Status	It indicates the current status of the DDNS service.

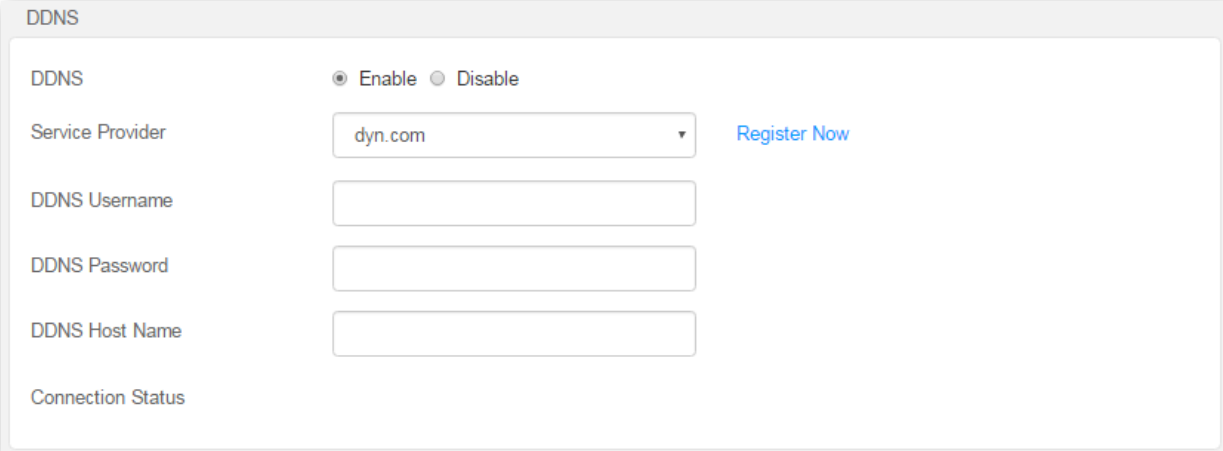
11.1 Adding a DDNS Rule

Step 1 Choose **Advanced** to enter the page.

Step 2 **DDNS**: Select **Enable**.

Step 3 If you already have a DDNS account, you can select the service provider, and go on.

If you do not have a DDNS account or your DDNS account provider is not included in the list, select a service provider from the list, click [Register Now](#) to register one, and the go on.



The screenshot shows a window titled "DDNS" with the following elements:

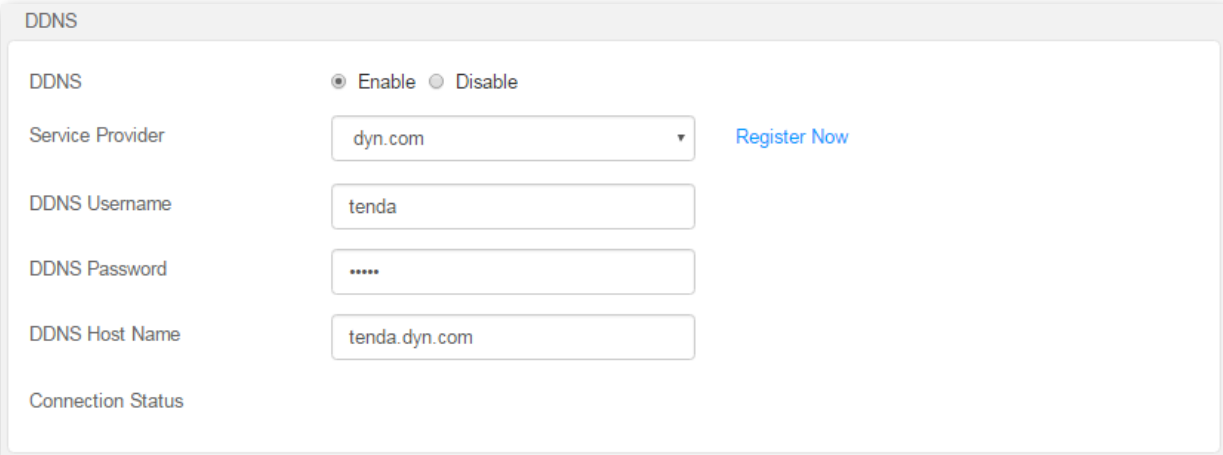
- DDNS: Enable Disable
- Service Provider: A dropdown menu showing "dyn.com" and a "Register Now" link.
- DDNS Username: An empty text input field.
- DDNS Password: An empty text input field.
- DDNS Host Name: An empty text input field.
- Connection Status: A label at the bottom left.

Step 4 DDNS Username: Enter the DDNS username for logging in to your DDNS service.

Step 5 DDNS Password: Enter the DDNS password for logging in to your DDNS service.

Step 6 DDNS Host Name: Enter a domain name registered on the website of your DDNS service provider.

Step 7 Click **OK** to apply the settings.



The screenshot shows the same "DDNS" window as above, but with the following data entered:

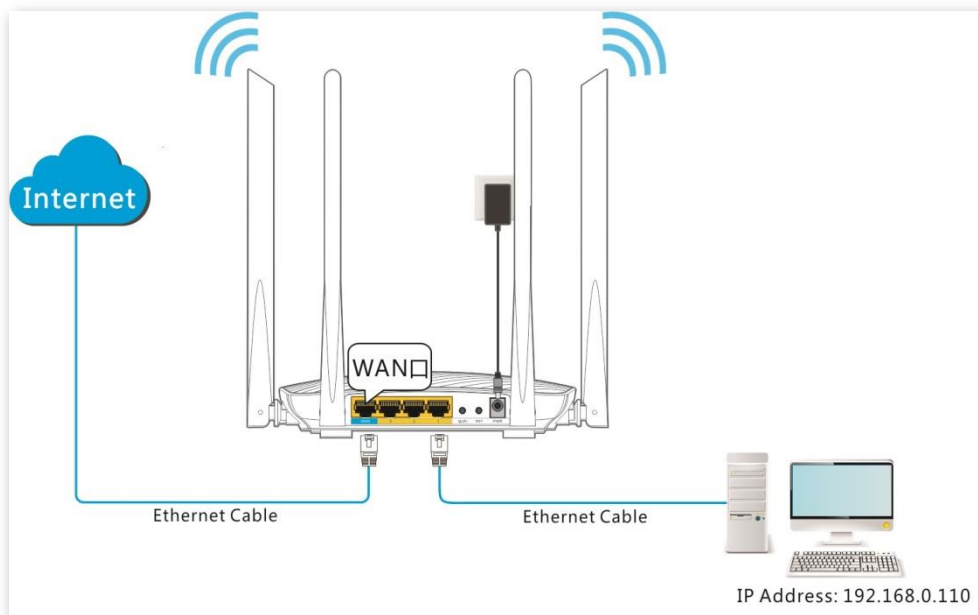
- DDNS: Enable Disable
- Service Provider: A dropdown menu showing "dyn.com" and a "Register Now" link.
- DDNS Username: A text input field containing "tenda".
- DDNS Password: A text input field containing "*****".
- DDNS Host Name: A text input field containing "tenda.dyn.com".
- Connection Status: A label at the bottom left.

--End

11.2 Application Senario

Jack purchases F9 to provide wired and wireless network. Now, he wants internet users to access the web server built on his computer through domain name.

The following diagram is for reference.



Solution

Configure the Port Forwarding and DDNS functions to enable internet users to access the web server through domain name.

Assume that the information of the web server is as follows:

- IP Address of the Computer Built the Web Server: **192.168.0.110**
- MAC Address of the Computer Built the Web Server: **C8:3A:35:13:05:18**
- User Name and Password: **admin**
- Port of the Web Server: **80**

Configuration Procedure

- Step 1** Register a DDNS account.
1. Choose **Advanced** to enter the page.
 2. In DDNS part, select **Enable** .
 3. Set **Service Provider** to **oray.com** and click [Register Now](#) .

DDNS

DDNS Enable Disable

Service Provider [Register Now](#)

DDNS Username

DDNS Password

Connection Status

4. Log in to the website of the DDNS service provider, and register a DDNS account. Assume that the DDNS account information is as follows:
 - Service Provider: **oray.com**
 - DDNS Username: **Tom-Jerry**
 - DDNS Password: **tomjerry123456**
 - Domain Name: **tom-jerry.imwork.net**

Step 2 Configure DDNS function.

1. Choose **Advanced** to enter the page.
2. Set **Service Provider** to **oray.com**.
3. Set **DDNS Username** to **Tom-Jerry**.
4. Set **DDNS Password** to **tomjerry123456**.
5. Click **OK** to apply the settings.

DDNS

DDNS Enable Disable

Service Provider [Register Now](#)

DDNS Username

DDNS Password

Connection Status **Connecting**

--End

Wait for a moment. When the Connection Status displays **Connected**, the settings take effect.

DDNS

DDNS Enable Disable

Service Provider [Register Now](#)

DDNS Username

DDNS Password

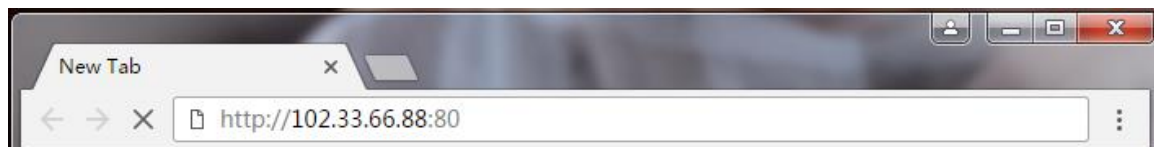
Connection Status Connected

Step 3 Perform the steps in [Configuration Procedure of Port Forwarding](#) to configure Port Forwarding function.

