

# 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			
□iNote	Provides additional information to emphasize or supplement important points of the main text.			
<b>A</b> Caution	Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.			
<b>D</b> anger	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 using the router (hereafter referred to as device) for the first time. After activation, the router can be configured via Web.

## 1.1 Activate

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

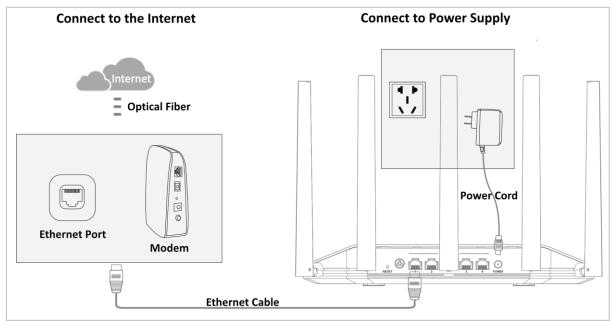


Figure 1-1 Wiring

# 1.1.1 Activate via Mobile Device

Please refer to the Quick Start Guide in the packing box, or click <u>https://enpinfodata.hikvision.com/analysisQR/showQR/c920eea8</u> to view Quick Start Guide video.

## 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 Click Start. The system will automatically detect device network connection.

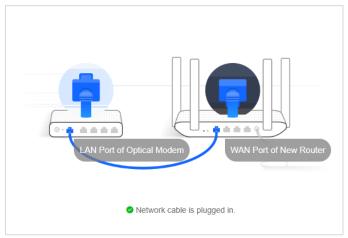


Figure 1-3 Device Connection

Step 4 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 5 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 6 (Optional) Support quick Enable VLAN. More information refers to 4.3.7 VPN.

Enable VLAN		
	After VLAN is enabled, you can set specific ISP VLAN for Internet access.	
* ISP Profile	MANUAL	$\sim$
* Internet VLAN ID		

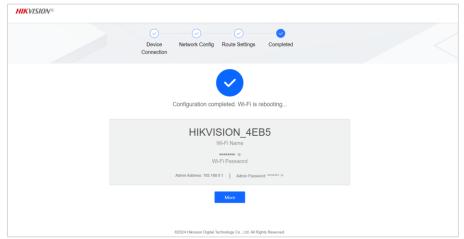
Figure 1-5 Quick Enable VLAN

Step 7 Click Next to configure Route Settings.

*Wi-Fi Name	HIKVISION_4EB5	$\otimes$
Wi-Fi Password	EnterWi-Fi Password	Þ
Admin Password	Set Wi-Fi password as router admin password.	
*Admin Password	EnterAdmin Password	Þ
* Country/Region	SelectCountry/Region	~

Figure 1-6 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.
- **Country/Region**: Select your location.



Step 8 Click **Next**. The router will reboot automatically after being activated.

Figure 1-7 Figure 1-6 Configured

## **i**Note

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** (HIKVISION\_XXXX).

Model:DS-3WR30X Power:12V 1A IP Address:192.168.9.1	Wireless Router	
SSID: HIKVISION_XXXX Date: XX/XXXX	MAC: XXXXXXXXXXXXXXX Made in China	SCAN TO ST
Manufacturer: Hangzhou Hikvisio		

Figure 1-8 Label (Example)

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

## **i** Note

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 8 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.

HIKVISION			_
Welcome to H	likvision F	Router.	
Password	Ø		
	Forgot passwore	d?	
Log In			
			-

Figure 1-9 Login

# 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.

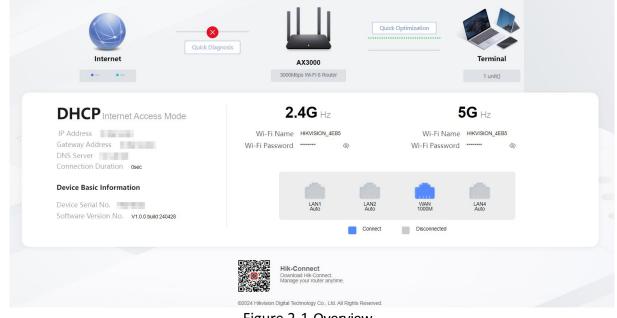


Figure 2-1 Overview

#### **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  $\rightarrow$  Wi-Fi Settings  $\rightarrow$  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**.

