



Managed Multi-Service Rack User Manual

Version 01

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Preface

This multi-service rack user manual has introduced:

- View the system status information of the rack
- Configure the remote and local card parameters of the rack
- view the configure system information
- System upgrade and logout.

Readers


This manual mainly suits for engineers as follows:





- Network administrator responsible for network configuration and maintenance
- On-site technical support and maintenance staff
- Hardware engineer

Text Format Convention

Format	Description
“”	Words with “” represent the interface words. e.g.: "The port number".
>	Multi-level paths are separated by ">". Such as opening the local connection path description: Open "Control Panel> Network Connection> Local Area Connection".
Light Blue Font	It represents the words clicked to achieve hyperlink. The font color is as follows: 'Light Blue'.
About this chapter	The section 'about this chapter' provides links to various sections of this chapter, as well as links to the Principles Operations Section of this chapter.

Icon Convention

Format	Description
 Notice	Remind the announcements in the operation, improper operation may result in data loss or equipment damage.

Format	Description
 Warning	Pay attention to the notes on the mark, improper operation may cause personal injury.
 Note	Make a necessary supplementary instruction for operation description.
 Key	Configuration, operation, or tips for device usage.
 Tip	Pay attention to the operation or information to ensure success device configuration or normal working.

Revision Record

Version NO.	Revision Date	Revision Description
01	2020-04-16	First release

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1 Log in the Web Interface

1.1 WEB Browsing System Requirements

While using the managed Industrial rack, the system should meet the following conditions.

Hardware and Software	System Requirements
Resolution	Above 1024x768
Color	256 color or above
Browser	Above Internet Explorer 6.0
Operating System	<ul style="list-style-type: none">• Windows XP• Windows 7• Windows 10

1.2 Set the IP Address of the Computer

The switch default management as follows:

IP Settings	Default Value
IP address	192.168.1.254
Subnet mask	255.255.255.0

When configuring the rack management card via the Web:

- Before making remote configuration, make sure that the route between the computer and the rack is reachable.
- Before making a local configuration, make sure that the IP address of the computer and the rack management card are on the same subnet.

Note:

While configuring the device for the first time, if it's the local configuration mode, first confirm the network segment of current PC is 1.

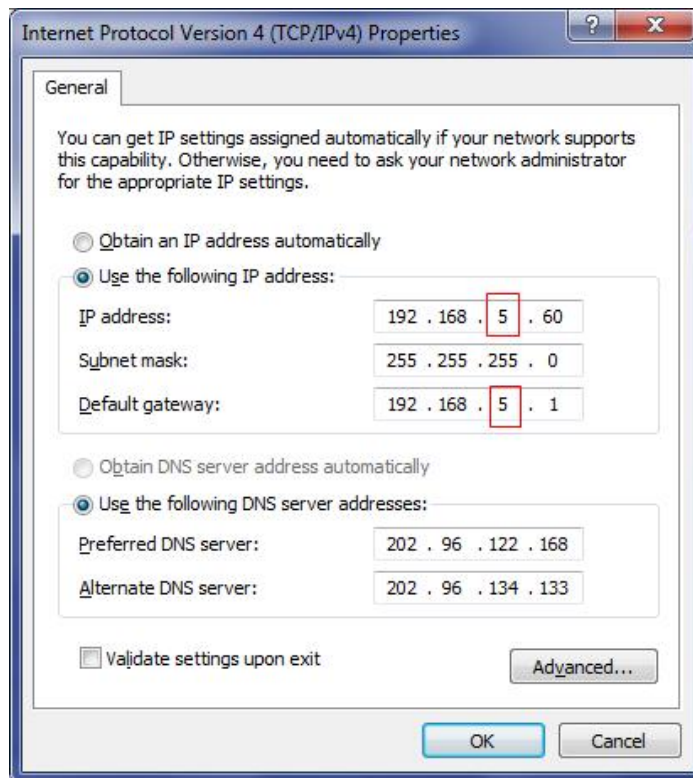
Eg: Assume that the IP address of the current PC is 192.168.5.60, change the network segment "5" of the IP address to "1".

Operation Steps

Amendment steps as follows:

Step 1 Open "Control Panel> Network Connection> Local Area Connection> Properties> Internet Protocol Version 4 (TCP / IPv4)> Properties".

Step 2 Change the selected "5" in red frame of the picture below to "1".



Step 3 Click "OK", IP address is modified successfully.

Step 4 End.

1.3 Log in the Web Configuration Interface

Operation Steps

Login in the web configuration interface as follow:

Step 1 Run the computer browser.

Step 2 On the address bar of browser, enter in the switch address "http://192.168.1.254".

Step 3 Click the "Enter" key.

Step 4 Pop up a window as the figure below, enter the user name and password on the login window.



Note:

- The default username and password are "admin12345"; please strictly distinguish capital and small letter while entering.
- Default user account has the administrator privileges.
- Webserver will provide 3 times opportunities to enter username and password. If user enters the error information for 3 times, the browser will display "Access denied" to reject access message. Refresh the page and try again.

Step 5 Click "OK"

Step 6 End.

After login in successfully, user can configure relative parameters and information according to demands.

Note:


After login in the device, modify the switch IP address for usage convenience.

2 Panel Monitoring

Function Description

On the “Panel Monitoring” page, user can check the simulation diagram of the physical panel of the rack directly. User can check the port type and slot of the sub-card, the connection status of the sub-card port, and the status of the power indicator via the panel monitoring. At the same time, the system information, port information and optical port traffic monitoring of the local card and the corresponding local card can be viewed.

