



## **SW-MNG-8GE2GSFP-8POE**

**Managed 8 Giga Ethernet Ports PoE + 2 Ports Giga SFP**



## **User Manual**

**Version 1.3 | 2017**

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# **Chapter 1 Product Introduction**

Congratulations on your purchase of the PoE Web Smart Ethernet Switch. Before you install and use this product, please read this manual carefully for a full understanding of its functions.

## **1.1 Product Overview**

The 8-port + 2SFP 8 Giga Ethernet PoE Web Smart Ethernet Switch provides seamless network connection. It integrates 10/100/1000Mbps Ethernet network capabilities in a highly flexible package. These PoE ports can automatically detect and supply power with those IEEE 802.3at compliant Powered Devices (PDs). In this situation, the electrical power is transmitted along with data in one single cable allowing you to expand your network where there are no power lines or outlets, where you wish to fix devices such as APs, IP Cameras and IP Phones, etc.

The Web Smart Ethernet Switch, and can be configured by web based interface. Including administrator, port management, VLAN setting, each port statistics, trunking setting, QoS setting, security filter, configuration/backup/recovery, log out, and so on.

## **1.2 Features**

- Complies with IEEE802.3i, IEEE802.3u, IEEE802.3ab, IEEE802.3x, IEEE802.3z.
- IEEE802.1q, IEEE802.1p standards.
- 8 Giga Ethernet Ports Auto-Negotiation RJ45 ports supporting AutoMDI/MDIX.
- Supports PoE power up to 30W for each PoE port.
- Supports All power up to 140W.
- Support the Console port management.
- Supports PoE IEEE802.3at compliant PDs.
- Supports IEEE802.3x flow control for the Full-duplex Mode and backpressure for the Half-duplex Mode.
- 8K entry MAC address table of the Switch with auto-learning and auto-aging.
- Supports WEB management interface.
- LED indicators for monitoring power, link, activity and speed.
- Internal power adapter supply.

## **1.3 External Component Description**

### **1.3.1 Front Panel**

The front panel of the Switch consists of 8 Giga Ethernet Ports RJ-45 ports, 1 x Console port, 2 x SFP ports, 1 x Reset button and a series of LED indicators as shown as below.



Figure 1 - Front Panel

#### Giga Ethernet RJ-45 ports (1~8):

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

#### Console port (Console):

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

#### SFP ports (SFP1, SFP2):

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

#### Reset button (Reset):

To restore the system factory default settings, press the reset button for 5 seconds while the device is powered on.

#### LED indicators:

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



Figure 2 - LED Indicators

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

LED	COLOR	STATUS	STATUS Description
PWR	Green	On	Power On
		Off	Power Off
Link/Act/ Speed	10/100M: Orange	On	A device is connected to the port
		Off	A device is disconnected to the port

(1-8)	1000M: Green		
		Flashing	Sending or receiving data
PoE	Yellow	On	A Powered Device is connected to the port, which supply power successfully.
		Off	No PD is connected to the corresponding 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.
Link/Act (9S-10S)	Green	On	A device is connected to the port
		Off	A device is disconnected to the port
		Flashing	Sending or receiving data

### 1.3.2 Rear Panel

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



Figure 3 - Rear Panel

#### **AC Power Connector:**

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

#### **Grounding Terminal:**

Ground the Switch through the PE cable on the AC cord with a separate ground wire.

## 1.4 Package Contents

Before installing the Switch, make sure that the following items are enclosed. 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 chapter describes how to install your PoE Ethernet Switch and make connections to it. Please read the following topics and operate 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 surface or desktop to minimize the chances of falling.
- Make sure the Switch works in the proper AC input range and matches the voltage labeled on the Switch.
- To prevent electrocution, do not open the Switch's chassis, even if it fails to receive power.
- Make sure that there is proper heat dissipation from and adequate ventilation around the Switch.
- Make sure the surface on which the Switch placed can support the weight of the Switch and its accessories.

#### **2.1.1 Desktop Installation**

When installing the Switch on a desktop (if not in a rack), attach the enclose rubber feet provided to the bottom corners of the Switch to minimize vibration. Allow adequate space for ventilation between the device and the objects around it.

#### **2.1.2 Rack-mountable Installation in 11-inch Cabinet**

The Switch can be mounted in an EIA standard-sized, 11-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.

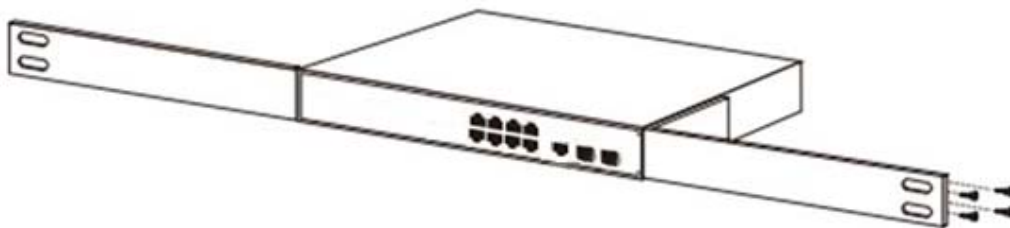


Figure 4 - Bracket Installation

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

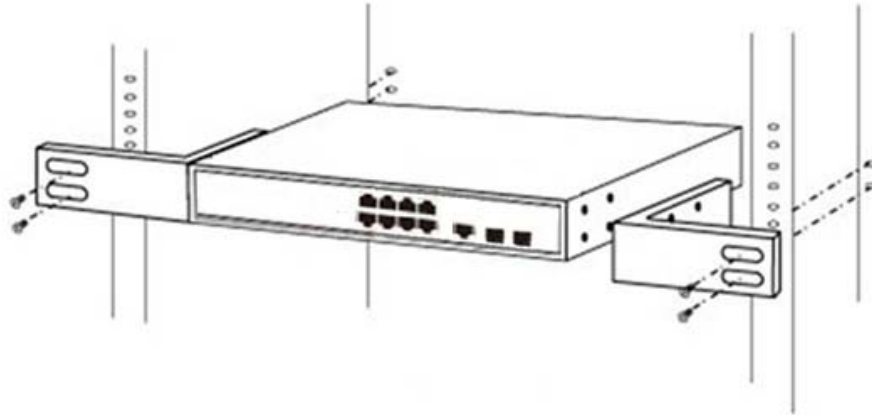


Figure 5 - Rack Installation

### 2.1.3 Power on the Switch

The Switch is powered on by connecting it to an outlet using 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 on the back panel of the Switch to an external receptacle with the included power cord, and check the power indicator is ON or not. When it is ON, the corresponding LED is illuminated.

## 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, succeed and the devices are power on normally, the LINK/ACT/Speed LEDs for each port will be illuminated.

## 2.3 Switch connection to the PD

The 1-8 ports of the Switch have PoE power supply function, the maximum output power of each port is 30W. The switch can supply power to the PD devices, such as internet phone, network camera, wireless access point work, by linking the device with the Switch using 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.

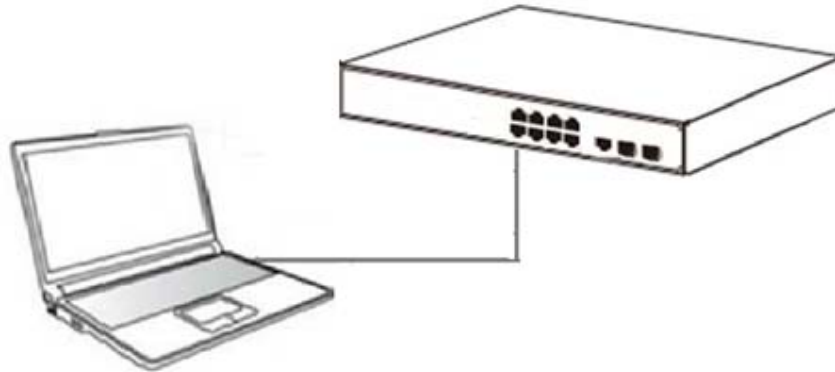


Figure 6 - PC Connect

Please refer to the **LED Indicators**. The Link/Act/Speed LEDs for each port illuminated 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 user name	admin
Default password	admin

1. You can log on to the configuration window of the Switch through the following steps:
2. Connect the Switch with the computer NIC interface.
3. Power on the Switch.
4. 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.
5. Open the browser, and enter `http://192.168.2.1` and then press "Enter". The Switch login window appears, as shown below.

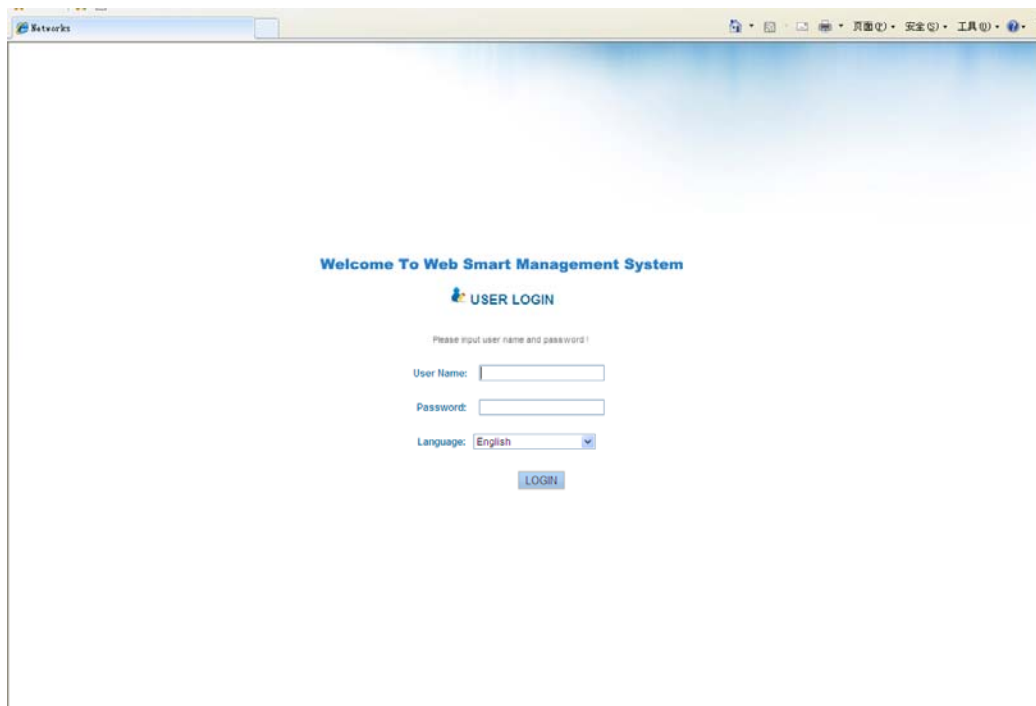


Figure 7- Login Windows

6. Switching language to English. 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.

## Welcome To Web Smart Management System

### USER LOGIN

Please input user name and password !

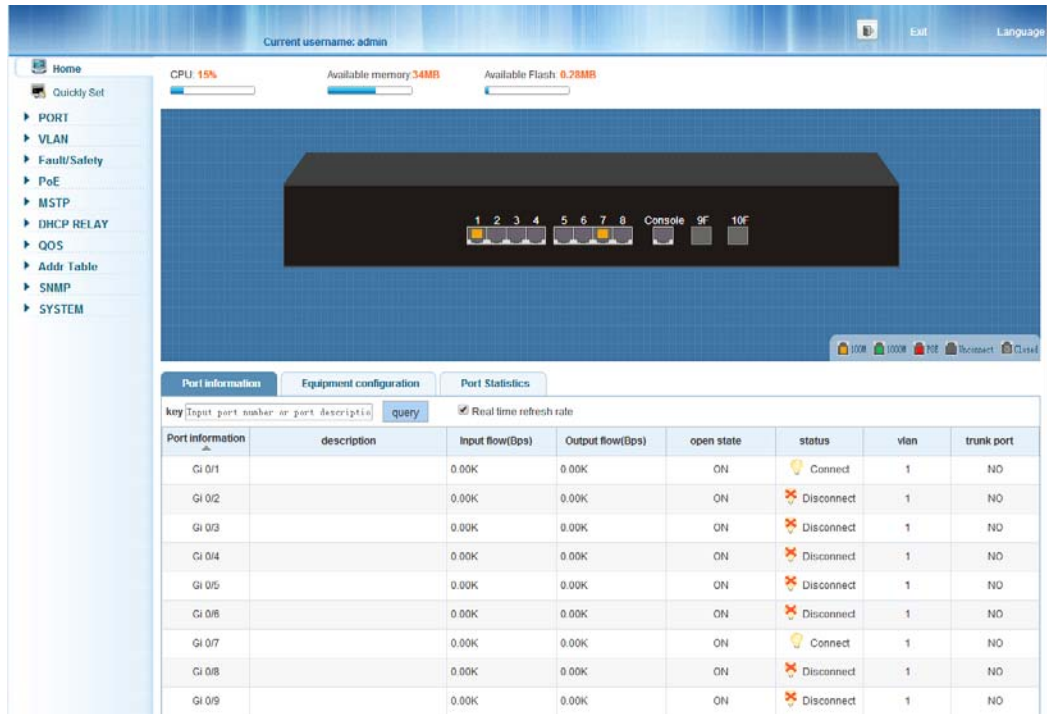
User Name:

Password:

Language:  ▼

LOGIN





## Chapter 4 Switch Configuration

The Web Smart Ethernet Switch Managed switch software provides rich layer two 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. You can find the information for switch system, such as memory, software version on the top of the page. 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 set

Select “Quickly Set” in the navigation bar, you can create a VLAN, 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, 8GE 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, this port must belong to a Native VLAN. The so-called Native VLAN, refers to UNTAG send/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 cannot through the Trunk.

### 【Configuration example】

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

The screenshot displays the 'VLAN setting' interface with a 'new VLAN' dialog box open. The dialog box contains the following fields and options:

- VLAN ID(1~4094):** 2
- VLAN name(1-32 character):** VLAN0002
- Choose to join the VLAN port:** A grid of 10 ports (1-10) is shown. Port 8 is selected (indicated by a blue icon).
- Legend:** Optional (light blue icon), Not optional (grey icon), Selected (blue icon), Aggregation (1 icon), T (T icon).
- Buttons:** 'save' (highlighted with a red circle) and 'quit'.

VLAN ID

VLAN name

**new Trunk port**

choose port to set up

1	3	5	7	9
2	4	6	8	10

Optional Not optional Selected Aggregation

Native Vlan: 2

Allowing VLAN(such as 3-5,8,10): 1

save quit

- 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.