--End

Verification

Internet users can use <http://tom-jerry.imwork.net> to visit the web server.

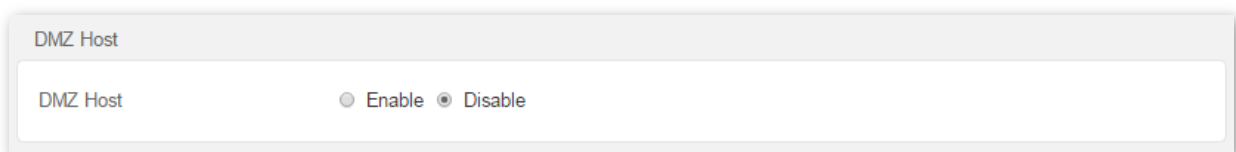


12 DMZ Host

In DMZ Host part, you can set a computer as a DMZ host.

A DMZ host on a LAN can communicate with the internet without limit. You can set a computer that require higher internet connection throughput, such as a computer used for video conferencing or online gaming, as a DMZ host for better user experience.

Choose **Advanced** to enter the page. By default, this function is disabled.



DMZ Host

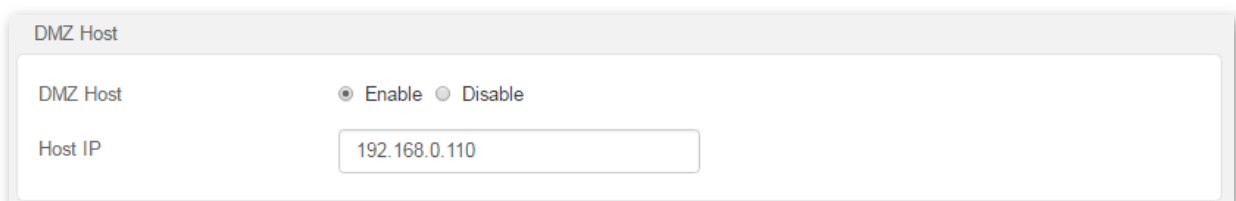
DMZ Host Enable Disable

NOTE

- A DMZ host is not protected by the firewall of the router. A hacker may leverage the DMZ host to attack your LAN. Therefore, enable the DMZ function only when necessary.
- Manually set the IP address of the LAN computer that functions as a DMZ host (Refer to [IP-MAC Binding](#)), to prevent IP address changes, which lead to DMZ function failures.
- Security software, antivirus software, and the built-in OS firewall of the computer may cause DMZ function failures. Disable them when using the DMZ function. If the DMZ function is not required, it is recommended that you disable it and enable your firewall, security, and antivirus software.

Setting a Computer as a DMZ Host

- Step 1** Choose **Advanced** to enter the page.
- Step 2** Select **Enable**.
- Step 3** Set **Host IP** to the IP address of the DMZ host.
- Step 4** Click **OK** to apply the settings.



DMZ Host

DMZ Host Enable Disable

Host IP

--End

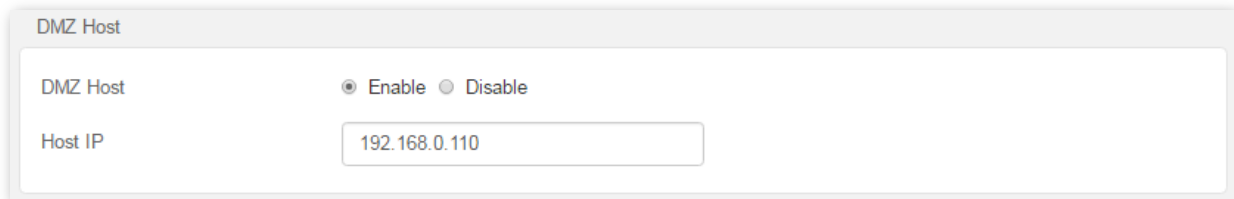
13

UPNP

In UPNP part, you can enable/disable UPnP function.

This function enables the router to map ports. It can enhance user experience especially during online gaming and P2P download.

Choose **Advanced** to enter the page. By default, it is enabled.



DMZ Host

DMZ Host Enable Disable

Host IP

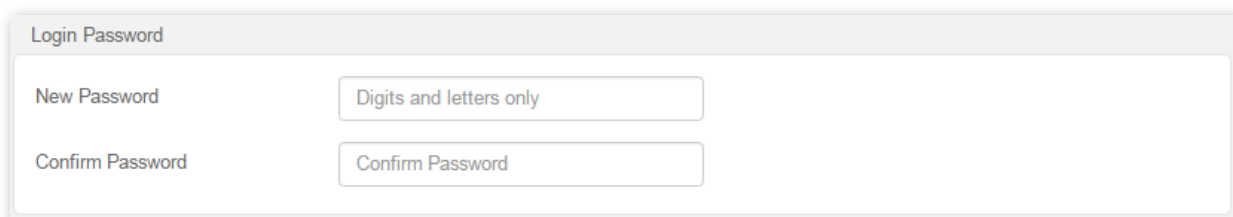
If you want to disable it, select **Disable**, and click **OK** to apply the settings.

14 Administration

This section describes how to administer and maintain your router and home network.

14.1 Login Password

To ensure network security, a complex login password is recommended. A login password consisting of more types of character, such as uppercase letters, lowercase letters, and special characters, has better security.



The screenshot shows a web form titled "Login Password". It contains two rows of input fields. The first row is labeled "New Password" and has a dropdown menu currently set to "Digits and letters only". The second row is labeled "Confirm Password" and has a dropdown menu currently set to "Confirm Password".

Configuration Procedure

- Step 1** Choose **Administration > Login Password** to enter the page.
- Step 2** Set **New Password** to a new password (5-32characters), and **Confirm Password** to the new password.
- Step 3** Click **OK** to apply the settings.

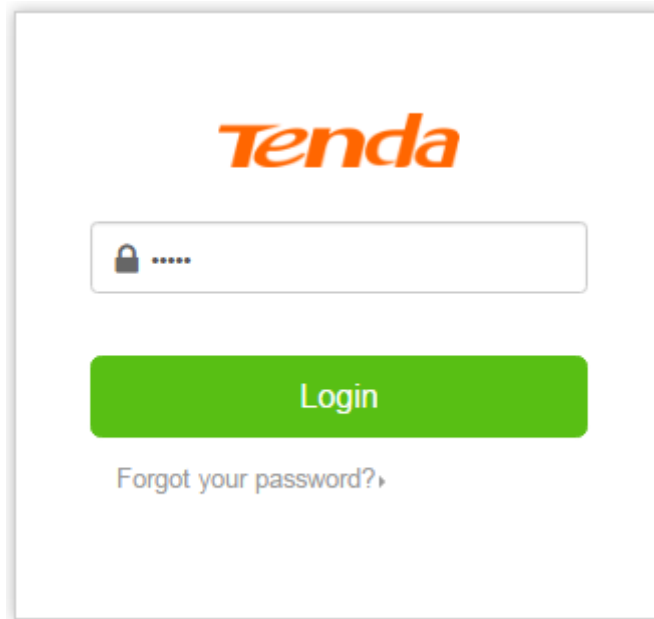


The screenshot shows the same "Login Password" web form. In this view, the input fields for "New Password" and "Confirm Password" are masked with asterisks (****).

---End

Verification

Verify that you can log in to the router web UI only after entering the new password on the login page.



14.2 WAN Parameters

To change WAN parameters, choose **Administration > WAN Parameters** to enter the page.

WAN Parameters		
MTU	<input type="text" value="1500"/>	Do not change if unnecessary.
Clone MAC Address	<input type="text" value="Restore Default MAC"/>	Default MAC Address: C8:3A:35:1E:AC:60
WAN Speed	<input type="text" value="Auto-negotiation"/>	Current speed: 100 Mbps full duplex

MTU

MTU specifies the maximum size of a packet that the router can transmit. MTU varies across connection types. The default setting is recommended.

You can try changing the MTU when:

- You cannot access some websites or encrypted websites (such as online banking or Paypal websites).
- You cannot access an FTP server or a POP server.

Clone MAC

It specifies the MAC address of the router. If the router cannot access the internet after you configure its internet settings, your ISP may have bound your account with the MAC address of your computer that was used to verify internet connectivity after you subscribed to the internet service. Therefore, only the computer can access the internet with the account.

In this case, you can try either of the following methods to address the issue.

Method 1

Configuration Procedure

- Step 1** Connect the computer to the router.
- Step 2** Log in to the router web UI.
- Step 3** Choose **Administration** to enter the page.
- Step 4** Set Clone MAC Address to Clone Local Host MAC.
- Step 5** Click **OK** to apply the settings.

The screenshot shows the WAN Parameters configuration page. The MTU is set to 1500. The Clone MAC Address is set to Clone Local Host MAC, and the Local Host MAC Address is C8:9C:DC:60:54:69. The WAN Speed is set to Auto-negotiation, and the current speed is 100 Mbps full duplex. A blue box highlights the Clone MAC Address section.

