

# PacketMAX™

## Advanced Features

Web GUI User Guide By Garland Technology

AF1G52AC



Garland Technology: Advanced Features System

**Firmware Rev Level: 3.0.9**

Office: 716-242-8500

[garlandtechnology.com/support](http://garlandtechnology.com/support)

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## Revision History

Date	Version	Description
2020-03-31	3.0.6.r2	Previous release

# 1 Preface

---

## 1.1 Declaration

This document updates at irregular intervals because of product upgrade or other reason.

This document is for your reference only.

## 1.2 Suggestion feedback

If you have any questions when using our product and reading this document, please contact us:

[garlandtechnology.com/support](http://garlandtechnology.com/support)

## 1.3 Audience

This document is for the following audiences:

- System maintenance engineers
- Debugging and testing engineers
- Network monitoring engineers
- Field maintenance engineers

# 2 WEB login

## 1.1 Overview

This chapter describes how to configure the switch to start the Web management function.

## 1.1 Manage network port IP address and gateway configuration

Before you can manage the switch through the Web, you need to configure the IP address and gateway of the management network port through the command line.

E.g :

```
Switch(config)# management ip address 10.10.39.101/23  
Switch(config)# management route add gateway 10.10.39.254
```



### NOTE

The default IP address is 10.10.10.200

## 1.1 User account and password configuration

The user account and password for WEB management need to be configured through the command line. E.g:

```
Switch (config)#username admin privilege 4 password gtadmin1
```



### NOTE

The default user and password is admin, gtadmin1

## 1.1 Web page login

Open the browser (not recommended to use IE), enter the switch management address, login page shown in Figure.



# Login

**Username**

**Password**



Figure 1-1 login page

In the login page, enter the user name and password you have created, click “Login”, then enter the main page, as shown in Figure.

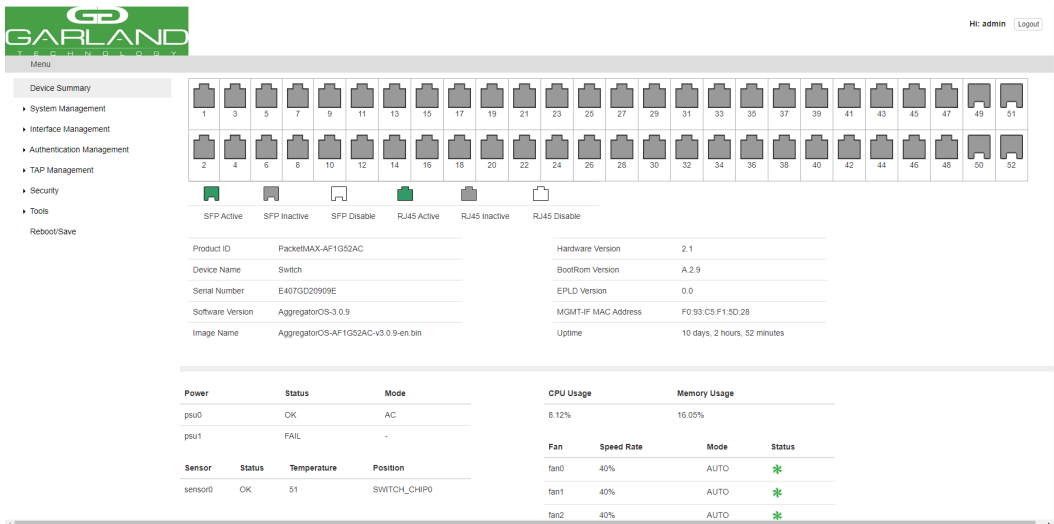


Figure 1-1 main page

Table 1-1 main page parameters

Parameter item	Description
1	Vendor icon
2	Login Username
3	Navigation sidebar
4	Operation display area

# 2 Equipment Overview

## 1.1 Overview

This chapter describes the display items of the main page and their parameters, including the device interface panel, device information and equipment working status monitoring area.

Click “Device Overview” in the navigation bar to switch from other pages to the main page. The interface area of the main page of the device interface shows the status of each interface, as shown in Figure.

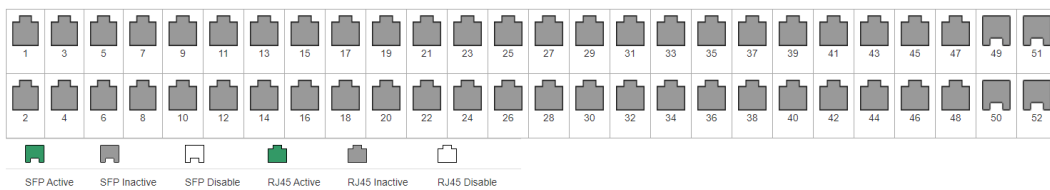


Figure 1-1 Interface Panel

The ports on the page correspond to the actual physical ports on the switch, while distinguishing between optical and electrical ports. The status of the port is distinguished by the color of the picture, including “active”, “inactive”, “off”.

## 1.1 Device Information

The device information section of the main page, as shown in Figure.

Product ID	PacketMAX-AF1G52AC	Hardware Version	2.1
Device Name	Switch	BootRom Version	A.2.9
Serial Number	E407GD20909E	EPLD Version	0.0
Software Version	AggregatorOS-3.0.9	MGMT-IF MAC Address	F0:93:C5:F1:5D:28
Image Name	AggregatorOS-AF1G52AC-v3.0.9-en.bin	Uptime	10 days, 3 hours, 25 minutes

Figure 1-1 Device information panel

Table 1-1 Device information panel

Parameter item	Description
----------------	-------------

Product ID	Switch hardware model
Device Name	Switch name
Software version	Switch software version
Image Name	Start the mirror name
Hardware Version	Switch hardware version
Serial Number	Switch serial number
MAC Address	The MAC address of the switch system
Uptime	The switch has been running for the time

## 1.1 Equipment monitoring

The main page of the device monitoring section, as shown in Figure..

Power	Status	Mode	CPU Usage	Memory Usage
psu0	OK	AC	7.41%	16.06%
psu1	FAIL	-		

Sensor	Status	Temperature	Position
sensor0	OK	51	SWITCH_CHIP0

Fan	Speed Rate	Mode	Status
fan0	40%	AUTO	✱
fan1	40%	AUTO	✱
fan2	40%	AUTO	✱

Figure 1-1 device monitor panel

Table 1-1 Monitor power parameters

Parameter item	Description
Power	The serial number of the switch power supply
Status	Corresponding to the status of the numbered power supply
Mode	Corresponds to the mode of the power supply

Table 1-1 Monitor warm pass parameters

Parameter item	Description
Sensor	The serial number of the switch warm pass
Status	Corresponding to the number of warm state
Temperature	Corresponding to the temperature of the temperature
Position	Corresponding to the number of warmth of the location

Table 1-1 Monitor CPU utilization and memory utilization parameters

Parameter item	Description
CPU Usage	System CPU utilization
Memory Usage	System memory utilization

Table 1-1 Monitor fan parameters

Parameter item	Description
Fan	Number of the switch fan
Speed Rate	Corresponding to the speed ratio of the fan
Mode	Corresponds to the pattern of the fan
Status	Corresponds to the status of the numbered fan

Table 1-1 Monitor the refresh time configuration

Configuration item	Description
Refresh interval(Second)	Set the page to automatically refresh the interval

# 2 System Management

## 1.1 Overview

This chapter describes the various parts of the system administration, including file management, upgrade management, system configuration, log management, SNMP management, and time management.

### 1.1 File management

Click “System Management”> “File Management” to enter the file management page, the page is divided into file management options, boot and flash use size, file management information, as shown in Figure. Page click on the “Boot files”, “Startup config files”, “Log files” can view different types of file information

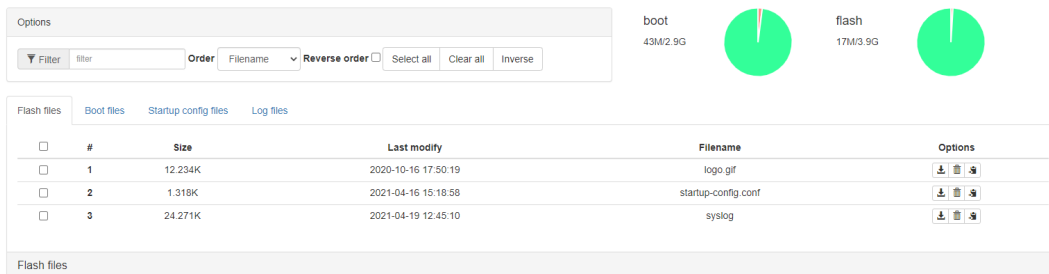


Figure 1-1 file management page

Table 1-1 flash file option configuration

Configuration item	Description
	Download the corresponding boot file
	Delete the corresponding boot file
	Back up the corresponding boot file

## 1.1.1 Boot file information

Click on the “Boot files” can view the boot file information page, boot file page shown in Figure.

#	Size	Last modify	Filename	Current image	Next startup image	Options
1	33.587M	2021-03-26 21:50:01	AggregatorOS-AF1G52AC-v3.0.9-en.bin	✓	✓	Download, Delete, Refresh
2	1.129K	2020-10-16 18:09:11	F093C9F15D29.1.lic			Download, Delete, Refresh

Figure 1-1 boot file page

Table 1-1 boot file parameters

Parameter item	Description
#	boot file number
Size	Corresponds to the size of the boot file
Last modify	Corresponding number The last time the boot file was modified
Filename	Corresponding to the name of the boot file
Current image	Corresponding number Whether the boot file is the current mirror
Next startup image	Corresponding number The boot file is the next boot image
Options	Corresponding to the number of boot file support options

Table 1-1 boot file option configuration

Configuration item	Description
	Download the corresponding boot file
	Delete the corresponding boot file

<input checked="" type="checkbox"/>	Set the corresponding boot file for the next boot image, restart after the entry into force
<input type="checkbox"/>	Back up the corresponding boot file

### 1.1.1 Start the configuration file information

Click “Startup Config files” to view the startup configuration file information page, start the configuration file page as shown in Figure.





#	Size	Last modify	Filename	Startup config	Options
1	1.318K	2021-04-16 15:18:58	startup-config.conf	<input checked="" type="checkbox"/>	

Figure 1-1 start the configuration file page

Table 1-1 start the configuration file parameters

Parameter item	Description
#	Start the configuration file number
Size	Corresponding number starts the size of the configuration file
Last modify	Corresponding number The last time the configuration file was modified
Filename	Corresponding to the name of the startup configuration file
Startup config	Corresponding number The startup configuration file is configured for startup
Options	Corresponding number The option to start the configuration file support

Table 1-1 start the configuration file option configuration

Configuration item	Description
	Download the startup configuration file for the corresponding number
	Delete the startup configuration file for the corresponding number
	Set the corresponding startup configuration file for the next startup configuration
	Back up the startup configuration file for the corresponding number

## 1.1.1 Log file information

Click “Log files” to view the log file information page, log file page shown in Figure.

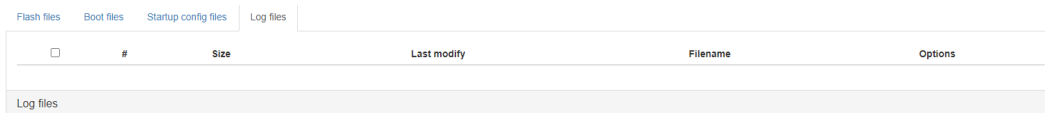





Figure 1-1 log file parameter

Table 1-1 log file parameters

Parameter item	Description
#	Log file number
Size	Corresponds to the size of the log file
Last modify	Corresponds to the date the log file is last modified
Filename	Corresponds to the name of the log file
Options	Corresponding to the options supported by the number log file



Table 1-1 log file parameters

Configuration item	Description
	Download the corresponding log file
	Delete the log file for the corresponding number
	Back up the corresponding log file

## 1.1 Update management

Click “System Management”> “Update Management” to enter the upgrade management page, as shown in Figure.

