

## **GGM GS26L2P User's Guide**

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## Contents

CHAPTER 1 PRODUCT INSTRUCTION .....	5
1.1 Introduction.....	5
1.2 Front Panel.....	5
1.3 Rear Panel.....	6
CHAPTER 2 PREPARATIONS BEFORE INSTRUCTION.....	6
2.1 Precautions.....	6
2.2 Check Installation Environment.....	6
2.3 Installation Tools .....	7
CHAPTER 3 INSTALLATION .....	7
3.1 Install the Switch.....	7
3.2 Connect the power cord and grounded cord.....	7
3.3 Test after Installation .....	8
CHAPTER 4 TECHNICAL SPECIFICATIONS .....	9
4.1 Hardware Features:.....	9
4.2 Software Features:.....	9
<b>PART TWO WEB CONFIGURATION GUIDE.....</b>	<b>12</b>
CHAPTER 1 USER LOGIN .....	12
CHAPTER 2 SWITCH STATUS.....	13
2.1 System Information .....	13
2.2 Logging Message .....	13
2.3 Port Counters.....	14
2.4 Aggregation State.....	14
2.5 LLDP Statistics.....	15
2.6 IGMP Statistics.....	15
2.7 STP Statistics .....	16
CHAPTER 3 BASIC CONFIGURATION.....	16
3.1 IP Configuration .....	16
3.3 Account Config.....	17
3.3 Logging Setting.....	17
3.4 Time Settings .....	18
3.5 Port Setting.....	18
CHAPTER 4 ADVANCED CONFIGURATION .....	19
4.1 Port Mirror Configuration.....	19
4.2 Port Aggregation.....	20
4.3 VLAN Management.....	21
4.4 Voice VLAN .....	22
4.5 Multicast Configuration .....	23
4.6 IGMP Snooping Configuration.....	23
4.7 Jumbo Frame Configuration .....	24
4.8 LLDP Configuration.....	24
4.9 SNMP Configuration.....	25
4.10 PoE Management.....	26

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CHAPTER 5 QoS CONFIG .....	27
5.1 General.....	27
5.2 QoS Basic Mode.....	27
5.3 Rate Limit.....	27
CHAPTER 6 NETWORK SECURITY .....	28
6.1 Dynamic Learend.....	28
6.2 Static MAC Address Table.....	28
6.3 Port Limit Configuration.....	29
6.4 Storm Control.....	30
6.5 Port Isolation.....	30
6.6 DoS configuration.....	31
6.7 Loop Protect.....	32
6.8 STP Configuration.....	32
CHAPTER 7 SYSTEM MAINTENANCE.....	33
7.1 Reboot Switch.....	33
7.2 Factory Reset.....	34
7.3 Firmware Upgrading.....	34
7.4 Ping Test.....	34
7.5 Network Cable Test.....	35
<i>Appendix Trouble shooting.....</i>	<i>36</i>

**Packaging list:**

- PoE Switch x1
- Power Cord x1
- User Guide/CD x1
- Warranty card x1
- Installation accessories kit x1

Please contact local reseller or distributor if any accessories are missing.

# Part One Hardware Installation Guide

## Chapter 1 Product Instruction

### 1.1 Introduction

GGM GS26L2P: 24\*10/100/1000M PoE ports, 2\*1000 Base-X SFP; 1\*Console port.

### 1.2 Front Panel

#### GGM GS26L2P

24\*10/100/1000M PoE ports, 2\*1000 Base-X SFP; 1\*Console port .



GGM GS26L2P Front Panel

#### LED Indicator Instruction

Please check the LED indicators on the left of front panel.

##### 1) System Indicator

The System indicator is on the upper-left side of front panel, it is on when the switch is powered. The indicator is on when switch works normally.

##### 2) Power Indicator

Below the System indicator is the power indicator, the indicator is on when switch works normally. If the indicator is off, please check the power supply.

##### 3) 10/100Mbps Link/ACT Indicators

There is a toggle switch on the right side of front panel (next to the Reset button). If sliding the toggle switch to the left "Link/ACT" side, the indicators marked with numbers are **yellow** when the 10/100M ports auto-negotiate connected, and the yellow indicators flash when there are data communications through the ports.

##### 4) 1000Mbps Link/ACT Indicators

Slide the toggle switch to the left "Link/ACT" side, the indicators marked with

numbers are **green** when the 1000Mbps ports auto-negotiate connected, and the green indicators will flash when there are data communications through the ports.

### 5) PoE Indicators

Slide the toggle switch to the right "POE" side, the indicators marked with numbers are **yellow** when the PoE function works. And the yellow indicators will flash when the PoE ports failed to work or the PDs are overloaded, please remove the PD, and reconnect after examination.

## 1.3 Rear Panel



Rear Panel

**Power Socket:** Three-core power socket is adopted, please connect female head of power cord to the socket, and connect the AC power supply with male head.

## Chapter 2 Preparations before Instruction

### 2.1 Precautions

Please read the following precautions carefully before operation, to avoid damaging the device or causing body injuries.

- 1). Please remove the power socket before cleaning the switch. Don't wipe the switch with wet cloth or wash the switch with liquid.
- 2). Don't stock the device in damp environment or near water, to avoid water or moisture penetrating into the inner device.
- 3). Don't put the device on a unstable box or desk, the device will get damaged from falling.
- 4). Please keep good ventilation indoor, and make sure the heat dissipation function of switch works well.
- 5). The switch only works normally in suitable voltage. Please check the working voltage first.
- 6). Please don't open the switch enclosure randomly, especially when the switch is powered on, there is risk of electric shock.
- 7). Please wear anti-static wrist strap when change the interface board, to avoid the static electricity damage the board.

### 2.2 Check Installation Environment

The switch is for indoor use only, please pay attention to the following problems when install the switch in a cabinet or put the device directly on the desktop.

- 1) The air vents of switch must have enough space to dissipate the heat inside enclosure.

- 2) A good heat dissipation system in the cabinet or on the desktop.
- 3) The cabinet or desktop strong enough to support the weight of switch and installation accessories.
- 4) Safe ground connection for the cabinet or desktop.

### 2.3 Installation Tools

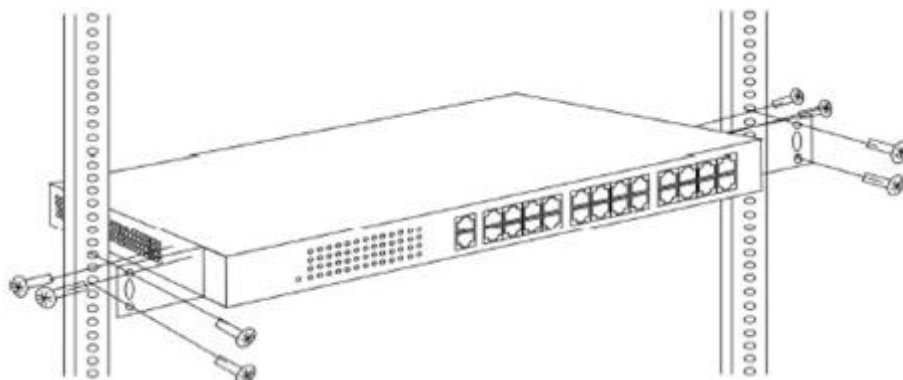
- 1) Flathead screw driver
- 2) Cross screw driver
- 3) Anti-static wrist strap

## Chapter 3 Installation

### 3.1 Install the Switch

#### 3.1.1 Install the switch on a 19 inch standard cabinet

- 1) First fix the provided two L-shaped brackets on the two sides of switch.
- 2) Fix the switch on the rack with screws (screws are not provided).



Cabinet Installation

#### 3.1.2 Install the switch on the desktop

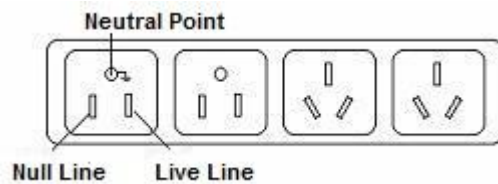
When there is no 19 inch standard cabinet, the switch is usually put on clean desktop. The operation is easier, please follow the below instructions:

- 1) Keep the desktop stable and safely grounded.
- 2) Set aside 10cm space around switch for heat dissipation.
- 3) Don't put any heavy device on the switch.

### 3.2 Connect the power cord and grounded cord

#### 3.2.1 Select of AC Power Socket

The neutral one-phase 3-wire power socket is advised to adopt, or the multifunctional PC power socket. The neutral point of power supply must be well grounded, please check the grounded power supply before operation.



one-phase 3-wire power socket

### 3.2.2 Connection of AC power cord

Step one: please connect one end of power cord to the power jack on the switch rear panel, Connect the other end to the AC power socket.

Step two: check the power indicator (PWR) on the front panel, if the LED is on, connection is successful.

### 3.3 Test after Installation

Make sure the working voltage is the same with the rated voltage of switch.

Check the connection of grounded cord.

