



16-Port Gigabit + 2 SFP L2 Managed PoE Switch

ALL-SG8318PM



User Manual

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Default-IP
192.168.2.1

Username & Password:
admin

Chapter 1 Product Introduction

Congratulations on your purchasing of the Web Smart Ethernet Switch. Before you install and use this product, please read this manual carefully for full exploiting the functions of this product.

1.1 Product Overview

This is a new generation designed for high security and high performance network the second layer switch. Provides twenty-four 10/100/1000Mbps self-adaption RJ45 port, and two 100/1000Mbps SFP optical ports, all ports support wire-speed forwarding, can provide you with larger network flexibility. Support VLAN ACL based on port, easily implement network monitoring, traffic regulation, priority tag and traffic control. Support traditional STP/RSTP/MSTP 2 link protection technology; greatly improve the ability of fault tolerance, redundancy backup to ensure the stable operation of the network. Support ACL control based on the time, easy control the access time accurately. Support 802.1x authentication based on the port and MAC, easily set user access. Perfect QOS strategy and plenty of VLAN function, easy to maintenance and management, meet the networking and access requirements of small and medium-sized enterprises, intelligent village, hotel, office network and campus network.

The 16 ports support POE power supply function, support IEEE802.3at standard, 802.3af downward compatibility, power supply equipment for Ethernet, can automatically detect identification standard of electrical equipment, and through the cable for the power supply.

1.2 Features

- Comply with IEEE 802.3i, IEEE 802.3u, IEEE802.3x, IEEE802.3ab , IEEE802.1q , IEEE802.1p standards.
- Supports IEEE802.3af、IEEE802.3at standards.
- Supports PoE power up to 30W for each PoE port, total power up to 265W for all PoE ports.
- Supports manage the POE port, support POE port power on/off and port output power restriction.
- Support Web interface management.
- 16 x 10/100/1000Mbps Auto MDI/MDI-X Ethernet port, Support ports Auto MDI/MDIX.
- 8K entry MAC address table of the switch with auto-learning and auto-aging.
- Supports IEEE802.3x flow control for Full-duplex Mode and backpressure for Half-duplex Mode.
- Supports QoS (quality of service), port mirror, Link aggregation protocol.
- Support packet length 9216Bytes jumbo frame packet forwarding at wire speed.

- Built-in natural cold 300W power, fanless design.

1.3 External Component Description

1.3.1 Front Panel

The front panel of the Switch consists of 16 x 10/100/1000Mbps RJ-45 ports, 2 x 1000Mbps SFP ports, 1 x Console port, 1 x Reset button and a series of LED indicators as shown as below.



10/100/1000Mbps RJ-45 ports (1~16):

Designed to connect to the device with a bandwidth of 10Mbps, 100Mbps or 1000Mbps. Each has a corresponding 10/100/1000Mbps LED.

SFP ports (SFP1, SFP2):

Designed to install the SFP module and connect to the device with a bandwidth of 1000Mbps. Each has a corresponding 1000Mbps LED.

Console port (Console):

Designed to connect with the serial port of a computer or terminal for monitoring and configuring the Switch.

Reset button (Reset):

Keep the device powered on and press down the button for about 5 seconds. The system restores the factory default settings.

LED indicators:

The LED Indicators will allow you to monitor, diagnose and troubleshoot any potential problem with the Switch, connection or attached devices.



The following chart shows the LED indicators of the Switch along with explanation of each indicator.

LED	COLOR	STATUS	STATUS DESCRIPTION
Power	Red	On	Power On
		Off	Power Off
LINK/ACT /Speed (1~16)	Orange (10/100Mbps)	On	A device is connected to the port
		Off	A device is disconnected to the port
	Green (1000Mbps)	Flashing	Sending or receiving data
LINK/ACT /Speed (SFP1,2)	Green	On	A device is connected to the port
		Off	A device is disconnected to the port
		Flashing	Sending or receiving data
PoE (1~16)	Yellow	On	A Powered Device is connected to the port, which supply power successfully.
		Off	No Powered Device connected to the port, or no power is supplied according to the power limits of the port.
		Flashing	The PoE power circuit may be in short or the power current may be overloaded.

1.3.2 Rear Panel

The rear panel of the Switch contains AC power connector and one marker shown as below.



AC Power Connector:

Power is supplied through an external AC power adapter. It supports AC 100~240V, 50/60Hz.

Grounding Terminal:

The Switch already comes with Lightning Protection Mechanism. You can also ground the Switch through the PE (Protecting Earth) cable of AC cord or with Ground Cable.

1.4 Environment

- Operating Temperature: 0°C~45°C
- Storage Temperature: -40°C~70°C
- Operating Humidity: 10%~90% non-condensing
- Storage humidity: 5%~90% non-condensing

1.5 Package Contents

Before installing the Switch, make sure that the following the "packing list" listed OK. If any part is lost and damaged, please contact your local agent immediately. In addition, make sure that you have the tools install switches and cables by your hands.

- One PoE Web Smart Ethernet Switch
- Four rubber feet, two mounting ears and eights screws
- One AC power cord
- One User Manual

Chapter 2 Installing and Connecting the Switch

This part describes how to install your Web Smart Ethernet Switch and make connections to it. Please read the following topics and perform the procedures in the order being presented.

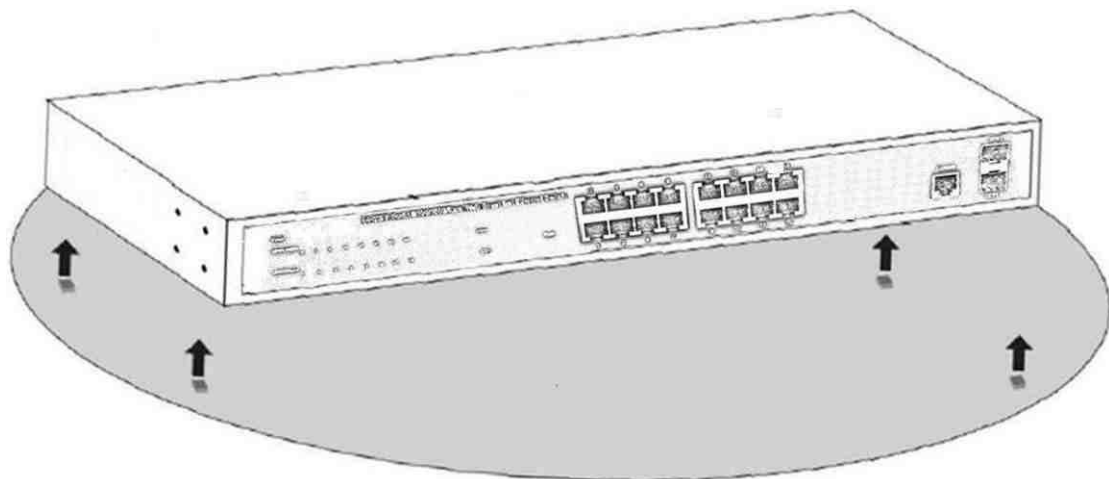
2.1 Installation

Please follow the following instructions in avoid of incorrect installation causing device damage and security threat.

- Put the Switch on stable place or desktop in case of falling damage.
- Make sure the Switch works in the proper AC input range and matches the voltage labeled on the Switch.
- To keep the Switch free from lightning, do not open the Switch's shell even in power failure.
- Make sure that there is proper heat dissipation from and adequate ventilation around the Switch.
- Make sure the cabinet to enough back up the weight of the Switch and its accessories.

2.1.1 Desktop Installation

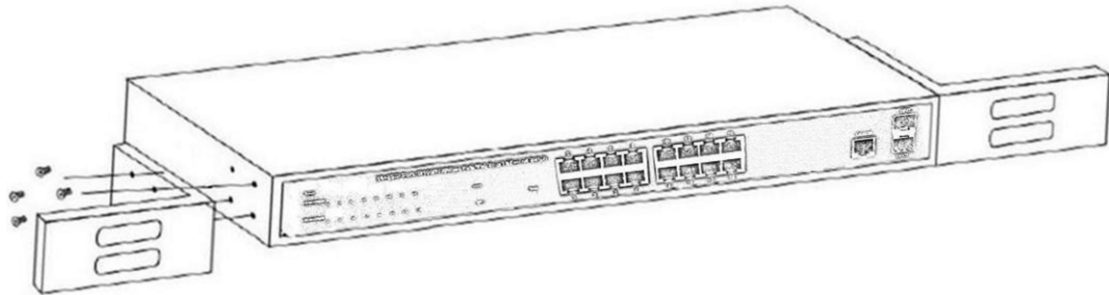
Sometimes users are not equipped with the 19-inch standard cabinet. So when installing the Switch on a desktop, please attach these cushioning rubber feet provided on the bottom at each corner of the Switch in case of the external vibration. Allow adequate space for ventilation between the device and the objects around it.



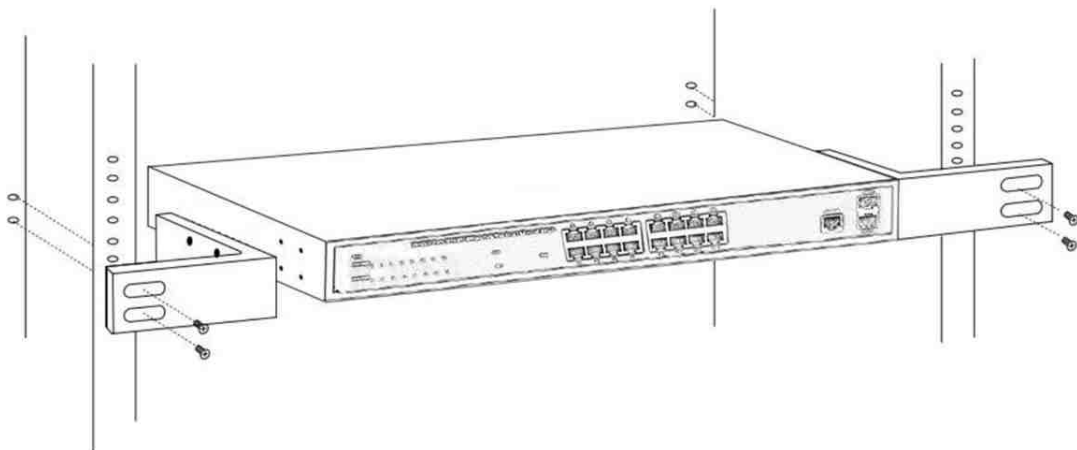
2.1.2 Rack-mountable Installation in 19-inch Cabinet

The Switch can be mounted in an EIA standard-sized, 19-inch rack, which can be placed in a wiring closet with other equipment. To install the Switch, please follow these steps:

- a. attach the mounting brackets on the Switch's side panels(one on each side) and secure them with the screws provided.



- b. use the screws provided with the equipment rack to mount the Switch on the rack and tighten it.



2.1.3 Power on the Switch

The Switch is powered on by the AC 100-240V 50/60Hz internal high-performance power supply. Please follow the next tips to connect:

AC Electrical Outlet:

It is recommended to use single-phase three-wire receptacle with neutral outlet or multifunctional computer professional receptacle. Please make sure to connect the metal ground connector to the grounding source on the outlet.

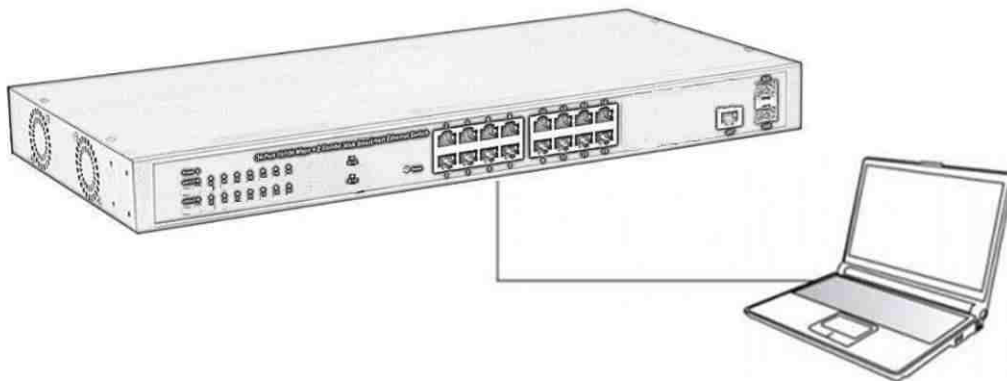
AC Power Cord Connection:

Connect the AC power connector in the back panel of the Switch to external receptacle with the included power cord, and check the power indicator is on or not.

When it is on, it indicates the power connection is OK.

2.2 Connect Computer (NIC) to the Switch

Please insert the NIC into the computer, after installing network card driver, please connect one end of the twisted pair to RJ-45 jack of your computer, the other end will be connected to any RJ-45 port of the Switch, the distance between Switch and computer is around 100 meters. Once the connection is OK and the devices are power on normally, the LNK/ACT/Speed status indicator lights corresponding ports of the Switch.



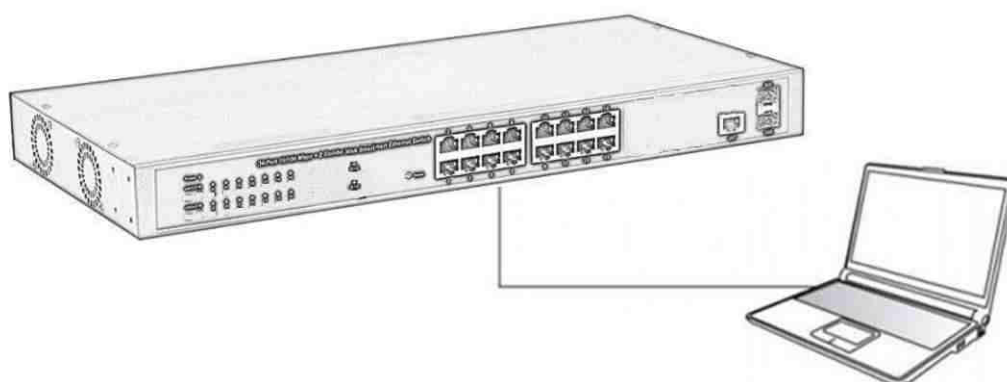
2.3 Switch connection to the PD

1-24 ports of the Switch have PoE power supply function, the maximum output power up to 30W each port, it can make PD devices, such as internet phone, network camera, wireless access point work. You only need to connect the Switch PoE port directly connected to the PD port by network cable.

Chapter 3 How to Login the Switch

3.1 Switch to End Node

Use standard Cat.5/5e Ethernet cable (UTP/STP) to connect the Switch to end nodes as described below. Switch ports will automatically adjust to the characteristics(MDI/MDI-X, speed, duplex) of the device to which is connected.



Please refer to the LED Indicator Specification. The LNK/ACT/Speed LEDs for each port lights on when the link is available.

3.2 How to Login the Switch

As the Switch provides Web-based management login, you can configure your computer's IP address manually to log on to the Switch. The default settings of the Switch are shown below.

Parameter	Default Value
Default IP address	192.168.2.1
Default Username	admin
Default Password	admin

You can log on to the configuration window of the Switch through following steps:

1. Connect the Switch with the computer NIC interface.
2. Power on the Switch.
3. Check whether the IP address of the computer is within this network segment: 192.168.2.xxx ("xxx" ranges 2~254), for example, 192.168.2.100.
4. Open the browser, and enter <http://192.168.2.1> and then press "Enter". The Switch login window appears, the following picture:

Welcome To Web Smart Management System

USER LOGIN

Please input user name and password !

User Name:

Password:

Language:

5. Enter the Username and Password (The factory default Username is **admin** and Password is **admin**), and then click "login" to log in to the Switch configuration window as below. Need to click on the upper right corner of the "Language" switch to switch to English.



The current user name: admin

Home Exit Language

Quickly Set

- PORT
- VLAN
- Fault/Safety
- POE
- MSTP
- DHCP RELAY
- QOS
- Addr. Table
- SNMP
- SYSTEM

VLAN setting Other settings

VLAN setting

VLAN ID	VLAN name	VLAN IP address	port	operation
1	VLAN0001	192.168.2.1	1-26	

[new VLAN](#) [delete selected VLAN](#) [first page](#) [prev page](#) [next page](#) [last page](#) / 1 page

Trunk settings

explain: If a port is allowed to pass through a plurality of VLAN packets, the port is set to a Trunk port. It is recommended that the port of the network device be set to the Trunk port. When the port is added to allow VLAN, VLAN must be created.

port name	port description	Native Vlan	Allowing Vlan	operation
new Trunk port	delete selected Trunk port			first page prev page next page last page / 1 page

[next step](#)

Chapter 4 Switch Configuration

The Web Smart Ethernet Switch Managed switch software provides rich layer 2 functionality for switches in your networks. This chapter describes how to use Web-based management interface (Web UI) to this switch configure managed switch software features.

In the Web UI, the left column shows the configuration menu. Above you can see the information for switch system, such as memory, software version. The middle shows the switch's current link status. Green squares indicate the port link is up, while black squares indicate the port link is down. Below the switch panel, you can find a common toolbar to provide useful functions for users. The rest of the screen area displays the configuration settings.

4.1 Quickly setting

In the navigation bar to select **“quickly setting”**, can create a VLAN in this module, add the port in the VLAN, set the basic information and modify the switch login password. The following picture:



【parameter description】

parameter	description
VLAN ID	VLAN number, 16GE default VLAN 1
VLAN name	VLAN mark
Manage IP	Manage the IP address of the VLAN
device name	Switch name
Manage VLAN	Switches management in use of the VLAN

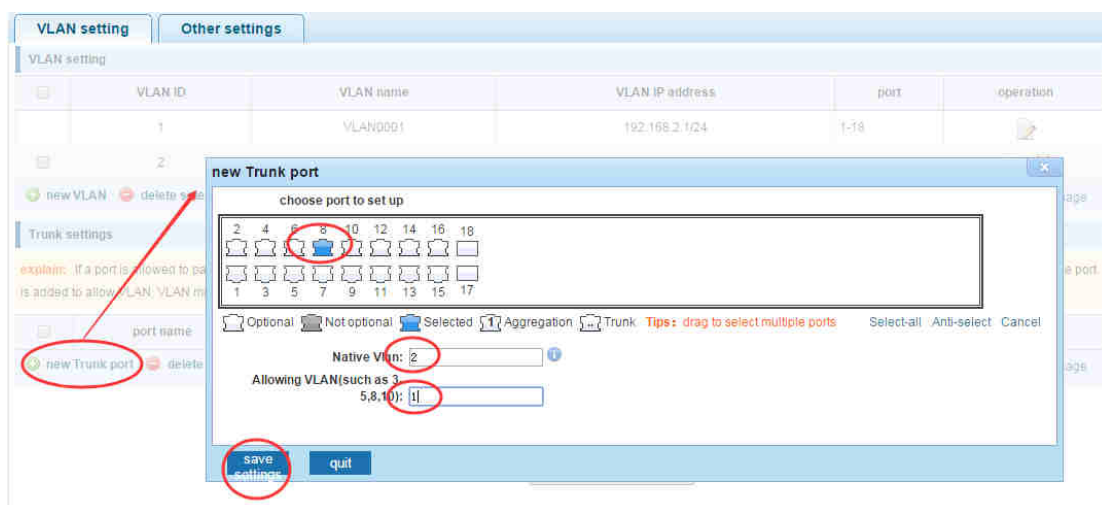
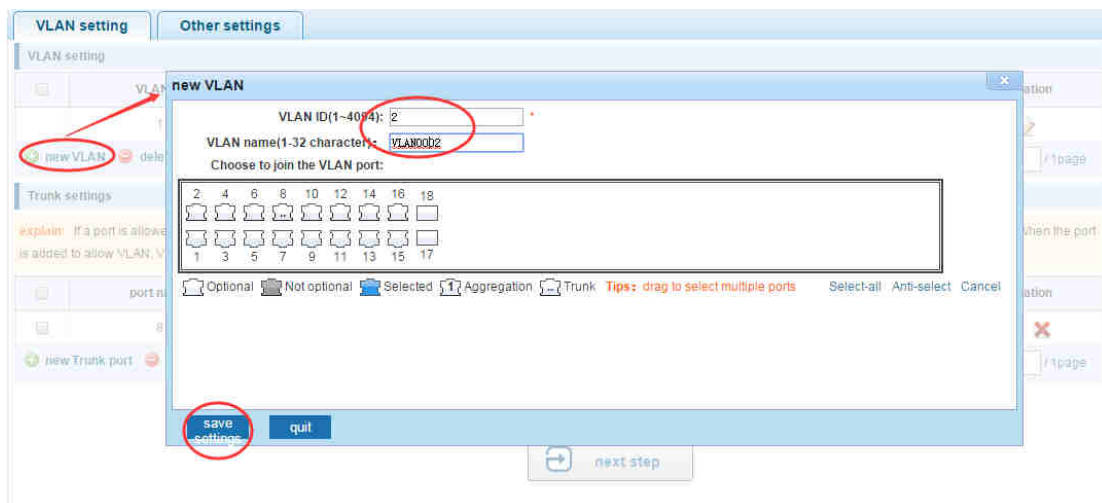
【instructions】

Native VLAN: as a Trunk, the mouth will belong to a Native VLAN. The so-called Native VLAN, is refers to UNTAG send or receive a message on the interface, is considered belongs to the VLAN. Obviously, the interface of the default VLAN ID (PVID) in the IEEE 802.1 Q VLAN ID is the Native VLAN. At the same time, send belong to Native VLAN frame on the Trunk, must adopt UNTAG way.

Allowed VLAN list: a Trunk can transport the equipment support by default all the VLAN traffic (1-4094). But, also can by setting the permission VLAN Trunk at the mouth of the list to limit the flow of some VLAN can't through the Trunk.

【Configuration example】

1) VLAN setting: such as create VLAN 2 ,Sets the port 8 to Trunk , Native VLAN 2



2) click "next step" button , into other settings, such as: manage ip address set as

192.168.2.11, device name set as switch-123, default gateway with the dns server set as 172.16.1.241 and new password for 1234.

VLAN Setting Other Settings

Device Basic Information

Management VLAN: 1 Device Name: switch-123

Management IP: 192.168.2.11 Default Gateway: 192.168.2.22

Subnet Mask: 255.255.255.0 DNS Server: 172.16.1.241

Save

Administrator Password

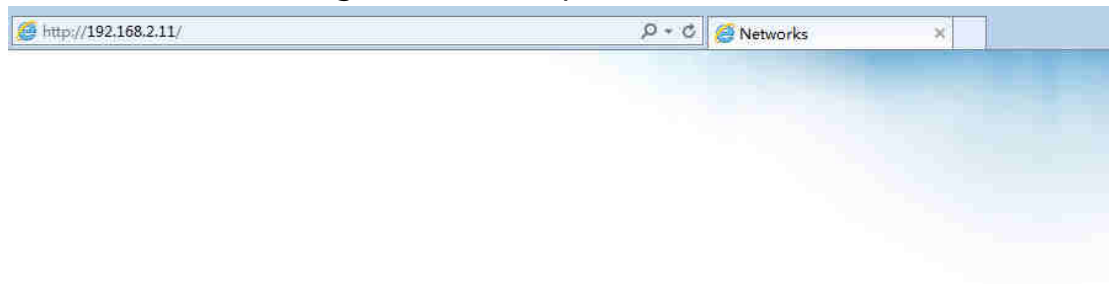
Old Password: ●●●●

New Password: ●●●●

Confirm New Password: ●●●●

Back Finish

Use 192.168.2.11 to log in, set a new password for 1234



Welcome To Web Smart Management System

USER LOGIN

Please input user name and password !