---End

Method 2

Configuration Procedure

- Step 1** Connect another device (such as a smart phone or tablet) to the router.
- Step 2** Log in to the router web UI.
- Step 3** Choose **Administration** to enter the page.
- Step 4** Set **Clone MAC Address** to **Manual**.
- Step 5** Enter the MAC address of the computer that can access the internet in the format of xx:xx:xx:xx:xx:xx.
- Step 6** Click **OK** to apply the settings.

The screenshot shows the WAN Parameters configuration page. The MTU is set to 1500. The Clone MAC Address is set to Manual, and the MAC address is C8:3A:35:1E:AC:60. The WAN Speed is set to Auto-negotiation, and the current speed is 100 Mbps full duplex. A blue box highlights the Clone MAC Address section.

---End

The **Restore Default MAC** is the default MAC address of the router. If you do not need to use the Clone MAC function, keep the default settings.

WAN Speed

It specifies the throughput of the WAN port. By default, the throughput of the WAN port is set to 100M Full

Duplex. Change the setting only when it is necessary.

The screenshot shows the WAN Parameters configuration page. The WAN Speed dropdown menu is open, showing options: Auto-negotiation (highlighted), 100 Mbps full duplex, 100 Mbps half duplex, 10 Mbps full duplex, and 10 Mbps half duplex. The current speed is displayed as 100 Mbps full duplex. Other settings include MTU (1500) and Clone MAC Address (Restore Default MAC).

14.3 LAN Parameters

This function enables you to set the LAN IP address, preferred DNS server, alternative DNS server and DHCP server of the router.

To change LAN parameters, choose **Administration** > **LAN Parameters** to enter the page.

The screenshot shows the LAN Parameters configuration page. The LAN IP Address is set to 192.168.0.1, Subnet Mask to 255.255.255.0, and DHCP Server is enabled. The Start IP Address is 192.168.0.100 and the End IP is 192.168.0.200. The Preferred DNS Server is 192.168.0.1 and the Alternate DNS Server is empty.

Modifying the LAN IP Address

If you use multiple routers or other network devices (such as switches and APs) at the same time, IP address conflicts may occur. If the router is involved in an IP address conflict, change the LAN IP address of the router.

Configuration Procedure

- Step 1** Choose **Administration** > **LAN Parameters** to enter the page.
- Step 2** Set **LAN IP Address** to an IP address that is not in use, such as **192.168.5.1**.
- Step 3** Click **OK** to apply the settings.

LAN Parameters

LAN IP Address	<input type="text" value="192.168.5.1"/>
Subnet Mask	<input type="text" value="255.255.255.0"/>
DHCP Server	<input checked="" type="checkbox"/> Enable If this function is disabled, the router stops assigning IP addresses to clients.
Start IP Address	192.168.5. <input type="text" value="100"/>
End IP	192.168.5. <input type="text" value="200"/>
Preferred DNS Server	<input type="text" value="192.168.5.1"/>
Alternate DNS Server	<input type="text"/>

---End

Verification

Verify that you can access the router web UI at **192.168.5.1** or **tendawifi.com**.

After the settings take effect, the system displays the login page at the new LAN IP address. After you log in to the router web UI, the system displays the updated LAN IP address range of the router on the LAN Parameters page. See the following figure. The LAN IP address is changed to 192.168.5.1 and the IP address range is changed to 192.168.5.100~200. That is, the router assigns only the IP addresses within this range to devices connected to the router.

LAN Parameters

LAN IP Address	<input type="text" value="192.168.5.1"/>
Subnet Mask	<input type="text" value="255.255.255.0"/>
DHCP Server	<input checked="" type="checkbox"/> Enable If this function is disabled, the router stops assigning IP addresses to clients.
Start IP Address	192.168.5. <input type="text" value="100"/>
End IP	192.168.5. <input type="text" value="200"/>
Preferred DNS Server	<input type="text" value="192.168.5.1"/>
Alternate DNS Server	<input type="text"/>

Enabling or Disabling the DHCP Server

The default setting is recommended. If you need to change the settings, refer to the parameters in the following table.



- By default, the DHCP server of the router is enabled. It is recommended that you retain the default settings. If you disable the DHCP server, you need to set IP address information on each device connected to the router, which will probably cause IP address conflicts.
- It is recommended that you retain the default DHCP server settings to ensure internet connectivity.

LAN Parameters

LAN IP Address	<input type="text" value="192.168.0.1"/>
Subnet Mask	<input type="text" value="255.255.255.0"/>
DHCP Server	<input checked="" type="checkbox"/> Enable <small>If this function is disabled, the router stops assigning IP addresses to clients.</small>
Start IP Address	192.168.0. <input type="text" value="100"/>
End IP	192.168.0. <input type="text" value="200"/>
Preferred DNS Server	<input type="text" value="192.168.0.1"/>
Alternate DNS Server	<input type="text"/>

Parameters

Parameters	Description
LAN IP Address	It specifies the LAN IP address of the router, that is, the login address of the router web UI.
DHCP Server	<ul style="list-style-type: none">• If the Enable is selected, the server assigns one IP address within a specified IP address range to each device connected to the router.• If the Enable is deselected, no IP address is assigned to the devices connected to the router (such as laptops and mobile phones). These devices can access the internet only after IP addresses are manually set on them. Manual IP address setting is complicated and may easily cause IP conflicts. Generally, it is recommended that you enable the DHCP server.
Start IP/End IP	It specifies the range of IP addresses that can be assigned to devices connected to the router.
Preferred/Alternative DNS Server	It specifies the preferred and alternative DNS servers of devices connected to the router.

Setting DNS Server Addresses

This function enables you to set DNS server addresses for devices connected to the router. If you do not configure DNS settings, the DHCP server of the router assigns the default DNS server address (LAN IP address of the router) to the devices.

LAN Parameters

LAN IP Address	<input type="text" value="192.168.0.1"/>
Subnet Mask	<input type="text" value="255.255.255.0"/>
DHCP Server	<input checked="" type="checkbox"/> Enable If this function is disabled, the router stops assigning IP addresses to clients.
Start IP Address	192.168.0. <input type="text" value="100"/>
End IP	192.168.0. <input type="text" value="200"/>
Preferred DNS Server	<input type="text" value="192.168.0.1"/>
Alternate DNS Server	<input type="text"/>

14.4 Remote Web-based Management

This function enables you to remotely log in to the web UI of the router over the internet.

To configure the function, choose **Administration > Remote Web-based Management** to enter the page. By default, the function is disabled. Select the **Enable** to enable the function.

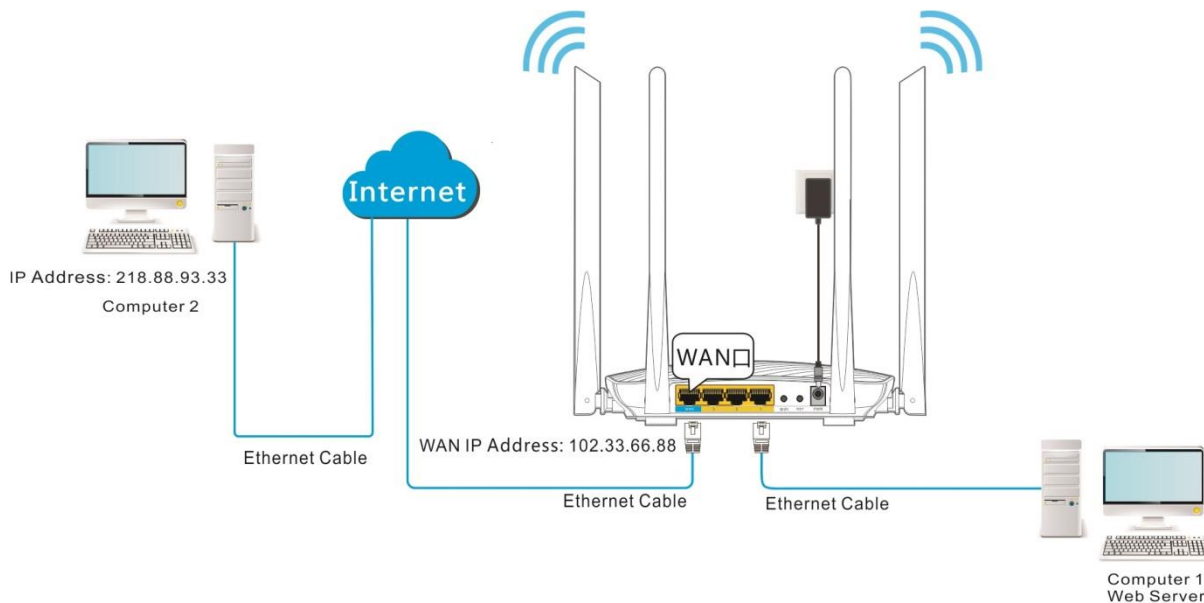
Remote Web-based Management

Remote Web-based Management	<input checked="" type="checkbox"/> Enable If this function is enabled, you can manage the router through the internet.
Management IP Address	<input type="text" value="All"/>
Port	<input type="text" value="8080"/>

Application Scenario

An F9 is used to set up a LAN at an apartment and the router must be logged in and managed over the internet. Assume the public IP address of the router is **102.33.66.88** and the public IP address of the computer for remote login is **218.88.93.33**.

