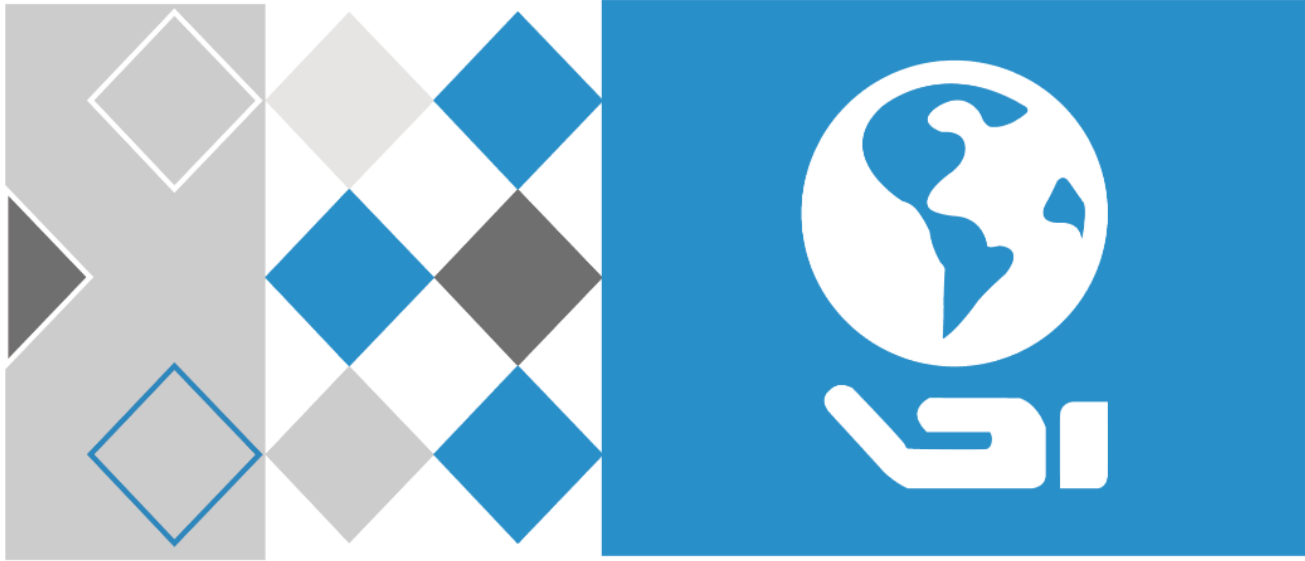


# HiLook



## Wireless Router

User Manual

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## Applicable Models

This manual is applicable to wireless router.

## Symbol Conventions

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

Symbol	Description
 <b>Note</b>	Provides additional information to emphasize or supplement important points of the main text.
 <b>Caution</b>	Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
 <b>Danger</b>	Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury.

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# Chapter 1 Activation and Login

Activation is required before you use the router (hereafter referred to as device) for the first time. After activation, the router can be configured via Web.

## 1.1 Activation

The device can be activated via a mobile device or PC. Make sure the device is connected to network and power supply before being activated.

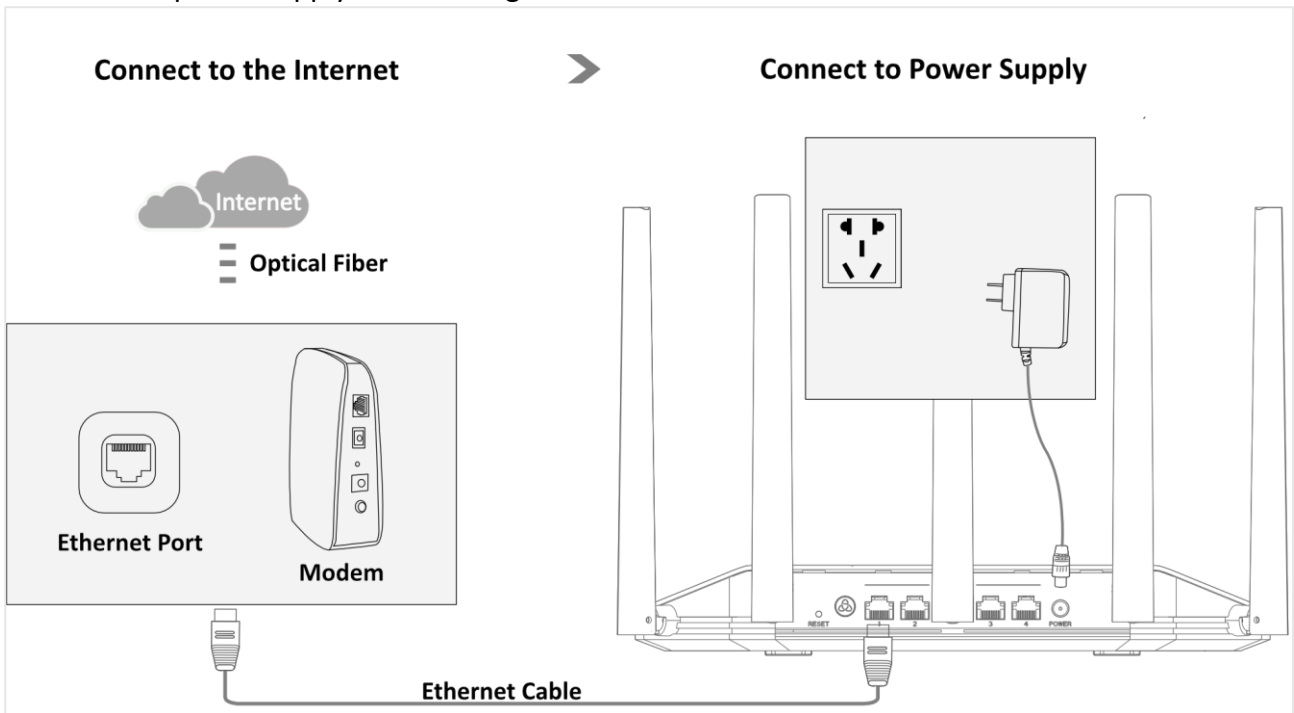


Figure 1-1 Wiring

### 1.1.1 Activate via Mobile Device

Please refer to the Quick Start Guide in the packing box.

### 1.1.2 Activate via PC

#### Wired Mode

The wired mode is applicable to PC. The device can be activated through Ethernet cable connection.

Step 1 Connect any LAN port of the device to the network port of the PC directly with an Ethernet cable.

Step 2 Enter Management IP Address (192.168.9.1) in the browser address bar to go to the activation page.

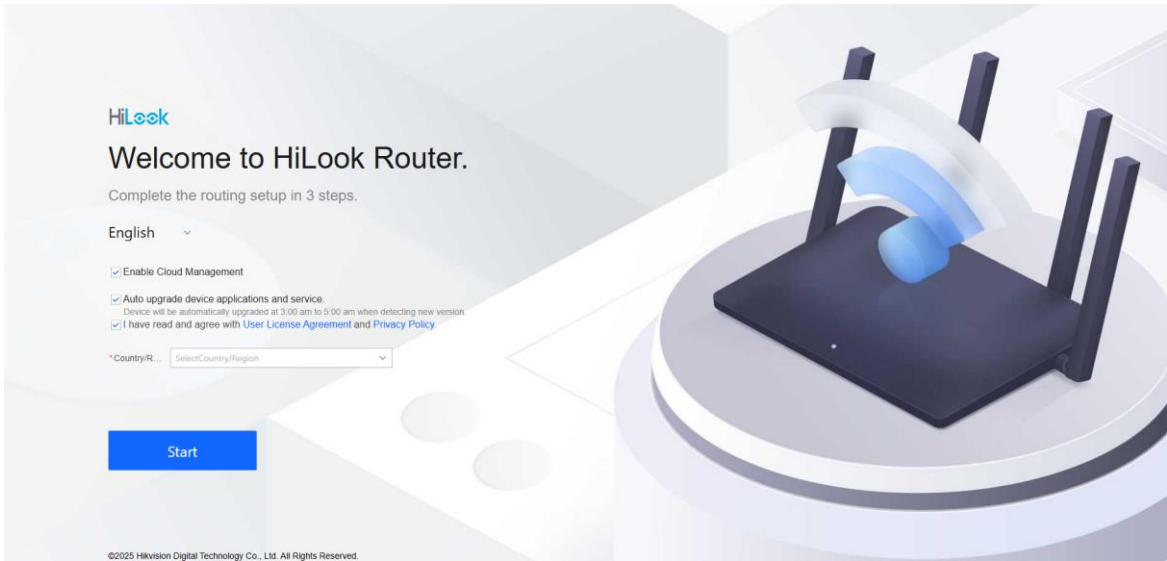


Figure 1-2 Activation Page

Step 3 **Country/Region**: Select your location.

