



# QuickConfig

## **User Manual** **V1.0**

## Welcome to QuickConfig

QuickConfig is a fast configuration tool specially designed for Linux/Ubuntu gateways. With its intuitive interface, it helps you quickly deploy and maintain gateways, improving efficiency and serving as a reliable assistant for gateway configuration and management.

## Usage Notes

Thank you for using QuickConfig. To ensure safe and smooth operation, please be aware of the following:

1. This tool is designed to provide you with convenient configuration solutions, but it cannot guarantee perfect compatibility across all hardware and software environments.
2. Please confirm your settings before proceeding. For major changes, it is recommended to back up configurations to avoid unexpected interruptions.
3. The development team shall not be held responsible for any direct or indirect issues arising from configuration operations performed with this tool.

## Copyright Statement

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## Revision History

Date Updated	Version	Description	Owner
2025-09-03	V1.0	First Edition	YCX
2025-09-11	V1.1	Added Method to Uninstall QuickConfig	YCX

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## 1 Overview

QuickConfig is a fast configuration tool specifically designed for Linux and Ubuntu systems. It aims to provide users with a convenient and efficient solution for configuring basic gateway information, helping users easily complete gateway-related settings and ensuring stable and smooth gateway operation.

During the use of gateways, users often face issues such as complicated network parameter configuration, inconvenient switching between 4G and Wi-Fi networks, and complex firewall settings. These problems not only consume significant time and effort but may also affect the normal operation of the gateway if configured improperly. QuickConfig software effectively addresses these pain points. It offers a rich set of practical features for comprehensive network configuration, including WAN and LAN settings, support for 4G or Wi-Fi configuration, and automatic switching between WAN, 4G, or Wi-Fi (priority: WAN > 4G or Wi-Fi). It also allows firewall whitelist and blacklist management.

Additionally, the software provides system information viewing and local time modification, device load monitoring, SD card operations, password changes, system log management, system upgrades, hardware and software watchdog control, monitoring of Y-board port data status, application installation and shortcuts, one-click navigation, language switching between Chinese and English, and BLRAT remote login. It even includes an AI assistant capable of calling open-source API models for AI Q&A and an integrated code editor for easy code modification.

QuickConfig comprehensively meets users' diverse gateway configuration and management needs, making it a powerful assistant for gateway setup and maintenance.

## 2 Software Installation and Uninstallation

The QuickConfig .tar.xz installation package is provided. You only need to place the installation package on the device and install it.

First, extract the installation package by entering `tar -xJf QuickConfig.tar.xz` in the command line.

```
root@BL118-bliiot:~# ls
QuickConfig.tar.xz
root@BL118-bliiot:~# tar -xJf QuickConfig.tar.xz
root@BL118-bliiot:~# ls
QuickConfig QuickConfig.tar.xz
```

Enter `cd QuickConfig` to go into the installation package, then grant executable permission to `install.sh` by entering `chmod +x install.sh` in the command line, as shown below.

```

root@BL118-bliiot:~# cd QuickConfig
root@BL118-bliiot:~/QuickConfig# ls
BEILAI_I0y_T507_V1_20250808.bin  nodered.sh
BLIoTLink.bin                   openplc.service
BLRAT_BL330                     start_iptables.service
OpenPLC_v3.tar.xz               start_watchdog.service
ap_setup.service                start_wlan_get_server.service
bliot_name.db                   switch_network.service
hardware_watchdog.service       systemd-networkd
install.sh                       watchdog
node-red_32bit_BL118            web_server
root@BL118-bliiot:~/QuickConfig# chmod +x install.sh

```

Then run the installation command `./install.sh` and wait for it to complete.

```

root@BL118-bliiot:~/QuickConfig# ./install.sh
Update image...
Hit:1 http://mirrors.ustc.edu.cn/ubuntu-ports focal InRelease
Get:2 http://mirrors.ustc.edu.cn/ubuntu-ports focal-updates InRelease [128 kB]
Get:3 http://mirrors.ustc.edu.cn/ubuntu-ports focal-backports InRelease [128 kB]
Get:4 http://mirrors.ustc.edu.cn/ubuntu-ports focal-security InRelease [128 kB]

```

The software requires an internet connection to install certain plugins. After installation, QuickConfig will be set to start automatically on boot by default.

To uninstall, run `uninstall.sh` in the `/web_server` directory.

```

root@BL330-bliiot:~# cd /web_server/
root@BL330-bliiot:/web_server# ls
backend frontend uninstall.sh

```

## 3 Configuration Instructions

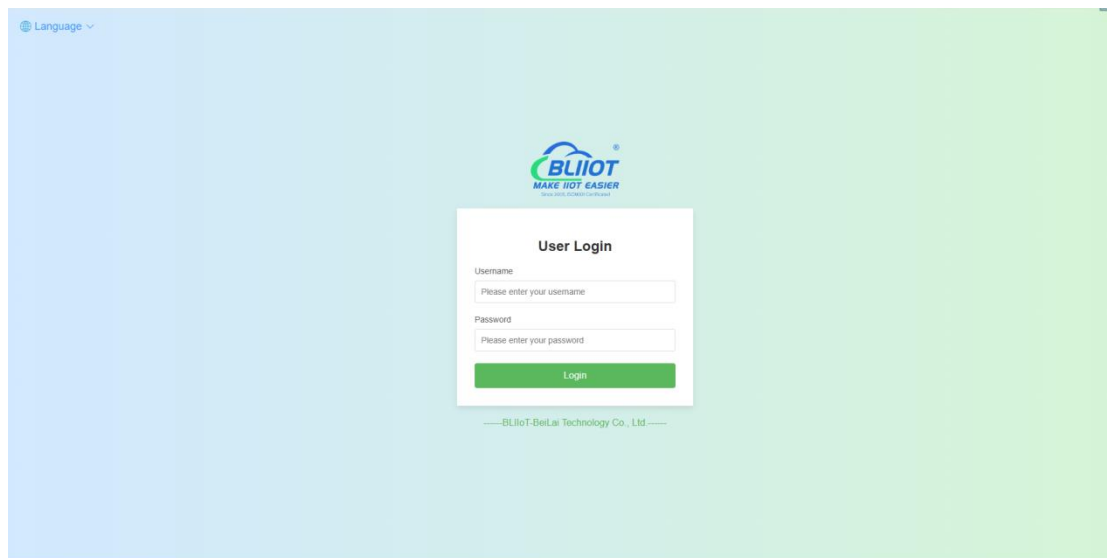
System Functions	
Function	Description
System Information	Displays device ID, kernel version, operating system version, and system time. In offline mode, it supports manual modification of local time.
Device Load	Displays storage, memory, cache, buffer size, and CPU status.
SD Card	Supports automatic mounting, file upload, download, and other operations.
Network Configuration	<ol style="list-style-type: none"> <li>1. WAN, LAN, 4G, or Wi-Fi configuration.</li> <li>2. Supports automatic switching between WAN, 4G, or Wi-Fi (priority: WAN &gt; 4G or Wi-Fi).</li> <li>3. Supports enabling DHCP server and routing functions on LAN.</li> </ol>
Change Password	Allows users to modify their password.
Security	Provides whitelist and blacklist management.
System Logs	<ol style="list-style-type: none"> <li>1. Management and deletion of system running logs.</li> <li>2. Supports management of other system logs.</li> </ol>
System	Supports system upgrade functionality.

Upgrade	
Hardware Watchdog	Controls hardware watchdog start and stop.
I/O Monitoring	Monitors Y-board port data status and provides usage instructions.
Applications	Supports adding web page ports and web-based upgrades.
Language	Supports switching between Chinese and English.
BLRAT	Remote login
Exit	Returns to the login screen
AI Assistant	Calls the DeepSeek large model API (users need to provide their own token) and includes an integrated code editor.

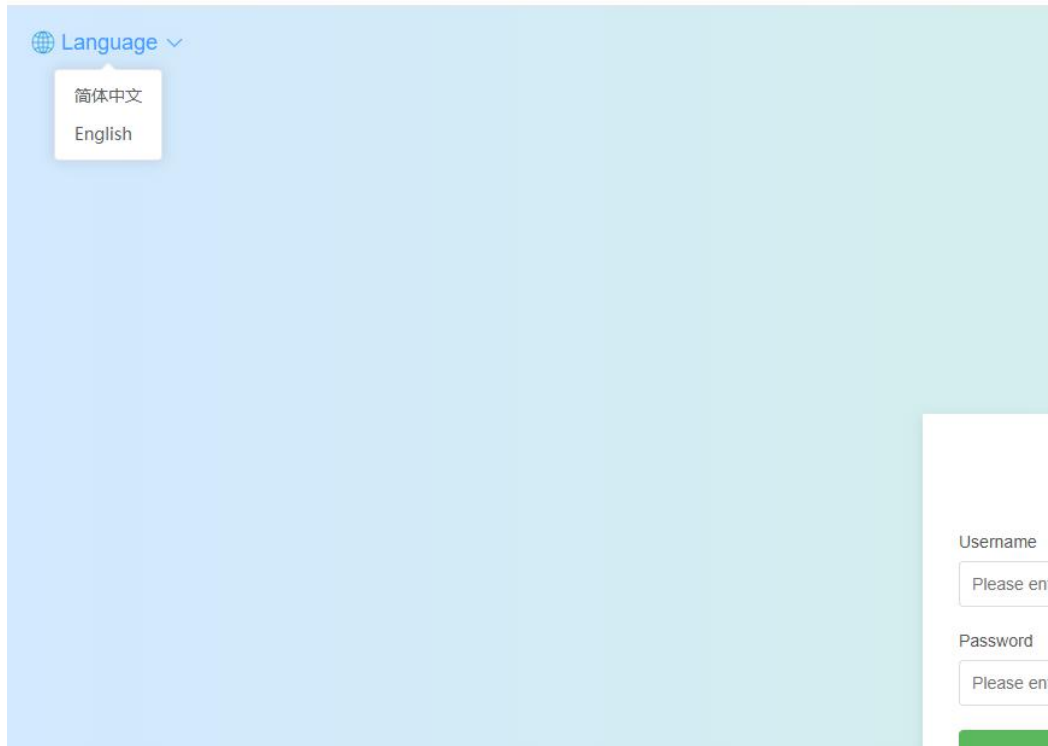
## 4 QuickConfig Software User Guide

### 4.1 Login to the System

(1) Enter the device IP:8080 to access the login page.

