

850X-28P

Managed PoE Switch

User Manual

Version 1.00

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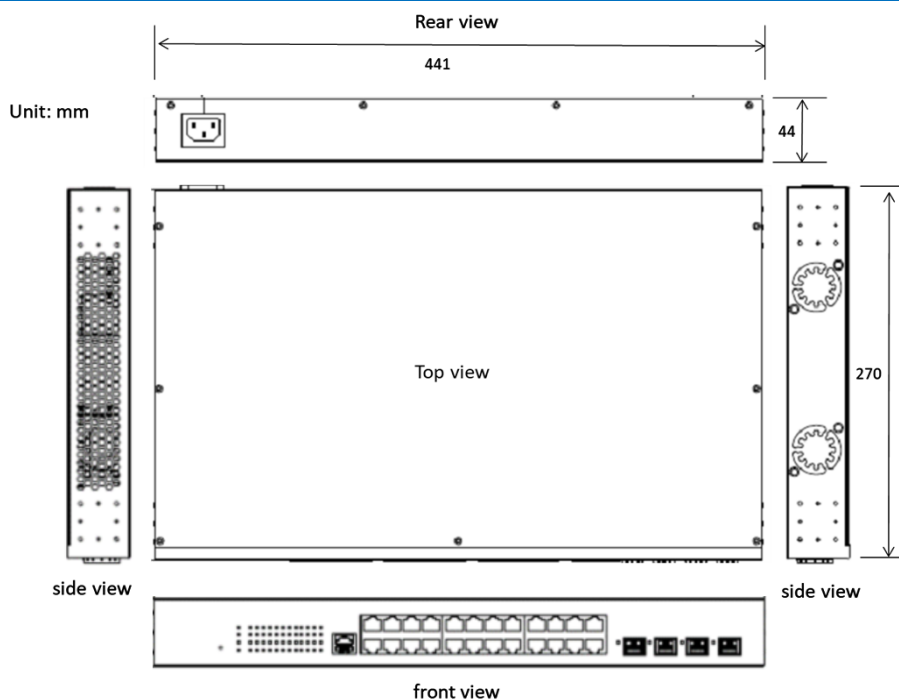
1 Introductions

Proscend 28-Port GbE Managed PoE Switch 850X-28P supports 24 RJ45 10/100/1000BASE-T ports with Power-over-Ethernet power source is IEEE 802.3at/af compliant and provides additional four 10G SFP+ ports for optical connections using multimode or single-mode SFP/SFP+ transceivers. The 850X-28P enables diversified combinations of network bandwidth and can handle extremely large amounts of data between network edge switches and core networks.

1.1 Features

- 10G SFP+ on all uplink fiber interfaces.
- Full Gigabit Ethernet on all copper interfaces.
- Non-blocking full wire-speed.
- Support IEEE 802.3at/af PoE
- Support Link Aggregation, up to 80Gbps uplink bandwidth in duplex mode.
- Support Spanning Tree Protocol STP/RSTP/MSTP.
- QoS CoS/DSCP to increase determinism.
- Support Storm control.
- Access Control List (ACL).
- Auto VLAN assignment.
- IPv6 manageable.
- Support Jumbo frames.
- 19" rack mountable.

1.2 Dimensions



1.3 Specifications

Interfaces

- 24 x LAN port: 100/1000BASE-T (RJ45)
- 4 x Uplink port: 10G SFP+ slot
- 1 x Reset Button
- 1 x Console port by RJ45 type
- 1 x AC socket

Network Resilience

- IEEE 802.1D STP, IEEE 802.1w RSTP, IEEE 802.1s MSTP
- LACP: Static trunk

Protocols & Security

- Port-based VLAN
- IEEE 802.1ab Link Layer Discovery Protocol (LLDP)
- IEEE 802.1p QoS, IGMP, Port-based traffic shaping
- IP and MAC-based access control
- IEEE 802.1X authentication Network Access Control
- Multicast, Broadcast, Flooding Storm Control
- DoS, Dynamic ARP Inspection, DHCP Snooping, IP Source Guard

Mechanical

- Dimension (H x D x W): 44 x 270 x 441 mm
- Weight: 4060g
- 2 x Fan
- Rack mounting

Management

- Web-based Management, HTTP/HTTPS, Console, CLI, Telnet, SSH
- SNMP v1, v2c, v3, Syslog
- HTTP/TFTP firmware upgrade
- SNTP
- PoE scheduling, power control

Power

- Internal power supply
- Input: 100~240 VAC ,50/60Hz
- System power consumption: 31W
- PoE Power Budget:380W

LED Indicators

- Power input, System status, and Alarm
- Ethernet LAN port Link & Speed
- SFP+ port Link & Speed
- PoE power output

Environment & Regulatory Compliance

- Operation temperature: 0 to 50°C
- Storage temperature: -40 to 70°C
- Humidity (non-condensing): 10 to 90%
- EMC Class A

FCC CFR Title 47, Part 15, Subpart B, ICES-003 Issue 7, ANSI C63.4

CE EN55032, EN55035, EN IEC 61000-3-2, EN 61000-3-3, AS/NZS CISPR 32

- Electrical safety: EN62368-1
- RoHS (Pb free) and REACH compliant
- MTBF: > 25 years @25°C

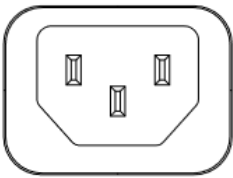
Standards and Certifications

- CE&UKCA
- FCC

2 Hardware Installation

This chapter introduces how to install and connect the hardware.

2.1 Connection Power



These 24 port GbE+ 4 port 10G SFP+ switch can automatically adjust the AC power setting to adapt to any voltage supply in the range 100~240 VAC 50/60Hz. Connect the one end of the supplied AC power cord to the AC power connector on the rear panel and the other end into a properly grounded power outlet.

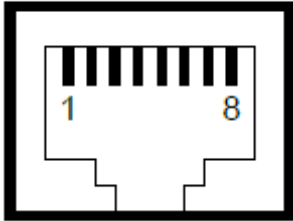
2.2 LED Indicators

LED	Color	Description
PWR	On: Green	Power on.
	Off	Power off.
SYS	On: Green	System is ready.
	Blinking	System is booting up.
	Off	No power or system boot up failed.
ALM	On: Red	Alarm for system failure because of overheat or wrong voltage.
	Off	Switch is in operation with normal condition.
1~24 LAN Port Link/Act	On: Green	Ethernet LINK UP at 1000Mbps.
	On: Amber	Ethernet LINK UP at 10/100Mbps.
	Blinking	Ethernet traffic detected.
	Off	Ethernet LINK DOWN.
25~28 SFP+ Port Link/Act	On: Blue	LINK UP at 10Gbps.
	On: Green	LINK UP at 1000Mbps.
	Blinking	Traffic detected.
	Off	LINK DOWN.

2.3 RJ45 Connector Pinouts

The pin assignment of RJ45 connector is shown in the following table.

8-pin RJ45

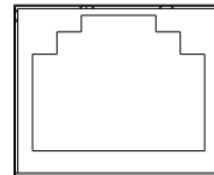


Pin	Description	PoE Pinouts
1, 2	T/Rx+, T/Rx-	V+
3, 6	T/Rx+, T/Rx-	V-
4, 5	T/Rx+, T/Rx-	X
7, 8	T/Rx+, T/Rx-	X

2.4 Console Connection

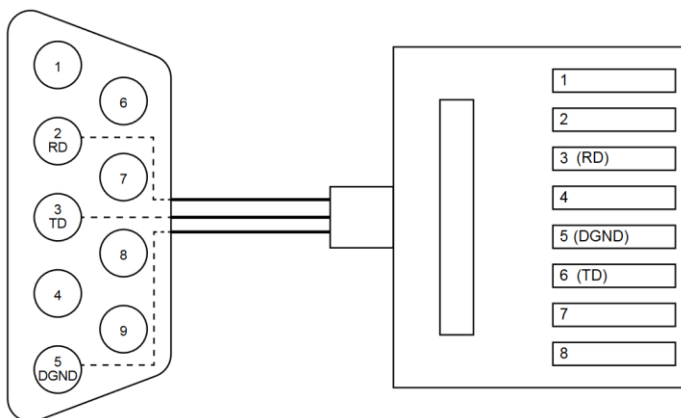
The console port on the front panel is for local management by using a terminal emulator or a computer with terminal emulation software.

- DB9 connector connect to computer COM port
- Baud rate: 115200bps
- 8 data bits, 1 stop bit
- None Priority
- None flow control



CONSOLE

To connect the host PC to the console port, a RJ45 (male) connector-to-RS232 DB9 (female) connector cable is used (included in package). The RJ45 connector of the cable is connected to the console port of the switch, the DB9 connector of the cable is connected to the PC COM port. The pin assignment of the console cable is shown below:



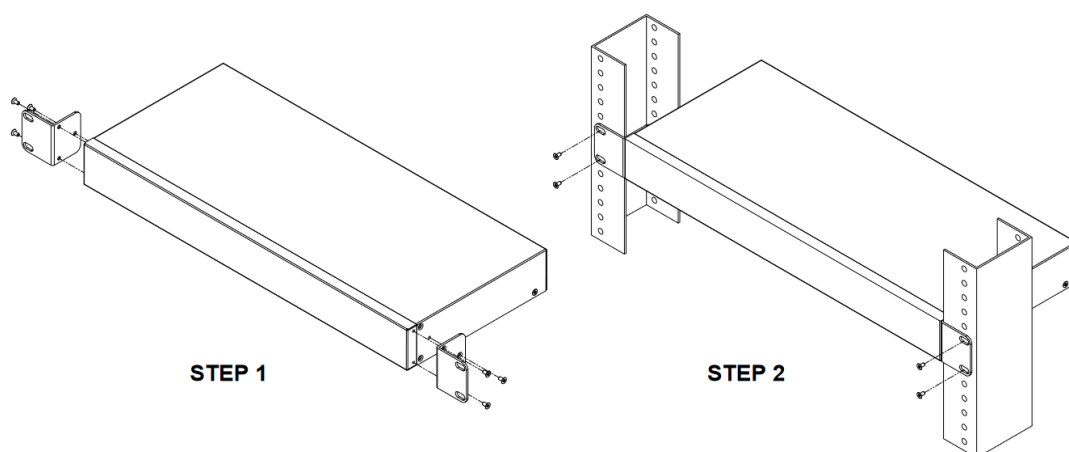
2.5 Rack Mounting

STEP 1: Align two brackets with the holes on the sides of the Switch and fasten the mounting kits by using screws.

NOTE: The type of screw is flat head M3 x 5mm.

STEP 2: After attaching two brackets, line up the rack-mounting positions of the holes in the brackets with the appropriate holes on the rack and then fasten the Switch on the rack by using screws.

NOTE: The rack-mounting screws are not included in the package.



2.6 Web Interface: Connect & Login

1. Factory default IP: **192.168.1.1**
2. Login with default account and password.
Username: root
Password: 2wsx#EDC

2.7 CLI Initialization and Configuration

1. Key-in the command under Telnet: telnet 192.168.1.1
2. Login with default account and password.
Username: root
Password: 2wsx#EDC
3. Change the IP with commands listed below:

```
config
ip address xxx.xxx.xxx.xxx mask
xxx.xxx.xxx.xxx
```

3 Using the Web

3.1 Using the Web Interface

The object of this document “Web Configuration Tool Guide” is to address the web feature, design layout and describe how to use the web interface.

3.1.1. Web Browser Support

IE 7 (or newer version) with the following default settings is recommended:

Language script	Latin based
Web page font	Times New Roman
Plain text font	Courier New
Encoding	Unicode (UTF-8)
Text size	Medium

Firefox with the following default settings is recommended:

Web page font	Times New Roman
Encoding	Unicode (UTF-8)
Text size	16

Google Chrome with the following default settings is recommended:

Web page font	Times New Roman
Encoding	Unicode (UTF-8)
Text size	Medium

3.1.2. Navigation

All main screens of the web interface can be reached by clicking on hyperlinks in the four menu boxes on the left side of the screen:

- **Status**
- **Network**
- **Port**
- **PoE**
- **VLAN**
- **MAC Address Table**
- **Spanning Tree**
- **Discovery**
- **Multicast**

- Security
- ACL
- QoS
- Diagnostics
- Management

3.1.3. Title Bar Links



Save

If any unsaved change has been made to the *configuration* (by you during this or a prior session, or by any other administrator using the web interface or the Command Line Interface), a Save icon appears in the title line. To save the running configuration to the startup configuration:

1. Click on the Save link. The Message box appears.
2. Click on OK to save the running configuration to the startup configuration.

Logout

Disconnect your current session and need to enter the username/password to login again.

Reboot

Reboot the system and un saved change in the configuration will be lost.

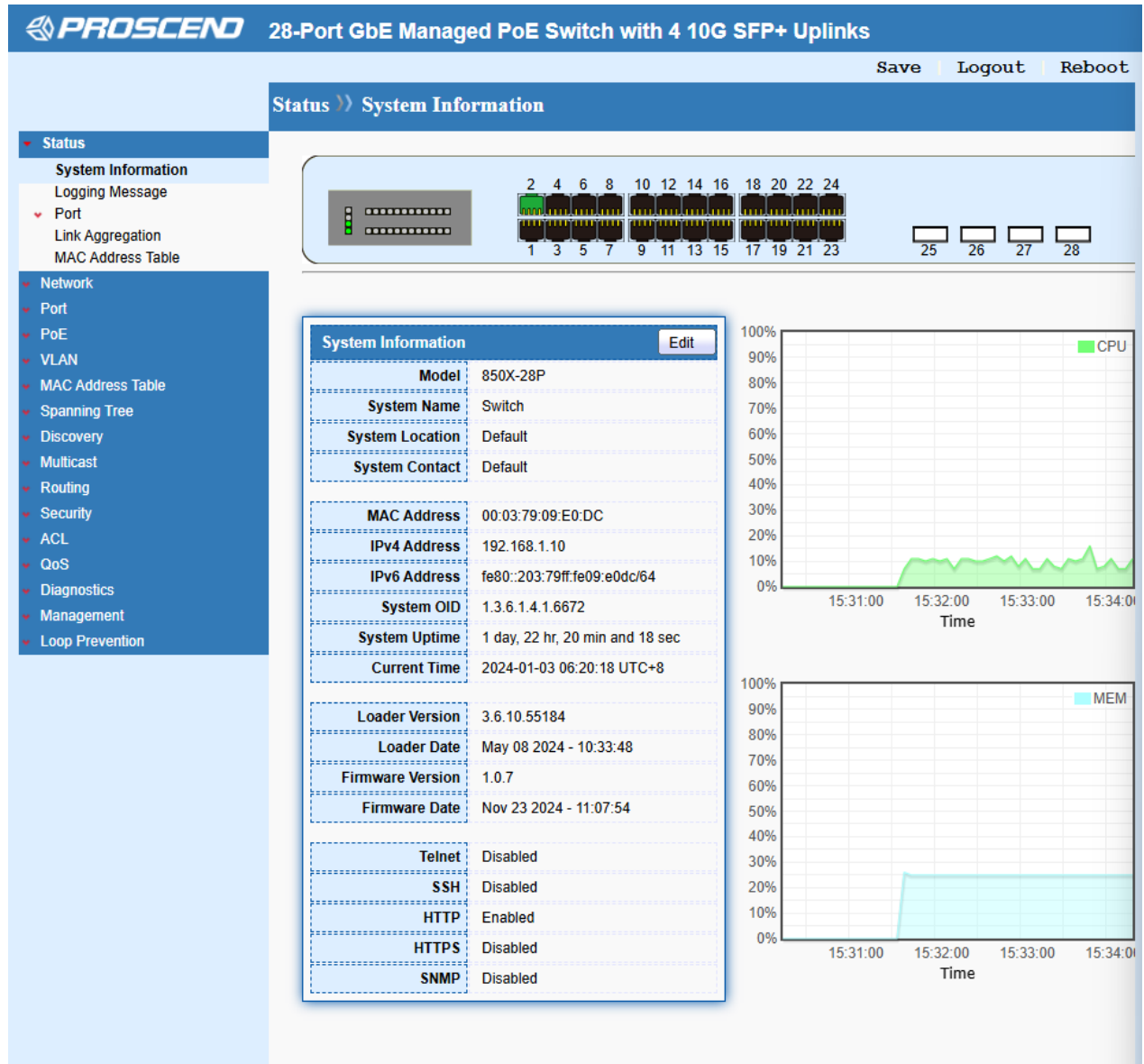
3.2 Login

Operation	<ol style="list-style-type: none"> 1. Open Browser and enter default IP address http://192.168.1.1. 2. Fill Username and Password. 3. Click "LOGIN"
Field	Description
Username	Login user name. The maximum length is 32. Default: admin
Password	Login user password. The maximum length is 32. Default: admin

4 Status

4.1 System Information

This page displays detailed information of system, port status and CPU/Memory utilization.



4.2 Logging Message

This page provides the system log for all events.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#)
[Logout](#)
[Reboot](#)

Status >> Logging Message

Status

System Information

Logging Message

Port

Link Aggregation

MAC Address Table

Network

Port

PoE

VLAN

MAC Address Table

Spanning Tree

Discovery

Multicast

Routing

Security

ACL

QoS

Diagnostics

Management

Loop Prevention

Logging Message Table

Viewing

RAM

Showing

All

entries

Showing 1 to 2 of 2 entries

Log ID

Time

Severity

Description

1

Jan 03 2024 06:24:32

notice

PORT-0-LINK_UP: Interface GigabitEthernet2 link up

2

Jan 03 2024 06:24:28

notice

PORT-5-LINK_DOWN: Interface GigabitEthernet2 link down

First

Previous

1

Next

Last

Clear

Refresh

4.3 Port

4.3.1. Statistics

This page displays statistics for GE/10GE/LAG ports.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#)
[Logout](#)
[Reboot](#)

Status >> Port >> Statistics

Status

System Information

Logging Message

Port

Statistics

Error Disabled

Bandwidth Utilization

Link Aggregation

MAC Address Table

Network

Port

PoE

VLAN

MAC Address Table

Spanning Tree

Discovery

Multicast

Routing

Security

ACL

QoS

Diagnostics

Management

Loop Prevention

Port

GE1

MIB Counter

All

Interface

Etherlike

RMON

Refresh Rate

None

5 sec

10 sec

30 sec

Clear

Interface

ifInOctets

11794612

ifInUcastPkts

12734

ifInNUcastPkts

1448

ifInDiscards

0

ifOutOctets

4945838

ifOutUcastPkts

10395

ifOutNUcastPkts

1248

ifOutDiscards

0

ifInMulticastPkts

1047

ifInBroadcastPkts

401

ifOutMulticastPkts

1246

ifOutBroadcastPkts

2

Status >> Port >> Statistics

Status

- System Information
- Logging Message
- Port
 - Statistics
 - Error Disabled
 - Bandwidth Utilization
 - Link Aggregation
 - MAC Address Table

Network

- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention


dot3StatsAlignmentErrors	0
dot3StatsFCSErrors	0
dot3StatsSingleCollisionFrames	0
dot3StatsMultipleCollisionFrames	0
dot3StatsDeferredTransmissions	0
dot3StatsLateCollisions	0
dot3StatsExcessiveCollisions	0
dot3StatsFrameTooLongs	0
dot3StatsSymbolErrors	0
dot3ControlInUnknownOpCodes	0
dot3InPauseFrames	0
dot3OutPauseFrames	0

RMON

etherStatsDropEvents	0
etherStatsOctets	11794612
etherStatsPkts	14182
etherStatsBroadcastPkts	401
etherStatsMulticastPkts	1047
etherStatsCRCAlignErrors	0
etherStatsUnderSizePkts	0
etherStatsOverSizePkts	0
etherStatsFragments	0
etherStatsJabbers	0
etherStatsCollisions	0
etherStatsPkts64Octets	3638
etherStatsPkts65to127Octets	1709
etherStatsPkts128to255Octets	180
etherStatsPkts256to511Octets	848
etherStatsPkts512to1023Octets	848
etherStatsPkts1024to1518Octets	6959

4.3.2. Error Disabled

This page displays “Error Disabled” status of port and can recover it on this page, too.


28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

Save
Logout
Reboot

Status >> Port >> Error Disabled

Status

System Information
Logging Message
Port
Statistics
Error Disabled
Bandwidth Utilization
Link Aggregation
MAC Address Table

Network
Port
PoE
VLAN
MAC Address Table
Spanning Tree
Discovery
Multicast
Routing
Security
ACL
QoS
Diagnostics
Management
Loop Prevention

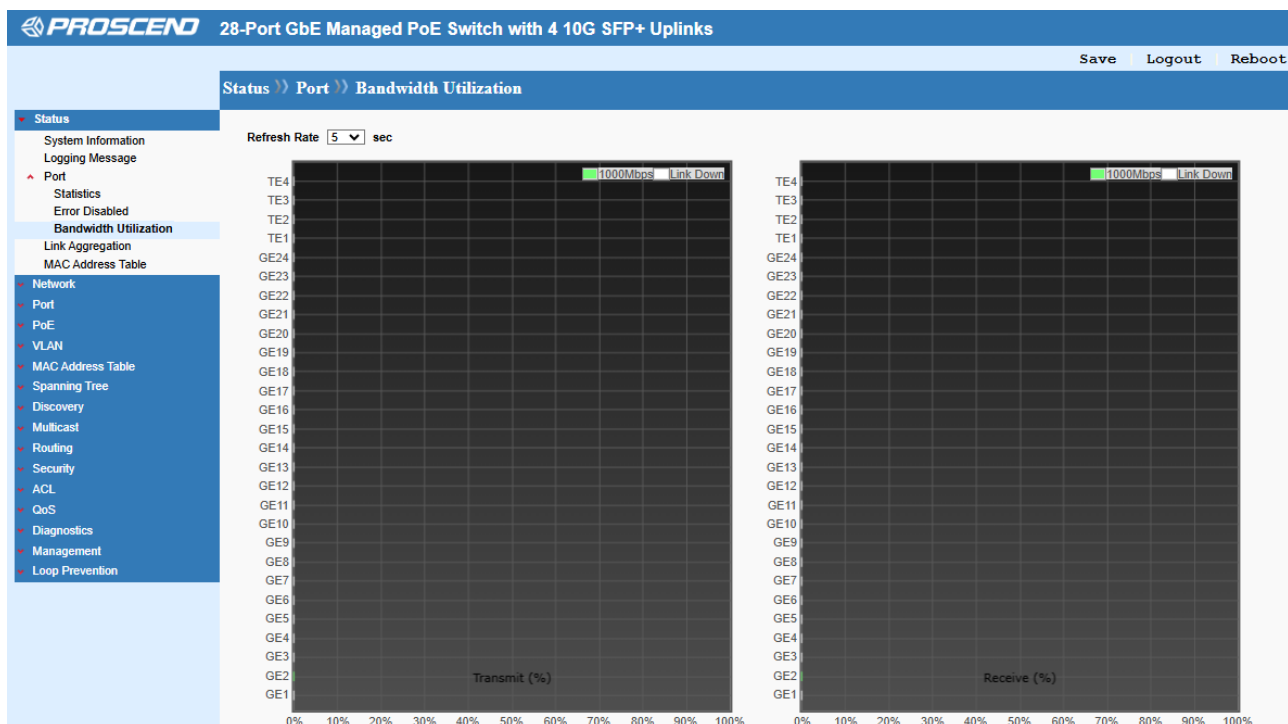
Error Disabled Table

<input type="checkbox"/>	Port	Reason	Time Left (sec)
<input type="checkbox"/>	GE1	---	---
<input type="checkbox"/>	GE2	---	---
<input type="checkbox"/>	GE3	---	---
<input type="checkbox"/>	GE4	---	---
<input type="checkbox"/>	GE5	---	---
<input type="checkbox"/>	GE6	---	---
<input type="checkbox"/>	GE7	---	---
<input type="checkbox"/>	GE8	---	---
<input type="checkbox"/>	GE9	---	---
<input type="checkbox"/>	GE10	---	---
<input type="checkbox"/>	GE11	---	---
<input type="checkbox"/>	GE12	---	---
<input type="checkbox"/>	GE13	---	---
<input type="checkbox"/>	GE14	---	---
<input type="checkbox"/>	GE15	---	---
<input type="checkbox"/>	GE16	---	---
<input type="checkbox"/>	GE17	---	---
<input type="checkbox"/>	GE18	---	---
<input type="checkbox"/>	GE19	---	---
<input type="checkbox"/>	GE20	---	---
<input type="checkbox"/>	GE21	---	---
<input type="checkbox"/>	GE22	---	---
<input type="checkbox"/>	GE23	---	---
<input type="checkbox"/>	GE24	---	---
<input type="checkbox"/>	TE1	---	---
<input type="checkbox"/>	TE2	---	---
<input type="checkbox"/>	TE3	---	---
<input type="checkbox"/>	TE4	---	---
<input type="checkbox"/>	LAG1	---	---
<input type="checkbox"/>	LAG2	---	---
<input type="checkbox"/>	LAG3	---	---
<input type="checkbox"/>	LAG4	---	---
<input type="checkbox"/>	LAG5	---	---
<input type="checkbox"/>	LAG6	---	---
<input type="checkbox"/>	LAG7	---	---
<input type="checkbox"/>	LAG8	---	---

Refresh
Recover

4.3.3. Bandwidth Utilization

This page displays bandwidth utilization for both transmitting and receiving.