Check the connection of configuration cable and power input cord.

If the interface cable is partly deployed outdoor, please check the connection of anti-thunder AC power strip and interface anti-thunder device .



## Chapter 4 Technical Specifications

### 4.1 Hardware Features:

Items	GGM GS26L2P
Fixed Ports	24*10/100/1000M PoE ports;
	2*Gigabit SFP ports;
	1*console port
PoE standards	IEEE802.3af/at
Max Output Power(single port)	30W
Total Power Consumption	450W
PoE Pin-out	1/2(+), 3/6(-);
Switching Capacity	≥52Gbps
Forwarding Mode	Full wire-speed storage and forwarding
Forwarding Rate	10M: 14880pps/port
	100M: 148809pps/port
	1000M: 1488095pps/port
Operation Temperature	-20~50°C
Storage Temperature	-40~70°C
Operation Humidity	10%~90%(non-condensing)
Storage Humidity	5%~95%(non-condensing)
Dimensions	440(L)x285(W)x44.5(H)mm
Input Power Supply	AC: 110-240V ~ 50-60Hz/450W
Weight	<5.5Kg
LED Indicator	Power, Link/Act, PoE Status
Energy Saving	Comply with "EEE" Energy Efficient Ethernet

### 4.2 Software Features:

<b>Item</b>	GGM GS26L2P
Standards and Protocols	IEEE 802.3af, Power Over Ethernet
	IEEE 802.3at, Power Over Ethernet Plus
	IEEE 802.3u, 100BASE-TX
	IEEE 802.3ab, 1000 BASE-T
	IEEE 802.3z, 1000 BASE-X
	IEEE 802.3ad, Static or Dynamic Link Aggregation
	IEEE 802.3x, Full-Duplex Flow Control
	IEEE 802.3az, EEE(Energy Efficient Ethernet)
	IEEE 802.1s, Multiple Spanning Tree Protocol
MAC Address Table	Up to 8K MAC addresses
	Support auto-update, two-way learning
VLAN	Port-based VLANs\ Port-protocol-based VLANs \

	4K-entry Vlan Table
	VLANs based on IEEE 802.1q
Spanning Tree	Support Spanning Tree Protocol
	Support Rapid Spanning Tree Protocol
Link Aggregation	Support 8 aggregation groups, and a maximum of 8 ports in each aggregation group
Port Mirroring	Support bi-direction port mirroring
	RSPAN function for remote mirroring
Port Isolation	Isolation between downlink ports without influence the communication between downlink and uplink ports
Ring Protection	Ring Protection, real-time detecting, quick alarm, precise localization, smart blocking and auto-recovery
Traffic Control	Back-pressure traffic control under Half-Duplex mode
	IEEE 802.3x traffic control under Full-Duplex mode
Port Traffic Restriction	Port-based ingress or egress rate limiting
Storm Suppression	Support the suppression of broadcast storm based on forwarding rate
	Support storm suppression based on bandwidth adjustment, storm filtering and ACL strategy.
Multicast Control	Support IGMPv1/2/3 and MLDv1/2 Snooping;
Security	Attack Prevention(Land attack\Blat attack\Ping attack\TCP control flag attack)
	MAC & Port based Security
QOS	SP (Strict Priority)
	WFQ (Weighted Fair Queuing)
	WRR (Weighted Round Robin)
	Weighted Random Early Detection (WRED)
	Head Of Line
	802.1p(Port Queuing Priority)
	Differentiated Service Code Point(DSCP Priority)
IPv6	IPv6 Parsing
PoE Management	<ul style="list-style-type: none"> <li>Total PoE power budget control</li> <li>Per port PoE function enable/disable</li> <li>PoE Port Power feeding priority</li> <li>Per PoE port power limitation</li> <li>PD classification detection</li> <li>PoE schedule</li> </ul>
Physic Medium	10/100Base-TX: UTP category 3/4/5 cables( Maximum 100m)
	1000Base-T: UTP Category 5 cable( Maximum 100m)
	1000Base-SX: fiber with 850nm wavelength, supports a max transmission distance of 550m

	1000Base-LX: fiber with 1310nm / 1550nm wavelength, supports a max transmission distance of 80km
Network Cable Deployment	Support Auto-MDIX function, automatically identify straight forward cable and cross-over cable
Negotiation Pattern	Support port auto-negotiation function( automatically negotiate transmission rate and Duplex modes)
Maintenance	Detect the connectivity of network cables
	Uploading or downloading of the configuration data
	Uploading of upgrade patch
	Support system logs
Configuration & Management	WEB-based reset to factory defaults
	WEB-based interface management
	Telnet
	CLI interface management
	SNMP V1/2

## Part Two WEB Configuration Guide

### Chapter 1 User Login

GGM GS26L2P smart PoE switch adopt Web-based interface management, the default IP is 192.168.255.1. Please make sure the IP address of PC is in the same network segment with that of switch, or the PC can't access to manage the switch. After the setting of IP address, please input 192.168.255.1 in the browser to access the configuration interface of switch. The Web management interface consists of five parts, which are switch status, basic configuration, advanced configuration, network security, system maintenance.



Login Page

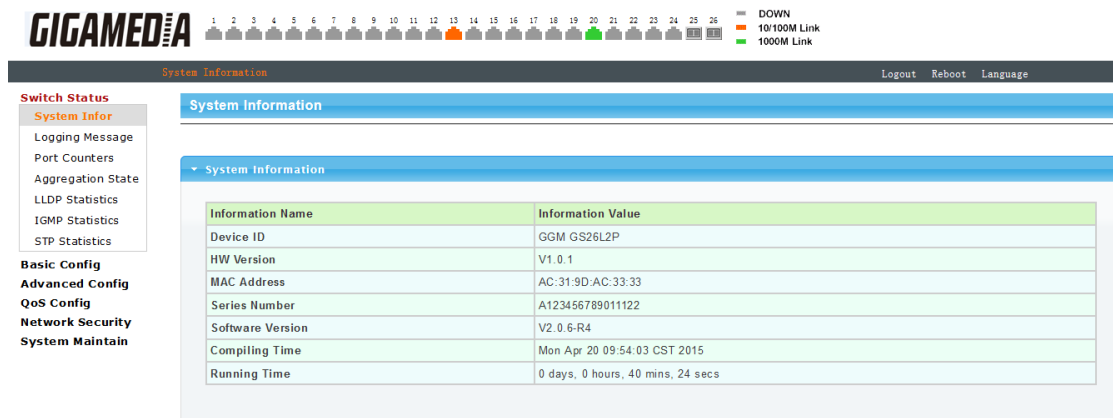
Enter user password in the above login page, the default password is admin. The system only support single user login, other logins will be refused until the user logs out.

If IP address conflict occurs, it suggests the latest user didn't log out successfully. Please reboot the device or try to log in again 180s later.

It is advised to reset the IP address and password in first login, and make sure the switch is not configured in the same network segment with DHCP server or Internet Gateway device.

## Chapter 2 Switch Status

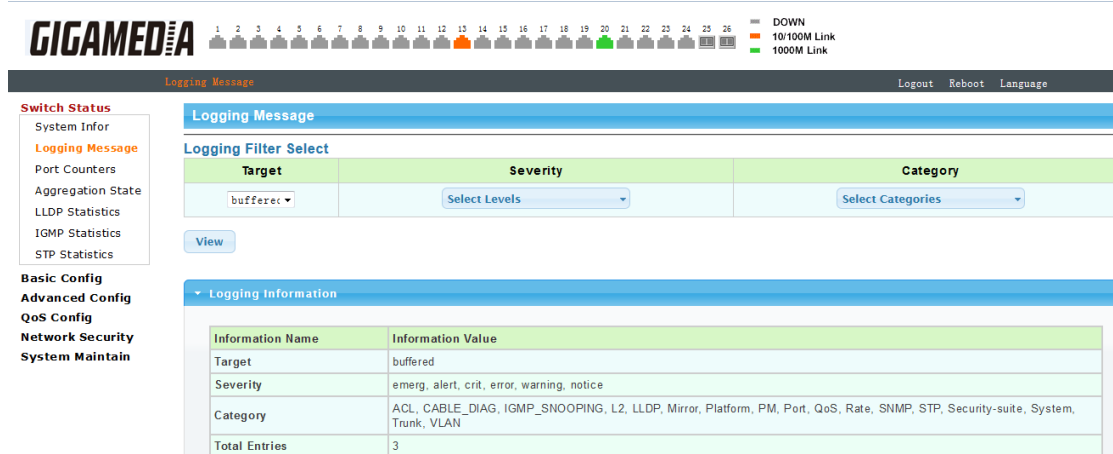
### 2.1 System Information



#### System Information

Device status can be checked in the above page, which contains: Device Model number(equipment type), PCB/HW Version, MAC Address, Serial Number(System Object ID), Firmware Version, Firmware Updated Date, System Running Time(System Up Time).

