# DIGITUS®

# **PoE Switch Web Management**



User Manual DN-95344

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#### About guide

This guide provides instructions to install the Switch.

Note: The model you have purchased may appear slightly different from the illustrations shown in the document. Refer to the Product Instruction and Technical Specification sections for detailed information about your switch, its components, network connections, and technical specifications.

#### Terminology/Usage

In this guide, the term "Switch" (first letter capitalized) refers to the Smart Switch, and "switch" (first letter lower case) refers to other Ethernet switches. Some technologies refer to terms "switch", "bridge" and "switching hubs" interchangeably, and both are commonly accepted for Ethernet switches.



Note: indicates important information that helps a better use of the device.

Warning: indicates potential property damage or personal injury.

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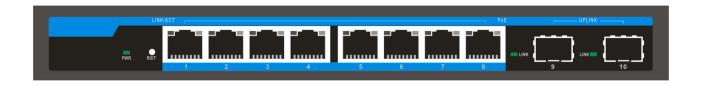
# 1 Products introduction

Thanks for purchasing the Managed PoE switch products.

The is a Gigabit Full Managed POE Switch, It provides 8 10/100/1000Mbps Auto-Negotiation RJ45 POE ports and 2 Gigabit SFP Ports. It supports the port's full line speed forwarding to ensure the stable transmission of data. The machine can be used as a small local core switch or a mall and medium-sized LAN switch, and can also be used as an access switch for large LAN. It can be widely used in monitoring, wireless, Internet cafe and other fields.

8 Port 10/100/1000Base-TX with 2 Gigabit SFP and 8 PoE L2+ Managed Switch

# Front panel



**PWR LED:** The Power LED lights up when the Switch is connected to a power source. **Link/Act LED:** The Link/Act LED flashes which indicates a network link through the corresponding port. Blinking indicates that the Switch is either sending or receiving data to the port.

# PoE LED:

**Green:** Indicates the PoE powered device (PD) is connected and the port supplies power successfully.

Light off: Indicates no powered device (PD) connected.

**RST:** By pressing the Reset button for 5 seconds the switch will change back to the default configuration and all changes will be lost.

Warning: The SFP ports should use UL listed Optical Transceiver product, Rated Laser Class I. 3.3Vdc.

#### <u>Real panel</u>





Grounding: use specialized ground lead connect

Connect the power adapter output terminal to this port. Supports input voltages +44  $^{\sim}$  +57 VDC

# 2 Hardware installation

This chapter provides unpacking and installation information for the Managed PoE switch.

#### First step: open a seal

Open the shipping carton and carefully unpack its contents. Please consult the packing list located in the User Manual to make sure all items are present and undamaged. If any item is missing or damaged, please contact the local reseller for replacement.

Switch 1pcs Power adaptor 1pcs AC power cord Rubber feet 4pcs Screws 6pcs User manual 1pcs If any item is found missing or damaged, please contact the local reseller for replacement.

#### Second step: switch installation

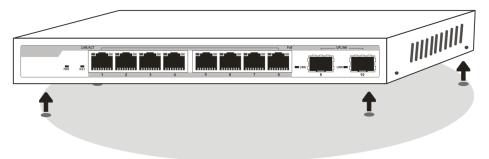
For safe switch installation and operation, it is recommended that you:

Make sure power adapter connect with the POE switch Make sure that there is proper heat dissipation and adequate ventilation around the switch.

Do not place heavy objects on the switch.

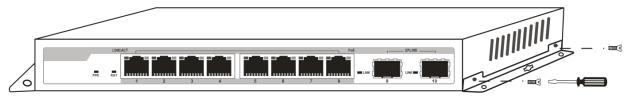
#### **Desktop or Shelf Installation**

When installing the switch on a desktop or shelf, the rubber feet included with the device must be attached on the bottom at each corner of the device's base. Allow enough ventilation space between the device and the objects around it.



#### Wall mount Installation

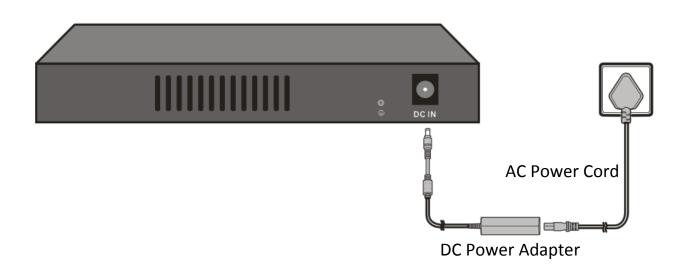
Attach the mounting brackets to the switch's side panels (one on each side) and secure them with the screws provided (please note that these brackets are not designed for palm size switches).



#### Third step: Connecting power supply

Using the AC power cord to connect to the power adapter, and then plug the output terminal of the adapter into the DC IN socket on the back of the switch. (The AC power outlet should be grounded)

- Warning: Do not turn on the power switch before power cables are connected. Power surge may cause damage to the Switch.
- Warning: The installation instructions clearly state that the ITE is to be connected only to PoE networks without routing to the outside plant.



#### Power failure

As a precaution, the switch should be unplugged in case of power failure. When power is resumed, plug the switch back in.

# **3** Getting Started

This chapter introduces the management interface of Managed PoE switch.

#### Management Option

The Managed PoE switch can be managed through any port on the device by using the Web-based management.

Each switch must be assigned its own IP address, which is used for communication with Web-Based Management or a SNMP network manager. The PC should have an IP address in the same range as the switch.

Please refer to the following installation instructions for the Web-based Management.

#### Using Web-based Management

After a successful physical installation, you can configure the Switch, monitor the network status, and display statistics using a web browser.

#### Supported Web Browsers

The embedded Web-based Management currently supports the following web browsers:

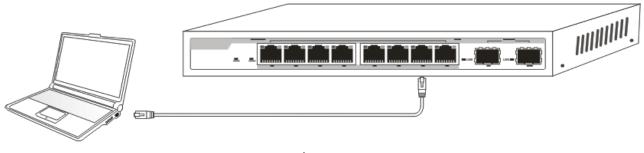
Internet Explorer 6 or higher version Netscape 8 or higher version Mozilla Firefox 1.5/2.0 or higher version

#### Connecting to the Switch

You will need the following equipment to begin the web configuration of your device:

- 1. A PC with a RJ-45 Ethernet connection
- 2. A standard Ethernet cable

Connect the Ethernet cable to any of the ports on the front panel of the switch and to the Ethernet port on the PC.



Network connection

#### Login Web-based Management

In order to login and configure the switch via an Ethernet connection, the PC must have an IP address in the same subnet as the switch. For example, if the switch has an IP address of **192.168.0.1**, the PC should have an IP address of **192.168.0.x** (where x is a number between 2 ~ 254), and a subnet mask of **255.255.255.0**. Open the web browser and enter **192.168.0.1** (the factory-default IP address) in the address bar. Then press <Enter>.

#### Enter the IP address in the web browser



**NOTE:** The switch's factory default IP address is 192.168.0.1 with a subnet mask of 255.255.255.0

To log in to the switch, the IP address of your PC should be set in the same subnet as that of the switch. The IP address is 192.168.0.x ("x" is any number from 2 to 254). Subnet Mask is 255.255.255.0.

Internet Protocol Version 4 (TCP/IP	v4) Properties 💦 💽							
General								
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.								
Obtain an IP address automat	ically							
Ostable Use the following IP address:								
IP address:	192.168.0.54							
S <u>u</u> bnet mask:	255 . 255 . 255 . 0							
Default gateway:	192 .168 . 0 . 1							
Obtain DNS server address au	tomatically							
• Use the following DNS server a	addresses:							
Preferred DNS server:	· · ·							
<u>A</u> lternate DNS server:	· · ·							
Vaļidate settings upon exit	Advanced							
OK Cancel								

When the following logon dialog box appears, enter the password then click **OK**. By default, the username is **admin** and the password is **admin**.

Connect to 192	2.168.0.1	? 🛛
		GE
Networks		
<u>U</u> ser name:	<b>£</b>	~
Password:		
	Remember m	y password
		Cancel

Logon Dialog Box

#### 1. WEB page elements

Shown in Figure 2, WEB page is mainly composed of three parts: title page, navigation tree page and main page

~			_ = X
← → 🕂 🥙 http://192.168.0.1/	😌 오 - 🗟 Ċ 🗙 <i>溪</i> Switch	×	<b>↑</b> ★ ₽
	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		<ul> <li>link up</li> <li>disable</li> <li>link down</li> </ul>
Switch System Configuration Port Configuration MAC Binding MAC Filter VLAN Configuration SNMP Configuration ACL Configuration ACL Configuration ACL Configuration AAC Configuration AAA Configuration AAAA Configuration AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA			
			🔍 100% 🔻

Figure 2

Title page is used to display the logo

Main page is used to display the user from the navigation tree, select the page

#### 2. The structure of Navigation tree

Figure 3 shows the navigation tree organizational structure.

Navigation tree is located in the lower left of each page, using the tree display nodes of the WEB page; users can easily find the page you want to manage the WEB. According to a different web page functionality can be divided into different groups, each including one or more pages. Most of the navigation tree in the name of the corresponding web page top of page title abbreviation.

← → ♥ + Ø http://192.168.0	.1/	€ פי א Switch ×	<u> </u>
	$\begin{array}{c} 2 & 4 & 6 & 8 \\ \hline \mathbf{O} & \mathbf{O} & \mathbf{O} & \mathbf{O} \\ \hline \mathbf{O} & \mathbf{O} & \mathbf{O} & \mathbf{O} \\ 1 & 3 & 5 & 7 \end{array}$		<ul><li>Ink up</li><li>disable</li><li>Ink down</li></ul>
Switch System Configuration Basic Information		System Configuration	
<ul> <li>Serial Information</li> <li>User Management</li> <li>Safe Management</li> <li>SNTP Configuration</li> <li>Current Configuration</li> <li>Configuration File</li> <li>File Upload</li> <li>System Reset</li> <li>Port Configuration</li> <li>MAC Binding</li> </ul>	System Description System Object ID System Version Num Network Interfaces System start time System Name System Location	Switch 3.5.0 1.3.6.1.4.1.12284.1 Switch 3.5.0 s 11 0-Days 0-Hours 4-Minutes 4-Seconds Switch	
MAC Filter  MAC Filter  XLAN Configuration  ACL Configuration  QOS Configuration  IP Basic Configuration	System Contact	Refresh Apply Help	
			<b>€</b> 100% ▼

Figure 3

# 3. Page button Introduction

On the pages, here are some commonly used buttons, the role of these buttons are generally the same, Form 2 on the role of these buttons are described:

#### Form 2:

button	effect		
Refresh Update all fields on the page			
Apply	Numerical value will be updated into the memory. Because the error-checking should be implement by the Web Server, before the user selects the button will be no error checking.		
Delete	Delete the current record		
Help	Open help pages, view the individual pages of the configuration instructions		

#### 4. Error messages

If the switch WEB server error occurred while processing user requests, it will display a dialog box in the corresponding error message. For example, Figure 4 shows an error message dialog box.



Figure 4

#### 5. Entry Field

Some pages of the most left column in the table has an entry field, as shown in Figure 5, through the field can access different rows in the table. When you choose a lines for the field, which lines the corresponding information is displayed in the first line, then only the line can be edited, the line also known as the activities line. A time when it was first loaded, it shows the filed new, activity line is empty.

If want to add a new line, should select new from the drop-down menu of entry field, enter the new line's information, and then press apply button.

If you want to edit the line already exists, it is necessary select the appropriate line number of the drop-down menu, according to need to edit the line, and then press the apply button, you will see a corresponding change in the table displayed.

If you want to delete a row, select the line number accordly from entry field's dropdown menu, then press the delete key, this line will disappear from the table.

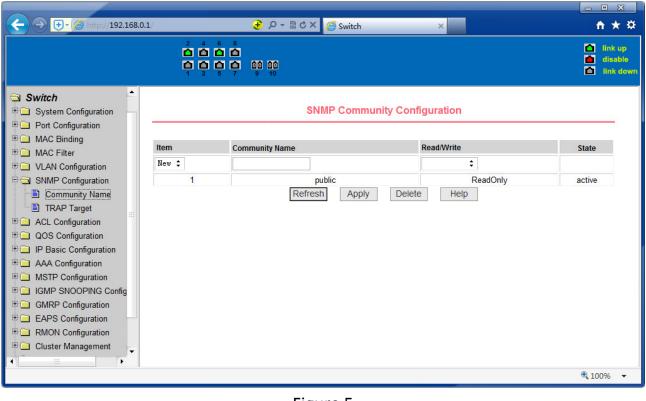


Figure 5

#### 6. Status Field

Some pages of the most right column in the table there is a state field, as shown in Figure 6, the field displays the line status. Since all row state changes are processed in-house, so the status field is read-only. Once the line information of the entry filed into force, the line will automatically become the active state the status active.