User Name: admin

Password: ●●●●

Language: English

LOGIN

4.2 Port management

In the navigation bar to select **“port management”**, You may conduct basic config, port aggregation, port mirroring , port limit and port isolation.



4.2.1 Basic config

In the navigation bar to select **“port management>basic config”**, For panel port to port described , port speed, port status, working mode, flow control, cross line order, mega frame configuration, the following picture:

Port	Port description	Port status	Port speed	Working mode	mega frame	Cross line order	Flow control	Opertion
Gi0/1		Open	Self negotiaton	Self negotiaton	1518	Close	Close	
Gi0/2		Open	1000M	Duplex	1518	Close	Close	
Gi0/3		Open	Self negotiaton	Self negotiaton	1518	Close	Close	

【parameter description】

parameter	description
port	Select the current configuration port number
port status	Choose whether to close link port
flow control	Whether open flow control
port speed	Can choose the following kinds: Aggregation 10 M 100 M 1000 M

working mode	Can choose the following kinds: Self negotiated 10 M 100 M 1000 M
port described	The port is described
jumbo frame	Set the length of a jumbo frames , range 1518-12288
Cross line sequence	Whether open intersection line sequence

【instructions】

Open flow control should be negotiated will close, negotiated close is to set port speed rate and working mode; Set the port rate more than actual rate of port, the port will be up.

【Configuration example】

Such as: The port is set to 10 M, half duplex, open flow control and cross line sequence and port state

Port basic settings

Explain: Select ports on the panel can be set on the port.
Notice: If the selected parameter is not supported, the corresponding parameter settings will not take effect!

Select the port to setting:

Optional Not optional Selected Aggregation Trunk ip source enable port **Tips: drag to select multiple ports**

Port description(0-80 character):
Port speed: 10M
Flow control: Open
Mega frame: 1518 (1518-12288)

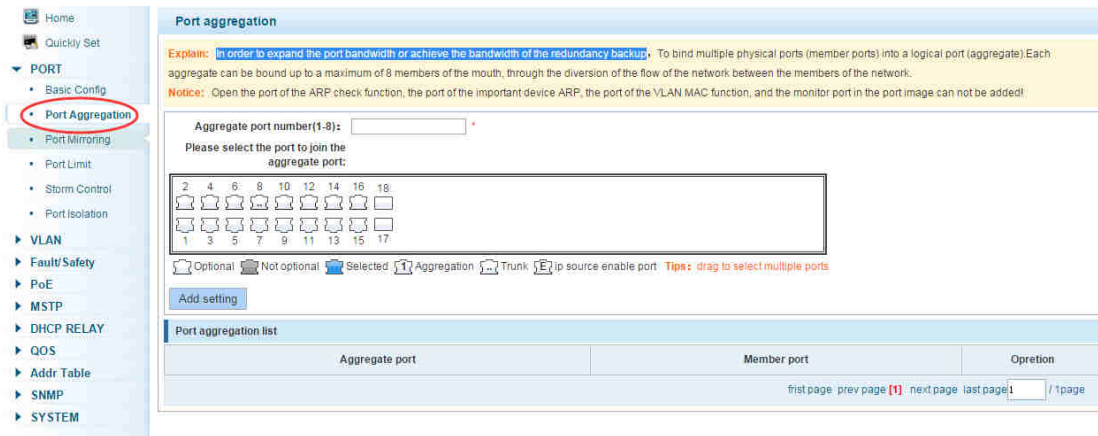
Port status: Open
Working mode: Half duplex
Cross line order: Open

Save setting

Port	Port description	Port status	Port speed	Working mode	mega frame	Cross line order	Flow control	Opretion
Gi0/1		Open	Self negotiated	Self negotiated	1518	Close	Close	
Gi0/2		Open	1000M	Duplex	1518	Close	Close	

4.2.2 Port aggregation

In the navigation bar to select **“port management>port aggregation”**,In order to expand the port bandwidth or achieve the bandwidth of the redundancy backup, the following picture:



【 parameter description 】

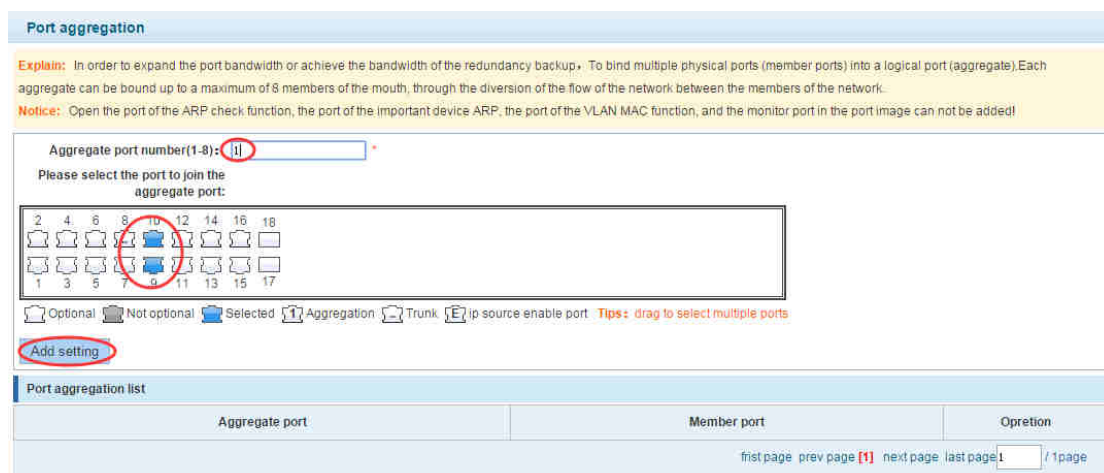
parameter	description
Aggregation port	16GE switch can be set up eight link trunk group, group_1 to group_8
Member port	For each of the members of the group and add your own port, and with members of other groups

【 instructions 】

Open the port of the ARP check function, the port of the important device ARP, the port of the VLAN MAC function, and the monitor port in the port image can not be added!

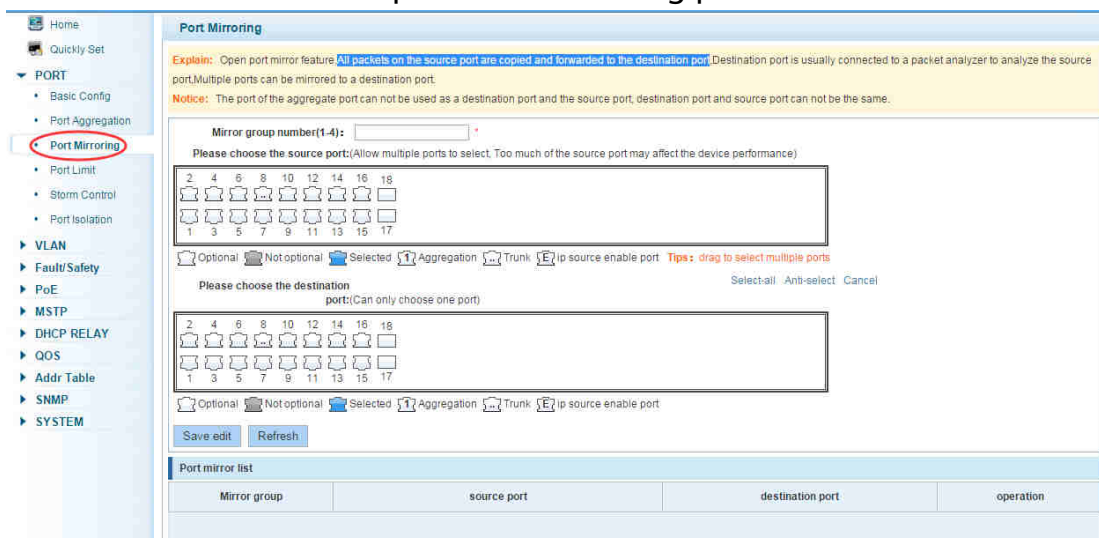
【 Configuration example 】

Such as: set the port 9, 10, for aggregation port 1, lets this aggregation port 1 connected to other switch aggregation port 1 to build switch links .



4.2.3 Port mirroring

In the navigation bar to select **“port management>port mirroring”**, Open port mirror feature, All packets on the source port are copied and forwarded to the destination port, Destination port is usually connected to a packet analyzer to analyze the source port, Multiple ports can be mirrored to a destination port, the following picture:



【parameter description】

parameter	description
Source port	To monitor the port in and out of flow
Destination port	Set destination port, All packets on the source port are copied and forwarded to the destination port
Mirror group	Range :1-4

【instructions】

The port of the aggregate port can not be used as a destination port and the source port, destination port and source port can not be the same.

【Configuration example】

Such as: set a mirror group for port 10 regulatory port 4, 6, 8 on and out flow conditions

Port Mirroring

Explain: Open port mirror feature, All packets on the source port are copied and forwarded to the destination port, Destination port is usually connected to a packet analyzer to analyze the source port. Multiple ports can be mirrored to a destination port.

Notice: The port of the aggregate port can not be used as a destination port and the source port, destination port and source port can not be the same.

Mirror group number(1-4):

Please choose the source port:(Allow multiple ports to select. Too much of the source port may affect the device performance)

2 4 6 8 10 12 14 16 18
 1 3 5 7 9 11 13 15 17

Optional Not optional Selected Aggregation Trunk ip source enable port **Tips: drag to select multiple ports**

Please choose the destination port:(Can only choose one port)

2 4 6 8 10 12 14 16 18
 1 3 5 7 9 11 13 15 17

Optional Not optional Selected Aggregation Trunk ip source enable port

Save edit Refresh

4.2.4 Port rate-limit

In the navigation bar to select **“port management>port rate-limit”**,
 To port output, input speed limit, the following picture:

Port speed limit

Explain: Select ports on the panel can be set on the port. In port speed limit list “_” represent “Not speed limit”.

Notice: 1 Mbit/s = 1000 Kbit/s = 1000 / 8 KB/s = 125 KB/s . That is, the theoretical rate of 1M bandwidth is 125KB/s .

Select ports to setting:

2 4 6 8 10 12 14 16 18
 1 3 5 7 9 11 13 15 17

Optional Not optional Selected Aggregation Trunk ip source enable port **Tips: drag to select multiple ports**

Input speed limit: * 0.16-10,000,00kb/s
 Output speed limit: * 0.16-10,000,00kb/s

Save settings

Port speed limit list

Ports	Input speed limit	Output spees limit	Operation
1	1000Mb/s	1000Mb/s	
2	1000Mb/s	1000Mb/s	
3	1000Mb/s	1000Mb/s	

【parameter description】

parameter	description
Input speed limit	Set port input speed
Output speed limit	Set port output speed

【instructions】

1 Mbit/s = 1000 Kbit/s = 1000 / 8 KB/s = 125 KB/s . That is, the theoretical rate of 1M bandwidth is 125KB/s .

【 Configuration example 】

Such as: the port 9 input rate is set to 6400 KB/s, the output rate is set to 3200 KB/s

4.2.5 Port isolation

In the navigation bar to select **“port management>port isolation”**, one port can be isolated to one or multiple destination ports. The following picture:

【 parameter description 】

parameter	description
Source port	Choose a port, to configure the isolated port
Isolated port	Port will be isolated

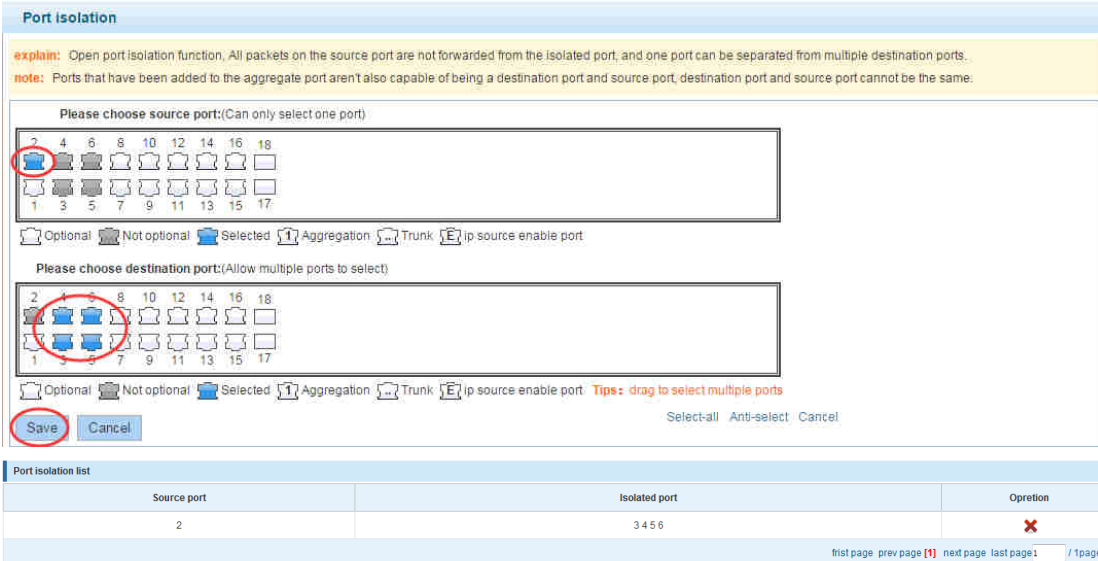
【instructions】

Open port isolation function, All packets on the source port are not forwarded from the isolated port, and one port can be separated from multiple destination ports.

Ports that have been added to the aggregate port aren't also capable of being a destination port and source port, destination port and source port cannot be the same

【Configuration example】

Such as: the source port 2, isolated port 3, 4, 5, and 6



Port isolation

explain: Open port isolation function, All packets on the source port are not forwarded from the isolated port, and one port can be separated from multiple destination ports.
note: Ports that have been added to the aggregate port aren't also capable of being a destination port and source port, destination port and source port cannot be the same.

Please choose source port:(Can only select one port)

Please choose destination port:(Allow multiple ports to select)

Optional Not optional Selected Aggregation Trunk ip source enable port

Optional Not optional Selected Aggregation Trunk ip source enable port **Tips: drag to select multiple ports**

Save Cancel Select-all Anti-select Cancel

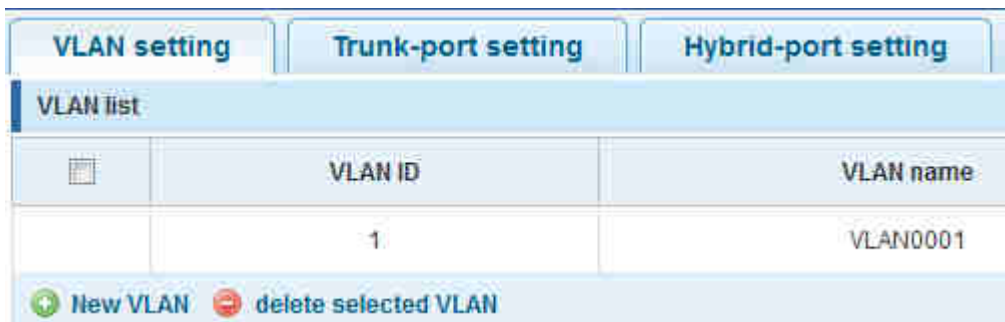
Source port	Isolated port	Operation
2	3 4 5 6	✖

first page prev page 1/1 next page last page 1 / 1page

After the success of the configuration, given out by the port 2 package can't in 3/4/5/6 port forwarding, but 3/4/5/6 ports issued a message can be forwarded on port 2, if you need not forwarding should be carried out respectively on the 3/4/5/6 port configuration.

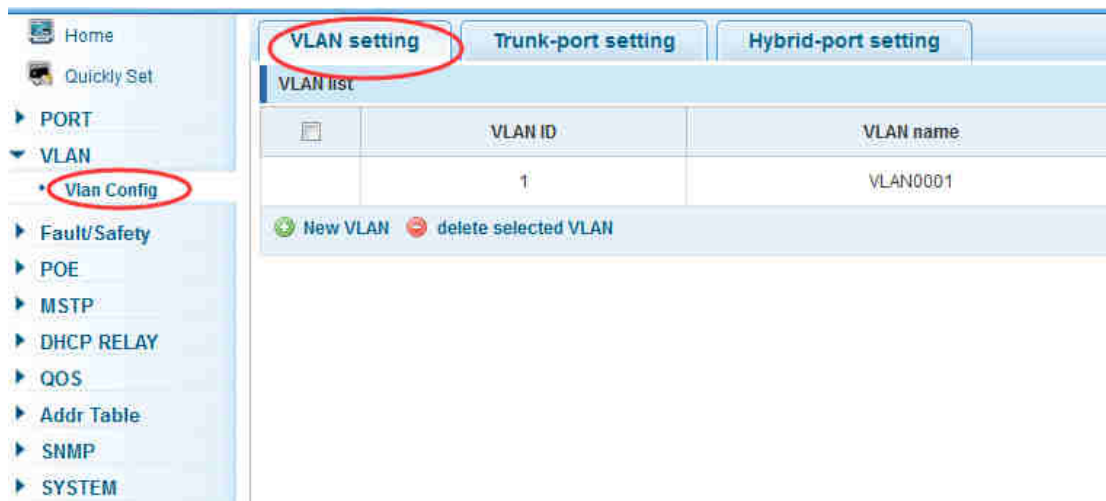
4.3 VLAN

In the navigation bar to select“VLAN”, You can manage the VLAN config, Trunk Settings and Hybrid Settings, the following picture:



4.3.1 VLAN config

In the navigation bar to select “**VLAN config**”, Vlans can be created and set the port to the VLAN (port default state for the access mode) , the following picture:



【parameter description】

parameter	description
VLAN ID	VLAN number, 16GE default VLAN 1
VLAN name	VLAN mark
VLAN IP address	Manage switch ip address

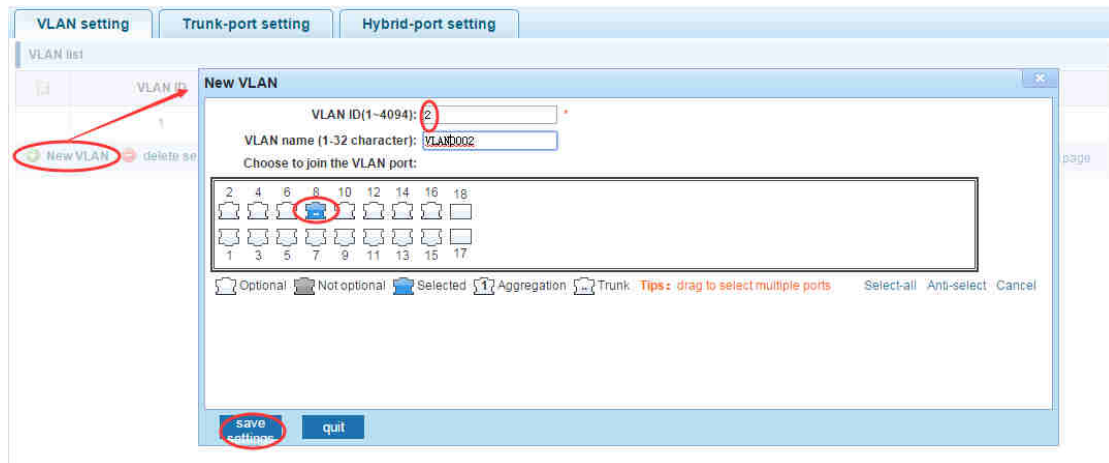
【instructions】

Management VLAN, the default VLAN cannot be deleted. Add ports to access port, port access mode can only be a member of the VLAN.

【Configuration example】

Such as: connect switches pc1, pc2 couldn't ping each other, will be

one of the PC connection port belongs to a VLAN 2



4.3.2 Trunk-port setting

In the navigation bar to select “**VLAN config>trunk-port setting**”, can set port to Trunk port, the following picture:



【parameter description】

parameter	description
Native VLAN	Only set one
Allowing vlan	Can set up multiple

【instructions】

Native VLAN: as a Trunk, the mouth will belong to a Native VLAN. The so-called Native VLAN, is refers to UNTAG send or receive a message on the interface, is considered belongs to the VLAN. Obviously, the interface of the default VLAN ID (PVID) in the IEEE 802.1 Q VLAN ID is the Native VLAN. At the same time, send belong to Native VLAN frame on the Trunk, must adopt UNTAG way.

Allowed VLAN list: a Trunk can transport the equipment support by default all the VLAN traffic (1-4094). But, also can by setting the

permission VLAN Trunk at the mouth of the list to limit the flow of some VLAN can't through the Trunk.

【 Configuration example 】

Such as: PVID=VLAN2

PC1: 192.168.2.122, port 8, access VLAN2

PC2: 192.168.2.123, port 9, Trunk allowed VLAN 1-2

PC3: 192.168.2.124, port 10, access VLAN1 (The default port belongs to VLAN1)

Can let the PC2 PING PC1, cannot PING PC3

The screenshot shows the 'VLAN list' configuration page. A 'New Trunk-Port' dialog box is open, allowing the user to select a port for configuration. The dialog includes a grid of ports (1-18) and options for 'Native Vlan' and 'Allowing VLAN'. The 'save settings' button is highlighted with a red circle.

4.3.3 Hybrid-port setting

In the navigation bar to select "VLAN config>hybrid-port setting", Can set the port to take the tag and without the tag , the following picture:

The screenshot shows the 'Hybrid-port setting' configuration page. The 'Hybrid port list' table is visible, showing the configuration for two hybrid ports. The 'Hybrid-port setting' tab is highlighted with a red circle.

port	port description	Native Vlan	Add TAG VLAN	Remove TAG VLAN	operation
1		10	1	10,20	[edit] [delete]
2		20	1	10,20	[edit] [delete]

【parameter description】

【instructions】

Hybrid port to packet:

Receives a packet, judge whether there is a VLAN information: if there is no play in port PVID, exchanged and forwarding, if have, whether the Hybrid port allows the VLAN data into: if can be forwarded, or discarded (untag on port configuration is not considered, untag configuration only work when to send it a message)

Hybrid port to send packet:

1, determine the VLAN in this port attributes (disp interface can see the port to which VLAN untag, which VLAN tag)

2, if it is untag stripping VLAN information, send again, if the tag is sent directly

【Configuration example】

Such as: create vlans 10, 20, VLAN sets the Native VLAN port 1 to 10, to tag VLAN for 10, 20, sets the Native VLAN port 2 to 20, to tag VLAN for 10, 20

VLAN ID	VLAN name	VLAN IP address	port	operation
1	VLAN0001	192.168.2.1	1-26	[delete]
10	VLAN0010			[delete]
20	VLAN0020			[delete]

explain: If a port is allowed to pass through a plurality of VLAN packets, and can set the packet to carry the VLAN header, the port is set to the Hybrid port.