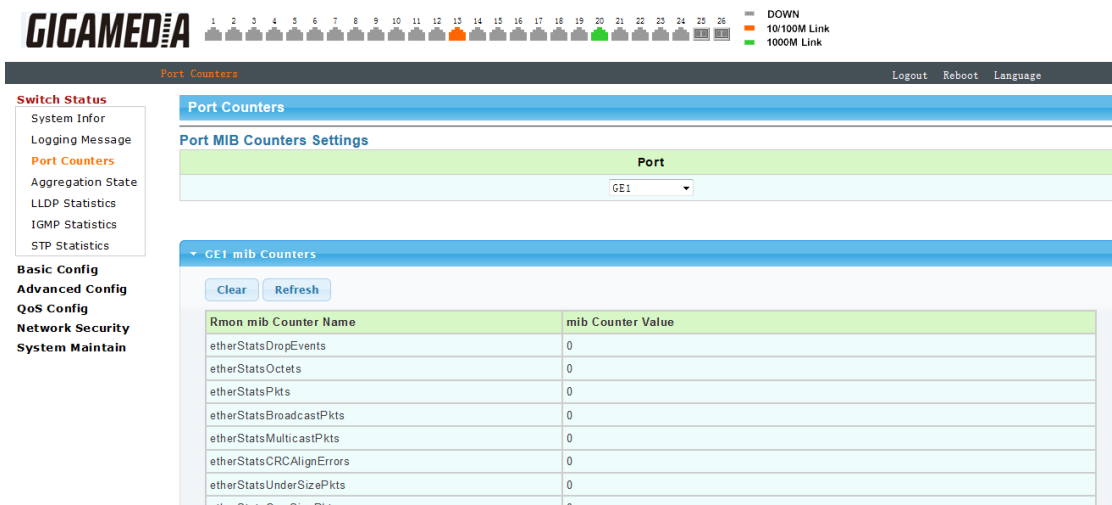
### 2.2 Logging Message



#### Logging Message

System log can be checked in above page. Maintenance technicians can check the history system log.

### 2.3 Port Counters

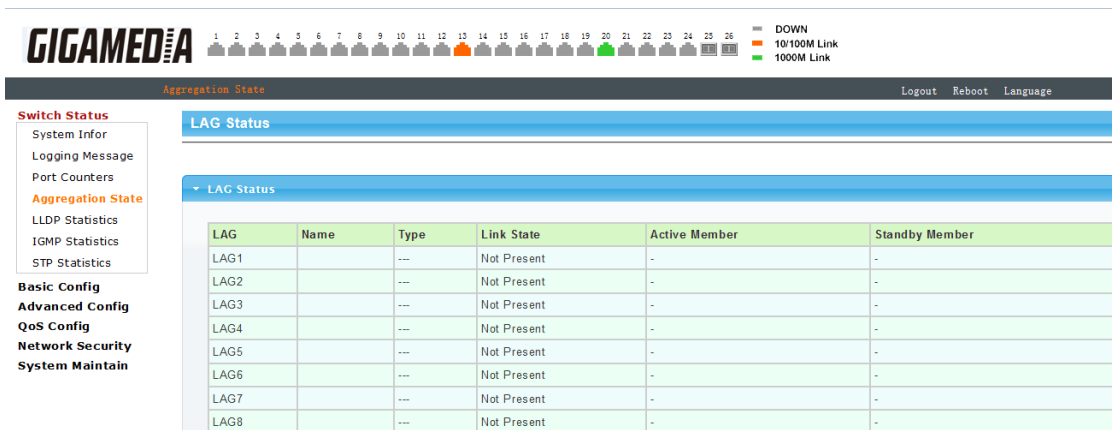


Port Counters

The above picture shows switch port statistics. Users can check the sent/received bytes, sent/received packets, wrongly sent/received packets. If there are too many wrong packets, it suggests the port has very poor working performance, the user need to examine the connection of network cable or the partner network card.

The current software version doesn't support real-time statistics refresh, please click "Refresh" button to get new statistics.

### 2.4 Aggregation State



Link Aggregation

In above Link Aggregation page, user can check the port aggregation information. Like aggregator group (LAG), link state, aggregator group member state (active/standby).

## 2.5 LLDP Statistics

**LLDP Statistics**

**LLDP Global Statistics**

Insertions	0
Deletions	0
Drops	0
Age Outs	0

**LLDP Port Statistics**

Port	TX Frames	RX Frames			RX TLVS		RX Ageouts
	Total	Total	Discarded	Errors	Discarded	Unrecognized	Total
GE1	0	0	0	0	0	0	0

### LLDP Statistics

LLDP information can be checked in above page. When enable the LLDP (Link Layer Discovery Protocol) function, LLDP information of switch ports can be checked here.

## 2.6 IGMP Statistics

**IGMP Snooping Statistics**

**IGMP Snooping Statistics**

Statistics Packets	Counter
Total RX	10
Valid RX	3
Invalid RX	7
Other RX	0
Leave RX	0
Report RX	0
General Query RX	0
Specail Group Query RX	0
Specail Group & Source Query RX	0
Leave TX	0
Report TX	0

### IGMP Statistics

When the IGMP snooping function is enabled, IGMP information can be checked in above page.

## 2.7 STP Statistics

Port	Configuration BDPUS Received	TCN BDPUS Received	Configuration BDPUS Transmitted	TCN BDPUS Transmitted
GE1	0	0	0	0
GE2	0	0	0	0
GE3	0	0	0	0
GE4	0	0	0	0
GE5	0	0	0	0
GE6	0	0	0	0
GE7	0	0	0	0
GE8	0	0	0	0
GE9	0	0	0	0
GE10	0	0	0	0
GE11	0	0	0	0

STP Statistics

In above STP statistics page, users can check the BPDU packets of every port and every link aggregation STP.

## Chapter 3 Basic Configuration

### 3.1 IP Configuration

Information Name	Information Value
DHCP State	Disabled
Static IP Address	192.168.255.11

IP configuration

The above IP address configuration page can be used to configure the IP address of device management interface “Interface Vlan 1”. The default IP address, subnet mask and gateway will be showed in the page. When revise the configuration, please press “save” to confirm new configuration. Press “reset” to back to original configuration.

Above configuration need to be done under default “Static” state, if switch the IP address mode to DHCP, IP address will be get dynamically. Please record the new IP address for



future login.

**Notice:** Don't modify the subnet mask unless exceptional case, login problem will be caused by improper modification.

### 3.2 Management VLAN

The screenshot shows the 'Management VLAN Setting' page. On the left is a navigation menu with categories: Switch Status, Basic Config (IP Address, Management VLAN, Account Config, Logging Setting, Time Settings, Port Setting), Advanced Config, QoS Config, Network Security, and System Maintain. The 'Management VLAN' option is selected. The main content area has a title bar 'Management VLAN Setting' and a form with a dropdown menu for 'Management VLAN' set to 'default (1)'. Below the form is an 'Apply' button. A section titled 'Management VLAN State' contains a table:

Config Name	Config Value
Management VLAN	1

### 3.3 Account Config

The screenshot shows the 'Account Config' page. The navigation menu has 'Account Config' selected. The main content area has a title bar 'Local User Information' and a 'New User' form with the following fields: User Name, Password Type (Clear Text), Password, Retype Password, and Privilege Type (Admin). Below the form is an 'Apply' button. A section titled 'Local Users' contains a table:

User Name	Password Type	Privilege Type	Modify
admin	Encrypted	Admin	

Account config

Login password can be revised in this page, please remember the new password for future login.

### 3.3 Logging Setting

The screenshot shows the 'Logging Setting' page. The navigation menu has 'Logging Setting' selected. The main content area has a title bar 'Logging Settings' and a form with a toggle for 'Logging Service' set to 'Enabled'. Below the form is an 'Apply' button. A section titled 'Logging Information' contains a table:

Information Name	Information Value
Logging Service	enabled

Logging Setting

System log configuration is checked in above page. Remote log server can be configured, system log can be saved on the remote server as backup use. Enable or disable the remote backup function in this page, “server IP address” need to be entered manually.

### 3.4 Time Settings

**System Time**

**System Time Setting**

Enable SNTP	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Manual Time	Year 2000 Month Jan Day 1 Hours 0 Minutes 0 Seconds 0
Time Zone	None
Daylight Saving Time	Disable
Daylight Saving Time Offset	60 (1 - 1440) Minutes
Recurring From	Day Sun Week 1 Month Jan Hours 0 Minutes 0
Recurring To	Day Sun Week 1 Month Jan Hours 0 Minutes 0
Non-recurring From	Year 2000 Month Jan Date 1 Hours 0 Minutes 0
Non-recurring To	Year 2000 Month Jan Date 1 Hours 0 Minutes 0

Apply

System Time Informations

### 3.5 Port Setting

**Port Setting**

**Port settings**

Port Select	Enabled	Speed	Duplex	Flow Control
Select Ports	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled	Auto	Auto	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled
Fiber Ports	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled	Auto-1000M	Full	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled

Apply

**Port Status**

Port	Description	Enable State	Link Status	Speed	Duplex	FlowCtrl Config	FlowCtrl Status
GE1	<a href="#">Edit</a>	Enabled	DOWN	Auto	Auto	Disabled	Disabled
GE2	<a href="#">Edit</a>	Enabled	DOWN	Auto	Auto	Disabled	Disabled
GE3	<a href="#">Edit</a>	Enabled	DOWN	Auto	Auto	Disabled	Disabled
GE4	<a href="#">Edit</a>	Enabled	DOWN	Auto	Auto	Disabled	Disabled
GE5	<a href="#">Edit</a>	Enabled	DOWN	Auto	Auto	Disabled	Disabled

#### Port Setting

Port Status: The user can enable or disable a port in this page. Click “Enable” to open the port, click “Disable” to close the port, the default setting is “Enable”.