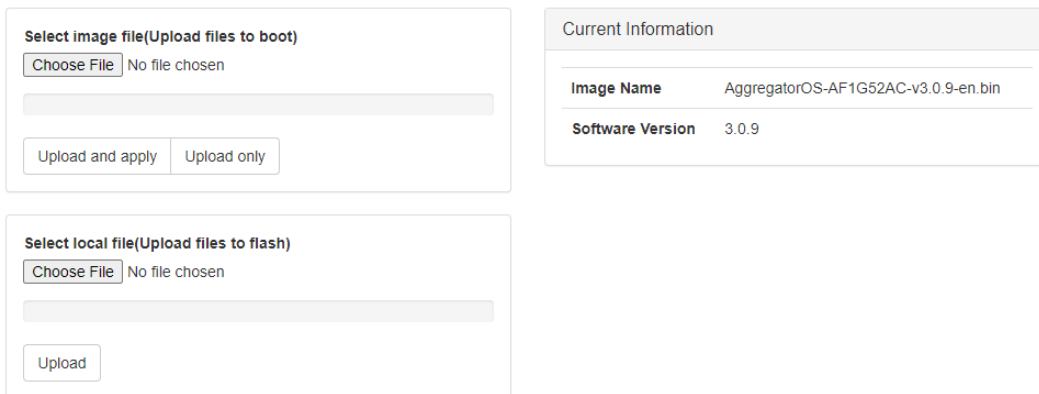


Figure 1-1 update management configuration

Table 1-1 update management configuration

Configuration item	Description
Select image file	Select the image file (Upload files to boot)
Upload and apply	Upload and upgrade the image file
Upload only	Only upload image files
Select local file	Select local file (Upload files to flash)
Upload only	Only upload local files

Table 1-1 update management parameters

Parameter item	Description
Image Name	current system image
Software Version	current software version

## 1.1 System configuration

Click “System Management”> “System Configuration”to enter the system configuration page, as shown in Figure. Click " OK " to save the configurations

The screenshot shows a 'Base Settings' configuration page. It contains three rows of settings, each with a label, a text input field, and a blue 'OK' button with a checkmark icon.

Base Settings		
Management IP	10.10.39.11/23	✓ OK
Gateway	10.10.39.254	✓ OK
Hostname	DUT1	✓ OK

Figure 1-1 system configuration

## 1.1 Log management

Click “System Management”> “Log Management” to enter the log management page, click the “global configuration”, “module search”, “keyword search” different ways to manage the log.

### 1.1.1 Global configuration

Click “Global Configuration” to view the global configuration page of the log management. The global configuration is shown in Figure.

**Global Configuration**

Enable the log server

Enable the log file

Enable the log merge

Level of system timestamp

Level of cache logs

Level of system logs

Level of severity logs

Size of the log buffer

Address of the log servers

---

**Log Statistics**

Enable the log server	Enable
Enable the log file	Enable
Enable the log merge	Enable
Level of cache logs	debug
Level of system logs	information
Level of severity logs	warning
Size of the log buffer	500
Timestamp	bsd

Figure 1-1 log global configuration

Table 1-1 global configuration

Configuration item	Description
Enable the log server	Configure whether to enable Server
Enable the log file	Configure whether to enable logging file
Enable the log merge	Configure whether to enable logging merge
Level of system timestamp	Configure the timestamp format of log information, including: date, bsd, iso, none
Level of system logs	Configure the system log level, including: emergency, alert, critical, error, warning, notice, information, debug
Level of cache logs	Configure the cache log level, including: emergency, alert, critical, error, warning, notice, information, debug

Level of severity logs	Configure the severity log level, including: emergency, alert, critical, error, warning, notice, information, debug
Size of the log buffer	Configure the cache size, valid values: 10-1000
Address of the log servers	Configure the IP address of the Outbound Management port of the Server

Table 1-1 log statistics parameters

Parameter item	Description
Enable the log server	Whether the server is currently enabled
Enable the log file	Whether the file is currently enabled
Enable the log merge	Whether the merge is currently enabled
Level of system logs	Current system log level
Level of cache logs	Current cache log level
Level of severity logs	Current severity log level
Size of the log buffer	Current cache size
Timestamp	The current timestamp format

### 1.1.1 Module lookup

Click “Module lookup” to view the log management module lookup page, the module looks like Figure.

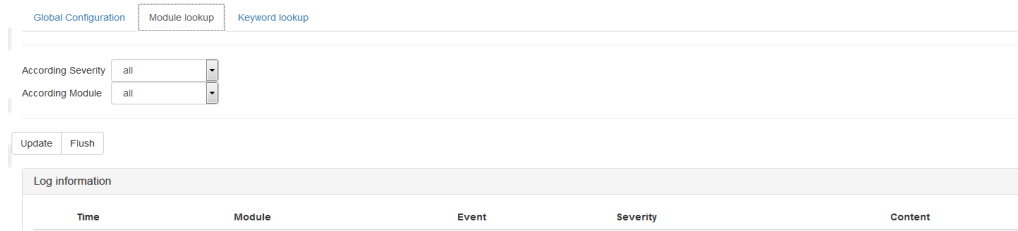


Figure 1-1 module lookup

Table 1-1 module lookup configuration

Configuration item	Description
Accordinging Severity	The module is searched by level, including:0-7
Accordinging Module	Module search by module, the module includes: All, AAA, FAN, INTERFACE, LAG, NTP, POWER, PSU, SYSTEM, TEMPERATURE, TRANSCEIVER, SSHD
Update	Refresh all logs
Flush	Delete all logs

Table 1-1 log information parameters

Parameter item	Description
Time	Corresponding log generated time
Module	Corresponds to the module to which the log belongs
Event	Corresponding log events
Severity	Corresponds to the priority of the log
Content	Corresponds to the contents of the log record

## 1.1.1 Keyword lookup

Click on “keyword” to view the log management keyword search, keyword search shown in Figure.

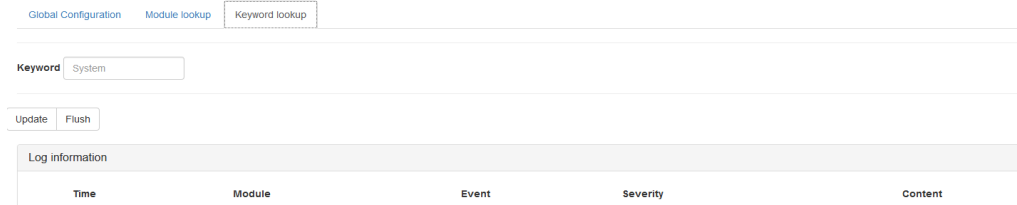


Figure 1-1 keyword lookup

Table 1-1 keyword lookup configuration

Configuration item	Description
Keyword	Log search by keyword
Update	Refresh all logs
Flush	Delete all logs

Table 1-1 log information parameters

Parameter item	Description
Time	Corresponding log generated time
Module	Corresponds to the module to which the log belongs
Event	Corresponding log events
Severity	Corresponds to the priority of the log
Content	Corresponds to the contents of the log record

## 1.1 Snmp management

Click “System Management”> “Snmp Management” to enter the Snmp management page, click “SNMP Server Configuration”, “SNMP Community Configuration” to carry out the relevant configuration.

### 1.1.1 Server configuration

Click " SNMP Server Configuration " to view the server configuration page for Snmp management, as shown in Figure.

Figure 1-1 Server configuration

Table 1-1 Server configuration parameters

Configuration item	Description
Enable Snmp Server	Configure whether to enable SNMP
Enable Snmp	Configure whether to enable Trap
Set Snmp Version	Set version, version includes:all、v1、v2c
Set Trap Target Address	Set the IP address and community name of the Trap server

### 1.1.1 Community configuration

Click “community configuration” to view the SNMP management and community configuration page, as shown in Figure.

Figure 1-1 community configuration

Table 1-1 community parameters configuration

Configuration item	Description
Set Community	Set the Community name and permissions, permissions include: read-only and read and write

Table 1-1 community parameters

Parameter	Description
#	Corresponds to the number of Community
Name	Corresponding to the name Community
Community-Access	Corresponding number Community permissions
Security-name	Corresponding number Community security name
Options	Corresponding number Community support options, options include: delete

### 1.1.1 SNMP-v3 trap configuration

Click “SNMP-v3 trap configuration” to view the SNMP management and SNMP-v3 trap configuration page, as shown in Figure.



**Figure 1-1 snmp trap configuration**

SNMP Server Configuration | **SNMP Community Configuration** | SNMP-v3 trap Configuration

---

V3 trap Configuration

Context:

Usm-user Configuration:

Password Configuration:  Authentication password  Encryption password

Notify:

Set Trap Target params:

Set Trap Target Address:

## 1.1 Time management

Click “System Management”> “Time Management”to enter the time management page, as shown in Figure.

Global Configuration

System Time: 06:35:19 Fri Mar 20 2020 UTC

Set Time:

Set Ntp Server:

Timestamp sync:

**Figure 1-1 time management**

**Table 1-1 time management configuration**

Configuration item	Description
System Time	the current system time
Set Time	Set the system time
Set NTP Server	Set the IP address of the NTP server

# 2 Port management

## 1.1 Overview

This chapter describes the port configuration on the switch.

### 1.1 Port state

This section describes how to configure and view the port connection status.

#### 1.1.1 Basic information

Click “Interface Management”>”Interface Status” to enter the port state home page, as shown in Figure . This page shows the working status of each port on the switch. Click on the relevant state to enter the corresponding port state configuration.

Port	Status	Duplex	Svlan-tpid	Speed	Phy-Type	Filter	Description	Split	Enable
eth-0-1	down	auto	0x8100	AUTO	1000BASE_T	N/A	N/A	No	<input checked="" type="checkbox"/>
eth-0-2	down	auto	0x8100	AUTO	1000BASE_T	N/A	N/A	No	<input checked="" type="checkbox"/>
eth-0-3	down	auto	0x8100	AUTO	1000BASE_T	N/A	N/A	No	<input checked="" type="checkbox"/>
eth-0-4	down	auto	0x8100	AUTO	1000BASE_T	N/A	N/A	No	<input checked="" type="checkbox"/>
eth-0-5	down	auto	0x8100	AUTO	1000BASE_T	N/A	N/A	No	<input checked="" type="checkbox"/>
eth-0-6	down	auto	0x8100	AUTO	1000BASE_T	N/A	N/A	No	<input checked="" type="checkbox"/>
eth-0-7	down	auto	0x8100	AUTO	1000BASE_T	N/A	N/A	No	<input checked="" type="checkbox"/>
eth-0-8	down	auto	0x8100	AUTO	1000BASE_T	N/A	N/A	No	<input checked="" type="checkbox"/>
eth-0-9	down	auto	0x8100	AUTO	1000BASE_T	N/A	N/A	No	<input checked="" type="checkbox"/>
eth-0-10	down	auto	0x8100	AUTO	1000BASE_T	N/A	N/A	No	<input checked="" type="checkbox"/>
eth-0-11	down	auto	0x8100	AUTO	1000BASE_T	N/A	N/A	No	<input checked="" type="checkbox"/>
eth-0-12	down	auto	0x8100	AUTO	1000BASE_T	N/A	N/A	No	<input checked="" type="checkbox"/>
eth-0-13	down	auto	0x8100	AUTO	1000BASE_T	N/A	N/A	No	<input checked="" type="checkbox"/>
eth-0-14	down	auto	0x8100	AUTO	1000BASE_T	N/A	N/A	No	<input checked="" type="checkbox"/>
eth-0-15	down	auto	0x8100	AUTO	1000BASE_T	N/A	N/A	No	<input checked="" type="checkbox"/>
eth-0-16	down	auto	0x8100	AUTO	1000BASE_T	N/A	N/A	No	<input checked="" type="checkbox"/>
eth-0-17	down	auto	0x8100	AUTO	1000BASE_T	N/A	N/A	No	<input checked="" type="checkbox"/>

Figure 1-1 Port state

Table 1-1 Port state parameters

Parameter item	Description
----------------	-------------

Port	Displays the port name
Status	Displays the link status of the port (up or down)
Duplex	Displays the duplex mode of the port ( auto, full, half)
Svlan-tpid	Displays the svlan-tpid (0x8100,0x88A8, 0x9100) for the corresponding port
Speed	Displays the operating rate of the port ( auto, 10,100,1000,2.5G, 5G, 10G, 25G, 40G, 100G)
Phy-Type	Displays the physical type of the port
Filter	Display port filtering
Description	Displays the description of the port
Split	Displays the split of the port (yes, no)
Enable	Displays the port enable

## 1.1.1 Port property configuration

### Port duplex configuration

Click on the port duplex function, enter the port duplex configuration, as shown in Figure. Click “OK” to complete the configuration.