	18	- Q <del>5</del>	🖻 🖒 🗙 🏉 Swit	ch ×		— ■ ×
	<u>o</u> i					<ul> <li>link up</li> <li>disable</li> <li>link dov</li> </ul>
Switch System Configuration Port Configuration			TRAP 1	arget Configuration		
<ul> <li>MAC Binding</li> <li>MAC Filter</li> <li>VLAN Configuration</li> <li>SNMP Configuration</li> <li>Community Name</li> <li>TRAP Target</li> <li>ACL Configuration</li> <li>QOS Configuration</li> <li>QOS Configuration</li> <li>AAA Configuration</li> <li>MSTP Configuration</li> <li>MSTP Configuration</li> <li>GMRP Configuration</li> <li>EAPS Configuration</li> <li>RMON Configuration</li> </ul>	Item I	Vame	Refresh A	Transmit IP Address	SNMP Version	State
Cluster Management						<b>€</b> 100% ▼

Figure 6 the web page of status field

# WEB page introduction

Switch switches WEB pages organized into groups, each including one or more of the WEB pages. The following are introduced one by one on each page.

#### 1. Login dialog Box

Connect to 192.	168.0.1 🛛 🖓 🔀
	GP
Networks	
<u>U</u> ser name: <u>P</u> assword:	
	<u>Remember my password</u>
	OK Cancel

Figure 7 WEB browsing session of the login page

Figure 7 shows the login dialog box, the logon dialog box will be displayed while the user login the web page at the first time. When the user filled out the correct user name and password, then click the Enter button can log on to the switch Web server. Passwords are case-sensitive, the anonymous user password can be maximum set up to 16 characters, while the multi-user name and password can be set up to 11 characters. Switch switch default user name is the anonymous user name admin, default password for the anonymous user's password, the default username is admin and password is admin.

#### 2. Main Page

Figure 8 shows the WEB main page of tico Switch switches. This page will be displayed after the user logs in web pages

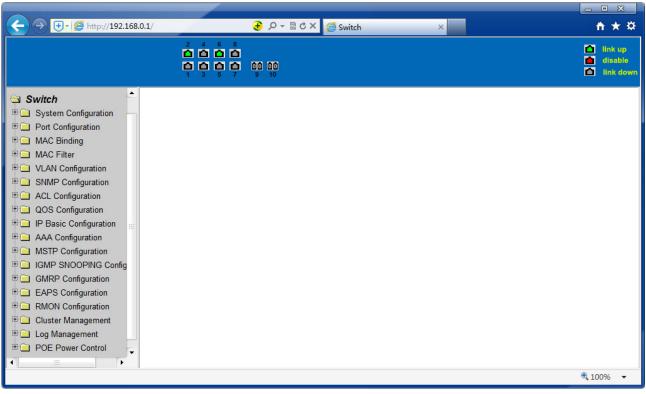


Figure 8 Switch switches main page

#### 3. System Configuration:

#### (1) Basic information page

Figure 9 is the basic information of configuration page, users can configure the basic information for the switch.

System Description displays the description of the relevant parameters of system. System descriptor ID display system in the network identity management. The system version number is displayed the current software version number of switches. The number of switches interface displays the current number of interfaces in the switch.

The system start-up time display switches from start to the present time. The system name as the switch's system name in the network, the user can modify the system name.

The systematic location as the switch's physical location showing at the network, the user can modify the system locations system contact show the contacts person and details of the current node, the user can modify the system contact.

← → ⊕ - @ http://192.168.0	1/	€ ♀ - ⊠ ♂ × 🥖 Switch ×	<u> </u>
		1	<ul> <li>Ink up</li> <li>disable</li> <li>Ink down</li> </ul>
Switch System Configuration Basic Information Serial Information User Management SATP Configuration Current Configuration Current Configuration File Upload File Upload System Reset Port Configuration MAC Binding MAC Filter VLAN Configuration SNMP Configuration ACL Configuration QOS Configuration IP Basic Configuration	System Description System Object ID System Version Num Network Interface: System start time System Name System Location System Contact	System Configuration Switch 3.5.0 1.3.6.1.4.1.12284.1 Switch 3.5.0 s 11 0-Days 0-Hours 7-Minutes 24-Seconds Switch Refresh Apply Help	
			🔍 100% 🔻

Figure 9 Basic information Page

#### (2) Serial port information page

Figure 10 is a serial port configuration page, the page displays serial baud rate and other related information. When the host through the serial port terminals (such as Windows, HyperTerminal) to the management of switches, serial console on the COM port configuration must be consistent with this page information.

( → ⊕ · @ http://192.168.0.1/	→ 20 - 20 - 20 - 20 - 20 - 20 - 20 -	🗐 Switch 🛛 🗙	<b>↑</b> ★ ‡
	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		ink up ink disable ink down
Switch System Configuration Basic Information	Se	rial Port Configuration	
User Management	Baud Rate	9600	
Safe Management	Character Siz		
SNTP Configuration	Parity Code	None 1	
Current Configuration	Stop Bits Flow Control	1 None	
Configuration File	Plow Collub	Refresh Help	
File Upload		Heiresh	
System Reset			
MAC Binding			
MAC Filter			
VLAN Configuration			
SNMP Configuration			
ACL Configuration			
QOS Configuration			
🗉 🧰 IP Basic Configuration 🖕			
			🔍 100% 🔻

Figure 10 Serial port information page

# (3) User management page

Figure 11 is a user management page, the user can modify this switch anonymous user (admin) password, Telnet and the Web without opening a multi-user, they all use the same anonymous user's password. Passwords are case-sensitive, and can be up to 16 characters. If you want to change your password, the user need to enter the new password twice, once the user clicks the application button, the new password is activated, then if the switch is not enabled multi-user, will display the login dialog box (as shown in Figure 7), require the user to re - login the web page, with a new anonymous user password.

Meanwhile through this page user can configure the multi-user, switch if in the default is no multi-users that is, not enabled the multi-user management functionality, at this time does not require multi-user login user name and password authentication. For Telnet, when adding a user name, multi-user management features were enabled, and when removed all users, multi-user management functionality has been closed. For the Web, when adding a user name, if it is privileged user, multi-user management functionality was enabled, when all of the privileges users have been deleted, multi-user management functionality has been closed. When the multi-user management features enabled, the anonymous user's password will not take effect, log Telnet and the Web requires a multi-user user name and password authentication. When the multi-user management function is turned off, at this time if the configured anonymous user's password, log on Telnet,

 $\leftarrow$ 🔿 🕂 🥖 /192.168.0.1 + 2 - 2 C + 🧉 Switch **↑** ★ ☆ link updisablelink do 0000 Switch **Multi-user Management Configuration** 🖹 🔄 System Configuration Basic Information Serial Information User name Old password Item New password Re-enter password Privilege User Management New 💲 ¢ Safe Management SNTP Configuration admin Privilege 1 Refresh Apply Current Configuration Delete Help Configuration File File Upload System Reset 🗉 📃 Port Configuration MAC Binding MAC Filter VLAN Configuration SNMP Configuration E 📄 ACL Configuration E QOS Configuration E IP Basic Configuration **100%** 

and Web need anonymous user's password authentication

Figure 11 user's management page

# (4) Security Management Page

Figure 12 is **Security** management configuration page, through the page's configuration, the administrator can control network management services TELNET, WEB and SNMP, you can open (enable) or off (disable) these services, these services can be mounted up with standards IP ACL group, and the implementation of the source IP address control, control access to the host of these services.

When the Switch default, TELNET, WEB and SNMP services are open and no ACL filtering, that is, all hosts have access to the switch of these three services. If the administrator for safety, do not want to provide one or several services, which can shut down one or several services. If the administrator only hope that the specified host could access one or several services, can do the ACL filtering for one or several services. As a service to do ACL filtering, you need to open the service, and to select an IP standard ACL group (1-99), the primary factor it's the ACL group must be present.

Note that, if the administrator on this page control the WEB services (such as closing WEB Services) may cause users to no longer use the WEB page, then you can log switches by other means and to control the use of WEB service allows users to WEB page (such as the Open the WEB service).

		Switch	×	<ul> <li>↑ ★ ☆</li> <li>iink up</li> <li>disable</li> <li>iink down</li> </ul>
Switch System Configuration Basic Information	User Safet	y Configuration (http,	telnet,snmp)	
<ul> <li>Serial Information</li> <li>User Management</li> <li>Safe Management</li> <li>SNTP Configuration</li> <li>Current Configuration</li> <li>Configuration File</li> <li>File Upload</li> <li>System Reset</li> <li>Port Configuration</li> <li>MAC Binding</li> <li>MAC Filter</li> <li>VLAN Configuration</li> <li>SNMP Configuration</li> <li>ACL Configuration</li> <li>QOS Configuration</li> <li>IP Basic Configuration</li> </ul>	Service Type	Management State	(Acl Group Must E Acl Group 0 0 0 0	ixist, and range in 1-99)
				€ <b>100%</b> -

Figure 12 Security management page

# (5) Configure the current page

Figure 13 is the current configuration page. The user can view the current configuration of the switch on this page. Save key is to store the current system configuration in the configuration file. Because the storage operation requires erase& write FLASH chips, which take up some time. When the user was configured on the page and hope to restart the switch from using these configurations are not lost, you must exit the page before the current configuration page, click the Save button.

2       4       6       8       disable         1       3       5       7       8       00         1       3       5       7       8       00         1       3       5       7       8       00         1       3       5       7       8       00         1       3       5       7       8       00         1       3       5       7       8       00         1       3       5       7       8       00         1       3       5       7       8       00         1       3       5       7       8       00         1       3       5       7       8       00         1       3       5       7       8       00         1       1       1       1       1       1         1       1       1       1       1       1         1       3       5       7       8       00       1         1       1       1       1       1       1       1         1       1       1			_ = X
Current Configuration     Sorrent Configuration     Sorrent Configuration     Sorrent Configuration     Sorrent Configuration     Current Configuration     Configuration     Current Configuration     Current Configuration     Configuration     Current Configuration     Current Configuration     Current Configuration     Current Configuration     Configuration     Configuration     Configuration     Configuration     I     interface Val     interface ge1/2     interface ge1/2     interface ge1/3     interface ge1/3     interface ge1/4     interface ge1/4	🗲 🔿 🕂 🦉 http://192.168.0	).1/ 😌 P - 🗟 Ċ 🗙 🎑 Switch 🛛 🗙 🔤	<b>↑</b> ★ ☆
System Configuration       Basic Information         Basic Information       Serial Information         User Management       Save         ShTP Configuration       I         Current Configuration       I         Current Configuration       I         Configuration       I         Configuration       I         File Upload       I         Interface Van1       Ip address 192.168.0.1/24         Ip Address 192.168.0.1/24       Ip of address 192.168.0.1/24         Ip Address 192.168.0.1/24       Interface ge1/1         Interface ge1/1       Interface ge1/2         Interface ge1/2       Interface ge1/3         Interface ge1/3       Interface ge1/4			💼 disable
	<ul> <li>System Configuration</li> <li>Basic Information</li> <li>Serial Information</li> <li>User Management</li> <li>Safe Management</li> <li>SNTP Configuration</li> <li>Current Configuration</li> <li>Configuration File</li> <li>File Upload</li> <li>System Reset</li> <li>Port Configuration</li> <li>MAC Binding</li> <li>MAC Filter</li> <li>VLAN Configuration</li> </ul>	Save Help ! username admin enc-password €€燒斖徰≡羝化足閭壞 privilege ! vlan database ! spanning-tree mst configuration ! interface vlan1 ip address fe80::2a7:c1ff:fed3:3a01/64 ! interface ge1/1 ! interface ge1/2 !	
IP Basic Configuration     interface ge1/5	<ul> <li>ACL Configuration</li> <li>QOS Configuration</li> <li>IP Basic Configuration</li> </ul>	! interface ge1/4 ! interface ge1/5 !	•

Figure 13 the current configuration page

# (6) Configuration page

Figure 14 is profile configuration page. This page allows users to view the system's initial configuration. The initial configuration is actually the configuration file in the FLASH, when the configuration file does not exist in FLASH, the system starts using the default configuration. Delete key to delete the configuration file in the FLASH. Click the Delete button, will pop up a dialog box, that will prompts the user sure to delete the configuration file or not, according to the dialog box to determine if it's ok, otherwise click Cancel button. Download button is used to downloaded a configuration file to the PC. Click to download button, will pop up a dialog box, users select Save and save the configuration file directory path. Download the configuration file names are as switch.cfg.