Hybrid port list

New Hybrid-port

Select port settings:

Optional Not optional Selected Aggregation Trunk Tips: drag to select multiple ports Select-all Anti-select Cancel

Native Vlan(1-4094): 10

VLAN TAG (3-5,8,10): 1

Go to VLAN's TAG (such as 5,8,10): 10,20

save settings quit

port	port description	Native Vlan	Add TAG VLAN	Remove TAG VLAN	operation
1		10	1	10,20	[delete]
2		20	1	10,20	[delete]

This system e0/1 and the receive system e0/2 PC can be exchanged, but when each data taken from a VLAN is different.

Data from the pc1, by inter0/1 pvid VLAN10 encapsulation VLAN10 labeled into switches, switch found system e0/2 allows 10 data through the VLAN, so the data is forwarded to the system e0/2, because the system e0/2 VLAN is untagged 10, then switches at this time to remove packet VLAN10 tag, in the form of ordinary package sent to pc2, pc1 - > p2 is VLAN10 walking at this time

Again to analyze pc2 gave pc1 package process, data from the pc2, by inter0/2 pvid VLAN20 encapsulation VLAN20 labeled into switch, switch found system e0/1 allows VLAN by 20 data, so the data is forwarded to the system e0/1, because the system e0/1 on the VLAN is untagged 20, then switches remove packets on VLAN20 tag at this time, in the form of ordinary package sent to pc1, pc2 at this time - > pc1 is VLAN 20

4.4 Fault/Safety

In the navigation bar to select "**fault/safety**", you can set **anti attack**, **channle detection** and **ACLaccess control** configuration .



4.4.1 Anti attack

4.4.1.1 Anti DHCP attack

In the navigation bar to select "**fault/safety>anti attack>anti dhcp attack**", Open the DHCP anti-attack function, intercepting counterfeit DHCP server and address depletion attack packets ban kangaroo DHCP server, the following picture:



【parameter description】

【instructions】

DHCP trusted port configuration, select the port as a trusted port. Prohibit DHCP for address, select the port and save, you can disable this feature for the port.

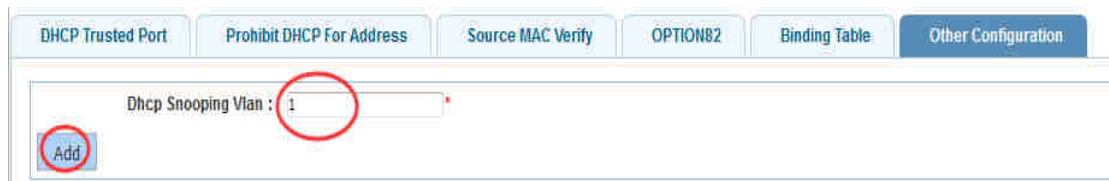
Open DHCP attack prevention function, need to set the DHCP protective vlan simultaneously, other functions to take effect.

【Configuration example】

Such as: 1.dhcp snooping open



2.Setting dhcp snooping vlan



Set the connection router 10 ports for trust, then 12 port is set to the prohibit



DHCP Trusted Port
 Prohibit DHCP For Address
 Source MAC Verify
 OPTION82
 Binding Table
 Other Configuration

Opt prohibit DHCP port:

2	4	6	8	10	12	14	16	18
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	3	5	7	9	11	13	15	17
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Optional
 Not optional
 Selected
 Aggregation
 Trunk
 Ip source enable port
Tips: drag to select multiple ports

3. Verify source mac F0:DE:F1:12:98:D2, set server ip address to 192.168.2.1

DHCP Trusted Port
 Prohibit DHCP For Address
 Source MAC Verify
 OPTION82
 Binding Table
 Other Configuration

Source MAC Verify Enable :

Mac Address : F0:de:f1:12:98:d2

DHCP Trusted Port
 Prohibit DHCP For Address
 Source MAC Verify
 OPTION82
 Binding Table
 Other Configuration

Dhcp Snooping Vlan :

Server IP address : 192.168.2.1

4. Set option82 information

DHCP Trusted Port
 Prohibit DHCP For Address
 Source MAC Verify
 OPTION82
 Binding Table
 Other Configuration

Option82 Enable :

Client Option82 Enable :

Circuit Name : 123 VLAN ID : 1

Option82 Enable :

Client Option82 Enable :

Remote Name : wety VLAN ID : 1

Option82 Enable :

Client Option82 Enable :

Circuit control **Remote Agent** **IP address**

IP Address : 192.168.2.37 VLAN ID : 1

Add

5.The port 7 for binding

DHCP Trusted Port Prohibit DHCP For Address Source MAC Verify OPTION82 **Binding Table** Other Configuration

Mac Address : 80:01:15:09:37:35

VLAN ID : 1

Port Number : 7

add

4.4.1.2 Anti DOS

In the navigation bar to select "**fault/safety>anti attack>anti dhcp attack**", Open the anti DOS attack function, intercept Land attack packets, illegal TCP packets, to ensure that the device or server to provide normal service to legitimate users., the following picture:

Anti DHCP Attack **Anti DOS** IP Source Guard Anti Three Bind

DOS attack protection

explain: Open the anti DOS attack function, intercept Land attack packets, illegal TCP packets, to ensure that the device or server to provide normal service to legitimate users.

Closed

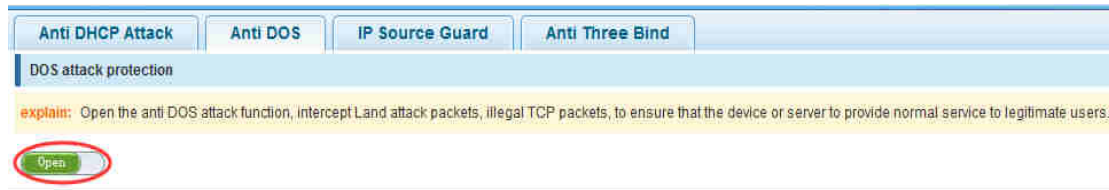
【parameter description】

【instructions】

Open the anti DOS attack function, intercept Land attack packets, illegal TCP packets, to ensure that the device or server to provide normal service to legitimate users.

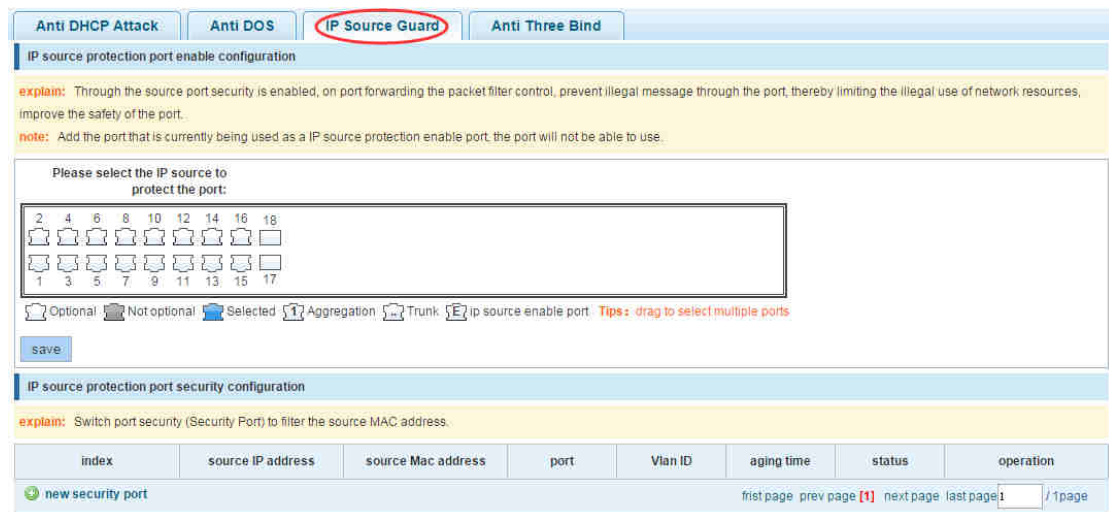
【Configuration example】

Such as: Open the anti DOS attack function



4.4.1.3 IPsource guard

In the navigation bar to select **“fault/safety>anti attack>ip source guard”**, Through the source port security is enabled, on port forwarding the packet filter control, prevent illegal message through the port, thereby limiting the illegal use of network resources, improve the safety of the port, the following picture:



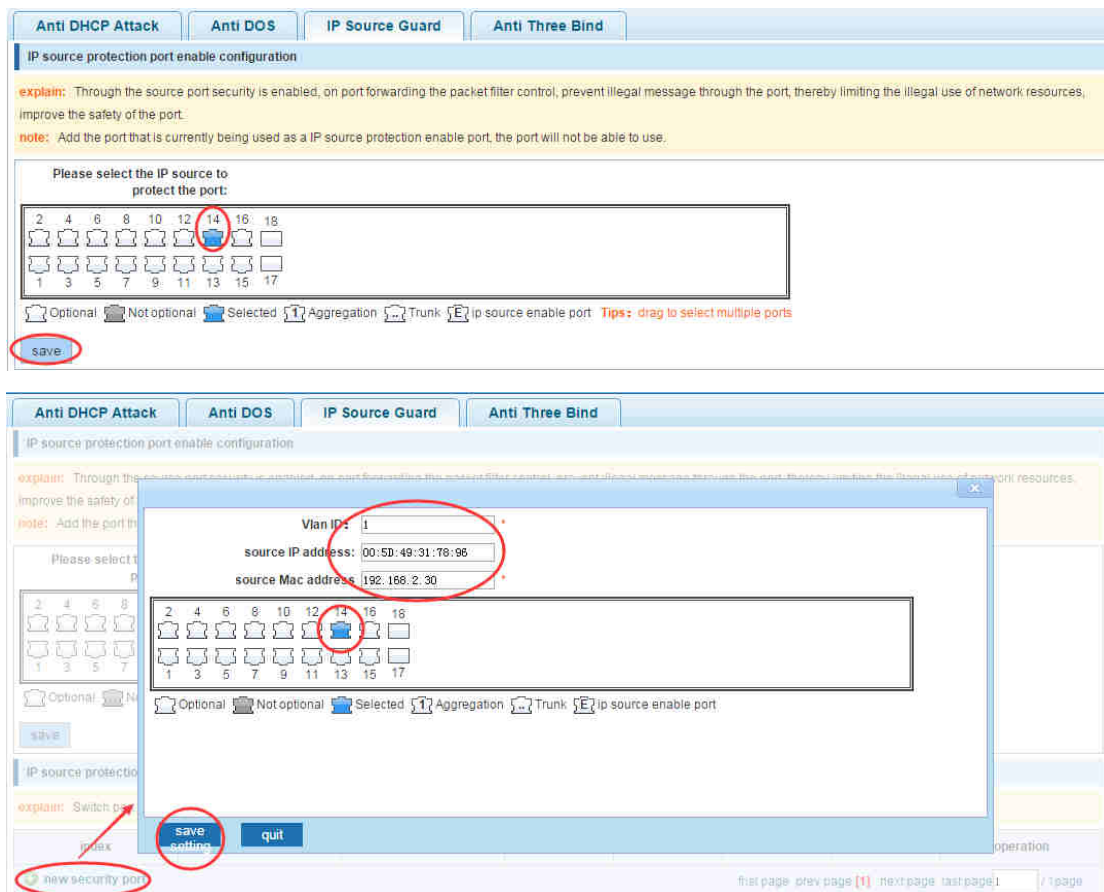
【parameter description】

【instructions】

Add the port that is currently being used as a IP source protection enable port, the port will not be able to use.

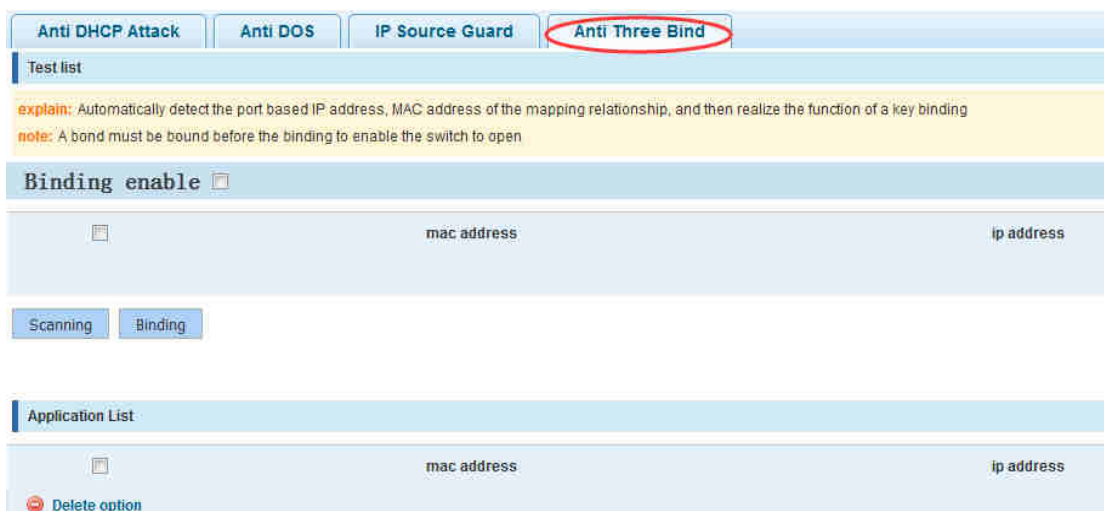
【Configuration example】

Such as: to open source IP protection enabled port first,then to binding



4.4.1.4 Anti three bind

In the navigation bar to select **“fault/safety>anti attack>anti three bind”**, Automatically detect the port based IP address, MAC address of the mapping relationship, and then realize the function of a key binding, the following picture:



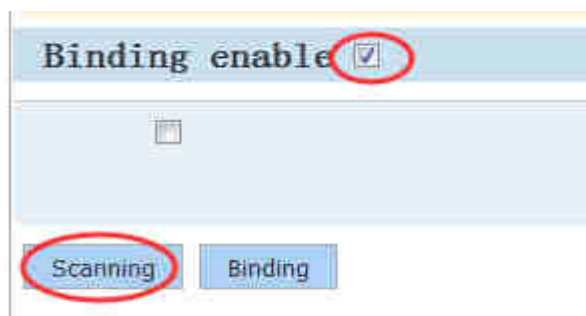
【parameter description】

【instructions】

A bond must be bound before the binding to enable the switch to open, And if you want to access shall be binding and switch the IP address of the same network segment .

【 Configuration example 】

Such as: the binding to make first can open, must be a key bindings port 7



Binding enable <input checked="" type="checkbox"/>			
<input type="checkbox"/>	mac address	ip address	Port number
<input type="checkbox"/>	3C:97:0E:4F:57:F2	10.10.10.111	10
<input type="checkbox"/>	3C:97:0E:4F:57:F2	192.168.1.112	10
<input type="checkbox"/>	3C:97:0E:4F:57:F2	192.168.168.22	10
<input checked="" type="checkbox"/>	3C:97:0E:4F:57:F2	192.168.2.11	10
<input type="checkbox"/>	00:01:15:09:37:35	169.254.131.107	4

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Scanning Binding

Application List			
<input type="checkbox"/>	mac address	ip address	Port number
<input type="checkbox"/>	3C:97:0E:4F:57:F2	192.168.2.11	10

Delete option

first page prev page [1] next page last page 1 / 1page

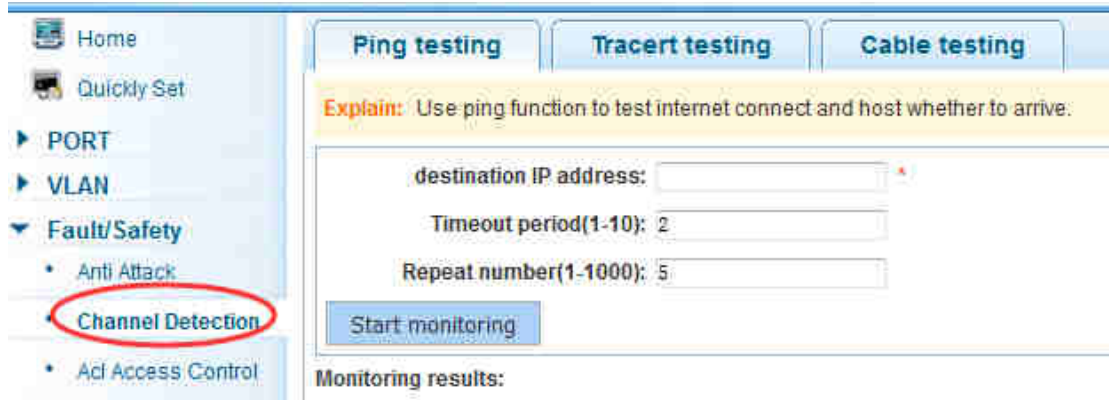
Can check the delete option.

4.4.2 Channel detection

4.4.2.1 Ping testing

In the navigation bar to select "fault/safety> channel detection>ping

testing”, Use ping function to test internet connect and host whether to arrive. The following picture :



【parameter description】

parameter		description
destination address	IP	Fill in the IP address of the need to detect
Timeout period		Range of 1 to 10
Repeat number		Testing number

【instructions】

Use ping function to test internet connect and host whether to arrive.

【Configuration example】

Such as: PING connect the IP address of the PC

Ping testing **Tracert testing** **Cable testing**

Explain: Use ping function to test internet connect and host whether to arrive.

destination IP address: 192.168.2.1

Timeout period(1-10): 2

Repeat number(1-1000): 5

Start monitoring

Monitoring results:

```

PING 192.168.2.1 (192.168.2.1): 56 data bytes
64 bytes from 192.168.2.1: icmp_seq=0 ttl=64 time=0.0 ms
64 bytes from 192.168.2.1: icmp_seq=1 ttl=64 time=0.0 ms
64 bytes from 192.168.2.1: icmp_seq=2 ttl=64 time=0.0 ms
64 bytes from 192.168.2.1: icmp_seq=3 ttl=64 time=0.0 ms
64 bytes from 192.168.2.1: icmp_seq=4 ttl=64 time=0.0 ms

— 192.168.2.1 ping statistics —
5 packets transmitted, 5 packets received, 0% packet loss
round-trip min/avg/max = 0.0/0.0/0.0 ms

```

4.4.2.2 Tracert testing

In the navigation bar to select "**fault/safety > channel detection > tracert testing**", Tracert detection can detect to the destination through the following picture :

Ping testing **Tracert testing** **Cable testing**

explain: Tracert detection can detect to the destination through the gateway, the function is used to detect more is up to and reach the destination path. If a destination unreachable, diagnose problem

destination IP address:

Timeout period(1-10): 2

start testing

testing results

[parameter description]

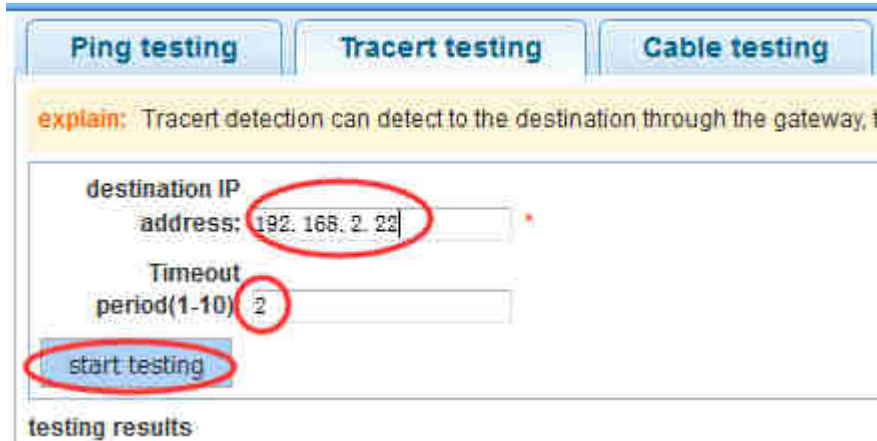
parameter	description
destination IP address	Fill in the IP address of the need to detect
Timeout period	Range of 1 to 10

[instruction]

the function is used to detect more is up to and reach the destination path. If a destination unreachable, diagnose problems.

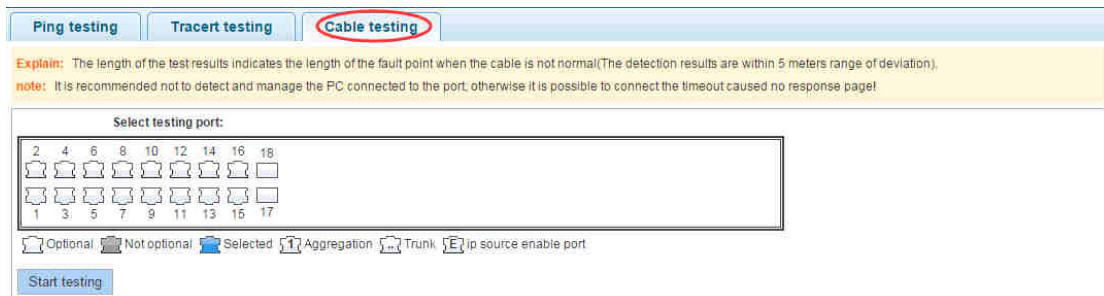
【Configuration example】

Such as: PING connect the IP address of the PC



4.4.2.3 Cable testing

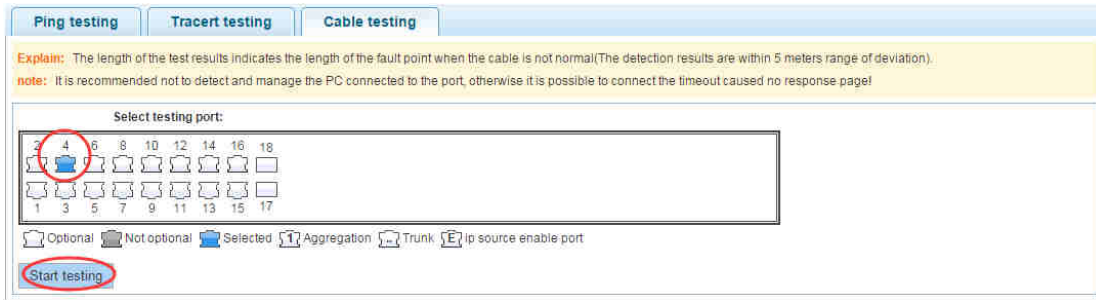
In the navigation bar to select "fault/safety> channel detection>cable tracert testing", Can detect connection device status , the following picture:



【parameter description】

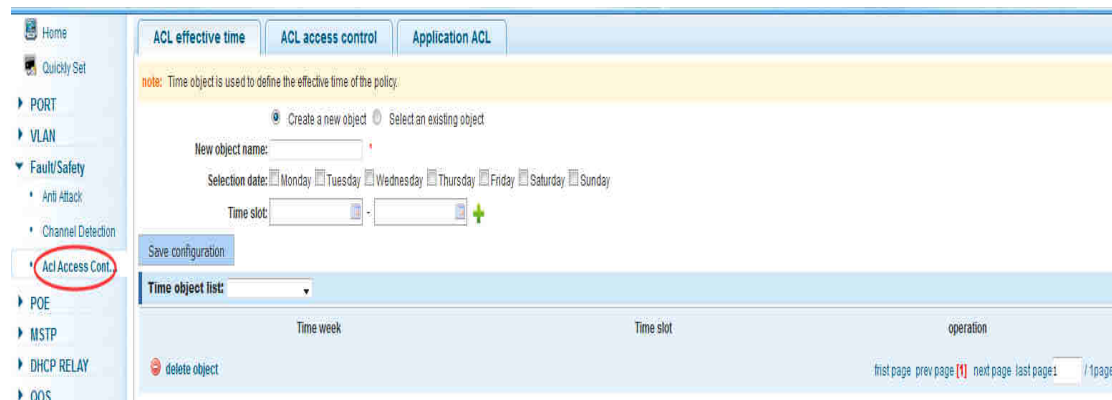
【instruction】

【Configuration example】



4.4.3 ACL

In the navigation bar to select **“fault/safety>ACL”**, Can be applied to port ACL rules and Settings to take effect in time



【parameter description】

【instruction】

The ACL rules are sequenced, row in front of the match will be priority rule. Many, if the strategy items operating time is relatively longer.