Duplex

Figure 1-1 Port duplex configuration

Table 1-1 Duplex configuration parameters

Configuration item	Description
full	Configure the port as full duplex mode
half	Configure the port as half duplex mode
auto	Configure the port as auto duplex mode

## Port rate configuration

Click on the port rate attribute, enter the port rate configuration, as shown in Figure, click “OK” to complete the configuration

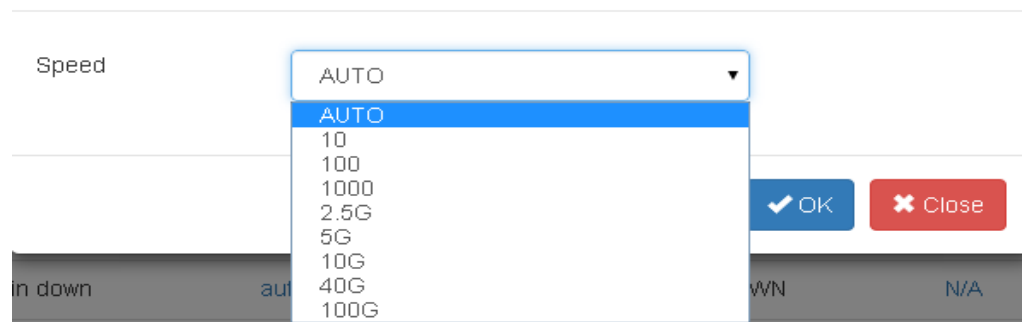


Figure 1-1 Port rate configuration

Table 1-1 Rate configuration parameters

Configuration item	Description
AUTO	Configure the port as auto
10	Configure the port at a rate of 10M
100	Configure the port at a rate of 100M
1000	Configure the port at a rate of 1000M
2.5G	Configure the port at a rate of 2.5G
5G	Configure the port at a rate of 5G
10G	Configure the port at a rate of 10G

25G	Configure the port at a rate of 25G
40G	Configure the port at a rate of 40G
100G	Configure the port at a rate of 100G

## Port filtering configuration

Click on the port filter attributes, enter the port filter configuration, as shown in Figure, click “OK” to complete the configuration.

The screenshot shows a configuration window with the following elements:

- Enable:** A blue toggle switch is currently in the 'on' position.
- Flow Name:** A text input field with a dropdown arrow on the right side.
- Buttons:** A blue 'OK' button with a checkmark icon and a red 'Close' button with an 'X' icon.

Figure 1-1 Port filtering configuration

Table 1-1 Filtering configuration parameters

Configuration item	Description
Enable	Configure whether the port is enabled for filtering
Flow Name	Configure the name of the port to filter

## Port description configuration

Click the port description attribute, enter the port description configuration, as shown in Figure, click “OK” to complete the configuration.

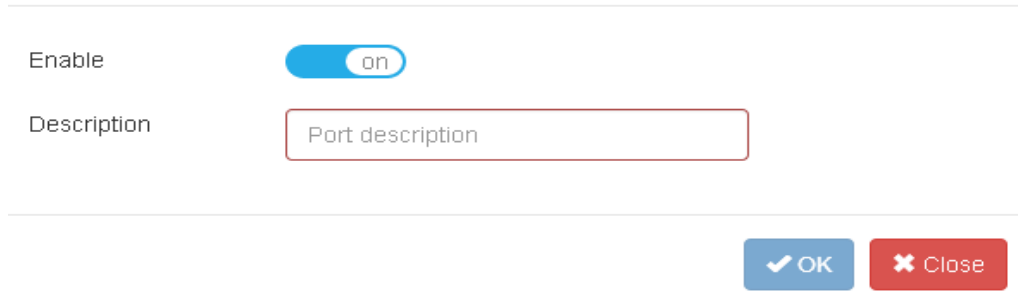


Figure 1-1 Port description configuration

Table 1-1 Describe the configuration parameters

Configuration item	Description
Enable	Configure whether the port is enabled
Description	Configure the description of the port

## Port split configuration

### Port split configuration:

Click the port description attribute, enter the port description configuration, as shown in Figure, click “OK” to complete the configuration.

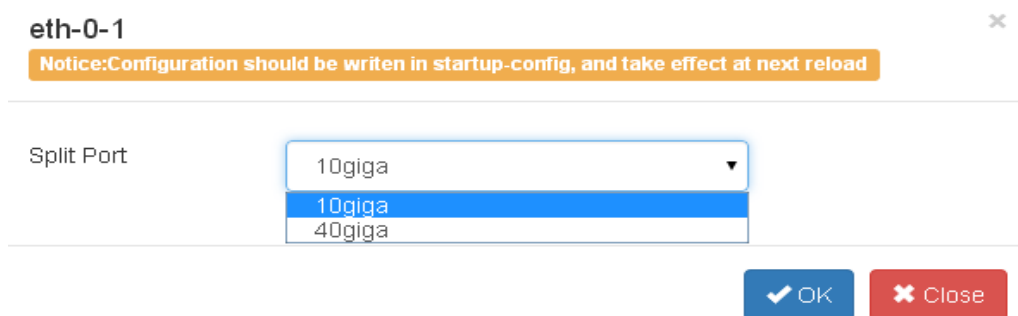


Figure 1-1 Port split configuration

Table 1-1 Split port configuration parameters

Configuration item	Description
Prompt information	The split configuration will be written

	to startup-config and will take effect after reboot
Split Port	Configure split points for10giga, 40giga

Click on the port split attribute “Yes”, enter the port split configuration, as shown in Figure, click “OK” to complete the configuration.

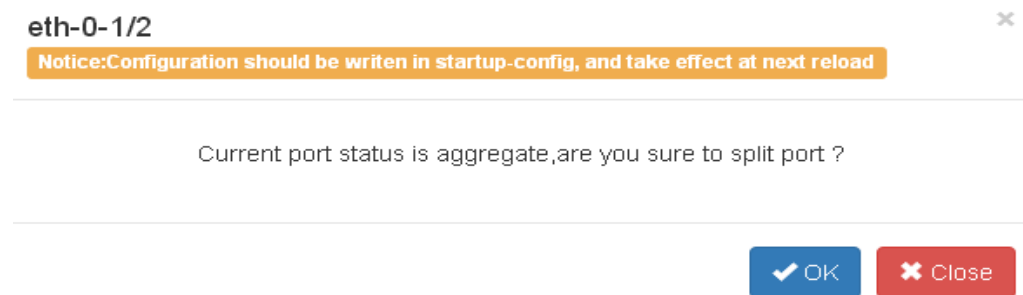


Figure 1-1 Port split configuration

Table 1-1 Port split configuration parameters

Configuration item	Description
Prompt information	The split configuration will be written to startup-config and will take effect after reboot
Prompt information	Indicates whether the current port state is aggregated and whether the port is split

**Clear the split port :**

Click the split attribute “NO” to split the port, enter the clear port split configuration, as shown in Figure, click “clear” to complete the configuration.

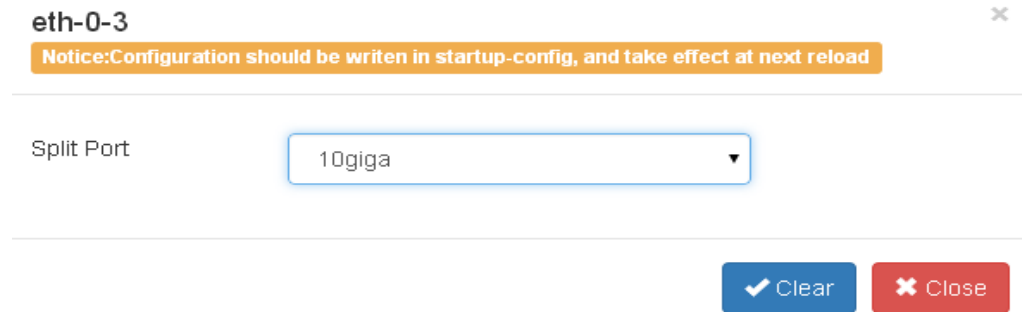


Figure 1-1 Clear the split port

Table 1-1 Clear the split configuration

Configuration item	Description
Prompt information	The split configuration will be written to startup-config and will take effect after reboot
Split Port	Configure split points for 10giga, 40giga

Click the split attribute “YES” to split the port, enter the clear port split configuration, as shown in Figure 4 10, click “OK” to complete the configuration.

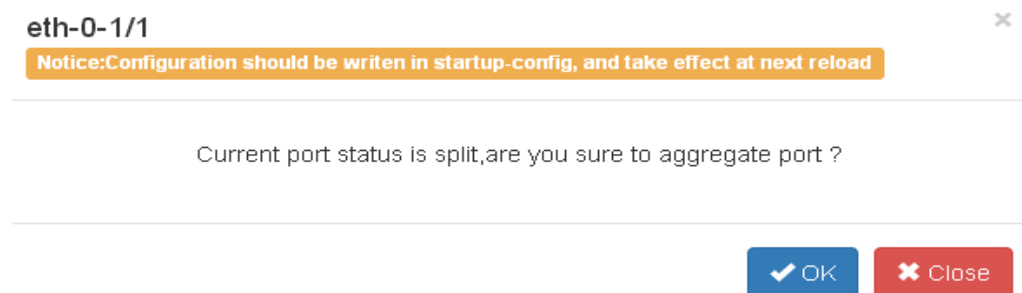


Figure 1-1 Clear the split port

Table 1-1 Clear the split configuration

Configuration item	Description
Prompt information	The split configuration will be written to startup-config and will take effect



	after reboot
Prompt information	Prompts whether the current port state is split and aggregates the port

## Port enable configuration

Click the enable attribute of the port to select whether to enable the port.

Table 1-1 Enable configuration parameters

Configuration item	Description
Enable	Configure whether the port is enabled or not

## 1.1 Port statistics

This section describes how to view the statistics for a port.

### 1.1.1 Basic information

Click “Interface Management”>”Interface Stats” to enter the port statistics main page, as shown in Figure.

The screenshot shows a web interface for port statistics. At the top, there are several buttons: "Select all", "Clear all", "Inverse", "Update Statistics", "Single Port Transmit/Receive Rate Stat", and "All Ports Transmit/Receive Flow Stat". Below the buttons is a table with columns for "Port", "Input Stat", and "Output Stat". The "Input Stat" columns are Packets Stat, Bytes Stat, Input Rate(packets/sec), Input Rate(bits/sec), Errors, and CRC. The "Output Stat" columns are Packets Stat, Bytes Stat, Output Rate(packets/sec), and Output Rate(bits/sec). The table lists 14 ports from eth-0-1 to eth-0-13. The first row (eth-0-1) shows non-zero values for Packets Stat (303930766) and Bytes Stat (48686596918). All other ports show zero values for all statistics.

Port	Input Stat						Output Stat			
	Packets Stat	Bytes Stat	Input Rate(packets/sec)	Input Rate(bits/sec)	Errors	CRC	Packets Stat	Bytes Stat	Output Rate(packets/sec)	Output Rate(bits/sec)
eth-0-1	303930766	48686596918	0	0	0	0	0	0	0	0
eth-0-2	0	0	0	0	0	0	196563145	25440863696	0	0
eth-0-3	0	0	0	0	0	0	0	0	0	0
eth-0-4	0	0	0	0	0	0	0	0	0	0
eth-0-5	0	0	0	0	0	0	0	0	0	0
eth-0-6	0	0	0	0	0	0	0	0	0	0
eth-0-7	0	0	0	0	0	0	0	0	0	0
eth-0-8	0	0	0	0	0	0	0	0	0	0
eth-0-9	0	0	0	0	0	0	0	0	0	0
eth-0-10	0	0	0	0	0	0	0	0	0	0
eth-0-11	0	0	0	0	0	0	0	0	0	0
eth-0-12	0	0	0	0	0	0	0	0	0	0
eth-0-13	0	0	0	0	0	0	0	0	0	0

Figure 1-1 Port statistics

Table 1-1 Port statistics parameters

Parameter item	Description
<input type="checkbox"/>	Corresponding port selection box
Port	Corresponding port name
Packet Input	Correspondent packets of incoming packets
Bytes Input	Corresponds to the incoming byte of the port statistics
Packet Output	Correspond to the outbound packet statistics of the port
Bytes Output	Corresponding port outbound byte statistics

### 1.1.1 Update and clear statistics

Select the corresponding port selection box, click “Update Statistics” to update the corresponding port statistics, as shown in Figure.