4.4 Link Aggregation

This page displays status of each Link Aggregation port.

PROSCEND 28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks Save Logout Reboot

Status >> Link Aggregation


Link Aggregation Table

Search:

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	---	---	---		

4.5 MAC Address Table

This page displays all MAC addresses that through the 850X-28P Switch.

 28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

Save | Logout | Reboot

Status >> MAC Address Table

Status

System Information

Logging Message

Port

Statistics

Error Disabled

Bandwidth Utilization

Link Aggregation

MAC Address Table

Network

Port

PoE

VLAN

MAC Address Table

Spanning Tree

Discovery

Multicast

Routing

Security

ACL

QoS

Diagnostics

Management

Loop Prevention

MAC Address Table

Showing All entries Showing 1 to 2 of 2 entries

VLAN	MAC Address	Type	Port
1	00:03:79:09:E0:DC	Management	CPU
1	A0:36:9F:65:46:D6	Dynamic	GE2

First Previous 1 Next Last

Clear Refresh

5 Network

5.1 IP Address

The switch needs an IP address for it to be managed over the network. The factory default IP address is 192.168.1.1/24. This page allows to configure IP basic settings.

PROSCEND 28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

Save | Logout | Reboot

Network >> IP Address

IPv4 Address

Address Type: ☒ Static ☐ Dynamic

IP Address: 192.168.1.10

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.1.254

IPv6 Address

Auto Configuration: ☒ Enable

DHCPv6 Client: ☐ Enable

IPv6 Address:

Prefix Length: 0 (0 - 128)

IPv6 Gateway:

Operational Status

IPv4 Address: 192.168.1.10

IPv4 Default Gateway: 192.168.1.254

IPv6 Address: ::

IPv6 Gateway: ::

Link Local Address: fe80::203:79ff:fe09:e0dc/64

Apply

Item	Description
IPv4 Address	
Address Type	Select the type of network connection. Static: Use static IPv4 address. Dynamic: Use DHCP provisioned IP address and Gateway if feasible.
IP Address	Fill in the IPv4 address.
Subnet Mask	Fill in the IPv4 mask.
Default Gateway	Fill in the IPv4 Gateway address.
DNS Server 1	Enter primary IPv4 DNS server address in this field.
DNS Server 2	Enter second IPv4 DNS server address in this field.
IPv6 Address	
Auto Configuration	The option to let switch automatically configure IPv6 address.
DHCPv6 Client	Enable this feature if there is a DHCPv6 server on your network for assigning IPv6 Address, instead of using Router Advertisement.

IPv6 Address	Fill in the IPv6 address
Prefix Length	Specify the prefix length of the IPv6 address.
IPv6 Gateway	Fill in the IPv6 Gateway address.
DNS Server 1	Enter primary IPv6 DNS server address in this field.
DNS Server 2	Enter second IPv6 DNS server address in this field.
Operational Status	
IPv4 Address	Current IPv4 address.
IPv4 Default Gateway	Current IPv4 Default Gateway address.
IPv6 Address	Current IPv6 address.
IPv6 Gateway	Current IPv6 Gateway address.
Link Local Address	Current Link Local address.

5.2 DNS

This page allows a user to configure DNS Server configuration.

Item	Description
DNS Configuration	
DNS Status	Enable or Disable DNS function.
DNS Default Name	Fill in DNS Domain Name.
Apply	Apply the settings to the switch.
DNS Server Configuration	
Add	Add DNS Server IPv4/IPv6 Address.
Delete	Delete DNS Server IPv4/IPv6 Address.

Add DNS Server

IPv4/IPv6 Address

Apply
Close

Item	Description
Add DNS Server	
IPv4/IPv6 Address	Fill in DNS Server IPv4/IPv6 Address.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

5.3 Hosts

This page allows a user to configure DNS Host configuration.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) |
 [Logout](#) |
 [Reboot](#)

Network >> Hosts

- Status
- Network
 - IP Address
 - DNS
 - Hosts
 - System Time
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

Network >> Hosts
Q

<input type="checkbox"/>	Host	IPv4/IPv6 Address
0 results found.		

Add
Delete

Dynamic Host Mapping
Q

Host	Total	Elapsed	Type	IPv4/IPv6 Address
0 results found.				

Clear

Item	Description
DNS Host Configuration	
Host	DNS Hostname
IPv4/IPv6 Address	DNS Domain name.
Add	Add DNS Host and corresponding IPv4/IPv6 Address.
Delete	Delete DNS Host and corresponding IPv4/IPv6 Address.
Dynamic Host Mapping	
Clear	Clear Dynamic Host Mapping.

Add Host

Host
(1 to 255 alphanumeric characters)

IPv4/IPv6 Address

Item	Description
DNS Host Configuration	
Host	Fill in Host name.
IPv4/IPv6 Address	Fill in DNS Domain name.

5.4 System Time

This page allows a user to specify where the time of Switch should be inquired from.

Network >> System Time

- Status
- Network
 - IP Address
 - DNS
 - Hosts
 - System Time**
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

Source

☐ SNTP
☐ From Computer
☒ Manual Time

Time Zone

UTC +8:00 ▼

SNTP

Address Type

☒ Hostname
☐ IPv4

Server Address

(You can select IPv4 to enter the IP address)

Server Port

(1 - 65535, default 123)

Manual Time

Date

YYYY-MM-DD

Time

HH:MM:SS

Daylight Saving Time

Type

☒ None
☐ Recurring
☐ Non-recurring
☐ USA
☐ European

Offset

Min (1 - 1440, default 60)

Recurring

From:

Day

Week

Month

Time

To:

Day

Week

Month

Time

Non-recurring

From:

YYYY-MM-DD

HH:MM

To:

YYYY-MM-DD

HH:MM

Operational Status

Current Time

2024-01-03 06:36:37 UTC+8

[Apply](#)

Network > IP Address

Item	Description
Source	SNTP: Click it to get time and date from SNTP Server From Computer: Click it to get time and date from connected PC. Manual Time: Specify static time and date manually.
Tim Zone	Specify the time zone of your area.
SNTP	
Address Type	Specify the address type of SNTP server.
Server Address	Enter the SNTP server IP address or hostname.
Server Port	Specify the service port of SNTP server.
Manual Time	
Date	Enter the date.


Time	Enter the time.
Daylight Saving Time	
Type	<p>Select the type of daylight saving time.</p> <p>None: Disable daylight saving time.</p> <p>Recurring: Using recurring mode of daylight saving time.</p> <p>Non-Recurring: Using non-recurring mode of daylight saving time.</p> <p>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.</p> <p>European: Using daylight saving time in the Europe that starts on the last Sunday.</p>
Offset	Specify the adjust offset of daylight saving time.
Recurring	<p>From: Specify the starting time of recurring daylight saving time.</p> <p>To: Specify the ending time of recurring daylight saving time.</p>
Non-recurring	<p>From: Specify the starting time of non-recurring daylight saving time.</p> <p>To: Specify the ending time of non-recurring daylight saving time.</p>
Operational Status	
Current Time	Display the current time and date of Switch.

6 Port

Port Setting is used to configure settings for the switch ports, trunk, Layer 2 protocols and other switch features.

6.1 Port Setting

Available settings are explained as follows.

 28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

Save | Logout | Reboot

Port >> Port Setting

Status

Network

Port

Port Setting

Error Disabled

Link Aggregation

EEE

Jumbo Frame

PoE

VLAN

MAC Address Table

Spanning Tree

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Multicast

Routing

Security

ACL

QoS

Diagnostics

Management

Port Setting Table

Entry

Port

Type

Description

State

Link Status

Speed

Flow Control

☐

1

GE1

1000M Copper

Enabled

Down

Auto

Disabled

☐

2

GE2

1000M Copper

Enabled

Up

Auto (1000M Full)

Disabled (Off)

☐

3

GE3

1000M Copper

Enabled

Down

Auto

Disabled

☐

4

GE4

1000M Copper

Enabled

Down

Auto

Disabled

☐

5

GE5

1000M Copper

Enabled

Down

Auto

Disabled

☐

6

GE6

1000M Copper

Enabled

Down

Auto

Disabled

☐

7

GE7

1000M Copper

Enabled

Down

Auto

Disabled

☐

8

GE8

1000M Copper

Enabled

Down

Auto

Disabled

☐

9

GE9

1000M Copper

Enabled

Down

Auto

Disabled

☐

10

GE10

1000M Copper

Enabled

Down

Auto

Disabled

☐

11

GE11

1000M Copper

Enabled

Down

Auto

Disabled

☐

12

GE12

1000M Copper

Enabled

Down

Auto

Disabled

☐

13

GE13

1000M Copper

Enabled

Down

Auto

Disabled

☐

14

GE14

1000M Copper

Enabled

Down

Auto

Disabled

☐

15

GE15

1000M Copper

Enabled

Down

Auto

Disabled

☐

16

GE16

1000M Copper

Enabled

Down

Auto

Disabled

☐

17

GE17

1000M Copper

Enabled

Down

Auto

Disabled

☐

18

GE18

1000M Copper

Enabled

Down

Auto

Disabled

☐

19

GE19

1000M Copper

Enabled

Down

Auto

Disabled

☐

20

GE20

1000M Copper

Enabled

Down

Auto

Disabled

☐

21

GE21

1000M Copper

Enabled

Down

Auto

Disabled

☐

22

GE22

1000M Copper

Enabled

Down

Auto

Disabled

☐

23

GE23

1000M Copper

Enabled

Down

Auto

Disabled

☐

24

GE24

1000M Copper

Enabled

Down

Auto

Disabled

☐

25

TE1

10G Fiber

Enabled

Down

10G

Disabled

☐

26

TE2

10G Fiber

Enabled

Down

10G

Disabled

☐

27

TE3

10G Fiber

Enabled

Down

10G

Disabled

☐

28

TE4

10G Fiber

Enabled

Down

10G

Disabled

Edit

Edit Port Setting

Port
GE1

Description

State
☒ Enable

Speed

☒ Auto
☐ 10M

☐ Auto - 10M
☐ 100M

☐ Auto - 100M
☐ 1000M

☐ Auto - 1000M
☐ 10M/100M

Duplex

☒ Auto
☐ Full
☐ Half

Flow Control

☐ Auto
☐ Enable
☒ Disable

Apply

Close

Item	Description
Edit	Edit specified port settings.
Port	The port number that you are doing setting now.
Description	Enter the description of this port.
State	Click it to enable/disable the port.
Speed	Specify the port speed, default is Auto. For SFP fiber module, you might need to manually configure the speed to match fiber module speed.
Duplex	Port duplex capabilities: Auto: Auto duplex with all capabilities. Full: Auto speed with 10/100/1000M ability only. Half: Auto speed with 10/100M ability only.
Flow Control	Flow Control is used to regulate transmission of signals to match the bandwidth of the receiving port. Click it to enable/disable Flow Control.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

6.2 Error Disabled

Port >> Error Disabled

- ▼ Status
- ▼ Network
- ▼ Port
 - Port Setting
 - Error Disabled**
 - Link Aggregation
 - EEE
 - Jumbo Frame
- ▼ PoE
- ▼ VLAN
- ▼ MAC Address Table
- ▼ Spanning Tree
- ▼ Discovery
- ▼ Multicast
- ▼ Routing
- ▼ Security
- ▼ ACL
- ▼ QoS
- ▼ Diagnostics
- ▼ Management
- ▼ Loop Prevention

Recovery Interval

Sec (30 - 86400)

BPDU Guard	<input type="checkbox"/> Enable
UDLD	<input type="checkbox"/> Enable
Self Loop	<input type="checkbox"/> Enable
Broadcast Flood	<input type="checkbox"/> Enable
Unknown Multicast Flood	<input type="checkbox"/> Enable
Unicast Flood	<input type="checkbox"/> Enable
ACL	<input type="checkbox"/> Enable
Port Security	<input type="checkbox"/> Enable
DHCP Rate Limit	<input type="checkbox"/> Enable
ARP Rate Limit	<input type="checkbox"/> Enable

Item	Description
Recovery Interval	The port being blocked will be able to receive and send traffic after the time period configured here.
BPDU Guard	Recover the port being blocked by BPDU Guard after the time set in Recovery Interval.
UDLD	Check it to enable UniDirectional Link Detection (UDLD) function.
Self Loop	Recover the port being blocked by self loop Guard after the time set in Recovery Interval.
Broadcast Flood	Recover the port being blocked by broadcast flood after the time set in Recovery Interval.
Unknown Multicast Flood	Recover the port being blocked by unknown multicast flood after the time set in Recovery Interval.
Unicast Flood	Recover the port being blocked by unicast flood after the time set in Recovery Interval.
ACL	Recover the port being blocked by ACL after the time set in Recovery Interval.
Port Security	Recover the port being blocked by port security after the time set in Recovery Interval.
DHCP Rate Limit	Recover the port being blocked by DHCP rate limit after the time set in Recovery Interval.
ARP Rate Limit	Recover the port being blocked by ARP rate limit after the time set in Recovery Interval.
Apply	Apply the settings to the switch.

6.3 Link Aggregation

6.3.1. Group

Link Aggregation Group which groups some physical ports together to make a single high-bandwidth data path. Thus, it can implement traffic load sharing among the member ports in a group to enhance the connection reliability.

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Save | Logout | Reboot

Port >> Link Aggregation >> Group

Status

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Port

Port Setting

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Link Aggregation

Group

Port Setting

LACP

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Load Balance Algorithm

☒ MAC Address
☐ IP-MAC Address

Apply

Link Aggregation Table

Q

	LAG	Name	Type	Link Status	Active Member	Inactive Member	
<input type="radio"/>	LAG 1		---	---			
<input type="radio"/>	LAG 2		---	---			
<input type="radio"/>	LAG 3		---	---			
<input type="radio"/>	LAG 4		---	---			
<input type="radio"/>	LAG 5		---	---			
<input type="radio"/>	LAG 6		---	---			
<input type="radio"/>	LAG 7		---	---			
<input type="radio"/>	LAG 8		---	---			

Edit

Item	Description
Load Balance Algorithm	Select Load balance algorithm. MAC address: Aggregated group will balance the traffic based on different MAC addresses. Therefore, the packets from different MAC addresses will be sent to different links. IP-MAC Address: Aggregated group will balance the traffic based on MAC addresses and IP addresses. Therefore, the packets from same MAC addresses but different IP addresses will be sent to different links.
Apply	Apply the settings to the switch.
Edit	Edit the profile of Link Aggregation group. There are eight LAG profiles allowed to group different physical ports. The system will assign certain port(s) as Active Member and Standby Member according to the port selections.

Edit Link Aggregation Group

LAG

1

Name

Type

☒ Static
☐ LACP

Member

Available Port

GE1
GE2
GE3
GE4
GE5
GE6
GE7
GE8

>
<

Selected Port

Apply

Close

Item	Description
LAG	The index number of LAG group.
Name	Enter the name of the current LAG group.
Type	<p>Select the type for current LAG group.</p> <p>Static: The static aggregated port sends packets over active member without detecting or negotiating with remote aggregated port.</p> <p>Active: The interface is in an active negotiating state. LACP runs on any link that is configured to be in the active state. The port in an active mode also automatically initiates negotiations with other ports by initiating LACP packets.</p> <p>Passive: The interface is not in an active negotiating state. LACP runs on any link that is configured in a passive mode. The port in a passive mode responds to negotiations requests from other ports that are in an active mode. Ports in passive mode respond to LACP packets.</p>
Member	Select the member of the current LAG group.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

6.3.2. Port Setting

This page defines port setting for each LAG profile (LAG1 to LAG8), including data speed and enabling/disabling the flow control.

Port >> Link Aggregation >> Port Setting

- Status
- Network
- Port
 - Port Setting
 - Error Disabled
 - Link Aggregation
 - Group
 - Port Setting**
 - LACP
 - EEE
 - Jumbo Frame
 - PoE
 - VLAN
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Port Setting Table

<input type="checkbox"/>	LAG	Type	Description	State	Link Status	Speed	Duplex	Flow Control	
<input type="checkbox"/>	LAG 1			Enabled	Down	Auto	Auto	Disabled	
<input type="checkbox"/>	LAG 2			Enabled	Down	Auto	Auto	Disabled	
<input type="checkbox"/>	LAG 3			Enabled	Down	Auto	Auto	Disabled	
<input type="checkbox"/>	LAG 4			Enabled	Down	Auto	Auto	Disabled	
<input type="checkbox"/>	LAG 5			Enabled	Down	Auto	Auto	Disabled	
<input type="checkbox"/>	LAG 6			Enabled	Down	Auto	Auto	Disabled	
<input type="checkbox"/>	LAG 7			Enabled	Down	Auto	Auto	Disabled	
<input type="checkbox"/>	LAG 8			Enabled	Down	Auto	Auto	Disabled	

[Edit](#)

Item	Description
Edit	Edit the settings of LAG port.

Port >> Link Aggregation >> Port Setting

Edit Port Setting

Port

LAG1

Description

State

☒ Enable

Speed

☒ Auto
 ☐ 10M

☐ Auto - 10M
 ☐ 100M

☐ Auto - 100M
 ☐ 1000M

☐ Auto - 1000M
 ☐ 10000M

☐ Auto - 10M/100M

Flow Control

☐ Auto
 ☐ Enable
 ☒ Disable

Apply

Close

Item	Description
Port	The index number of current LAG port.
Description	Enter the description of the current LAG port.
State	Enable or disable the LAG port.
Speed	Select the specified speed for LAG port.
Flow Control	<p>Select the mode of Flow Control for current LAG port.</p> <p>Flow Control is used to regulate transmission of signals to match the bandwidth of the receiving port. The switch uses IEEE802.3x flow control in full duplex mode and backpressure flow control in half duplex mode. IEEE802.3x flow control is used in full duplex mode to send a pause signal to the sending port, causing it to temporarily stop sending signals when the receiving port memory buffers fill. Back Pressure flow control is typically used in half duplex mode to send a "collision" signal to the sending port (mimicking a state of packet collision) causing the sending port to temporarily stop sending signals and resend later.</p>
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

6.3.3. LACP

This page allows the network administrator to change system priority of the LACP function.

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Port >> Link Aggregation >> LACP

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System Priority

32768

(1 - 65535, default 32768)

Apply

LACP Port Setting Table

Q

<input type="checkbox"/>	Entry	Port	Port Priority	Timeout
<input type="checkbox"/>	1	GE1	1	Long
<input type="checkbox"/>	2	GE2	1	Long
<input type="checkbox"/>	3	GE3	1	Long
<input type="checkbox"/>	4	GE4	1	Long
<input type="checkbox"/>	5	GE5	1	Long
<input type="checkbox"/>	6	GE6	1	Long
<input type="checkbox"/>	7	GE7	1	Long
<input type="checkbox"/>	8	GE8	1	Long
<input type="checkbox"/>	9	GE9	1	Long
<input type="checkbox"/>	10	GE10	1	Long
<input type="checkbox"/>	11	GE11	1	Long
<input type="checkbox"/>	12	GE12	1	Long
<input type="checkbox"/>	13	GE13	1	Long
<input type="checkbox"/>	14	GE14	1	Long
<input type="checkbox"/>	15	GE15	1	Long
<input type="checkbox"/>	16	GE16	1	Long
<input type="checkbox"/>	17	GE17	1	Long
<input type="checkbox"/>	18	GE18	1	Long
<input type="checkbox"/>	19	GE19	1	Long
<input type="checkbox"/>	20	GE20	1	Long
<input type="checkbox"/>	21	GE21	1	Long
<input type="checkbox"/>	22	GE22	1	Long
<input type="checkbox"/>	23	GE23	1	Long
<input type="checkbox"/>	24	GE24	1	Long
<input type="checkbox"/>	25	TE1	1	Long
<input type="checkbox"/>	26	TE2	1	Long
<input type="checkbox"/>	27	TE3	1	Long
<input type="checkbox"/>	28	TE4	1	Long

Edit

Item	Description
System Priority	The priority is used to determine which switch (local or remote) on the LAG connection is able to decide LACP activities.
Apply	Apply the settings to the switch.
Edit	Edit the settings of LACP port.

Port >> Link Aggregation >> LACP

Edit LACP Port Setting

Port	GE1
Port Priority	<input type="text" value="1"/> (1 - 65535, default 1)
Timeout	<input checked="" type="radio"/> Long <input type="radio"/> Short

Item	Description
Port	The index number of LACP port.
Port Priority	Enter the priority number for the port.
Timeout	<p>The timeout option decides how local switch of LAG connection determines connection to be lost. Switch would also notify the remote switch about this setting value, so that remote switch can send LACP PDU in correct timing.</p> <p>Long: LACP PDU will be sent every 30 seconds. If port member is not seen over 90 seconds, it will cause port member timeout.</p> <p>Short: LACP PDU will be sent per second. If port member is not seen over 3 seconds, it will cause port member timeout.</p>
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

6.4 EEE

This page allows a user to enable or disable port EEE (Energy Efficient Ethernet) function.

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Port >> EEE

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- Network
- Port
 - Port Setting
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EEE Setting Table

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

[Edit](#)

Port >> EEE

Edit EEE Setting

Port	GE1
State	<input type="checkbox"/> Enable

[Apply](#)
[Close](#)

Item	Description
Edit	Edit the settings of the EEE.
Port	The index number of the port
State	Enable or disable the EEE function of the port.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

6.5 Jumbo Frame

This page allows a user to configure switch port jumbo frame settings.

PROSCEND

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Save | Logout | Reboot

Port >> Jumbo Frame

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Jumbo Frame

☐ Enable

10000

Byte (1518 - 10000, default 1522)

Apply

Item	Description
Jumbo Frame	Enable or disable the Jumbo Frame setting.
Apply	Apply the settings to the switch.