S. S	Analyzing Channel Congestion Analysis	
	Wi-Fi Interference Analysis	Analyzed.
- Opoints	Channel Congestion Analysis	Analyzed.
Cyber Health Index	Transfer Rate Analysis	Sur.
TITIT	Signal Quality Analysis	No. Post

Figure 2-2 Quick Optimization

#### **Check Port Status**

Check port status on the right side of Overview page.

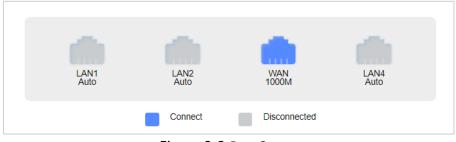


Figure 2-3 Port Status

#### **Download Hik-Connect**

Scan the QR code at the bottle of the interface to download Hik-Connect application to manage router devices.

# 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.

Al	I (5)	✓ Wired (0) ✓ 2.4	IG (0) 5G (2)	Offline & Disabled (3)			
No.	Terminal			IP Address	Туре	Speed Limit	Operation
1	(((•	NB-HZ20239891 ↑ 3 Kbps ↓ 0 Kbps		192.168.9.101	Host (Wireless)		È
2	((î•	Unknown_14FD ↑ 16 Kbps ↓ 0 Kbps		192.168.9.103	Host (Wireless)		0

Figure 3-1 Terminal List

# 3.2 Restrict Internet Access

Click  $\ominus$  to restrict the current terminal.

Optional: To remove the network connection limit of the terminal, check **Offline & Disabled** and  $\operatorname{click}^{\bigcirc}$ .

# 3.3 Limit Terminal Network

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

Basic Information	
* Device Name	NB-HZ20239891
IP Address	192.168.9.101
MAC Address	and the second se
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.)
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	0.00 🗘 Mbps
Download Speed	0.00 🗘 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	Start Time			6
*End Time	End Time			6
'Repeat Time	Select All			
	Monday Thursday Sunday	Tuesday	Wednesday	

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	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	ion
---------------------------------------	-----

Parameter	Description		
Enable Wi-Fi	Enable or disable the Wi-Fi network.		
Enable Dual-Frequency in One	<ul> <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	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).		
	Make sure the access terminal is supported when using <b>Hybrid</b> <b>Strong</b> . If the connection problem persists, please switch to <b>Hybrid</b> (WPA/WPA2-PSK) or other methods.		
Wi-Fi Password	8 to 63 characters are allowed, including digits, uppercase letters, lowercase letters, or special characters.		
Synchronize to Admin Password	Set the Wi-Fi Password as the Admin Password.		

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 route can choose the best network band for the terminal.	ЭГ
Basic Wireless Settings		
*Wi-Fi Name	HIKVISION_4EB5	
Encryption Mode		~
*Wi-Fi Password		Ø
	Synchronize to admin password.	

Figure 4-1 Enable Dual-Frequency in One

NA. ( ) A/: E:	
My Wi-Fi Manage and configure Wi-Fi and net	work 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	HIKVISION_4EB5
	Hide Wi-Fi Name
Encryption Mode	Strong (WPA2-PSK)
*Wi-Fi Password	<i>په</i>
	Synchronize to admin password.
5G Wireless Settings	
J.	
Enable Network	
*Wi-Fi Name	HIKVISION_4EB5_5G
	Hide Wi-Fi Name
Encryption Mode	Strong (WPA2-PSK) ~
*Wi-Fi Password	۵۵

Figure 4-2 Disable Dual-Frequency in One

Step 4 Click Save.

# 4.1.2 Advanced Settings

#### Step 1 Go More $\rightarrow$ Wi-Fi Settings $\rightarrow$ 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/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	тwт	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.	

Table 4-2	Advanced	Parameter	Descri	ntion
	Auvanceu	raiaiiietei	DESCH	JUUII

2.4G Wireless Settings	
2 (O Wester Observe)	A 20
2.4G Wireless Channel	Auto (1) ~
	Select optimal channel based on the surrounding environment.
2.4G Wireless Mode	802.11b/g/n v
	802.11blg/n mode is recommended.
2.4G Channel Width	20/40 ~
	Sets the channel width occupied for wireless data transmission.
5G Wireless Settings	
so 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	i
TWT	
1001	Automatically aptimize resource scheduling between devices to reduce power consumption.
MU-MIMO	Разопальных укрыписе некон се выпеканину мехичент сельсе колтехнике ромен сыпкытрыхи.
MO-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.
	sarang agine ana gin, aanaani na sara asanana wa sara asan are na gir arta di many susansan a.

