

IGS-5428PLC, IGS-5218PLC

Quick Installation Guide

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I. Product Information

- **IGS-5428PLC:** Industrial Surveillance VLAN 28-Port Gigabit PoE+ Long Range Web Smart Switch with 4 Gigabit RJ45/SFP Combo Ports
- **IGS-5218PLC:** Industrial Surveillance VLAN 18-Port Gigabit PoE+ Long Range Web Smart Switch with 2 Gigabit RJ45/SFP Combo Ports

I-1. Package Content



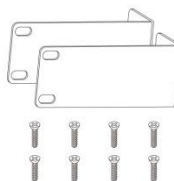
IGS-5428PLC or IGS-5218PLC



**Quick Installation
Guide**



Power Cord



Rack-Mount Kit



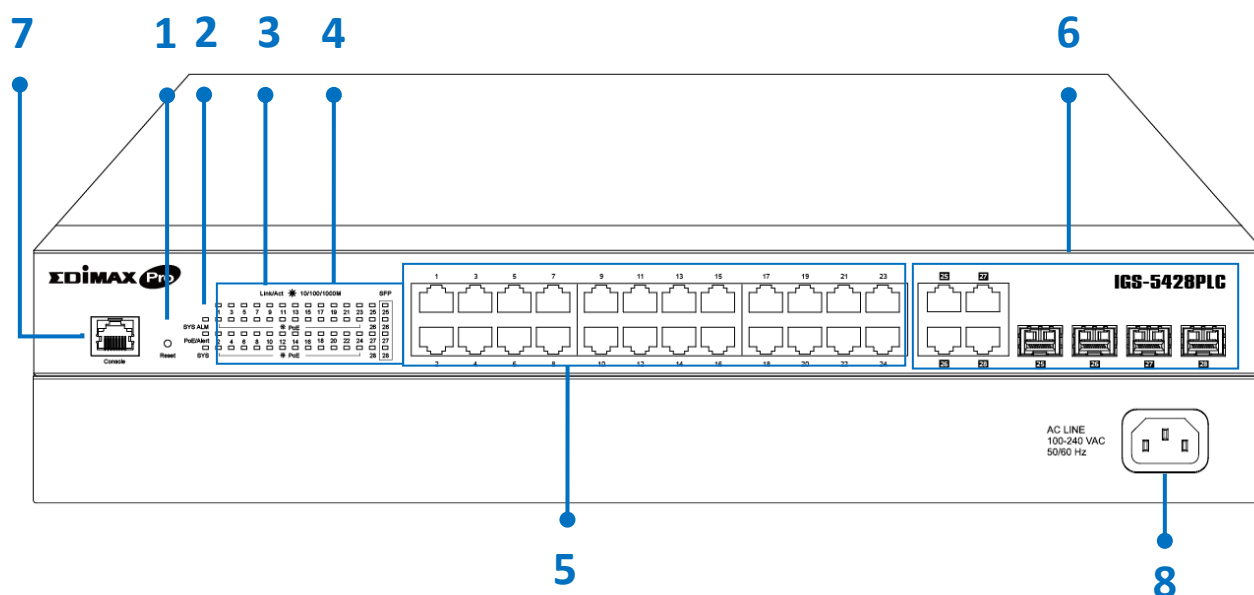
Console Cable

Before starting using this product, please check if there is anything missing in the package, and contact your dealer to claim the missing item(s):

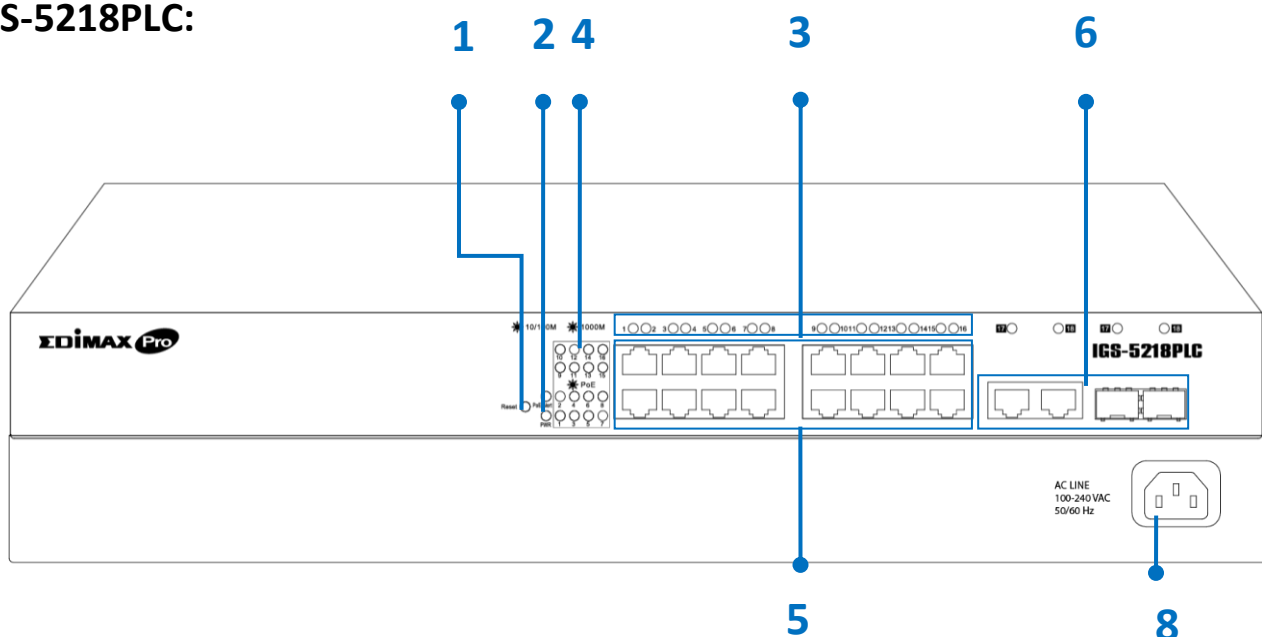
Model#	IGS-Rack Mount Switch	Quick Installation Guide	Rack-Mount Kit	Power Cord	Console Cable
IGS-5428PLC	V	V	V	V	V
IGS-5218PLC	V	V	V	V	-

I-2. Hardware Overview

IGS-5428PLC:



IGS-5218PLC:



No.	IGS-5428PLC	IGS-5218PLC
1.	Reset Button	
2.	LED (SYS ALM, PoE/Alert, SYS)	LED (PoE/Alert, PWR)
3.	LED Link/Act	
4.	LED PoE	
5.	PoE Port 1~24	PoE Port 1~16
6.	Combo Ports (RJ45/SFP) 25~28	Combo Ports (RJ45/SFP) 17~18
7.	Console Port	N/A
8.	AC In Power Socket	

I-3. LED Status

Function	Color	Status	Description
PWR	Green	On	Power on
		Off	Power off
SYS ALM, (IGS-5428PLC)	RED	On	System failure
		Off	Device in good condition
SYS (IGS-5428PLC)	Green	On	Power on
		Blinking	System is booting up
		Off	Power off
PoE Alert	RED	On	Total PoE power consumed is exceeding PoE power budget
		Off	Total PoE power consumed is under PoE power budget
Link/Act	Green	On	Link at 1000Mbps
		Blinking	Sending or receiving data
		Off	Port disconnected or link fail
	Amber	On	Link at 10/100Mbps
		Blinking	Sending or receiving data
		Off	Port disconnected or link fail
PoE	Green	On	Feeding power to PoE devices
		Off	PoE function is not active

II. Installation

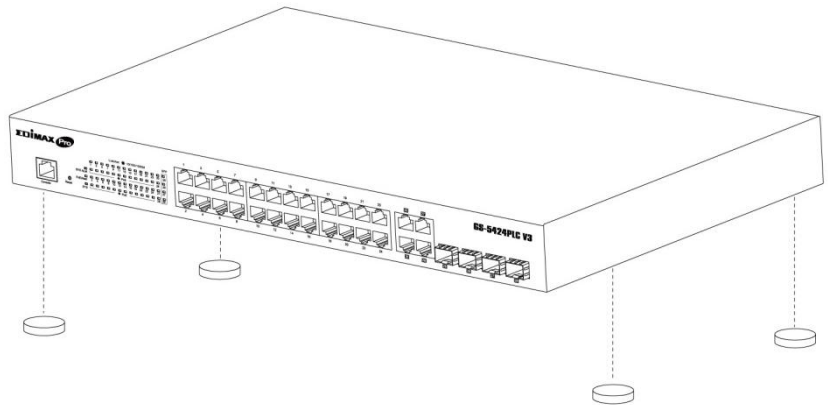
Read the following topics and perform the procedures in the correct order. Incorrect installation may cause damage to the product.

II-1. Physically Setup

There are two ways to physically set up the switch. No matter how you installed the switch, please keep it with good ventilation.

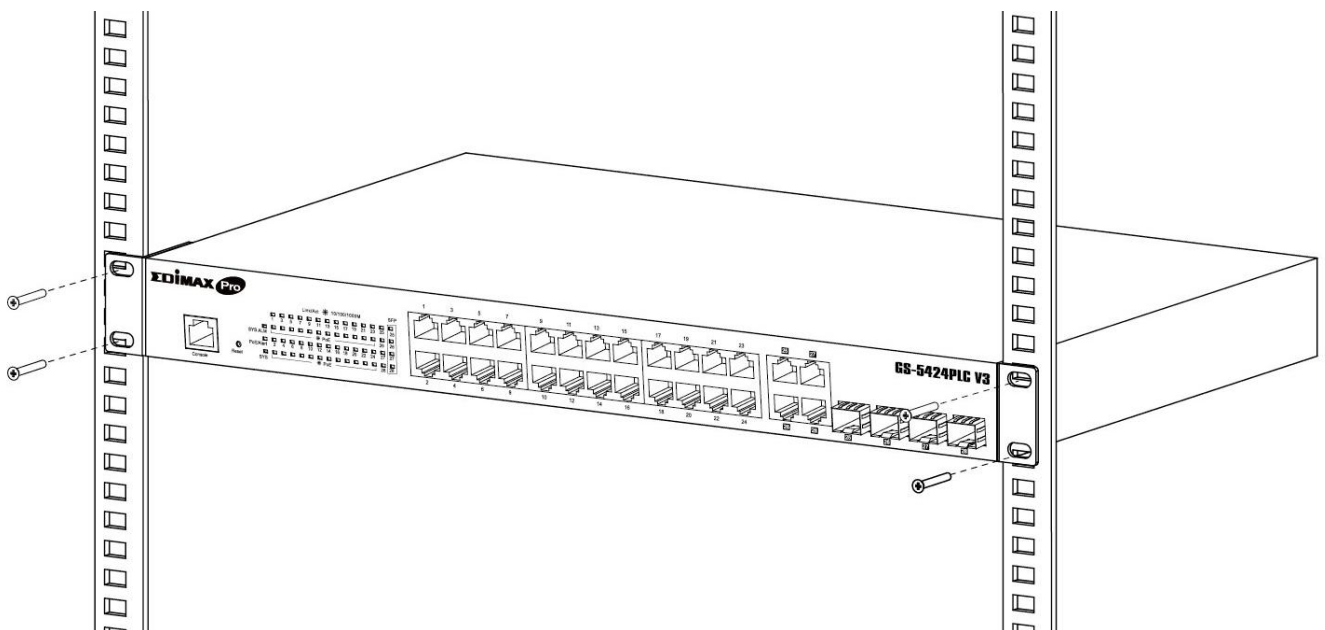
1. Desktop Placement:

Attach the supplied rubber feet to the recessed areas on the bottom of the switch. Place the switch on a flat surface and keep it with good ventilation.



2. Rack-Mount

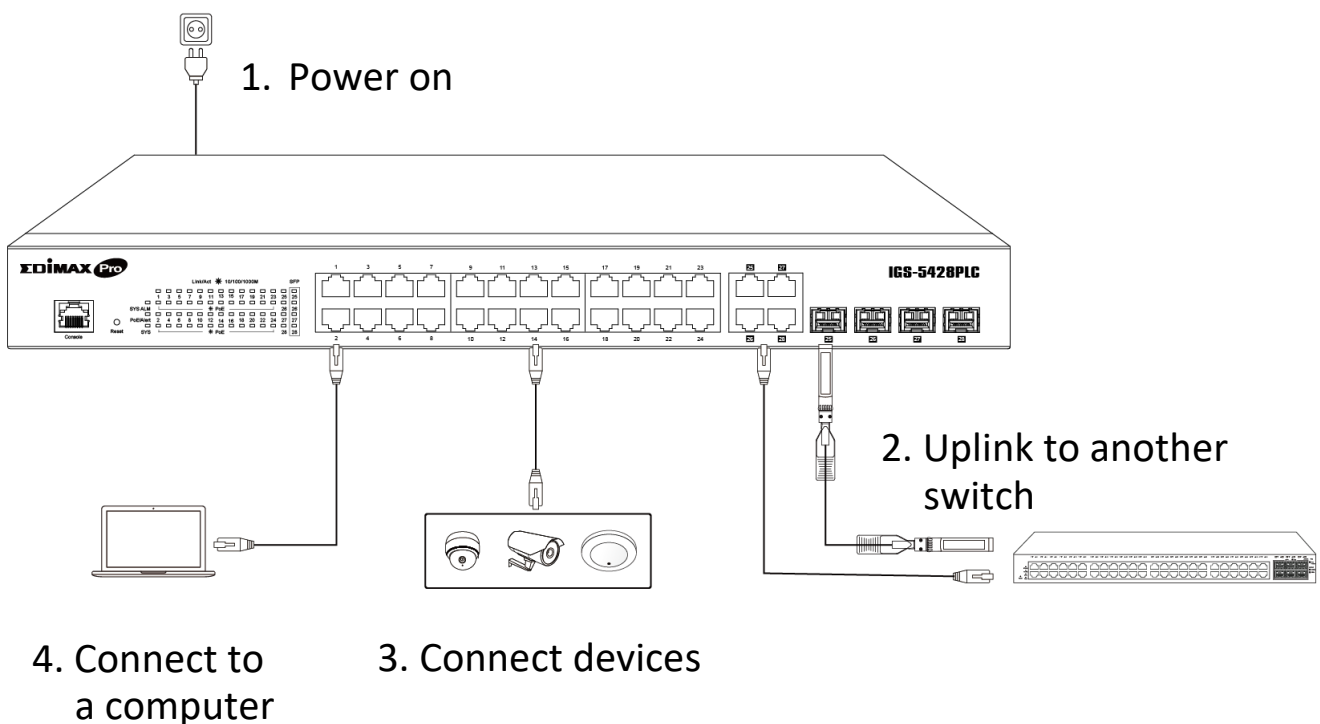
Installation: You can mount the switch in any standard size, 19-inch (about 48 cm) wide rack with 1 Rack Unit (1U) of space, which is 1.75 inches (4.45 cm) high. First, to align the mounting brackets with the mounting holes on the switch's side panels and secure the brackets with



the screws. Then secure the switch on the equipment rack.

II-2. Connection

1. **Power on:** Connect the power cord to the switch and the power outlet. The switch is powered by the 100-240VAC 50/60Hz external high-performance power supply. (Note: Make sure the PWR LED is green.)
2. **Uplink:** Plug the standard Cat5e or above Ethernet cable into the LAN port (Note: Make sure that the LED is green or amber) or plug the SFP/SFP+ cable into the SFP/SFP+ slot (Note: Make sure that the LED is blue (SFP+) or green (SFP)) and connect it to another switch.
3. **Connect devices:** Plug the standard Cat5e or above Ethernet cable into the LAN port and connect to any networking device with an Ethernet port. (Note: Make sure that the "LAN" Link/Act LED is green or amber.) The hardware installation is complete!
4. **Connect a computer:** Connect your computer with the switch and get ready for web-based configuration with following "Section III Web-based Configuration Utility" .



III. Web-based Configuration Utility

This section describes how to navigate the web-based switch configuration utility through web browser. **Be sure to disable any browser pop-up blocker.**

Browser Restrictions

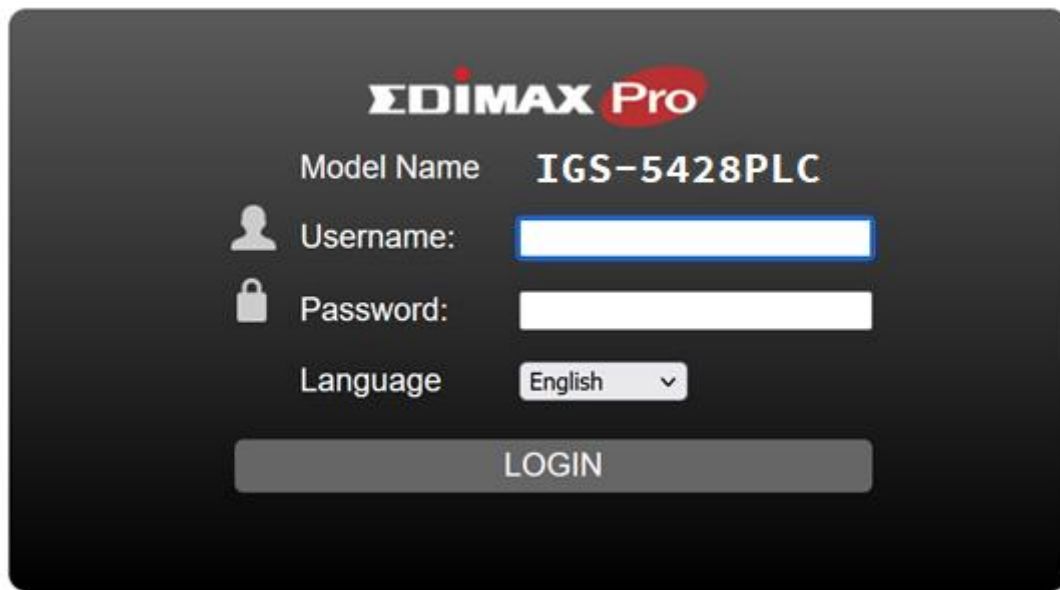
- If you are using older versions of Internet Explorer, you cannot directly use an IPv6 address to access the device. You can, however, use the DNS (Domain Name System) server to create a domain name that contains the IPv6 address, and then use that domain name in the address bar in place of the IPv6 address.
- If you have multiple IPv6 interfaces on your management station, use the IPv6 global address instead of the IPv6 link local address to access the device from your browser.

Launching the Configuration Utility

1. Connect your computer with the switch then open a web browser.
2. Enter the IP address of the switch you are configuring in the address bar on the browser (factory default IP address is 192.168.2.1) and then press Enter. Please make sure that your computer's IP address is in the same subnet as this switch. The default IP address is an IP address in the range of 192.168.2.X (X=2-254). You can modify the IP address of your computer if you need.

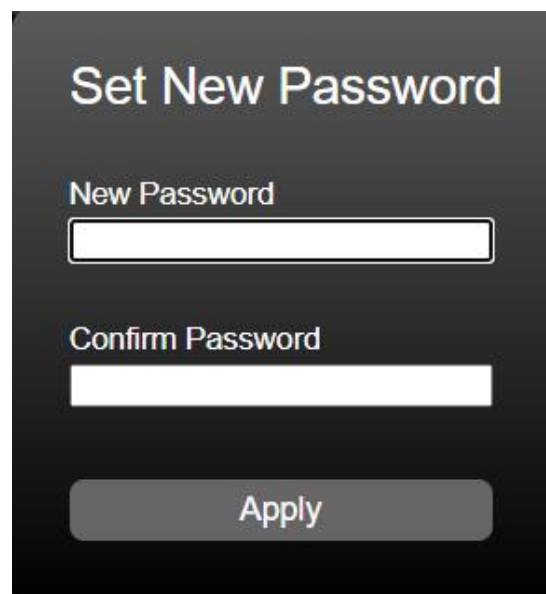
Default IP	192.168.2.1
Default User Name	admin
Default Password	1234

3. The default username is “admin” and the default password is “1234”.



The image shows a login interface for EDIMAX Pro. At the top, the logo "EDIMAX Pro" is displayed. Below it, the "Model Name" is "IGS-5428PLC". The login form includes a "Username:" field with a user icon, a "Password:" field with a lock icon, and a "Language" dropdown menu set to "English". A "LOGIN" button is at the bottom.

4. The first time that you log in with the default username and password, you are required to set a new password.



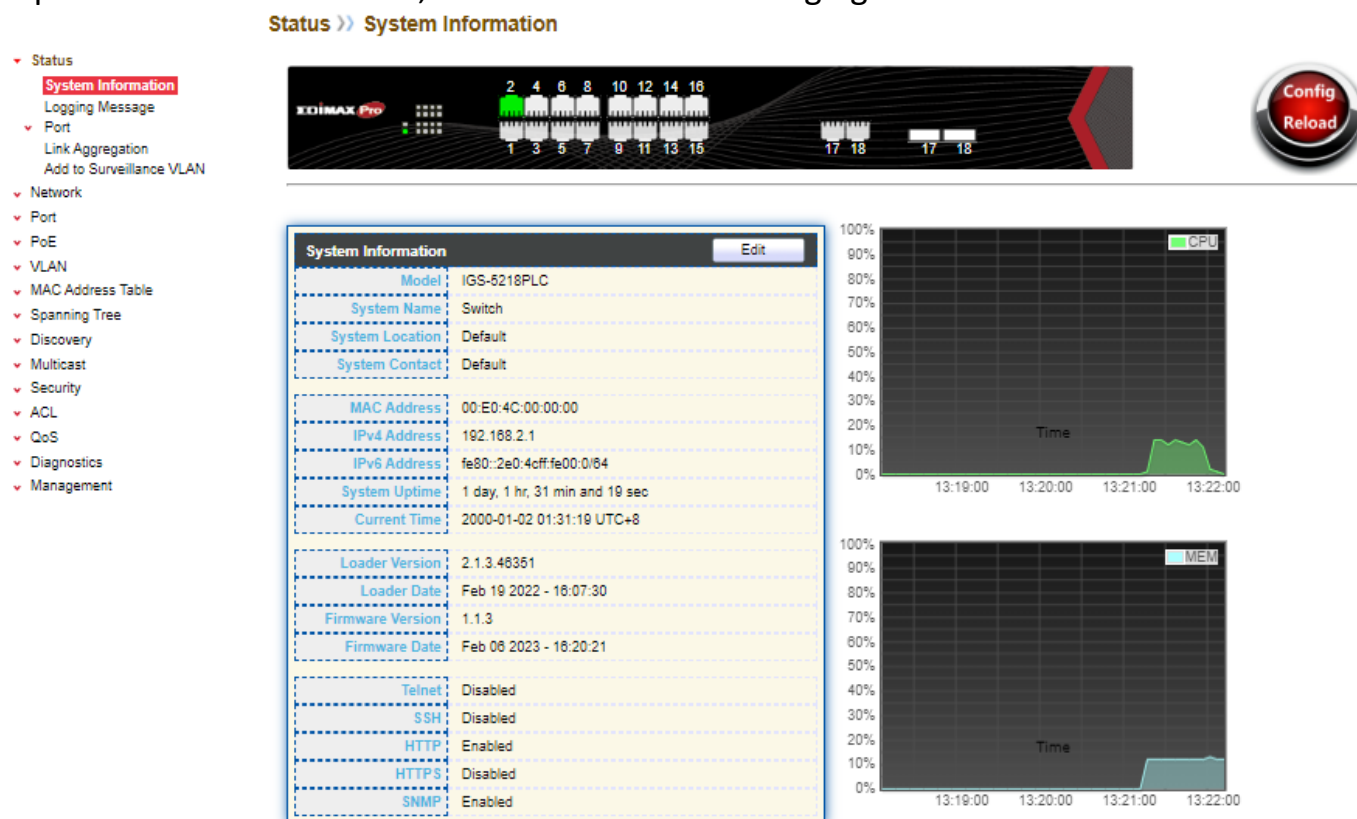
The image shows a "Set New Password" screen. It has two input fields: "New Password" and "Confirm Password". An "Apply" button is at the bottom.

5. Following the next section for details of Web-based Configuration Utility.

IV. Web-based Switch Configuration

The Surveillance VLAN PoE+ Web Smart switches provide rich functionalities. This chapter describes how to use the web-based management interface (Web UI) to configure the switch's features.

For the purposes of this manual of IGS-5428PLC/IGS5218PLC, the user interface is separated into five sections, as shown in the following figure:



III-1. Status

Use the Status pages to view system information and status.

III-1-1. System Information

This page shows switch panel, CPU utilization, Memory utilization and other system current information. It also allows user to edit some system information.

To display the Device Information web page, click **Status > System Information**.

- ▼ Status
 - System Information**
 - Logging Message
- ▼ Port
 - Link Aggregation
 - Add to Surveillance VLAN
- ▼ Network
 - Port
 - PoE
 - VLAN
 - MAC Address Table
 - Spanning Tree
 - Discovery
 - Multicast
 - Security
 - ACL
 - QoS
 - Diagnostics
 - Management

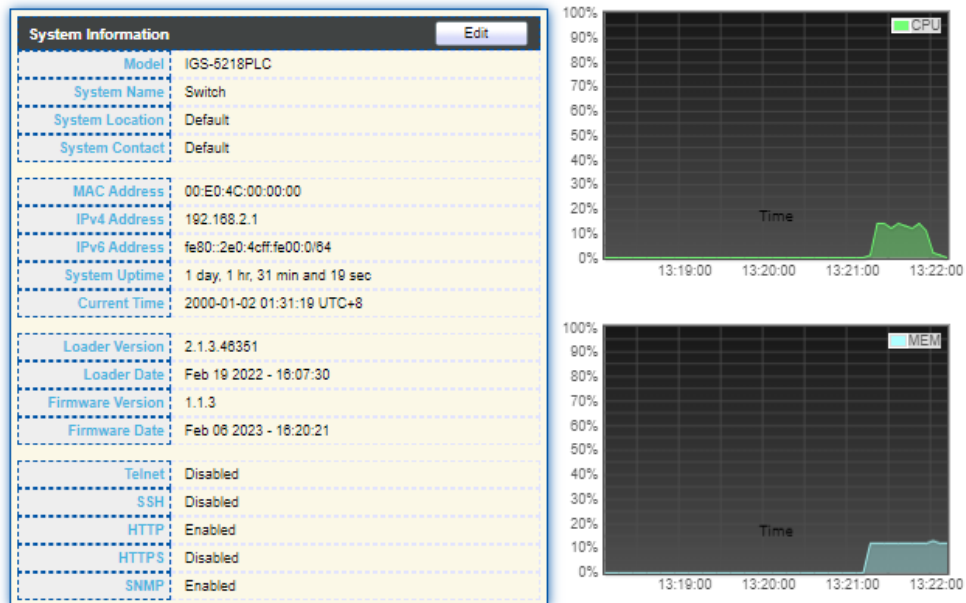
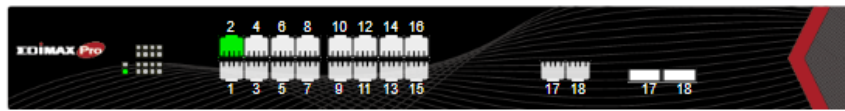


Figure 12 - Status > System Information

Item	Description
Model	Model name of the switch.
System Name	System name of the switch. This name will also use as CLI prefix of each line. ("Switch>" or "Switch#").
System Location	Location information of the switch.
System Contact	Contact information of the switch.
MAC Address	Base MAC address of the switch.
IPv4 Address	Current system IPv4 address.
IPv6 Address	Current system IPv6 address.
System Uptime	Total elapsed time from booting.
Current Time	Current system time.
Loader Version	Boot loader image version.
Loader Date	Boot loader image build date.
Firmware Version	Current running firmware image version.
Firmware Date	Current running firmware image build date.
Telnet	Current Telnet service enable/disable state.
SSH	Current SSH service enable/disable state.
HTTP	Current HTTP service enable/disable state.
HTTPS	Current HTTPS service enable/disable state.
SNMP	Current SNMP service enable/disable state.

Click "Edit" button on the table title to edit following system information.

Edit System Information

System Name
Switch

System Location
Default

System Contact
Default

Apply
Close

Figure 13 - Status > System Information > Edit System Information

Item	Description
System Name	System name of the switch. This name will also use as CLI prefix of each line. ("Switch>" or "Switch#").
System Location	Location information of the switch.
System Contact	Contact information of the switch.

III-1-2. Logging Message

To view the logging messages stored on the RAM and Flash, click **Status > Logging Message**.

Logging Message Table

Viewing RAM

Showing All entries
Showing 1 to 4 of 4 entries

Log ID	Time	Severity	Description
1	Jan 01 2000 00:01:19	notice	New http connection for user admin, source 192.168.2.22 ACCEPTED
2	Jan 01 2000 00:01:01	notice	GigabitEthernet28 link up
3	Jan 01 2000 00:00:58	notice	RESTART: System restarted - Cold Start
4	Jan 01 2000 00:00:58	notice	Logging is enabled

First
Previous
1
Next
Last

Clear
Refresh

Figure 14 - Status > Logging Message

Item	Description
------	-------------

Log ID	The log identifier.
Time	The time stamp for the logging message.
Severity	The severity for the logging message.
Description	The description of logging message.
Viewing	The logging view including: ● RAM: Show the logging messages stored on the RAM. ● Flash: Show the logging messages stored on the Flash.
Clear	Clear the logging messages.
Refresh	Refresh the logging messages.

III-1-3. Port

III-1-3-1. Statistics

This page displays standard counters on network traffic from the Interfaces, Ethernet-like and RMONMIB. Interfaces and Ethernet-like counters display errors on the traffic passing through each port. RMON counters provide a total count of different frame types and sizes passing through each port. The “Clear” button will clear MIB counter of current selected port.

To display the Port Flow Chart web page, click **Status > Port > Statistics**.

Port	GE1 ▼
MIB Counter	☒ All ☐ Interface ☐ Etherlike ☐ RMON
Refresh Rate	☐ None ☐ 5 sec ☒ 10 sec ☐ 30 sec

Clear

Interface

ifInOctets	0
ifInUcastPkts	0
ifInNUcastPkts	0
ifInDiscards	0
ifOutOctets	0
ifOutUcastPkts	0
ifOutNUcastPkts	0
ifOutDiscards	0
ifInMulticastPkts	0
ifInBroadcastPkts	0
ifOutMulticastPkts	0
ifOutBroadcastPkts	0

Etherlike

dot3StatsAlignmentErrors	0
dot3StatsFCSErrors	0
dot3StatsSingleCollisionFrames	0
dot3StatsMultipleCollisionFrames	0
dot3StatsDeferredTransmissions	0
dot3StatsLateCollisions	0
dot3StatsExcessiveCollisions	0

dot3StatsSymbolErrors	0
dot3ControlInUnknownOpCodes	0
dot3InPauseFrames	0
dot3OutPauseFrames	0
RMON	
etherStatsDropEvents	0
etherStatsOctets	0
etherStatsPkts	0
etherStatsBroadcastPkts	0
etherStatsMulticastPkts	0
etherStatsCRCAlignErrors	0
etherStatsUnderSizePkts	0
etherStatsOverSizePkts	0
etherStatsFragments	0
etherStatsJabbers	0
etherStatsCollisions	0
etherStatsPkts64Octets	0
etherStatsPkts65to127Octets	0
etherStatsPkts128to255Octets	0
etherStatsPkts256to511Octets	0
etherStatsPkts512to1023Octets	0
etherStatsPkts1024to1518Octets	0

Figure 15 - Status > Port > Statistics

Item	Description
Port	Select one port to show counter statistics.
MIB Counter	Select the MIB counter to show different counter type ● All: All counters. ● Interface: Interface related MIB counters. ● Etherlike: Ethernet-like related MIB counters. ● RMON: RMON related MIB counters.
Refresh Rate	Refresh the web page every period of seconds to get new counter of specified port.

III-1-3-2. Error Disabled

To display the Error Disabled web page, click **Status > Port > Error Disabled**.

Error Disabled Table

	Port	Reason	Time Left (sec)
☐	GE1	--	--
☐	GE2	--	--
☐	GE3	--	--
☐	GE4	--	--
☐	GE5	--	--
☐	GE6	--	--
☐	GE7	--	--
☐	GE8	--	--
☐	GE9	--	--
☐	GE10	--	--
☐	GE11	--	--
☐	GE12	--	--
☐	GE13	--	--
☐	GE14	--	--
☐	GE15	--	--
☐	GE16	--	--
☐	GE17	--	--
☐	GE18	--	--
☐	GE19	--	--
☐	GE20	--	--
☐	GE21	--	--
☐	GE22	--	--
☐	GE23	--	--
☐	GE24	--	--
☐	XGE1	--	--
☐	XGE2	--	--
☐	XGE3	--	--
☐	XGE4	--	--
☐	LAG1	--	--
☐	LAG2	--	--
☐	LAG3	--	--
☐	LAG4	--	--
☐	LAG5	--	--
☐	LAG6	--	--
☐	LAG7	--	--
☐	LAG8	--	--

Figure 16 - Status > Port > Error Disabled

Item	Description
☐	Select one or more port to operate.
Port	Interface or port number.
Reason	Port will be disabled by one of the following error reason: ● BPDU Guard ● UDLD ● Self Loop ● Broadcast Flood ● Unknown Multicast Flood ● Unicast Flood ● ACL ● Port Security Violation ● DHCP rate limit ● ARP rate limit
Time Left (sec)	The time left in second for the error recovery.
Refresh	Refresh the current page.
Recover	Recover the selected port status.

III-1-3-3. Bandwidth Utilization

This page allow user to browse ports' bandwidth utilization in real time. This page will refresh automatically in every refresh period.

To display Bandwidth Utilization web page, click **Status > Port > Bandwidth Utilization**.

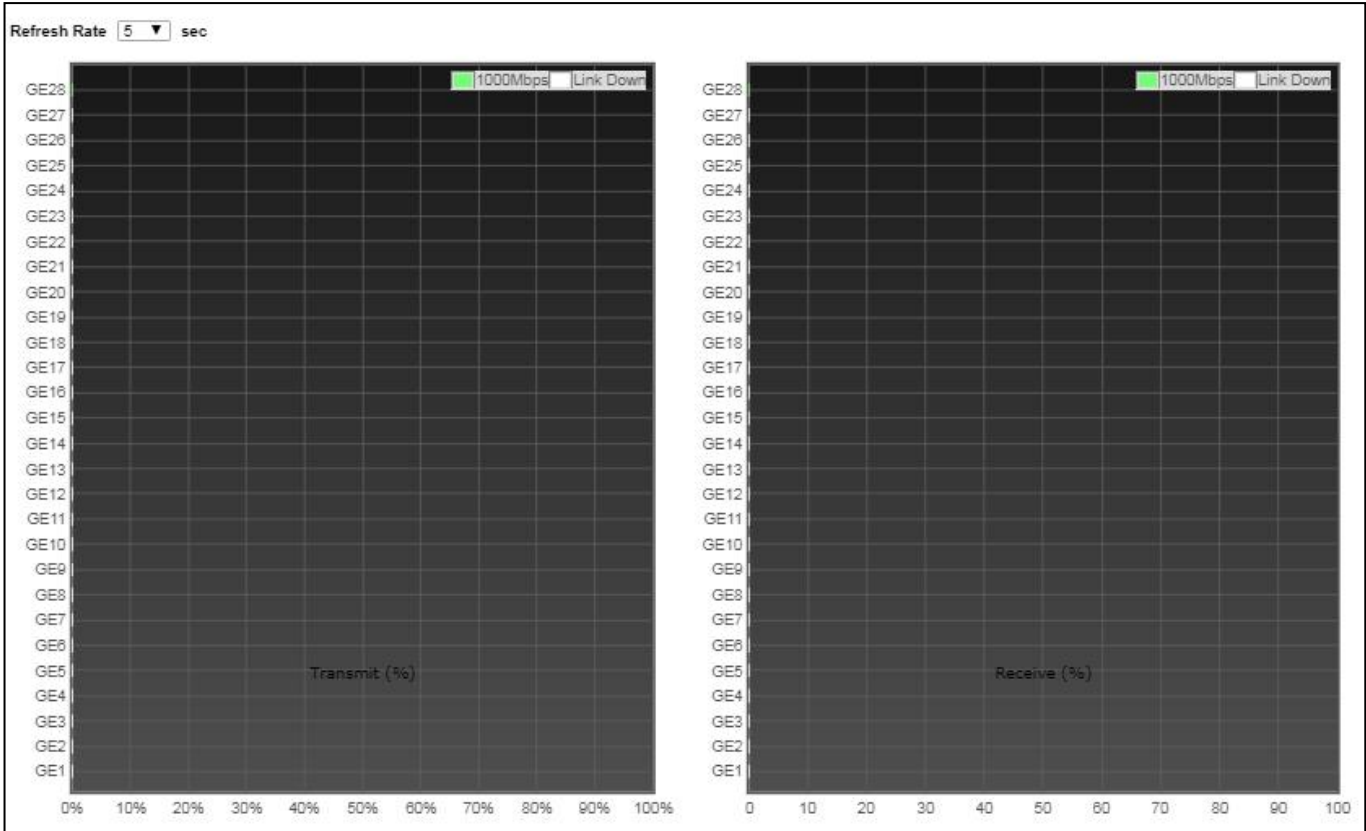


Figure 17 - Status > Port > Bandwidth Utilization

Item	Description
Refresh Rate	Refresh the web page every period of seconds to get new bandwidth utilization data.

III-1-4. Link Aggregation

To display the Link Aggregation web page, click **Status > Link Aggregation**.

Link Aggregation Table					
Q					
LAG	Name	Type	Link Status	Active Member	Inactive Member
LAG 1		---	---		
LAG 2		---	---		
LAG 3		---	---		
LAG 4		---	---		
LAG 5		---	---		
LAG 6		---	---		
LAG 7		---	---		
LAG 8		---	---		

Figure 18 - Status > Link Aggregation

Item	Description
LAG	LAG Name.
Name	LAG port description.
Type	The type of the LAG. ● Static: The group of ports assigned to a static LAG are always active members. ● LACP: The group of ports assigned to dynamic LAG are candidate ports. LACP determines which candidate ports are active member ports.
Link Status	LAG port link status.
Active Member	Active member ports of the LAG.
Inactive Member	Inactive member ports of the LAG.

III-1-5. MAC Address Table

The MAC address table page displays all MAC address entries on the switch including static MAC address created by administrator or auto learned from hardware. The “Clear” button will clear all dynamic entries and “Refresh” button will retrieve latest MAC address entries and show them on page.

To display the MAC Address Table web page, click **Status > MAC Address Table**.

VLAN	MAC Address	Type	Port
1	74:DA:38:17:6E:7A	Management	CPU
1	B8:6B:23:6D:C1:14	Dynamic	GE28

Figure 19 - Status > MAC Address Table

Item	Description
VLAN	VLAN ID of the mac address.
MAC Address	MAC address.
Type	The type of MAC address ● Management: DUT's base mac address for management Purpose. ● Static: Manually configured by administrator ● Dynamic: Auto learned by hardware.
Port	The type of Port ● CPU: DUT's CPU port for management purpose. ● Other: Normal switch port.

III-2. Network

Use the Network pages to configure settings for the switch network interface and how the switch connects to a remote server to get services.

III-2-1. IP Address

This section allows you to edit the IP address, Netmask, Gateway and DNS server of the switch.

To view the IP Address menu, navigate to **Network > IP Address**.

IPv4 Address	
Address Type	☒ Static ☐ Dynamic
IP Address	192.168.2.1
Subnet Mask	255.255.255.0
Default Gateway	192.168.2.254
DNS Server 1	168.95.1.1
DNS Server 2	168.95.192.1

IPv6 Address	
Auto Configuration	☒ Enable
DHCPv6 Client	☐ Enable
IPv6 Address	
Prefix Length	0 (0 - 128)
IPv6 Gateway	
DNS Server 1	
DNS Server 2	

Operational Status	
IPv4 Address	192.168.2.1
IPv4 Default Gateway	192.168.2.254
IPv6 Address	fe80::76da:38ff:fe17:6e7a/64
IPv6 Gateway	::
Link Local Address	fe80::76da:38ff:fe17:6e7a/64

Apply

Figure 20 - Network > IP Address

Item	Description
Address Type	The address type of switch IP configuration including ● Static: Static IP configured by users will be used. ● Dynamic: Enable the DHCP to obtain the IP address from a DHCP server.
IP Address	Specify the switch static IP address on the static configuration.
Subnet Mask	Specify the switch subnet mask on the static configuration.
Default Gateway	Specify the default gateway on the static configuration. The default gateway must be in the same subnet with switch IP address configuration.
DNS Server 1	Specify the primary user-defined IPv4 DNS server configuration.
DNS Server 2	Specify the secondary user-defined IPv4 DNS server configuration.
Table 3-2: IPv6 Address fields	
IPv4 Address	The operational IPv4 address of the switch.
IPv4 Gateway	The operational IPv4 gateway of the switch.
IPv6 Address v6	The operational IPv6 address of the switch.
IPv6 Gateway	The operational IPv6 gateway of the switch.
Link Local Address	The IPv6 link local address for the switch.

III-2-2. System Time

This page allow user to set time source, static time, time zone and daylight saving settings. Time zone and daylight saving takes effect both static time or time from SNTP server.

To display System Time page, click **Network > System Time**.

Source		☐ SNTP ☐ From Computer ☒ Manual Time	
Time Zone		UTC +8:00 ▼	

SNTP

Address Type		☒ Hostname ☐ IPv4	
Server Address			
Server Port		123 (1 - 65535, default 123)	

Manual Time

Date	2000-01-01	YYYY-MM-DD
Time	00:15:47	HH:MM:SS

Daylight Saving Time

Type	☒ None ☐ Recurring ☐ Non-recurring ☐ USA ☐ European		
Offset	60	Min (1 - 1440, default 60)	
Recurring	From:	Day Sun ▼ Week First ▼ Month Jan ▼ Time	
	To:	Day Sun ▼ Week First ▼ Month Jan ▼ Time	
Non-recurring	From:	YYYY-MM-DD	HH:MM
	To:	YYYY-MM-DD	HH:MM

Operational Status

Current Time	2000-01-01 00:15:47 UTC+8
--------------	---------------------------

Apply

Figure 21 - Network > System Time

Item	Description
Source	Select the time source. ● SNTP: Time sync from NTP server. ● From Computer: Time set from browser host. ● Manual Time: Time set by manually configure.
Time Zone	Select a time zone difference from listing district.
SNTP	
Address Type	Select the address type of NTP server. This is enabled when time source is SNTP.
Server Address	Input IPv4 address or hostname for NTP server. This is enabled when time source is SNTP.
Server Port	Input NTP port for NTP server. Default is 123. This is enabled when time source is SNTP.
Manual Time	
Date	Input manual date. This is enabled when time source is manual.
Time	Input manual time. This is enabled when time source is manual.
Daylight Saving Time	
Type	Select the mode of daylight saving time. ● Disable: Disable daylight saving time. ● Recurring: Using recurring mode of daylight saving time. ● Non-Recurring: Using non-recurring mode of daylight saving time. ● USA: Using daylight saving time in the United States that starts on the second Sunday of March and ends on the first Sunday of November. ● European: Using daylight saving time in the Europe that starts on the last Sunday in March and ending on the last Sunday in October.
Offset	Specify the adjust offset of daylight saving time.
Recurring From	Specify the starting time of recurring daylight saving time. This field available when selecting "Recurring" mode.
Recurring To	Specify the ending time of recurring daylight saving time. This field available when selecting "Recurring" mode.
Non-recurring From	Specify the starting time of non-recurring daylight saving time. This field available when selecting "Non-Recurring" mode.
Non-recurring To	Specify the ending time of recurring daylight saving time. This field available when selecting "Non-Recurring" mode.
Non-recurring From	Specify the starting time of non-recurring daylight saving time. This field available when selecting "Non-Recurring" mode.
Non recurring To	Specify the ending time of recurring daylight saving time. This field available when selecting "Non-Recurring" mode.