Operation Path

Under any menu bar or page, user can enter the “Panel Monitoring” interface by clicking the icon “” on the right side of the WEB interface.

Interface Description

The Control Panel interface is as below:



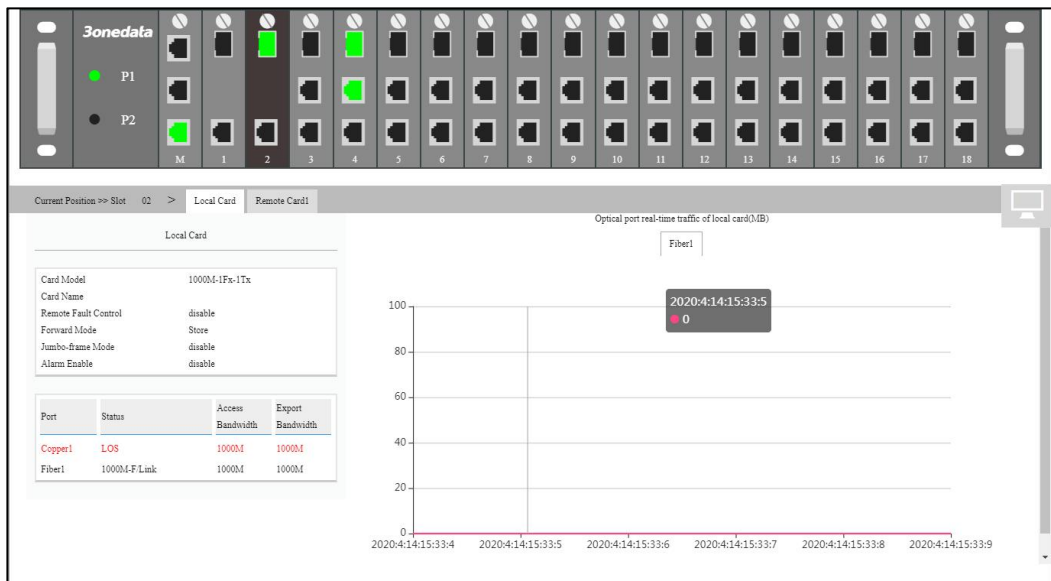
Main elements configuration descriptions of Control Panel interface:

Interface Element	Description
P1-P2	P1 and P2 are the connection status indicators for power supply 1 and power supply 2. When the power is normally connected, the indicator light will turn green if it is always on. Conversely, the off indicator indicates that the power is not connected or abnormal.
M	M represents the slot of the rack management card. After the

Interface Element	Description
	port of the management card is connected normally, the corresponding port will always be bright and green.
1-18	1-18 represents the slot of the rack daughter card. When the managed daughter card is inserted into the rack, the corresponding slot will display the daughter card panel, otherwise the blank panel will be displayed. After the port of the daughter card is connected normally, the corresponding port will always be bright and green.

Click the connected daughter card panel to view the daughter card name, mode, port information, real-time monitoring of sending flow of optical port, remote card and other relevant information, as shown in the figure below. The daughter card information will be described in detail in the “rack configuration” section below.

Local card monitoring:



Remote card monitoring:

Current position >> Slot 02 > Local Card Remote Card1

Remote Card

Card Type 1000M-1Fx-2Tx
 Card Name Store
 Forward Mode disable
 Onekey VLAN disable
 Jumbo-frame Mode disable
 Alarm Enable disable

Port	Status	Access Bandwidth	Export Bandwidth
Copper1	LOS	1000M	1000M
Copper2	1000M-F.Link	1000M	1000M
Fiber1	1000M-F.Link	1000M	1000M

Diagram Of Remote Card

3 System Information

Function Description

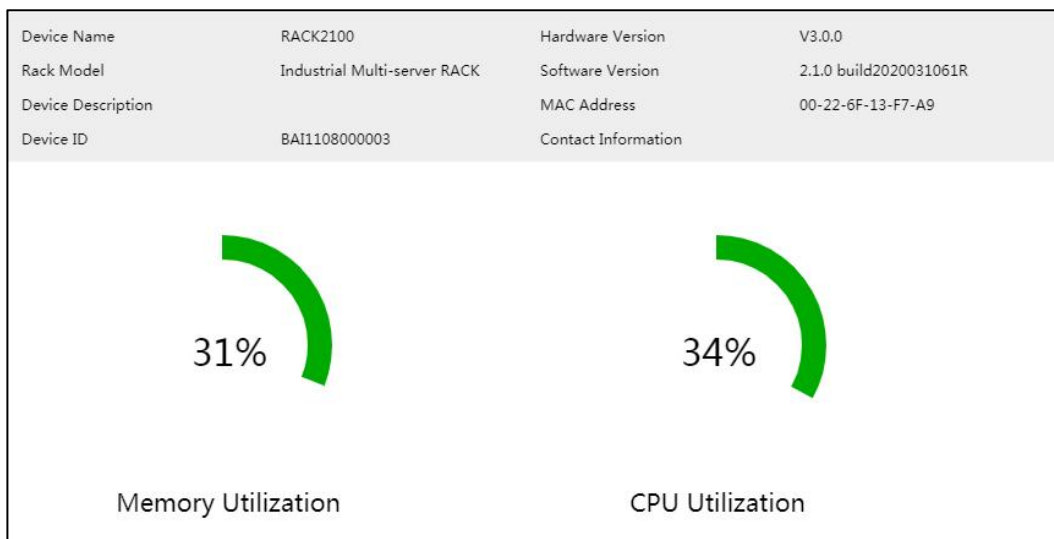
Enter the WEB interface to view system information.