		- • X
🗲 🕣 🕂 🦉 http://192.168.0.1/	€ P - ≧ C × 🧭 Switch ×	<b>↑</b> ★ ₽
		<ul> <li>▲ link up</li> <li>▲ disable</li> <li>▲ link down</li> </ul>
Switch  System Configuration  Serial Information  Serial Information  Safe Management  SATP Configuration  Current Configuration  File Upload  System Reset  Port Configuration  MAC Binding  MAC Filter  VLAN Configuration  ACL Configuration  QOS Configuration  IP Basic Configuration	Configuration File         (Delete the Configuration File or Download the Configuration File to         Download       Delete         Help	your local computer)
· · · ·		🔍 100% 🛛 🗸

Figure14 Configuration file page

# (7) File upload page

Figure 15 is a file upload page; through this page a user can upload a configuration file and mapping files to the switch. Click the Browse button to select the upload configuration file or image file in the directory path on the PC. Click Upload button upload a configuration file or image file, configuration file extension must be \*. cfg, image file must be provided by the manufacturer and the file name extension must be \*. img. Transmission before the return of the results page, please do not click on other pages, or restart the switch; otherwise, the file transfer will lead to failure caused by system crashes.

← → ⊕ / @ http://192.168.0.	۱/
	2 4 5 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Switch System Configuration Serial Information Serial Information Safe Management Safe Management SNTP Configuration Current Configuration Current Configuration File Upload System Reset Port Configuration MAC Binding MAC Filter VLAN Configuration SNMP Configuration ACL Configuration QOS Configuration P Basic Configuration	File Upload         Cupload the Configuration File or Firmware File from your local computer to the switch)         Attention:         The Configuration File must have an *.cfg extention         The Firmware File must have an *.img extention         Do not interrupt the upload at anytime as this may corrupt the Firmware or Configuration and Potentially         Crash the System         Implication
	<b>€</b> 100% ▼

Figure 15 File Upload Page

#### (8) System reset page

Figure 16 is system reset page, through these page users to restart the switch. When you click on Restart button, will pop up a dialog box that prompts the user to determine whether or restart the switch, If it is determined according to OK button, otherwise click Cancel button. Restart will no longer open the Web page.

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Switch  System Configuration  Basic Information  Serial Information  User Management  Safe Management  SAfe Management  SATP Configuration  Current Configuration  Configuration  File Upload  System Reset  Port Configuration  MAC Binding  MAC Filter  VLAN Configuration  SNIMP Configuration  ACL Configuration  QOS Configuration  I P Basic Configuration  V	Reset       Help	
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#### Figure16 System reset page

#### 4. Port Configuration

#### (1) Port configuration/port -display page

Figure 17 is the port configuration/port -display page. Users can enable or disable the port to the page, set the port speed, or View all ports of the basic information.

To set a specific port, users need to select the appropriate port name on port dropdown menu. The default port status is up, can select the drop-down menu -down to disable the port. Users can also choose to set the speed of the drop-down menu to set the speed of the port, such as the mandatory half-duplex port 10M (half-10) and so on. On this page the user can view all ports other basic information.

		2				ini dis ini
Switch  System Configuration			Port Config	uration/Show	1	
Port Configuration     Common Configuration     Port Statistics	Port: \$	Ifindex: 0 Port Typ	be: Unknown MAC Ad	ddress: 0000.0000.00	00 Description:	
Flow Control	State: Down :	:	S	et Rate:	Auto-Negotiate 💲	
Broadcast Storm			Refresh	pply Help		
Port Ratelimit					1	
Protected Port	Port Name	Admin State	Oper State	Bandwidth	VLAN Mode	Default VLAN
📲 Learn Limit	ge1/1	Up	Down	Unknown	Access	1
Port Trunking	ge1/2	Up	Up	Full-1000 Mbps	Access	1
- B Mirror	ge1/3	Up	Down	Unknown	Access	1
DDM Information	ge1/4	Up	Down	Unknown	Access	1
MAC Binding	ge1/5	Up	Down	Unknown	Access	1
MAC Filter	ge1/6	Up	Up	Full-1000 Mbps	Access	1
VLAN Configuration	ge1/7	Up	Down	Unknown	Access	1
SNMP Configuration	ge1/8	Up	Down	Unknown	Access	1
ACL Configuration	ge1/9	Up	Down	Unknown	Access	1
	ge1/10	Up	Down	Unknown	Access	1

Figure 17 port configuration and port - display page

# (2) Port Statistics Page

Figure 18 is the port statistics information page. To view a particular port, users need to select the appropriate port name in the port drop-down menu. Users can view the statistics information of send and receive packets on this page.

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Switch System Configuration		Port Statisti	cs Information		
Common Configuration  Port Statistics  Flow Control	Port:				
Broadcast Storm	Port Statistics Information				
Port Ratelimit     Protected Port	Received Total Bytes (ifInOctets)	0	Received Unicast Packets Num (ifInUcastPkts)	0	
Learn Limit	Received Non-Unicast Packets Num (ifInNUcastPkts)	0	Received Discard Packets Num (ifInDiscards)	0	
Port Trunking Mirror DDM Information	Received Error Packets Num (ifInErrors)	0	Received Unkonwn Protocol Packets Num (iflnUnknownProtos)	0	
MAC Binding	Send Total Bytes (ifOutOctets)	0	Send Unicast Packets Num (ifOutUcastPkts)	0	
ULAN Configuration	Send Non-Unicast Packets Num (ifOutNUcastPkts)	0	Send Discard Packets Num (ifOutDiscards)	0	
SNMP Configuration     ACL Configuration	Send Error Packets Num (ifOutErrors)	0			
QOS Configuration		Refresh	Help		
				<b>100%</b>	_

Figure 18 Port Statistics Page

# (3) Flow control page

Figure 19 is the flow control page. Users can enable and disable each port's send and receive flow control through this page.

Flow control by sending the side of the drop-down on or off to open or close the sending side of flow control, flow control through the receiving side of the drop-down on or off to open or close the receiver-side flow control, while on and off also shows the port to send side and receiving-side flow control is turned on or off.

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		00 00 9 10		<ul> <li>Iink up</li> <li>disable</li> <li>Iink down</li> </ul>
Switch  System Configuration  Port Configuration  Port Statistics  Flow Control  Broadcast Storm  Port Ratelimit  Protected Port  Learn Limit  Port Trunking  Mirror  DDM Information  MAC Binding  MAC Filter  VLAN Configuration  SNMP Configuration	Port: 🗘	Off :	Control Pply Help Flow Control State Off Off Off Off Off Off Off Off Off Of	
ACL Configuration     QOS Configuration		ge1/8 ge1/9	Off Off	-
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Figure 19 Flow control page

#### (4) Broadcast storm control page

Figure 20 is the Broadcast Storm Control page. This page is used to do the suppression for configure port broadcast packets, multicast packets and DLF packet. From the Port drop-down bar select to configure ports. Through the on and off key to open and close the port broadcast suppression, multicast, DLF inhibition and suppression. Inhibition rate is used to configure the port inhibition speed, range 1-1024000, unit kbits. The inhibition rate of the same port broadcast suppression, multicast and DLF inhibition is the same.

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Switch			Bro	adcast Storm (	Control			
Common Configuration  Port Statistics  Flow Control	Port:	:						
Broadcast Storm	Broadcast	Suppression	Off 🗘	Broadcast Ratelimit	0	(1-1024000 kb	ops)	
Port Ratelimit	Multicast	Suppression	Off ‡	Multicast Ratelimit	0	(1-1024000 kb	ups)	
Protected Port	DLF Suppr	ession	Off ‡	DLF Ratelimit	0	(1-1024000 kb	ups)	
Learn Limit  Port Trunking  Mirror			Refr		Неір	](		
DDM Information	Port Name	Broadcast Suppression		it Multicast Suppression	Multicast Ratelimit (kbps)	DLF Suppression	DLF Ratelimit (kbps)	
MAC Binding	ge1/1	Off	64	Off	64	Off	64	
MAC Filter	ge1/2	Off	64	Off	64	Off	64	
VLAN Configuration	ge1/3	Off	64	Off	64	Off	64	
SNMP Configuration	ge1/4	Off	64	Off	64	Off	64	
ACL Configuration	ge1/5	Off	64	Off	64	Off	64	
QOS Configuration	ge1/6	Off	64	Off	64	Off	64	
	ae1/7	Off	64	Off	64	Off	64	

Figure 20 Broadcase Storm control Page

# (5) Port speed limits page

Figure 21 is the port speed- limit page. This page is used to configure the port, send and receive rate

From the Port drop-down bar select the configure ports. Bandwidth control of the send data packets is used to configure and display the bandwidth control it, the range is 1-1024000, unit kbits, enter into force after the key press applications. If the port is not configured bandwidth control, shown as off. Cancel button is used to cancel the corresponding data packet to send bandwidth control. Receiving data packets are used to configure and display the bandwidth control of receive data packets control, the range is 1-1024000, unit kbits, enter into force after the key press applications. If the port is not configured bandwidth control, shown as off. Cancel button is used to cancel the corresponding receiving data packets bandwidth control, shown as off.

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		iink up disable iink down
Switch  System Configuration  Port Configuration  Port Statistics  Flow Control  Broadcast Storm  Protected Port  Learn Limit  Port Trunking  Mirror  DDM Information  MAC Binding  MAC Filter  VLAN Configuration  ACL Configuration  QOS Configuration	Port:       :         Send Packets Rate Control Off       kbps (1-1024000)       Cancel (Cancel Send Packets Rate Cancel Receive Packets Rate Control Off         Receive Packets Rate Control Off       kbps (1-1024000)       Cancel (Cancel Receive Packets Rate Cancel Receive Packets Rate Cancel Refresh Apply         Port Name       Send Packets Rate Control (kbps)       Control (kbps)	
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Figure 21 Port speed limit page

# (6) Port protection page

Figure 22 is the Port protection page. This page is used to configure the port for the protection port.

If the port is configured as a protected port, the ports cannot exchange the data with each other, protected port only with non-protected port for data exchange.

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Switch Configuration Configuration		Prote	cted Port	
Common Configuration     Port Statistics		Port Name	Is Protected Port	
Flow Control		ge1/1	No	
Broadcast Storm		ge1/2	No	
Port Ratelimit		ge1/3	No	
Protected Port     Learn Limit		ge1/4	No	
Cearn Limit     Port Trunking		ge1/5	No	
Mirror		ge1/6	No	
DDM Information		ge1/7	No	
MAC Binding		ge1/8	No	
MAC Filter     VLAN Configuration		ge1/9	No	
VLAN Configuration     SNMP Configuration		ge1/10	No	
ACL Configuration     QOS Configuration	Refresh	Protected Port	Unprotected Port Help	]
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Figure 22 protected port page

#### (7) Port Learning restrain page

Figure 23 is the port learning restrain page. This page used to restrict the port can learn of the MAC address of the number, range is 0-8191. The default value is 8191, also is the maximum that the port is not configured the learning restrain

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	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	00 00 9 10		<ul><li>link up</li><li>disable</li><li>link down</li></ul>
🖼 Switch		Lea	rn Limit	<b></b>
<ul> <li>System Configuration</li> <li>Port Configuration</li> <li>Common Configuration</li> <li>Port Statistics</li> <li>Port Statistics</li> <li>Flow Control</li> <li>Broadcast Storm</li> <li>Port Ratelimit</li> <li>Protected Port</li> </ul>	Port: 🗧 🗧	Dearn: 0 (0-8191) Refresh Apply Port Name	Cancel Limit Help	
Learn Limit		ge1/1	8191	
Port Trunking		ge1/2	8191	
Mirror		ge1/3	8191	
DDM Information		ge1/4	8191	
MAC Binding		ge1/5	8191	
MAC Filter		ge1/6	8191	
VLAN Configuration		ge1/7	8191	
SNMP Configuration		ge1/8	8191	
ACL Configuration     QOS Configuration		ge1/9	8191	
		ge1/10	8191	-
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Figure 23 Port Learning restrain page

#### (8) Port Trunking configuration page

Figure 24 is the port trunking configuration page. This page allows the user to configure the port trunking. This page consists of four parts: port trunking ID selection, port trunking method selection, configurable ports and group of members' port.