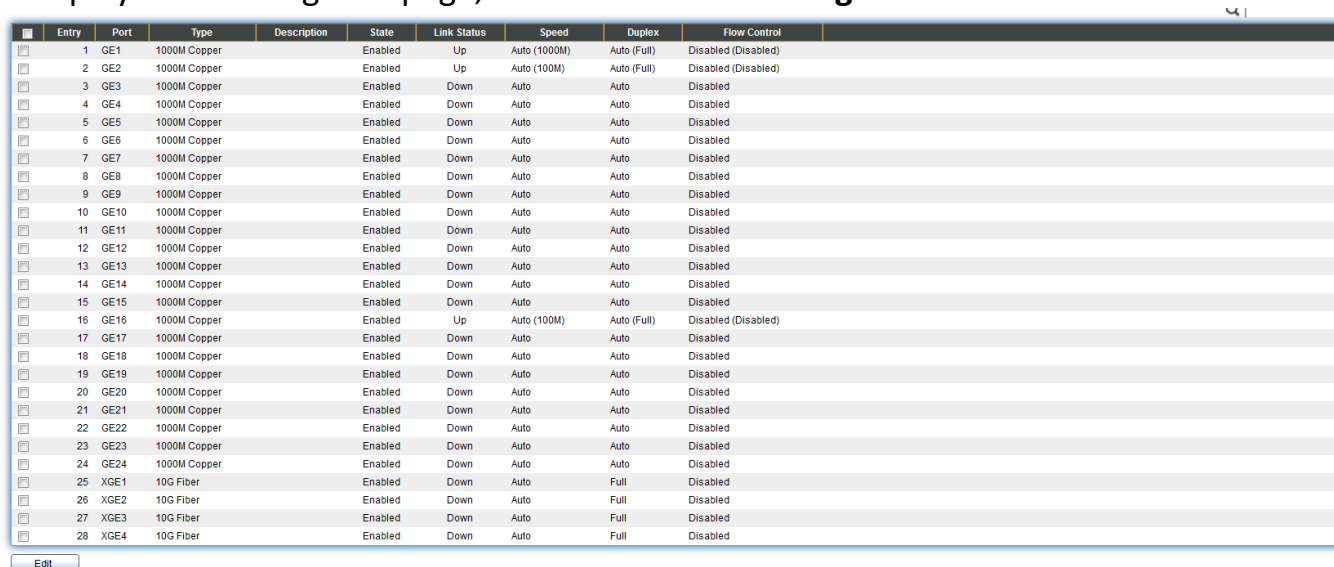
III-3. Port

Use the Port pages to configure settings for switch port related features.

III-3-1. Port Setting

This page shows port current status and allow user to edit port configurations. Select port entry and click **“Edit”** button to edit port configurations.

To display Port Setting web page, click **Port > Port Setting**.



Entry	Port	Type	Description	State	Link Status	Speed	Duplex	Flow Control
☐	1	GE1	1000M Copper	Enabled	Up	Auto (1000M)	Auto (Full)	Disabled (Disabled)
☐	2	GE2	1000M Copper	Enabled	Up	Auto (100M)	Auto (Full)	Disabled (Disabled)
☐	3	GE3	1000M Copper	Enabled	Down	Auto	Auto	Disabled
☐	4	GE4	1000M Copper	Enabled	Down	Auto	Auto	Disabled
☐	5	GE5	1000M Copper	Enabled	Down	Auto	Auto	Disabled
☐	6	GE6	1000M Copper	Enabled	Down	Auto	Auto	Disabled
☐	7	GE7	1000M Copper	Enabled	Down	Auto	Auto	Disabled
☐	8	GE8	1000M Copper	Enabled	Down	Auto	Auto	Disabled
☐	9	GE9	1000M Copper	Enabled	Down	Auto	Auto	Disabled
☐	10	GE10	1000M Copper	Enabled	Down	Auto	Auto	Disabled
☐	11	GE11	1000M Copper	Enabled	Down	Auto	Auto	Disabled
☐	12	GE12	1000M Copper	Enabled	Down	Auto	Auto	Disabled
☐	13	GE13	1000M Copper	Enabled	Down	Auto	Auto	Disabled
☐	14	GE14	1000M Copper	Enabled	Down	Auto	Auto	Disabled
☐	15	GE15	1000M Copper	Enabled	Down	Auto	Auto	Disabled
☐	16	GE16	1000M Copper	Enabled	Up	Auto (100M)	Auto (Full)	Disabled (Disabled)
☐	17	GE17	1000M Copper	Enabled	Down	Auto	Auto	Disabled
☐	18	GE18	1000M Copper	Enabled	Down	Auto	Auto	Disabled
☐	19	GE19	1000M Copper	Enabled	Down	Auto	Auto	Disabled
☐	20	GE20	1000M Copper	Enabled	Down	Auto	Auto	Disabled
☐	21	GE21	1000M Copper	Enabled	Down	Auto	Auto	Disabled
☐	22	GE22	1000M Copper	Enabled	Down	Auto	Auto	Disabled
☐	23	GE23	1000M Copper	Enabled	Down	Auto	Auto	Disabled
☐	24	GE24	1000M Copper	Enabled	Down	Auto	Auto	Disabled
☐	25	XGE1	10G Fiber	Enabled	Down	Auto	Full	Disabled
☐	26	XGE2	10G Fiber	Enabled	Down	Auto	Full	Disabled
☐	27	XGE3	10G Fiber	Enabled	Down	Auto	Full	Disabled
☐	28	XGE4	10G Fiber	Enabled	Down	Auto	Full	Disabled

Edit

Figure 22 - Port > Port Setting

Item	Description
Port	Port Name.
Type	Port media type.
Description	Port Description.
State	Port admin state ● Enabled: Enable the port. ● Disabled: Disable the port.
Link Status	Current port link status ● Up: Port is link up. ● Down: Port is link down.
Speed	Current port speed configuration and link speed status.
Duplex	Current port duplex configuration and link duplex status.
Flow Control	Current port flow control configuration and link flow control status.

Click **“Edit”** button to edit Port Setting menu

Port

GE1

Description

State

☒ Enable

Speed

☒ Auto
☐ 10M
☐ Auto - 10M
☐ 100M
☐ Auto - 100M
☐ 1000M
☐ Auto - 1000M
☐ Auto - 10M/100M

Duplex

☒ Auto
☐ Full
☐ Half

Flow Control

☐ Auto
☐ Enable
☒ Disable

Apply

Close

Figure 23 - Port > Port Setting > Port Setting

Item	Description
Port	Selected Port list.
Description	Port media type.
State	Port admin state. ● Enabled: Enable the port. ● Disabled: Disable the port.
Speed	Port speed capabilities. ● Auto: Auto speed with all capabilities. ● Auto-10M: Auto speed with 10M ability only. ● Auto-100M: Auto speed with 100M ability only. ● Auto-1000M: Auto speed with 1000M ability only. ● Auto-10M/100M: Auto speed with 10M/100M abilities. ● 10M: Force speed with 10M ability. ● 100M: Force speed with 100M ability. ● 1000M: Force speed with 1000M ability.
Duplex	Port duplex capabilities. ● Auto: Auto duplex with all capabilities. ● Half: Auto speed with 10M and 100M ability only. ● Full: Auto speed with 10M/100M/1000M ability only.
Flow Control	Port flow control. ● Auto: Auto flow control by negotiation.

	● Enabled: Enable flow control ability. ● Disabled: Disable flow control ability.
--	---

III-3-2. Long Range Mode

This page shows port current status and Enable long range mode will double the cabling distance but reduce the speed to 10Mbps.

To display Long Range Mode web page, click **Port > Long Range Mode Setting**.

Port	State
GE1	Disable ▾
GE2	Disable ▾
GE3	Disable ▾
GE4	Disable ▾
GE5	Disable ▾
GE6	Disable ▾
GE7	Disable ▾
GE8	Disable ▾
GE9	Disable ▾
GE10	Disable ▾
GE11	Disable ▾
GE12	Disable ▾
GE13	Disable ▾
GE14	Disable ▾
GE15	Disable ▾
GE16	Disable ▾
GE17	Disable ▾
GE18	Disable ▾
GE19	Disable ▾
GE20	Disable ▾
GE21	Disable ▾
GE22	Disable ▾
GE23	Disable ▾
GE24	Disable ▾

Apply

Figure 24 - Port > Long Range Mode

III-3-3. Error Disable

To display Error Disabled web page, click **Port > Error Disabled**

Item	Description
Recovery Interval	300 Sec (30 - 86400)
BPDU Guard	☐ Enable
UDLD	☐ Enable
Self Loop	☐ Enable
Broadcast Flood	☐ Enable
Unknown Multicast Flood	☐ Enable
Unicast Flood	☐ Enable
ACL	☐ Enable
Port Security	☐ Enable
DHCP Rate Limit	☐ Enable
ARP Rate Limit	☐ Enable

Apply

Figure 25 - Port > Error disable

Item	Description
Recover Interval	Auto recovery after this interval for error disabled port.
BPDU Guard	Enabled to auto shutdown port when BPDU Guard reason occur. This reason caused by STP BPDU Guard mechanism.
UDLD	Enabled to auto shutdown port when UDLD violation occur.
Self Loop	Enabled to auto shutdown port when Self Loop reason occur.
Broadcast Flood	Enabled to auto shutdown port when Broadcast Flood reason occur. This reason caused by broadcast rate exceed broadcast storm control rate.
Unknown Multicast Flood	Enabled to auto shutdown port when Unknown Multicast Flood reason occur. This reason caused by unknown multicast rate exceed unknown multicast storm control rate.
Unicast Flood	Enabled to auto shutdown port when Unicast Flood reason occur. This reason caused by unicast rate exceed unicast storm control rate.
ACL	Enabled to auto shutdown port when ACL shutdown port reason occur. This reason caused packet match the ACL shutdown port action.
Port Security	Enabled to auto shutdown port when Port Security Violation reason occur. This reason caused by violation port security rules.
DHCP rate limit	Enabled to auto shutdown port when DHCP rate limit reason occur.

	This reason caused by DHCP packet rate exceed DHCP rate limit.
ARP rate limit	Enabled to auto shutdown port when ARP rate limit reason occur. This reason caused by DHCP packet rate exceed ARP rate limit.

III-3-4. Link Aggregation

III-3-4-1. Group

This page allow user to configure link aggregation group load balance algorithm and group member.

To view the Group menu, navigate to **Port > Link Aggregation > Group**.

Load Balance Algorithm

☒ MAC Address
☐ IP-MAC Address

Apply

Link Aggregation Table

LAG	Name	Type	Link Status	Active Member	Inactive Member
☐ LAG 1	---	---	---		
☐ LAG 2	---	---	---		
☐ LAG 3	---	---	---		
☐ LAG 4	---	---	---		
☐ LAG 5	---	---	---		
☐ LAG 6	---	---	---		
☐ LAG 7	---	---	---		
☐ LAG 8	---	---	---		

Edit

Figure 26 - Port > Link Aggregation > Group

Item	Description
Load Balance Algorithm	LAG load balance distribution algorithm ● src-dst-mac: Based on MAC address. ● src-dst-mac-ip: Based on MAC address and IP address.
LAG	LAG Name.
Name	LAG port description.
Type	The type of the LAG ● Static: The group of ports assigned to a static LAG are always active members. ● LACP: The group of ports assigned to dynamic LAG are

	candidate ports. LACP determines which candidate ports are active member ports.
Link Status	LAG port link status
Active Member	Active member ports of the LAG.
Inactive Member	Inactive member ports of the LAG.

Click **“Edit”** to edit Link Aggregation Group menu.

The screenshot shows the 'Edit Link Aggregation Group' window. It contains the following fields and controls:

- LAG:** A dropdown menu showing '1'.
- Name:** An empty text input field.
- Type:** Two radio buttons; 'Static' is selected, and 'LACP' is unselected.
- Member:** A section containing two lists:
 - Available Port:** A list box containing 'GE1', 'GE2', 'GE3', 'GE4', 'GE5', 'GE6', 'GE7', and 'GE8'.
 - Selected Port:** An empty list box.
 - Between the two lists are right-pointing and left-pointing arrow buttons for moving items.
- Buttons:** 'Apply' and 'Close' buttons at the bottom.

Figure 27 - Port > Link Aggregation > Group > Edit Link Aggregation Group

Item	Description
LAG	Selected LAG group ID.
Name	LAG port description.
Type	The type of the LAG ● Static: The group of ports assigned to a static LAG are always active members. ● LACP: The group of ports assigned to dynamic LAG are candidate ports. LACP determines which candidate ports are active member ports.
Member	Select available port to be LAG group member port.

III-3-4-2. Port Setting

This page shows LAG port current status and allow user to edit LAG port configurations. Select LAG entry and click “**Edit**” button to edit LAG port configurations.

To display LAG Port Setting web page, click **Port > Link Aggregation > Port Setting**.

Port Setting Table

☐	LAG	Type	Description	State	Link Status	Speed	Duplex	Flow Control
☐	LAG 1			Enabled	Down	Auto	Auto	Disabled
☐	LAG 2			Enabled	Down	Auto	Auto	Disabled
☐	LAG 3			Enabled	Down	Auto	Auto	Disabled
☐	LAG 4			Enabled	Down	Auto	Auto	Disabled
☐	LAG 5			Enabled	Down	Auto	Auto	Disabled
☐	LAG 6			Enabled	Down	Auto	Auto	Disabled
☐	LAG 7			Enabled	Down	Auto	Auto	Disabled
☐	LAG 8			Enabled	Down	Auto	Auto	Disabled

Edit

Figure 28 - Port > Link Aggregation > Port Setting

Item	Description
LAG	LAG Port Name.
Type	LAG Port media type.
Description	LAG Port description.
State	LAG Port admin state ● Enabled: Enable the port. ● Disabled: Disable the port.
Link Status	Current LAG port link status ● Up: Port is link up. ● Down: Port is link down.
Speed	Current LAG port speed configuration and link speed status.
Duplex	Current LAG port duplex configuration and link duplex status.
Flow Control	Current LAG port flow control configuration and link flow control status.

Click “**Edit**” to view Edit Port Setting menu.

Port

LAG1

Description

State

☒ Enable

Speed

☒ Auto
☐ 10M
☐ 100M
☐ 1000M

Flow Control

☐ Auto
☐ Enable
☒ Disable

Apply

Close

Figure 29 - Port > Link Aggregation > Port Setting > Edit Port Setting

Item	Description
Port	Selected Port list.
Description	Port description.
State	Port admin state ● Enabled: Enable the port. ● Disabled: Disable the port.
Speed	Port speed capabilities ● Auto: Auto speed with all capabilities. ● Auto-10M: Auto speed with 10M ability only. ● Auto-100M: Auto speed with 100M ability only. ● Auto-1000M: Auto speed with 1000M ability only. ● Auto-10M/100M: Auto speed with 10M/100M abilities. ● 10M: Force speed with 10M ability. ● 100M: Force speed with 100M ability. ● 1000M: Force speed with 1000M ability.
Flow Control	Port flow control ● Auto: Auto flow control by negotiation. ● Enabled: Enable flow control ability. ● Disabled: Disable flow control ability.

III-3-4-3. LACP

This page allow user to configure LACP global and port configurations. Select ports and click **"Edit"** button to edit port configuration.

To display the LACP Setting web page , click **Port > Link Aggregation > LACP**.



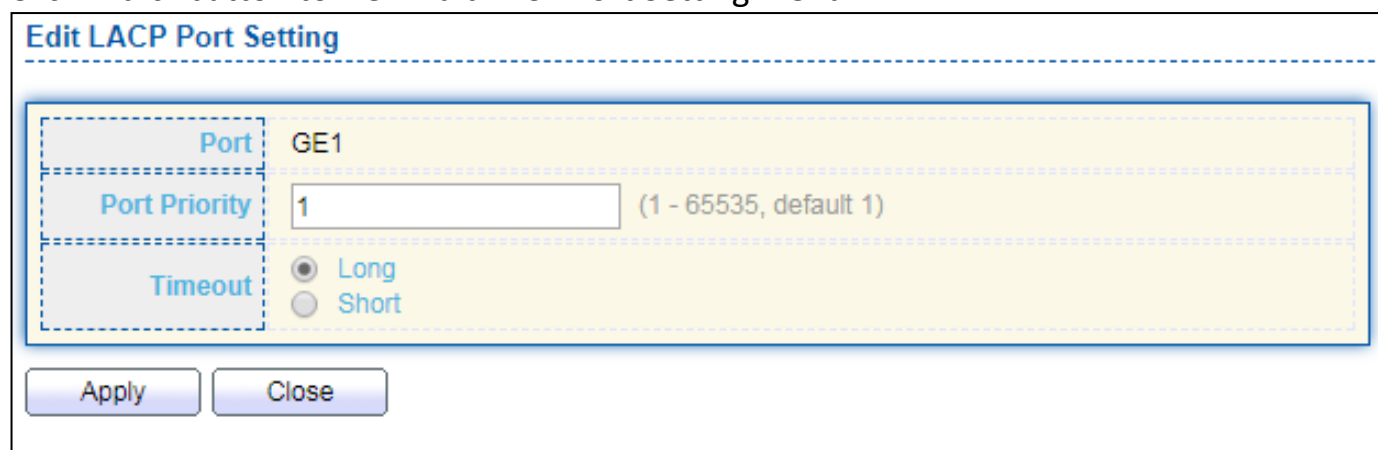
Entry	Port	Port Priority	Timeout
1	GE1	1	Long
2	GE2	1	Long
3	GE3	1	Long
4	GE4	1	Long
5	GE5	1	Long
6	GE6	1	Long
7	GE7	1	Long
8	GE8	1	Long
9	GE9	1	Long
10	GE10	1	Long
11	GE11	1	Long
12	GE12	1	Long
13	GE13	1	Long
14	GE14	1	Long
15	GE15	1	Long
16	GE16	1	Long
17	GE17	1	Long
18	GE18	1	Long
19	GE19	1	Long
20	GE20	1	Long
21	GE21	1	Long
22	GE22	1	Long
23	GE23	1	Long
24	GE24	1	Long
25	XGE1	1	Long
26	XGE2	1	Long
27	XGE3	1	Long
28	XGE4	1	Long

Edit

Figure 30 - Port > Link Aggregation > LACP

Item	Description
System Priority	Configure the system priority of LACP. This decides the system priority field in LACP PDU.
Port	Port Name.
Port Priority	LACP priority value of the port.
Timeout	The periodic transmissions type of LACP PDUs. ● Long: Transmit LACP PDU with slow periodic (30s). ● Short: Transmit LACPP DU with fast periodic (1s).

Click **"Edit"** button to view Edit LACP Port Setting menu.



Edit LACP Port Setting

Port	GE1
Port Priority	1 (1 - 65535, default 1)
Timeout	☒ Long ☐ Short

Apply Close

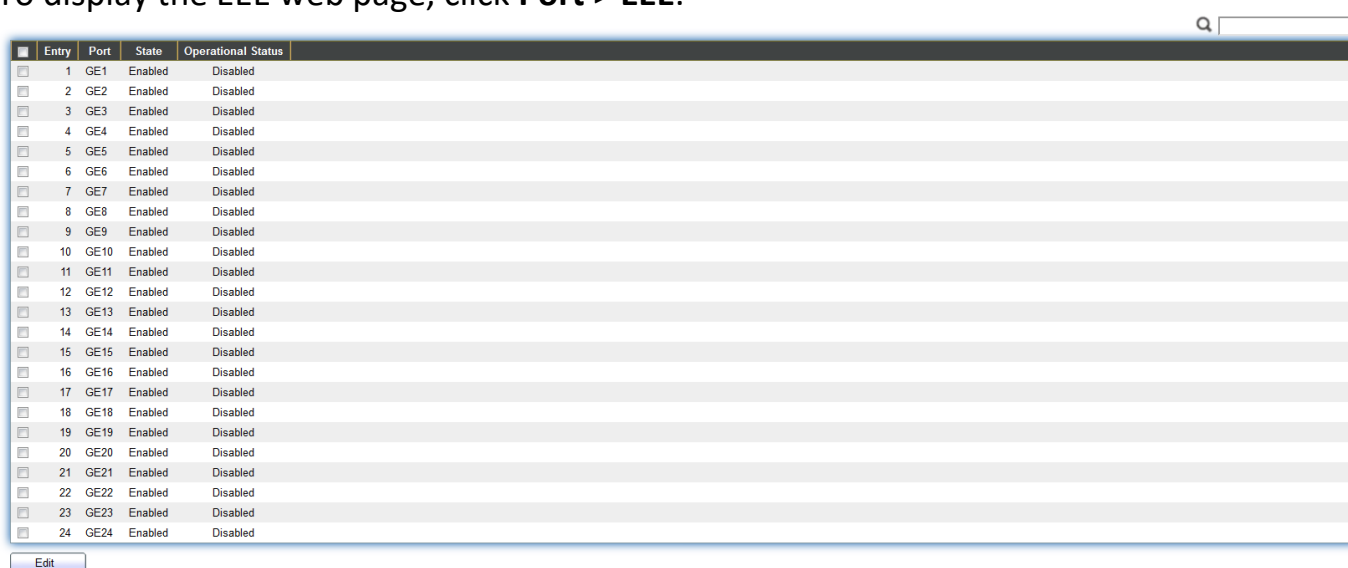
Figure 31 - Port > Link Aggregation > LACP > Edit LACP Port Setting

Item	Description
Port	Selected port list.
Port Priority	Enter the LACP priority value of the port
Timeout	The periodic transmissions type of LACP PDUs. ● Long: Transmit LACP PDU with slow periodic (30s). ● Short: Transmit LACPP DU with fast periodic (1s).

III-3-4-4. EEE

This page allow user to configure Energy Efficient Ethernet settings.

To display the EEE web page, click **Port > EEE**.



Entry	Port	State	Operational Status
☐	1 GE1	Enabled	Disabled
☐	2 GE2	Enabled	Disabled
☐	3 GE3	Enabled	Disabled
☐	4 GE4	Enabled	Disabled
☐	5 GE5	Enabled	Disabled
☐	6 GE6	Enabled	Disabled
☐	7 GE7	Enabled	Disabled
☐	8 GE8	Enabled	Disabled
☐	9 GE9	Enabled	Disabled
☐	10 GE10	Enabled	Disabled
☐	11 GE11	Enabled	Disabled
☐	12 GE12	Enabled	Disabled
☐	13 GE13	Enabled	Disabled
☐	14 GE14	Enabled	Disabled
☐	15 GE15	Enabled	Disabled
☐	16 GE16	Enabled	Disabled
☐	17 GE17	Enabled	Disabled
☐	18 GE18	Enabled	Disabled
☐	19 GE19	Enabled	Disabled
☐	20 GE20	Enabled	Disabled
☐	21 GE21	Enabled	Disabled
☐	22 GE22	Enabled	Disabled
☐	23 GE23	Enabled	Disabled
☐	24 GE24	Enabled	Disabled

Edit

Figure 32 - Port > EEE

Item	Description
Port	Port Name.
State	Port EEE admin state ● Enabled: EEE is enabled. ● Disabled: EEE is disabled.
Operational Status	Port EEE operational status ● Enabled: EEE is operating. ● Disabled: EEE is no operating.

Click **“Edit”** to edit the EEE menu.

Edit EEE Setting

Port GE1

State ☐ Enable

Apply Close

Figure 33 - Port > EEE > Edit EEE Setting

Item	Description
Port	Port Name
State	Port EEE admin state ● Enabled: EEE is enabled. ● Disabled: EEE is disabled.

III-3-5. Jumbo Frame

This page allow user to configure switch jumbo frame size.

To display Jumbo Frame web page, click **Port > Jumbo Frame**.

Jumbo Frame

☒ Enable

1522 Byte (1518 - 10000, default 1522)

Apply

Figure 34 - Port > Jumbo Frame

Item	Description
Jumbo Frame	Enable or disable jumbo frame. When jumbo frame is enabled, switch max frame size is allowed to configure. When jumbo frame is disabled, default frame size 1522 will be used.

III-4. PoE

III-4-1. Global Setting(Industrial Mode/Classic Mode)

To display the Global web page, click **PoE > Global Setting**.



Click on **Classic Mode** or **Industrial Mode** Button to switch the Power budget.

Note: Default setting: Industrial Mode

IGS-5218PLC

Stable & Flexible PoE Supply

Dual PoE Power Supply Mode

Mode	Total PoE Power Budget	Operating Temperature Range
Industrial Mode (Default)	200W	-20°C to 65°C (-4°F to 149°F)
Classic Mode	360W	0°C to 40°C (32°F to 104°F)



IGS-5428PLC

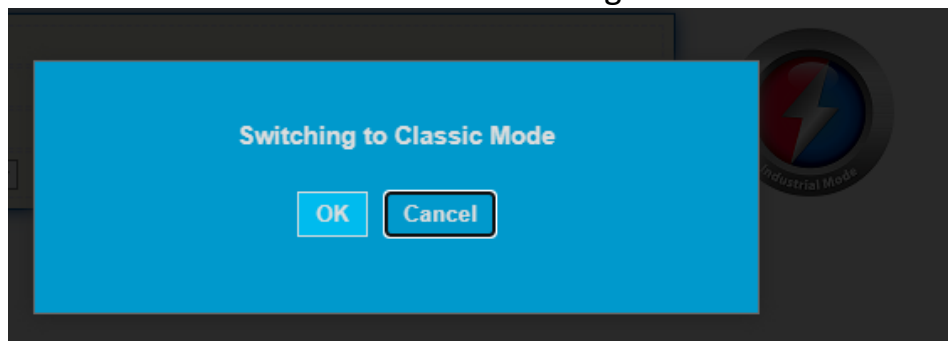
Stable & Flexible PoE Supply

Dual PoE Power Supply Mode

Mode	Total PoE Power Budget	Operating Temperature Range
Industrial Mode (Default)	300W	-20°C to 65°C (-4°F to 149°F)
Classic Mode	500W	0°C to 40°C (32°F to 104°F)

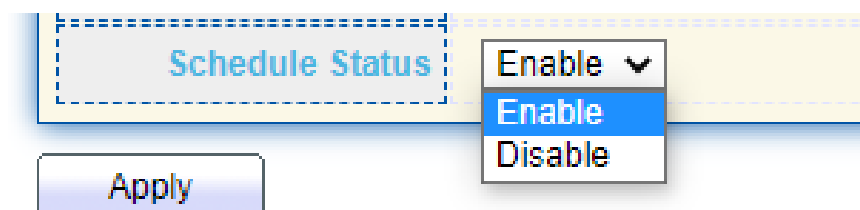


Click on “**Classic Mode**” or “**Industrial Mode**” Button,
and Click “**OK**” to switch the Power budget.



PoE Scheduling

You can “**Enable**” or “**Disable**” the PoE scheduling.



Click “**Apply**” to confirm the configuration.

Edit PoE schedule Table

PoE Schedule Table

☐	Index	Name	Port List	Schedule Status
☐	1	Index_01		Disable
☐	2	Index_02		Disable
☐	3	Index_03		Disable
☐	4	Index_04		Disable
☐	5	Index_05		Disable
☐	6	Index_06		Disable
☐	7	Index_07		Disable
☐	8	Index_08		Disable
☐	9	Index_09		Disable
☐	10	Index_10		Disable
☐	11	Index_11		Disable
☐	12	Index_12		Disable
☐	13	Index_13		Disable
☐	14	Index_14		Disable
☐	15	Index_15		Disable
☐	16	Index_16		Disable
☐	17	Index_17		Disable
☐	18	Index_18		Disable
☐	19	Index_19		Disable
☐	20	Index_20		Disable
☐	21	Index_21		Disable
☐	22	Index_22		Disable
☐	23	Index_23		Disable
☐	24	Index_24		Disable

Edit

Figure 35 - PoE > Global Setting

Item	Description
Nominal Power	Maximum supply power.
Consuming Power	Current consumed power.
Remaining Power	Remaining available power.
Schedule Status	Schedule status global switch.
Name	PoE Schedule Name.
Port List	The ports provide power in designated schedule index.
Schedule Status	The current schedule status.

Click “**Edit**” to view PoE Schedule List menu.

Index

1

Schedule Status

☐ Enable

Name

Index_01

Date

☒ Mon
☒ Tue
☒ Wed
☒ Thu
☒ Fri
☒ Sat
☒ Sun

From 00:00 to 23:30

Port List

2

4

6

8

10

12

14

16

18

20

22

24

1

3

5

7

9

11

13

15

17

19

21

23

☒ Enable
☐ Disable

☐ Port No Select
☒ Port Select

Apply

Close

Figure 36 - PoE > Priority Setting > Edit PoE Schedule Edit

Item	Description
Index	The serial number of schedule list.
Schedule Status	Schedule Status ● Checked: Schedule status is enabled. ● Unchecked: Schedule status is disabled.
Name	Enter the PoE schedule name.
Date	Select a valid time for this schedule.
Port List	Select the port provide power.

III-4-2. PoE On/Off

To display the PoE Status web page, click **PoE > Power On/Off**.

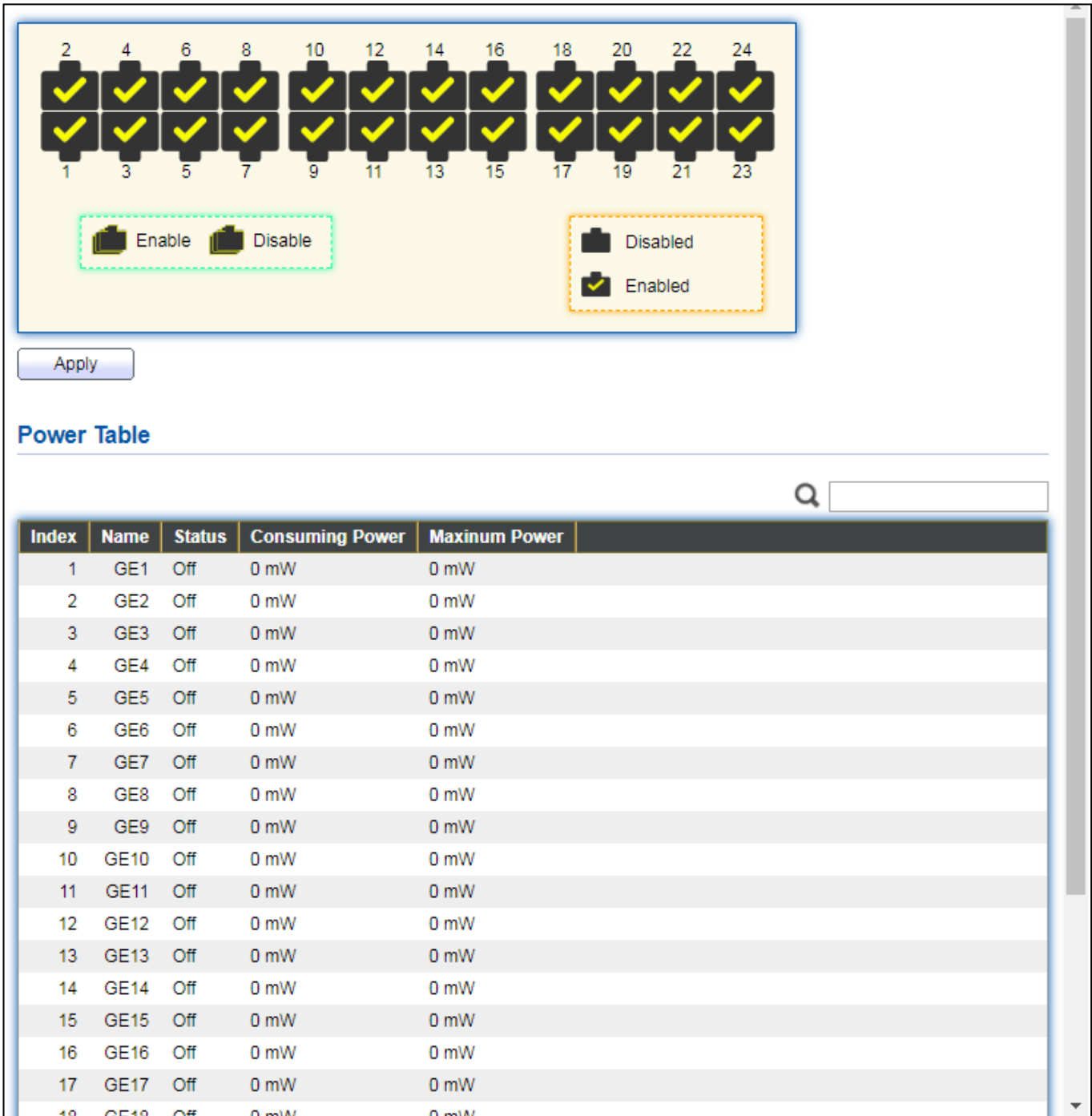


Figure 40 - PoE > Power On/off

Per Port PoE Status

Checked: Port PoE status is enabled.

Unchecked: Port PoE status is disabled.

III-4-3. PD Alive Check

This page shows the information of each ports, including mode, ping PD IP Address, interval time, retry count, action, reboot time and connect status.

PD Alive Check Table

Q

	Entry	Port	Mode	ping PD IP Address	Interval Time	Retry Count	Action	Reboot Time	Connect Status
☐	1	GE1	Disable	0.0.0.0	30	2	None	90	Off
☐	2	GE2	Disable	0.0.0.0	30	2	None	90	Off
☐	3	GE3	Disable	0.0.0.0	30	2	None	90	Off
☐	4	GE4	Disable	0.0.0.0	30	2	None	90	Off
☐	5	GE5	Disable	0.0.0.0	30	2	None	90	Off
☐	6	GE6	Disable	0.0.0.0	30	2	None	90	Off
☐	7	GE7	Disable	0.0.0.0	30	2	None	90	Off
☐	8	GE8	Disable	0.0.0.0	30	2	None	90	Off
☐	9	GE9	Disable	0.0.0.0	30	2	None	90	Off
☐	10	GE10	Disable	0.0.0.0	30	2	None	90	Off
☐	11	GE11	Disable	0.0.0.0	30	2	None	90	Off
☐	12	GE12	Disable	0.0.0.0	30	2	None	90	Off
☐	13	GE13	Disable	0.0.0.0	30	2	None	90	Off
☐	14	GE14	Disable	0.0.0.0	30	2	None	90	Off
☐	15	GE15	Disable	0.0.0.0	30	2	None	90	Off
☐	16	GE16	Disable	0.0.0.0	30	2	None	90	Off

Edit

To display port setting page, please click the “Edit” button.

PD Alive Check Table

Port List

GE3

Status

☐ Enable

ping PD IP Address

Interval Time

Sec (10 - 300, default 30)

Retry Count

(1 - 5, default 2)

Action

None

Reboot Time

Sec (30 - 180, default 90)

Apply

Close

Item	Description
Port list	Display the interface of port entry.
Status	Enable/Disable
Ping PD IP Address	Input IP address of the PD
Internal Time	The default setting about Interval (30 seconds) will make switch detect the PD status by performing ping requests every 30 seconds.
Retry Count	If there is no ping reply from the PD, retry count starts to count from 1. Once retry count is reached to 2 times, the switch will perform the action in which you defined.
Action	The Action including none, PD reboot, Reboot & Alarm and Alarm
Reboot Time	Set the switch reboot time

III-5. VLAN

A virtual local area network, virtual LAN or VLAN, is a group of hosts with a common set of requirements that communicate as if they were attached to the same broadcast domain, regardless of their physical location. A VLAN has the same attributes as a physical local area network (LAN), but it allows for end stations to be grouped together even if they are not located on the same network switch. VLAN membership can be configured through software instead of physically relocating devices or connections.

III-5-1. VLAN

Use the VLAN pages to configure settings of VLAN.

III-5-1-1. Create VLAN

This page allows user to add or delete VLAN ID entries and browser all VLAN entries that add statically or dynamic learned by GVRP. Each VLAN entry has a unique name, user can edit VLAN name in edit page.

To display Create VLAN page, click **VLAN > VLAN > Create VLAN**.

VLAN

Available VLAN

- VLAN 2
- VLAN 3
- VLAN 4
- VLAN 5
- VLAN 6
- VLAN 7
- VLAN 8
- VLAN 9

Created VLAN

- VLAN 1

Apply

VLAN Table

Showing All entries Showing 1 to 1 of 1 entries

☐	VLAN	Name	Type
☐	1	default	Default

Edit Delete

First Previous 1 Next Last

Figure 41 - VLAN > VLAN > Create VLAN

Item	Description
Available VLAN	VLAN has not created yet. Select available VLANs from left box then move to right box to add.
Created VLAN	VLAN had been created. Select created VLANs from right box then move to left box to delete
VLAN	The VLAN ID.
Name	The VLAN Name.
Type	The VLAN Type. - Static: Port base VLAN. - Dynamic: 802.1q VLAN.

Click **"Edit"** button to view Edit VLAN Name menu.

Edit VLAN Name

Name VLAN0002

Apply Close

Figure 42 - VLAN > VLAN > Create VLAN > Edit VLAN Name

Item	Description
Name	Input VLAN name.

III-5-1-2. VLAN Configuration

This page allow user to configure the membership for each port of selected VLAN.

To display VLAN Configuration page, click **VLAN > VLAN > VLAN Configuration**.

VLAN Configuration Table

VLAN		default							
Entry	Port	Mode	Membership				PVID		
1	GE1	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
2	GE2	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
3	GE3	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
4	GE4	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
5	GE5	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
6	GE6	Hybrid	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☐		
7	GE7	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
8	GE8	Hybrid	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
9	GE9	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
10	GE10	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
11	GE11	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
12	GE12	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
13	GE13	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
14	GE14	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
15	GE15	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
16	GE16	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
17	GE17	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
18	GE18	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
19	GE19	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
20	GE20	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
21	GE21	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
22	GE22	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
23	GE23	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
24	GE24	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		
25	XGE1	Trunk	☐ Excluded	☐ Forbidden	☐ Tagged	☒ Untagged	☒		

Figure 43 - VLAN > VLAN > VLAN Configuration

Item	Description
VLAN	Select specified VLAN ID to configure VLAN configuration.
Port	Display the interface of port entry.
Mode	Display the interface VLAN mode of port.
Membership	Select the membership for this port of the specified VLAN ID. ● Forbidden: Specify the port is forbidden in the VLAN. ● Excluded: Specify the port is excluded in the VLAN. ● Tagged: Specify the port is tagged member in the VLAN. ● Untagged: Specify the port is untagged member in the VLAN.
PVID	Display if it is PVID of interface.

III-5-1-3. Membership

This page allow user to view membership information for each port and edit membership for specified interface.

To display Membership page, click **VLAN > VLAN > Membership**.

Membership Table



The screenshot shows a web interface for the 'Membership Table'. At the top right, there is a search icon and a search input field. Below this is a table with the following columns: Entry, Port, Mode, Administrative VLAN, and Operational VLAN. The table contains 22 rows of data, each representing a port configuration. The 'Entry' column ranges from 1 to 22. The 'Port' column lists interfaces from GE1 to GE22. The 'Mode' column shows 'Trunk' for most ports and 'Hybrid' for GE6 and GE8. The 'Administrative VLAN' and 'Operational VLAN' columns show the configured and active VLANs, respectively. For example, GE1 has Administrative VLAN 1UP and Operational VLAN 1UP. GE6 has Administrative VLAN 1U, 3UP and Operational VLAN 1U, 3UP. GE8 has Administrative VLAN 1UP and Operational VLAN 1UP. The remaining ports (GE7, GE9-GE22) all have Administrative VLAN 1UP and Operational VLAN 1UP.

Entry	Port	Mode	Administrative VLAN	Operational VLAN
1	GE1	Trunk	1UP	1UP
2	GE2	Trunk	1UP	1UP
3	GE3	Trunk	1UP	1UP
4	GE4	Trunk	1UP	1UP
5	GE5	Trunk	1UP	1UP
6	GE6	Hybrid	1U, 3UP	1U, 3UP
7	GE7	Trunk	1UP	1UP
8	GE8	Hybrid	1UP	1UP
9	GE9	Trunk	1UP	1UP
10	GE10	Trunk	1UP	1UP
11	GE11	Trunk	1UP	1UP
12	GE12	Trunk	1UP	1UP
13	GE13	Trunk	1UP	1UP
14	GE14	Trunk	1UP	1UP
15	GE15	Trunk	1UP	1UP
16	GE16	Trunk	1UP	1UP
17	GE17	Trunk	1UP	1UP
18	GE18	Trunk	1UP	1UP
19	GE19	Trunk	1UP	1UP
20	GE20	Trunk	1UP	1UP
21	GE21	Trunk	1UP	1UP
22	GE22	Trunk	1UP	1UP

Figure 44 - VLAN > VLAN > Membership

Item	Description
Port	Display the interface of port entry.
Mode	Display the interface VLAN mode of port.
Administrative VLAN	Display the administrative VLAN list of this port.
Operational VLAN	Display the operational VLAN list of this port. Operational VLAN means the VLAN status that really runs in device. It may different to administrative VLAN.

Click "**Edit**" button to view the Edit Port Setting menu

Figure 45 - VLAN > VLAN > Membership > Edit Port Setting

Item	Description
Port	Display the interface.
Mode	Display the VLAN mode of interface.
Membership	Select VLANs of left box and select one of following membership then move to right box to add membership. Select VLANs of right box then move to left box to remove membership. Tagging membership may not choose in differ VLAN port mode. Select the time source. ● Forbidden: Set VLAN as forbidden VLAN. ● Excluded: This option is always disabled. ● Tagged: Set VLAN as tagged VLAN. ● Untagged: Set VLAN as untagged VLAN. ● PVID: Check this checkbox to select the VLAN ID to be the port-based VLAN ID for this port. PVID may auto select or can't select in differ settings.

III-5-1-4. Port Setting

This page allow user to configure ports VLAN settings such as VLAN port mode, PVID etc...The attributes depend on different VLAN port mode.

To display Port Setting page, click **VLAN > VLAN > Port Setting**.

Port Setting Table

Q

	Entry	Port	Mode	PVID	Accept Frame Type	Ingress Filtering
	1	GE1	Trunk	1	All	Enabled
	2	GE2	Trunk	1	All	Enabled
	3	GE3	Trunk	1	All	Enabled
	4	GE4	Trunk	1	All	Enabled
	5	GE5	Trunk	1	All	Enabled
	6	GE6	Hybrid	3	All	Enabled
	7	GE7	Trunk	1	All	Enabled
	8	GE8	Hybrid	1	All	Enabled
	9	GE9	Trunk	1	All	Enabled
	10	GE10	Trunk	1	All	Enabled
	11	GE11	Trunk	1	All	Enabled
	12	GE12	Trunk	1	All	Enabled
	13	GE13	Trunk	1	All	Enabled
	14	GE14	Trunk	1	All	Enabled
	15	GE15	Trunk	1	All	Enabled
	16	GE16	Trunk	1	All	Enabled
	17	GE17	Trunk	1	All	Enabled
	18	GE18	Trunk	1	All	Enabled
	19	GE19	Trunk	1	All	Enabled
	20	GE20	Trunk	1	All	Enabled
	21	GE21	Trunk	1	All	Enabled
	22	GE22	Trunk	1	All	Enabled

Figure 46 - VLAN > VLAN > Port Setting

Item	Description
Port	Display the interface.
Mode	Display the VLAN mode of interface.
PVID	Display the Port-based VLAN ID of port.
Accept Frame Type	Display accept frame type of port.
Ingress Filtering	Display ingress filter status of port.
Uplink	Display uplink status.
TPID	Display TPID used of interface.

Click **"Edit"** button to Edit Port Setting menu.

Edit Port Setting

Port

GE1

Mode

☐ Hybrid
☐ Access
☒ Trunk
☐ Tunnel

PVID

(1 - 4094)

Accept Frame Type

☒ All
☐ Tag Only
☐ Untag Only

Ingress Filtering

☒ Enable

Uplink

☐ Enable

TPID

Apply

Close

Figure 47 - VLAN > VLAN > Port Setting > Edit Port Setting

Item	Description
Port	Display selected port to be edited.
Mode	Select the VLAN mode of the interface. ● Forbidden: Set VLAN as forbidden VLAN. ● Hybrid: Support all functions as defined in IEEE 802.1Q specification. ● Access: Accepts only untagged frames and join an untagged VLAN. ● Trunk: An untagged member of one VLAN at most, and is a tagged member of zero or more VLANs.
PVID	Specify the port-based VLAN ID (1-4094). It's only available with Hybrid and Trunk mode.
Accepted Type	Specify the acceptable-frame-type of the specified interfaces. It's only available with Hybrid mode.
Ingress Filtering	Set checkbox to enable/disable ingress filtering. It's only available with Hybrid mode.
Uplink	Set checkbox to enable/disable uplink mode. It's only available with trunk mode.
TPID	Select TPID used of interface. It's only available with trunk mode.