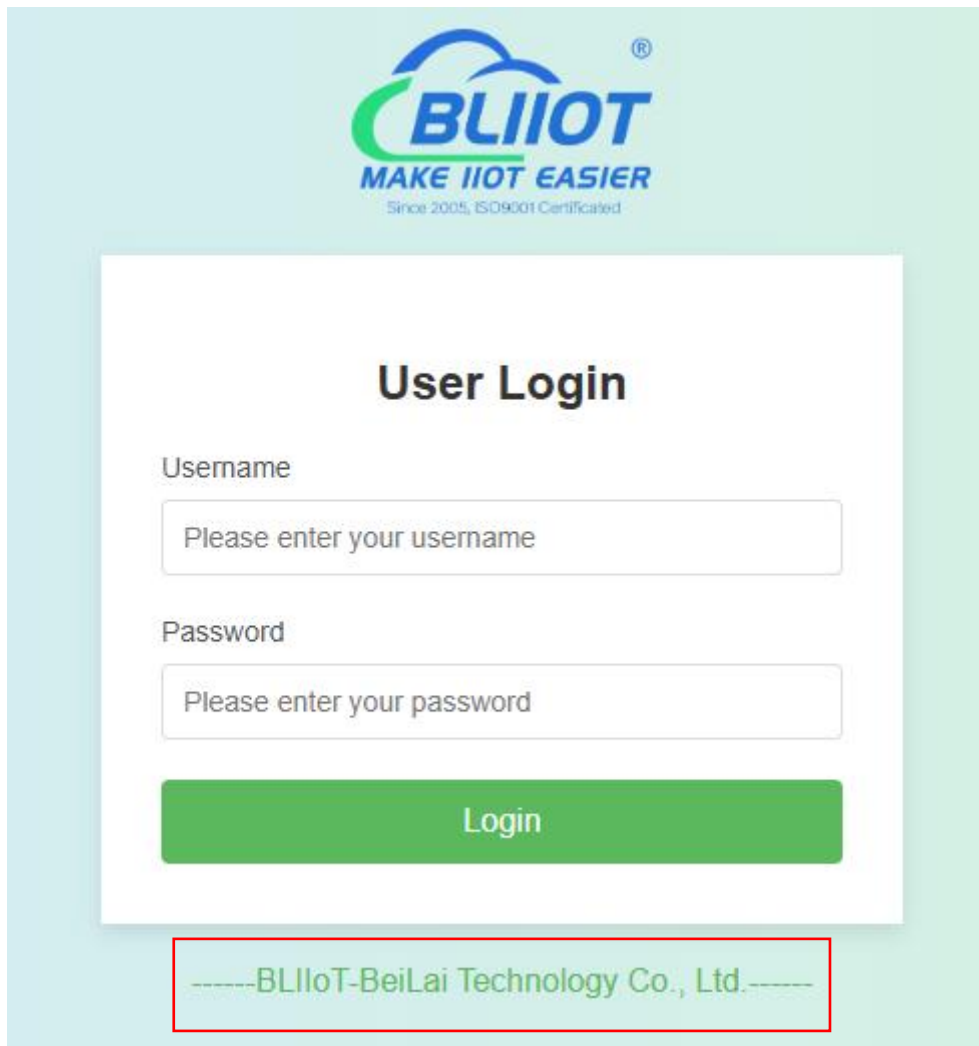


(2) The top-left corner has a language switch function, allowing you to switch between Chinese and English.



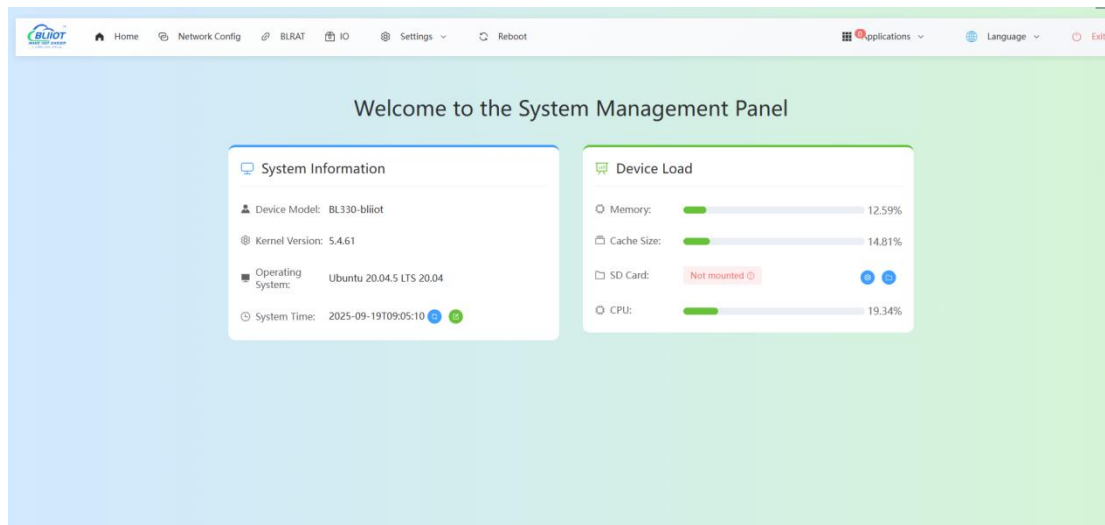
The image shows a web interface for 'QuickConfig'. At the top left, there is a 'Language' dropdown menu with a globe icon, currently set to 'English'. The dropdown menu is open, showing two options: '简体中文' (Simplified Chinese) and 'English'. Below the language menu, the main content area is mostly blank with a light blue background. On the right side, there is a login form with two input fields: 'Username' and 'Password', both containing the placeholder text 'Please enter...'. Below the password field is a green button, likely for 'Login'.

(3) Below the login box, there is a company website link. Clicking it will redirect you to the company's official website.



The image shows a user login interface for BLIIOT. At the top, the BLIIOT logo is displayed with the tagline "MAKE IIOT EASIER" and "Since 2005, ISO9001 Certificated". Below the logo is a white box titled "User Login". Inside this box, there are two input fields: "Username" with the placeholder text "Please enter your username" and "Password" with the placeholder text "Please enter your password". Below these fields is a green button labeled "Login". At the bottom of the white box, there is a red-bordered box containing the text "-----BLIIoT-BeiLai Technology Co., Ltd.-----".

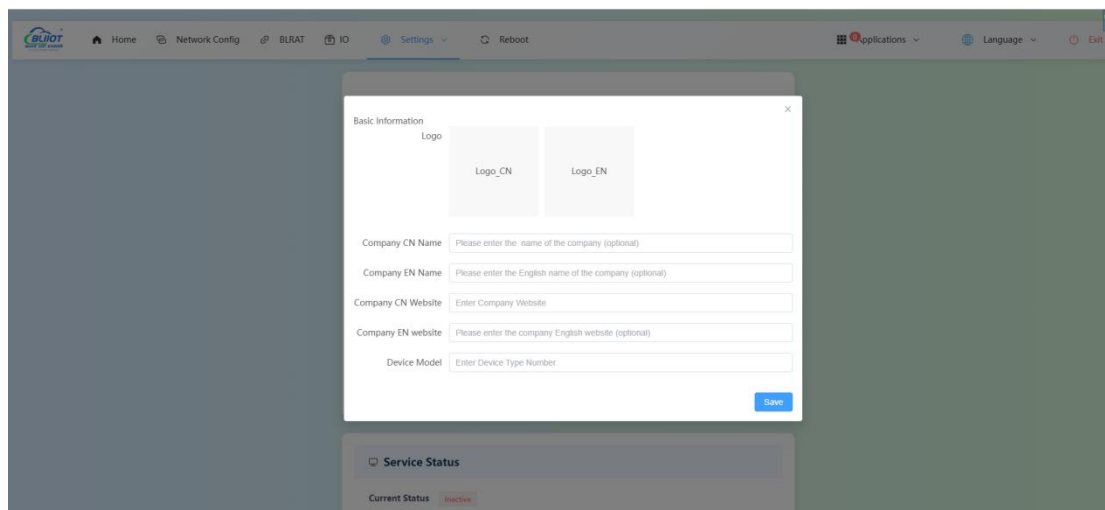
(4) Return to the login page, enter the initial username root and password 123456, and log in to the system web page, as shown below.

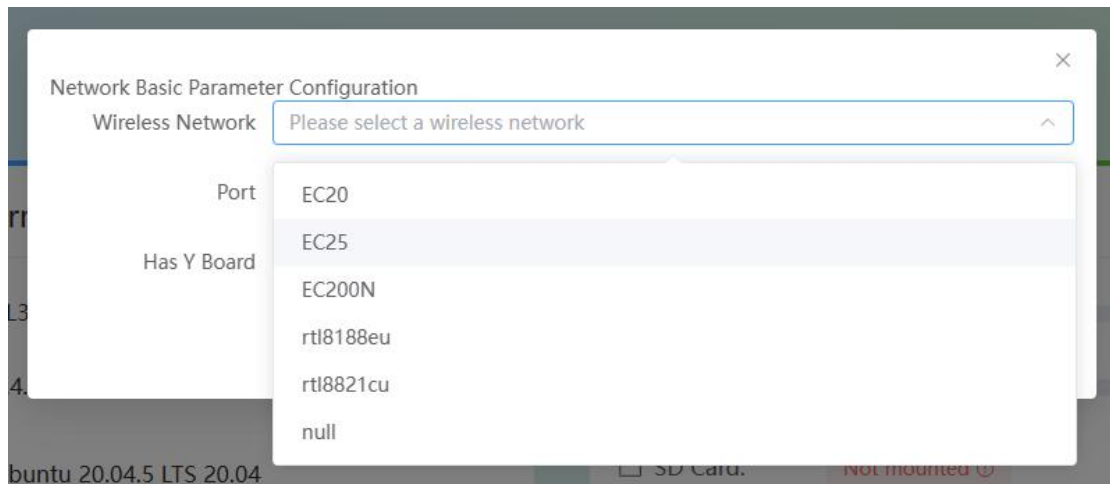


(5) Click the logo icon in the top-left corner to navigate to the company website, as shown below.



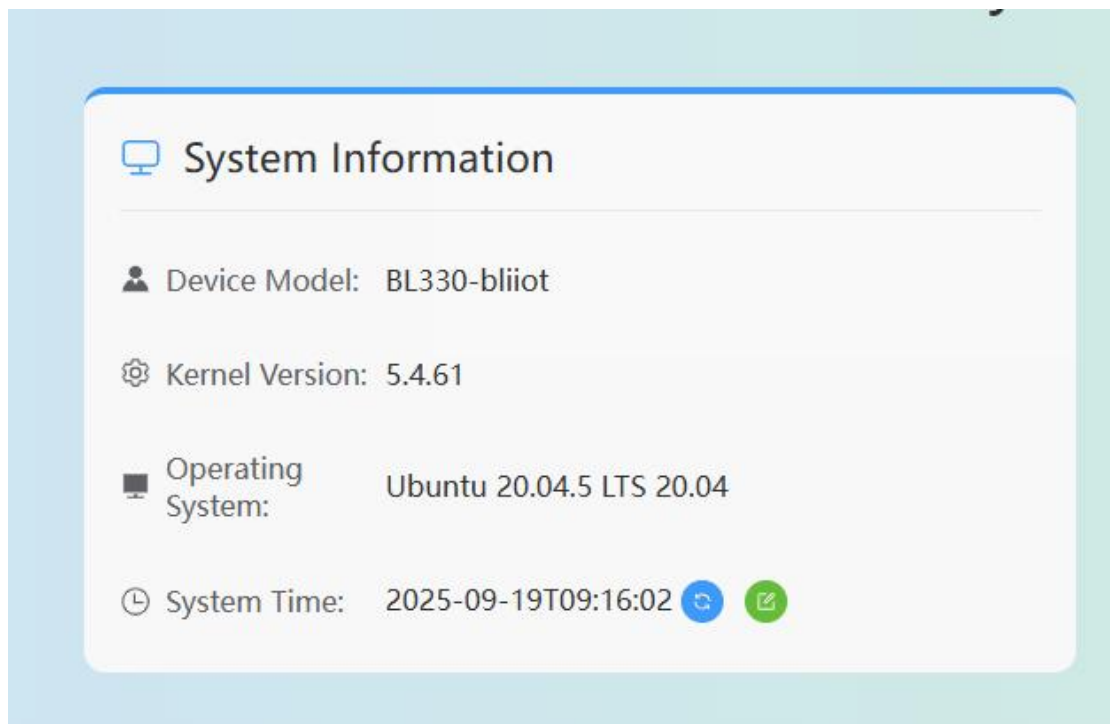
Users can modify the software logo and other information, and the software integrates networking methods for wireless modules such as EC20 and EC25.