7 PoE

This section allows you to setup Global PoE Setting, Priority Setting, Power Limit, Power Show, PD Alive Check.

7.1 Global Setting

PROSCEND

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PoE >> Global Setting

Nominal Power380 W

Consuming Power0 W

Remaining Power380 W

Schedule StatusDisable

Apply

PoE Schedule Table

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

Edit

Item	Description
Nominal Power	Total PoE power budget of the device can be configured Max Power Limit Range is 380 (W).
Consuming Power	Displays the total consuming power for all the PDs.
Remaining Power	Displays the Remaining power for all the PDs.
Schedule Status	Enable/Disable schedule status

PoE Schedule Edit

Index: 1
Schedule Status: ☐ Enable
Name: None
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

Item	Description
Index	Index of PoE schedule table.
Schedule Status	Enable/Disable schedule status.
Name	Name of schedule status name.
Date	Week: Enables/Disables the PD Alive Check. Time: User can configure the PoE Schedule time from 0:00 to 23:59
Port List	Port list for selecting port enable and disable schedule.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

7.2 Priority Setting

This page displays the current PoE mode of all ports.

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PoE >> Priority Setting

Item	Description
Priority	Click a port to change priority PoE level for the switch.
Apply	Apply the settings to the switch.

7.3 Power Limit

This page displays the current PoE mode of all ports.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

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PoE » Power Limit

Power Limit Setting Table

<input type="checkbox"/>	Entry	Port	Power Limit
<input type="checkbox"/>	1	GE1	30000mW
<input type="checkbox"/>	2	GE2	30000mW
<input type="checkbox"/>	3	GE3	30000mW
<input type="checkbox"/>	4	GE4	30000mW
<input type="checkbox"/>	5	GE5	30000mW
<input type="checkbox"/>	6	GE6	30000mW
<input type="checkbox"/>	7	GE7	30000mW
<input type="checkbox"/>	8	GE8	30000mW
<input type="checkbox"/>	9	GE9	30000mW
<input type="checkbox"/>	10	GE10	30000mW
<input type="checkbox"/>	11	GE11	30000mW
<input type="checkbox"/>	12	GE12	30000mW
<input type="checkbox"/>	13	GE13	30000mW
<input type="checkbox"/>	14	GE14	30000mW
<input type="checkbox"/>	15	GE15	30000mW
<input type="checkbox"/>	16	GE16	30000mW
<input type="checkbox"/>	17	GE17	30000mW
<input type="checkbox"/>	18	GE18	30000mW
<input type="checkbox"/>	19	GE19	30000mW
<input type="checkbox"/>	20	GE20	30000mW
<input type="checkbox"/>	21	GE21	30000mW
<input type="checkbox"/>	22	GE22	30000mW
<input type="checkbox"/>	23	GE23	30000mW
<input type="checkbox"/>	24	GE24	30000mW

Edit

Item	Description
Entry	Entry no. of PoE port.
Port	Switch PoE port.
Power Limit	Limit the max power of corresponding port.
Edit	Edit max power of selected entry.

Power Limit Setting Table

Port List

GE1

Power Limit

mW (0 - 30000, default 30000)

Apply

Close

7.4 Power Show

This page displays the current PoE mode of all ports.

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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

Disabled

Enabled

Apply

Q

	Port	Status	PD Class	Max Power	Consuming Power	Priority
1	GE1	Searching	N/A	0 mW	0 mW	Low
2	GE2	Searching	N/A	0 mW	0 mW	Low
3	GE3	Searching	N/A	0 mW	0 mW	Low
4	GE4	Searching	N/A	0 mW	0 mW	Low
5	GE5	Searching	N/A	0 mW	0 mW	Low
6	GE6	Searching	N/A	0 mW	0 mW	Low
7	GE7	Searching	N/A	0 mW	0 mW	Low
8	GE8	Searching	N/A	0 mW	0 mW	Low
9	GE9	Searching	N/A	0 mW	0 mW	Low
10	GE10	Searching	N/A	0 mW	0 mW	Low
11	GE11	Searching	N/A	0 mW	0 mW	Low
12	GE12	Searching	N/A	0 mW	0 mW	Low
13	GE13	Searching	N/A	0 mW	0 mW	Low
14	GE14	Searching	N/A	0 mW	0 mW	Low
15	GE15	Searching	N/A	0 mW	0 mW	Low
16	GE16	Searching	N/A	0 mW	0 mW	Low
17	GE17	Searching	N/A	0 mW	0 mW	Low
18	GE18	Searching	N/A	0 mW	0 mW	Low
19	GE19	Searching	N/A	0 mW	0 mW	Low
20	GE20	Searching	N/A	0 mW	0 mW	Low
21	GE21	Searching	N/A	0 mW	0 mW	Low
22	GE22	Searching	N/A	0 mW	0 mW	Low
23	GE23	Searching	N/A	0 mW	0 mW	Low
24	GE24	Searching	N/A	0 mW	0 mW	Low

Refresh

7.5 PD Alive Check

This page allows a user to enable or disable port PD Alive Check function. If the port's state is enabled, the Switch will send keep-a-live probe packet every interval time. If the host cannot respond when the keep-a-live probe packet count is over the retry times, the Switch performs the action, PD Reboot/Reboot&Alarm/Alarm to the Power Device, depending on the port's configuration.

PoE » PD Alive Check

- Status
- Network
- Port
- PoE
 - Global Setting
 - Priority Setting
 - Power Limit
 - Power Show
 - PD Alive Check
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

PD Alive Check Table

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

[Edit](#)

PD Alive Check Table

Port List	GE1	
Status	<input type="checkbox"/> Enable	
ping PD IP Address	<input type="text" value="0.0.0.0"/>	
Interval Time	<input type="text" value="30"/>	Sec (10 - 300, default 30)
Retry Count	<input type="text" value="2"/>	(1 - 5, default 2)
Action	<input type="text" value="None"/>	
Reboot Time	<input type="text" value="90"/>	Sec (30 - 180, default 90)

[Apply](#)
[Close](#)

Item	Description
Edit	Edit the settings of the PD Alive Check.
Port List	The index number of the port

State	Enables/Disables the PD Alive Check.
ping PD IP Address	Specifies the Host IP address which connects to the port.
Interval Time	The interval to send the packet probes to check if the host is still alive.
Retry Count	The retry times when no response from the host for the keep-a-live probe packet.
Action	<p>The action to the Power Device when the system detects that the Power Device cannot respond the keep-a-live probe packet.</p> <p>PD Reboot: Cut off the power of the PoE port, make PD rebooted.</p> <p>Reboot&Alarm: Send an alarm message to inform the administrator and then reboot the PD.</p> <p>Alarm: Just send an alarm message to inform the administrator.</p> <p>None: Keep Ping the remote PD but does nothing further.</p>
Reboot Time	Reboot after retries timeout.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

8 VLAN

This section allows for controlling VLAN configuration on the switch

8.1 VLAN

8.1.1. Create VLAN

This page allows to add, edit or delete VLAN settings.

The screenshot shows the Proscend web interface for a 28-Port GbE Managed PoE Switch. The top navigation bar includes 'Save', 'Logout', and 'Reboot' buttons. The breadcrumb trail is 'VLAN >> VLAN >> Create VLAN'. The sidebar menu on the left lists various configuration options, with 'VLAN' expanded to show 'Create VLAN', 'VLAN Configuration', 'Membership', and 'Port Setting'. The main content area features a 'VLAN' configuration section with two lists: 'Available VLAN' (VLAN 2 through 9) and 'Created VLAN' (VLAN 1). An 'Apply' button is located below these lists. Below the configuration section is a 'VLAN Table' with a search bar and a table showing one entry: VLAN 1, default type, disabled state. The table has columns for 'VLAN', 'Name', 'Type', and 'VLAN Interface State'. Navigation buttons like 'First', 'Previous', '1', 'Next', and 'Last' are at the bottom of the table.

Item	Description
VLAN	Select available VLAN ID and move to created VLAN for creating VLAN settings.
Apply	Apply the settings to the switch.
Edit	Edit selected VLAN ID.
Delete	Delete selected VLAN ID.

VLAN >> VLAN >> Create VLAN

Edit VLAN Name

Name

VLAN0002

Apply

Close

Item	Description
Name	Modify the name of the specified VLAN ID.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

8.1.2. VLAN Configuration

This page allows to configure interface setting related to VLAN.

VLAN >> VLAN >> VLAN Configuration

- Status
- Network
- Port
- PoE
- VLAN
 - Create VLAN
 - VLAN Configuration
 - Membership
 - Port Setting
 - Voice VLAN
 - Protocol VLAN
 - MAC VLAN
 - GVRP
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

VLAN Configuration Table

VLAN default

Entry	Port	Mode	Membership			PVID	Forbidden
1	GE1	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	GE2	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	GE3	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	GE4	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	GE5	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	GE6	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7	GE7	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8	GE8	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9	GE9	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10	GE10	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11	GE11	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12	GE12	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13	GE13	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14	GE14	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15	GE15	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16	GE16	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
17	GE17	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
18	GE18	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
19	GE19	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
20	GE20	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
21	GE21	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
22	GE22	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
23	GE23	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
24	GE24	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
25	TE1	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
26	TE2	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
27	TE3	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
28	TE4	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
29	LAG1	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
30	LAG2	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
31	LAG3	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
32	LAG4	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
33	LAG5	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
34	LAG6	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
35	LAG7	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>
36	LAG8	Trunk	<input type="radio"/> Excluded	<input type="radio"/> Tagged	<input checked="" type="radio"/> Untagged	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Item	Description
VLAN	Configure the VLAN settings of selected VLAN ID.
Membership	Excluded: Specify the VLAN profile excluded in the VLAN. Forbidden: Specify the VLAN profile forbidden in the VLAN. Tagged: Specify the VLAN profile tagged in the VLAN. Untagged: Specify the VLAN profile untagged in the VLAN.
PVID	A PVID (Port VLAN ID) is a tag that adds to incoming untagged frames received on a port so that the frames are forwarded to the VLAN group that the tag defines.
Apply	Apply the settings to the switch.

8.1.3. Membership

This page allows to configure the settings of membership on each port.

VLAN >> VLAN >> Membership

- Status
- Network
- Port
- PoE
- VLAN
 - VLAN
 - Create VLAN
 - VLAN Configuration
 - Membership
 - Port Setting
 - Voice VLAN
 - Protocol VLAN
 - MAC VLAN
 - GVRP
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

Membership Table

Q

	Entry	Port	Mode	Administrative VLAN	Operational VLAN
<input type="radio"/>	1	GE1	Trunk	1UP	1UP
<input type="radio"/>	2	GE2	Trunk	1UP	1UP
<input type="radio"/>	3	GE3	Trunk	1UP	1UP
<input type="radio"/>	4	GE4	Trunk	1UP	1UP
<input type="radio"/>	5	GE5	Trunk	1UP	1UP
<input type="radio"/>	6	GE6	Trunk	1UP	1UP
<input type="radio"/>	7	GE7	Trunk	1UP	1UP
<input type="radio"/>	8	GE8	Trunk	1UP	1UP
<input type="radio"/>	9	GE9	Trunk	1UP	1UP
<input type="radio"/>	10	GE10	Trunk	1UP	1UP
<input type="radio"/>	11	GE11	Trunk	1UP	1UP
<input type="radio"/>	12	GE12	Trunk	1UP	1UP
<input type="radio"/>	13	GE13	Trunk	1UP	1UP
<input type="radio"/>	14	GE14	Trunk	1UP	1UP
<input type="radio"/>	15	GE15	Trunk	1UP	1UP
<input type="radio"/>	16	GE16	Trunk	1UP	1UP
<input type="radio"/>	17	GE17	Trunk	1UP	1UP
<input type="radio"/>	18	GE18	Trunk	1UP	1UP
<input type="radio"/>	19	GE19	Trunk	1UP	1UP
<input type="radio"/>	20	GE20	Trunk	1UP	1UP
<input type="radio"/>	21	GE21	Trunk	1UP	1UP
<input type="radio"/>	22	GE22	Trunk	1UP	1UP
<input type="radio"/>	23	GE23	Trunk	1UP	1UP
<input type="radio"/>	24	GE24	Trunk	1UP	1UP
<input type="radio"/>	25	TE1	Trunk	1UP	1UP
<input type="radio"/>	26	TE2	Trunk	1UP	1UP
<input type="radio"/>	27	TE3	Trunk	1UP	1UP
<input type="radio"/>	28	TE4	Trunk	1UP	1UP
<input type="radio"/>	29	LAG1	Trunk	1UP	1UP
<input type="radio"/>	30	LAG2	Trunk	1UP	1UP
<input type="radio"/>	31	LAG3	Trunk	1UP	1UP
<input type="radio"/>	32	LAG4	Trunk	1UP	1UP
<input type="radio"/>	33	LAG5	Trunk	1UP	1UP
<input type="radio"/>	34	LAG6	Trunk	1UP	1UP
<input type="radio"/>	35	LAG7	Trunk	1UP	1UP
<input type="radio"/>	36	LAG8	Trunk	1UP	1UP

Edit

Edit Port Setting

Port	GE2	
Mode	Trunk	
Membership	2	1UP
	<input type="radio"/> Forbidden <input type="radio"/> Excluded <input checked="" type="radio"/> Tagged <input type="radio"/> Untagged <input type="checkbox"/> PVID	

Apply Close

Item	Description
Edit	Edit the settings of the selected port.
Port	The index number of the selected port.
Mode	The mode of the selected port.
Membership	Forbidden: Specify the VLAN profile forbidden in the VLAN. Excluded: Specify the VLAN profile excluded in the VLAN. Tagged: Specify the VLAN profile tagged in the VLAN. Untagged: Specify the VLAN profile untagged in the VLAN.
PVID	A PVID (Port VLAN ID) is a tag that adds to incoming untagged frames received on a port so that the frames are forwarded to the VLAN group that the tag defines.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

8.1.4. Port Setting

This page allows to configure more port settings of the VLAN.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#)
[Logout](#)
[Reboot](#)

VLAN >> VLAN >> Port Setting

- Status
- Network
- Port
- PoE
- VLAN**
 - VLAN
 - Create VLAN
 - VLAN Configuration
 - Membership
 - Port Setting**
 - Voice VLAN
 - Protocol VLAN
 - MAC VLAN
 - GVRP
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

Port Setting Table

<input type="checkbox"/>	Entry	Port	Mode	PVID	Accept Frame Type	Ingress Filtering	Uplink	TPID
<input type="checkbox"/>	1	GE1	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	2	GE2	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	3	GE3	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	4	GE4	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	5	GE5	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	6	GE6	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	7	GE7	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	8	GE8	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	9	GE9	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	10	GE10	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	11	GE11	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	12	GE12	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	13	GE13	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	14	GE14	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	15	GE15	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	16	GE16	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	17	GE17	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	18	GE18	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	19	GE19	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	20	GE20	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	21	GE21	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	22	GE22	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	23	GE23	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	24	GE24	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	25	TE1	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	26	TE2	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	27	TE3	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	28	TE4	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	29	LAG1	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	30	LAG2	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	31	LAG3	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	32	LAG4	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	33	LAG5	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	34	LAG6	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	35	LAG7	Trunk	1	All	Enabled	Disabled	0x8100
<input type="checkbox"/>	36	LAG8	Trunk	1	All	Enabled	Disabled	0x8100

Edit

Item	Description
Edit	Edit the settings of the selected port.
Port	The index number of the selected port.
Mode	Select the VLAN mode of the port. Hybrid: Support all functions as defined in IEEE 802.1Q specification. Access: Accept 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. Tunnel: Accept packets with tag stacking (double tagging) by following the 802.1Q-in-Q tunneling.
PVID	A PVID (Port VLAN ID) is a tag that adds to incoming untagged frames received on a port so that the frames are

	forwarded to the VLAN group that the tag defines. For port under Access Mode, VLAN ID provided as PVID would automatically be selected as the untagged VLAN.
Accept Frame Type	Specify the acceptable-frame-type of the specified interfaces. It's only available with Hybrid mode. All: Accept frames regardless it's tagged with 802.1q or not. Tag Only: Accept frames only with 802.1q tagged. Untag Only: Accept frames untagged.
Ingress Filtering	Enable or disable the Ingress Filtering function. Enable the ingress filtering to filter out any packets not belong to any VLAN members of this port. It is enabled automatically while operating in Access and Trunk mode.
Uplink	Configure the selected port as the role of trunk. It can recognize double tagging on the interface.
TPID	Specify the TPID of the port.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

8.2 Voice VLAN

With such feature, a VLAN will be created temporarily and when the specified OUI device delivers protocol packets related to "VoIP", the 850X-28P Switch will guide these packets into the specified Voice LAN with specified priority tag to speed up the packet transmission. Such voice VLAN is only active inside VigorSwitch for packet transmission. After these packets leave VigorSwitch, the Voice VLAN tag will be removed immediately.

8.2.1. Property

This page allows to configure global and per interface setting of voice VLAN.

VLAN >> Voice VLAN >> Property

- ▼ Status
- ▼ Network
- ▼ Port
- ▼ PoE
- ▼ VLAN
 - ▼ VLAN
 - ▲ Voice VLAN
 - Property
 - Voice OUI
 - ▼ Protocol VLAN
 - ▼ MAC VLAN
 - ▼ GVRP
 - ▼ MAC Address Table
 - ▼ Spanning Tree
 - ▼ Discovery
 - ▼ Multicast
 - ▼ Routing
 - ▼ Security
 - ▼ ACL
 - ▼ QoS
 - ▼ Diagnostics
 - ▼ Management
 - ▼ Loop Prevention

Port Setting Table



<input type="checkbox"/>	Entry	Port	State	Mode	QoS Policy
<input type="checkbox"/>	1	GE1	Disabled	Auto	Voice Packet
<input type="checkbox"/>	2	GE2	Disabled	Auto	Voice Packet
<input type="checkbox"/>	3	GE3	Disabled	Auto	Voice Packet
<input type="checkbox"/>	4	GE4	Disabled	Auto	Voice Packet
<input type="checkbox"/>	5	GE5	Disabled	Auto	Voice Packet
<input type="checkbox"/>	6	GE6	Disabled	Auto	Voice Packet
<input type="checkbox"/>	7	GE7	Disabled	Auto	Voice Packet
<input type="checkbox"/>	8	GE8	Disabled	Auto	Voice Packet
<input type="checkbox"/>	9	GE9	Disabled	Auto	Voice Packet
<input type="checkbox"/>	10	GE10	Disabled	Auto	Voice Packet
<input type="checkbox"/>	11	GE11	Disabled	Auto	Voice Packet
<input type="checkbox"/>	12	GE12	Disabled	Auto	Voice Packet
<input type="checkbox"/>	13	GE13	Disabled	Auto	Voice Packet
<input type="checkbox"/>	14	GE14	Disabled	Auto	Voice Packet

VLAN >> Voice VLAN >> Property

<input type="checkbox"/>	4	GE4	Disabled	Auto	Voice Packet
<input type="checkbox"/>	5	GE5	Disabled	Auto	Voice Packet
<input type="checkbox"/>	6	GE6	Disabled	Auto	Voice Packet
<input type="checkbox"/>	7	GE7	Disabled	Auto	Voice Packet
<input type="checkbox"/>	8	GE8	Disabled	Auto	Voice Packet
<input type="checkbox"/>	9	GE9	Disabled	Auto	Voice Packet
<input type="checkbox"/>	10	GE10	Disabled	Auto	Voice Packet
<input type="checkbox"/>	11	GE11	Disabled	Auto	Voice Packet
<input type="checkbox"/>	12	GE12	Disabled	Auto	Voice Packet
<input type="checkbox"/>	13	GE13	Disabled	Auto	Voice Packet
<input type="checkbox"/>	14	GE14	Disabled	Auto	Voice Packet
<input type="checkbox"/>	15	GE15	Disabled	Auto	Voice Packet
<input type="checkbox"/>	16	GE16	Disabled	Auto	Voice Packet
<input type="checkbox"/>	17	GE17	Disabled	Auto	Voice Packet
<input type="checkbox"/>	18	GE18	Disabled	Auto	Voice Packet
<input type="checkbox"/>	19	GE19	Disabled	Auto	Voice Packet
<input type="checkbox"/>	20	GE20	Disabled	Auto	Voice Packet
<input type="checkbox"/>	21	GE21	Disabled	Auto	Voice Packet
<input type="checkbox"/>	22	GE22	Disabled	Auto	Voice Packet
<input type="checkbox"/>	23	GE23	Disabled	Auto	Voice Packet
<input type="checkbox"/>	24	GE24	Disabled	Auto	Voice Packet
<input type="checkbox"/>	25	TE1	Disabled	Auto	Voice Packet
<input type="checkbox"/>	26	TE2	Disabled	Auto	Voice Packet
<input type="checkbox"/>	27	TE3	Disabled	Auto	Voice Packet
<input type="checkbox"/>	28	TE4	Disabled	Auto	Voice Packet
<input type="checkbox"/>	29	LAG1	Disabled	Auto	Voice Packet
<input type="checkbox"/>	30	LAG2	Disabled	Auto	Voice Packet
<input type="checkbox"/>	31	LAG3	Disabled	Auto	Voice Packet
<input type="checkbox"/>	32	LAG4	Disabled	Auto	Voice Packet
<input type="checkbox"/>	33	LAG5	Disabled	Auto	Voice Packet
<input type="checkbox"/>	34	LAG6	Disabled	Auto	Voice Packet
<input type="checkbox"/>	35	LAG7	Disabled	Auto	Voice Packet
<input type="checkbox"/>	36	LAG8	Disabled	Auto	Voice Packet

Edit

Edit Port Setting

Port	GE1
State	<input type="checkbox"/> Enable
Mode	<input checked="" type="radio"/> Auto <input type="radio"/> Manual
QoS Policy	<input checked="" type="radio"/> Voice Packet <input type="radio"/> All

Apply

Close

Item	Description
State	Enable or disable the Voice VLAN function.
VLAN	Select the VLAN ID which will be applied for Voice VLAN.

CoS / 802.1p Remarking	Enable or disable 802.1p remarking. If enabled, qualified packets will be remarked by specified value.
Port Aging Time	Enter the value of aging time (30~65536 min). Default is 1440 minutes. A voice VLAN entry will be age out after this time if without any packet pass through.
Apply	Apply the settings to the switch.
Edit	Edit the settings of the selected port.

8.2.2. Voice OUI

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

The screenshot shows the Proscend 28-Port GbE Managed PoE Switch web interface. The breadcrumb navigation is **VLAN >> Voice VLAN >> Voice OUI**. The left sidebar contains a menu with options: Status, Network, Port, PoE, VLAN (selected), Protocol VLAN, MAC VLAN, GVRP, MAC Address Table, Spanning Tree, Discovery, Multicast, Routing, Security, ACL, QoS, Diagnostics, Management, and Loop Prevention. The main content area is titled **Voice OUI Table**. It shows a table with 8 entries, each with a checkbox, an OUI, and a Description. The entries are: 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), and 00:09:6E (Avaya). Below the table are buttons for Add, Edit, and Delete. At the bottom right of the table are navigation buttons: First, Previous, 1 (selected), Next, and Last.

VLAN >> Voice VLAN >> Voice OUI

Add Voice OUI

OUI: : : : 00 : 00 : 00

Description:

NOTE: 16 maximum user defined OUI allowed.