III-5-2. Voice VLAN

Use the Voice VLAN pages to configure settings of Voice VLAN.

III-5-2-1. Property

This page allow user to configure global and per interface settings of voice VLAN.

To display Property Web page, click **VLAN> Voice VLAN> Property**.

State: ☐ Enable

VLAN:

CoS / 802.1p: ☐ Enable

Remark:

Port Aging Time: Min (30 - 65536, default 1440)

Note: Aging Time = Port Aging Time + OUI Aging Time(30 mins)

Apply

Port Setting Table

Entry	Port	State	Mode	QoS Policy
☐	1 GE1	Disabled	Auto	Voice Packet
☐	2 GE2	Disabled	Auto	Voice Packet
☐	3 GE3	Disabled	Auto	Voice Packet
☐	4 GE4	Disabled	Auto	Voice Packet
☐	5 GE5	Disabled	Auto	Voice Packet
☐	6 GE6	Disabled	Auto	Voice Packet
☐	7 GE7	Disabled	Auto	Voice Packet
☐	8 GE8	Disabled	Auto	Voice Packet
☐	9 GE9	Disabled	Auto	Voice Packet
☐	10 GE10	Disabled	Auto	Voice Packet
☐	11 GE11	Disabled	Auto	Voice Packet
☐	12 GE12	Disabled	Auto	Voice Packet
☐	13 GE13	Disabled	Auto	Voice Packet
☐	14 GE14	Disabled	Auto	Voice Packet
☐	15 GE15	Disabled	Auto	Voice Packet
☐	16 GE16	Disabled	Auto	Voice Packet
☐	17 GE17	Disabled	Auto	Voice Packet
☐	18 GE18	Disabled	Auto	Voice Packet
☐	19 LAG1	Disabled	Auto	Voice Packet

Figure 48 - VLAN > Voice VLAN > Property

Item	Description
State	Set checkbox to enable or disable voice VLAN function.
VLAN	Select Voice VLAN ID. Voice VLAN ID cannot be default VLAN.
Cos/802.1p	Select a value of VPT. Qualified packets will use this VPT value as inner priority.
Remarking	Set checkbox to enable or disable 1p remarking. If enabled, qualified packets will be remark by this value.
Aging Time	Input value of aging time. Default is 1440 minutes. A voice VLAN entry will be age out after this time if without any packet pass through.
Port Setting Table	
Port	Display port entry.
State	Display enable/disabled status of interface.
Mode	Display voice VLAN mode.
QoS Policy	Display voice VLAN remark will effect which kind of packet.

Click “**Edit**” button to view Edit Port Setting menu.

Figure 49 - VLAN > Voice VLAN > Property > Edit Port Setting

Item	Description
Port	Display selected port to be edited.
State	Set checkbox to enable/disabled voice VLAN function of interface.
Mode	Select port voice VLAN mode ● Auto: Voice VLAN auto detect packets that match OUI table and add received port into voice VLAN ID tagged member. ● Manual: User need add interface to VLAN ID tagged member manually.
QoS Policy	Select port QoS Policy mode ● Voice Packet: QoS attributes are applied to packets with OUIs in the source MAC address. ● All: QoS attributes are applied to packets that are classified to Voice VLAN.

III-5-2-2. Voice OUI

This page allow user to add, edit or delete OUI MAC addresses. Default has 8 pre-defined OUI MAC.

To display the Voice OUI Web page, click **VLAN > Voice VLAN > Voice OUI**.

Voice OUI Table

Showing

All

 entries

Showing 1 to 8 of 8 entries

Q

☐	OUI	Description
☐	00:E0:BB	3COM
☐	00:03:6B	Cisco
☐	00:E0:75	Veritel
☐	00:D0:1E	Pingtel
☐	00:01:E3	Siemens
☐	00:60:B9	NEC/Philips
☐	00:0F:E2	H3C
☐	00:09:6E	Avaya

Add

Edit

Delete

First

Previous

1

Next

Last

Figure 50 - VLAN > Voice VLAN > Voice OUI

Item	Description
OUI	Display OUI MAC address.
Description	Display description of OUI entry.

Click “Add” or “Edit” button to Add/Edit Voice OUI menu.

Add Voice OUI

OUI

:

:

Description

Apply

Close

Edit Voice OUI	
OUI	00:03:6B
Description	Cisco
Apply Close	

Figure 51 - VLAN > Voice VLAN > Voice OUI > Add/Edit Voice OUI

Item	Description
OUI	Input OUI MAC address. Can't be edited in edit dialog.
Description	Input description of the specified MAC address to the voice VLAN OUI table.

III-5-3. MAC VLAN

Use the MAC VLAN pages to configure settings of MAC VLAN.

III-5-3-1. MAC Group

This page allow user to add or edit groups settings of MAC VLAN.

To display the MAC page , click **VLAN > MAC VLAN > MAC Group**.

MAC Group Table			
Showing All entries		Showing 0 to 0 of 0 entries	
☐	Group ID	MAC Address	Mask
0 results found.			
Add Edit Delete		First Previous 1 Next Last	

Figure 52 - VLAN > MAC VLAN > MAC Group

Item	Description
Group ID	Display group ID of entry.
MAC Address	Display mac address of entry.
Mask	Display mask of mac address for classified packet.

Click “**Add**” button or “**Edit**” button to view Add/Edit MAC menu.

Add MAC Group

Group ID

(1 - 2147483647)

MAC Address

Mask

(9 - 48)

Apply

Close

Edit MAC Group

Group ID

undefined

MAC Address

Mask

(9 - 48)

Apply

Close

Figure 53 - VLAN > MAC VLAN > MAC Group > Add/Edit MAC

Item	Description
Group ID	Input group ID that is a unique ID of mac group entry. The range from 1 to 2147483647. Only available on Add Dialog.
MAC Address	Input mac address for classifying packets.
Mask	Input mask of mac address.

III-5-3-2. Group Binding

This page allow user to bind MAC VLAN group to each port with VLAN ID.

To display Group Binding page, click **VLAN> MAC VLAN > Group Binding**.

Group Binding Table

Showing All entries

Showing 0 to 0 of 0 entries

☐	Port	Group ID	VLAN
0 results found.			

Add

Edit

Delete

First

Previous

1

Next

Last

Figure 54 - VLAN > MAC VLAN > Group Binding

Item	Description
Port	Display port ID that binding with MAC group entry.
Group ID	Display group ID that port binding with.
VLAN	Display VLAN ID that assign to packets which match MAC group.

Click “**Add**” or “**Edit**” button to view the Add/Edit Group Binding menu.

Add Group Binding

Port

Available Port

Selected Port

>

<

Note: Only VLAN Hybrid port can be set MAC VLAN

Group ID

None ▼

VLAN

(1 - 4094)

Apply

Close

Edit Group Binding

Port

Group ID

VLAN

(1 - 4094)

Apply

Close

Figure 55 - VLAN > MAC VLAN > Add/Edit Group Binding

Item	Description
Port	Select ports in left box then move to right to binding with MAC group. Or select ports in right box then move to left to unbind with MAC group. Only interface has hybrid VLAN mode can be selected and bound with protocol group. Only available on Add dialog.
Group ID	Select a Group ID to associate with port. Only available on Add dialog.
VLAN	Input VLAN ID that will assign to packets which match MAC group.

14

III-5-4. Surveillance VLAN

Use the Surveillance VLAN pages to configure settings of Surveillance VLAN.

III-5-4-1. Property

State

☒ Enable

VLAN

surveillance vlan

Priority

6

Port Aging Time

1440

Min (30 - 65536, default 1440)

Note: Aging Time = Port Aging Time + OUI Aging Time(30 mins)

Apply

Port Setting Table

q

Entry	Port	State	Mode
☐	1 GE1	Enabled	Auto
☐	2 GE2	Enabled	Auto
☐	3 GE3	Enabled	Auto
☐	4 GE4	Enabled	Auto
☐	5 GE5	Enabled	Auto
☐	6 GE6	Enabled	Auto
☐	7 GE7	Enabled	Auto
☐	8 GE8	Enabled	Auto
☐	9 GE9	Enabled	Auto
☐	10 GE10	Enabled	Auto
☐	11 GE11	Enabled	Auto
☐	12 GE12	Enabled	Auto
☐	13 GE13	Enabled	Auto
☐	14 GE14	Enabled	Auto
☐	15 GE15	Enabled	Auto
☐	16 GE16	Enabled	Auto
☐	17 GE17	Enabled	Auto
☐	18 GE18	Enabled	Auto
☐	19 LAG1	Enabled	Auto
☐	20 LAG2	Enabled	Auto
☐	21 LAG3	Enabled	Auto

Item	Description
State	Enable/Disable
VLAN	Choose none or indicate VLAN
Priority	The 802.1p standard defines seven levels of CoS from 0 through to 7 (highest priority). 802.1p is a sub-set of the 802.1q standard which added additional fields into the header of a standard Ethernet frame allowing it to contain VLAN identifiers as well as the priority values.
Port Aging Time	When aging is configured on an interface that's using port security, all the dynamically learned secure addresses age out when the aging time expire

To display Port Setting page, click the “Edit” button.

Edit Port Setting

Port

GE1

State

☐ Enable

Mode

☒ Auto
☐ Manual

QoS Policy

☒ Video Packet
☐ All

Apply

Close

Item	Description
Port	Display port entry.
State	Display enable/disabled status of interface.
Mode	Display voice VLAN mode.
QoS Policy	Display voice VLAN remark will effect which kind of packet.

III-5-4-2. Surveillance OUI

Surveillance OUI Table

Showing All entries Showing 1 to 2 of 2 entries

☐	Description	OUI	OUI Mask
☐	DAHua	74:DA:38:00:00:00	FF-FF-FF-00-00-00
☐	DH IP cam	50:DE:19:00:00:00	FF-FF-FF-00-00-00

First Previous 1 Next Last

Item	Description
OUI	An organizationally unique identifier (OUI) is a 24-bit number that uniquely identifies a vendor, manufacturer, or other organization. ... In MAC addresses, the OUI is combined with a 24-bit number (assigned by the assignee of the OUI) to form the address.
OUI Mask	Specifies a set of MAC addresses using a bit mask to indicate the bits of the MAC addresses that must fit to the specified MAC address attribute.

To change the description of your IP camera, click the “Edit” button.

Edit Surveillance OUI

OUI	74:DA:38:00:00:00
Description	DAHua

III-6. MAC Address Table

Use the MAC Address Table pages to show dynamic MAC table and configure settings for static MAC entries.

III-6-1. Dynamic Address

To display the Dynamic Address web page, click **MAC Address Table > Dynamic Address**.

Aging Time: 300 Sec (10 - 630, default 300)

Apply

Dynamic Address Table

Showing All entries Showing 1 to 1 of 1 entries

	VLAN	MAC Address	Port
☐	1	B8:6B:23:6D:C1:14	GE28

First Previous 1 Next Last

Clear Refresh Add Static Address

Figure 56 - MAC Address Table > Dynamic Address

Item	Description
Aging Time	The time in seconds that an entry remains in the MAC address table. Its valid range is from 10 to 630 seconds, and the default value is 300 seconds.

III-6-2. Static Address

To display the Static Address web page, click **MAC Address Table > Static Address**.

Static Address Table

Showing All entries Showing 0 to 0 of 0 entries

	VLAN	MAC Address	Port
0 results found.			

Add Edit Delete

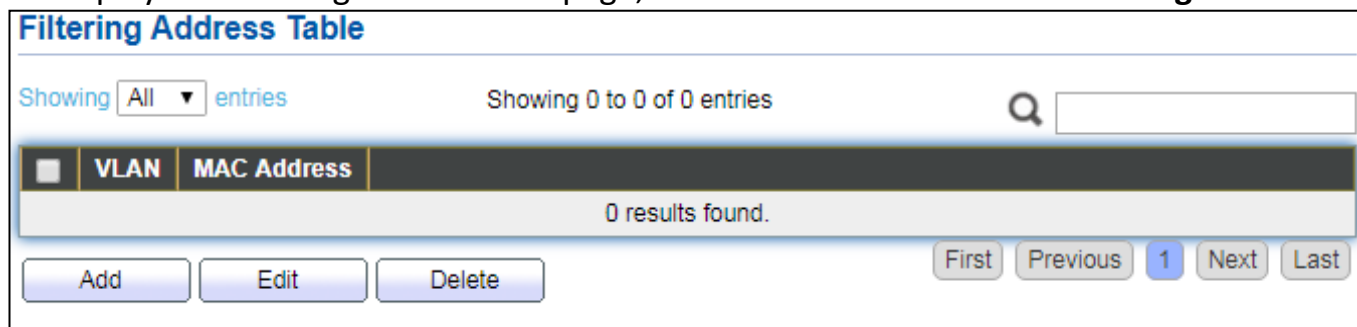
First Previous 1 Next Last

Figure 57 - MAC Address Table > Static Address.

Item	Description
MAC Address	The MAC address to which packets will be statically forwarded.
VLAN	Specify the VLAN to show or clear MAC entries.
Port	Interface or port number.

III-6-3. Filtering Address

To display the Filtering Address web page, click **MAC Address Table > Filtering Address**.



Filtering Address Table

Showing All entries Showing 0 to 0 of 0 entries

Q

VLAN	MAC Address
0 results found.	

Add Edit Delete

First Previous 1 Next Last

Figure 58 - MAC Address Table > Filtering Address.

Item	Description
MAC Address	Specify unicast MAC address in the packets to be dropped.
VLAN	Specify the VLAN to show or clear MAC entries.

III-7. Spanning Tree

The Spanning Tree Protocol (STP) is a network protocol that ensures a loop-free topology for any bridged Ethernet local area network.

III-7-1. Property

To display the Property web page, click **Spanning Tree > Property**.

State	☐ Enable	
Operation Mode	☐ STP ☒ RSTP ☐ MSTP	
Path Cost	☒ Long ☐ Short	
BPDU Handling	☐ Filtering ☒ Flooding	
Priority	32768	(0 - 61440, default 32768)
Hello Time	2	Sec (1 - 10, default 2)
Max Age	20	Sec (6 - 40, default 20)
Forward Delay	15	Sec (4 - 30, default 15)
Tx Hold Count	6	(1 - 10, default 6)
Region Name	74:DA:38:17:6E:7A	
Revision	0	(0 - 65535, default 0)
Max Hop	20	(1 - 40, default 20)
Operational Status		
Bridge Identifier	32768-74:DA:38:17:6E:7A	
Designated Root Bridge	0-00:00:00:00:00:00	
Root Port	N/A	
Root Path Cost	0	
Topology Change Count	0	
Last Topology Change	0D/0H/0M/0S	
Apply		

Figure 59 - Spanning Tree > Property

Item	Description
State	Enable/disable the STP on the switch.
Operation Mode	Specify the STP operation mode. ● STP: Enable the Spanning Tree (STP) operation. ● RSTP: Enable the Rapid Spanning Tree (RSTP) operation. ● MSTP: Enable the Multiple Spanning Tree (MSTP) operation.
Path Cost	Specify the path cost method. ● Long: Specifies that the default port path costs are within the range: 1-200,000,000. ● Short: Specifies that the default port path costs are within the range: 1-65,535.
BPDU Handling	Specify the BPDU forward method when the STP is disabled. ● Filtering: Filter the BPDU when STP is disabled. ● Flooding: Flood the BPDU when STP is disabled.
Priority	Specify the bridge priority. The valid range is from 0 to 61440, and the value should be the multiple of 4096. It ensures the probability that the switch is selected as the root bridge, and the lower value has the higher priority for the switch to be selected as the root bridge of the topology.
Hello Time	Specify the STP hello time in second to broadcast its hello message to other bridges by Designated Ports. Its valid range is from 1 to 10 seconds.
Max Age	Specify the time interval in seconds for a switch to wait the configuration messages, without attempting to redefine its own configuration.
Forward Delay	Specify the STP forward delay time, which is the amount of time that a port remains in the Listening and Learning states before it enters the Forwarding state. Its valid range is from 4 to 10 seconds.
TX Hold Count	Specify the tx-hold-count used to limit the maximum numbers of packets transmission per second. The valid range is from 1 to 10.
Region Name	The MSTP instance name. Its maximum length is 32 characters. The default value is the MAC address of the switch.
Revision	The MSTP revision number. Its valid range is from 0 to 65535.
Max Hop	Specify the number of hops in an MSTP region before the BPDU is discarded. The valid range is 1 to 40.
Operational Status	
Bridge Identifier	Bridge identifier of the switch.
Designated Root Identifier	Bridge identifier of the designated root bridge.
Root Port	Operational root port of the switch.
Root Path Cost	Operational root path cost.
Topology Change Count	Numbers of the topology changes.
Last Topology Change	The last time for the topology change.

III-7-2. Port Setting

To configure and display the STP port settings, click **STP > Port Setting**.

Port Setting Table

Entry	Port	State	Path Cost	Priority	BPDU Filter	BPDU Guard	Operational Edge	Operational Point-to-Point	Port Role	Port State	Designated Bridge	Designated Port ID	Designated Cost
1	GE1	Enabled	20000	128	Disabled	Disabled	Disabled	Enabled	Root	Forwarding	32768-2C:FA:A2:5C:2D:62	128-1	20000
2	GE2	Enabled	200000	128	Disabled	Disabled	Disabled	Enabled	Designated	Forwarding	32768-FC:8F:C4:0D:1A:B5	128-2	200000
3	GE3	Enabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-3	20000
4	GE4	Enabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-4	20000
5	GE5	Enabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-5	20000
6	GE6	Enabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-6	20000
7	GE7	Enabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-7	20000
8	GE8	Enabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-8	20000
9	GE9	Enabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-9	20000
10	GE10	Enabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-10	20000
11	GE11	Enabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-11	20000
12	GE12	Enabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-12	20000
13	GE13	Enabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-13	20000
14	GE14	Enabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-14	20000
15	GE15	Enabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-15	20000
16	GE16	Enabled	200000	128	Disabled	Disabled	Disabled	Enabled	Designated	Forwarding	32768-FC:8F:C4:0D:1A:B5	128-16	200000
17	GE17	Enabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-17	20000
18	GE18	Enabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-18	20000
19	GE19	Enabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-19	20000
20	GE20	Enabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-20	20000
21	GE21	Enabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-21	20000
22	GE22	Enabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-22	20000

Figure 60 - Spanning Tree > Port Setting

Item	Description
Port	Specify the interface ID or the list of interface IDs.
State	The operational state on the specified port.
Path Cost	STP path cost on the specified port.
Priority	STP priority on the specified port.
BPDU Filter	The states of BPDU filter on the specified port.
BPDU Guard	The states of BPDU guard on the specified port.
Operational Edge	The operational edge port status on the specified port.
Operational Point-to-Point	The operational point-to-point status on the specified port.
Port Role	The current port role on the specified port. The possible values are: "Disabled", "Master", "Root", "Designated", "Alternative", and "Backup".
Port State	The current port state on the specified port. The possible values are: "Disabled", "Discarding", "Learning", and "Forwarding".
Designated Bridge	The bridge ID of the designated bridge.
Designated Port ID	The designated port ID on the switch.
Designated Cost	The path cost of the designated port on the switch.
Protocol Migration Check	Restart the Spanning Tree Protocol (STP) migration process (re-negotiate with its neighborhood) on the specific interface.

Click "**Edit**" button to view Edit Port Setting menu.

Edit Port Setting

Port
GE1

State
☒ Enable

Path Cost
0
(0 - 200000000) (0 = Auto)

Priority
128 ▼

Edge Port
☐ Enable

BPDU Filter
☐ Enable

BPDU Guard
☐ Enable

Point-to-Point
☒ Auto
☐ Enable
☐ Disable

Port State
Disabled

Designated Bridge
0-00:00:00:00:00:00

Designated Port ID
128-1

Designated Cost
20000

Operational Edge
False

Operational Point-to-Point
False

Apply
Close

Figure 61 - Spanning Tree > Port Setting > Edit Port Setting

Item	Description
Port	Selected port ID.
State	Enable/Disable the STP on the specified port.
Path Cost	Specify the STP path cost on the specified port.
Priority	Specify the STP path cost on the specified port.
Edge Port	Specify the edge mode. ● Enable: Force to true state (as link to a host). ● Disable: Force to false state (as link to a bridge). In the edge mode, the interface would be put into the Forwarding state immediately upon link up. If the edge mode is enabled for the interface and there are BPDUs received on the interface, the loop might be occurred in the short time before the STP state change.
BPDU Filter	The BPDU Filter configuration avoids receiving / transmitting BPDU from the specified ports. ● Enable: Enable BPDU filter function.

	● Disable: Disable BPDU filter function.
BPDU Guard	The BPDU Guard configuration to drop the received BPDU directly. ● Enable: Enable BPDU guard function. ● Disable: Disable BPDU guard function.
Point-to-Point	Specify the Point-to-Point port configuration: ● Auto: The state is depended on the duplex setting of the port ● Enable: Force to true state. ● Disable: Force to false state

III-7-3. MST Instance

To configure MST instance setting, click **STP > MST Instance**.

MST Instance Table

	MSTI	Priority	Bridge Identifier	Designated Root Bridge	Root Port	Root Path Cost	Remaining Hop	VLAN
☐	0	32768	32768-74:DA:38:17:6E:7A	0-00:00:00:00:00:00	N/A	0	0	1-4094
☐	1	32768	32768-74:DA:38:17:6E:7A	0-00:00:00:00:00:00	N/A	0	0	
☐	2	32768	32768-74:DA:38:17:6E:7A	0-00:00:00:00:00:00	N/A	0	0	
☐	3	32768	32768-74:DA:38:17:6E:7A	0-00:00:00:00:00:00	N/A	0	0	
☐	4	32768	32768-74:DA:38:17:6E:7A	0-00:00:00:00:00:00	N/A	0	0	
☐	5	32768	32768-74:DA:38:17:6E:7A	0-00:00:00:00:00:00	N/A	0	0	
☐	6	32768	32768-74:DA:38:17:6E:7A	0-00:00:00:00:00:00	N/A	0	0	
☐	7	32768	32768-74:DA:38:17:6E:7A	0-00:00:00:00:00:00	N/A	0	0	
☐	8	32768	32768-74:DA:38:17:6E:7A	0-00:00:00:00:00:00	N/A	0	0	
☐	9	32768	32768-74:DA:38:17:6E:7A	0-00:00:00:00:00:00	N/A	0	0	
☐	10	32768	32768-74:DA:38:17:6E:7A	0-00:00:00:00:00:00	N/A	0	0	
☐	11	32768	32768-74:DA:38:17:6E:7A	0-00:00:00:00:00:00	N/A	0	0	
☐	12	32768	32768-74:DA:38:17:6E:7A	0-00:00:00:00:00:00	N/A	0	0	
☐	13	32768	32768-74:DA:38:17:6E:7A	0-00:00:00:00:00:00	N/A	0	0	
☐	14	32768	32768-74:DA:38:17:6E:7A	0-00:00:00:00:00:00	N/A	0	0	
☐	15	32768	32768-74:DA:38:17:6E:7A	0-00:00:00:00:00:00	N/A	0	0	

Edit

Figure 62 - Spanning Tree > MST Instance

Item	Description
MSTI	Designated port number.
Priority	The bridge priority on the specified MSTI.
Bridge Identifier	The bridge identifier on the specified MSTI.
Designated Root Bridge	The designated root bridge identifier on the specified MSTI.

Root Port	The designated root port on the specified MSTI.
Root Path Cost	The designated root path cost on the specified MSTI.
Remaining Hop	The configuration of remaining hop on the specified MSTI.
VLAN	The VLAN configuration on the specified MSTI.

Click "**Edit**" button to view Edit MST Instance menu.

Edit MST Instance Setting

MSTI

1

VLAN

Available VLAN

1
2
3
4
5
6
7
8

>
<

Selected VLAN

Priority

(0 - 61440, default 32768)

Bridge Identifier

32768-74:DA:38:17:6E:7A

Designated Root Bridge

0-00:00:00:00:00:00

Root Port

Root Path Cost

0

Remaining Hop

0

Apply

Close

Figure 63 - Spanning Tree > MST Instance > Edit MST Instance Setting

Item	Description
VLAN	Select the VLAN list for the specified MSTI.
Priority	Specify the bridge priority on the specified MSTI. The valid range is from 0 to 61440, and the value must be the multiple of 4096. It ensures the probability that the switch is selected as the root bridge, and the lower values has the higher priority for the switch to be selected as the root bridge of the STP topology.

III-7-4. MST Port Setting

To configure and display MST port setting, click **STP > MST Port Setting**.

Entry	Port	Path Cost	Priority	Port Role	Port State	Mode	Type	Designated Bridge	Designated Port ID	Designated Cost	Remaining Hop
1	GE1	20000	128	Root	Forwarding	RSTP	Boundary	32768-2CFA-A25C-2D62	128-1	20000	20
2	GE2	200000	128	Designated	Forwarding	RSTP	Boundary	32768-FC8F-C40D-1A-B5	128-2	200000	20
3	GE3	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-3	20000	20
4	GE4	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-4	20000	20
5	GE5	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-5	20000	20
6	GE6	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-6	20000	20
7	GE7	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-7	20000	20
8	GE8	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-8	20000	20
9	GE9	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-9	20000	20
10	GE10	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-10	20000	20
11	GE11	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-11	20000	20
12	GE12	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-12	20000	20
13	GE13	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-13	20000	20
14	GE14	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-14	20000	20
15	GE15	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-15	20000	20
16	GE16	200000	128	Designated	Forwarding	RSTP	Boundary	32768-FC8F-C40D-1A-B5	128-16	200000	20
17	GE17	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-17	20000	20
18	GE18	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-18	20000	20
19	GE19	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-19	20000	20
20	GE20	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-20	20000	20
21	GE21	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-21	20000	20
22	GE22	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-22	20000	20
23	GE23	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-23	20000	20
24	GE24	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-24	20000	20
25	XGE1	2000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-25	2000	20
26	XGE2	2000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-26	2000	20
27	XGE3	2000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-27	2000	20
28	XGE4	2000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-28	2000	20
29	LAG1	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-29	20000	20
30	LAG2	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-30	20000	20
31	LAG3	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-31	20000	20
32	LAG4	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-32	20000	20
33	LAG5	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-33	20000	20
34	LAG6	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-34	20000	20
35	LAG7	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-35	20000	20
36	LAG8	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-36	20000	20

Figure 64 - Spanning Tree > MST Port Setting

Item	Description
MSTI	Specify the port setting on the specified MSTI.
Port	Specify the interface ID or the list of interface IDs.
Path Cost	The port path cost on the specified MSTI.
Priority	The port priority on the specified MSTI.
Port Role	The current port role on the specified port. The possible values are: “Disabled”, “Master”, “Root”, “Designated”, “Alternative”, and “Backup”.
Port State	The current port state on the specified port. The possible values are: “Disabled”, “Discarding”, “Learning”, and “Forwarding”.
Mode	The operational STP mode on the specified port.
Type	The possible value for the port type are: ● Boundary: The port attaching an MST Bridge to a LAN that is not in the same region. ● Internal: The port attaching an MST Bridge to a LAN that is not in the same region.
Designated Bridge	The bridge ID of the designated bridge.
Designated Port ID	The designated port ID on the switch.
Designated Cost	The path cost of the designated port on the switch.
Remaining Hop	The remaining hops count on the specified port.

Click "**Edit**" button to view Edit MST Port Setting menu.

Edit MST Port Setting

MSTI	0
Port	GE1
Path Cost	0 (0 - 200000000) (0 = Auto)
Priority	128 ▼
Port Role	Disabled
Port State	Disabled
Mode	RSTP
Type	Boundary
Designated Bridge	0-00:00:00:00:00:00
Designated Port ID	128-1
Designated Cost	20000
Remaining Hop	20

Apply
Close

Figure 65 - Spanning Tree > MST Port Setting > Edit MST Port Setting

Item	Description
Path Cost	Specify the STP port path cost on the specified MSTI.
Priority	Specify the STP port priority on the specified MSTI.

III-7-5. Statistics

To display the STP statistics, click **STP > Statistics**.

Entry	Port	Receive BPDU			Transmit BPDU		
		Config	TCN	MSTP	Config	TCN	MSTP
☐	1 GE1	0	0	500479	0	0	38
☐	2 GE2	0	0	0	0	0	500493
☐	3 GE3	0	0	0	0	0	0
☐	4 GE4	0	0	0	0	0	0
☐	5 GE5	0	0	0	0	0	0
☐	6 GE6	0	0	0	0	0	188
☐	7 GE7	0	0	0	0	0	0
☐	8 GE8	0	0	0	0	0	0
☐	9 GE9	0	0	0	0	0	0
☐	10 GE10	0	0	0	0	0	0
☐	11 GE11	0	0	0	0	0	0
☐	12 GE12	0	0	0	0	0	0
☐	13 GE13	0	0	0	0	0	0
☐	14 GE14	0	0	0	0	0	0
☐	15 GE15	0	0	0	0	0	0
☐	16 GE16	0	0	0	0	0	209558
☐	17 GE17	0	0	0	0	0	0
☐	18 GE18	0	0	0	0	0	0
☐	19 GE19	0	0	0	0	0	0
☐	20 GE20	0	0	0	0	0	0
☐	21 GE21	0	0	0	0	0	0
☐	22 GE22	0	0	0	0	0	0
☐	23 GE23	0	0	0	0	0	0
☐	24 GE24	0	0	0	0	0	0
☐	25 XGE1	0	0	0	0	0	0
☐	26 XGE2	0	0	0	0	0	0
☐	27 XGE3	0	0	0	0	0	0
☐	28 XGE4	0	0	0	0	0	0
☐	29 LAG1	0	0	0	0	0	0
☐	30 LAG2	0	0	0	0	0	0
☐	31 LAG3	0	0	0	0	0	0
☐	32 LAG4	0	0	0	0	0	0
☐	33 LAG5	0	0	0	0	0	0
☐	34 LAG6	0	0	0	0	0	0
☐	35 LAG7	0	0	0	0	0	0
☐	36 LAG8	0	0	0	0	0	0

Figure 66 - Spanning Tree > Statistics

Item	Description
Refresh Rate	The option to refresh the statistics automatically.
Receive BPDU (Config)	The counts of the received CONFIG BPDU.
Receive BPDU (TCN)	The counts of the received TCN BPDU.
Receive BPDU (MSTP)	The counts of the received MSTP BPDU.
Transmit BPDU (Config)	The counts of the transmitted CONFIG BPDU.
Transmit BPDU (TCN)	The counts of the transmitted TCN BPDU.
Transmit BPDU (MSTP)	The counts of the transmitted MSTP BPDU.
Clear	Clear the statistics for the selected interfaces
View	View the statistics for the interface.

Click "**View**" button to view the STP Port Statistic menu.

STP Port Statistic

Port

GE1

Refresh Rate

☒ None
☐ 5 sec
☐ 10 sec
☐ 30 sec

Receive BPDU

Config	0
TCN	0
MSTP	0

Transmit BPDU

Config	0
TCN	0
MSTP	0

Refresh

Clear

Close

Figure 67 - Spanning Tree > Statistics > STP Port Statistic

Item	Description
Refresh Rate	The option to refresh the statistics automatically.
Clear	Clear the statistics for the selected interfaces.

III-8. Discovery

Use this section to configure LLDP.

III-8-1. LLDP

LLDP is a one-way protocol; there are no request/response sequences. Information is advertised by stations implementing the transmit function, and is received and processed by stations implementing the receive function. The LLDP category contains LLDP and LLDP-MED pages.

III-8-1-1. Property

To display LLDP Property Setting web page, click **Discovery > LLDP > Property**.

LLDP

State ☒ Enable

LLDP Handling

☐ Filtering

☐ Bridging

☒ Flooding

TLV Advertise Interval 30 Sec (5 - 32767, default 30)

Hold Multiplier 4 (2 - 10, default 4)

Reinitializing Delay 2 Sec (1 - 10, default 2)

Transmit Delay 2 Sec (1 - 8191, default 2)

LLDP-MED

Fast Start Repeat Count 3 (1 - 10, default 3)

Apply

Figure 68 - Discovery > LLDP > Property

Item	Description
State	Enable/ Disable LLDP protocol on this switch.
LLDP Handling	Select LLDP PDU handling action to be filtered, bridging or flooded when LLDP is globally disabled. ● Filtering: Deletes the packet. ● Bridging: (VLAN-aware flooding) Forwards the packet to all VLAN members. ● Flooding: Forwards the packet to all ports
TLV Advertise Interval	Select the interval at which frames are transmitted. The default is 30 seconds, and the valid range is 5–32767 seconds.
Holdtime Multiplier	Select the multiplier on the transmit interval to assign to TTL (range 2–10, default = 4).
Reinitialization Delay	Select the delay before a re-initialization (range 1–10 seconds, default = 2).
Transmit Delay	Select the delay after an LLDP frame is sent (range 1–8191 seconds, default = 3).
Fast Start Repeat Count	Select fast start repeat count when port link up (range 1–10, default = 3).

III-8-1-2. Port Setting

To display LLDP Port Setting, click **Discovery > LLDP > Port Setting**.

☐	Entry	Port	Mode	Selected TLV
☐	1	GE1	Normal	802.1 PVID
☐	2	GE2	Normal	802.1 PVID
☐	3	GE3	Normal	802.1 PVID
☐	4	GE4	Normal	802.1 PVID
☐	5	GE5	Normal	802.1 PVID
☐	6	GE6	Normal	802.1 PVID
☐	7	GE7	Normal	802.1 PVID
☐	8	GE8	Normal	802.1 PVID
☐	9	GE9	Normal	802.1 PVID
☐	10	GE10	Normal	802.1 PVID
☐	11	GE11	Normal	802.1 PVID
☐	12	GE12	Normal	802.1 PVID
☐	13	GE13	Normal	802.1 PVID
☐	14	GE14	Normal	802.1 PVID
☐	15	GE15	Normal	802.1 PVID
☐	16	GE16	Normal	802.1 PVID
☐	17	GE17	Normal	802.1 PVID
☐	18	GE18	Normal	802.1 PVID
☐	19	GE19	Normal	802.1 PVID
☐	20	GE20	Normal	802.1 PVID
☐	21	GE21	Normal	802.1 PVID
☐	22	GE22	Normal	802.1 PVID
☐	23	GE23	Normal	802.1 PVID
☐	24	GE24	Normal	802.1 PVID
☐	25	XGE1	Normal	802.1 PVID
☐	26	XGE2	Normal	802.1 PVID
☐	27	XGE3	Normal	802.1 PVID
☐	28	XGE4	Normal	802.1 PVID

Edit

Figure 69 - Discovery > LLDP > Port Setting

Item	Description
Port	Port Name.
Mode	The port LLDP mode.
Selectde TLV	The Selected LLDP TLV.

Click **"Edit"** button to view Edit Port Setting menu.

Port

GE1

Mode

☐ Transmit
☐ Receive
☒ Normal
☐ Disable

Optional TLV

Available TLV

Port Description
System Name
System Description
System Capabilities
802.3 MAC-PHY

Selected TLV

802.1 PVID

802.1 VLAN Name

Available VLAN

VLAN 1
VLAN 2

Selected VLAN

Apply

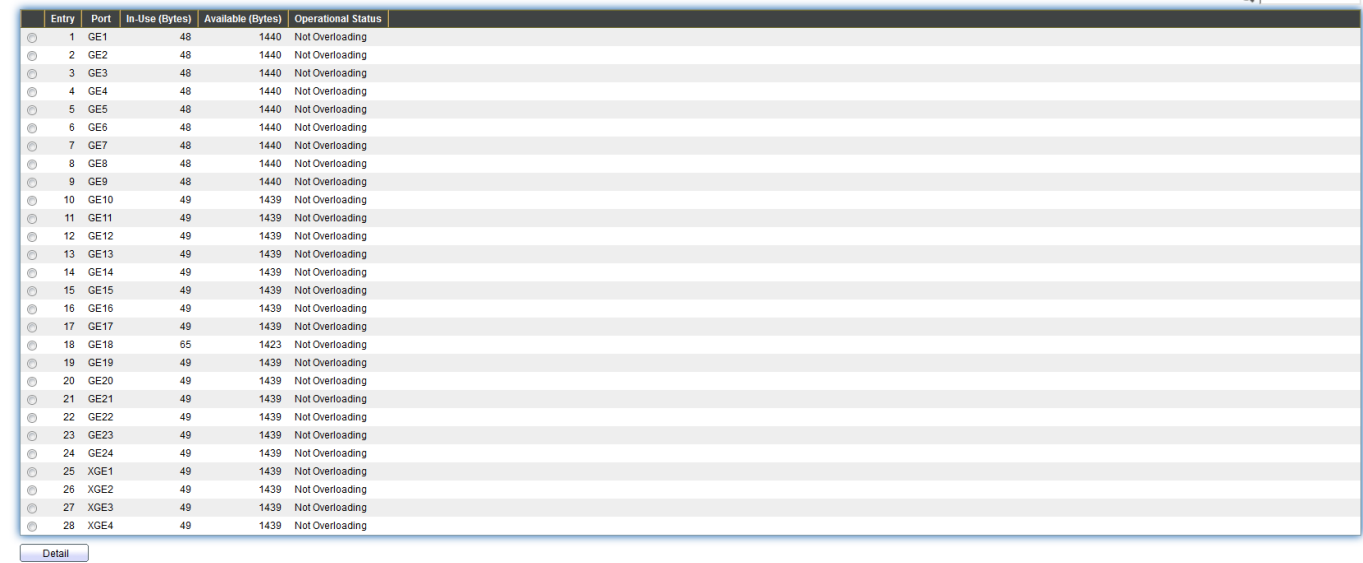
Close

Figure 70 - Discovery > LLDP > Port Setting > Edit Port Setting

Item	Description
Port	Select specified port or all ports to configure LLDP state.
Mode	Select the transmission state of LLDP port interface. ● Disable: Disable the transmission of LLDP PDUs. ● RX Only: Receive LLDP PDUs only. ● TX Only: Transmit LLDP PDUs only. ● TX And RX: Transmit and receive LLDP PDUs both.
Optional TLV	Select the LLDP optional TLVs to be carried (multiple selection is allowed). ● System Name ● Port Description ● System Description ● System Capability ● 802.3 MAC-PHY ● 802.3 Link Aggregation ● 802.3 Maximum Frame Size ● Management Address ● 802.1 PVID.
802.1 VLAN Name	Select the VLAN Name ID to be carried (multiple selection is allowed).

III-8-1-3. Packet View

To display LLDP Overloading, click **Discovery > LLDP > Packet View**.



Entry	Port	In-Use (Bytes)	Available (Bytes)	Operational Status
1	GE1	48	1440	Not Overloading
2	GE2	48	1440	Not Overloading
3	GE3	48	1440	Not Overloading
4	GE4	48	1440	Not Overloading
5	GE5	48	1440	Not Overloading
6	GE6	48	1440	Not Overloading
7	GE7	48	1440	Not Overloading
8	GE8	48	1440	Not Overloading
9	GE9	48	1440	Not Overloading
10	GE10	49	1439	Not Overloading
11	GE11	49	1439	Not Overloading
12	GE12	49	1439	Not Overloading
13	GE13	49	1439	Not Overloading
14	GE14	49	1439	Not Overloading
15	GE15	49	1439	Not Overloading
16	GE16	49	1439	Not Overloading
17	GE17	49	1439	Not Overloading
18	GE18	65	1423	Not Overloading
19	GE19	49	1439	Not Overloading
20	GE20	49	1439	Not Overloading
21	GE21	49	1439	Not Overloading
22	GE22	49	1439	Not Overloading
23	GE23	49	1439	Not Overloading
24	GE24	49	1439	Not Overloading
25	XGE1	49	1439	Not Overloading
26	XGE2	49	1439	Not Overloading
27	XGE3	49	1439	Not Overloading
28	XGE4	49	1439	Not Overloading

Detail

Figure 71 - Discovery > LLDP > Packet View

Item	Description
Port	Port Name.
In-Use (Bytes)	Total number of bytes of LLDP information in each packet.
Available (Bytes)	Total number of available bytes left for additional LLDP information in each packet.
Operational Status	Overloading or not.

Click "**Detail**" button to view Packet View Detail menu.

Packet View Detail

Port	GE1
------	-----

Mandatory TLVs

Size (Bytes)	21
--------------	----

Operational Status	Transmitted
--------------------	-------------

MED Capabilities

Size (Bytes)	9
--------------	---

Operational Status	Transmitted
--------------------	-------------

MED Location

Size (Bytes)	0
--------------	---

Operational Status	Transmitted
--------------------	-------------

MED Network Policy

Size (Bytes)	10
--------------	----

Operational Status	Transmitted
--------------------	-------------

MED Inventory

Size (Bytes)	0
--------------	---

Operational Status	Transmitted
--------------------	-------------

MED Extended Power via MDI

Size (Bytes)	0
--------------	---

Operational Status	Transmitted
--------------------	-------------

802.3 TLVs

Size (Bytes)	0
--------------	---

Operational Status	Transmitted
--------------------	-------------

Optional TLVs	
Size (Bytes)	0
Operational Status	Transmitted
802.1 TLVs	
Size (Bytes)	8
Operational Status	Transmitted
Total	
In-Use (Bytes)	48
Available (Bytes)	1440

Figure 72 - Discovery > LLDP > Packet View > Packet View Detail

Item	Description
Port	Port Name.
Mandatory TLVs	Total mandatory TLV byte size. Status is sent or overloading.
MED Capabilities	Total MED Capabilities TLV byte size. Status is sent or overloading.
MED Location	Total MED Location byte size. Status is sent or overloading.
MED Network Policy	Total MED Network Policy byte size. Status is sent or overloading.
MED Inventory	Total MED Inventory byte size. Status is sent or overloading.
MED Extended Power via MDI	Total MED Extended Power via MDI byte size. Status is sent or overloading.
802.3 TLVs	Total 802.3 TLVs byte size. Status is sent or overloading.
Optional TLVs	Total Optional TLV byte size. Status is sent or overloading.
802.1 TLVs	Total 802.1 TLVs byte size. Status is sent or overloading.
Total	Total number of bytes of LLDP information in each packet.

III-8-1-4. Local Information

Use the LLDP Local Information to view LLDP local device information.

To display LLDP Local Device, click **Discovery > LLDP > Local Information**.

Device Summary

Chassis ID Subtype	MAC address
Chassis ID	FC:8F:C4:0D:1D:EC
System Name	Switch
System Description	GS-5216PLC
Supported Capabilities	Bridge
Enabled Capabilities	Bridge
Port ID Subtype	Local

Entry	Port	LLDP State
☐	1 GE1	Normal
☐	2 GE2	Normal
☐	3 GE3	Normal
☐	4 GE4	Normal
☐	5 GE5	Normal
☐	6 GE6	Normal
☐	7 GE7	Normal
☐	8 GE8	Normal
☐	9 GE9	Normal
☐	10 GE10	Normal
☐	11 GE11	Normal
☐	12 GE12	Normal
☐	13 GE13	Normal
☐	14 GE14	Normal
☐	15 GE15	Normal
☐	16 GE16	Normal
☐	17 GE17	Normal
☐	18 GE18	Normal
☐	19 GE19	Normal
☐	20 GE20	Normal
☐	21 GE21	Normal
☐	22 GE22	Normal
☐	23 GE23	Normal
☐	24 GE24	Normal
☐	25 XGE1	Normal
☐	26 XGE2	Normal
☐	27 XGE3	Normal
☐	28 XGE4	Normal

Detail

Figure 73 - Discovery > LLDP > Local Information

Item	Description
Chassis ID Subtype	Type of chassis ID, such as the MAC address.
Chassis ID	Identifier of chassis. Where the chassis ID subtype is a MAC address, the MAC address of the switch is displayed.
System Name	Name of switch.
System Description	Description of the switch.
Capabilities Supported	Primary functions of the device, such as Bridge, WLAN AP, or Router.
Capabilities Enabled	Primary enabled functions of the device.
Port ID Subtype	Type of the port identifier that is shown.
LLDP Status	LLDP Tx and Rx abilities.
LLDP Med Status	LLDP MED enable state.