Port Mode: 6 modes can be configured: Auto-negotiation,10 Half,10 Full,100 Half, 100 Full and1000 Full. Default mode is Auto-negotiation, can be changed in pull-down list.

Flow Control: This function is defaulted closed, open it when needed.

Loop Detection: The function is defaulted closed, open it when needed. A port will be blocked

to cut the loop when loop is detected.( Notice: the port link indicator in front panel will be still on when the port is blocked, for the physic connection is existed; while the link indicator on the top of web management pages will be off.)

## Chapter 4 Advanced Configuration

### 4.1 Port Mirror Configuration

**Port Mirror**

**Mirror Setting**

Destination Port:

**Source Port**

Port	Mode
*	Disabled
GE1	Disabled
GE2	Disabled
GE3	Disabled
GE4	Disabled
GE5	Disabled
GE6	Disabled
GE7	Disabled
GE8	Disabled
GE9	Disabled
GE10	Disabled
GE11	Disabled
GE12	Disabled
GE13	Disabled

#### Port Mirror Configuration

Users can do Port Mirror Configuration in above page. Port mirroring is used on a network switch to send a copy of network packets or data traffic from some ports (or an entire VLAN) to a network monitoring connection on specified switch port. The original port is called Source Port, and the specified port is Mirroring Port. This is commonly used for network appliances that require monitoring of network traffic without influencing the normal working of every port, it's a convenient online-monitoring function.

All ports have mirroring function, but only one port can be configured as Mirroring Port. In the same system, there is only one mirroring port, while more than one Source Ports can be existed. When a port is configured as mirroring port, its corresponding port can't be configured as source port.

## 4.2 Port Aggregation

### 4.2.1 Static Aggregation

Port	GE1	GE2	GE3	GE4	GE5	GE6	GE7	GE8	GE9	GE10	GE11	GE12	GE13	GE14	GE15	GE16	GE17	GE18	GE19	GE20	GE21	GE22	GE23	GE24	GE25	GE26	
Unaggregation	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
LAG1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Static Aggregation

Switches support 8 aggregation groups, each group contains maximum 8 ports. The members in the same aggregation group should have same configuration for port forwarding rate mode and VLAN distribution.

If LACP function applied for some ports, then static aggregation can't be configured.

**Notice: Static aggregation can't be configured when LACP function enabled.**

### 4.2.2 LACP Setting

Port	GE1	GE2	GE3	GE4	GE5	GE6	GE7	GE8	GE9	GE10	GE11	GE12	GE13	GE14	GE15	GE16	GE17	GE18	GE19	GE20	GE21	GE22	GE23	GE24	GE25	GE26	
Unaggregation	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
LAG1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

LACP Setting

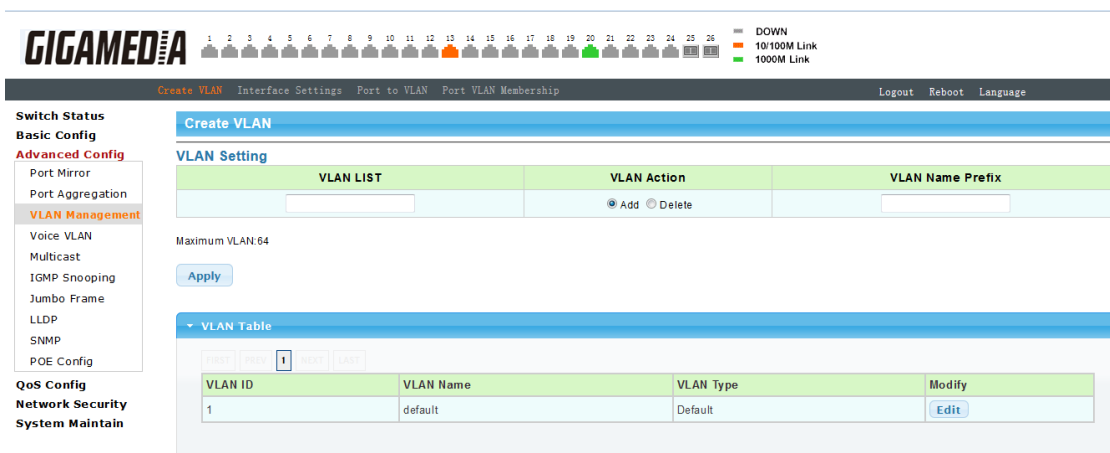
When the LACP protocol is on, the aggregated devices interactively gather information through LACP. According to the parameters and status of each device, automatically receive and dispatch Data of matchable link aggregation. When the Aggregation is formed, switches keep in an aggregation link status, switches automatically adjusts link aggregation or dissolve when configuration changes.

If the port is configured as static aggregation, the dynamic LACP will be not available.

**Notice: Static aggregation LACP function can't be used together.**

### 4.3 VLAN Management

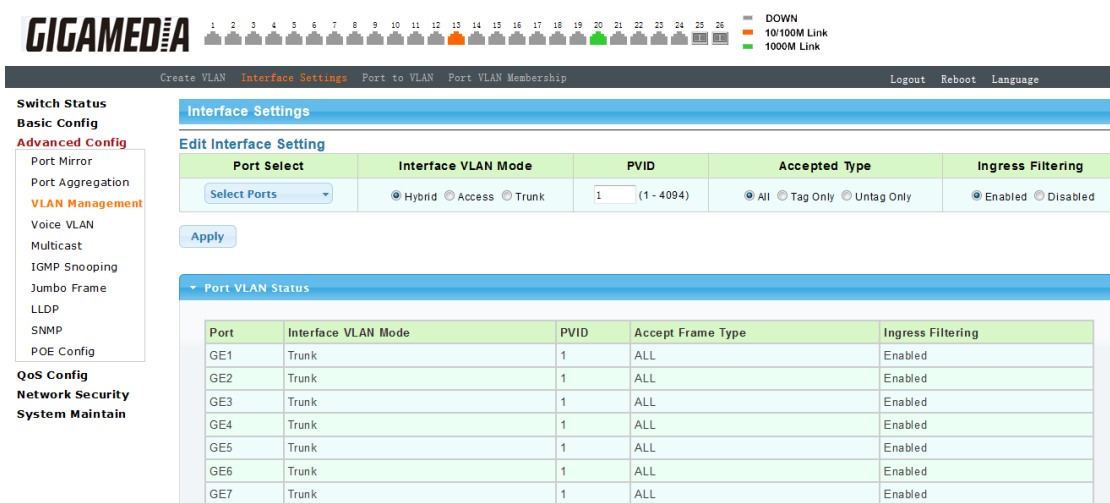
#### 4.3.1 VLAN Setting



VLAN Setting

VLAN can be created or deleted in above page. Users can create a new VLAN and give a name to the VLAN.

#### 4.3.2 VLAN Port Status



VLAN Port Status

Port features can be configured in above page. Users can create a VLAN and add ports to the VLAN list with specified mode. VLAN features and port parameters can be configured.

**Ingress Filtering:** enable ingress filtering function to abandon or forward unmatched VLAN packets. This function is default disable, the unmatched packet will be received.

**Membership type:** tag refers to the port will receive tagged packets (and the VLAN ID in for tagged packet is not "0"); untag refers to the port receive untagged packets only.

## 4.4 Voice VLAN

### 4.4.1 Voice VLAN

The screenshot shows the Gigamedia web interface for configuring Voice VLAN. The top navigation bar includes 'Properties', 'Telephony OUI Mac Setting', and 'Telephony OUI Port Setting'. The left sidebar lists various configuration categories, with 'Voice VLAN' selected under 'Advanced Config'. The main content area is titled 'Properties' and contains the following configuration fields:

Voice VLAN State	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled
Voice VLAN Id	<input type="text" value=""/> <input type="checkbox"/> Enable
Remark Cos/802.1p	6
1p remark	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled
Aging Time(30-65536 min)	1440

Below the configuration fields is an 'Apply' button. A 'Voice VLAN State' section is expanded, showing a table of information:

Information Name	Information Value
Voice VLAN State	disabled
Voice VLAN ID	none (disable)
Remark Cos/802.1p	6

Voice Vlan

Voice VLAN is the VLAN for voice data flow. Create a Voice VLAN and add the ports connected with voice devices to Voice VLAN, Voice data flow can be centrally transmitted in Voice VLAN. Users can configure special QoS (Quality of Service) for the voice data flow, like configure a higher transmitting priority class to ensure a high quality connection.