Operation Path

Click "System information"

Interface Description

System information interface screenshot is as follow:



The main element configuration description of system information interface:

Interface Element	Description
Device Name	Display the device name.
Rack Model	Display the device model.
Device Description	Display characters description of the device.
Device ID	SN code, product serial number.
Hardware Ver	Current hardware version information.

Interface Element	Description
Firmware Ver	Current software version information.
MAC Address	Hardware address of device factory configuration.
Contact Information.	Display the contact information of the device maintenance personnel.
Memory Utilization	Memory utilization rate of current device.
CPU Utilization	CPU utilization rate of current device.

4 Basic Configuration

4.1 User Information

Enterprises often require that the administrator of monitoring equipment and the administrator of the system or network should be two different roles, and their permissions should be separated, that is, the former is only responsible for the management of monitoring business, the latter is only responsible for the management of the system or network. The switch provides level management:

- Observer: check permissions.
- System administrator: modify and view permissions.

Function Description

On the page of "User Information", user can configure the login name, password and other parameters information of logging in to WEB configuration page.

Operation Path

Open in order: "Basic Configuration > User Information".

Interface Description

The screenshot of user information configuration interface:

User Index	<input type="text" value="1"/>
Access Level	<input type="text" value="Administrator"/>
User Name	<input type="text" value="admin12345"/>
User Password	<input type="password" value="....."/>
Confirm Password	<input type="password" value="....."/>
	<input type="button" value="Setting"/> <input type="button" value="Cancel"/>

The main element configuration description of user information interface:

Interface Element	Description
User Index	The index number is corresponding to the access level. <ul style="list-style-type: none"> • 1: administrator • 2: administrator or observer • 3: administrator or observer
Access level	Access level settings, options: <ul style="list-style-type: none"> • Administrator: check and modify permissions. • Observer: check permissions.
User Name	Login name settings for the guest to log in to the WEB configuration interface.
User Password	Login password settings for the guest to log in to the WEB configuration interface. Note: The password should be a combination of letters less than 16 bytes.
Confirm password	Visitor password confirmed.



Notice

Please keep the modified login name and password in mind. If you forget it, you can restore it to factory setting via DIP switch. Default login name and password of logging in to the WEB configuration interface are “admin”.

4.2 IP Address

Function Description

On the page of “IP Address”, user can:

- Configure default IP address of the device;
- Configure netmask;
- Configure gateway address;
- Configure DNS server;

Operation Path

Open in order: "Basic Configuration > IP Address".

Interface Description

IP address interface as follow:

The main elements configuration description of IP address interface:

Interface Element	Description
Obtain IP address automatically	It represents that enabling the system automatic acquisition of the IP address of the device.
Use the following IP address	It represents that manually enabling configured IP address, netmask and gateway address.
IP Address	Configure IP address of the device. Note: Default configured IP address is 192.168.1.254.
Netmask	Configure subnet mask of the device. Note: Default configured subnet mask is 255.255.255.0.
Gateway Address	Configure gateway address of the device. Note Default configured gateway address is 192.168.1.1.
Obtain DNS server address automatically	Configure the acquisition form of DNS server address as automatic acquisition. Note: When IP address is manual configuration, this option becomes gray and is not optional.
Use the following DNS server address	Configure the acquisition form of DNS server address as manual configuration. Note: Default configured DNS server address is 202.96.134.133.
DNS server	Configure DNS server address.
Setting	Save the device address information. Note: Some devices may automatically reboot after configuration, and the configuration will take effect after rebooting.
Cancel	Cancel the modification of device address information.

4.3 Description

Function Description

On the page of "Device Description", user can configure:

- Device model;
- Device name;
- Device description;
- Device number;
- Contact information.

Operation Path

Open in order: "Basic Configuration > Device Description".

Interface Description

The device description interface is as follows:

Device Model	<input type="text" value="Industrial Multi-server RACK"/>
Device Name	<input type="text" value="RACK2100"/>
Device Description	<input type="text"/>
Device ID	<input type="text" value="BAI1108000003"/>
Contact Information	<input type="text"/>
<input type="button" value="Setting"/> <input type="button" value="Cancel"/>	

The main element configuration description of device description interface:

Interface Element	Description
Device Model	Configure the device model.
Device Name	Configure the device name to identify each device in the network.
Device Description	Configure the summary description of the device.
Device ID	Configure the device number. Note: <ul style="list-style-type: none"> • The number can be used for describing the installation position of the device; • The number length shouldn't be more than 30 bytes.
Contact Information	Configure the contact information of the maintenance personnel of the device.

	<p>Note:</p> <ul style="list-style-type: none">• Support the entering of Chinese characters, English letters, number, characters like “-”, “_”, “@”, “;”, “.”;• The entering of blank space is not supported.
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5 Advanced Configuration

5.1 Time Management

Function Description

On the page of "Time Management", user can check current PC time or system operation time, and select relative time zone.

Operation Path

Open in order: "Advanced Config > Time Management".