To create or modify the port trunking, the user needs to select a port trunking ID, port trunking ID from 1 to 8. The user clicks the list box the appropriate port trunking ID, the port trunking of information displayed in the group port. To create a Trunk group, select the appropriate ID in the port trunking ID, click the button "Trunk ID Settings." To set the port trunking method, select one port trunking method, click the button "polymerization Settings." To increase the trunking ports, the port can be configured to select the trunking port in the configurable, click on " member port =>" "key. Aggregation from the existing port to remove a port group member ports in the trunking port selected, click on " unmenber port<="key"."

In page configuring process, at least one Trunk has been established then polymerization settings can take effect; configured Trunking method is also applied to all on the Trunk groups; in that already exist on the Trunk can add or remove Port members; in the absence of the port members situation can delete a Trunk Group.

The switch provides six types of port aggregation: based on the source MAC address, based on the destination MAC address, based on the source and destination MAC addresses, based on the source IP address, based on the destination IP address, based on the source and destination IP addresses.

The switch supports a maximum of eight port aggregations. Up to eight trunks can be configured, and each group can aggregate up to eight ports.

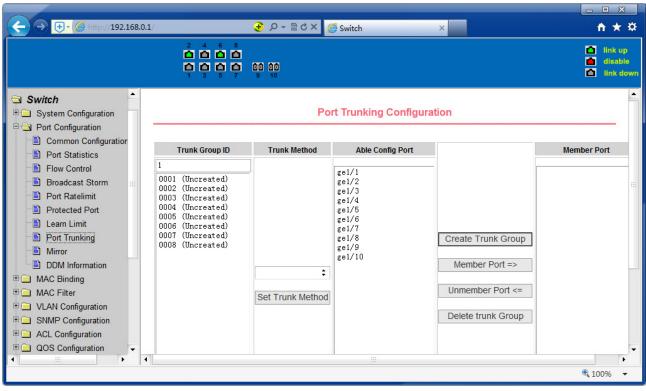


Figure 24 Port Trunking configuration page

#### (9) Port mirroring configuration page

Figure 25 is the port mirroring configuration page. The page allows users to configure port mirroring. Port mirroring through the mirror port to monitor the data packets of being mirrored output port and the data packets of being mirrored input port. Mirroring Port can only choose one, being mirrored output port and being mirrored input port can select multiple. This page consists of four components: monitor port, configurable port, monitoring direction and mirror configuration information. When you start to configure a mirror port, firstly configured mirroring port from monitor ports, mirror ports can only have one, and then select the mirror port from the configurable port, select the monitor direction, and press the application key to entry into force, the results is displayed in the mirrored configuration.

When choose the RECEIVE in direction of monitor, said monitor data packets received, TRANSMIT, said monitor data packets sent, BOTH that monitor all data sent and received packets, NOT\_RECEIVE to cancel monitoring received data packets, NOT\_TRANSMIT to cancel monitor send data packets, NEITHER cancels monitor data packets received and sent, that is canceling monitor port.

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System Configuration		Port Mirror	Configuration	
Common Configuration	Mirror Port	Able Config Mirrored Ports	Mirror Direction	Mirror Config Info
<ul> <li>Port Statistics</li> <li>Flow Control</li> <li>Broadcast Storm</li> <li>Port Ratelimit</li> <li>Protected Port</li> <li>Learn Limit</li> <li>Port Trunking</li> <li>Mirror</li> <li>DDM Information</li> <li>MAC Binding</li> <li>MAC Filter</li> <li>VLAN Configuration</li> <li>SNMP Configuration</li> <li>ACL Configuration</li> <li>QOS Configuration</li> </ul>	(Mirror port name like: ge1/1)	ge1/1 ge1/2 ge1/3 ge1/5 ge1/6 ge1/7 ge1/8 ge1/9 ge1/10	\$	
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Figure25 Port mirroring configuration page

# 5. MAC binding

# (1) MAC binding configuration page

Figure 26 is the MAC binding configuration page. This page is used to achieve the port and MAC address binding.

MAC entries on the page is used to enter the MAC address binding, VLAN ID entry is used to enter the MAC address of VLAN

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		<ul> <li>link up</li> <li>disable</li> <li>link down</li> </ul>
Switch     System Configuration     Port Configuration     MAC Binding     MAC Binding Configure     MAC Auto Binding     MAC Filter     VLAN Configuration     SNMP Configuration     ACL Configuration     ACL Configuration     IP Basic Configuration     MSTP Configuration     MSTP Configuration     IGMP SNOOPING Config     GMRP Configuration     EAPS Configuration     RMON Configuration     Cluster Management	MAC Bind Configuration   Port:     MAC Address     VLAN ID     (MAC Address Format: HHHH.HHHH.HHHHH)     MAC Address     VLAN ID     Refresh     Select-all     Apply     Delete     Help	
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Figure 26 the MAC binding configuration page

#### (2) MAC binding automatic conversion page

Figure 27 is the MAC binding automatic conversion page. This page is used to achieve the port MAC address auto-binding. Shows the hardware switch on the lay 2 the exist port dynamic MAC address and affiliated VLAN. Can choose one of the entry and convert it into static binding.

← → ⊕ < @ http://192.168.0.	1/	<u> </u>
		<ul> <li>Iink up</li> <li>disable</li> <li>Iink down</li> </ul>
Switch System Configuration System Configuration MAC Binding MAC Binding MAC Binding Configuration MAC Filter SNMP Configuration ACL Configuration ACL Configuration ACL Configuration AAA Configuration AAA Configuration GAAA Configuration GAAA Configuration GAAA Configuration GAAA Configuration CAAA CONFIGURATION CAAAA CONFIGURATION CAAAA CONFIGURATION CAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	MAC Auto Bind          Port: <ul> <li></li></ul>	
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Figure 27 the MAC binding automatic conversion page

#### 6. MAC filtering

#### (1) MAC filtering configuration page

Figure 28 is the MAC filtering configuration page. This page is used to configure the ports on the MAC address filtering.

MAC entries on the page is used to enter the MAC address filtering, VLAN ID entry is used to enter the MAC address affiliated VLAN.

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		<ul><li>Ink up</li><li>disable</li><li>Ink down</li></ul>
Switch  System Configuration  Port Configuration  MAC Binding  MAC Filter  MAC Filter  MAC Filter Configuration  MAC Auto Filter  ACL Configuration  ACL Configuration  ACL Configuration  AAA Configuration  Culster Management	MAC Filter Configuration   Port:     MAC Address     VLAN ID     (MAC Address Format: HHHH.HHHHH.HHHHH)     MAC Address     VLAN ID     Refresh     Select-all     Apply     Delete     Help	
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Figure 28 the MAC filtering configuration page

## (2) MAC filtering automatic conversion page

Figure 29 is the MAC filtering automatic conversion page. This page is used to achieve the port MAC address auto-binding.

Shows the hardware switch on the lay2 the exist port dynamic MAC address and affiliated VLAN. Can choose one of the entry and convert it into static filtering configuration

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Switch System Configuration NaC Binding MAC Bilter MAC Filter Configuration MAC Filter Configuration NAC Filter Configuration ACL Configuration ACL Configuration ACL Configuration AAA Configuration AAA Configuration AAA Configuration GMSTP Configuration GMSTP Configuration GMSTP Configuration GMSTP Configuration CAAA CONFIGURATION CAAAA CONFIGURATION CAAAA CONFIGURATION CAAAA CONFIGURATION CAAAA CONFIGURATION CAAAA CONFIGURATION CAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	Port: <ul> <li></li></ul>	
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Figure 29 the MAC filtering automatic conversion page

## 7. VLAN Configuration

### (1) VLAN information page

Figure 30 shows the current VLAN information page. This page is read-only page displays the current VLAN configuration information I, including the VID, state and port members. Select VLAN from the drop-down VID, shows the port information of the Port VLAN members.

A port may not be a member of VLAN, which can be VLAN-tagged or untagged members. The meanings of characters please see the following info:

- t tagged the port is the VLAN tagged member
- u untagged the port is the VLAN untagged member

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	00				<ul> <li>link up</li> <li>disable</li> <li>link down</li> </ul>
Switch  System Configuration  Port Configuration  MAC Binding  MAC Filter			current VLAN	VLAN Information Is. The list Displays up to 30 VLANs. If you select a VLAN in the drop-or- ed VLAN but not more than 30 VLANs.)	
VLAN Configuration     VLAN Information	vlan1 🗘			(t=tagged member, u=untagged	I member)
VLAN Configuration	VID	VLAN Name	State	Port Member	
VLAN Port Configuration ACL Configuration ACL Configuration COS Configuration AAA Configuration AAA Configuration AAA Configuration GMRP Configuration GMRP Configuration AAS Configuration AAA Configuration AAA Configuration AAA Configuration AAA Configuration AAA Configuration	1	vlan1	active	[u]ge1/1 [u]ge1/2 [u]ge1/3 [u]ge1/4 [u]ge1/5 [u]ge1/6 [u]ge1/7 [u] ge1/9 [u]ge1/10 Refresh Help	ge1/8 [u]
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Figure 30 VLAN information page

## (2) Static VLAN configuration page

Figure 31 is the static VLAN configuration page that allows users to create VLAN.

If you want to create a new VLAN, the user input VID on activity line, ranging from 2 to 4094. VLAN name is generated depend on VLAN ID and cannot be modified. Click Apply button, then the list box displays the user-created VLAN's VID and VLAN name. Switch by default created VLAN1, and VLAN1 cannot be removed

If you want to delete a VLAN, the user needs to click the appropriate VLAN of the list box. The VLAN will be displayed in the activity line, click the Remove (Delete) key to delete the VLAN, the same time, the information of the VLAN to remove from the list box.

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Switch     System Configuration     Port Configuration		Static VLAN	Configuration	-
E 🔁 MAC Binding	VID		VLAN Name	
🗉 🧰 MAC Filter	1		vlani	
Configuration	vlan1			
VLAN Information				
VLAN Port Configurati				
SNMP Configuration				
ACL Configuration				
QOS Configuration				
E 📄 IP Basic Configuration				
AAA Configuration				
MSTP Configuration				
IGMP SNOOPING Config				
GMRP Configuration     EAPS Configuration				
RMON Configuration				
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Figure 31 the static VLAN configuration page

## (3) VLAN port configuration page

Figure 32 is a VLAN port configuration page, which is used to configure the VLAN port configuration and display results. This page mainly consists of eight parts: port, mode, all current VLAN, port-owned VLAN, key "default VLAN =>", "tagged =>", "untagged =>" and "non-members =>".

Port is defined a designated port that will configure the VLAN

Mode Access designated the VLAN mode as the ACCESS mode, under this mode, the port default VLAN is the untagged member of VLAN1, the port's default VLAN is 1. Hybrid specified port VLAN mode HYBRID model, in this mode, the port default VLAN is the untagged member of VLAN1, the port's default VLAN is 1. Trunk specified port VLAN mode is TRUNK mode, in which the port VLAN mode, the default is VLAN1 a tagged member of the port's default VLAN is 1.

All current VLAN that has been created VLAN, also it's can be configured VLAN, the user from the list select VLAN, can be multiple-choice.

VLAN Port-owned shows the results of VLAN port configuration, [p] indicates that the port VLAN is the default VLAN, [t] that the port is a VLAN tag members, [u] that the port is not tagged VLAN member. When you remove VLAN, the user from the list, select the VLAN, can be multiple-choice. Button "default VLAN =>" to configure port the default VLAN, selected one VLAN from the current all the VLAN.

Button "tagged =>" Configured port is designated as a tagged member of VLAN, selected one or more VLAN from the current all VLAN.

Button "untagged =>" Configure VLAN port is a designated member of the untagged, selected one or more VLAN from the current all VLAN.

Button "non-members <= to delete the port from the specified one or more of the VLAN, no longer a member of the VLAN, from the port affiliated VLAN to selected one or more VLAN.