Click “**Detail**” button on the page to view detail information of the selected port.

Local Information Detail

Chassis ID Subtype	MAC address
Chassis ID	74:DA:38:17:6E:7A
System Name	Switch
System Description	24-Port Gigabit PoE+ Smart Managed Switch with 4 RJ45/SFP Combo Ports
Supported Capabilities	Bridge
Enabled Capabilities	Bridge
Port ID	GE1
Port ID Subtype	Local
Port Description	

Management Address Table

Address Subtype	Address	Interface Subtype	Interface Number
0 results found.			

MAC/PHY Detail

Auto-Negotiation Supported	N/A
Auto-Negotiation Enabled	N/A
Auto-Negotiation Advertised Capabilities	N/A
Operational MAU Type	N/A

802.3 Detail

802.3 Maximum Frame Size	N/A
--------------------------	-----

802.3 Link Aggregation

Aggregation Capability	N/A
Aggregation Status	N/A
Aggregation Port ID	N/A

MED Detail	
Capabilities Supported	Capabilities , Network policy
Current Capabilities	Capabilities , Network policy
Device Class	Network Connectivity
PoE Device Type	N/A
PoE Power Source	N/A
PoE Power Priority	N/A
PoE Power Value	N/A
Hardware Revision	N/A
Firmware Revision	N/A
Software Revision	N/A
Serial Number	N/A
Manufacturer Name	N/A
Model Name	N/A
Asset ID	N/A

Location Information	
Civic	N/A
Coordinate	N/A
ECS ELIN	N/A

Network Policy Table				
Application Type	VLAN	VLAN Type	Priority	DSCP
0 results found.				

Close

Figure 74 - Discovery > LLDP > Local Information > Detail

III-8-1-5. Neighbor

Use the LLDP Neighbor page to view LLDP neighbors information.

To display LLDP Remote Device, click **Discovery > LLDP > Neighbor**.

Neighbor Table							
Showing All entries		Showing 0 to 0 of 0 entries					
☐	Local Port	Chassis ID Subtype	Chassis ID	Port ID Subtype	Port ID	System Name	Time to Live
0 results found.							
Clear Refresh Detail				First Previous 1 Next Last			

Figure 75 - Discovery > LLDP > Neighbor

Item	Description
Local Port	Number of the local port to which the neighbor is connected.
Chassis ID Subtype	Type of chassis ID (for example, MAC address).
Port ID Subtype	Type of the port identifier that is shown.
Port ID	Identifier of port.
System Name	Published name of the switch.
Time to Live	Time interval in seconds after which the information for this neighbor is deleted.

Click “**detail**” to view selected neighbor detail information

Neighbor Information Detail

Local Port

Basic Detail

Chassis ID Subtype Unknown

Chassis ID

Port ID Subtype Unknown

Port ID

Port Description

System Name

System Description

Supported Capabilities N/A

Enabled Capabilities N/A

Management Address Table

Address Subtype	Address	Interface Subtype	Interface Number
-----------------	---------	-------------------	------------------

0 results found.

MAC/PHY Detail

Auto-Negotiation Supported N/A

Auto-Negotiation Enabled N/A

Auto-Negotiation Advertised Capabilities N/A

Operational MAU Type N/A

802.3 Power via MDI

MDI Power Support Port Class N/A

PSE MDI Power Support N/A

PSE MDI Power State N/A

PSE Power Pair Control Ability N/A

PSE Power Pair N/A

PSE Power Class N/A

Power Type N/A

Power Source N/A

Power Priority N/A

PD Request Power Value N/A

PSE Allocated Power Value N/A

802.3 Detail

802.3 Maximum Frame Size N/A

802.3 Link Aggregation	
Aggregation Capability	N/A
Aggregation Status	N/A
Aggregation Port ID	N/A

802.1 VLAN and Protocol	
PVID	
VLAN Name	N/A

MED Detail	
Capabilities Supported	N/A
Current Capabilities	N/A
Device Class	N/A
PoE Device Type	N/A
PoE Power Source	N/A
PoE Power Priority	N/A
PoE Power Value	N/A
Hardware Revision	N/A
Firmware Revision	N/A
Software Revision	N/A
Serial Number	N/A
Manufacturer Name	N/A
Model Name	N/A
Asset ID	N/A

Location Information	
Civic	N/A
Coordinate	N/A
EC'S ELIN	N/A

Network Policy Table					
Application Type	VLAN	VLAN Type	Priority	DSCP	
0 results found.					

Close

Figure 76 LLDP Neighbor Detail Page

III-8-1-6. Statistics

The Link Layer Discovery Protocol (LLDP) Statistics page displays summary and per-port information for LLDP frames transmitted and received on the switch.

To display LLDP Statistics status, click **Discovery > LLDP > Statistics**.

Global Statistics

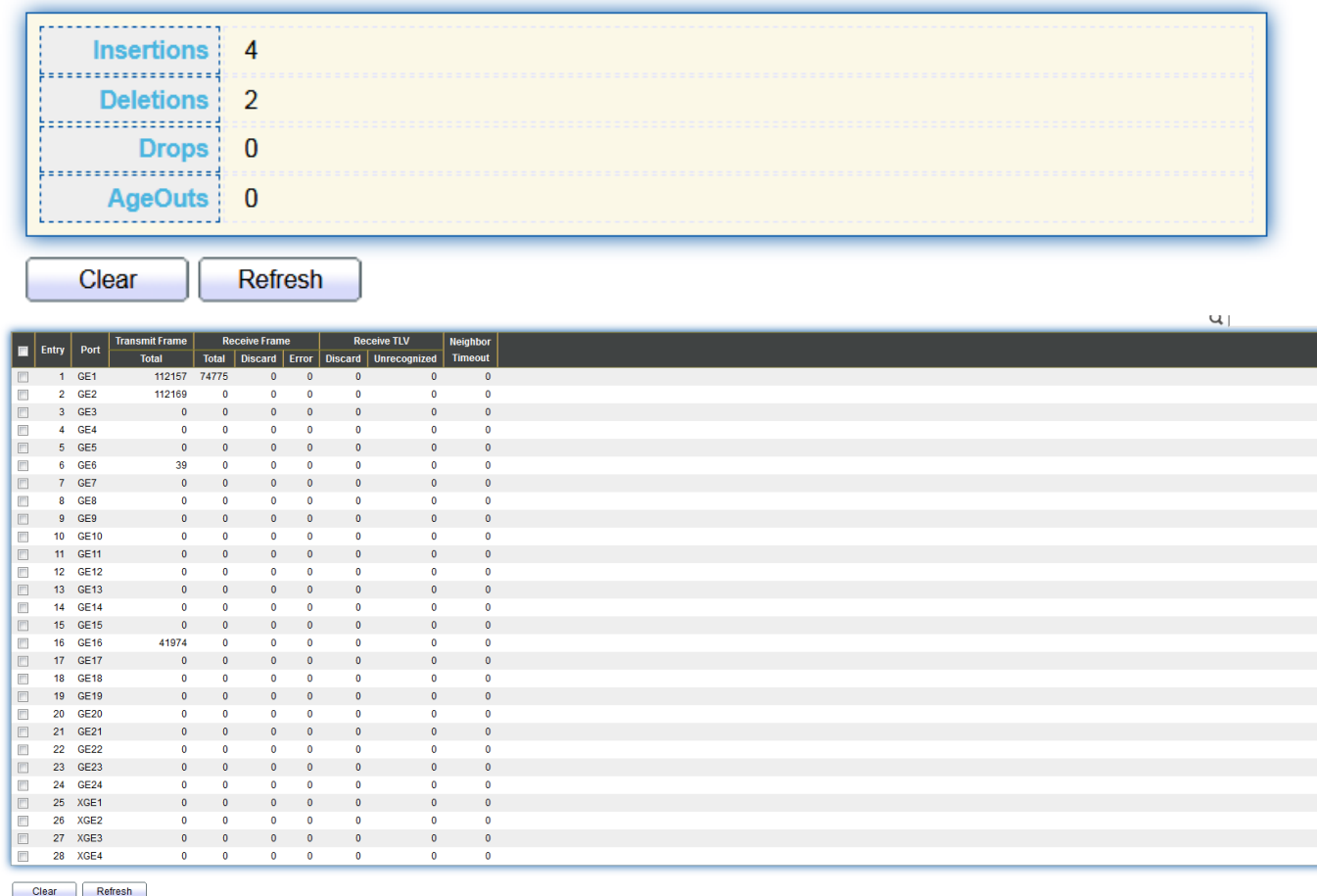


Figure 77 - Discovery > LLDP > Statistics

Item	Description
Insertions	The number of times the complete set of information advertised by a particular MAC Service Access Point (MSAP) has been inserted into tables associated with the remote systems.
Deletions	The number of times the complete set of information advertised by MSAP has been deleted from tables associated with the remote systems.
Drops	The number of times the complete set of information advertised by MSAP could not be entered into tables associated with the remote systems because of insufficient resources.
Age Outs	The number of times the complete set of information advertised by

	MSAP has been deleted from tables associated with the remote systems because the information timeliness interval has expired.
Statistics Table	
Port	Interface or port number.
Transmit Frame Total	Number of LLDP frames transmitted on the corresponding port.
Receive Frame Total	Number of LLDP frames received by this LLDP agent on the corresponding port, while the LLDP agent is enabled.
Receive Frame Discard	Number of LLDP frames discarded for any reason by the LLDP agent on the corresponding port.
Receive Frame Error	Number of invalid LLDP frames received by the LLDP agent on the corresponding port, while the LLDP agent is enabled.
Receive TLV Discard	Number of TLVs of LLDP frames discarded for any reason by the LLDP agent on the corresponding port.
Receive TLV Unrecognized	Number of TLVs of LLDP frames that are unrecognized while the LLDP agent is enabled.
Neighbor Timeout	Number of age out LLDP frames.

III-9. Multicast

Use this section to configure Multicast.

III-9-1. General

Use the General pages to configure settings of IGMP and MLD common function.

III-9-1-1. Property

To display multicast general property Setting web page, click **Multicast> General> Property**.

The screenshot shows a configuration interface for Multicast settings. It is divided into two main sections: 'Unknown Multicast Action' and 'Multicast Forward Method'.

Unknown Multicast Action: This section contains three radio button options: 'Flood' (selected), 'Drop', and 'Forward to Router Port'.

Multicast Forward Method: This section is divided into two sub-sections for 'IPv4' and 'IPv6'. Each sub-section contains two radio button options: 'DMAC-VID' (selected) and 'DIP-VID'.

At the bottom left, there is an 'Apply' button.

Figure 78 - Multicast > General > Property

Item	Description
Unknown Multicast Action	Set the unknown multicast action ● Flood: flood the unknown multicast data. ● Drop: drop the unknown multicast data. ● Router port: forward the unknown multicast data to router port.
IPv4	Set the ipv4 multicast forward method. ● MAC-VID: forward method dmac+vid. ● DIP-VID: forward method dip+vid.
IPv6	Set the ipv6 multicast forward method. ● MAC-VID: forward method dmac+vid. ● DIP-VID: forward method dip+vid(dip is ipv6 low 32 bit).

III-9-1-2. Group Address

This page allow user to browse all multicast groups that dynamic learned or statically added.

To display Multicast General Group web page, click **Multicast> General > Group Address**.

The screenshot shows the 'Group Address Table' interface. At the top, there is a title 'Group Address Table' and a filter for 'IP Version' set to 'IPv4'. Below this, it says 'Showing All entries' and 'Showing 0 to 0 of 0 entries'. There is a search icon and a search input field.

The table has the following columns: 'VLAN', 'Group Address', 'Member', 'Type', and 'Life (Sec)'. Below the table, it says '0 results found.'.

At the bottom, there are buttons for 'Add', 'Edit', 'Delete', and 'Refresh'. On the right side, there are pagination controls: 'First', 'Previous', '1' (selected), 'Next', and 'Last'.

Figure 79 - Multicast > General > Group Address

Item	Description
IP Version	IP Version ● IPv4: ipv4 multicast group ● IPv6: ipv6 multicast group
VLAN	The VLAN ID of group.
Group Address	The group IP address.
Member	The member ports of group.
Type	The type of group. Static or Dynamic.
Life(Sec)	The life time of this dynamic group.

Click **“Add”** or **“Edit”** button to view Add or Edit Group Address menu.

Add Group Address

VLAN

1 ▼

IP Version

IPv4 ▼

Group Address

Member

Available Port

GE1
GE2
GE3
GE4
GE5
GE6
GE7
GE8

>
<

Selected Port

Apply

Close

Edit Group Address

VLAN

1

Group Address

225.0.0.1

Member

Available Port

GE2
GE3
GE4
GE5
GE6
GE7
GE8
GE9

>
<

Selected Port

GE1

Apply

Close

Figure 80 - Multicast > General > Group Address > Add/Edit Group Address

Item	Description
VLAN	The VLAN ID of group.
IP Version	IP Version ● IPv4: ipv4 multicast group ● IPv6: ipv6 multicast group
Group Address	The group IP address.
Member	The member ports of group. ● Available Port: Optional port member ● Selected Port: Selected port member

III-9-1-3. Router Port

This page allow user to browse all router port information. The static and forbidden router port can set by user.

To display multicast router port table web page, click **Multicast > General > Router Port**.

Figure 81 - Multicast > General > Router Port

Item	Description
IP Version	IP Version ● IPv4: ipv4 multicast router ● IPv6: ipv6 multicast router
VLAN	The VLAN ID router entry.
Member	Router Port member (include static and learned port member).
Static Port	Static router port member.
Forbidden Port	Forbidden router port member.
Life (Sec)	The expiry time of the router entry.

Click "**Add**" or "**Edit**" button to view Add/Edit Router Port menu.

Add Router Port

VLAN

Available VLAN

1

Selected VLAN

IP Version

IPv4

Type

☒ Static
 ☐ Forbidden

Port

Available Port

GE1
GE2
GE3
GE4
GE5
GE6
GE7
GE8

Selected Port

Apply

Close

Edit Router Port

VLAN

1

IP Version

IPv4

Type

☒ Static
 ☐ Forbidden

Port

Available Port

GE2
GE3
GE4
GE5
GE6
GE7
GE8
GE9

Selected Port

GE1

Apply

Close

Figure 82 - Multicast > General > Router Port > Add/Edit Router Port

Item	Description
------	-------------

VLAN	The VLAN ID for router entry ● Available VLAN: Optional VLAN member ● Selected VLAN: Selected VLAN member.
IP Version	IP Version ● IPv4: ipv4 multicast router ● IPv6: ipv6 multicast router
Type	The router port type ● Static: static router port ● Forbidden: forbidden router port, can't learn dynamic router port member
Port	The member ports of router entry. ● Available Port: Optional router port member ● Selected Port: Selected router port member

III-9-2. IGMP Snooping

Use the IGMP Snooping pages to configure settings of IGMP snooping function.

III-9-2-1. Property

This page allow user to configure global settings of IGMP snooping and configure specific VLAN settings of IGMP Snooping.

To display IGMP Snooping global setting and VLAN Setting web page, click **Multicast > IGMP Snooping > Property**.

State ☒ Enable

Version ☒ IGMPv2 ☐ IGMPv3

Report Suppression ☒ Enable

Apply

VLAN Setting Table

Q

	VLAN	Operational Status	Router Port Auto Learn	Query Robustness	Query Interval	Query Max Response Interval	Last Member Query Counter	Last Member Query Interval	Immediate Leave
☐	1	Disabled	Enabled	2	125	10	2	1	Disabled

Edit

Figure 83 - Multicast > IGMP Snooping > Property

Item	Description
State	Set the enabling status of IGMP Snooping functionality Enable: If Checked Enable IGMP Snooping, else is Disabled IGMP Snooping.
Version	Set the igmp snooping version ● IGMPv2: Only support process igmp v2 packet. ● IGMPv3: Support v3 basic and v2.
Report Suppression	Set the enabling status of IGMP v2 report suppression Enable: If Checked Enable IGMP Snooping v2 report suppression, else Disable the report suppression function.
VLAN	The IGMP entry VLAN ID.
Operation Status	The enable status of IGMP snooping VLAN functionality.
Router Port Auto Learn	The enabling status of IGMP snooping router port auto learning.
Query Robustness	The Query Robustness allows tuning for the expected packet loss on a subnet.
Query Interval	The interval of querier to send general query.
Query Max Response Interval	In Membership Query Messages, it specifies the maximum allowed time before sending a responding report in units of 1/10 second.
Last Member Query count	The count that Querier-switch sends Group-Specific Queries when it receives a Leave Group message for a group.
Last Member Query Interval	The interval that Querier-switch sends Group-Specific Queries when it receives a Leave Group message for a group.
Immediate leave	The immediate leave status of the group will immediate leave when receive IGMP Leave message.

Click "**Edit**" button to Edit VLAN Setting menu.

Edit VLAN Setting

VLAN	1
State	☐ Enable
Router Port Auto Learn	☒ Enable
Immediate leave	☐ Enable

Query Robustness	2 (1 - 7, default 2)
Query Interval	125 Sec (30 - 18000, default 125)
Query Max Response Interval	10 Sec (5 - 20, default 10)

Last Member Query Counter	2 (1 - 7, default 2)
Last Member Query Interval	1 Sec (1 - 25, default 1)

Operational Status

Status	Disabled
Query Robustness	2
Query Interval	125 (Sec)
Query Max Response Interval	10 (Sec)
Last Member Query Counter	2
Last Member Query Interval	1 (Sec)

Apply
Close

Figure 84 - Multicast > IGMP Snooping > Property >Edit VLAN Setting

Item	Description
VLAN	The selected VLAN List.
State	Set the enabling status of IGMP Snooping VLAN functionality Enable: If Checked Enable IGMP Snooping VLAN, else is Disabled IGMP Snooping VLAN.
Router Port Auto Learn	Set the enabling status of IGMP Snooping router port learning Enable: If checked Enable learning router port by query and PIM, DVRMP, else Disable the learning router port.
Immediate leave	Immediate Leave the group when receive IGMP Leave message. Enable: If checked Enable immediate leave, else disable immediate leave.
Query Robustness	The Admin Query Robustness allows tuning for the expected packet loss on a subnet.
Query Interval	The Admin interval of querier to send general query.

Query Max Response Interval	The Admin query max response interval , In Membership Query Messages, it specifies the maximum allowed time before sending a responding report in units of 1/10 second.
Last Member Query Counter	The Admin last member query count that Querier-switch sends Group-Specific Queries when it receives a Leave Group message for a group.
Last Member Query Interval	The Admin last member query interval that Querier-switch sends Group-Specific Queries when it receives a Leave Group message for a group.
Operational Status	
Status	Operational IGMP snooping status , must both IGMP snooping global and IGMP snooping enable the status will be enable.
Query Robustness	Operational Query Robustness.
Query Interval	Operational Query Interval.
Query Max Response Interval	Operational Query Max Response Interval
Last Member Query Counter	Operational Last Member Query Count.
Last Member Query Interval	Operational Last Member Query Interval.

III-9-2-2. Querier

This page allow user to configure querier settings on specific VLAN of IGMP Snooping.

To display IGMP Snooping Querier Setting web page, click **Multicast > IGMP Snooping > Querier**.

☐	VLAN	State	Operational Status	Version	Querier Address
☐	1	Disabled	Disabled		

Edit

Figure 85 - Multicast > IGMP Snooping > Querier

Item	Description
VLAN	IGMP Snooping querier entry VLAN ID.
State	The IGMP Snooping querier Admin State.
Operational Status	The IGMP Snooping querier operational status.
Querier Version	The IGMP Snooping querier operational version.
Querier IP	The operational Querier IP address on the VLAN.

Click "**Edit**" button to view Edit Querier menu.

Figure 86 - Multicast > IGMP Snooping > Querier > Edit Querier

Item	Description
VLAN	The Selected Edit IGMP Snooping querier VLAN List.
State	Set the enabling status of IGMP Querier Election on the chose VLANs Enabled: if checked Enable IGMP Querier else Disable IGMP Querier.
Version	Set the query version of IGMP Querier Election on the chose VLANs ● IGMPv2: Querier version 2. ● IGMPv3: Querier version 3. (IGMP Snooping version should be IGMPv3)

III-9-2-3. Statistics

This page allow user to clear igmp snooping statics.

To display IGMP Snooping Statistics, click **Multicast > IGMP Snooping > Statistics**.

Receive Packet		
Total	91	
Valid	8	
InValid	83	
Other	0	
Leave	0	
Report	0	
General Query	0	
Special Group Query	0	
Source-specific Group Query	0	
Transmit Packet		
Leave	0	
Report	0	
General Query	0	
Special Group Query	0	
Source-specific Group Query	0	
Clear Refresh		

Figure 87 - Multicast > IGMP Snooping > Statistics

Item	Description
Receive Packet	
Total	Total RX igmp packet, include ipv4 multicast data to CPU.
Valid	The valid igmp snooping process packet.
InValid	The invalid igmp snooping process packet.
Other	The ICMP protocol is not 2, and is not ipv4 multicast data packet.
Leave	IGMP leave packet.
Report	IGMP join and report packet.
General Query	IGMP General Query packet.
Special Group Query	IGMP Special Group General Query packet.
Source-specific	IGMP Special Source and Group General Query packet.

Group Query	
Transmit Packet	
Leave	IGMP leave packet
Report	IGMP join and report packet
General Query	IGMP general query packet include querier transmit general query packet.
Special Group Query	IGMP special group query packet include querier transmit special group query packet.
Source-specific Group Query	IGMP Special Source and Group General Query packet.

III-9-3. MVR

Use the MVR pages to configure settings of MVR function.

III-9-3-1. Property

To display multicast MVR property Setting web page, click **Multicast > MVR > Property**.

The screenshot shows the 'Multicast > MVR > Property' configuration page. The page is divided into several sections by dashed lines. The first section is 'State' with an 'Enable' checkbox. The second section is 'VLAN' with a dropdown menu showing '1'. The third section is 'Mode' with two radio buttons: 'Compatible' (selected) and 'Dynamic'. The fourth section is 'Group Start' with a text input field containing '0.0.0.0'. The fifth section is 'Group Count' with a text input field containing '1' and a range '(1 - 128)'. The sixth section is 'Query Time' with a text input field containing '1' and a unit 'Sec (1 - 10)'. Below these is a section titled 'Operational Group' with a dark header, containing 'Maximum' (128) and 'Current' (0). At the bottom is an 'Apply' button.

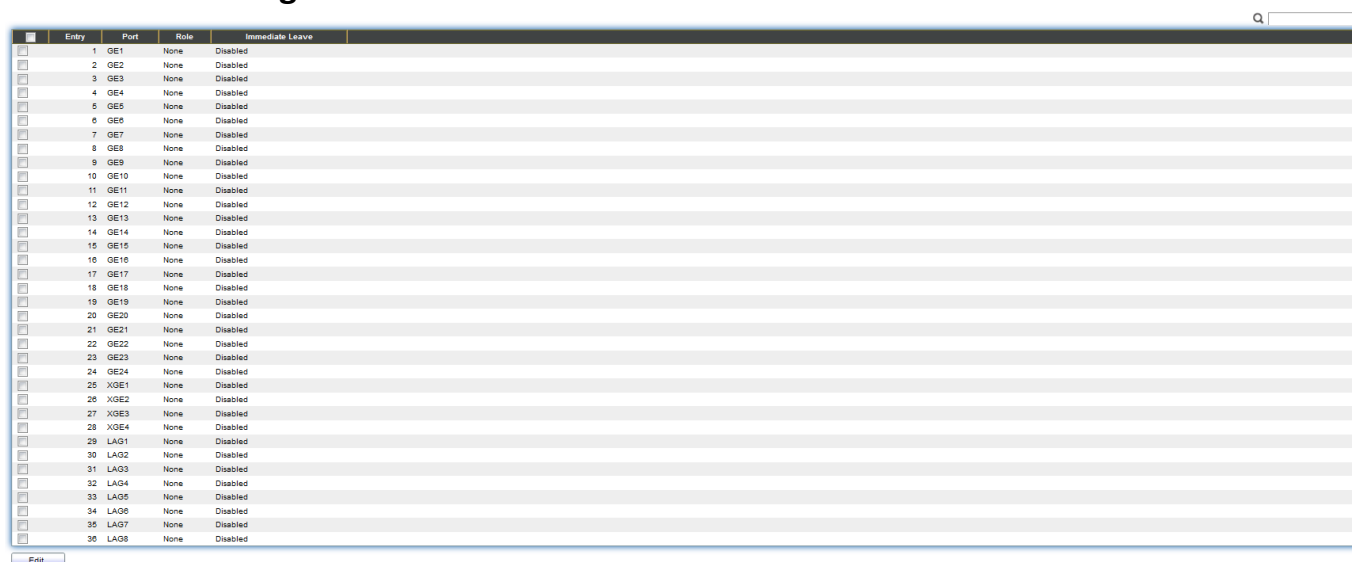
Figure 88 - Multicast > MVR > Property

Item	Description
State	Enable: if checked enable the MVR state, else disable the MVR state.
VLAN	The MVR VLAN ID.
Mode	Set the MVR mode ● Compatible: compatible mode. ● Dynamic: learn group member on source port.
Group Start	MVR group range start.
Group Count	MVR group continue count.
Query Time	MVR query time when receive MVR leave MVR group packet.
Maximum	The max number of MVR group database.
Current	The learned MVR group current time

III-9-3-2. Port Setting

This page allow user to configure port role and port immediate leave.

To display MVR port role and immediate leave state setting web page, click **Multicast > MVR > Port Setting**.



	Entry	Port	Role	Immediate Leave
☐	1	GE1	None	Disabled
☐	2	GE2	None	Disabled
☐	3	GE3	None	Disabled
☐	4	GE4	None	Disabled
☐	5	GE5	None	Disabled
☐	6	GE6	None	Disabled
☐	7	GE7	None	Disabled
☐	8	GE8	None	Disabled
☐	9	GE9	None	Disabled
☐	10	GE10	None	Disabled
☐	11	GE11	None	Disabled
☐	12	GE12	None	Disabled
☐	13	GE13	None	Disabled
☐	14	GE14	None	Disabled
☐	15	GE15	None	Disabled
☐	16	GE16	None	Disabled
☐	17	GE17	None	Disabled
☐	18	GE18	None	Disabled
☐	19	GE19	None	Disabled
☐	20	GE20	None	Disabled
☐	21	GE21	None	Disabled
☐	22	GE22	None	Disabled
☐	23	GE23	None	Disabled
☐	24	GE24	None	Disabled
☐	25	XGE1	None	Disabled
☐	26	XGE2	None	Disabled
☐	27	XGE3	None	Disabled
☐	28	XGE4	None	Disabled
☐	29	LAG1	None	Disabled
☐	30	LAG2	None	Disabled
☐	31	LAG3	None	Disabled
☐	32	LAG4	None	Disabled
☐	33	LAG5	None	Disabled
☐	34	LAG6	None	Disabled
☐	35	LAG7	None	Disabled
☐	36	LAG8	None	Disabled

Figure 89 - Multicast > MVR > Port Setting

Item	Description
Entry	Entry of number.
Port	Port Name.
Role	Port Role for MVR, the type is None/Receiver/Source.
Immediate Leave	Status of immediate leave.

Click "**Edit**" button to view Edit Port Setting menu.

Edit Port Setting

Port: GE1

Role: ☒ None ☐ Receiver ☐ Source

Immediate Leave: ☐ Enable

Apply Close

Figure 90 - Multicast > MVR > Port Setting > Edit Port Setting

Item	Description
Port	Display the selected port list.
Role	MVR port role ● None: port role is none. ● Receiver: port role is receiver. ● Source: port role is source.
Immediate Leave	MVR Port immediate leave Enable: if checked is enable immediate leave, else disable immediate leave.

III-9-3-3. Group Address

This page allow user to browse all multicast MVR groups that dynamic learned or statically added.

To display Multicast MVR Group web page, click **Multicast > MVR > Group Address**.

Group Address Table

Showing All entries Showing 0 to 0 of 0 entries

Search:

	VLAN	Group Address	Member	Type	Life (Sec)
0 results found.					

Add Edit Delete Refresh

First Previous 1 Next Last

Figure 91 - Multicast > MVR > Group Address

Item	Description
VLAN	The VLAN ID of MVR group.
Group Address	The MVR group IP address.
Member	The member ports of MVR group.
Type	The type of MVR group. Static or Dynamic.
Life(Sec)	The life time of this dynamic MVR group.

Click "**Add**" button to view Add/Edit Group Address Table menu.

The screenshot shows a web-based configuration interface for adding an MVR group address. The interface is titled "Add Group Address". It contains three primary configuration areas:

- VLAN:** A field containing the value "1".
- Group Address:** An input field for the IP address, with a placeholder range of "(0.0.0.0 - 0.0.0.0)".
- Member:** A section for selecting member ports. It features two list boxes: "Available Port" on the left and "Selected Port" on the right. Between these lists are two buttons with right and left arrows for moving ports between the sets.

 At the bottom of the window are two buttons: "Apply" and "Close".

Figure 92 - Multicast > MVR > Group Address > Add Group Address

Item	Description
VLAN	The VLAN ID of MVR group.
Group Address	The MVR group IP address.
Member	The member ports of MVR group. ● Available Port: Optional port member, it is only receiver port when MVR mode is compatible, it include source port when mode is dynamic. ● Selected Port: Selected port member

III-10. Security

Use the Security pages to configure settings for the switch security features.

III-10-1. RADIUS

This page allow user to add, edit or delete RADIUS server settings and modify default parameter of RADIUS server.

To display RADIUS web page, click **Security > RADIUS**.

Use Default Parameter

Retry: 3 (1 - 10, default 3)

Timeout: 3 Sec (1 - 30, default 3)

Key String:

Apply

RADIUS Table

Showing All entries Showing 0 to 0 of 0 entries

	Server Address	Server Port	Priority	Retry	Timeout	Usage
0 results found.						

Add Edit Delete

First Previous 1 Next Last

Figure 93 - Security > RADIUS

Item	Description
Retry	Set default retry number.
Timeout	Set default timeout value.
Key String	Set default RADIUS key string
RADIUS Table	
Server Address	RADIUS server address.
Server Port	RADIUS server port.
Priority	RADIUS server priority (smaller value has higher priority). RADIUS session will try to establish with the server setting which has highest priority. If failed, it will try to connect to the server with next higher priority.
Retry	RADIUS server retry value. If it is fail to connect to server, it will keep trying until timeout with retry times.
Timeout	RADIUS server timeout value. If it is fail to connect to server, it will keep trying until timeout.
Usage	RADIUS server usage type Login: For login authentifation. 802.1x: For 802.1x authentication. All: For all types.

Click "Add" or "Edit" button to view Add/Edit RADIUS Server menu.

Add RADIUS Server

Address Type	☒ Hostname ☐ IPv4 ☐ IPv6
Server Address	
Server Port	1812 (0 - 65535, default 1812)
Priority	(0 - 65535)
Key String	☒ Use Default
Retry	☒ Use Default 3 (1 - 10, default 3)
Timeout	☒ Use Default 3 Sec (1 - 30, default 3)
Usage	☐ Login ☐ 802.1X ☒ All

Edit RADIUS Server

Server Address

undefined

Server Port

0

(0 - 65535, default 1812)

Priority

-1

(0 - 65535)

Key String

☐ Use Default

Retry

☐ Use Default

0

(1 - 10, default 3)

Timeout

☐ Use Default

0

Sec (1 - 30, default 3)

Usage

☒ Login
☐ 802.1X
☐ All

Apply

Close

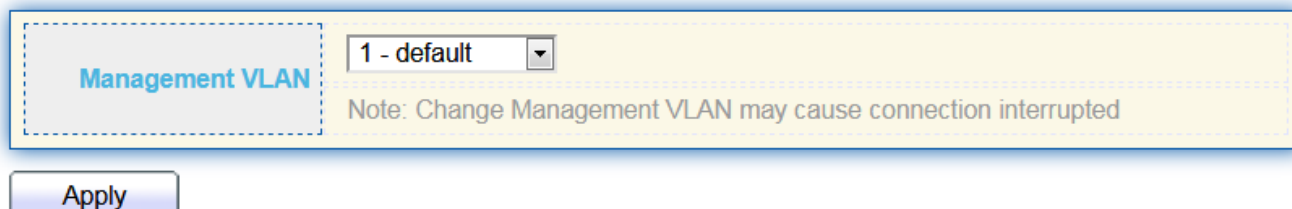
Figure 94 - Security > RADIUS > Add/Edit RADIUS Server

Item	Description
Address Type	In add dialog, user need to specify server Address Type ● Hostname: Use domain name as server address. ● IPv4: Use IPv4 as server address. ● IPv6: Use IPv6 as server address.
Server Address	In add dialog, user need to input server address based on address type. In edit dialog, it shows current edit server address.
Server Port	Set RADIUS server port.
Priority	Set RADIUS server priority (smaller value has higher priority). RADIUS session will try to establish with the server setting which has highest priority. If failed, it will try to connect to the server with next higher priority.
Retry	Set RADIUS server retry value. If it is fail to connect to server, it will keep trying until timeout with retry times.
Timeout	Set RADIUS server timeout value. If it is fail to connect to server, it will keep trying until timeout.
Usage	Set RADIUS server usage type ● Login: For login authentifation. ● 802.1x: For 802.1x authentication. ● All: For all types.

III-10-2. Management Access

Use the Management Access pages to configure settings of management access.

III-10-2-1. Management VLAN



The image shows a configuration interface for the Management VLAN. It features a light yellow background with a dashed blue border. On the left, there is a blue box with the text "Management VLAN" in white. To the right of this box is a dropdown menu currently showing "1 - default". Below the dropdown, a note in black text reads: "Note: Change Management VLAN may cause connection interrupted". At the bottom left of the interface is a blue button with the word "Apply" in white.

Note: Change Management VLAN may cause connection interrupted

III-10-2-2. Management Service

This page allow user to change management services related configurations.

To display Management Service click **Security > Management Access > Management Service**.

Management Service		
Telnet	☐	Enable
SSH	☐	Enable
HTTP	☒	Enable
HTTPS	☐	Enable
SNMP	☒	Enable

Session Timeout		
Console	10	Min (0 - 65535, default 10)
Telnet	10	Min (0 - 65535, default 10)
SSH	10	Min (0 - 65535, default 10)
HTTP	10	Min (0 - 65535, default 10)
HTTPS	10	Min (0 - 65535, default 10)

Password Retry Count		
Console	3	(0 - 120, default 3)
Telnet	3	(0 - 120, default 3)
SSH	3	(0 - 120, default 3)

Silent Time		
Console	0	Sec (0 - 65535, default 0)
Telnet	0	Sec (0 - 65535, default 0)
SSH	0	Sec (0 - 65535, default 0)

Figure 95 - Security > Management Access > Management Service

Item	Description
Management Service	Management service admin state. ● Telnet: Connect CLI through telnet. ● SSH: Connect CLI through SSH. ● HTTP: Connect WEBUI through HTTP. ● HTTPS: Connect WEBUI through HTTPS. ● SNMP: Manage switch trough SNMP.
Session Timeout	Set session timeout minutes for user access to user interface. 0 minutes

	means never timeout.
Password Retry Count	Retry count is the number which CLI password input error tolerance count. After input error password exceeds this count, the CLI will freeze after silent time.
Silent Time	After input error password exceeds password retry count, the CLI will freeze after silent time.

III-10-2-3. Management ACL

This page allow user to add or delete management ACL rule. A rule cannot be deleted if under active.

To display Management ACL page, click **Security > Management Access > Management ACL**.

The screenshot shows the 'Management ACL' configuration interface. At the top, there is a text input field labeled 'ACL Name' and an 'Apply' button. Below this is a section titled 'Management ACL Table'. This section contains a search bar, a table with columns 'ACL Name', 'State', and 'Rule', and pagination controls. The table currently displays '0 results found.' and the pagination shows '1' as the current page. At the bottom of the table, there are three buttons: 'Active', 'Deactive', and 'Delete'.

Figure 96 - Security > Management Access > Management ACL

Item	Description
ACL Name	Input MAC ACL name.
Management ACL	
ACL Name	Display Management ACL name.
State	Display Management ACL whether active.
Rule	Display the number Management ACE rule of ACL.

III-10-2-4. Management ACE

This page allow user to add, edit or delete ACE rule. An ACE rule cannot be edited or deleted if ACL under active. New ACE cannot be added if ACL under active

To display Management ACE page, click **Security > Management Access > Management ACE**.

Management ACE Table

ACL Name manage ▼

Showing All ▼ entries Showing 0 to 0 of 0 entries Q

☐	Priority	Action	Service	Port	Address / Mask
0 results found.					

Add Edit Delete First Previous 1 Next Last

Figure 97 - Security > Management Access > Management ACE

Item	Description
ACL Name	Select the ACL name to which an ACE is being added.
Priority	Display the priority of ACE.
Action	Display the action of ACE.
Service	Display the service ACE
Port	Display the port list of ACE
Address / Mask	Display the source IP address and mask of ACE.

Click "Add" or "Edit" button to view Add/Edit Management ACE menu.

Add Managemet ACE

ACL Name	manage		
Priority	1	(1 - 65535)	
Service	☐ All ☐ Http ☐ Https ☒ Snmp ☐ SSH ☐ Telnet		
Action	☐ Permit ☒ Deny		
Port	Available Port GE1 GE2 GE3 GE4 GE5 GE6 GE7 GE8 > < Selected Port		
IP Version	☒ All ☐ IPv4 ☐ IPv6		
IPv4	/ 255.255.255.255		
IPv6	/ 128 (1 - 128)		

Apply

Close

Edit Managemet ACE

ACL Name

manage

Priority

1

Service

☐ All
☐ Http
☐ Https
☒ Snmp
☐ SSH
☐ Telnet

Action

☐ Permit
☒ Deny

Port

Available Port

GE2
GE3
GE4
GE5
GE6
GE7
GE8
GE9

Selected Port

GE1

IP Version

☒ All
☐ IPv4
☐ IPv6

IPv4

/ 255.255.255.255

IPv6

/ 128 (1 - 128)

Apply

Close

Figure 98 - Security > Management Access > Add/Edit Management ACE

Item	Description
ACL Name	Display the ACL name to which an ACE is being added.
Priority	Specify the priority of the ACE. ACEs with higher sequence are processed first (1 is the highest priority). Only available on Add Dialog.
Service	Select the type service of rule. ● All: All services. ● HTTP: Only HTTP service. ● HTTPS: Only HTTPS service. ● SNMP: Only SNMP service. ● SSH: Only SSH service. ● Telnet: Only Telnet service
Action	Select the action after ACE match packet. ● Permit: Forward packets that meet the ACE criteria. ● Deny: Drop packets that meet the ACE criteria.

Port	Select ports which will be matched.
IP Version	Select the type of source IP address. ● All: All IP addresses can access. ● IPv4: Specify IPv4 address ca access. ● IPv6: Specify IPv6 address ca access.
IPv4	Enter the source IPv4 address value and mask to which will be matched.
IPv6	Enter the source IPv6 address value and mask to which will be matched.

III-10-3. Authentication Manager

III-10-3-1. Property

This page allow user to edit authentication global settings and some port mods' configurations.

To display authentication manager Property web page, click **Security > Authentication Manager > Property**.

Authentication Type	☒ 802.1x
	☐ Enable
Guest VLAN	1
MAC-Based User ID Format	XXXXXXXXXXXX

Apply

Entry	Port	Authentication Type	Host Mode	Method	Guest VLAN	VLAN Assign Mode
		802.1x				
☐	1 GE1	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	2 GE2	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	3 GE3	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	4 GE4	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	5 GE5	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	6 GE6	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	7 GE7	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	8 GE8	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	9 GE9	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	10 GE10	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	11 GE11	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	12 GE12	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	13 GE13	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	14 GE14	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	15 GE15	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	16 GE16	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	17 GE17	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	18 GE18	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	19 GE19	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	20 GE20	Enabled	Multiple Authentication	RADIUS	Disabled	Static
☐	21 GE21	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	22 GE22	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	23 GE23	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	24 GE24	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	25 XGE1	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	26 XGE2	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	27 XGE3	Disabled	Multiple Authentication	RADIUS	Disabled	Static
☐	28 XGE4	Disabled	Multiple Authentication	RADIUS	Disabled	Static

Figure 99 - Security > Authentication Manager > Property

Item	Description
Authentication Type	Set checkbox to enable/disable following authentication types 802.1x: Use IEEE 802.1x to do authentication - MAC-Based: Use MAC address to do authentication - WEB-Based: Prompt authentication web page for user to do authentication
Guest VLAN	Set checkbox to enable/disable guest VLAN, if guest VLAN is enabled, you need to select one available VLAN ID to be guest VID.
MAC-Based User ID Format	Select mac-based authentication RADIUS username/password ID format. - XXXXXXXXXXXX - Xxxxxxxxxxxxx - XX:XX:XX:XX:XX:XX - xx:xx:xx:xx:xx:xx - XX-XX-XX-XX-XX-XX - xx-xx-xx-xx-xx-xx - XX.XX.XX.XX.XX.XX - xx.xx.xx.xx.xx.xx - XXXX:XXXX:XXXX - xxxx:xxxx:xxxx - XXXX-XXXX-XXXX - XXXX-XXXX-XXXX - XXXX.XXXX.XXXX - XXXX.XXXX.XXXX - XXXXXX:XXXXXX - XXXXXX:XXXXXX - XXXXXX-XXXXXX - XXXXXX-XXXXXX

Port Mode Table	
Port	Port Name.
Authentication Type (802.1X)	802.1X authentication type state ● Enabled: 802.1X is enabled. ● Disabled: 802.1X is disabled.
Authentication Type (MAC-Based)	MAC-Based authentication type state ● Enabled: MAC-Based authentication is enabled ● Disabled: MAC-Based authentication is disabled
Authentication Type (WEB-Based)	WEB-Based authentication type state ● Enabled: WEB-Based authentication is enabled ● Disabled: WEB-Based authentication is disabled
Host Mode	Authenticating host mode ● Multiple Authentication: In this mode, every client need to pass authenticate procedure individually. ● Multiple Hosts: In this mode, only one client need to be authenticated and other clients will get the same access accessibility. Web-auth cannot be enabled in this mode. ● Single Host: In this mode, only one host is allowed to be authenticated. It is the same as Multi-auth mode with max hosts number configure to be 1.
Order	Support following authentication type order combinations. Web Authentication should always be the last type. The authentication manager will go to next type if current type is not enabled or authenticated fail. ● 802.1x ● MAC-Based ● WEB-Based ● 802.1x MAC-Based ● 802.1x WEB-Based ● MAC-Based 802.1x ● WEB-Based 802.1x ● 802.1x MAC-Based WEB-Based ● 802.1x WEB-Based MAC-Based
Method	Support following authentication method order combinations. These orders only available on MAC-Based authentication and WEB-Based authentication. 802.1x only support Radius method. ● Local: Use DUT's local database to do authentication ● Radius: Use remote RADIUS server to do authentication ● Local Radius ● Radius Local
Guest VLAN	Port guest VLAN enable state ● Enabled: Guest VLAN is enabled on port. ● Disabled: Guest VLAN is disabled on port.

VLAN Assign Mode	Support following VLAN assign mode and only apply when source is RADIUS ● Disable: Ignore the VLAN authorization result and keep original VLAN of host. ● Reject: If get VLAN authorized information, just use it. However, if there is no VLAN authorized information, reject the host and make it unauthorized. ● Static: If get VLAN authorized information, just use it. If there is no VLAN authorized information, keep original VLAN of host.
------------------	---

Click “**Edit**” button to view the Edit Port Mode menu.