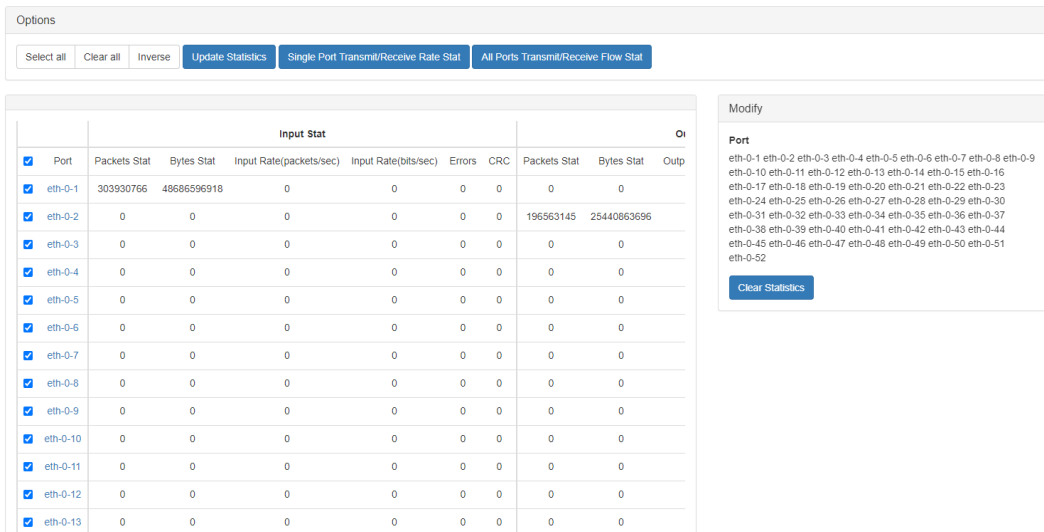


Figure 1-1 Update and clear statistics

Table 1-1 Update and clear statistics configuration

Configuration item	Description
Update Statistics	Update the corresponding port statistics
Clear Statistics	Clear the corresponding port statistics

## 1.1.1 Statistical details

Click the corresponding port name to enter the detailed statistics page of the port, as shown in Figure.

**Detail** ✕

<b>Packets Input</b>	0
<b>Bytes Input</b>	0
<b>Packets Output</b>	0
<b>Bytes Output</b>	0
<b>5 Minute Input Rate(packets/sec)</b>	0
<b>5 Minute Input Rate(bits/sec)</b>	0
<b>Input Unicast Packet</b>	0
<b>Input Broadcast Packet</b>	0
<b>Input Multicast Packet</b>	0
<b>Input Runts</b>	0
<b>Input Giants</b>	0
<b>Input Errors</b>	0
<b>Input CRC</b>	0
<b>Input Frame</b>	0
<b>Input Pause</b>	0
<b>5 Minute Output Rate(packets/sec)</b>	0
<b>5 Minute Output Rate(bits/sec)</b>	0
<b>Output Unicast Packet</b>	0
<b>Output Broadcast Packet</b>	0
<b>Output Multicast Packet</b>	0
<b>Output Errors</b>	0
<b>Output Pause</b>	0

🗑️ Clear
🔄 Refresh
✕ Close

Figure 1-1 statistical details

Table 1-1 Statistical details parameters

Parameter item	Description
Packets Input	Correspondent packets of incoming packets

Bytes Input	Corresponds to the incoming byte of the port statistics
Packets Output	Correspond to the outbound packet statistics of the port
Bytes Output	Corresponding port outbound byte statistics
5 Minute Input Rate(packets/sec)	Corresponding port 5 minutes into the direction of the message rate (packet / sec)
5 Minute Input Rate(bits/sec)	Corresponding port 5 minutes into the direction of the message rate (bits / sec)
Input Unicast Packet	Corresponds to the statistics of unicast packets in the incoming direction of the port
Input Broadcast Packet	Corresponds to the statistics of the broadcast packets in the incoming direction of the port
Input Multicast Packet	Correspond to the statistics of multicast packets in the inbound direction of the port
Input Runts	Corresponding port in the direction of the ultra-short frame statistics
Input Giants	Corresponding port in the direction of the large frame statistics
Input Errors	Corresponds to the statistics of the error frame in the incoming direction of the port
Input CRC	Corresponds to the statistics of the CRC

	in the incoming direction of the port
Input Frame	Corresponds to the statistics of the total number of frames in the incoming direction of the port
Input Pause	Corresponds to the statistics of the Pause frame in the incoming direction of the port
5 Minute Output Rate(packets/sec)	Corresponding port 5 minutes outbound packet rate (packet / s)
5 Minute Output Rate (bits/sec)	Corresponding port 5 minutes outbound message rate (bits per second)
Output Unicast Packet	Correspond to the statistics of unicast packets in the outbound direction of the port
Output Broadcast Packet	Corresponds to the statistics of the broadcast packets in the outbound direction of the port
Output Multicast Packet	Correspond to the statistics of multicast packets in the outbound direction of the port
Output Errors	Corresponds to the statistics of the error frame in the outbound direction of the port
Output Pause	Corresponds to the statistics of the Pause frame in the outbound direction of the port

## 1.1 Link aggregation

This section describes how to configure and view static link aggregation ports.

## 1.1.1 Basic information

Click “Interface Management”>”Link Aggregation” to enter the link aggregation main page. You can view the basic information of link aggregation, as shown in Figure.

#	Link Aggregation Name	Load Balance Mode	Protocol	Group State	Ports in Bundle	Member Ports	Max Ports
---	-----------------------	-------------------	----------	-------------	-----------------	--------------	-----------

Figure 1-1 Link aggregation

Table 1-1 link aggregation parameters

Configuration item	Description
#	Link aggregation number
Link Aggregation Name	Corresponding number of aggregated port names
Load Balance Mode	Corresponding number of load ports for aggregated ports, including:static、round-robin
Protocol	Corresponding number aggregation port protocol mode
Group State	Corresponds to the status of the numbered aggregation port
Ports in Bundle	Corresponding number The current number of bundled ports
Member Ports	Corresponding number of member ports
Max Ports	Corresponding number Maximum number of member ports

## 1.1.1 Global configuration

Link aggregation global configuration, you can configure the load sharing hash field. Figure shows the configuration of the link aggregation globally.

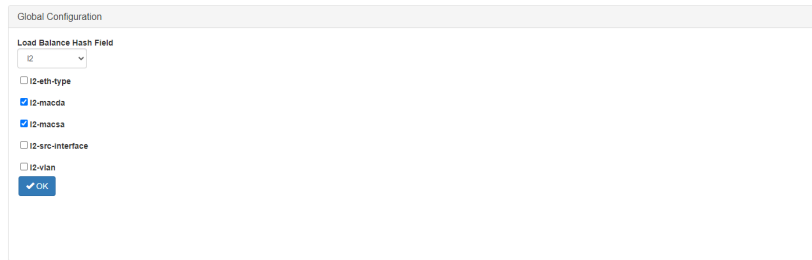


Figure 1-1 Global configuration

Table 1-1 Global configuration

Configuration item	Description
l2-eth-type	Configure whether the load balance is according to the layer 2 ethernet type of the packet
l2-macda	Configure whether the load balance is according to the layer 2 destination MAC address of the packet
l2-macsa	Configure whether the load balance is according to the layer 2 source MAC address of the packet
l2-src-interface	Configure whether the load balance is according to the layer 2 source interface
l2-vlan	Configure whether the load balance is according to the layer 2 VLAN of the packet
mpls-2nd-label	Configure whether the load balance is according to the 2 <sup>nd</sup> MPLS label of the packet
mpls-3rd-label	Configure whether the load balance is according to the 3 <sup>rd</sup> MPLS label of the



	packet
<b>mpls-source-interface</b>	Configure whether the load balance is according to the MPLS source interface
<b>mpls-top-label</b>	Configure whether the load balance is according to the 1 <sup>st</sup> MPLS label of the packet
<b>ip-ip-protocol</b>	Configure whether the load balance is according to the IPv4 protocol of the packet
<b>ip-ipda</b>	Configure whether the load balance is according to the IPv4 destination address of the packet
<b>ip-ipsa</b>	Configure whether the load balance is according to the IPv4 source address of the packet
<b>ip-l4-destport</b>	Configure whether the load balance is according to the IPv4 TCP/UDP L4 destination port number of the packet
<b>ip-l4-sourceport</b>	Configure whether the load balance is according to the IPv4 TCP/UDP L4 source port number of the packet
<b>ip-src-interface</b>	Configure whether the load balance is according to the IPv4 source interface
<b>ipv6-ip-protocol</b>	Configure whether the load balance is according to the IPv6 protocol of the packet
<b>ipv6-ipda</b>	Configure whether the load balance is according to the IPv6 destination address of the packet
<b>ipv6-ipsa</b>	Configure whether the load balance is

<p><b>ipv6-l4-destport</b></p> <p><b>ipv6-l4-sourceport</b></p> <p><b>ipv6-src-interface</b></p>	<p>according to the IPv6 source address of the packet</p> <p>Configure whether the load balance is according to the IPv6 TCP/UDP L4 destination port number of the packet</p> <p>Configure whether the load balance is according to the IPv6 TCP/UDP L4 source port number of the packet</p> <p>Configure whether the load balance is according to the IPv6 source interface</p>
<p><b>gre-gre-key</b></p> <p><b>gre-gre-protocol</b></p> <p><b>gre-ipda</b></p> <p><b>gre-ipsa</b></p> <p><b>gre-src-interface</b></p> <p><b>nvgre-outer-gre-protocol</b></p> <p><b>nvgre-outer-ipda</b></p> <p><b>nvgre-outer-ipsa</b></p>	<p>Configure whether the load balance is according to the gre key of the packet</p> <p>Configure whether the load balance is according to the GRE protocol of the packet</p> <p>Configure whether the load balance is according to the GRE header IPv4 destination address of the packet</p> <p>Configure whether the load balance is according to the GRE header IPv4 source address of the packet</p> <p>Configure whether the load balance is according to the GRE source interface</p> <p>Configure whether the load balance is according to the nvgre (I2GRE) header protocol of the packet</p> <p>Configure whether the load balance is according to the nvgre (I2GRE) header IPv4 destination address of the packet</p> <p>Configure whether the load balance is</p>

<b>nvgre-src-interface</b>	<p>according to the nvgre (I2GRE) header IPv4 source address of the packet</p> <p>Configure whether the load balance is according to the nvgre (I2GRE) source interface</p>
<b>nvgre-vsidi</b>	<p>Configure whether the load balance is according to the nvgre (I2GRE) VSID of the packet</p>
<b>vxlan-outer-ipda</b>	<p>Configure whether the load balance is according to the VxLAN header IPv4 destination address of the packet</p>
<b>vxlan-outer-ipsa</b>	<p>Configure whether the load balance is according to the VxLAN header IPv4 source address of the packet</p>
<b>vxlan-outer-l4-destport</b>	<p>Configure whether the load balance is according to the VxLAN header UDP destination port number of the packet</p>
<b>vxlan-outer-l4-sourceport</b>	<p>Configure whether the load balance is according to the VxLAN header UDP source port number of the packet</p>
<b>vxlan-outer-vlan</b>	<p>Configure whether the load balance is according to the VxLAN header VLAN of the packet</p>
<b>vxlan-src-interface</b>	<p>Configure whether the load balance is according to the VxLAN source interface</p>
<b>vxlan-vni</b>	<p>Configure whether the load balance is according to the VxLAN VNI of the packet</p>

## 1.1.1 Link aggregation configuration

### Add the aggregation group

Click “Add” to enter the aggregation group to increase the page, select the port and aggregation group, click “Submit” to complete the aggregation group to increase.

Figure 1-1 add the aggregation group

### Delete the aggregation group

Select the number corresponding to the aggregation group and click xx to delete the corresponding numbered aggregation group, as shown in Figure.