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	2 4 <b>1</b> 1 3	00			<ul> <li>Ink up</li> <li>disable</li> <li>Ink down</li> </ul>
Switch System Configuration Port Configuration			VLAN Port	Configuration	
MAC Binding			(p=defaul	t VLAN member, t=tagged	member, u=untagged member)
MAC Filter	Port	Mode	Current VLAN		Port Members
<ul> <li>VLAN Configuration</li> <li>VLAN Information</li> <li>VLAN Configuration</li> <li>VLAN Configuration</li> <li>SNMP Configuration</li> <li>ACL Configuration</li> <li>QOS Configuration</li> <li>IP Basic Configuration</li> <li>AAA Configuration</li> <li>MSTP Configuration</li> <li>IGMP SNOOPING Config</li> </ul>	÷	Access 🛟	vlani	Default VLAN => tagged => untagged =>	
GMRP Configuration     EAPS Configuration     RMON Configuration	•			unMember <=	€ 100% -

Figure 32 The VLAN port configuration page

### 8. <u>SNMP Configuration</u>

## (1) SNMP share body configuration page

Figure 33 is a shared body of SNMP configuration page that allows users to configure the switch common body's name and read and write access, A total of 8 entries can be configured

By default, the switch there is a share name as named public, the common body is read-only access. With this correspondence, the activities of this page is only one entry, shared body names are public, access is read-only access. When the switch through SNMP for network management, you need to configure a read-write permissions to the shared body.

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		6 8		<ul> <li>☐ link up</li> <li>disable</li> <li>☐ link down</li> </ul>
Switch     System Configuration     Port Configuration		SNMP Com	munity Configuration	
MAC Binding     MAC Filter	Item	Community Name	Read/Write	State
VLAN Configuration     SNMP Configuration     Community Name	New ‡	public Refresh App	ReadOnly Delete Help	active
TRAP Target      ACL Configuration      QOS Configuration				
<ul> <li>QOS Configuration</li> <li>IP Basic Configuration</li> </ul>				
AAA Configuration     MSTP Configuration				
GMRP Configuration     GAPS Configuration				
RMON Configuration				
Cluster Management				
http://192.168.0.1/fs/doc/protected/Sn	mpCommunityCfg.ht	ml		🔍 100% 🛛 🗸

Figure 33 a shared body of SNMP configuration page

## (2) TRAP target configuration page

Figure 34 is the TRAP target configuration page that allows users to configure the workstation to receive TRAP messages as well as the IP address of TRAP protocol packets of some of the parameters.

In the configuration entry, the name used to enter the TRAP name, IP address used to enter the target address, SNMP version used to select the version of the TRAP packet, if you set successful, it will show in the state to active. If the configuration was successful, SNMP TRAP functions will take effects, in the event of link up or link down, the switch will automatically send a TRAP packet to the target address

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Switch System Configuration Port Configuration		TRAP Target Configuration	
<ul> <li>MAC Binding</li> <li>MAC Filter</li> <li>VLAN Configuration</li> <li>SNMP Configuration</li> <li>Community Name</li> <li>TRAP Target</li> <li>ACL Configuration</li> <li>QOS Configuration</li> <li>IP Basic Configuration</li> <li>AAA Configuration</li> <li>MSTP Configuration</li> <li>IGMP SNOOPING Config</li> <li>GMRP Configuration</li> <li>EAPS Configuration</li> <li>RMON Configuration</li> <li>Cluster Management</li> </ul>	Item Name	Transmit IP Address       Refresh     Apply       Delete     Help	SNMP Version State
			€ 100% <b>-</b>

Figure 34 the TRAP target configuration page

## 9. ACL Configuraion

## (1) IP Standard ACL configuration page

Figure 35 is the IP standard ACL configuration page. Users can through this page to build ACL standard IP-rule base. User can select an ACL group number, in the group to create one or more rules. In a rule can match only the source IP address field (with mask). The standard IP rules to control the source IP address packet forwarding.

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	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	<ul> <li>Iink up</li> <li>disable</li> <li>Iink down</li> </ul>
Switch System Configuration System Configuration AC Dinding AC Binding AC Binding AC Filter SNMP Configuration SNMP Configuration ACL Configuration Extended IP Extended IP EXtended IP ACL Information ACL Reference ACL Reference ACL Reference ACL Configuration AAA CONFIGURACE AAAA CONFIGURACE AAAA CONFIGURACE AAAA CONFIGURACE AAAA CONFIGURACE AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	ACL Standard IP Group Num: 1 Source IP Address Source Wildcard (e.g.: If input Source IP Address 192.168.1.2, ACL want to control 192.168.1.0, then Wildcard should be 0.0.0.255) O Deny O Permit Group Num Deny/Permit Source IP Address Source Wildcard Refresh Select-all Add Delete Help	
		🔍 100% 🛛 🗸

Figure 35 the IP standard ACL configuration page

Users to configure the rules, the source IP address must be in with a mask, the rule can match the collection of IP addresses. The address mask is use anti-code, if the rule were to match the IP address range 192.168.0.0 to 192.168.0.255, then the IP address can be

192.168.0.1, and its mask of 0.0.0.255.

Users to configure the rules, each rule must have a filter mode: allow or deny. The user to create a rule in the group, the system will automatically give the rule a rule number, when to delete a rule in the group 1 rules, other rules remain unchanged, the system will automatically give the rule a rule group sort. If the user wants to delete the entire rule set, you can first select all, and then click the delete key.

### (2) IP Extended ACL configuration page

Figure 36 is the IP extended ACL configuration page. The extended IP group is an extension of the standard IP rules. Control the packet forwarding via source IP, Destination IP, IP protocol type and service port.

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		3			<ul><li>Ink up</li><li>disable</li><li>Ink down</li></ul>		
Switch  System Configuration  Port Configuration  MAC Binding  MAC Filter	ACL Extended IP Group	ACL Extended IP Configure					
VLAN Configuration     SNMP Configuration     ACL Configuration     Standard IP     Extended IP     MAC IP	Source IP Destination IP Protocol Type	ip tcp	Source Wildcard Destination Wildcard				
MAC ARP     ACL Information     ACL Reference     QOS Configuration     IP Basic Configuration	Source Port	ftp(tcp) ftp-data(tcp)	Destination Port	ftp(tcp) ftp-data(tcp)			
<ul> <li>AAA Configuration</li> <li>MSTP Configuration</li> <li>IGMP SNOOPING Config -</li> </ul>	should be 0.0.0.255	dress 192.168.1.2, A ; The selected Protoc	syn rst psł CL want to control 192.168 ol Type and Source Port is the udo nort: If the Protoc	3.1.0, then Wildcard in one-to-one	€ 100% ▼		

Figure 36 the IP Extended ACL configuration page

## (3) MAC IP ACL configuration page

Figure 37 is the MAC IP ACL configuration page. IP MAC group can be the IP packet source and destination MAC address and source and destination IP address control.

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		00 00 9 10			<ul><li>Iink up</li><li>disable</li><li>Iink down</li></ul>
Switch System Configuration Port Configuration MAC Binding	ACL Extended IP Group Num:		CL Extended IP Configu	ire	
MAC Filter     VLAN Configuration     SNMP Configuration     ACL Configuration     Standard IP	Source IP		Source Wildcard Destination Wildcard		
Extended IP     MAC IP     MAC ARP     ACL Information	Protocol Type	ip tcp			_
ACL Reference     QOS Configuration     IP Basic Configuration     AAA Configuration	Source Port	ftp(tcp) ftp-data(tcp)	Destination Port	ftp(tcp) ftp-data(tcp)	
MSTP Configuration     IGMP SNOOPING Config	TCP Control Flag (e.g.: If input IP Address	5 192.168.1.2, ACI	syn rst psh	.1.0, then Wildcard	-
					🔍 100% 🛛 🔻

Figure 37 the IP Extended ACL configuration page

### (4) MAC IP ACL configuration page

Figure 38 is the MAC IP ACL configuration page, IP MAC group can be the IP packet source and destination MAC address and source and destination IP address control.

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🗲 🔶 🕂 🖉 http://192.168.0.1	1/	- Q 😌	₽¢×	🦲 Switch		×			<b>†</b> 7	t #
	$\begin{array}{c} 2 & 4 & 6 \\ \bigcirc & \bigcirc & \bigcirc & \bigcirc \\ 1 & 3 & 5 \\ \end{array}$	۵							Link disa Link	
<ul> <li>Switch</li> <li>System Configuration</li> <li>Port Configuration</li> <li>MAC Binding</li> <li>MAC Filter</li> <li>VLAN Configuration</li> </ul>	ACL MAC IP Group Nut	m: 700 🗘		ACL MA	CIP Con	figure		 		
SNMP Configuration  ACL Configuration  Standard IP  Extended IP  MAC IP  MAC ARP	Source MAC Source IP Destination IP VLAN ID			Source Destina (0-409 VLAN)	MAC Wildc IP Wildcar tion IP Wil 4, 0 means	rd Idcard 5 all				
ACL Information     ACL Reference     QOS Configuration     IP Basic Configuration     AAA Configuration     MSTP Configuration     IGMP SNOOPING Config	(e.g.: If input IP Ac should be 0.0.0.25 format: HHHH.HHH ⊙ Deny ○ Permit Group Num	5; MAC Addre					Address W	Destination IP Wildcard	VLAN ID	
									۹ 100%	•

Figure 38 the IP Extended ACL configuration page

## (5) MAC ARP ACL configuration page

Figure 39 is the MAC ARP ACL configuration page. ARP group can be the type of the operation of the ARP packet, the sender MAC and the sender IP control.

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Switch  System Configuration  Port Configuration  MAC Binding  MAC Filter  VLAN Configuration  SNMP Configuration  SACL Configuration  ACL Configuration  ACL P  MAC IP  MAC ARP  ACL Information  ACL Reference  QOS Configuration  AAA Configuration  MSTP Configuration  MSTP Configuration		Im: 1100 ¢	ne, MAC Address and Sender MAC	d 168.1.0, then Wi MAC Address W Sender MAC Wildcard	Sender IP Wildcard
IGMP SNOOPING Config →					€ <b>100%</b> ▼

Figure 39 the IP Extended ACL configuration page

## (6) ACL information page

Figure 40 is the ACL information page, which displays the current ACL rules configured in all the information.

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Switch  System Configuration  MAC Binding  MAC Binding  MAC Filter  SULAN Configuration  SUMP Configuration  Standard IP  Katended IP  MAC IP  MAC AP  ACL Information  ACL Reference  QOS Configuration  AAA Configuration  MSTP	Refresh       Help	
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Figure 40 is the ACL information page

#### 10. <u>QoS Configuration</u>

## (1) QoS Apply Configuration Page

Figure 41 is a QoS Apply configuration page.

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<b>•</b>	000		disable
Constants A			
Switch			
System Configuration		QOS Apply	
Port Configuration			
MAC Binding     MAC Filter     Port:	COS Type: NO Q	OS 🗘 User Priority: 0 🗘	
VLAN Configuration	• Gos type a	vo voser Phoney. • •	
SNMP Configuration		Refresh Apply	
ACL Configuration			
🖹 🚍 QOS Configuration 📰	Port Name	QOS Type	User Priority
QOS Apply	ge1/1	NO QOS	0
QOS Schedule	ge1/2	NO QOS	0
🗉 🧰 IP Basic Configuration	ge1/3	NO QOS	0
🗉 🧰 AAA Configuration	ge1/4	NO QOS	0
MSTP Configuration	ge1/5	NO QOS	0
IGMP SNOOPING Config	ge1/6	NO QOS	0
GMRP Configuration	ge1/7	NO QOS	0
EAPS Configuration	ge1/8	NO QOS	0
RMON Configuration	ge1/9	NO QOS	0
Cluster Management	ge1/10	NO QOS	0
http://192.168.0.1/fs/doc/protected/QosApply.html			<b>a</b> 100% 🗸

Figure 41 QoS Apply configuration page

## (2) QoS Schedule Configuration Page

Figure 42 is a QoS Schedule configuration page.