Edit Port Mode

Port

GE1

Authentication Type

☐ 802.1x
☐ MAC-Based
☐ WEB-Based

Host Mode

☒ Multiple Authentication
☐ Multiple Hosts
☐ Single Host

Order

Available Type

MAC-Based

WEB-Based

>

<

Select Type

802.1x

Method

Available Method

Local

>

<

Select Method

RADIUS

Guest VLAN

☐ Enable
☐ Disable
☐ Reject
☒ Static

VLAN Assign Mode

Apply

Close

Figure 100 - Security > Authentication Manager > Property > Edit Port Mode

Item	Description
Port	Selected port list.
Authentication Type	Set checkbox to enable/disable authentication types.
Host Mode	Select authenticating host mode ● Multiple Authentication: In this mode, every client need to pass authenticate procedure individually. ● Multiple Hosts: In this mode, only one client need to be authenticated and other clients will get the same access accessibility. Web-auth cannot be enabled in this mode. ● Single Host: In this mode, only one host is allowed to be authenticated. It is the same as Multi-auth mode with max hosts number configure to be 1.
Order	Support following authentication type order combinations. Web Authentication should always be the last type. The authentication manager will go to next type if current type is not enabled or authenticated fail. ● 802.1x ● MAC-Based ● WEB-Based ● 802.1x MAC-Based ● 802.1x WEB-Based ● MAC-Based 802.1x ● WEB-Based 802.1x ● 802.1x MAC-Based WEB-Based ● 802.1x WEB-Based MAC-Based
Method	Support following authentication method order combinations. These orders only available on MAC-Based authentication and WEB-Based authentication. 802.1x only support Radius method. ● Local: Use DUT's local database to do authentication. ● Radius: Use remote RADIUS server to do authentication. ● Local Radius. ● Radius Local.
Guest VLAN	Set checkbox to enable/disable guest VLAN.
VLAN Assign Mode	Support following VLAN assign mode and only apply when source is RADIUS ● Disable: Ignore the VLAN authorization result and keep original VLAN of host. ● Reject: If get VLAN authorized information, just use it. However, if there is no VLAN authorized information, reject the host and make it unauthorized. ● Static: If get VLAN authorized information, just use it. If there is no VLAN authorized information, keep original VLAN of host.

III-10-3-2. Port Setting

This page allow user to configure authentication manger port settings

To display the authentication manager Port Setting web page, click **Security > Authentication Manager > Port Setting**.

Port Setting Table

Entry	Port	Port Control	Reauthentication	Max Hosts	Common Timer			802.1x Parameters			
					Reauthentication	Inactive	Quiet	TX Period	Supplicant Timeout	Server Timeout	Max Request
☐	1 GE1	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	2 GE2	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	3 GE3	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	4 GE4	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	5 GE5	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	6 GE6	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	7 GE7	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	8 GE8	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	9 GE9	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	10 GE10	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	11 GE11	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	12 GE12	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	13 GE13	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	14 GE14	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	15 GE15	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	16 GE16	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	17 GE17	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	18 GE18	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	19 GE19	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	20 GE20	Force Authorized	Enabled	256	3600	60	60	30	30	30	2
☐	21 GE21	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	22 GE22	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	23 GE23	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	24 GE24	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	25 XGE1	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	26 XGE2	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	27 XGE3	Disabled	Disabled	256	3600	60	60	30	30	30	2
☐	28 XGE4	Disabled	Disabled	256	3600	60	60	30	30	30	2

Figure 101 - Security > Authentication Manager > Port Setting

Item	Description
Port	Port
Port Control	Support following authentication port control types. ● Disable: Disable authentication function and all clients have network accessibility. ● Force Authorized: Port is force authorized and all clients have network accessibility. ● Force Unauthorized: Port is force unauthorized and all clients have no network accessibility. ● Auto: Need passing authentication procedure to get network accessibility.
Reauthentication	Reautheticate state ● Enabled: Host will be reauthenticated after reauthentication period. ● Disabled: Host will not be reauthenticated after reauthentication period.
Max Hosts	In Multiple Authentication mode, total host number cannot not exceed max hosts number.
Common Timer (Reauthentication)	After re-authenticate period, host will return to initial state and need to pass authentication procedure again.

Common Timer (Inactive)	If no packet from the authenticated host, the inactive timer will increase. After inactive timeout, the host will be unauthorized and corresponding session will be deleted. In multi-host mode, the packet is counting on the authorized host only.
Common Timer (Quiet)	When port is in Locked state after authenticating fail several times, the host will be locked in quiet period. After this quiet period, the host is allowed to authenticate again.
802.1X Params (TX Period)	Number of seconds that the device waits for a response to an Extensible Authentication Protocol (EAP) request/identity frame from the supplicant (client) before resending the request.
802.1X Params (Supplicant Timeout)	The maximum number of EAP requests that can be sent. If a response is not received after the defined period (supplicant timeout), the authentication process is restarted.
802.1X Params (Server Timeout)	Number of seconds that lapses before EAP requests are resent to the supplicant.
802.1X Params (Max Request)	Number of seconds that lapses before the device resends a request to the authentication server.
Web-Based Param (Max Login)	Allow user login fail number. After login fail number exceed, the host will enter Lock state and is not able to authenticate until quiet period exceed.

Click "**Edit**" button to view Edit Port Setting menu.

Port

GE1

Port Control

☒ Disabled
☐ Force Authorized
☐ Force Unauthorized
☐ Auto

Reauthentication

☐ Enable

Max Hosts

(1 - 256, default 256)

Common Timer

Reauthentication

Sec (300 - 4294967294, default 3600)

Inactive

Sec (60 - 65535, default 60)

Quiet

Sec (0 - 65535, default 60)

802.1x Parameters

TX Period

Sec (1 - 65535, default 30)

Supplicant Timeout

Sec (1 - 65535, default 30)

Server Timeout

Sec (1 - 65535, default 30)

Max Request

(1 - 10, default 2)

Web-Based Parameters

Max Login

☐ Infinite
 (3 - 10, default 3)

Apply

Close

Figure 102 - Security > Authentication Manager > Port Setting > Edit Port Setting

Item	Description
Port	Port Name.
Port Control	Support following authentication port control types. ● Disable: Disable authentication function and all clients have network accessibility. ● Force Authorized: Port is force authorized and all clients have network accessibility. ● Force Unauthorized: Port is force unauthorized and all clients have no network accessibility. ● Auto: Need passing authentication procedure to get network accessibility.
Reauthentication	Set checkbox to enable/disable reauthentication.
Max Hosts	In Multiple Authentication mode, total host number cannot not

	exceed max hosts number.
Common Timer	
Reauthentication	After re-authenticate period, host will return to initial state and need to pass authentication procedure again.
Inactive	If no packet from the authenticated host, the inactive timer will increase. After inactive timeout, the host will be unauthorized and corresponding session will be deleted. In multi-host mode, the packet is counting on the authorized host only and not all packets on the port.
Quiet	When port is in Locked state after authenticating fail several times, the host will be locked in quiet period. After this quiet period, the host is allowed to authenticate again.
802.1X Params	
TX Period	Number of seconds that the device waits for a response to an Extensible Authentication Protocol (EAP) request/identity frame from the supplicant (client) before resending the request.
Supplicant Timeout	The maximum number of EAP requests that can be sent. If a response is not received after the defined period (supplicant timeout), the authentication process is restarted.
Server Timeout	Number of seconds that lapses before EAP requests are resent to the supplicant.
Max Request	Number of seconds that lapses before the device resends a request to the authentication server.
Web-Based Param	
Max Login	Set checkbox to set max login number to be infinite or specify max login number.

III-10-3-3. Sessions

This page show all detail information of authentication sessions and allow user to select specific session to delete by clicking “**Clear**” button.

To display Sessions web page, click **Security > Authentication Manger > Sessions**.

Sessions Table

Showing All entries

Showing 0 to 0 of 0 entries

	Session ID	Port	MAC Address	Current Type	Status	Operational Information				Authorized Information		
						VLAN	Session Time	Inactivated Time	Quiet Time	VLAN	Reauthentication Period	Inactive Timeout

0 results found.

Clear

Refresh

First

Previous

1

Next

Last

Figure 103 - Security > Authentication Manager > Sessions

Item	Description
Session ID	Session ID is unique of each session.
Port	Port name which the host located.
MAC Address	Host MAC address.
Current Type	Show current authenticating type ● 802.1x: Use IEEE 802.1X to do authenticating ● MAC-Based: Use MAC-Based authentication to do authenticating. ● WEB-Based: Use WEB-Based authentication to do authenticating.
Status	Show host authentication session status IP version (IPv4, IPv6) ● Disable: This session is ready to be deleted ● Running: Authentication process is running ● Authorized: Authentication is passed and getting network accessibility. ● Unauthorized: Authentication is not passed and not getting network accessibility. ● Locked: Host is locked and do not allow to do authenticating until quiet period. ● Guest: Host is in the guest VLAN.
Operational (VLAN)	Shows host operational VLAN ID.
Operational (Session Time)	In “Authorized” state, it shows total time after authorized.
Operational (Inactived)	In “Authorized” state, it shows how long the host do not send any packet.
Operational (Quiet Time)	In “Locked” state, it shows total time after locked.
Authorized (VLAN)	Shows VLAN ID given from authorized procedure.
Authorized (Reauthentication Period)	Shows reauthentication period given from authorized procedure.
Authorized (Inactive Timeouts)	Shows inactive timeout given from authorized procedure.

III-10-4. Port Security

This page allow user to configure port security settings for each interface. When port security is enabled on interface, action will be perform once learned MAC address over limitation.

To display Port Security web page, click **Security > Port Security**.

Port Security Table

Entry	Port	State	MAC Address	Action
☐	1 GE1	Disabled	1	Discard
☐	2 GE2	Disabled	1	Discard
☐	3 GE3	Disabled	1	Discard
☐	4 GE4	Disabled	1	Discard
☐	5 GE5	Disabled	1	Discard
☐	6 GE6	Disabled	1	Discard
☐	7 GE7	Disabled	1	Discard
☐	8 GE8	Disabled	1	Discard
☐	9 GE9	Disabled	1	Discard
☐	10 GE10	Disabled	1	Discard
☐	11 GE11	Disabled	1	Discard
☐	12 GE12	Disabled	1	Discard
☐	13 GE13	Disabled	1	Discard
☐	14 GE14	Disabled	1	Discard
☐	15 GE15	Disabled	1	Discard
☐	16 GE16	Disabled	1	Discard
☐	17 GE17	Disabled	1	Discard
☐	18 GE18	Disabled	1	Discard
☐	19 GE19	Disabled	1	Discard
☐	20 GE20	Disabled	1	Discard
☐	21 GE21	Disabled	1	Discard
☐	22 GE22	Disabled	1	Discard
☐	23 GE23	Disabled	1	Discard
☐	24 GE24	Disabled	1	Discard
☐	25 XGE1	Disabled	1	Discard
☐	26 XGE2	Disabled	1	Discard
☐	27 XGE3	Disabled	1	Discard
☐	28 XGE4	Disabled	1	Discard
☐	29 LA01	Disabled	1	Discard
☐	30 LA02	Disabled	1	Discard
☐	31 LA03	Disabled	1	Discard
☐	32 LA04	Disabled	1	Discard
☐	33 LA05	Disabled	1	Discard
☐	34 LA06	Disabled	1	Discard
☐	35 LA07	Disabled	1	Discard
☐	36 LA08	Disabled	1	Discard

Edit

Figure 104 - Security > Port Security

Item	Description
State	Enable/Disable the port security function.
Port	Select one or multiple ports to configure.
State	Select the status of port security ● Disable: Disable port security function. ● Enable: Enable port security function.
MAC Address	Specify the number of how many mac addresses can be learned.
Action	Select the action if learned mac addresses ● Forward: Forward this packet whose SMAC is new to system and exceed the learning-limit number. ● Discard: Discard this packet whose SMAC is new to system and exceed the learning-limit number. ● Shutdown: Shutdown this port when receives a packet whose SMAC is new to system and exceed the learning limit number.

Click "**Edit**" button to view Edit Port Security menu.

Figure 105 - Security > Port Security > Edd Port Security

Item	Description
Port	Select one or multiple ports to configure.
State	Select the status of port security Disable: Disable port security function. Enable: Enable port security function.
MAC Address	Specify the number of how many mac addresses can be learned.
Action	Select the action if learned mac addresses ● Forward: Forward this packet whose SMAC is new to system and exceed the learning-limit number. ● Discard: Discard this packet whose SMAC is new to system and exceed the learning-limit number. ● Shutdown: Shutdown this port when receives a packet whose SMAC is new to system and exceed the learning limit number.

III-10-5. Traffic Segmentation

Traffic Segmentation prohibits ports to communicate with each other directly, on other manufacturers' switches

Traffic Segmentation Settings

Q

Entry	Port	Forward Port List
1	GE1	GE21-24,XGE1-4
2	GE2	GE21-24,XGE1-4
3	GE3	GE21-24,XGE1-4
4	GE4	GE21-24,XGE1-4
5	GE5	GE21-24,XGE1-4
6	GE6	GE21-24,XGE1-4
7	GE7	GE21-24,XGE1-4
8	GE8	GE21-24,XGE1-4
9	GE9	GE21-24,XGE1-4
10	GE10	GE21-24,XGE1-4
11	GE11	GE21-24,XGE1-4
12	GE12	GE21-24,XGE1-4
13	GE13	GE21-24,XGE1-4
14	GE14	GE21-24,XGE1-4
15	GE15	GE21-24,XGE1-4
16	GE16	GE21-24,XGE1-4
17	GE17	GE21-24,XGE1-4
18	GE18	GE21-24,XGE1-4
19	GE19	GE21-24,XGE1-4
20	GE20	GE21-24,XGE1-4
21	GE21	GE1-20
22	GE22	GE1-20
23	GE23	GE1-20
24	GE24	GE1-20
25	XGE1	GE1-20
26	XGE2	GE1-20
27	XGE3	GE1-20
28	XGE4	GE1-20

III-10-6. Storm Control

To display Storm Control global setting web page, click **Security > Storm Control**.

Mode

☐ Packet / Sec
☒ Kbits / Sec

IFG

☒ Exclude
☐ Include

Port Setting Table

Entry	Port	State	Broadcast		Unknown Multicast		Unknown Unicast		Action
			State	Rate (Kbps)	State	Rate (Kbps)	State	Rate (Kbps)	
☐	1	GE1	Disabled	10000	Disabled	10000	Disabled	10000	Drop
☐	2	GE2	Disabled	10000	Disabled	10000	Disabled	10000	Drop
☐	3	GE3	Disabled	10000	Disabled	10000	Disabled	10000	Drop
☐	4	GE4	Disabled	10000	Disabled	10000	Disabled	10000	Drop
☐	5	GE5	Disabled	10000	Disabled	10000	Disabled	10000	Drop
☐	6	GE6	Disabled	10000	Disabled	10000	Disabled	10000	Drop
☐	7	GE7	Disabled	10000	Disabled	10000	Disabled	10000	Drop
☐	8	GE8	Disabled	10000	Disabled	10000	Disabled	10000	Drop
☐	9	GE9	Disabled	10000	Disabled	10000	Disabled	10000	Drop
☐	10	GE10	Disabled	10000	Disabled	10000	Disabled	10000	Drop
☐	11	GE11	Disabled	10000	Disabled	10000	Disabled	10000	Drop
☐	12	GE12	Disabled	10000	Disabled	10000	Disabled	10000	Drop
☐	13	GE13	Disabled	10000	Disabled	10000	Disabled	10000	Drop
☐	14	GE14	Disabled	10000	Disabled	10000	Disabled	10000	Drop
☐	15	GE15	Disabled	10000	Disabled	10000	Disabled	10000	Drop
☐	16	GE16	Disabled	10000	Disabled	10000	Disabled	10000	Drop
☐	17	GE17	Disabled	10000	Disabled	10000	Disabled	10000	Drop
☐	18	GE18	Disabled	10000	Disabled	10000	Disabled	10000	Drop
☐	19	GE19	Disabled	10000	Disabled	10000	Disabled	10000	Drop

Figure 108 - Security > Storm Control

Item	Description
Mode(Unit)	Select the unit of storm control ● Packet / Sec: storm control rate calculates by packet-based ● Kbits / Sec: storm control rate calculates by octet-based.
IFG	Select the rate calculates w/o preamble & IFG (20 bytes) ● Excluded: exclude preamble & IFG (20 bytes) when count ingress storm control rate. ● Included: include preamble & IFG (20 bytes) when count ingress storm control rate.

Click "**Edit**" button to view Edit Port Setting menu.

79

Edit Port Setting

Port	GE1
State	☐ Enable
Broadcast	☐ Enable 10000 Kbps (16 - 1000000, default 10000)
Unknown Multicast	☐ Enable 10000 Kbps (16 - 1000000, default 10000)
Unknown Unicast	☐ Enable 10000 Kbps (16 - 1000000, default 10000)
Action	☒ Drop ☐ Shutdown

Figure 109 - Security > Storm Control > Edit Port Setting

Item	Description
Port	Select the setting ports.
State	Select the state of setting Enable: Enable the storm control function.
Broadcast	Enable: Enable the storm control function of Broadcast packet. Value of storm control rate, Unit: pps (packet per-second, range 1- 262143) or Kbps (Kbits per-second, range16 - 1000000) depends on global mode setting.
Unknown Multicast	Enable: Enable the storm control function of Unknown multicast packet. Value of storm control rate, Unit: pps (packet per-second, range 1- 262143) or Kbps (Kbits per-second, range16 - 1000000) depends on global mode setting.
Unknown Unicast	Enable: Enable the storm control function of Unknown unicast packet. Value of storm control rate, Unit: pps (packet per-second, range 1 - 262143) or Kbps (Kbits per-second, range16 - 1000000) depends on global mode setting.
Action	Select the state of setting ● Drop: Packets exceed storm control rate will be dropped. ● Shutdown: Port will be shutdown when packets exceed storm control rate.

III-10-7. DoS

A Denial of Service (DoS) attack is a hacker attempt to make a device unavailable to its users. DoS attacks saturate the device with external communication requests, so that it cannot respond to legitimate traffic. These attacks usually lead to a device CPU overload.

The DoS protection feature is a set of predefined rules that protect the network from malicious attacks. The DoS Security Suite Settings enables activating the security suite.

III-10-7-1. Property

To display Dos Global Setting web page, click **Security > Dos > Property**.

POD	☒ Enable
Land	☒ Enable
UDP Blat	☒ Enable
TCP Blat	☒ Enable
DMAC = SMAC	☒ Enable
Null Scan Attack	☒ Enable
X-Mas Scan Attack	☒ Enable
TCP SYN-FIN Attack	☒ Enable
TCP SYN-RST Attack	☒ Enable
ICMP Fragment	☒ Enable
TCP-SYN	☒ Enable Note: Source Port < 1024
TCP Fragment	☒ Enable Note: Offset = 1
Ping Max Size	☒ Enable IPv4 ☒ Enable IPv6 512 Byte (0 - 65535, default 512)
TCP Min Hdr size	☒ Enable 20 Byte (0 - 31, default 20)
IPv6 Min Fragment	☒ Enable 1240 Byte (0 - 65535, default 1240)
Smurf Attack	☒ Enable 0 Netmask Length (0 - 32, default 0)

Apply

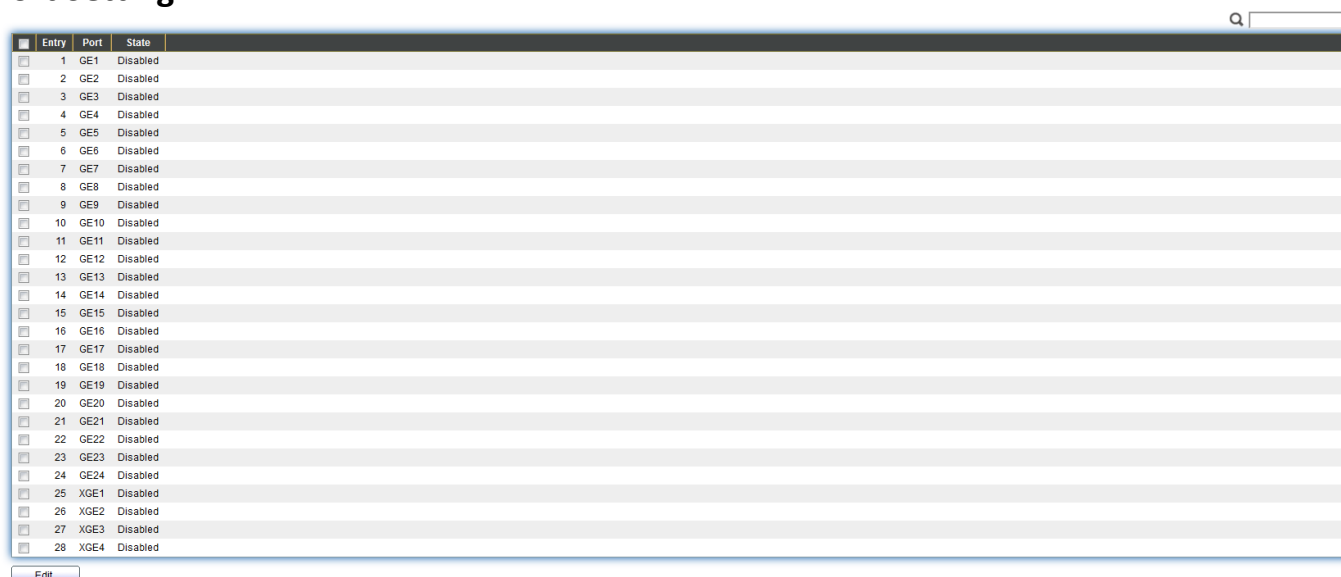
Figure 110 - Security > DoS > Property

Item	Description
POD	Avoids ping of death attack.
Land	Drops the packets if the source IP address is equal to the destination IP address.
UDP Blat	Drops the packets if the UDP source port equals to the UDP destination port.
TCP Blat	Drops the packages if the TCP source port is equal to the TCP destination port.

DMAC = SMAC	Drops the packets if the destination MAC address is equal to the source MAC address.
Null Scan Attack	Drops the packets with NULL scan.
X-Mas Scan Attack	Drops the packets if the sequence number is zero, and the FIN, URG and PSH bits are set.
TCP SYN-FIN Attack	Drops the packets with SYN and FIN bits set.
TCP SYN-RST Attack	Drops the packets with SYN and RST bits set
ICMP Fragment	Drops the fragmented ICMP packets.
TCP SYN (SPORT<1024)	Drops SYN packets with sport less than 1024.
TCP Fragment (Offset = 1)	Drops the TCP fragment packets with offset equals to one.
Ping Max Size	Specify the maximum size of the ICMPv4/ICMPv6 ping packets. The valid range is from 0 to 65535 bytes, and the default value is 512 bytes.
IPv6 Min Fragment	Checks the minimum size of IPv6 fragments, and drops the packets smaller than the minimum size. The valid range is from 0 to 65535 bytes, and default value is 1240 bytes.
Smurf Attack	Avoids smurf attack. The length range of the netmask is from 0 to 323 bytes, and default length is 0 bytes.

III-10-7-2. Port Setting

To configure and display the state of DoS protection for interfaces, click **Security > DoS > Port Setting**.



Entry	Port	State
☐	1 GE1	Disabled
☐	2 GE2	Disabled
☐	3 GE3	Disabled
☐	4 GE4	Disabled
☐	5 GE5	Disabled
☐	6 GE6	Disabled
☐	7 GE7	Disabled
☐	8 GE8	Disabled
☐	9 GE9	Disabled
☐	10 GE10	Disabled
☐	11 GE11	Disabled
☐	12 GE12	Disabled
☐	13 GE13	Disabled
☐	14 GE14	Disabled
☐	15 GE15	Disabled
☐	16 GE16	Disabled
☐	17 GE17	Disabled
☐	18 GE18	Disabled
☐	19 GE19	Disabled
☐	20 GE20	Disabled
☐	21 GE21	Disabled
☐	22 GE22	Disabled
☐	23 GE23	Disabled
☐	24 GE24	Disabled
☐	25 XGE1	Disabled
☐	26 XGE2	Disabled
☐	27 XGE3	Disabled
☐	28 XGE4	Disabled

Figure 111 - Security > DoS > Port Setting

Item	Description
Port	Interface or port number.
State	Enable/Disable the DoS protection on the interface.

III-10-8. DHCP Snooping

Use the DHCP Snooping pages to configure settings of DHCP Snooping.

III-10-8-1. Property

This page allow user to configure global and per interface settings of DHCP Snooping.

To display property page, click **Security > DHCP Snooping > Property**.

State

☐ Enable

Available VLAN

Selected VLAN

VLAN 1

>

<

VLAN

Apply

Port Setting Table

	Entry	Port	Trust	Verify Chaddr	Rate Limit
☐	1	GE1	Disabled	Disabled	Unlimited
☐	2	GE2	Disabled	Disabled	Unlimited
☐	3	GE3	Disabled	Disabled	Unlimited
☐	4	GE4	Disabled	Disabled	Unlimited
☐	5	GE5	Disabled	Disabled	Unlimited
☐	6	GE6	Disabled	Disabled	Unlimited
☐	7	GE7	Disabled	Disabled	Unlimited
☐	8	GE8	Disabled	Disabled	Unlimited
☐	9	GE9	Disabled	Disabled	Unlimited
☐	10	GE10	Disabled	Disabled	Unlimited
☐	11	GE11	Disabled	Disabled	Unlimited
☐	12	GE12	Disabled	Disabled	Unlimited
☐	13	GE13	Disabled	Disabled	Unlimited
☐	14	GE14	Disabled	Disabled	Unlimited
☐	15	GE15	Disabled	Disabled	Unlimited
☐	16	GE16	Disabled	Disabled	Unlimited
☐	17	GE17	Disabled	Disabled	Unlimited
☐	18	GE18	Disabled	Disabled	Unlimited
☐	19	GE19	Disabled	Disabled	Unlimited

Figure 112 - Security > DHCP Snooping > Property

Item	Description
State	Set checkbox to enable/disable DHCP Snooping function.
VLAN	Select VLANs in left box then move to right to enable DHCP Snooping. Or select VLANs in right box then move to left to disable DHCP Snooping.
Port Setting Table	
Port	Display port ID.
Trust	Display enable/disabled trust attribute of interface.
Verify Chaddr	Display enable/disabled chaddr validation attribute of interface.
Rate Limit	Display rate limitation value of interface.

Click "**Edit**" button to view Edit Port Setting menu.

Edit Port Setting

Port	GE1
Trust	☐ Enable
Verify Chaddr	☐ Enable
Rate Limit	0 pps (0 - 300, default 0), 0 is Unlimited

Apply Close

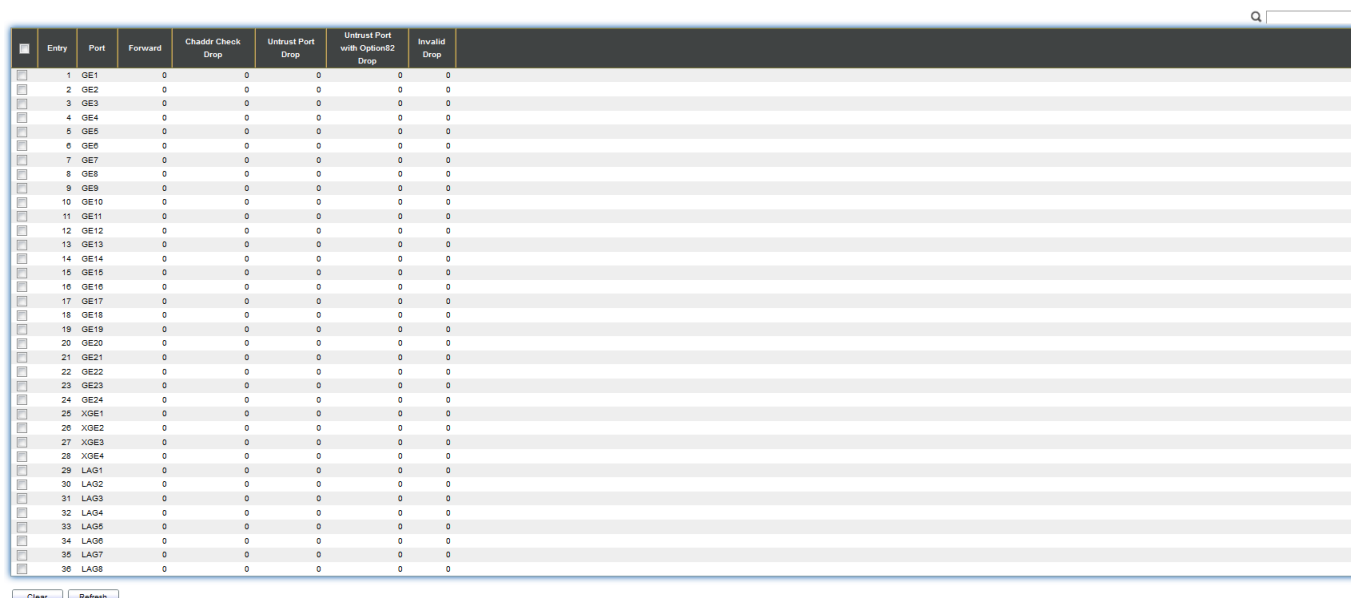
Figure 113 - Security > DHCP Snooping > Property > Edit Port Setting

Item	Description
Port	Display selected port to be edited
Trust	Set checkbox to enable/disable trust of interface. All DHCP packet will be forward directly if enable trust. Default is disabled.
Verify Chaddr	Set checkbox to enable or disable chaddr validation of interface. All DHCP packets will be checked whether client hardware mac address is same as source mac in Ethernet header if enable chaddr validation. Default is disabled.
Rate Limit	Input rate limitation of DHCP packets. The unit is pps. 0 means unlimited. Default is unlimited.

III-10-8-2. Statistics

This page allow user to browse all statistics that recorded by DHCP snooping function.

To view the Statistics menu, navigate to **Security > DHCP Snooping > Statistics**.



Entry	Port	Forward	Chaddr Check Drop	Untrust Port Drop	Untrust Port with Option82 Drop	Invalid Drop
☐	1 GE1	0	0	0	0	0
☐	2 GE2	0	0	0	0	0
☐	3 GE3	0	0	0	0	0
☐	4 GE4	0	0	0	0	0
☐	5 GE5	0	0	0	0	0
☐	6 GE6	0	0	0	0	0
☐	7 GE7	0	0	0	0	0
☐	8 GE8	0	0	0	0	0
☐	9 GE9	0	0	0	0	0
☐	10 GE10	0	0	0	0	0
☐	11 GE11	0	0	0	0	0
☐	12 GE12	0	0	0	0	0
☐	13 GE13	0	0	0	0	0
☐	14 GE14	0	0	0	0	0
☐	15 GE15	0	0	0	0	0
☐	16 GE16	0	0	0	0	0
☐	17 GE17	0	0	0	0	0
☐	18 GE18	0	0	0	0	0
☐	19 GE19	0	0	0	0	0
☐	20 GE20	0	0	0	0	0
☐	21 GE21	0	0	0	0	0
☐	22 GE22	0	0	0	0	0
☐	23 GE23	0	0	0	0	0
☐	24 GE24	0	0	0	0	0
☐	25 XGE1	0	0	0	0	0
☐	26 XGE2	0	0	0	0	0
☐	27 XGE3	0	0	0	0	0
☐	28 XGE4	0	0	0	0	0
☐	29 LAG1	0	0	0	0	0
☐	30 LAG2	0	0	0	0	0
☐	31 LAG3	0	0	0	0	0
☐	32 LAG4	0	0	0	0	0
☐	33 LAG5	0	0	0	0	0
☐	34 LAG6	0	0	0	0	0
☐	35 LAG7	0	0	0	0	0
☐	36 LAG8	0	0	0	0	0

Figure 114 - Security > DHCP Snooping > Statistics

Item	Description
Port	Display port ID.
Forwarded	Display how many packets forwarded normally.
Chaddr Check Drop	Display how many packets dropped by chaddr validation.
Untrusted Port Drop	Display how many DHCP server packets that are received by untrusted port dropped.
Untrusted Port with Option82 Drop	Display how many packets dropped by untrusted port with option82 checking.
Invalid Drop	Display how many packets dropped by invalid checking.

III-10-8-3. Option82 Property

This page allow user to set string of DHCP option82 remote ID filed. The string will attach in option82 if option inserted.

To display Option82 Property page, click **Security > DHCP Snooping > Option82 Property**.

Remote ID

☐ User Defined

Operational Status

Remote ID

74:da:38:17:6e:7a (Switch Mac in Byte Order)

Apply

Port Setting Table

	Entry	Port	State	Allow Untrust
☐	1	GE1	Disabled	Drop
☐	2	GE2	Disabled	Drop
☐	3	GE3	Disabled	Drop
☐	4	GE4	Disabled	Drop
☐	5	GE5	Disabled	Drop
☐	6	GE6	Disabled	Drop
☐	7	GE7	Disabled	Drop
☐	8	GE8	Disabled	Drop
☐	9	GE9	Disabled	Drop
☐	10	GE10	Disabled	Drop
☐	11	GE11	Disabled	Drop
☐	12	GE12	Disabled	Drop
☐	13	GE13	Disabled	Drop
☐	14	GE14	Disabled	Drop
☐	15	GE15	Disabled	Drop
☐	16	GE16	Disabled	Drop
☐	17	GE17	Disabled	Drop
☐	18	GE18	Disabled	Drop
☐	19	GE19	Disabled	Drop
☐	20	GE20	Disabled	Drop
☐	21	GE21	Disabled	Drop
☐	22	GE22	Disabled	Drop

Figure 115 - Security > DHCP Snooping > Option82 Property

Item	Description
User Defined	Set checkbox to enable user-defined remote-ID. By default, remote ID is switch mac in byte order.
Remote ID	Input user-defined remote ID. Only available when enable user-define remote ID.
Port Setting Table	
Port	Display port ID.
State	Display option82 enable/disable status of interface.
Allow untrusted	Display allow untrusted action of interface.

Click "**Edit**" button to view Edit Port Setting menu.

The screenshot shows the 'Edit Port Setting' dialog box. It contains the following elements:

- Port:** A text field displaying 'GE1'.
- State:** A checkbox labeled 'Enable'.
- Allow Untrust:** Three radio buttons labeled 'Keep', 'Drop' (selected), and 'Replace'.
- Buttons:** 'Apply' and 'Close' buttons at the bottom.

Figure 116 DHCP Snooping > Option82 Property > Edit Port Setting

Item	Description
Port	Display selected port to be edited
State	Set checkbox to enable/disable option82 function of interface.
Allow untrusted	Select the action perform when untrusted port receive DHCP packet has option82 filed. Default is drop. ● Keep: Keep original option82 content. ● Replace: Replace option82 content by switch setting ● Drop: Drop packets with option82

III-10-8-4. Option82 Circuit ID

This page allow user to set string of DHCP option82 circuit ID filed. The string will attach in option82 if option inserted.

To display Option82 Circuit ID page, click **Security > DHCP Snooping > Option82 Circuit ID**.

Option82 Circuit ID Table

Showing All entries

Showing 0 to 0 of 0 entries

	Port	VLAN	Circuit ID
0 results found.			

Add

Edit

Delete

First

Previous

1

Next

Last

Figure 117 - Security > DHCP Snooping > Option82 Circuit ID

Item	Description
Port	Display port ID of entry.
VLAN	Display associate VLAN of entry.
Circuit ID	Display circuit ID string of entry.

Click **“Add”** button or **“Edit”** button to view the Add/Edit Option82 Circuit ID menu.

Add Option82 Circuit ID

Port

GE1

VLAN

(1 - 4094) (Keep empty to set without VLAN)

Circuit ID

Apply

Close

Edit Option82 Circuit ID

Port

VLAN

Circuit ID

Apply

Close

Figure 118 - Security > DHCP Snooping > Option82 Circuit ID > Add/Edit Option82 Circuit ID

Item	Description
Port	Select port from list to associate to CID entry. Only available on Add dialog.
VLAN	Input VLAN ID to associate to circuit ID entry. VLAN ID is not mandatory. Only available on Add dialog.
Circuit ID	Input String as circuit ID. Packets match port and VLAN will be inserted circuit ID.

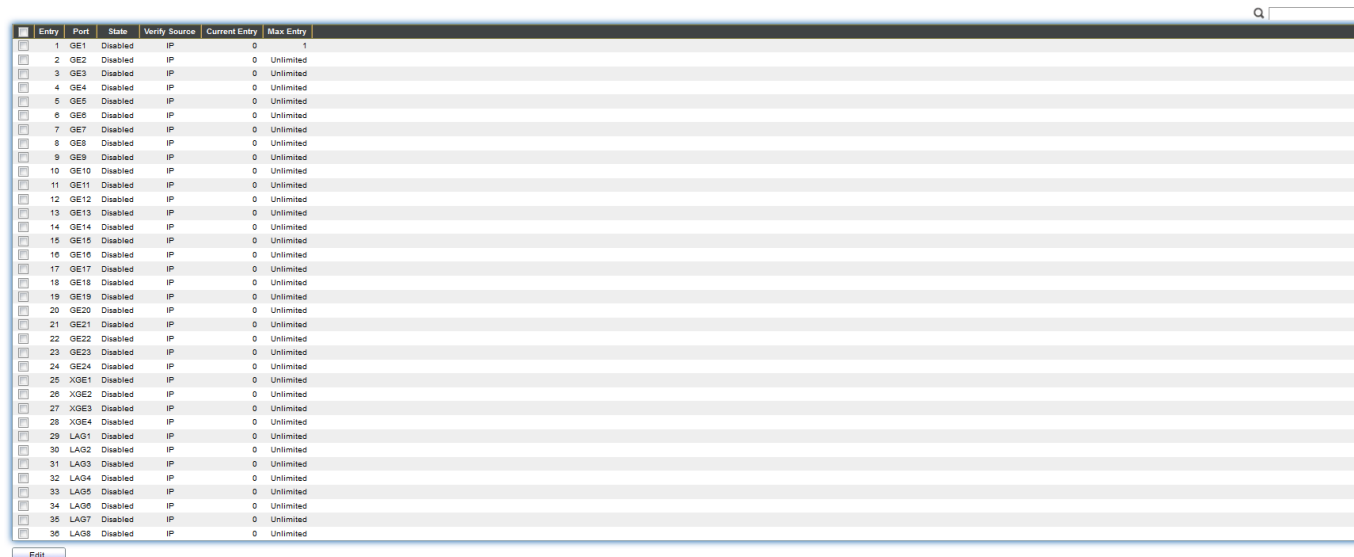
III-10-9. IP Source Guard

Use the IP Source Guard pages to configure settings of IP Source Guard.

III-10-9-1. Port Setting

Use the IP Source Guard pages to configure settings of IP Source Guard.

To display Port Setting page, click **Security > IP Source Guard > Port Setting**.



Entry	Port	State	Verify Source	Current Entry	Max Entry
☐	1 GE1	Disabled	IP	0	1
☐	2 GE2	Disabled	IP	0	Unlimited
☐	3 GE3	Disabled	IP	0	Unlimited
☐	4 GE4	Disabled	IP	0	Unlimited
☐	5 GE5	Disabled	IP	0	Unlimited
☐	6 GE6	Disabled	IP	0	Unlimited
☐	7 GE7	Disabled	IP	0	Unlimited
☐	8 GE8	Disabled	IP	0	Unlimited
☐	9 GE9	Disabled	IP	0	Unlimited
☐	10 GE10	Disabled	IP	0	Unlimited
☐	11 GE11	Disabled	IP	0	Unlimited
☐	12 GE12	Disabled	IP	0	Unlimited
☐	13 GE13	Disabled	IP	0	Unlimited
☐	14 GE14	Disabled	IP	0	Unlimited
☐	15 GE15	Disabled	IP	0	Unlimited
☐	16 GE16	Disabled	IP	0	Unlimited
☐	17 GE17	Disabled	IP	0	Unlimited
☐	18 GE18	Disabled	IP	0	Unlimited
☐	19 GE19	Disabled	IP	0	Unlimited
☐	20 GE20	Disabled	IP	0	Unlimited
☐	21 GE21	Disabled	IP	0	Unlimited
☐	22 GE22	Disabled	IP	0	Unlimited
☐	23 GE23	Disabled	IP	0	Unlimited
☐	24 GE24	Disabled	IP	0	Unlimited
☐	25 XGE1	Disabled	IP	0	Unlimited
☐	26 XGE2	Disabled	IP	0	Unlimited
☐	27 XGE3	Disabled	IP	0	Unlimited
☐	28 XGE4	Disabled	IP	0	Unlimited
☐	29 LA01	Disabled	IP	0	Unlimited
☐	30 LA02	Disabled	IP	0	Unlimited
☐	31 LA03	Disabled	IP	0	Unlimited
☐	32 LA04	Disabled	IP	0	Unlimited
☐	33 LA05	Disabled	IP	0	Unlimited
☐	34 LA06	Disabled	IP	0	Unlimited
☐	35 LA07	Disabled	IP	0	Unlimited
☐	36 LA08	Disabled	IP	0	Unlimited

Figure 119 - Security > IP Source Guard > Port Setting

Item	Description
Port	Display port ID.
State	Display IP Source Guard enable/disable status of interface.
Verify Source	Display mode of IP Source Guard verification
Current Binding Entry	Display current binding entries of a interface.
Max Binding Entry	Display the number of maximum binding entry of interface.

Click "**Edit**" button to view the Edit Port Setting menu.

Figure 120 - Security > IP Source Guard > Port Setting > Edit Port Setting

Item	Description
Port	Display selected port to be edited.
Status	Set checkbox to enable or disable IP Source Guard function. Default is disabled.
Verify Source	Select the mode of IP Source Guard verification ● IP: Only verify source IP address of packet. ● IP-MAC: Verify source IP and source MAC address of packet.
Max Entry	Input the maximum number of entries that a port can be bounded. Default is un-limited on all ports. No entry will be bound if limitation reached.

III-10-9-2. IMPV Binding

This page allow user to add static IP source guard entry and browse all IP source guard entries that learned by DHCP snooping or statically create by user.

To display IPMV Binding page, click **Security > IP Source Guard > IMPV Binding**.

Figure 121 - Security > IP Source Guard > IMPV Binding

Item	Description
Port	Display port ID of entry.
VLAN	Display VLAN ID of entry.
MAC Address	Display MAC address of entry. Only available of IP-MAC binding entry.
IP Address	Display IP address of entry. Mask always to be 255.255.255.255 for IP-MAC binding. IP binding entry display user input.
Binding	Display binding type of entry.
Type	Type of existing binding entry ● Static: Entry added by user. ● Dynamic: Entry learned by DHCP snooping.
Lease Time	Lease time of DHCP Snooping learned entry. After lease time entry will be deleted. Only available of dynamic entry.

Click "**Add**" or "**Edit**" button to view the Add/Edit IP-MAC-Port-VLAN Binding menu.

Add IP-MAC-Port-VLAN Binding

Port	GE1 ▼
VLAN	(1 - 4094)
Binding	☒ IP-MAC-Port-VLAN ☐ IP-Port-VLAN
MAC Address	
IP Address	/ 255.255.255.255

Edit IP-MAC-Port-VLAN Binding

Port	GE1 ▼
VLAN	20
Binding	IP-MAC-Port-VLAN
MAC Address	00:11:22:33:44:55
IP Address	192.168.2.33 / 255.255.255.255

Figure 122 - Security > IP Source Guard > Add/Edit IP-MAC-Port-VLAN Binding

Item	Description
Port	Select port from list of a binding entry.
VLAN	Specify a VLAN ID of a binding entry.
Binding	Select matching mode of binding entry IP-MAC-Port-VLAN: packet must match IP address 、 MAC address 、 Port and VLAN ID. IP-Port-VLAN: packet must match IP address or subnet 、 Port and VLAN ID.
MAC Address	Input MAC address. Only available on IP-MAC-Port-VLAN mode.
IP Address	Input IP address and mask. Mask only available on IP-MAC-Port mode.

III-10-9-3. Save Database

This page allow user to configure DHCP snooping database which can backup and restore dynamic DHCP snooping entries.

To display Save Database page, click **Security > DHCP Snooping > Save Database**.