### 4.4.2 Voice VLAN OUI

The screenshot shows the Gigamedia web interface for configuring Voice VLAN OUI. The top navigation bar includes 'Properties', 'Telephony OUI Mac Setting', and 'Telephony OUI Port Setting'. The left sidebar lists various configuration categories, with 'Voice VLAN' selected under 'Advanced Config'. The main content area is titled 'Telephony OUI Mac setting' and contains the following configuration fields:

OUI Address	00:00:00
Description	<input type="text" value=""/>

Below the configuration fields is an 'Add' button. A 'Voice VLAN OUI Group' section is expanded, showing a table of OUI addresses and descriptions:

OUI Address	Description	Modify
00:E0:BB	3COM	<a href="#">Edit</a> <a href="#">Delete</a>
00:03:6B	Cisco	<a href="#">Edit</a> <a href="#">Delete</a>
00:E0:75	Veritel	<a href="#">Edit</a> <a href="#">Delete</a>
00:D0:1E	Pingtel	<a href="#">Edit</a> <a href="#">Delete</a>
00:01:E3	Siemens	<a href="#">Edit</a> <a href="#">Delete</a>
00:60:B9	NEC/Philips	<a href="#">Edit</a> <a href="#">Delete</a>

Voice Vlan OUI

Voice VLAN signify mode can be configured in this page, like Siemens AG phones、Cisco phones、H3C phones……

## 4.5 Multicast Configuration

**Properties**

**PropertiesSetting**

Unknown Multicast Action:  Drop  Flood  Router Port

IPv4 Forward Method:  MAC  Src-Dst-Ip

**Properties Informations**

Information Name	Information Value
Unknown Multicast Action	Flood
Forwarding Method For IPv4	MAC

### Multicast Configuration

MLD Snooping is short for Multicast Listener Discovery Snooping, which is IPv6 multicast control mechanism for Layer 2 devices. The function is used to manage and control IPv6 multicast.

Multicast snooping configuration can be made in above page, enable or disable multicast snooping and define multicast snooping address range.

## 4.6 IGMP Snooping Configuration

**IGMP Snooping**

**IGMP Snooping**

IGMP Snooping Status:  Enable  Disable

IGMP Snooping Version:  v2  v3

IGMP Snooping Report Suppression:  Enable  Disable

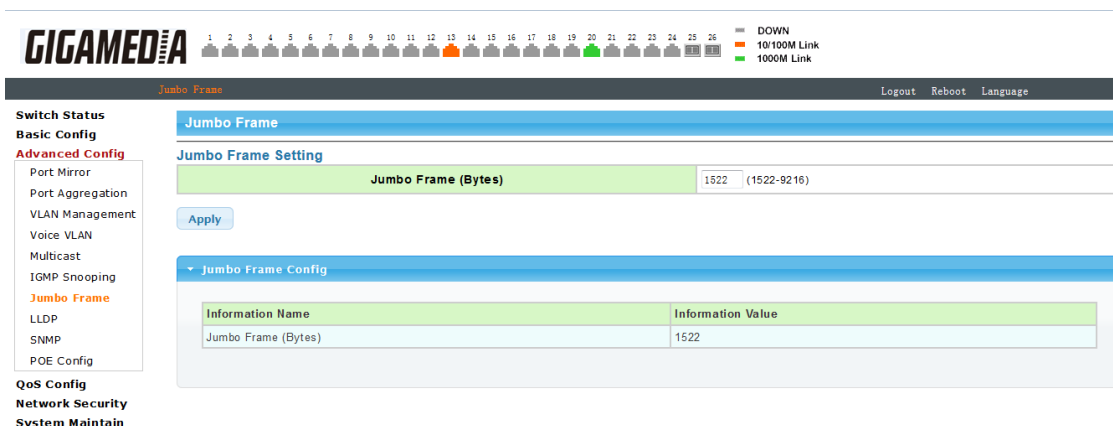
**IGMP Snooping Informations**

Information Name	Information Value
IGMP Snooping Status	Enable
IGMP Snooping Version	v2
IGMP Snooping V2 Report Suppression	Enable

### IGMP Snooping

IGMP snooping configuration can be made in above page, enable or disable IGMP snooping and define IGMP snooping address range.

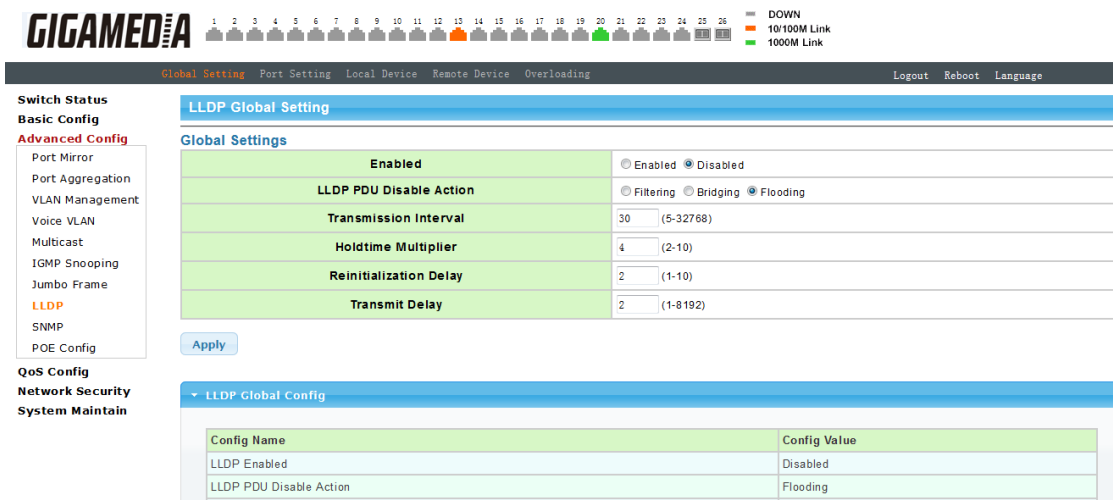
## 4.7 Jumbo Frame Configuration



### Jumbo Frame Configuration

Generally, the max frame size for packet is 1518 Bytes, when packet is larger than this size, it will be processed in batch, 1518 Bytes as a unit. And users can also set a Jumbo Frame limitation in this page (from 1522 to 9216 Bytes), enable Jumbo Frames transmitted smoothly, reduce the load.

## 4.8 LLDP Configuration



### LLDP Configuration

Switches support LLDP(Link Layer Discovery Protocol), which can define switch capacity, management address, device tags and port tags as different(TLV(type/length/value) and save them in LLDPDU (Link Layer Discovery Protocol Data Unit). These information will be released to the direct-connected neighbor device, neighbor devices will save these information based on MIB (Management Information Base) .These information will be used for network management system examination or judge link communication condition.

LLDP information can be configured in above page, including transmission interval, hold time Multiplier, retransmission delay and transmission delay.

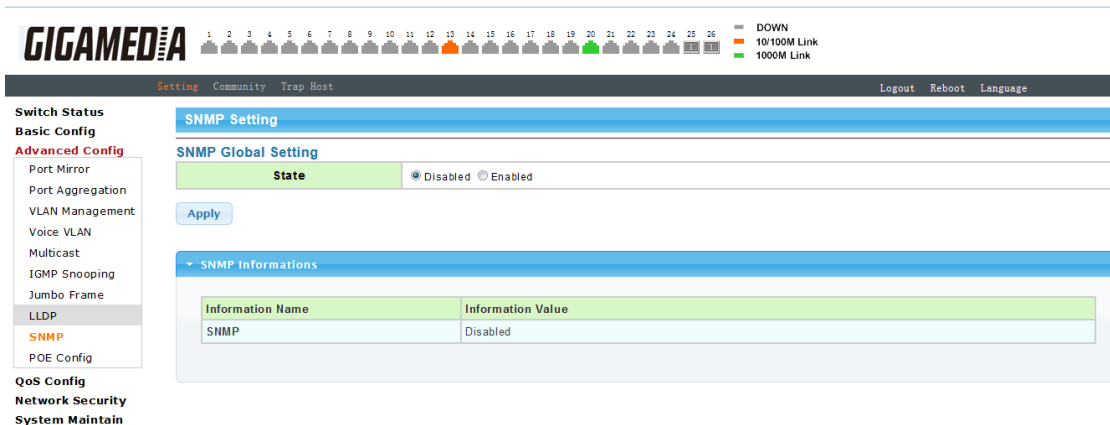
Enable LLDP or Disable LLDP can be configured. Users can also configure the



information transmitted to neighbor devices, like port description, system name, system description, system property and management address.