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	10:00	
*End Time	20:00	Ŀ
*Repeat Time	When the start time is set later than the end time, the default is the multi-day period.         Monday       Tuesday       Wednesday       Thursday         Friday       Saturday       Sunday	

Figure 4-4 Timed Wi-Fi

#### Step 5 Click Save.

### **i** 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 $\rightarrow$ Wi-Fi Settings $\rightarrow$ 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.

# **i**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.

Enable	
* Guest Network Name	HIKVISION_4EB5_GUEST
Guest Network Password	
Validity Duration	No Restriction V
Guest Sharing Network Speed	No Restriction

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.

Method	Description		
DHCP	The router will automatically get IP address, subnet mask, gateway, DNS and other information. You do not need to configure.		
	<b>i</b> Note		
	If static DNS is enabled, you need to enter the preferred DNS information. Not enabled by default.		
Broadband Account (PPPoE)	Dial up via broadband account (telecom, mobile, and network connection).		
	<b>i</b> Note		
	<ul> <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> </ul>		
	<ul> <li>If static DNS is enabled, you need to enter the preferred DNS information. Not enabled by default.</li> </ul>		
Set Static IP Manually	It is not recommended unless your ISP has provided an IP address and other information.		

Table 4-3 Internet Access Method Description

Step 3 Click Save.

#### Wireless Repeater Mode

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

# **i**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 Repeater Mode**.

① Working Mode	Router         Image: Wireless Repeater Mode         Wired Bridge           Connect to a higher-level router via WI-Fi to extend the signal range.	
Extend Wireless Network		Scan
Connection Status	Disconnected	

Figure 4-7 Wireless Repeater 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	Ø
	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 repearing mode. Please wait for 8-10 seconds.

Figure 4-8 Add Manually

Step 4 Click Save.

Step 5 Click Ok.

#### Wired Bridge 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.

$\sim$	$\sim$	
	•	
		Note
	-	NOTE
$\sim$	$\sim$	NOLC

- 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  $\rightarrow$  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.

Byte
$\checkmark$

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.

MAC Address		
LAN IP Settings	Auto	~
	Auto change network segment after detecting IP conflict of LAN and WAN.	
IP Address	192.168.9.1	
Subnet Mask	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 $\rightarrow$ Network Settings $\rightarrow$ 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>i</b> Note
	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	192.168.9.100
*End IP of Address Pool	192.168.9.200
Address Lease Period	120 🔷 min
*Gateway	192.168.9.1
*Preferred DNS Server	192.168.9.1
Alternative DNS Server	
	Save

Figure 4-11 DHCP Server

### 4.3.3 DHCP Client List

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

€) Re	efresh			
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.

+ Add	d C Refresh				
No.	Terminal Name	MAC Address	IP Address	Binding Status	Operation
1	NB-HZ20239891		100100-00	Unbound	_

Figure 4-13 Terminal Binding List

• Click + Add to bind a new terminal.

Enter Terminal Name MAC Address*	
MAC Address*	
Enter MAC Address	
IP Address *	
Enter 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	Auto Configure
*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 A	Auto Configure 🗸 🗸
*Prefix	
* Prefix Length 64	4
*Preferred Lifetime(s) 38	00
*Effective Lifetime(s) 72	00
DHCP Server	
* Configuration Mode A	Auto Configure 🗸 🗸
*Prefix	
* Prefix Length 64	4
*Preferred Lifetime(s) 38	
*Effective Lifetime(s) 72	00
*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.

Enable						
UPnP	Port Mapping List					
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 $\rightarrow$ Network Settings $\rightarrow$ VPN.

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

Name*	
EnterName	
Protocol Type	
L2TP	~
Server IP / Domain Name*	
EnterServer IP / Domain Name	
User Name*	
EnterUser Name	
Password *	
EnterPassword	Ø

Figure 4-18 Add VPN

### **i**Note

Support to select L2TP or PPTP as protocol type.