VLAN setting Other settings

device basic information

manage VLAN: 1

manage IP: 192.168.2.11

Subnet mask: 255.255.255.0

device name: Switch-123

default gateway: 192.168.2.22

DNS server: 172.16.1.241

save settings

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

Web administrator password

Prompt: If you set up a new Web login password, then use the new password to log in after setting up. Passwords can only be contained in English, figures, and underlined.

old password: ●●●●●●

new password: ●●●●

confirm new password: ●●●●

Last step finish

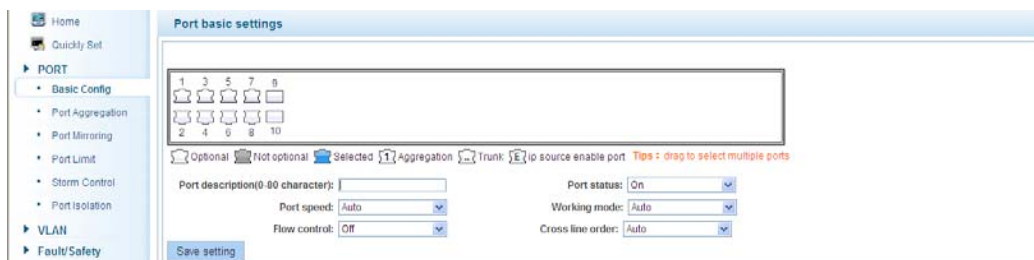
## 4.2 PORT

Selecting “PORT” in the navigation bar, you may conduct **Basic Config**, **Port Aggregation**, **Port Mirroring**, **Port Limit** and **Port Isolation**.



## 4.2.1 Basic config

Selecting “**PORT>Basic Config**” in the navigation bar, you can configure Port description, Port speed, Port status, Working mode, Flow control, Cross line order configuration, the following picture:



### 【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
Cross line sequence	Whether open intersection line sequence

### 【Instructions】

Open to traffic control will be auto negotiation closed, auto-negotiation is to set the port speed and working mode; the port rate set more than the actual rate of port, port will drop.

### 【Configuration example】

For example: Setting the Port speed as '10M', Working mode as 'Duplex', Flow control as 'On', Cross line sequence and Port status as 'On'.

Home  
Quickly Set

PORT

- Basic Config
- Port Aggregation
- Port Mirroring
- Port Limit
- Storm Control
- Port Isolation

VLAN

Fault/Safety

Port basic settings

Optional Not optional Selected 1 Aggregation Trunk E ip source enable port Tips : drag to select multiple ports

Port description(0-80 character):

Port status: On

Port speed: 10M

Working mode: Duplex

Flow control: On

Cross line order: Auto

Save setting

## 4.2.2 Port Aggregation

In the navigation bar to select “**PORT>Port Aggregation**”. In order to expand the port bandwidth or achieve the bandwidth of the redundancy backup, the following picture:

Home  
Quickly Set

PORT

- Basic Config
- Port Aggregation
- Port Mirroring
- Port Limit
- Storm Control
- Port Isolation

VLAN

Fault/Safety

PoE

MSTP

DHCP RELAY

QOS

Addr Table

SNMP

SYSTEM

Port aggregation

Aggregate port number(1-8):

Please select the port to join the aggregate port:

Optional Not optional Selected 1 Aggregation Trunk E ip source enable port Tips : drag to select multiple ports

Add setting

Port aggregation list

Aggregate port	Member port	Operation
----------------	-------------	-----------

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

### 【Parameter Description】

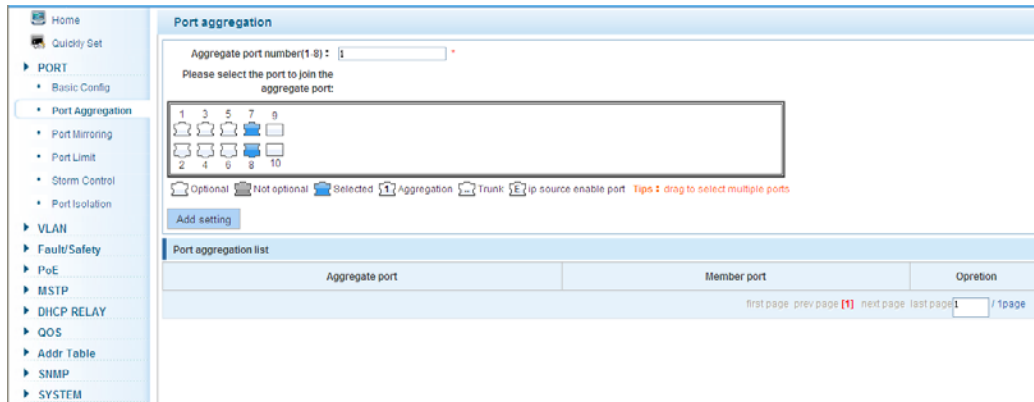
Parameter	Description
Aggregation port	8GE Switch can be set up 8 link trunk group, group_1 to group_8
Member port	For each of the members of the group and add your own port, and with members of other groups

### 【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 cannot be added.

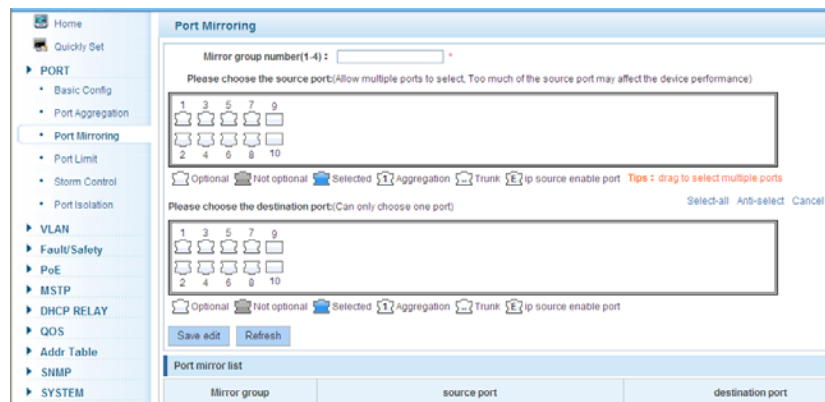
### 【Configuration example】

Such as: set the port as '7, 8', 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>Port Mirroring**”, Open port mirror feature, All the 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 aggregating port cannot be used as a destination port and the source port, destination port and source port cannot be the same.

#### 【Configuration example】

Such as: set a mirror group for port 3 regulatory port 4, 5, 6 on and out flow conditions.

## 4.2.4 Port rate-limit

In the navigation bar to select “**PORT>Port Limit**”. Limiting the speed of output and input rate of the ports, the following picture:

### 【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 125 KB/s.

### 【Configuration example】

Such as: the port 5 input rate is set to 6400 KB/s, the output rate is set to 3200 KB/s.



Home Quickly Set

PORT

- Basic Config
- Port Aggregation
- Port Mirroring
- Port Limit**
- Storm Control
- Port Isolation

VLAN

Fault/Safety

PoE

MSTP

DHCP RELAY

QOS

Addr Table

SNMP

SYSTEM

### Port speed limit

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

Input speed limit(multiple of 16):  \* 0,16-10,000,00Kb/s

Output speed limit(multiple of 16):  \* 0,16-10,000,00Kb/s

#### Port speed limit list

Ports	Input speed limit	Output speed limit
1	1000Mb/s	1000Mb/s
2	1000Mb/s	1000Mb/s
3	1000Mb/s	1000Mb/s
4	1000Mb/s	1000Mb/s

## 4.2.5 Storm control

In the navigation bar to select “PORT>Storm Control”, to port storm control config, the following figure:

Home Quickly Set

PORT

- Basic Config
- Port Aggregation
- Port Mirroring
- Port Limit
- Storm Control**
- Port Isolation

VLAN

Fault/Safety

PoE

MSTP

DHCP RELAY

QOS

Addr Table

SNMP

SYSTEM

### Broadcast storm

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

Broadcast limit:  \* 0-262143(pps)

Multicast limit:  \* 0-262143(pps) Multicast type package:

Unicast limit:  \* 0-262143(pps) Unicast type package:

#### Broadcast storm list

Ports	Broadcast limit(pps)	Multicast limit(pps)	Multicast type package	Unicast limit(pps)	Unicast type package
1	0 (OFF)	0 (OFF)	unknown-only	0 (OFF)	unknown-only
2	0 (OFF)	0 (OFF)	unknown-only	0 (OFF)	unknown-only
3	0 (OFF)	0 (OFF)	unknown-only	0 (OFF)	unknown-only

### 【Parameter Description】

Parameter	Description
Broadcast suppression value	Storm suppression value of the broadcast packets
Multicast suppression value	Storm suppression value of the multicast packets
Unicast suppression value	Storm suppression value of the unicast packets

### 【Instructions】

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

### 【Configuration example】

Such as: should be forwarded to the port 1-8 of all kinds of packet forwarding rate is 5000 KB/s.

Ports	Broadcast limit(pps)	Multicast limit(pps)	Multicast type package	Unicast limit(pps)
1	0 (OFF)	0 (OFF)	unknown-only	0 (OFF)
2	0 (OFF)	0 (OFF)	unknown-only	0 (OFF)
3	0 (OFF)	0 (OFF)	unknown-only	0 (OFF)

## 4.2.6 Port isolation

In the navigation bar to select “PORT>port isolation”, the following picture:

Source port	Isolate port

### 【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, the selected ports are isolated. 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 port 3, 4, 5, and 6 ports isolated.

Port isolation

Please choose the isolation port:

1 3 5 7 9  
2 4 6 8 10

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

Save Cancel

Port isolation list

Source port	Isolate port	Operation
3	4 5 6	✗
4	3 5 6	✗
5	3 4 6	✗
6	3 4 5	✗

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

## 4.3 VLAN

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

VLAN setting Trunk-port setting Hybrid-port setting

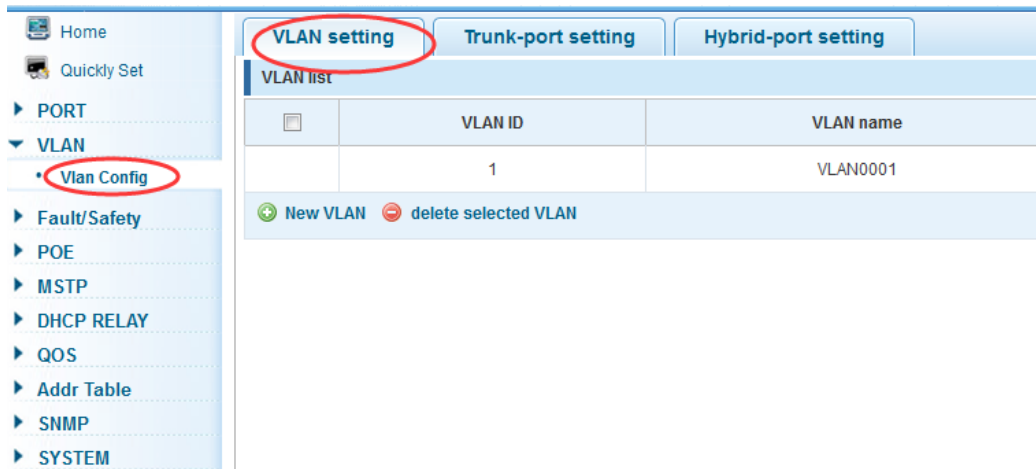
VLAN list

VLAN ID	VLAN name
1	VLAN0001

+ New VLAN - delete selected VLAN

### 4.3.1 VLAN config

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



#### 【Parameter Description】

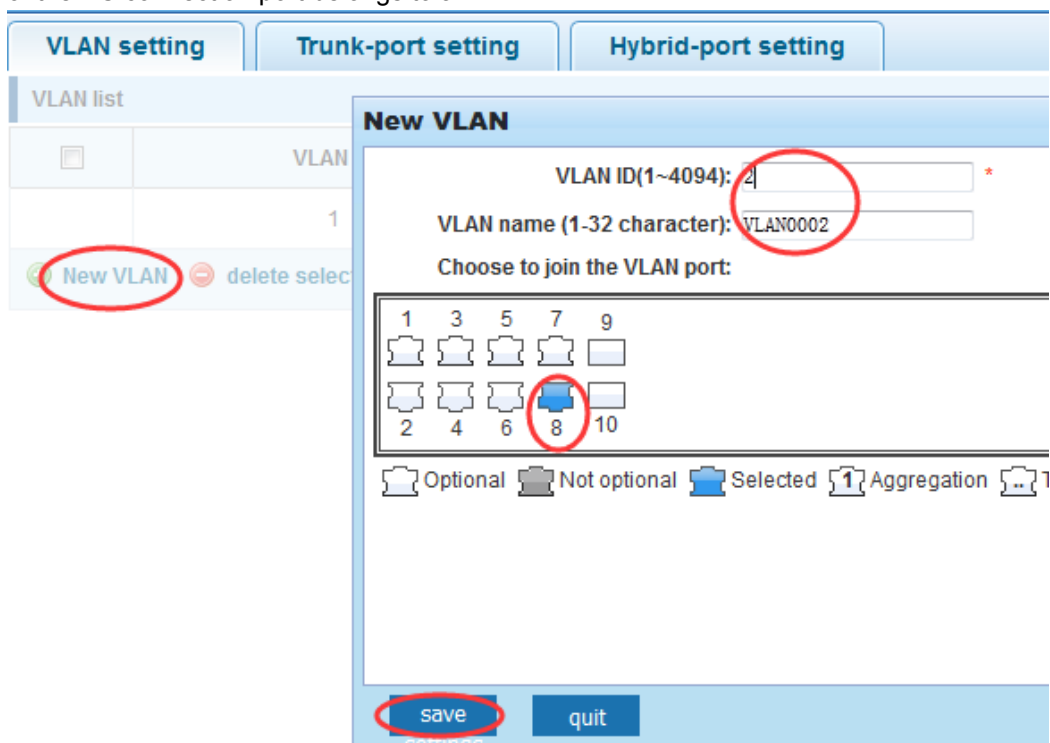
Parameter	Description
VLAN ID	VLAN number, 8GE default VLAN 1
VLAN name	VLAN mark
VLAN IP address	Manage switch ip address

#### 【Instructions】

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

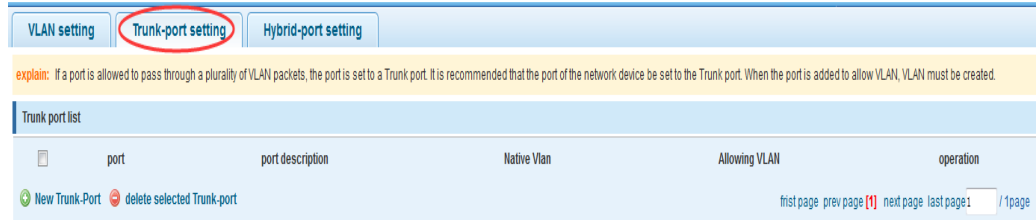
#### 【Configuration example】

Such as: connecting the same switches, pc1, pc2 couldn't ping each other, because 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 as 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 port 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 802.1Q 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】