Basic principles:

- 1, according to the order, as long as there is a meet, will not continue to find
- 2, implied refused, if don't match, so must match the final implied refused entry, cisco default
- 3, any only under the condition of the minimum permissions to the user can satisfy their demand
- 4, don't forget to apply the ACL to the port

【Configuration example】

such as: test time is every Monday to Friday 9 to 18 points, set port 1-8 cannot access the network

steps: building ACL time - building ACL rules - is applied to the port

ACL effective time | ACL access control | Application ACL

note: Time object is used to define the effective time of the policy.

Create a new object Select an existing object

New object name: working-time

Selection date: Monday Tuesday Wednesday Thursday Friday Saturday Sunday

Time slot: 9:00 - 18:00

Save configuration

Time object list: working-time

ACL effective time | ACL access control | Application ACL

explain: ACL(Access Control Lists) By configuring a series of matching rules, the execution of the specified data stream (such as the IP address, port number, etc.) is allowed or forbidden.

note: The ACL rule is in the order of precedence. The row in front of the rules will give priority to match. If there are a lot of policy entries, the operating time is relatively long.

Wildcard: The wildcard mask stipulates that when present, if you do not configure the wildcard mask.

Create ACL

Choose the ACL access control list for the view

Rule order: action

delete ACL

ACL number: 100

action: forbid

Matching protocol: TCP

Effective time: working-time

source IP address arbitrary:

source port arbitrary:

destination IP address arbitrary:

destination port arbitrary:

the range of source port(0-65535): 80

save

Choose the ACL access control list for the view: 100 Rule list

Rule order	action	Agreement	source IP/mask	source port	destination IP/mask	destination port	Object of effective time	state
1	permit	ip	any/any	any	any/any	any	none	active

delete ACL

frist page prev page **1** next page last page 1 / 1page

ACL effective time | ACL access control | Application ACL

choose port to set up:

Optional Not optional Selected Aggregation Trunk ip source enable port **Tips: drag to select multiple ports**

ACL list: 100

Filtering direction: Send a message

save edit

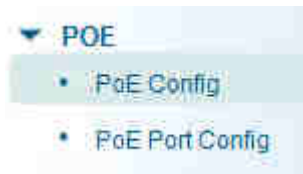
ACL access control list

ACL	apply to interface	filtering direction	operation

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4.5 POE

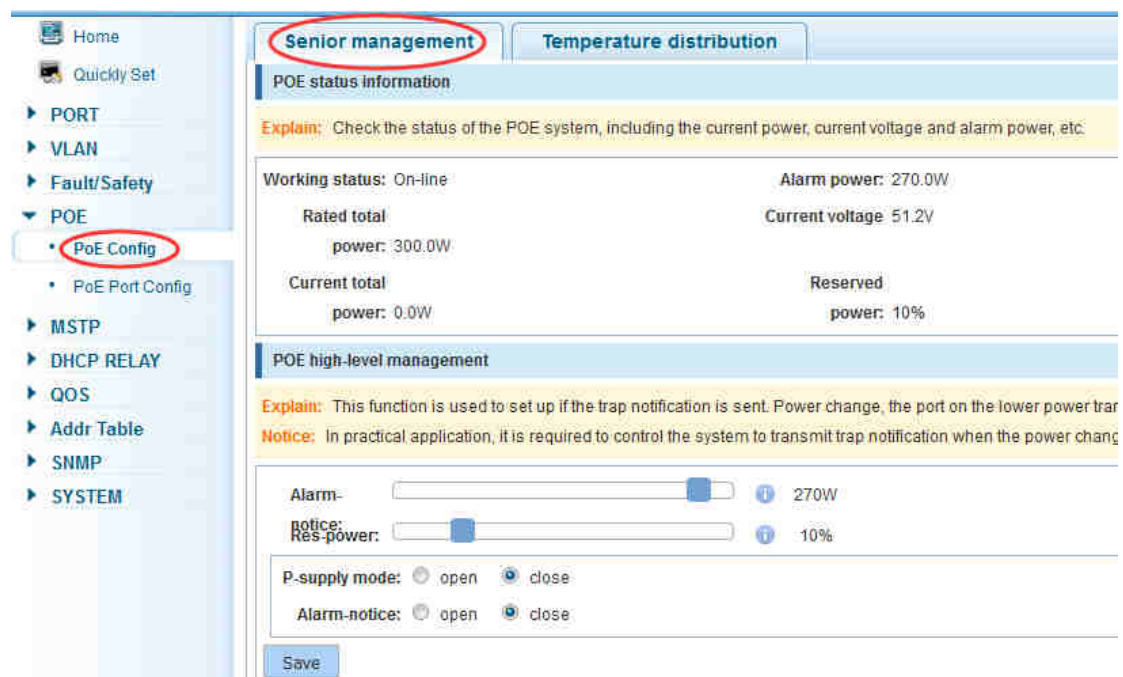
In the navigation bar to select “**POE**”, you can set **POE config** and **POE port config** configuration.



4.5.1 POE config

4.5.1.1 Senior management

In the navigation bar to select “**POE config>senior management**”, To view the POE state information and set up the configuration . the following picture:



【parameter description】

parameter	description
Supply mode	Select the mode of PSE power supply
Alarm-power	Configuration of the alarm threshold
Reserved power	Configuration to keep power
Alarm notice	State configuration warning announcement.

【instruction】

In practical application, it is required to control the system to transmit trap notification when the power change and the port are up and down. Receive the Trap notices the Snmp must be open, and set the Trap to the target host.

【Configuration example】

Such as: alarm power set to 245 W, reserved power to 15%, open the supply mode and the alarm power;

Senior management | **Temperature distribution**

POE status information

Explain: Check the status of the POE system, including the current power, current voltage and alarm power, etc.

Working status: On-line | Alarm power: 270.0W
Rated total power: 300.0W | Current voltage: 51.2V
Current total power: 0.0W | Reserved power: 10%

POE high-level management

Explain: This function is used to set up if the trap notification is sent. Power change, the port on the lower power transmission notice, the detection period.
Notice: In practical application, it is required to control the system to transmit trap notification when the power change and the port are up and down.

Alarm-power: 245 W
Res-power: 15 %

P-supply mode: open close
Alarm-notice: open close

Save

4.5.1.2 Temperature config

In the navigation bar to select “**POE config>Temperature config**”, The alarm threshold can be set up POE chips. the following picture:

Senior management | **Temperature distribution**

Temperature config

Explain: The advised value of alarm threshold temperature is 70-120, the maximum is 149.

Chip temperature list

Chip-number	Real-time temperature	Alarm threshold	Opertion
1	61°C	107°C	
2	61°C	107°C	
3	61°C	107°C	

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【parameter description】

parameter	description
Alarm threshold	Configuration temperature alarm threshold, the range of 70-149

【instruction】

Receive the Trap notices the Snmp must be open, and set the Trap to the target host.

【Configuration example】

Such as: 1 warning threshold is set to 80 chip, chip 2 warning threshold is set to 100, chip 2 alarm threshold is set to 120

Senior management | Temperature distribution

Temperature config

Explain: The advised value of alarm threshold temperature is 70-120, the maximum is 149.

Alathold: Save

Chip temperature list

Chip-number	Real-time temperature	Alarm threshold	Opretion
1	61°C	107°C	
2	61°C	107°C	
3	61°C	107°C	

Chip temperature list

Chip-number	Real-time temperature	Alarm threshold	Opretion
1	61°C	80°C	
2	61°C	100°C	
3	61°C	120°C	

4.5.2 POE port config

In the navigation bar to select " POE>POE port config", Can be set to port POE. the following picture:

Home | Quickly Set

PORT | VLAN | Fault/Safety | POE | PoE Config | PoE Port Config | MSTP | DHCP RELAY | QOS | Addr Table | SNMP | SYSTEM

POE port list

Port	Connect	Status	Current power	Current electric	Maximum power	PD type	Enable	Priority	Detection mode	Opretion
1	off	disable	-	-	32W	-	enable	low	AT&AF	
2	off	disable	-	-	32W	-	enable	low	AT&AF	
3	off	disable	-	-	32W	-	enable	low	AT&AF	
4	off	disable	-	-	32W	-	enable	low	AT&AF	
5	off	disable	-	-	32W	-	enable	low	AT&AF	
6	off	disable	-	-	32W	-	enable	low	AT&AF	
7	off	disable	-	-	32W	-	enable	low	AT&AF	
8	off	disable	-	-	32W	-	enable	low	AT&AF	

【parameter description】

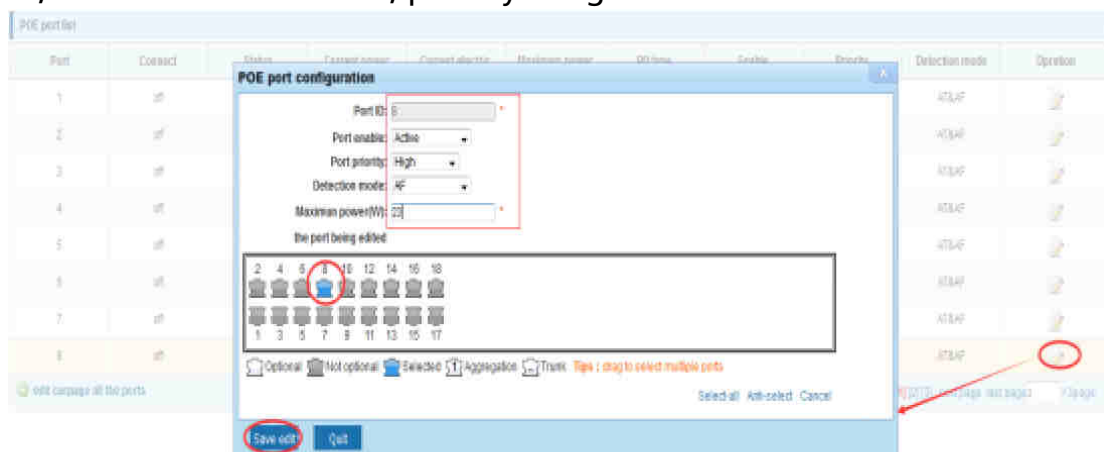
parameter	description
Maximum power	Select configure port maximum power
enable	Select configuration can make state
Priority	Configure port priority, when the load exceeds the POE power, low priority under the port of equipment will be dropped first
Detection mode	Configure port detection mode

【instruction】

Receive the Trap notices the Snmp must be open, and set the Trap to the target host.

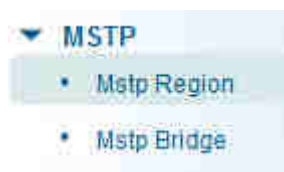
【Configuration example】

such as: port 8 enable set to active, will set the maximum power to 23 W, detection mode for AF, priority is high.



4.6 MSTP

In the navigation bar to select "MSTP", you can set to the **MSTP region and MSTP bridge configuration**.



4.6.1 MSTP region

In the navigation bar to select **"MSTP>MSTP region"**, Can modify the domain and domain name, add instance is mapped to a VLAN.the following picture

【parameter description】

parameter	description
Region name	Configure the region name
Revision level	Parameter configuration revision level
Instance ID	Select configuration instance ID
VLAN ID	Mapping of the VLAN configuration instance

【instruction】

An instance can only be mapped to a VLAN, instance and VLAN is a one-to-one relationship.

【Configuration example】

Such as: change the region to DEADBEEF0102, region name is 123, instance 4 is mapped to a VLAN 2, in the first need to create a VLAN 2

Instance Mapping

Description: mapping-related tips.

Instance ID:

Vlan ID: * For example : 1,3,5,7-10

Mapping List

Instance ID	Mapping Vlan
0	1-4094

4.6.2 MSTP bridge

In the navigation bar to select "MSTP>MSTP bridge", Can be related to bridge, port configuration, the following picture:

Mstp Bridge Config

Tips: (hello_time+1)*2<=max_age<=(f_delay-1)*2,enable the switch to set instance priority.
Attention: Enable STP or switch mode would spend 2 times of the forward delay time.

inst-priority:
 inst-id: priority:

enable: on off mode: stp rstp mstp

hello-time: * (1-10s) max-age: * (6-40s)

f-delay: * (4-30s) max-hops: * (1-40)

Mstp Port Config

Tips: Config mstp and show information.

inst: priority: * (0-240,step 16)

port-fast: off on path-cost: * (auto or 1-200000000)

auto-edge: off on point-to-point: off on auto

bpdu-guard: off on compatible: off on

bpdu-filter: off on rootguard: none root

tc-guard: off on tc-ignore: off on

【parameter description】

parameter	description
inst-priority	Whether open instance priority setting
Instance ID	Select the created instance id is configured
enable	Whether to open the STP bridge function
Bridge priority	Priority setting bridge example, the default instance bridge priority for 32768
mode	The model is divided into: the STP, RSTP, MSTP

Hello-time	Switches sends bpdus in packet interval
Max-age	Ports are not yet received a message in the time, will initiate topology changes
Forward-delay	The state of the port switch time
Port-priority	Set port instance priority, defaults to 128, you must enter multiple of 16, the range of 0-240
Path-cost	Configure port costs
Port-fast	Select configuration state
Auto-ege	Select configuration state
Point-to-point	Select configuration state
Bpdu guard	Select configuration state
Bpdu filter	Select configuration state
compatible	Select configuration state
Root guard	Select configuration state
TC guard	Select configuration state
TC filter	Select configuration state

【instruction】

(1) $(hello_time+1) \times 2 \leq max_age \leq (f_delay-1) \times 2$,enable the switch to set instance priority.

(2) Enable STP or switch mode would spend 2 times of the forward delay time.

【Configuration example】

Such as: 1) Open the STP, configuration has to create an instance of the priority, configuration time parameters, set the pattern to MSTP

Mstp Bridge Config

Tips: $(hello_time+1) \times 2 \leq max_age \leq (f_delay-1) \times 2$,enable the switch to set instance priority.

Attention: Enable STP or switch mode would spend 2 times of the forward delay time.

inst-priority :

inst-id :

priority :

enable : on off

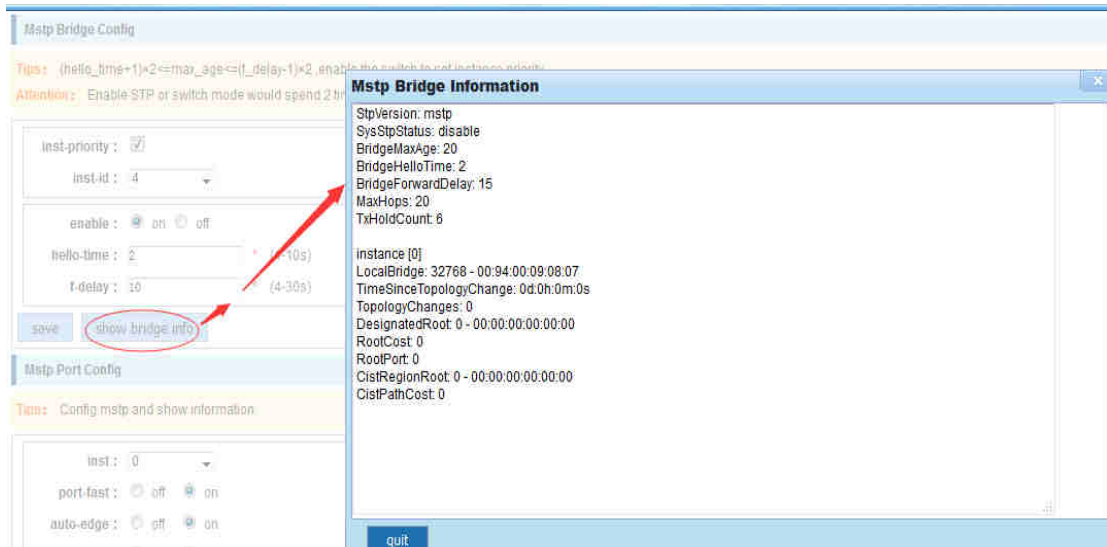
hello-time : * (1-10s)

f-delay : * (4-30s)

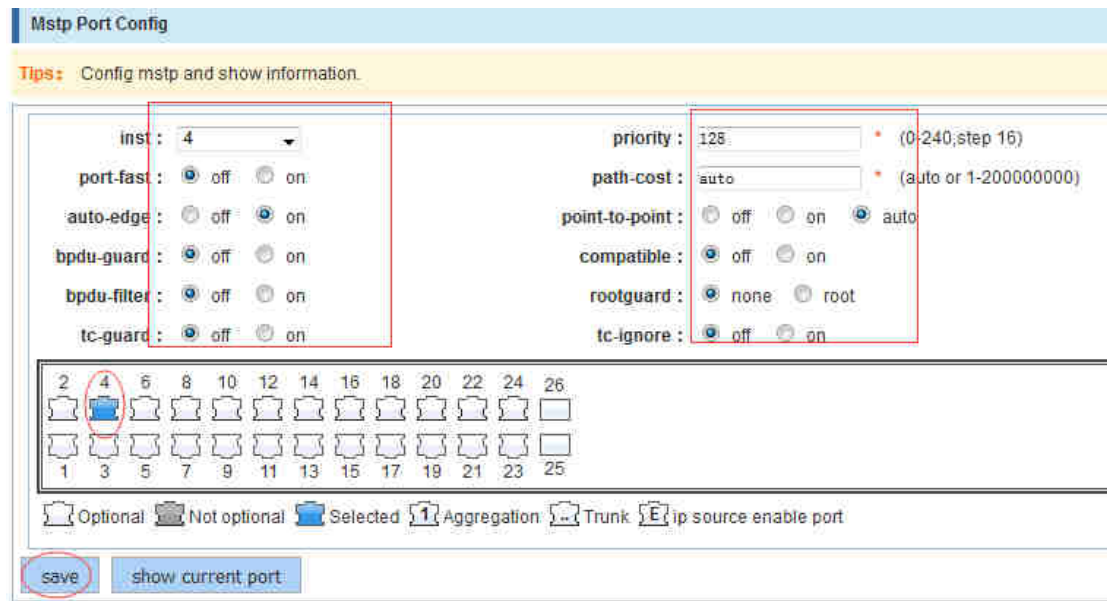
mode : stp rstp mstp

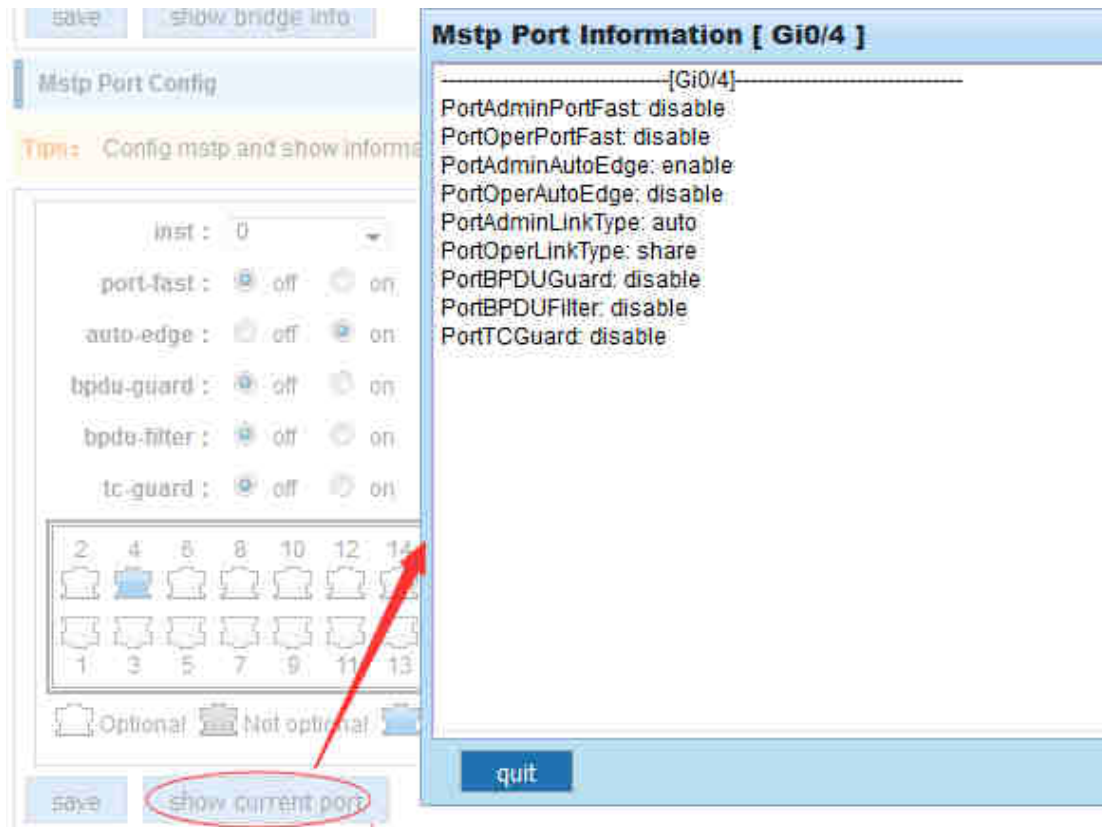
max-age : * (6-40s)

max-hops : * (1-40)



2) Set MSTP has launched port configuration, select the created instance, set priority (port configuration is not online, on-line configuration will only take effect, can click on the "view the current configuration" button to view the configured completed)





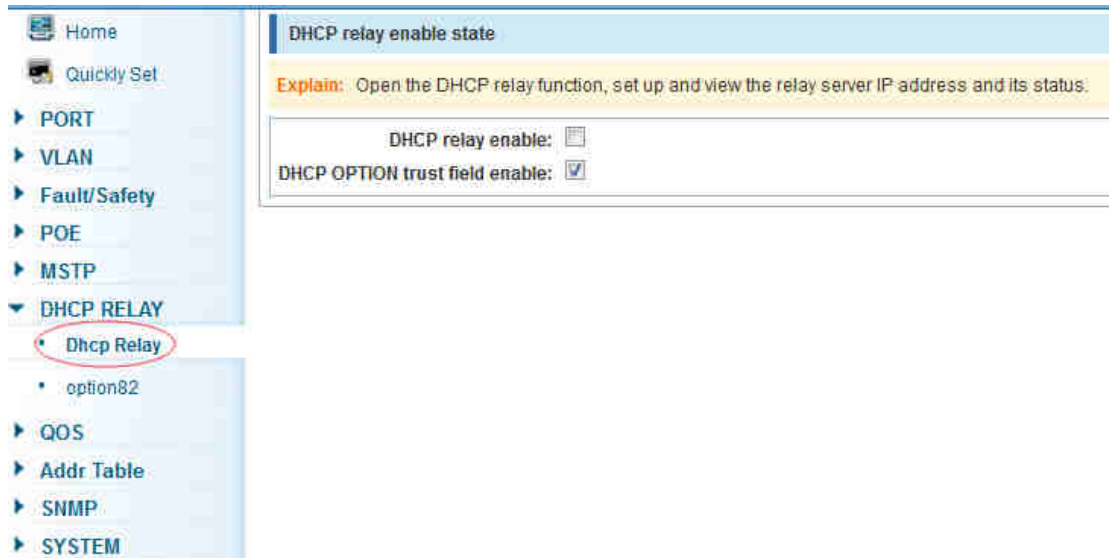
4.7 DHCP relay

In the navigation bar to select **“DHCP relay”**, you can set to the **DHCP relay** and **option82**.