Step 4 Click **Start**. The system will automatically detect device network connection.

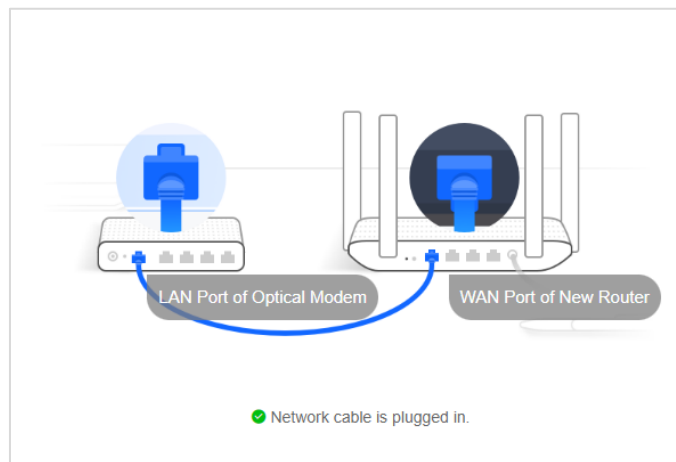


Figure 1-3 Device Connection

Step 5 The system will detect the **Internet Access Mode** automatically, or you can select it manually.



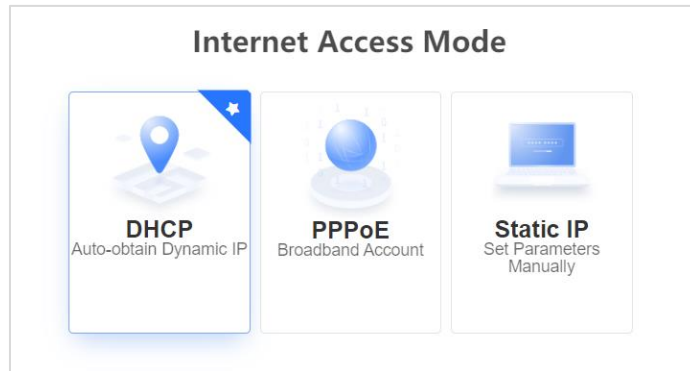


Figure 1-4 Internet Access Mode

- **DHCP:** It is recommended to select this mode. Dynamic IP address will be allocated automatically. No additional configuration is required.
- **PPPoE:** You can select this mode if your Internet Service Provider (ISP) has provided a broadband account and password, or if you are going to use a new router to replace the old one.
- **Static IP Address:** It is not recommended to select this mode, unless your ISP has provided a static IP address and other information.

Step 6 Replace the old router with a new one (optional): If you have an old router that can access the Internet normally, you can migrate data under PPPoE mode by connecting the new and old routers.

- 1) Select **PPPoE** mode.
- 2) Click **Auto-Obtain**.
- 3) Connect the new and old routers to the power cable.
- 4) Connect the WAN port of the old router to any LAN port of the new router with an Ethernet cable.
- 5) Click **Obtain** to get the broadband account and password from the old router.

Step 7 (Optional) Support quick **Enable VLAN (4.3.8 VLAN)** and **Enable VPN (4.3.7 VPN)**.

Step 8 Click **Next** to configure Route Settings.

Figure 1-5 Wi-Fi Settings

- **Wi-Fi name:** The name on the label by default. Editing is supported.

- **Wi-Fi password:** The password to be entered when a terminal device connecting to router Wi-Fi. Custom 8 to 16 characters is supported.
- **Admin Password:** The password to be entered when logging in Web management page to configure the router. Custom 8 to 16 characters is supported.

Step 9 Click **Next**. The router will reboot automatically after being activated.



It is recommended to save the password page.

### Wireless Mode

Wireless activation mode is applicable to mobile phone and PC with wireless NIC.

Step 1 Check the label at the bottom of the router to get **Wi-Fi Name** (HILOOK\_XXXX).

Step 2 Connect your phone or PC to the Wi-Fi. After connecting, the browser will automatically go to the activation page.



If not, please open browser manually. Enter IP address (192.168.9.1) in the address field to go to the activation page.

Step 3 Refer *Step 3* to *Step 9* in **Wired Mode** to activate your router.

## 1.2 Login

After the device is activated, the Wi-Fi password is updated and you need to reconnect to log in.

Step 1 Connect to the device again using the Wi-Fi password set during activation.



If Wi-Fi name is changed during activation, please select the Wi-Fi network again.

Step 2 Refresh the activation page or enter management IP address (192.168.9.1) in the address bar, and go to login page.

Step 3 Enter router admin password and click **Log In**.

## Chapter 2 Overview

After logging in to the device, you can go to the overview page to check network connection status, number of terminals, and Wi-Fi information.

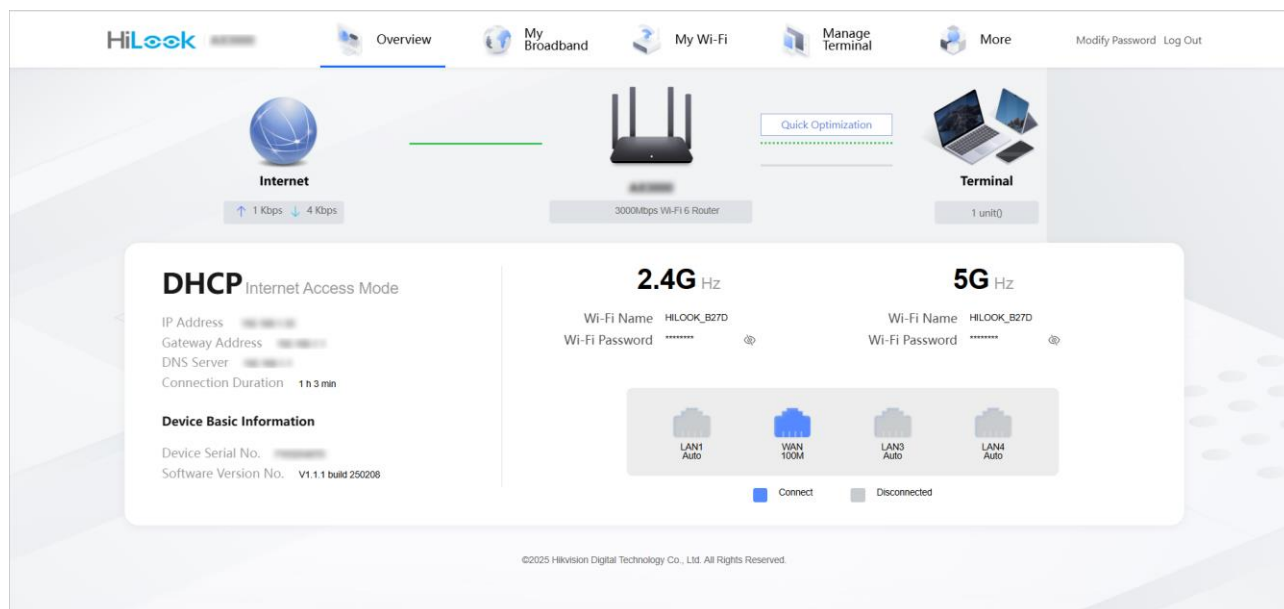


Figure 2-1 Overview

### Quick Diagnosis

If the device network connection is abnormal, you can use **Quick Diagnosis** to diagnose the problem. Take corresponding measures according to the diagnosis results below.

- No Ethernet cable inserted: Please check if the Ethernet cable is connected to the router's WAN port.
- Network disconnected: Check if broadband configuration is correct, if uplink Wi-Fi is connected to the network, and if uplink route bridged is connected to the network.
- Relaying failed: Please check relay Wi-Fi password.
- Dial-up disconnected: Check if the physical link of router is normal.
- Incorrect user name or password: Check if broadband configuration or password is correct.
- Dialing timed out: Check if the broadband dial-up server is running normally.
- IP conflict: The IP address obtained by WAN port is in the same network segment as the LAN port. Please edit LAN port IP address in LAN configuration.