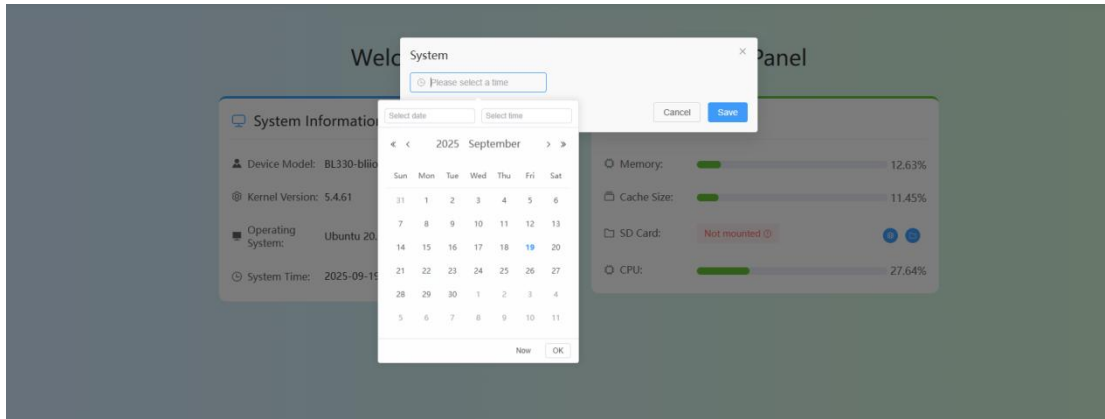


## 4.2 Basic Configuration Popup

After successfully logging into the system, the device type number, kernel version, operating system version, and the system time (which can be calibrated and set) will be displayed in the System Information section on the homepage.

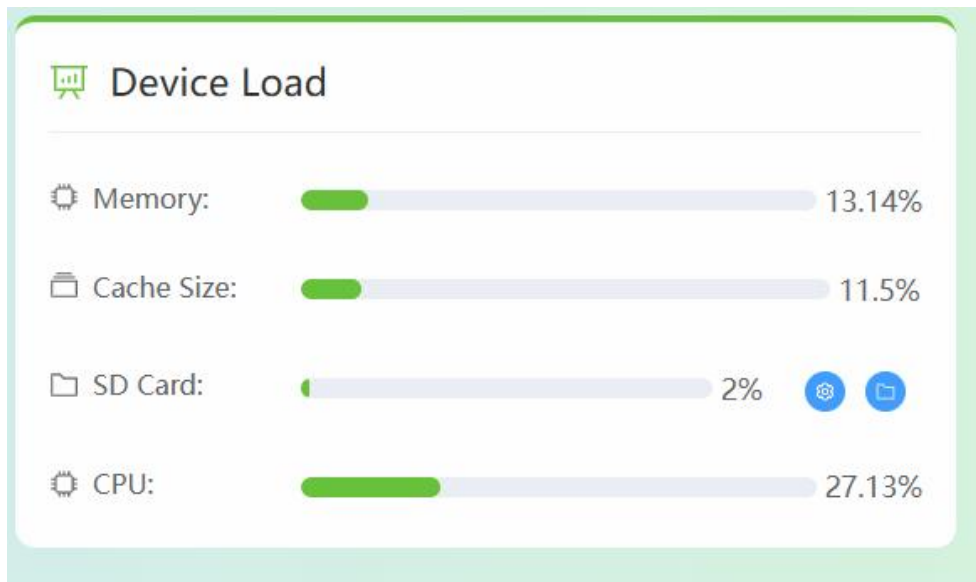


If the device is offline, manual system time setting is supported. If the device is online, the system will automatically obtain the network time, and manual setting is not supported.



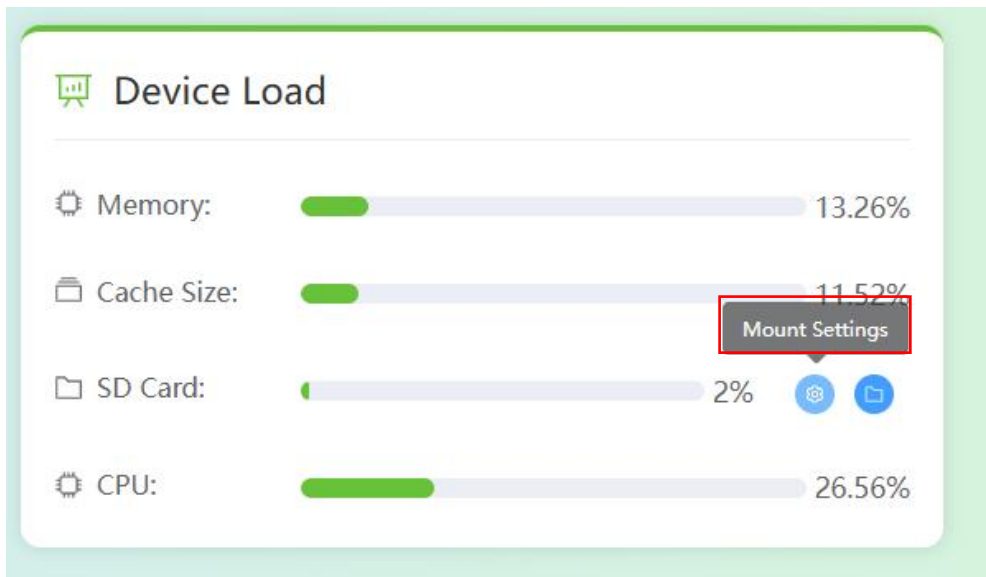
## 4.3 Device Load

On the frontend page, in the device load area toward the right, it displays the device's free memory, cache size, buffer size, and CPU status.