The following diagram is for reference.



NOTE

The computer used to remotely log in to the router web UI must be assigned a public IP address. If it is assigned a private IP address, use the public IP address of the router to which the computer connects for remote login. Private IP addresses are not applicable to remote management.

Configuration Procedure

- Step 1** Choose **Administration > Remote Web-based Management** to enter the page.
- Step 2** Select the **Enable**.
- Step 3** Set **Management IP Address** to **Specific**, and enter the WAN IP address (public IP address) of the computer where remote management is to be performed. In this example, set it to the WAN IP address of computer 2, which is **218.88.93.33**. If you are uncertain about the IP address of the computer, set **Management IP Address** to **All** (default value). In this case, all computers can log in to the router web UI over the internet.
- Step 4** Set **Port** to the port number of the web server, which is generally 8080. You can also select a port number from 1024~65535, but the port number must not be the same as that for Port Forwarding.
- Step 5** Click **OK** to apply the settings.

Remote Web-based Management

Enable If this function is enabled, you can manage the router through the internet.

Management IP Address: Specific 218.88.93.33

Port: 8080

---End

Remote Access

Enter **http://102.33.66.88:8080** in the address bar of a web browser of computer 2 and log in to the router web UI to perform remote management.



The public IP address of the router may change. Therefore, you need to confirm the IP address each time you want to remotely log in to the router web UI, which is troublesome. To address this issue, you can use the DDNS function to bind the public IP address with a fixed domain name, so that you can use the domain name to log in to the router web UI. To implement this measure, configure the [DDNS](#) function and then the remote management function of the router.

14.5 Date & Time

If the system time of the router is incorrect, all the router functions depending on the system time are affected, including the WiFi Schedule and Automatic Maintenance functions. Upon completion of configuration with the Quick Setup Wizard, the router synchronizes its system time with the computer used to configure the router. You can change the setting manually.

Configuration Procedure

- Step 1** Choose **Administration > Date & Time** to enter the page.
- Step 2** Select your time zone from the **Time Zone** drop-down list.
- Step 3** Click **OK** to apply the settings.

Date & Time

Time Zone: (GMT+08:00)Beijing, Chongqing, Hong Kong, Urumqi

Current Time: 1970-01-01 00:07:01

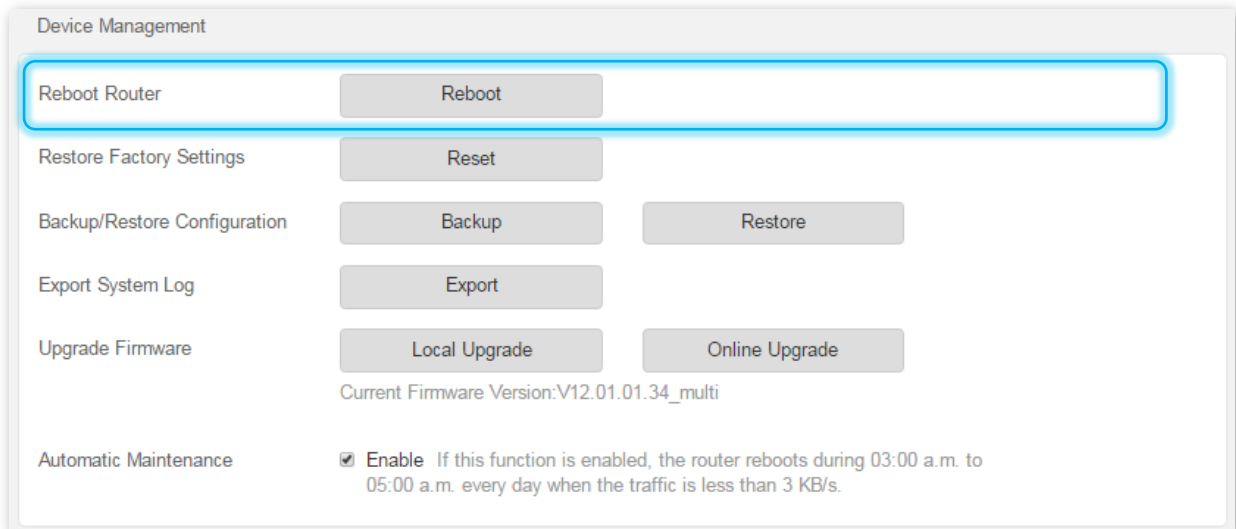
--End

14.6 Device Management

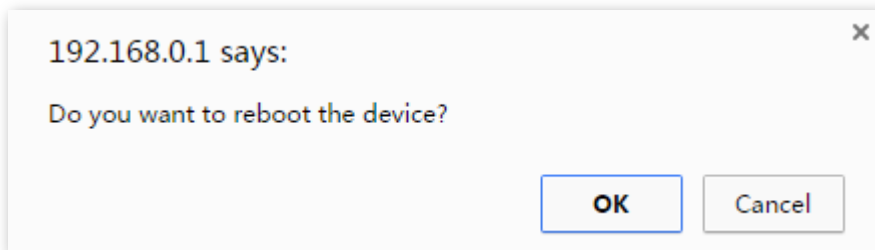
This section helps you maintain your router to improve the performance of your router and extend the durability of your router.

Reboot Router

If a setting fails to take effect or the router fails to work properly, you can try rebooting the router. To reboot the router, choose **Administration > Device Management**, and click **Reboot**.



Click **OK** in the dialog box that appears.



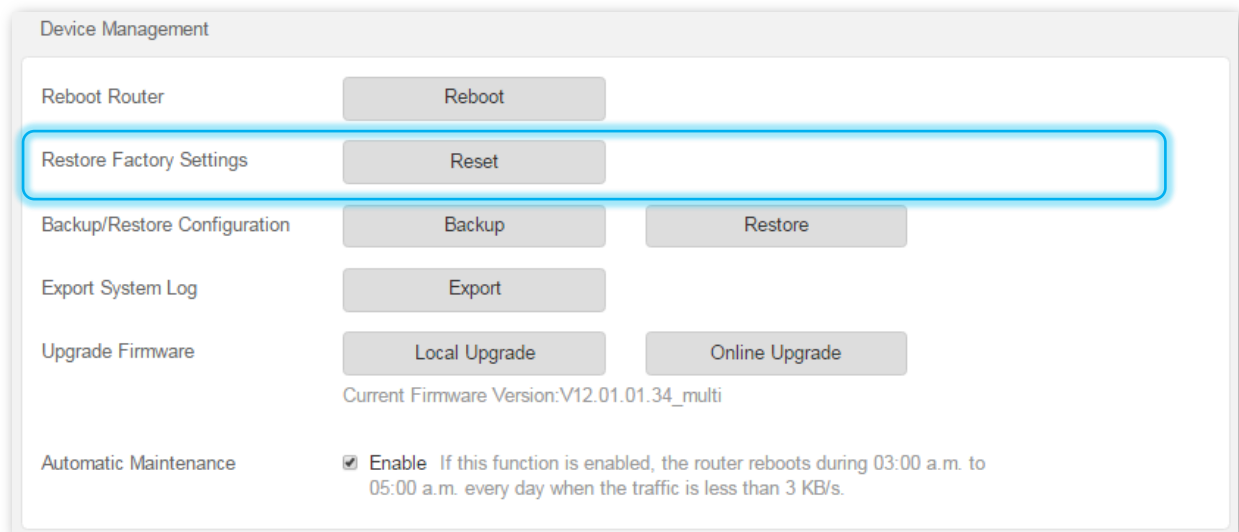
Restore to Factory Settings

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

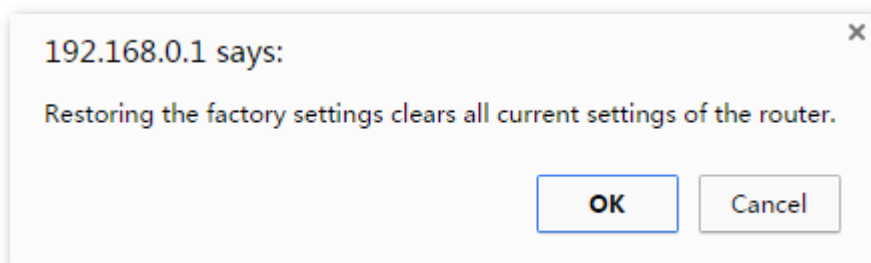
The router can be reset on the web UI or using the Reset button.

Reset the Router on the Web UI

Choose **Administration > Device Management** and click **Reset**.



Click **OK** on the dialog box that appears.



- It is recommended that you reset the router only when you forget your login password or Tenda technical support asks you to do so.
- Ensure that the power supply of the router is normal when the router is reset.
- Resetting the router deletes all your customized settings. Therefore, you can access the internet only after reconfiguring the router.