#### Step 3 Click Save.

- Step 4 (Optional) **Shunt by Intelligent VPN** allows to connect the selected server or device's data diversion to the VPN channel.
  - Shunt by Server Address: The router will transmit data with a specified service address as the destination address through a VPN link.
  - **Shunt by Device**: The router will transmit data from devices with specified MAC addresses or selected online devices through a VPN link.

# **i** 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  $\rightarrow$  Network Settings  $\rightarrow$  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 IS	P VLAN for Internet access.	
*ISP Profile	MANUAL			~
Internet Service Interface			INET	<b>m</b>
	1(WAN)	2	3	4
		Connect	Disconnected	
*Internet VLAN ID	10			8
IPTV Service Interface	Click to s	elect a LAN port as IPT	TV service port (only single cl	hoice).
		ІРТУ		
	1(WAN)	2	3	4
		Connect	Disconnected	
*IPTV VLAN ID	20			8
VoIP Service Interface	Click to s	elect a LAN port as Vo	IP service port (only single cl	noice).
				VolP
	1(WAN)	2	3	4
		Connect	Disconnected	

Figure 4-19 Set MANUAL

#### Step 5 Click Save.

### **i** 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**  $\rightarrow$  **Network Settings**  $\rightarrow$  **Auto Select WAN Port** to disable this function, the WAN port will be fixed to network port 1.

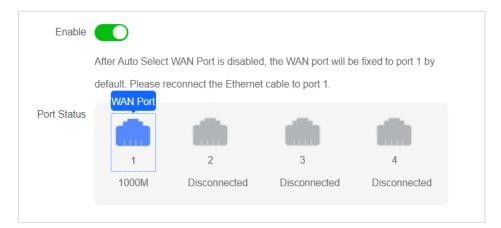


Figure 4-20 Auto Select WAN Port

## **i**Note

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

# 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	2
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.

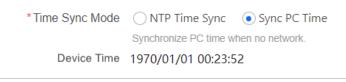


Figure 5-2 Sync PC Time

• 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	$\sim$
*NTD Son/or		
INTE Server	time.nist.gov	$\sim$
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		
* Server Address	litedev.hik-connect.com	Custom
Connection Status	Offline	~
Operation Code		

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.

Enable	
*IP	Enter IP
	Save

Figure 5-6 Set DMZ

## **i** 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	
ТСР	~
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.



**I** 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.

# **i**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.



Long press for more than 5s to achieve secure relay to other routers with WPS mode enabled.

# 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**.

Current version	V1.0.0 build 230626		_
	No upgrade package downloading task.		
	Check for Updates		
		1	
Local Upgrade			
Upgrade Files		F	

#### Figure 5-8 Manual Upgrade

Caution

**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	Reboot
Schedule Maintenance Re	estart
Enable	
	Device will automatically restart at 2:00 am~5:30 am when the WAN port has low Internet traffic.
	Save

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	Export
		It is recommended to export on PC.
Restore		
	Device Parameters	Import
		It is recommended to import on PC.
Restore to	Defaults	
	Restore to Defaults	Restore
		Click on Restore to reset all settings to defaults.

Figure 5-10 Backup and Restore

### **i**Note

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

### 5.4.4 Log Management

Select **More**  $\rightarrow$  **System Maintenance**  $\rightarrow$  **Logs** to manage logs.

Export Logs	Export	
	It is recommend	ded to export on PC.

Figure 5-11 Log Management

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

### **i**Note

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

### 5.4.5 Diagnosis

Select **More**  $\rightarrow$  **System Maintenance**  $\rightarrow$  **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.

	Uplink Diagnose Check the network connection between the router and the higher-level gateway.	≷ <b>ve</b> Diagnosing
Diagnosing	WAN Server Link Check the network connection between the router and the WAN server.	්ද් Diagnosing
	DNS Parsing Check uplink DNS parsing process.	ີ່ <mark>ເ</mark> ຮັ Diagnosing
	Diagnose	

Figure 5-12 Diagnosis Network

# 5.5 Password Management

Table 5-1 Password Manegement

Operation	Description
Check Wi-Fi Password	Click 🚿 on the Oerview page.
Modify Wi-Fi Password	Go My Wi-Fi→Basic Wireless Settings.
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.