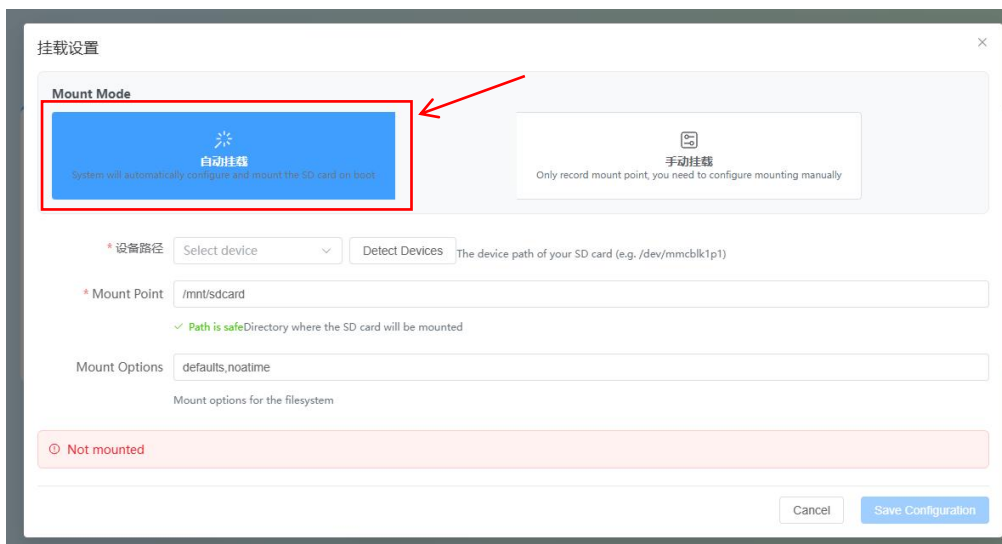


## 4.4 SD Card Management

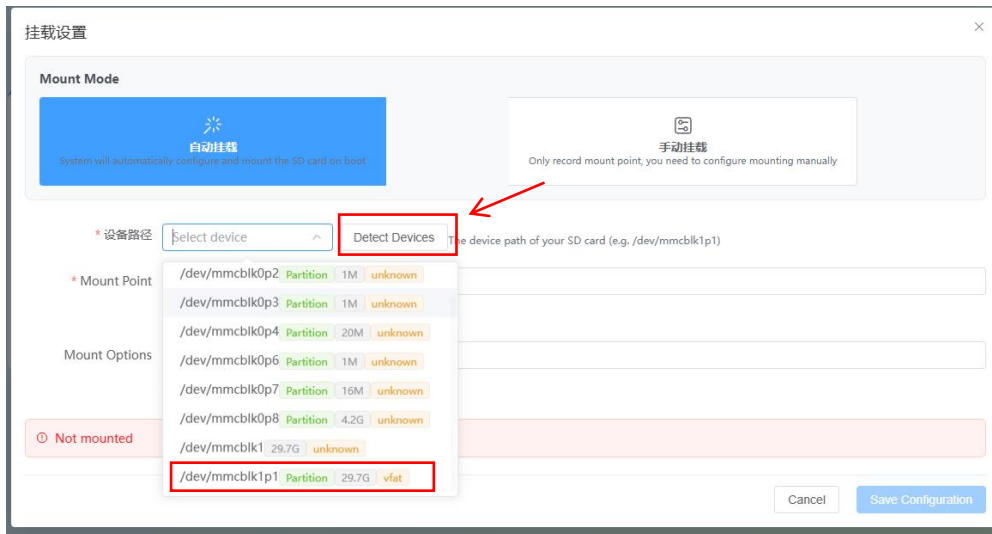
- (1) Click Mount Settings



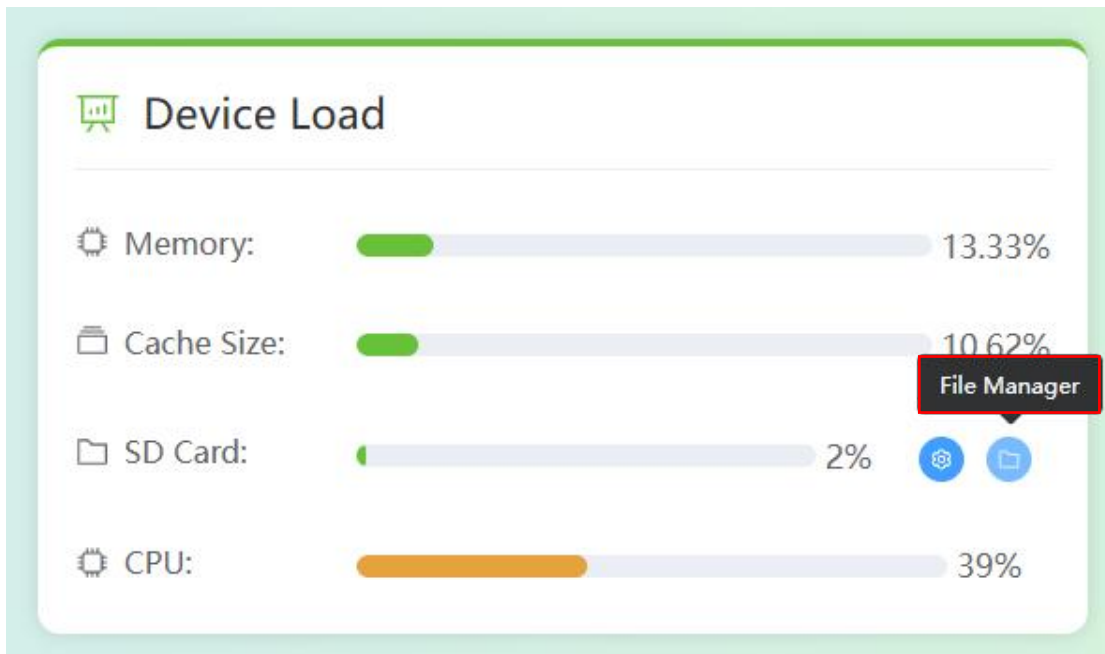
(2) Select Auto Mount



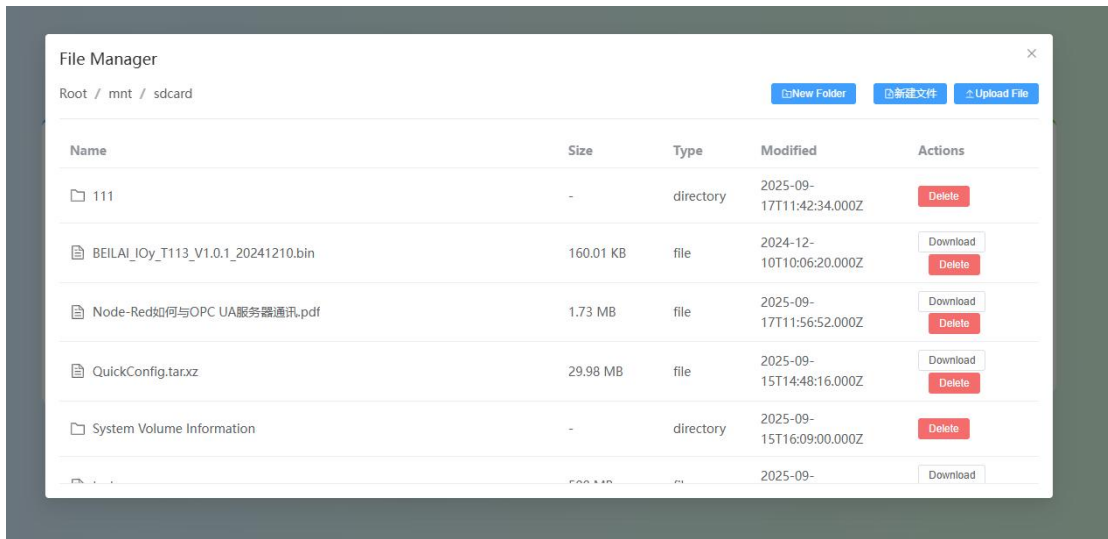
(3) Click Query, then click the device path to view the recognized SD card. Select the SD card and save.



(4) Exit the interface, wait 5 seconds, then refresh the page. Once the SD card is successfully mounted, click File Management.



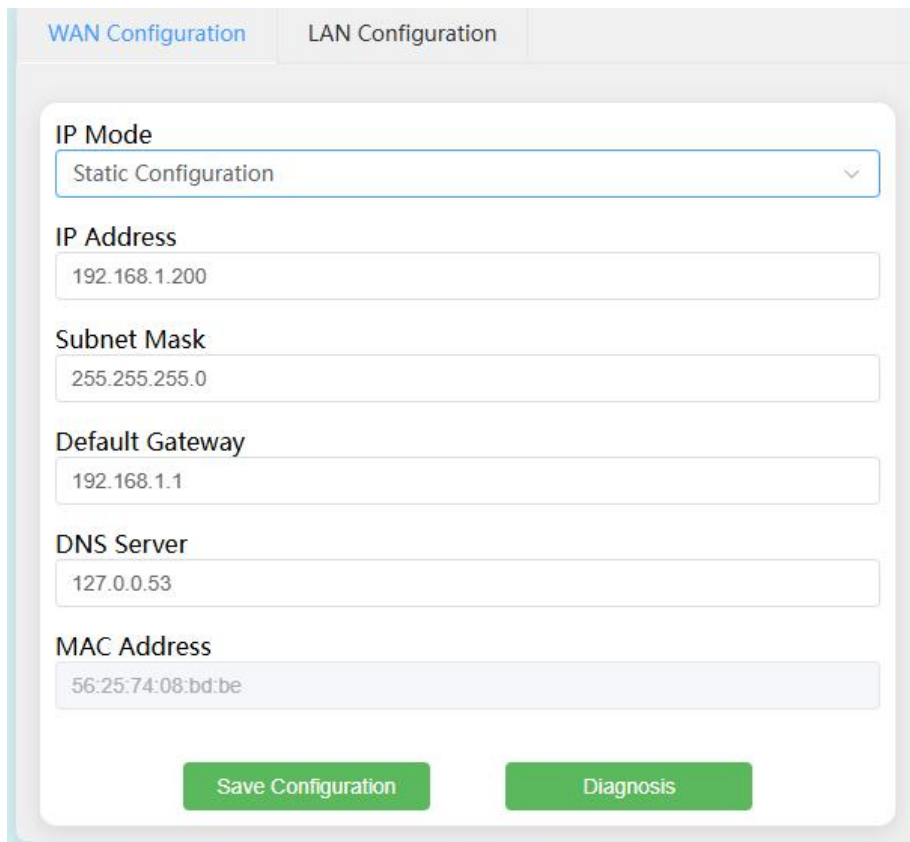
(5) You can access the folders and files on the SD card, and perform operations such as creating new folders, creating new files, and uploading files.



## 4.5 Network Configuration

### 4.5.1 WAN Port Configuration

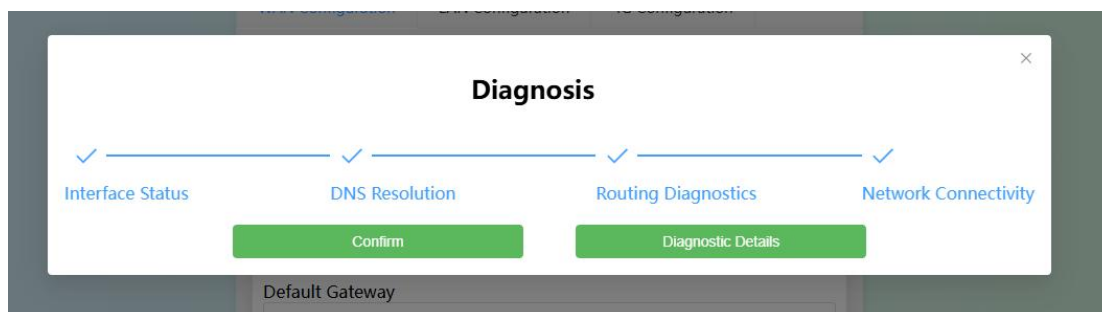
In the WAN port configuration, both dynamic IP acquisition and static IP settings are provided.



(1) IP Mode Selection:

- Static Configuration: You can set the IP address, subnet mask, default gateway, and DNS server. After saving the configuration, a reboot is required for it to take effect. After rebooting, use the ifconfig command to check the settings.
- Dynamic configuration: WAN port automatically obtains an IP address from the server.

(2) There is also a network diagnostic tool, which, when clicked, can check the current interface status, perform route diagnostics, and test network connectivity, as shown below.



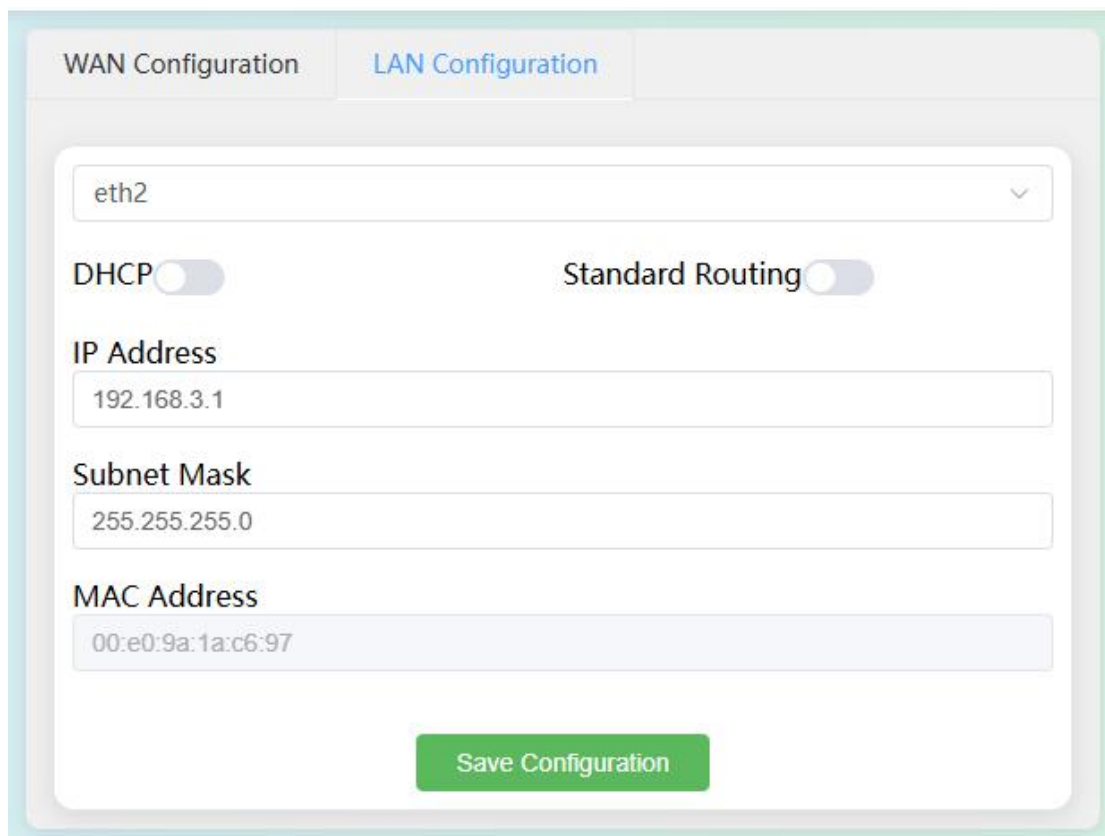
Note: Network diagnostics are only available for WAN, 4G, and Wi-Fi STA modes.

### 4.5.2 LAN Port Configuration

In the LAN port configuration, options are provided for IP modification, DHCP server, routing, and bridge mode.

(1) IP Modification

You can configure the IP address and subnet mask.