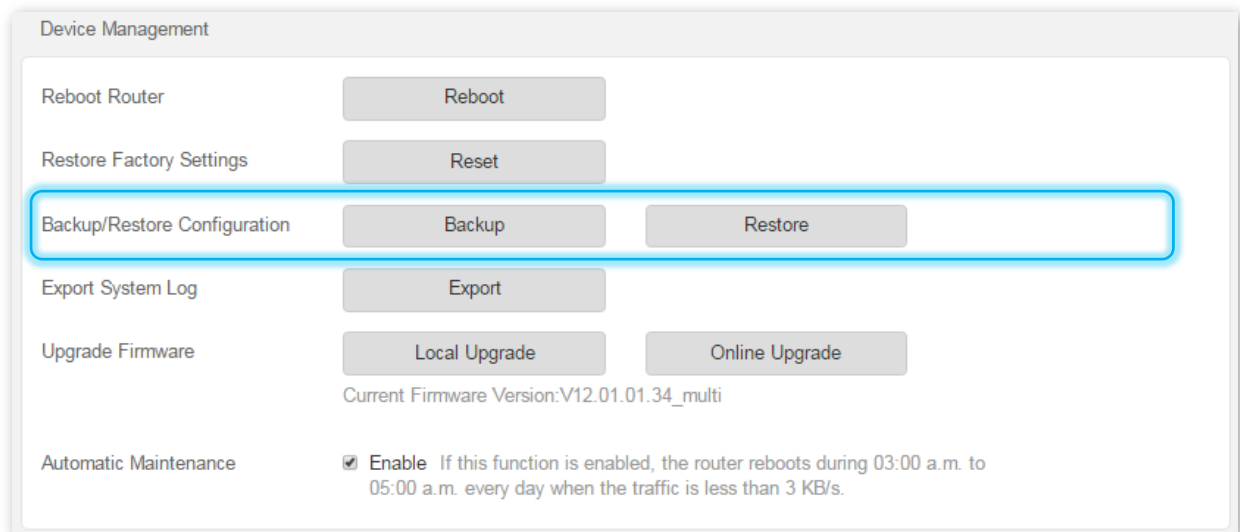
Reset the Router Using the Reset Button

Hold on the **WPS/RST** button of the router for about 8 seconds and release the button when all the LED indicators blink once.

Backup/Restore a Configuration File

This function enables you to back up the current configuration of the router to your computer. After the configuration is changed, you can use the backup file to restore the configuration of router. This saves router configuration time.

To back up or restore the configuration of your router, choose **Administration > Device Management** and perform either of the following procedures.



- To back up the current configuration, click **Backup**.
- To restore a file of configuration:

Step 1 Click Restore and select the file of the configuration to be restored.

Step 2 Click **Open**.

Step 3 Click **OK** on the dialog box that appears.

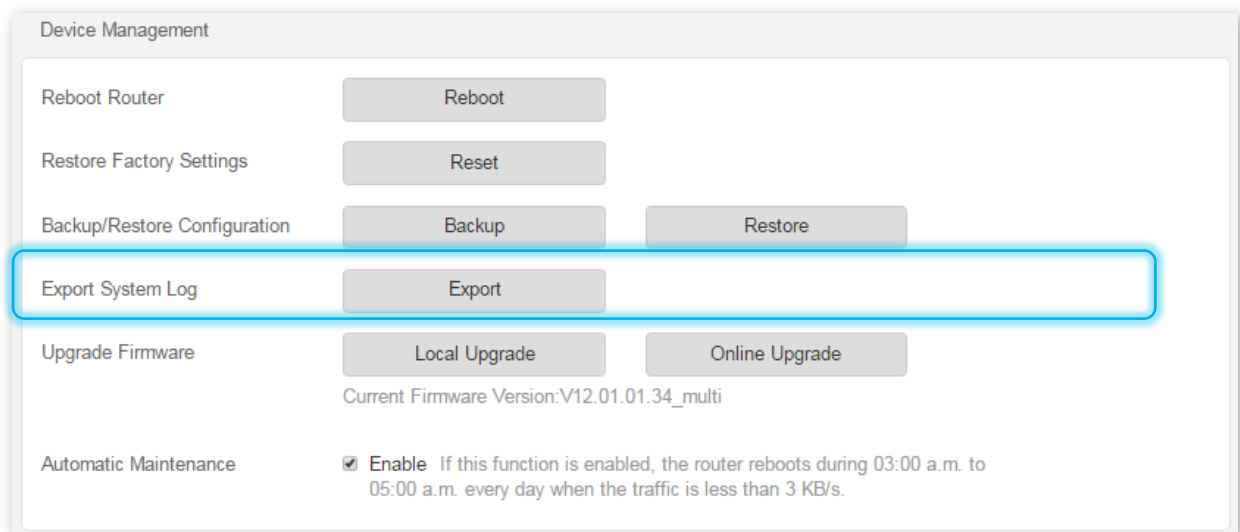
---End

Export Syslog

This function logs all key events that occur after the router is started. You can export the logs.

To export the logs:

Choose **Administration > Device Management** and click **Export**.

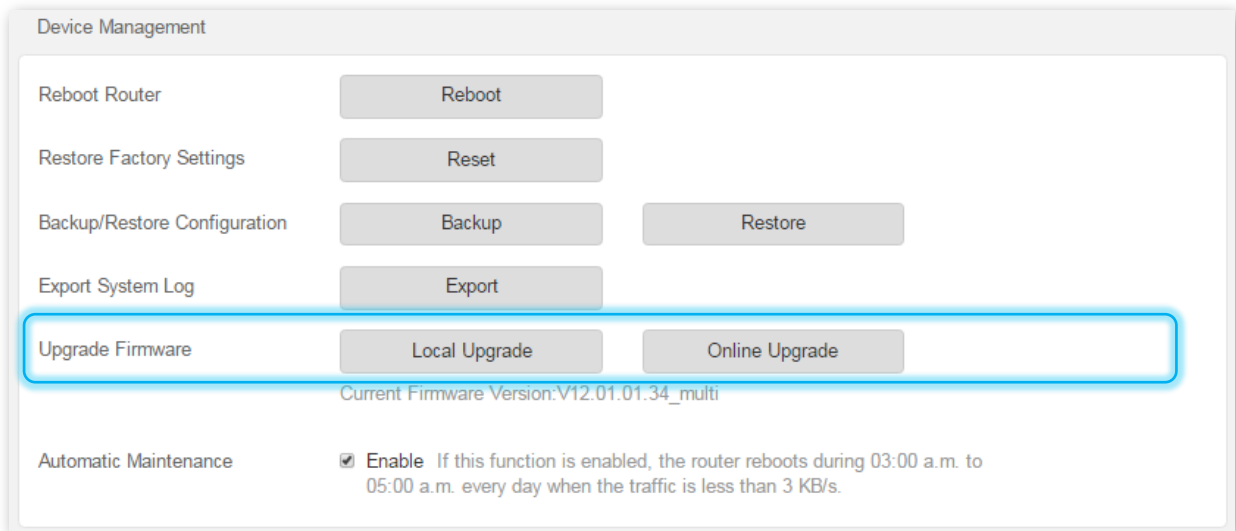


Firmware Upgrade

The latest firmware version for the router is available at Tenda official website (<http://www.tendacn.com/>). You

can download the latest version to upgrade your router or upgrade online directly.

To upgrade your router, choose **Administration > Device Management** and select **Local Upgrade** or **Online Upgrade** to follow.



 **NOTE**

- It is recommended that you connect your computer to the router using an Ethernet cable for upgrading the router. If you connect your computer to the router wirelessly, an upgrade may fail and the router may not work properly.
 - Verify that the power supplies of the router and computer are normal during an upgrade.
 - If you cannot access the router login page at **tendawifi.com** after an upgrade, clear the cache of the web browser and try again.
-

Local Upgrade

Step 1 Click **Local Upgrade**.

Step 2 Select the file for upgrading the router and click **Open**.

Step 3 Click **OK** on the dialog box that appears.

---End

Online Upgrade

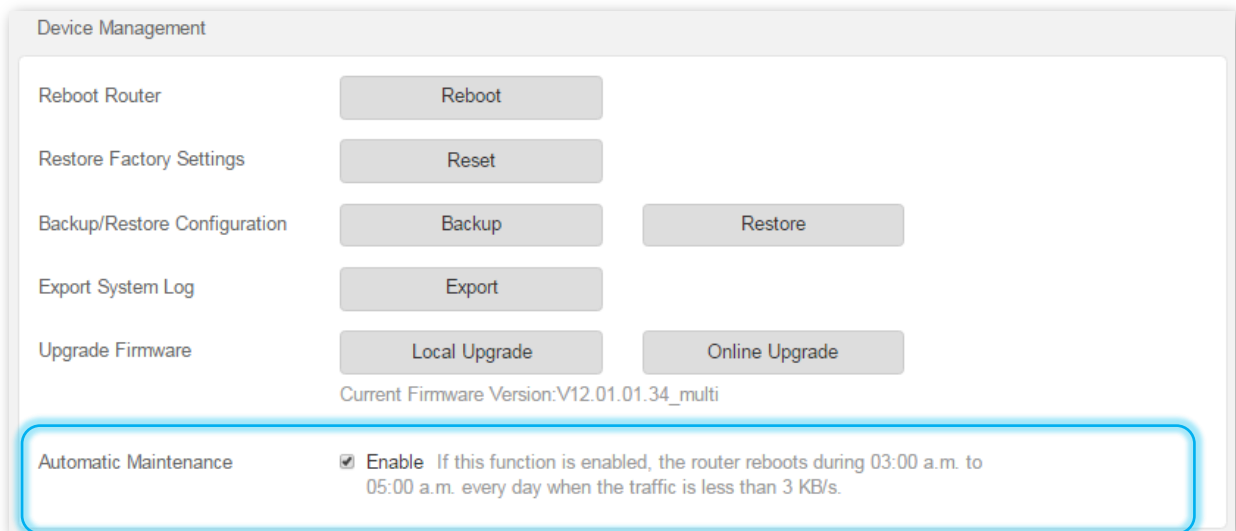
Step 1 Click **Online Upgrade**.