#	Link Aggregation Name	Load Balance Mode	Protocol	Group State	Ports in Bundle	Member Ports	Max Ports
1	agg1	static	static	L2	0	eth-0-14 eth-0-15 eth-0-16	16

Figure 1-1 delete the aggregation group

### Configure the load sharing mode

Click “Load Balance Mode” to enter the configuration load sharing mode page, as shown in Figure.

Figure 1-1 load balance mode

Table 1-1 load balance mode configuration

Configuration item	Description
Agg	Configure the corresponding agg
Mode	Configure the load balancing mode for the corresponding agg, including:static, round-robin

## 1.1 Optical module status

This section focuses on the status of the optical module

### 1.1.1 Basic information

Click “Interface Management”>”Transceiver Status” to enter the main page of the optical module status, you can view the basic status of the optical module status, as shown in Figure.

Transceiver				
Port	Type	Vendor	PN	S/N

Figure 1-1 optical module status

Table 1-1 optical module status parameters

Parameter item	Description
Port	Corresponding port name
Type	Corresponds to the type of port optical module
Vendor	Corresponding to the port optical module manufacturers
PN	Corresponds to the part number of the port optical module
S/N	Corresponds to the serial number of the port optical module

# 2 Certification management

## 1.1 Overview

This chapter describes the authentication management on the switch.

### 1.1 AAA authentication

This section describes how to configure and view AAA authentication.

#### 1.1.1 Basic information

Click “Authentication Management”>”AAA”to enter the main page of the authentication. This page can check the basic information of AAA authentication, as shown in Figure.

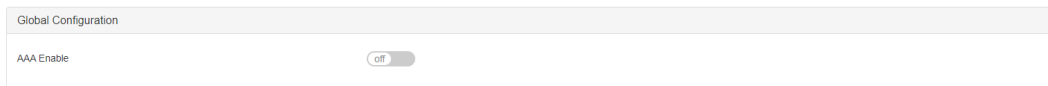


Figure 1-1 AAA authentication

Table 1-1 AAA authentication parameters

Parameter item	Description
#	Corresponding AAA authentication number
Method List Type	The number of the corresponding number
Name	Corresponding number of name
State	Corresponding to the status of the number
List	A list of the corresponding numbers, the

	list includes:none, local, tacplus, radius
Options	The corresponding number of options, including: delete

### 1.1.1 Global configuration

Click the “AAA Enable” button to select whether to enable AAA authentication, as shown in Figure.

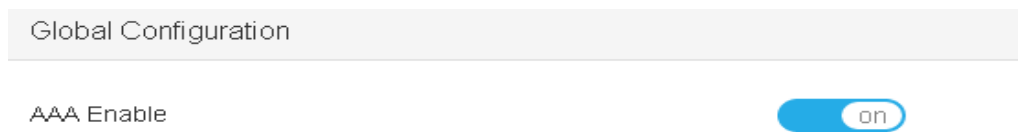


Figure 1-1 AAA authentication global configuration

### 1.1.1 Authentication configuration

Click the corresponding list of parameters to enter the authentication configuration page, as shown in Figure.

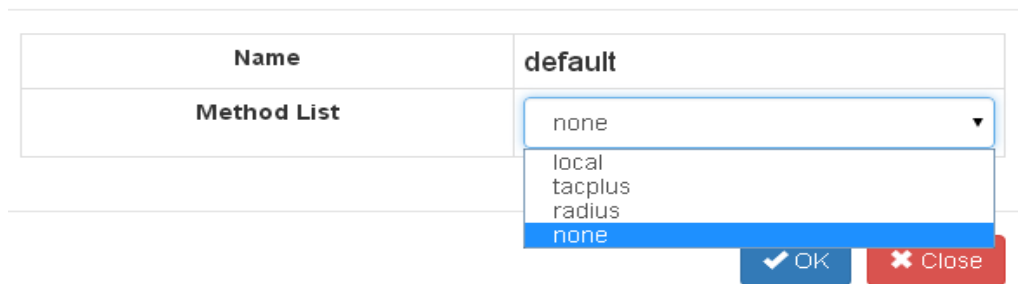


Figure 1-1 AAA authentication configuration

Table 1-1 authentication configuration parameters

Configuration item	Description
Name	Displays the authentication configuration name is default
Method List	Configure the authentication method, including:none, tacplus, local, radius, line

## 1.1 Tacacs authentication

This section describes the configuration and viewing Tacacs authentication.

### 1.1.1 Basic information

Click “Authentication Management”>”Tacacs”to enter the Tacacs main page, this page can view the Tacacs authentication basic information, as shown in Figure.

#	Server Host	VRF	Port	Timeout	Retries	Secret
---	-------------	-----	------	---------	---------	--------

Figure 1-1 Tacacs authentication

Table 1-1 Tacacs authentication parameters

Parameter item	Description
#	Corresponding Tacacs certification number
Server Host	Corresponding number Server host
Port	Corresponding number port number, default 49
Timeout	Corresponding numbering timeout, in seconds
Retries	Number of retries for the corresponding number
Secret	Corresponding number of keys

### 1.1.1 Add the server

Click “Add Server” to enter the T server configuration page, as shown in Figure.



Figure 1-1 add the server

Table 1-1 add server configuration

Configuration item	Description
Server Host	Configure the IP address of the Tacacs server
Key String	Enabler Key String
Value	Configure the specified key for the Tacacs server

### 1.1.1 Delete the server

Click the Delete button to complete the removal of the server configuration.

Table 1-1 delete the server

Configuration item	Description
	Delete the corresponding number of Tacacs servers

## 1.1 Radius authentication

This section describes how to configure and view Radius authentication.

## 1.1.1 Basic information

Click “Authentication Management”>” Radius”to enter the Radius main page, this page can view the Radius authentication basic information, as shown in Figure.

Figure 1-1 Radius authentication

Table 1-1 global configuration parameters

Parameter item	Description
Deadtime	Display the dead time of Radius, in minutes
Timeout	Show Radius timeout, in seconds
Retries	Show the number of retries for Radius
Secret	Displays the key for Radius. If no key is displayed N/A

Table 1-1 Radius authentication parameters

Parameter item	Description
#	Corresponds to the number of the Radius server
Server Host	The corresponding Radius server IP address
Port	Corresponding number of the Radius server port number, default 1812
Secret	Displays the key for Radius. If no key is displayed N/A

### 1.1.1 Add the server

Click “add server” to enter the R server configuration page, as shown in Figure.

Figure 1-1 add the server


Table 1-1 add server configuration

Configuration item	Description
Server Host	Configure the IP address of the Radius server

### 1.1.1 Delete the server

Click the Delete button to complete the removal of the server configuration

Table 1-1 delete the server

Configuration item	Description
	Delete the corresponding Radius server

# 2 Tap management

## 1.1 Overview

This chapter describes the tap management on the switch.

## 1.1 TAP

### 1.1.1 Tap statistics

Click “Tap Management”>”Tap” to enter the Tap main page, this page can view the Tap statistics, as shown in Figure.

#	TAP Id	TAP Group Name	TAP Group Description	TAP Group truncation	Options
1	10	TG1	N/A	NO	

Figure 1-1 Tap statistics

Table 1-1 Tap statistics parameters

Parameter item	Description
#	Corresponds to Tap number
Tap Id	The corresponding number of Tap ID
Tap Group Name	The corresponding group name of the tap
Tap Group Description	Correspond to the description of Tap
Tap Group truncation	Whether the corresponding tap is enabled for truncation
Options	Corresponding to the number of Tap options, options include: delete

## 1.1.1 Global configuration

On the main page of Tap statistics. Click xx, xx, xx can be the corresponding global configuration.

### Add a set of Tap

Click “Add Tap Group”, you can enter the page to increase Tap, as shown in Figure.

Tap Group Name

Tap Group ID

Figure 1-1 add Tap

Table 1-1 add Tap configuration

Configuration item	Description
Tap Group Name	Configure the Tap group name
Tap Group ID	Configure the Tap ID

### Message truncated

Click “Truncation” to enter the page where the configuration message is truncated, as shown in Figure.

Figure 1-1 message truncated

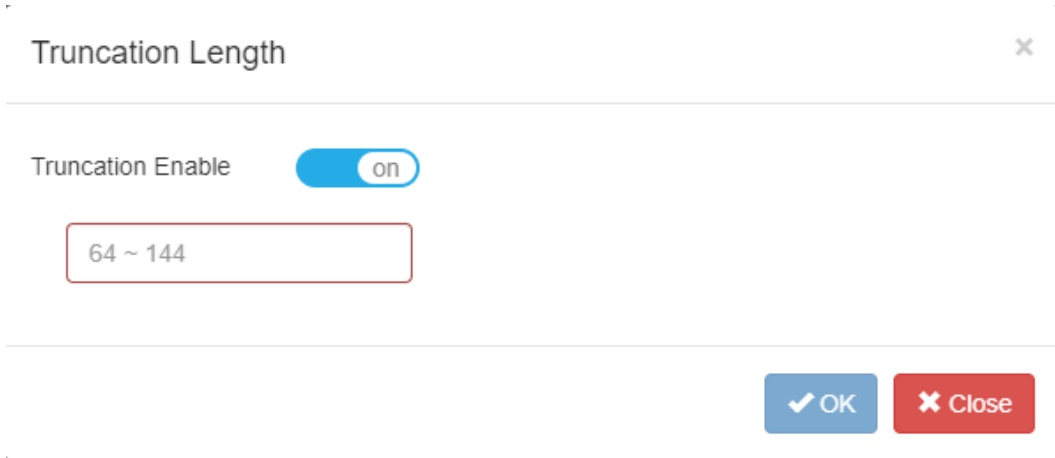


Table 1-1 message truncated configuration

Configuration item	Description
Truncation Enable	Configure whether to enable packet truncation
Truncate length	Configure the truncation of packets (64~144)

## Timestamp

Click “Timestamp” to enter the page with configuration timestamp, as shown in Figure.

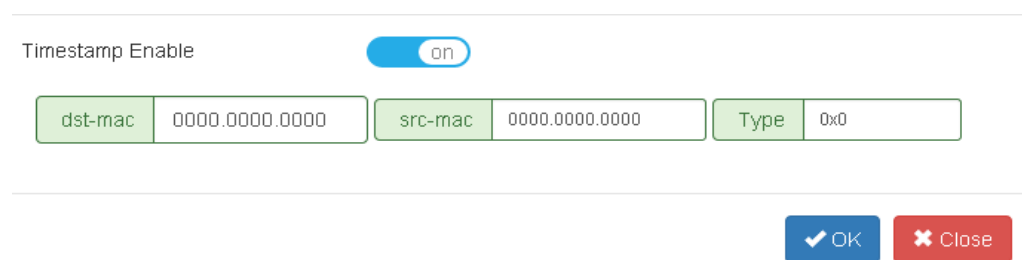


Figure 1-1 timestamp

Table 1-1 timestamp configuration

Configuration item	Description
Timestamp Enable	Configure whether to enable timestamp

dst-mac	Configure the destination MAC with the timestamp message
src-mac	Configure the source MAC with the timestamp message
Type	Configure the Ethernet type to carry timestamp packets

### 1.1.1 Tap statistics configuration

Click on the corresponding tap information, enter the corresponding number of Tap information configuration.

### Attribute configuration

Click on the Tap group name information to enter the Tap property configuration, see section “Attribute configuration”.

### Describe configuration

Click on Tap’s description to enter the Tap description configuration, as shown in Figure.

Enable  on

Tap Group Description

---

Figure 1-1 Tap description

Table 1-1 Tap description configuration


Configuration item	Description
Enable	Whether the accessories are enabled

Tap Group Description	Configure the description of Tap
-----------------------	----------------------------------

## Option configuration

Click the Tap option to delete the corresponding tap.

Table 1-1 Tap option configuration

Configuration item	Description
	Delete the corresponding tap

### 1.1.1 Attribute information

Click the Tap group name information to enter the Tap's attribute information page.

### Incoming direction information

On the Tap attribute page, click xx to view the Tap orientation information, as shown in Figure.