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	1	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	00 00 9 10								c up able k dov
Switch					QOS S	chedule					
<ul> <li>Port Configuration</li> <li>MAC Binding</li> <li>MAC Filter</li> <li>VLAN Configuration</li> </ul>	Port:	\$									
SNMP Configuration	QOS Sch	edule Mode: WR	R ‡								
ACL Configuration	Weight o	f queue 0 (1~127	<b>):</b> 0		Weight of que	ue 1 (1~127):	0				
QOS Configuration	Weight o	of queue 2 (1~127	<b>):</b> 0		Weight of que	ue 3 (1~127):	0				
QOS Apply	Weight o	f queue 4 (1~127	): O		Weight of que	ue 5 (1~127):	0				
IP Basic Configuration	Weight o	f queue 6 (1~127	): O		Weight of que	ue 7 (1~127):	0				
AAA Configuration     MSTP Configuration     IGMP SNOOPING Config					Refresh	Apply					
GMRP Configuration	Port Name	QOS Schedule Mode	Weight of queue 0	Weight of queue 1	Weight of queue 2	Weight of queue 3	Weight of queue 4	Weight of queue 5	Weight of queue 6	Weight of queue 7	
EAPS Configuration	ge1/1	WRR	40eue 0 1	2	4	8	16	32	64	127	
RMON Configuration     Cluster Management	ge1/2	WRR	1	2	4	8	16	32	64	127	
- Cluster Management -	ge1/3	WRR	1	2	4	8	16	32	64	127	

Figure 42 QoS Schedule configuration page

## 11. IP Basic Configuration

## (1) VLAN Interface Configuration Page

Figure 43 is a VLAN interface configuration page, users can configure the VLAN interface through this page, delete VLAN interfaces, configure the interface IP address, remove the interface IP address, and view interface information. VLAN already exists can only be set when the interface can only be configured on the interface set interface address.

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				<ul> <li>link up</li> <li>disable</li> <li>link down</li> </ul>
Switch Configuration Port Configuration		IP Address Configuration		
<ul> <li>MAC Binding</li> <li>MAC Filter</li> <li>VLAN Configuration</li> <li>SNMP Configuration</li> <li>ACL Configuration</li> <li>QOS Configuration</li> <li>IP Basic Configuration</li> <li>IP Address Configuration</li> <li>ARP Configuration and</li> <li>Host Static Router Con</li> <li>AAA Configuration</li> <li>MSTP Configuration</li> <li>IGMP SNOOPING Config</li> <li>GMRP Configuration</li> <li>EAPS Configuration</li> <li>RMON Configuration</li> </ul>	Line Item     VLAN ID       New ‡     0       1     1       Refresh     Create       Create/Modify IP Action		MAC Address 00a7.c1d3.3a01 /LAN Interface s Help	
				🔍 100% 🔻

Figure 43 VLAN interface configuration page

Switch switch in the default have a VLAN1 interface, the interface can not be deleted. One can only configure a VLAN interface.

## (2) ARP configuration and display page

Figure 44 is the ARP configuration and display page, this page can display all of the information of the ARP table switch, while users can configure a static ARP entries on this page, delete ARP entries, and revised the dynamic ARP table entry to a static ARP table entry.

When a user configure a static ARP entry, the need to enter the IP address and MAC address, MAC address must be a unicast MAC address, and then click Add button.

When a user delete an ARP entry, you can choose to delete an IP-ARP table entry, remove a segment of the ARP table entry, delete all of the ARP table entry, delete all dynamic ARP table entries and delete all of the static ARP table entry. For the deletion of an IP-ARP table entries, or delete a segment of the ARP table entry required to enter in the input box, specify the IP address or IP network segment. Then click the Delete button

When dynamic ARP table entry was revised to a static ARP table entry, you can choose to a particular network segment or all of the dynamic ARP table entry was revised to a static ARP table entry. For the situation to a network segment is required in the input box, enter the specified network segment. And then click Apply button

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Switch  System Configuration  NAC Einding  AAC Einding  AAC Filter  AAC Configuration  AAC Configuration  AAC Configuration  AAC Configuration  AAA Configuration  A	ARP Configure And Display     Static ARP Item configuration:   IP Address     Add     Add     Delete ARP Item:   ARP Item   IP Address (IP Network Segment)     Delete     Change Dynamic ARP List Item into Static ARP List Item:   ARP List Item   IP Network Segment	
		🔍 100% 🔻

Figure 44 the ARP configuration and display page

## (3) Host Static Routing configuration page

Figure 45 is the host static route configuration page, the user can through this page to add, delete static routing switch hosts. By default, the switch is not configured to host a static route, the user can configure the default route through this page, that is the purpose of address/subnet prefix is 0.0.0/0 routing

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	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			<ul><li>Ink up</li><li>disable</li><li>Ink down</li></ul>
Switch  System Configuration  Port Configuration	На	st Static Route Configura	ation	
MAC Binding     MAC Filter     VLAN Configuration     SNMP Configuration	Target Address/Subnet perfix Next Hop			
ACL Configuration	Item Target Addre per		Distance	State
QOS Configuration     IP Basic Configuration     IP Address Configuratio     ARP Configuration and     Host Static Router Con     AAA Configuration     MSTP Configuration     IGMP SNOOPING Config     GMRP Configuration     EAPS Configuration     RMON Configuration	Refr	esh Apply Delete	Help	
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Figure 45 the host static route configuration page

#### 12. Certification. Authorization. Accounting (AAA) configuration

#### (1) Radius Configuration Page

Figure 46 is the Radius configuration page, users can configure with the Radiusrelated information, you can set information includes:

- 1. Be sure to set the Radius server's IP address before do the authentication and accounting in this field
- 2. Optional Radius server IP address, if there is spare Radius server can set this field.
- 3. Authentication UDP port, the default value is 1812, the user generally do not need to modify this field.
- 4. Whether to activate the , the default is to start, and when you do authentication and accounting in general to start charging.
- 5. Accounting UDP port, the default value is 1813.
- 6. Shared secret key is used to setting the shared encryption password between the switch and the Radius server, so be sure to set the authentication and accounting in this field, and with the same settings on the Radius server.
- 7. Vendor-specific information, the users typically do not need to modify this field.
- 8. NAS ports, NAS port type, NAS type of service, these three values do not change in general.
- 9. Whether to on or off the roaming feature of Radius.

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Switch  System Configuration  Port Configuration	Radius Co	onfiguration	_
MAC Binding     MAC Filter	Primary Server	0. 0. 0. 0	
VLAN Configuration     SNMP Configuration	Option Server UDP Port	0. 0. 0. 0 1812	
ACL Configuration     QOS Configuration     IP Basic Configuration	Accounting Accounting UDP Port	Enable 🗧 t 1813	
AAA Configuration	Shared Key Vendor		
Radius Configuration     802.1x Configuration     802.1x Port Configurat	NAS Port NAS Port Type	50003	
■ 802.1x Poil Computat ■ 802.1x User Auth-Infor ■ MSTP Configuration	NAS Service Type	2	
GMP SNOOPING Config     GMRP Configuration	Roaming Refresh Ap	Disable 🗧	
		<b>a</b> 100%	6 🗸

Figure 46 the Radius configuration page

### (2) 802.1x Configuration Page

Figure 47 is the 802.1x configuration page, users can configure 802.1x related information on this page, including:

- 1. Whether to activate the 802.1x protocol, when doing authentication and accounting must be to start 802.1x protocol.
- 2. Switch is to adopt a common authentication method or the expansion of authentication.
- 3. Whether to open re-authentication function, the default is not open. When you do authentication and accounting based on the actual circumstances. Open the re-authentication feature will make users more reliable when using the authentication and accounting, but it will slightly increase the network traffic.
- 4. Setting re-certification time interval, only to re-open the case of authentication to be valid, the default is 3600 seconds, when you do authentication and accounting based on the actual situation to set the value, but the value is not too small.
- 5. Quiet Period Timer, users typically do not need to modify this field.
- 6. Tx-Period Timer, users typically do not need to modify this field.
- 7. Server timeout timer, users typically do not need to modify this field.
- 8. Supplicant timeout timer, users typically do not need to modify this field.
- 9. Max Request number, users generally do not need to modify this field.
- 10. Showing Reauth Max size.
- 11. Client Version, the client version number.
- 12. Check Client; whether the certification passed then examine the client's regular flow of packets.

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	2 4 6 8 0 0 0 1 3 5 7 9 10				<ul> <li>link up</li> <li>disable</li> <li>link down</li> </ul>
Switch Configuration Port Configuration		802.1x Co	nfiguration		
MAC Binding     MAC Filter     VLAN Configuration		802.1x Reauthentication	Disable 🛟		
SNMP Configuration     ACL Configuration     QOS Configuration		Reauthentication Period Quiet Period	3600 60	(Sec) (Sec)	
IP Basic Configuration     AAA Configuration		Tx-Period Server timeout	30 10	(Sec) (Sec)	
<ul> <li>Tacacs+ Configuration</li> <li>Radius Configuration</li> <li>802.1x Configuration</li> </ul>		supplicant timeout Max Request	30	(Sec)	
<ul> <li>802.1x Port Configurat</li> <li>802.1x User Auth-Infor</li> <li>MSTP Configuration</li> </ul>		Reauth Max Client Version	3 2.0 Enable ‡		
GMP SNOOPING Config     GMRP Configuration		Check Client Refresh Ap	Piply Help		
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Figure 47 the 802.1x configuration page

## (3) 802.1x port configuration page

Figure 48 is the 802.1x port configuration page, the user through this page to configure the support 802.1x port mode and hosts of the largest, at the same time you can view each port 802.1x configuration. 802.1x port model includes four types: N/A State, Auto state, Force-authorized state and Force-unauthorized state. When a port needs to do 802.1x Authentication, need to set Auto state, if not do authentication to access the network, to set N/A state, the other two states are rarely used in practical applications

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	2 4 6 8 <b>1 1 1 1 1</b> <b>1 3</b> 5 7 9 10		ink dis ink
Switch System Configuration Port Configuration		802.1x Port Configuration	
MAC Binding	Port Num	Port Mode	Support Host Num
VLAN Configuration	\$	÷	0
SNMP Configuration	ge1/1	N/A	256
ACL Configuration	ge1/2	N/A	256
QOS Configuration	ge1/3	N/A	256
P Basic Configuration	ge1/4	N/A	256
AAA Configuration	ge1/5	N/A	256
Tacacs+ Configuration	ge1/6	N/A	256
Radius Configuration	ge1/7	N/A	256
802.1x Configuration	ge1/8	N/A	256
802.1x Port Configurat	ge1/9	N/A	256
802.1x User Auth-Infor	ge1/10	N/A	256
MSTP Configuration		Refresh Apply Help	
IGMP SNOOPING Config			
GMRP Configuration			

Figure 48 the 802.1x port configuration page

Doing 802.1x authentication, port access, the default maximum host number is 100, the user can modify this field, the biggest support to the 100.

### (4) 802.1x user authentication information page

Figure 49 is a 802.1x user authentication information page, the user can see through this page, under a certain port access for all users of the state information

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	<u>o r</u>		0 00 10			<ul> <li>☐ link up</li> <li>☐ disable</li> <li>☐ link down</li> </ul>
Switch System Configuration Port Configuration			802	2.1x User Auth-Info	rmation	
MAC Binding     MAC Filter     VLAN Configuration	Port:	\$	Port Mode:	Accepted Host Num: 0	[	
	User name	MAC Address	Request state	Applicant state Maching state Retry Request Num	Back-End state Maching state Request Num	Retry Request state state
QOS Configuration     IP Basic Configuration				Refresh Help		
AAA Configuration Tacacs+ Configuration Radius Configuration						
Reality Configuration     Solution     Solution     Solution     Solution     Solution     Solution						
B02.1x User Auth-Infor ■ ☐ MSTP Configuration						
■ GMP SNOOPING Config ■ GMRP Configuration →						
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Figure 49 802.1x user authentication information page

### 13. Spanning Tree Protocol configuration

### (1) MSTP global configuration page

Figure 50 is the MSTP global configuration page, through which you can configure some MSTP related information, mainly including:

- Whether to enable MSTP.
- Configure the bridge priority. Devices with lower priority are more likely to be the root bridge.
- Enable BPDU filtering function on the port in the portfast bpdu-filter default state.
- Enable BPDU guard function on the port in the portfast bpdu-guard default state.
- Configure the forwarding delay.
- Configure the interval for sending MSTP Hello packets.
- The errdisable mechanism is started. When a port that starts a BPDU guard receives a BPDU, it starts the errordisable timer. errordisable restarts this port after the configured timeout.
- Configure errordisable timeout time.
- Configure the number of seconds the switch waits to receive spanning tree configuration information before triggering a reconfiguration.
- Configure the number of hops specified before a BPDU is dropped in a domain.