Step 2 The router detects whether the new firmware available. If there is, you can upgrade to the latest firmware.

---End

Automatic Maintenance

To configure the automatic maintenance function, choose **Administration > Device Management**. When this function is enabled, the router reboots during 03:00~05:00 a.m. every day when the traffic is lighter than 3 KB/s, so as to improve the system stability and router service life. By default, this function is enabled. If you want to disable it, unselect the **Enable** option and click **OK**.



The screenshot shows the 'Device Management' configuration page. It contains several sections with buttons for various actions:

- Reboot Router**: Reboot
- Restore Factory Settings**: Reset
- Backup/Restore Configuration**: Backup, Restore
- Export System Log**: Export
- Upgrade Firmware**: Local Upgrade, Online Upgrade

Below these sections, the current firmware version is displayed as 'Current Firmware Version:V12.01.01.34_multi'.


The **Automatic Maintenance** section is highlighted with a blue border and shows the **Enable** option selected. The description for this option reads: 'If this function is enabled, the router reboots during 03:00 a.m. to 05:00 a.m. every day when the traffic is less than 3 KB/s.'

Appendix

A.1 Join Your WiFi

A computer can connect to the WiFi network of the router only if it has a wireless network adapter. This part instructs you how to connect to your wireless network via your notebook or other wireless devices. We take [Windows 8](#), [Windows 7](#), and [Windows XP](#) as examples here.


Windows 8

- Step 1** Right-click  in the lower-right corner of the desktop.
- Step 2** Select the WiFi network of the router from the network list that appears.
- Step 3** Enter the WiFi password (network security key) of the WiFi network.
- Step 4** Click **Next**.




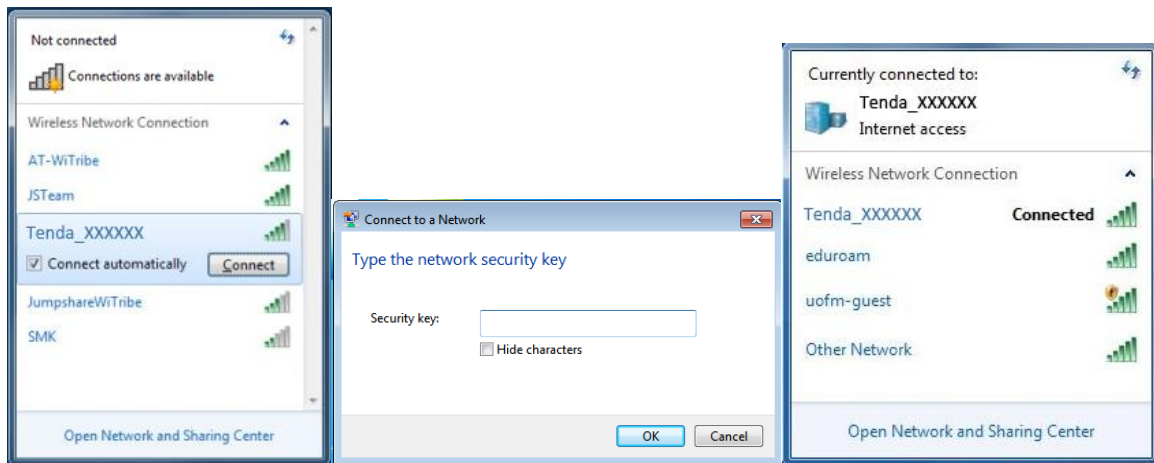
---End



- If you cannot find the  icon, move the cursor to the upper-right corner of the desktop, choose **Settings > Control Panel > Network and Internet > Network and Sharing Center**, click **Change adapter settings**, right-click **WiFi**, and choose **Disable**. Then, right-click **WiFi**, and choose **Enable**.
- If the WiFi network is not detected, check whether the Airplane mode is enabled.



Windows 7

- Step 1** Right-click  in the lower-right corner of the desktop.
- Step 2** Select the WiFi network of the router from the network list that appears.
- Step 3** Enter the WiFi password (network security key) of the WiFi network.
- Step 4** Click **OK**.




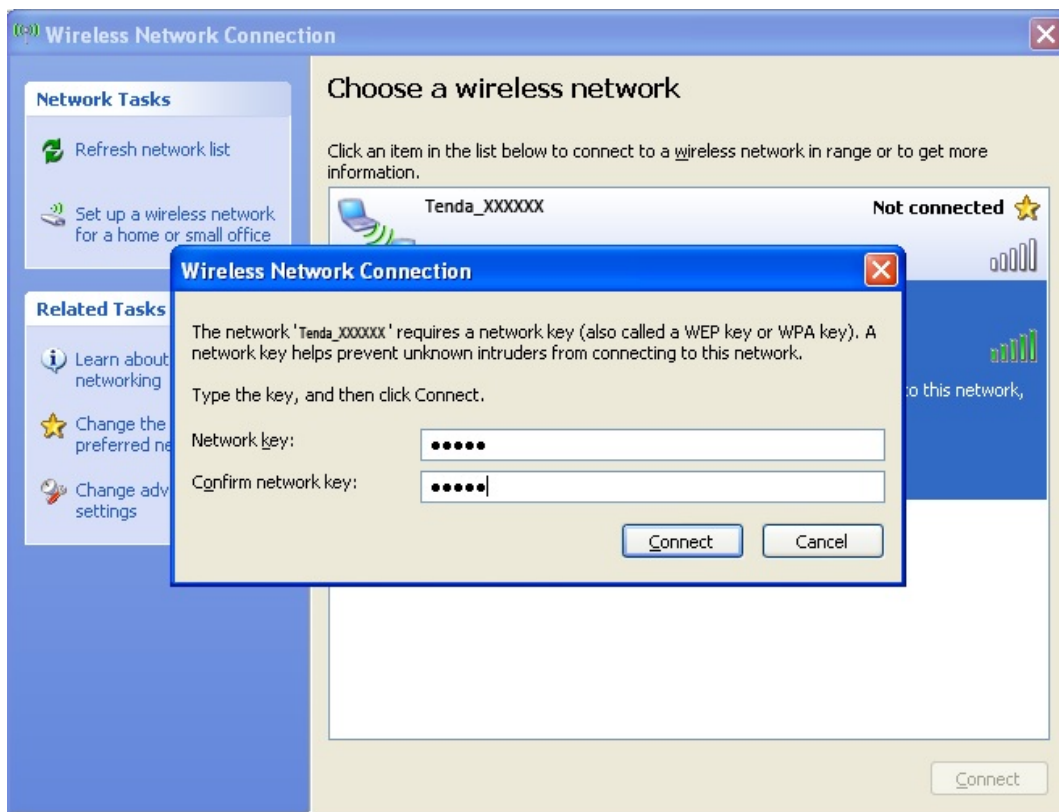
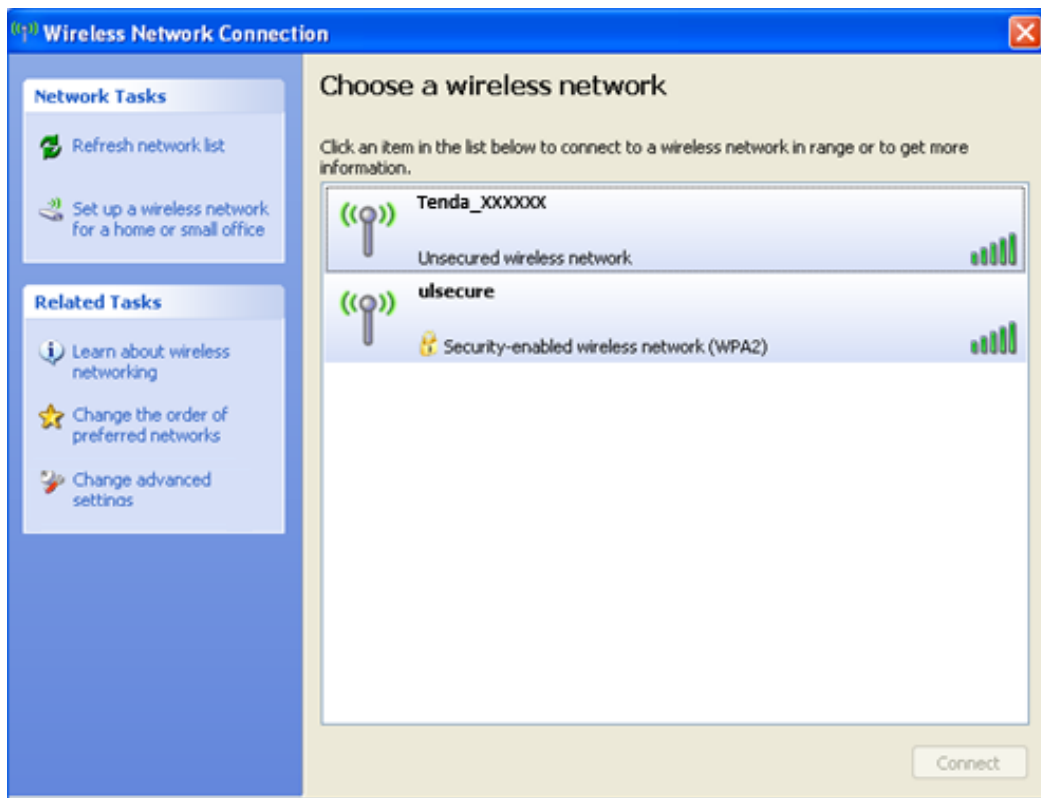
---End

NOTE

- If you cannot find the  icon, choose **Start > Control Panel > Network and Internet > Network and Sharing Center**, click **Change adapter settings**, right-click **Wireless Network Connection**, and choose **Disable**. Then, right-click **Wireless Network Connection**, and choose **Enable**.
- If the wireless network is not detected, click  in the upper-right corner to refresh the list of wireless networks.