Interface Description

The screenshot of time management interface:

The screenshot shows a configuration window for time management. It includes the following elements:

- Time Setting:** Radio buttons for 'Enable' and 'Disable', with 'Disable' selected.
- World Time Zones:** A dropdown menu showing '(GMT+08:00) China, Hong Kong, Australia V'.
- NTP Server:** A text input field containing 'time-a.nist.gov' and an 'Optional' label.
- System Time:** Displays 'Mon, 13 Apr 2020 10:22:25 GMT'.
- PC Time:** Displays 'Mon, 13 Apr 2020 10:22:51 GMT' and an 'Update Time To Device' button.
- Buttons:** 'Setting' and 'Cancel' buttons at the bottom.

The main element configuration description of time management interface:

Interface Element	Description
Time Setting	Enable or disable time configuration.
World Time Zones	Selection of standard time zone for countries in the world.
NTP Server	Host name or IP address that provides NTP timing and time service for user.

Interface Element	Description
System Time	The device time can be manually or automatically updated using NTP.
PC Time	PC time of the guest, the time display isn't relative to the switch.



Note

- NTP server can be empty, the device adopts self-contained server updating and must ensure the correct configuration of DNS and gateway;
- NTP server can't be empty, it must be valid host name or legal IP address;
- Only the "administrator" has the privilege to manually configure the device time.
- Time zone must be configured, whether using "local time" or "NTP time ";
- The time configuration of the NTP server or the visitor's PC can cause the display to be abnormal. Users can change the "time display" format to adjust the display.

5.2 Alarm Management

5.2.1 Alarm Settings

Function Description

On the page of "Alarm Warning", user can configure power supply alarm and card slot alarm; when the equipment runs abnormally, it can promptly notify the administrator, and quickly repair the equipment to avoid excessive loss.

Operation Path

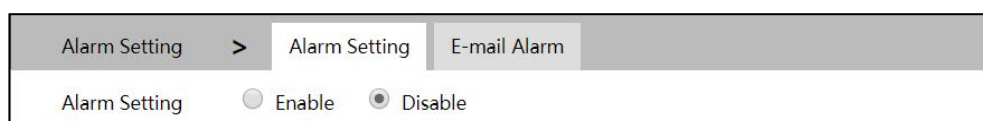
Open in order: "Advanced Config > Alarm Management".

Interface Description

Alarm settings interface is displayed in three columns:

- The general control bar of alarm settings
- "Power Supply Alarm Setting"
- "Card Slot Alarm Settings"

The general control bar interface of alarm settings is as follows:



Main elements configuration description of alarm warning general control bar interface:

Interface Element	Description
Alarm setting	<p>Settings alarm. Options:</p> <ul style="list-style-type: none"> • Enable: enable the alarm function of the device. When enabled, power alarm and slot alarm can be configured respectively. • Disable: disable the alarm function of the device. When disabled, both power alarm and slot alarm will be gray and cannot be enabled.

“Power Supply Alarm Setting” is as follows:

Power Alarm Setting							
Power Number	Alarm Setting		Power Status	Power Number	Alarm Setting		Power Status
1	<input type="radio"/> Enable	<input checked="" type="radio"/> Disable	Normal	2	<input type="radio"/> Enable	<input checked="" type="radio"/> Disable	Unusual

Main elements configuration description of Power Supply Alarm Setting interface:

Interface Element	Description
Power Number	<p>The in use power supply that the device is currently connected to.</p> <ul style="list-style-type: none"> • 1: the first power supply input; • 2: the second power supply input; <p>Note: This device is designed for dual power supply.</p>
Alarm Setting	<p>Configure the alarm functions of the power supply. Options:</p> <ul style="list-style-type: none"> • Enable: enable power alarm When the power supply state is abnormal, the device will output alarm signal, indicating that the power supply is abnormal. • Disable: disable power alarm. <p>Note: If this item turns gray and is not available, select "enable" in the first alarm setting of this page to enable the alarm function of the device.</p>
Power Status	<p>Display current state of power supply:</p> <ul style="list-style-type: none"> • Fault: Power supply is disconnected or running abnormally • Normal: power supply is normally connected.

"Card slot alarm setting" is shown in the following figure:

Slot Alarm Setting					
Number	Alarm Setting	Card Slot Status	Number	Alarm Setting	Card Slot Status
1	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card	2	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card
3	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card	4	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card
5	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card	6	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card
7	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	Card	8	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	Card
9	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card	10	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card
11	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card	12	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card
13	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card	14	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card
15	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	Card	16	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	Card
17	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card	18	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card

Setting Cancel

Main elements configuration description of card slot alarm warning interface:

Interface Element	Description
Number	The slot number of the local card.
Alarm Settings	<p>Configure the port alarm function. Options:</p> <ul style="list-style-type: none"> • Enable: enable the alarm function of the card slot. • Disable: disable the alarm function of the card slot. <p>Notes</p> <p>After the port alarm is enabled, the device will send an alarm signal when the status of the card slot changes, such as connection or disconnection.</p>
Card Slot Status	<p>Display port connection status of the device:</p> <ul style="list-style-type: none"> • Disconnected: no power supply access. • Connected: power supply is normally connected.

Instance Alarm Settings

For example: Enable alarm configuration of the device, and set power 1 as the power alarm port, and enable the card slot alarm port of the Card Slot 1.

Operation steps are as follows:

Step 1 Log into Web configuration interface.

Step 2 Select "Advanced Config > Alarm Management".