### Quick Optimization

Go **More** → **Wi-Fi Settings** → **Quick Optimization**.

The system can analyze the external Wi-Fi interference and link congestion of the current working channel. If the health index is lower than 100, you can optimize the current network to the optimal status through **Quick Optimization**.

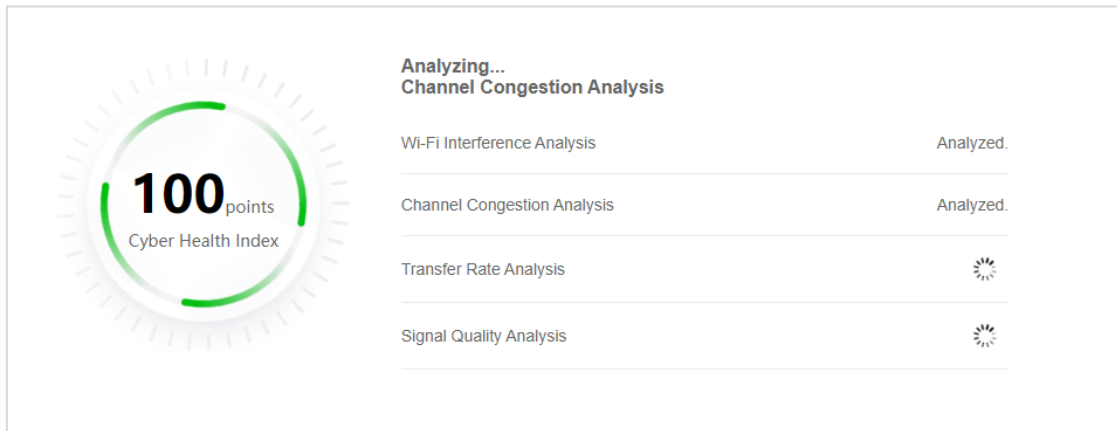


Figure 2-2 Quick Optimization

### Check Port Status

Check port status on the right side of Overview page.

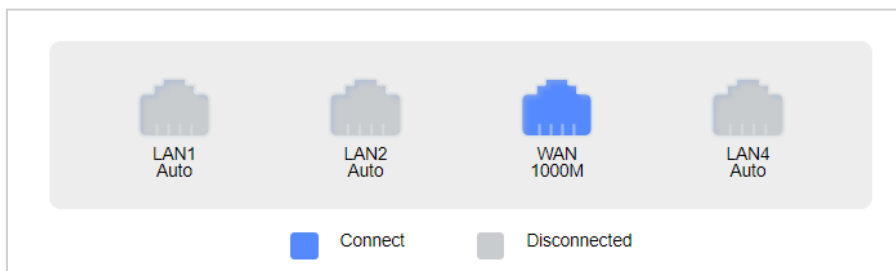


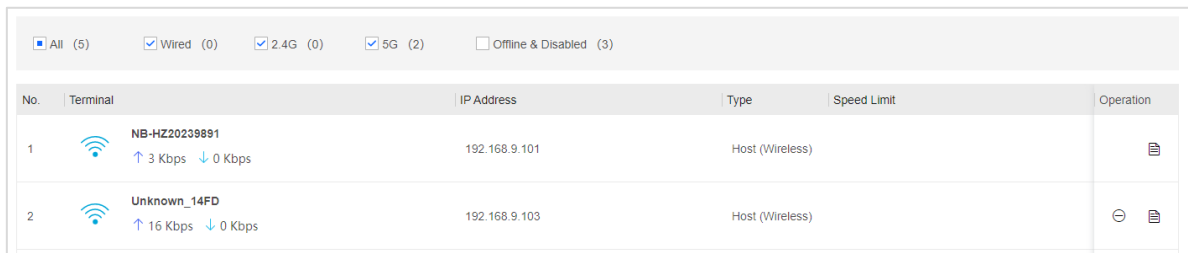
Figure 2-3 Port Status

## Chapter 3 Terminal Management

Parents can add terminals connected to router's Wi-Fi to the list, so that family members (especially minors) can develop correct online habits.

### 3.1 Check Terminal Information

Click **Terminal** on the home page to view and manage online, offline, and disabled terminals.










No.	Terminal	IP Address	Type	Speed Limit	Operation
1	 <b>NB-HZ20239891</b> ↑ 3 Kbps ↓ 0 Kbps	192.168.9.101	Host (Wireless)		
2	 <b>Unknown_14FD</b> ↑ 16 Kbps ↓ 0 Kbps	192.168.9.103	Host (Wireless)		 


Figure 3-1 Terminal List

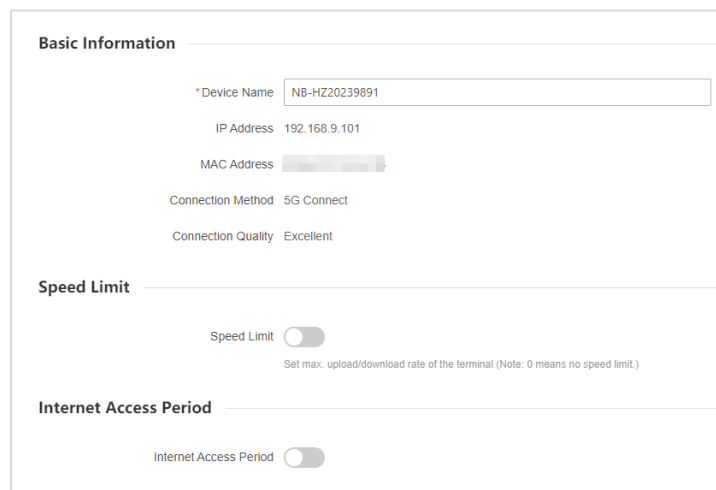
### 3.2 Restrict Internet Access

Click  to restrict the current terminal.

Optional: To remove the network connection limit of the terminal, check **Offline & Disabled** and click  .

### 3.3 Limit Terminal Network

Click to  view current terminal details and configure terminal connection status.



**Basic Information**

\*Device Name:

IP Address: 192.168.9.101

MAC Address:

Connection Method: 5G Connect

Connection Quality: Excellent

---

**Speed Limit**

Speed Limit:

Set max. upload/download rate of the terminal (Note: 0 means no speed limit.)

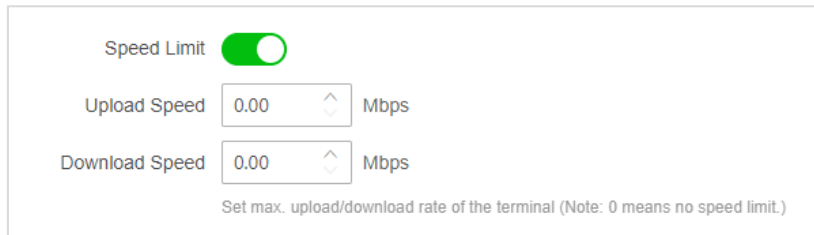
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**Internet Access Period**

Internet Access Period:

Figure 3-2 Terminal Details

- **Speed Limit:** The network speed of the current terminal can be limited.



Speed Limit

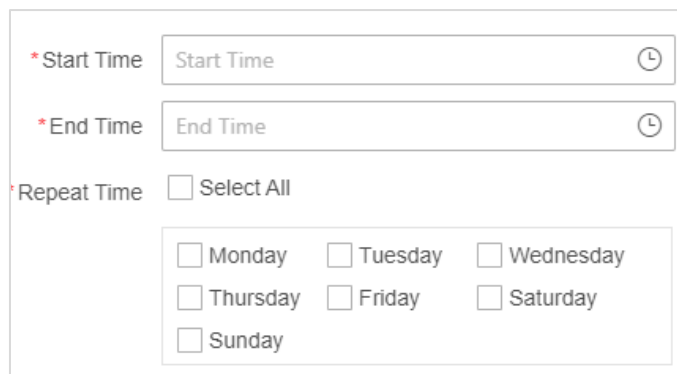
Upload Speed  Mbps

Download Speed  Mbps

Set max. upload/download rate of the terminal (Note: 0 means no speed limit.)