#	Port	Inner Match	Untag	Vlan mark	Truncation	edit-macda	edit-macsa	edit-ipda	edit-ipsa	edit-vlan	Options
1	eth-0-31	N/A	Disable	N/A	Disable	N/A	N/A	N/A	N/A	N/A	

Figure 1-1 incoming direction information

Table 1-1 incoming direction parameters

Parameter item	Description
#	Configure the port number
Port	Corresponding number of port names
Inner Match	Match the number of the inner match name



Untag	Corresponding number of VLAN stripping
VLAN mark	Corresponding number of VLAN tags
Truncation	whether the corresponding truncation is enabled
Edit-macda	Corresponding number Edit the destination MAC
Edit-macsa	Corresponding number Edit the source MAC
Edit-ipda	Corresponding number Edit the destination IP
Edit-ipsa	Corresponding number Edit the source IP
Edit-vlan	Corresponding number Edit the VLAN
Options	The corresponding number of options, including: delete

## Out of direction information

On the Tap attribute page, click xx to view the Tap outbound information, as shown in Figure.

#	Port	Timestamp	Options
1	eth-0-2	NO	

Figure 1-1 out of direction information

Table 1-1 out of direction parameters

Parameter item	Description
----------------	-------------

#	Configure the port number
Port	Corresponding number of port names
Timestamp	Corresponding number timestamp
Options	The corresponding number of options, including: delete

### Attribute configuration

On the Tap's Properties page, click "Add" to enter the Tap property configuration page.

### Incoming direction configuration

In the Tap's attribute information page, select "ingress" in the direction to enter the inbound configuration, as shown in Figure.

<b>Direction</b>	ingress ▼
<b>Port</b>	▼
<b>Truncation</b>	off
<b>Untag</b>	Disable ▼
<b>Vlan mark</b>	off
<b>Flow Match</b>	off
<b>Edit packet</b>	off

Figure 1-1 incoming direction configuration

Table 1-1 incoming direction configuration

Configuration item	Description
--------------------	-------------

Direction	The direction of the Tap port, the direction includes:ingress and egress
Port	Configure the corresponding port
Truncation	Configure whether to enable packet truncation. If enabled, all subsequent configuration items will be canceled, as shown in Figure “enable packet truncation r”
Untag	Configure whether to enable VLAN stripping. If enabled, the VLAN tag configuration item will be canceled. As shown in Figure “enable VLAN stripping”
VLAN mark	Configure whether to enable VLAN tagging. If enabled, the VLAN stripping configuration item will be canceled
Flow Match	Configure whether to enable inner layer matching. If enabled, select the corresponding flow table. The edit message configuration item will be canceled, as shown in Figure “enable inner layer matching”
Edit packet	Configure whether to enable the editing packet. If enabled, the configuration of the editing packet is shown in Table “edit the message configuration”. The configuration of the inner layer will be canceled, as shown in Figure “enable editing messages”

<b>Direction</b>	ingress ▾
<b>Port</b>	eth-0-1 ▾
<b>Truncation</b>	<input checked="" type="checkbox"/> on

Figure 1-1 enable packet truncation

<b>Direction</b>	ingress ▾
<b>Port</b>	eth-0-1 ▾
<b>Truncation</b>	<input type="checkbox"/> off
<b>Untag</b>	double-vlan ▾
<b>Flow Match</b>	Disable
<b>Edit packet</b>	double-vlan
	outer-vlan
	inner-vlan

Figure 1-1 enable VLAN stripping

<b>Direction</b>	ingress ▼
<b>Port</b>	eth-0-1 ▼
<b>Truncation</b>	off
<b>Untag</b>	Disable ▼
<b>Vlan mark</b>	off
<b>Flow Match</b>	on
<b>Flow</b>	<div style="border: 1px solid gray; padding: 2px;"> <span style="background-color: #e0e0e0; display: inline-block; width: 100%; height: 15px;"></span> ▼         </div> <div style="background-color: #007bff; color: white; padding: 2px; margin-top: 2px;">flow1</div>

✓ OK
✕ Close

Figure 1-1 enable inner layer matching

Direction	ingress
Port	eth-0-1
Truncation	off
Untag	Disable
Vlan mark	off
Edit packet	on
Edit-macda	on
Dst-mac	mac in HHHH.HHHH.HH
Edit-macsa	on
Src-mac	mac in HHHH.HHHH.HH
Edit-ipda	on
Dst-ip Type	ipv4
Dst-ip	A.B.C.D
Edit-ipsa	on
Src-ip Type	ipv4
Src-ip	A.B.C.D
Edit-vlan	on
ID	1~4094

Figure 1-1 enable editing messages

Table 1-1 edit the message configuration

Configuration item	Description
Edit packet	Configure whether to enable editing packets

Edit-macda	Configure whether to enable the edit destination MAC address
Dst-mac	Configure the destination MAC
Edit-macsa	Configure whether to enable the edit source MAC address
Src-mac	Configure the source MAC
Edit-ipda	Configure whether to enable the edit destination IP address
Src-ip	Configure the destination IP
Edit-ipsa	Configure whether to enable the edit source IP address
Src-ip	Configure the source IP
Edit-vlan	Configure whether to enable the edit VLAN
ID	Configure the VLAN ID

## Out of direction configuration

On the Tap property configuration page, select “egress” in the direction to enter the inbound configuration, as shown in Figure.

<b>Direction</b>	egress ▼
<b>Port</b>	eth-0-1 ▼
<b>Timestamp</b>	<input type="checkbox"/> off

✓ OK
✗ Close

Figure 1-1 out of direction configurations

Table 1-1 out of direction configuration

Configuration item	Description
Direction	The direction of the Tap port, the direction includes:ingress and egress
Port	Configure the corresponding port
Timestamp	Configure whether to enable timestamp

## 1.1 Flow

This section describes the flow chart statistics and their properties of the configuration and view.

### 1.1.1 Flow statistics

Click “Tap Management”>”Flow” to enter the main page of the flow table. This page can view the statistics of the flow table, as shown in Figure.

#	Flow Name	Remark	Decap	Options
1	f1	N/A	Disable	 

Figure 1-1 flow statistics

Table 1-1 flow statistics parameters

Parameter item	Description
#	Correspond to the number of the flow statistics
Flow Name	Corresponding to the name of the flow
Remark	Corresponding to the description of the flow
Decap	Does the corresponding number flow enable decapsulation.
Options	The options for the corresponding



	numbering flow include options for configuration and deletion
--	---

### 1.1.1 Global configuration

In the main page of the flow chart statistics, click xx to perform the corresponding global configuration.

#### Add a class of flow

Click “Add Flow” to enter the main page of the flow table. This page can view the statistics of the flow table, as shown in Figure.

Flow Name

Decap

---

Figure 1-1 add a class of flow

Table 1-1 add a class of flow configuration

Configuration item	Description
Flow Name	Configure the names of such flow
Decap	Configure whether to enable decapsulation

### 1.1.1 Flow statistics configuration

Click on the corresponding number of flow chart information, enter the corresponding number of flow table information configuration.

## Flow information

Click the name information of the flow table to view the specific information of the flow table, as shown in Figure.


#	Flow Entry	Options
1	sequence-num 10 permit any src-ip any dst-ip any	

Figure 1-1 flow information

Table 1-1 flow information parameters

Parameter item	Description
#	Corresponding to the flow number
Flow Entry	The corresponding number of flow
Options	The corresponding number of options, including: delete

## Describe the configuration

Click the description of the flow table to view the description of the flow table, as shown in Figure.

Enable  on

Remark

---

Figure 1-1 describe the information

Table 1-1 describe the configuration



Configuration item	Description
Enable	Configure whether to enable the

	description configuration
Remark	Configure the description of the flow

## Option configuration

Click the flow table option information to enter the properties of the flow table configuration and delete the configuration.

Table 1-1 options configuration

Configuration item	Description
	Enter the properties of the flow table configuration, see section “Attribute configuration”
	Delete the corresponding numbered flow

### 1.1.1 Attribute configuration

Click on the flow table option information, enter the flow table attribute configuration, as shown in Figure.

Match Rule

<b>Action</b>	permit ▾
<b>IP protocol number</b>	any ▾
<b>Filter Type</b>	ipv4 ▾
<b>Ether Type</b>	<input type="checkbox"/> off
<b>Src-ip</b>	<input type="checkbox"/> off
<b>Dst-ip</b>	<input type="checkbox"/> off
<b>DSCP</b>	<input type="checkbox"/> off
<b>Ip-precedence</b>	<input type="checkbox"/> off
<b>Options</b>	<input type="checkbox"/> off
<b>Fragment</b>	<input type="checkbox"/> off
<b>Src-mac</b>	<input type="checkbox"/> off
<b>Dst-mac</b>	<input type="checkbox"/> off
<b>COS</b>	<input type="checkbox"/> off
<b>Inner COS</b>	<input type="checkbox"/> off
<b>VLAN</b>	<input type="checkbox"/> off
<b>Inner VLAN</b>	<input type="checkbox"/> off

Action

<b>Truncation</b>	<input type="checkbox"/> off
<b>Untag</b>	Disable ▾
<b>Vlan mark</b>	<input type="checkbox"/> off
<b>Edit packet</b>	<input type="checkbox"/> off
<b>Add I2gre</b>	<input type="checkbox"/> off
<b>Add I3gre</b>	<input type="checkbox"/> off
<b>Add Vxlan</b>	<input type="checkbox"/> off
<b>Add Erspantype-1</b>	<input type="checkbox"/> off
<b>Add Erspantype-2</b>	<input type="checkbox"/> off

Figure 1-1 attribute configuration

Table 1-1 attribute configuration

Configuration item	Description
Action	Configure the behavior of the flow table on the port, including: permit and deny
IP protocol number	Select the corresponding IP protocol number, including: any, tcp, udp, gre, nvgre, icmp, igmp, mpls, pppoe(vxlan is udp protocol ), you can also select num, enter 0 ~ 255 protocol number
Filter Type	Configure filter type, including: ipv4, ipv6
Ether Type	Configure whether enable or disable ethertype; if enables, then needs to configure the value and wildcard.
Src-IP	Configure the source IP address; if enables, it needs to configure the source ip address and source wildcard.
Dst-IP	Configure the destination IP address; if enables, it needs to configure the destination ip address and destination wildcard
DSCP	Configure to enable or disable DSCP; if enables, it needs to configure a value between 0 and 63
Ip-precedence	Configure the IP precedence
Options	Configure to enable or disable options
Fragment	Configure to enable or disable fragment
Src-mac	Configure the source MAC address. If enabled, you need to select the

	corresponding type and enter the source MAC address, as shown in Figure “source MAC”
Dst-mac	Configure the destination MAC address. If enabled, you need to select the corresponding type and enter the destination MAC address, as shown in Figure “destination MAC”
COS	Configure enable or disable COS, if enables, it needs to setup the COS value which is between 0 and 7.
Inner COS	Configure enable or disable COS, if enables, it needs to setup the COS value which is between 0 and 7.
VLAN	If the VLAN is enabled, enable ID and anti-mask if it is enabled, as shown in Figure “VLAN”
Inner VLAN	If the inner VLAN is enabled, enable ID and anti-mask if it is enabled
Strip-header	Configure enable or disable COS Strip-header, and Strip-header is only support udp,gre,nvgre,mpls,pppoe protocol, as shown in Figure “Strip-header”
Truncation	Configure whether to enable truncation. If enables, the rest of the configuration items will disappear
Untag	Configure whether to enable VLAN stripping. It includes: disable, double-vlan, outer-vlan, inner-vlan

VLAN mark	If the VLAN mark is enabled, the untag will be disappeared
Edit packet	If the Edit packet is enabled, as shown in Figure “enable editing messages”
Add L2gre	Configure whether to enable Layer 2 GRE encapsulation
Add L3gre	Configure whether to enable Layer 3 GRE encapsulation
Add Vxlan	Configure whether to enable VXLAN encapsulation
Add Erspantype-1	Configure whether to enable Erspantype-1 encapsulation
Add Erspantype-2	Configure whether to enable Erspantype-2 encapsulation

Src-mac	<input checked="" type="checkbox"/> on
Type	any host MAC
Src-mac	mac in HHHH.HHHH.HH

Figure 1-1 source MAC

Dst-mac	<input checked="" type="checkbox"/> on
Type	any host MAC
Dst-mac	mac in HHHH.HHHH.HH