Windows XP

- Step 1** Click  in the lower-right corner of the desktop.
- Step 2** Select the WiFi network from the list that appears.
- Step 3** Enter the WiFi password (network security key) of the WiFi network.
- Step 4** Click **Connect**.




---End

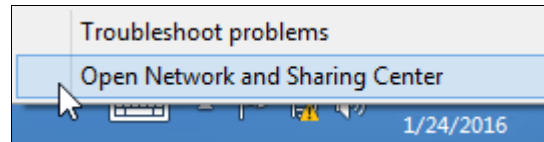
If the computer is connected to the network, **Connected** appears.

A.2 Configure Your Computer

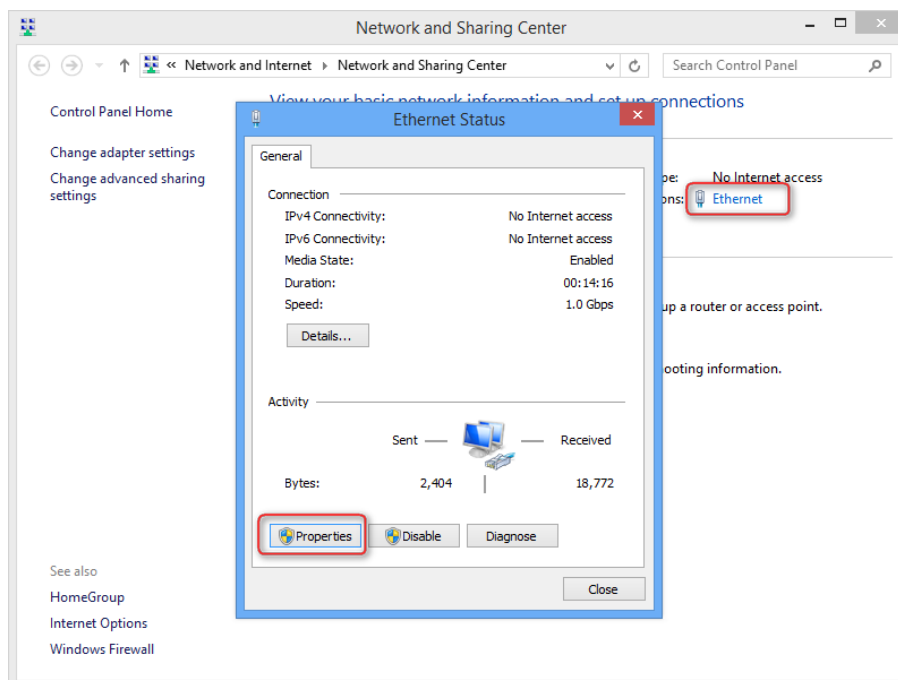
Perform the configuration procedure corresponding to [Windows 8](#), [Windows 7](#), or [Windows XP](#), depending on your OS. A computer installed with a wired network adapter is used as an example to describe the procedures. The procedures for configuring computers installed with a wireless network adapter are similar to these procedures.

Windows 8

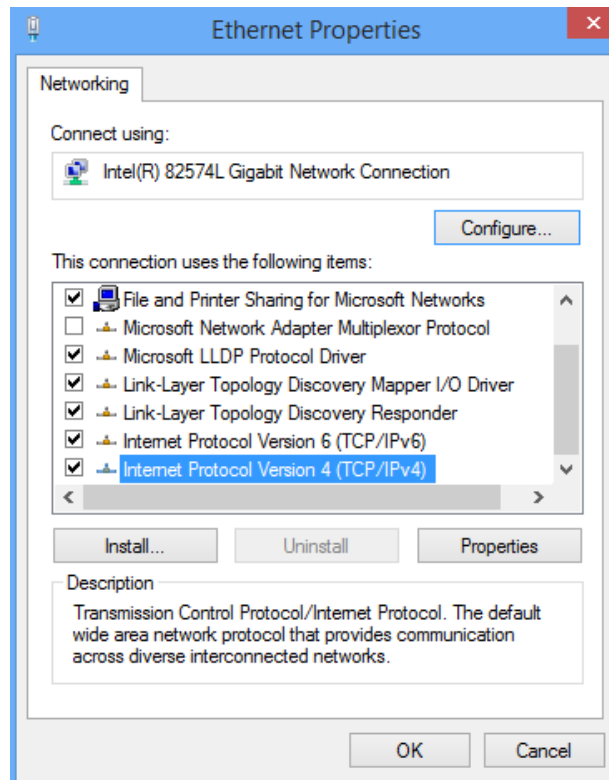
Step 1 Right-click  in the lower-right corner of the desktop and choose **Open Network and Sharing Center**.



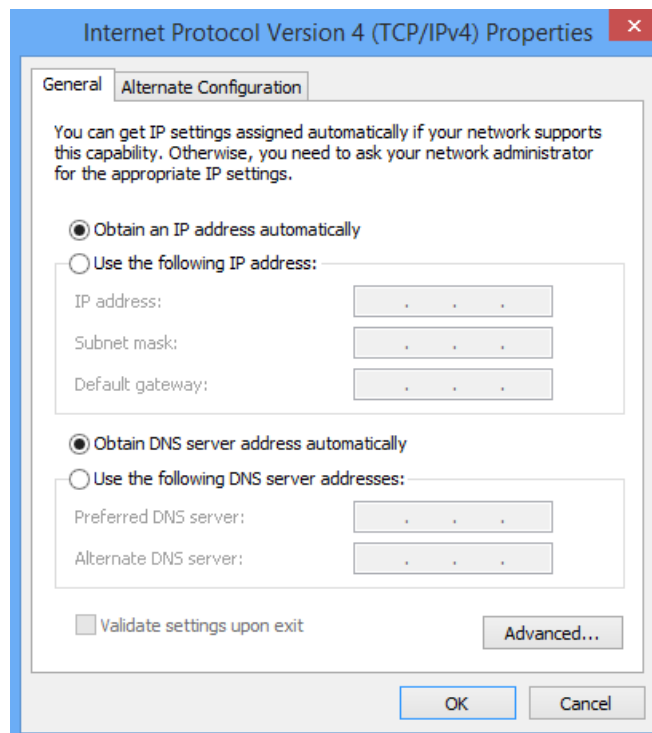
Step 2 Click **Ethernet** and then **Properties**.



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



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

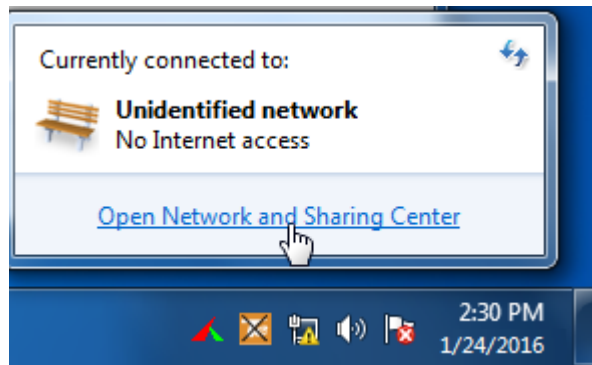


Step 5 Click **OK** in the **Ethernet Properties** window.