Figure 3-3 Limit Speed

- **Internet Access Period:** The time period during which the current terminal can connect to the network. Out of the set time period, the terminal can connect to Wi-Fi, but the network cannot be connected. Up to 3 items can be set.



\* Start Time  ⌚

\* End Time  ⌚

\* Repeat Time  Select All

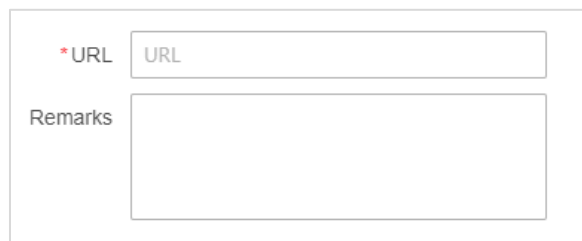
Monday  Tuesday  Wednesday

Thursday  Friday  Saturday

Sunday

Figure 3-4 Set Internet Time Period

- **Filter URL:** Set a domain name that is prohibited from accessing the current terminal. Up to 16 items can be set.



\* URL

Remarks

Figure 3-5 Add URL

## Chapter 4 Internet Settings

### 4.1 Wi-Fi Settings

Set Wi-Fi parameters and functions, such as timed switch, quick optimization, and guest network.


#### 4.1.1 Basic Settings

Step 1 Click **My Wi-Fi**.

Step 2 Make sure Wi-Fi is enabled.

Step 3 Configure the parameters.

Table 4-1 Basic Parameter Description

Parameter	Description
Enable Wi-Fi	Enable or disable the Wi-Fi network.
Enable Dual-Frequency in One	<ul style="list-style-type: none"> <li>● Enable: 2.4 G or 5 G networks are recommended automatically according to signal strength and distance.</li> <li>● Disable: 2.4 G and 5 G networks can be set separately.</li> </ul>
Enable Network	When <b>Dual-Frequency in One</b> is disabled, you can choose to enable 2.4 G and 5 G networks separately.
Wi-Fi Name	Set the device Wi-Fi name for other terminals to search.
Hide Wi-Fi Name	If selected, this Wi-Fi cannot be searched by terminals. You need to enter Wi-Fi name manually for connection. This feature can enhance network security.
Encryption Mode	<p>It supports <b>Hybrid Strong</b> (WPA2-PSK/WPA3-SAE), <b>Hybrid</b> (WPA/WPA2-PSK), <b>Strong</b> (WPA2-PSK), and <b>None</b> (Allow all connections).</p> <p> <b>Note</b></p> <p>Make sure the access terminal is supported when using <b>Hybrid Strong</b>. If the connection problem persists, please switch to <b>Hybrid</b> (WPA/WPA2-PSK) or other methods.</p>
Wi-Fi Password	8 to 63 characters are allowed, including digits, uppercase letters, lowercase letters, or special characters.
Synchronize to Admin Password	Set the <b>Wi-Fi Password</b> as the <b>Admin Password</b> .

**My Wi-Fi**  
Manage and configure Wi-Fi and network parameters.

Enable Dual-Frequency in One

2.4G and 5G networks use the same Wi-Fi name and password, and the router can choose the best network band for the terminal.

**Basic Wireless Settings**

\*Wi-Fi Name   
 Hide Wi-Fi Name

Encryption Mode

\*Wi-Fi Password   
 Synchronize with admin password.

Figure 4-1 Enable Dual-Frequency in One

**My Wi-Fi**  
Manage and configure Wi-Fi and network parameters.

Enable Wi-Fi

Enable Dual-Frequency in One

2.4G and 5G networks use the same Wi-Fi name and password, and the router can choose the best network band for the terminal.

**2.4G Wireless Settings**

Enable Network

\*Wi-Fi Name   
 Hide Wi-Fi Name

Encryption Mode

\*Wi-Fi Password   
 Synchronize with admin password.

**5G Wireless Settings**

Enable Network

\*Wi-Fi Name   
 Hide Wi-Fi Name

Encryption Mode

\*Wi-Fi Password

Figure 4-2 Disable Dual-Frequency in One

Step 4 Click **Save**.



## 4.1.2 Advanced Settings

Step 1 Go **More**→**Wi-Fi Settings**→**Advanced Wi-Fi Settings**.

Step 2 Configure the parameters.

Table 4-2 Advanced Parameter Description

Parameter		Description
2.4/5 G Wireless Settings	Wireless Channel	Wireless signal is used as a data channel of transmission medium. If <b>Auto</b> is selected, the router will select an optimal channel according to the surrounding environment.
	Wireless Mode	Set the wireless working mode. It is recommended to use 802.11b/g/n/ax mode for 2.4 GHz, and 802.11a/n/ac/ax mode for 5 GHz.
	Channel Width	Set the channel width occupied for wireless data transmission.
Wireless Advanced Settings	TWT	After <b>TWT</b> is enabled, resource scheduling between devices will be optimized automatically, so as to reduce random competition, increase device sleeping time, and reduce power consumption.
	MU-MIMO	After <b>MU-MIMO</b> is enabled, you can communicate with multiple terminals to improve the online experience.
	OFDMA	After <b>OFDMA</b> is enabled, multi-user reuse channel resources, which will improve transmission efficiency in multi-user environment and reduce network delay.
Wi-Fi Signal Strength		The enhanced wireless signal is suitable for covering large area or partitions.

**2.4G Wireless Settings**

2.4G Wireless Channel: Auto (1)  
Select optimal channel based on the surrounding environment.

2.4G Wireless Mode: 802.11b/g/n  
802.11b/g/n mode is recommended.

2.4G Channel Width: 20/40  
Sets the channel width occupied for wireless data transmission.

**5G Wireless Settings**

5G Wireless Channel: Auto (48)  
Select optimal channel based on the surrounding environment.

5G Wireless Mode: 802.11a/n/ac/ax  
802.11a/n/ac/ax mode is recommended.

5G Channel Width: 20/40/80  
Sets the channel width occupied for wireless data transmission.

**Wireless Advanced Settings**

TWT   
Automatically optimize resource scheduling between devices to reduce power consumption.

MU-MIMO   
Communicate with multiple terminals at the same time to improve the Internet experience.

OFDMA   
Multi-user can multiplex channel resources to improve transmission efficiency and reduce network latency in a multi-user Internet environment.

**Wi-Fi Signal Strength**

Signal Strength:  Eco  Regular  Enhancement  
Strong signal strength, suitable for use scenarios with large area or many obstructions.

Figure 4-3 Advanced Settings

Step 3 Click **Save**.

### 4.1.3 Scheduled Wi-Fi On/Off

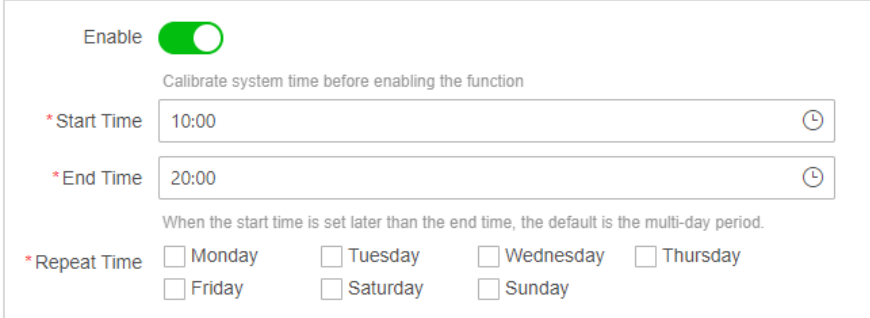
Set a period during when the Wi-Fi will be disabled automatically.

Step 1 Go **More**→**Wi-Fi Settings**→**Scheduled Wi-Fi On/Off**.

Step 2 Check **Enable**.

Step 3 Select **Start Time** and **End Time**.

Step 4 Select **Repeat Time** (Monday to Sunday).



Enable

Calibrate system time before enabling the function

\* Start Time

\* End Time

When the start time is set later than the end time, the default is the multi-day period.

\* Repeat Time  Monday  Tuesday  Wednesday  Thursday  
 Friday  Saturday  Sunday

Figure 4-4 Timed Wi-Fi

Step 5 Click **Save**.

### Note

Before enabling this function, check if the router system time is correct.

## 4.1.4 Guest Network

Set a Wi-Fi network for guests, which can guarantee host network data and information security, and also meet the network needs of guests.