Figure 1-1 destination MAC

VLAN	<input checked="" type="checkbox"/> on
ID	1~4094
Wildcard	0x0

Figure 1-1 VLAN

Action	
Strip-header	<input checked="" type="checkbox"/> on
Strip-position	<input checked="" type="checkbox"/> on
Type	<input type="checkbox"/> L2 <input type="checkbox"/> L3 <input checked="" type="checkbox"/> L4
Strip-offset	<input checked="" type="checkbox"/> on
Value	0~30 <input type="button" value="↑↓"/>
Vlan mark	<input type="checkbox"/> off
Edit packet	<input checked="" type="checkbox"/> on
Add-macaddr	<input type="checkbox"/> off
Edit-macda	<input checked="" type="checkbox"/> on
Dst-mac	<input type="text" value="a.a.a"/>
Edit-macsa	<input checked="" type="checkbox"/> on
Src-mac	<input type="text" value="b.b.b"/>
Edit-ipda	<input type="checkbox"/> off
Edit-ipsa	<input type="checkbox"/> off
Edit-vlan	<input type="checkbox"/> off

Figure 1-1 Strip-header



Match Rule

<b>Action</b>	<input type="text" value="permit"/>
<b>IP protocol number</b>	<input type="text" value="any"/>
<b>Filter Type</b>	<input type="text" value="ipv4"/>
<b>Ether Type</b>	<input type="checkbox"/> off
<b>Src-ip</b>	<input checked="" type="checkbox"/> on
<b>Source IP</b>	<input type="text" value="1.1.1.1"/>
<b>Source wildcard</b>	<input type="text" value="0.0.0.0"/>
<b>Dst-ip</b>	<input type="checkbox"/> off
<b>DSCP</b>	<input type="checkbox"/> off
<b>Ip-precedence</b>	<input type="checkbox"/> off
<b>Options</b>	<input type="checkbox"/> off
<b>Fragment</b>	<input type="checkbox"/> off
<b>Src-mac</b>	<input type="checkbox"/> off
<b>Dst-mac</b>	<input type="checkbox"/> off
<b>COS</b>	<input type="checkbox"/> off
<b>Inner COS</b>	<input type="checkbox"/> off
<b>VLAN</b>	<input type="checkbox"/> off
<b>Inner VLAN</b>	<input type="checkbox"/> off

Action

<b>Truncation</b>	<input checked="" type="checkbox"/> on
-------------------	--

Figure 1-1 enable packet truncation

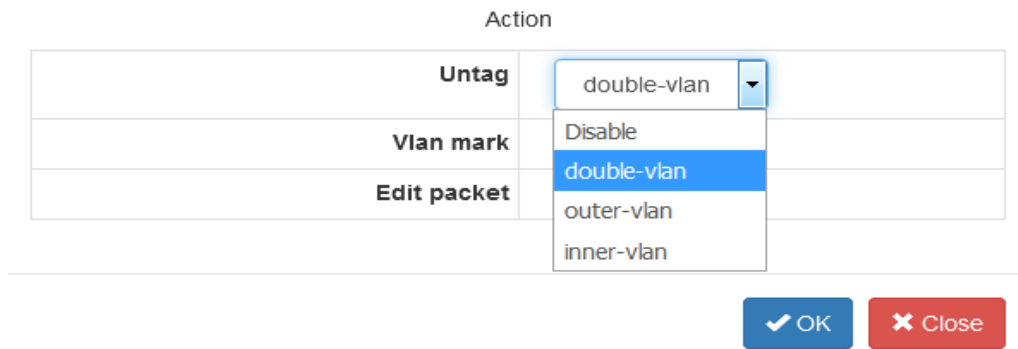


Figure 1-1 enable VLAN stripping

Action

<b>Untag</b>	Disable <input type="button" value="v"/>
<b>Vlan mark</b>	<input type="checkbox"/> off
<b>Edit packet</b>	<input checked="" type="checkbox"/> on
<b>Add-macaddr</b>	<input type="checkbox"/> off
<b>Edit-macda</b>	<input checked="" type="checkbox"/> on
<b>Dst-mac</b>	mac in HHHH.HHHH.HH
<b>Edit-macsa</b>	<input checked="" type="checkbox"/> on
<b>Src-mac</b>	mac in HHHH.HHHH.HH
<b>Edit-ipda</b>	<input checked="" type="checkbox"/> on
<b>Dst-ip Type</b>	ipv4 <input type="button" value="v"/>
<b>Dst-ip</b>	A.B.C.D
<b>Edit-ipsa</b>	<input checked="" type="checkbox"/> on
<b>Src-ip Type</b>	ipv4 <input type="button" value="v"/>
<b>Src-ip</b>	A.B.C.D
<b>Edit-vlan</b>	<input checked="" type="checkbox"/> on
<b>Type</b>	<input checked="" type="button" value="Add"/> <input type="button" value="Edit"/>
<b>ID</b>	1~4094 <input type="button" value="v"/>

Figure 1-1 enable editing messages

Action

<b>Add I2gre</b>	<input checked="" type="checkbox"/> on
<b>L2gre-src-ip</b>	<input type="text" value="A.B.C.D"/>
<b>L2gre-dest-ip</b>	<input type="text" value="A.B.C.D"/>
<b>L2gre-dest-mac</b>	<input type="text" value="mac in HHHH.HHHH.HH"/>
<b>L2gre-key-length</b>	<input type="text" value="24"/> ▼
<b>L2gre-key-num</b>	<input type="text" value="1~16777215"/> ▲▼

---

Figure 1-1 Add L2gre


Action

<b>Add I3gre</b>	<input checked="" type="checkbox"/> on
<b>L3gre-src-ip</b>	<input type="text" value="A.B.C.D"/>
<b>L3gre-dest-ip</b>	<input type="text" value="A.B.C.D"/>
<b>L3gre-dest-mac</b>	<input type="text" value="mac in HHHH.HHHH.HH"/>

---

Figure 1-1 Add L3gre

Action

<b>Add Vxlan</b>	<input checked="" type="checkbox"/> on
<b>Vxlan-dest-mac</b>	mac in HHHH.HHHH.HH
<b>Vxlan-src-ip</b>	A.B.C.D
<b>Vxlan-dest-ip</b>	A.B.C.D
<b>Vxlan-dst-port</b>	<input type="checkbox"/> off
<b>Vxlan-src-port</b>	<input type="checkbox"/> off
<b>Vxlan-vni-num</b>	1~16777215 

---

Figure 1-1 Add Vxlan

Action

<b>Add Erspantype-1</b>	<input checked="" type="checkbox"/> on
<b>Erspantype-1-dest-mac</b>	mac in HHHH.HHHH.HH
<b>Erspantype-1-src-ip</b>	A.B.C.D
<b>Erspantype-1-dest-ip</b>	A.B.C.D

---

Figure 1-1 Add Erspantype-1

Action


<b>Add Erspantype-2</b>	<input checked="" type="checkbox"/> on
<b>Erspantype-2-dest-mac</b>	mac in HHHH.HHHH.HH
<b>Erspantype-2-src-ip</b>	A.B.C.D
<b>Erspantype-2-dest-ip</b>	A.B.C.D
<b>Erspantype-2-spanid</b>	1~1023 

Figure 1-1 Add Erspantype-2

Table 1-1 enable editing messages configuration

Configuration item	Description
Edit packet	Configure whether to enable editing packets
Add-macaddress	Configure whether to enable to add mac address, if enable, then needs to configure source mac and destination mac address
Edit-macda	Configure whether to enable the edit destination MAC address
Dst-mac	Configure the destination MAC
Edit-macsa	Configure whether to enable the edit source MAC address
Src-mac	Configure the source MAC
Edit-ipda	Configure whether to enable the edit destination IP address

Dst-ip Type	Configure destination ip type
Dst-ip	Configure destination ip
Edit-ipsa	Configure whether to enable the edit source IP address
Src-ip Type	Configure source ip type
Src-ip	Configure the source IP
Edit-vlan	Configure whether to enable the edit VLAN
Type	Configure Type, including add and edit
ID	Configure the VLAN ID

## 1.1 Inner layer matching

This section describes the configuration and view of the statistics of the inner flow chart and its properties

### 1.1.1 Inner flow statistics

Click “Tap Management”>”Inner Match” to enter the inner layer matching the main page, this page can view the inner flow chart statistics, as shown in Figure.

#	Flow Name	Remark	Options
1	acl1	N/A	+

Figure 1-1 inner flow statistics

Table 1-1 inner flow statistics parameters

Parameter item	Description
#	Corresponding to the inner flow statistics number
Flow Name	Corresponds to the name of the inner stream

Remark	Corresponding number description of inner layer flow
Options	The options for the numbering inner layer flow table include: configuration properties and deletion

### 1.1.1 Global configuration

In the inner flow chart statistics on the main page, click “Add Inner-match Flow” can be the corresponding global configuration.

#### Add a class of inner flow

Click “Add Flow” to enter the main page of the flow table. This page can view the statistics of the flow table, as shown in Figure.

Figure 1-1 add a class of inner flow

Table 1-1 add a class of inner flow configuration

Configuration item	Description
Flow Name	Configure the names of such inner stream

### 1.1.1 Inner flow statistics configuration

Click on the corresponding number of the inner flow chart information, enter the corresponding number of inner flow chart information configuration



## Inner flow information

Click the name information of the inner stream table to view the specific information of the inner flow chart, as shown in Figure.


#	Flow Entry	Options
1	sequence-num 1 match any src-ip any dst-ip any	

Figure 1-1 inner flow information

Table 1-1 inner flow information parameters

Parameter item	Description
#	Corresponding to the inner flow meter number
Flow Entry	The corresponding number of flow
Options	The corresponding number of options, including: delete

## Describe the configuration

Click the description of the inner flow meter to view the description of the inner flow table, as shown in Figure.

Enable  on

Remark

---

Figure 1-1 describe the configuration

Table 1-1 describe the configuration



Configuration item	Description
--------------------	-------------

Enable	Configure whether to enable the description configuration
Remark	Configure the description of the inner flow meter

## Option configuration

Click the option information of the inner flow table to enter the properties of the inner flow table and delete the configuration .

Table 1-1 option configuration

Configuration item	Description
	Enter the properties of the flow table configuration, see section “Attribute configuration”
	Delete the inner stream table for the corresponding number

### 1.1.1 Attribute configuration

Click the “+” symbol under “Options”, enter the corresponding flow attribute configuration, as shown in Figure.

<b>IP protocol number</b>	any ▾
<b>Filter TYPE</b>	ipv4 ▾
<b>Ether Type</b>	<input type="checkbox"/> off
<b>src-ip</b>	<input type="checkbox"/> off
<b>dst-ip</b>	<input type="checkbox"/> off
<b>DSCP</b>	<input type="checkbox"/> off
<b>Ip-precedence</b>	<input type="checkbox"/> off
<b>Options</b>	<input type="checkbox"/> off
<b>Fragment</b>	<input type="checkbox"/> off
<b>src-mac</b>	<input type="checkbox"/> off
<b>dst-mac</b>	<input type="checkbox"/> off
<b>COS</b>	<input type="checkbox"/> off
<b>Inner COS</b>	<input type="checkbox"/> off
<b>VLAN</b>	<input type="checkbox"/> off
<b>Inner VLAN</b>	<input type="checkbox"/> off

Figure 1-1 acl attribute configuration

Table 1-1 attribute configuration

Configuration item	Description
IP protocol number	Select the corresponding IP protocol number, including: any, tcp, udp, icmp and igmp. You can also select num, enter 0 ~ 255 protocol number
Filter Type	Configure filter type, including: ipv4, ipv6
Ether Type	Configure Ethertype

Src-IP	Configure the source IP address
Dst-IP	Configure the destination IP address
DSCP	Configure to enable DSCP
Ip-precedence	Configure the IP precedence
Options	Configure enable or disable options
Fragment	Configure enable or disable fragment
Src-mac	Configure the source MAC address. If enabled, you need to select the corresponding type and enter the source MAC address, as shown in the following Figure “source MAC”
Dst-mac	Configure the destination MAC address. If enabled, you need to select the corresponding type and enter the destination MAC address, as shown in the following Figure “destination MAC”
COS	Configure to enable or disable COS
Inner COS	Configure to enable or disable inner COS
VLAN	If the VLAN is enabled, enable ID and anti-mask if it is enabled, as shown in the following Figure “VLAN”
Inner VLAN	Configure to enable or disable Inner VLAN. If enables, it needs to setup inner VLAN ID and wildcar

src-mac	<input checked="" type="checkbox"/> on
Type	<input checked="" type="button" value="any"/> <input type="button" value="host"/> <input type="button" value="MAC"/>
src-mac	mac in HHHH.HHHH.HH

Figure 1-1 source MAC

<b>dst-mac</b>	<input checked="" type="checkbox"/> on
<b>Type</b>	any   host   MAC
<b>dst-mac</b>	mac in HHHH.HHHH.HH

Figure 1-1 destination MAC

<b>VLAN</b>	<input checked="" type="checkbox"/> on
<b>ID</b>	1~4094
<b>Wildcard</b>	0x0

Figure 1-1 VLAN

## 1.1 Access control list

This section describes the configuration and view of the statistics of the access control list and its attributes.