## 4.9 SNMP Configuration

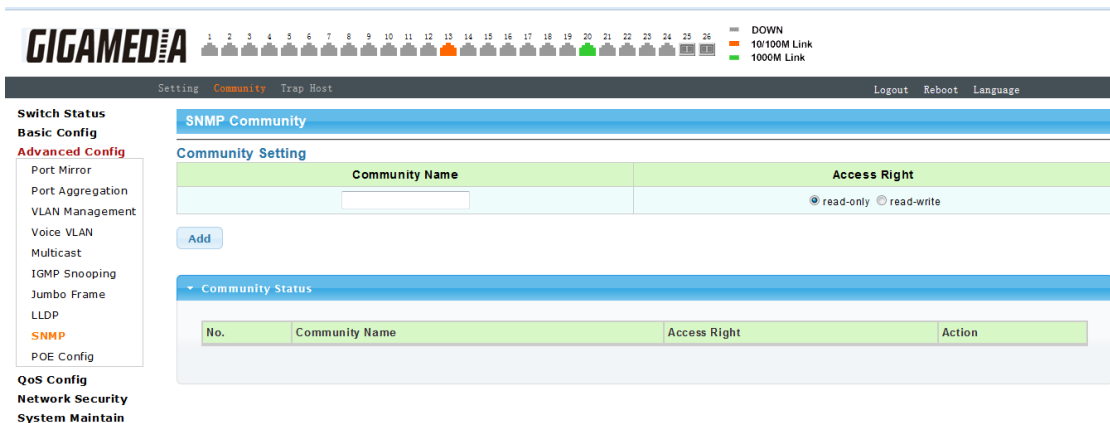
### 4.9.1 SNMP system configuration



SNMP System Configuration

SNMP(Simple Network Management Protocol) is Internet-standard protocol for managing devices on IP networks. It consists of a set of standards for network management, including an application layer protocol, a database schema, and a set of data objects. SNMP is used mostly in network management systems to monitor network-attached devices for conditions that warrant administrative attention.

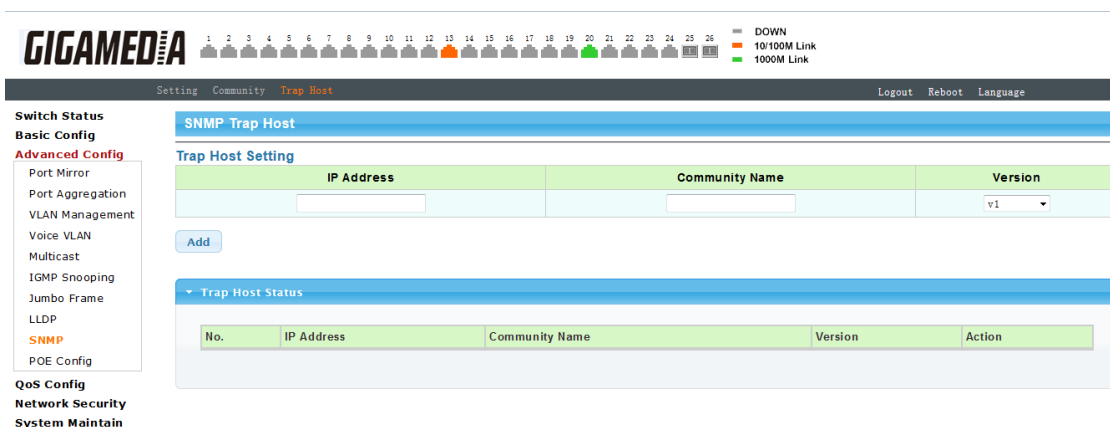
### 4.9.2 SNMP Community configuration



SNMP Community Configuration

Configure SNMP common identifiers, switches with same community identifier can make unified management.

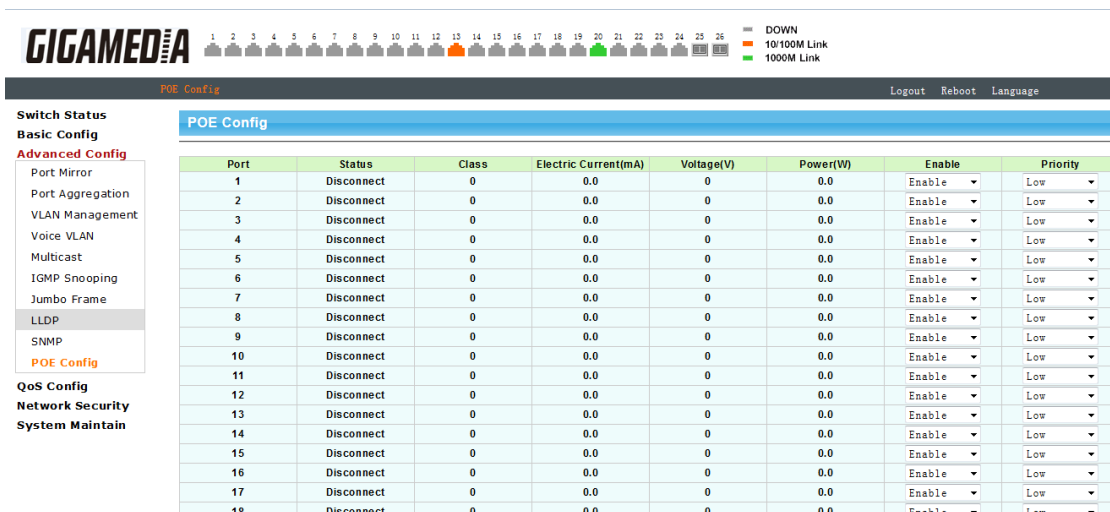
### 4.9.3 Trap Configuration



#### Trap Configuration

SNMP trap is a message used in SNMP protocol, the device can send a trap message to SNMP manager when they experience a problem, rather than waiting for the polling of SNMP manager.

### 4.10 PoE Management



#### Trap Configuration

you can find “Enable/ disable” to enable or disable PoE supply power to powered device. From the Priority, you can find Low, Middle and High to ensure power output of the port with the highest priority. You can check current currenncy from column“(mA)”, Voltage from column“ (V) ” and power from column“(W)” and PoE output grade from column “(Class)” The default setting is “0”for 0-13W PD, ”1” for less than 4W PD, “2” for 4-7W PD. “3”for 7-13W PD,”4” for IEEE802.3at PD, “5,6” kept as potential grade. You can find PoE supply power normally or not from “Status” column or LED indicators status from Front panel of the Switch.

# Chapter 5 QoS Config

## 5.1 General

The screenshot shows the GIGAMEDIA web interface for QoS configuration. At the top, there is a navigation bar with tabs for QoS Properties, Port Settings, Queue Settings, CoS Mapping, DSCP Mapping, and IP Precedence Mapping. A sidebar on the left contains a menu with options like Switch Status, Basic Config, Advanced Config, QoS Config (General, QoS Basic Mode, Rate Limit), Network Security, and System Maintain. The main content area is titled 'QoS Global Setting' and features a 'QoS Mode' section with radio buttons for 'Disable' (selected) and 'Basic'. Below this is a 'QoS Informations' section with a table:

Information Name	Information Value
QoS Mode	disable

## 5.2 QoS Basic Mode

The screenshot shows the GIGAMEDIA web interface for Basic Mode Global Settings. The navigation bar includes Global Settings and Port Settings. The sidebar menu is similar to the previous screenshot. The main content area is titled 'Global Settings' and 'Basic Mode Global Settings'. It features a 'Trust Mode' section with radio buttons for 'CoS/802.1p' (selected), 'DSCP', 'CoS/802.1p-DSCP', 'IP Precedence', and 'None'. Below this is a 'QoS Informations' section with a table:

Information Name	Information Value
Trust Mode	cos

## 5.3 Rate Limit

The screenshot shows the GIGAMEDIA web interface for Ingress Bandwidth Control. The navigation bar includes Ingress Control, Egress Control, and Egress Queue. The sidebar menu is similar to the previous screenshots. The main content area is titled 'Ingress Bandwidth Control' and 'Ingress Bandwidth Control Settings'. It features a 'Port' dropdown menu, a 'State' section with radio buttons for 'Disable' (selected) and 'Enable', and a 'Rate(Kbps)' input field with a value of 0 and a note '(0-1000000, must a multiple of 16)'. Below this is an 'Ingress Bandwidth Control Status' section with a table:

Port	Ingress RateLimit (Kbps)
GE1	off
GE2	off
GE3	off
GE4	off
GE5	off
GE6	off
GE7	off

## Chapter 6 Network Security

### 6.1 Dynamic Learned

The screenshot shows the 'Dynamic Learned' configuration page. On the left is a navigation menu with categories: Switch Status, Basic Config, Advanced Config, QoS Config, Network Security (with sub-items: Dynamic Learned, MAC Address Table, Port Limit, Storm Control, Port Isolate, DoS, Loop Protect, STP), and System Maintain. The main content area is titled 'Dynamic Learned' and includes configuration fields for Port (GE1), VLAN (default), and MAC Address (00:00:00:00:00:00). Below these are 'View' and 'Clear' buttons. A section titled 'MAC Address Information' contains a table with columns: MAC Address, VLAN, Type, Port, and an action button. The table lists two entries: 08:9E:01:54:72:81 on GE13 and F8:A9:63:BB:6B:BC on GE20. A 'Total Entries:2' label is at the bottom.