Step 3 On the displayed page of "Relay Warning":

1. Select "enable" on the column of "Alarm Setting";
2. On the "power alarm settings" TAB, select enable in the "alarm settings" of power number "1".
3. On the card "Slot Alarm Settings" tab, select "enable" from "Alarm Settings" on card number "1".

Step 4 Click "Apply".

Alarm Setting > Alarm Setting E-mail Alarm

Alarm Setting Enable Disable

Power Alarm Setting

Power Number	Alarm Setting	Power Status	Power Number	Alarm Setting	Power Status
1	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	Normal	2	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Unusual

Slot Alarm Setting

Number	Alarm Setting	Card Slot Status	Number	Alarm Setting	Card Slot Status
1	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	Card	2	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card
3	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card	4	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card
5	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card	6	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card
7	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card	8	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card
9	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card	10	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card
11	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card	12	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card
13	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card	14	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card
15	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card	16	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card
17	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card	18	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Card

Step 5 End.

5.2.2 Mail Alarm

Function Description

On the page of "E-mail Warning", user can enable and configure remote alarm.

Operation Path

Open in order: "Advanced Config > Alarm Management".

Interface Description

The interface screenshot of E-mail alarm configuration:

Main elements configuration description of E-mail alarm configuration interface:

Interface Element	Description
Remote Alarm	Enable/disable E-mail alarm.
Mail Server	Set the host IP address or used host name that provides E-mail delivery service for the device. Note: The email server address should be based on the used email account.
Receiver Address	E-mail address used by abnormal event receiver.
Sender Address	The email address used to issue the alarm, that is the account name used to log in to the mail server.
Sender's E-mail Code	The password of the alarm mailbox is the password corresponding to the sender's mailbox.
Mail Interval	Interval time of sending E-mail. Options: <ul style="list-style-type: none"> • At any time: send an email immediately after the alarm. • 1hour: send an alarm every 1hour. • 2hour: send an alarm every 2hour. • 4hour: send an alarm every 4hour. • 12hour: send an alarm every 12hour. • 24hour: send an alarm every 24hour.
Mail Testing Of Sending System	Test whether the warning message can be successfully sent and received.



Notice

The gateway of the device must be consistent with the gateway in the LAN to ensure the

normal networking of the device.

5.3 SNMP Management

Function Description

On the page of "SNMP Management", user can:

- Enable or disable SNMP configuration functions;
- Configure SNMP V1/V2 read-only community name;
- Configure SNMP V1/V2 read/write community name;
- Set destination IP address of Trap

Operation Path

Open in order: "Advanced Config > SNMP Management".

Interface Description

Interface screenshot of SNMP configuration as follows:

Main elements configuration description of SNMP configuration interface:

Interface Element	Description
SNMP	SNMP configuration function, options as follows: <ul style="list-style-type: none"> • Enable • Disable
Read-only Community Name	Configure the read-only SNMP community name with the only operation permission of Get.
Read And Write Community Name	Configure the Read/Write SNMP community name with the operation permission of Get and Set.
Trap Destination IP Address	Configure the network IP address that receives the Agent's abnormal alert message.

**Note**

Please pay attention to the permission problem of read and write in the SNMP browser, user can check the permission of used "community name" if the permission of "write" is invalid.

Instance SNMP Configuration

For example: Enable SNMP configuration and configure the "Read-only community name" as "public", "Read-write community name" as "private", "Trap destination IP address" " as "192.168.1.1".

Operation steps are as follows:

- Step 1** Log into Web configuration interface.
- Step 2** Select "Advanced Config > SNMP Management".
- Step 3** On the displayed "SNMP management" page:
 - 1. Select "enable" on the column of "SNMP Configuration";
 - 2. Select "Read-only community name" as "public";
 - 3. Select "Read/Write community name" as "private";
 - 4. Enter Trap destination IP address as "192.168.1.1";
- Step 4** Click "Apply".
- Step 5** End.

6 Rack Configuration

6.1 Card Slot

Function Description

On the "rack configuration" page, users can view and configure the relevant parameters of the local card and the connected remote card from slot 1 to slot 18, such as device name, transmission mode, jumbo frame mode, alarm configuration, one-key VLAN, remote link alarm, rate, ingress and egress bandwidth, etc.