### 1.1.1 Access control list statistics

Click “Tap Management”>”Acl”to enter the access control list main page, this page can view the access control list statistics, as shown in Figure.

#	Name	Remark	Options
1	acl	N/A	+

Figure 1-1 access control list statistics

Table 1-1 access control list statistics parameters

Parameter item	Description
#	The number of the corresponding access control list statistics
Name	Corresponds to the name of the access control list

Remark	Correspondence number access control list description
Options	Corresponding number access control list options, options include: configuration properties and delete

### 1.1.1 Global configuration

In the main page of the access control list statistics, click “Add Acl” to perform the corresponding global configuration

#### Add access control list

Click “Add Acl”, you can enter the page to increase the access control list, as shown in Figure.

Figure 1-1 add access control list

Table 1-1 add access control list configuration

Configuration item	Description
Name	Configure to increase the name of the access control list

### 1.1.1 Access control list configuration

Click on the corresponding number to increase the access control list information, enter the corresponding number of access control list to increase the information configuration.

## Access control list information

Click to increase the name of the access control list information, you can view the specific information to increase the access control list, as shown in Figure.

#	Entry	Options
1	sequence-num 10 permit any src-ip any dst-ip any	

Figure 1-1 access control list information

Table 1-1 access control list information parameters

Parameter item	Description
#	Corresponds to the access control list number
Entry	Corresponding number entry
Options	The corresponding number of options, including: delete

## Describe the configuration

Click the description of the access control list to view the description of the access control list, as shown in Figure.

Enable  on

Remark

Figure 1-1 describe the configuration

Table 1-1 describe the configuration



Configuration item	Description
--------------------	-------------

Enable	Configure whether to enable the description configuration
Remark	Configure a description of the access control list

## Option configuration

Click the access control list option to access the configuration and delete configuration of the access control list.

Table 1-1 option configuration

Configuration item	Description
	Enter the attribute configuration of the access control list see section “Attribute configuration”
	Delete the access control list for the corresponding number

### 1.1.1 Attribute configuration

Click the “+” symbol under “Options”, enter the corresponding ACL attribute configuration, as shown in Figure.



Add
✕

<b>Action</b>	<input type="text" value="permit"/>
<b>IP protocol number</b>	<input type="text" value="any"/>
<b>Filter TYPE</b>	<input type="text" value="ipv4"/>
<b>Ether Type</b>	<input type="checkbox" value="off"/>
<b>Src-ip</b>	<input type="checkbox" value="off"/>
<b>Dst-ip</b>	<input type="checkbox" value="off"/>
<b>DSCP</b>	<input type="checkbox" value="off"/>
<b>Ip-precedence</b>	<input type="checkbox" value="off"/>
<b>Options</b>	<input type="checkbox" value="off"/>
<b>Fragment</b>	<input type="checkbox" value="off"/>
<b>Src-mac</b>	<input type="checkbox" value="off"/>
<b>Dst-mac</b>	<input type="checkbox" value="off"/>
<b>COS</b>	<input type="checkbox" value="off"/>
<b>Inner COS</b>	<input type="checkbox" value="off"/>
<b>VLAN</b>	<input type="checkbox" value="off"/>
<b>Inner VLAN</b>	<input type="checkbox" value="off"/>

Figure 1-1 acl attribute configuration

Table 1-1 attribute configuration

Configuration item	Description
Action	Configure the behavior of the flow table on the port, including: permit and deny
IP protocol number	Select the corresponding IP protocol number, including: any, tcp, udp, you can also select num, enter 0 ~ 255

	protocol number
Filter Type	Configure filter type, including: ipv4, ipv6
Ether Type	Configure Ethertype
Src-IP	Configure the source IP address
Dst-IP	Configure the destination IP address
DSCP	Configure to enable DSCP
Ip-precedence	Configure the IP precedence
Options	Configure enable or disable options
Fragment	Configure enable or disable fragment
Src-mac	Configure the source MAC address. If enabled, you need to select the corresponding type and enter the source MAC address, as shown in the following Figure “source MAC”
Dst-mac	Configure the destination MAC address. If enabled, you need to select the corresponding type and enter the destination MAC address, as shown in the following Figure “destination MAC”
COS	Configure to enable or disable COS
Inner COS	Configure to enable or disable inner COS
VLAN	If the VLAN is enabled, enable ID and anti-mask if it is enabled, as shown in the following Figure “VLAN”
Inner VLAN	Configure to enable or disable Inner VLAN. If enables, it needs to setup inner VLAN ID and wildcar

<b>Src-mac</b>	<input checked="" type="checkbox"/> on
<b>Type</b>	any   host   MAC
<b>Src-mac</b>	mac in HHHH.HHHH.HH

Figure 1-1 source MAC

<b>Dst-mac</b>	<input checked="" type="checkbox"/> on
<b>Type</b>	any   host   MAC
<b>Dst-mac</b>	mac in HHHH.HHHH.HH

Figure 1-1 destination MAC

<b>VLAN</b>	<input checked="" type="checkbox"/> on
<b>ID</b>	1~4094
<b>Wildcard</b>	0x0

Figure 1-1 VLAN

## 1.1 TAP Statistics

This section describes the configuration and view of the statistics of the flow in ingress interface.

Click “Tap Management”>”TAP Statistics”to enter the main page, this page can view the flow statistics of all interfaces , as shown in Figure.

Port List									
eth-0-1	eth-0-2	eth-0-3	eth-0-4	eth-0-5	eth-0-6	eth-0-7	eth-0-8	eth-0-9	eth-0-10
eth-0-11	eth-0-12	eth-0-13	eth-0-14	eth-0-15	eth-0-16	eth-0-17	eth-0-18	eth-0-19	eth-0-20
eth-0-21	eth-0-22	eth-0-23	eth-0-24	eth-0-25	eth-0-26	eth-0-27	eth-0-28	eth-0-29	eth-0-30
eth-0-31	eth-0-32	eth-0-33	eth-0-34	eth-0-35	eth-0-36	eth-0-37	eth-0-38	eth-0-39	eth-0-40
eth-0-41	eth-0-42	eth-0-43	eth-0-44	eth-0-45	eth-0-46	eth-0-47	eth-0-48	eth-0-49	eth-0-50
eth-0-51	eth-0-52	eth-0-53	eth-0-54						

Flow Statistics									
Interface:									

Figure 1-1 TAP statistics

## 1.1.1 Flow statistics of interface

Port List									
eth-0-1	eth-0-2	eth-0-3	eth-0-4	eth-0-5	eth-0-6	eth-0-7	eth-0-8	eth-0-9	eth-0-10
eth-0-11	eth-0-12	eth-0-13	eth-0-14	eth-0-15	eth-0-16	eth-0-17	eth-0-18	eth-0-19	eth-0-20
eth-0-21	eth-0-22	eth-0-23	eth-0-24	eth-0-25	eth-0-26	eth-0-27	eth-0-28	eth-0-29	eth-0-30
eth-0-31	eth-0-32	eth-0-33	eth-0-34	eth-0-35	eth-0-36	eth-0-37	eth-0-38	eth-0-39	eth-0-40
eth-0-41	eth-0-42	eth-0-43	eth-0-44	eth-0-45	eth-0-46	eth-0-47	eth-0-48	eth-0-49	eth-0-50
eth-0-51	eth-0-52	eth-0-53	eth-0-54						

Flow Statistics		
<b>Interface: eth-0-1</b>		
<table border="1"> <thead> <tr> <th>Flow Name: flow1</th> </tr> </thead> <tbody> <tr> <td>           Match Rule:            sequence-num 10 permit any src-ip any dst-ip any            Match Bytes : 200            Match Packets : 2              Total Match Bytes : 200    Total Match Packets : 2         </td> </tr> </tbody> </table>	Flow Name: flow1	Match Rule: sequence-num 10 permit any src-ip any dst-ip any Match Bytes : 200 Match Packets : 2  Total Match Bytes : 200    Total Match Packets : 2
Flow Name: flow1		
Match Rule: sequence-num 10 permit any src-ip any dst-ip any Match Bytes : 200 Match Packets : 2  Total Match Bytes : 200    Total Match Packets : 2		

Figure 1-1 flow statistics



**NOTE**

It only displays the flow statistics of interface which applies flow in the tap-group.

# 2 Tool

## 1.1 Overview

This chapter mainly describes Ping, Traceroute, restart / save the use and information on the page, the user can use these tools for basic network diagnosis.

## 1.1 Ping

Users can use ping to detect and diagnose current network conditions and analyze the resulting information.

### 1.1.1 Tool use

Click “Tool”>”Ping”to enter the ping tool main page, ping the use of options shown in Figure, click “OK” to use.



Figure 1-1 Ping tool

Table 1-1 Ping tool configuration

Configuration item	Description
VRF ID	Configure the vrf where the ping packet is specified, default mgmt
Count	Configure the specified number of pings
Destination IP	Configure the destination IP address

## 1.1.1 Console information

And then use the ping tool, the ping results and then the lower part of the display, as shown in Figure.

```

Console

PING 127.0.0.1 (127.0.0.1) 56(84) bytes of data.
 64 bytes from 127.0.0.1: icmp_seq=1 ttl=64 time=0.199 ms
 64 bytes from 127.0.0.1: icmp_seq=2 ttl=64 time=0.098 ms
 64 bytes from 127.0.0.1: icmp_seq=3 ttl=64 time=0.096 ms
 64 bytes from 127.0.0.1: icmp_seq=4 ttl=64 time=0.072 ms

--- 127.0.0.1 ping statistics ---
 4 packets transmitted, 4 received, 0% packet loss, time 299ms
 rtt min/avg/max/mdev = 0.072/0.116/0.199/0.049 ms
  
```

Figure 1-1 Ping console information

## 1.1 Traceroute

Traceroute is a small tool to confirm that the message passes through the destination IP address of the router. Its implementation principle is to determine the destination route by sending ICMP packets of different TTL.

### 1.1.1 Tool use

Click “Tool”>” Traceroute”to enter the ping tool main page, ping the use of options shown in Figure, click “OK” to use.

```

Options

VRF ID: mgmt Destination IP 127.0.0.1 timeout/second 5 OK
  
```

Figure 1-1 traceroute tool

Table 1-1 traceroute tool configuration

Configuration item	Description
VRF ID	Configure the vrf where the ping packet is specified, default mgmt

Destination IP	Configure the destination IP address
Timeout/second	Configure timeout time / sec

### 1.1.1 Console information

And then use the Traceroutetool, the t result is displayed at the bottom of the option, as shown in Figure.

```
Console
-----
traceroute to 127.0.0.1 (127.0.0.1), 30 hops max, 38 byte packets
 1 localhost (127.0.0.1) 0.037 ms 0.023 ms 0.015 ms
```

Figure 1-1 traceroute console information

## 1.1 Reboot/Save

Click “Reboot/Save” to enter the reboot / save main page, as shown in Figure.



Figure 1-1 reboot/save parameters

Table 1-1 reboot/save configuration

Configuration item	Description
Reboot	Reboot the switch
Save	Save the current configuration to the configuration file
Save and reboot	Save the current configuration to the configuration file and restart the switch

For questions, please contact Garland Technology Support at:  
 8AM-9PM (CST) Monday - Friday (Except for observed US Holidays)  
 Tel: 716.242.8500 Online: [www.garlandtechnology.com/support](http://www.garlandtechnology.com/support)