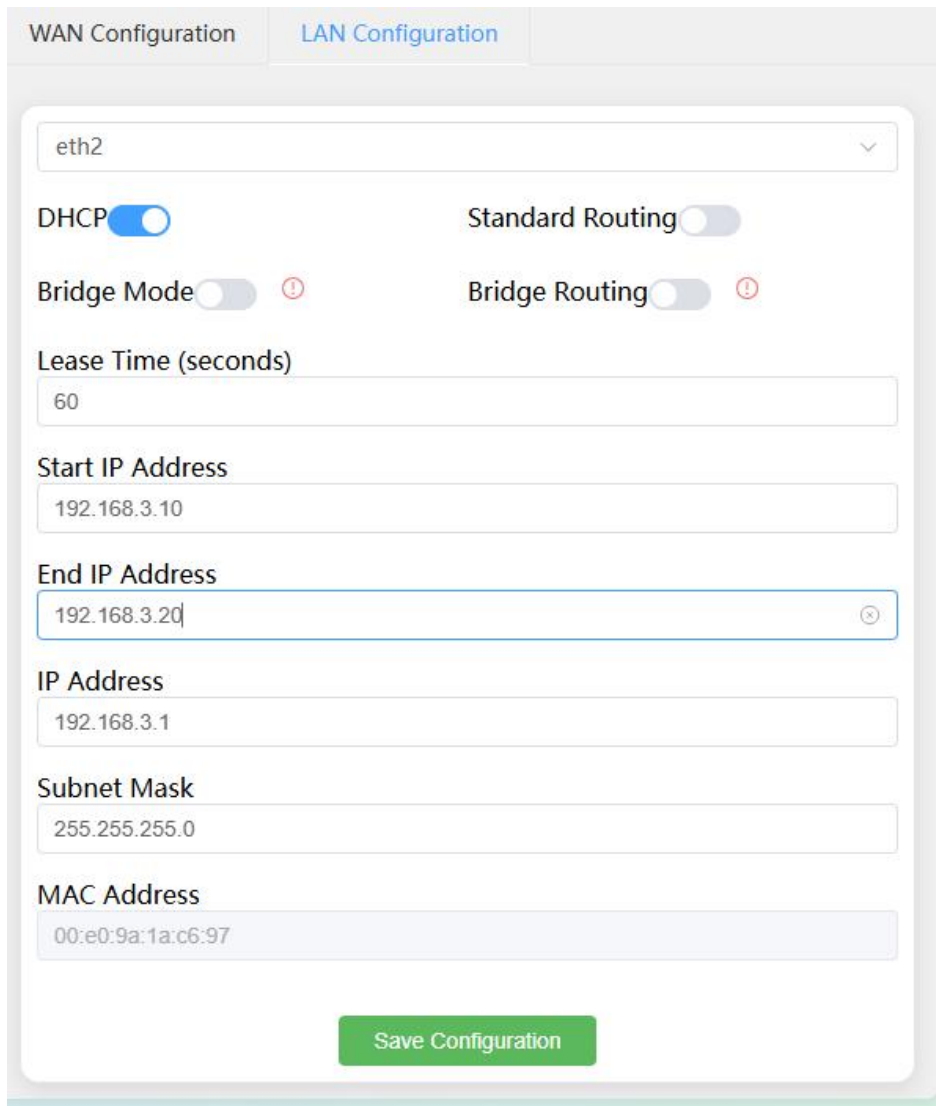
The screenshot shows the 'LAN Configuration' tab in the QuickConfig interface. At the top, there are two tabs: 'WAN Configuration' and 'LAN Configuration'. Below the tabs, there is a dropdown menu showing 'eth2'. Below the dropdown, there are two toggle switches: 'DHCP' (which is currently turned off) and 'Standard Routing' (which is currently turned on). Below the 'DHCP' toggle, there are three input fields: 'IP Address' with the value '192.168.3.1', 'Subnet Mask' with the value '255.255.255.0', and 'MAC Address' with the value '00:e0:9a:1a:c6:97'. At the bottom of the form, there is a green button labeled 'Save Configuration'.

Note: The WAN IP and LAN IP cannot be the same. Entering identical IPs will trigger an error.

## (2) DHCP Function

Clicking DHCP will display a prompt to enter DHCP-related information and configure the DHCP server.

When setting up DHCP, the lease time must be greater than 30 seconds, the starting IP address must be smaller than the ending IP address, and both must be in the same subnet as the LAN IP, as shown below.



WAN Configuration | LAN Configuration

eth2

DHCP  Standard Routing

Bridge Mode  Bridge Routing

Lease Time (seconds)

60

Start IP Address

192.168.3.10

End IP Address

192.168.3.20

IP Address

192.168.3.1

Subnet Mask

255.255.255.0

MAC Address

00:e0:9a:1a:c6:97

Save Configuration

After configuring, click Save, and the system will automatically set up the DHCP server.

### (3) Routing Function

Click the Standard Routing button. After enabling the routing function, devices under the LAN port will have network access.

WAN Configuration    LAN Configuration

eth2

DHCP       Standard Routing

Bridge Mode  ⓘ      Bridge Routing  ⓘ

Lease Time (seconds)

60

Start IP Address

192.168.3.10

End IP Address

192.168.3.20

IP Address

192.168.3.1

Subnet Mask

255.255.255.0

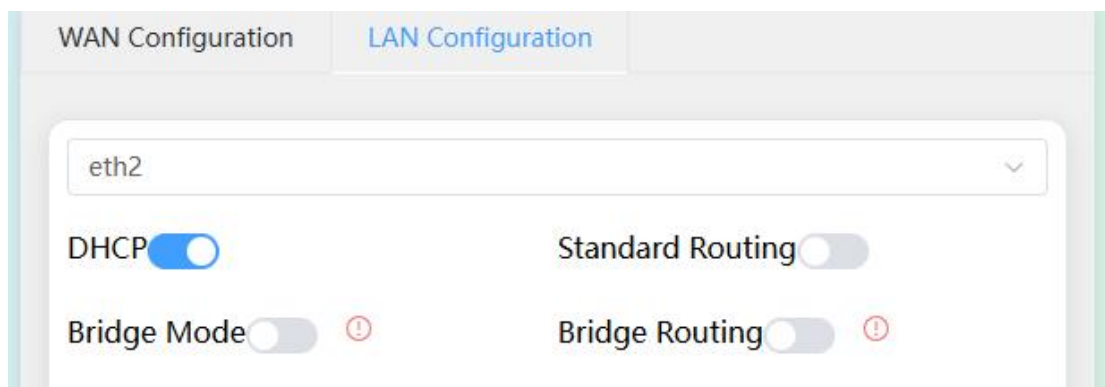
MAC Address

00:e0:9a:1a:c6:97

Save Configuration

#### (4) Bridge Mode

If the device has two or more independent network cards, enabling this option will activate Bridge Mode. In this mode, QuickConfig binds the two network cards to a single DHCP address pool, with the default IP range: 192.168.88.1–192.168.88.250. Once enabled, devices under both network cards can communicate with each other.



## (5) Bridge Routing

Bridge routing is used in bridge mode. Once enabled, it will automatically search for accessible external networks.

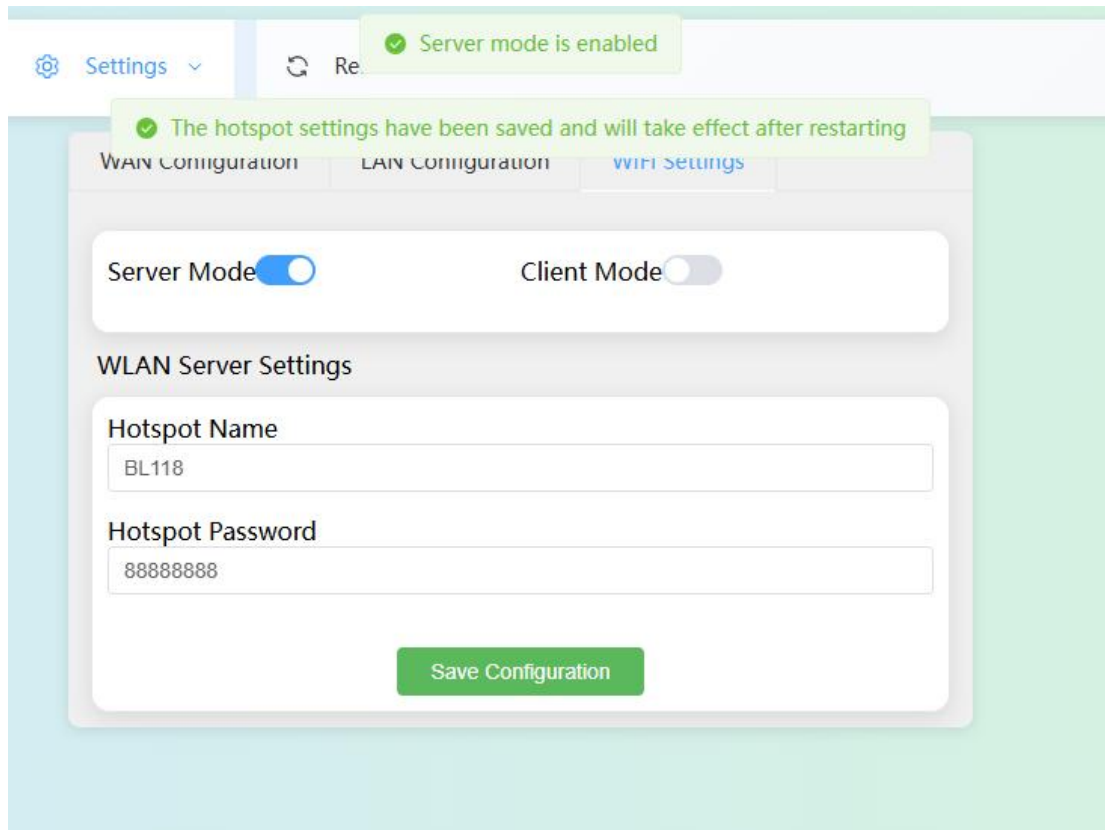


### 4.5.3 Wi-Fi Configuration

Click Wi-Fi Configuration to display two buttons: Server Mode and Client Mode.

#### (1) Server Mode

Click the Server Mode button. In WLAN Server, set the Wi-Fi hotspot name and password. After saving the configuration and rebooting, the hotspot will be activated.