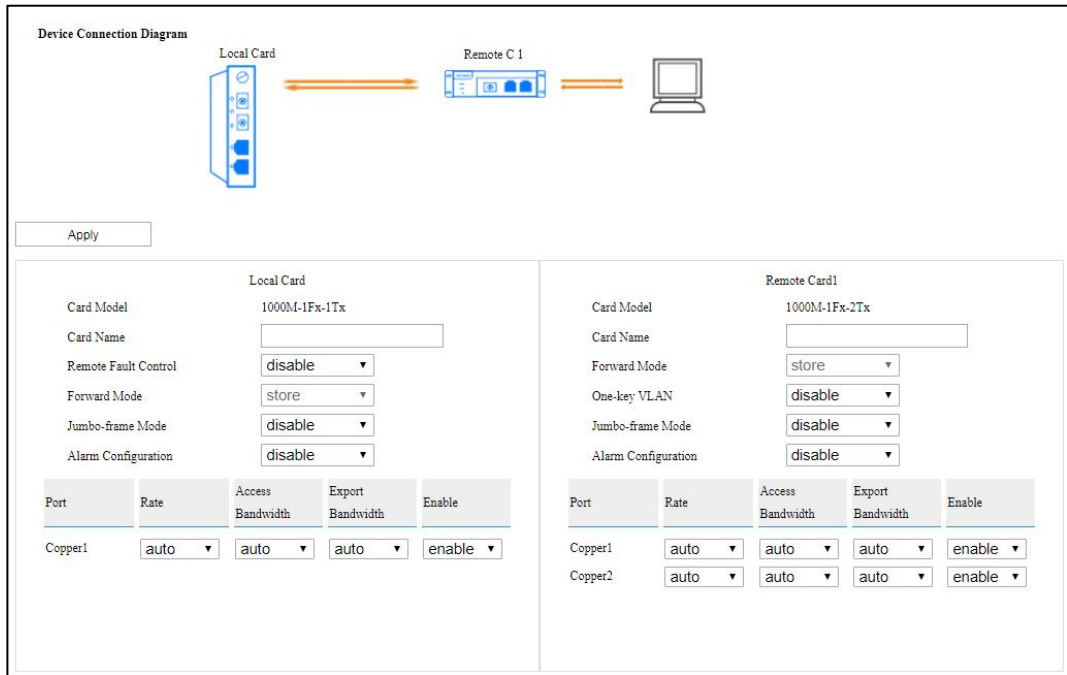
Operation Path

Click in order: "Rack Configuration > Card Slot".

The device can simultaneously manage multiple daughter cards and remote devices, and different daughter card and remote devices have different configuration interfaces. Such as 1 fiber port and 1 copper port generally support LFP alarm configuration, 1 fiber port and 2 copper ports generally support one-key VLAN configuration. The configured functions supported by the local daughter card and remote device is based on the actual WEB interface display. The interface of 1 fiber port 2 copper ports Gigabit local card and 1 fiber port 2 copper port 100M local card are illustrated here.

Interface description: 1 fiber port 2 copper ports Gigabit local card

Card Slot interface screenshot is as follows:



Main elements configuration descriptions of card slot interface:

Interface Element	Description
Device connection diagram	Device connection diagram is the current network environment topology of the device. The device connected to the copper port of local card will be displayed as a local client, and the device connected to the fiber port of local card will be displayed as a remote card. If the copper port of the remote card is connected, it will also be displayed as a terminal in the figure.
Cards of the same type	Check the check box of daughter card to enable the daughter card with the same specification type to configure the same parameters and achieve batch configuration operation. Note: This option will pop up and display the card slot for the same daughter card only if the daughter card has the same type.
Local card/remote card	Local card/remote card configuration area Note: <ul style="list-style-type: none"> Different types of local cards and remote cards have the same function and the configuration, except for the supported function, which is based on the WEB interface of the actual child card. According to the number of fiber ports in the local card configuration area, the remote cards are divided into the remote card 1 and the remote card 2, which correspond to the fiber ports of local card.

Interface Element	Description
Card model	daughter card model, display rate, interface type and interface number, by default can not be modified.
Card name	The name of the daughter card that supports input up to 16 bits of letters and numbers.
Forward mode	<p>The receiving and forwarding methods of data frames, options are as follows:</p> <ul style="list-style-type: none"> • Store: after the data frame is received, it is first stored, then checked for errors, and finally forwarded. • Converter: once the data frame received, forward it directly. Faster forwarding speed compared with "store".
Jumbo frame mode	<p>The drop-down list of Jumbo frame mode, options as follows:</p> <ul style="list-style-type: none"> • Enable: enable jumbo frame mode, and the device will support jumbo frame packet forwarding; • Disable: disable the jumbo frame mode.
Remote fault control	<p>The drop-down list of remote fault control, options as follows:</p> <ul style="list-style-type: none"> • Enable: enable LFP alarm. When one port of the daughter card fails, it will forcibly disconnect the other port to notify the opposite device. • Disable: disable LFP alarm
One-key VLAN	<p>The drop-down list of one-key VLAN, options as follows:</p> <ul style="list-style-type: none"> • enable: enable one-key VLAN function, the fiber port and the copper port can communicate with each other, the copper ports can not go through due to VLAN isolation; • Disable: disable one-key VLAN function.
Alarm Configuration	<p>The drop-down list of Alarm Configuration, options as follows:</p> <ul style="list-style-type: none"> • Enable: enable the alarm configuration function. If the ports of the daughter card are disconnected, the port alarm will be sent through mail and SNMP Trap. • disable: disable the alarm configuration function.
Port	Displays all the copper ports of the daughter card.
Speed	<p>Data transmission rate and transmission mode:</p> <ul style="list-style-type: none"> • Auto: the transmission rate and duplex mode are self-negotiation mode. • 10M-H: transmission rate is 10M, transmission mode is half duplex. • 10M-F: transmission rate is 10M, transmission mode is full duplex. • 100M-H: transmission rate is 100M, transmission mode is

Interface Element	Description
	half duplex. <ul style="list-style-type: none"> 100M-F: transmission rate is 100M, transmission mode is full duplex. 1000M-F: transmission rate is 1000M, transmission mode is full duplex.
Ingress bandwidth	The rate of receiving data frames, options are: <ul style="list-style-type: none"> Auto/10M/20M/50M/100M/200M/300M/500M/800M/1000 M
Rate	The rate of sending data, options are: <ul style="list-style-type: none"> Auto/10M/20M/50M/100M/200M/300M/500M/800M/1000 M
Enable	Port enable drop-down list, options are as follows: <ul style="list-style-type: none"> enable: enable port; disable: disable the port; After the port is closed, the port cannot forward the number.