Figure 123 - Security > IP Source Guard > Save Database

Item	Description
Type	Select the type of database agent. ● None: Disable database agent service. ● Flash: Save DHCP dynamic binding entries to flash. ● TFTP: Save DHCP dynamic binding entries to remote TFTP server.
Filename	Input filename for backup file. Only available when selecting type

	“flash” and “TFTP”.
Address Type	Select the type of TFTP server. ● Hostname: TFTP server address is hostname. ● IPv4: TFTP server address is IPv4 address
Server Address	Input remote TFTP server hostname or IP address. Only available when selecting type “TFTP”
Write Delay	Input delay timer for doing backup after change happened. Default is 300 seconds.
Timeout	Input aborts timeout for doing backup failure. Default is 300 seconds.

III-11. ACL

Use the ACL pages to configure settings for the switch ACL features..

III-11-1. MAC ACL

This page allow user to add or delete ACL rule. A rule cannot be deleted if under binding.

To display MAC ACL page, click **ACL > MAC ACL**.

Figure 124 - ACL > MAC ACL

Item	Description
ACL Name	Input MAC ACL name.
ACL Name	Display MAC ACL name.
Rule	Display the number ACE rule of ACL.
Port	Display the port list that bind this ACL.

III-11-2. MAC ACE

This page allow user to add, edit or delete ACE rule. An ACE rule cannot be edited or deleted if ACL under binding. New ACE cannot be added if ACL under binding.

To display MAC ACE page, click **ACL > MAC ACE**.

ACE Table

ACL Name None ▼

Showing All ▼ entries Showing 0 to 0 of 0 entries

	Sequence	Action	Source MAC		Destination MAC		Ethertype	VLAN	802.1p		
			Address	Mask	Address	Mask			Value	Mask	
0 results found.											

First Previous 1 Next Last

Figure 125 - ACL > MAC ACE

Item	Description
ACL Name	Select the ACL name to which an ACE is being added.
Sequence	Display the sequence of ACE.
Action	Display the action of ACE.
Source MAC	Display the source MAC address and mask of ACE.
Destination MAC	Display the destination MAC address and mask of ACE.
Ethertype	Display the Ethernet frame type of ACE.
VLAN ID	Display the VLAN ID of ACE.
802.1p Value	Display the 802.1p value of ACE.
802.1p Mask	Display the 802.1p mask of ACE.

Click “**Edit**” button to view the Edit ACE menu.

Edit ACE

ACL Name	666
Sequence	555
Action	☒ Permit ☐ Deny ☐ Shutdown
Source MAC	☒ Any / (Address / Mask)
Destination MAC	☒ Any / (Address / Mask)
Ethertype	☒ Any 0x (0x600 ~ 0xFFFF)
VLAN	☒ Any (1 - 4094)
802.1p	☒ Any / (Value / Mask) (0 - 7)

Apply Close

Figure 126 - ACL > Edit ACE

Item	Description
ACL Name	Display the ACL name to which an ACE is being added..
Sequence	Specify the sequence of the ACE. ACEs with higher sequence are processed first (1 is the highest priority). Only available on Add Dialog.
Action	Select the action after ACE match packet. ● Permit: Forward packets that meet the ACE criteria. ● Deny: Drop packets that meet the ACE criteria. ● Shutdown: Drop packets that meet the ACE criteria, and disable the port from where the packets were received. Such ports can be reactivated from the Port Settings page.
Source MAC	Select the type for source MAC address. ● Any: All source addresses are acceptable. ● User Defined: Only a source address or a range of source addresses which users define are acceptable. Enter the source MAC address and mask to which will be matched.
Destination MAC	Select the type for Destination MAC address.

	● Any: All destination addresses are acceptable. ● User Defined: Only a destination address or a range of destination addresses which users define are acceptable. Enter the destination MAC address and mask to which will be matched.
Ethertype	Select the type for Ethernet frame type. ● Any: All Ethernet frame type is acceptable. ● User Defined: Only an Ethernet frame type which users define is acceptable. Enter the Ethernet frame type value to which will be matched.
VLAN	Select the type for VLAN ID. ● Any: All VLAN ID is acceptable. ● User Defined: Only a VLAN ID which users define is acceptable. Enter the VLAN ID to which will be matched.
802.1p	Select the type for 802.1p value. ● Any: All 802.1p value is acceptable. ● User Defined: Only an 802.1p value or a range of 802.1p value which users define is acceptable. Enter the 802.1p value and mask to which will be matched.

III-11-3. IPv4 ACL

This page allow user to add or delete IPv4 ACL rule. A rule cannot be deleted if under binding.

To display IPv4 ACL page, click **ACL > IPv4 ACL**.

ACL Name

Apply

ACL Table

Showing All ▾ entries Showing 0 to 0 of 0 entries

ACL Name	Rule	Port
0 results found.		

First Previous 1 Next Last

Delete

Figure 127 - ACL > IPv4 ACL

Item	Description
ACL Name	Input IPv4 ACL name.
ACL Name	Display IPv4 ACL name.
Rule	Display the number ACE rule of ACL.
Port	Display the port list that bind this ACL.

III-11-4. IPv4 ACE

This page allow user to add, edit or delete ACE rule. An ACE rule cannot be edited or deleted if ACL under binding. New ACE cannot be added if ACL under binding.

To display IPv4 ACE page, click **ACL > IPv4 ACE**.

Figure 128 - ACL > IPv4 ACE

Item	Description
ACL Name	Select the ACL name to which an ACE is being added.
Sequence	Display the sequence of ACE.
Action	Display the action of ACE.
Protocol	Display the protocol value of ACE.
Source IP	Display the source IP address and mask of ACE.
Destination IP	Display the destination IP address and mask of ACE.
Source Port	Display single source port or a range of source ports of ACE. Only available when protocol is TCP or UDP.
Destination Port	Display single destination port or a range of destination ports of ACE. Only available when protocol is TCP or UDP.
TCP Flags	Display the TCP flag value if ACE. Only available when protocol is TCP.
Type of Service	Display the ToS value of ACE which could be DSCP or IP Precedence.
ICMP	Display the ICMP type and code of ACE. Only available when protocol is ICMP.

Click "Add" or "Edit" button to view the Add/Edit ACE menu.

Edit ACE

ACL Name	777
Sequence	888
Action	☒ Permit ☐ Deny ☐ Shutdown
Protocol	☒ Any ☐ Select ICMP ☐ Define (0 - 255)
Source IP	☒ Any / (Address / Mask)
Destination IP	☒ Any / (Address / Mask)
Type of Service	☒ Any ☐ DSCP (0 - 63) ☐ IP Precedence (0 - 7)
Source Port	☒ Any ☐ Single (0 - 65535) ☐ Range - (0 - 65535)
Destination Port	☒ Any ☐ Single (0 - 65535) ☐ Range - (0 - 65535)
TCP Flags	Urg: ☐ Set ☐ Unset ☒ Don't care Ack: ☐ Set ☐ Unset ☒ Don't care Psh: ☐ Set ☐ Unset ☒ Don't care Rst: ☐ Set ☐ Unset ☒ Don't care Syn: ☐ Set ☐ Unset ☒ Don't care Fin: ☐ Set ☐ Unset ☒ Don't care
ICMP Type	☒ Any ☐ Select Echo Reply ☐ Define (0 - 255)
ICMP Code	☒ Any ☐ Define (0 - 255)

Apply
Close

Figure 129 - ACL > Add/Edit ACE

Item	Description
ACL Name	Display the ACL name to which an ACE is being added.
Sequence	Specify the sequence of the ACE. ACEs with higher sequence are processed first (1 is the highest sequence). Only available on Add dialog.
Action	Select the action for a match. ● Permit: Forward packets that meet the ACE criteria. ● Deny: Drop packets that meet the ACE criteria. ● Shutdown: Drop packets that meet the ACE criteria, and disable the port from where the packets were received. Such ports can be reactivated from the Port Settings page.
Protocol	Select the type of protocol for a match. ● Any (IP): All IP protocols are acceptable. ● Select from list: Select one of the following protocols from the drop-down list. ICMP/IPinIP/TCP/EGP/IGP/UDP/HMP/RDP/IPV6/IPV6:ROUT/IPV6:F RAG/ RSVP/IPV6:ICMP/OSPF/PIM/L2TP ● Protocol ID to match: Enter the protocol ID.
Source IP	Select the type for source IP address. ● Any: All source addresses are acceptable. ● User Defined: Only a source address or a range of source addresses which users define are acceptable. Enter the source IP address value and mask to which will be matched.
Destination IP	Select the type for destination IP address. ● Any: All destination addresses are acceptable. ● User Defined: Only a destination address or a range of destination addresses which users define are acceptable. Enter the destination IP address value and mask to which will be matched.
Source Port	Select the type of protocol for a match. Only available when protocol is TCP or UDP. ● Any: All source ports are acceptable. ● Single: Enter a single TCP/UDP source port to which packets are matched. ● Range: Select a range of TCP/UDP source ports to which the packet is matched. There are eight different port ranges that can be configured (shared between source and destination ports). TCP and UDP protocols each have eight port ranges.
Destination Port	Select the type of protocol for a match. Only available when protocol is TCP or UDP. ● Any: All source ports are acceptable. ● Single: Enter a single TCP/UDP source port to which packets are matched. ● Range: Select a range of TCP/UDP source ports to which the packet is matched. There are eight different port ranges that can be

	configured (shared between source and destination ports). TCP and UDP protocols each have eight port ranges.
TCP Flags	Select one or more TCP flags with which to filter packets. Filtered packets are either forwarded or dropped. Filtering packets by TCP flags increases packet control, which increases network security. Only available when protocol is TCP.
Type of Service	Select the type of service for a match. - Any: All types of service are acceptable. - DSCP to match: Enter a Differentiated Services Code Point (DSCP) to match. - IP Precedence to match: Enter a IP Precedence to match.
ICMP Type	Either select the message type by name or enter the message type number. Only available when protocol is ICMP. - Any: All message types are acceptable. - Select from list: Select message type by name. - Protocol ID to match: Enter the number of message type.
ICMP Code	Select the type for ICMP code. Only available when protocol is ICMP. - Any: All codes are acceptable. - User Defined: Enter an ICMP code to match.

III-11-5. ACL Binding

This page allow user to bind or unbind ACL rule to or from interface. IPv4 and Ipv6 ACL cannot be bound to the same port simultaneously.

To display ACL Binding page, click **ACL > ACL Binding**.

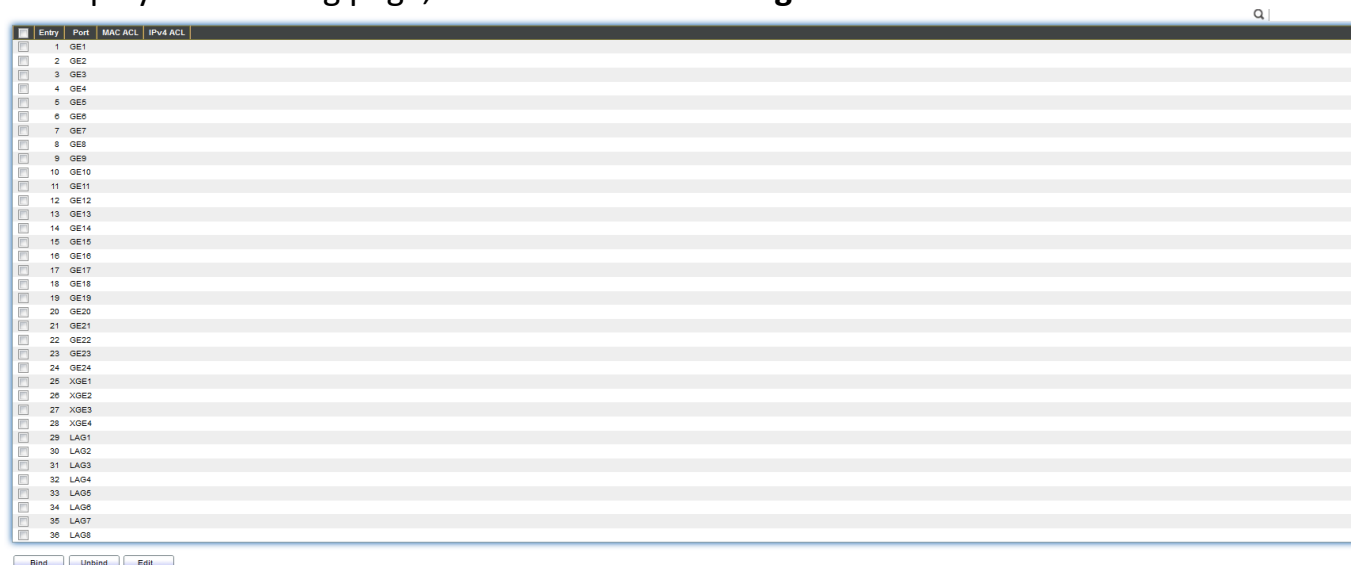


Figure 130 - ACL > ACL Binding

Item	Description
Port	Display port entry ID.
MAC ACL	Display mac ACL name that bound of interface. Empty means no rule bound.
IPv4 ACL	Display ipv4 ACL name that bound of interface. Empty means no rule bound.
IPv6 ACL	Display ipv6 ACL name that bound of interface. Empty means no rule bound.

Click “**Edit**” button to view the Edit ACL Binding menu.

Add ACL Binding

Port: GE1
Note: ACL without any rules cannot be bound

MAC ACL: None ▼

IPv4 ACL: None ▼

IPv6 ACL: None ▼

Apply Close

Figure 131 - ACL > Edit ACL Binding

Item	Description
Port	Display port entry ID.
MAC ACL	Select mac ACL name from list to bind.
IPv4 ACL	Select IPv4 ACL name from list to bind.
IPv6 ACL	Select IPv6 ACL name from list to bind.

III-12. QoS

Use the QoS pages to configure settings for the switch QoS interface.

III-12-1. General

Use the QoS general pages to configure settings for general purpose.

III-12-1-1. Property

To display Property web page, click **QoS > General > Property**.

Entry	Port	CoS	Trust	Remarking	
				CoS	IP Precedence
1	GE1	0	Enabled	Disabled	Disabled
2	GE2	0	Enabled	Disabled	Disabled
3	GE3	0	Enabled	Disabled	Disabled
4	GE4	0	Enabled	Disabled	Disabled
5	GE5	0	Enabled	Disabled	Disabled
6	GE6	0	Enabled	Disabled	Disabled
7	GE7	0	Enabled	Disabled	Disabled
8	GE8	0	Enabled	Disabled	Disabled
9	GE9	0	Enabled	Disabled	Disabled
10	GE10	0	Enabled	Disabled	Disabled
11	GE11	0	Enabled	Disabled	Disabled
12	GE12	0	Enabled	Disabled	Disabled
13	GE13	0	Enabled	Disabled	Disabled
14	GE14	0	Enabled	Disabled	Disabled
15	GE15	0	Enabled	Disabled	Disabled
16	GE16	0	Enabled	Disabled	Disabled
17	GE17	0	Enabled	Disabled	Disabled
18	GE18	0	Enabled	Disabled	Disabled
19	GE19	0	Enabled	Disabled	Disabled
20	GE20	0	Enabled	Disabled	Disabled
21	GE21	0	Enabled	Disabled	Disabled
22	GE22	0	Enabled	Disabled	Disabled
23	GE23	0	Enabled	Disabled	Disabled
24	GE24	0	Enabled	Disabled	Disabled
25	XGE1	0	Enabled	Disabled	Disabled
26	XGE2	0	Enabled	Disabled	Disabled
27	XGE3	0	Enabled	Disabled	Disabled
28	XGE4	0	Enabled	Disabled	Disabled
29	LA01	0	Enabled	Disabled	Disabled
30	LA02	0	Enabled	Disabled	Disabled
31	LA03	0	Enabled	Disabled	Disabled
32	LA04	0	Enabled	Disabled	Disabled
33	LA05	0	Enabled	Disabled	Disabled
34	LA06	0	Enabled	Disabled	Disabled
35	LA07	0	Enabled	Disabled	Disabled
36	LA08	0	Enabled	Disabled	Disabled

Figure 132 - QoS > General > Property

Item	Description
State	Set checkbox to enable/disable QoS.
Trust	Select QoS trust mode - CoS: Traffic is mapped to queues based on the CoS field in the VLAN tag, or based on the per-port default CoS value (if there is no VLAN tag on the incoming packet), the actual mapping of the CoS to queue can be configured on port setting dialog. - CoS-DSCP: Uses the trust CoS mode for non-IP traffic and trust DSCP mode for IP traffic. - IP Precedence: Traffic is mapped to queues based on the IP precedence. The actual mapping of the IP precedence to queue can be configured on the IP Precedence mapping page.
Port Setting Table	
Port	Port name
CoS	Port default CoS priority value for the selected ports.
Trust	Port trust state - Enabled: Traffic will follow trust mode in global setting - Disabled: Traffic will always use best efforts

Remarking (CoS)	Set checkbox to enable/disable port CoS remarking. ● Enabled: CoS remarking is enabled ● Disabled: CoS remarking is disabled
Remarking (IP Precedence)	Set checkbox to enable/disable port IP Precedence remarking. ● Enabled: DSCP remarking is enabled ● Disabled: DSCP remarking is disabled

Click **"Edit"** button to view the Edit Port Setting menu.

Figure 133 - Qos > General > Property

Item	Description
Port	Selected port list.
CoS	Set default CoS/802.1p priority value for the selected ports.
Trust	Set checkbox to enable/disable port trust state.
Remarking (CoS)	Set checkbox to enable/disable port CoS remarking.
Remarking (IP Precedence)	Set checkbox to enable/disable port IP Precedence remarking.

III-12-1-2. Queue Scheduling

The switch supports eight queues for each interface. Queue number 8 is the highest priority queue.

Queue number 1 is the lowest priority queue. There are two ways of determining how traffic in queues is handled, Strict Priority (SP) and Weighted Round Robin (WRR).

- Strict Priority (SP)—Egress traffic from the highest priority queue is transmitted first. Traffic from the lower queues is processed only after the highest queue has been

transmitted, which provide the highest level of priority of traffic to the highest numbered queue.

- **Weighted Round Robin (WRR)**—In WRR mode the number of packets sent from the queue is proportional to the weight of the queue (the higher the weight, the more frames are sent).

The queuing modes can be selected on the Queue page. When the queuing mode is by Strict Priority, the priority sets the order in which queues are serviced, starting with queue_8 (the highest priority queue) and going to the next lower queue when each queue is completed.

When the queuing mode is Weighted Round Robin, queues are serviced until their quota has been used up and then another queue is serviced. It is also possible to assign some of the lower queues to WRR, while keeping some of the higher queues in Strict Priority. In this case traffic for the SP queues is always sent before traffic from the WRR queues. After the SP queues have been emptied, traffic from the WRR queues is forwarded. (The relative portion from each WRR queue depends on its weight).

To display Queue Scheduling web page, click **QoS > General > Queue Scheduling**

Queue	Method			WRR Bandwidth (%)
	Strict Priority	WRR	Weight	
1	☒	☐	1	
2	☐	☐	2	
3	☐	☐	3	
4	☐	☐	4	
5	☐	☐	5	
6	☐	☐	9	
7	☐	☐	13	
8	☐	☐	15	

Apply

Figure 134 - QoS > General > Queue Scheduling

Item	Description
Queue	Queue ID to configure.
Strict Priority	Set queue to strict priority type.
WRR	Set queue to Weight round robin type.
Weight	If the queue type is WRR, set the queue weight for the queue.
WRR Bandwidth	Percentage of WRR queue bandwidth.

III-12-1-3. CoS Mapping

The CoS to Queue table determines the egress queues of the incoming packets based on the 802.1p priority in their VLAN tags. For incoming untagged packets, the 802.1p priority will be the default CoS/802.1p priority assigned to the ingress ports. Use the Queues to CoS table to remark the CoS/802.1p priority for egress traffic from each queue.

To display CoS Mapping web page, click **QoS > General > CoS Mapping**.

The screenshot displays the 'CoS Mapping' web page. It features two main sections, each with a table and an 'Apply' button.

CoS to Queue Mapping

CoS	Queue
0	2 ▼
1	1 ▼
2	3 ▼
3	4 ▼
4	5 ▼
5	6 ▼
6	7 ▼
7	8 ▼

Apply

Queue to CoS Mapping

Queue	CoS
1	1 ▼
2	0 ▼
3	2 ▼
4	3 ▼
5	4 ▼
6	5 ▼
7	6 ▼
8	7 ▼

Apply

Figure 135 - QoS > General > Cos Mapping

Item	Description
CoS to Queue Mapping	
CoS	CoS value.
Queue	Select queue id for the CoS value.
Queue to CoS Mapping	
Queue	Queue ID
CoS	Select CoS value for the queue id.

III-12-1-4. IP Precedence Mapping

This page allow user to configure IP Precedence to Queue mapping and Queue to IP Precedence mapping.

To display IP Precedence Mapping web page, click **QoS > General > IP Precedence Mapping**.

IP Precedence to Queue Mapping

IP Precedence	Queue
0	1 ▼
1	2 ▼
2	3 ▼
3	4 ▼
4	5 ▼
5	6 ▼
6	7 ▼
7	8 ▼

Apply

Queue to IP Precedence Mapping

Queue	IP Precedence
1	0 ▼
2	1 ▼
3	2 ▼
4	3 ▼
5	4 ▼
6	5 ▼
7	6 ▼
8	7 ▼

Apply

Figure 136 - QoS > General > IP Precedence Mapping

Item	Description
IP Precedence to Queue Mapping	
IP Precedence	IP Precedence value.
Queue	Queue value which IP Precedence is mapped.
Queue to IP Precedence Mapping	
Queue	Queue ID.
IP Precedence	IP Precedence value which queue is mapped.

III-12-2. Rate Limit

Use the Rate Limit pages to define values that determine how much traffic the switch can receive and send on specific port or queue.

III-12-2-1. Ingress/Egress Port

This page allow user to configure ingress port rate limit and egress port rate limit. The ingress rate limit is the number of bits per second that can be received from the ingress interface. Excess bandwidth above this limit is discarded.

To display Ingress / Egress Port web page, click **QoS > Rate Limit > Ingress / Egress Port**.

	Entry	Port	Ingress		Egress	
			State	Rate (Kbps)	State	Rate (Kbps)
☐	1	GE1	Enabled	10000	Enabled	10000
☐	2	GE2	Disabled		Disabled	
☐	3	GE3	Disabled		Disabled	
☐	4	GE4	Disabled		Disabled	
☐	5	GE5	Disabled		Disabled	
☐	6	GE6	Disabled		Disabled	
☐	7	GE7	Disabled		Disabled	
☐	8	GE8	Disabled		Disabled	
☐	9	GE9	Disabled		Disabled	
☐	10	GE10	Disabled		Disabled	
☐	11	GE11	Disabled		Disabled	
☐	12	GE12	Disabled		Disabled	
☐	13	GE13	Disabled		Disabled	
☐	14	GE14	Disabled		Disabled	
☐	15	GE15	Disabled		Disabled	
☐	16	GE16	Disabled		Disabled	
☐	17	GE17	Disabled		Disabled	
☐	18	GE18	Disabled		Disabled	
☐	19	GE19	Disabled		Disabled	
☐	20	GE20	Disabled		Disabled	
☐	21	GE21	Disabled		Disabled	
☐	22	GE22	Disabled		Disabled	
☐	23	GE23	Disabled		Disabled	
☐	24	GE24	Disabled		Disabled	
☐	25	XGE1	Disabled		Disabled	
☐	26	XGE2	Disabled		Disabled	
☐	27	XGE3	Disabled		Disabled	
☐	28	XGE4	Disabled		Disabled	

Edit

Figure 137 - QoS > Rate Limit > Ingress / Egress Port

Item	Description
Port	Port name.
Ingress (State)	Port ingress rate limit state ● Enabled: Ingress rate limit is enabled ● Disabled: Ingress rate limit is disabled
Ingress (Rate)	Port ingress rate limit value if ingress rate state is enabled.
IP Precedence	IP Precedence value which queue is mapped.
Egress (State)	Port egress rate limit state ● Enabled: Egress rate limit is enabled ● Disabled: Egress rate limit is disabled
Egress (Rate)	Port egress rate limit value if egress rate state is enabled.

Click "**Edit**" button to view the Ingress / Egress Port menu.

Edit Ingress / Egress Port

Port	GE1
Ingress	☐ Enable 1000000 Kbps (16 - 1000000)
Egress	☐ Enable 1000000 Kbps (16 - 1000000)

Apply Close

Figure 138 - QoS > Rate Limit > Ingress / Egress Port

Item	Description
Port	Select port list.
Ingress	Set checkbox to enable/disable ingress rate limit. If ingress rate limit is enabled, rate limit value need to be assigned.
Egress	Set checkbox to enable/disable egress rate limit. If egress rate limit is enabled, rate limit value need to be assigned.

III-13. Diagnostics

Use the Diagnostics pages to configure settings for the switch diagnostics feature or operating diagnostic utilities.

III-13-1. Logging

III-13-1-1. Property

To enable/disable the logging service, click **Diagnostic > Logging > Property**.

State

☒ Enable

Console Logging

State

☒ Enable

Minimum Severity

Notice ▼

Note: Emergency, Alert, Critical, Error, Warning, Notice

RAM Logging

State

☒ Enable

Minimum Severity

Notice ▼

Note: Emergency, Alert, Critical, Error, Warning, Notice

Flash Logging

State

☐ Enable

Minimum Severity

Notice ▼

Note: Emergency, Alert, Critical, Error, Warning, Notice

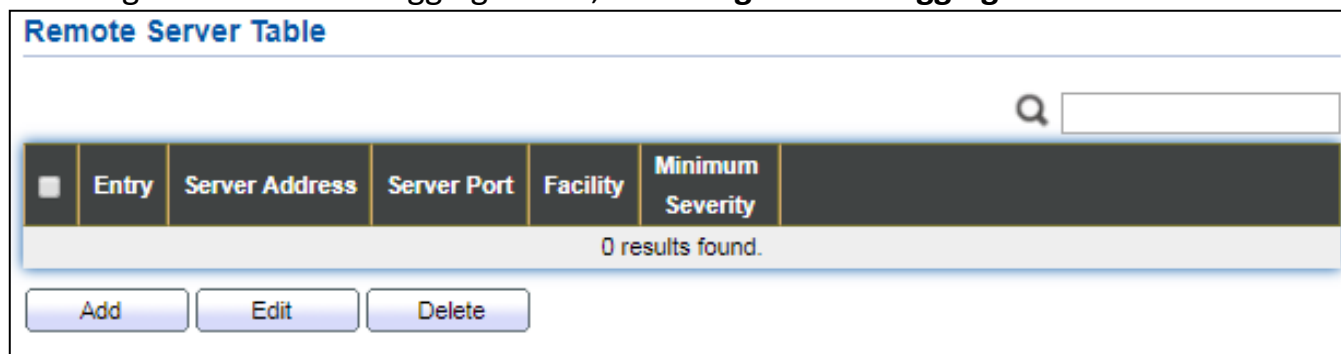
Apply

Figure 139 - Diagnostics > Logging > Property

Item	Description
State	Enable/Disable the global logging services. When the logging service is enabled, logging configuration of each destination rule can be individually configured. If the logging service is disabled, no messages will be sent to these destinations.
Console Logging	
State	Enable/Disable the console logging service
Minimum Severity	The minimum severity for the console logging.
RAM Logging	
State	Enable/Disable the RAM logging service.
Minimum Severity	The minimum severity for the RAM logging.
Flash Logging	
State	Enable/Disable the flash logging service.
Minimum Severity	The minimum severity for the flash loggin.

III-13-1-2. Remote Server

To configure the remote logging server, click **Diagnostic > Logging > Remote Server**.



Remote Server Table

Search:

☐	Entry	Server Address	Server Port	Facility	Minimum Severity
0 results found.					

Figure 140 - Diagnostics > Logging > Remote Server

Item	Description
Server Address	The IP address of the remote logging server.
Server Ports	The port number of the remote logging server.
Facility	The facility of the logging messages. It can be one of the following values: local0, local1, local2, local3, local4, local5, local6, and local7.
Minimum Severity	● Emergence: System is not usable. ● Alert: Immediate action is needed. ● Critical: System is in the critical condition. ● Error: System is in error condition ● Warning: System warning has occurred ● Notice: System is functioning properly, but a system notice has occurred. ● Informational: Device information. ● Debug: Provides detailed information about an event.

III-13-2. Mirroring

To display Port Mirroring web page, click **Diagnostics > Mirroring**.

Mirroring Table

Search:

	Session ID	State	Monitor Port	Ingress Port	Egress Port	
☐	1	Disabled	---	---	---	
☐	2	Disabled	---	---	---	
☐	3	Disabled	---	---	---	
☐	4	Disabled	---	---	---	

*** Allow the monitor port to send or receive normal packets

Figure 141 - Diagnostics > Mirroring

Item	Description
Session ID	Select mirror session ID.
State	Select mirror session state : port-base mirror or disable ● Enabled: Enable port based mirror ● Disabled: Disable mirror.
Monitor Port	Select mirror session monitor port, and select whether normal packet could be sent or received by monitor port.
Ingress port	Select mirror session source rx ports.
Egress port	Select mirror session source tx ports.

Click "**Edit**" button to view the Edit Mirroring menu.

Edit Mirroring

Session ID: 1

State: ☐ Enable

Monitor Port: GE1 ▼

☐ Send or Receive Normal Packet

Ingress Port

Available Port: GE1, GE2, GE3, GE4, GE5, GE6, GE7, GE8

Selected Port:

Egress Port

Available Port: GE1, GE2, GE3, GE4, GE5, GE6, GE7, GE8

Selected Port:

Apply Close

Figure 142 - Diagnostics > Mirroring > Edit Mirroring

Item	Description
Session ID	Selected mirror session ID.
State	Select mirror session state : port-base mirror or disable ● Enabled: Enable port based mirror ● Disabled: Disable mirror.
Monitor Port	Select mirror session monitor port, and select whether normal packet could be sent or received by monitor port.
Ingress port	Select mirror session source rx ports.
Egress port	Select mirror session source tx ports.

III-13-3. Ping

For the ping functionality, click **Diagnostic > Ping**.

The screenshot shows a web-based diagnostic tool for pinging a server. It has three main input sections: 'Address Type' with radio buttons for 'Hostname' (selected), 'IPv4', and 'IPv6'; 'Server Address' with an empty text box; and 'Count' with a text box containing '4' and a slider range from '1' to '65535'. Below these are 'Ping' and 'Stop' buttons. The 'Ping Result' section displays two tables. The first table, 'Packet Status', shows 'Status' as 'N/A', 'Transmit Packet' as '0', 'Receive Packet' as '0', and 'Packet Lost' as '0%'. The second table, 'Round Trip Time', shows 'Min', 'Max', and 'Average' all as '0.0 ms'.

Packet Status	
Status	N/A
Transmit Packet	0
Receive Packet	0
Packet Lost	0%

Round Trip Time	
Min	0.0 ms
Max	0.0 ms
Average	0.0 ms

Figure 143 - Diagnostics > Ping

Item	Description
Address Type	Specify the address type to “Hostname”or “IPv4”.
Server Address	Specify the Hostname/IPv4 address for the remote logging server.
Count	Specify the numbers of each ICMP ping request.

III-13-4. Traceroute

For trace route functionality, click **Diagnostic > Traceroute**.

The screenshot shows a configuration window for the Traceroute function. It includes three main input sections: 'Address Type' with 'Hostname' selected, 'Server Address' with an empty field, and 'Time to Live' with 'User Defined' unchecked and a value of 30. Below these are 'Apply' and 'Stop' buttons. The 'Traceroute Result' section is currently empty.

Figure 144 - Diagnostics > Traceroute

Item	Description
Address Type	Specify the address type to “Hostname” or “IPv4”.
Server Address	Specify the Hostname/IPv4 address for the remote logging server.
Time to Live	Specify the max hops of hosts for traceroute.

III-13-5. Copper Test

For copper length diagnostic, click **Diagnostic > Copper Test**.

Port GE1 ▼

Copper Test

Copper Test Result

Cable Status	
Port	N/A
Result	N/A
Length	N/A

Figure 145 - Diagnostics > Logging>Copper Test

Item	Description
Port	Specify the interface for the copper test.
Copper Test Result	
Port	The interface for the copper test.
Result	The status of copper test. It include: ● OK: Correctly terminated pair. ● Short Cable: Shorted pair. ● Open Cable: Open pair, no link partner. ● Impedance Mismatch: Terminating impedance is not in the reference range.
Length	Distance in meter from the port to the location on the cable where the fault was discovered.

III-13-6. Fiber Module

The Optical Module Status page displays the operational information reported by the Small Form-factor Pluggable (SFP) transceiver. Some information may not be available for SFPs without the supports of digital diagnostic monitoring standard SFF-8472.

To display the Optical Module Diagnostic page, click **Diagnostic > Fiber Module**.

Fiber Module Table								
Q								
	Port	Temperature (C)	Voltage (V)	Current (mA)	Output Power (mW)	Input Power (mW)	OE Present	Loss of Signal
☐	GE25	N/A	N/A	N/A	N/A	N/A	Remove	Loss
☐	GE26	N/A	N/A	N/A	N/A	N/A	Remove	Loss
☐	GE27	N/A	N/A	N/A	N/A	N/A	Remove	Loss
☐	GE28	N/A	N/A	N/A	N/A	N/A	Remove	Loss
Refresh Detail								

Figure 146 - Diagnostics > Logging>Fiber Module

Item	Description
Port	Interface or port number.
Temperature	Internally measured transceiver temperature.
Voltage	Internally measured supply voltage.
Current	Measured TX bias current.
Output Power	Measured TX output power in milliwatts.
Input Power	Measured RX received power in milliwatts.
Transmitter Fault	State of TX fault.
OE Present	Indicate transceiver has achieved power up and data is ready.
Loss of Signal	Loss of signal.
Refresh	Refresh the page.
Detail	The detail information on the specified port.

Click "**Detail**" button to view the Fiber Module Status menu

Fiber Module Status	
Port	GE25
OE Present	N/A
Loss of Signal	N/A
Transceiver Type	N/A
Connector Type	N/A
Ethernet Compliance Code	N/A
Transmission Media	N/A
Wavelength	N/A
Bitrate	N/A
Vendor OUI	N/A
Vendor Name	N/A
Vendor PN	N/A
Vendor Revision	N/A
Vendor SN	N/A
Date Code	N/A
Temperature (C)	N/A
Voltage (V)	N/A
Current (mA)	N/A
Output Power (mW)	N/A
Input Power (mW)	N/A

Refresh

Close

Figure 147 - Diagnostics > Logging>Fiber Module>Fiber Module Status

III-13-7. UDLD

Use the UDLD pages to configure settings of UDLD function.

III-13-7-1. Property

This page allow user to configure global and per interface settings of UDLD.

To display Property page, click **Diagnostics > UDLD > Property**.

Message Time

Sec (1 - 90, default 15)

Entry	Port	Mode	Bidirectional State	Operational Status	Neighbor
☐	1	GE1	Disabled	Unknown	0
☐	2	GE2	Disabled	Unknown	0
☐	3	GE3	Disabled	Unknown	0
☐	4	GE4	Disabled	Unknown	0
☐	5	GE5	Disabled	Unknown	0
☐	6	GE6	Disabled	Unknown	0
☐	7	GE7	Disabled	Unknown	0
☐	8	GE8	Disabled	Unknown	0
☐	9	GE9	Disabled	Unknown	0
☐	10	GE10	Disabled	Unknown	0
☐	11	GE11	Disabled	Unknown	0
☐	12	GE12	Disabled	Unknown	0
☐	13	GE13	Disabled	Unknown	0
☐	14	GE14	Disabled	Unknown	0
☐	15	GE15	Disabled	Unknown	0
☐	16	GE16	Disabled	Unknown	0
☐	17	GE17	Disabled	Unknown	0
☐	18	GE18	Disabled	Unknown	0
☐	19	GE19	Normal	Link down	0
☐	20	GE20	Normal	Link down	0
☐	21	GE21	Disabled	Unknown	0
☐	22	GE22	Disabled	Unknown	0
☐	23	GE23	Disabled	Unknown	0
☐	24	GE24	Disabled	Unknown	0
☐	25	XGE1	Disabled	Unknown	0
☐	26	XGE2	Disabled	Unknown	0
☐	27	XGE3	Disabled	Unknown	0
☐	28	XGE4	Disabled	Unknown	0

Figure 148 - Diagnostics > UDLD>Property

Item	Description
Message Time	Input the interval for sending message. Range is 1 -90 seconds.
Port	Display port ID of entry.
Mode	Display UDLD running mode of interface.
Bidirectional State	Display bidirectional state of interface.
Operational Status	Display operational status of interface.
Neighbor	Display the number of neighbor of interface.

Click "**Edit**" button to view the Fiber Module Status menu

Edit Port Setting

Port

Mode

GE1

☒ Disabled
 ☐ Normal
 ☐ Aggressive

Figure 149 - Diagnostics > UDLD>Property>Edit

Item	Description
Port	Display selected port to be edited.
Mode	Select UDLD running mode of interface. ● Disabled: Disable UDLD function. ● Normal: Running on normal mode that port goes to Link Up One phase after last neighbor ages out. ● Aggressive: Running on aggressive mode that port goes to Re-Establish phase after last neighbor ages out.

III-13-7-2. Neighbor

To display Neighbor page, click **Diagnostics > UDLD > Neighbor**

Neighbor Table

Search:

Entry	Expiration Time	Current Neighbor State	Device ID	Device Name	Port ID	Message Interval	Timeout Interval
0 results found.							

Figure 150 - Diagnostics > UDLD> Neighbor

Item	Description
Entry	Display entry index.
Expiration Time	Display expiration time before age out.
Current Neighbor State	Display neighbor current state.
Device ID	Display neighbor device ID.
Device Name	Display neighbor device name.
Port ID	Display neighbor port ID that connected.
Message Interval	Display neighbor message interval.
Timeout Interval	Display neighbor timeout interval.

III-14. Management

Use the Management pages to configure settings for the switch management features.

III-14-1. User Account

The default username/password is admin/admin. And default account is not able to be deleted.

Use this page to add additional users that are permitted to manage the switch or to change the passwords of existing users.

To display User Account web page, click **Management > User Account**.

User Account

Showing entries Showing 1 to 1 of 1 entries

☐	Username	Privilege
☐	admin	Admin

Figure 151 - Management > User Account

Item	Description
Username	User name of the account.
Privilege	Select privilege level for new account. ● Admin: Allow to change switch settings. Privilege value equals to 15. ● User: See switch settings only. Not allow to change it. Privilege level equals to 1.

Click **"Add"** or **"Edit"** button to view the Add/Edit User Account menu.

Add User Account

Username

Password

Confirm Password

Privilege ☒ Admin ☐ User

Edit User Account

Username
admin

Password

Confirm Password

Privilege
☒ Admin
☐ User

Apply
Close

Figure 152 - Management > User Account > Add/Edit User Account

Item	Description
Username	User name of the account.
Password	Set password of the account.
Confirm Password	Set the same password of the account as in "Password" field.
Privilege	Select privilege level for new account. ● Admin: Allow to change switch settings. Privilege value equals to 15. ● User: See switch settings only. Not allow to change it. Privilege level equals to 1.

III-14-2. Firewall

III-14-2-1. Upgrade / Backup

This page allow user to upgrade or backup firmware image through HTTP or TFTP server.

To display firmware upgrade or backup web page, click **Management > Firmware > Upgrade/Backup**.

The screenshot shows a web interface for firmware operations. It is divided into three main sections by dashed lines. The first section, labeled 'Action', contains two radio buttons: 'Upgrade' (which is selected) and 'Backup'. The second section, labeled 'Method', contains two radio buttons: 'TFTP' and 'HTTP' (which is selected). The third section, labeled 'Filename', contains a 'Choose File' button and a text box that currently displays 'No file chosen'. Below these sections is a single 'Apply' button.

Figure 153 - Management > Firewall > Upgrade/Backup

Item	Description
Action	Firmware operations ● Upgrade: Upgrade firmware from remote host to DUT. ● Backup: Backup firmware image from DUT to remote host.
Method	Firmware upgrade / backup method. ● TFTP: Using TFTP to upgrade/backup firmware. ● HTTP: Using WEB browser to upgrade/backup firmware.
Filename	Use browser to upgrade firmware, you should select firmware image file on your host PC.

To display firmware upgrade or backup web page, click **Management > Firmware > Upgrade/Backup**.

Active Image

☐ Image0
☒ Image1

Note: the image was selected for the next boot

Active Image	
Firmware	Image1
Version	1.00.07
Name	Edimax_PG28CB_V1.00.07_r380_vmlinux_web.bix
Size	6417775 Bytes
Created	2017-11-21 14:54:59

Backup Image	
Firmware	Image0
Version	1.00.06
Name	Edimax_PG28CB_V1.00.06_r373_vmlinux_web.bix
Size	6413996 Bytes
Created	2017-11-08 20:00:06

Apply

Figure 154 - Management > Fireware > Upgrade/Backup

Item	Description
Action	Firmware operations ● Upgrade: Upgrade firmware from remote host to DUT ● Backup: Backup firmware image from DUT to remote host
Method	Firmware upgrade / backup method ● TFTP: Using TFTP to upgrade/backup firmware. ● HTTP: Using WEB browser to upgrade/backup firmware.
Address Type	Specify TFTP server address type ● Hostname: Use domain name as server address ● IPv4: Use IPv4 as server address ● IPv6: Use IPv6 as server address
Server Address	Specify TFTP server address.
Filename	Firmware image file name on remote TFTP server

To display firmware upgrade or backup web page, click **Management > Firmware > Upgrade/Backup**.

The screenshot shows a configuration interface for firmware operations. It contains three sections: 'Action' with radio buttons for 'Upgrade' and 'Backup' (where 'Backup' is selected); 'Method' with radio buttons for 'TFTP' and 'HTTP' (where 'HTTP' is selected); and 'Firmware' with radio buttons for 'Image0' and 'Image1' (where 'Image0' is selected). An 'Apply' button is located at the bottom left of the configuration area.

Figure 155 - Management > Fireware > Upgrade/Backup

Item	Description
Action	Firmware operations ● Upgrade: Upgrade firmware from remote host to DUT ● Backup: Backup firmware image from DUT to remote host
Method	Firmware upgrade / backup method ● TFTP: Using TFTP to upgrade/backup firmware. ● HTTP: Using WEB browser to upgrade/backup firmware.
Firmware	Firmware partition need to backup ● Image0: Firmware image in flash partition 0 ● Image1: Firmware image in flash partition 1

To display the Fireware Upgrade/Backup web page, click **Management > Fireware > Upgrade/Backup**.

The screenshot shows a more detailed configuration interface for fireware operations. It includes sections for 'Action' (radio buttons for 'Upgrade' and 'Backup', with 'Backup' selected), 'Method' (radio buttons for 'TFTP' and 'HTTP', with 'TFTP' selected), 'Firmware' (radio buttons for 'Image0' and 'Image1', with 'Image0' selected), and 'Address Type' (radio buttons for 'Hostname', 'IPv4', and 'IPv6', with 'Hostname' selected). Below these are two text input fields labeled 'Server Address' and 'Filename'. An 'Apply' button is at the bottom left.

Figure 156 - Management > Fireware > Upgrade/Backup

Item	Description
Action	Firmware operations ● Upgrade: Upgrade firmware from remote host to DUT ● Backup: Backup firmware image from DUT to remote host
Method	Firmware upgrade / backup method ● TFTP: Using TFTP to upgrade/backup firmware. ● HTTP: Using WEB browser to upgrade/backup firmware.
Firmware	Firmware partition need to backup ● Image0: Firmware image in flash partition 0. ● Image1: Firmware image in flash partition 1.
Address Type	Specify TFTP server address type ● Hostname: Use domain name as server address. ● IPv4: Use IPv4 as server address. ● IPv6: Use IPv6 as server address.
Server Address	Specify TFTP server address address.
Filename	File name saved on remote TFTP server.

III-14-2-2. Active Image

This page allow user to select firmware image on next booting and show firmware information on both flash partitions.