Step 1 Go **More** → **Wi-Fi Settings** → **Guest Network**.

Step 2 Check **Enable**.

Step 3 Set the following parameters.

- **Guest Network Name:** Set a Wi-Fi name that is different with the host network name.
- **Guest Network Password:** Set the password for connecting the Guest Network.
- **Validity Duration:** It supports No Restriction, 4h, 8h, or 24h.
- **Guest Sharing Network Speed:** It supports to customize as desire.

Step 4 Click **Save**.

 **Note**

- If you don't set a **Guest Network Password**, the **Guest Network** will be available without a password.
- Before enabling, check if router is connected. Otherwise, the function cannot take effect.

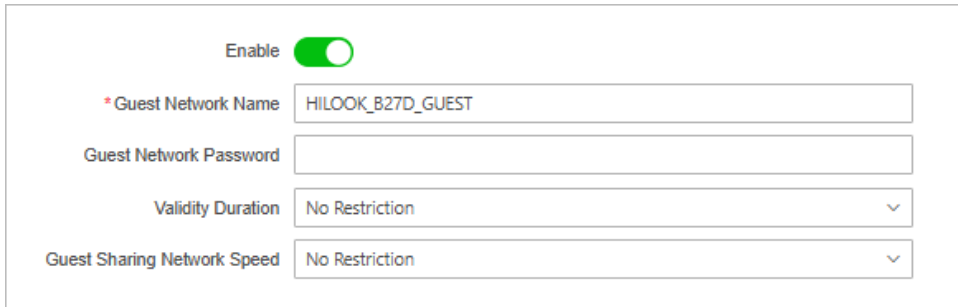


Figure 4-5 Set Guest Network

## 4.2 Broadband Settings

### 4.2.1 Basic Settings

Go **My Broadband** → **Basic Settings** to set router working mode.

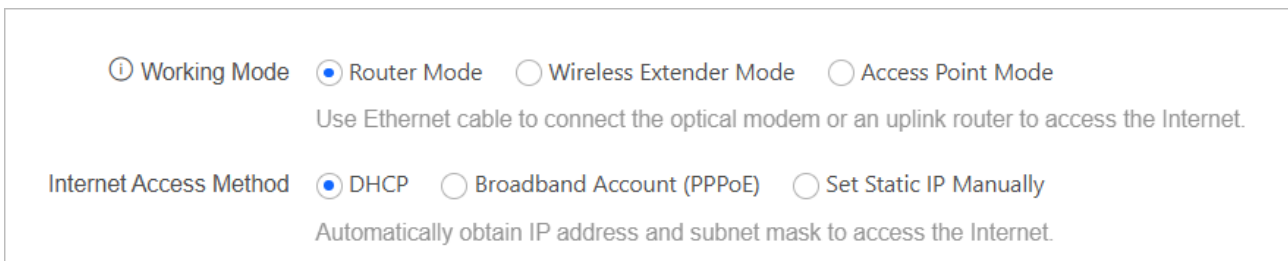


Figure 4-6 Working Mode



#### Router Mode

Your router will create a new Wi-Fi network or replace the old router. In this mode, the WAN port of the router can connect to a modem or an uplink router via an Ethernet cable.

Step 1 Go **My Broadband** → **Basic Settings**, and select the working mode as **Router Mode**.

Step 2 Select **Internet Access Method**.

Table 4-3 Internet Access Method Description

Method	Description
DHCP	<p>The router will automatically get IP address, subnet mask, gateway, DNS and other information. You do not need to configure.</p> <p> <b>Note</b></p> <p>If static DNS is enabled, you need to enter the preferred DNS information. Not enabled by default.</p>
Broadband Account (PPPoE)	<p>Dial up via broadband account (telecom, mobile, and network connection).</p> <p> <b>Note</b></p> <ul style="list-style-type: none"> <li>● If you have an old router that can connect to the network normally, you can migrate data in PPPoE mode by connecting to the old router.</li> <li>● If static DNS is enabled, you need to enter the preferred DNS information. Not enabled by default.</li> </ul>
Set Static IP Manually	<p>It is not recommended unless your ISP has provided an IP address and other information.</p>

Step 3 Click **Save**.

### Wireless Extender Mode

Your router will be connected to the uplink router via Wi-Fi wirelessly to expand the Wi-Fi coverage of the uplink router.

 **Note**

- Make sure the DHCP server is enabled for uplink routing.
- Make sure the router WAN port is not connected to other devices using an Ethernet cable.
- In this mode, functions such as terminal management and LAN settings will be hidden. Wi-Fi cannot be configured.

Step 1 Go to **My Broadband** → **Basic Settings** and select the working mode as the **Wireless Extender Mode**.

Working Mode  
  Router Mode  
  Wireless Extender Mode  
  Access Point Mode

Connect to an uplink router via Wi-Fi to extend the signal range.

Extend Wireless Network

Connection Status **Disconnected**

Figure 4-7 Wireless Extender Mode

Step 2 Click **Scan** to select the network to expand the signal range and enter the Wi-Fi password.

Step 3 (Optional) Click **Add Manually** to enter the network name and password to expand the signal range.

\* Wi-Fi Name

Wi-Fi Password

Set the Wi-Fi information of this device as the uplink network Wi-Fi information.

All Wi-Fi networks will be turned on under the manual repairing mode. Please wait for 8-10 seconds.

Figure 4-8 Add Manually

Step 4 Click **Save**.

Step 5 Click **Ok**.

### Access Point Mode

The user can connect to the uplink router via wired connection, and expand the network interface. Terminal management, LAN settings, etc. will be hidden.

#### Note

- Make sure network mode of uplink router is not DHCP mode.
- After the router is switched to bridge or all-purpose relay mode, the enabled visitor network will be disabled.
- After switching from bridge mode to route mode, the connected device needs to reconnect the router. Otherwise, the network connection may fail.

Step 1 Go **My Broadband** → **Basic Settings** and select the working mode as **Bridge Mode**.

Step 2 Connect the WAN port of your router and the LAN port of the uplink router.

Step 3 Click **Save**.

## 4.2.2 Advanced Settings

Go **My Broadband** → **Advanced Settings**. It is recommended to maintain the default configuration.

- **Data Package MTU:** Set the maximum transmission unit (MTU). The default value is 1480 in **PPPoE** mode, 1500 in **DHCP** and **Set Static IP Manually** mode.
- **MAC Address Cloning:** It can solve the broadband limit and enable router to share network. You can select default MAC address, or clone the MAC address of the management PC to the WAN port, or configure the MAC address manually.

The screenshot shows the 'Advanced Settings' configuration page. It includes three main settings:

- \* Data Packet MTU:** A text input field containing the value '1500' and a unit dropdown menu set to 'Byte'.
- MAC Address Cloning:** A dropdown menu currently set to 'Default'.
- \* MAC Address:** A field containing a blurred MAC address.

Figure 4-9 Advanced Settings

## 4.3 Network Settings

Select **More** → **Network Settings** to set router network parameters.

### 4.3.1 LAN Settings

LAN port IP settings can be auto or manual, and both have LAN-WAN conflict detection mechanism, detecting whether the IP obtained by WAN port is in the same network segment with the IP address of LAN port. It is usually in auto mode.

Go **More** → **Network Settings** → **LAN Settings**.

- **Auto:** After conflict is detected, the LAN port IP address will be automatically changed to other network segment.
- **Manual:** After conflict is detected, you can manually edit the LAN port IP address.

After the IP address of the LAN is edited, the device connected to the router will be redistributed.

The screenshot shows the 'LAN Settings' configuration page. It includes the following settings:

- MAC Address:** A field containing a blurred MAC address.
- LAN IP Settings:** A dropdown menu set to 'Auto'. Below it, a note reads: 'Auto change network segment after detecting IP conflict of LAN and WAN.'
- IP Address:** A text input field containing '192.168.9.1'.
- Subnet Mask:** A text input field containing '255.255.255.0'.


Figure 4-10 LAN Settings

### 4.3.2 DHCP Server Settings

DHCP server can be enabled or disabled according your need. After it is enabled, the router can automatically distribute network parameters such as IP address, subnet mask, and DNS to network devices in the LAN.

Go **More**→**Network Settings**→**DHCP Server Settings**.