Interface description: 1 fiber port 2 copper ports 100M local card

Card Slot interface screenshot is as follows:

The screenshot displays the 'Device Connection Diagram' at the top, showing a 'Local Card' connected to a 'Remote C 1'. Below this, there are two configuration panels: 'Local Card' and 'Remote Card1'. Each panel includes fields for 'Card Model' (1000M-1Fx-2Tx), 'Card Name', 'Forward Mode' (store), 'One-key VLAN' (disable), 'Jumbo-frame Mode' (disable), and 'Alarm Configuration' (disable). At the bottom of each panel is a table for port configuration:

Port	Rate	Access Bandwidth	Export Bandwidth	Enable
Copper1	auto	auto	auto	enable
Copper2	auto	auto	auto	enable

Main elements configuration descriptions of card slot interface:

Interface Element	Description
Device connection	Device connection diagram is the current network

Interface Element	Description
diagram	environment topology of the device. The device connected to the copper port of local card will be displayed as a local client, and the device connected to the fiber port of local card will be displayed as a remote card. If the copper port of the remote card is connected, it will also be displayed as a terminal in the figure.
Cards of the same type	Check the check box of daughter card to enable the daughter card with the same specification type to configure the same parameters and achieve batch configuration operation. Note: This option will pop up and display the card slot for the same daughter card only if the daughter card has the same type.
Local card/remote card	Local card/remote card configuration area Note: <ul style="list-style-type: none"> • Different types of local cards and remote cards have the same function and the configuration, except for the supported function, which is based on the WEB interface of the actual child card. • According to the number of fiber ports in the local card configuration area, the remote cards are divided into the remote card 1 and the remote card 2, which correspond to the fiber ports of local card.
Card model	daughter card model, display rate, interface type and interface number, by default can not be modified.
Card name	The name of the daughter card that supports input up to 16 bits of letters and numbers.
Remote fault control	The drop-down list of remote fault control, options as follows: <ul style="list-style-type: none"> • Enable: enable LFP alarm. When one port of the daughter card fails, it will forcibly disconnect the other port to notify the opposite device. • Disable: disable LFP alarm
One-key VLAN	The drop-down list of one-key VLAN, options as follows: <ul style="list-style-type: none"> • enable: enable one-key VLAN function, the fiber port and the copper port can communicate with each other, the copper ports can not go through due to VLAN isolation; • Disable: disable one-key VLAN function.
Alarm Configuration	The drop-down list of Alarm Configuration, options as follows: <ul style="list-style-type: none"> • Enable: enable the alarm configuration function. If the ports of the daughter card are disconnected, the port

Interface Element	Description
	alarm will be sent through mail and SNMP Trap. <ul style="list-style-type: none"> • disable: disable the alarm configuration function.
Port	Displays all the copper ports of the daughter card.
Speed	Data transmission rate and transmission mode: <ul style="list-style-type: none"> • Auto: the transmission rate and duplex mode are self-negotiation mode. • 10M-H: transmission rate is 10M, transmission mode is half duplex. • 10M-F: transmission rate is 10M, transmission mode is full duplex. • 100M-H: transmission rate is 100M, transmission mode is half duplex. • 100M-F: transmission rate is 100M, transmission mode is full duplex.
Ingress bandwidth	The rate of receiving data frames, options are: <ul style="list-style-type: none"> • Auto/1M/2M/3M/5M/10M/20M/30M/50M/100M
Rate	The rate of sending data, options are: <ul style="list-style-type: none"> • Auto/1M/2M/3M/5M/10M/20M/30M/50M/100M
Enable	Port enable drop-down list, options are as follows: <ul style="list-style-type: none"> • enable: enable port; • disable: disable the port; After the port is closed, the port cannot forward the number.

7 System Maintenance

7.1 Log Manage

Function Description

On the page of “Log Management”, user can enable “log record” to check the status information of the device.

Operation Path

Open in order: "System Maintenance > Log Management".

Interface Description

The screenshot of log management interface:

Index	Type	Time	Event
001	Boot Information	Tue, 14 Apr 2020 05:51:46 GMT	SRAM test passed
002	Boot Information	Tue, 14 Apr 2020 05:51:46 GMT	RTC test passed
003	Operation Information	Tue, 14 Apr 2020 05:51:46 GMT	System cold start
004	Boot Information	Tue, 14 Apr 2020 01:31:39 GMT	SRAM test passed
005	Boot Information	Tue, 14 Apr 2020 01:31:39 GMT	RTC test passed
006	Operation Information	Tue, 14 Apr 2020 01:31:39 GMT	System cold start
007	Boot Information	Mon, 13 Apr 2020 10:01:21 GMT	SRAM test passed
008	Boot Information	Mon, 13 Apr 2020 10:01:21 GMT	RTC test passed
009	Operation Information	Mon, 13 Apr 2020 10:01:21 GMT	System cold start
010	Operation Information	Mon, 13 Apr 2020 10:00:20 GMT	System cold start
011	Boot Information	Tue, 17 Mar 2020 02:48:55 GMT	SRAM test passed
012	Boot Information	Tue, 17 Mar 2020 02:48:55 GMT	RTC test passed
013	Operation Information	Tue, 17 Mar 2020 02:48:55 GMT	System cold start
014	Boot Information	Mon, 16 Mar 2020 02:17:17 GMT	SRAM test passed
015	Boot Information	Mon, 16 Mar 2020 02:17:17 GMT	RTC test passed
016	Operation Information	Mon, 16 Mar 2020 02:17:17 GMT	System cold start

Main elements configuration description of log information interface:

Interface Element	Description
Log record	Enable or disable log record.
Display Type	User can check the information of device booting, connection and operation.