4.7.1 DHCP relay

In the navigation bar to select **“DHCP relay”**, Open the DHCP relay function, set up and view the relay server IP address and its status. the following picture



【parameter description】

parameter	description
IP address	DHCP server address
status	Invalid and vaild

【instruction】

If open the function of relay agent, then receives the broadcast DHCP message, to be delivered in the form of unicast to configure on the server. The DHCP server to IP and switches in the same network segment will only take effect.

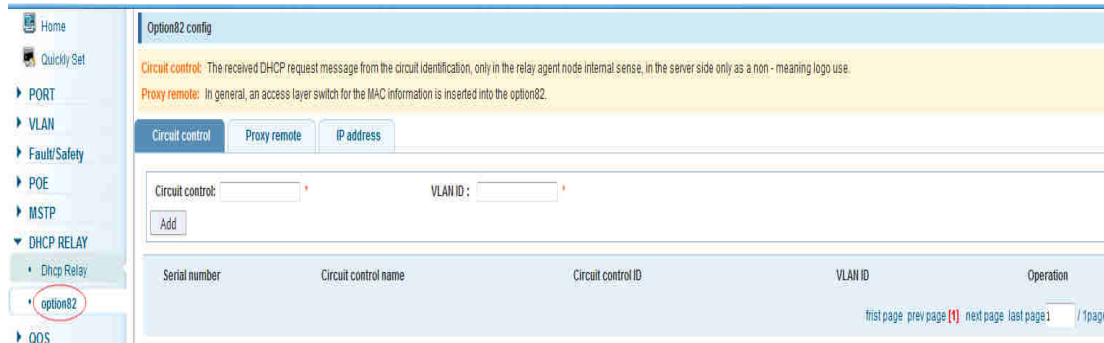
【Configuration example】

Such as: setting DHCP server ip for 192.168.2.22



4.7.2 Option82

In the navigation bar to select “**DHCP relay>option82**”, can set to OPTION82 circuit control、 proxy remote 、 ip address。 the following picture:



【parameter description】

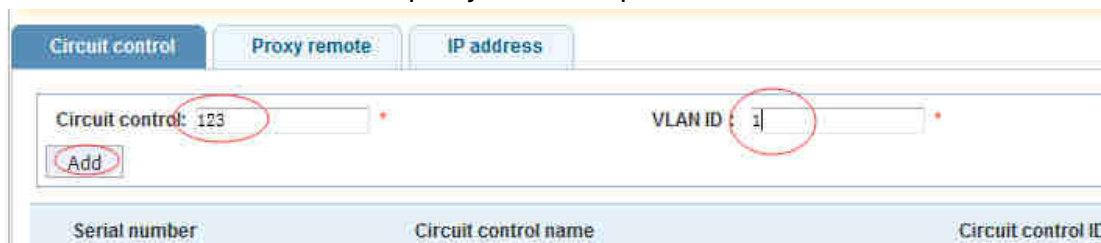
parameter	description
VLAN id	the DHCP request message in the VLAN, value range is 1 ~ 4094
Circuit control	Circuit ID to populate the user custom content, scope of string length is 3 ~ 63
Proxy remote	Configuration ASCII remote id string value, the length of the range of 1 ~ 63
IP address	Decimal IP address

【instruction】

Switches, relay information to the DHCP server will take option82, VLAN ID must be configured to DHCP message taken VLAN can bring option82 information.

【Configuration example】

Such as: add circuit control、 proxy remote、 ip address information



Proxy remote: In general, an access layer switch for the MAC information is inserted into the option82.

Circuit control | **Proxy remote** | IP address

Proxy remote: swet VLAN ID: 1

Add

Serial number	Proxy remote name	Proxy remote ID
---------------	-------------------	-----------------

Circuit control | Proxy remote | **IP address**

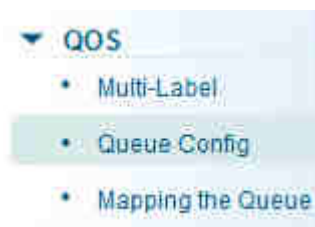
IP address: 192.168.2.35 VLAN ID: 1

Add

Serial number	IP address
---------------	------------

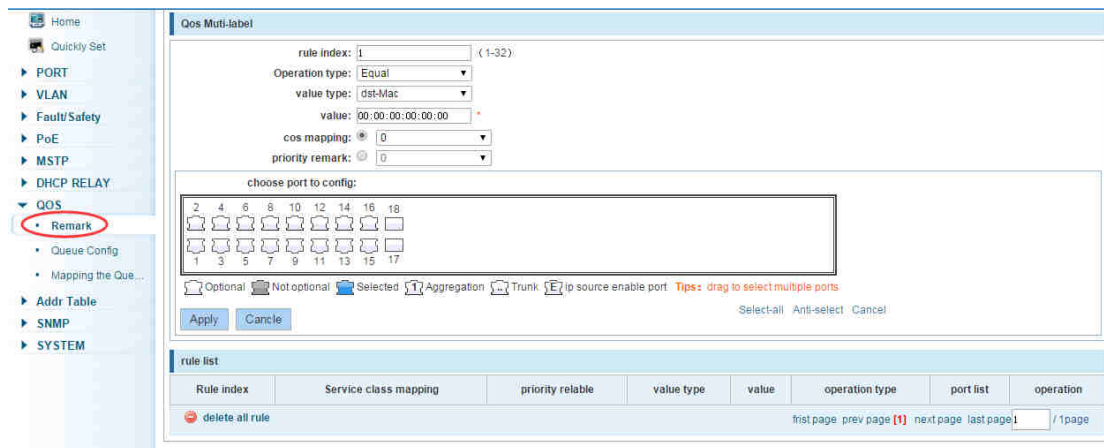
4.8 QoS

In the navigation bar to select **“QoS”**, you can set to the **QoS multi-label, queue config and** mapping the queue



4.8.1 QoS multi

In the navigation bar to select **“QoS>QoS multi-label”**, According to the rules for port traffic bag tag or queue map. the following picture



【parameter description】

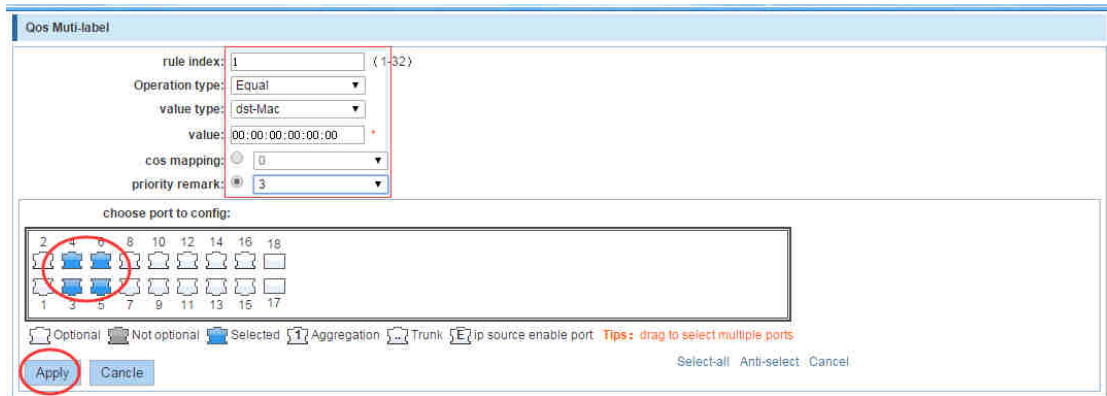
parameter	parameter
Rule index	By setting the rule of heavy tag index number, the current switch can be set up 32 rule
Operation type	Choose always said - match the match, all the data for tags Choose can be set to equal matching rules, comply with the rules of heavy tag data
Server class mapping	Adaptable to the rules of the heavy tag which data is mapped to a queue
Priority reliable	Conform to the rules of heavy tag data to the marked priority values
Value tye	Set heavy tag matching rules, such as choice goal Mac, just check the data destination Mac address is in accordance with the rules
value	Set the value of matching, such as choice goal Mac for HH: HH: HH: HH: HH: HH
Choose port to config	The application of heavy tag on which interface
apply	Click on the application of heavy marking rules to take effect

【instruction】

According to the different matching rules to map different packages to different cos, and then according to the mapping relationship cos and queue queue to map different packages to different queue, can also set the priority value of a tag heavy bag.

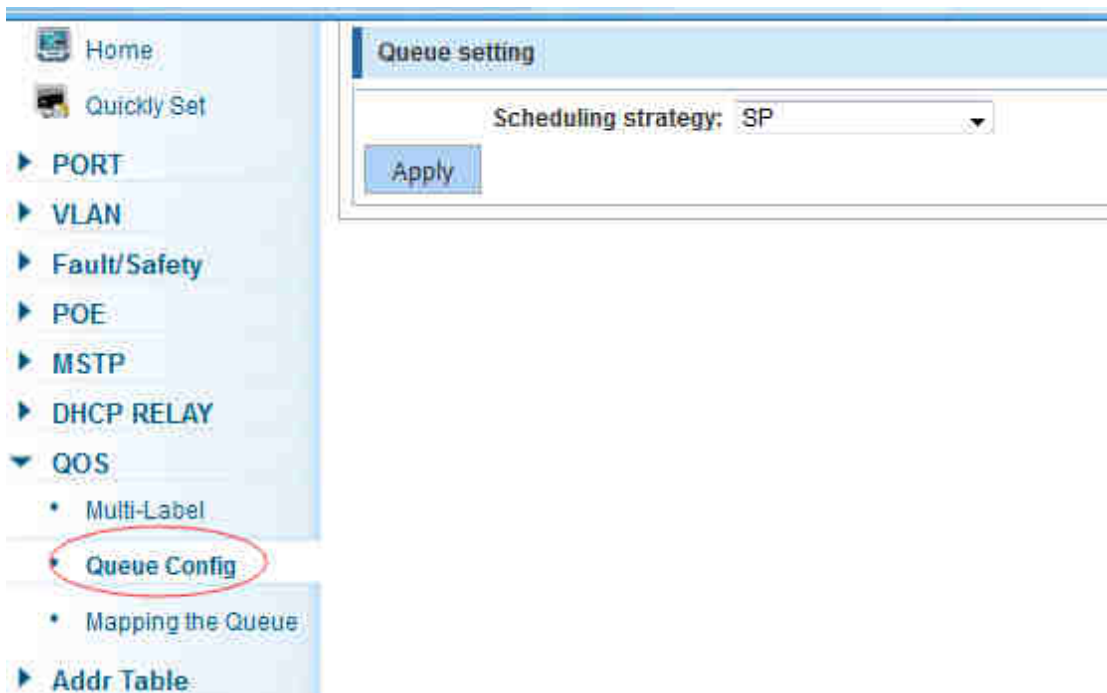
【Configuration example】

Such as: will the destination address for 00:02:03:0b:89:12 packets are forwarded to the port 3, 4, 5, 6, priority of remarked as 3



4.8.2 Queue config

In the navigation bar to select “ **QoS>queue config**”, Can be set up queue scheduling policy . the following picture:



【parameter description】

parameter	description
Scheduling strategy	Can choose four kinds of modes: RR round-robin scheduling SP absolute priority scheduling WRR weighted round-robin scheduling WFQ weighted fair scheduling
WRR-weights	Set the weights of each queue, they will be in proportion to occupy the bandwidth to send data

【instruction】

Queue 7 can not for 0.

【Configuration example】

Such as: set the scheduling strategy for WRR, weight value respectively, 10, 11, 12, 12, 14, 15, 16, 17.

Queue setting

Scheduling strategy: WRR

Byte weight(0~127): 10 11 12 13 14 15 16 17

Apply

4.8.3 Mapping the queue

4.8.3.1 Service class queue mapping

In the navigation bar to select “QoS>mapping the queue”, Service category can be mapped to the corresponding queue.the following picture

Service class to queue mapping

Mapping queue status information:

server ID	0	1	2	3	4	5	6	7
queue ID	0	1	2	3	4	5	6	7

save

【parameter description】

parameter	description
Server ID	COS the VLAN priority fields (0 to 7)
Queue ID	Set each cosine value mapping queue number (0 to 7)

【instruction】

【Configuration example】

Such as: cos 3 mapping to the queue 7, set the queue weight 7 to 10

Service class to queue mapping Differential service to service class mapping Port to service class mapping

Mapping queue status information

server ID	0	1	2	3	4	5	6	7
queue ID	0	1	2	7	4	5	6	7

save

Queue setting

Scheduling strategy: WRR

Byte weight(0~127): 0 0 0 0 0 0 0 10

Apply

4.8.3.2 Differential service class mapping

In the navigation bar to select “QoS>mapping the queue>differential service class mapping”, Differential service can be mapped to the corresponding service categories.the following picture:

Service class to queue mapping Differential service to service class mapping Port to service class mapping

Differential service code point mapping team list

server ID	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
server list 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
server ID	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
server list 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
server ID	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
server list 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
server ID	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
server list 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

save

【parameter description】

parameter	description
Server list	DSCP field has seven (0-63) is divided into four tables
Queue ID	Map the DSCP to COS fields (0 to 7), based on the cosine is mapped to a queue

【instruction】

Cos priority is greater than the DSCP, DSCP priority is greater than the port

【Configuration example】

Such as: the DSCP value of 3, 12,23 mapping to cos 5

Service class to queue mapping Differential service to service class mapping Port to service class mapping

Differential service code point mapping team list

server ID	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
server list 1	0	0	0	5	0	0	0	0	0	0	0	0	0	5	0	0
server ID	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
server list 2	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0
server ID	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
server list 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
server ID	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
server list 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

save

4.8.3.3 Port to service class mapping

In the navigation bar to select “QoS>mapping the queue>port to service class mapping”, Port can be mapped to the corresponding service categories. the following picture:

Service class to queue mapping Differential service to service class mapping Port to service class mapping

port COS mapping

port: 1
server ID: 0

apply

control list

port	server ID							
	0	1	2	3	4	5	6	7
1	T							
2	T							
3	T							
4	T							
5	T							
6	T							
7	T							
8	T							

first page prev page 1/1 2/2 3/3 4/4 next page last page 1 /4page

【parameter description】

parameter	description
Port	Select the port number (0-16)
Service ID	Mapped to the service ID, and then according to the service ID into the queue

【instruction】

Cos priority is greater than the DSCP, DSCP priority is greater than the port

【Configuration example】

Such as: port 4、5、6 respectively cos4、cos5、cos6.

port COS mapping

port: 4
server ID: 4

apply

port COS mapping

port: 5
server ID: 5

apply

port COS mapping

port: 6
server ID: 6

apply

control list

port	server ID							
	0	1	2	3	4	5	6	
1	T							
2	T							
3	T							
4					T			
5						T		
6							T	
7	T							
8	T							

4.9 Address table

In the navigation bar to select "Address table", you can set to **MAC add and**

delete, MACstudy and aging and MAC address filtering

4.9.1 Mac add and delete

In the navigation bar to select "**Address table>Mac add and delete**", You can add static Mac and delete Mac and view to the current of the Mac address table.the following picture:

【parameter description】

parameter	description
Clear Mac	Can choose to clear the multicast Mac address, clear dynamic unicast Mac address, clear static unicast Mac address, clear the specified Mac address, Mac address table
VLAN	Fill in the need to add or delete VLAN id, not create vlans to create can only take effect

【instruction】

According to different conditions to clear Mac address, view/add/learn the Mac address, Mac address filtering

【Configuration example】

Such as: 1) the port 6 Mac set to static Mac

2 4 6 8 10 12 14 16 18
 1 3 5 7 9 11 13 15 17

Optional Not optional Selected Aggregation Trunk

Vlan: (1--4094)
 Mac address:

2) clear port 6 static Mac addresses

Mac add and delete | **Mac study and Ageing** | **Mac address filtering**

clear MAC:

Vlan: (1--4094)
 Mac address:

4.9.2 Mac study and laging

In the navigation bar to select **address table > Mac study and laging**, Can be set up port Mac address study limit and Mac address aging time . the following picture:

Address Table Config

explain: Clear the MAC address under different conditions, view / add / learn MAC address, MAC address filtering.

Mac add and delete | **Mac study and aging** | **Mac address filtering**

2 4 6 8 10 12 14 16 18
 1 3 5 7 9 11 13 15 17

Optional Not optional Selected Aggregation Trunk **Tips: drag to select multiple ports**

Mac address study limit: (0 indicates not limit, 0-8191)

Mac address Aging time: (0 indicates not aging, 10-1000000 second)

serial number	port	MAC address study limit number
1	Gi0/1	8191
2	Gi0/2	8191
3	Gi0/3	8191
4	Gi0/4	8191
5	Gi0/5	8191
6	Gi0/6	8191
7	Gi0/7	8191
8	Gi0/8	8191

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【parameter description】

parameter	description
Mac address	Range 0-8191, default 8191
Mac address study limit	Default 300

【instruction】

【Configuration example】

Such as: 1) setting port 5, 6, 7, 8 address study limit for 2000

2) will be dropped or learn the Mac address of the port equipment after 2 minutes disappear automatically from the Mac address table

4.9.3 Mac address filtering

In the navigation bar to select "address table>Mac address table", Can be filtered according to the condition does not need the Mac address. the following picture:

【parameter description】

parameter	description
Mac address	Can not add multicast Mac address

VLAN	VLAN number
------	-------------

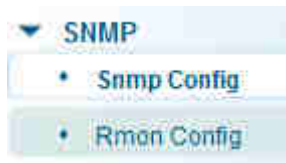
【instruction】

【Configuration example】

Such as: the Mac address for 00:20:15:09:12:12 added to the filter in the table

4.10 Snmp config

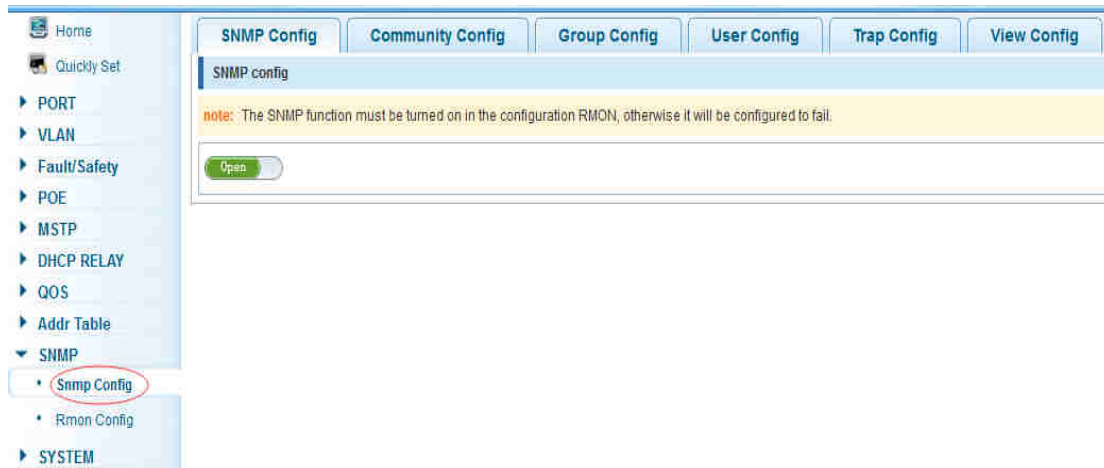
In the navigation bar to select **"Snmp"**, you can set to **Snmp config and Rmon config**



4.10.1 Snmp config

4.10.1.1 Snmp config

In the navigation bar to select **"Snmp >Snmp config"**, you can Snmp function enable the following picture:



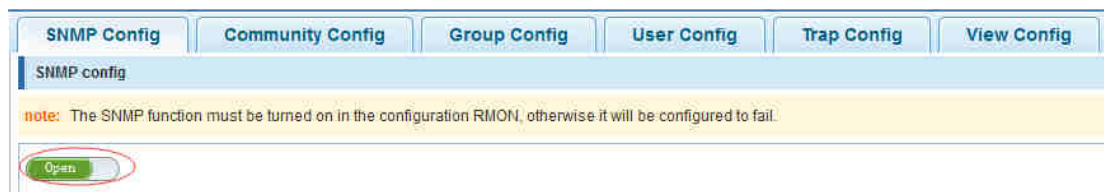
【parameter description】

【instruction】

The SNMP function must be turned on in the configuration RMON, otherwise it will be configured to fail

【Configuration example】

Such as: open Snmp



4.10.1.2 Community config

In the navigation bar to select "Snm > Snm config > community config", Can specify group access. the following picture



【parameter description】

parameter	description
group	Community string, is equal to the NMS and Snmp agent

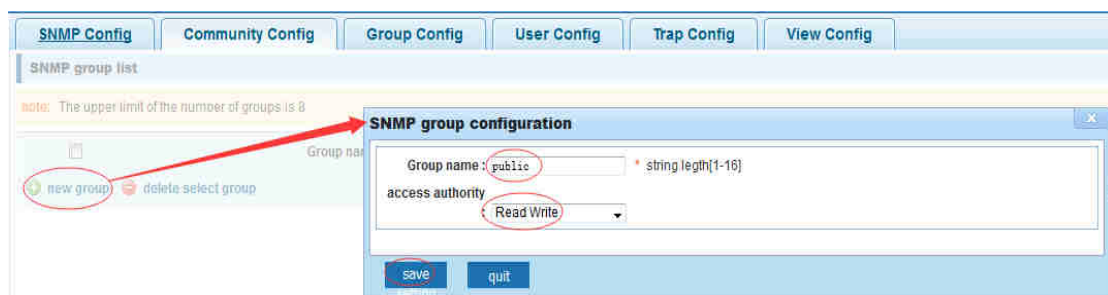
	communication between the password
	Read-only: specify the NMS (Snmp host) of MIB variables can only be read, cannot be modified
Access authority	Read-only can write: specify the NMS (Snmp host) of MIB variables can only read, can also be modified

【instruction】

The upper limit of the number of groups is 8

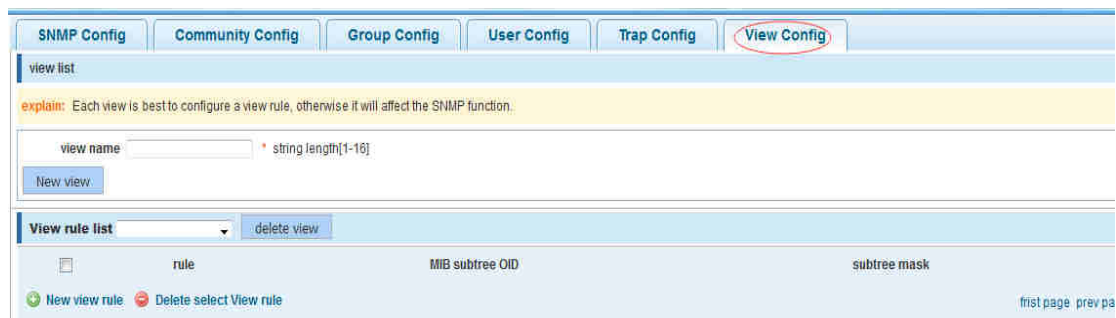
【Configuration example】

Such as: add a read-write group called public



4.10.1.3 View config

In the navigation bar to select “**Snmp > Snmp config > view config**”, Set the view the rules to allow or disable access to some of the MIB object. the following picture



【parameter description】

parameter	description
View name	View mane
include	Indicate the MIB object number contained within the view
exclude	Indicate the MIB object son number was left out of view
MIB subtree OID	View the associated MIB object, is a number of MIB
subtree mask	MIB OID mask

【instruction】

Each view is best to configure a view rule, otherwise it will affect the SNMP function

【Configuration example】

such as: establish a view 123 , MIB subtree oid .1.3.6.1 contain among them

The screenshot shows the 'view list' configuration page. At the top, there is a 'view name' field with the value '123' and a 'New view' button. Below this is an 'explain' note: 'Each view is best to configure a view rule, otherwise it will affect the SNMP function.' The main navigation bar includes 'SNMP Config', 'Community Config', 'Group Config', 'User Config', 'Trap Config', and 'View Config'. The 'View Config' tab is active. In the 'View rule list' section, a 'New view rule' button is highlighted with a red circle. A red arrow points from this button to the 'edit view rule' dialog box. The dialog box contains a warning: 'Excluded is not effective for a subset of the excluded content, which is not valid for the included.' It has radio buttons for 'contain' (selected) and 'exclude'. The 'MIB subtree OID' field contains '.1.3.6.1' and the 'subtree mask' field is empty. The dialog has 'save' and 'quit' buttons.