MAC Address	VLAN	Type	Port	Action
08:9E:01:54:72:81	default(1)	Dynamic	GE13	Add to Static MAC table
F8:A9:63:BB:6B:BC	default(1)	Dynamic	GE20	Add to Static MAC table

Dynamic MAC Address Configuration

MAC address table and configuration can be checked in above page, users can add the showed dynamic MAC addresses to static MAC table.

### 6.2 Static MAC Address Table

The screenshot shows the 'Static MAC' configuration page. The left navigation menu is similar to the previous page. The main content area is titled 'Static MAC' and includes a 'Static MAC Setting' section with input fields for MAC Address (00:00:00:00:00:00), VLAN (default), and Port (GE1), along with an 'Add' button. Below is a 'Static MAC Status' section with a table showing one entry: No. 1, MAC Address AC:31:9D:AC:33:33, VLAN default(1), Port CPU, and a Delete button.

No.	MAC Address	VLAN	Port	Delete
1	AC:31:9D:AC:33:33	default(1)	CPU	

Static ARP Table

Static MAC address configuration can be manually made in this page. MAC items can be added according "port", "VLAN ID", "MAC address" and "IP address".

### 6.3 Port Limit Configuration

**Ingress Bandwidth Control**

**Ingress Bandwidth Control Settings**

Port	State	Rate(Kbps)
Select Ports	<input checked="" type="radio"/> Disable <input type="radio"/> Enable	(0-1000000, must a multiple of 16)

**Ingress Bandwidth Control Status**

Port	Ingress RateLimit (Kbps)
GE1	off
GE2	off
GE3	off
GE4	off
GE5	off
GE6	off
GE7	off

Ingress Bandwidth Control

**Egress Bandwidth Control**

**Egress Bandwidth Control Settings**

Port	State	Rate(Kbps)
Select Ports	<input checked="" type="radio"/> Disable <input type="radio"/> Enable	(0-1000000, must a multiple of 16)

**Egress Bandwidth Control Status**

Port	Egress RateLimit (Kbps)
GE1	off
GE2	off
GE3	off
GE4	off
GE5	off
GE6	off
GE7	off

egress Bandwidth Control

**Egress Queue Bandwidth Control**

**Egress Queue Bandwidth Control Settings**

Port	Queue	State	CIR(Kbps)
GE1	1	<input checked="" type="radio"/> Disable <input type="radio"/> Enable	(0-1000000, must a multiple of 16)

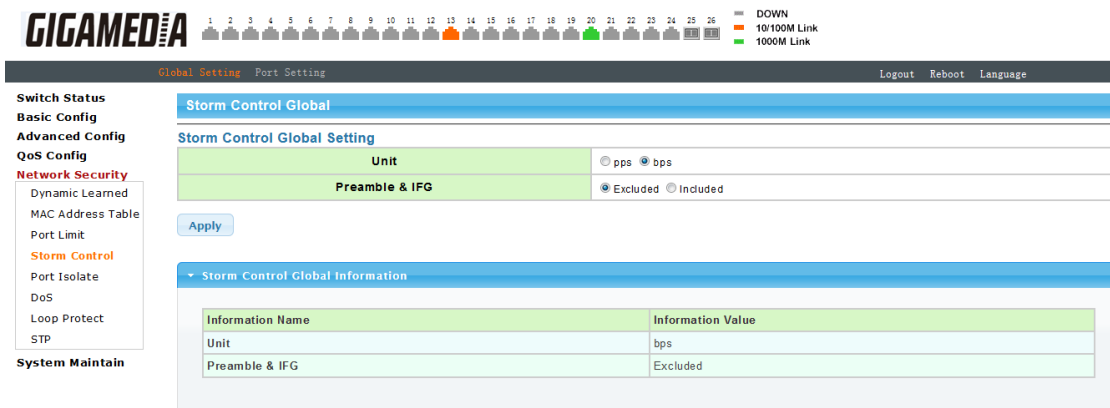
**GE1 Egress Per Queue Status**

Queue Id	Rate Limit (Kbps)
1	off
2	off
3	off
4	off
5	off
6	off
7	off

Egress Queue Bandwidth

Switch Bandwidth can be configured in above pages. Configurations include ingress/egress flow control, flow control priority class.

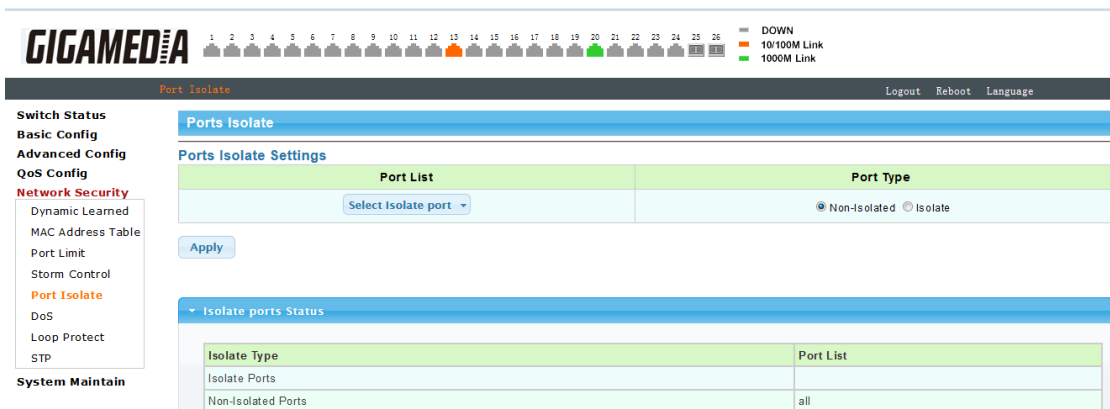
### 6.4 Storm Control



#### Storm control

After enable the global situation storm control, please continue with function configuration. The switch supports multiple storm control modes, like broadcast storm control, unknown multicast storm control and unknown unitcast storm control.

### 6.5 Port Isolation



#### Port Isolation Configuration

In above port isolation page, isolated ports can be configured. Applying port isolation function to ensure port security .

## 6.6 DoS configuration

**Global DoS Setting**

DMAC = SMAC	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
Land	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
UDP Blat	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
TCP Blat	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
POD	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
IPv6 Min Fragment	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled Byte: 1240
ICMP Fragments	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
IPv4 Ping Max Size	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
IPv6 Ping Max Size	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
Ping Max Size Setting	Byte: 512
Smurf Attack	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled Netmask Length: 0
TCP Min Mfr Size	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled

Global Dos Configuration

**DoS Port Setting**

Port Select:  DoS Protection:  Enabled  Disabled

**DoS Port Status**

Port	Do S Protection
GE1	Disable
GE2	Disable
GE3	Disable
GE4	Disable
GE5	Disable
GE6	Disable
GE7	Disable

Dos Port Configuration

DoS is short for Denial of Service, what causes DoS problem is DoS attacks, which will block the normal network service. The most common DoS attacks are computer network bandwidth attack and connectivity attack. Please configure DoS information in above pages.

## 6.7 Loop Protect

## 6.8 STP Configuration

Information Name	Information Value
STP	Disabled
BPDU Forward	flooding
Cost Method	long
Force Version	RSTP-Operation

STP Global configuration

Port	Admin Enable	Path Cost	Edge Port	P2P MAC
GE1	Enable	0	No	Yes
GE2	Enable	0	No	Yes
GE3	Enable	0	No	Yes
GE4	Enable	0	No	Yes
GE5	Enable	0	No	Yes
GE6	Enable	0	No	Yes
GE7	Enable	0	No	Yes

STP Port configuration



**STP Bridge Setting**

Parameter	Value	Range
Priority	32768	
Max Hops	20	(1-40)
Forward Delay	15	(4-30)
Max Age	20	(6-40)
Tx Hold Count	6	(1-10)
Hello Time	1	(1-10)

**STP Bridge Information**

Information Name	Information Value
Priority	32768
Max Hops	20

**CIST Port Setting**

Port Select	Priority
Select Ports	128

**STP Port Status**

Port	Identifier (Priority / Port Id)	Path Cost Conf/Oper	Designated Root Bridge	Root Path Cost	Designated Bridge	Edge Port Conf/Oper	P2P MAC Conf/Oper	Port Role	Port State
GE1	128 / 1	0 / 20000	0 / 00:00:00:00:00:00	0	0 / 00:00:00:00:00:00	No / No	Auto / No	Disabled	Disabled
GE2	128 / 2	0 / 20000	0 / 00:00:00:00:00:00	0	0 / 00:00:00:00:00:00	No / No	Auto / No	Disabled	Disabled
GE3	128 / 3	0 / 20000	0 / 00:00:00:00:00:00	0	0 / 00:00:00:00:00:00	No / No	Auto / No	Disabled	Disabled
GE4	128 / 4	0 / 20000	0 / 00:00:00:00:00:00	0	0 / 00:00:00:00:00:00	No / No	Auto / No	Disabled	Disabled
GE5	128 / 5	0 / 20000	0 / 00:00:00:00:00:00	0	0 / 00:00:00:00:00:00	No / No	Auto / No	Disabled	Disabled
GE6	128 / 6	0 / 20000	0 / 00:00:00:00:00:00	0	0 / 00:00:00:00:00:00	No / No	Auto / No	Disabled	Disabled

STP Bridge Configuration

STP configurations can be made in above pages. Users can choose from STP and RSTP modes according to different network requirements.