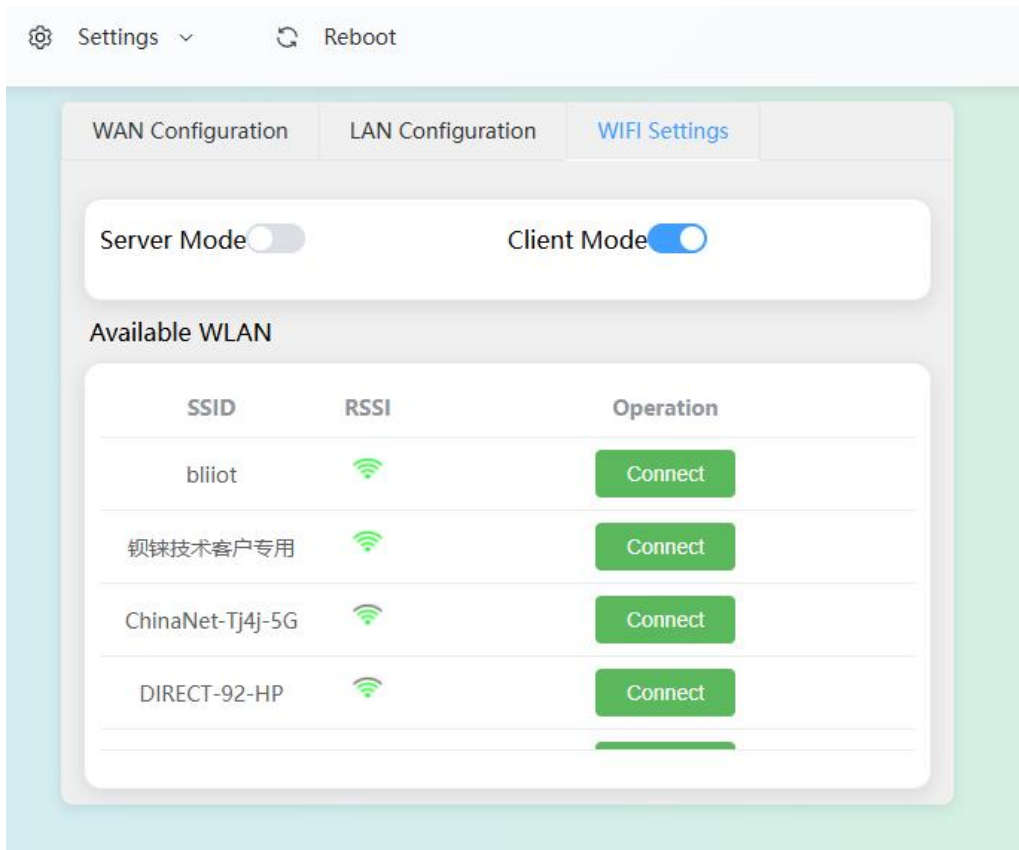
On a mobile phone or device, turn on Wi-Fi, find the corresponding hotspot name, and connect. The system will automatically enable routing.



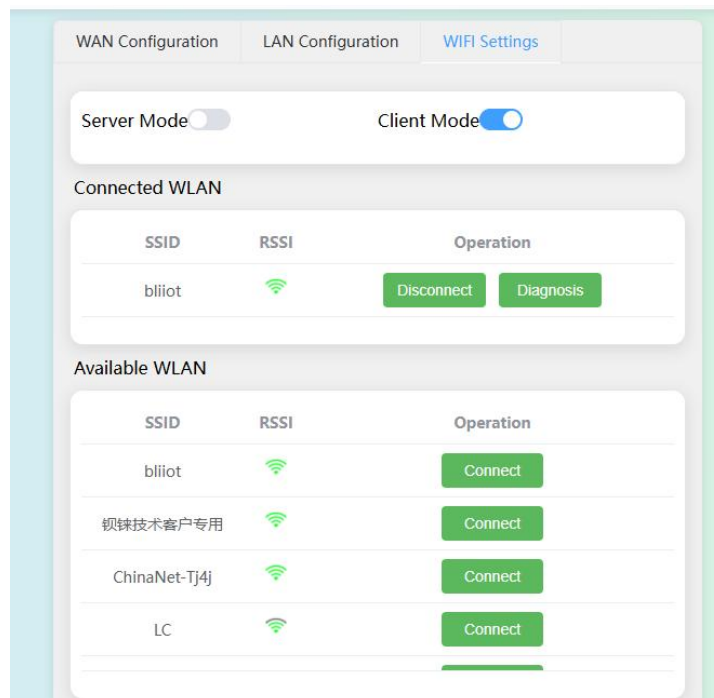
## (2) Client Mode

Note: Server mode must be disabled before enabling client mode, as client and server modes cannot coexist.

Once client mode is enabled, the system will automatically search for available Wi-Fi networks.



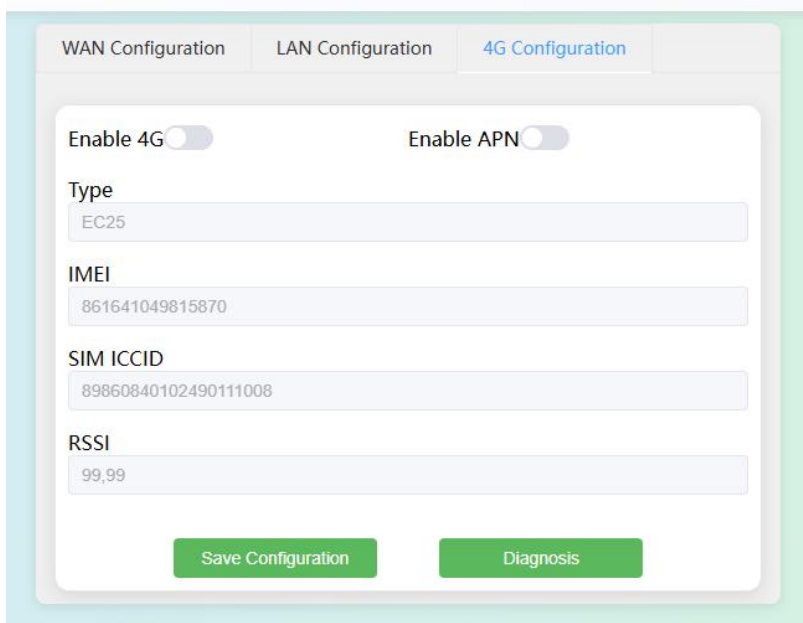
Click Connect and enter the username and password to connect. If the device's WAN port is online, it will automatically disconnect. Once the WAN connection is disconnected, the system will automatically connect to the Wi-Fi.



## 4.5.4 4G Configuration

### (1) Network Function

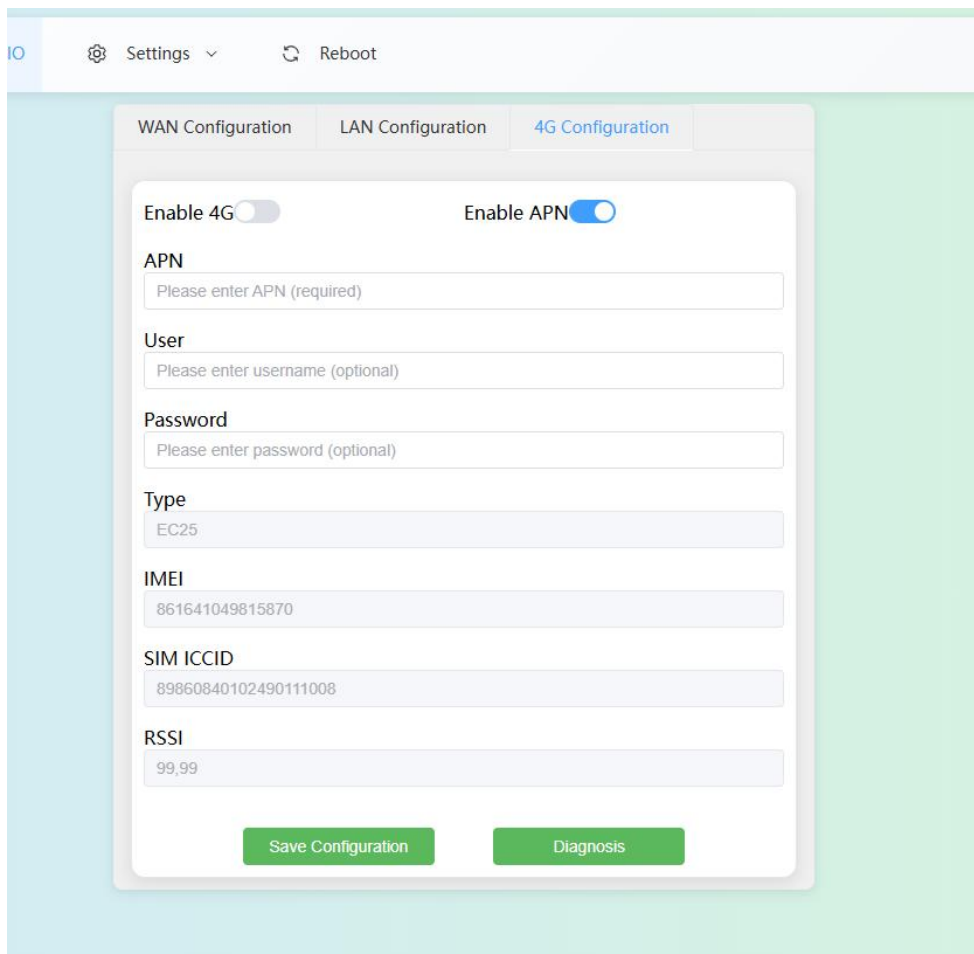
Note: It is recommended to use the WAN port when downloading Node-RED nodes. Here, taking EC200N as an example, after enabling 4G, click Save Configuration and then reboot for it to take effect. If the WAN port has no internet, the system will automatically switch to 4G.



The screenshot shows the '4G Configuration' tab in a web interface. At the top, there are three tabs: 'WAN Configuration', 'LAN Configuration', and '4G Configuration'. Below the tabs, there are two toggle switches: 'Enable 4G' and 'Enable APN', both of which are currently turned off. Underneath, there are four input fields: 'Type' with the value 'EC25', 'IMEI' with the value '861641049815870', 'SIM ICCID' with the value '89860840102490111008', and 'RSSI' with the value '99,99'. At the bottom of the form, there are two green buttons: 'Save Configuration' and 'Diagnosis'.

### (2) APN Function

APN specifies the 4G network provider for internet access. After enabling the APN option, enter the APN, username, and password. Save the configuration and click Reboot to activate the APN.



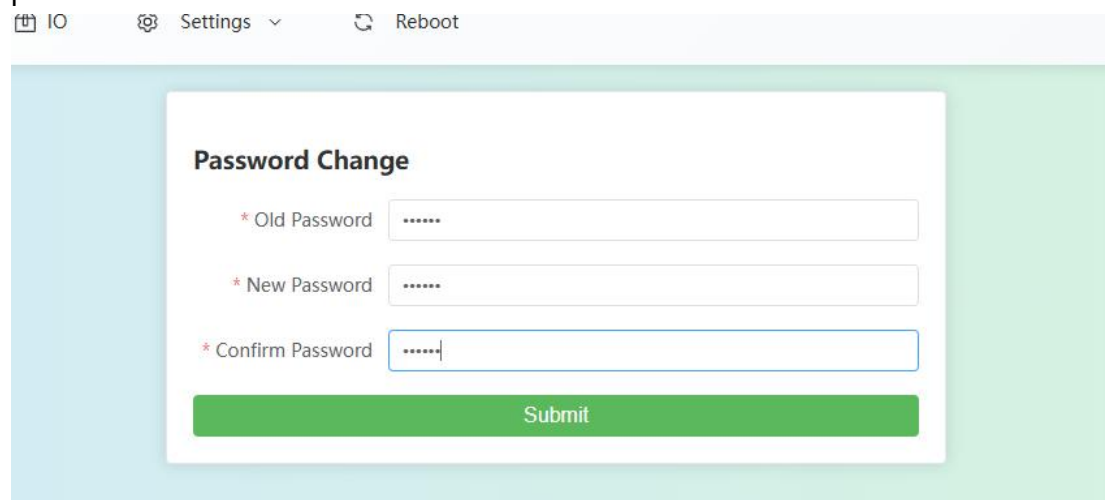
The screenshot shows the '4G Configuration' page in the QuickConfig interface. At the top, there are navigation options: 'IO', 'Settings', and 'Reboot'. Below this, there are three tabs: 'WAN Configuration', 'LAN Configuration', and '4G Configuration'. The '4G Configuration' tab is active. The page contains several fields and controls:

- 'Enable 4G' toggle: Off
- 'Enable APN' toggle: On
- 'APN' field: Please enter APN (required)
- 'User' field: Please enter username (optional)
- 'Password' field: Please enter password (optional)
- 'Type' dropdown: EC25
- 'IMEI' field: 861641049815870
- 'SIM ICCID' field: 89860840102490111008
- 'RSSI' field: 99,99
- 'Save Configuration' button
- 'Diagnosis' button

## 4.6 System Settings

### 4.6.1 Change Password

The default username is root and the password is 123456. You can change the password as needed.