Item	Description
Add	Add a new OUI entry.
Edit	Edit the existing OUI entry.
Delete	Delete the existing OUI entry.
OUI	Type OUI address.
Description	Enter a description of the specified MAC address to the voice VLAN OUI table.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

8.3 Protocol VLAN

The 850X-28P Switch offers protocol VLANs which allows Network Administrator to filter out untagged traffic of certain protocol and then assign them a specific VLAN ID.

8.3.1. Protocol Group

Up to eight protocol groups can be defined, each of them can have a unique filtering criteria such as frame type and protocol value.

The screenshot displays the web management interface for a Proscend 28-Port GbE Managed PoE Switch. The top navigation bar includes the Proscend logo, the switch model name, and links for Save, Logout, and Reboot. The breadcrumb trail indicates the current location: VLAN >> Protocol VLAN >> Protocol Group. On the left, a sidebar menu lists various configuration categories, with 'VLAN' expanded to show 'Protocol VLAN' and 'Protocol Group' selected. The main content area is titled 'Protocol Group Table' and shows a table with columns for Group ID, Frame Type, and Protocol Value. The table is currently empty, displaying '0 results found.' Below the table are buttons for Add, Edit, and Delete. Pagination controls at the bottom right show 'First', 'Previous', '1' (current page), 'Next', and 'Last'.

Add Protocol Group

Group ID	1
Frame Type	Ethernet_II
Protocol Value	0x (0x600 ~ 0xFFFE)

Apply Close

Item	Description
Add	Add a new Protocol VLAN entry.
Edit	Edit the existing Protocol VLAN entry.
Delete	Delete the existing Protocol VLAN entry.
Group ID	It is a number for identification while bounding with VLAN/Port.
Frame Type	Use the drop-down list to specify the frame type which you would like to filter. Ethernet_II : Packet will be mapped based on Ethernet version 2. IEEE802.3_LL_C_Other : Packet will be mapped based on 802.3 packet with LLC other header. RFC_1042 : Packet will be mapped based on RFC 1042.
Protocol Value	Input a value (ranging from 0x600 ~0xFFFE). Packets match with such value will be classified into this group.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

Group Binding

This page is for setting up the ports and protocol group that we would like to filter, and the VLAN ID we would like to assign.

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[Save](#) | [Logout](#) | [Reboot](#)

VLAN >> Protocol VLAN >> Group Binding

- Status
- Network
- Port
- PoE
- VLAN
 - VLAN
 - Voice VLAN
 - Protocol VLAN
 - Protocol Group
 - Group Binding**
 - MAC VLAN
 - GVRP
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

Group Binding Table

Showing All entries Showing 0 to 0 of 0 entries

<input type="checkbox"/>	Port	Group ID	VLAN
0 results found.			

[Add](#) [Edit](#) [Delete](#)
 [First](#) [Previous](#) [1](#) [Next](#) [Last](#)

VLAN >> Protocol VLAN >> Group Binding

Add Group Binding

Port

Available Port

Selected Port

Note: Only VLAN Hybrid port can be set Protocol VLAN

Group ID

None

VLAN

(1 - 4094)

[Apply](#) [Close](#)

Item	Description
Add	Add a new entry.
Edit	Edit the VLAN number of existing entry.
Delete	Delete the existing entry.
Port	Select one or more ports for applying protocol-based VLAN.

	Note that protocol-based VLAN can only be applied to the ports of which Interface VLAN Mode is set to “Hybrid”.
Group ID	Select the protocol group defined in Protocol Group setup.
VLAN	Enter the VLAN number.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

8.4 MAC VLAN

The MAC VLAN allows you to statically assign a VLAN ID to a host with specific MAC address(es). The 850X-28P Switch allows you configure multiple groups with configured MAC address and mask to be active on ports and to be bound with VLAN ID.

8.4.1. MAC Group

This page allows to define groups with specific MAC addresses for later binding with VLAN and Port.

The screenshot displays the web management interface for a Proscend 28-Port GbE Managed PoE Switch. The top navigation bar includes the Proscend logo, the switch model name, and links for Save, Logout, and Reboot. The breadcrumb trail indicates the current location: VLAN >> MAC VLAN >> MAC Group. On the left, a sidebar menu lists various network settings, with 'MAC Group' highlighted under the 'MAC VLAN' section. The main content area is titled 'MAC Group Table' and shows a table with columns for Group ID, MAC Address, and Mask. The table is currently empty, displaying '0 results found.' Below the table are buttons for 'Add', 'Edit', and 'Delete'. Navigation controls at the bottom of the table area include 'First', 'Previous', '1' (selected), 'Next', and 'Last'. A search bar is also present in the top right of the table area.

Add MAC Group

Group ID	<input type="text"/>	(1 - 2147483647)
MAC Address	<input type="text"/>	
Mask	<input type="text"/>	(9 - 48)

Item	Description
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the existing entry.
Group ID	It is a number for identification later, while chosen to be bound with VLAN/Port.
MAC Address	Enter the MAC address you wish to be classified in this group.
Mask	<p>The mask is the length of matching prefix you wish to have on MAC address.</p> <p>For example, configure mask in 10. It means a host with beginning of the 10-digit of MAC address will be checked, and classified into this group if matched.</p>
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

8.4.2. Group Binding

This page allows to bind the group of specified MAC addresses with VLAN and Port.

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[Save](#)
[Logout](#)
[Reboot](#)

VLAN >> MAC VLAN >> Group Binding

- Status
- Network
- Port
- PoE
- VLAN
 - VLAN
 - Voice VLAN
 - Protocol VLAN
 - MAC VLAN
 - MAC Group
 - Group Binding**
- GVRP
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

Group Binding Table

Showing All entries Showing 0 to 0 of 0 entries

<input type="checkbox"/>	Port	Group ID	VLAN
0 results found.			

[Add](#)
[Edit](#)
[Delete](#)
[First](#)
[Previous](#)
[1](#)
[Next](#)
[Last](#)

VLAN >> MAC VLAN >> Group Binding

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](#)

Item	Description
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the existing entry.
Port	Select the ports you wish to be bound with specified MAC

	address group.
Group ID	Choose the group ID you have created in section MAC VLAN → MAC Group.
VLAN	Enter the VLAN ID that you wish to be bound with.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

8.5 GVRP

8.5.1. Property

This page allows to enable or disable the GVRP function.

PROSCEND 28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

Save Logout Reboot

VLAN >> GVRP >> Property

- Status
- Network
- Port
- PoE
- VLAN
 - VLAN
 - Voice VLAN
 - Protocol VLAN
 - MAC VLAN
 - GVRP
 - Property
 - Membership
 - Statistics
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

State: ☐ Enable

Operational Timeout

Join	20 ms
Leave	60 ms
LeaveAll	1000 ms

Apply

Port Setting Table

	Entry	Port	State	VLAN Creation	Registration
<input type="checkbox"/>	1	GE1	Disabled	Enabled	Normal
<input type="checkbox"/>	2	GE2	Disabled	Enabled	Normal
<input type="checkbox"/>	3	GE3	Disabled	Enabled	Normal
<input type="checkbox"/>	4	GE4	Disabled	Enabled	Normal
<input type="checkbox"/>	5	GE5	Disabled	Enabled	Normal
<input type="checkbox"/>	6	GE6	Disabled	Enabled	Normal
<input type="checkbox"/>	7	GE7	Disabled	Enabled	Normal
<input type="checkbox"/>	8	GE8	Disabled	Enabled	Normal

VLAN >> GVRP >> Property

- ▼ Status
- ▼ Network
- ▼ Port
- ▼ PoE
- ▼ VLAN
 - ▼ VLAN
 - ▼ Voice VLAN
 - ▼ Protocol VLAN
 - ▼ MAC VLAN
 - ▲ GVRP
 - Property
 - Membership
 - Statistics
- ▼ MAC Address Table
- ▼ Spanning Tree
- ▼ Discovery
- ▼ Multicast
- ▼ Routing
- ▼ Security
- ▼ ACL
- ▼ QoS
- ▼ Diagnostics
- ▼ Management
- ▼ Loop Prevention

<input type="checkbox"/>	4	GE4	Disabled	Enabled	Normal
<input type="checkbox"/>	5	GE5	Disabled	Enabled	Normal
<input type="checkbox"/>	6	GE6	Disabled	Enabled	Normal
<input type="checkbox"/>	7	GE7	Disabled	Enabled	Normal
<input type="checkbox"/>	8	GE8	Disabled	Enabled	Normal
<input type="checkbox"/>	9	GE9	Disabled	Enabled	Normal
<input type="checkbox"/>	10	GE10	Disabled	Enabled	Normal
<input type="checkbox"/>	11	GE11	Disabled	Enabled	Normal
<input type="checkbox"/>	12	GE12	Disabled	Enabled	Normal
<input type="checkbox"/>	13	GE13	Disabled	Enabled	Normal
<input type="checkbox"/>	14	GE14	Disabled	Enabled	Normal
<input type="checkbox"/>	15	GE15	Disabled	Enabled	Normal
<input type="checkbox"/>	16	GE16	Disabled	Enabled	Normal
<input type="checkbox"/>	17	GE17	Disabled	Enabled	Normal
<input type="checkbox"/>	18	GE18	Disabled	Enabled	Normal
<input type="checkbox"/>	19	GE19	Disabled	Enabled	Normal
<input type="checkbox"/>	20	GE20	Disabled	Enabled	Normal
<input type="checkbox"/>	21	GE21	Disabled	Enabled	Normal
<input type="checkbox"/>	22	GE22	Disabled	Enabled	Normal
<input type="checkbox"/>	23	GE23	Disabled	Enabled	Normal
<input type="checkbox"/>	24	GE24	Disabled	Enabled	Normal
<input type="checkbox"/>	25	TE1	Disabled	Enabled	Normal
<input type="checkbox"/>	26	TE2	Disabled	Enabled	Normal
<input type="checkbox"/>	27	TE3	Disabled	Enabled	Normal
<input type="checkbox"/>	28	TE4	Disabled	Enabled	Normal
<input type="checkbox"/>	29	LAG1	Disabled	Enabled	Normal
<input type="checkbox"/>	30	LAG2	Disabled	Enabled	Normal
<input type="checkbox"/>	31	LAG3	Disabled	Enabled	Normal
<input type="checkbox"/>	32	LAG4	Disabled	Enabled	Normal
<input type="checkbox"/>	33	LAG5	Disabled	Enabled	Normal
<input type="checkbox"/>	34	LAG6	Disabled	Enabled	Normal
<input type="checkbox"/>	35	LAG7	Disabled	Enabled	Normal
<input type="checkbox"/>	36	LAG8	Disabled	Enabled	Normal

[Edit](#)

Item	Description
State	Enable or disable the GVRP setting for such VLAN.
Operational Timeout	Display the current time status for GVRP.
Apply	Apply the settings to the switch.
Edit	Edit the existing entry.

Edit Port Setting

Port	GE23
State	<input type="checkbox"/> Enable
VLAN Creation	<input checked="" type="checkbox"/> Enable
Registration	<input checked="" type="radio"/> Normal <input type="radio"/> Fixed <input type="radio"/> Forbidden

Item	Description
Port	The index number of selected port.
State	Enable or disable the port settings for such VLAN.
VLAN Creation	Select Enable or disable.
Registration	<p>Normal: Default setting. All packets can pass through the selected port.</p> <p>Fixed: The selected port only sends static VLAN information to neighboring device and allows static VLAN packet to pass through.</p> <p>Forbidden: The selected port only allows default VLAN packet to pass through.</p>
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

8.5.2. Membership

This page displays information about membership of GVRP.

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Save | Logout | Reboot

VLAN >> GVRP >> Membership

Status

Network

Port

PoE

VLAN

VLAN

Voice VLAN

Protocol VLAN

MAC VLAN

GVRP

Property

Membership

Statistics

MAC Address Table

Spanning Tree

Discovery

Multicast

Routing

Security

ACL

QoS

Diagnostics

Management

Loop Prevention

Membership Table

Showing All entriesShowing 0 to 0 of 0 entries

VLAN

Member

Dynamic Member

Type

0 results found.

FirstPrevious1NextLast

8.5.3. Statistics

This page displays detailed statistics of each port.

VLAN >> GVRP >> Statistics

- Status
- Network
- Port
- PoE
- VLAN

- VLAN
 - Voice VLAN
 - Protocol VLAN
 - MAC VLAN
 - GVRP

- Property
- Membership
- Statistics

- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

Port	GE1 ▼
Statistics	<input checked="" type="radio"/> All <input type="radio"/> Receive <input type="radio"/> Transmit <input type="radio"/> Error
Refresh Rate	<input type="radio"/> None <input type="radio"/> 5 sec <input checked="" type="radio"/> 10 sec <input type="radio"/> 30 sec

[Clear](#)

Receive	
Join empty	0
Empty	0
Leave Empty	0
Join In	0
Leave In	0
Leave All	0
Transmit	
Join empty	0
Empty	0
Leave Empty	0
Join In	0
Leave In	0
Leave All	0
Error	
Invalid Protocol ID	0
Invalid Attribute Type	0
Invalid Attribute Value	0
Invalid Attribute Length	0
Invalid Event	0

9 MAC Address Table

This section allows user to view the dynamic MAC address entries in the MAC table, change related setting and assign MAC address into MAC table.

9.1 Dynamic Address

This page allows to configure aging time for dynamic MAC address.

The screenshot shows the web interface of a Proscend 28-Port GbE Managed PoE Switch. The top navigation bar includes 'Save', 'Logout', and 'Reboot' buttons. The main header displays 'MAC Address Table >> Dynamic Address'. On the left, a sidebar menu lists various network settings, with 'MAC Address Table' and its sub-item 'Dynamic Address' highlighted. The main content area features an 'Aging Time' configuration section with a text input set to '300' and a note 'Sec (10 - 630, default 300)', followed by an 'Apply' button. Below this is the 'Dynamic Address Table' section, which includes a search bar, a table with columns for selection, VLAN, MAC Address, and Port, and navigation controls like 'Refresh', 'Add Static Address', and pagination buttons (First, Previous, 1, Next, Last). The table currently contains one entry for VLAN 1 with MAC address A0:36:9F:65:46:D6 on port GE2.

	VLAN	MAC Address	Port
<input type="checkbox"/>	1	A0:36:9F:65:46:D6	GE2

Item	Description
Apply	Apply the settings to the switch.
Aging Time	Enter the aging out value for the dynamic MAC address.
Clear	Clear the entry that is still not out of aging time.
Refresh	Refresh the Dynamic address table.
Add Static Address	Add selected dynamic MAC address into the static MAC address table.

9.2 Static Address

This page allows user to manually assign MAC address into MAC table.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#)
[Logout](#)
[Reboot](#)

MAC Address Table >> Static Address

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table**
 - Dynamic Address
 - Static Address**
 - Filtering Address
 - Port Security Address
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

Static Address Table

Showing entries Showing 0 to 0 of 0 entries

<input type="checkbox"/>	VLAN	MAC Address	Port
0 results found.			

Item	Description
Add	Add a new MAC address into MAC address table.
Edit	Edit existing entry of MAC address.
Delete	Delete selected entry of MAC address.

MAC Address Table >> Static Address

Add Static Address

MAC Address	<input type="text" value="00:00:00:00:00:00"/>
VLAN	<input type="text" value=""/> (1 - 4094)
Port	<input type="text" value="GE1"/> ▼

Item	Description
MAC Address	Enter the MAC address that will be forwarded.
VLAN	This is the VLAN group to which the MAC address belongs.
Port	Select the port where received frame of matched destination MAC address will be forwarded to.

Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

MAC Address Table >> Static Address

Edit Static Address

MAC Address	C0:3F:D5:BB:BA:29	
VLAN	<input type="text" value="1"/>	(1 - 4094)
Port	<input type="text" value="GE5"/>	

Item	Description
MAC Address	The MAC address that will be forwarded.
VLAN	This is the VLAN group to which the MAC address belongs.
Port	Select the port where received frame of matched destination MAC address will be forwarded to.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

9.3 Filtering Address

Filtering addresses are manually added and determine the packets with specific source or destination MAC addresses that will should dropped by the switch.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) | [Logout](#) | [Reboot](#)

MAC Address Table >> Filtering Address

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table**
 - Dynamic Address
 - Static Address
 - Filtering Address**
 - Port Security Address
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

Filtering Address Table

Showing All entries Showing 0 to 0 of 0 entries

<input type="checkbox"/>	VLAN	MAC Address
0 results found.		

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

[First](#)
[Previous](#)
[1](#)
[Next](#)
[Last](#)

Item	Description
Add	Add a new MAC address into MAC address table.
Edit	Edit existing entry of MAC address.
Delete	Delete selected entry of MAC address.

MAC Address Table >> Filtering Address

Add Filtering Address

MAC Address	<input type="text" value="00:00:00:00:00:00"/>
VLAN	<input type="text"/> (1 - 4094)

[Apply](#)
[Close](#)

Item	Description
MAC Address	Enter the MAC address that will be dropped.
VLAN	This is the VLAN group to which the MAC address belongs.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

MAC Address Table >> Filtering Address


Edit Filtering Address

MAC Address	00:00:00:00:00:12
VLAN	2 (1 - 4094)

Item	Description
MAC Address	The MAC address that will be dropped.
VLAN	This is the VLAN group to which the MAC address belongs.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

9.4 Port Security

Port Security are manually added, Packets that have a matching MAC address are forwarded, all other packets are restricted.


28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) | [Logout](#) | [Reboot](#)

MAC Address Table >> Port Security Address

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
 - Dynamic Address
 - Static Address
 - Filtering Address
 - Port Security Address**
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

Port Security Address Table

Showing All entries Showing 0 to 0 of 0 entries

<input type="checkbox"/>	VLAN	MAC Address	Type	Port
0 results found.				

[First](#)
[Previous](#)
[1](#)
[Next](#)
[Last](#)

Add Port Security Address

MAC Address	<input type="text"/>
VLAN	<input type="text"/> (1 - 4094)
Port	GE1 ▼

10 Spanning Tree

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

10.1 Property

This page allows to configure and display Spanning Tree Protocol (STP) property configuration.

PROSCENO 28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

Save Logout Reboot

Spanning Tree >> Property

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
 - Property
 - Port Setting
 - MST Instance
 - MST Port Setting
 - Statistics
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

State

- ☐ Enable
- ☒ STP
- ☒ RSTP
- ☐ MSTP

Operation Mode

- ☒ Long
- ☐ Short

BPDU Handling

- ☒ Filtering
- ☐ Flooding

Priority32768(0 - 61440, default 32768)

Hello Time2Sec (1 - 10, default 2)

Max Age20Sec (6 - 40, default 20)

Forward Delay15Sec (4 - 30, default 15)

Tx Hold Count6(1 - 10, default 6)

Region Name00:03:79:09:E0:DC

Revision0(0 - 65535, default 0)

Max Hop20(1 - 40, default 20)

Operational Status

Bridge Identifier32768-00:03:79:09:E0:DC

Designated Root Bridge0-00:00:00:00:00:00

Root PortN/A

Root Path Cost0

Topology Change Count0

Last Topology Change0D/0H/0M/0S

Apply

Item	Description
State	Enable or disable the STP operation.
Operation Mode	STP : Enable the Spanning Tree (STP) operation. RSTP : Enable the Rapid Spanning Tree (RSTP) operation. MSTP : Enable the Multiple Spanning Tree Protocol (MSTP)
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 a priority value for the switch. The smaller the priority value, the higher the priority and greater chance of becoming the root.
Hello Time	Specify the STP hello time in second to broadcast its hello message to other bridge 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 30 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 default region name of the device is its MAC address.
Revision	Enter the revision number.
Max Hop	Set the number of hops for BPDU packets to be forwarded in the MSTP region.
Operational Status	Display the current STP operational status.
Apply	Apply the settings to the switch.

10.2 Port Setting

This page allows to configure and display Spanning Tree Protocol (STP) port settings.

PROSCEND 28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks Save Logout Reboot

Spanning Tree >> Port Setting

Port Setting Table

<input type="checkbox"/>	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
<input type="checkbox"/>	1	GE1	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-1	20000
<input type="checkbox"/>	2	GE2	Disabled	20000	128	Disabled	Disabled	Disabled	Enabled	Disabled	Forwarding	0-00:00:00:00:00:00	128-2	20000
<input type="checkbox"/>	3	GE3	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-3	20000
<input type="checkbox"/>	4	GE4	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-4	20000
<input type="checkbox"/>	5	GE5	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-5	20000
<input type="checkbox"/>	6	GE6	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-6	20000
<input type="checkbox"/>	7	GE7	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-7	20000
<input type="checkbox"/>	8	GE8	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-8	20000
<input type="checkbox"/>	9	GE9	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-9	20000
<input type="checkbox"/>	10	GE10	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-10	20000
<input type="checkbox"/>	11	GE11	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-11	20000
<input type="checkbox"/>	12	GE12	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-12	20000
<input type="checkbox"/>	13	GE13	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-13	20000
<input type="checkbox"/>	14	GE14	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-14	20000
<input type="checkbox"/>	15	GE15	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-15	20000

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

Save
Logout
Reboot

Status

Network

Port

PoE

VLAN

MAC Address Table

Spanning Tree

Property

Port Setting

MST Instance

MST Port Setting

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Discovery

Multicast

Routing

Security

ACL

QoS

Diagnostics

Management

Loop Prevention

Spanning Tree

Port Setting

<input type="checkbox"/>	4	GE4	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-4	20000
<input type="checkbox"/>	5	GE5	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-5	20000
<input type="checkbox"/>	6	GE6	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-6	20000
<input type="checkbox"/>	7	GE7	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-7	20000
<input type="checkbox"/>	8	GE8	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-8	20000
<input type="checkbox"/>	9	GE9	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-9	20000
<input type="checkbox"/>	10	GE10	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-10	20000
<input type="checkbox"/>	11	GE11	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-11	20000
<input type="checkbox"/>	12	GE12	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-12	20000
<input type="checkbox"/>	13	GE13	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-13	20000
<input type="checkbox"/>	14	GE14	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-14	20000
<input type="checkbox"/>	15	GE15	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-15	20000
<input type="checkbox"/>	16	GE16	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-16	20000
<input type="checkbox"/>	17	GE17	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-17	20000
<input type="checkbox"/>	18	GE18	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-18	20000
<input type="checkbox"/>	19	GE19	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-19	20000
<input type="checkbox"/>	20	GE20	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-20	20000
<input type="checkbox"/>	21	GE21	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-21	20000
<input type="checkbox"/>	22	GE22	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-22	20000
<input type="checkbox"/>	23	GE23	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-23	20000
<input type="checkbox"/>	24	GE24	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-24	20000
<input type="checkbox"/>	25	TE1	Disabled	2000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-25	2000
<input type="checkbox"/>	26	TE2	Disabled	2000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-26	2000
<input type="checkbox"/>	27	TE3	Disabled	2000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-27	2000
<input type="checkbox"/>	28	TE4	Disabled	2000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-28	2000
<input type="checkbox"/>	29	LAG1	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-29	20000
<input type="checkbox"/>	30	LAG2	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-30	20000
<input type="checkbox"/>	31	LAG3	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-31	20000
<input type="checkbox"/>	32	LAG4	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-32	20000
<input type="checkbox"/>	33	LAG5	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-33	20000
<input type="checkbox"/>	34	LAG6	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-34	20000
<input type="checkbox"/>	35	LAG7	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-35	20000
<input type="checkbox"/>	36	LAG8	Disabled	20000	128	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	0-00:00:00:00:00:00	128-36	20000

Edit
Protocol Migration Check

Item	Description
Edit	Edit the selected port settings.
Protocol Migration Check	Run protocol migration check on selected port.