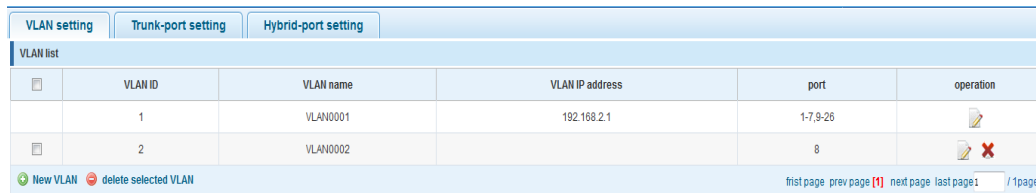
Such as:PVID=VLAN2

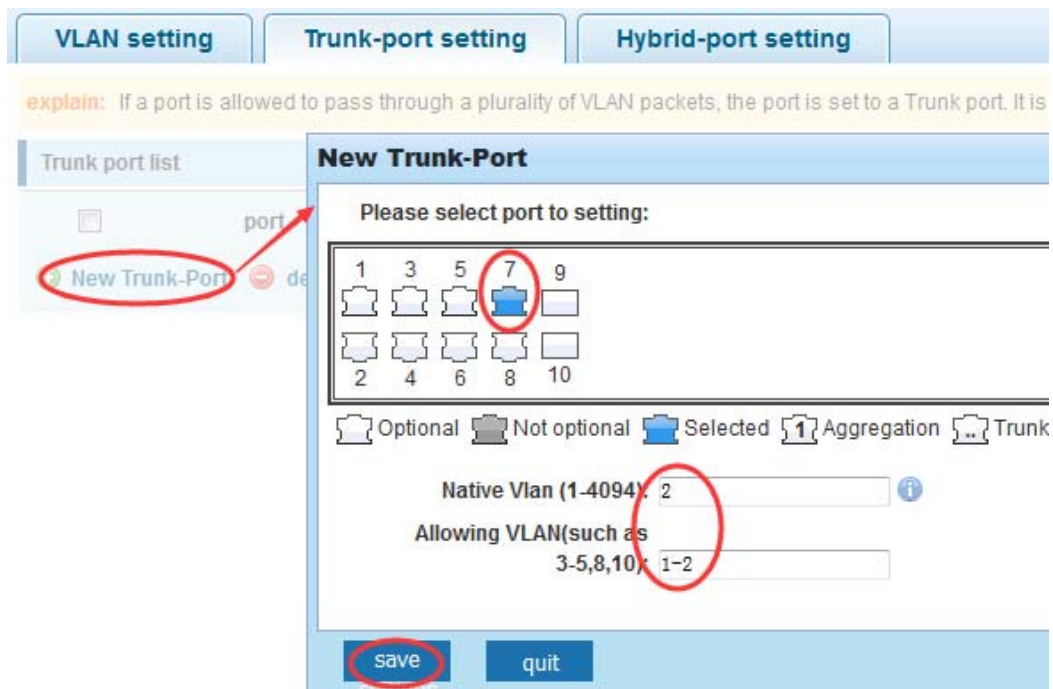
PC1:192.168.2.122, port 8, access VLAN2

PC2:192.168.2.123, port 7, Trunk allowed VLAN 1-2

PC3:192.168.2.124, port 6, access VLAN1 (The default port belongs to VLAN1)

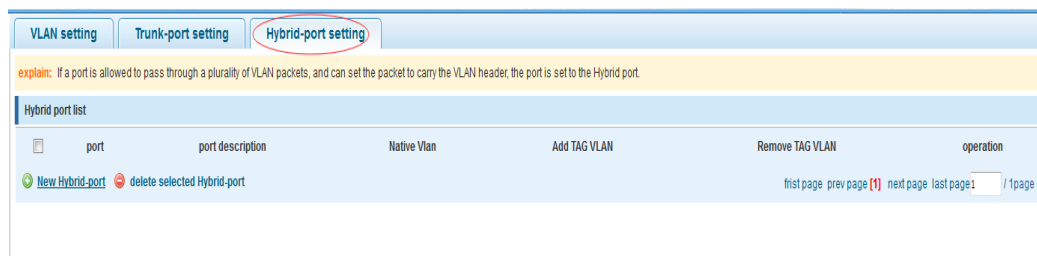
Can let the PC2 PING PC1, cannot PING PC3





### 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:



#### 【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 VLAN 10, VLAN 20, set port 1 Native VLAN as 10, tagged VLAN as 10, 20, sets the Native VLAN port 2 as 20, tagged VLAN as 10, 20.

**VLAN setting** **Trunk-port setting** **Hybrid-port setting**

**VLAN list**

	VLAN ID	VLAN name	VLAN IP address	port	operation
<input type="checkbox"/>	1	VLAN0001	192.168.2.1/24	1-10	
<input type="checkbox"/>	10	VLAN0010			
<input type="checkbox"/>	20	VLAN0020			

New VLAN delete selected VLAN first page prev page [1] next page last page1 / 1page

---

**VLAN setting** **Trunk-port setting** **Hybrid-port setting**

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

**Hybrid port list**

☐ port New Hybrid-port delete selected Hybrid-port

**New Hybrid-port**

<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 3	<input type="checkbox"/> 5	<input type="checkbox"/> 7	<input type="checkbox"/> 9
<input type="checkbox"/> 2	<input type="checkbox"/> 4	<input type="checkbox"/> 6	<input type="checkbox"/> 8	<input type="checkbox"/> 10

☐ Optional 
 ☐ Not optional 
 ☒ Selected 
 ☐ 1 Aggregation

Native Vlan(1-4094):

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

Go to VLAN's TAG (such as 3-5,8,10):

save quit

---

**VLAN setting** **Trunk-port setting** **Hybrid-port setting**

**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**

	port	port description	Native Vlan	Add TAG VLAN	Remove TAG VLAN	operation
<input type="checkbox"/>	1		10	1	10,20	
<input type="checkbox"/>	2		20	1	10,20	

New Hybrid-port delete selected Hybrid-port first page prev page [1] next page last page1 / 1page

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, channel detection and ACL access 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:



#### 【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.



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

Dhcp Snooping Vlan :

3. Set the connection router 8 ports for trust, then 6 port is set to the prohibit.

DHCP Trusted Port    Prohibit DHCP For Address    Source MAC Verify

Opt DHCP trusted ports :

1	3	5	7	9
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	4	6	8	10
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

☐ Optional    ☐ Not optional    ☒ Selected    ☐ Aggregation    ☐ Trunk    ☐ ip source

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

Opt prohibit DHCP port :

1	3	5	7	9
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	4	6	8	10
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Optional    ☐ Not optional    ☒ Selected    ☐ Aggregation    ☐ Trunk    ☐ ip source enable port    Tips : drag to sel

#### Prohibit DHCP For Address Port List

4. 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 :

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

Dhcp Snooping Vlan :

Server IP address :

5. 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 : ☒

IP Address : 192.168.2.37 \*   
 VLAN ID : 1 \*

6. The port 7 for binding.

Mac Address : 00:01:15:09:37:35 \*   
 VLAN ID : 1 \*   
 Port Number : 7

Dhcp Specifying Binding Table

#### 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 the server providing normal service to legitimate users. The following picture:

DOS attack protection

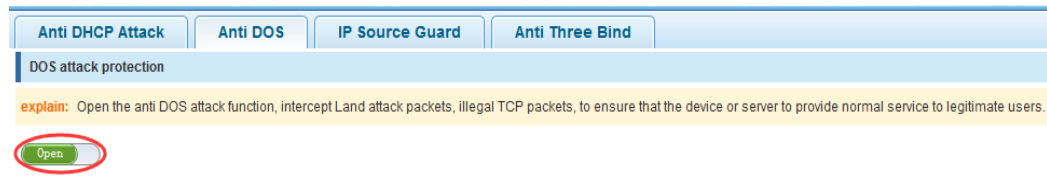
explain: Open the anti DOS attack function, intercept Land attack packets, illegal TCP packets, to ensure that the device or server to provide normal service to legitimate users.

【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.

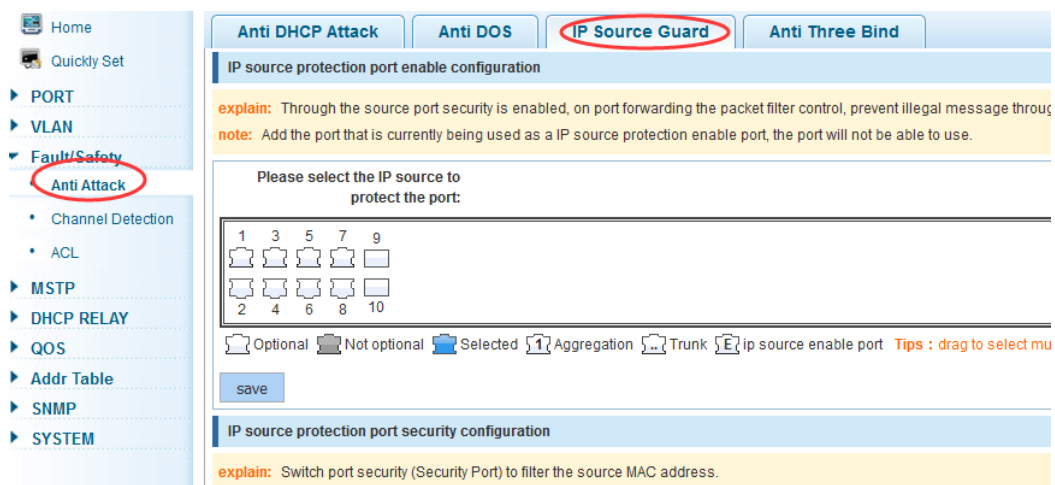
#### 【Configuration example】

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:

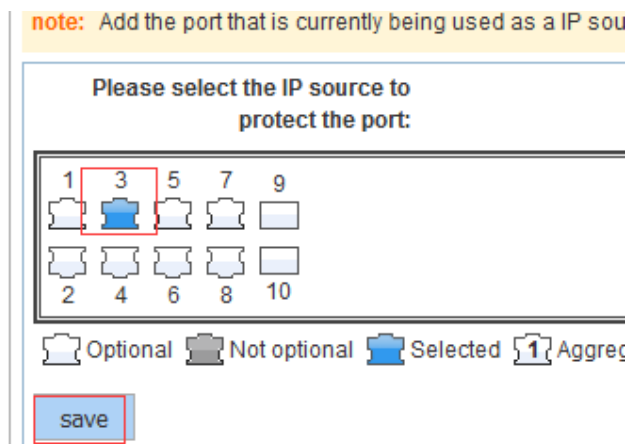


#### 【Instructions】

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.



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

Please select the IP source protection enable port, protect the

Vlan ID : 1 \*

source IP address: 192.168.2.30 \*

source Mac address 00:01:16:09:35:37 \*

1 3 5 7 9  
2 4 6 8 10

Optional Not optional

save

IP source protection port security

**explain:** Switch port security (S

Index

new security port

1 3 5 7 9  
2 4 6 8 10

Optional Not optional Selected 1 Aggregation Trunk E ip so

save quit

#### 4.4.1.4 Anti Three Bind

In the navigation bar to select “**Fault/Safety>Anti Attack>Anti Three Bind**”, Automatically detect the mapping relationship of the ports based IP address, MAC address, and then achieve the function of a key binding, the following picture:

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

Test list

**explain:** Automatically detect the port based IP address, MAC address of the mapping relationship, and then realize the function of a key binding

**note:** A bond must be bound before the binding to enable the switch to open

Binding enable ☐

mac address ip address

Scanning Binding

Application List

mac address ip address

Delete option

#### 【Instructions】

A bond must be bounded 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 ☒

☐

Scanning Binding

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

first page prev page (1) next page last page 1 / 1page

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 :

Home Quickly Set

PORT VLAN

**Fault/Safety**

- Anti Attack
- Channel Detection**
- Ad Access Control

Ping testing Tracert testing Cable testing

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

destination IP address:  \*

Timeout period(1-10):  2

Repeat number(1-1000):  5

Start monitoring

Monitoring 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

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.

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

**explain:** Tracert detection can detect to the destination through the gateway, t

destination IP  
address: 192.168.2.22 \*

Timeout  
period(1-10) 2

start testing

testing results

#### 4.4.2.3 Cable testing

In the navigation bar to select “**Fault/Safety>Channel Detection>Cable testing**”, Can detect connection device status, the following picture:

**Home**    **Quickly Set**

- ▶ **PORT**
- ▶ **VLAN**
- ▼ **Fault/Safety**
  - Anti Attack
  - **Channel Detection**
  - ACL
- ▶ **MSTP**
- ▶ **DHCP RELAY**
- ▶ **QOS**
- ▶ **Addr Table**
- ▶ **SNMP**
- ▶ **SYSTEM**

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

**Explain:** The length of the test results indicates the length of the fault point when the cable is

**note:** It is recommended not to detect and manage the PC connected to the port, otherwise

Select testing port:

1	3	5	7
2	4	6	8

☐ Optional    ☐ Not optional    ☒ Selected    ☐ Aggregation    ☐ Trunk    ☐ ip source er

Start testing

【Configuration example】

**Explain:** The length of the test results indicates the length of the

**note:** It is recommended not to detect and manage the PC cor

Select testing port:

1	3	5	7
2	4	6	8

☐ Optional    ☐ Not optional    ☒ Selected    ☐ Aggregation

Start testing

### 4.4.3 ACL

In the navigation bar to select “**Fault/Safety>ACL**”, ACL rules can be applied to the port and set the effective time.

Home | 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:

Selection date: ☐ Monday ☐ Tuesday ☐ Wednesday ☐ Thursday ☐ Friday ☐ Saturday ☐ Sunday

Time slot:  -  +

Save configuration

Time object list:

Time week	Time slot	operation
<input checked="" type="checkbox"/> delete object		

first page prev page (1) next page last page 1 / 1 page

#### 【Instruction】

The ACL rules are sequenced, row in front of the match will be priority rule. If there are a lot of policy entries, the operation time will be relatively long.

Basic principles:

1. According to the order of execution, as long as there is a satisfaction, searching will be terminated.
2. Implied rejection, if both do not match, then must match the final implied denial of entry, CISCO's 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 effective time for Monday to Friday every day from 9 to 18, set the port 1-8 can not 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:

Selection date: ☒ Monday ☒ Tuesday ☒ Wednesday ☒ Thursday ☒ Friday ☐ Saturday ☐ Sunday

Time slot:  -  +

Save configuration

Time object list:



ACL effective time   ACL access control   Application ACL

explain: ACL access control list (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 preserved, if you do not configure the wildcard mask, the wildcard mask is 0.

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	deny	tcp	any/any	any	any/any	80	working-time	inactive
2	permit	ip	any/any	any	any/any	any	none	active

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

ACL effective time   ACL access control   Application ACL

choose port to set up:

1 3 5 7 9  
2 4 6 8 10

Optional   Not optional   Selected   1 Aggregation   Trunk   E ip source enable port   Tips

ACL list: 100  
Filtering direction: Receive message

save edit

ACL access control list

## 4.5 MSTP

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



## 4.5.1 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.

**Mstp Region Configuration**

Description: region configuration prompts.

Region name : 009400090807 \* (1 to 32 characters)

Revision Level : 0 \* (0 to 65535,default 0)

Save

**Instance Mapping**

Description: mapping-related tips.

Instance ID : 1

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

Save Delete

**Mapping List**

Instance ID	Mapping Vlan
0	1-4094

### 【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 one VLAN, instance and VLAN is a one-to-one relationship.

### 【Configuration example】

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

**Mstp Region Configuration**

Description: region configuration prompts.

Region name : DEADBEEF0102 \* (1 to 32 characters)

Revision Level : 123 \* (0 to 65535,default 0)

Save

Instance Mapping

Description: mapping-related tips.

Instance ID : 4

Vlan ID : 2

\* For example : 1,3,5,7-10

Save

Delete

Mapping List

Instance ID	Mapping Vlan
0	1-4094

## 4.5.2 MSTP Bridge

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

Home

Quickly Set

PORT

VLAN

Fault/Safety

Anti Attack

Channel Detection

ACL

MSTP

Mstp Region

Mstp Bridge

DHCP RELAY

QOS

Addr Table

SNMP

SYSTEM

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 : 1

priority : 0

enable : ☒ on ☐ off

mode : ☐ stp ☐ rstp ☒ mstp

hello-time : 2 \* (1-10s)

max-age : 10 \* (6-40s)

f-delay : 10 \* (4-30s)

max-hops : 10 \* (1-40)

save

show bridge info

Mstp Port Config

Tips: Config mstp and show information.

inst : 0

priority : 128 \* (0-240,step 16)

port-fast : ☒ off ☐ on

path-cost : auto \* (auto or 1-2000)

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

1 3 5 7 9

2 4 6 8 10

### 【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-eg	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)  $(\text{hello\_time}+1) \times 2 \leq \text{max\_age} \leq (\text{f\_delay}-1) \times 2$ , 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.

inst : 4

port-fast : ☐ off ☒ on

auto-edge : ☐ off ☒ on

bpdu-guard : ☐ off ☒ on

bpdu-filter : ☒ off ☐ on

tc-guard : ☒ off ☐ on

priority : 128 \* (0-240,step 1)

path-cost : auto \* (auto or 1-20)

point-to-point : ☐ off ☐ on ☒ auto

compatible : ☒ off ☐ on

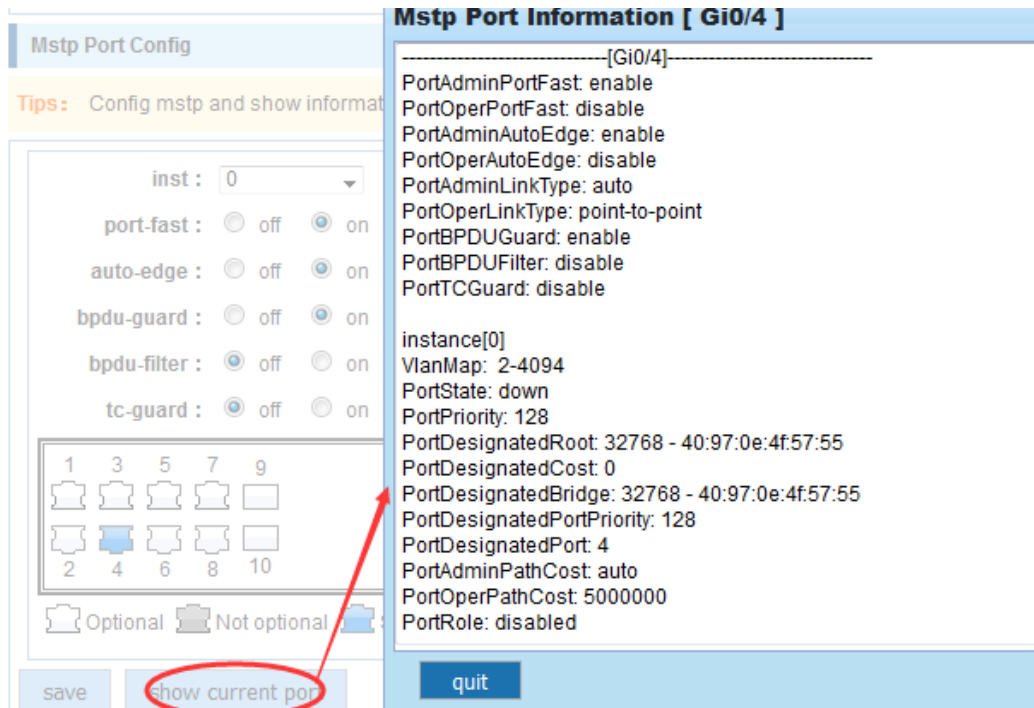
rootguard : ☒ none ☐ root

tc-ignore : ☒ off ☐ on

1 3 5 7 9  
2 4 6 8 10

Optional Not optional Selected Aggregation Trunk ip source enable port

save show current port



- 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).

## 4.6 DHCP RELAY

In the navigation bar to select "DHCP RELAY", you can set to the DHCP relay and option82.



### 4.6.1 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.

Home

Quickly Set

PORT

VLAN

Fault/Safety

POE

MSTP

DHCP RELAY

Dhcp Relay
option82
QOS

Addr Table

SNMP

SYSTEM

DHCP relay enable state

Explain: Open the DHCP relay function, set up and view the relay server IP address and its status.

DHCP relay enable: ☐

DHCP OPTION trust field enable: ☒

### 【Parameter Description】

Parameter	Description
IP address	DHCP server address
status	Invalid and vaild

### 【Instruction】

If the function of relay agent is turned on, Then the received DHCP broadcast message will be sent to the server in the form of unicast. DHCP server and IP switches in the same network will take effect.

### 【Configuration example】

Such as: setting DHCP server ip for 192.168.2.22.

DHCP relay enable state

Explain: Open the DHCP relay function, set up and view the relay server IP address and its status.

DHCP relay enable: ☒

DHCP OPTION trust field enable: ☒

DHCP relay config

Explain: DHCP relay server IP address config.

DHCP server IP: 192.168.2.22

AddDelete

Serial number	IP address	Status	Opretion
1	0.0.0.0	invalid	

first page prev page 1 next page last page1

## 4.6.2 Option82

In the navigation bar to select "DHCP relay>option82", can set to option82 circuit control, proxy remote, ip address. The following picture:

41

Option82 config

**Circuit control:** The received DHCP request message from the circuit identification, only in the relay agent node internal sense, in the server side only as a non-meaning logo use.

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

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

Circuit control:  \* VLAN ID:  \*

Serial number	Circuit control name	Circuit control ID	VLAN ID	Operation
first page prev page 11 next page last page 1 / 1 page				

### 【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】

Switch relay to the DHCP server will bring the option82 information, ID VLAN need to be configured as DHCP packets go VLAN party can bring option82 information.

### 【Configuration example】

Such as: add circuit control, proxy remote, ip address information.

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

Circuit control:  \* VLAN ID:  \*

Serial number	Circuit control name	Circuit control ID
---------------	----------------------	--------------------

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

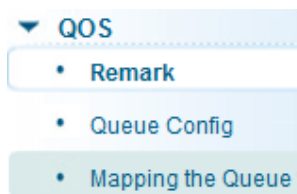
**Circuit control** | **Proxy remote** | **IP address**

Proxy remote:  \* VLAN ID:  \*

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

## 4.7 QoS

In the navigation bar to select "QOS", you can set to the **Remark**, **Queue Config** and **Mapping the Queue**.



### 4.7.1 Remark

In the navigation bar to select "QOS>Remark", 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 relable	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: 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】

Different packets are mapped to different cos according to the different matching rules, and then mapped to different queues according to the mapping relationship between COS and queue queues, and can also set the priority value in the heavy label package.

#### 【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.

**Qos Multi-label**

rule index: 1 ( 1-32 )

Operation type: Equal

value type: dst-Mac

value: 00:01:23:09:35:36 \*

cos mapping: 0

priority remark: 3

**choose port to config:**

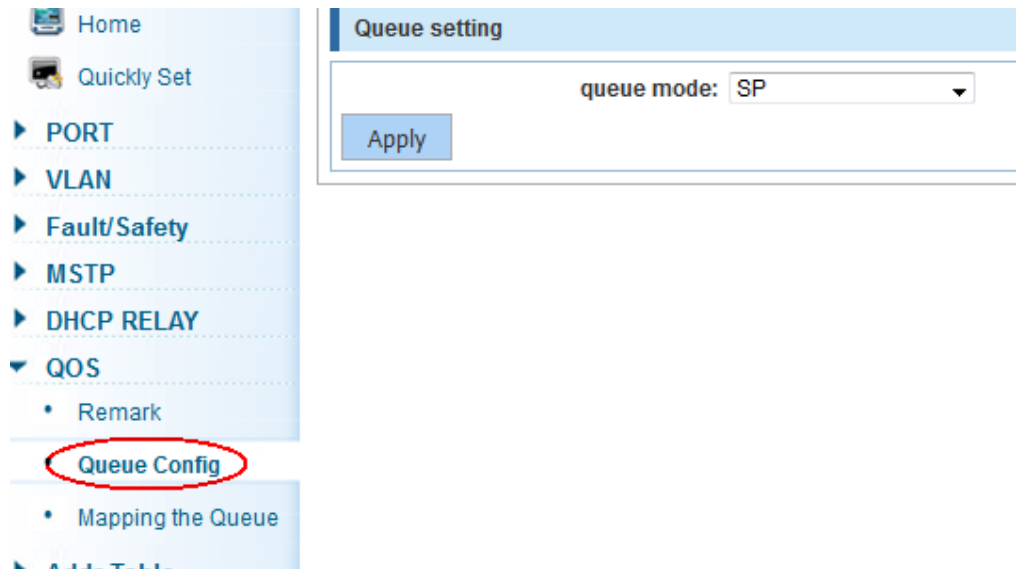
1	3	5	7	9
2	4	6	8	10

Optional Not optional Selected 1 Aggregation Trunk E ip s

Apply Cance

## 4.7.2 Queue Config

In the navigation bar to select "QOS>Queue Config". Can be set up queue scheduling policy. The following picture:



#### 【Parameter Description】

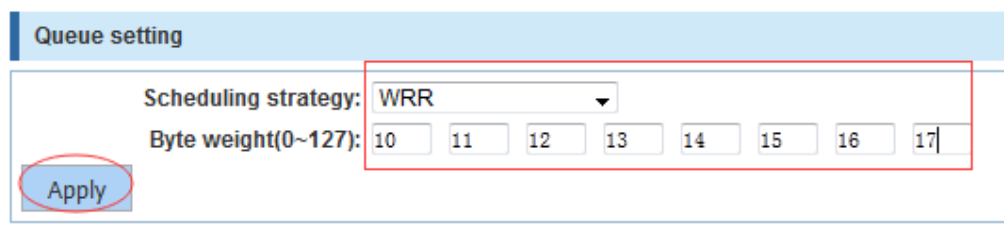
Parameter	Description
Scheduling strategy	Can choose four kinds of modes:
	RR round-robin scheduling
	SP absolute priority scheduling
	WRR weighted round-robin scheduling
	WFQ weighted fair scheduling
WRR-weights	Set the weights of each queue, they will be in proportion to occupy the bandwidth to send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



### 4.7.3 Mapping the queue

### 4.7.3.1 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.

cos-queue-map dscp-cos-map port-cos-map

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)

#### 【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

### 4.7.3.2 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

### 4.7.3.3 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

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 2 3 4 next page last page 1 / 4page

### 【Parameter Description】

Parameter	Description
Port	Select the port number (1-10)
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

port COS mapping

port: 5  
server ID: 5

port COS mapping

port: 6  
server ID: 6

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							

## 4.8 Address table

In the navigation bar to select "Address table", you can set to **MAC add and delete**, **MAC study and Aging** and **MAC address filtering**.

Mac add and delete
Mac study and Ageing
Mac address filtering

clear MAC: Clear appoint Mac a ▼  
Vlan: 1 (1–4094)  
Mac address :  
save

### 4.8.1 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:

Home  
Quickly Set

PORT  
VLAN  
Fault/Safety  
MSTP  
DHCP RELAY  
QOS  
▼ Addr Table  
    **Address Table**  
SNMP  
SYSTEM

### 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

clear MAC: Clear appoint Mac a  
Vlan: 1 (1--4094)  
Mac address :  
save

1	3	5	7	9
2	4	6	8	10

Optional Not optional **Selected** Aggregation Trunk  
Vlan: 1 (1--4094)  
Mac address :  
save

MAC address list: all

serial number	MAC address	VLAN ID
1	3C:97:0E:4F:57:F2	1

#### 【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】

Clear Mac address according to different conditions, view / add / learn Mac address, Mac address filtering.

#### 【Configuration example】

Such as:

- 1) The port 6 Mac set to static Mac.

1	3	5	7	9
2	4	<b>6</b>	8	10

Optional Not optional **Selected** Aggregation Trunk  
Vlan: 1 (1--4094)  
Mac address : 3C:97:0E:4F:57:F2  
**save**

- 2) Clear port 6 static Mac addresses.

Address Table Config

explain:

Clear the MAC address under different conditions, view / add / learn MAC address

Mac add and delete

Mac study and aging

Mac address filtering

clear MAC:

Clear appoint Mac a

Vlan:

1

(1-4094)

Mac address :

8C:97:0E:4F:57:F2

save

## 4.8.2 Mac study and aging

In the navigation bar to select "Address table>Mac study and aging". 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

1 3 5 7 9

2 4 6 8 10

Optional

Not optional

Selected

1 Aggregation

Trunk

Tips : drag to select multiple ports

Mac address study limit:

8191

(0 indicates not limit ,0-8191)

save

Mac address Aging time:

300

(0 indicates not aging,10-1000000 second)

save

### 【Parameter Description】

Parameter	Description
Mac address	Range 0-8191,default 8191
Mac address study limit	Default 300

### 【Configuration example】

Such as:

Setting port 2,3,4,5 address study limit for 2000.



Address Table Config

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

Mac add and deleteMac study and agingMac address filtering

13579

246810

Optional

Not optional

Selected

Aggregation

Trunk

Tips : drag to select multiple ports

Mac address study limit: 2000 (0 indicates not limit, 0-8191)

save

Mac address Aging time: 300 (0 indicates not aging, 10-1000000 second)

save

The port equipment dropped or to learn the Mac address after 2 minutes from the Mac address table automatically disappear.

save

Mac address Aging time: 120 (0 indicates not aging, 10-1000000 second)

save

### 4.8.3 Mac address filtering

In the navigation bar to select "Address table>Mac address filtering". Can be filtered according to the condition does not need the Mac address. 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 deleteMac study and AgingMac address filtering

Mac address:

Vlan: (1-4094)

save

delete

serial number

MAC address

VLAN ID

address type

port

Aggregation group

frist page

prev page

1

next page

last page

1

/ 1 page

#### 【Parameter Description】

Parameter	Description
Mac address	Can not add multicast Mac address
VLAN	VLAN number

#### 【Configuration example】

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

Mac add and delete
Mac study and Ageing
Mac address filtering

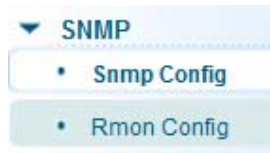
Mac address: 00:20:15:09:12:12  
Vlan: 1 (1--4094)

save delete

serial number	MAC address
---------------	-------------

## 4.9 SNMP

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



### 4.9.1 Snmp config

#### 4.9.1.1 Snmp config

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

Home
Quickly Set
PORT
VLAN
Fault/Safety
POE
MSTP
DHCP RELAY
QOS
Addr Table
SNMP
Snmp Config
Rmon Config
SYSTEM

SNMP Config
Community Config
Group Config
User Config
Trap Config
View Config

SNMP config

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

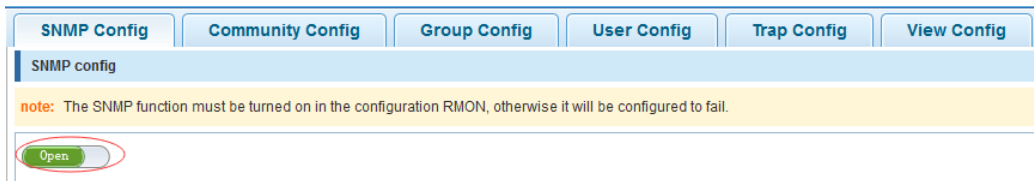
Open

#### 【Instruction】

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

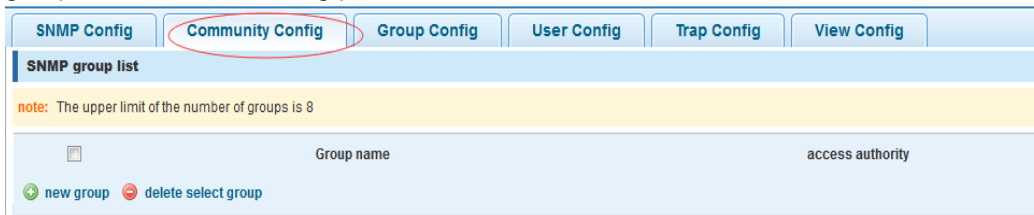
#### 【Configuration example】

Such as: open Snmp.



#### 4.9.1.2 Community config

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



##### 【Parameter Description】

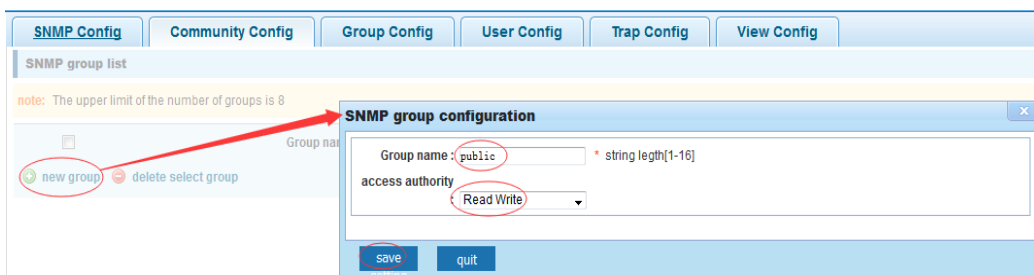
Parameter	Description
group	Community string, is equal to the NMS and Snmp agent communication between the password
Access authority	Read-only: specify the NMS (Snmp host) of MIB variables can only be read, cannot be modified  Read-only can write: specify the NMS (Snmp host) of MIB variables can only 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.



#### 4.9.1.3 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.

SNMP Config Community Config Group Config User Config Trap Config **View Config**

view list

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

view name  \* string length[1-16]

New view

View rule list:  delete view

rule	MIB subtree OID	subtree mask
<input type="checkbox"/>		

New view rule Delete select View rule

frist page prev pa

### 【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.

view list

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

view name  \* string length[1-16]

New view

View rule list: 123 delete view

rule	MIB subtree OID	subtree mask
<input type="checkbox"/>		

New view rule Delete select View rule

edit view rule

Excluded is not effective for a subset of the excluded content, which is not valid for the included

rule: ☒ contain ☐ exclude

MIB subtree OID:  \* String length[1-128]

subtree mask:  String length[1-31]

save quit

### 4.9.1.4 Group Config

In the navigation bar to select "Snmpp>Snmpp Config>Group Config", setting snmp group. The following picture.

### 【Parameter Description】

Parameter	Description
Group name	Group name
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>
Read view、read and write view、study view	The associated view name

### 【Instruction】

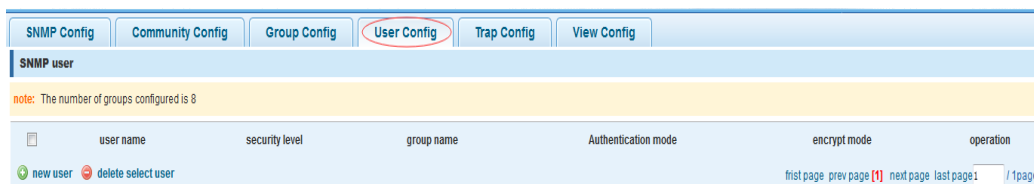
Before the cap on the number set of configuration of 8, the new group needs a new view to create a group.

### 【Configuration example】

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

### 4.9.1.5 User config

In the navigation bar to select "Snmp>Snmp Config>User Config", setting Snmp user.  
The following picture:



#### 【Parameter Description】

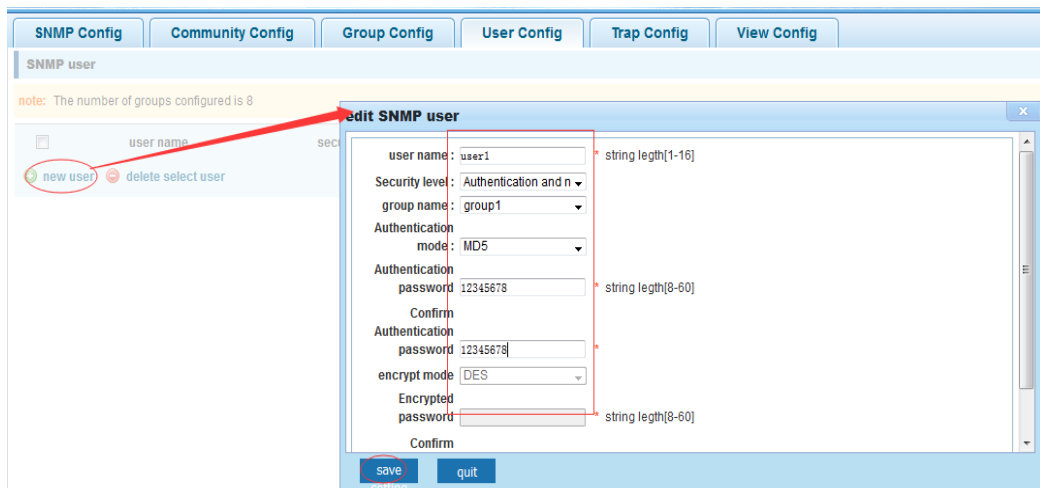
Parameter	Description
User name	User name,range 1-16
Security level	Attestation not only encryption: this group of users transmission of the message need to verify the data don't need to confidential  No authentication encryption: this group of users' messages don't need to verify data transmission also does not need to be kept secret  Both authentication and encryption: this group of users need to verify the news of transmission and transmission of data need to be kept secret
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】

The upper limit of the number of users is 8, the need to build a new view and the group can be used, the user's security level needs to be consistent with the group's security level. Add a user to use the authentication and encryption methods, and configure the user group, the user will be used for Snmpv3 connection.

#### 【Configuration example】

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



#### 4.9.1.6 Trap

In the navigation bar to select "SnmP>SnmP Config>Trap". Can specify sent the trap messages to Snmp host (NMS). The following picture:



#### 【Parameter Description】

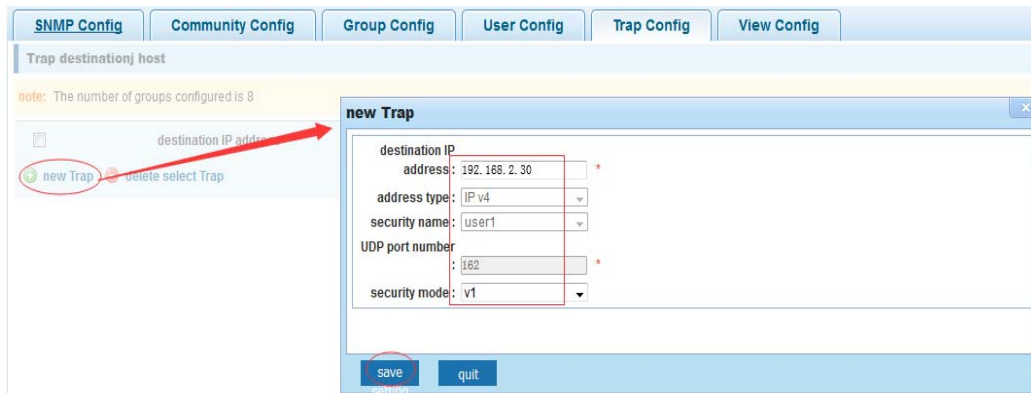
Parameter	Description
Destination ip address	Snmp host ipv4 address
Security name	Snmp user name
version	V1、V2、V3
Security mode	Specified using AES encryption protocol or DES encryption protocol
Group name	User group name

#### 【Instruction】

The upper limit of the number of Trap configuration is 8, you can configure a number of different Snmp host to receive trap messages. Trigger the trap message: port Linkup/LinkDown and equipment of cold start (power down reset) / warm-start (hot restart), and Rmon set the port port statistical on under the threshold.

#### 【Configuration example】

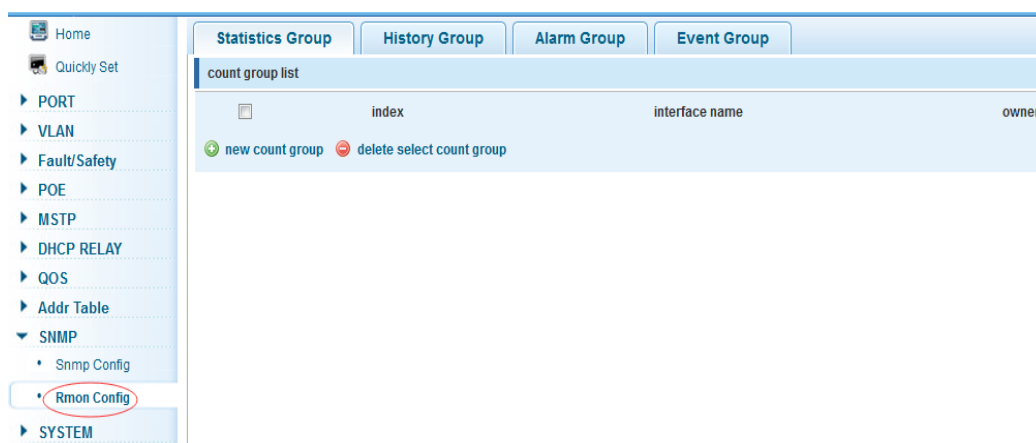
Such as: setting hoset 192.168.2.30 receive trap information.



## 4.9.2 Rmon Config

### 4.9.2.1 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

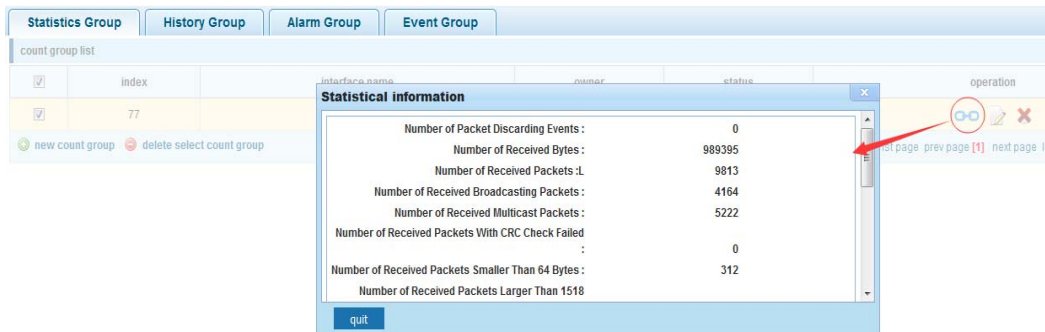
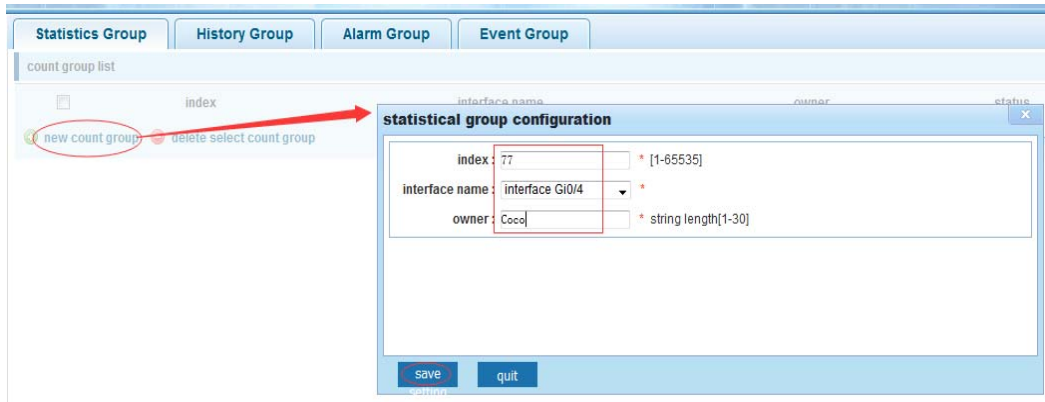
#### 【Instruction】

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

#### 【Configuration example】

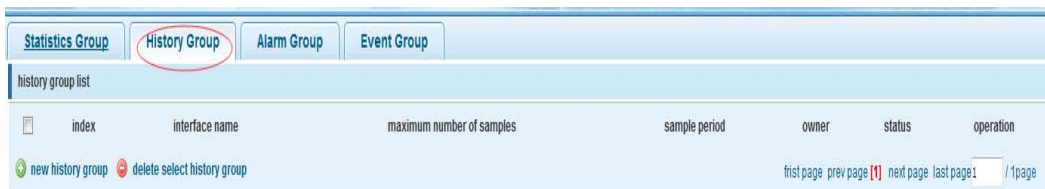
Such as: set up monitoring Ethernet port after 4 to check the data.





#### 4.9.2.2 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】

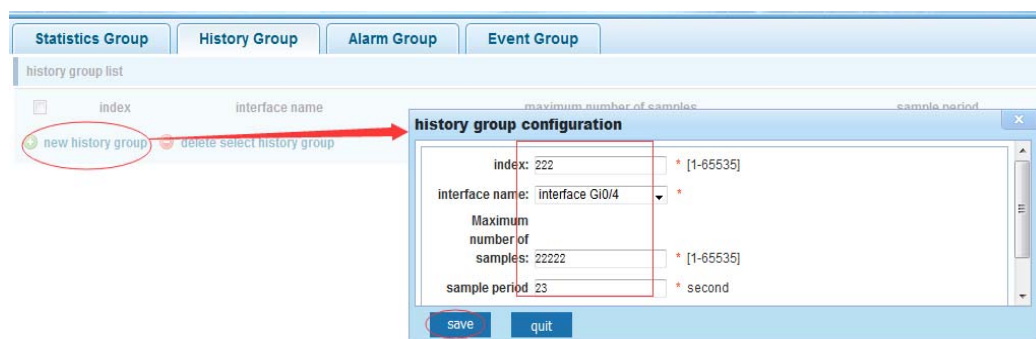
Parameter	Description
index	Historical control table item index number, value range is 1 ~ 65535
Interface name	To record the Ethernet interface
Maximum number of samples	Set the history control table item of the corresponding table capacity, namely the Max for number of records the history table, value 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】

Snmp function must be turned on when configuring the Rmon, otherwise the prompt box will pop up.

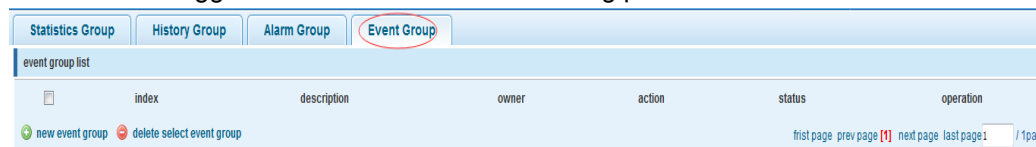
#### 【Configuration example】

Such as: monitor Ethernet port 4 historical information.



### 4.9.2.3 Event Group

In the navigation bar to select "Snmp > Rmon Config > Event Group". The way in which define events trigger and record them. The following picture.



#### 【Parameter Description】

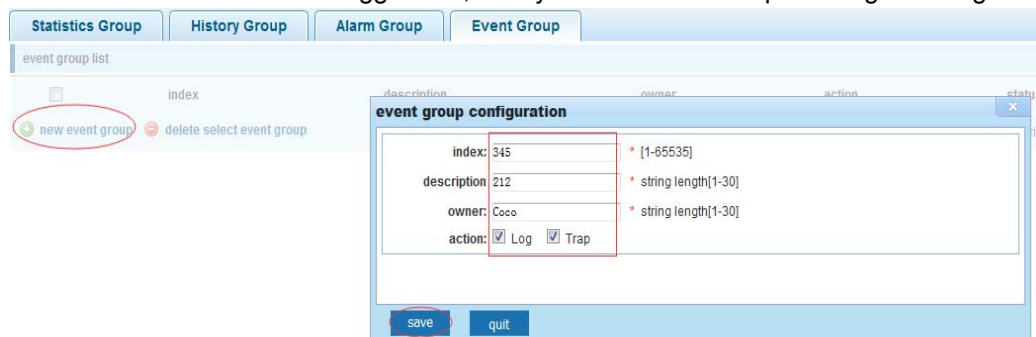
Parameter	Description
index	The index number, the value range of the event table is 1 ~ 65535
Description	The Trap events, when the event is triggered, the system will send the Trap message, Log events, when the event is triggered, the system will log
owner	Set the table creator, owname for 1 ~ 30 characters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

#### 【Instruction】

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

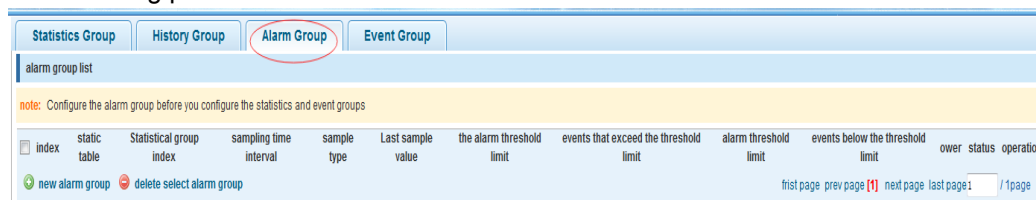
#### 【Configuration example】

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



### 4.9.2.4 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 pop up. 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.

The current user name: admin

Statistics Group History Group Alarm Group Event Group

alarm group list

note: Configure the alarm group before you configure the statistics and event groups.

index static table Statistical group index

new alarm group delete select alarm group

**statistical group configuration**

index: 123 \* [1-65535]

Static table: DropEvents

Statistical group index: 77

Sampling time interval: 123 \* second

Sample type: Absolute

owner: Coco \* string length: [1-30]

The alarm threshold limit: 12 \* [0-2147483647]

Events that exceed the threshold limit: 345

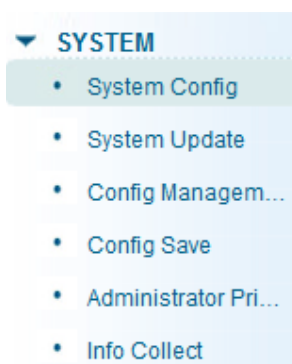
Alarm threshold limit: 3 \* [0-2147483647]

Events below the threshold limit: 345

save quit

## 4.10 SYSTEM

In the navigation bar to select "SYSTEM", you can set to the **System Config**, **System Update**, **Config Management**, **Config Save**, **Administrator Privileges** and **Info Collect**.



### 4.10.1 System Config

#### 4.10.1.1 System settings

In the navigation bar to select "SYSTEM>System Config>System settings", Basic information set switch. The following picture:

Home

Quickly Set

- PORT
- VLAN
- Fault/Safety
- MSTP
- DHCP RELAY
- QOS
- Addr Table
- SNMP
- SYSTEM
  - System Config**
  - System Update
  - Config Managem...
  - Config Save
  - Administrator Pri...

**System settings**   System restart   Password change   ssh login

system basic information

Manage VLAN: 1 \*   Device MAC: da:ad:12:34:56:78

Manage IP: 192.168.2.1 \*   Device name: Switch

Mask: 255.255.255.0 \*   Device position:

Default gateway: 0.0.0.0   Contacts:

Jumboframe : 1518 (1518-9216)   Contact information:

DNS server: 0.0.0.0

Login

timeout(minute): 30

Save settings   Set management vlan

System time

current system time: 2000year01month01dayMorning00:41:58

Reset time:

☐ Automatically with Internet time server

### 【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

### 【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.

Home

Quickly Set

- PORT
- VLAN
  - Vlan Config**
- Fault/Safety
- POE
- MCTD

VLAN setting   Trunk-port setting   Hybrid-port setting

VLAN list

	VLAN ID	VLAN name	VLAN IP address	port	operation
	1	VLAN0001	192.168.2.1/24	1-8, 11-26	
	2	VLAN0002		9-10	

New VLAN   delete selected VLAN

first page   prev page (1)   next page   last page   / 1page

**system basic information**

Manage VLAN: 1 \*

Manage IP: 192.168.2.1 \*

Mask: 255.255.255.0 \*

Default gateway: 0.0.0.0

Jumboframe : 1518 (1518-9216)

DNS server: 0.0.0.0

Login

timeout(minute): 30

Save settings Set management vlan

**system basic information**

Manage VLAN: 2 \*

Manage IP: 192.168.2.12 \*

Mask: 255.255.255.0 \*

Default gateway: 0.0.0.0

Jumboframe : 5000 (1518-9216)

DNS server: 0.0.0.0

Login

timeout(minute): 20

Save settings Cancel settings

Device MAC: da:ad:12:34:56:78

Device name: yoyo

Device position:

Contacts:

Contact information:

- 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, Jumboframe for 5000.

**System settings** **System restart** **Password change** **ssh login**

**system basic information**

Manage VLAN: 2 \*

Manage IP: 192.168.2.12 \*

Mask: 255.255.255.0 \*

Default gateway: 0.0.0.0

Jumboframe : 5000 (1518-9216)

DNS server: 0.0.0.0

Login

timeout(minute): 20

Save settings Set management vlan

Device MAC: da:ad:12:34:56:78

Device name: yoyo

Device position:

Contacts:

Contact information:

3) Use 192.168.1.12 logging in, sets the system time.

system time

current system time: 2000year01month01dayMorning07:53:25

Reset time:

☐ Automatic

**save settings**

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Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	1	2	3	4	5
6	7	8	9	10	11	12

Time 16:51:25

Clear Today OK

#### 4.10.1.2 System restart

In the navigation bar to select "SYSTEM>System Config>System restart", equipment can be restarted. The following picture:

Home Quickly Set

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

• **System Config**

• System Update

• Config Managem

System settings **System restart** Password change ssh login Telnet login System log

Note: 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.

Restart

##### 【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.

System settings **System restart** Password change

Note: 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.

**Restart**

### 4.10.1.3 Password change

In the navigation bar to select "SYSTEM>System Config>Password change", The password change to equipment. The following picture:

Home  
Quickly Set  
PORT  
VLAN  
Fault/Safety  
MSTP  
DHCP RELAY  
QOS  
Addr Table  
SNMP  
SYSTEM  
\* System Config  
\* System Update

System settings System restart **Password change** ssh login Telnet login System log

change root user password

Tip: 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.

Old password: ●●●●●● \*  
New password: ●●●●●● \*  
Password again: ●●●●●● \*

Save Clear

#### 【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.

change root user password

Tip: 1. If you set a new Web login password, then log in again after s

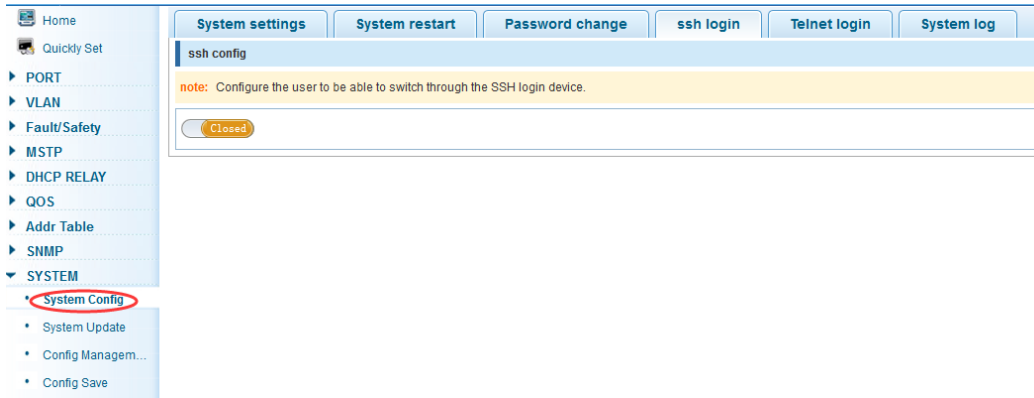
Old password: ●●●●●● \*  
New password: ●●●●●● \*  
Password again: ●●●●●● \*

Save Clear

### 4.10.1.4 SSH login

In the navigation bar to select "SYSTEM>System Config>ssh login", SSH open. The following picture:



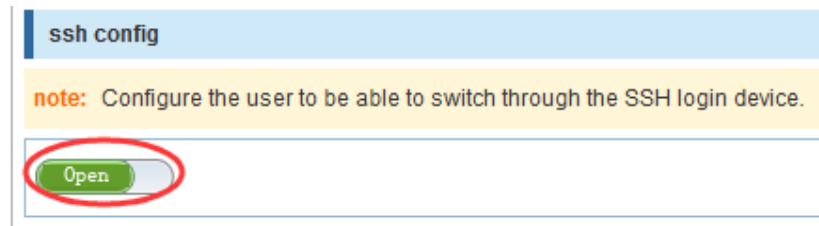


#### 【Instruction】

Configure the user to be able to switch through the SSH login device.

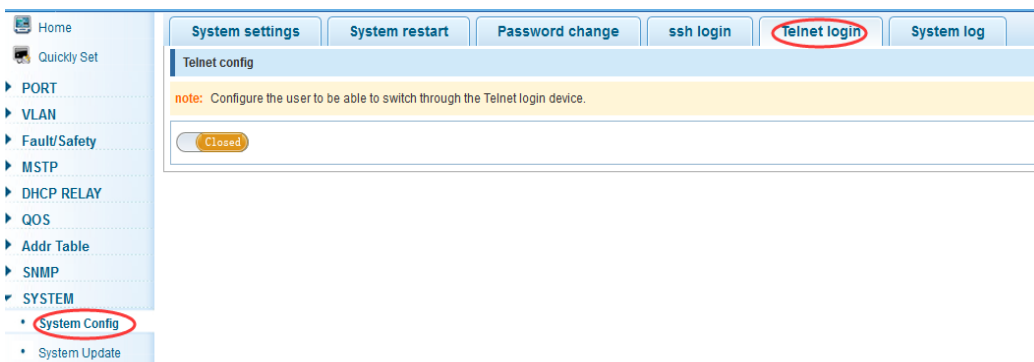
#### 【Configuration example】

Such as: SSH open, you can CRT to log in.



#### 4.10.1.5 Telnet login

In the navigation bar to select "SYSTEM>system config>Telnet login". Telnet open. The following picture:

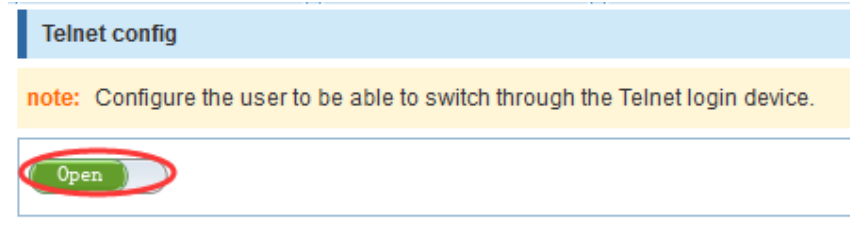


#### 【Instruction】

Configure the user to be able to switch through the Telnet login device.

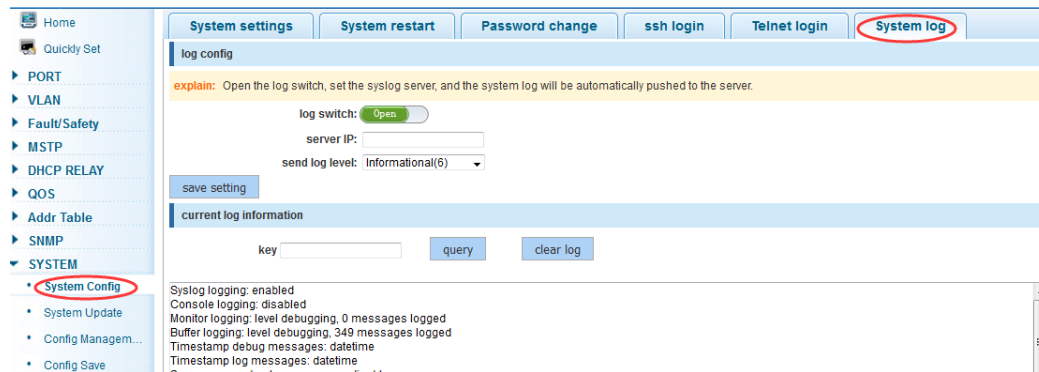
#### 【Configuration example】

Such as: Telnet open, PC Telnet function open, you can log in.



#### 4.10.1.6 System log

In the navigation bar to select "SYSTEM>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

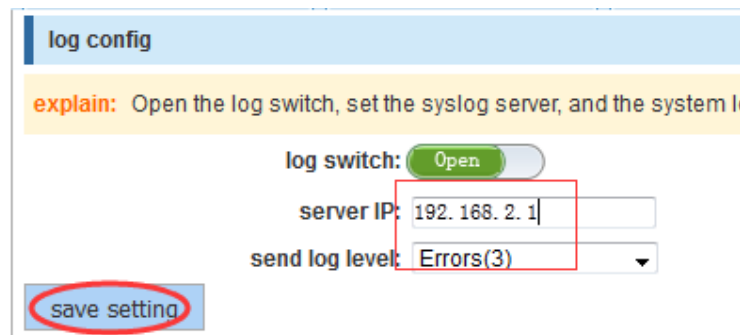
##### 【Instruction】

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.



- 2) Input the Mac keywords, click "query" button, click on the "clear log" button, can clear the log.

current log information

key mac

query

clear log

---

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):  
 Jan 01 00:00:22 %CLI-Errors-CLIERRINFO: CLI load config excute cmd error: vlan-filter enable  
 Jan 01 00:00:22 %CLI-Errors-CLIERRINFO: CLI load config excute cmd error: mac-vlan enable  
 Jan 01 00:00:22 %CLI-Errors-CLIERRINFO: CLI load config excute cmd error: subnet-vlan enable  
 Jan 01 00:00:22 %PORTMANAGE-Informational-PORT: set port 26 flow control off.  
 Jan 01 00:00:22 %CLI-Errors-CLIERRINFO: CLI load config excute cmd error: rate-limit input 262143  
 Jan 01 00:00:22 %CLI-Errors-CLIERRINFO: CLI load config excute cmd error: rate-limit output 262143  
 Jan 01 00:00:22 %CLI-Errors-CLIERRINFO: CLI load config excute cmd error: cvlan-trusted enable  
 Jan 01 00:00:22 %CLI-Errors-CLIERRINFO: CLI load config excute cmd error: vlan-translation ingress disable  
 Jan 01 00:00:22 %CLI-Errors-CLIERRINFO: CLI load config excute cmd error: vlan-translation egress disable  
 Jan 01 00:00:22 %CLI-Errors-CLIERRINFO: CLI load config excute cmd error: vlan-filter enable  
 Jan 01 00:00:22 %CLI-Errors-CLIERRINFO: CLI load config excute cmd error: mac-vlan enable

## 4.10.2 System Upgrade

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

Home  
 Quickly Set  
 PORT  
 VLAN  
 Fault/Safety  
 MSTP  
 DHCP RELAY  
 QOS  
 Addr Table  
 SNMP  
 SYSTEM  
 • System Config  
 • **System Update**  
 • Config Managem...  
 • Config Save  
 • Administrator Pri...  
 • Info Collect

System Upgrade

note: 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 p

file name:  No file selected

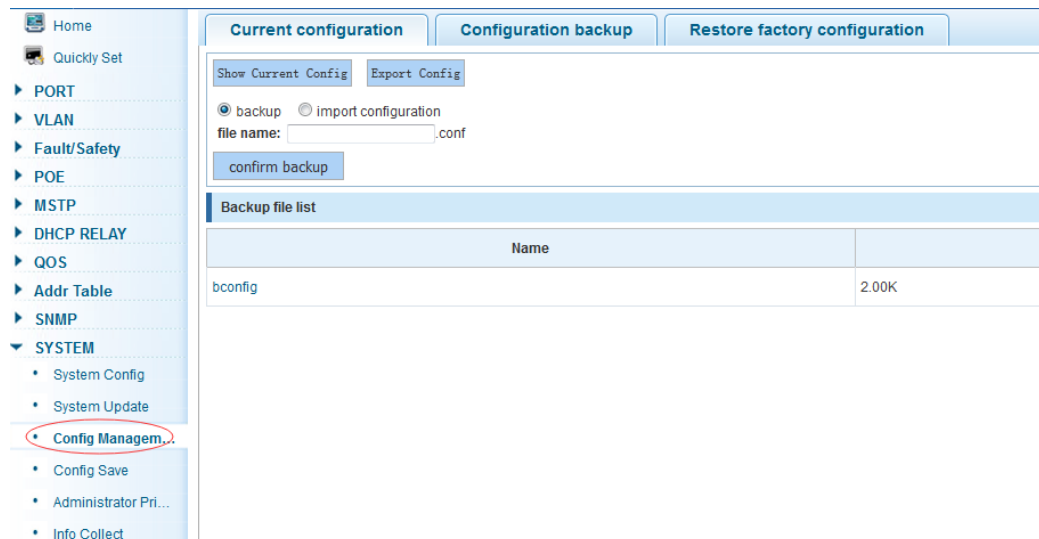
### 【Instruction】

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.

## 4.10.3 Config Management

#### 4.10.3.1 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:



##### 【Instruction】

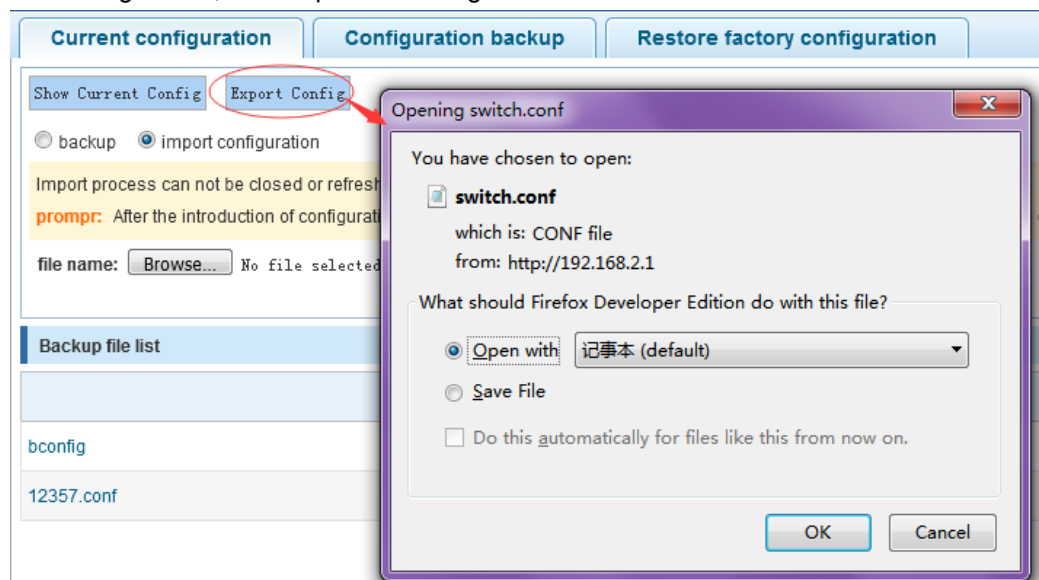
Import process can not be closed or refresh the page, or import will fail.

After the introduction of configuration, to enable the new configuration, please in this page Restart device Otherwise configuration does not take effect.

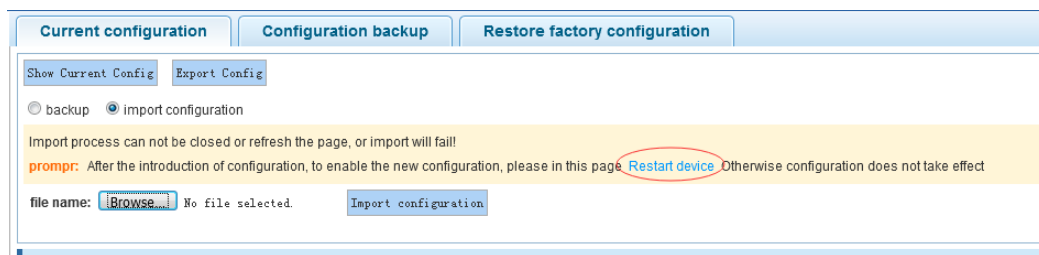
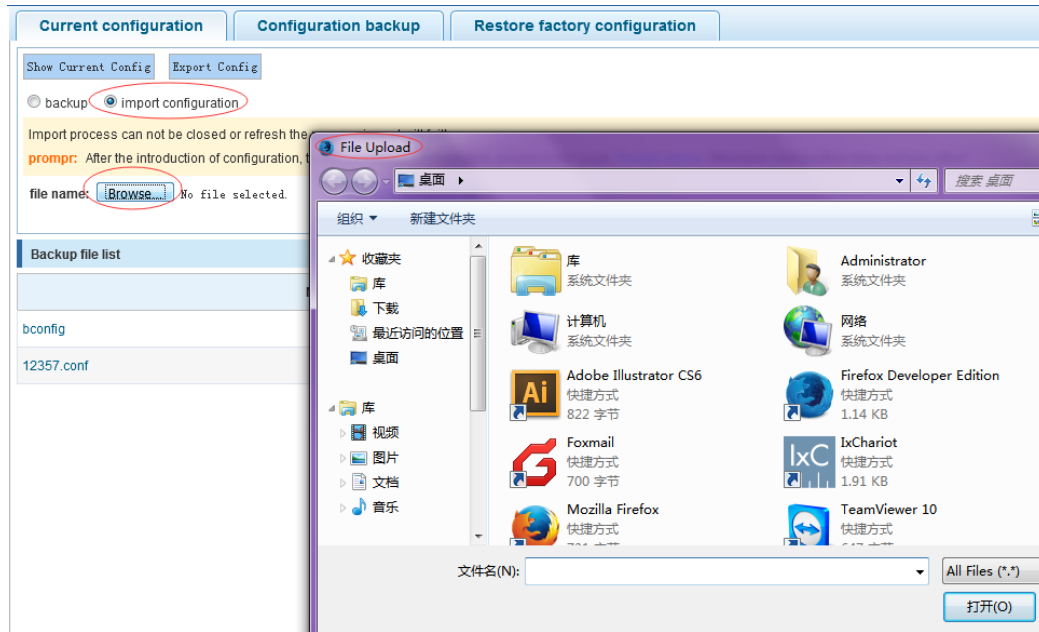
##### 【Configuration example】

Such as:

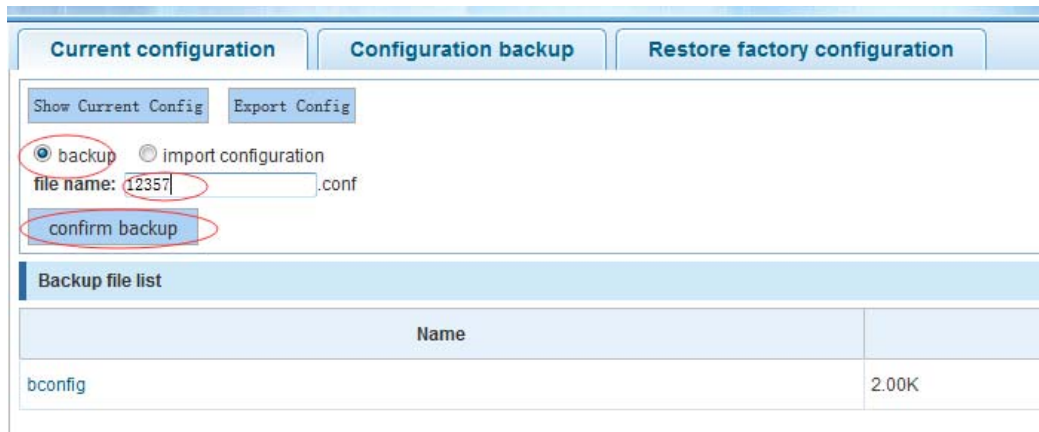
- 1) In the configuration first save the page, click save configuration to save the current configuration, then export the configuration.



- 2) Import configuration.

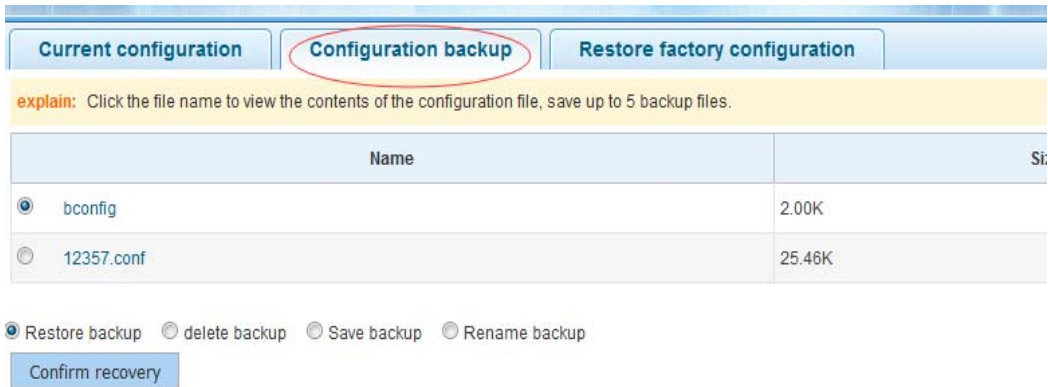


### 3) Backup.



#### 4.10.3.2 Configuration backup

In the navigation bar to select “**SYSTEM>Config Management>Configuration backup**”, you can configure backup file. The following picture:

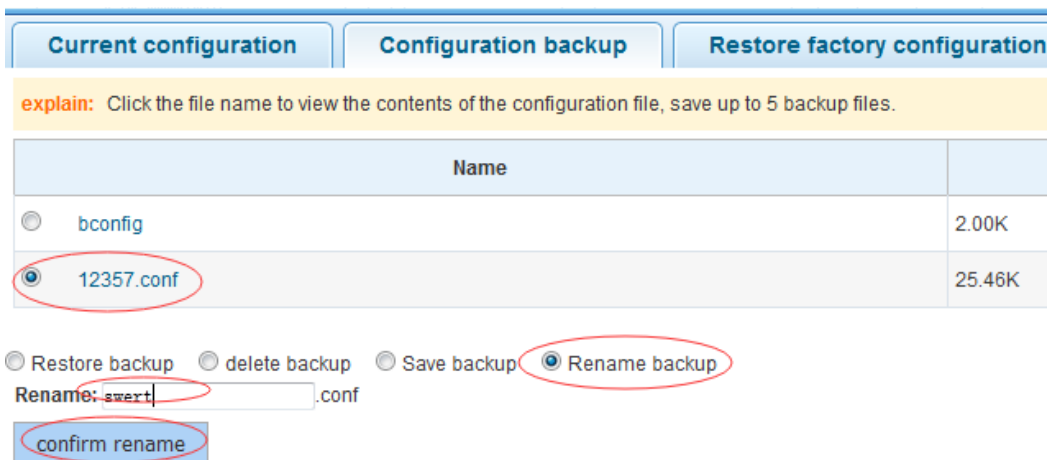


#### 【Instruction】

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

#### 【Configuration example】

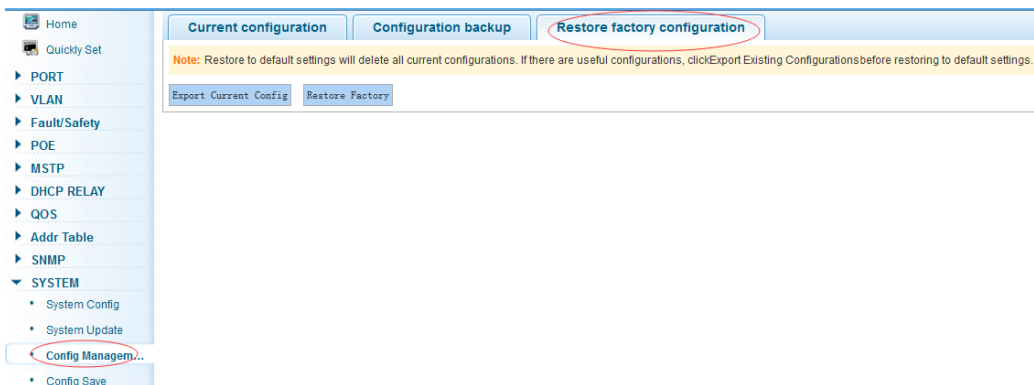
Such as: restore backup.



### 4.10.3.3 Restore factory configuration

In the navigation bar to select “**SYSTEM>Config Management>Restore factory configurator**”. Can export the current configuration and restore factory configuration.

The following picture:



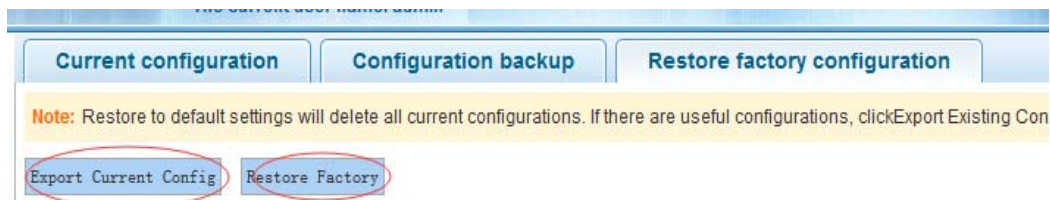
#### 【Instruction】

Restore the factory configuration, will delete the current all configuration. If the current

system has a useful configuration, you can export the current configuration and then restore the factory configuration.

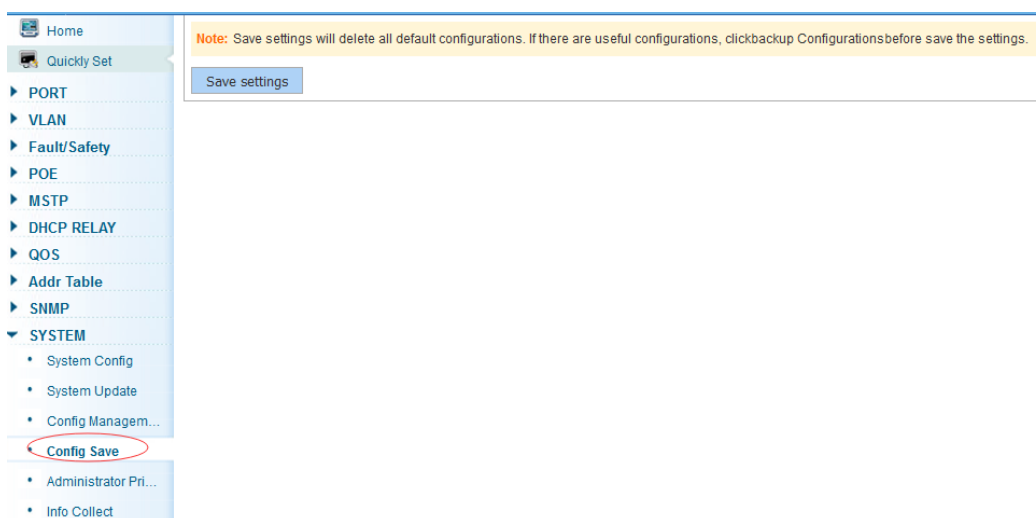
【Configuration example】

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



## 4.10.4 Config Save

In the navigation bar to select “**SYSTEM>Config Save**”, you can save current configuration. The following picture.

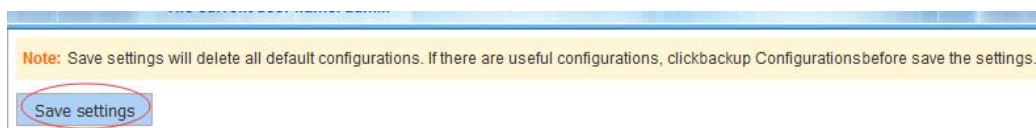


【Instruction】

Save system configuration, will cover the original configuration. If the current system has a useful configuration, you can back up the current configuration and then save the system configuration.

【Configuration example】

Such as: click “save settings” button.



## 4.10.5 Administrator Privileges

In the navigation bar to select “**SYSTEM>Administrator Privileges**”, Configurable ordinary users. The following picture.

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: \*  
new password: \*  
confirm password: \*

add user

user list

user name	operation
admin	
user	

first page prev page 1 next page last

### 【Instruction】

This page only the super administrator admin can access, for the management of users and visitors. The user can log on Web management system to carry on the daily maintenance to the equipment. In addition to admin and user, up to 5 users can add. Ordinary users can only access to view the system home page information.

### 【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.

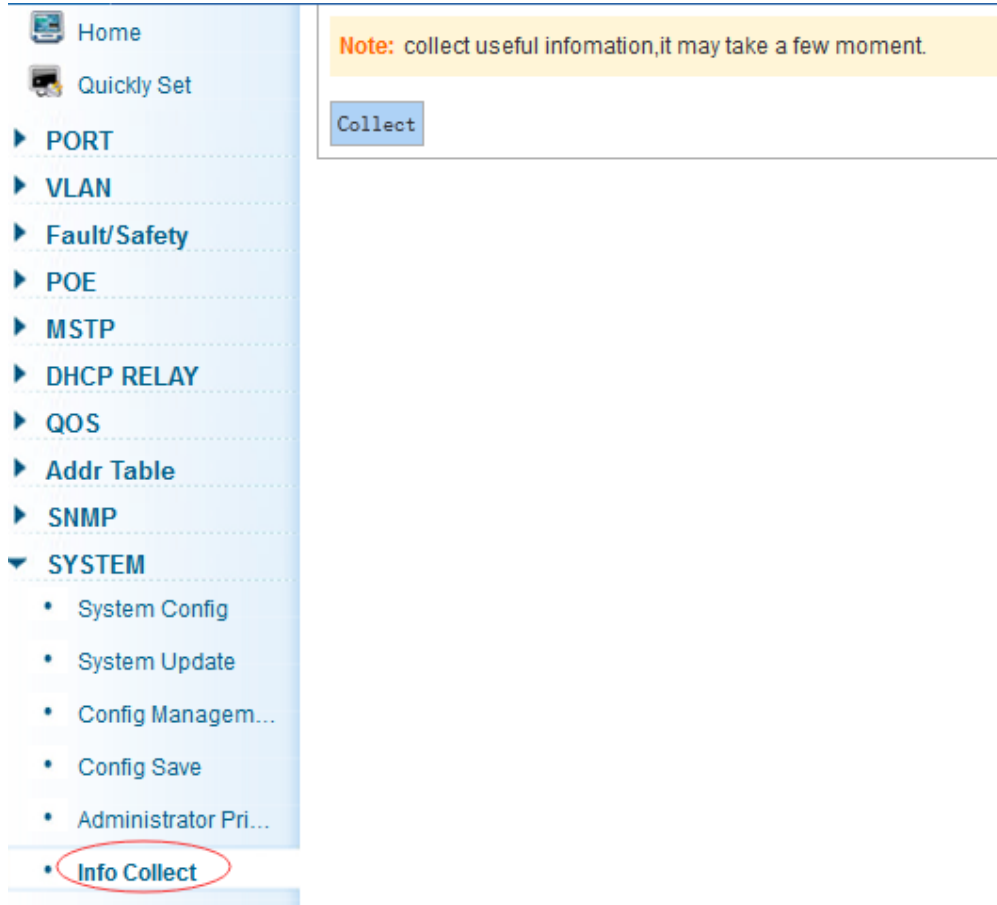
user name: 1234 \*  
new password: \*  
confirm password: \*

add user

## 4.10.6 Info Collect

In the navigation bar to select “**SYSTEM>Info Collect**”. You can collect to the system debug information. The following picture.



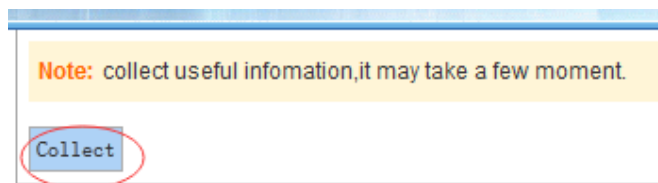


**【Instruction】**

Collect useful information, it may take a few moment.

**【Configuration example】**

Such as: click on "Collect" button.



## **Appendix: Technical Specifications**

<b>Hardware Features</b>		
Standards and Protocols		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
Interface		8 Giga Ethernet Auto-Negotiation ports 2 Giga SFP ports 1 x Console port
Network Media		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)
Transfer Method		Store-and-Forward
MAC Address Table		8K
Switching Capacity		20Gbps
Packet Forwarding Rate		14.88Mpps
Packet Buffer		4.1Mbit
Jumbo Frame		9216Bytes
PoE Ports(RJ45)		8* PoE ports compliant with 802.3at/af
Power Pin Assignment		1/2(+), 3/6(-)
PoE Budget		140W
Indicators	Per Device	Power, System
	Per Port	Link/Activity/Speed, PoE
Power Supply		100~240VAC, 50/60HZ, 150W
Power Consumption		Maximum(PoE on): 161W (220V/50Hz)
Dimensions ( W x D x H )		280*180*44.3 mm
Environment		Operating Temperature: 0℃~45℃ Storage Temperature: -40℃~70℃ Operating Humidity: 10%~90% non-condensing Storage humidity: 5%~90% non-condensing

<b>Software Features</b>	
Basic function	<ul style="list-style-type: none"> <li>• Ethernet Setup</li> <li>• STP/RSTP/MSTP</li> <li>• Storm-control</li> </ul>

	<ul style="list-style-type: none"> <li>• Port Monitor</li> <li>• Port rate-limit</li> <li>• MAC filtering</li> </ul>
Three layers of functional	<ul style="list-style-type: none"> <li>• The ARP deception, the network cheating</li> <li>• Filtering the IP port</li> <li>• Static binding IP and MAC</li> <li>• Arp trust port</li> <li>• Static routing capacity</li> <li>• Ping and Traceroute</li> </ul>
The security policy	<ul style="list-style-type: none"> <li>• IACE capacity</li> <li>• IACL</li> <li>• IQoS</li> <li>• IDAI</li> </ul>
VLAN	<ul style="list-style-type: none"> <li>• Port based VLAN</li> <li>• 802.1Q VLAN</li> </ul>
Safety features	<ul style="list-style-type: none"> <li>• IRadius</li> <li>• ITacacs+</li> <li>• IPreventing DOS attacks</li> <li>• Idot1x</li> <li>• IThe gateway ARP deception</li> </ul>
Application protocol	<ul style="list-style-type: none"> <li>• IDHCP Relay</li> <li>• IDHCP snooping</li> <li>• IDHCP Client</li> <li>• IFTP/TFTP</li> </ul>
Management	<ul style="list-style-type: none"> <li>• IHTTP WEB</li> <li>• ITelnet</li> <li>• ISSH</li> <li>• IConsole</li> </ul>
Other function	<ul style="list-style-type: none"> <li>• ILLDP</li> <li>• IIGMP Snooping</li> <li>• ISNMPV1, V2c, V3</li> <li>• IRMON (1, 2, 3, 9)</li> </ul>
PoE Management	<ul style="list-style-type: none"> <li>• IPOE Status</li> <li>• IPower supply management mode(auto/energy/static)</li> <li>• IThe port priority</li> </ul>



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