The screenshot shows the 'Password Change' page in the QuickConfig interface. At the top, there are navigation options: 'IO', 'Settings', and 'Reboot'. The page contains the following fields and controls:

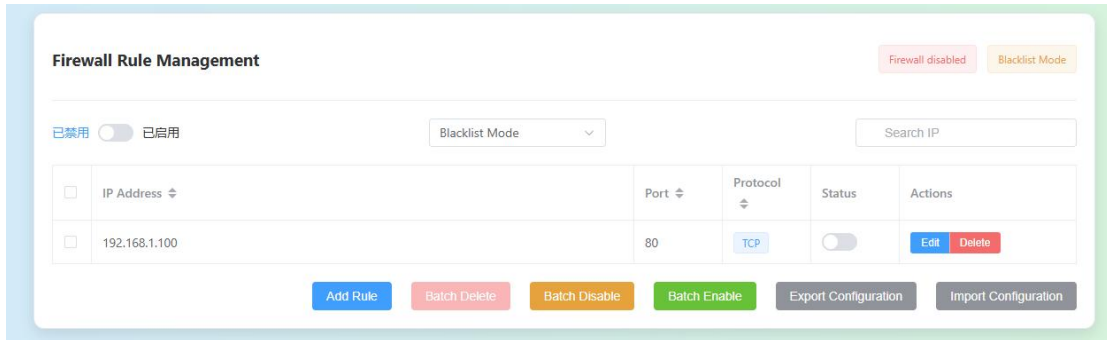
- '\* Old Password' field: masked with dots
- '\* New Password' field: masked with dots
- '\* Confirm Password' field: masked with dots
- 'Submit' button

After changing the password, the system will automatically return to the login page. Wait 5 seconds for the system to update, and then you can log in with the new

password.

## 4.6.2 Firewall

Click Security to enter the firewall management page, where you can configure blacklist or whitelist modes as needed.

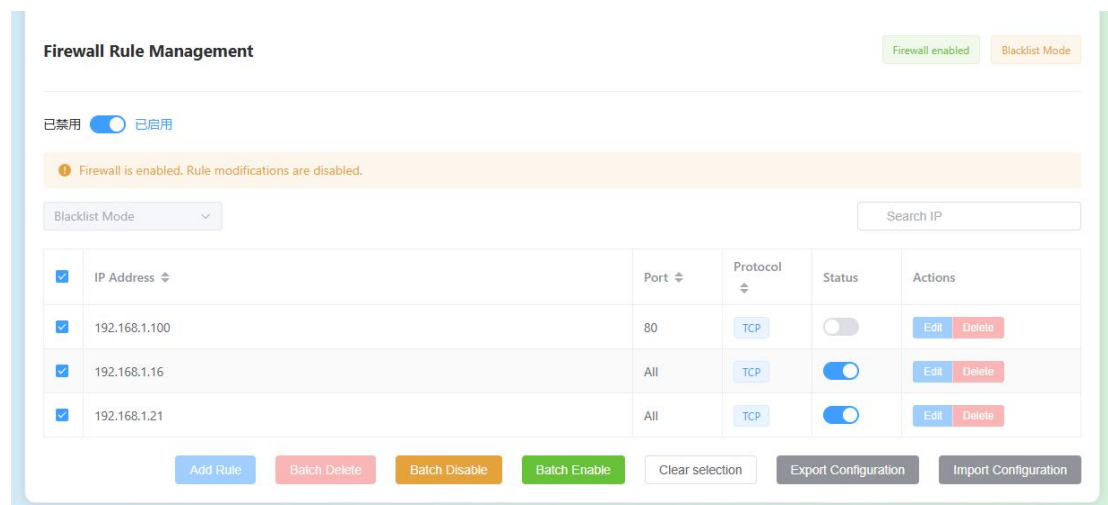
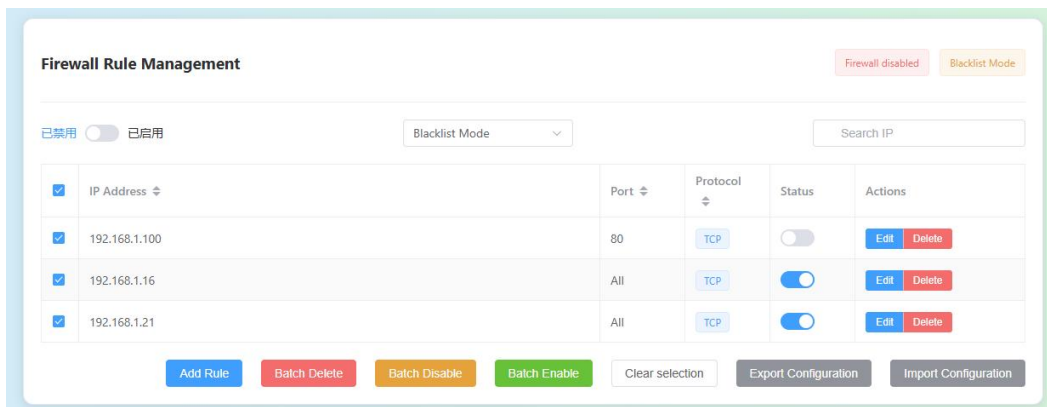


To switch between blacklist and whitelist modes, the firewall must be turned off first.

**Blacklist:** Blocks devices with the specified IP from accessing the system.

**Whitelist:** Only allows devices with the specified IP to access the system.

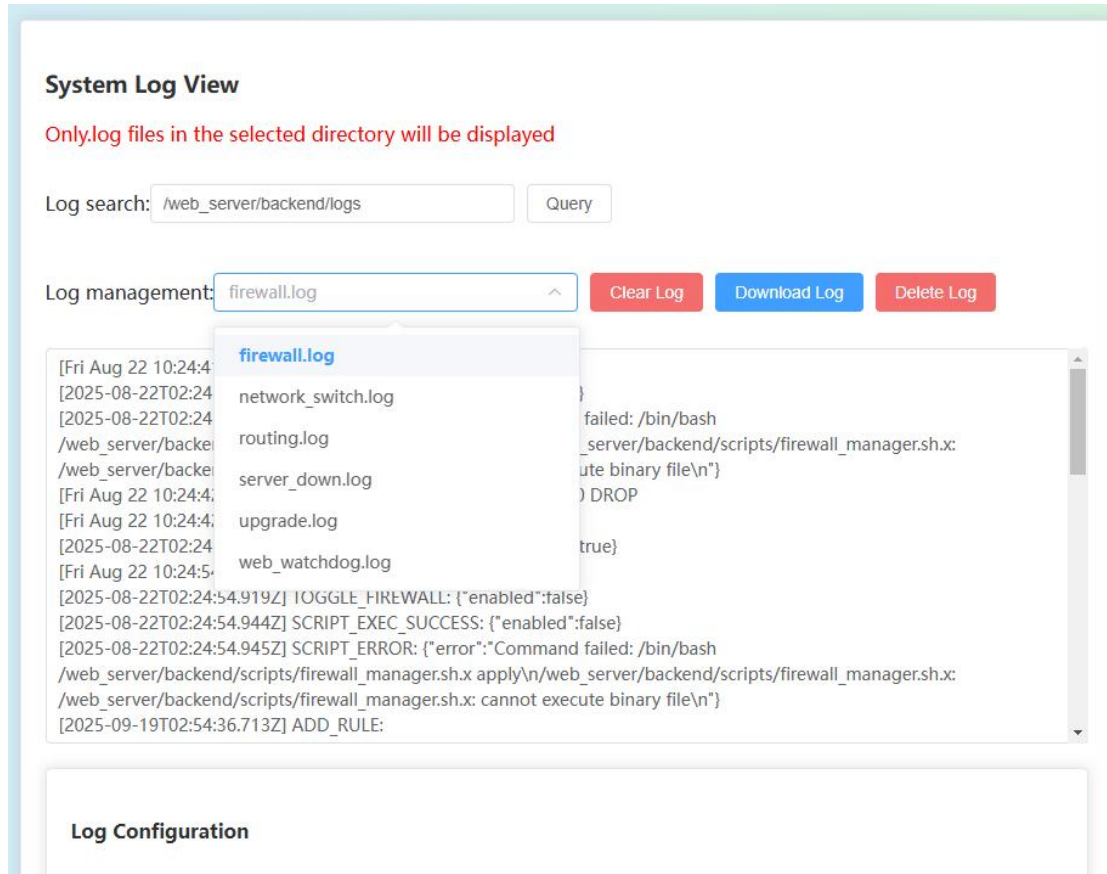
Click Add Rule, enter the IP address, port, and protocol, select Enable, and then toggle the firewall switch to turn on the firewall.



## 4.6.3 System Logs

### (1) View Logs

Click System Logs to navigate to the following page.



You can perform operations such as log search, log switching, clearing logs, downloading, and deleting logs.

### (2) Log Configuration

Further down the page is the log configuration window, where you can set the maximum retention period, storage size, as well as enable compressed storage and specify the number of compressed files. After completing the settings, save the configuration.

### Log Configuration

Maximum Retention Time

Maximum Storage Size

Compress Storage

Compressed Storage Count

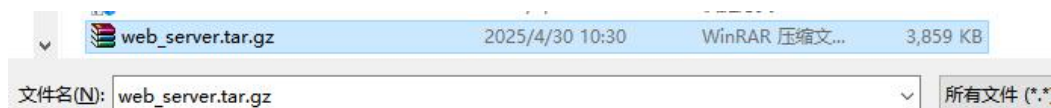
## 4.6.4 System Upgrade

Enter the system upgrade page and click Select Upgrade File.