4.10.1.4 Group config

In the navigation bar to select "SnmP>SnmP config>group config", setting Snmp group. the following picture

The screenshot shows the 'SNMP group' configuration page. The navigation bar includes 'SNMP Config', 'Community Config', 'Group Config' (circled in red), 'User Config', 'Trap Config', and 'View Config'. Below the navigation bar, there is a 'note': 'The number of groups configured is 0'. The main content area has a table with columns: 'group name', 'security level', 'read view', 'read and write view', 'notify view', and 'operation'. At the bottom, there are 'new group' and 'delete select group' buttons, and a pagination control showing '1/1 page'.

【parameter description】

parameter	description
Group name	Group name
Security level	Attestation not only encryption: this group of users transmission of the message need to verify the data don't

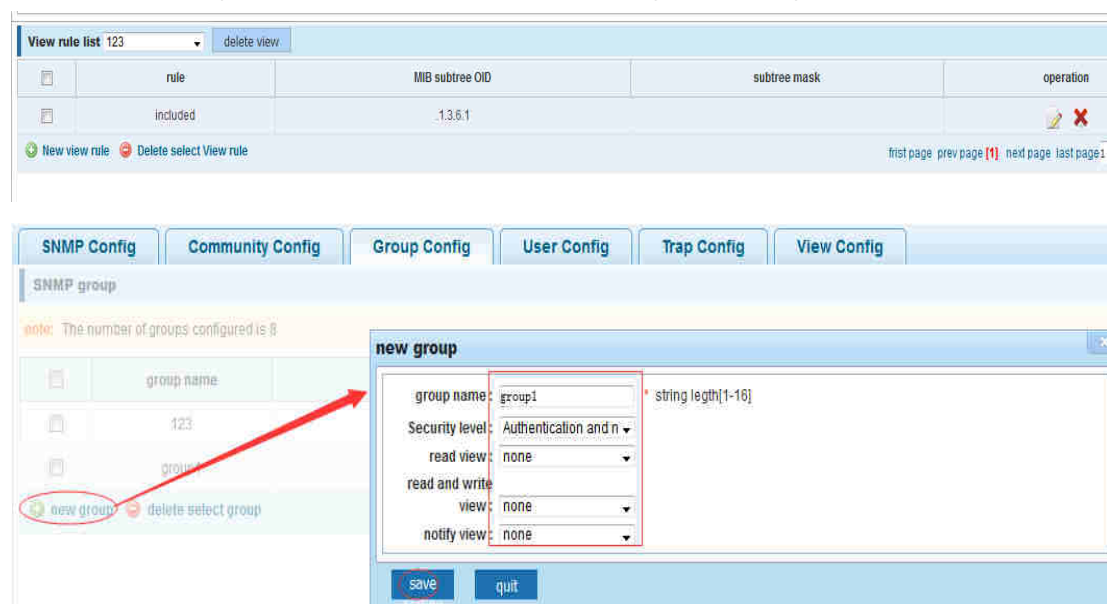
	<p>need to confidential</p> <p>No authentication encryption: this group of users' messages don't need to verify data transmission also does not need to be kept secret</p> <p>Both authentication and encryption: this group of users need to verify the news of transmission and transmission of data need to be kept secret</p>
Read view、 read and write view 、 study view	The associated view name

【instruction】

Before the cap on the number set of configuration of 8, the new group needs a new view to create a group.

【Configuration example】

Such as: firstly, new view 123, then new group of goup1



4.10.1.5 User config

In the navigation bar to select **“SnmP>SnmP config>user config”**, setting Snmp user. the following picture:



【parameter description】

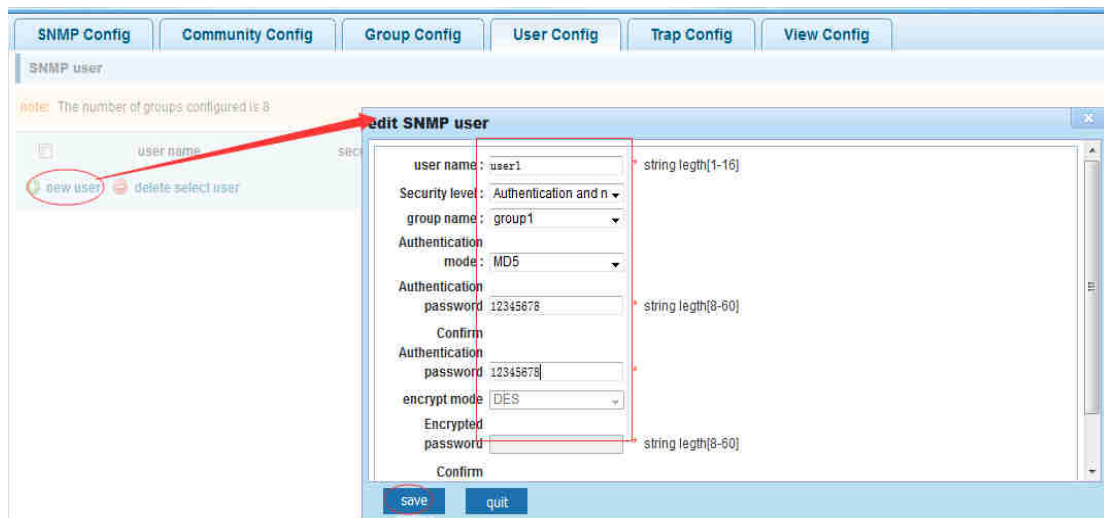
parameter	description
User name	User name, range 1-16
Security level	<p>Attestation not only encryption: this group of users transmission of the message need to verify the data don't need to confidential</p> <p>No authentication encryption: this group of users' messages don't need to verify data transmission also does not need to be kept secret</p> <p>Both authentication and encryption: this group of users need to verify the news of transmission and transmission of data need to be kept secret</p>
Authentication mode	Specified use MD5 authentication protocol or SHA authentication protocol
Authentication password	Range 8-10
encrypt mode	Specified using AES encryption protocol or DES encryption protocol
Group name	A user group name
encrypt password	Range 8-60

【instruction】

Cap on the number configuration of 8, users need a new view and group to use, the user's security level must be consistent with the group level of security. Add a user authentication and encryption, and configure belong to groups of users, the user will be used for Snmpv3 connection.

【Configuration example】

Such as: new view 123, the newly built group group1, new users user1



4.10.1.6 Trap

In the navigation bar to select **"Snm>Snm config>Trap"**, Can specify sent the trap messages to Snmp host (NMS). the following picture:



【parameter description】

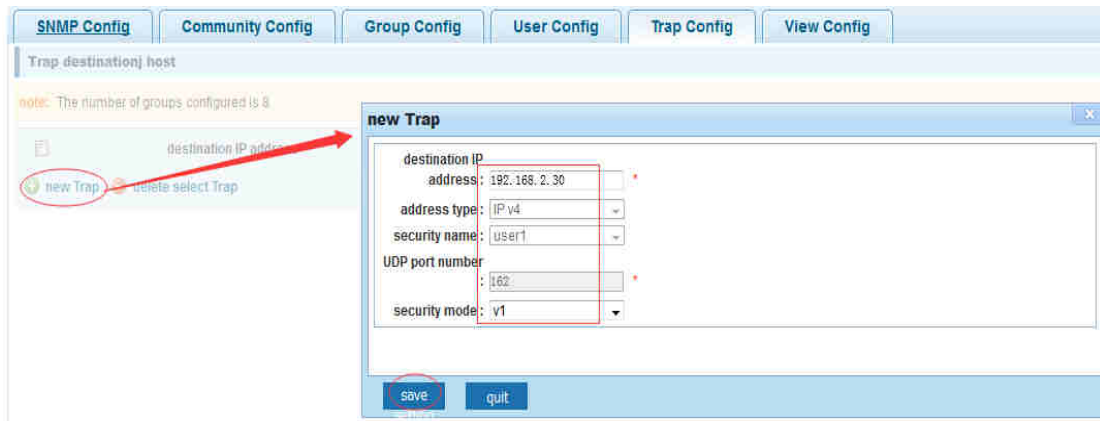
parameter	description
Destination ip address	Snmp host ipv4 address
Security name	Snmp user name
version	V1、 V2、 V3
Security mode	Specified using AES encryption protocol or DES encryption protocol
Group name	User group name

【instruction】

The Trap cap on the number configuration of 8, you can configure a number of different Snmp Trap host used to receive messages. Trigger the trap message time: port Linkup/LinkDown, equipment of cold - start (restart when power supply drop)/warm - start (a warm restart), and Rmon set port port statistical fluctuation threshold.

【Configuration example】

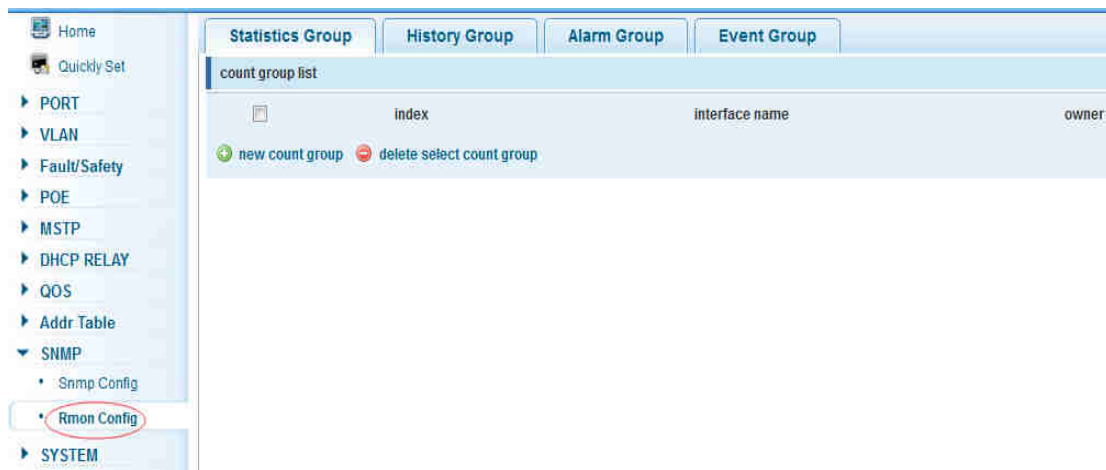
如：setting host 192.168.2.30 receive trap information



4.10.2 Rmon config

4.10.2.1 Statistics group

In the navigation bar to select “**SnmP>Rmon config>statistics group**”, Set an Ethernet interface statistics 。 the following picture:



【parameter description】

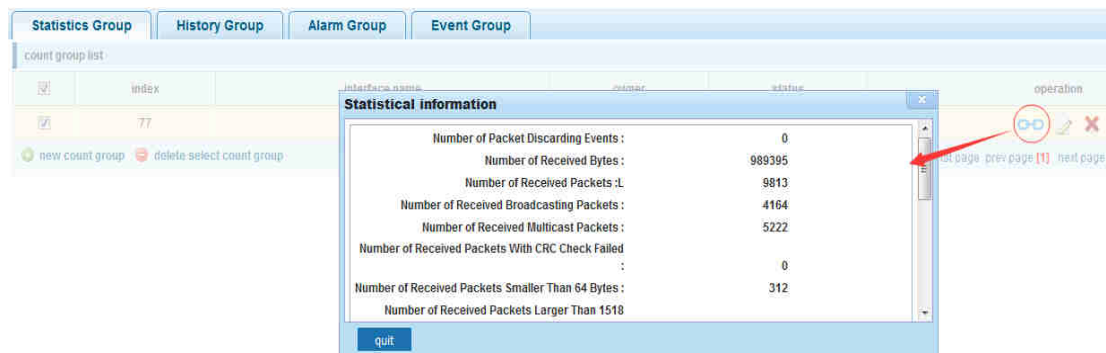
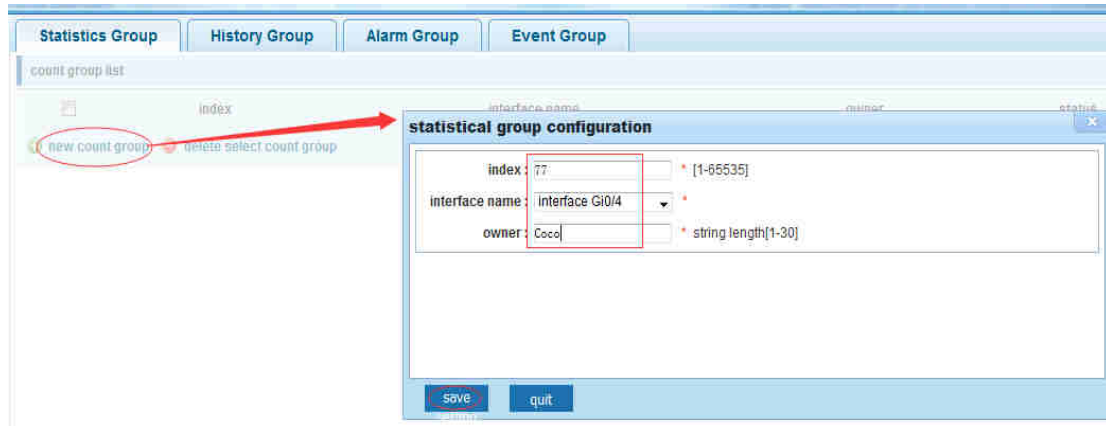
parameter	description
index	The index number, the value range of statistical information table is 1 ~ 65535
Interface mane	To monitor the source port
ower	Set the table creator, range: 1 ~ 30 characters of a string

【instruction】

At the time of configuration Rmon Snmp functions must be open, otherwise the prompt dialog box will appear.

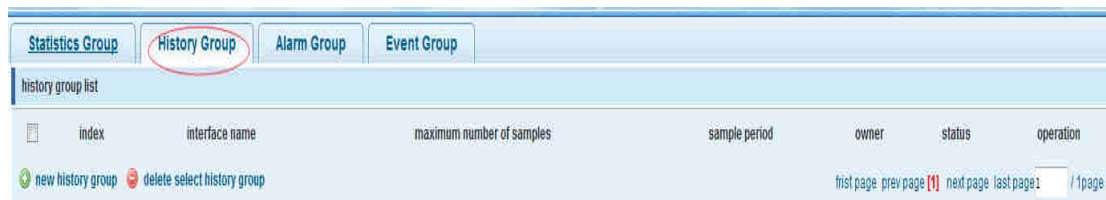
【Configuration example】

Such as: set up monitoring Ethernet port after 4 to check the data



4.10.2.2 History group

In the navigation bar to select **“Snmp>Rmon config>history group”**, Record the history of an Ethernet interface information. the following picture



【parameter description】

parameter	description
index	Historical control table item index number, value range is 1 ~ 65535
Interface name	To record the Ethernet interface
Maximum number	Set the history control table item of the corresponding

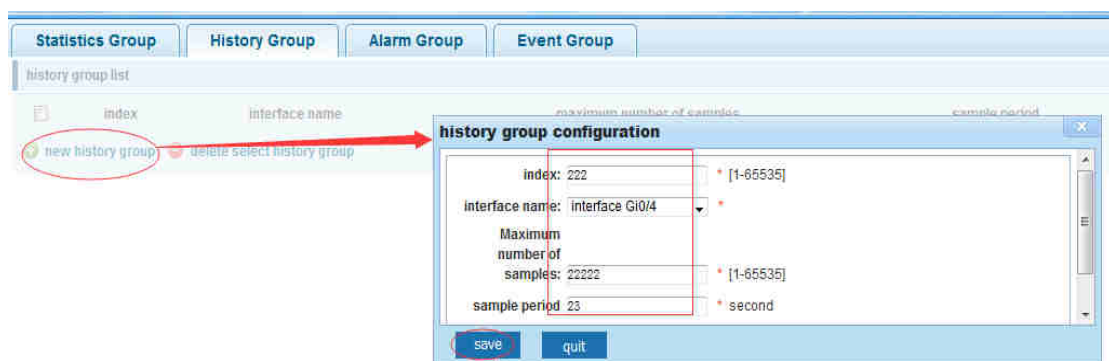
of samples	table capacity, namely the Max for number of records the history table, value range is 1 ~ 65535
Sample period	Set up the statistical period, scope for 5 ~ 3600, the unit is in seconds
owner	Set the table creator, range: 1 ~ 30 characters of a string

【instruction】

At the time of configuration Rmon Smp functions must be open, otherwise the prompt dialog box will appear.

【Configuration example】

Such as: monitor Ethernet port 4 historical information



4.10.2.3 Event group

In the navigation bar to select **"Smp > Rmon config > event group"**, The way in which define events trigger and record them. the following picture



【parameter description】

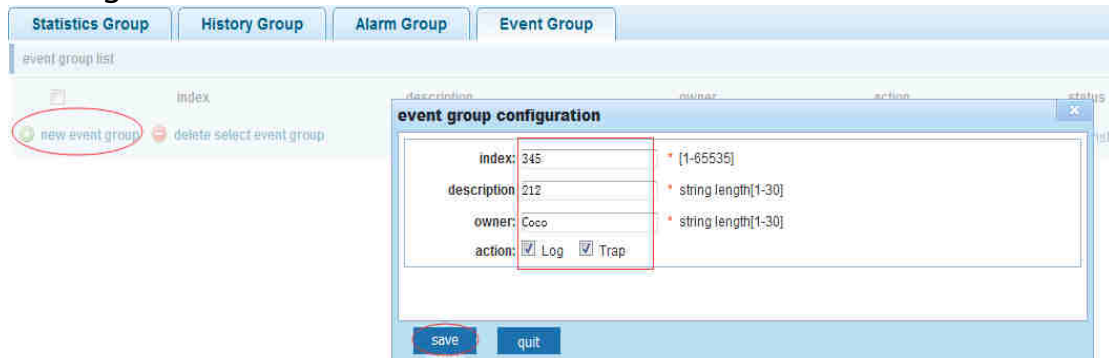
parameter	description
index	The index number, the value range of the event table is 1 ~ 65535
description	The Trap events, when the event is triggered, the system will send the Trap message Log events, when the event is triggered, the system will log
owner	Set the table creator, ownername for 1 ~ 30 characters of a string

【instruction】

At the time of configuration Rmon Snmp functions must be open, otherwise the prompt dialog box will appear.