7.2 Backup and Recovery

Function Description

On the "Backup and Recovery" page, user can:

- Restore factory defaults
- Upload and download configuration files

Operation Path

Open in order: "System Maintenance > Backup and Recovery".

Interface Description

The screenshot of backup and recovery interface:

The screenshot shows a web interface with three distinct sections. The top section, titled "Upload Configuration File", contains a file selection button labeled "Choose File" with the text "No file chosen" next to it, and an "Upload" button below. The middle section, titled "Download Configuration File", contains a single "Download" button. The bottom section, titled "Restore", contains a single "Restore" button.

The main elements configuration description of backup and recovery interface:

Interface Element	Description
Upload Configuration file	Configure the switch via uploading configuration files information.
Download Configuration File	Download the configuration information files of current switch. Tips: Downloaded configuration files can be uploaded to other homogeneous devices, achieving repeated usage after one-time configuration.
Restore	Restore factory defaults of the switch. Note: Restore factory defaults will cause all devices to be in the factory status, default IP address is "192.168.1.254".

**Warning**

In the process of uploading configuration files or upgrading software, please don't click or configure other WEB page of the switch, or reboot the switch; otherwise, it will lead to failure of configuration files uploading or software upgrading, or even cause system breakdown of the switch.

Example: Download Configuration Files

For example: Download configuration files.

Operation steps are as follows:

- Step 1** Log into Web configuration interface.
- Step 2** Select "System Management > Backup and Recovery".
- Step 3** On the region of "Download Configuration File" of displayed page of "Backup and Recovery", click "Download".
- Step 4** Click "Save (S)" on the pop-up dialog box of "File Download".
- Step 5** Select save path on the pop-up dialog box of "Save as".
- Step 6** Click "Apply".
- Step 7** End.

Example: Upload Configuration

For example: Upload configuration files to the device for updating the device configuration.

Operation steps are as follows:

**Note**

Please prepare the configuration files and then conduct uploading operation.

- Step 1** Log into Web configuration interface.
- Step 2** Select "System Management > Backup and Recovery".
- Step 3** On the region of "Upload Configuration File" of displayed page of "Backup and Recovery", click "Select file" after the label of "Upload Configuration File".
- Step 4** Select prepared cfg configuration files on the pop-up "select files to load".
- Step 5** Click "Open".
- Step 6** Click "Upload".
- Step 7** Alarm information is displayed in the pop-up dialog box of "messages from the webpage", click "OK".
- Step 8** The device is rebooted automatically and its configuration is updated.
- Step 9** End.

7.3 Software Update

Function Description

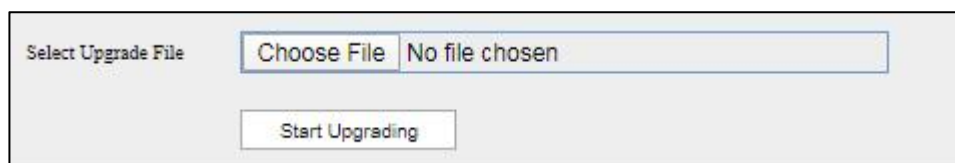
In the "software update" page, the system can be upgraded.

Operation Path

Open in order: "System Maintenance > Update".

Interface Description

The Software Update screenshot:



The screenshot shows a web interface for software updates. It features a label 'Select Upgrade File' followed by a file selection area containing a 'Choose File' button and the text 'No file chosen'. Below this is a 'Start Upgrading' button.

The main elements configuration description of software update interface:

Interface Element	Description
Start Upgrading	Upgrade the device's operating system.



Warning

Do not click on or configure other WEB pages of the device or restart the device when uploading configuration files or upgrading software. Otherwise, the configuration file upload or software update will fail, or the device system will crash.

7.4 Reboot the Device

Function Description

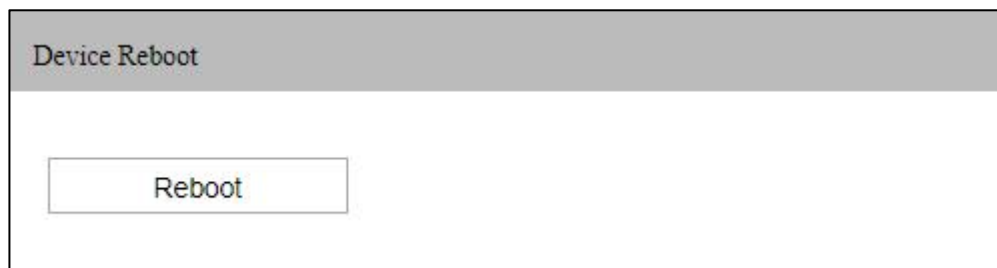
On the page of "Device Reboot", user can restart the device.

Operation Path

Open in order: "System Maintenance > Device Reboot".

Interface Description

The Device Reboot interface is as follows:



The main element configuration description of Device Reboot interface:

Interface Element	Description
Reboot	Reboot the device.