### System Upgrade

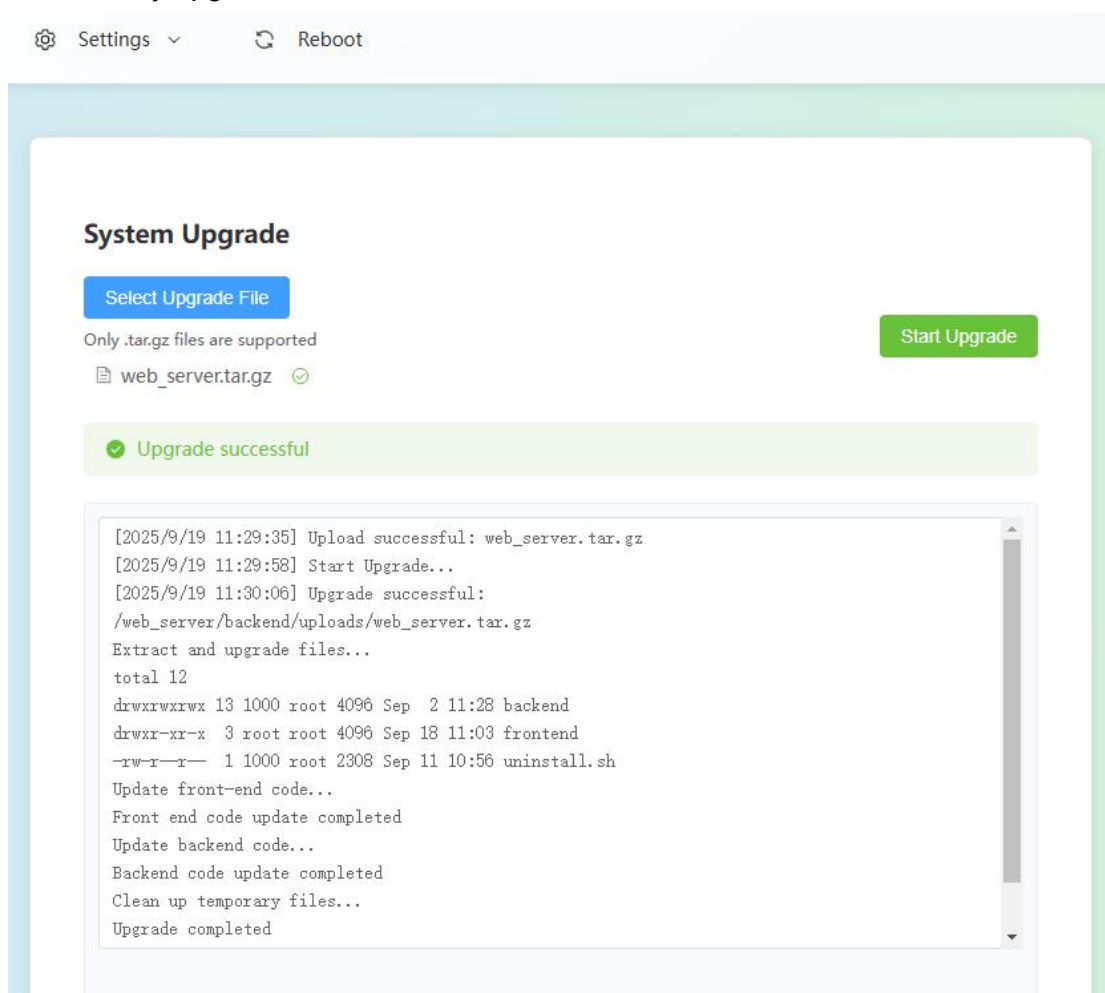
Only .tar.gz files are supported

Locate the upgrade package with the .tar.gz extension and upload it.



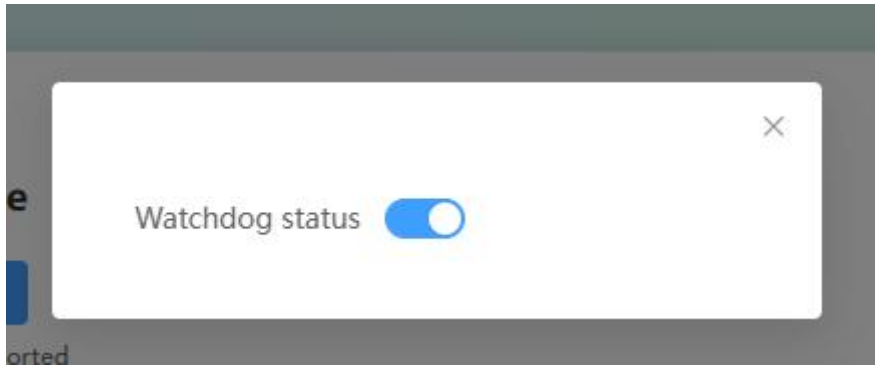


Click Start Upgrade. A prompt will appear indicating that the system has been successfully upgraded, as shown below.



## 4.6.5 Hardware Watchdog

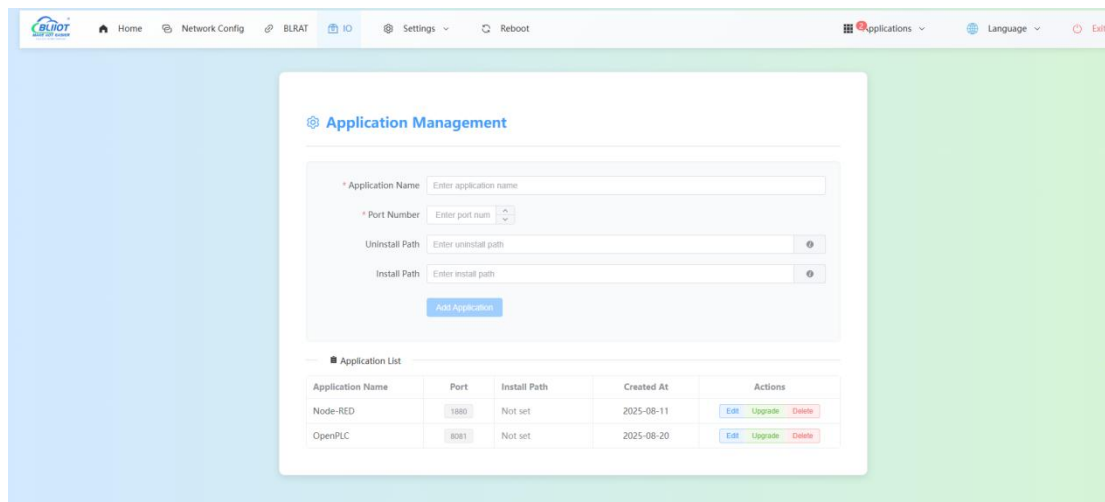
Its main purpose is to prevent system crashes.

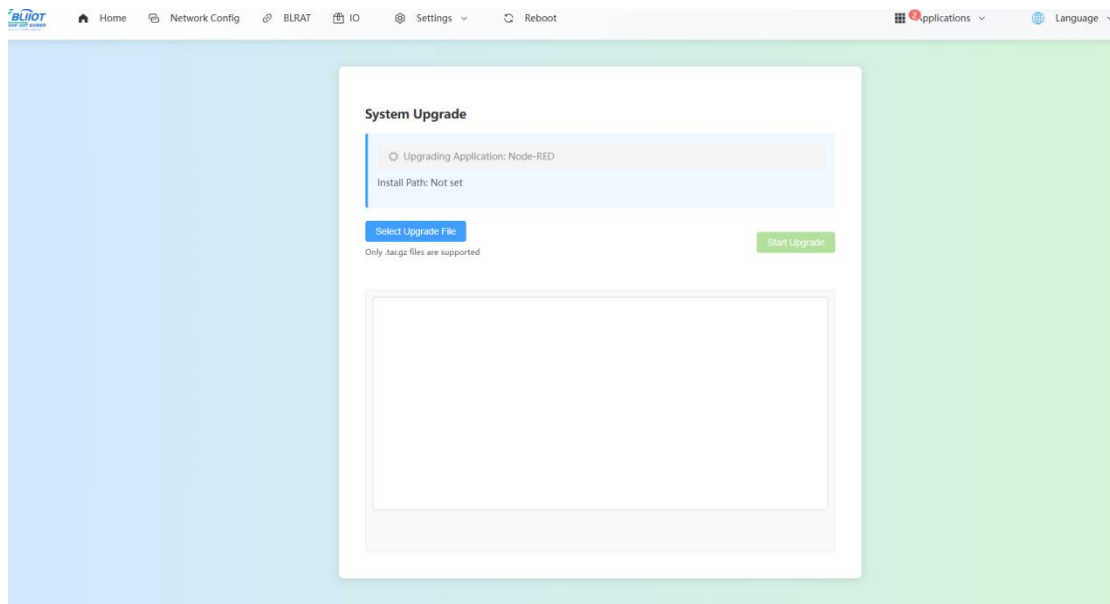


Note: The watchdog is enabled by default at startup.

## 4.7 Application Management

The purpose of the Application Management system is to allow users to manage or delete applications, provide customers with a way to deploy their software, and enable users to upgrade their software using the upgrade methods we provide, as shown below.





## 4.8 I/O Monitoring

Click Y-Board Functions under Settings. The interface will appear as shown below, and Y-board data will be refreshed every 5 seconds.

### Y Board Monitoring

Slot	Name	Channel	Address	Mode	Current Value	Minimum	Maximum
1	Y22	1	1000	*	0	0.0000	0.0000
1	Y22	2	1001	*	0	0.0000	0.0000
1	Y22	3	1002	*	0	0.0000	0.0000
1	Y22	4	1003	*	0	0.0000	0.0000
1	Y22	5	1004	*	0	0.0000	0.0000
1	Y22	6	1005	*	0	0.0000	0.0000
1	Y22	7	1006	*	0	0.0000	0.0000
1	Y22	8	1007	*	0	0.0000	0.0000

At the bottom of the page, instructions for operating the Y-board ports are provided.

## Usage Instructions

### Read Operation (DI Module)

slot	name	channel	address	mode	value	min	max
2	Y12	1	2000	=	0	0.0000	0.0000
2	Y12	2	2001	=	0	0.0000	0.0000
2	Y12	3	2002	=	0	0.0000	0.0000
2	Y12	4	2003	=	0	0.0000	0.0000
2	Y12	5	2004	=	0	0.0000	0.0000
2	Y12	6	2005	=	0	0.0000	0.0000
2	Y12	7	2006	=	0	0.0000	0.0000
2	Y12	8	2007	=	0	0.0000	0.0000

```
View by address: ioy get 2004
address 2004 value 1
```

```
View by <slot>.<channel>: ioy get 2.5
slot 2 channel 5 value 1
```

### Write Operation (AO Module)

slot	name	channel	address	mode	value	min	max
2	Y41	1	4000	#120	4.0000	4.0000	20.0000
2	Y41	2	4001	#120	4.0000	4.0000	20.0000
2	Y41	3	4004	#120	4.0000	4.0000	20.0000
2	Y41	4	4008	#120	4.0000	4.0000	20.0000
2	Y41	5	4004	#120	4.0000	4.0000	20.0000
2	Y41	6	4010	#120	4.0000	4.0000	20.0000
2	Y41	7	4010	#120	4.0000	4.0000	20.0000
2	Y41	8	4018	#120	4.0000	4.0000	20.0000

```
Set by address: ioy set 4000 10 // Set output to 10mA
```

```
Set by <slot>.<channel>: ioy set 2.1 10
```

## 4.9 AI Development Assistant

### (1) Select AI

Click AI Model dropdown to choose from integrated AI models such as DeepSeek (more mainstream large models will be added gradually).



### (2) Enter API Token

In the API Token input field, enter the corresponding API token for the selected AI model (refer to the official documentation from the model provider for obtaining the token).



### (3) Save Configuration

After selecting the model and entering the API Token, click Save Configuration to save the current AI service settings for future use.



#### (4) Enter Request

In the AI Development Assistant area, enter your development requirements, such as coding needs, in the “Enter your request...” input field.



#### (4) Send Request

Click the Send button to submit your request to the AI Development Assistant and receive relevant assistance.

#### (5) Code Editing

In the left file area, you can search for files using the “Search File” input box. After entering a keyword, click Search. If no files are found, No Data will be displayed. You can also select files from the left file tree or directly write new code in the code editor.



## 5 Technical Support

Shenzhen Beilai Technology Co., Ltd.

Website: <http://www.bliiot.com>