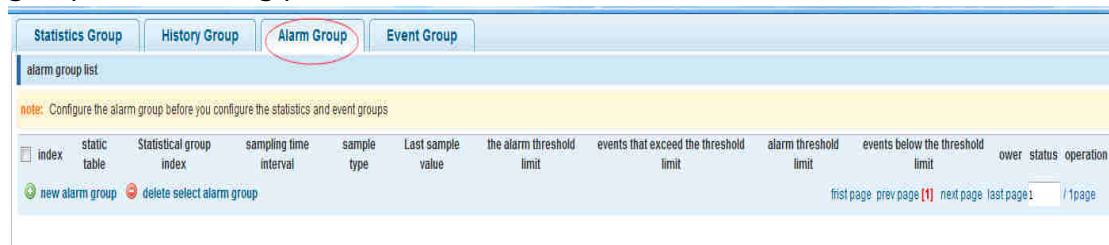
【Configuration example】

Such as: create an event to trigger 345, the system sends the trap message and log



4.10.2.4 Alarm group

In the navigation bar to select “**Snmp>Rmon config>alarm group**”, define alarm group. the following picture



【parameter description】

parameter	description
index	The alarm list items index number, value range is 1 ~ 65535
Static table	Statistical type values : 3:DropEvents; 4:Octets; 5:Pkts; 6:BroadcastPkts; 7:MulticastPkts; 8:CRCAAlignErrors; 9:UndersizePkts; 10:OversizePkts; 11:Fragments; 12:Jabbers; 12:Collisions; 14:Pkts64Octets; 15:Pkts65to127Octets; 16:Pkts128to255Octets; 17:Pkts256to511Octets; 18:Pkts512to1023Octets; 19:Pkts1024to1518Octets
statistical index	Set up the corresponding statistics statistical index number, decided to statistics to monitor the port number

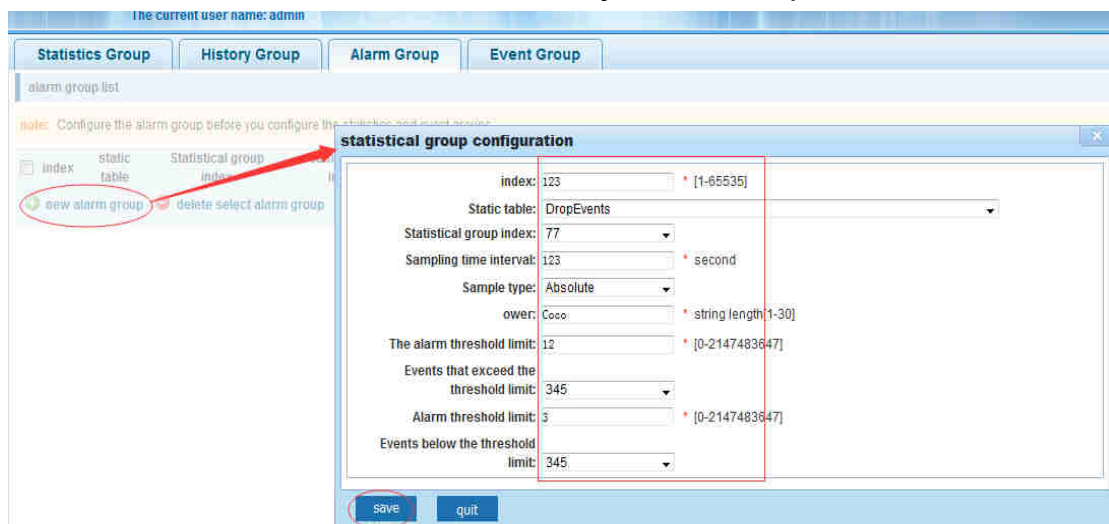
Sampling interval	Sampling time interval, the scope for 5 ~ 65535, the unit for seconds
The sampling type	Sample types for the absolute value of sampling, the sampling time arrived directly extracting the value of a variable
The latest sampling	Sampling type for change value sampling, extraction of the arrival of the sampling time is variable in the change of the sampling interval value
The alarm threshold upper limit	Set the upper limit the parameter values
The alarm threshold lower limit	Set the lower limit parameter values
Above/below the threshold limit of events	Upper/lower limit reached, for each event
owner	Set the table creator, ownername for 1 ~ 30 characters of a string

【instruction】

At the time of configuration Rmon Snmp functions must be open, otherwise the prompt dialog box will appear. This configuration need to configure statistics groups and events.

【Configuration example】

Such as: new statistics group of 77 and the event group 345, set up more than 12 and below the lower limit 3 ,Beyond the scope of alarm



4.11 System

In the navigation bar to select **“System”**, you can set to the system config、 **system update**、 **config management**、 **config save**、 **administor privileges** and **info collect**.



4.11.1 System

4.11.1.1 System config

In the navigation bar to select **“system>system config”**, Basic information set switch. the following picture:

【parameter description】

parameter	description
-----------	-------------

Device name	switch name
Manage VLAN	Switches use VLAN management
Manage ip	Switch IP address management
timeout	Don't use more than login timeout after login to log in again

【instruction】

【Configuration example】

Such as: 1) set up the VLAN 2 is management VLAN, should first created vlan 2 the VLAN Settings, and set a free port in the VLAN 2

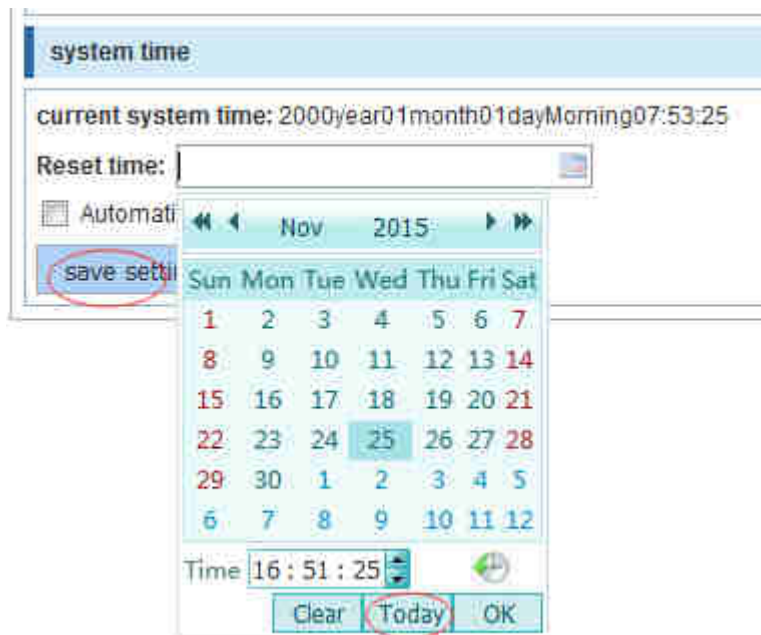
The screenshot displays a network management web interface. The top navigation bar includes 'Home', 'Quickly Set', 'PORT', 'VLAN', 'VLAN Config' (circled in red), 'Fault/Safety', 'POE', and 'MCTP'. The 'VLAN' section is active, showing a 'VLAN list' table with columns for VLAN ID, VLAN name, VLAN IP address, port, and operation. Two VLANs are listed: VLAN 1 (VLAN0001, IP 192.168.2.1/24, port 1-8, 11-26) and VLAN 2 (VLAN0002, port 9-10). Below the table are buttons for 'New VLAN' and 'delete selected VLAN'. The bottom section, 'system basic information', contains fields for 'manage VLAN' (set to 1), 'manage IP' (192.168.2.1), 'mask' (255.255.255.0), 'default gateway' (0.0.0.0), 'DNS server' (0.0.0.0), 'login timeout(minute): 30', 'device MAC' (00:94:00:09:08:07), 'device name' (Switch), 'device position', 'Contact person', 'Contact information', and buttons for 'save settings' and 'Set management vlan' (circled in red).

System settings	System restart	Password change	System log
system basic information			
manage VLAN: 2 *	device MAC: 00:94:00:09:08:07		
manage IP: 192.168.2.1 *	device name: Switch		
mask: 255.255.255.0 *	device position:		
default	Contact person:		
gateway: 0.0.0.0	Contact		
DNS server: 0.0.0.0	information:		
login			
timeout(minute): 30			
<input type="button" value="save settings"/>	<input type="button" value="cancel settings"/>		

2) insert the PC interface 9 or 10 ports, set up the management IP for 192.168.2.12, device name is yoyo, timeout for 20 minutes

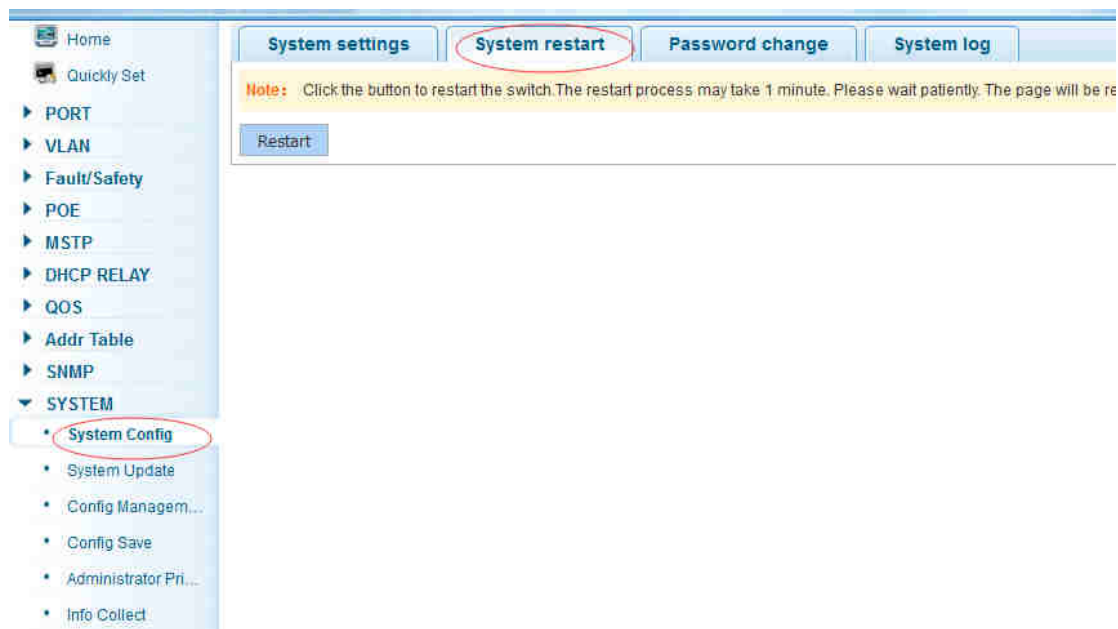
System settings	System restart	Password change	System log
system basic information			
manage VLAN: 2 *	device MAC: 00:94:00:09:08:07		
manage IP: 192.168.2.12 *	device name: YOYO		
mask: 255.255.255.0 *	device position:		
default	Contact person:		
gateway: 0.0.0.0	Contact		
DNS server: 0.0.0.0	information:		
login			
timeout(minute): 20			
<input type="button" value="save settings"/>	<input type="button" value="Set management vlan"/>		

3) use 192.168.1.12 logging in, sets the system time



4.11.1.2 System restart

In the navigation bar to select **“system config>system restart”**, equipment can be restarted. the following picture:



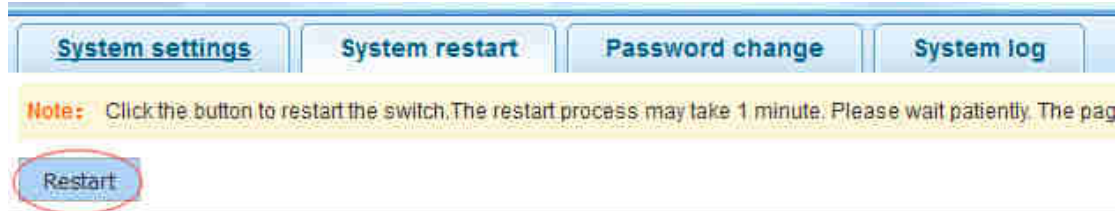
【parameter description】

【instruction】

Click the button to restart the switch. The restart process may take 1 minute. Please wait patiently. The page will be refreshed automatically after device restart.

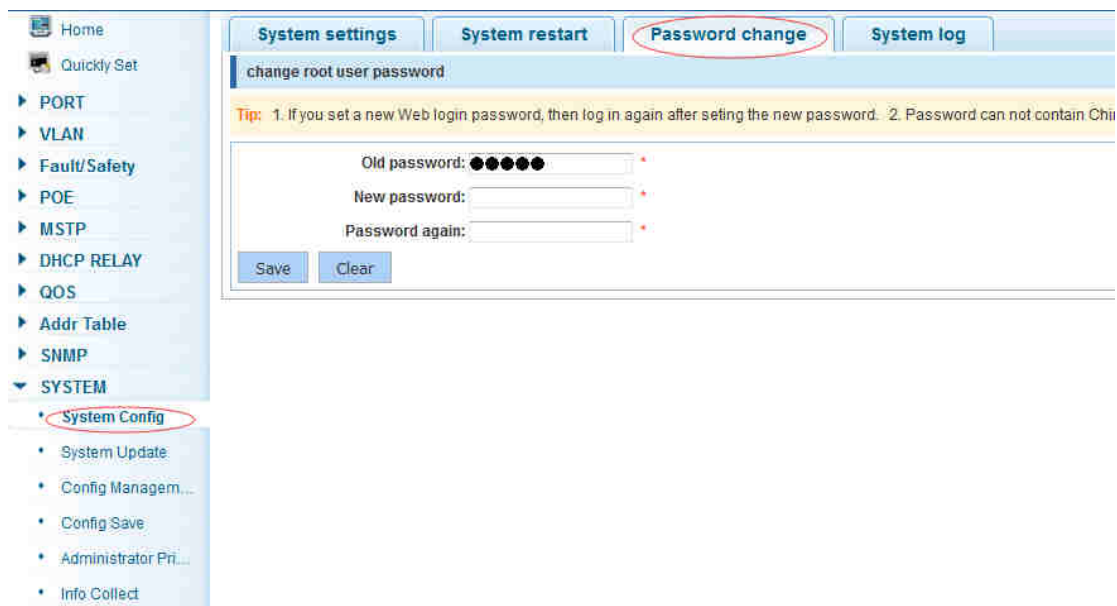
【Configuration example】

Such as: click “restart” button



4.11.1.3 Password change

In the navigation bar to select “**system config>password change**”, The password change to equipment. the following picture



【parameter description】

【instruction】

1. If you set a new Web login password, then log in again after setting the new password.
2. Password can not contain Chinese, full-width characters, question marks and spaces.

3. If forget the password reset, can be reset in the console.

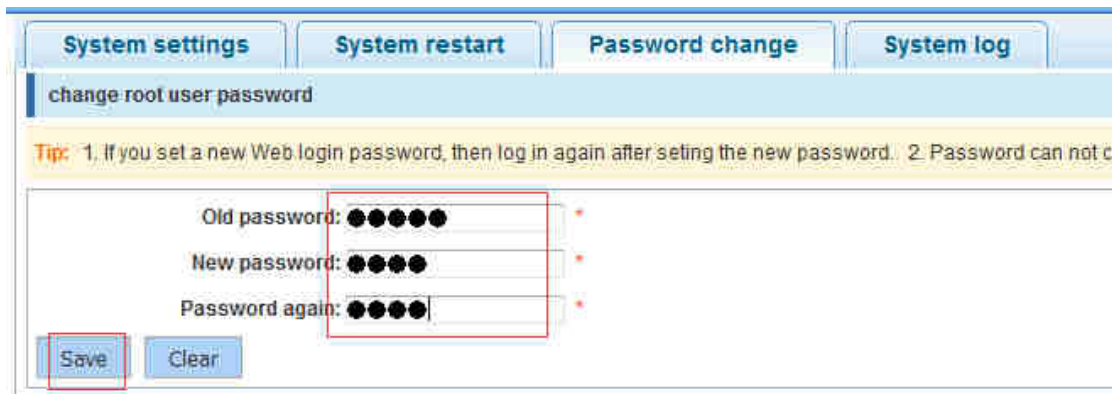
switch(config)# password admin

New Password: 3456

Confirm Password: 3456

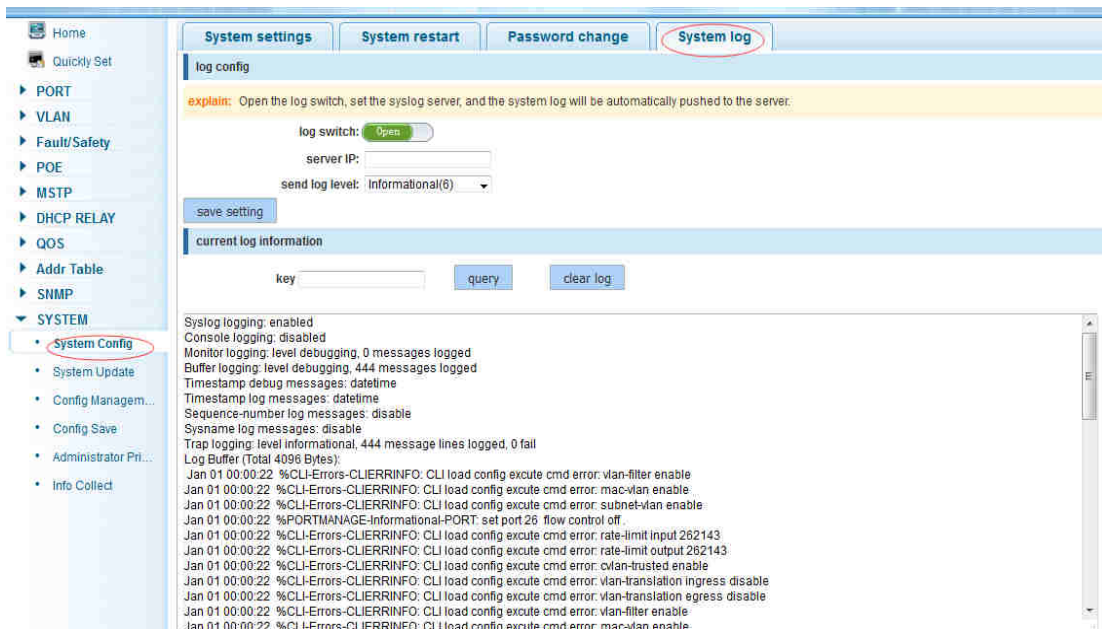
【Configuration example】

Such as: amend the password to 1234.



4.11.1.4 System log

In the navigation bar to select "password change>system log", to view the log and set up the log server. The following picture:



【parameter description】

parameter	description
-----------	-------------

Log switch	Open and close
Server ip	Appoint to server address
Send log level	0-7
key	Enter the required query of characters

【instruction】

Open log switch, set up the syslog server, system log will automatically be pushed to the server.

【Configuration example】

Such as: 1) the error log information in 192.168.2.1 pushed to the server

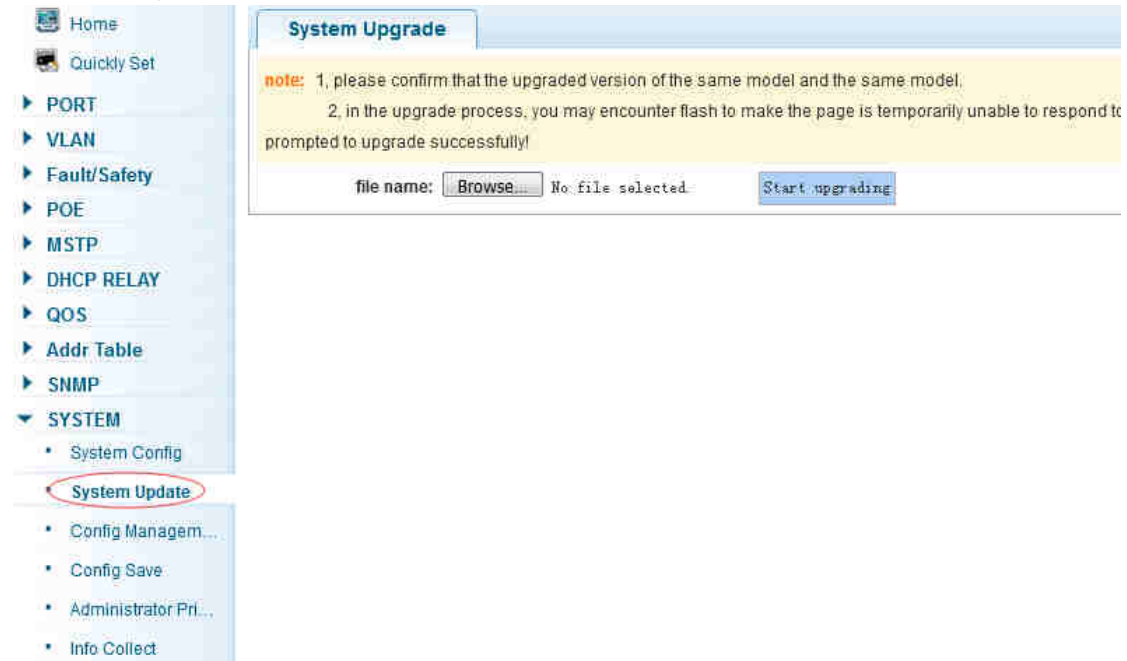
The screenshot shows the 'log config' section of a web interface. It includes an 'explain' note: 'Open the log switch, set the syslog server, and the system log will be automatically pushed to the server.' Below this, there are three input fields: 'log switch' (set to 'Open'), 'server IP' (set to '192.168.2.1'), and 'send log level' (set to 'Errors(3)'). A 'save setting' button is located below the fields. The 'current log information' section is partially visible at the bottom.

2) input the Mac keywords ,click "query" button, click on the "clear log" button, can clear the log

The screenshot shows the 'current log information' section. It features a 'key' input field containing 'mac', a 'query' button, and a 'clear log' button. Below these elements is a list of log messages, including: 'Syslog logging: enabled', 'Console logging: disabled', 'Monitor logging: level debugging, 0 messages logged', 'Buffer logging: level debugging, 444 messages logged', 'Timestamp debug messages: datetime', 'Timestamp log messages: datetime', 'Sequence-number log messages: disable', 'Sysname log messages: disable', 'Trap logging: level informational, 444 message lines logged, 0 fail', 'Log Buffer (Total 4096 Bytes):', and a series of CLI error messages from Jan 01 00:00:22.

4.11.2 System upgrade

In the navigation bar to select **“system >system upgrade”**, Optional upgrade file to upgrade. The following picture



【parameter description】

【instruction】

- 1 please confirm that the upgraded version of the same model and the same model.
- 2 in the upgrade process, you may encounter flash to make the page is temporarily unable to respond to the page, this time can not power off or restart the device, until prompted to upgrade successfully!