Spanning Tree >> Port Setting

Edit Port Setting

Port	GE20
State	<input checked="" type="checkbox"/> Enable
Path Cost	0 (0 - 200000000) (0 = Auto)
Priority	128 ▾
Edge Port	<input type="checkbox"/> Enable
BPDU Filter	<input type="checkbox"/> Enable
BPDU Guard	<input type="checkbox"/> Enable
Point-to-Point	<input checked="" type="radio"/> Auto <input type="radio"/> Enable <input type="radio"/> Disable
Port State	Disabled
Designated Bridge	0-00:00:00:00:00:00
Designated Port ID	128-20
Designated Cost	20000
Operational Edge	False
Operational Point-to-Point	False

Item	Description
Port	The index number of selected port.
State	Enable or disable the port settings.
Path Cost	Path cost is the cost of transmitting a frame on to a LAN through that port. It is recommended to assign this value according to the speed of the bridge. The slower the media, the higher the cost. Entering 0 means the switch will automatically assign a value.
Priority	Specify a priority value for the switch. The smaller the priority value, the higher the priority and greater chance of becoming the root.
Edge Port	Enable or disable the edge mode. 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	Checked means drop all BPDU packets and no BPDU will be sent.
BPDU Guard	When it is checked that BPDU Guard further protects your switch by turning this port into error state and shutdown if any BPDU received from this port.
Point-to-Point	<p>Auto: Switch determines the STP of link type for this port automatically.</p> <p>Enable: It means the STP of link type on this port is full-duplex and directly connect to another switch or host.</p> <p>Disable: It means the STP of link type on this port is “not” full-duplex and “does not” directly connect to another switch or host.</p>
Port State	Display current port status.
Designated Bridge	Display designated bridge information.
Designated Port ID	Display designated port ID information.
Designated Cost	Display designated cost information.
Operational Edge	Display current state of edge port.
Operational Point-to-Point	Display current state of Point-to-Point.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

10.3 MST Instance

MSTP allows traffic of different VLAN to be mapped into different MST Instances, the 850X-28P supports up to 16 independent MST instances (0~15) with which the VLAN can be associated.

Spanning Tree >> MST Instance

MST Instance Table

	MSTI	Priority	Bridge Identifier	Designated Root Bridge	Root Port	Root Path Cost	Remaining Hop	VLAN
<input type="radio"/>	0	32768	32768-00:03:79:09:E0:DC	0-00:00:00:00:00:00	N/A	0	0	1-4094
<input type="radio"/>	1	32768	32768-00:03:79:09:E0:DC	0-00:00:00:00:00:00	N/A	0	0	
<input type="radio"/>	2	32768	32768-00:03:79:09:E0:DC	0-00:00:00:00:00:00	N/A	0	0	
<input type="radio"/>	3	32768	32768-00:03:79:09:E0:DC	0-00:00:00:00:00:00	N/A	0	0	
<input type="radio"/>	4	32768	32768-00:03:79:09:E0:DC	0-00:00:00:00:00:00	N/A	0	0	
<input type="radio"/>	5	32768	32768-00:03:79:09:E0:DC	0-00:00:00:00:00:00	N/A	0	0	
<input type="radio"/>	6	32768	32768-00:03:79:09:E0:DC	0-00:00:00:00:00:00	N/A	0	0	
<input type="radio"/>	7	32768	32768-00:03:79:09:E0:DC	0-00:00:00:00:00:00	N/A	0	0	
<input type="radio"/>	8	32768	32768-00:03:79:09:E0:DC	0-00:00:00:00:00:00	N/A	0	0	
<input type="radio"/>	9	32768	32768-00:03:79:09:E0:DC	0-00:00:00:00:00:00	N/A	0	0	
<input type="radio"/>	10	32768	32768-00:03:79:09:E0:DC	0-00:00:00:00:00:00	N/A	0	0	
<input type="radio"/>	11	32768	32768-00:03:79:09:E0:DC	0-00:00:00:00:00:00	N/A	0	0	
<input type="radio"/>	12	32768	32768-00:03:79:09:E0:DC	0-00:00:00:00:00:00	N/A	0	0	
<input type="radio"/>	13	32768	32768-00:03:79:09:E0:DC	0-00:00:00:00:00:00	N/A	0	0	
<input type="radio"/>	14	32768	32768-00:03:79:09:E0:DC	0-00:00:00:00:00:00	N/A	0	0	
<input type="radio"/>	15	32768	32768-00:03:79:09:E0:DC	0-00:00:00:00:00:00	N/A	0	0	

Edit

Spanning Tree >> MST Instance

Edit MST Instance Setting

MSTI	3	
VLAN	Available VLAN	Selected VLAN
	<div> <div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> <div>6</div> <div>7</div> <div>8</div> </div>	<div></div>
Priority	32768 (0 - 61440, default 32768)	
Bridge Identifier	32768-FC:8F:C4:0D:BD:C6	
Designated Root Bridge	0-00:00:00:00:00:00	
Root Port		
Root Path Cost	0	
Remaining Hop	0	

Apply

Close

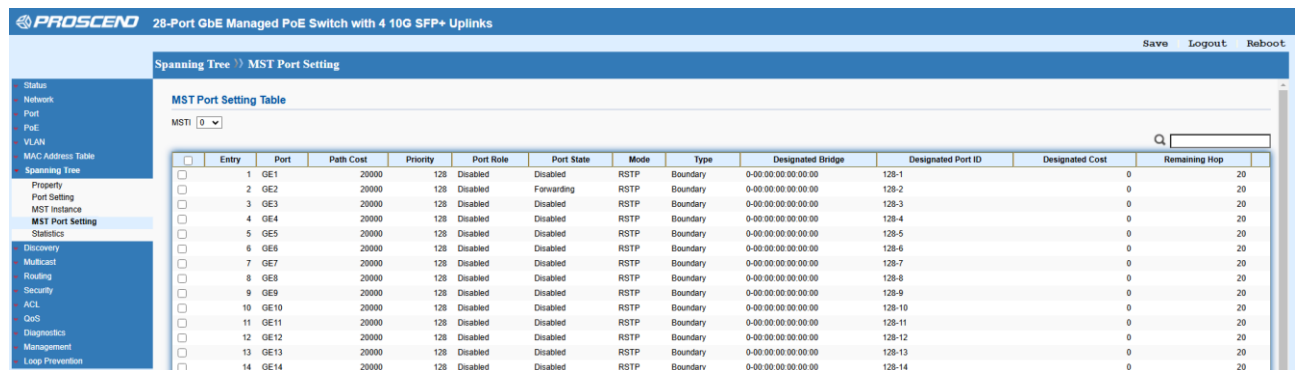
Item

Description

Edit	Edit the settings of selected instance.
MSTI	The index number of selected MST instance.
VLAN	Enter the ID of the VLAN which should be associated with this MSTI.
Priority	The switch priority for this MST instance. A lower number gives the switch higher chance to be chosen as the root bridge.
Bridge Identifier	Display the priority of MSTI instance number + MAC address of the switch.
Designated Root Bridge	Display the Bridge Identifier of the root bridge.
Root Port	Display the port toward the root.
Root Path Cost	Display the path cost toward the root.
Remaining Hop	Display the remaining hop count in BPDU.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

10.4 MST Port Setting

MST Port Settings is used to configure the GE port / LAG group settings for each MST instance. The table displays the MST parameters for each port.



PROSCEND 28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

Spanning Tree > MST Port Setting

MSTI: 0

Entry	Port	Path Cost	Priority	Port Role	Port State	Mode	Type	Designated Bridge	Designated Port ID	Designated Cost	Remaining Hop
<input type="checkbox"/>	1 GE1	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-1	0	20
<input type="checkbox"/>	2 GE2	20000	128	Disabled	Forwarding	RSTP	Boundary	0-00:00:00:00:00:00	128-2	0	20
<input type="checkbox"/>	3 GE3	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-3	0	20
<input type="checkbox"/>	4 GE4	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-4	0	20
<input type="checkbox"/>	5 GE5	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-5	0	20
<input type="checkbox"/>	6 GE6	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-6	0	20
<input type="checkbox"/>	7 GE7	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-7	0	20
<input type="checkbox"/>	8 GE8	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-8	0	20
<input type="checkbox"/>	9 GE9	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-9	0	20
<input type="checkbox"/>	10 GE10	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-10	0	20
<input type="checkbox"/>	11 GE11	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-11	0	20
<input type="checkbox"/>	12 GE12	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-12	0	20
<input type="checkbox"/>	13 GE13	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-13	0	20
<input type="checkbox"/>	14 GE14	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-14	0	20

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Spanning Tree > MST Port Setting													
Status	<input type="checkbox"/>	4	GE4	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-4	0	20
Network	<input type="checkbox"/>	5	GE5	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-5	0	20
Port	<input type="checkbox"/>	6	GE6	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-6	0	20
PoE	<input type="checkbox"/>	7	GE7	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-7	0	20
VLAN	<input type="checkbox"/>	8	GE8	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-8	0	20
MAC Address Table	<input type="checkbox"/>	9	GE9	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-9	0	20
Spanning Tree	<input type="checkbox"/>	10	GE10	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-10	0	20
Property	<input type="checkbox"/>	11	GE11	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-11	0	20
Port Setting	<input type="checkbox"/>	12	GE12	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-12	0	20
MST Instance	<input type="checkbox"/>	13	GE13	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-13	0	20
MST Port Setting	<input type="checkbox"/>	14	GE14	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-14	0	20
Statistics	<input type="checkbox"/>	15	GE15	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-15	0	20
Discovery	<input type="checkbox"/>	16	GE16	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-16	0	20
Multicast	<input type="checkbox"/>	17	GE17	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-17	0	20
Routing	<input type="checkbox"/>	18	GE18	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-18	0	20
Security	<input type="checkbox"/>	19	GE19	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-19	0	20
ACL	<input type="checkbox"/>	20	GE20	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-20	0	20
QoS	<input type="checkbox"/>	21	GE21	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-21	0	20
Diagnostics	<input type="checkbox"/>	22	GE22	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-22	0	20
Management	<input type="checkbox"/>	23	GE23	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-23	0	20
Loop Prevention	<input type="checkbox"/>	24	GE24	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-24	0	20
	<input type="checkbox"/>	25	TE1	2000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-25	0	20
	<input type="checkbox"/>	26	TE2	2000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-26	0	20
	<input type="checkbox"/>	27	TE3	2000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-27	0	20
	<input type="checkbox"/>	28	TE4	2000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-28	0	20
	<input type="checkbox"/>	29	LA01	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-29	0	20
	<input type="checkbox"/>	30	LA02	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-30	0	20
	<input type="checkbox"/>	31	LA03	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-31	0	20
	<input type="checkbox"/>	32	LA04	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-32	0	20
	<input type="checkbox"/>	33	LA05	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-33	0	20
	<input type="checkbox"/>	34	LA06	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-34	0	20
	<input type="checkbox"/>	35	LA07	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-35	0	20
	<input type="checkbox"/>	36	LA08	20000	128	Disabled	Disabled	RSTP	Boundary	0-00:00:00:00:00:00	128-36	0	20

Spanning Tree >> MST Port Setting

Edit MST Port Setting

MSTI	0
Port	GE5
Path Cost	0 (0 - 200000000) (0 = Auto)
Priority	128 v
Port Role	Disabled
Port State	Disabled
Mode	RSTP
Type	Boundary
Designated Bridge	0-00:00:00:00:00:00
Designated Port ID	128-5
Designated Cost	20000
Remaining Hop	20

Apply


Close

Item	Description
MSTI	Select one of the MST instances.
Edit	Edit the settings of selected port.

MSTI	Display the selected MST instance.
Port	Display the selected port number.
Path Cost	Set path cost value for the port. A port with lowest value will be used as the forwarding port by spanning tree. Default value was set according to the bandwidth of the port.
Priority	Among the ports with same path cost, port with lower priority will have higher chance to be used as the forwarding port by spanning tree. Use the drop down list to choose desired priority value.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

10.5 Statistics

This page displays the statistics of BPDU on each port.


28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) | [Logout](#) | [Reboot](#)

Spanning Tree >> Statistics

Statistics Table
Refresh Rate sec

	Entry	Port	Receive BPDU			Transmit BPDU		
			Config	TCN	MSTP	Config	TCN	MSTP
<input type="checkbox"/>	1	GE1	0	0	0	0	0	0
<input type="checkbox"/>	2	GE2	0	0	0	0	0	0
<input type="checkbox"/>	3	GE3	0	0	0	0	0	0
<input type="checkbox"/>	4	GE4	0	0	0	0	0	0
<input type="checkbox"/>	5	GE5	0	0	0	0	0	0
<input type="checkbox"/>	6	GE6	0	0	0	0	0	0
<input type="checkbox"/>	7	GE7	0	0	0	0	0	0
<input type="checkbox"/>	8	GE8	0	0	0	0	0	0
<input type="checkbox"/>	9	GE9	0	0	0	0	0	0
<input type="checkbox"/>	10	GE10	0	0	0	0	0	0
<input type="checkbox"/>	11	GE11	0	0	0	0	0	0
<input type="checkbox"/>	12	GE12	0	0	0	0	0	0
<input type="checkbox"/>	13	GE13	0	0	0	0	0	0

Spanning Tree >> Statistics

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
 - Property
 - Port Setting
 - MST Instance
 - MST Port Setting
 - Statistics**
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

<input type="checkbox"/>	5	GE5	0	0	0	0	0	0
<input type="checkbox"/>	6	GE6	0	0	0	0	0	0
<input type="checkbox"/>	7	GE7	0	0	0	0	0	0
<input type="checkbox"/>	8	GE8	0	0	0	0	0	0
<input type="checkbox"/>	9	GE9	0	0	0	0	0	0
<input type="checkbox"/>	10	GE10	0	0	0	0	0	0
<input type="checkbox"/>	11	GE11	0	0	0	0	0	0
<input type="checkbox"/>	12	GE12	0	0	0	0	0	0
<input type="checkbox"/>	13	GE13	0	0	0	0	0	0
<input type="checkbox"/>	14	GE14	0	0	0	0	0	0
<input type="checkbox"/>	15	GE15	0	0	0	0	0	0
<input type="checkbox"/>	16	GE16	0	0	0	0	0	0
<input type="checkbox"/>	17	GE17	0	0	0	0	0	0
<input type="checkbox"/>	18	GE18	0	0	0	0	0	0
<input type="checkbox"/>	19	GE19	0	0	0	0	0	0
<input type="checkbox"/>	20	GE20	0	0	0	0	0	0
<input type="checkbox"/>	21	GE21	0	0	0	0	0	0
<input type="checkbox"/>	22	GE22	0	0	0	0	0	0
<input type="checkbox"/>	23	GE23	0	0	0	0	0	0
<input type="checkbox"/>	24	GE24	0	0	0	0	0	0
<input type="checkbox"/>	25	TE1	0	0	0	0	0	0
<input type="checkbox"/>	26	TE2	0	0	0	0	0	0
<input type="checkbox"/>	27	TE3	0	0	0	0	0	0
<input type="checkbox"/>	28	TE4	0	0	0	0	0	0
<input type="checkbox"/>	29	LAG1	0	0	0	0	0	0
<input type="checkbox"/>	30	LAG2	0	0	0	0	0	0
<input type="checkbox"/>	31	LAG3	0	0	0	0	0	0
<input type="checkbox"/>	32	LAG4	0	0	0	0	0	0
<input type="checkbox"/>	33	LAG5	0	0	0	0	0	0
<input type="checkbox"/>	34	LAG6	0	0	0	0	0	0
<input type="checkbox"/>	35	LAG7	0	0	0	0	0	0
<input type="checkbox"/>	36	LAG8	0	0	0	0	0	0

11 Discovery

11.1 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.

11.1.1. Property

This page allows to configure general settings of LLDP.


The screenshot shows the configuration page for the LLDP Property of a Proscend 28-Port GbE Managed PoE Switch. The page has a blue header with the Proscend logo and the switch model. On the right of the header are links for 'Save', 'Logout', and 'Reboot'. Below the header is a breadcrumb trail: 'Discovery >> LLDP >> Property'. On the left is a navigation menu with categories like Status, Network, Port, PoE, VLAN, MAC Address Table, Spanning Tree, and Discovery. Under 'Discovery', 'LLDP' is expanded, showing 'Property' as the selected option. The main content area is titled 'LLDP' and contains several settings: 'State' is set to 'Enable' (checked); 'LLDP Handling' has three radio buttons: 'Filtering', 'Bridging', and 'Flooding' (selected); 'TLV Advertise Interval' is set to '30' with a range of 'Sec (5 - 32767, default 30)'; 'Hold Multiplier' is set to '4' with a range of '(2 - 10, default 4)'; 'Reinitializing Delay' is set to '2' with a range of 'Sec (1 - 10, default 2)'; 'Transmit Delay' is set to '2' with a range of 'Sec (1 - 8191, default 2)'. Below these is the 'LLDP-MED' section with 'Fast Start Repeat Count' set to '3' with a range of '(1 - 10, default 3)'. An 'Apply' button is at the bottom.

Item	Description
State	Enable or disable the LLDP protocol on this switch.
LLDP Handling	Select the handling mode for LLDP protocol.
TLV Advertise Interval	Select the interval at which frames are transmitted. The default is 30 seconds, and the valid range is 5–32768seconds.
Hold Multiplier	Select the multiplier on the transmit interval to assign to TTL (range 2–10, default = 4).
Reinitializing 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 = 2).
Fast Start Repeat Count	Select the number of LLDP packets that will be sent during LLDP-MED Fast Start period. The default is 3. Available range is from 1 to 10.
Apply	Apply the settings to the switch.

11.1.2. Port Setting

This page allows to select specified port or all ports to configure LLDP state.


28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) | [Logout](#) | [Reboot](#)

Discovery >> LLDP >> Port Setting

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 - MED Network Policy
 - MED Port Setting
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- QoS
- Diagnostics
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Port Setting Table

<input type="checkbox"/>	Entry	Port	Mode	Selected TLV
<input type="checkbox"/>	1	GE1	Normal	802.1 PVID
<input type="checkbox"/>	2	GE2	Normal	802.1 PVID
<input type="checkbox"/>	3	GE3	Normal	802.1 PVID
<input type="checkbox"/>	4	GE4	Normal	802.1 PVID
<input type="checkbox"/>	5	GE5	Normal	802.1 PVID
<input type="checkbox"/>	6	GE6	Normal	802.1 PVID
<input type="checkbox"/>	7	GE7	Normal	802.1 PVID
<input type="checkbox"/>	8	GE8	Normal	802.1 PVID
<input type="checkbox"/>	9	GE9	Normal	802.1 PVID
<input type="checkbox"/>	10	GE10	Normal	802.1 PVID
<input type="checkbox"/>	11	GE11	Normal	802.1 PVID
<input type="checkbox"/>	12	GE12	Normal	802.1 PVID
<input type="checkbox"/>	13	GE13	Normal	802.1 PVID
<input type="checkbox"/>	14	GE14	Normal	802.1 PVID
<input type="checkbox"/>	15	GE15	Normal	802.1 PVID
<input type="checkbox"/>	16	GE16	Normal	802.1 PVID
<input type="checkbox"/>	17	GE17	Normal	802.1 PVID
<input type="checkbox"/>	18	GE18	Normal	802.1 PVID
<input type="checkbox"/>	19	GE19	Normal	802.1 PVID
<input type="checkbox"/>	20	GE20	Normal	802.1 PVID
<input type="checkbox"/>	21	GE21	Normal	802.1 PVID
<input type="checkbox"/>	22	GE22	Normal	802.1 PVID
<input type="checkbox"/>	23	GE23	Normal	802.1 PVID
<input type="checkbox"/>	24	GE24	Normal	802.1 PVID
<input type="checkbox"/>	25	TE1	Normal	802.1 PVID
<input type="checkbox"/>	26	TE2	Normal	802.1 PVID
<input type="checkbox"/>	27	TE3	Normal	802.1 PVID
<input type="checkbox"/>	28	TE4	Normal	802.1 PVID

Edit

Edit Port Setting

Port	GE2,GE5	
Mode	<input type="radio"/> Transmit <input type="radio"/> Receive <input checked="" type="radio"/> Normal <input type="radio"/> 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	Selected VLAN

Apply Close

Item	Description
Edit	Edit the settings of selected port.
Port	Display the selected port.
Mode	Transmit: Transmit LLDP PDUs only. Receive: Receive LLDP PDUs only. Normal: Transmit and receive LLDP PDUs. Disable: Disable the transmission of LLDP PDUs.
Optional TLV	Within data communication protocols, optional information may be encoded as a type-length-value or TLV element inside a protocol. TLV is also known as tag-length value. The type and length are fixed in size (typically 1-4 bytes), and the value field is of variable size. Select the LLDP optional TLVs to be carried (multiple selection is allowed). Available items include System Name, Port Description, System Description, System Capability, 802.3 MAC-PHY, 802.3 Link Aggregation, 802.3 Maximum Frame

	Size, Management Address and 802.1 PVID.
802.1 VLAN Name	Select the VLAN ID number to be performed (multiple selections are allowed).
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

11.1.3. MED Network Policy

This page allows to set MED (Media Endpoint Discovery) network policy.

The screenshot displays the web interface of a Proscend 28-Port GbE Managed PoE Switch. The top navigation bar includes the Proscend logo, the switch model name, and links for Save, Logout, and Reboot. The left sidebar contains a tree menu with categories like Status, Network, Port, PoE, VLAN, MAC Address Table, Spanning Tree, and Discovery. Under the Discovery menu, the MED Network Policy option is selected. The main content area shows the 'MED Network Policy Table' with a search bar and a table header. The table currently shows 0 results. Below the table are buttons for Add, Edit, and Delete. The table header includes columns for Policy ID, Application, VLAN, VLAN Tag, Priority, and DSCP.

Item	Description
Add	Add a new MED network policy.
Edit	Edit existing entry of MED network policy.
Delete	Delete selected entry of MED network policy.

Add MED Network Policy

Policy ID	1 ▾
Application	Voice ▾
VLAN	<input type="text"/> Range (1 - 4094)
VLAN Tag	<input checked="" type="radio"/> Tagged <input type="radio"/> Untagged
Priority	0 ▾
DSCP	0 ▾

Item	Description
Policy ID	Choose a number for configuring the policy profile. Available selections include 1 to 32.
Application	There are several applications which can be used for MED network. Selections include Voice, Voice Signaling, Guest Voice, Guest Voice Signaling, Softphone Voice, Video Conferencing, Stream Video and Video Signaling.
VLAN	Set a VLAN ID (ranging from 1 to 4095) for such profile.
VLAN Tag	Specify if the outgoing packets will be tagged or not. Tagged: Packets will be sent out with a number tagged. Untagged: Packets will be sent out without any tag.
Priority	Set Layer2 priority (range from 0 to 7).
DSCP	Set DSCP value (range from 0 to 63).
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

11.1.4. MED Port Setting

This page allows to configure TLV (Type / Length / Value) settings for each port.