• Start or shut down and cisco compatible spanning tree protocol.

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Switch System Configuration Port Configuration	MSTP Cor	figuration	
MAC Binding     MAC Filter	MSTP	Disable 🛟	
VLAN Configuration	Priority	32768	
SNMP Configuration	Portfast Bpdu-Filter	Disable 💲	
ACL Configuration     QOS Configuration	Portfast Bpdu-Guard	Disable 🗘	
IP Basic Configuration	Forward-Time	15	
🗉 🧰 AAA Configuration	Hello-Time	2	
B MSTP Configuration	Errdisable-Timeout	Disable 🛊	
MSTP Configuration     Port Configuration	Errdisable-Timeout Interval	300	
Port Information	Max-Age	20	
🗉 🧰 IGMP SNOOPING Config	Max-Hops	20	
GMRP Configuration	Cisco-Interoperability	Disable 🛊	
EAPS Configuration	Refresh	Apply	
RMON Configuration			
			🔍 100% 👻

Figure 50 MSTP Global Configuration Page

## (2) MSTP port configuration page

Figure 51 is the MSTP global configuration page. Through this page, you can configure some MSTP related information, mainly including:

- Select the port to be configured.
- Configure a port as a portfast port to enable the port from the blocking state to the forwarding state, bypassing the listening and learning states.
- Open the BPDU filter on the selected port.
- Enable BPDU guard on the selected port.
- Enable the root guard function, and do not accept BPDU packets with a higher priority than the bridge. Specify the switch as the root switch.
- Configure the connection type. Point-to-point: The type of connection is pointto-point, allowing fast transition of the port status. Shared: Connection type is shared, does not allow rapid conversion of port status, to go through the calculation process of 802.1D to determine the status of the port.
- Configure the cist priority of the interface. Range 0-240, can only be a multiple of 16. The default is 128.
- Configure the cist path cost. Range 1-200000000. The default is 20000000. Lower path costs are more likely to be roots.
- Configure the type of protocol packets to be sent.

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	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		<ul> <li>Iink up</li> <li>disable</li> <li>Iink down</li> </ul>
Switch System Configuration	MSTP Port	Configuration	
<ul> <li>MAC Binding</li> <li>MAC Filter</li> <li>VLAN Configuration</li> <li>SNMP Configuration</li> <li>ACL Configuration</li> <li>QOS Configuration</li> <li>IP Basic Configuration</li> <li>AAA Configuration</li> <li>MSTP Configuration</li> <li>MSTP Configuration</li> <li>Port Configuration</li> <li>Port Information</li> <li>IGMP SNOOPING Config</li> <li>GMRP Configuration</li> <li>EAPS Configuration</li> <li>RMON Configuration</li> </ul>	Port Portfast Portfast bpdu-filter Portfast bpdu-guard Root Guard Link-Type Priority Path-Cost Force-Version Refresh	Image: system of the system of th	
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Figure 51 MSTP Port Configuration Page

## (3) MSTP configuration information page

Figure 52 is the MSTP configuration information page, through which you can view some MSTP related information

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	l l		<b>a</b>						ink disa ink
Switch System Configuration Port Configuration MAC Binding MAC Filter VLAN Configuration				MSTI	P All Port II	nformation			
SNMP Configuration	Port	Postfast	Bpdu-Filter	Bpdu-Guard	Root Guard	Link-Type	Priority	Path-Cost	Force-Version
ACL Configuration	ge1/1	Disable	Default	Default	Disable	Point-To-point	128	20000	MSTP
QOS Configuration	ge1/2	Disable	Default	Default	Disable	Point-To-point	128	20000	MSTP
IP Basic Configuration	ge1/3	Disable	Default	Default	Disable	Point-To-point	128	20000	MSTP
AAA Configuration	ge1/4	Disable	Default	Default	Disable	Point-To-point	128	20000	MSTP
MSTP Configuration	ge1/5	Disable	Default	Default	Disable	Point-To-point	128	20000	MSTP
MSTP Configuration	ge1/6	Disable	Default	Default	Disable	Point-To-point	128	20000	MSTP
Port Configuration	ge1/7	Disable	Default	Default	Disable	Point-To-point	128	20000	MSTP
Port Information	ge1/8	Disable	Default	Default	Disable	Point-To-point	128	20000	MSTP
IGMP SNOOPING Config	ge1/9	Disable	Default	Default	Disable	Point-To-point	128	20000	MSTP
GMRP Configuration	ge1/10	Disable	Default	Default	Disable	Point-To-point	128	20000	MSTP
EAPS Configuration     RMON Configuration					Refresh				

Figure 52 MSTP Configuration Information page

## 14. IGMP SNOOPING configuration

#### (1) IGMP SNOOPING configuration page

Figure 53 is the IGMP SNOOPING configuration page, through which you can start IGMP SNOOPING.

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	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	<ul> <li>▲ link up</li> <li>▲ disable</li> <li>▲ link down</li> </ul>
Switch System Configuration Port Configuration MAC Binding MAC Filter VLAN Configuration SNMP Configuration ACL Configuration ACL Configuration ACL Configuration AAA Configuration AAA Configuration AAA Configuration GMSTP Configuration GMSTP Configuration GMSTP Configuration GMSTP Configuration	IGMP SNOOPING Disable : Refresh Apply	
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Figure 53 IGMP SNOOPING configuration page

### (2) IGMP SNOOPING information page

Figure 54 is the IGMP SNOOPING information page, which allows users to view some information about IGMP SNOOPING.

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Switch System Configuration C			Multicast Gro	up Information	
<ul> <li>MAC Binding</li> <li>MAC Filter</li> <li>VLAN Configuration</li> <li>SNMP Configuration</li> <li>ACL Configuration</li> <li>QOS Configuration</li> <li>IP Basic Configuration</li> <li>AAA Configuration</li> <li>MSTP Configuration</li> <li>IGMP SNOOPING Config</li> <li>IGMP SNOOPING Config</li> <li>GMRP Configuration</li> <li>GMRP Configuration</li> <li>EAPS Configuration</li> <li>RMON Configuration</li> <li>Cluster Management</li> </ul>	VLAN ID	Multicast Address	Refr	Member Ports	
					€ 100% <del>-</del>

Figure 54 IGMP SNOOPING Information page

## 15. GMRP configuration

### (1) GMRP Global Configuration Page

Figure 55 shows the GMRP global configuration page. Users can enable GMRP through this page.

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	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	ink up ink up isable ink down
<ul> <li>Switch</li> <li>System Configuration</li> <li>Port Configuration</li> <li>MAC Binding</li> <li>MAC Filter</li> <li>VLAN Configuration</li> <li>SNMP Configuration</li> <li>ACL Configuration</li> <li>ACL Configuration</li> <li>QOS Configuration</li> <li>IP Basic Configuration</li> <li>AAA Configuration</li> <li>MSTP Configuration</li> <li>IBMP SNOOPING Config</li> <li>GMRP Configuration</li> <li>GMRP Configuration</li> <li>GMRP Ports Configuration</li> <li>GMRP State Machine</li> <li>EAPS Configuration</li> <li>RMON Configuration</li> </ul>	Global GMRP Disable : Refresh Apply	
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#### (2) GMRP port configuration page

Figure 56 shows the GMRP port configuration page. You can use this page to enable the GMRP port and view the port information.

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			00		<ul> <li>☐ link up</li> <li>disable</li> <li>☐ link down</li> </ul>
Switch  System Configuration  Port Configuration			GMRP Port	s Configuration	
MAC Binding     MAC Filter     VLAN Configuration     SNMP Configuration	Port:	≎ GMRF	P Status: Disable ♀ Refresh	Apply	
ACL Configuration     QOS Configuration	Port Name	GMRP Status	Join Timer(centiseconds)	Leave Timer(centiseconds)	LeaveAll Timer(centiseconds)
IP Basic Configuration	ge1/1	Disable			
AAA Configuration	ge1/2	Disable			
MSTP Configuration	ge1/3	Disable		<u>199</u>	
IGMP SNOOPING Config	ge1/4	Disable			
GMRP Configuration	ge1/5	Disable			
GMRP Global Configur	ge1/6	Disable			
GMRP Ports Configura	ge1/7	Disable			
GMRP State Machine	ge1/8	Disable			
EAPS Configuration	ge1/9	Disable			
RMON Configuration	ge1/10	Disable			
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Figure 56 GMRP Port Configuration Page

### (3) GMRP state machine page

Figure 57 is the GMRP state machine page. Users can view the GMRP state machine information through this page.

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		ò			<ul> <li>link up</li> <li>disable</li> <li>link down</li> </ul>
Switch System Configuration Port Configuration			GMRP State Macl	hine	
MAC Binding     MAC Filter     VLAN Configuration	Port Name	VLAN ID	Multicast MAC Address	Applicant State	Registrar State
SNMP Configuration     ACL Configuration     QOS Configuration     IP Basic Configuration			Refresh		
AAA Configuration     MSTP Configuration     IGMP SNOOPING Config					
GMRP Configuration					
GMRP State Machine     GMRP State Machin					
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Figure 57 is the GMRP state machine page

### 16. EAPS configuration

### (1) EAPS configuration page

Figure 58 is an EAPS configuration page, through which you can configure some EAPS related information, including:

- Select an EAPS ring number.
- Configure the operating node mode of an EAPS Domain.
- Configure Primary Port of EAPS Domain.
- Configure Secondary Port of EAPS Domain.
- Configure a control VLAN for EAPS Domain.
- Add one or more protected VLANs of the EAPS Domain.
- Configure an EAPS Domain to periodically send HEALTH packets. Hello-timer must be less than fail-time.
- Set the fail-period timer of one EAPS domain to expire.
- Enable or disable compatibility with Extreme devices.
- Whether to enable

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Switch System Configuration Port Configuration		EAPS Configuration		
MAC Binding   MAC Filter	EAPS Ring ID	1 🛟		
VLAN Configuration     SNMP Configuration	Create Status Mode	Not Created		
Configuration COS Configuration COS Configuration	primary port secondary port	÷		***
IP Basic Configuration     AAA Configuration     MSTP Configuration	Control VLAN	0		
IGMP SNOOPING Config     GMRP Configuration	Protected VLANs Hello Time Interval	0	Format: 2,4,6 or 3-10	
EAPS Configuration	Fail Time		S	
EAPS Configuration     EAPS Information	Data Span Extreme Interoperability	Disable 🗧		
RMON Configuration     Cluster Management	Enable Status Refresh	Disable 🗧	emove	
	Reliesh	Create Apply R	emove	€ 100% -

Figure 58 EAPS Configuration Page

## (2) EAPS information page

Figure 59 is an EAPS information page, through which users can view some EAPS related information.

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Switch     System Configuration     Port Configuration     MAC Binding     MAC Filter     VLAN Configuration     SNMP Configuration     ACL Configuration     ACL Configuration     ACL Configuration     AAA Configuration     MSTP Configuration     MSTP Configuration     IGMP SNOOPING Config     GMRP Configuration     EAPS Information     RMON Configuration     Cluster Management	EAPS Information	
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Figure 59 EAPS information page

### 17. <u>RMON configuration</u>

## (1) RMON statistics group configuration page

Figure 60 shows the RMON statistics group configuration page. You can use this page to configure the RMON statistics group. Select a port from the drop-down list to view/configure the RMON statistics group configuration for this port. When not configured, the index number is 0, fill in the correct index number (range 1 to 100), the owner is optional, you can configure RMON statistics group for the port. The statistics table shows the port statistics from the successful configuration.