Table 4-4 Parameter Description

Parameter	Description
Start/End IP of Address Pool	The start/end address of the IP address automatically allocated by DHCP server.   <b>Note</b> DHCP address pool IP address should be in the same network segment as LAN port IP address.
Address Lease Period	The effective time of auto-distributing IP address. The device needs to get the IP address again after the time exceeded.
Gateway	The IP address of the router LAN port cannot be edited.
Preferred/Alternative DNS Server	Domain name parses server address.

DHCP Server Settings

\* Start IP of Address Pool

\* End IP of Address Pool

Address Lease Period    min

\* Gateway

\* Preferred DNS Server

Alternative DNS Server

Figure 4-11 DHCP Server



### 4.3.3 DHCP Client List

Go **More**→**Network Settings**→**DHCP Client List**. Check the list of terminals that obtain IP addresses through a DHCP server.

No.	Name	MAC Address	IP Address	Rest Lease Period
1	NB-HZ20239891			102 min

Figure 4-12 DHCP Client List

### 4.3.4 Bind IP and MAC

Bind IP address to terminal MAC address, and distribute fixed IP address to terminal device. It can ensure that users' valid IP address is not misappropriated or abused, and can also be protected from ARP attack.

Go **More**→**Network Settings**→**Bind IP and MAC**.

- Click  to edit the bound terminal.


No.	Terminal Name	MAC Address	IP Address	Binding Status	Operation
1	NB-HZ20239891			Unbound	

Figure 4-13 Terminal Binding List

- Click **+ Add** to bind a new terminal.

Terminal Name\*

MAC Address\*

IP Address\*

Figure 4-14 Add Binding

### 4.3.5 IPv6

Go **More**→**Network Settings**→**IPv6**. You can configure WAN connection mode and LAN address distribution mode.

**WAN Settings**

\* IPv6 Address Type

\* IPv6 Address --

\* Prefix Length 64

\* Gateway Address --

\* Preferred DNS Server --

Alternative DNS Server --

Figure 4-15 IPv6-WAN Configuration

**LAN Settings**

**Route Broadcast**

\* Configuration Mode

\* Prefix --

\* Prefix Length 64

\* Preferred Lifetime(s) 3600

\* Effective Lifetime(s) 7200

**DHCP Server**

\* Configuration Mode

\* Prefix --

\* Prefix Length 64

\* Preferred Lifetime(s) 3600

\* Effective Lifetime(s) 7200

\* Preferred DNS Server --

Alternative DNS Server --

Figure 4-16 IPv6-LAN Configuration

### 4.3.6 UPnP

Enabling UPnP (UniversalPlugandPlay, general plug-and-play), the internal network host can request the router to map the port automatically through the UPnP protocol. When using software

such as P2P that supports UPnP protocol, the download speed can be increased to improve network stability.

Go **More** → **Network Settings** → **UPnP**.

No.	Intranet IP Address	Protocol Type	Intranet Port	WAN Port	Application Description
No Data					

Figure 4-17 UPnP

### 4.3.7 VPN

After connecting to the VPN server, you can easily and securely access the internal network resources of the VPN server through the Internet.

Step 1 Go **More** → **Network Settings** → **VPN**.

Step 2 Click **ADD** and enter required information to add VPN.

Figure 4-18 Add VPN

#### Note

Support to select L2TP or PPTP as protocol type.

Step 3 Click **Save**.

## Step 4 (Optional) Configure intelligent VPN to distribute traffic.

Enable Distribute by Accessible URL

After allowed URL distribution is configured, only the traffic of devices accessing the allowed URLs can pass through the VPN link.

Allowed URL List

No.	Name	Allowed URL	Operation
No Data			

Enable Distribute by Device

After device distribution is configured, only the traffic of devices with specified MAC addresses can pass through the VPN link.

Device List

No.	Name	MAC Address	Operation
No Data			

Figure 4-19 Intelligent VPN

- **Distribute by Accessible URL:**

Click **Add** and set a **name** and the **allowed URL**.

After allowed URL distribution is configured, only the traffic of devices accessing the allowed URLs can pass through the VPN link.

- **Distribute by Device:**

Click **Add** or **Add from Device List** to set the allowed device.

After device distribution is configured, only the traffic of devices with specified MAC addresses can pass through the VPN link.

 **Note**

- **Name** allows 1~128 bytes.
- Support at least 8 rules at the same time.
- The flow rule takes effect independently.

### 4.3.8 VLAN

In the uplink network environment provided by the ISP, a fixed VLAN is configured when assigning addresses. So it is required that the router supports the corresponding VALN on the WAN side, and at the same time, the LAN side needs to specify the corresponding VLAN ID for the business in order to obtain the IP address.

Step 1 Go **More**→**Network Settings**→**VLAN**.

Step 2 Enable VLAN.

Step 3 Select your **ISP Profile**. The **Internet VLAN ID** will be set by defaults unless you choose **MANUAL** as your ISP.

Step 4 (Optional) If you choose **MANUAL** as your ISP, you need to set **Internet Service Interface**, **IPTV Service Interface**, and **VoIP Service Interface** independently, and set their VLAN ID.

Enable VLAN

After VLAN is enabled, you can set specific ISP VLAN for Internet access.

\*ISP Profile: MANUAL

Internet Service Interface

1(WAN) 2 3 (INET) 4

Connect Disconnected

\*Internet VLAN ID: 10

IPTV Service Interface

Click to select a LAN port as IPTV service port (only single choice).

1(WAN) 2 (IPTV) 3 4

Connect Disconnected

\*IPTV VLAN ID: 20

VoIP Service Interface

Click to select a LAN port as VoIP service port (only single choice).

1(WAN) 2 3 4 (VoIP)

Connect Disconnected

Figure 4-20 Set MANUAL

Step 5 Click **Save**.

### Note

- After VLAN is enabled, the WAN port will be fixed to network port 1 by default. Please reconnect the Ethernet cable to port 1.
- A LAN port can only be set for one kind of service when you configure MANUAL parameter.
- VLAN ID should be set within 5~4094.

## 4.3.9 Auto Select WAN Port

The four network ports of the router are adaptive to WAN or LAN by default.

Go **More** → **Network Settings** → **Auto Select WAN Port** to disable this function, the WAN port will be fixed to network port 1.

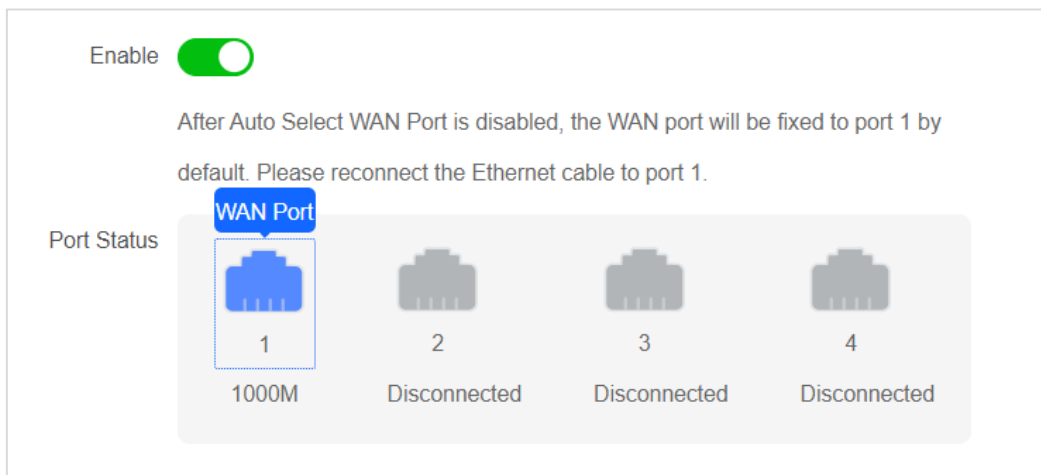


Figure 4-21 Auto Select WAN Port

### Note

Reconnect the Ethernet cable to port 1 if you disable this function.

#### 4.3.10 TR-069

The CPE WAN Management Protocol (TR-069) is a technical specification that allows the auto-configuration server (ACS) to configure, connect, and diagnose the customer-premises equipment (CPE) connected to an Internet Protocol (IP) network, achieving remote management for your router.

Go to **More** → **Network Settings** → **TR-069** to enable this function.