To display the Active Image web page, click **Management > Firmware > Active Image**.

The screenshot shows a web interface for managing firmware images. At the top, there's a section titled 'Active Image' with two radio buttons: 'Image0' and 'Image1'. 'Image1' is selected. Below this, a note states: 'Note: the image was selected for the next boot'. The main content area is divided into two sections: 'Active Image' and 'Backup Image'. Each section contains a table of details.

Active Image	
Firmware	Image1
Version	1.00.07
Name	Edimax_PG28CB_V1.00.07_r380_vmlinux_web.bix
Size	6417775 Bytes
Created	2017-11-21 14:54:59

Backup Image	
Firmware	Image0
Version	1.00.06
Name	Edimax_PG28CB_V1.00.06_r373_vmlinux_web.bix
Size	6413996 Bytes
Created	2017-11-08 20:00:06

At the bottom of the form is an 'Apply' button.

Figure 157 - Management > Fireware > Active Image

Item	Description
Active Image	Select firmware image to use on next booting
Firmware	Firmware flash partition name.
Version	Firmware version.
Name	Firmware name.
Size	Firmware image size.
Created	Firmware image created date.

III-14-3. Configuration

III-14-3-1. Upgrade / Backup

This page allow user to upgrade or backup configuration file through HTTP or TFTP server.

To display firmware upgrade or backup web page, click **Management > Configuration > Upgrade/Backup**.

The screenshot shows a web interface for configuration upgrade/backup. It features a yellow background with a blue border. The interface is divided into four sections by dashed blue lines:

- Action:** Radio buttons for 'Upgrade' (selected) and 'Backup'.
- Method:** Radio buttons for 'TFTP' and 'HTTP' (selected).
- Configuration:** Radio buttons for 'Running Configuration' (selected), 'Startup Configuration', 'Backup Configuration', 'RAM Log', and 'Flash Log'.
- Filename:** A 'Choose File' button and the text 'No file chosen'.

An 'Apply' button is located at the bottom left of the form.

Figure 158 - Management > Configuration > Upgrade/Backup

Item	Description
Action	Configuration operations ● Upgrade: Upgrade firmware from remote host to DUT ● Backup: Backup firmware image from DUT to remote host
Method	Configuration upgrade / backup method ● TFTP: Using TFTP to upgrade/backup firmware ● HTTP: Using WEB browser to upgrade/backup firmware
Configuration	Configuration types ● Running Configuration: Merge to current running configuration file ● Startup Configuration: Replace startup configuration file ● Backup Configuration: Replace backup configuration file
Filename	Use browser to upgrade configuration, you should select configuration file on your host PC.

To display firmware upgrade or backup web page, click **Management > Configuration > Upgrade/Backup**.

The screenshot shows a web interface for configuration management. It features a sidebar on the left with a tree structure containing 'Management', 'Configuration', and 'Upgrade/Backup'. The main content area is titled 'Upgrade/Backup' and contains several sections, each with a title and a list of options or input fields:

- Action:** Radio buttons for 'Upgrade' (selected) and 'Backup'.
- Method:** Radio buttons for 'TFTP' (selected) and 'HTTP'.
- Configuration:** Radio buttons for 'Running Configuration' (selected), 'Startup Configuration', 'Backup Configuration', 'RAM Log', and 'Flash Log'.
- Address Type:** Radio buttons for 'Hostname' (selected), 'IPv4', and 'IPv6'.
- Server Address:** A text input field.
- Filename:** A text input field.

An 'Apply' button is located at the bottom left of the main content area.

Figure 159 - Management > Configuration > Upgrade/Backup

Item	Description
Action	Configuration operations ● Upgrade: Upgrade firmware from remote host to DUT ● Backup: Backup firmware image from DUT to remote host
Method	Configuration upgrade / backup method ● TFTP: Using TFTP to upgrade/backup firmware ● HTTP: Using WEB browser to upgrade/backup firmware
Configuration	Configuration types ● Running Configuration: Merge to current running configuration file ● Startup Configuration: Replace startup configuration file ● Backup Configuration: Replace backup configuration file
Address Type	Specify TFTP server address type ● Hostname: Use domain name as server address ● IPv4: Use IPv4 as server address ● IPv6: Use IPv6 as server address
Server Address	Specify TFTP server address address
Filename	File name saved on remote TFTP server

To display firmware upgrade or backup web page, click **Management > Configuration > Upgrade/Backup**.

The screenshot shows a web interface for configuring firmware upgrade or backup. It features three main sections: 'Action', 'Method', and 'Configuration'. Each section has a set of radio buttons. In the 'Action' section, 'Backup' is selected. In the 'Method' section, 'HTTP' is selected. In the 'Configuration' section, 'Running Configuration' is selected. An 'Apply' button is located at the bottom left of the configuration area.

Figure 160 - Management > Configuration > Upgrade/Backup

Item	Description
Action	Configuration operations ● Upgrade: Upgrade firmware from remote host to DUT ● Backup: Backup firmware image from DUT to remote host
Method	Configuration upgrade / backup method ● TFTP: Using TFTP to upgrade/backup firmware ● HTTP: Using WEB browser to upgrade/backup firmware
Configuration	Configuration types ● Running Configuration: Backup running configuration file. ● Startup Configuration: Backup start configuration file. ● Backup Configuration: Backup backup configuration file. ● RAM Log: Backup log file stored in RAM. ● Flash Log: Backup log files store in Flash.

To display firmware upgrade or backup web page, click **Management > Configuration > Upgrade/Backup**

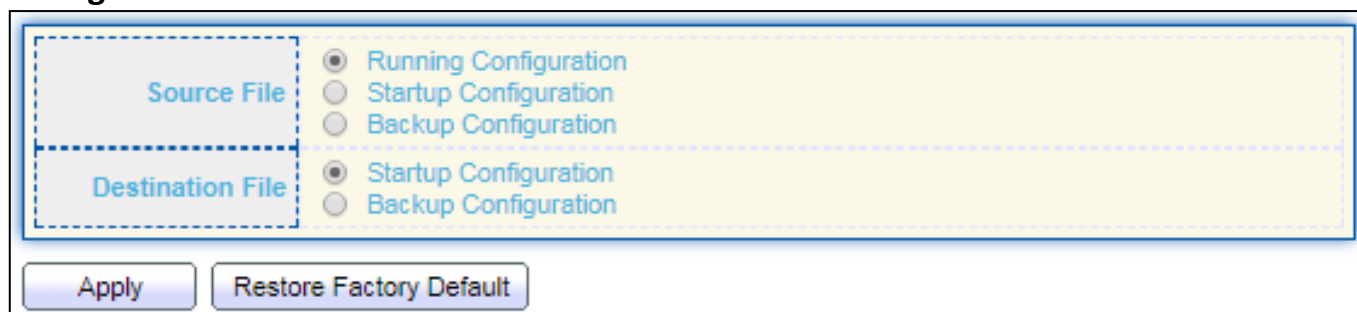
Figure 161- Management > Configuration > Upgrade/Backup

Item	Description
Action	Configuration operations ● Upgrade: Upgrade firmware from remote host to DUT ● Backup: Backup firmware image from DUT to remote host
Method	Configuration upgrade / backup method ● TFTP: Using TFTP to upgrade/backup firmware ● HTTP: Using WEB browser to upgrade/backup firmware
Configuration	Configuration types ● Running Configuration: Backup running configuration file. ● Startup Configuration: Backup start configuration file. ● Backup Configuration: Backup backup configuration file. ● RAM Log: Backup log file stored in RAM. ● Flash Log: Backup log files store in Flash.
Address Type	Specify TFTP server address type ● Hostname: Use domain name as server address ● IPv4: Use IPv4 as server address ● IPv6: Use IPv6 as server address
Server Address	Specify TFTP server address address.
Filename	File name saved on remote TFTP server.

III-14-3-2. Save Configuration

This page allow user to manage configuration file saved on DUT and click “**Restore Factory Default**” button to restore factory defaults.

To display the Save Configuration web page, click **Management > Configuration > Save Configuration**.



The screenshot shows a web interface for saving configuration. It has two main sections: 'Source File' and 'Destination File'. The 'Source File' section has three radio buttons: 'Running Configuration' (selected), 'Startup Configuration', and 'Backup Configuration'. The 'Destination File' section has two radio buttons: 'Startup Configuration' (selected) and 'Backup Configuration'. At the bottom, there are two buttons: 'Apply' and 'Restore Factory Default'.

Figure 162 - Management > Configuration > Save Configuration

Item	Description
Source File	Source file types ● Running Configuration: Copy running configuration file to destination. ● Startup Configuration: Copy startup configuration file to destination. ● Backup Configuration: Copy backup configuration file to destination
Destination File	Destination file ● Startup Configuration: Save file as startup configuration. ● Backup Configuration: Save file as backup configuration.

III-14-4. SNMP

III-14-4-1. View

To configure and display the SNMP view table, click **Management > SNMP > View**.

View Table

Showing All entries Showing 1 to 1 of 1 entries

☐	View	OID Subtree	Type
☐	all	.1	Included

First Previous **1** Next Last

Add Delete

Figure 163 - Management > SNMP > View

Item	Description
View	The SNMP view name. Its maximum length is 30 characters
OID Subtree	Specify the ASN.1 subtree object identifier (OID) to be included or excluded from the SNMP view
Type	Include or exclude the selected MIBs in the view

III-14-4-2. Group

To configure and display the SNMP group settings, click **Management > SNMP > Group**.

Group Table

Showing All entries Showing 0 to 0 of 0 entries

☐	Group	Version	Security Level	View		
				Read	Write	Notify
0 results found.						

First Previous **1** Next Last

Configure [SNMP View](#) to associate a non-default view with a group.

Add Edit Delete

Figure 164 - Management > SNMP > Group

Item	Description
Group	Specify SNMP group name, and the maximum length is 30 characters.
Version	Specify SNMP version ● SNMPv1: SNMP Version 1. ● SNMPv2: Community-based SNMP Version 2. ● SNMPv3: User security model SNMP version 3.
Security Level	Specify SNMP security level ● No Security: Specify that no packet authentication is performed. ● Authentication: Specify that no packet authentication without encryption is performed. ● Authentication and Privacy: Specify that no packet

	authentication with encryption is performed.
View	
Read	Group read view name.
Write	Group write view name.
Notify	The view name that sends only traps with contents that is included in SNMP view selected for notification.

Click "**Add**" or "**Edit**" button to view the Add/Edit Group menu.

Add Group

Group

Version

☒ SNMPv1
☐ SNMPv2
☐ SNMPv3

Security Level

☒ No Security
☐ Authentication
☐ Authentication and Privacy

View

☒ Read

all ▼

☐ Write

all ▼

☐ Notify

all ▼

Apply

Close

Edit Group

Group

1

Version

☒ SNMPv1
☐ SNMPv2
☐ SNMPv3

Security Level

☒ No Security
☐ Authentication
☐ Authentication and Privacy

View

☒ Read

all ▼

☐ Write

all ▼

☐ Notify

all ▼

Apply

Close

Figure 165 - Management > SNMP > Group > Add/Edit Group

Item	Description
Group	Specify SNMP group name, and the maximum length is 30 characters.
Version	Specify SNMP version ● SNMPv1: SNMP Version 1. ● SNMPv2: Community-based SNMP Version 2. ● SNMPv3: User security model SNMP version 3.

Security Level	Specify SNMP security level ● No Security : Specify that no packet authentication is performed. ● Authentication: Specify that no packet authentication without encryption is performed. ● Authentication and Privacy: Specify that no packet authentication with encryption is performed.
View	
Read	Select read view name if Read is checked.
Write	Select write view name, if Write is checked.
Notify	Select notify view name, if Notify is checked.

III-14-4-3. Community

To configure and display the SNMP community settings, click **Management > SNMP > Community**.

Community Table

Showing **All** entries Showing 1 to 1 of 1 entries

☐	Community	Group	View	Access
☐	public	all		Read-Write

First Previous 1 Next Last

The access right of a community is defined by a group under advanced mode.
Configure [SNMP Group](#) to associate a group with a community.

Add Edit Delete

Figure 166 - Management > SNMP > Community

Item	Description
Community	The SNMP community name. Its maximum length is 20 characters.
Group	Specify the SNMP group configured by the command snmp group to define the object available to the community.
View	Specify the SNMP view to define the object available to the community.
Access	SNMP access mode ● Read-Only: Read only. ● Read-Write: Read and write.

Click **"Add"** or **"Edit"** button to view the Add/Edit Community menu.

Add Community

Community

Type

View

Access

Group

☒ Basic
 ☐ Advanced

all ▼

☒ Read-Only
 ☐ Read-Write

1 ▼

Apply

Close

Edit Community

Community

Type

View

Access

Group

public

☒ Basic
 ☐ Advanced

all ▼

☐ Read-Only
 ☒ Read-Write

1 ▼

Apply

Close

Figure 167 - Management > SNMP > Group > Add/Edit Community

Item	Description
Community	The SNMP community name. Its maximum length is 20 characters.
Type	SNMP Community mode ● Basic: SNMP community specifies view and access right. ● Advanced: SNMP community specifies group.
View	Specify the SNMP view to define the object available to the community.
Access	SNMP access mode ● Read-Only: Read only. ● Read-Write: Read and write.
Group	Specify the SNMP group configured by the command snmp group to define the object available to the community.

III-14-4-4. User

To configure and display the SNMP users, click **Management > SNMP > User**.

User Table

Showing **All** entries Showing 0 to 0 of 0 entries

User	Group	Security Level	Authentication Method	Privacy Method
0 results found.				

First Previous **1** Next Last

Configure [SNMP Group](#) to associate an SNMPv3 group with an SNMPv3 user.

[Add](#) [Edit](#) [Delete](#)

Figure 168 - Management > SNMP > User

Item	Description
User	Specify the SNMP user name on the host that connects to the SNMP agent. The max character is 30 characters. For the SNMP v1 or v2c, the user name must match the community name.
Group	Specify the SNMP group to which the SNMP user belongs.
Security Level	SNMP privilege mode ● No Security: Specify that no packet authentication is performed. ● Authentication: Specify that no packet authentication without encryption is performed. ● Authentication and Privacy: Specify that no packet authentication with encryption is performed.
Authentication Method	Authentication Protocol which is available when Privilege Mode is Authentication or Authentication and Privacy. ● None: No authentication required. ● MD5: Specify the HMAC-MD5-96 authentication protocol. ● SHA: Specify the HMAC-SHA-96 authentication protocol
Privacy Method	Encryption Protocol ● None: No privacy required. ● DES: DES algorithm

Click "Add" or "Edit" button to view Add/Edit User menu.

Add User

User

Group

11 ▼

Security Level

☒ No Security

☐ Authentication

☐ Authentication and Privacy

Authentication

Method

☒ None

☐ MD5

☐ SHA

Password

Privacy

Method

☒ None

☐ DES

Password

Apply

Close

Edit User

User

22

Group

11 ▼

Security Level

☒ No Security

☐ Authentication

☐ Authentication and Privacy

Authentication

Method

☒ None

☐ MD5

☐ SHA

Password

Privacy

Method

☒ None

☐ DES

Password

Apply

Close

Figure 169 - Management > SNMP > User > Add/Edit User

Item	Description
User	Specify the SNMP user name on the host that connects to the SNMP agent. The max character is 30 characters.
Group	Specify the SNMP group to which the SNMP user belongs.
Security Level	SNMP privilege mode ● No Security: Specify that no packet authentication is performed. ● Authentication: Specify that no packet authentication without encryption is performed. ● Authentication and Privacy: Specify that no packet authentication with encryption is performed.
Authentication	
Method	Authentication Protocol which is available when Privilege Mode is Authentication or Authentication and Privacy. ● None: No authentication required. ● MD5: Specify the HMAC-MD5-96 authentication protocol. ● SHA: Specify the HMAC-SHA-96 authentication protocol.
Password	The authentication password, The number of character range is 8 to 32 characters.
Privacy	
Method	Encryption Protocol ● None: No privacy required. ● DES: DES algorithm
Password	The privacy password, The number of character range is 8 to 64 characters.

III-14-4-5. Engine ID

To configure and display SNMP local and remote engine ID, click Management > SNMP > Engine ID.

Local Engine ID

Engine ID

☐ User Defined

80006a920374da38176e7 (10 - 64 Hexadecimal Characters)

Apply

Remote Engine ID Table

Showing All entries Showing 0 to 0 of 0 entries

Server Address

Engine ID

0 results found.

Add

Edit

Delete

First

Previous

1

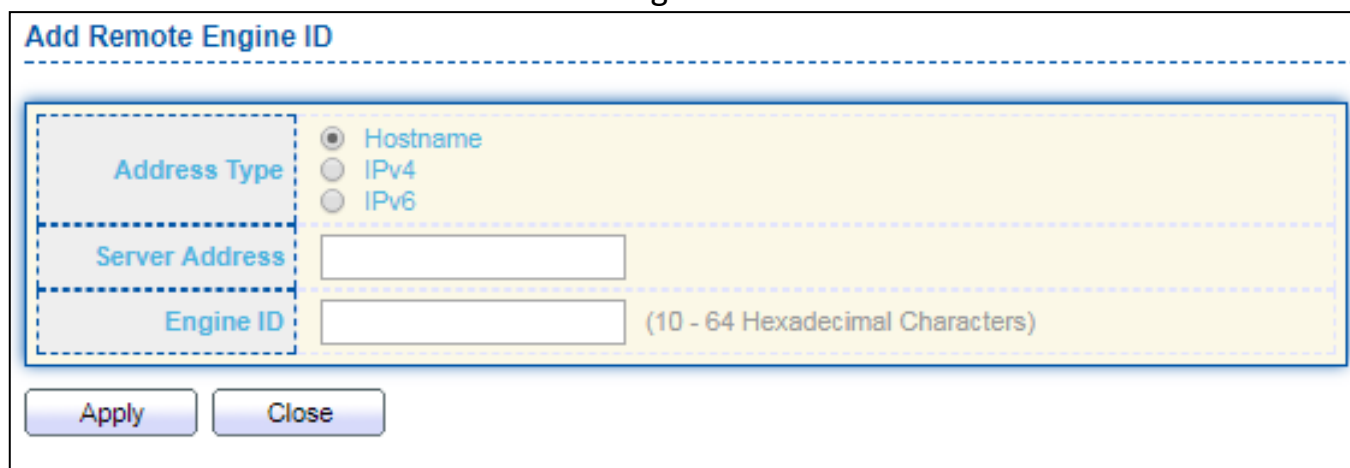
Next

Last

Figure 170 - Management > SNMP > Engine ID

Item	Description
Local Engine ID	
Engine ID	If checked “User Defined”, the local engine ID is configure by user, else use the default Engine ID which is made up of MAC and Enterprise ID. The user defined engine ID is range 10 to 64 hexadecimal characters, and the hexadecimal number must be divided by 2.
Remote Engine ID Table	
Table	
Server Address	Remote host.
Engine ID	Specify Remote SNMP engine ID. The engine ID is range10 to 64 hexadecimal characters, and the hexadecimal number must be divided by 2.

Click "**Add**" button to view Add Remote Engine ID menu.

The dialog box is titled "Add Remote Engine ID" in blue text at the top. It contains three input fields: "Address Type" with three radio buttons (Hostname is selected), "Server Address" with an empty text box, and "Engine ID" with an empty text box and a note "(10 - 64 Hexadecimal Characters)". At the bottom are "Apply" and "Close" buttons.

Add Remote Engine ID

Address Type: ☒ Hostname, ☐ IPv4, ☐ IPv6

Server Address:

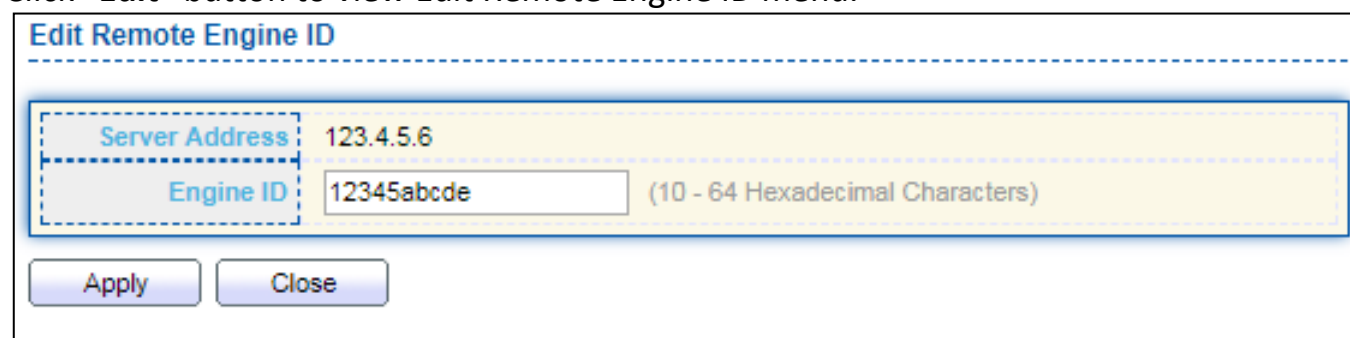
Engine ID: (10 - 64 Hexadecimal Characters)

Apply Close

Figure 171 - Management > SNMP > Add Engine ID

Item	Description
Address Type	Remote host address type for Hostname/IPv4/IPv6.
Server Address	Remote host.
Engine ID	Specify Remote SNMP engine ID. The engine ID is range10 to 64 hexadecimal characters, and the hexadecimal number must be divided by 2.

Click "**Edit**" button to view Edit Remote Engine ID menu.

The dialog box is titled "Edit Remote Engine ID" in blue text at the top. It contains two input fields: "Server Address" with the value "123.4.5.6" and "Engine ID" with the value "12345abcde" and a note "(10 - 64 Hexadecimal Characters)". At the bottom are "Apply" and "Close" buttons.

Edit Remote Engine ID

Server Address: 123.4.5.6

Engine ID: 12345abcde (10 - 64 Hexadecimal Characters)

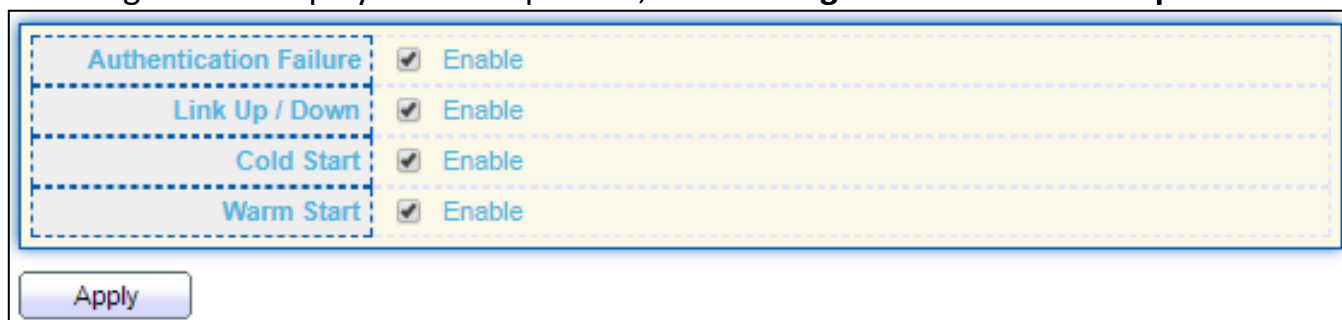
Apply Close

Figure 172 - Management > SNMP > Edit Engine ID

Item	Description
Server Address	Edit Remote host address
Engine ID	Specify Remote SNMP engine ID. The engine ID is range10 to 64 hexadecimal characters, and the hexadecimal number must be divided by 2.

III-14-4-6. Trap Event

To configure and display SNMP trap event, click **Management > SNMP > Trap Event**.



Authentication Failure	☒ Enable
Link Up / Down	☒ Enable
Cold Start	☒ Enable
Warm Start	☒ Enable

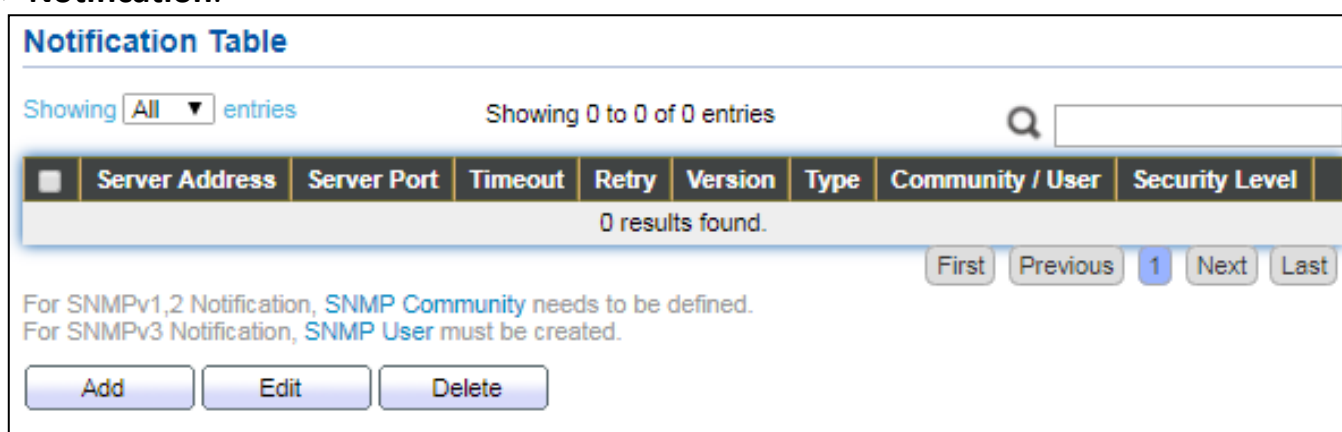
Apply

Figure 173 - Management > SNMP > Trap Event

Item	Description
Authentication Failure	SNMP authentication failure trap, when community not match or user authentication password not match.
Link Up/Down	Port link up or down trap.
Cold Start	Device reboot configure by user trap.
Warm Start	Device reboot by power down trap.

III-14-4-7. Notification

To configure the hosts to receive SNMPv1/v2/v3 notification, click **Management > SNMP > Notification**.



Notification Table

Showing **All** entries Showing 0 to 0 of 0 entries

	Server Address	Server Port	Timeout	Retry	Version	Type	Community / User	Security Level
0 results found.								

First Previous 1 Next Last

For SNMPv1,2 Notification, **SNMP Community** needs to be defined.
For SNMPv3 Notification, **SNMP User** must be created.

Add Edit Delete

Figure 174 - Management > SNMP > Notification

Item	Description
Server Address	IP address or the hostname of the SNMP trap recipients.
Server Port	Recipients server UDP port number.
Timeout	Specify the SNMP informs timeout.
Retry	Specify the retry counter of the SNMP informs.

Version	Specify SNMP notification version ● SNMPv1: SNMP Version 1 notification. ● SNMPv2: SNMP Version 2 notification. ● SNMPv3: SNMP Version 3 notification.
Type	Notification Type ● Trap: Send SNMP traps to the host. ● Inform: Send SNMP informs to the host.
Community/User	SNMP community/user name for notification. If version is SNMPv3 the name is user name, else is community name.
UDP Port	Specify the UDP port number.
Timeout	Specify the SNMP informs timeout.
Security Level	SNMP trap packet security level ● No Security: Specify that no packet authentication is performed. ● Authentication: Specify that no packet authentication without encryption is performed. ● Authentication and Privacy: Specify that no packet authentication with encryption is performed.

Click "**Add**" button to view the Notification menu.

Add Notification

Address Type	☒ Hostname ☐ IPv4 ☐ IPv6
Server Address	
Version	☒ SNMPv1 ☐ SNMPv2 ☐ SNMPv3
Type	☒ Trap ☐ Inform
Community / User	public
Security Level	☒ No Security ☐ Authentication ☐ Authentication and Privacy
Server Port	☒ Use Default 162 (1 - 65535, default 162)
Timeout	☒ Use Default 15 Sec (1 - 300, default 15)
Retry	☒ Use Default 3 (1 - 255, default 3)

Figure 175 - Management > SNMP > Notification > Add Notification

Item	Description
Address Type	Notify recipients host address type.
Server Address	IP address or the hostname of the SNMP trap recipients.
Version	Specify SNMP notification version ● SNMPv1: SNMP Version 1 notification. ● SNMPv2: SNMP Version 2 notification. ● SNMPv3: SNMP Version 3 notification.
Type	Notification Type ● Trap: Send SNMP traps to the host. ● Inform: Send SNMP informs to the host.(version 1 have no inform)
Community/User	SNMP community/user name for notification. If version is SNMPv3 the name is user name, else is community name.
Security Level	SNMP notification packet security level, the security level must less than or equal to the community/user name ● No Security: Specify that no packet authentication is performed. ● Authentication: Specify that no packet authentication without encryption is performed. ● Authentication and Privacy: Specify that no packet authentication with encryption is performed.
Server Port	Recipients server UDP port number, if “use default” checked the value is 162, else user configure.
Timeout	Specify the SNMP informs timeout, if “use default” checked the value is 15, else user configure.
Retry	Specify the SNMP informs retry count, if “use default” checked the value is 3, else user configure.

Click "**Edit**" button to view the Edit Notification menu.

Figure 176 - Management > SNMP > Notification > Edit Notification

Item	Description
Server Address	Edit SNMP notify recipients address
Version	Specify SNMP notification version ● SNMPv1: SNMP Version 1 notification. ● SNMPv2: SNMP Version 2 notification. ● SNMPv3: SNMP Version 3 notification.
Type	Notification Type ● Trap: Send SNMP traps to the host. ● Inform: Send SNMP informs to the host.(version 1 have no inform)
Community/User	SNMP community/user name for notification. If version is SNMPv3 the name is user name, else is community name.
Community Level	SNMP notification packet security level, the security level must less than or equal to the community/user name ● No Security: Specify that no packet authentication is performed. ● Authentication: Specify that no packet authentication without encryption is performed. ● Authentication and Privacy: Specify that no packet authentication with encryption is performed.
Server Port	Recipients server UDP port number, if “use default” checked the value

	is 162, else user configure.
Timeout	Specify the SNMP informs timeout, if “use default” checked the value is 15, else user configure.
Retry	Specify the SNMP informs retry count, if “use default” checked the value is 3, else user configure.

III-14-5. Time Range

This page shows the information of days, start time and end time of the time range.

Time Range

Range Name	Days	Start Time	End Time
☐ time-1	Mon, Tue, Wed, Thu, Fri, Sat, Sun	01:00	11:30
Add Edit Delete			

To view the Time Range Edit page, please click the ‘Edit’ button.

Time Range Edit

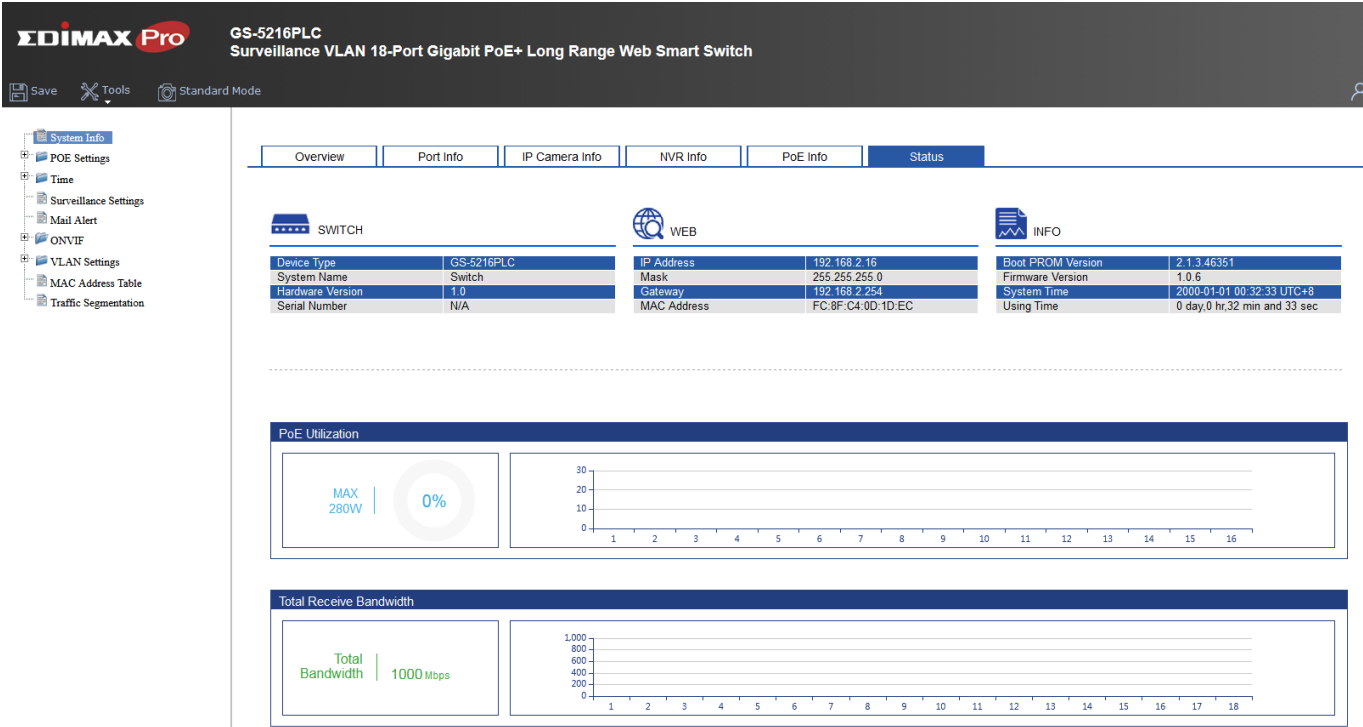
Range Name	time-1		
Date	☒ Mon ☒ Tue ☒ Wed ☒ Thu ☒ Fri ☒ Sat ☒ Sun		
	From 01:00	to	11:30

V. Surveillance Mode

The simple and intuitive GUI of Surveillance Mode provides real-time device and network information

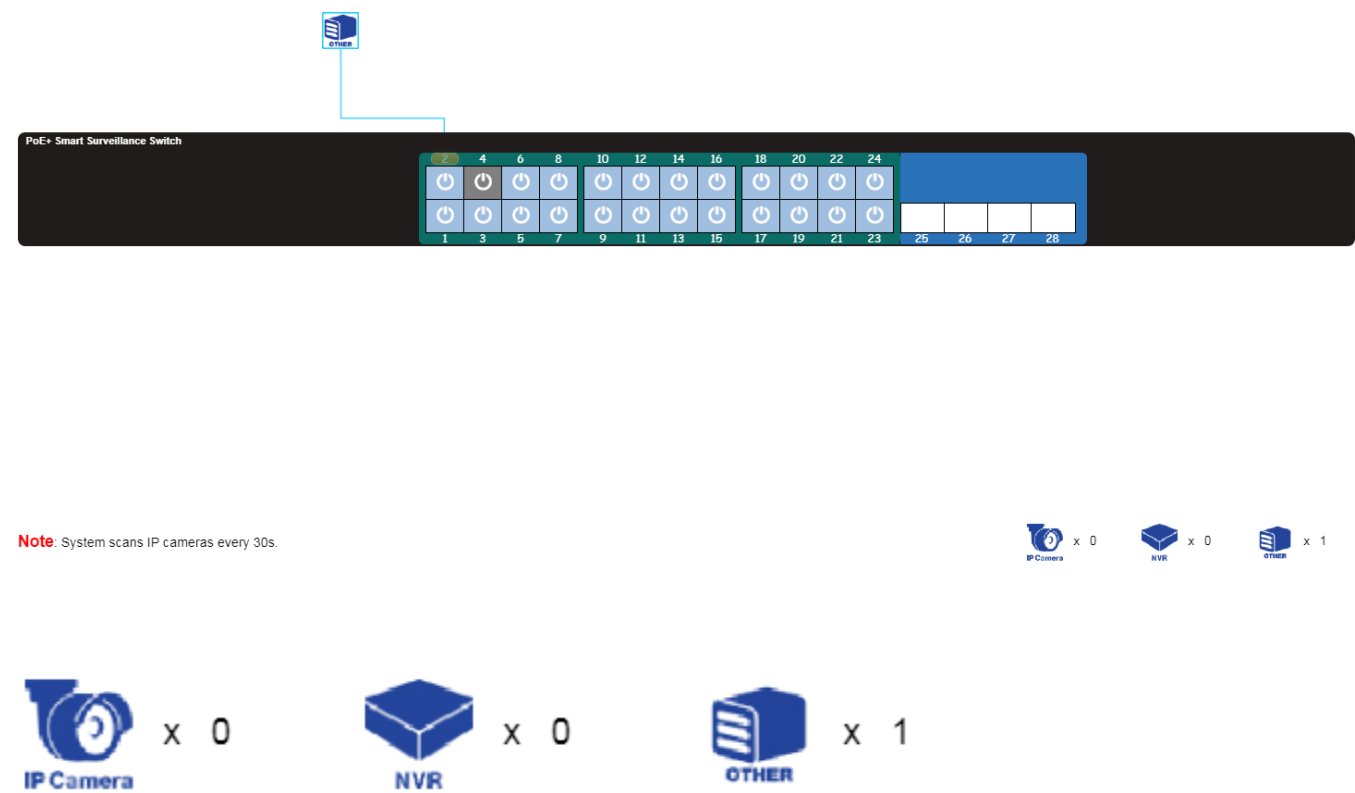
IV-1. Home Page

The figure below shows the user interface.



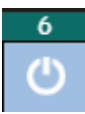
IV-1-1. Overview

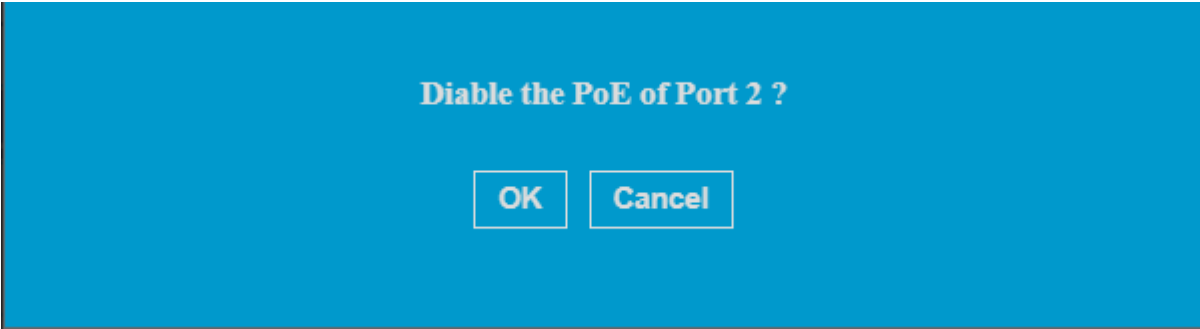
This page displays information and configuration options for the switch. It contains a diagram of the switch, including an overview of the devices connected to the switch.



There is a device count at the bottom of the page, listing the number of connected IP-Cameras, NVRs and other (unrecognized devices).

NOTE: System scans IP camera every 30s.

You can remote control the PoE port by clicking the power button  on the switch



Item	Description
	The total number of IP-Cameras connected to the switch.
	The total number of NVRs connected to the switch.
	The number of unknown devices connected to the switch.

Item	Description
	PoE is enabled on the port.
	PoE is disabled on the port.

IV-1-2. Port Info

In this page you can check the status of PoE port, loopback detection and the range of the distance.

PoE+ Smart Surveillance Switch

2 4 6 8 10 12 14 16 18 20 22 24

1 3 5 7 9 11 13 15 17 19 21 23 25 26 27 28

 x 1

 x 0

 x 0

 x 1

2



Loopback Detection: OFF

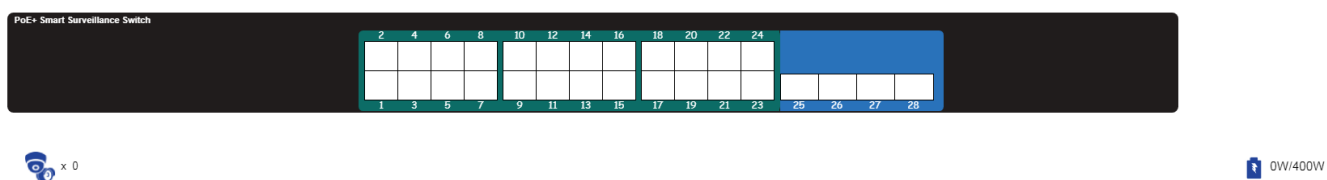
Distance: < 0.5m

151

Item	Description
PoE port	Shows the PoE port is connected with IP camera, NVR or others
loopback detection	Loopback Detection (LBD) provides protection against loops by transmitting loop protocol packets out of ports on which loop protection has been enabled. When the switch sends out a loop protocol packet, and then receives the same packet, it shuts down the port that received the packet.
Distance	It shows the cable length (in meters)

IV-1-3. IP Camera Info

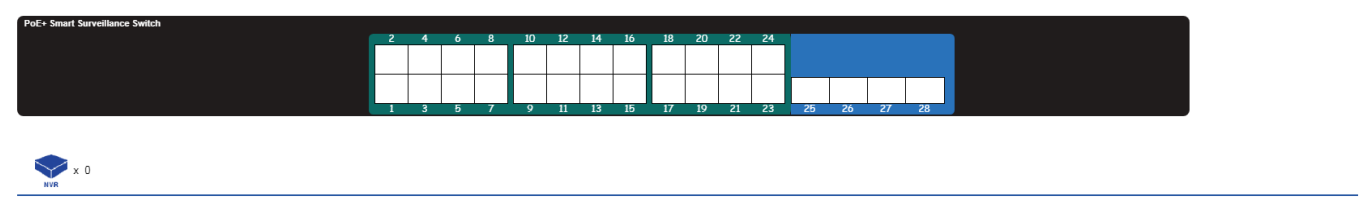
The IP-Camera Information section provides information on each camera connected to the switch.



Item	Description
	The PoE consumption of the switch. This is listed as one negative integer and one positive integer. The negative integer is the power being consumed by the PoE devices connected to the switch. The positive integer is the total PoE budget for the ports currently using PoE, based on the type of PoE in use.
	The total number of ONVIF IP-Cameras connected to the switch.

IV-1-4. NVR Info

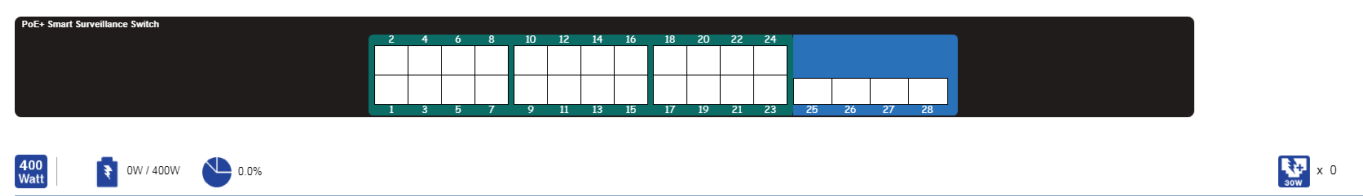
The NVR Information section provides information on each NVR connected to the switch.



Item	Description
	The total number of NVRs connected to the switch.

IV-1-5. PoE Info

The PoE Information section provides information on the PoE usage of each port.