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	$\begin{array}{c} 2 & 4 & 6 & 8 \\ \hline \bullet & \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet & \bullet \\ 1 & 3 & 5 & 7 \end{array}$	00 00 9 10				<ul><li>link up</li><li>disable</li><li>link down</li></ul>
Switch  System Configuration  An Orthogonal  Mac Binding	Port: ¢	RMON	I SI	tatistics		
MAC Filter     VLAN Configuration     SNMP Configuration     ACL Configuration     QOS Configuration     IP Basic Configuration	Index 0	RMON Statistics       Owner       Refresh       Apply		Delete Help		
AAA Configuration		Stati	istic	s Data		
MSTP Configuration		etherStatsDropEvents	0	etherStatsOctets	0	
IGMP SNOOPING Config		etherStatsPkts	0	etherStatsBroadcastPkts	0	
GMRP Configuration		etherStatsMulticastPkts	0	etherStatsCRCAlignErrors	0	
EAPS Configuration		etherStatsUndersizePkts	0	etherStatsOversizePkts	0	
RMON Configuration		etherStatsFragments	0	etherStatsJabbers	0	
Statistics Configuration		etherStatsCollisions	0	etherStatsPkts64Octets	0	
History Configuration		etherStatsPkts65to127Octets	0	etherStatsPkts128to255Octets	0	
Alarm Configuration		etherStatsPkts256to511Octets	0	etherStatsPkts512to1023Octets	0	
		etherStatsPkts1024to1518Octets	0			-
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Figure 60 RMON statistics group configuration page

## (2) RMON history group configuration page

Figure 62 shows the RMON history group configuration page. You can configure the RMON history group through this page. Select a port from the drop-down list to view/configure the RMON history group configuration for this port. When not configured, the index number is 0, fill in the correct index number (range is 1 to 100), interval, request Buckets, the owner is optional, you can configure the RMON history group for the port. Interval refers to the time interval in seconds that the data is collected. The range is 1-3600. The bucket is the allocated storage size and it indicates how many records are stored. The range is 1-100. The statistics table shows historical data that has been collected since the configuration was successful.

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		<ul> <li>link up</li> <li>disable</li> <li>link down</li> </ul>
Switch  System Configuration  Port Configuration  MAC Binding  MAC Filter	RMON History	
<ul> <li>VLAN Configuration</li> <li>SNMP Configuration</li> <li>ACL Configuration</li> <li>QOS Configuration</li> <li>IP Basic Configuration</li> </ul>	RMON History       Index     0     Interval     0       Request Buckets     0     Owner	
AAA Configuration     MSTP Configuration     IGMP SNOOPING Config     GMRP Configuration     EAPS Configuration	Refresh Apply Delete Help History Data Index Interval DropEvents Octets Pkts BroadcastPkts MulticastPkts CRCAlignErrors UndersizePkts OversizePkts	Fragments la
RMON Configuration	First     Prev     Next     Last       Total:     Opages, Current Page is No. 1	€ 100% ▼

Figure62 RMON history group configuration page

## (3) RMON alarm group configuration page

Figure 62 shows the RMON alarm group configuration page. You can use this page to create or modify an RMON alarm group. Select a configured alarm group from the drop-down list to view/configure its information. Select New to create it. The index number range is from 1 to 60, and the interval range is from 1 to 3600. In seconds, the monitoring object must fill in the MIB node. The comparison method can choose absolute (absolute value) or delta (change amount). In addition, the upper and lower limit valves must be filled in. Value, event index, owner is optional. The alarm value is read-only and shows the sampled value when the alarm was last issued. The event index refers to the index number of the RMON event group and must be configured in advance.

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				00 00 9 10								disable
VLAC Filter     VLAN Configuration     SNMP Configuration     ACL Configuration						RMON Ala	rm					
QOS Configuration     IP Basic Configuration     AAA Configuration	Sequence	Index	Interval		Variable		Sample Type	Alarm Value	Rising Threshold	Falling Threshold	Rising Event Index	Falling Event Index
MSTP Configuration     IGMP SNOOPING Config     GMRP Configuration	New ‡	0	0	Ref	resh	Apply D	absolute 🛟 elete He	0 elp	0	0	0	0
■ EAPS Configuration ■ APS Configuration	Sequence	Index	Interval	Variable	Sample Type	Alarm Value	Rising Threshold		ling shold Ev	Rising /ent Index	Fallin Event In	Owne
Statistics Configuration History Configuration Alarm Configuration Event Configuration Cluster Management Log Management POE Power Control												
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Figure 62 RMON alarm group configuration page

## (4) RMON event group configuration page

Figure 63 is the RMON event group configuration page. Users can create or modify RMON event groups through this page. Select a configured event group from the drop-down list to view/configure its information. Select New to create it. The index number range is from 1 to 60. The description is a character string. Actions can select none (no operation), log (log), snmp-trap (trap trap) or log-and-trap (log and Trap alarm), Community names do not work in this device, owners are optional. The last send time is read-only, showing the last time the event was sent.

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					<ul><li>Iink up</li><li>disable</li><li>Iink down</li></ul>
VLAN Configuration     SNMP Configuration     ACL Configuration		F	RMON Event		
QOS Configuration     IP Basic Configuration     AAA Configuration     MSTP Configuration     IGMP SNOOPING Config	Sequence Index New	Description Refresh Ap	Type none ÷	Last Time Sent           1970/01/01           Help	Owner
<ul> <li>GMRP Configuration</li> <li>EAPS Configuration</li> <li>RMON Configuration</li> <li>Statistics Configuration</li> <li>History Configuration</li> <li>Alarm Configuration</li> <li>Event Configuration</li> </ul>	Sequence Index	Description	Type Community	y Last Time Sent	Owner
Cluster Management Cluster Management Control Control	1				
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Figure 63 RMON Event Group Configuration Page

### 18. Cluster configuration

### (1) NDP configuration page

Figure 64 shows the NDP configuration page. You can use this page to configure NDP. The configurable information includes: selecting the port, enabling the NDP function of the port, enabling the global NDP function, the interval for sending NDP packets, and the aging time of the NDP packets on the receiving device.

For port selection, you can select the port as required and enable the port NDP function. For NDP to operate normally, both global and port NDP must be enabled at the same time.

Set the aging time of the NDP packets sent by the local device to the receiving device. The valid time range is 1-4096 seconds. The default value is 180 seconds. Set the interval for sending NDP packets. The valid time range is 1-4096 seconds and the default is 60 seconds.

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MAC Differ MAC Filter VLAN Configuration SNMP Configuration ACL Configuration QOS Configuration AAA Configuration AAA Configuration GMRP Configuration GMRP Configuration Cluster Configuration Cluster Management NDP Configuration NDP Configuration Cluster Configuration Cluster Configuration Cluster Configuration Cluster Configuration Cluster Configuration Cluster Configuration	ND Port: Port Enable Global Enable Hello-time Aging-time Refrest	180	(1-4096 sec) (1-4096 sec)	
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Figure 64 NDP configuration page

## (2) NTDP configuration page

Figure 65 shows the NTDP configuration page. You can use this page to configure NTDP. The information that can be set includes: selecting the port, enabling the NTDP function of the port, enabling the global NTDP function, the range of the topology collection, the time interval of collecting the regular topology, the delay time of the first port forwarding the packet, and the forwarding of the packet by other ports delay.

For port selection, you can select the port as required and enable the NTDP function on the port. For NTDP to operate normally, both global and port NTDP must be enabled.

The range of topology collection is configured. The valid range is 1-6. In the default configuration, the maximum number of hops from the most distant device to the topology collection device is 3.

Set the interval for collecting the topology collection. The valid range is 0-65535 minutes. The default configuration is 1 minute.

Set the delay for forwarding packets on the first port. The valid range is 1-1000 milliseconds. The default value is 200 milliseconds.

Set the delay for forwarding packets on the first port. The valid range is 1 to 100 milliseconds. The default value is 20 milliseconds.

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				<ul> <li>☐ link up</li> <li>disable</li> <li>☐ link down</li> </ul>
MAC Filter     MAC Filter     VLAN Configuration     SNMP Configuration	N	FDP Configuration	on	
ACL Configuration     QOS Configuration	Port:	\$		
	Port Enable	disable 💲		
AAA Configuration	Global Enable disable 🕏			
MSTP Configuration     IGMP SNOOPING Config	Норѕ 3 (1-6)	(1-6)		
GMRP Configuration	Interval-time	1	(0-65535 min)	
EAPS Configuration	Hop-delay	200	(1-1000 milsec)	
RMON Configuration	Port-delay	20	(1-100 milsec)	
Cluster Management NDP Configuration Cluster Configuration Cluster Configuration POE Power Control	Refre	sh Apply	Help	
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Figure 65 NTDP configuration page

## (3) Cluster Configuration Page

Figure 66 is the cluster configuration page. Users can configure the cluster and view the cluster member table through this page. The information that can be set includes: enabling the cluster function, configuring the management VLAN, the address pool of the cluster, the interval for sending handshake packets, the effective retention time of the device, the name of the cluster, the way to join the cluster, and deleting the cluster.

To enable the cluster function, you must enable the cluster function before the cluster function can run normally.

Configure a management VLAN. The valid range is 1-4094. The default configuration is vlan1.

Configure a private IP address range for member devices in the cluster. The valid range of ip addresses is 0.0.0.0 to 255.255.255.255. The valid range of the mask length is 0 to 32.

Set the interval for sending handshake packets. The valid range is 1-255 seconds. The default is 10 seconds.

Configure the device's effective retention time. The valid range is 1-255 seconds and the default is 60 seconds.

To set up a cluster, you need to configure the cluster name and choose to join the cluster. There are manual and automatic joining methods. After establishing a cluster, you can automatically switch to manual, but you cannot manually switch to automatic. Manual mode can change the cluster name.

After a cluster is established, member devices and candidate devices can be viewed in the cluster member table. You can delete member devices or add candidate devices to member devices according to roles.

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MAC Dinging     MAC Filter     VLAN Configuration     SNMP Configuration	Clust	er Configuration		<u></u>
ACL Configuration     QOS Configuration	Cluster Enable	disable 🗘		
IP Basic Configuration	Management-vlan	1	(1-4094)	
🖻 🧰 AAA Configuration	IP-pool	0.0.0.0/0	(A.B.C.D/M)	
MSTP Configuration	Handshake time	10	(1-255 sec)	
IGMP SNOOPING Config     GMRP Configuration	Handshake hold-time	60	(1-255 sec)	
EAPS Configuration     RMON Configuration     Cluster Management     NDP Configuration		Apply		
NTDP Configuration     Cluster Configuration     Log Management	Cluster Name	<b>Type</b> Delete	÷	
POE Power Control		ter Member List		-
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Figure 66 Cluster Configuration Page

#### 19. <u>log management</u>

### (1) Log information page

Figure 67 is the Log information page. Users can enable and view various log information through this page.

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Switch System Configuration Port Configuration MAC Binding MAC Filter VLAN Configuration SNMP Configuration ACL Configuration ACL Configuration ACL Configuration ACL Configuration AAA Configuration AAA Configuration AAA Configuration GARP Configuration GARP Configuration GARP Configuration Cluster Management Cluste	Log Information	
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Figure 67 Log Information Page

Critical:	Output critical level information.
Debugging:	Outputs debug level debugging information.
Informational:	Output information level debugging information.
Warning:	Output warning level debugging information.
ALL:	Output all log information

#### 20. PoE port configuration

### (1) PoE port Configuration Page

Figure 68 is the PoE port configuration/PoE-display page. Users can enable or disable the port's PoE function to the page, or view all ports of PoE information.

Information can be seen in the following tables:

# **1. Status:** Enable means PoE function is available

Disable means PoE function is close.

2. Operation: Displays the PoE ports ON or OFF

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System conliguration     Port Configuration     MAC Binding	•								
MAC Filter     VLAN Configuration     SNMP Configuration     ACL Configuration	POE Port: gel	/1 <b>\$</b> POE	Power Status:	Enable 🛟					
QOS Configuration     IP Basic Configuration				Refre	sh	pply			
AAA Configuration	Total Power Co	onsumption(n	nW):0						
MSTP Configuration	POE Port	Status	Operation	Туре	Class	Power (mW)	Current (mA)	Voltage (V)	
IGMP SNOOPING Config	ge1/1	Enable	Off	802.3at	N/A	N/A	N/A	N/A	
GMRP Configuration	ge1/2	Enable	Off	802.3at	N/A	N/A	N/A	N/A	
EAPS Configuration	ge1/3	Enable	Off	802.3at	N/A	N/A	N/A	N/A	
RMON Configuration	ge1/4	Enable	Off	802.3at	N/A	N/A	N/A	N/A	
🗉 🦲 Cluster Management	ge1/5	Enable	Off	802.3at	N/A	N/A	N/A	N/A	
🗄 🦲 Log Management	ge1/6	Enable	Off	802.3at	N/A	N/A	N/A	N/A	
E S POE Power Control	ge1/7	Enable	Off	802.3at	N/A	N/A	N/A	N/A	
POE Power Control	ge1/8	Enable	Off	802.3at	N/A	N/A	N/A	N/A	
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Figure 68 the PoE port configuration page

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