Figure 4-22 Configure TR069

- **Enable TR-096:** Enable/disable TR-069. The router will send a session setup request to the ACS if TR-096 is enabled. TR-069 is disabled by default.

- **ACS URL:** The ACS server IP address or domain name is required. The length range is 1~255 characters (ACS URL is required).
- **ACS User Name:** The user name authenticated by the ACS after receiving a session setup request from the router. The length range is 1~256 characters.
- **ACS Password:** The password authenticated by the ACS. The length range is 1~64 characters.
- **Enable Event Reporting:** After it is enabled, the router will report events to the ACS within the set interval time.
- **Report Interval:** The interval time for event reporting. The value range is 5~3600 seconds.
- **CPE User Name:** The user name authenticated by the CPE after receiving a connection request from the ACS. The user name has been specified on the ACS. The length range is 1~256 characters.
- **CPE Password:** The password authenticated by the CPE after receiving a connection request from the ACS. The password has been specified on the ACS. The length range is 1~64 characters.

## Chapter 5 Router Management

### 5.1 Device Information

Click **More**→**Basic Information** to view basic device information and network information.

**Basic Information:** View device model, serial No., system version, and customize device name.

**Basic Information**

\* Device Name

Device Model

Device Serial No.

System Version No.

Figure 5-1 Basic Information

**Network Information:** Check device network IP address, subnet mask, gateway, and DNS server information.

### 5.2 System Settings

Click **More**→**System Settings** to perform time sync, indicator, etc.

#### 5.2.1 System Time

##### Time Sync

Sync device system time with network time to ensure system time accuracy. The default configuration is for general user.

- **Sync PC time:** Support for use when no network.

\* Time Sync Mode  NTP Time Sync  Sync PC Time

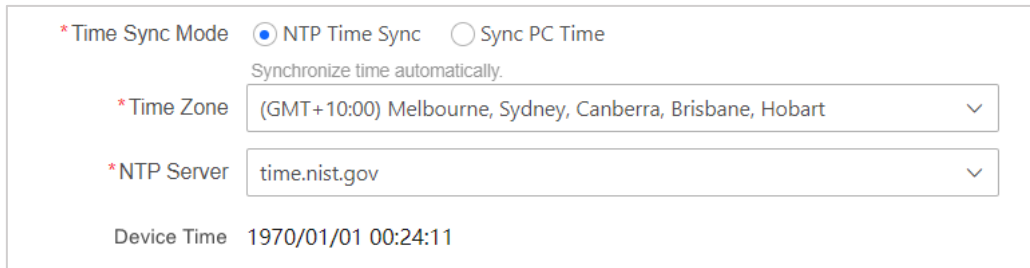
Synchronize PC time when no network.

Device Time 1970/01/01 00:23:52

Figure 5-2 Sync PC Time

- **NTP Time Sync:** Synchronize time automatically with network.





\* Time Sync Mode  NTP Time Sync  Sync PC Time  
Synchronize time automatically.

\* Time Zone (GMT+10:00) Melbourne, Sydney, Canberra, Brisbane, Hobart

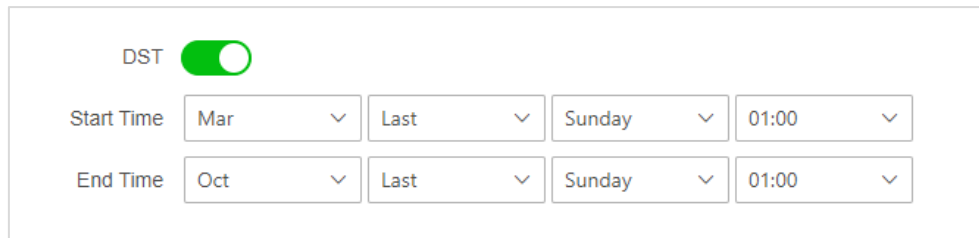
\* NTP Server time.nist.gov

Device Time 1970/01/01 00:24:11

Figure 5-3 NTP Time Sync

## DST

Support configuring the start and end times of daylight saving time (DST). After being turned on, once the system time reaches the start time of DST, it will shift back by 1 hour; once the system time reaches the end time of DST, it will offset forward by 1 hour.



DST

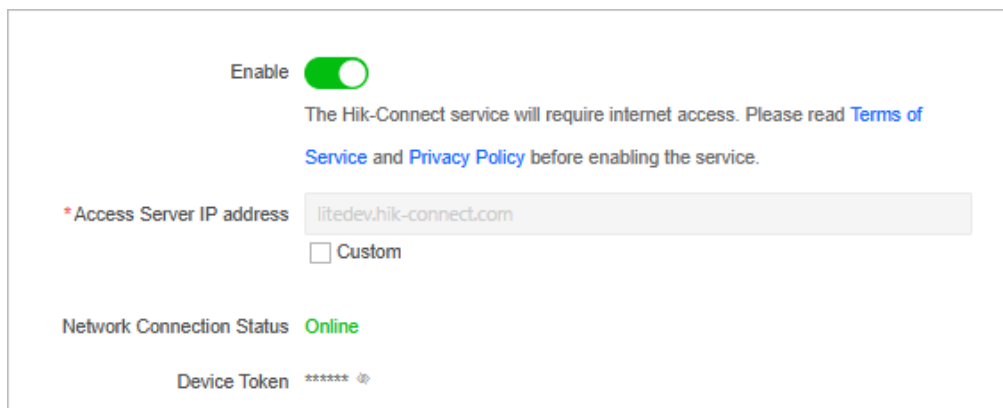
Start Time Mar Last Sunday 01:00

End Time Oct Last Sunday 01:00

Figure 5-4 DST

## 5.2.2 Cloud Management

Cloud based network management is supported.



Enable

The Hik-Connect service will require internet access. Please read [Terms of Service](#) and [Privacy Policy](#) before enabling the service.

\* Access Server IP address litedev.hik-connect.com  
 Custom

Network Connection Status **Online**

Device Token \*\*\*\*\*

Figure 5-5 Cloud Management

## 5.2.3 Indicator

You can enable or disable the device indicator via Web page switch.

## 5.3 Security Settings

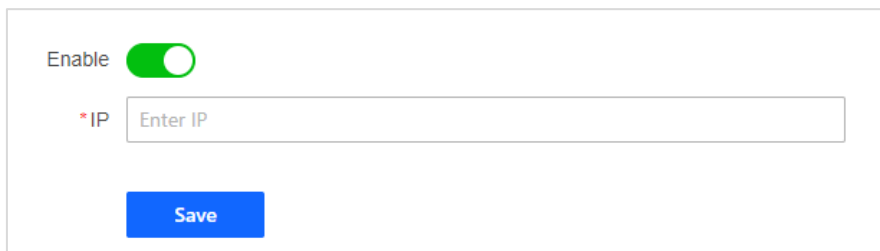
Select **More** → **Security Settings** to configure router security.

### 5.3.1 Firewall

The firewall is a safety barrier between the Internet and the home LAN. After the firewall is enabled, the device will filter the data entering the LAN from the Internet to avoid network attacks from external networks, thus protecting the security of internal network users and data. It is recommended to keep it on.

### 5.3.2 DMZ

Set the local area network (LAN) host as the DMZ host, then the external network can access the host. For example, you can set the web server and FTP server as the DMZ host to access the DMZ host via the Internet. Enter the IP address of the DMZ host when enabling DMZ.



The screenshot shows a configuration panel for DMZ. At the top, there is a label 'Enable' next to a green toggle switch that is turned on. Below this, there is a red asterisk followed by the label '\* IP' and a text input field containing the placeholder text 'Enter IP'. At the bottom of the panel is a blue button with the text 'Save'.