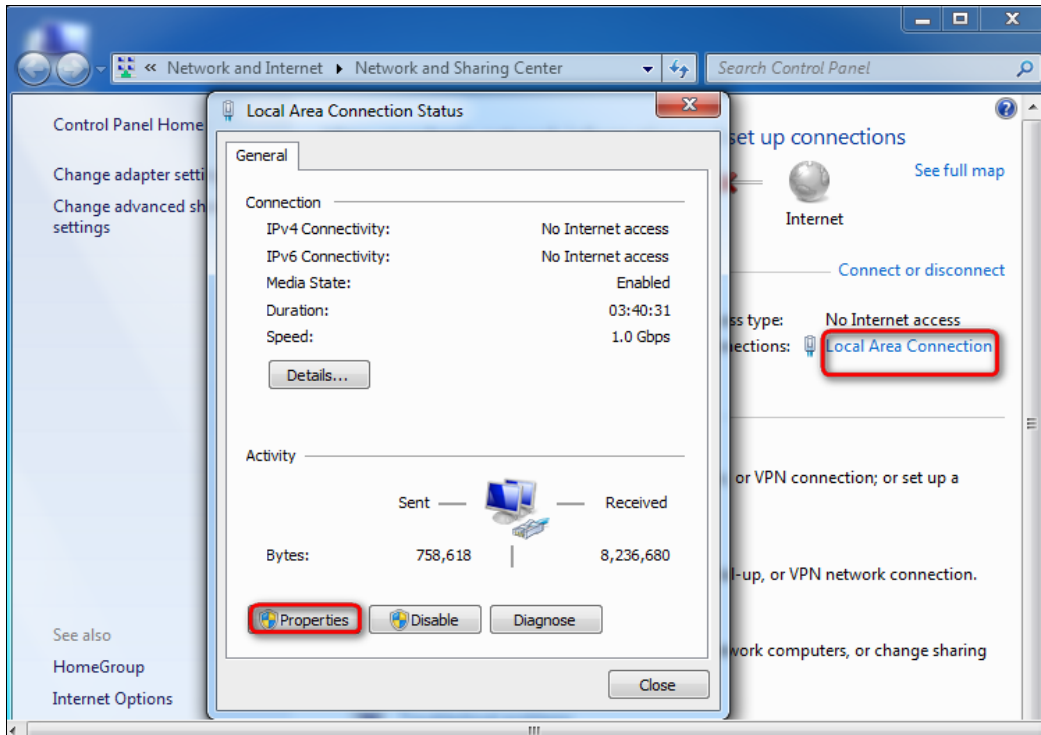
---End

Windows 7

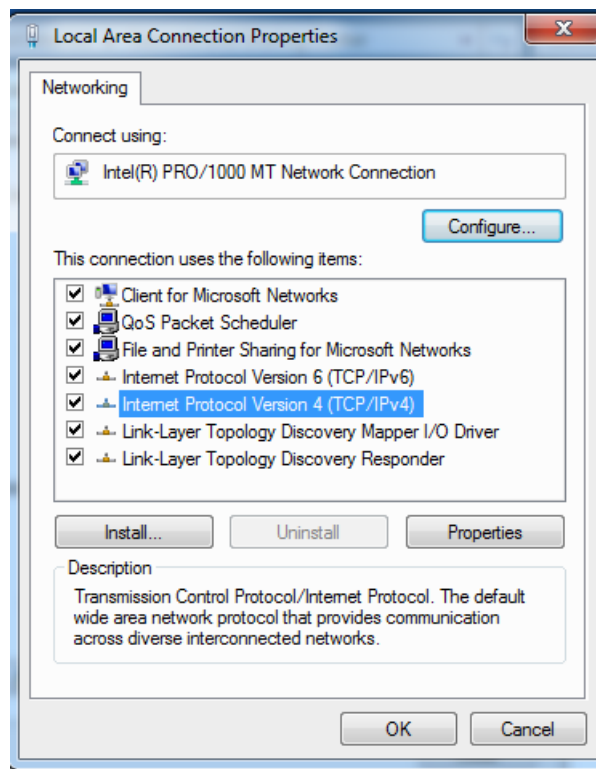
Step 1 Click  in the lower-right corner of the desktop and choose **Open Network and Sharing Center**.



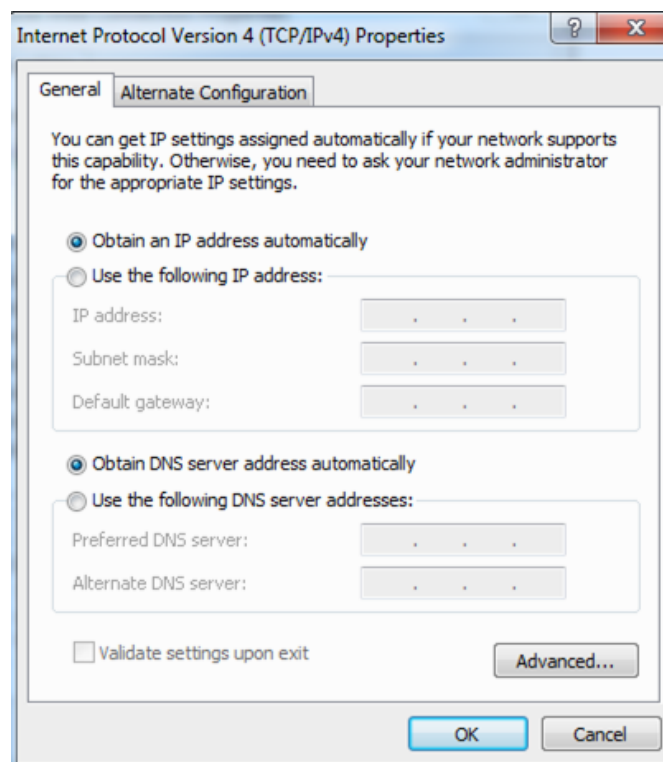
Step 2 Click **Local Area Connection** and then **Properties**.



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.

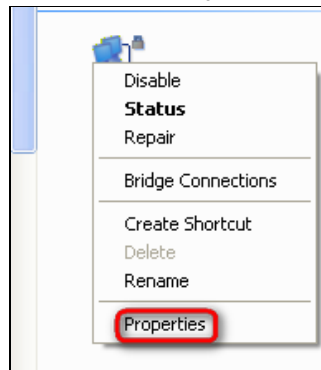
---End

Windows XP

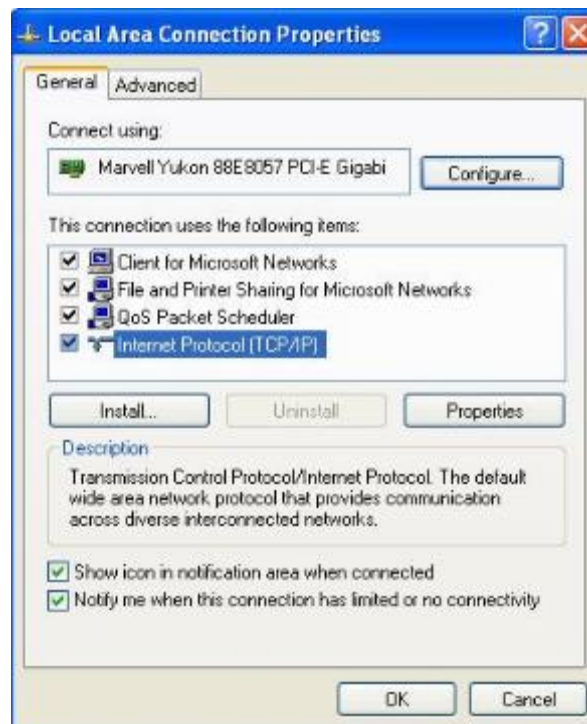
Step 1 Right-click **My Network Places** on the desktop and choose **Properties**.



Step 2 Right-click **Local Area Connection** and choose **Properties**.



Step 3 Double-click **Internet Protocol (TCP/IP)**.



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.3 FAQ

Q1: What should I do if I cannot access the router login page at tendawifi.com or 192.168.0.1?

A1: Try the following methods:

- Ensure that the connection between the router and your computer is correct. If you connect to the router wirelessly, ensure that the connected WiFi network belongs to the router.
- Set the computer to obtain an IP address automatically.
- Clear the cache of your web browser.
- Use another web browser or computer to try again.
- Reset the router. Power on the router, hold down the WPS/RST button for about 8 seconds.

Q2: What should I do if I cannot access the internet after configuring internet settings?

A2: Try the following methods:

- Verify that the router is connected properly. If you use a mobile phone to access the internet through the router, verify that your mobile phone is connected to the WiFi network properly.
- Set the computer to obtain an IP address automatically.
- Use an Ethernet cable to connect your computer to the router, log in to the router web UI, change the WiFi name and password of the router, and reconnect to the WiFi network.
- Clone the MAC address of your computer to your router.
- Contact your ISP for help.

Q3: What should I do if I forget the WiFi password?

A3: Try the following methods:

- Log in to the web UI of the router, and check it on Wireless Settings > WiFi Name and Password page.
- If you forget the login password as well, reset the router to factory default settings by holding down the WPS/RST button on the back panel of the router for 8 seconds. Then you can reset a login password and WiFi password.

Q4: How to select a connection type?

A4: Follow the instructions in the table.

Internet Connection Type	Description
PPPoE	Your internet service provider provides a user name and password for you to set up a dial-up connection.
Static IP Address	Your internet service provider provides an IP address and other related parameters for you to connect to the internet.
Dynamic IP	You internet service provider does not provide any parameters for you to connect to the internet.

A.4 Safety and Emission Statement



CE Mark Warning

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

NOTE: (1) The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. (2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable.

Declaration of Conformity

Hereby, SHENZHEN TENDA TECHNOLOGY CO. LTD. declares that the radio equipment type F9 is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address:
<http://www.tendacn.com/en/service/page/ce.html>

Operate Frequency: 2412-2472MHz

EIRP Power (Max.): 19.5 dBm

Software Version: V12.01.01.34



Caution :

Adapter Model: BN049-A05009E

Manufacture: SHENZHEN HEWEISHUN NETWORK TECHNOLOGY CO., LTD.

Input: 100-240 V ac 50 Hz/60 Hz 0.3 A

Output: 9 V dc, 600 mA

--- DC Voltage



RECYCLING

This product bears the selective sorting symbol for Waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European directive 2012/19/EU in order to be recycled or dismantled to minimize its impact on the environment.

User has the choice to give his product to a competent recycling organization or to the retailer when he buys a new electrical or electronic equipment.

FCC Statement

This device is restricted to be used in the indoor.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

NOTE: (1) The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. (2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable.