Version 1.00 | 08/20/2025

Web Reference Guide

L2 Industrial Smart Switch

DIS-210G Series

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Chapter 1 Configuration Preparation

1.1 HTTP Configuration

Switch configuration can be conducted not only through command lines and SNMP but also through Web browser. The switches support the HTTP configuration, the abnormal packet timeout configuration, and so on.

1.1.1 Choosing the Prompt Language

Up to now, switches support two languages, that is, English and Chinese, and the two languages can be switched over through the following command.

Command	Purpose
[no] ip http language { english}	Sets the prompt language of Web configuration to English.

1.1.2 Setting the HTTP Port

Generally, the HTTP port is port 80 by default, and users can access a switch by entering the IP address directly; however, switches also support users to change the service port and after the service port is changed you have to use the IP address and the changed port to access switches. For example, if you set the IP address and the service port to 10.90.90.90 and 1234 respectively, the HTTP access address should be changed to http:// 10.90.90.90:1234. You'd better not use other common protocols' ports (such as ftp-20, telnet-23, dns-53, snmp-161) so that access collision should not happen. Because the ports used by a lot of protocols are hard to remember, you'd better use port IDs following port 1024.

Command	Purpose
ip http port { *portNumber* }	Setting the HTTP Port

1.1.3 Enabling the HTTP service

Switches support to control the HTTP access. Only when the HTTP service is enabled can HTTP exchange happen between switch and PC and, when the HTTP service is closed, HTTP exchange stops.

Command	Purpose
ip http server	Enabling the HTTP service

1.1.4 Setting the HTTP Access Mode

You can access a switch through two access modes: HTTP access and HTTPS access, and you can use the following command to set the access mode to HTTP.

Command	Purpose

ip http http-access enable	Setting the HTTP Access Mode

1.1.5 Setting the maximum number of VLAN entries displayed on a web page

A switch supports at most 4094 VLANs and in most cases Web only displays parts of VLANs, that is, those VLANs users want to see. You can use the following command to set the maximum number of VLANs. The default maximum number of VLANs is 100.

Command	Purpose
ip http web max-vlan { *max-vlan* }	Sets the maximum number of VLAN entries displayed in a web page.

1.1.6 Setting the Maximum Number of Multicast Entries Displayed on a Web Page

A switch supports at most 100 multicast entries. You can run the following command to set the maximum number of multicast entries and Web then shows these multicast entries. The default maximum number of multicast entries is 15.

Command	Purpose
ip http web igmp-groups { *igmp-groups* }	Sets the maximum number of multicast entries displayed in a web page.

1.2 HTTPS Configuration

In order to improve the security of communications, switches support not only the HTTP protocol but also the HTTPS protocol. HTTPS is a security-purposed HTTP channel and it is added to the SSL layer under HTTP.

1.2.1 Setting the HTTP Access Mode

You can run the following command to set the access mode to HTTPS.

Command	Purpose
ip http ssl-access enable	Setting the HTTPS access mode

1.2.2 Setting the HTTPS Port

As the HTTP port, HTTPS has its default service port, port 443, and you also can run the following command to change its service port. It is recommended to use those ports following port 1024 so as to avoid collision with other protocols' ports.

Parameters	Notes:
ip http secure-port {*portNumber*}	Sets the HTTPS port.

Chapter 2 Accessing the Switch through HTTP

2.1 Accessing the Switch through HTTP

When accessing the switch through Web, please make sure that the applied browser complies with the following requirements:

- HTML of version 4.0
- HTTP of version 1.1
- JavaScriptTM of version 1.5

What's more, please ensure that the main program file, running on a switch, supports Web access and your computer has already connected the network in which the switch is located.

2.1.1 Initially Accessing the Switch

When the switch is initially used, you can use the Web access without any extra settings:

1. Modify the IP address of the network adapter and subnet mask of your computer to 10.90.90.91 and 255.0.0.0 respectively.

2. Open the Web browser and enter 10.90.90.90 in the address bar. It is noted that 10.90.90.90 is the default management address of the switch.

3. If the Internet Explorer browser is used, you can see the dialog box as below. Both the original username and the password are “admin”, which is capital sensitive.

4. After successful authentication, the systematic information about the switch will appear on the IE browser.

2.1.2 Upgrading to the Web-Supported Version

If your switch is upgraded to the Web-supported version during its operation and the switch has already stored its configuration files, the Web visit cannot be directly applied on the switch. Perform the following steps one by one to enable the Web visit on the switch:

1. Connect the console port of the switch with the accessory cable, or telnet to the management address of the switch through the computer.

2. Enter the global configuration mode of the switch through the command line, the DOS prompt of which is similar to “Switch_config#”.

3. If the management address of the switch is not configured, please create the VLAN interface and configure the IP address.

4. Enter the command**ip http server"**, to enable Web service.

5. Enter the**username**to set the user name and password of the switch For how to use this command, refer to the “Security Configuration” section in the user manual.

After the above-mentioned steps are performed, you can enter the address of the switch in the Web browser to access the switch.

6. Enter the command**write"**, to save the current configuration to the configuration file.

2.2 Accessing a Switch through Secure Links

The data between the WEB browser and the switch will not be encrypted if you access a switch through common HTTP. To encrypt these data, you can use the secure links, which are based on the secure sockets layer, to access the switch.

To do this, you should follow the following steps:

1. Connect the console port of the switch with the accessory cable, or telnet to the management address of the switch through the computer.

2. Enter the global configuration mode of the switch through the command line, the DOS prompt of which is similar to “Switch_config#”.

3. If the management address of the switch is not configured, please create the VLAN interface and configure the IP address.

4. Enter the command**ip http server"**, to enable Web service.

5. Enter the**username**to set the user name and password of the switch For how to use this command, refer to the “Security Configuration” section in the user manual.

6. Run**ip http ssl-access enable**to enable the secure link access of the switch.

7. Run**no ip http http-access enable**to access the switch through insecure links.

8. Enter the command**write"**, to save the current configuration to the configuration file.

9. Open the WEB browser on the PC that the switch connects, enter 10.90.90.90 on the address bar (10.90.90.90 stands for the management IP address of the switch)IP address of the switch) and then press the Enter key. Then the switch can be accessed through the secure links.

2.3 Introduction of Web Interface

The whole Web homepage consists of the top control bar, the navigation bar, the configuration area and the bottom control bar.

2.3.1 Top Control Bar

Save All	Write the current settings to the configuration file of the device. It is equivalent to the execution of**the“write”command**. The configuration that is made through Web will not be promptly written to the configuration file after validation. If you click “Save All”, the unsaved

	configuration will be lost after rebooting.
English	The interface will turn into the English version.
Chinese	The interface will turn into the Chinese version.
Logout	Exit from the current login state. After you click "logout", you have to enter the username and the password again if you want to continue the Web function.
Interface panel	Displays the figure of interface panel
About	Displays the manufacturer information and sets auto-refresh.

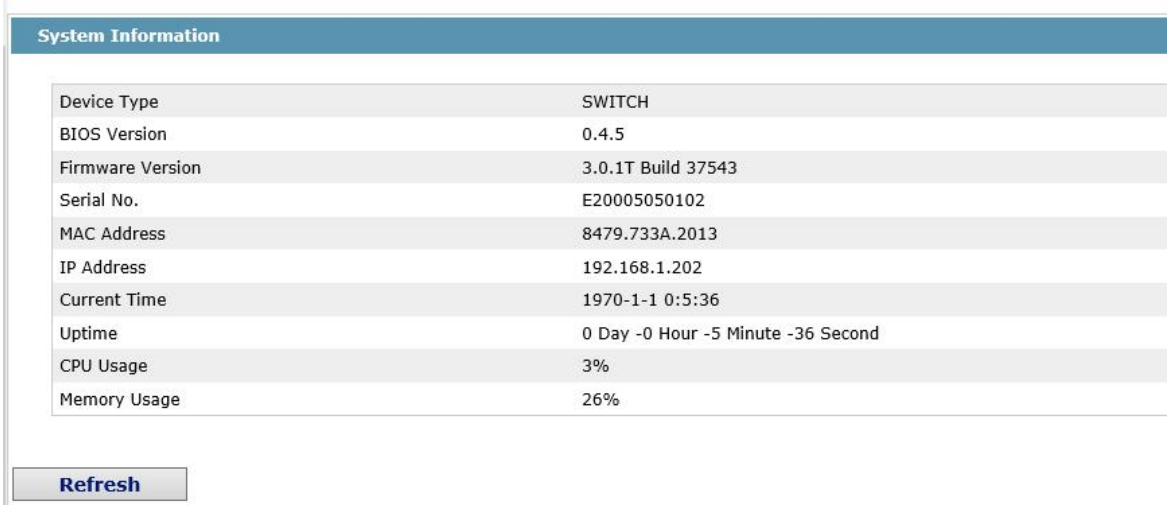
After you configure the device, the result of the previous step will appear on the left side of the top control bar. If error occurs, please check your configuration and retry it later.

2.3.2 Navigation Bar

The contents shown in the navigation bar. The contents in the navigation bar are shown in a form of list and are classified according to types. By default, the list is located at “Runtime Info”. If a certain item need be configured, please click the group name and then the subitem. For example, to browse the flux of the current port, you have to click “Interface State" and then “Interface Flow”.

Note:
The limited user can only browse the state of the device and cannot modify the configuration of the device. If you log on to the Web with limited user’s permissions, only “Interface State” will appear.

2.3.3 Configuration Area



System Information

Device Type	SWITCH
BIOS Version	0.4.5
Firmware Version	3.0.1T Build 37543
Serial No.	E20005050102
MAC Address	8479.733A.2013
IP Address	192.168.1.202
Current Time	1970-1-1 0:5:36
Uptime	0 Day -0 Hour -5 Minute -36 Second
CPU Usage	3%
Memory Usage	26%

Refresh

The configuration display area shows the state and configuration of the device. The contents of this area can be modified by the clicking of the items in the navigation bar.

2.3.4 Configuration Area

The configuration area is to show the content that is selected in the navigation area. The configuration area always contains one or more buttons, and their functions are listed in the following table:

Refresh	Refresh the content shown in the current configuration area.
Apply	Apply the modified configuration to the device. The application of the configuration does not mean that the configuration is saved in the configuration file. To save the configuration, you have to click “Save All” on the top control bar.
Reset	Means discarding the modification of the sheet. The content of the sheet will be resetted.
New	Creates a list item. For example, you can create a VLAN item or a new user.
Delete	Deletes an item in the list.
Back	Go back to the previous-level configuration page.

Chapter 3 Basic Configuration

3.1 Hostname Configuration

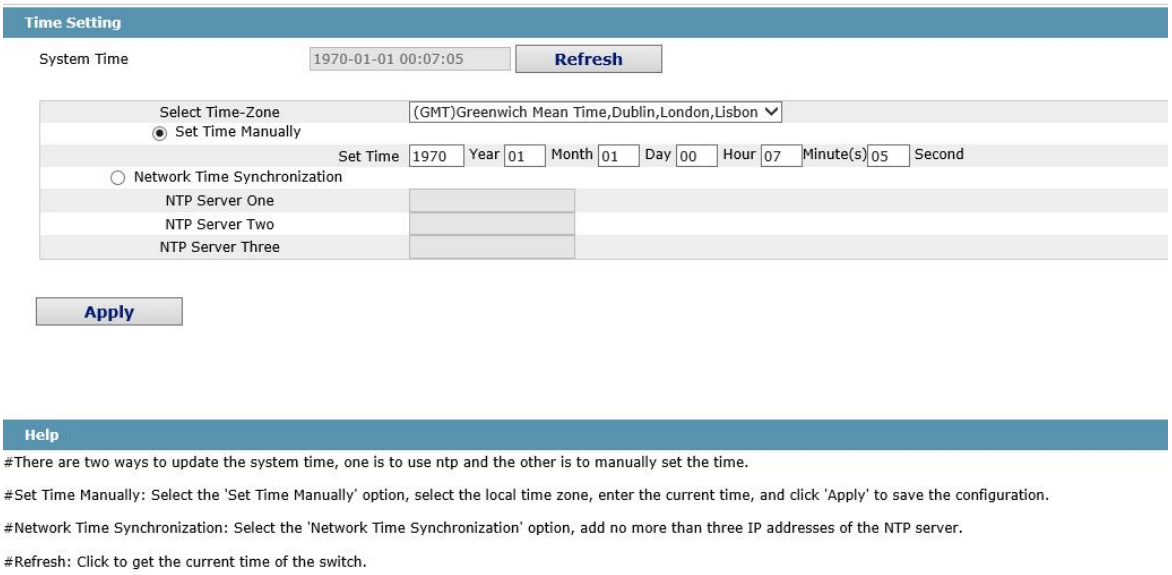
If you click **Basic Config -> Hostname** in the navigation bar, the Hostname Configuration page appears, as shown in the following figure.

The hostname will be displayed in the login dialog box.

The default name of the device is “Switch”. You can enter the new hostname in the text box shown in figure 3 and then click “Apply”.

3.2 Time Management

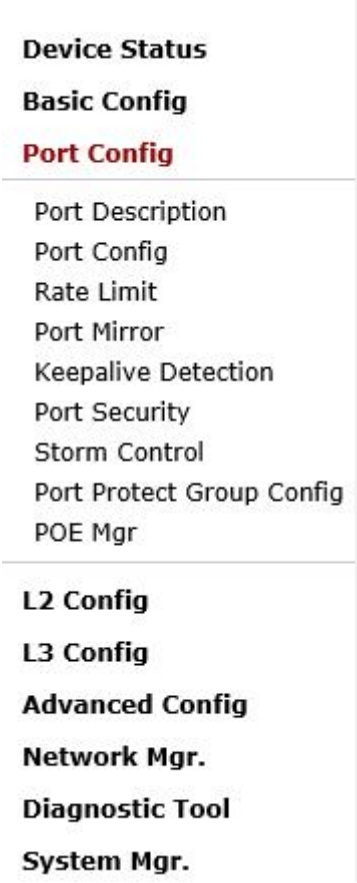
If you click **System Mgr. -> Time Setting**, the Time Setting page appears.



To refresh the clock of the displayed device, click “Refresh”.

In the “Select Time-Zone” dropdown box select the time zone where the device is located. When you select “Set Time Manually”, you can set the time of the device manually. When you select “Network Time Synchronization”, you can designate 3 SNTP servers for the device and set the interval of time synchronization.

Chapter 4 Configuration of the Physical Interface



4.1 Configuring Port Description

If you click **Port Config -> Port Description** in the navigation bar, the Port description Configuration page appears, as shown in the following figure.

You can modify the port description on this page and enter up to 120 characters. The description of the VLAN port cannot be set at present.

4.2 Configuring the Attributes of the Port

If you click Port Config**-> Port Config ->** Port attribute Config in the navigation bar, the Port Attribute Configuration page appears, as shown in the following figure.

You can change the status, speed, duplex mode and flow control of a port on this page.

Note:

2. After the speed or duplex mode of a port is modified, the link state of the port may be switched over and the network communication may be impaired.

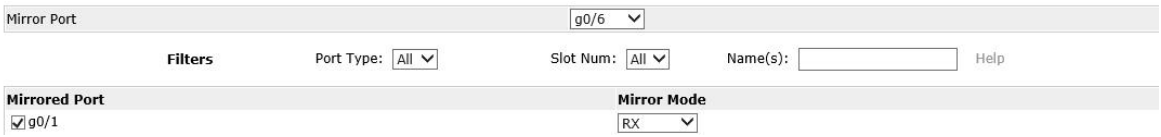
4.3 Rate Limit

If you click **Port Config -> Rate Limit** in the navigation bar, the Port rate limit page appears, as shown in figure 4.

On this page you can set the reception speed and transmission speed of a port. By default, all ports have no speed limited. The reception speed and transmission speed are configured by a percentage or by the designated unit of the switch.

4.4 Port Mirror

If you click **Port Config-> Port Mirror** in the navigation bar, the Port Mirror Config page appears, as shown in the following figure.



Click the dropdown list on the right side of "Mirror Port" and select a port to be the destination port of mirror.

Click a checkbox and select a source port of mirror, that is, a mirrored port.

RX	The received packets will be mirrored to the destination port.
TX	The transmitted packets will be mirrored to a destination port.
RX & TX	The received and transmitted packets will be mirrored simultaneously.

4.5 Keepalive Detection

If you click **Port Config-> Keepalive Detection** in the navigation bar, the Setting the port loopback detection page appears, as shown in Figure 6.

Port	Status	Keepalive Period	
g0/1	Enable		(0-32767)Seconds

You can set the loopback detection cycle on the Loopback Detection page.

4.6 Port security

4.6.1 IP Binding Configuration

If you click **Port Config-> Port Security -> IP Bind** in the navigation bar, the Configure the IP-Binding Info page appears, as shown in figure 7.

Interface Name	Detail
g0/1	Detail

Click “Detail” and then you can conduct the binding of the source IP address for each physical port. In this way, the IP address that is allowed to visit the port will be limited.

	Serial number	Address	Operate
☐	1	192.168.0.2	Edit
☐	2	192.168.0.3	Edit

4.6.2 MAC Binding Configuration

If you click **Port Config-> Port Security -> MAC Bind** in the navigation bar, the Configure the MAC-Binding Info page appears, as shown in figure 10.

Interface Name	Detail
G0/1	Detail

Click “Detail” and then you can conduct the binding of the source MAC address for each physical port. In this way, the MAC address that is allowed to visit the port will be limited.

	Serial number	Address	Operate
☐	1	1234.1234.1234	Edit
☐	2	1234.1234.1235	Edit

4.6.3 Setting the Static MAC Filtration Mode

If you click **Port Config-> Port Security -> Static MAC Filtration Mode** in the navigation bar, the Configure the static MAC filtration mode page appears, as shown in figure 12.

Interface Name	Port Mode	Static MAC Filtration Mode
g0/1	Access	Accept

On this page you can set the static MAC filtration mode. By default, the static MAC filter is disabled. Also, the static MAC filter mode cannot be set on ports in trunk mode.

4.6.4 Static MAC Filtration Entries

If you click **Port Config-> Port Security -> Static MAC Filtration Entries** in the navigation bar, the Setting the static MAC filtration entries page appears.

Interface Name	Detail
g0/1	Detail

If you click “Detail”, you can conduct the binding of the source MAC address for each physical port. According to the configured static MAC filtration mode, the MAC address of a port can be limited, allowed or forbidden to visit.

	Serial number	Filtration Mode	MAC Address	Operate
☐	1	Disable	0001.0002.0003	Edit

4.6.5 Setting the Dynamic MAC Filtration Mode

If you click **Port Config-> Port Security -> Dynamic MAC Filtration Mode** in the navigation bar, the Configure the dynamic MAC filtration mode page appears, as shown in figure 15.

Interface Name	Dynamic MAC Filtration Mode	Max MAC Address
g0/1	Enable	1 (1-2048)

You can set the dynamic MAC filtration mode and the allowable maximum number of addresses on this page. By default, the dynamic MAC filtration mode is disabled and the maximum number of addresses is 1.

4.7 Storm Control

In the navigation bar, click **Port Config-> Storm Control**. The system then enters the page, on which the broadcast/multicast/unknown unicast storm control can be set.

4.7.1 Broadcast storm control

Port	Status	Threshold
g0/1	Enable	(1-65535) 64Kbps

Through the dropdown boxes in the Status column, you can decide whether to enable broadcast storm control on a port. In the Threshold column you can enter the threshold of the broadcast packets. The legal threshold range for each port is given behind the threshold.

4.7.2 Multicast Storm Control

Port	Status	Threshold
g0/1	Enable	(1-65535) 64Kbps

Through the dropdown boxes in the Status column, you can decide whether to enable multicast storm control on a port. In the Threshold column you can enter the threshold of the multicast packets. The legal threshold range for each port is given behind the threshold.

4.7.3 Unknown Unicast Storm Control

Port	Status	Threshold
g0/1	Enable	(1-65535) 64Kbps

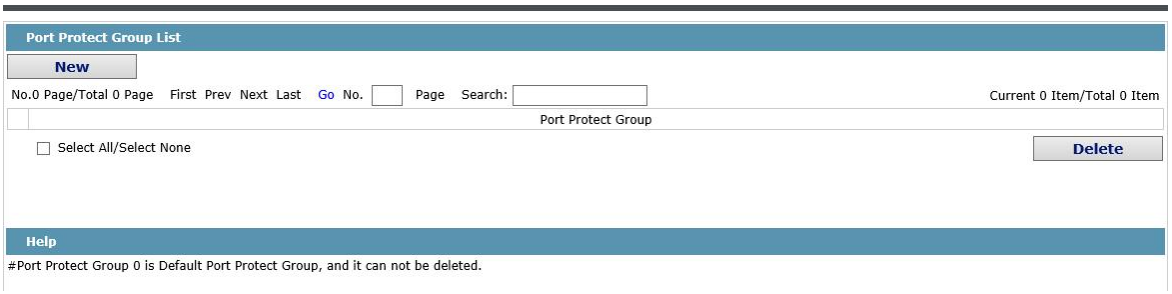
Through the “Status” dropdown box, you can decide whether to enable the unknown unicast storm limit on a port. In the Threshold column you can enter the threshold of the broadcast packets. The legal threshold range for each port is given behind the threshold.

4.8 Port Protect Group Configuration

If you click **Port Config-> Port Protect Group Config -> Port Protect Group List** in the navigation bar, the Port Protect Group List page appears.

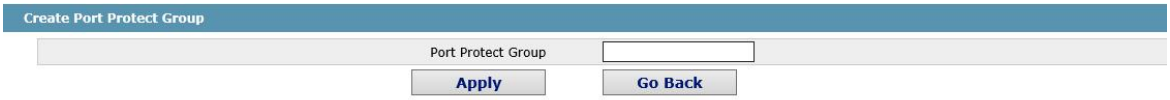
4.8.1 Port Protect Group List

If you click **Port Config-> Port Protect Group Config -> Port Protect Group List** in the navigation bar, the Port Protect Group List page appears.



If you click New, a new port protect group will be created, as shown in the following figure.

If you tick a Port Protect Group, you can delete it. The port protect group 0 is by default, which cannot be deleted.



4.8.2 Port Protect Group Interface Configuration

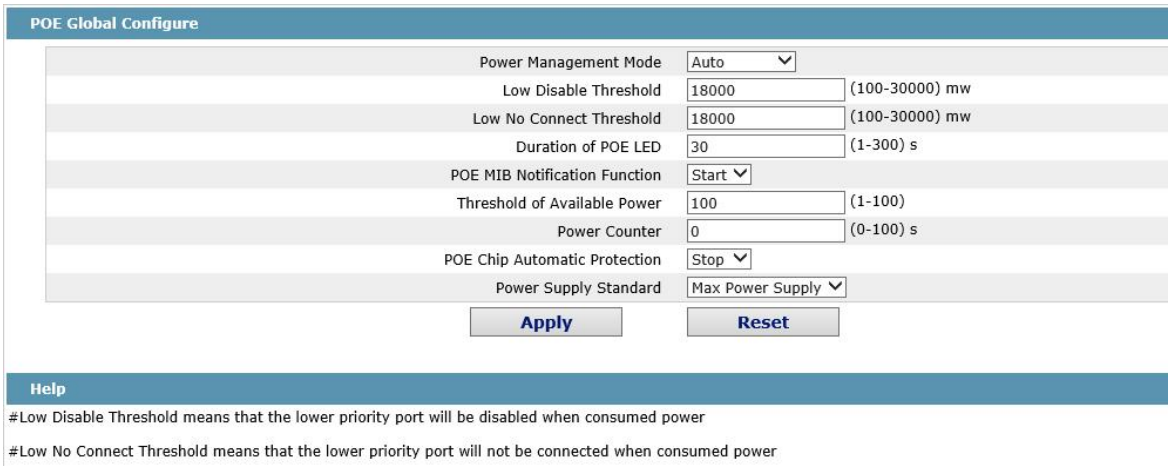
If you click **Port Config-> Port Protect Group Config -> Port Protect Group Interface Config** in the navigation bar, the Port Protect Group Config page appears.

The port protect group must be a created group. If one port has configured the default protect group, others ports can only configure the default groups.

4.9 POE Management

4.9.1 POE Global Configuration

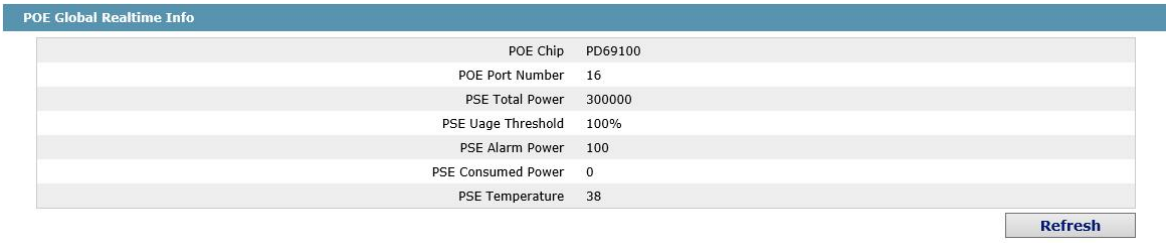
If you click **Port Config -> POE Mgr** in the navigation bar, the POE management configuration page appears, as shown in the following figure.



On this page, you can configure the POE power supply management mode, lower priority upgrade preemption threshold, enable/disable POE MIB inform.

4.9.2 POE Global Realtime Info

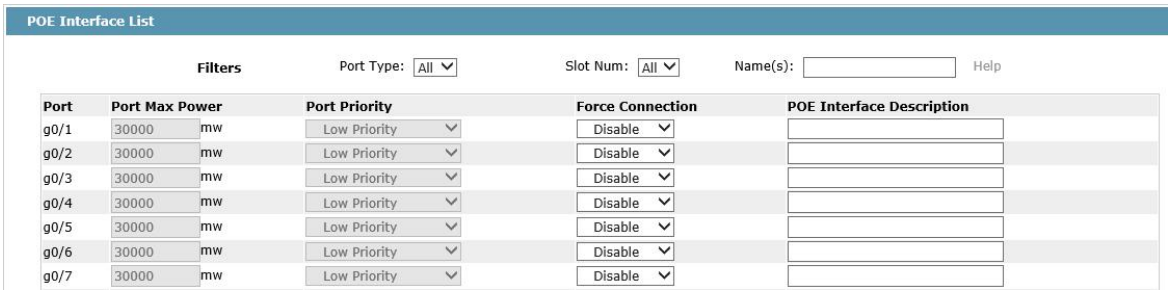
If you click **Port Config -> POE Mgr->POE Global Realtime Info** in the navigation bar, the POE management configuration page appears, as shown in the following figure.



On this page, you can check POE port number, PSE power and PSE temperature.

4.9.3 POE Interface List

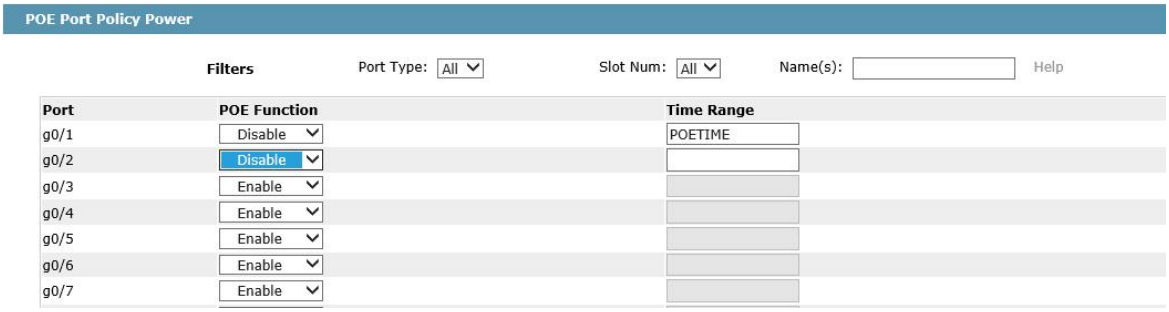
If you click **Port Config -> POE Mgr->POE Interface List** in the navigation bar, the POE management configuration page appears, as shown in the following figure.



On this page, youc can configure the Port Priority, Port Max Power, Force Connection and POE Interface Description.

4.9.4 POE Port Policy Power

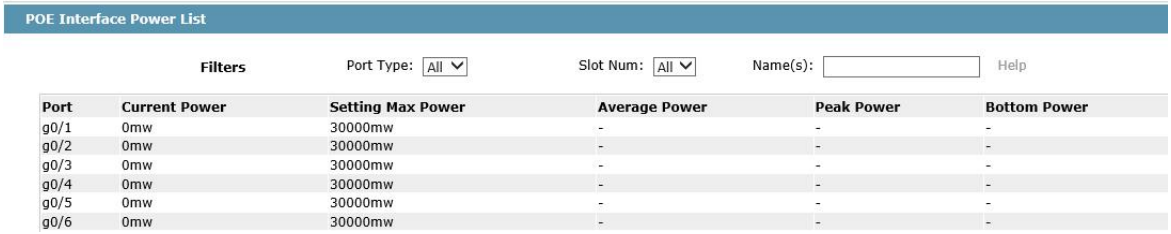
If you click **Port Config -> POE Mgr->POE Port Policy Power** in the navigation bar, the POE Port Policy Power configuration page appears, as shown in the following figure.



On this page, you can enable/disable POE Function and Time Range.

4.9.5 POE Interface Power List

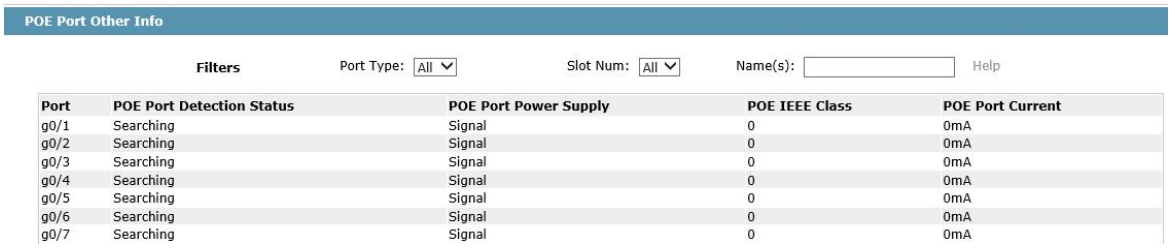
If you click **Port Config -> POE Mgr-> POE Port Policy Power** in the navigation bar, the POE Port Policy Power configuration page appears, as shown in the following figure.



On this page, you can check Current Power, Setting Max Power, Average Power, Peak Power and Bottom Power.

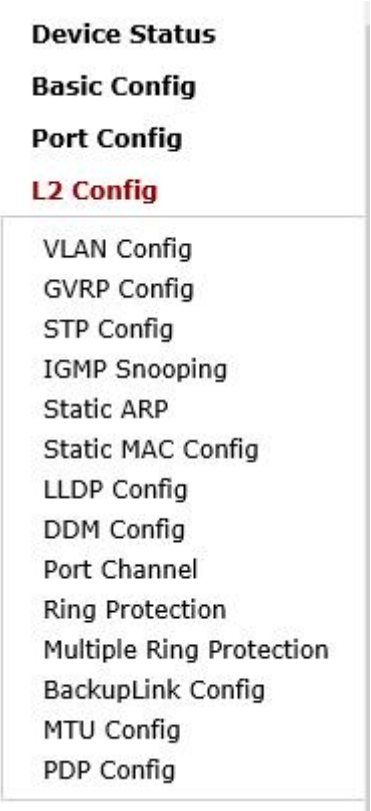
4.9.6 POE Port Other Info

If you click **Port Config -> POE Mgr-> POE Port Other Info** in the navigation bar, the PPOE Port Other Info configuration page appears, as shown in the following figure.



On this page, you can check POE Port Detection Status, POE Port Power Supply, POE IEEE Class, and POE Port Current.

Chapter 5 Layer-2 Configuration



5.1 VLAN Configuration

5.1.1 VLAN List

If you click **Layer-2 Config -> VLAN Config** in the navigation bar, the VLAN Config page appears, as shown in figure 2.

	VLAN ID	VLAN Name	Operate
☐	1	Default	Edit
☐	2	2	Edit

The VLAN list will display VLAN items that exist in the current device according to the ascending order. In case of lots of items, you can look for the to-be-configured VLAN through the buttons like “Prev”, “Next” and “Search”.

You can click “New” to create a new VLAN.

You can also click “Edit” at the end of a VLAN item to modify the VLAN name and the port’s attributes in the VLAN.

If you select the checkbox before a VLAN and then click “Delete”, the selected VLAN will be deleted.

Note:
By default, a VLAN list can display up to 100 VLAN items. If you want to configure more VLANs through Web, Please log on to the switch through the Console port or Telnet, enter the global configuration mode and then run the “**ip http web max-vlan**” command to modify the maximum number of VLANs that will be displayed.

5.1.2 VLAN Configuration

If you click "New" or “Edit” in the VLAN list, the VLAN configuration page appears, on which new VLANs can be created or the attributes of an existent VLAN can be modified.

Revising VLAN Config

VLAN ID	2
VLAN Name	VLAN0002 ×

Port	Default VLAN	Mode	Untag or not	Allow or not
g0/1	1 <1-4094>	Access	No	Yes
g0/2	1 <1-4094>	Access	No	Yes
g0/3	1 <1-4094>	Access	No	Yes
g0/4	1 <1-4094>	Access	No	Yes
g0/5	1 <1-4094>	Access	No	Yes
g0/6	1 <1-4094>	Access	No	Yes
g0/7	1 <1-4094>	Access	No	Yes

If you want to create a new VLAN, enter a VLAN ID and a VLAN name; the VLAN name can be null.

Through the port list, you can set for each port the default VLAN , the VLAN mode (Trunk or Access), whether to allow the entrance of current VLAN packets and whether to execute the untagging of the current VLAN when the port works as the egress port.

Note:
When a port in Trunk mode serves as an egress port, it will untag the default VLAN by default.

5.2 GVRP Configuration

5.2.1 GVRP Global Attribute Configuration

Click **L2 Config -> GVRP Config -> GVRP Global Config** in the navigation bar, and enter GVRP global attribute configuration page.

You can enable or disable the global GVRP protocol, and set dynamic vlan to take effective or not only in the registered port.

5.2.2 GVRP Port Attribute Configuration

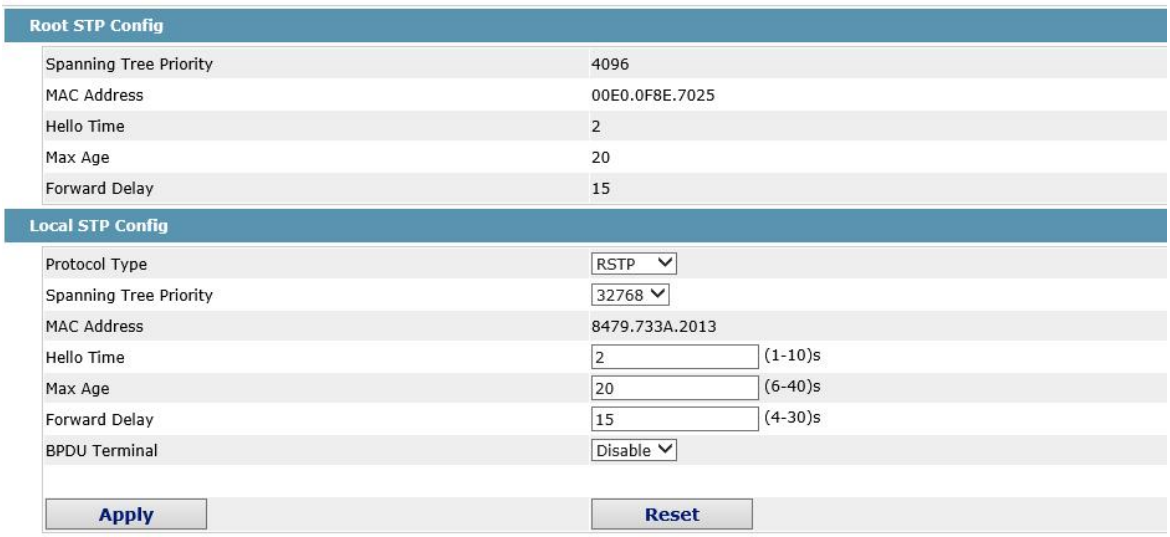
Click **L2 Config -> GVRP Config -> GVRP Interface Config** in the navigation bar and enter GVRP interface attribute configuration page.

GVRP interface configuration can enable or disable GVRP protocol of the port.

5.3 STP Configuration

5.3.1 STP Status Information

If you click **Advanced Config -> STP Config** in the navigation bar, the STP Config page appears, as shown in figure 10.



The root STP configuration information and the STP port's status are only-read.

Click the dropdown box on the right side of "Protocol" to change the currently running STP mode. The supported modes include STP, RSTP and Disabled STP.

The priority and the time need be configured for different modes.

Note:

The change of the STP mode may lead to the interruption of the network.

5.3.2 Configuring the Attributes of the STP Port

If you click the "Configure RSTP Port" option, the “Configure RSTP Port” page appears.

Port	Protocol Status	Priority(0~240)	Path-Cost(0~200000000)	Edge Port	RSTP Ring
g0/1	Enable	128	0	Disable	Disable

The configuration of the attributes of the port is irrelative of the global STP mode. For example, if the protocol status is set to “Disable” and the STP mode is also changed, the port will not run the protocol in the new mode.

The default value of the path cost of the port is 0, meaning the path cost is automatically calculated according to the speed of the port. If you want to change the path cost, please enter another value.

5.4 IGMP-Snooping Configuration

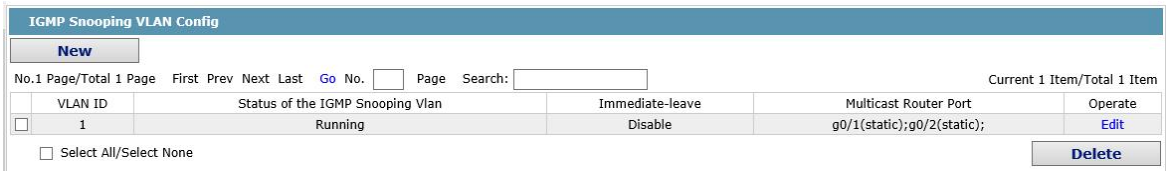
5.4.1 IGMP-Snooping Configuration

Click **L2 Config -> IGMP Snooping** in the navigation bar, and enter the IGMP-Snooping Configuration page.

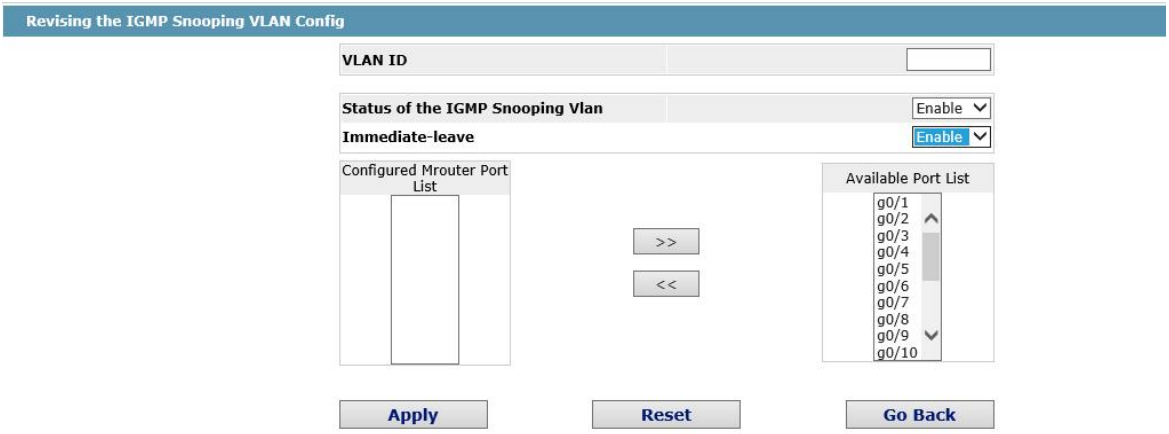
On this page you can set whether to make a switch to forward unknown multicasts, whether to enable IGMP snooping, and whether to configure the switch as the querier of IGMP.

5.4.2 IGMP-Snooping VLAN List

In the navigation bar, click **L2 Config -> IGMP Snooping -> IGMP Snooping VLAN list** in the navigation bar, and enter IGMP-Snooping VLAN page.



If you click New, IGMP-snooping VLAN configuration can be done. Through Web up to 8 physical ports can be set on each IGMP snooping VLAN. If you click Cancel, a selected IGMP-Snooping VLAN can be deleted; if you click Edit, you can modify the member port, running status and immediate-leave of IGMP-Snooping VLAN.

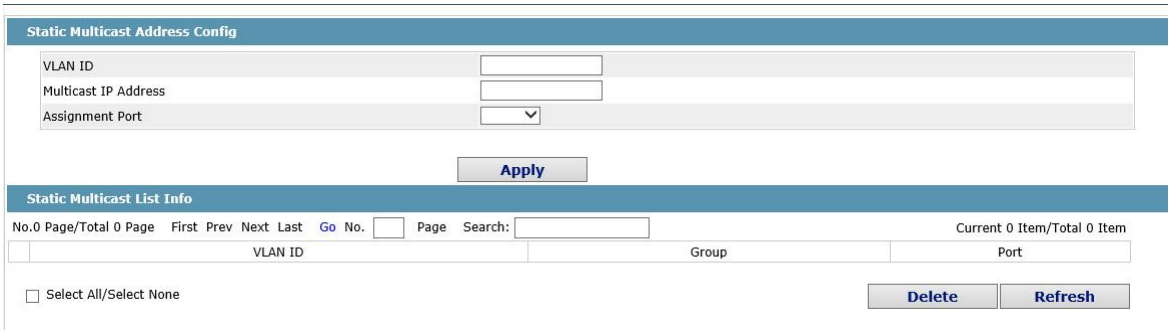


When create new IGMP-Snooping Vlan, VLAN ID can be modified; when modify IGMP-Snooping Vlan, VLAN ID cannot be modified.

You can add or delete the routing port by buttons “>>” or “<<”.

5.4.3 Static Multicast Address

Click **L2 Config -> IGMP Snooping > Static Multicast Address List** in the navigation bar, and enter static multicast address configuration page.

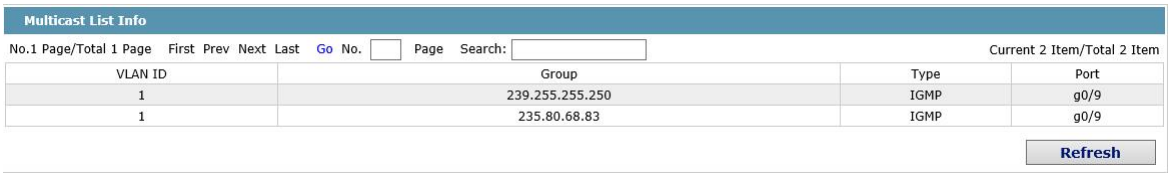


This page displays the static multicast group in current network according to IGMP-Snooping statistics and the port set each member belongs to.

Click “Refresh” to refresh the contents in the list.

5.4.4 Multicast List

Click the Multicast List Info option on the top of the page and the Multicast List Info page appears.



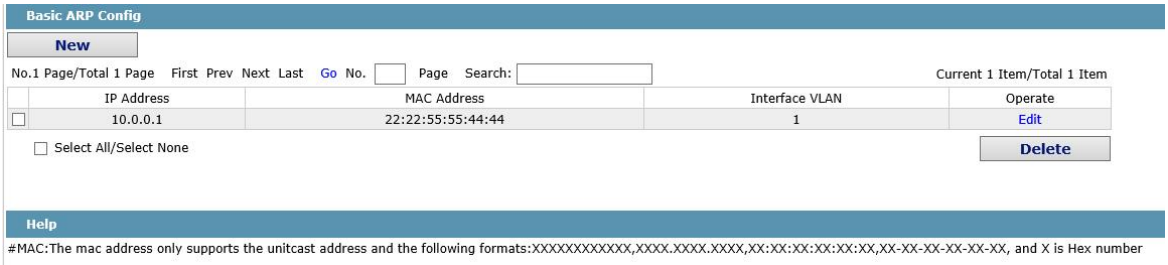
On this page the multicat groups, which are existent in the current network and are in the statistics of IGMP snooping, as well as port sets which members in each group belong to are dislayed.

Click “Refresh” to refresh the contents in the list.

Note:
By default, a multicast list can display up to 15 VLAN items. You can modify the number of multicast items by running**ip http web igmp-groups**after you log on to the device through the Console port or Telnet.

5.5 Setting Static ARP

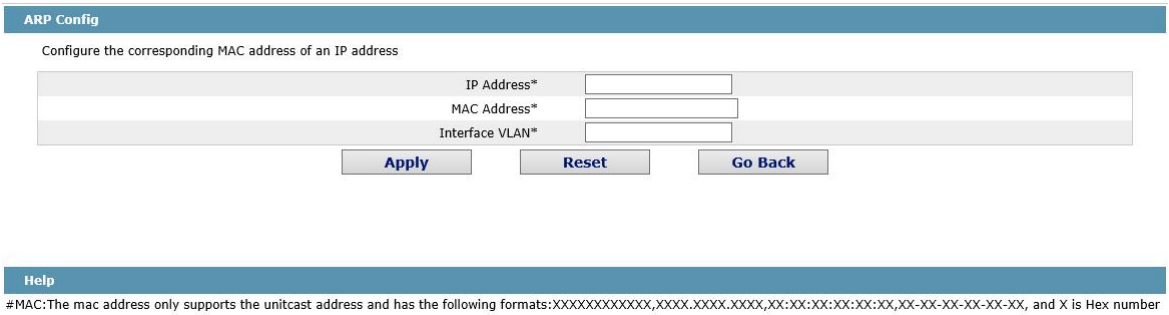
Click **L2 Config -> Static ARP** in the navigation bar, and enter the basic ARP configuration page.



Click “New” to add ARP entry. The VLAN interface needs to be assigned when configuring the ARP entry.

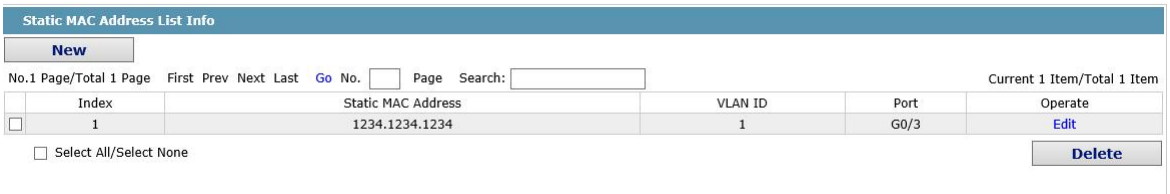
Click “Modify” to modify the current ARP entry.

Click “Delete” to delete the selected ARP entry.



5.6 Static MAC Configuration

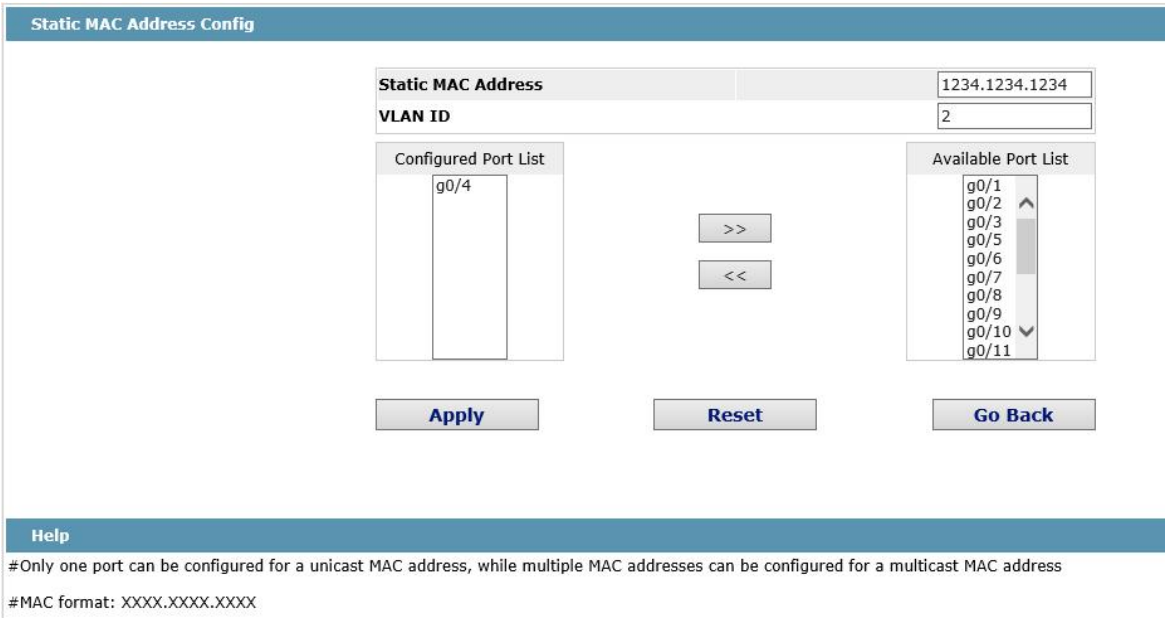
Click **L2 Config > Static MAC Config** in the navigation bar, and enter static MAC address configuration page.



Click “New” to configure static MAC address and VLAN for the assigned port. The unicast MAC address can only be configured with one port and the multicast MAC address can be configured with multiple ports.

Click “Modify” to modify the configured static MAC address.

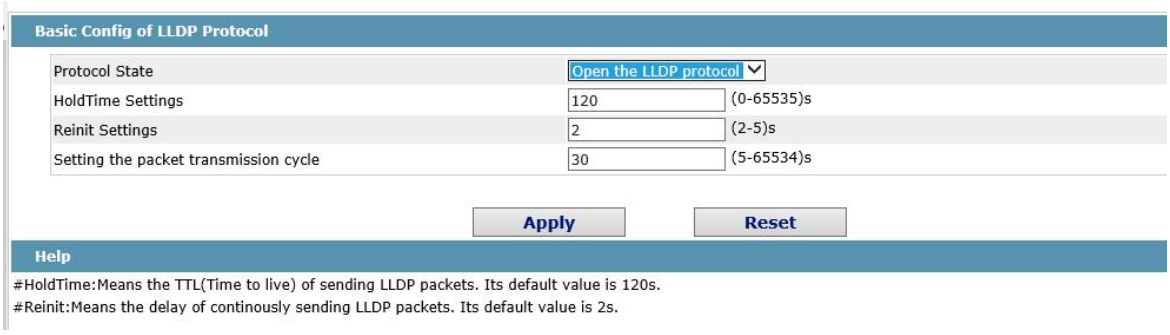
Click “Delete” to delete the static MAC address entry.



5.7 LLDP Configuration

5.7.1 Configuring the Global Attributes of LLDP

If you click **Layer-2 Config -> LLDP Config** in the navigation bar, the Global LLDP Config page appears, as shown in figure 6.



You can choose to enable LLDP or disable it. When you choose to disable LLDP, you cannot configure LLDP.

The “HoldTime” parameter means the ttl value of the packet that is transmitted by LLDP, whose default value is 120s.

The “Reinit” parameter means the delay of successive packet transmission of LLDP, whose default value is 2s.

5.7.2 Configuring the Attributes of the LLDP Port

If you click **Layer-2 Config -> LLDP Config-> LLDP Port Config** in the navigation bar, the Setting the attributes of the LLDP port page appears, as shown in figure 7.

LLDP interface configuration can enable or disable the port transmitting LLDP packets.

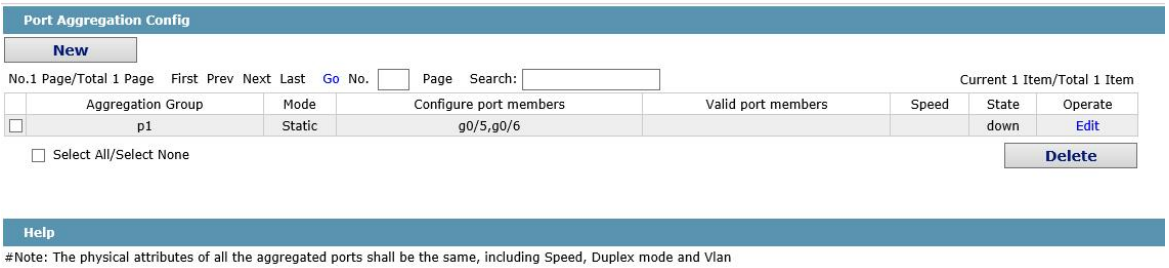
5.8 DDM Configuration

Click **L2 Config > DDM Config** in the navigation bar, and enter DDM configuration page.

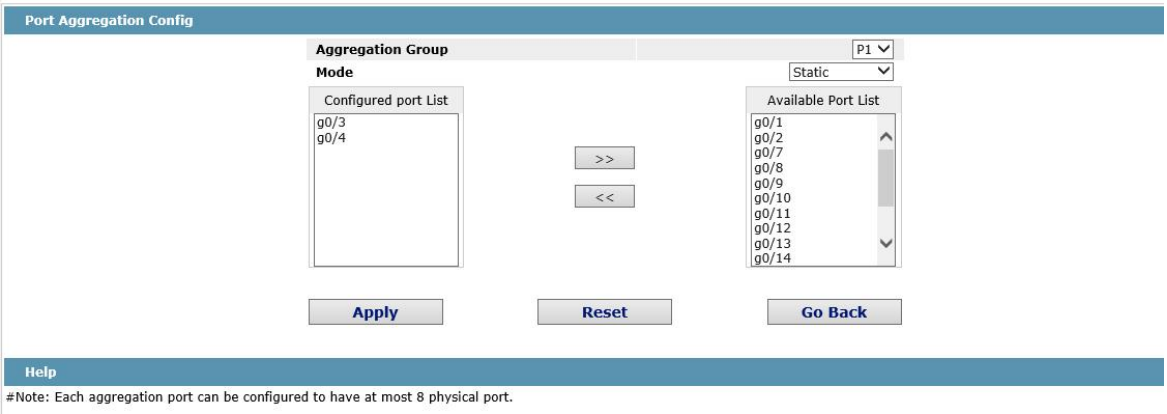
5.9 Link Aggregation Configuration

5.9.1 Port Aggregation Configuration

If you click **Advanced Config -> Link Aggregation Config** in the navigation bar, the Link aggregation Config page appears, as shown in figure 22.



If you click New, an aggregation group can be created. Up to 32 aggregation groups can be configured through Web and up to 8 physical ports in each group can be aggregated. If you click Cancel, you can delete a selected aggregation group; if you click Modify, you can modify the member port and the aggregation mode.



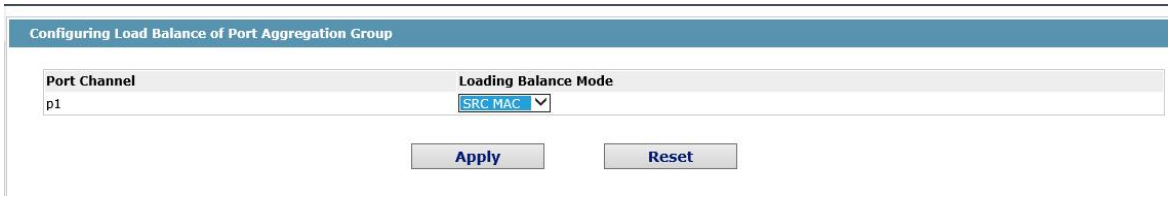
An aggregation group is selectable when it is created but is not selectable when it is modified.

When a member port exists on the aggregation port, you can choose the aggregation mode to be Static, LACP Active or LACP Passive.

You can click >> and << to delete and add a member port in the aggregation group.

5.9.2 Configuring Load Balance of Port Aggregation Group

Some models support aggregation group based load balance mode configuration and some not but can be configured in the global configuration mode.

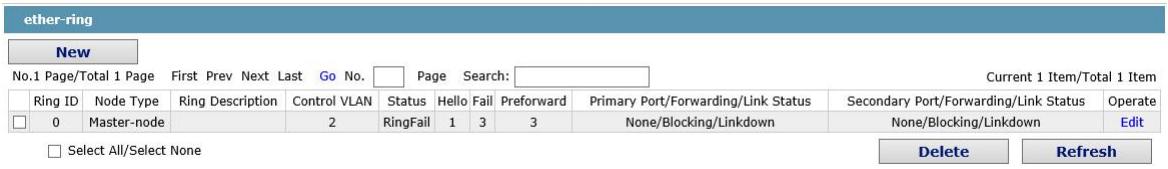


You can select link aggregation load balance mode and click "Apply" to apply it.

5.10 EAPS Ring Protection Configuration

5.10.1 EAPS Ring List

If you click **Layer-2 Config -> Ring Protection ->EAPS Config**, the EAPS Ring Config page appears.



In the list shows the currently configured EAPS ring, including the status of the ring, the forwarding status of the port and the status of the link.

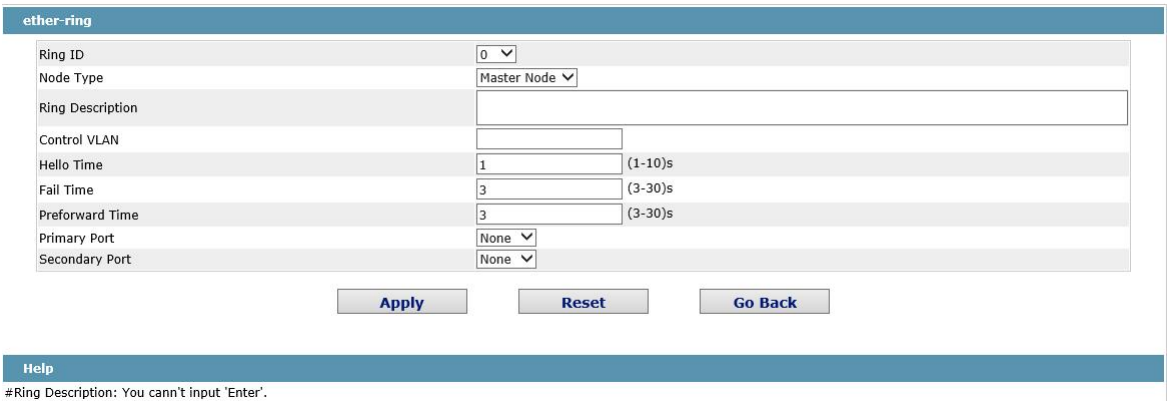
Click “New” to create a new EAPS ring.

Click the “Operate” option to configure the “Time” parameter of the ring.

Note:
1. The system can support 8 EAPS rings.
2. After a ring is configured, its port, node type and control Vlan cannot be modified. If the port of the ring, the node type or the control Vlan need be adjusted, please delete the ring and then establish a new one.

5.10.2 EAPS Ring Configuration

If you click “New” on the EAPS ring list, or “Operate” on the right side of a ring item, the “Configure EAPS” page appears.



Note:

If you want to modify a ring, on this page the node type, the control VLAN, the primary port and the secondary port cannot be modified.

In the dropdown box on the right of “Ring ID”, select an ID as a ring ID. The ring IDs of all devices on the same ring must be the same.

The dropdown box on the right of “Node Type” is used to select the type of the node. Please note that only one master node can be configured on a ring.

Enter a value between 1 and 4094 in the text box on the right of “Control VLAN” as the control VLAN ID. When a ring is established, the control VLAN will be automatically established too. Please note that if the designated control VLAN is 1 and the VLAN of the control device is also 1 the control device cannot access the control VLAN. Additionally, please do not enter a control VLAN ID that is same as that of another ring.

In the text boxes of “Primary Port” and “Secondary Port”, select a port as the ring port respectively. If "Node Type" is selected as “Transit-Node”, the two ports will be automatically set to transit ports.

Click “Apply” to finish EAPS ring configuration, click “Reset” to resume the initial values of the configuration, or click “Return” to go back to the EAPS list page.

5.11 MEAPS Configuration

5.11.1 MEAPS Ring Configuration

If you click **Layer-2 Config -> Multiple Ring Protection -> Multiple Ring Protection** on the navigation bar, the Multiple Ring Protection Configuration page appears.

The list shows the current configured MEAPS ring, including Domain ID, Ring ID, Ring type, Node type, Control Vlan, Hello Time, Failed Time, Pre Forward Time, primary port and secondary port.

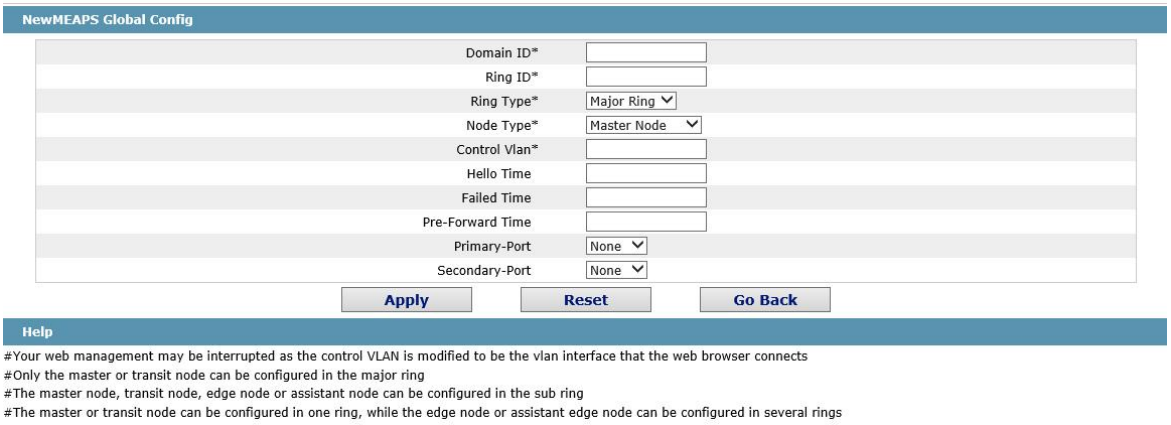
Click New to create a MEAPS ring.

Click Edit on the right and configure the time parameter and the primary and secondary port of the ring.

Note:
1. The system supports 4 MEAPS (0-3).
2. One domain supports 8 rings (0-7).
3. Once one MEAPS is configured, its Domain ID, ring ID, ring type, node type and control Vlan cannot be modified. If adjustment is needed, please delete the Ethernet ring and reset it.

5.11.2 MEAPS Ring Configuration

If you click New on the Multiple Ring Protection page or click Edit on the right, the New MEAPS Global Config page appears.



Note:
In an existed MEAPS ring, its domain ID, ring ID, ring type, node type and control Vlan cannot be modified.

The primary ring can only be configured with the main node and the Transit node.

The secondary ring can be configured with the main node, the transit node, the edge node and the assistant edge node.

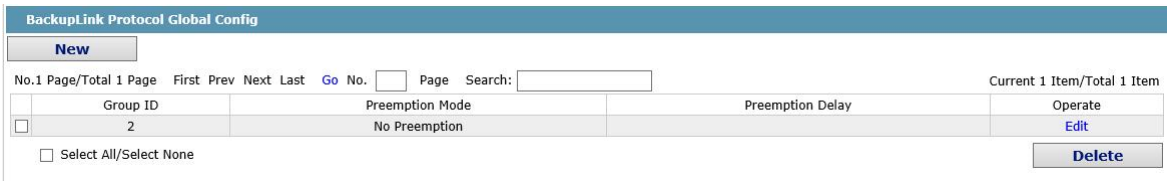
The primary node and the transit node can only be existed in one ring. The edge node and the assistant edge node can be existed in multiple rings simultaneously.

On the right drop box of “Primary-Port” and “Secondary-Port”, select one port respectively as the ring port or select None.

5.12 Backup Link Protocol Configuration

5.12.1 Backup Link Protocol Global Configuration

If you click **Layer-2 Config ->Backup Link Config ->Backup Link Protocol Global Config** on the navigation bar, the Backup Link Protocol Global Config page appears.



On the page, the current configured backup link groups are shown, including Preemption Mode and Preemption Delay.

Click New to create a new link backup group.

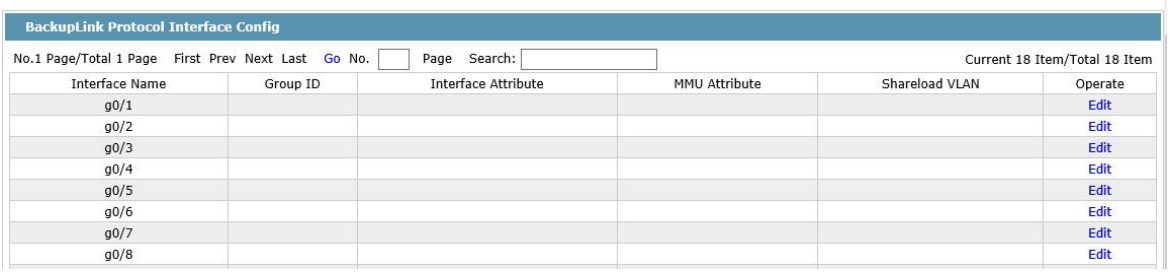
Click Edit on the right to configure Preemption Mode and Preemption Delay.

Note:
1. The system supports 8 link backup groups.

2. The Preemption mode determines the policy the primary port and the backup port forward packets.

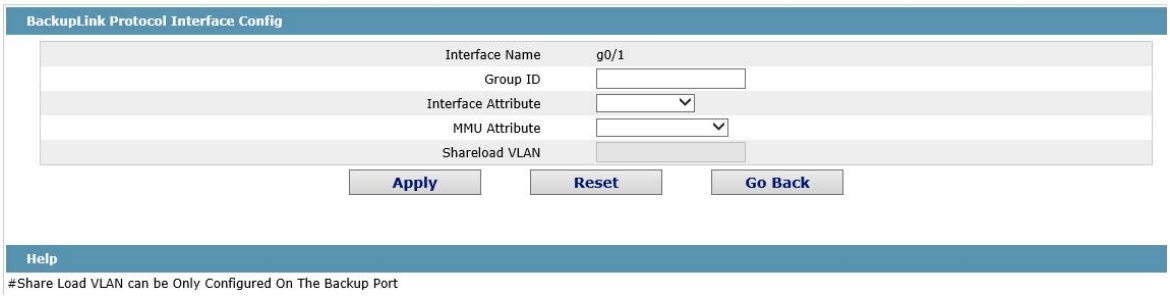
5.12.2 Backup Link Protocol Interface Configuration

If you click **Layer-2 Config -> Backup Link Protocol Config -> Backup Link Protocol Interface Config** on the navigation bar, the Backup Link Protocol Global Config page appears.



This page shows the backup link group's member ports, Interface Attribute, MMU Attribute, Shareload Vlan, etc.

Click Edit on the right to configure the Backup Link Protocol.



The backup link group which has configured the primary port cannot take other ports as its primary port. Likewise, the backup link group which has configured the backup port cannot take other ports as its backup port.

5.13 MTU Configuration

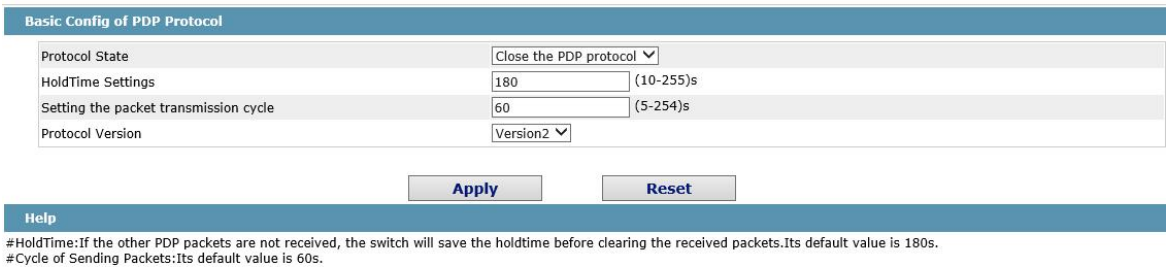
If you click **Layer-2 Config -> MTU Config** on the navigation bar, the MTU Config page appears.

You can set the size of the maximum transmission unit (MTU).

5.14 PDP Configuration

5.14.1 Configuring the Global Attributes of PDP

If you click **Layer-2 Config -> PDP Config** in the navigation bar, the Global PDP Config page appears, as shown in figure 4.



You can choose to enable PDP or disable it. When you choose to disable PDP, you cannot configure PDP.

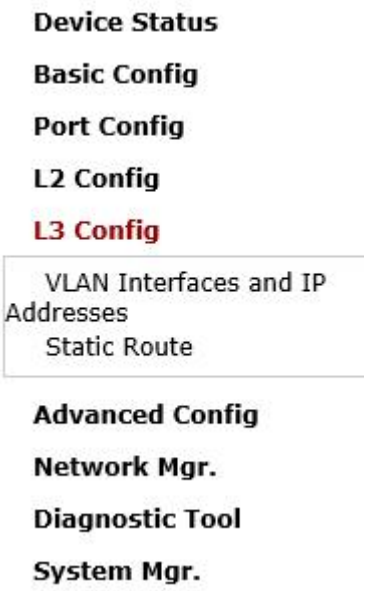
The “HoldTime” parameter means the time to be saved before the router discards the received information if other PDP packets are not received.

5.14.2 Configuring the Attributes of the PDP Port

If you click **Layer-2 Config -> PDP Config-> PDP Port Config** in the navigation bar, the Setting the attributes of the PDP port page appears, as shown in figure 5.

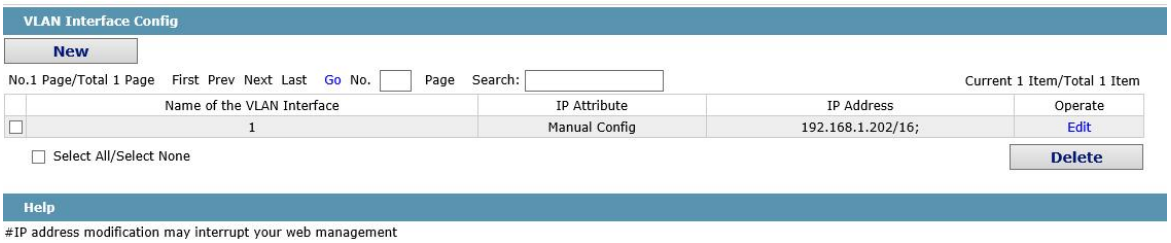
After the PDP port is configured, you can enable or disable PDP on this port.

Chapter 6 Layer-3 Configuration



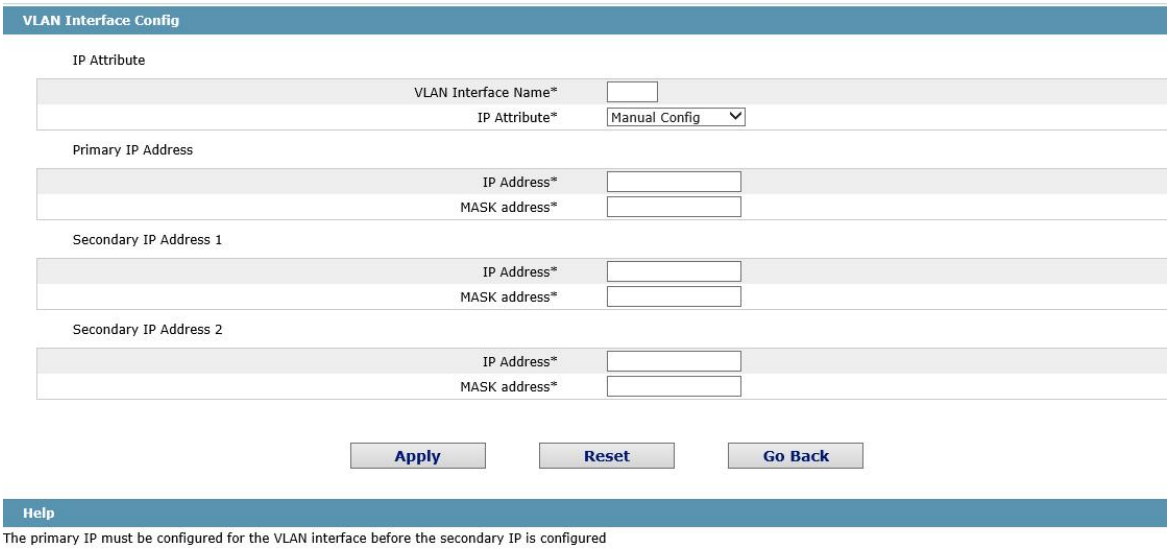
6.1 Vlan interface configuration

Click **L3 Config -> VLAN Interfaces and IP Addresses**, and enter the VLAN interface configuration page.



Click New to add a new VLAN interface. Click Cancel to delete a VLAN interface. Click Modify to modify the settings of a corresponding VLAN interface.

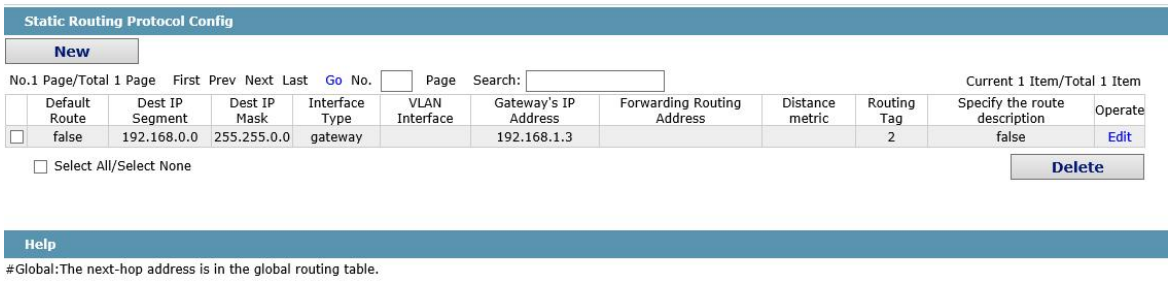
When you click New, the name of the corresponding VLAN interface can be modified; but if you click Modify, the name of the corresponding VLAN interface cannot be modified.



Note:
Before the accessory IP of a VLAN interface is set, you have to set the main IP.

6.2 Setting the Static Route

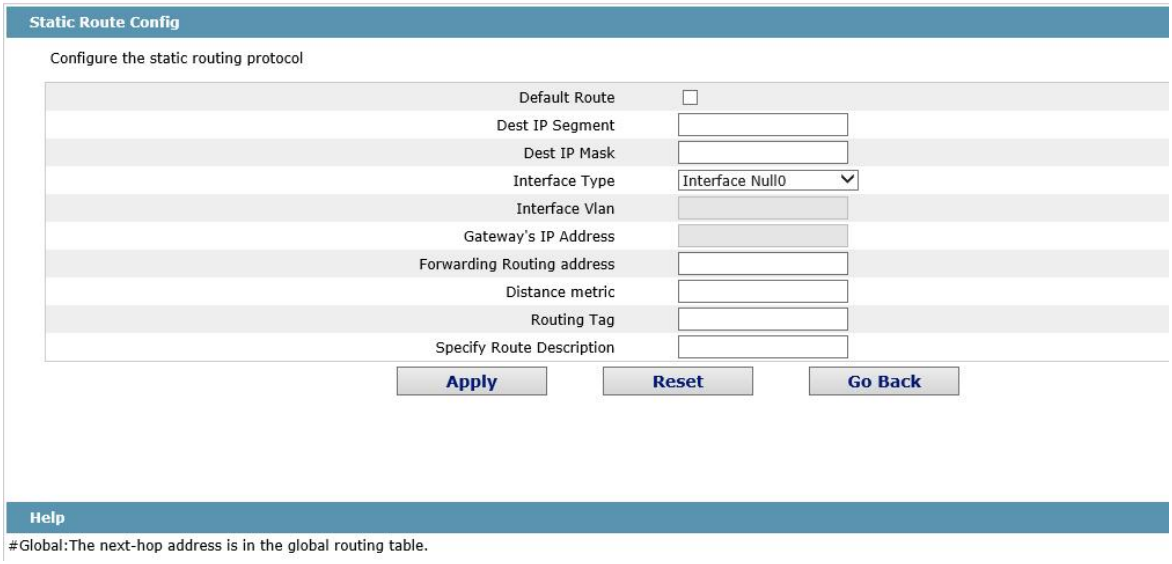
If you click **Layer-3 Config -> Static Route Config**, the Static route configuration page appears.



Click Create to add a static route.

If you click Edit, you can modify the current static route.

If you click Cancel, you can cancel the chosen static route.

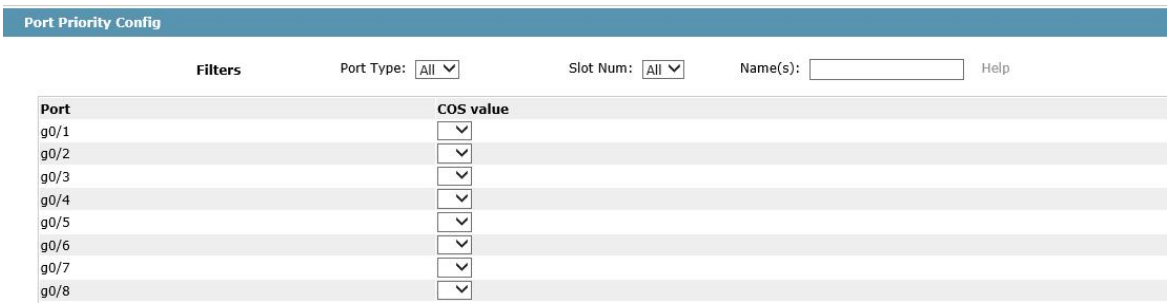


Chapter 7 Advanced Configuration

7.1 QoS Configuration

7.1.1 Configuring QoS Port

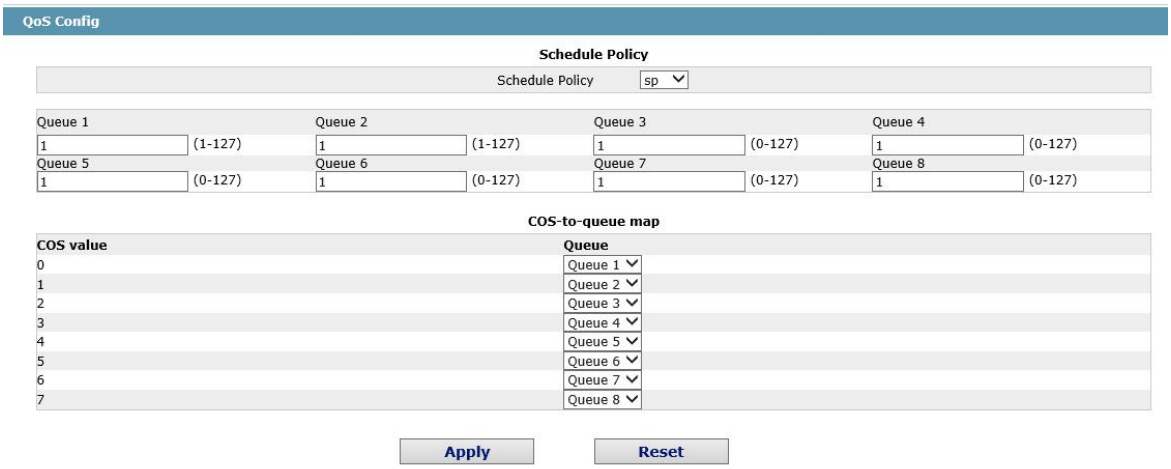
If you click **Advanced Config -> QoS -> Configure QoS Port**, the Port Priority Config page appears.



You can set the CoS value by clicking the dropdown box on the right of each port and selecting a value. The default CoS value of a port is 0, meaning the lowest priority. If the CoS value is 7, it means that the priority is the highest.

7.1.2 Global QoS Configuration

If you click **Advanced Config -> QoS -> Configure QoS Port**, the Port Priority Config page appears.



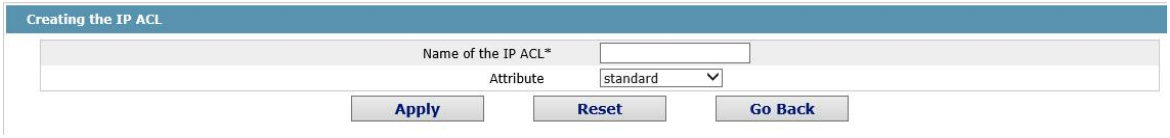
In WRR mode, you can set the weight ratio of the QoS queue. There are 4 queues in total, among which queue 1 has the lowest priority and queue 4 the highest priority.

7.2 IP Access Control List

7.2.1 Setting the Name of the IP Access Control List

If you click **Advanced Config -> IP Access Control List -> IP Access Control List Config**, the IP ACL configuration page appears.

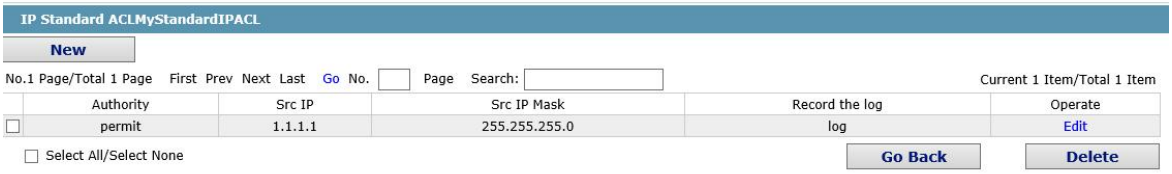
Click New to add a name of the IP access control list. Click Cancel to delete an IP access control list.



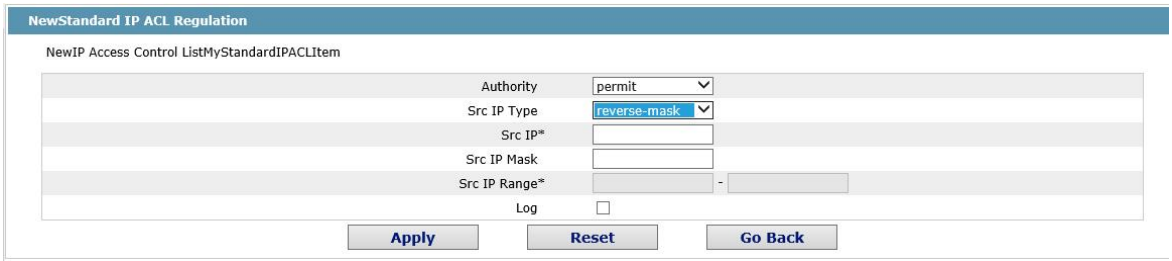
If you click Modify, the corresponding IP access control list appears and you can set the corresponding rules for the IP access control list.

7.2.2 Setting the Rules of the IP Access Control List

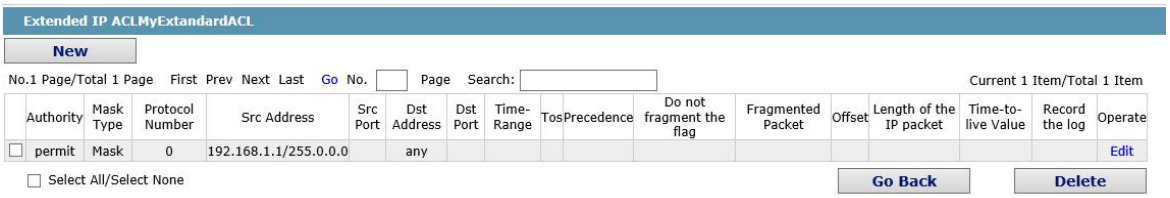
- Standard IP access control list



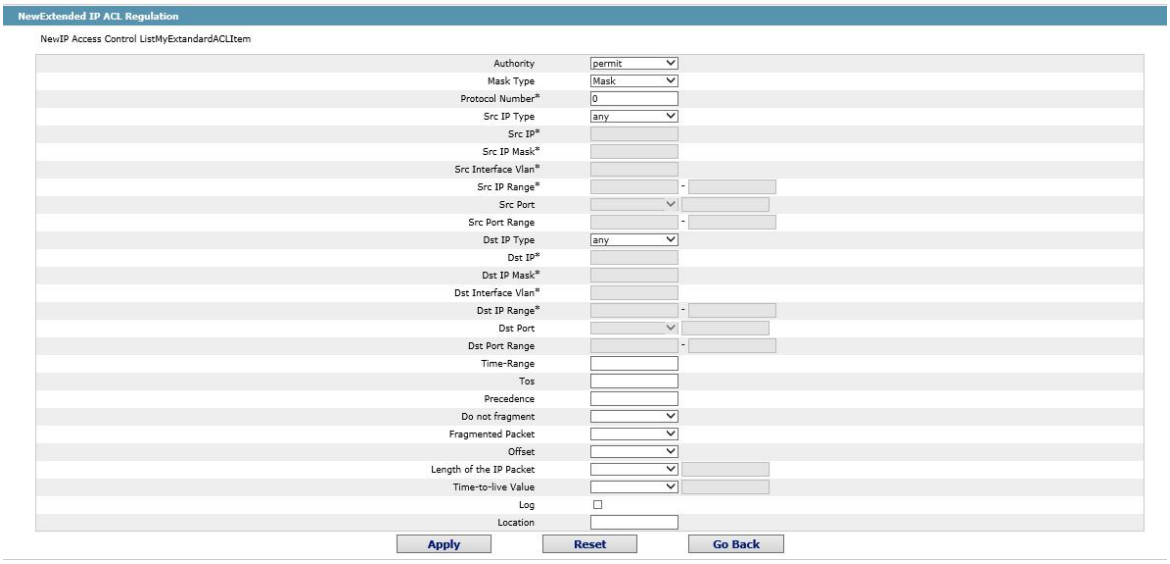
Click New to add a rule of the IP access control list. Click Cancel to delete a rule of the IP access control list. If you click Modify, the corresponding IP access control list appears and you can set the corresponding rules for the IP access control list.



- Extended IP access control list

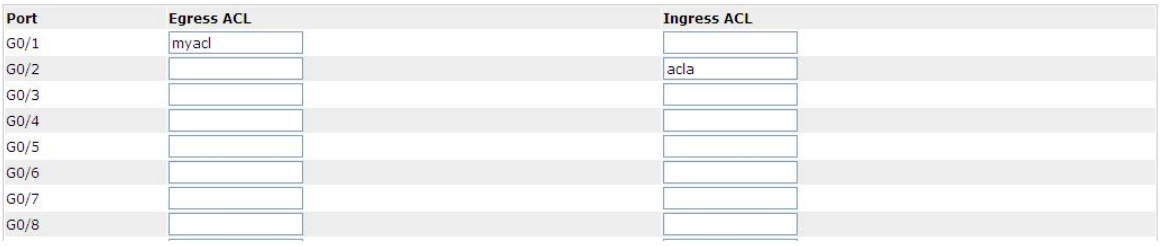


Click New to add a rule of the IP access control list. Click Cancel to delete a rule of the IP access control list. If you click Modify, the corresponding IP access control list appears and you can set the corresponding rules for the IP access control list.



7.2.3 Applying the IP Access Control List

If you click **Advanced Config -> IP Access Control List -> Applying the IP Access Control List**, the Applying the IP access control list page appears.

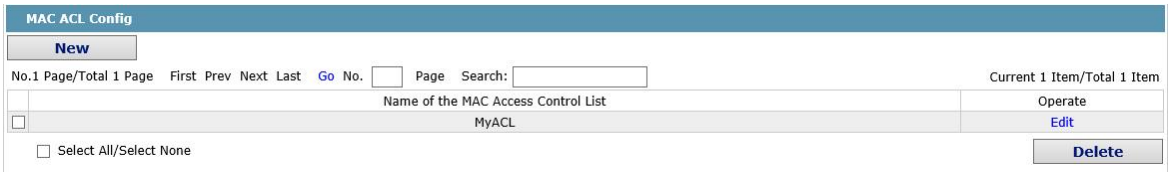


Port	Egress ACL	Ingress ACL
G0/1	myacl	
G0/2		acla
G0/3		
G0/4		
G0/5		
G0/6		
G0/7		
G0/8		

7.3 MAC Access Control List

7.3.1 Setting the Name of the IP Access Control List

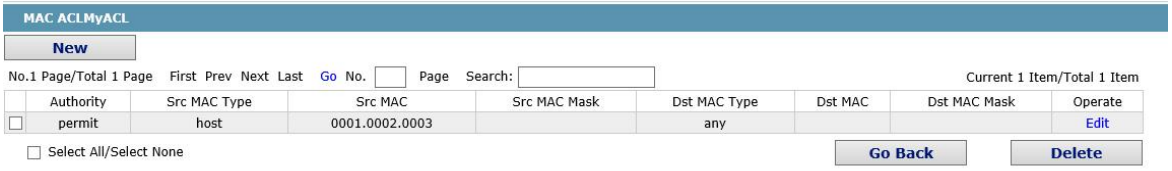
If you click **Advanced Config -> MAC Access Control List -> MAC Access Control List Config**, the MAC ACL configuration page appears.



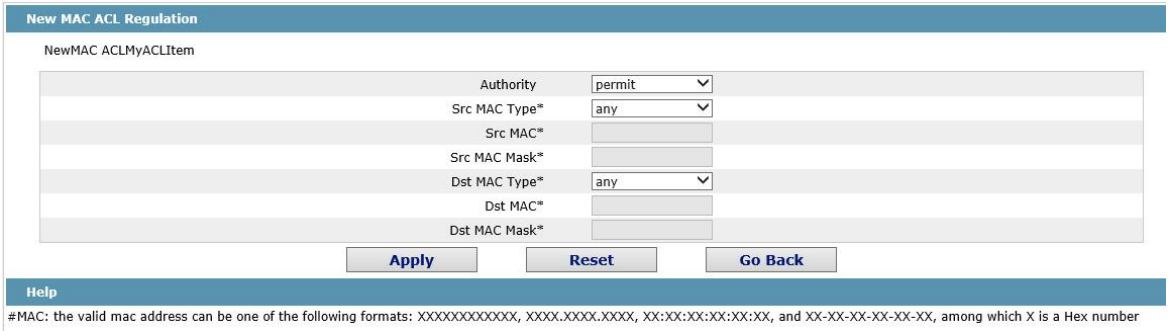
Click New to add a name of the MAC access control list. Click Cancel to delete an IP access control list.

7.3.2 Setting the Rules of the MAC Access Control List

If you click Modify, the corresponding MAC access control list appears and you can set the corresponding rules for the MAC access control list.

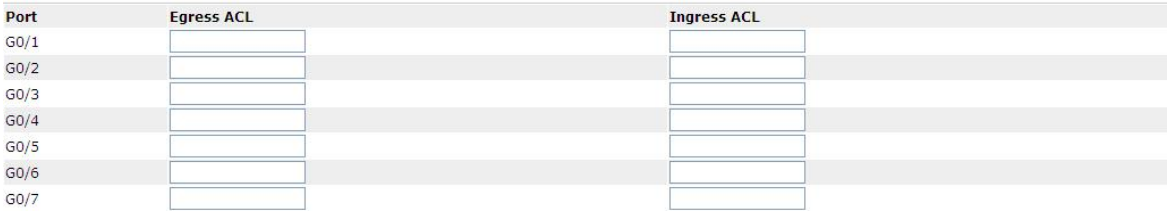


Click New to add a name of the MAC access control list. Click Cancel to delete a rule of the IP access control list. If you click Modify, the corresponding IP access control list appears and you can set the corresponding rules for the MAC access control list.



7.3.3 Applying the MAC Access Control List

If you click **Advanced Config -> MAC Access Control List -> Applying The MAC Access Control List**, the Applying the MAC access control list page appears.



Chapter 8 Network Management Configuration

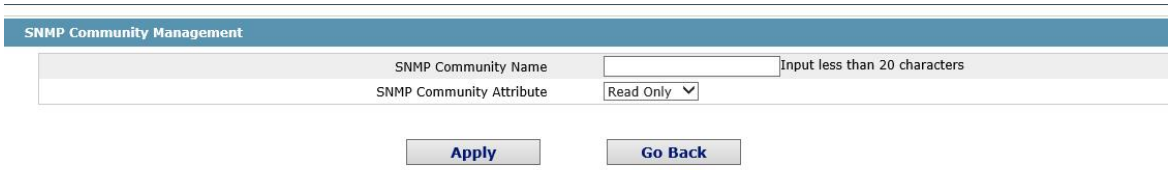
8.1 SNMP Configuration

If you click **Network Management Config -> SNMP Management** in the navigation bar, the SNMP management page appears, as shown in figure 2.

8.1.1 SNMP Community Management

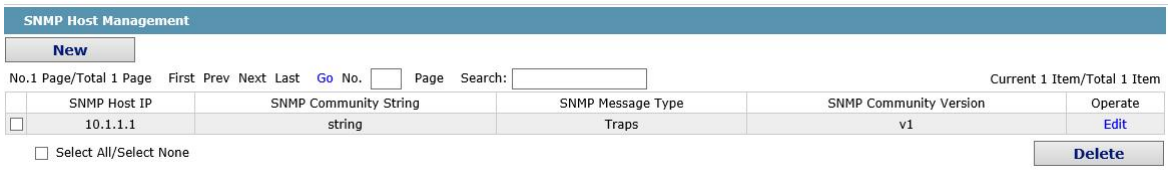
On the SNMP community management page, you can know the related configuration information about SNMP community.

You can create, modify or cancel the SNMP community information, and if you click New or Edit, you can switch to the configuration page of SNMP community.



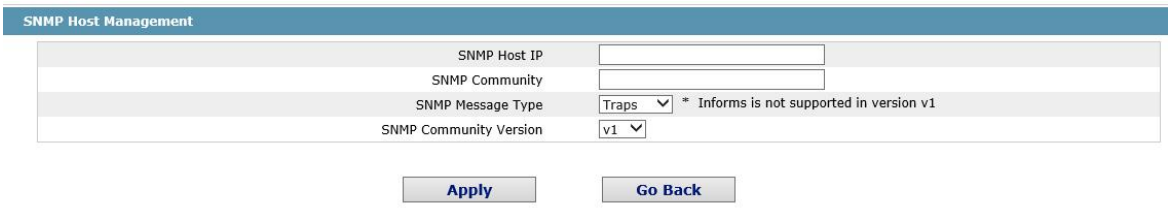
On the SNMP community management page you can enter the SNMP community name, select the attributes of SNMP community, which include Read only and Read-Write.

8.1.2 SNMP Host Management



On the SNMP community host page, you can know the related configuration information about SNMP host.

You can create, modify or cancel the SNMP host information, and if you click New or Edit, you can switch to the configuration page of SNMP host.

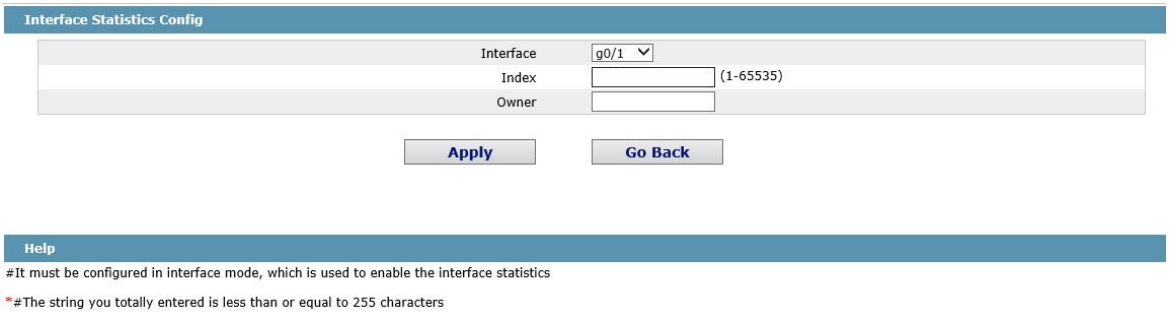


On the SNMP host configuration page, you can enter SNMP Host IP, SNMP Community, SNMP Message Type and SNMP Community Version. SNMP Message Type includes Traps and Informs, and as to version 1, SNMP Message Type does not support Informs.

8.2 RMON

8.2.1 RMON Statistic Information Configuration

If you click **Network Management Config -> Rmon -> Rmon Statistics -> New**, the RMON Statistics page appears.



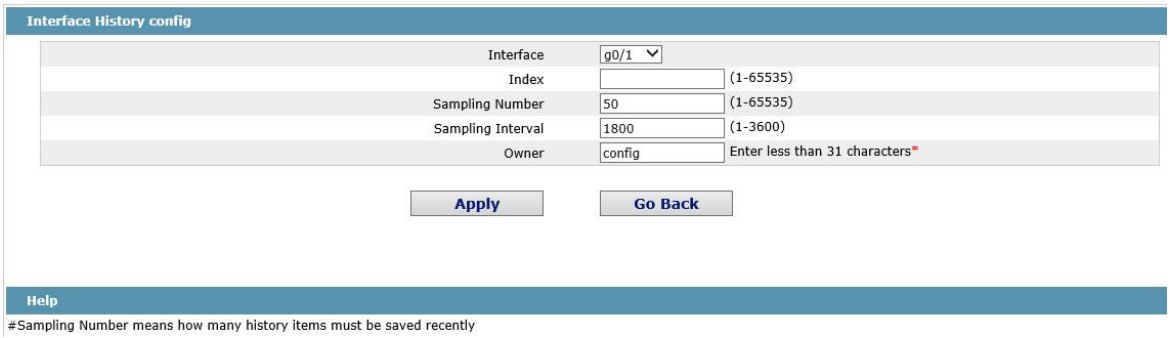
You need to set a physical port to be the reception terminal of the monitor data.

The index is used to identify a specific interface; if the index is same to that of the previous application interface, it will replace that of the previous application interface.

At present, the monitor statistic information can be obtained through the command line “show rmon statistics”, but the Web does not support this function.

8.2.2 RMON History Information Configuration

If you click **Network Management Config -> RMON -> RMON History -> New**, the RMON history page appears.



You need to set a physical port to be the reception terminal of the monitor data.

The index is used to identify a specific interface; if the index is same to that of the previous application interface, it will replace that of the previous application interface.

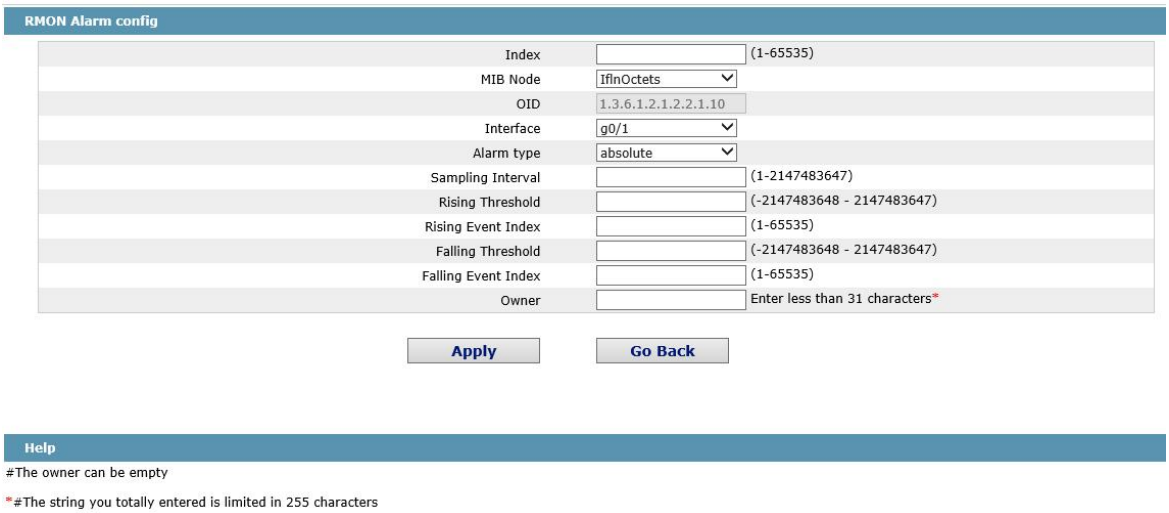
The sampling number means the items that need be reserved, whose default value is 50.

The sampling interval means the time between two data collection, whose default value is 1800s.

At present, the monitor statistic information can be obtained through the command line “show rmon history”, but the Web does not support this function.

8.2.3 RMON Alarm Information Configuration

If you click **Network Management Config -> Rmon -> Rmon Alarm -> New**, the RMON Alarm page appears.



#The owner can be empty

*#The string you totally entered is limited in 255 characters

The index is used to identify a specific alarm information; if the index is same to the previously applied index, it will replace the previous one.

The MIB node corresponds to OID.

If the alarm type is absolute, the value of the MIB object will be directly minitored; if the alarm type is delta, the change of the value of the MIB object in two sampling will be monitored.

When the monitored MIB object reaches or exceeds the rising threshold, the event corresponding to the index of the rising event will be triggered.

When the monitored MIB object reaches or exceeds the falling threshold, the event corresponding to the index of the falling event will be triggered.

8.2.4 RMON Event Configuration

If you click **Network Management Config -> RMON -> RMON Event -> New**, the RMON event page appears.

#If the log is enabled►►the items will be added to the log table at the trigger of the event.

#If the trap is enabled, the trap will be generated with the event community name.

*#The string you totally entered is less than 255 characters

The index corresponds to the rising event index and the falling event index that have already been configured on the RMON alarm config page.

The owner is used to describe the descriptive information of an event.

"Enable log" means to add an item of information in the log table when the event is triggered.

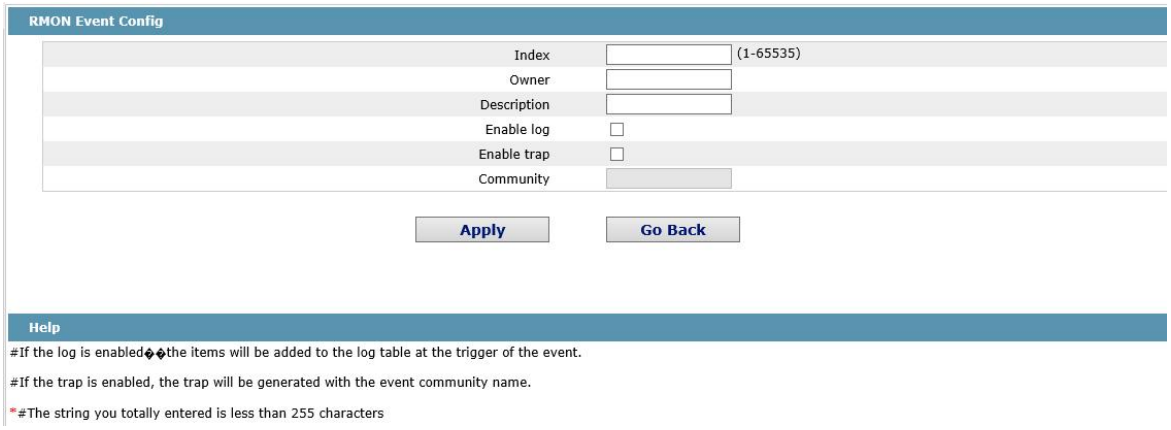
“Enable trap” means a trap will be generated if the event is triggered.

Chapter 9 Diagnosis Tools

9.1 Ping

9.1.1 Ping

If you click **Diagnosis Tools -> Ping**, the Ping page appears.



Ping is used to test whether the switch connects other devices.

If a Ping test need be conducted, please enter an IP address in the “Destination address” textbox, such as the IP address of your PC, and then click the “PING” button. If the switch connects your entered address, the device can promptly return a test result to you; if not, the device will take a little more time to return the test result.

“Source IP address” is used to set the source IP address which is carried in the Ping packet.

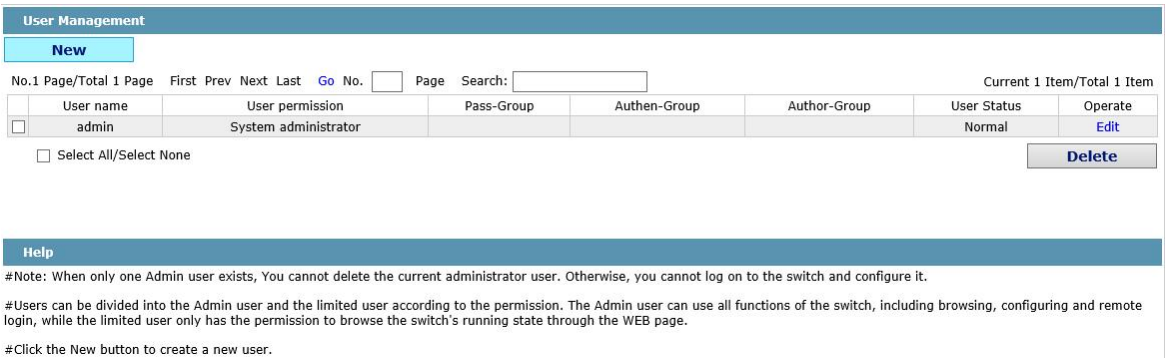
“Size of the PING packet” is used to set the length of the Ping packet which is transmitted by the device.

Chapter 10 System Management

10.1 User Management

10.1.1 User List

If you click System Mgr.-> User Mgr., the User Management page appears.



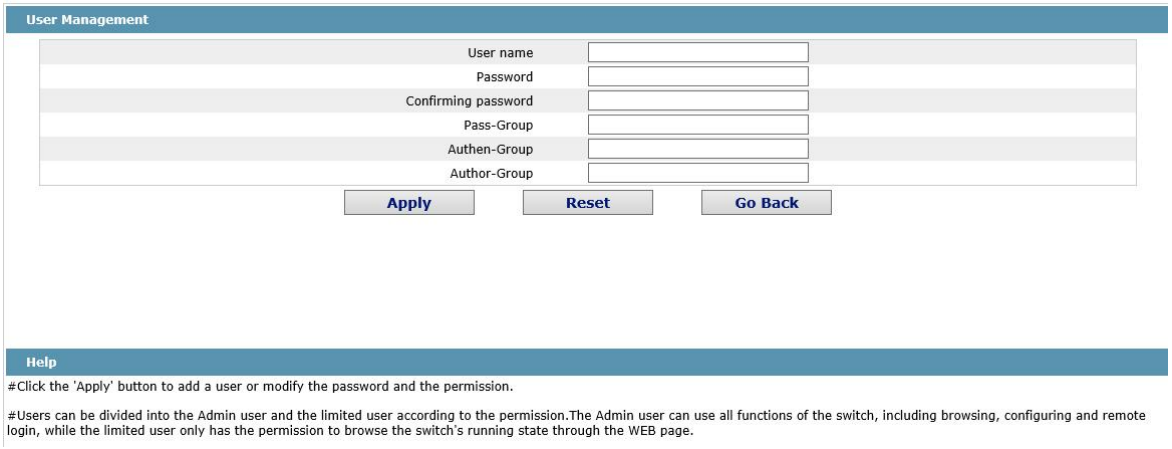
You can click “New” to create a new user.

To modify the permission or the login password, click “Edit” on the right of the user list.

Note:
1. Please make sure that at least one system administrator exists in the system, so that you can manage the devices through Web.
2. The limited user can only browse the status of the device.

10.1.2 Establishing a New User

If you click “New” on the User Management page, the Creating User page appears.

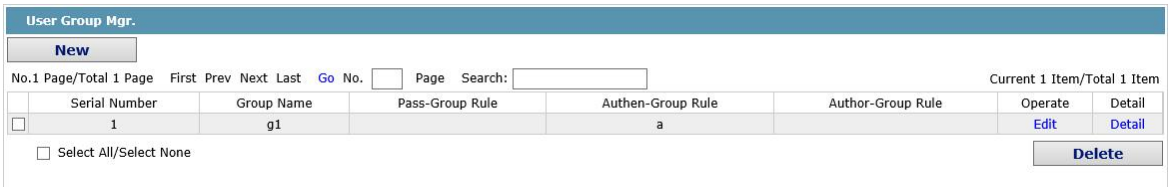


In the “User name” text box, enter a name, which contains letters, numbers and symbols except “?”, “\”, “&”, “#” and the "Space" symbol.

In the “Password” textbox enter a login password, and in the “Confirming password” textbox enter this login password again.

10.1.3 User Group Management

Click the Tab page of user group management and enter user group management page.



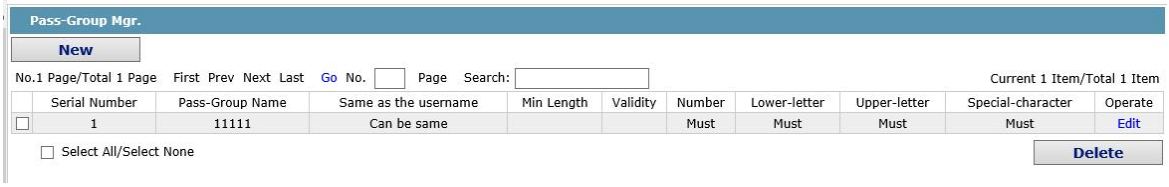
Click “create new” to create a new user group.

Click “delete” to delete the user group.

The new user group name must be not used before. The password rule name, authentication rule name and authorization rule name must have been created, or you cannot create a new user group. Configure the password rule, authentication rule and authorization rule in other 3 tab pages.

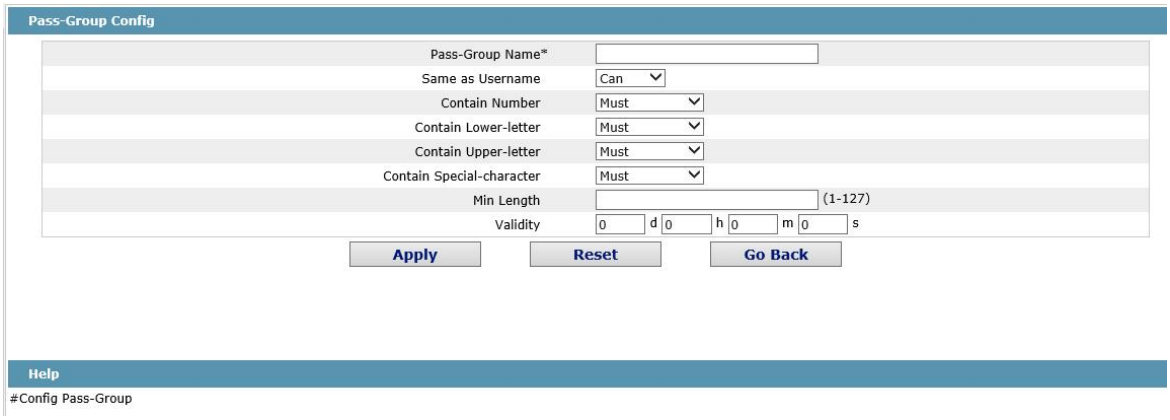
10.1.4 Password Rule Management

Click password rule management Tab page to enter password rule management page.



Click “create new” to create new password rule.

Click “delete” to delete password rule.



Set some password rules including whether the password can be the same with the user name, whether the password must contain numbers, lowercase, uppercase, special characters, the minimum length and the period of validity.

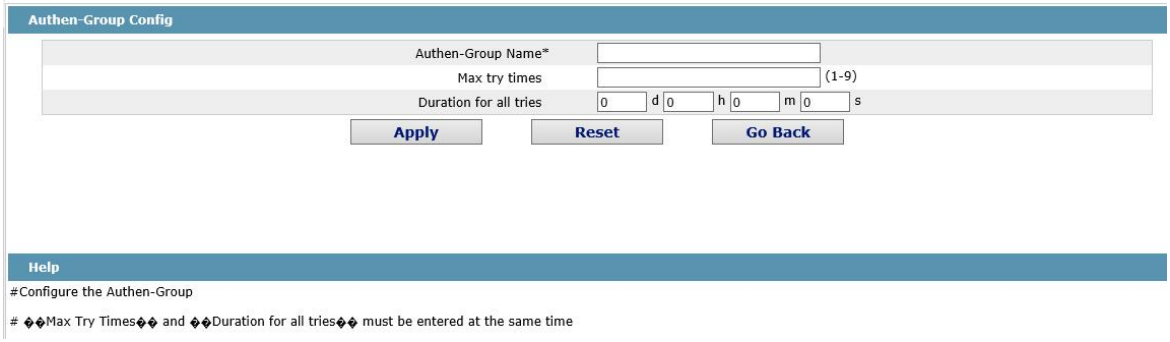
When the rule is created and applied to the user management, the user password will show invalid if the set password is not complied with the password rule, vice versa.

10.1.5 Authentication Rule Management

Click the Tab page of authentication rule management to enter authentication management page.

Click “create new” to create the new authentication rule.

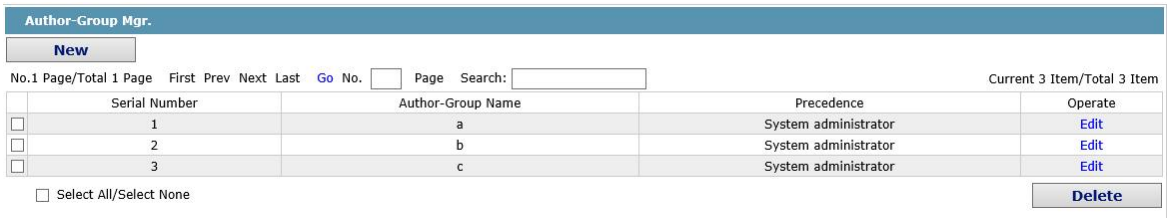
Click “delete” to delete the authentication rule.



You can configure the maximum number of attempts and periods or you don’t, but you must configure them simultaneously or neither.

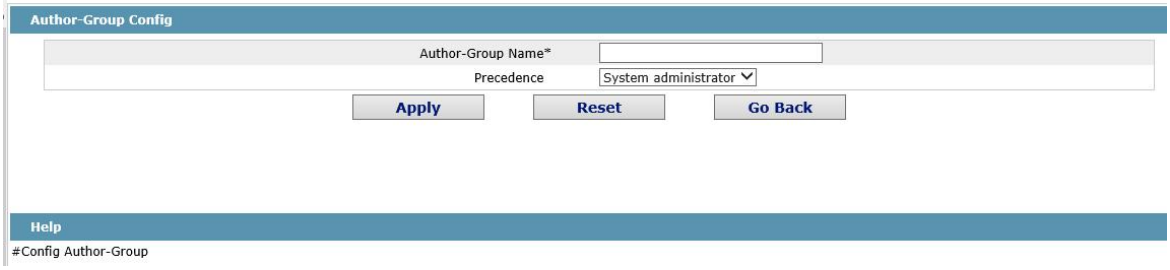
10.1.6 Authorization Rule Management

Click the Tab page of authorization rule and enter the authorization rule management page.



Click “create new” to create new authorization rule.

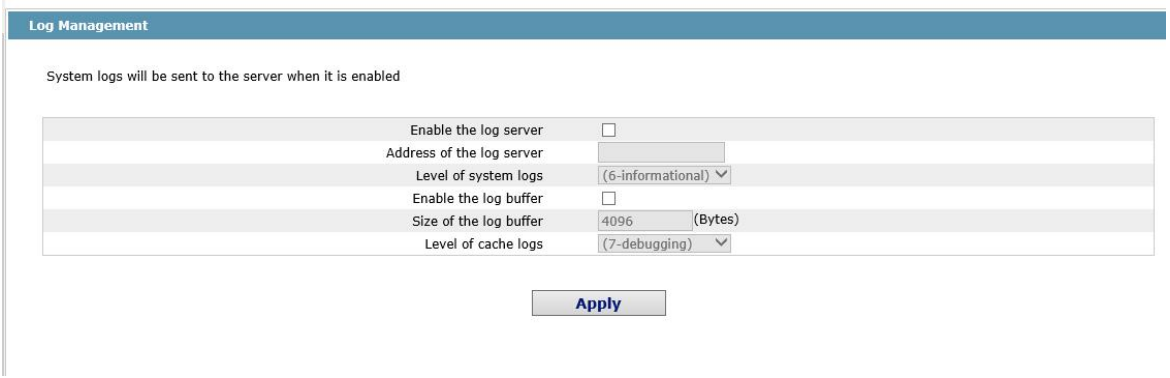
Click “delete” to delete the authorization rule.



The authorization rule determines your permission of the administrator or the limited user. If you are the administrator, you have the administrator right. If you are the limited user, you can only but check the web.

10.2 Log Management

If you click **System Mgr.-> Log Mgr.**, the Log Management page appears.



If “Enabling the log server” is selected, the device will transmit the log information to the designated server. In this case, you need enter the address of the server in the “Address of the system log server” textbox and select the log's grade in the “Grade of the system log information” dropdown box.

If “Enabling the log buffer” is selected, the device will record the log information to the memory. By logging on to the device through the Console port or Telnet, you can run the command “show log” to browse the logs which are saved on the device. The log information which is saved in the memory will be lost after rebooting. Please enter the size of the buffer area in the “Size of the system log buffer” textbox and select the grade of the cached log in the “Grade of the cache log information” dropdown box.

10.3 Managing the Configuration Files

If you click **System Mgr.-> Configuration file**, the Configuration file page appears.

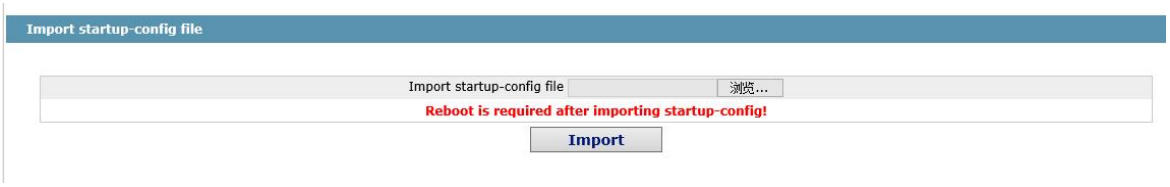
10.3.1 Exporting the Configuration Information

The current configuration file can be exported, saved in the disk of PC or in the mobile storage device as the backup file.

To export the configuration file, please click the “Export” button and then select the “Save” option in the pop-up download dialog box.

The default name of the configuration file is “startup-config”, but you are suggested to set it to an easily memorable name.

10.3.2 Importing the Configuration Information



You can import the configuration files from PC to the device and replace the configuration file that is currently being used. For example, by importing the backup configuration files, you can resume the device to its configuration of a previous moment.

Note:
1. Please make sure that the imported configuration file has the legal format for the configuration file with illegal format cannot lead to the normal startup of the device.
2. If error occurs during the process of importation, please try it later again, or click the “Save All” button to make the device re-establish the configuration file with the current configuration, avoiding the incomplete file and the abnormality of the device.
3. After the configuration file is imported, if you want to use the imported configuration file immediately, do**not**click “Save All”, but reboot the device directly.

10.4 Software Management

Click **System Mgr. -> Software Update** in the navigation bar, and enter the device software management page.

10.4.1 Backup System Software

The current running software version is displayed in the page. If you need to backup the system, please click “backup system software”, then select “save” in the pop-up file download dialog box and save the system profile to your computer disk, transferable data device or other positions in the network.

Note:
Default name of the system profile is “Switch.bin”. You are suggested to change the default name to a name that easy to identify.

10.4.2 Update System Software

Note:
1. Please ensure your update system profile match with the device type. Otherwise, the system cannot operate normally.
2. The system profile update may need 1 to 2 minutes. After clicking and confirming the “update” button, the profile will be upload to the device. Please be patient.

3. Please do not restart or interrupt the device if errors occur in the update process, or the device cannot start up. Please try update again later.
4. Please save the configuration and restart the device after updating, so that the new system can operate.

The update software is usually used for solving the existing problems or improving certain functions. You don't need to update the system software regularly, if your device operates normally.

If your system needs to be update, please enter the full path of the new system profile into the text box right of "update system software" or click "browse" button to select new system profiles and click "update".

10.5 Rebooting the Device

If you click **System Mgr.-> Reboot,** the Rebooting page appears.

If the device need be rebooted, please first make sure that the modified configuration of the device has already been saved, and then click the "Reboot" button.