Discovery >> LLDP >> MED Port Setting

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- Network
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- VLAN
- MAC Address Table
- Spanning Tree
- Discovery

LLDP

- Property
- Port Setting
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- MED Port Setting**
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- Neighbor
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- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

MED Port Setting Table



<input type="checkbox"/>	Entry	Port	State	Network Policy		Location	Inventory	
				Active	Application			
<input type="checkbox"/>	1	GE1	Enabled	Yes		No	No	
<input type="checkbox"/>	2	GE2	Enabled	Yes		No	No	
<input type="checkbox"/>	3	GE3	Enabled	Yes		No	No	
<input type="checkbox"/>	4	GE4	Enabled	Yes		No	No	
<input type="checkbox"/>	5	GE5	Enabled	Yes		No	No	
<input type="checkbox"/>	6	GE6	Enabled	Yes		No	No	
<input type="checkbox"/>	7	GE7	Enabled	Yes		No	No	
<input type="checkbox"/>	8	GE8	Enabled	Yes		No	No	
<input type="checkbox"/>	9	GE9	Enabled	Yes		No	No	
<input type="checkbox"/>	10	GE10	Enabled	Yes		No	No	
<input type="checkbox"/>	11	GE11	Enabled	Yes		No	No	
<input type="checkbox"/>	12	GE12	Enabled	Yes		No	No	
<input type="checkbox"/>	13	GE13	Enabled	Yes		No	No	
<input type="checkbox"/>	14	GE14	Enabled	Yes		No	No	
<input type="checkbox"/>	15	GE15	Enabled	Yes		No	No	
<input type="checkbox"/>	16	GE16	Enabled	Yes		No	No	
<input type="checkbox"/>	17	GE17	Enabled	Yes		No	No	
<input type="checkbox"/>	18	GE18	Enabled	Yes		No	No	
<input type="checkbox"/>	19	GE19	Enabled	Yes		No	No	
<input type="checkbox"/>	20	GE20	Enabled	Yes		No	No	
<input type="checkbox"/>	21	GE21	Enabled	Yes		No	No	
<input type="checkbox"/>	22	GE22	Enabled	Yes		No	No	
<input type="checkbox"/>	23	GE23	Enabled	Yes		No	No	
<input type="checkbox"/>	24	GE24	Enabled	Yes		No	No	
<input type="checkbox"/>	25	TE1	Enabled	Yes		No	No	
<input type="checkbox"/>	26	TE2	Enabled	Yes		No	No	
<input type="checkbox"/>	27	TE3	Enabled	Yes		No	No	
<input type="checkbox"/>	28	TE4	Enabled	Yes		No	No	

[Edit](#)

Edit MED Port Setting


Port	GE2		
State	<input type="checkbox"/> Enable		
Optional TLV	Available TLV		Selected TLV
	<div>Location</div> <div>Inventory</div>	<div>></div> <div><</div>	<div>Network Policy</div>
Network policy	Available Policy		Selected Policy
	<div>1 (Voice)</div>	<div>></div> <div><</div>	<div></div>
Location			
Coordinate	<input type="text"/> (16 pairs of hexadecimal characters)		
Civic	<input type="text"/> (6-160 pairs of hexadecimal characters)		
ECS ELIN	<input type="text"/> (10-25 pairs of hexadecimal characters)		
<div>Apply</div> <div>Close</div>			

Item	Description
Edit	Edit the settings of selected port.
Port	The index number of selected port.
State	Enable or disable the LLDP MED on the selected port.
Optional TLV	Available TLV items will be shown in this field of "Available TLV". Choose the one(s) you want and click the >> arrow to transfer the selection(s) to the field of "Selected TLV".
Network policy	Available policy will be shown in this field of "Available Policy". Choose the one(s) you want and click the >> arrow to transfer the selection(s) to the field of "Selected Policy".
Coordinate	Enter the coordinate location in 16 pairs of hexadecimal characters.
Civic	Enter the civic address in 6 ~ 160 pairs of hexadecimal characters.

ECS ELIN	Enter the ECS (Emergency Call Service) ELIN (Emergency Location Identification Number) in 10 ~ 25 pairs of hexadecimal characters.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

11.1.5. Packet View

This page provides packet view detail of each port.


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[Save](#) | [Logout](#) | [Reboot](#)

[Discovery](#) >> [LLDP](#) >> [Packet View](#)

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Packet View Table

	Entry	Port	In-Use (Bytes)	Available (Bytes)	Operational Status
<input type="radio"/>	1	GE1	38	1450	Not Overloading
<input type="radio"/>	2	GE2	38	1450	Not Overloading
<input type="radio"/>	3	GE3	38	1450	Not Overloading
<input type="radio"/>	4	GE4	38	1450	Not Overloading
<input type="radio"/>	5	GE5	38	1450	Not Overloading
<input type="radio"/>	6	GE6	38	1450	Not Overloading
<input type="radio"/>	7	GE7	38	1450	Not Overloading
<input type="radio"/>	8	GE8	38	1450	Not Overloading
<input type="radio"/>	9	GE9	38	1450	Not Overloading
<input type="radio"/>	10	GE10	39	1449	Not Overloading
<input type="radio"/>	11	GE11	39	1449	Not Overloading
<input type="radio"/>	12	GE12	39	1449	Not Overloading
<input type="radio"/>	13	GE13	39	1449	Not Overloading
<input type="radio"/>	14	GE14	39	1449	Not Overloading
<input type="radio"/>	15	GE15	39	1449	Not Overloading
<input type="radio"/>	16	GE16	39	1449	Not Overloading
<input type="radio"/>	17	GE17	39	1449	Not Overloading
<input type="radio"/>	18	GE18	39	1449	Not Overloading
<input type="radio"/>	19	GE19	39	1449	Not Overloading
<input type="radio"/>	20	GE20	39	1449	Not Overloading
<input type="radio"/>	21	GE21	39	1449	Not Overloading
<input type="radio"/>	22	GE22	39	1449	Not Overloading
<input type="radio"/>	23	GE23	39	1449	Not Overloading
<input type="radio"/>	24	GE24	39	1449	Not Overloading
<input type="radio"/>	25	TE1	38	1450	Not Overloading
<input type="radio"/>	26	TE2	38	1450	Not Overloading
<input type="radio"/>	27	TE3	38	1450	Not Overloading
<input type="radio"/>	28	TE4	38	1450	Not Overloading

[Detail](#)

11.1.6. Local Information

This page shows detailed local information of LLDP.

Discovery >> LLDP >> Local Information

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Device Summary

Chassis ID Subtype	MAC address
Chassis ID	00:03:79:09:E0:DC
System Name	Switch
System Description	28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks
Supported Capabilities	Bridge, Router
Enabled Capabilities	Bridge, Router
Port ID Subtype	Local

Port Status Table



	Entry	Port	LLDP State	LLDP-MED State
<input type="radio"/>	1	GE1	Normal	Enabled
<input type="radio"/>	2	GE2	Normal	Enabled
<input type="radio"/>	3	GE3	Normal	Enabled
<input type="radio"/>	4	GE4	Normal	Enabled
<input type="radio"/>	5	GE5	Normal	Enabled
<input type="radio"/>	6	GE6	Normal	Enabled
<input type="radio"/>	7	GE7	Normal	Enabled

Discovery >> LLDP >> Local Information

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Port Status Table

	Entry	Port	LLDP State	LLDP-MED State
<input type="radio"/>	1	GE1	Normal	Enabled
<input type="radio"/>	2	GE2	Normal	Enabled
<input type="radio"/>	3	GE3	Normal	Enabled
<input type="radio"/>	4	GE4	Normal	Enabled
<input type="radio"/>	5	GE5	Normal	Enabled
<input type="radio"/>	6	GE6	Normal	Enabled
<input type="radio"/>	7	GE7	Normal	Enabled
<input type="radio"/>	8	GE8	Normal	Enabled
<input type="radio"/>	9	GE9	Normal	Enabled
<input type="radio"/>	10	GE10	Normal	Enabled
<input type="radio"/>	11	GE11	Normal	Enabled
<input type="radio"/>	12	GE12	Normal	Enabled
<input type="radio"/>	13	GE13	Normal	Enabled
<input type="radio"/>	14	GE14	Normal	Enabled
<input type="radio"/>	15	GE15	Normal	Enabled
<input type="radio"/>	16	GE16	Normal	Enabled
<input type="radio"/>	17	GE17	Normal	Enabled
<input type="radio"/>	18	GE18	Normal	Enabled
<input type="radio"/>	19	GE19	Normal	Enabled
<input type="radio"/>	20	GE20	Normal	Enabled
<input type="radio"/>	21	GE21	Normal	Enabled
<input type="radio"/>	22	GE22	Normal	Enabled
<input type="radio"/>	23	GE23	Normal	Enabled
<input type="radio"/>	24	GE24	Normal	Enabled
<input type="radio"/>	25	TE1	Normal	Enabled
<input type="radio"/>	26	TE2	Normal	Enabled
<input type="radio"/>	27	TE3	Normal	Enabled
<input type="radio"/>	28	TE4	Normal	Enabled

[Detail](#)

11.1.7. Neighbor

This page allows to view the information sent from neighboring devices by LLDP protocol.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) | [Logout](#) | [Reboot](#)

Discovery >> LLDP >> Neighbor

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Neighbor Table

Showing All entries Showing 0 to 0 of 0 entries

<input type="checkbox"/>	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](#)

11.1.8. Statistics

This page shows global statistics and statistics of each port.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) | [Logout](#) | [Reboot](#)

Discovery >> LLDP >> Statistics

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Global Statistics

Insertions	3
Deletions	3
Drops	0
AgeOuts	0

[Clear](#)
[Refresh](#)

Statistics Table

<input type="checkbox"/>	Entry	Port	Transmit Frame	Receive Frame			Receive TLV		Neighbor
			Total	Total	Discard	Error	Discard	Unrecognized	Timeout
<input type="checkbox"/>	1	GE1	1241	0	0	0	0	0	0
<input type="checkbox"/>	2	GE2	316	0	0	0	0	0	0
<input type="checkbox"/>	3	GE3	0	0	0	0	0	0	0
<input type="checkbox"/>	4	GE4	0	0	0	0	0	0	0
<input type="checkbox"/>	5	GE5	0	0	0	0	0	0	0
<input type="checkbox"/>	6	GE6	0	0	0	0	0	0	0
<input type="checkbox"/>	7	GE7	0	0	0	0	0	0	0

Discovery >> LLDP >> Statistics

- ▼ Status
- ▼ Network
- ▼ Port
- ▼ PoE
- ▼ VLAN
- ▼ MAC Address Table
- ▼ Spanning Tree
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- ▼ Multicast
- ▼ Routing
- ▼ Security
- ▼ ACL
- ▼ QoS
- ▼ Diagnostics
- ▼ Management
- ▼ Loop Prevention

<input type="checkbox"/>	Entry	Port	Transmit Frame	Receive Frame			Receive TLV		Neighbor Timeout	
			Total	Total	Discard	Error	Discard	Unrecognized		
<input type="checkbox"/>	1	GE1	1241	0	0	0	0	0	0	
<input type="checkbox"/>	2	GE2	316	0	0	0	0	0	0	
<input type="checkbox"/>	3	GE3	0	0	0	0	0	0	0	
<input type="checkbox"/>	4	GE4	0	0	0	0	0	0	0	
<input type="checkbox"/>	5	GE5	0	0	0	0	0	0	0	
<input type="checkbox"/>	6	GE6	0	0	0	0	0	0	0	
<input type="checkbox"/>	7	GE7	0	0	0	0	0	0	0	
<input type="checkbox"/>	8	GE8	0	0	0	0	0	0	0	
<input type="checkbox"/>	9	GE9	0	0	0	0	0	0	0	
<input type="checkbox"/>	10	GE10	0	0	0	0	0	0	0	
<input type="checkbox"/>	11	GE11	0	0	0	0	0	0	0	
<input type="checkbox"/>	12	GE12	0	0	0	0	0	0	0	
<input type="checkbox"/>	13	GE13	0	0	0	0	0	0	0	
<input type="checkbox"/>	14	GE14	0	0	0	0	0	0	0	
<input type="checkbox"/>	15	GE15	0	0	0	0	0	0	0	
<input type="checkbox"/>	16	GE16	0	0	0	0	0	0	0	
<input type="checkbox"/>	17	GE17	0	0	0	0	0	0	0	
<input type="checkbox"/>	18	GE18	0	0	0	0	0	0	0	
<input type="checkbox"/>	19	GE19	0	0	0	0	0	0	0	
<input type="checkbox"/>	20	GE20	0	0	0	0	0	0	0	
<input type="checkbox"/>	21	GE21	0	0	0	0	0	0	0	
<input type="checkbox"/>	22	GE22	0	0	0	0	0	0	0	
<input type="checkbox"/>	23	GE23	0	0	0	0	0	0	0	
<input type="checkbox"/>	24	GE24	0	0	0	0	0	0	0	
<input type="checkbox"/>	25	TE1	2881	2881	0	0	0	0	0	
<input type="checkbox"/>	26	TE2	0	0	0	0	0	0	0	
<input type="checkbox"/>	27	TE3	0	0	0	0	0	0	0	
<input type="checkbox"/>	28	TE4	0	0	0	0	0	0	0	

Clear

Refresh

12 Multicast

IP multicast is a technique for one-to-many communication over an IP infrastructure in a network. To avoid the incoming data broadcasting to all GE ports, multicast is useful to transfer the data/message to specified GE ports for IGMP snooping. When Switch receives a message “subscribed” by the client, it must decide to transfer the data to specified GE ports according to the location of the client (subscribed member).

12.1 General

12.1.1. Property

For the multicast packets, this page allows the network administrator to choose actions for processing the unknown multicast packets and for handling known packets with MAC address, IP address and VLAN ID.

The screenshot shows the web interface of a Proscend 28-Port GbE Managed PoE Switch. The breadcrumb navigation is "Multicast >> General >> Property". On the left is a sidebar menu with categories like Status, Network, Port, PoE, VLAN, MAC Address Table, Spanning Tree, Discovery, Multicast, General, Routing, Security, ACL, QoS, Diagnostics, Management, and Loop Prevention. The "General" category is expanded, showing sub-items like Property, Group Address, Router Port, Forward All, Throttling, Filtering Profile, Filtering Binding, IGMP Snooping, MLD Snooping, MVR, etc. The "Property" sub-item is selected. The main content area contains two sections: "Unknown Multicast Action" with radio buttons for Flood (selected), Drop, and Forward to Router Port; and "Multicast Forward Method" with sub-sections for IPv4 and IPv6, each having radio buttons for DMAC-VID (selected) and DIP-VID. An "Apply" button is at the bottom.

Item	Description
Unknown Multicast Action	Select an action for switch to handle with unknown multicast packet. Flood: Flood the unknown multicast data. Drop: Drop the unknown multicast data.

	Forward to Router port: Forward the unknown multicast data to router port.
IPv4	Set the IPv4 multicast forward method. DMAC-VID: Forward using destination multicast MAC address and VLAN IDs. DIP-VID: Forward using destination multicast IP address and VLAN ID.
IPv6	Set the IPv6 multicast forward method. DMAC-VID: Forward using destination multicast MAC address and VLAN IDs. DIP-VID: Forward using destination multicast IPv6 address and VLAN ID.
Apply	Apply the settings to the switch.

12.1.2. Group Address

The page allows to assign a VLAN/port as a specific IPv4/IPv6 multicast member. Every IPv4/IPv6 multicast stream that belongs to the specified group IP address will be forwarded to the specified port/VLAN member.

PROSCEND 28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

Save | Logout | Reboot

Multicast >> General >> Group Address

Group Address Table

IP Version: IPv4

Showing All entries Showing 0 to 0 of 0 entries

<input type="checkbox"/>	VLAN	Group Address	Member	Type	Life (Sec)
0 results found.					

First Previous 1 Next Last

Add Edit Delete Refresh

Sidebar Menu:

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
 - General
 - Property
 - Group Address**
 - Router Port
 - Forward All
 - Throttling
 - Filtering Profile
 - Filtering Binding
 - IGMP Snooping
 - MLD Snooping
 - MVR
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

Item	Description
IP Version	Select the IP version which will be displayed on this page.
Add	Add a new group address.
Edit	Edit the existing group address.
Delete	Delete the selected group address.
Refresh	Refresh the current page.

Multicast >> General >> Group Address

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

Item	Description
VLAN	Use the drop down list to specify a VLAN profile as IGMP Static Group.
IP Version	Select the IP Version.
Group Address	<p>It is an identifier for the group member. Packets sent to such address will be transferred to all interfaces defined in Member Ports.</p> <p>Specify the IPv4/IPv6 multicast address you wish to assign for the static group (defined in VLAN).</p>
Member	Specify the port(s) that static group with given IPv4/IPv6 multicast address shall include.
Apply	Apply the settings to the switch.

Close

Close the setting page and back to previous page.

12.1.3. Router Port

This page shows the IGMP queried router known to this switch.

The screenshot shows the Proscend 28-Port GbE Managed PoE Switch web interface. The top navigation bar includes the Proscend logo, the device name, and links for Save, Logout, and Reboot. The breadcrumb trail is Multicast >> General >> Router Port. The left sidebar contains a tree view of configuration categories: Status, Network, Port, PoE, VLAN, MAC Address Table, Spanning Tree, Discovery, Multicast (expanded), General (expanded), IGMP Snooping, MLD Snooping, MVR, Routing, Security, ACL, QoS, Diagnostics, Management, and Loop Prevention. The main content area is titled 'Router Port Table' and features a dropdown for IP Version (set to IPv4), a search bar, and a table with columns: VLAN, Member, Static Port, Forbidden Port, and Life (Sec). The table currently shows 0 results. Below the table are buttons for Add, Edit, and Refresh, and pagination controls (First, Previous, 1, Next, Last).

Item	Description
IP Version	Select the IP version which will be displayed on this page.
Add	Add a new entry.
Edit	Edit the existing entry.
Refresh	Refresh the current page.

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

Item	Description
VLAN	Available VLAN will be shown in this field of "Available VLAN". Choose the one(s) you want and click the >> arrow to transfer the selection(s) to the field of "Selected VLAN".
IP Version	Select the IP Version.
Type	Static : Specify LAN Port (GE/LAG) to send out query to remote host. Forbidden : Use the drop down list to specify forbidden LAN Port (GE/LAG).
Port	Available port will be shown in this field of "Available Port". Choose the one(s) you want and click the >> arrow to transfer the selection(s) to the field of "Selected Port".
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

12.1.4. Forward All

This page is allowed to determine which port(s) would like to receive the data (multicast packets) that forwarded by Switch.

PROSCEND 28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

Save | Logout | Reboot

Multicast >> General >> Forward All

Forward All Table

IP Version: IPv4

Showing All entries Showing 0 to 0 of 0 entries

Search: []

<input type="checkbox"/>	VLAN	Static Port	Forbidden Port
0 results found.			

Add Edit Delete

First Previous 1 Next Last

Item	Description
IP Version	Select the IP version which will be displayed on this page.
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the selected entry.

Add Forward All

The screenshot shows the 'Add Forward All' configuration window. It is organized into four main sections, each with a label on the left and configuration options on the right.

- VLAN:** On the left is a label 'VLAN'. On the right, there are two list boxes: 'Available VLAN' (containing the number '1') and 'Selected VLAN' (which is empty). Between these two boxes are two arrows: a right-pointing arrow (>) and a left-pointing arrow (<).
- IP Version:** On the left is a label 'IP Version'. On the right is a dropdown menu currently set to 'IPv4'.
- Type:** On the left is a label 'Type'. On the right are two radio buttons: 'Static' (which is selected with a blue dot) and 'Forbidden'.
- Port:** On the left is a label 'Port'. On the right, there are two list boxes: 'Available Port' (containing a list of ports from GE1 to GE8) and 'Selected Port' (which is empty). Between these two boxes are two arrows: a right-pointing arrow (>) and a left-pointing arrow (<).

At the bottom of the window, there are two buttons: 'Apply' and 'Close'.

Item	Description
VLAN	Available VLAN will be shown in this field of "Available VLAN". Choose the one(s) you want and click the >> arrow to transfer the selection(s) to the field of "Selected VLAN".
IP Version	Select the IP Version.
Type	Static: The multicast packets will be delivered to the network device connected by these ports. Forbidden: the multicast packets will not be delivered to the network device connected by these ports.
Port	Available port will be shown in this field of "Available Port". Choose the one(s) you want and click the >> arrow to transfer the selection(s) to the field of "Selected Port".
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

12.1.5. Throttling

The Throttling page is used for configuring the maximum number (0~256) of IGMP group that a user on a switch port can join. After defined the maximum number, each switch port interface can be set to deny the IGMP join report or set to replace randomly selected multicast interface with received IGMP join report.

PROSCEND 28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

Save | Logout | Reboot

Multicast >> General >> Throttling

Status

Network

Port

PoE

VLAN

MAC Address Table

Spanning Tree

Discovery

Multicast

General

Property

Group Address

Router Port

Forward All

Throttling

Filtering Profile

Filtering Binding

IGMP Snooping

MLD Snooping

MVR

Routing

Security

ACL

QoS

Diagnostics

Management

Loop Prevention

Throttling Table

IP Version IPv4

<input type="checkbox"/>	Entry	Port	Max Group	Exceed Action
<input type="checkbox"/>	1	GE1	256	Deny
<input type="checkbox"/>	2	GE2	256	Deny
<input type="checkbox"/>	3	GE3	256	Deny
<input type="checkbox"/>	4	GE4	256	Deny
<input type="checkbox"/>	5	GE5	256	Deny
<input type="checkbox"/>	6	GE6	256	Deny
<input type="checkbox"/>	7	GE7	256	Deny
<input type="checkbox"/>	8	GE8	256	Deny
<input type="checkbox"/>	9	GE9	256	Deny
<input type="checkbox"/>	10	GE10	256	Deny
<input type="checkbox"/>	11	GE11	256	Deny
<input type="checkbox"/>	12	GE12	256	Deny
<input type="checkbox"/>	13	GE13	256	Deny
<input type="checkbox"/>	14	GE14	256	Deny
<input type="checkbox"/>	15	GE15	256	Deny
<input type="checkbox"/>	16	GE16	256	Deny
<input type="checkbox"/>	17	GE17	256	Deny
<input type="checkbox"/>	18	GE18	256	Deny

Multicast >> General >> Throttling

- ▼ Status
- ▼ Network
- ▼ Port
- ▼ PoE
- ▼ VLAN
- ▼ MAC Address Table
- ▼ Spanning Tree
- ▼ Discovery
- ▼ Multicast
 - ▲ General
 - Property
 - Group Address
 - Router Port
 - Forward All
 - Throttling
 - Filtering Profile
 - Filtering Binding
 - ▼ IGMP Snooping
 - ▼ MLD Snooping
 - ▼ MVR
- ▼ Routing
- ▼ Security
- ▼ ACL
- ▼ QoS
- ▼ Diagnostics
- ▼ Management
- ▼ Loop Prevention

<input type="checkbox"/>	4	GE4	256	Deny
<input type="checkbox"/>	5	GE5	256	Deny
<input type="checkbox"/>	6	GE6	256	Deny
<input type="checkbox"/>	7	GE7	256	Deny
<input type="checkbox"/>	8	GE8	256	Deny
<input type="checkbox"/>	9	GE9	256	Deny
<input type="checkbox"/>	10	GE10	256	Deny
<input type="checkbox"/>	11	GE11	256	Deny
<input type="checkbox"/>	12	GE12	256	Deny
<input type="checkbox"/>	13	GE13	256	Deny
<input type="checkbox"/>	14	GE14	256	Deny
<input type="checkbox"/>	15	GE15	256	Deny
<input type="checkbox"/>	16	GE16	256	Deny
<input type="checkbox"/>	17	GE17	256	Deny
<input type="checkbox"/>	18	GE18	256	Deny
<input type="checkbox"/>	19	GE19	256	Deny
<input type="checkbox"/>	20	GE20	256	Deny
<input type="checkbox"/>	21	GE21	256	Deny
<input type="checkbox"/>	22	GE22	256	Deny
<input type="checkbox"/>	23	GE23	256	Deny
<input type="checkbox"/>	24	GE24	256	Deny
<input type="checkbox"/>	25	TE1	256	Deny
<input type="checkbox"/>	26	TE2	256	Deny
<input type="checkbox"/>	27	TE3	256	Deny
<input type="checkbox"/>	28	TE4	256	Deny
<input type="checkbox"/>	29	LAG1	256	Deny
<input type="checkbox"/>	30	LAG2	256	Deny
<input type="checkbox"/>	31	LAG3	256	Deny
<input type="checkbox"/>	32	LAG4	256	Deny
<input type="checkbox"/>	33	LAG5	256	Deny
<input type="checkbox"/>	34	LAG6	256	Deny
<input type="checkbox"/>	35	LAG7	256	Deny
<input type="checkbox"/>	36	LAG8	256	Deny

[Edit](#)

Item	Description
IP Version	Select the IP version which will be displayed on this page.
Edit	Edit the selected entry.