Figure 5-6 Set DMZ

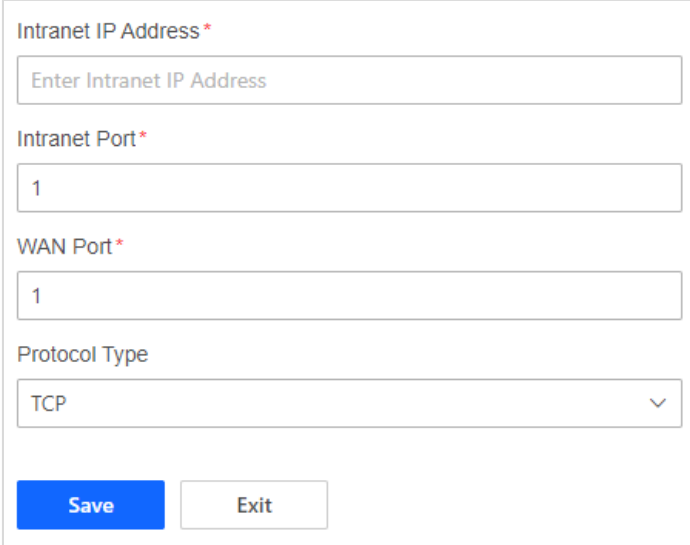
#### Note

Port mapping is only used to map the specified port. DMZ refers to mapping all ports, and directly exposes the host to the gateway. It is easier than port mapping, but it is less secure.

### 5.3.3 Port Mapping

Map the specific port of a LAN host to a WAN IP address and port for easy access from the public network.

The IP address, IP port, and external port information are required to add the mapping port.



Intranet IP Address\*

Enter Intranet IP Address

Intranet Port\*

1

WAN Port\*

1

Protocol Type

TCP

Save Exit

Figure 5-7 Add Port Mapping

### 5.3.4 Remote Web

After the remote web function is enabled, the device can be managed by inputting the WAN port IP of the router through the HTTPS protocol. Once enabled, there is a risk of being attacked by hackers, and long-term activation is not recommended.

---

#### Caution

After **Remote Web** is enabled, the router is at risk of attack. Please close the remote web in a timely manner.

---

### 5.3.5 WPS

The WPS key of the router can be used to connect the terminal device to the network of the router with no password, or to connect your router to the uplink devices with no password.

#### Note

- Make sure WPS is supported by the connected device or uplink router.
- Make sure the route is activated.

Step 1 Put the terminal device within 1 meter of the router.

Step 2 Enable WLAN and tap the network to access.

Step 3 Press and hold the WPS button of the router frame for 1~3 seconds. The router's indicator flashes blue, which means it is pairing.

## 5.4 System Maintenance

Select **More** → **System Maintenance** to upgrade, backup, restore the device to factory, log, etc.

### 5.4.1 Software Upgrade

Select **More** → **System Maintenance** → **Software Upgrade**.

#### Auto Upgrade

The function is enabled by default. After **Auto Upgrade** is enabled, every day from 2:00 to 5:30 in the morning, when the WAN port traffic is less than a certain threshold and a new version is detected, the device will automatically upgrade to the new version.

#### Manual Upgrade

Online upgrade and local upgrade are supported.

- **Online Upgrade:** Click **Check for Updates** after the new version is detected online.
- **Local Upgrade:** Import local upgrade package file, and click **Upgrade**.

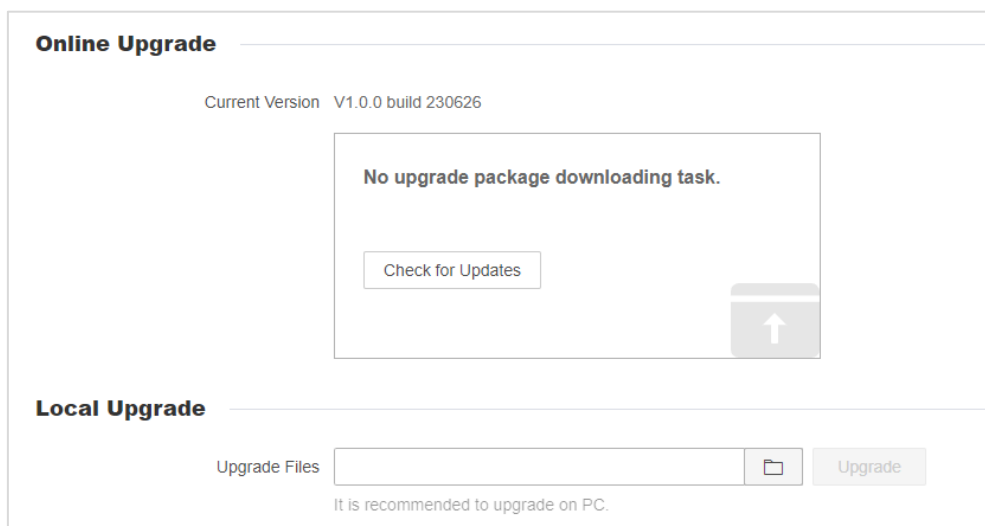


Figure 5-8 Manual Upgrade

---

#### Caution

Do not power off the device during upgrade.

---

### 5.4.2 Reboot Device

Select **More** → **System Maintenance** → **Reboot Device**.

#### Manual Reboot

Click **Reboot** to restart the device manually.

## Scheduled Restart

The status is disabled by default. After **Scheduled Restart** is enabled, the device will automatically restart every day from 3:00 to 5:00 in the morning when the WAN port traffic is less than a certain threshold. During device restart, all connections will be disconnected.

**Manual Reboot**

Reboot Device

**Schedule Maintenance Restart**

Enable

Device will automatically restart at 2:00 am-5:30 am when the WAN port has low Internet traffic.

Figure 5-9 Timed Restart

## 5.4.3 Backup and Restore

Select **More** → **System Maintenance** → **Backup and Restore**.

- **Backup:** Click **Export** to export the router configuration file to local.
- **Restore:** Import the exported configuration file to the device, and restore the previous configuration.
- **Restore to default:** Restore all settings of the device to factory status.

**Backup**

Device Parameters

It is recommended to export on PC.

**Restore**

Device Parameters

It is recommended to import on PC.

**Restore to Defaults**

Restore to Defaults

Click on Restore to reset all settings to defaults.

Figure 5-10 Backup and Restore

### Note

Restoring previous configuration does not include restoring device management IP address and password.

## 5.4.4 Log Management

Select **More**→**System Maintenance**→**Logs** to manage logs.

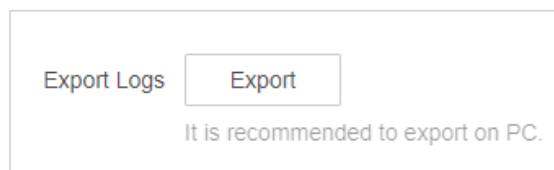


Figure 5-11 Log Management

Click **Export** to export the log information of the device to the local computer.



### Note

The exported log file is only available for viewing and using by maintenance personnel.

## 5.4.5 Diagnosis

Select **More**→**System Maintenance**→**Diagnose**. Click **Diagnose** to check the router network connection status. Please check the connection status and select whether to upload the result to cloud server.

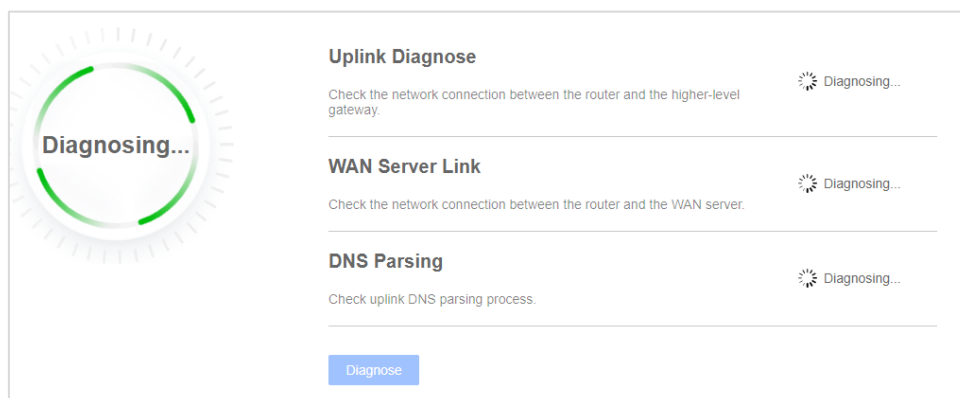



Figure 5-12 Diagnosis Network

## 5.5 Password Management

Table 5-1 Password Management

Operation	Description
Check Wi-Fi Password	Click  on the Overview page.
Modify Wi-Fi Password	Go <b>My Wi-Fi</b> → <b>Basic Wireless Settings</b> .
Modify Admin Password	Click <b>Modify Password</b> in the upper-right corner of the page.
Forget Admin Password	Press reset button for 8s, and activate your router again to set new admin password.