PoE On/Off: On
PoE Status: Delivering
PoE Budget: Up to 30W
Power Consumption: 4W

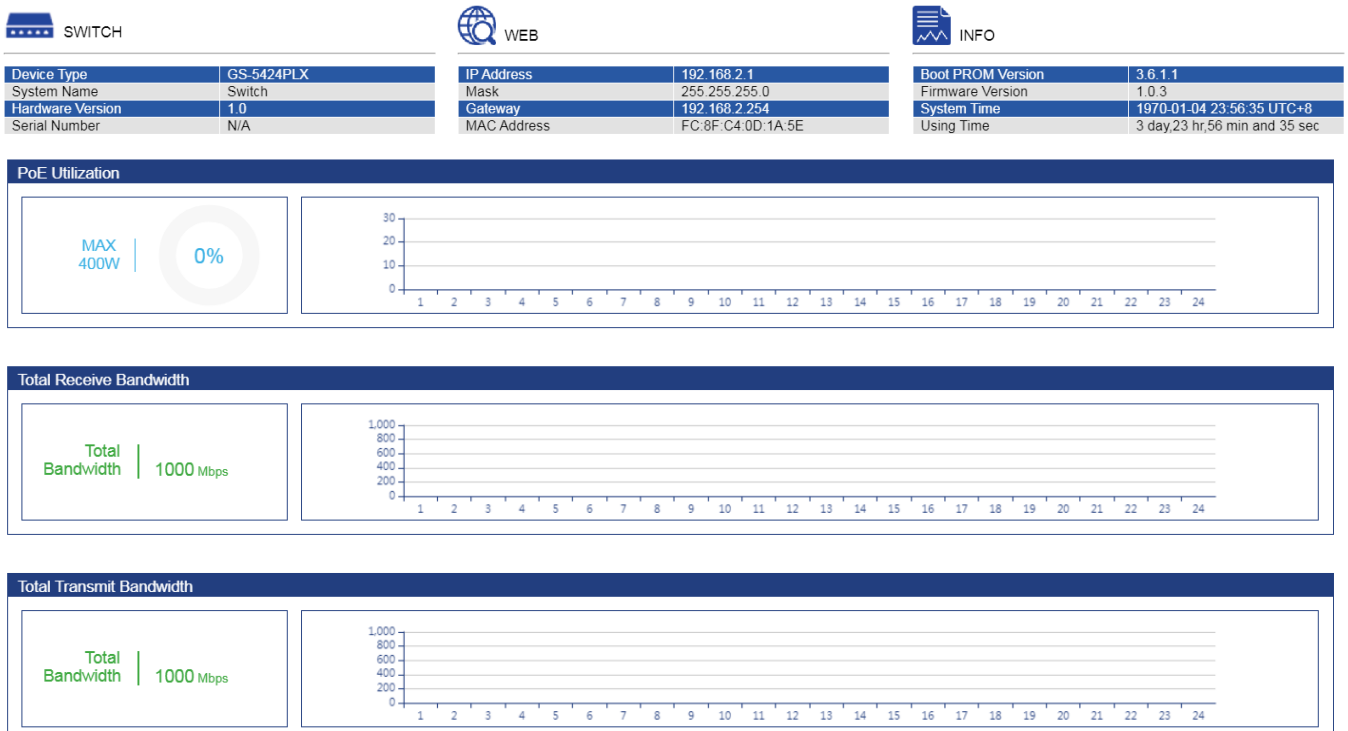
There is a PoE status at the bottom of the page, listing the PoE status, budget and consumption.

Item	Description
	The total power budget.
	The PoE consumption of the switch. This is listed as one negative integer and one positive integer. The negative integer is the power being consumed by the PoE devices connected to the switch. The positive integer is the total PoE budget for the ports currently using PoE, based on the type of PoE in use.
	The current utilization of PoE total power budget.

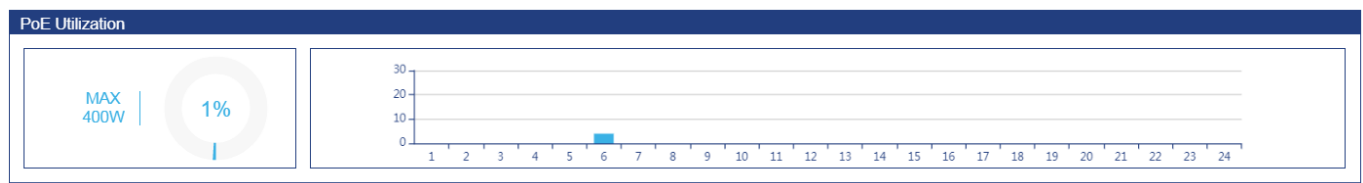
IV-1-6. Status

This is the main page on the Surveillance page and is divided into 3 areas, device information section, PoE utilization section and bandwidth usage section.

And the device information section is sub-divided into 3 sections, switch information, web information and system information.

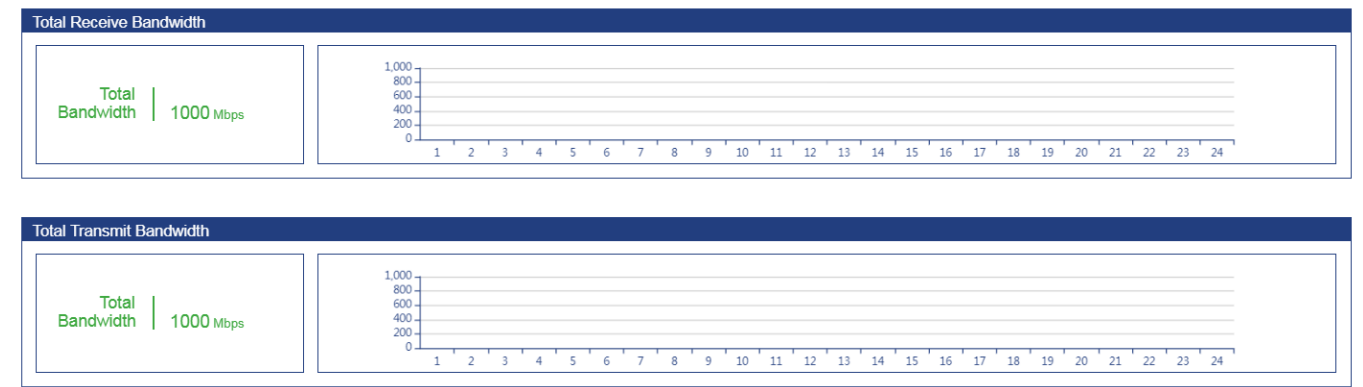


PoE Utilization:



The PoE Utilization area contains PoE utilization statistics for the switch. On the left is the total PoE utilization, with the total power budget and overall utilization shown. On the right is a per-port usage graph, showing the PoE utilization for each individual port.

Total Receive/Transmit Bandwidth:



The bandwidth usage section contains bandwidth utilization for the switch. On the left the total bandwidth shows the total inbound traffic on all ports. There is also a per-port bandwidth utilization graph on the right, showing the inbound traffic for each individual port.

IV-2. PoE Scheduling

PoE Scheduling which allows you to specify the amount of time that power is delivered to a PoE port. This can be used to save power when devices are not in use, or as a security feature to prevent wireless access from being available outside of business hours.

Click "Add" button to view the "Time Range Edit" menu.

Time Range

Scheduling

	Range Name	Days	Start Time	End Time
☐	Edimax	Mon, Tue,	01:00	23:00

Add

Edit

Delete

You can name your PoE schedule and choose date/time from Mon ~ Sun.

Time Range Edit

Range Name	Edimax
Date	☒ Mon ☒ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat ☐ Sun From 01:00 to 23:00

To view the following page, click on the **“Scheduling”** link in the menu:

Time Range	Scheduling
------------	------------

Power Budget	400 W
Consuming Power	4 W
Remaining Power	396 W
Schedule Status	Enable

PoE Schedule Table

	Index	Name	Port List	Schedule Status
☐	1		GE2	Enable
☐	2	None		Disable
☐	3	None		Disable
☐	4	None		Disable
☐	5	None		Disable
☐	6	None		Disable
☐	7	None		Disable
☐	8	None		Disable
☐	9	None		Disable
☐	10	None		Disable
☐	11	None		Disable
☐	12	None		Disable
☐	13	None		Disable
☐	14	None		Disable
☐	15	None		Disable
☐	16	None		Disable
☐	17	None		Disable
☐	18	None		Disable
☐	19	None		Disable
☐	20	None		Disable
☐	21	None		Disable
☐	22	None		Disable
☐	23	None		Disable
☐	24	None		Disable

Click **"Edit"** button to view the “PoE Schedule Edit” menu.
In this page you can enable/disable the PoE ports from the port list.

PoE Schedule Edit

Index	1
Schedule Status	☒ Enable
Name	
Port List	24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 Enable Disable Port No Select Port Select

IV-3. Time

In this section you can configure the setting of the clock and SNTP Server.

IV-3-1. Clock Settings

The fields that can be configured for the **Clock Settings** are described below:

Clock Setting

Manual Time	
Date	1970-01-05YYYY-MM-DD
Time	02:51:24HH:MM:SS
Time Zone	UTC +8:00
Current Time	1970-01-05 02:51:24 UTC+8
Apply	

Item	Description
Date	Set the date in the format (DD / MM / YYYY).
Time	Set the system time in the format (HH:MM:SS).
Time Zone	Set the time zone for your switch.
Current Time	It shows the current time for the switch.

IV-3-2. SNTP Settings

Simple Network Time Protocol (SNTP) is a lightweight version of the NTP protocol and can be used to keep the system clock in-sync by using a network-based time source.

SNTP Server Settings	
Source	Manual Time
SNTP State	Disabled ▼
Address Type	☒ Hostname ☐ IPv4
Server Address	
Server Port	123 (1 - 65535, default 123)
Daylight Saving Time	
Type	☒ None ☐ Recurring ☐ Non-recurring ☐ USA ☐ Europe
Offset	60 Min (1 - 1440, default 60)
Recurring	From: Day Sun Week First Month Jan Time
	To: Day Sun Week First Month Jan Time
Non-recurring	From: YYYY-MM-DD HH:MM
	To: YYYY-MM-DD HH:MM
Operational Status	
Current Time	1970-01-05 02:57:23 UTC+8

Apply

Item	Description
SNTP State	Enable/Disable
Address Type	Choose Hostname or IPv4
Server Address	Enter the IP address of the SNTP server you would like to synchronize with.
Server Port	Enter the server port (1-65535)
Daylight Saving Time	
Type	Choose the daylight saving type in none, recurring, non-recurring, USA or Europe
Offset	Enter the offset in minute (1-1440)
Operational Status	
Current Time	It shows the current time for the switch.

NOTE:

- **Recurring (always occurs, with no defined stopping point).**
For example, the United States started using recurring daylight savings rules in 2007.
- **Nonrecurring (defined for a specific period of time).**

IV-4. Surveillance Settings

The Surveillance Settings page is used to configure the settings for the Surveillance IP, SNMP host, log server and password.

IP Settings	
Address Type	Static ▾
IP Address	192.168.2.1
Subnet Mask	255.255.255.0
Default Gateway	192.168.2.254
DNS Server 1	168.95.1.1
DNS Server 2	168.95.192.1

[Apply](#)

SNMP Host Settings	
Server Address	
Version	☒ SNMPv1 ☐ SNMPv2 ☐ SNMPv3
Type	☒ Trap ☐ Inform
Community / User	public ▼
Security Level	☒ No Security ☐ Authentication ☐ Authentication and Privacy
Server Port	☒ Use Default 162 (1 - 65535, default 162)
Timeout	☒ Use Default 15 Sec (1 - 300, default 15)
Retry	☒ Use Default 3 (1 - 255, default 3)

■	Server Address	Server Port	Timeout	Retry	Version	Type	Community / User	Security Level	
0 results found.									
Add Delete Edit Apply									

Log Server	
Server Address	
Server Port	514 (1 - 65535, default 514)
Facility	Local 7 ▼
Minimum Severity	Notice ▼ Note: Emergency, Alert, Critical, Error, Warning, Notice

■	Entry	Server Address	Server Port	Facility	Minimum Severity	
0 results found.						
Add Delete Edit Apply						

Password Settings	
Password	
Confirm Password	

Item	Description
Address Type	The address type of switch IP configuration including, Static: Static IP configured by users will be used. Dynamic: Enable the DHCP to obtain the IP address from a DHCP server.
IP Address	Specify the switch static IP address on the static configuration.
Subnet Mask	Specify the switch subnet mask on the static configuration.
Default Gateway	Specify the default gateway on the static configuration. The default gateway must be in the same subnet with switch IP address configuration.
DNS Server 1	Specify the primary user-defined IPv4 DNS server configuration.
DNS Server 2	Specify the secondary user-defined IPv4 DNS server configuration.
SNMP Host Settings	
Server Address	Enter the IP address of the SNMP Network Management Server which will receive SNMP Traps from this device.
Version	The principal SNMP protocol versions including, SNMPv1: This is the initial version of SNMP. SNMPv2: This version uses a community-based form of security, just like SNMPv1, replacing the Party-based Administrative and Security Framework of SNMPv2. SNMPv3: This is an interoperable standards-based protocol defined in RFC2273, 2274, and 2275. It provides secure access to devices by authenticating and encrypting packets over the network. Due to the security vulnerabilities of other versions of SNMP, it is recommended to use SNMPv3.
Type	SNMP Agent devices translate information into a format that can be interpreted by the SNMP manager. The notifications are to the SNMP manager, and are called Trap notifications or Inform requests. - Trap: The notifications are sent by the SNMP agent device when a specific parameter is reached by the device and the trap messages can be improper user authentication, CPU usage, link status, and other significant events. This helps the administrator address network issues. - Inform: Inform is only available on SNMPv2 and v3.
Security Level	The security level of SNMP including, - No security: Unsecured SNMP requests - Authentication: Confirmation of the sender's identity and of the

	timeliness of the request, with the content of the request visible to the network. - Authentication and privacy: With the content of the request encrypted.
Server Port	Enter the server port (1-65535)
Timeout	Set default timeout value.
Retry	Set default retry number.
Log Server	
Server Address	Enter the server address
Server Port	Enter the server port (1-65535)
Facility	The Facility value is a way of determining which process of the machine created the message.
Minimum Severity	The system log SNMP severity command sets the minimum severity level of log events sent as SNMP traps. Log events of lower severity are not sent.
Password Settings	
Password	Configure the password that will be used to restrict access to the device via the Web UI.
Confirm Password	Confirm the password that will be used to restrict access to the device via the Web UI.

IV-5. Mail Alert

SMTP stands for Simple Mail Transfer Protocol. It handles the sending of emails. The ability to support email services. This allows the user to send outgoing mail and retrieve incoming mail, respectively.

IP Settings	
State	Disable ▾
SMTP Server	
SMTP Port	0
User Name	
Password	
State	Disable ▾
Sender	
Receiver	
Alert Type	☐ Powered Device Monitor

Apply

Send Test

Item	Description
State	Enable or disable.
SMTP Server	This is the domain name or IP address of your external e-mail serve.
SMTP Port	This is the port used by your e-mail provided for sending email.
User Name	This is your username for your email account.
Password	This is the password for your email account.
State	This needs to be enabled if your email provider requires TLS authentication.
Sender	This is your email address.
Receiver	This is the e-mail address of recipient for the SMTP server.
Alert Type	Enable/disable Powered Device Monitor.

IV-6. Powered Device Monitor

■	Entry	Port	Mode	ping PD IP Address	Interval Time	Retry Count	Action	Reboot Time	Connect Status
☐	1	GE1	Disable	0.0.0.0	30	2	None	90	Off
☐	2	GE2	Disable	0.0.0.0	30	2	None	90	Off
☐	3	GE3	Disable	0.0.0.0	30	2	None	90	Off
☐	4	GE4	Disable	0.0.0.0	30	2	None	90	Off
☐	5	GE5	Disable	0.0.0.0	30	2	None	90	Off
☐	6	GE6	Disable	0.0.0.0	30	2	None	90	Off
☐	7	GE7	Disable	0.0.0.0	30	2	None	90	Off
☐	8	GE8	Disable	0.0.0.0	30	2	None	90	Off
☐	9	GE9	Disable	0.0.0.0	30	2	None	90	Off
☐	10	GE10	Disable	0.0.0.0	30	2	None	90	Off
☐	11	GE11	Disable	0.0.0.0	30	2	None	90	Off
☐	12	GE12	Disable	0.0.0.0	30	2	None	90	Off
☐	13	GE13	Disable	0.0.0.0	30	2	None	90	Off
☐	14	GE14	Disable	0.0.0.0	30	2	None	90	Off
☐	15	GE15	Disable	0.0.0.0	30	2	None	90	Off
☐	16	GE16	Disable	0.0.0.0	30	2	None	90	Off
☐	17	GE17	Disable	0.0.0.0	30	2	None	90	Off
☐	18	GE18	Disable	0.0.0.0	30	2	None	90	Off
☐	19	GE19	Disable	0.0.0.0	30	2	None	90	Off
☐	20	GE20	Disable	0.0.0.0	30	2	None	90	Off
☐	21	GE21	Disable	0.0.0.0	30	2	None	90	Off
☐	22	GE22	Disable	0.0.0.0	30	2	None	90	Off
☐	23	GE23	Disable	0.0.0.0	30	2	None	90	Off
☐	24	GE24	Disable	0.0.0.0	30	2	None	90	Off

Note: PD and switch are in the same network segment.

[Edit](#)

Click “Edit” to view the Powered Device Monitor page.

Port List	GE1	
Status	☒ Enable	
ping PD IP Address	0.0.0.0	
Interval Time	30	Sec (10 - 300, default 30)
Retry Count	2	(1 - 5, default 2)
Action	None ▼	
Reboot Time	90	Sec (30 - 180, default 90)

Item	Description
Status	Enable/Disable
ping PD IP Address	Input IP address of the PD
Interval Time	The default setting about Interval (30 seconds) will make switch detect the PD status by performing ping requests every 30 seconds.
Retry Count	If there is no ping reply from the PD, retry count starts to count from 1. Once retry count is reached to 2 times, the switch will perform the action in which you defined.
Action	The Action including none, PD reboot, Reboot & Alarm and Alarm
Reboot Time	Set the reboot time from 30-180 seconds (default is 90 seconds)

IV-7. ONVIF

The ONVIF page including two sections,

- IPC Discover
- NVR Discover

IV-7-1. IPC Discover

It shows the information of device name, IP address, Mac address, port ID and status of IPC.

☒	Device Name	IP Address	MAC Address	Port ID	Status
0 results found.					

Edit

Auth

Account

IV-7-2. NVR Discover

It shows the information of device name, IP address, Mac address, port ID, group ID and group number of NVR.

☐	Device Name	IP Address	MAC Address	Port ID	Group ID	Group Number
0 results found.						

Edit

IPC List

IV-8. E-map Management

The E-map management will allow you to import a layout of your building to graphically layout your switches.

IV-8-1. Image Upload

In this page you can upload the image for your E-map.

☐	Name	Bind Num
0 results found.		

Add

Delete

Image Upload Add

Filename	Choose File No file chosen
----------	--

Apply

Close

NOTE: Images are automatically scaled when uploaded. The image formats are JPG and PNG. Maximum file size for images is 1.5MB. The recommended resolution for images is 1024 x 768 pixels.

IV-8-2. Image Settings

In this page you can view and edit the location name.

☐	Entry	Location name	Map Image
☐	1	Edimax	empty
☐	2		empty
☐	3		empty
☐	4		empty

Edit

Click the Edit button to view the Image Setting page,

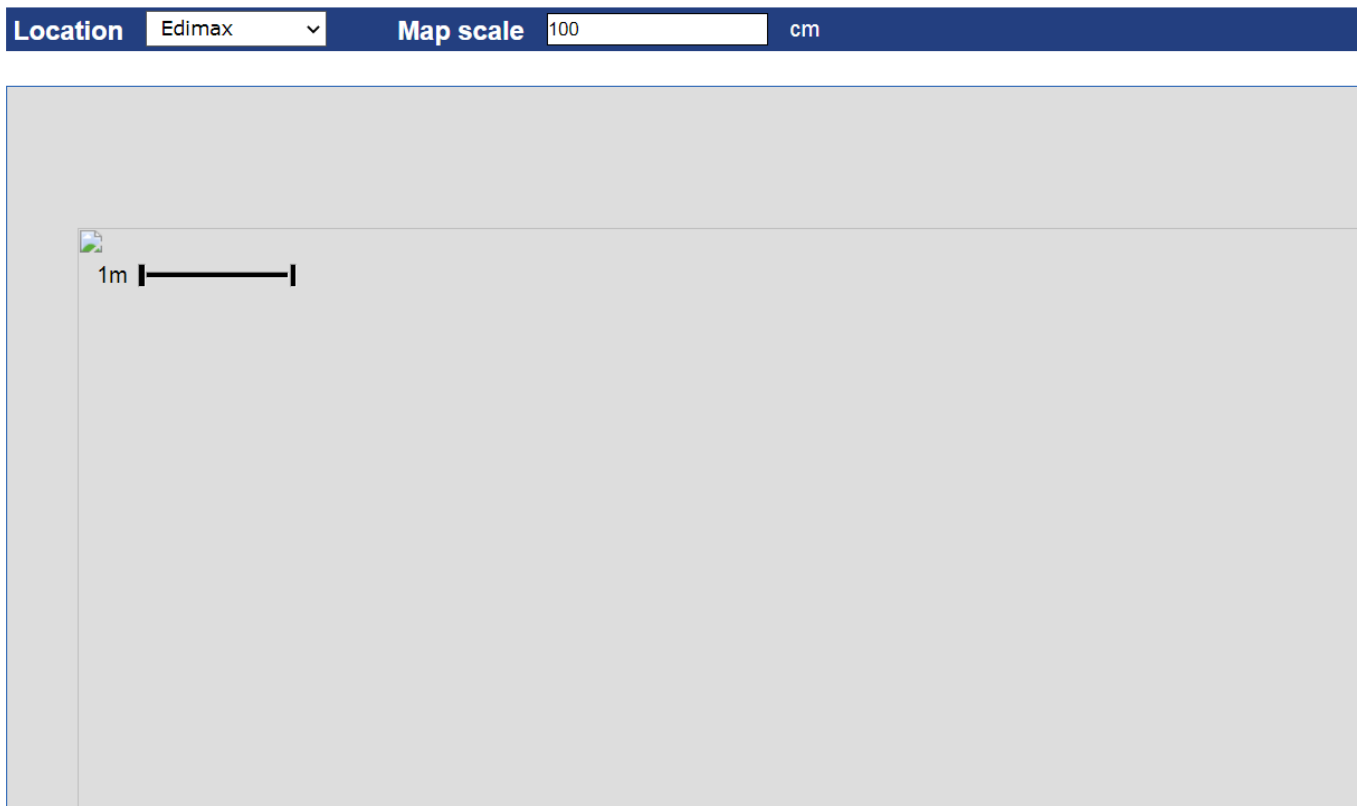
Entry	1
Location name	Edimax
Map Image	empty ▾

Apply

Close

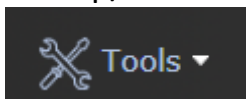
IV-8-3. E-map View

You can view E-Maps of multiple locations.



IV-9. Tools

In this section you can check if you have the latest version on your switch or backup/restore the configuration etc...



IV-9-1. Firmware Information

In this page you can check the firmware version, size or update time.

Version	1.0.3
Size(Byte)	9761472
Update Time	Aug 22 2020 - 14:36:05

IV-9-2. Firmware Upgrade & Backup

Firmware upgrades can be done via either Trivial FileTransfer Protocol (TFTP) or Hypertext Transfer Protocol/with Secure Sockets (HTTP/HTTPS).

Item	Description
TFTP	TFTP is an unsecure file transfer protocol typically used to distribute software upgrades and configuration files. When using the TFTP client, the file will be downloaded from a TFTP server on your network.
HTTP	HTTP is an application protocol that runs on top of the TCP/IP suite of protocols (the foundation protocols for the Internet)

Action	☒ Upgrade ☐ Backup
Method	☐ TFTP ☒ HTTP
Filename	Choose File No file chosen

IV-9-3. Configuration Restore & Backup

You can restore or backup the configuration from HTTP/TFTP in this page.

Action	☒ Upgrade ☐ Backup
Method	☐ TFTP ☒ HTTP
Configuration	☒ Running Configuration ☐ Startup Configuration ☐ Backup Configuration ☐ RAM Log ☐ Flash Log
Filename	Choose File No file chosen

Item	Description
TFTP	TFTP is an unsecure file transfer protocol typically used to distribute software upgrades and configuration files. When using the TFTP client, the file will be downloaded from a TFTP server on your network.
HTTP	HTTP is an application protocol that runs on top of the TCP/IP suite of protocols (the foundation protocols for the Internet)

IV-9-4. Reset

This page allows users to restore the switch to factory default.

Warning :	The Switch will be reset to its factory defaults including IP address.
Restore Factory Default	

IV-9-5. Reboot System

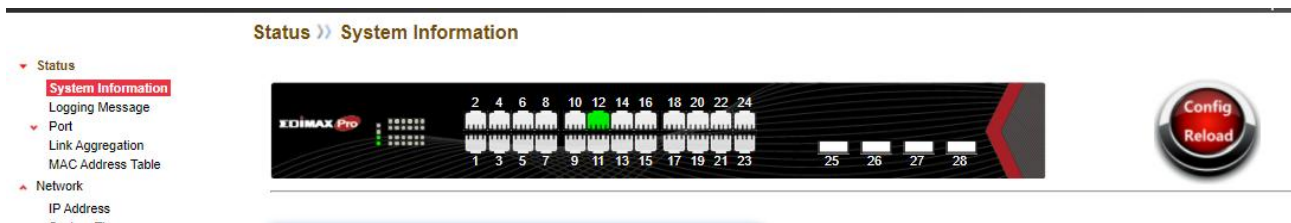
You can reboot the switch via the web UI.

Warning :	Reboot the system and unsaved changes in the configuration will be lost.
Reboot	

VI. *Config Reload Button*

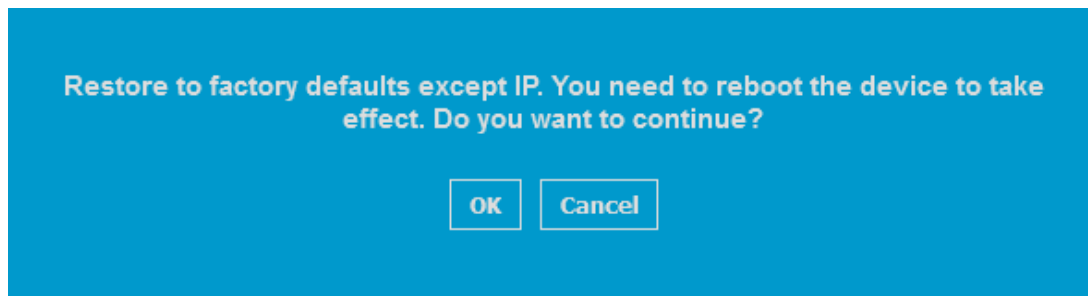
You can easily create Surveillance VLAN by pressing the “Config Button” on System Information page.



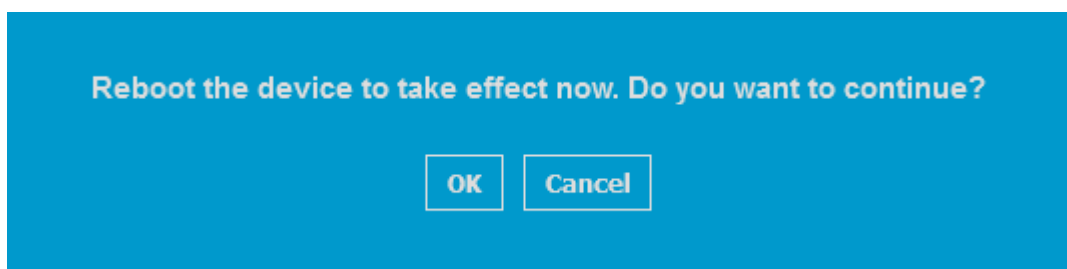


Please follow the steps below to load default Surveillance VLAN configurations:

1. Click  and Tab OK to continue.



2. Tab OK to continue.



NOTE: 1.The IP address won't be changed after system restarted.
2. Surveillance VLAN 10 has been created.

3. Enter your new password and confirm password

You can check out the differences after “Config Reload”.

VLAN >> VLAN >> Create VLAN

VLAN Table

Showing 1 to 2 of 2 entries

VLAN	Name	Type
10	surveillance vlan	Static

Edit Delete

V-1. ONVIF Compliant Devices Enrollment (Standard Mode)

ONVIF Compliant devices will be enrolled in VLAN10 automatically after “Config Reload” procedures.

VLAN >> VLAN >> Membership

Port	VLAN	Name	Type	Membership
7	GE7	Hybrid	1UP	1UP
8	GE8	Hybrid	1UP	1UP
9	GE9	Hybrid	1UP	1UP
10	GE10	Hybrid	1UP	1UP
11	GE11	Hybrid	1UP	1UP, 10U
12	GE12	Hybrid	1UP	1UP, 10U
13	GE13	Hybrid	1UP	1UP
14	GE14	Hybrid	1UP	1UP
15	GE15	Hybrid	1UP	1UP
16	GE16	Hybrid	1UP	1UP
17	GE17	Hybrid	1UP	1UP
18	GE18	Hybrid	1UP	1UP
19	LAG1	Hybrid	1UP	1UP
20	LAG2	Hybrid	1UP	1UP
21	LAG3	Hybrid	1UP	1UP
22	LAG4	Hybrid	1UP	1UP

Note:

- All ports are belong to VLAN1 (VID=1) by default

- 1UP means : VID=1; PVID=1
- 1UP, 10U means : VID=1, 10; PVID=1

V-2. Non-ONVIF Compliant Devices Enrollment (Standard Mode)

Non-ONVIF compliant devices can be enrolled in Surveillance VLAN manually. Please follow the blow step to add the Non-ONVIF compliant devices (including Non-ONVIF compliant IP camera, Standalone NVR/CMS and PC with NVR/CMS) into Surveillance VLAN 10.

Only 1 STEP:

Choose the Non-ONVIF compliant device(s) and Click the “Add ” button. The Non-ONVIF Compliant device(s) will be added in Surveillance VLAN10.

Status >> Add to Surveillance VLAN

Status >> Add to Surveillance VLAN

Add to Surveillance VLAN

Showing entries

☐	VLAN	MAC Address	Type	Port
☐	1	FC:8F:C4:0D:1B:70	Management	CPU
☐	10	00:1F:1F:00:00:0E	Dynamic	GE13
☐	10	00:1F:1F:BD:6E:64	Dynamic	GE14
☐	1	08:62:66:E6:48:30	Dynamic	GE18
☐	10	00:02:00:E0:40:00	Dynamic	GE10
☒	1	08:BE:AC:0A:1C:86	Dynamic	GE18
☐	10	50:DE:19:60:18:5A	Dynamic	GE12

Clear Refresh **Add**

1

Success.

The Non-ONVIF Compliant device(s) has been added in SurveillanceVLAN10.

VLAN >> VLAN >> Membership

Status

- System Information
- Logging Message
- Port
 - Link Aggregation
 - Add to Surveillance VLAN
- Network
- Port
- PoE
- VLAN
 - VLAN
 - Create VLAN
 - VLAN Configuration
 - Membership
 - Port Setting
 - Voice VLAN
 - MAC VLAN
 - Surveillance VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast

	Entry	Port	Mode	Administrative VLAN	Operational VLAN
☐	1	GE1	Hybrid	1UP	1UP
☐	2	GE2	Hybrid	1UP	1UP
☐	3	GE3	Hybrid	1UP	1UP
☐	4	GE4	Hybrid	1UP	1UP
☐	5	GE5	Hybrid	1UP	1UP
☐	6	GE6	Hybrid	1UP	1UP
☐	7	GE7	Hybrid	1UP	1UP
☐	8	GE8	Hybrid	1UP	1UP
☐	9	GE9	Hybrid	1UP	1UP
☐	10	GE10	Hybrid	1UP	1UP
☐	11	GE11	Hybrid	1UP	1UP
☐	12	GE12	Hybrid	1UP	1UP
☐	13	GE13	Hybrid	1UP	1UP
☐	14	GE14	Hybrid	1UP	1UP
☐	15	GE15	Hybrid	1UP	1UP
☐	16	GE16	Hybrid	1UP	1UP
☐	17	GE17	Hybrid	1UP	1UP
☒	18	GE18	Hybrid	1UP	1UP, 10U

You can Configure ONVIF Compliant Device(s) and Non-ONVIF Compliant Device(s) in **Surveillance Mode**, too.

V-3. ONVIF Compliant Devices Enrollment (Surveillance Mode)

ONVIF Compliant devices will be enrolled in VLAN10 automatically after “Config Reload” procedures.

System Info

POE Settings

Time

Surveillance Settings

Mail Alert

ONVIF

VLAN Settings

Create VLAN

VLAN Configuration

Membership

Port Setting

	Entry	Port	Mode	Administrative VLAN	Operational VLAN
☐	1	GE1	Hybrid	1UP	1UP
☐	2	GE2	Hybrid	1UP	1UP
☐	3	GE3	Hybrid	1UP	1UP
☐	4	GE4	Hybrid	1UP	1UP
☐	5	GE5	Hybrid	1UP	1UP
☐	6	GE6	Hybrid	1UP	1UP
☐	7	GE7	Hybrid	1UP	1UP
☐	8	GE8	Hybrid	1UP	1UP
☐	9	GE9	Hybrid	1UP	1UP
☐	10	GE10	Hybrid	1UP	1UP
☐	11	GE11	Hybrid	1UP	1UP, 10U
☐	12	GE12	Hybrid	1UP	1UP, 10U
☐	13	GE13	Hybrid	1UP	1UP

Note:

- All ports are belong to VLAN1 (VID 1) by default
- 1UP means : VID=1; PVID=1
- 1UP, 10U means : VID=1, 10; PVID=1

V-4. Non-ONVIF Compliant Devices Enrollment (Surveillance Mode)

Only 1 STEP:

Choose the Non-ONVIF compliant device(s) and Click the “Add ” button. Non-ONVIF Compliant device(s) will be added in Surveillance VLAN10.

The screenshot shows the 'Add to Surveillance VLAN' interface. On the left is a sidebar menu with options: System Info, POE Settings, Time, Surveillance Settings, Mail Alert, ONVIF, IPC Discover, Add to Surveillance VLAN (highlighted), E-map Management, VLAN Settings, and Create VLAN. The main panel is titled 'Add to Surveillance VLAN' and shows 'Showing All entries' and 'Showing 1'. Below this is a table with columns: VLAN, MAC Address, Type, and Port. The table contains one entry with VLAN 10, MAC Address 8C:04:BA:0C:37:79, Type Dynamic, and Port GE18. This entry is highlighted with a red box. Below the table are buttons for 'Clear', 'Refresh', and 'Add' (highlighted with a red box). To the right of the 'Add' button is a blue circular icon with the number '1'. At the bottom left, there is a green checkmark icon and the text 'Success.'.

VLAN	MAC Address	Type	Port
10	8C:04:BA:0C:37:79	Dynamic	GE18

The Non-ONVIF Compliant device(s) has been added in SurveillanceVLAN10.

- System Info
- POE Settings
- Time
- Surveillance Settings
- Mail Alert
- ONVIF
- IPC Discover
- Add to Surveillance VLAN
- E-map Management
- VLAN Settings
 - Create VLAN
 - VLAN Configuration
 - Membership**
 - Port Setting
- Voice VLAN
- MAC VLAN
- Surveillance VLAN
- Traffic Segmentation

Membership Table

	Entry	Port	Mode	Administrative VLAN	Operational VLAN
☐	1	GE1	Hybrid	1UP	1UP
☐	2	GE2	Hybrid	1UP	1UP
☐	3	GE3	Hybrid	1UP	1UP
☐	4	GE4	Hybrid	1UP	1UP
☐	5	GE5	Hybrid	1UP	1UP
☐	6	GE6	Hybrid	1UP	1UP
☐	7	GE7	Hybrid	1UP	1UP
☐	8	GE8	Hybrid	1UP	1UP
☐	9	GE9	Hybrid	1UP	1UP
☐	10	GE10	Hybrid	1UP	1UP
☐	11	GE11	Hybrid	1UP	1UP, 10U
☐	12	GE12	Hybrid	1UP	1UP, 10U
☐	13	GE13	Hybrid	1UP	1UP
☐	14	GE14	Hybrid	1UP	1UP
☐	15	GE15	Hybrid	1UP	1UP
☐	16	GE16	Hybrid	1UP	1UP
☐	17	GE17	Hybrid	1UP	1UP
☒	18	GE18	Hybrid	1UP	1UP, 10U

VII. More Information

For detailed instructions, you can find user manual and all supporting documents from the link below or via the QR code:

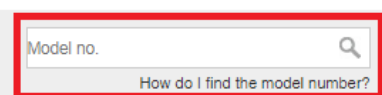
<https://www.edimax.com/download/>



Please search the **model number** to enter the referred page.

Download

To select your product and find related download materials, enter the model number into the search box on the right side or follow the simple steps below:
*Feel free to contact us anytime if you need help or if you can't find your product.

A screenshot of a web search interface. It features a search box with the placeholder text 'Model no.' and a magnifying glass icon on the right. Below the search box is a link that reads 'How do I find the model number?'. The entire search area is highlighted with a red rectangular border.

VIII. Safety Instructions

The following general safety guidelines are provided to help ensure your own personal safety and protect your product from potential damage. Remember to consult the product user instructions for more details.

- This product is designed for indoor use only.
- Static electricity can be harmful to electronic components. Discharge static electricity from your body (i.e. touching grounded bare metal) before touching the product.
- The device contains no user serviceable parts. Do not attempt to service the product and never disassemble the product.
- Do not spill food or liquid on your product and never push any objects into the openings of your product.
- Do not use this product near water, areas with high humidity, or condensation.
- Keep the product away from radiators and other heat sources.
- This device is not designed to be operated by children.
- Always unplug the product from mains power before cleaning and use a dry lint free cloth only.

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The product you have purchased and the setup screen may appear slightly different from those shown in this QIG. The software and specifications are subject to change without notice. Please visit our website www.edimax.com for updates. All brand and product names mentioned in this manual are trademarks and/or registered trademarks of their respective holders.

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Radiation Exposure Statement

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and it also complies with Part 15 of the FCC RF Rules. This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and consider removing the no-collocation statement.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution!

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

R&TTE Compliance Statement

This equipment complies with all the requirements of DIRECTIVE 2014/30/EU OF THE EUROPEAN PARLIAMENT AND THE COUNCIL of March 9, 1999 on radio equipment and telecommunication terminal equipment and the mutual recognition of their conformity (R&TTE). The R&TTE Directive repeals and replaces in the directive 98/13/EEC (Telecommunications Terminal Equipment and Satellite Earth Station Equipment) As of April 8, 2000.

Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

EU Countries Intended for Use

The ETSI version of this device is intended for home and office use in Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Turkey, and United Kingdom. The ETSI version of this device is also authorized for use in EFTA member states: Iceland, Liechtenstein, Norway, and Switzerland.

EU Countries Not Intended for Use

None

EU Declaration of Conformity

- English:** This equipment is in compliance with the essential requirements and other relevant provisions of Directive 2014/30/EU.
- Français:** Cet équipement est conforme aux exigences essentielles et autres dispositions de la directive 2014/30/EU.
- Čeština:** Toto zařízení je v souladu se základními požadavky a ostatními příslušnými ustanoveními směrnic 2014/30/EU.
- Polski:** Urządzenie jest zgodne z ogólnymi wymaganiami oraz szczególnymi warunkami określonymi Dyrektywą UE 2014/30/EU.
- Română:** Acest echipament este în conformitate cu cerințele esențiale și alte prevederi relevante ale Directivei 2014/30/EU.
- Русский:** Это оборудование соответствует основным требованиям и положениям Директивы 2014/30/EU.
- Magyar:** Ez a berendezés megfelel az alapvető követelményeknek és más vonatkozó irányelveknek (2014/30/EU).
- Türkçe:** Bu cihaz 2014/30/EU. direktifleri zorunlu istekler ve diğer hükümlerle ile uyumludur.
- Українська:** Обладнання відповідає вимогам і умовам директиви 2014/30/EU.
- Slovenčina:** Toto zariadenie spĺňa základné požiadavky a ďalšie príslušné ustanovenia smerníc 2014/30/EU.
- Deutsch:** Dieses Gerät erfüllt die Voraussetzungen gemäß den Richtlinien 2014/30/EU.
- Español:** El presente equipo cumple los requisitos esenciales de la Directiva 2014/30/EU.
- Italiano:** Questo apparecchio è conforme ai requisiti essenziali e alle altre disposizioni applicabili della Direttiva 2014/30/EU.
- Nederlands:** Dit apparaat voldoet aan de essentiële eisen en andere van toepassing zijnde bepalingen van richtlijn 2014/30/EU.
- Português:** Este equipamento cumpre os requisitos essenciais da Directiva 2014/30/EU.
- Norsk:** Dette utstyret er i samsvar med de viktigste kravene og andre relevante regler i Direktiv 2014/30/EU.
- Svenska:** Denna utrustning är i överensstämmelse med de väsentliga kraven och övriga relevanta bestämmelser i direktiv 2014/30/EU.
- Dansk:** Dette udstyr er i overensstemmelse med de væsentligste krav og andre relevante forordninger i direktiv 2014/30/EU.
- suomen kieli:** Tämä laite täyttää direktiivien 2014/30/EU. oleelliset vaatimukset ja muut asiaankuuluvat määräykset.

FOR USE IN



WEEE Directive & Product Disposal



At the end of its serviceable life, this product should not be treated as household or general waste. It should be handed over to the applicable collection point for the recycling of electrical and electronic equipment, or returned to the supplier for disposal.

Declaration of Conformity

We, Edimax Technology Co., Ltd., declare under our sole responsibility, that the equipment described below complies with the requirements of the European R&TTE directives.

Equipment: 16 Giga RJ45+ 2 Giga Combo Switch with 16 port PoE
Model No.: IGS-5218PLC

The following European standards for essential requirements have been followed:

Directives 2014/30/EU

EMC : EN 55032:2015+A11:2020
EN IEC 61000-3-2:2019
EN 61000-3-3:2013+A1:2019
EN 55035:2017+A11:2020
Safety (LVD) : EN 62368-1:2014+A11:2017

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Date & Place of Issue: 31/March/2023, Taipei

Signature: 

Printed Name: Hunter Chen

Title: Director



Declaration of Conformity

We, Edimax Technology Co., Ltd., declare under our sole responsibility, that the equipment described below complies with the requirements of the United Kingdom EMC and Safety directives.

Equipment: 16 Giga RJ45+ 2 Giga Combo Switch with 16 port PoE
Model No.: IGS-5218PLC

The following European standards for essential requirements have been followed:

Electromagnetic Compatibility Regulations 2016 (S.I. 2016/1091)

EMC : EN 55032:2015+A11:2020
EN IEC 61000-3-2:2019
EN 61000-3-3:2013+A1:2019
EN 55035:2017+A11:2020
Safety (LVD) : EN 62368-1:2014+A11:2017

Edimax Technology Europe B.V.

Fijenhof 2,
5652 AE Eindhoven,
The Netherlands

Date & Place of Issue: 31/March/2023, Eindhoven

Signature: 

Printed Name: David Huang

Title: Director

a company of:

Edimax Technology Co., Ltd.
No. 278, Xinhua 1st Rd., Neihu Dist.,
Taipei City, Taiwan

Date & Place of Issue: 31/March/2023, Taipei

Signature: 

Printed Name: Hunter Chen

Title: Director



Declaration of Conformity

We, Edimax Technology Co., Ltd., declare under our sole responsibility, that the equipment described below complies with the requirements of the European R&TTE directives.

Equipment: 24 Giga RJ45+ 4 Giga Combo Switch with 24 port PoE
Model No.: IGS-5428PLC

The following European standards for essential requirements have been followed:

Directives 2014/30/EU

EMC : EN 55032:2015+A11:2020
EN IEC 61000-3-2:2019
EN 61000-3-3:2013+A1:2019
EN 55035:2017+A11:2020
Safety (LVD) : EN 62368-1:2014+A11:2017

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Title: Director



Declaration of Conformity

We, Edimax Technology Co., Ltd., declare under our sole responsibility, that the equipment described below complies with the requirements of the United Kingdom EMC and Safety directives.

Equipment: 24 Giga RJ45+ 4 Giga Combo Switch with 24 port PoE
Model No.: IGS-5428PLC

The following European standards for essential requirements have been followed:

Electromagnetic Compatibility Regulations 2016 (S.I. 2016/1091)

EMC : EN 55032:2015+A11:2020
EN IEC 61000-3-2:2019
EN 61000-3-3:2013+A1:2019
EN 55035:2017+A11:2020
Safety (LVD) : EN 62368-1:2014+A11:2017

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