Edit Throttling

Port	GE5
IP Version	IPv4
Max Group	<input type="text" value="256"/> (0 - 256)
Exceed Action	<input checked="" type="radio"/> Deny <input type="radio"/> Replace

Apply

Close

Item	Description
Port	The index number of selected port.
IP Version	The selected IP Version.
Max Group	Define the maximum number of IGMP group profile that a user on the switch can join. If "0" is entered, then such interface (port) can join all of the IGMP group profiles.
Exceed Action	Deny: It is default setting. The IGMP join report (for multicast service) received by such interface will be discarded. Replace: When it is selected, a new group with IGMP report received will replace the existing group.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

12.1.6. Filtering Profile

The filtering profile page allows to configure up to 128 IP-group (for multicast service) profiles (starting and ending point within an IP range shall be specified). Each IP group profile can be set for permission of / denial of network service respectively.

Multicast >> General >> Filtering Profile

- ▼ Status
- ▼ Network
- ▼ Port
- ▼ PoE
- ▼ VLAN
- ▼ MAC Address Table
- ▼ Spanning Tree
- ▼ Discovery
- ▼ Multicast

- ▲ General
 - Property
 - Group Address
 - Router Port
 - Forward All
 - Throttling
 - Filtering Profile**
 - Filtering Binding

- ▼ IGMP Snooping
- ▼ MLD Snooping
- ▼ MVR

- ▼ Routing
- ▼ Security
- ▼ ACL
- ▼ QoS
- ▼ Diagnostics
- ▼ Management
- ▼ Loop Prevention

Filtering Profile Table

IP Version IPv4 ▼

Showing All ▼ entries

Showing 0 to 0 of 0 entries

<input type="checkbox"/>	Profile ID	Start Address	End Address	Action
0 results found.				

[Add](#) [Edit](#) [Delete](#)
[First](#) [Previous](#) [1](#) [Next](#) [Last](#)

Item	Description
IP Version	Select the IP version which will be displayed on this page.
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the selected entry.

Multicast >> General >> Filtering Profile


Add Profile

Profile ID	<input type="text" value=""/>	(1 - 128)
IP Version	IPv4 ▾	
Start Address	<input type="text" value=""/>	
End Address	<input type="text" value=""/>	
Action	<input checked="" type="radio"/> Allow <input type="radio"/> Deny	

Item	Description
Profile ID	Enter the profile ID for IGMP snooping.
IP Version	Select the IP Version.
Start Address	Enter an IP address as the starting point for the IP range.
End Address	Enter an IP address as the ending point for the IP range.
Action	Allow: When it is selected, the request for multicast traffic will be forwarded to the multicast group normally. Deny: It is default setting. The forwarding request of multicast traffic will be discarded.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

12.1.7. Filtering Binding

This page allows to select a filtering profile for GE/LAG port to process multicast traffic.


28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#)
[Logout](#)
[Reboot](#)

Multicast ›› General ›› Filtering Binding

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- General
 - Property
 - Group Address
 - Router Port
 - Forward All
 - Throttling
 - Filtering Profile
 - Filtering Binding
- IGMP Snooping
- MLD Snooping
- MVR
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

Filtering Binding Table

IP Version
IPv4

<input type="checkbox"/>	Entry	Port	Profile ID
<input type="checkbox"/>	1	GE1	
<input type="checkbox"/>	2	GE2	
<input type="checkbox"/>	3	GE3	
<input type="checkbox"/>	4	GE4	
<input type="checkbox"/>	5	GE5	
<input type="checkbox"/>	6	GE6	
<input type="checkbox"/>	7	GE7	
<input type="checkbox"/>	8	GE8	
<input type="checkbox"/>	9	GE9	
<input type="checkbox"/>	10	GE10	
<input type="checkbox"/>	11	GE11	
<input type="checkbox"/>	12	GE12	
<input type="checkbox"/>	13	GE13	
<input type="checkbox"/>	14	GE14	
<input type="checkbox"/>	15	GE15	
<input type="checkbox"/>	16	GE16	
<input type="checkbox"/>	17	GE17	
<input type="checkbox"/>	18	GE18	
<input type="checkbox"/>	19	GE19	
<input type="checkbox"/>	20	GE20	
<input type="checkbox"/>	21	GE21	
<input type="checkbox"/>	22	GE22	
<input type="checkbox"/>	23	GE23	
<input type="checkbox"/>	24	GE24	
<input type="checkbox"/>	25	TE1	
<input type="checkbox"/>	26	TE2	
<input type="checkbox"/>	27	TE3	
<input type="checkbox"/>	28	TE4	
<input type="checkbox"/>	29	LAG1	
<input type="checkbox"/>	30	LAG2	
<input type="checkbox"/>	31	LAG3	
<input type="checkbox"/>	32	LAG4	
<input type="checkbox"/>	33	LAG5	
<input type="checkbox"/>	34	LAG6	
<input type="checkbox"/>	35	LAG7	
<input type="checkbox"/>	36	LAG8	

Edit

Item	Description
IP Version	Select the IP version which will be displayed on this page.
Edit	Edit the selected entry.

Edit Filtering Binding

Port	GE9
IP Version	IPv4
Profile ID	<input type="checkbox"/> Enable
	<input type="button" value="v"/>

Apply

Close

Item	Description
Port	The index number of selected port.
IP Version	The selected IP Version.
Profile ID	Enable of disable selected filtering profile for the selected port/interface.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

12.2 IGMP Snooping

IGMP snooping is the process of listening to Internet Group Management Protocol (IGMP) network traffic. The feature allows a network switch to listen in on the IGMP conversation between hosts and routers. By listening to these conversations the switch maintains a map of which links need which IP multicast streams. Multicasts may be filtered from the links which do not need them and thus controls which ports receive specific multicast traffic.

12.2.1. Property

This page allows to enable/disable IGMP function, select snooping version, and enable/disable snooping report suppression.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

Save
Logout
Reboot

Multicast >> IGMP Snooping >> Property

- Status
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- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
 - General
 - IGMP Snooping
 - Property
 - Querier
 - Statistics
 - MLD Snooping
 - MVR
 - Routing
 - Security
 - ACL
 - QoS
 - Diagnostics
 - Management
 - Loop Prevention

State
☐ Enable

Version
☒ IGMPv2
☐ IGMPv3

Report Suppression
☒ Enable

Apply

VLAN Setting Table

	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
<input type="checkbox"/>	1	Disabled	Enabled	2	125	10	2	1	Disabled

Edit

Item	Description
State	Enable or disable the IGMP snooping.
Version	Set the IGMP snooping Version. IGMPv2: Only support IGMP v2 packet. IGMPv3: Support v3 basic and v2.
Report Suppression	Enable to allow the switch to handle IGMP reports between router and host, suppressing bandwidth used by IGMP.
Apply	Apply the settings to the switch.
Edit	Edit the selected entry.

Multicast >> IGMP Snooping >> Property

Edit VLAN Setting

VLAN	1	
State	<input type="checkbox"/> Enable	
Router Port Auto Learn	<input checked="" type="checkbox"/> Enable	
Immediate leave	<input type="checkbox"/> 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

Item	Description
VLAN	The index number of selected VLAN ID.
State	Enable or disable the IGMP snooping function
Router Port Auto Learn	Set the enabling status of IGMP router port learning. Choose Enable to learn router port by IGMP query.
Immediate leave	Leave the multicast group immediately on the port & VLAN where leave message is sent from, regardless there is still a subscribed member or not. Click Enable to enable Fast leave function.
Query Robustness	Set a number which allows tuning for the expected packet loss on a subnet.
Query Interval	Set the interval for sending general query.
Query Max	It specifies the maximum allowed time before sending a

Response Interval	responding report in units of 1/10 second.
Last Member Query Counter	After querying for specified times (defined here) and still not receiving any response from the subscribed member, Switch will stop transmitting data to the related GE port(s).
Last Member Query Interval	The maximum time interval between counting each member query message with no responses from any subscribed member.
Operational Status	Display the current operation status of IGMP snooping.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

12.2.2. Querier

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

The screenshot displays the web management interface for a Proscend 28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks. The breadcrumb navigation shows the path: Multicast >> IGMP Snooping >> Querier. The left sidebar contains a tree view of configuration categories, with 'IGMP Snooping' expanded to show 'Querier' as the selected option. The main content area is titled 'Querier Table' and features a search bar. Below the search bar is a table with the following data:

<input type="checkbox"/>	VLAN	State	Operational Status	Version	Querier Address
<input type="checkbox"/>	1	Disabled	Disabled		

An 'Edit' button is located below the table.

Edit Querier

VLAN	1
State	<input checked="" type="checkbox"/> Enable
Version	<input checked="" type="radio"/> IGMPv2 <input type="radio"/> IGMPv3

Item	Description
Edit	Edit the selected entry.
VLAN	The index number of selected VLAN ID.
State	Enable or disable the IGMP Querier on the chosen VLAN profile.
Version	Set the query version of IGMP Querier Election on the chosen VLANs. IGMPv2: Querier version 2. IGMPv3: Querier version 3.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

12.2.3. Statistics

This page displays the statistics of IGMP snooping.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#)
[Logout](#)
[Reboot](#)

Multicast >> IGMP Snooping >> Statistics

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
 - General
 - IGMP Snooping
 - Property
 - Querier
 - Statistics
 - MLD Snooping
 - MVR
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

Receive Packet

Total	0
Valid	0
InValid	0
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](#)

12.3 MLD Snooping

MLD snooping acts on IPv6 packets. MLD snooping is the process of listening to Multicast Listener Discovery network traffic. It can examine IPv6 packets and forward these packets to designate location via VLAN port members.

12.3.1. Property

This page allows to enable/disable MLD Snooping function, select snooping version, and enable/disable snooping report suppression.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#)
[Logout](#)
[Reboot](#)

Multicast >> MLD Snooping >> Property

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
 - General
 - IGMP Snooping
 - Property
 - Querier
 - Statistics
 - MLD Snooping
 - Property
 - Statistics
 - MVR
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

☐ State

☒ MLDv1
☐ MLDv2

☒ Report Suppression

Apply

VLAN Setting Table

<input type="checkbox"/>	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
<input type="checkbox"/>	1	Disabled	Enabled	2	125	10	2	1	Disabled

Edit

Item	Description
State	Enable or disable the MLD snooping function.
Version	MLDv1 : When it is selected, Switch will detect packets

	controlled by MLDv1 and bridge the traffic to IPv6 destination defined with multicast address(es). MLDv2: When it is selected, Switch will detect packets controlled by MLDv2 and forward the traffic to destination defined with multicast address(es).
Report Suppression	Enable or disable the function to handle MLD reports between router and host, suppressing bandwidth used by MLD.
Apply	Apply the settings to the switch.
Edit	Edit the selected entry.

Multicast >> MLD Snooping >> Property

Edit VLAN Setting

VLAN	1
State	<input type="checkbox"/> Enable
Router Port Auto Learn	<input checked="" type="checkbox"/> Enable
Immediate leave	<input type="checkbox"/> 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

Item	Description
VLAN	The index number of VLAN entry.
State	Enable or disable the MLD snooping function for the selected VLAN ID.

Router Port Auto Learn	Enable or disable the function to handle MLD reports between router and host, suppressing bandwidth used by MLD.
Immediate Leave	Enable or disable the function of immediate leave. When the GE/LAG port receives the leave message, it will be removed from multicast group to speed up leave latency.
Query Robustness	Set a number which allows tuning for the expected packet loss on a subnet.
Query Interval	Specify the time interval for Switch to send out general MLD query to the host (responsible for responding).
Query Max Response Interval	Specify the maximum time interval for Switch to receive the query response from the host. If time is up and no response received, the packets will be blocked and discarded.
Last Member Query Counter	After querying for specified times (defined here) and still not receiving any response from the subscribed member, Switch will stop transmitting data to the related GE port(s).
Last Member Query Interval	The maximum time interval between counting each member query message with no responses from any subscribed member.
Operational Status	Display the current operational status.
Apply	Apply the settings to the switch.
Edit	Edit the selected entry.

12.3.2. Statistics

This page displays the statistics of MLD snooping.


28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#)
[Logout](#)
[Reboot](#)

Multicast >> MLD Snooping >> Statistics

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
 - General
 - IGMP Snooping
 - MLD Snooping
 - Property
 - Statistics
 - MVR
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

Receive Packet	
Total	0
Valid	0
InValid	0
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](#)

12.4 MVR

Multicast VLAN Registration (MVR) can route packets received in a multicast source VLAN to one or more destination VLANs. LAN users are in the destination VLANs and the multicast server is in the source VLAN. MVR can continuously send multicast stream for traffic in the multicast VLAN, but isolate the streams from the source VLANs for bandwidth and security reasons.

12.4.1. Property

This page allows the network administrator to configure general settings for MVR, such as enabling function, selecting VLAN ID (as source VLAN) and specify IP address(es) for receiver/LAN users.

PROSCEND 28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

Save Logout Reboot

Multicast >> MVR >> Property

State ☐ Enable

VLAN 1

Mode ☒ Compatible ☐ Dynamic

Group Start 0.0.0.0

Group Count 1 (1 - 128)

Query Time 1 Sec (1 - 10)

Operational Group

Maximum 128

Current 0

Apply


Item	Description
State	Enable or disable the MVR function.
VLAN	Choose one VLAN profile from the drop down list as multicast source VLAN which will receive multicast data. The default is VLAN 1.
Mode	Compatible: Multicast data received by MVR hosts (multicast server) will be forwarded to all MVR receiver ports. Dynamic: Multicast data received by MVR hosts (multicast server) on Switch will be forwarded from those MVR data and client ports grouped under MVR server.
Group Start	Enter an IP address. Any multicast data sent to this IP address will be sent to all source ports on Switch; and all receiver ports

	will accept /receive data from that multicast address.
Group Count	Select a number to configure a contiguous series of MVR group addresses (the range for count is 1 to 128; the default is 1).
Query Time	Enter the value of the maximum time (1 – 10 seconds) to wait for IGMP report members on a receiver port before the port is removed from multicast group.
Operational Group	Display the current operational group.
Apply	Apply the settings to the switch.

12.4.2. Port Setting

It is necessary to specify destination port and source port (GE/LAG) for system to perform MVR operation.

Available


28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) | [Logout](#) | [Reboot](#)

Multicast >> MVR >> Port Setting

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
 - General
 - IGMP Snooping
 - MLD Snooping
 - MVR
 - Property
 - Port Setting**
 - Group Address
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

Port Setting Table

<input type="checkbox"/>	Entry	Port	Role	Immediate Leave
<input type="checkbox"/>	1	GE1	None	Disabled
<input type="checkbox"/>	2	GE2	None	Disabled
<input type="checkbox"/>	3	GE3	None	Disabled
<input type="checkbox"/>	4	GE4	None	Disabled
<input type="checkbox"/>	5	GE5	None	Disabled
<input type="checkbox"/>	6	GE6	None	Disabled
<input type="checkbox"/>	7	GE7	None	Disabled
<input type="checkbox"/>	8	GE8	None	Disabled
<input type="checkbox"/>	9	GE9	None	Disabled
<input type="checkbox"/>	10	GE10	None	Disabled
<input type="checkbox"/>	11	GE11	None	Disabled
<input type="checkbox"/>	12	GE12	None	Disabled
<input type="checkbox"/>	13	GE13	None	Disabled
<input type="checkbox"/>	14	GE14	None	Disabled
<input type="checkbox"/>	15	GE15	None	Disabled
<input type="checkbox"/>	16	GE16	None	Disabled

Multicast >> MVR >> Port Setting

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
 - General
 - IGMP Snooping
 - MLD Snooping
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 - Property
 - Port Setting
 - Group Address
- Routing
- Security
- ACL
- QoS
- Diagnostics
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- Loop Prevention

<input type="checkbox"/>	4	GE4	None	Disabled
<input type="checkbox"/>	5	GE5	None	Disabled
<input type="checkbox"/>	6	GE6	None	Disabled
<input type="checkbox"/>	7	GE7	None	Disabled
<input type="checkbox"/>	8	GE8	None	Disabled
<input type="checkbox"/>	9	GE9	None	Disabled
<input type="checkbox"/>	10	GE10	None	Disabled
<input type="checkbox"/>	11	GE11	None	Disabled
<input type="checkbox"/>	12	GE12	None	Disabled
<input type="checkbox"/>	13	GE13	None	Disabled
<input type="checkbox"/>	14	GE14	None	Disabled
<input type="checkbox"/>	15	GE15	None	Disabled
<input type="checkbox"/>	16	GE16	None	Disabled
<input type="checkbox"/>	17	GE17	None	Disabled
<input type="checkbox"/>	18	GE18	None	Disabled
<input type="checkbox"/>	19	GE19	None	Disabled
<input type="checkbox"/>	20	GE20	None	Disabled
<input type="checkbox"/>	21	GE21	None	Disabled
<input type="checkbox"/>	22	GE22	None	Disabled
<input type="checkbox"/>	23	GE23	None	Disabled
<input type="checkbox"/>	24	GE24	None	Disabled
<input type="checkbox"/>	25	TE1	None	Disabled
<input type="checkbox"/>	26	TE2	None	Disabled
<input type="checkbox"/>	27	TE3	None	Disabled
<input type="checkbox"/>	28	TE4	None	Disabled
<input type="checkbox"/>	29	LAG1	None	Disabled
<input type="checkbox"/>	30	LAG2	None	Disabled
<input type="checkbox"/>	31	LAG3	None	Disabled
<input type="checkbox"/>	32	LAG4	None	Disabled
<input type="checkbox"/>	33	LAG5	None	Disabled
<input type="checkbox"/>	34	LAG6	None	Disabled
<input type="checkbox"/>	35	LAG7	None	Disabled
<input type="checkbox"/>	36	LAG8	None	Disabled

[Edit](#)

Item	Description
Edit	Edit the selected entry.

Edit Port Setting

Port	GE2,GE6
Role	<input checked="" type="radio"/> None <input type="radio"/> Receiver <input type="radio"/> Source
Immediate Leave	<input type="checkbox"/> Enable

Item	Description
Port	The index number of selected port.
Role	<p>None: Nothing will be happened to the selected LAN port in MVR operation.</p> <p>Receiver: The selected port will be treated as destination port which will receive multicast data from the multicast server.</p> <p>Source: The selected port will be treated as source port which will send multicast data to the receiver port.</p>
Immediate Leave	Enable or disable the function of immediate leave.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

12.4.3. Group Address

This page allows to configure IP address and specify port member for VLAN selected in **MVR →Property** page.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) | [Logout](#) | [Reboot](#)

Multicast >> MVR >> Group Address

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
 - General
 - IGMP Snooping
 - MLD Snooping
 - MVR
 - Property
 - Port Setting
 - Group Address**
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

Group Address Table

Showing All entries Showing 0 to 0 of 0 entries

<input type="checkbox"/>	VLAN	Group Address	Member	Type	Life (Sec)
0 results found.					

Add
Edit
Delete
Refresh

First
Previous
1
Next
Last

Item	Description
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the selected entry.
Refresh	Refresh the MVR Group Address table.

Multicast >> MVR >> Group Address

Add Group Address

VLAN	1
Group Address	<input type="text"/> (0.0.0.0 - 0.0.0.0)
Member	<div> <div>Available Port</div> <div>Selected Port</div> <div> <div></div> <div></div> <div></div> </div> </div>

Apply
Close

Item	Description
VLAN	The index number of selected VLAN ID.
Group Address	Define a range of IP address(es) with the format of “xxx.xxx.xxx.xxx – xxx.xxx.xxx.xxx”.
Member	Choose GE/LAG port to be grouped under the selected VLAN.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

13 Security

13.1 RADIUS

This page allows to add and configure multiple RADIUS servers.

PROSCEND 28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

Save Logout Reboot

Security >> RADIUS

- Status
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- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
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- Security
 - RADIUS**
 - TACACS+
 - AAA
 - Management Access
 - Authentication Manager
 - Port Security
 - Protected Port
 - Storm Control
 - DoS
 - Dynamic ARP Inspection
 - DHCP Snooping
 - IP Source Guard
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

Use Default Parameter

Retry	<input type="text" value="3"/>	(1 - 10, default 3)
Timeout	<input type="text" value="3"/>	Sec (1 - 30, default 3)
Key String	<input type="text"/>	

Apply

RADIUS Table

Showing All entries Showing 0 to 0 of 0 entries

<input type="checkbox"/>	Server Address	Server Port	Priority	Retry	Timeout	Usage
0 results found.						

Add Edit Delete

First Previous 1 Next Last

Item	Description
Retry	The retry time before the server being considered not reachable.
Timeout	Set the time (in seconds) before the server being considered lost connection.
Key String	Enter the string used to encrypt and authenticate with RADIUS server.
Apply	Apply the settings to the switch.
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the selected entry.

Add RADIUS Server

Address Type	<input checked="" type="radio"/> Hostname <input type="radio"/> IPv4 <input type="radio"/> IPv6	
Server Address	<input type="text"/>	
Server Port	<input type="text" value="1812"/>	(0 - 65535, default 1812)
Priority	<input type="text"/>	(0 - 65535)
Key String	<input checked="" type="checkbox"/> Use Default <input type="text"/>	
Retry	<input checked="" type="checkbox"/> Use Default <input type="text" value="3"/> (1 - 10, default 3)	
Timeout	<input checked="" type="checkbox"/> Use Default <input type="text" value="3"/> Sec (1 - 30, default 3)	
Usage	<input type="radio"/> Login <input type="radio"/> 802.1X <input checked="" type="radio"/> All	

Item	Description
Address Type	Specify whether switch uses a hostname to resolve address by DNS to connect to server, or directly connect using IPv4 address.
Server Address	Enter the server's address corresponding with address type given.
Server Port	Enter the port number used by RADIUS server.
Priority	Specify the priority that switch uses this server. The higher number, the lower priority. Switch will start with lowest priority.
Key String	Enter the key string used for encrypting and authenticating with server.
Retry	The retry time before the server being considered not reachable.
Timeout	Set the time (in seconds) before the server being considered lost connection.
Usage	Specify whether you would like to use this server for switch login authentication or 802.1x access port authentication, or

	both.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

13.2 TACACS+

This page allows to add and configure multiple TACACS+ server.

Item	Description
Timeout	Set the time (in seconds) before the server being considered lost connection.
Key String	Enter the string used to encrypt and authenticate with RADIUS server.
Apply	Apply the settings to the switch.
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the selected entry.