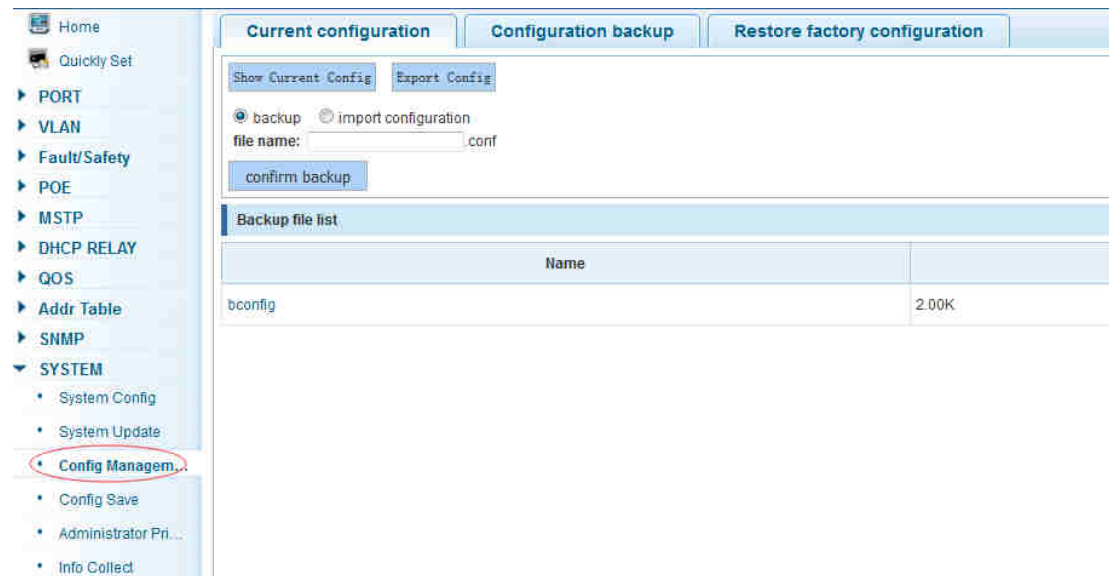
【Configuration example】

4.11.3 Config management

4.11.3.1 Current configuration

In the navigation bar to select **“system>config management>current**

configuration”, can import and export configuration files, the backup file.
the following picture:



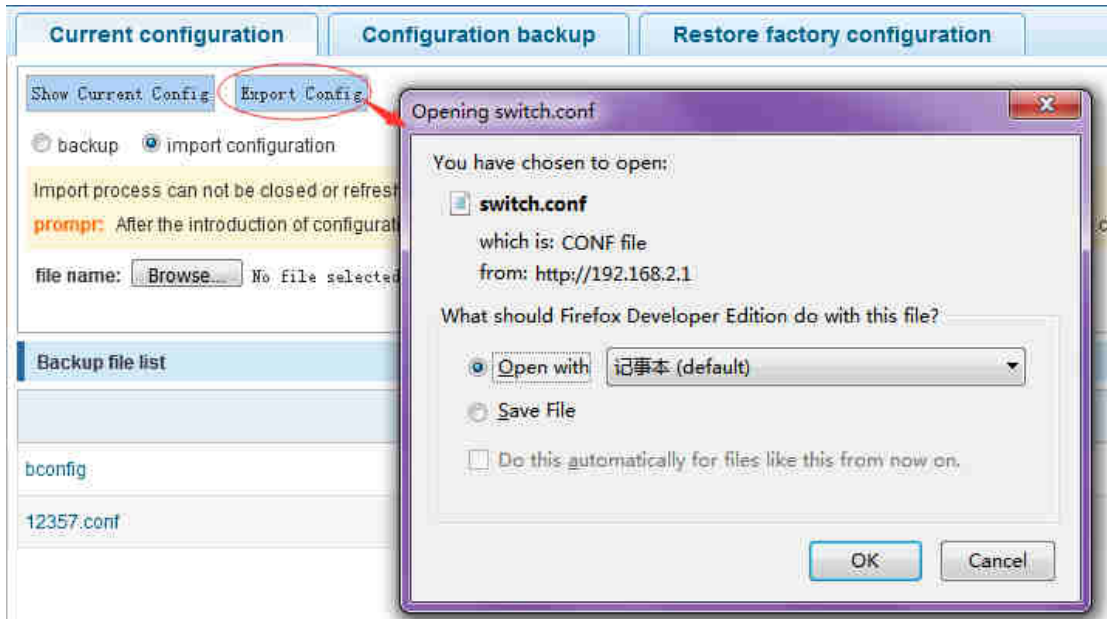
【parameter description】

【instruction】

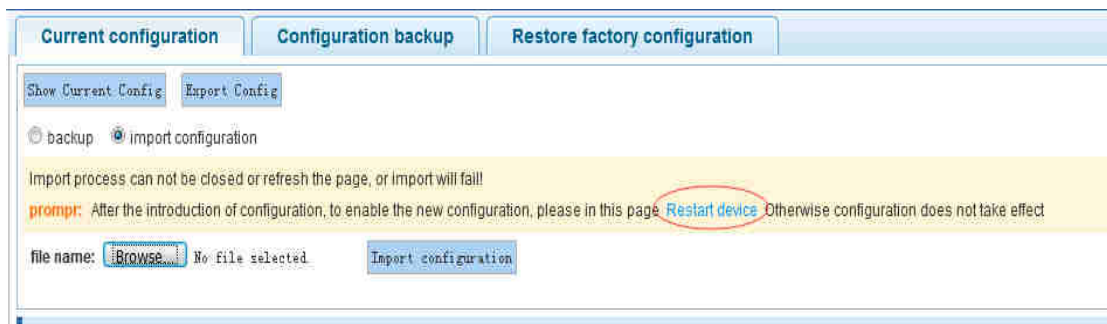
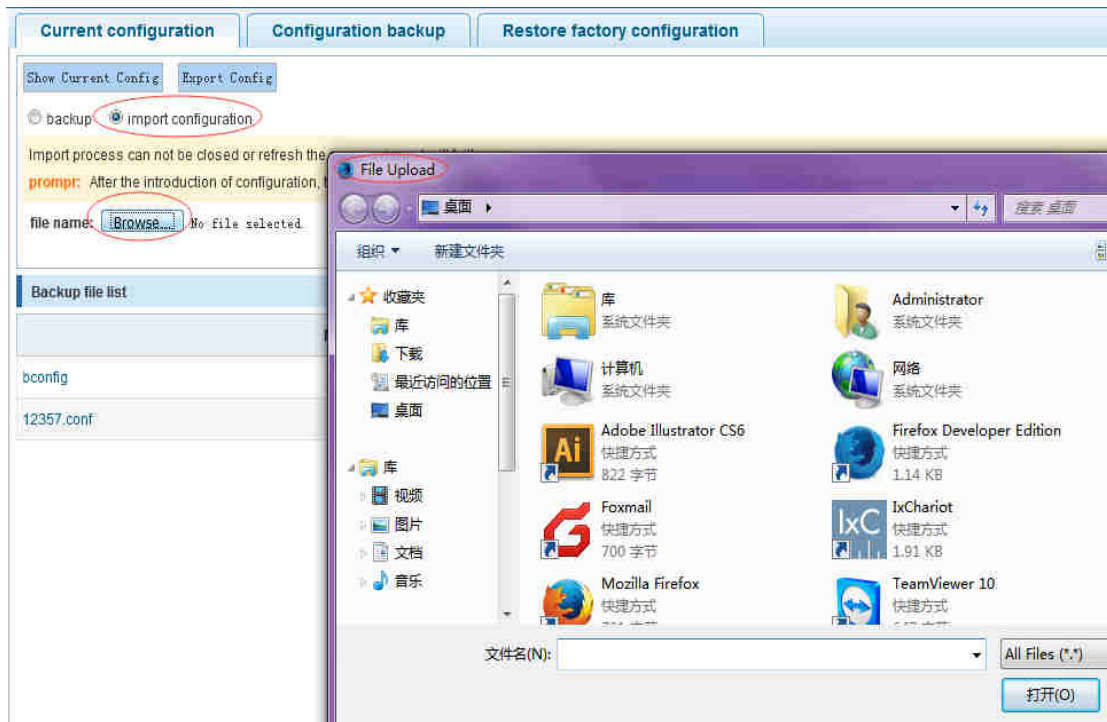
Import process can not be closed or refresh the page, or import will fail!
After the introduction of configuration, to enable the new configuration,
please in this page Restart device Otherwise configuration does not take
effect.

【Configuration example】

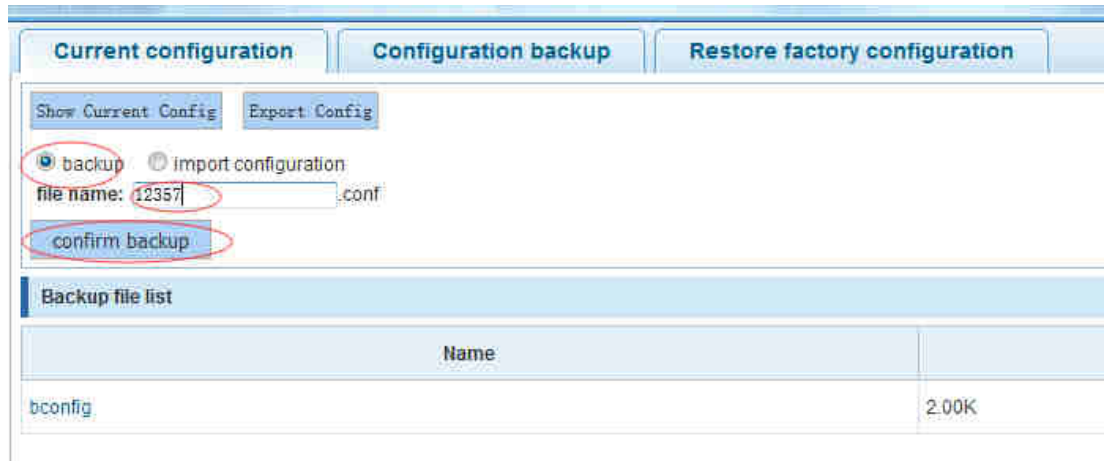
Such as: 1) in the configuration first save the page, click save
configuration to save the current configuration, then export the
configuration



2) import configuration

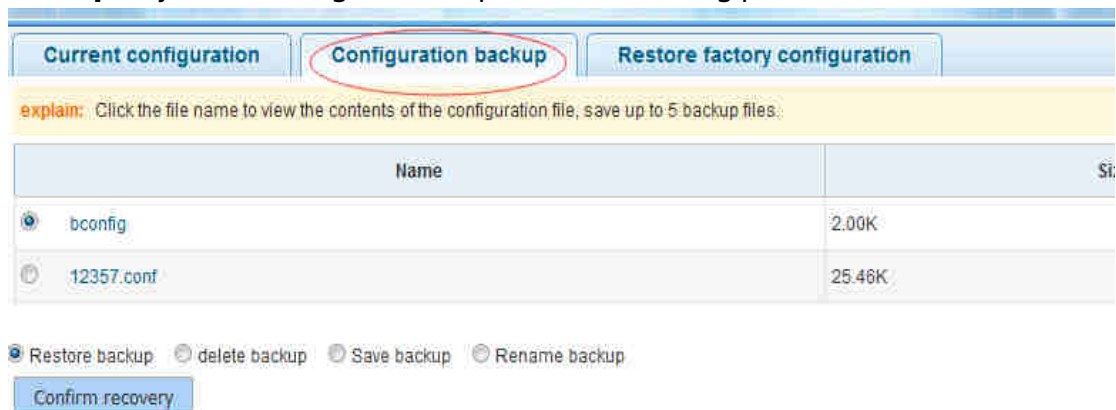


3) backup



4.11.3.2 Configuration backup

In the navigation bar to select **“system>config management>configuration backup”**, you can configure backup file. the following picture:



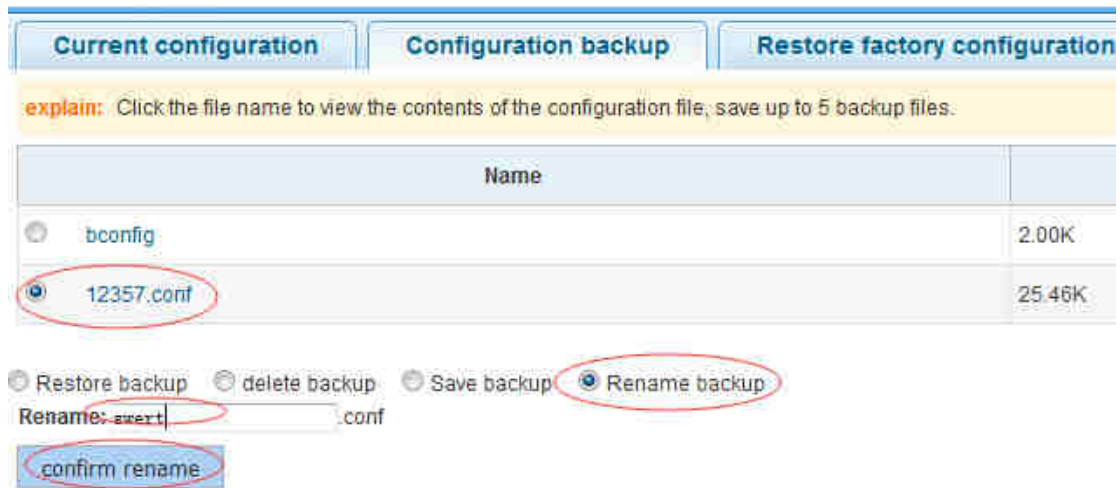
【parameter description】

【instruction】

Operating this page should be in the current configuration page first, the backup file.

【Configuration example】

Such as: restore backup



4.11.3.3 Restore factory configuration

In the navigation bar to select "**system>config management>restore factory configuraton**", Can export the current configuration and restore factory configuration .the following picture:



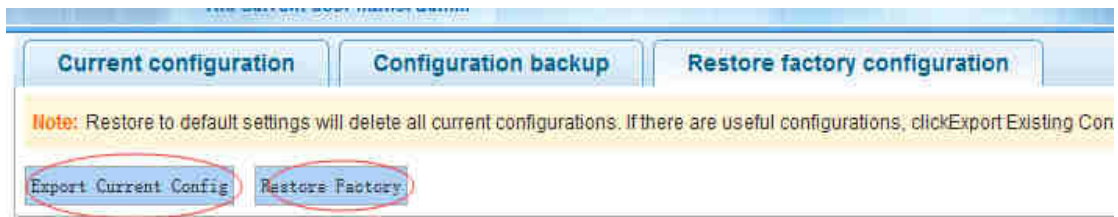
【parameter description】

【instruction】

Restore the factory configuration, will delete all the current configuration. If you have any useful configuration, the current system can lead the factory configuration again after the current configuration.

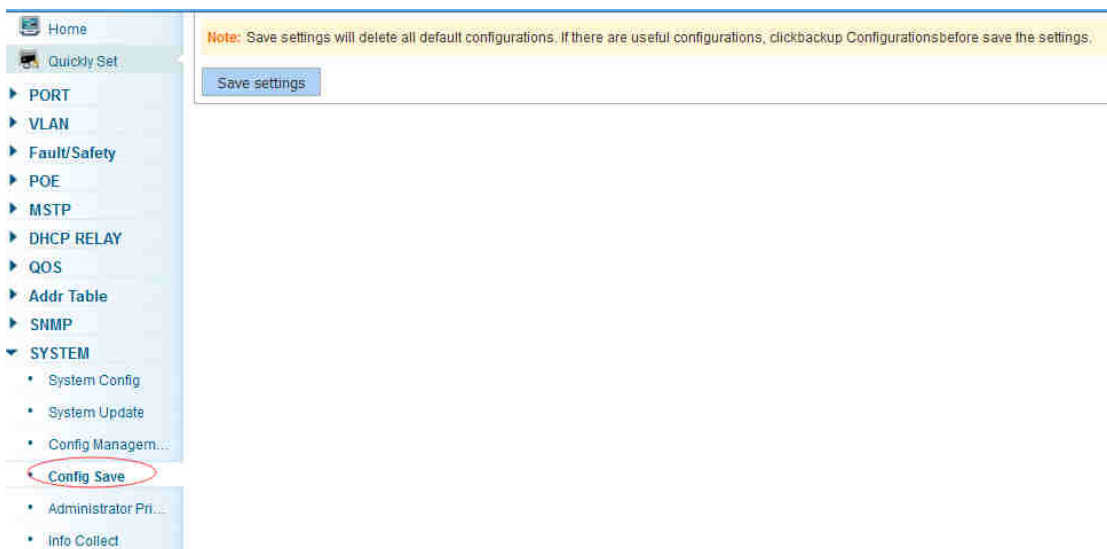
【Configuration example】

Such as: restore configuration can be the guide before they leave the current configuration



4.11.4 Config save

In the navigation bar to select **“system >config save”**, you can save current configuration. the following picture



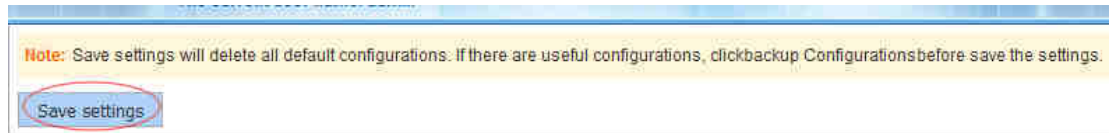
【parameter description】

【instruction】

Save settings will delete all default configurations. If there are useful configurations, click backup Configurations before save the settings.

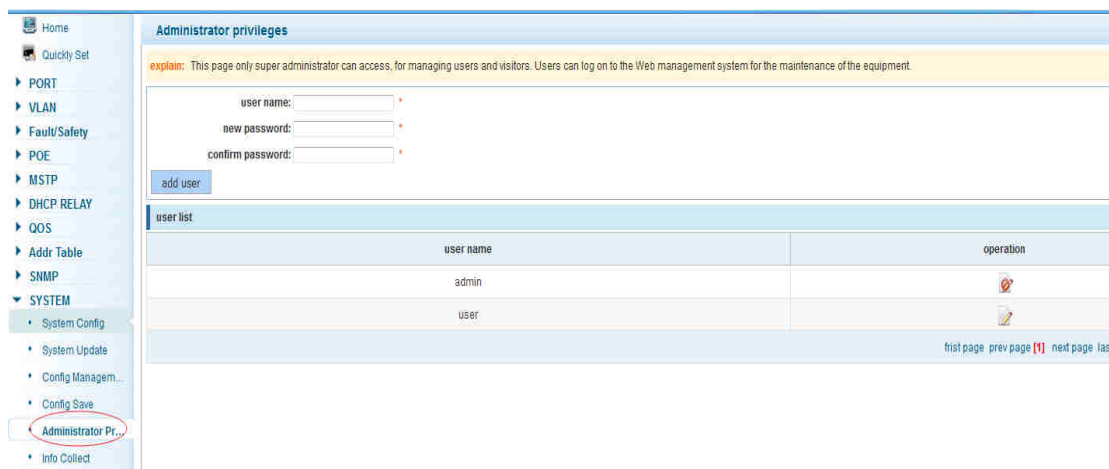
【Configuration example】

Such as: click “save settings” button



4.11.5 Administrator privileges

In the navigation bar to select “**system>administrator privileges**”, Configurable ordinary users. the following picture



【parameter description】

【instruction】

Only the admin of the super administrator can access this page is used to manage users and visitors. The user can log in the Web management system of equipment for routine maintenance. In addition to the admin and user, can add up to five users. Ordinary users can only access information system home page.

【Configuration example】

Such as:

Administrator privileges

explain: This page only super administrator can access, for managing users and visitors. Users can log on to the Web management system for the maintenance of the equipment.

user name: 1234

new password: ●●●●

confirm password: ●●●●

[add user](#)

4.11.6 Info collect

In the navigation bar to select **“system>info collect”**, you can collect to the system debug information. the following picture

The screenshot shows a web management interface. On the left is a navigation menu with the following items: Home, Quickly Set, PORT, VLAN, Fault/Safety, POE, MSTP, DHCP RELAY, QOS, Addr Table, SNMP, SYSTEM (expanded), System Config, System Update, Config Managem..., Config Save, Administrator Pri..., and Info Collect (circled in red). On the right, there is a yellow note box that says "Note: collect useful information, it may take a few moment" and a blue "Collect" button below it.

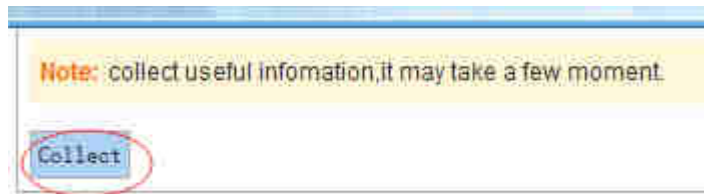
【parameter description】

【instruction】

collect useful information, it may take a few moments.

【Configuration example】

Such as: click on "collect" button



Appendix: Technical Specifications

Hardware Specifications		
Standards	IEEE 802.3i、IEEE 802.3u、IEEE 802.3ab、IEEE 802.3x、IEEE 802.3z、IEEE 802.3at、IEEE 802.3af、IEEE 802.1q、IEEE 802.1p	
Number of Ports	16 x 10/100/1000Mbps Auto-Negotiation ports 2 x 100/1000Mbps SFP ports 1x Console port	
Network Media (Cable)	10Base-T: UTP category 3, 4, 5 cable (maximum 100m) 100Base-Tx: UTP category 5, 5e cable (maximum 100m) 1000Base-T: UTP category 5e, 6 cable (maximum 100m) 1000Base-SX:62.5µm/50µm MMF(2m~550m) 1000Base-LX:62.5µm/50µm MMF(2m~550m) Or 10µm SMF (2m~5000m)	
capability	Store-and-Forward	Supports
	Switching Capacity	36Gbps
	MAC Address Learning	8K
Packet Buffer	4.1Mbit	
Packet Forwarding Rate	26.784Mpps	
Jumbo Frame	9216Bytes	
PoE Ports(RJ45)	16* PoE ports compliant with 802.3at/af	
Power Pin Assignment	under port:1/2(+),3/6(-) upper port: 4/5(+),7/8(-)	
LED indicators	Per-Port	Link/Act/Speed 10/100Mbps:Orange 1000Mbps:Green POE:Yellow
	Other	Power: Red
Dimensions (W x D x H)	440*330*44mm	
Power Supply	100~240VAC,50/60HZ,300W internal power	
Power Consumption	Maximum(PoE on): 420.4W (220V/50Hz)	
Environment	Operating Temperature: 0°C~45°C Storage Temperature: -40°C~70°C Operating Humidity: 10%~90% non-condensing	

	Storage humidity: 5%~90% non-condensing
--	---

Software Specification		
<p>Basic function</p> <ul style="list-style-type: none"> ● Ethernet Setup ● STP/RSTP/MSTP ● Storm-control ● Port Monitor ● Port rate-limit ● MAC filtering 	<p>Three layers of functional</p> <ul style="list-style-type: none"> ● The ARP deception, the network cheating ● Filtering the IP port ● Static binding IP and MAC ● Arp trust port ● Ping and Traceroute 	<p>The security policy</p> <ul style="list-style-type: none"> ● ACE capacity ● ACL ● QoS ● DAI
<p>VLAN</p> <ul style="list-style-type: none"> ● Port based VLAN ● 802.1Q VLAN 	<p>Safety features</p> <ul style="list-style-type: none"> ● Radius ● Tacacs+ ● Preventing DOS attacks ● dot1x ● The gateway ARP deception 	<p>Application protocol</p> <ul style="list-style-type: none"> ● DHCP Relay ● DHCP snooping ● DHCP Client ● FTP/TFTP
<p>Management</p> <ul style="list-style-type: none"> ● HTTP WEB ● Telnet ● SSH ● Console 	<p>Other function</p> <ul style="list-style-type: none"> ● LLDP ● IGMP Snooping ● SNMPV1,V2c,V3 ● RMON (1,2,3,9) 	<p>POE Management</p> <ul style="list-style-type: none"> ● POE Status ● The port priority

ALLNET GmbH Computersysteme declares that the device **ALL-CAM8318PM** is in compliance with the essential requirements and other relevant provisions of Directive 2004/108/EC or 2014/30/EU. The Declaration of conformity can be found under this link:

www.allnet.de/downloads.html

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- Do not use your device during a thunderstorm. There may be a risk of electric shock brought about by lightning.
- Do not expose your device to dust or corrosive liquids.
- Do not use this product near water sources.
- Make sure to connect the cables to the correct ports.
- Do not obstruct the ventilation slots on the device.

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