## Chapter 7 System Maintenance

### 7.1 Reboot Switch

**Reboot Switch**

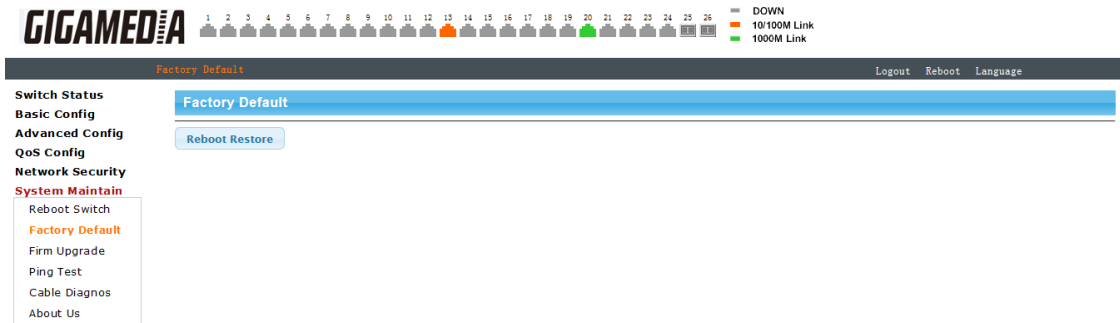
Reboot

Reboot Switch

Above page is used to reboot switch. When manage the switch, some configurations need to

reboot the switch to take effect.

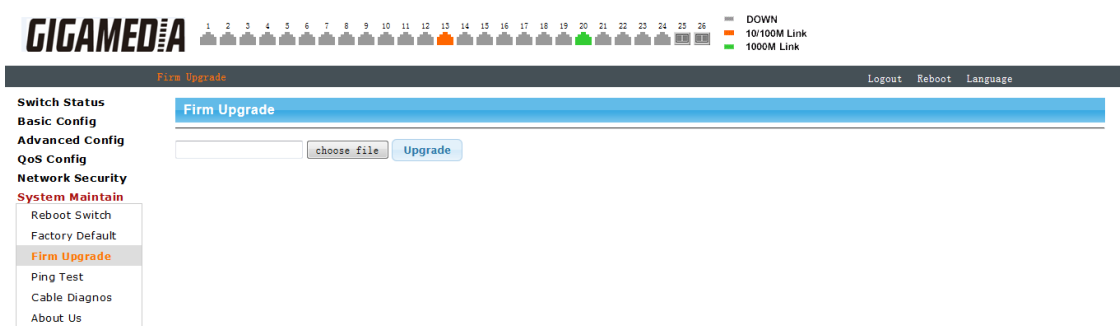
## 7.2 Factory Reset



### Factory Reset

The switch support factory reset, press “restore” button to back factory default settings, including all configurations, IP address and management password.

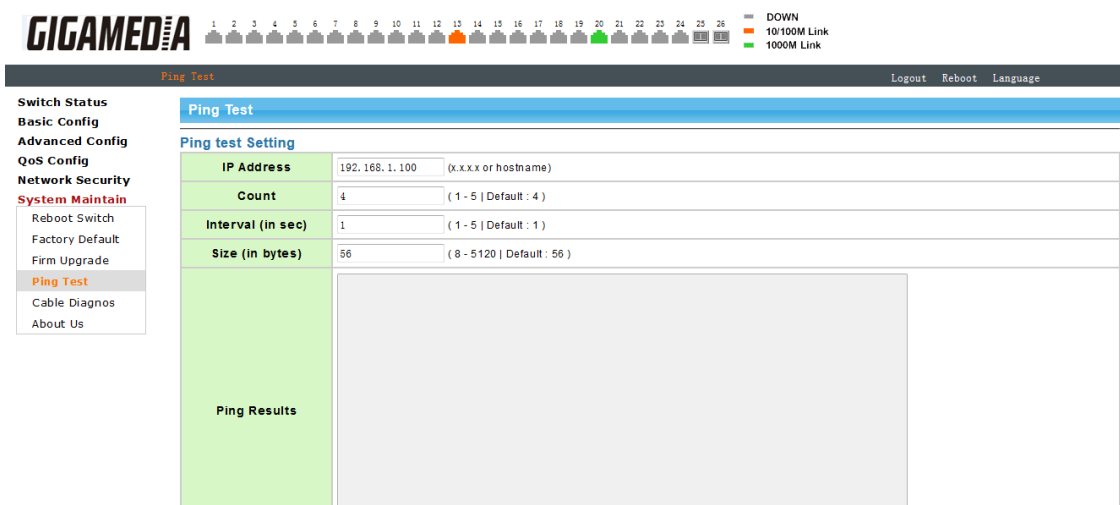
## 7.3 Firmware Upgrading



### Firmware Upgrading

Current system software version can be checked in this page, and new software upgrade can be made.

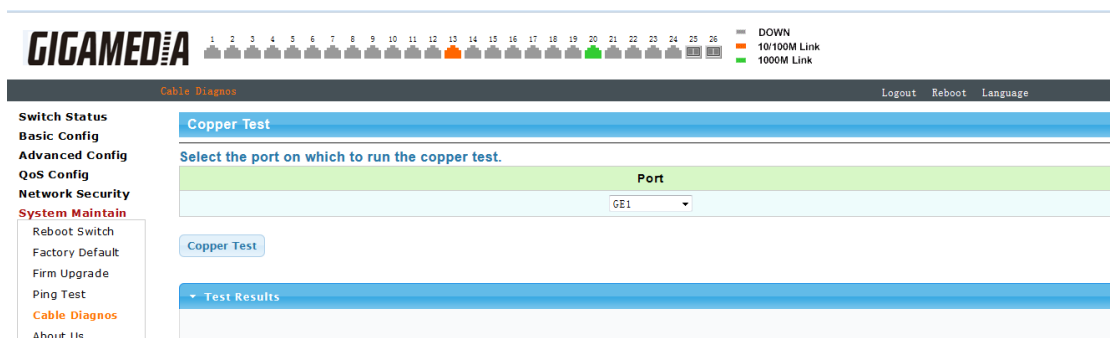
## 7.4 Ping Test



### Ping Test Configuration

Ping test is to check if a specified Client can be reached, the function is the same with ping command under windows command lines. The IP addresses of switch and PC must be in same network segment.

## 7.5 Network Cable Test



### Network Cable Test

Users can test the twisted pair cable working status. Please select test ports then press “cooper test” to check the working status.

## Appendix Troubleshooting

Problems	Reasons	Solutions
All LEDs are off when power on the switch	Power cord connection error or power supply failure	Check power cord connection and the power socket.
The LINK LED is unlit.	<ol style="list-style-type: none"> <li>1. Network cable is damaged or the connection is not firm.</li> <li>2. Wrong network cable type or the cable is longer than 100m.</li> </ol>	Change the network cable.
Slower data transmitting and packets loss.	The communication pattern of switch and PDs are not matched.	Changed to matched pattern or configure to auto-negotiation pattern.
The network cable works in one port , doesn't work in another new port.	There is no data transmitting from PD and the switch can't learn a new address to do communication.	Waiting for 120s, the switch will get auto-updated address or transmitting data from the PD, the switch will get address then.
All the "ACT" LEDs flash and the network rate slow down	Caused by broadcast storm.	<ol style="list-style-type: none"> <li>1. Check if there is a loop problem, reasonably configure the network.</li> <li>2. Check if there are large numbers of broadcast packets from specific sites.</li> </ol>
Stop to work after working for a while.	<ol style="list-style-type: none"> <li>1. Abnormal power supply.</li> <li>2. Overheating.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check power connection and the working voltage;</li> <li>2. Check the working environment, including air hole and switch fan.</li> </ol>
"PoE" LED indicators flash	<ol style="list-style-type: none"> <li>1. PoE port doesn't work</li> <li>2. PD is overloaded</li> <li>3. The network cable is damaged.</li> </ol>	Check the network cable, port connection or reduce the load of PDs.