Add TACACS+ Server

Address Type	<input checked="" type="radio"/> Hostname <input type="radio"/> IPv4 <input type="radio"/> IPv6	
Server Address	<input type="text"/>	
Server Port	<input type="text" value="49"/>	(0 - 65535, default 49)
Priority	<input type="text"/>	(0 - 65535)
Key String	<input checked="" type="checkbox"/> Use Default <input type="text"/>	
Timeout	<input checked="" type="checkbox"/> Use Default <input type="text" value="5"/> Sec (1 - 30, default 5)	

Apply

Close

Item	Description
Address Type	Specify whether switch uses a hostname to resolve address by DNS to connect to server, or directly connect using IPv4 address.
Server Address	Enter the server's address corresponding with address type given.
Server Port	Enter the port number used by TACACS+ server.
Priority	Specify the priority that switch uses this server. The higher number, the lower priority. Switch will start with lowest priority.
Key String	Enter the key string used for encrypting and authenticating with server.
Timeout	Set the time (in seconds) before the server being considered lost connection.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

13.3AAA

13.3.1. Method List

This page allows to create method list for applying on management service.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) | [Logout](#) | [Reboot](#)

Security >> AAA >> Method List

Status
 Network
 Port
 PoE
 VLAN
 MAC Address Table
 Spanning Tree
 Discovery
 Multicast
 Routing
 Security

RADIUS
 TACACS+
 AAA
 Method List
 Login Authentication
 Management Access
 Authentication Manager
 Port Security
 Protected Port
 Storm Control
 DoS
 Dynamic ARP Inspection
 DHCP Snooping
 IP Source Guard

ACL
 QoS
 Diagnostics
 Management
 Loop Prevention

Method List Table

Showing All entries Showing 1 to 1 of 1 entries

<input type="checkbox"/>	Name	Sequence
<input type="checkbox"/>	default	(1) Local

Add
Edit
Delete
First
Previous
1
Next
Last

Item	Description
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the selected entry.

Add Method List

Name	<input type="text"/>
Method 1	<input checked="" type="radio"/> Empty <input type="radio"/> None <input type="radio"/> Local <input type="radio"/> Enable <input type="radio"/> RADIUS <input type="radio"/> TACACS+
Method 2	<input checked="" type="radio"/> Empty <input type="radio"/> None <input type="radio"/> Local <input type="radio"/> Enable <input type="radio"/> RADIUS <input type="radio"/> TACACS+
Method 3	<input checked="" type="radio"/> Empty <input type="radio"/> None <input type="radio"/> Local <input type="radio"/> Enable <input type="radio"/> RADIUS <input type="radio"/> TACACS+
Method 4	<input checked="" type="radio"/> Empty <input type="radio"/> None <input type="radio"/> Local <input type="radio"/> Enable <input type="radio"/> RADIUS <input type="radio"/> TACACS+

Item	Description
Name	Enter a name for creating a method.
Method Profile	Available methods include Local, RADIUS and TACACS+.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

13.3.2. Login Authentication

This page allows to select created method profile for each management service.

Security >> AAA >> Login Authentication


- ▼ Status
- ▼ Network
- ▼ Port
- ▼ PoE
- ▼ VLAN
- ▼ MAC Address Table
- ▼ Spanning Tree
- ▼ Discovery
- ▼ Multicast
- ▼ Routing
- ▼ Security
 - RADIUS
 - TACACS+
 - ▲ AAA
 - Method List
 - Login Authentication**
 - ▼ Management Access
 - ▼ Authentication Manager
 - Port Security
 - Protected Port
 - Storm Control
 - ▼ DoS
 - ▼ Dynamic ARP Inspection
 - ▼ DHCP Snooping
 - ▼ IP Source Guard
 - ▼ ACL
 - ▼ QoS
 - ▼ Diagnostics
 - ▼ Management
 - ▼ Loop Prevention

Console	default ▼	(1) Local
Telnet	default ▼	(1) Local
SSH	default ▼	(1) Local
HTTP	default ▼	(1) Local
HTTPS	default ▼	(1) Local

[Apply](#)

13.4 Management Access

13.4.1. Management VLAN


28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) | [Logout](#) | [Reboot](#)

Security >> Management Access >> Management VLAN

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
 - RADIUS
 - TACACS+
 - AAA
 - Management Access
 - Management VLAN**
 - Management Service
 - Management ACL
 - Management ACE
 - Authentication Manager
 - Port Security
 - Protected Port
 - Storm Control
- DoS
- Dynamic ARP Inspection
- DHCP Snooping
- IP Source Guard
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

Management VLAN

1 - default ▼

Note: Change Management VLAN may cause connection interrupted

Apply

Item	Description
Management VLAN	Select the VLAN ID that will be used for management.
Apply	Apply the settings to the switch.

13.4.2. Management Service

This page allows to enable or disable the management service of Switch.

Security >> Management Access >> Management Service

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
 - RADIUS
 - TACACS+
 - AAA
 - Management Access
 - Management VLAN
 - Management Service**
 - Management ACL
 - Management ACE
 - Authentication Manager
 - Port Security
 - Protected Port
 - Storm Control
 - DoS
 - Dynamic ARP Inspection
 - DHCP Snooping
 - IP Source Guard
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

Management Service		
Telnet	<input type="checkbox"/>	Enable
SSH	<input type="checkbox"/>	Enable
HTTP	<input checked="" type="checkbox"/>	Enable
HTTPS	<input type="checkbox"/>	Enable
SNMP	<input type="checkbox"/>	Enable

Session Timeout		
Console	<input type="text" value="10"/>	Min (0 - 65535, default 10)
Telnet	<input type="text" value="10"/>	Min (0 - 65535, default 10)
SSH	<input type="text" value="10"/>	Min (0 - 65535, default 10)
HTTP	<input type="text" value="10"/>	Min (0 - 65535, default 10)
HTTPS	<input type="text" value="10"/>	Min (0 - 65535, default 10)


Password Retry Count		
Console	<input type="text" value="3"/>	(0 - 120, default 3)
Telnet	<input type="text" value="3"/>	(0 - 120, default 3)
SSH	<input type="text" value="3"/>	(0 - 120, default 3)

Silent Time		
Console	<input type="text" value="0"/>	Sec (0 - 65535, default 0)
Telnet	<input type="text" value="0"/>	Sec (0 - 65535, default 0)
SSH	<input type="text" value="0"/>	Sec (0 - 65535, default 0)

[Apply](#)

13.4.3. Management ACL

This page allows to add, edit, and delete Management Access Control profiles.


28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) | [Logout](#) | [Reboot](#)

Security >> Management Access >> Management ACL

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security**
 - RADIUS
 - TACACS+
 - AAA
 - Management Access
 - Management VLAN
 - Management Service
 - Management ACL**
 - Management ACE
 - Authentication Manager
 - Port Security
 - Protected Port
 - Storm Control
 - DoS
 - Dynamic ARP Inspection
 - DHCP Snooping
 - IP Source Guard
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

ACL Name

Apply

Management ACL Table

Showing All entries Showing 0 to 0 of 0 entries

<input type="checkbox"/>	ACL Name	State	Rule
0 results found.			


[Active](#) [Deactive](#) [Delete](#)

[First](#) [Previous](#) [1](#) [Next](#) [Last](#)

Item	Description
ACL Name	Enter a name to create a profile for ACL.
Apply	Apply the settings to the switch.
Active	Activate the selected entry.
Deactive	Deactivate the selected entry.
Delete	Delete the selected entry.

13.4.4. Management ACE

This page allows to add, edit, or remove Access Control Entries (ACE) of the Management Access Control profiles. However, only the ACE of inactive profiles can be modified, and before configuring ACE, at least one ACL profile should be created.


28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) | [Logout](#) | [Reboot](#)

Security >> Management Access >> Management ACE

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security**
 - RADIUS
 - TACACS+
 - AAA
 - Management Access
 - Management VLAN
 - Management Service
 - Management ACL
 - Management ACE**
 - Authentication Manager
 - Port Security
 - Protected Port
 - Storm Control
 - DoS
 - Dynamic ARP Inspection
 - DHCP Snooping
 - IP Source Guard
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

Management ACE Table

ACL Name None ▾

Showing All ▾ entries Showing 0 to 0 of 0 entries

<input type="checkbox"/>	Priority	Action	Service	Port	Address / Mask
0 results found.					

[First](#)
[Previous](#)
[1](#)
[Next](#)
[Last](#)

Item	Description
ACL Name	Use the drop-down list to select the inactive ACL profile you would like to modify.
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the selected entry.

Add Management ACE

ACL Name	ACL	
Priority	1 (1 - 65535)	
Service	<input type="radio"/> All <input type="radio"/> Http <input type="radio"/> Https <input checked="" type="radio"/> Snmp <input type="radio"/> SSH <input type="radio"/> Telnet	
Action	<input type="radio"/> Permit <input checked="" type="radio"/> Deny	
Port	Available Port GE1 GE2 GE3 GE4 GE5 GE6 GE7 GE8	Selected Port [Empty]
IP Version	<input checked="" type="radio"/> All <input type="radio"/> IPv4 <input type="radio"/> IPv6	
IPv4	[Empty] / 255.255.255.255	
IPv6	[Empty] / 128 (1 - 128)	

Item	Description
ACL Name	The name of selected profile.
Priority	Specify a priority number (1 to 65535) for such rule. The lower the number, the higher the priority.
Service	Choose the service type you would like to control the access.
Action	Permit: Incoming / outgoing data which meets ACE rule is allowed to pass through. Deny: Incoming / outgoing data which meets ACE rules will be blocked.
Port	Select the ports to which the ACL should be applied.
IP Version	All: All the IP address should be applied. IPv4: Specify the IPv4 address / subnet.

	IPv6: Specify the IPv6 address / subnet.
IPv4	Enter the IPv4 address / subnet to which the ACE rule should apply.
IPv6	Enter the IPv6 address / subnet to which the ACE rule should apply.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

13.5 Authentication Manager

The authentication manager allows you to configure securely access from any host connected to physical ports. You may apply multiple ways of authentication to each port.

13.5.1. Property

The 850X-28P supports 802.1x and MAC-based authentication methods. In Global Settings page, you can specify authentication type, enable Guest VLAN function, specify a VID and select format for MAC address entry.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#)
[Logout](#)
[Reboot](#)

Security » Authentication Manager » Property

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
 - RADIUS
 - TACACS+
 - AAA
 - Management Access
 - Authentication Manager
 - Property**
 - Port Setting
 - MAC-Based Local Account
 - WEB-Based Local Account
 - Sessions
 - Port Security
 - Protected Port
 - Storm Control
 - DoS
 - Dynamic ARP Inspection
 - DHCP Snooping
 - IP Source Guard
 - ACL
 - CoS
 - Diagnostics
 - Management
 - Loop Prevention

Authentication Type

☐ 802.1x
☐ MAC-Based
☐ WEB-Based

Guest VLAN

☐ Enable

MAC-Based User ID Format

XXXXXXXXXXXX

Apply

Port Mode Table

Entry	Port	Authentication Type			Host Mode	Order	Method	Guest VLAN	VLAN Assign Mode
		802.1x	MAC-Based	WEB-Based					
<input type="checkbox"/>	1 GE1	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	2 GE2	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	3 GE3	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	4 GE4	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	5 GE5	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	6 GE6	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	7 GE7	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	8 GE8	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	9 GE9	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	10 GE10	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	11 GE11	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	12 GE12	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	13 GE13	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	14 GE14	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	15 GE15	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	16 GE16	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	17 GE17	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	18 GE18	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	19 GE19	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	20 GE20	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	21 GE21	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	22 GE22	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	23 GE23	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	24 GE24	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	25 TE1	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	26 TE2	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	27 TE3	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static
<input type="checkbox"/>	28 TE4	Disabled	Disabled	Disabled	Multiple Authentication	802.1x	RADIUS	Disabled	Static

Edit

Item	Description
Authentication Type	Specify the type that will be used for authentication.
Guest VLAN	Check to enable a Guest VLAN for those have not successfully authenticated with any given methods. Choose one of the VLAN ID as a Guest VLAN.
MAC-Based User ID Format	Specify how the MAC-based user ID should be expressed in EAP message between AAA server and switch.
Apply	Apply the settings to the switch.
Edit	Edit the selected port(s).

Edit Port Mode

Port	GE1	
Authentication Type	<input type="checkbox"/> 802.1x <input type="checkbox"/> MAC-Based <input type="checkbox"/> WEB-Based	
Host Mode	<input checked="" type="radio"/> Multiple Authentication <input type="radio"/> Multiple Hosts <input type="radio"/> Single Host	
Order	Available Type MAC-Based WEB-Based	Select Type 802.1x
Method	Available Method Local	Select Method RADIUS
Guest VLAN	<input type="checkbox"/> Enable <input type="radio"/> Disable <input type="radio"/> Reject	
VLAN Assign Mode	<input checked="" type="radio"/> Static	

Apply Close

Item	Description
Port	The index number of selected port.
Authentication Type	Specify the type that will be used for authentication.
Host Mode	<p>Multiple Authentication: Each host are authenticated individually.</p> <p>Multiple Hosts: Authentication is done on port basis, only one authenticated host is required; other hosts connected to this port can access freely as authenticated host.</p> <p>Single Host: Only one host can be authenticated, and access the port.</p>
Order	Specify available authentication types of AAA server (or local) you wish to have on this port.

Method	Specify available methods of AAA server (or local) you wish to have on this port.
Guest VLAN	Check Enable to enable Guest VLAN on this port for those unauthenticated traffic.
VLAN Assign Mode	<p>Disable: Switch will ignore the VLAN assignment from the RADIUS server and keep the original VLAN of the host.</p> <p>Reject: Switch will reject the host if it does not receive the VLAN information from RADIUS server.</p> <p>Static: Switch will use the VLAN assignment from the RADIUS server if it receives the information. If there is no VLAN information, it will keep the original VLAN of the host.</p>
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

13.5.2. Port Setting

This page allows to controls port setting, based on 802.1X, for Ethernet port authentication.

The screenshot shows the 'Port Setting' page in the Proscence web interface. The page title is '28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks'. The breadcrumb navigation is 'Security > Authentication Manager > Port Setting'. The main content area is titled 'Port Setting Table' and contains a table with 28 rows, one for each port (GE1 to TE4). The table columns are: Entry, Port, Port Control, Reauthentication, Max Hosts, Common Timer (Reauthentication, Inactive, Quiet, TX Period), 802.1x Parameters (Supplicant Timeout, Server Timeout, Max Request, Max Login), and Web-Based Parameters (Max Login). The 'Port Control' column shows 'Disabled' for all ports. The 'Reauthentication' column shows 'Disabled' for all ports. The 'Max Hosts' column shows '256' for all ports. The 'Common Timer' columns show '3600', '60', '60', and '30' respectively. The '802.1x Parameters' columns show '30', '30', '2', and '3' respectively. The 'Web-Based Parameters' column shows '3' for all ports. The interface includes a sidebar with navigation options like Status, Network, Port, PoE, VLAN, MAC Address Table, Spanning Tree, Discovery, Multicast, Routing, Security, RADIUS, TACACS+, AAA, Management Access, Authentication Manager, Property, Port Setting, MAC-Based Local Account, WEB-Based Local Account, Sessions, Port Security, Protected Port, Storm Control, DoS, Dynamic ARP Inspection, DHCP Snooping, IP Source Guard, ACL, QoS, Diagnostics, Management, and Loop Prevention. There are 'Save', 'Logout', and 'Reboot' buttons in the top right corner. An 'Edit' button is located at the bottom left of the table.

Item	Description
Edit	Edit the selected port(s).

Edit Port Setting

Port	GE1	
Port Control	<input checked="" type="radio"/> Disabled <input type="radio"/> Force Authorized <input type="radio"/> Force Unauthorized <input type="radio"/> Auto	
Reauthentication	<input type="checkbox"/> Enable	
Max Hosts	256	(1 - 256, default 256)
Common Timer		
Reauthentication	3600	Sec (300 - 4294967294, default 3600)
Inactive	60	Sec (60 - 65535, default 60)
Quiet	60	Sec (0 - 65535, default 60)
802.1x Parameters		
TX Period	30	Sec (1 - 65535, default 30)
Supplicant Timeout	30	Sec (1 - 65535, default 30)
Server Timeout	30	Sec (1 - 65535, default 30)
Max Request	2	(1 - 10, default 2)
Web-Based Parameters		
Max Login	<input type="checkbox"/> Infinite 3	(3 - 10, default 3)

Item	Description
Port	The index number of selected port.
Port Control	<p>Disabled: Disable any authentication requirement for port access. All clients are allowed to access the network.</p> <p>Force Authorized: Port will be considered authorized. All clients are allowed to access the network.</p> <p>Force Unauthorized: Port will be considered un-authorized. All clients are NOT allowed to access the network.</p> <p>Auto: Port will be considered authorized or unauthorized based on the authentication results of the host.</p>
Reauthentication	The hosts via the selected GE port will be re-authenticated periodically once it is enabled.
Max Hosts	If Multiple Authentication mode is selected as Host Mode, the

	total number of hosts cannot exceed the maximum number of hosts configured here.
Common Timer	
Reauthentication	Enter a time period. When the time is up, the host shall return to initial state and prepare to pass authentication procedure again. Default is 3600 seconds.
Inactive	When there is no packet coming from the authenticated host, the system will start the inactive timer. After inactive timeout, the host will be unauthorized and corresponding session will be deleted. In Multiple Hosts mode, the packet is counted on the authorized host only and not all packets on the port.
Quiet	When a GE port is disabled just because authentication fails several times, the host connected to that port will be blocked for a period of time configured in quiet period. Later, after the time period set in this field, the host will be allowed to perform authentication again.
802.1x Parameters	
TX Period	Set the period for host to re-send EAP (Ethernet Automatic Protection) requests. Default value is 30 (seconds).
Supplicant Timeout	Set a period of time for the maximum number of EAP requests will be sent. If a response from the host is not received by Switch after the defined period (supplicant timeout), the authentication process will be started again.
Server Timeout	Set a period of time for the server. The EAP requests shall be resent to the supplicant within the time; otherwise, the time setting will lapse and the requests won't be sent out.
Max Request	Set the maximum time interval for EAP request sent out.
Web-Based Parameters	
Max Login	Set the maximum login request.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

13.5.3. MAC-Based Local Account

This page allows to create profiles by entering MAC address of the hosts to be authenticated.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) | [Logout](#) | [Reboot](#)

Security >> Authentication Manager >> MAC-Based Local Account

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
 - RADIUS
 - TACACS+
 - AAA
 - Management Access
 - Authentication Manager
 - Property
 - Port Setting
 - MAC-Based Local Account**
 - WEB-Based Local Account
 - Sessions
 - Port Security
 - Protected Port
 - Storm Control
 - DoS
 - Dynamic ARP Inspection
 - DHCP Snooping
 - IP Source Guard
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

MAC-Based Local Account Table

Showing All entries Showing 0 to 0 of 0 entries

	MAC Address	Control	VLAN	Timeout (Sec)	
				Reauthentication	Inactive
0 results found.					

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

Item	Description
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the selected entry.

Security >> Authentication Manager >> MAC-Based Local Account

Add MAC-Based Local Account

MAC Address	<input type="text"/>
Port Control	<input type="radio"/> Force Authorized <input checked="" type="radio"/> Force Unauthorized
VLAN	<input type="checkbox"/> User Defined <input type="text" value="1"/> (1 - 4094)
Assigned Timer	
Reauthentication	<input type="checkbox"/> User Defined <input type="text" value="3600"/> Sec (300 - 4294967294)
Inactive	<input type="checkbox"/> User Defined <input type="text" value="60"/> Sec (60 - 65535)
<input type="button" value="Apply"/> <input type="button" value="Close"/>	

Item	Description
MAC Address	Enter the MAC address of the host.
Port Control	Specify a control type for the host. Force Authorized: Click it to forcefully authenticate the host specified above. Force Unauthorized: The host specified above will not be authenticated by Switch.
VLAN	Check it to specify which VLAN will be assigned by the host of this account.
Assigned Timer	
Reauthentication	Check it to specify the time this account required to be authenticated again after authentication taken place.
Inactive	Check it to specify the time of inactive this account becoming log-off.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

13.5.4. WEB-Based Local Account

This page allows to create profiles by entering user account of the hosts to be authenticated.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) | [Logout](#) | [Reboot](#)

Security >> Authentication Manager >> WEB-Based Local Account

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security**
 - RADIUS
 - TACACS+
 - AAA
 - Management Access
 - Authentication Manager
 - Property
 - Port Setting
 - MAC-Based Local Account
 - WEB-Based Local Account**
 - Sessions
 - Port Security
 - Protected Port
 - Storm Control
 - DoS
 - Dynamic ARP Inspection
 - DHCP Snooping
 - IP Source Guard
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

WEB-Based Local Account Table

Showing All entries Showing 0 to 0 of 0 entries

<input type="checkbox"/>	Username	VLAN	Timeout (Sec)	
			Reauthentication	Inactive
0 results found.				

Add
Edit
Delete
First
Previous
1
Next
Last

Item	Description
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the selected entry.

Add WEB-Based Local Account

Username	<input type="text"/>
Password	<input type="password"/>
Confirm Password	<input type="password"/>
VLAN	<input type="checkbox"/> User Defined <input type="text" value="1"/> (1 - 4094)
Assigned Timer	
Reauthentication	<input type="checkbox"/> User Defined <input type="text" value="3600"/> Sec (300 - 4294967294)
Inactive	<input type="checkbox"/> User Defined <input type="text" value="60"/> Sec (60 - 65535)

Item	Description
Username	Enter the username of the host.
Password	Enter the password.
Confirm Password	Enter the password again.
VLAN	Check it to specify which VLAN will be assigned by the host of this account.
Assigned Timer	
Reauthentication	Check it to specify the time this account required to be authenticated again after authentication taken place.
Inactive	Check it to specify the time of inactive this account becoming log-off.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

13.5.5. Sessions

This page displays information related to the host authenticated by Switch.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#)
[Logout](#)
[Reboot](#)

Security >> Authentication Manager >> Sessions

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
 - RADIUS
 - TACACS+
 - AAA
 - Management Access
 - Authentication Manager
 - Property
 - Port Setting
 - MAC-Based Local Account
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 - Sessions
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 - Storm Control
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 - Dynamic ARP Inspection
 - DHCP Snooping
 - IP Source Guard
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

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](#)

13.6 Port Security

This page allows to configure security settings for each port interface (GE port /LAG group). When port security is enabled for each interface, related action will be performed once detecting that the number of MAC address exceeds the limit.

Security >> Port Security

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
 - RADIUS
 - TACACS+
 - AAA
 - Management Access
 - Authentication Manager
 - Port Security
 - Protected Port
 - Storm Control
 - DoS
 - Dynamic ARP Inspection
 - DHCP Snooping
 - IP Source Guard
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

State

☐ Enable

Rate Limit

Packet / Sec (1 - 600, default 100)

Port Security Table

<input type="checkbox"/>	Entry	Port	State	Address Limit	Total	Configured	Violate Number	Violate Action	Sticky
<input type="checkbox"/>	1	GE1	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	2	GE2	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	3	GE3	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	4	GE4	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	5	GE5	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	6	GE6	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	7	GE7	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	8	GE8	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	9	GE9	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	10	GE10	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	11	GE11	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	12	GE12	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	13	GE13	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	14	GE14	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	15	GE15	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	16	GE16	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	17	GE17	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	18	GE18	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	19	GE19	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	20	GE20	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	21	GE21	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	22	GE22	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	23	GE23	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	24	GE24	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	25	TE1	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	26	TE2	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	27	TE3	Disabled	1	0	0	0	Protect	Disabled
<input type="checkbox"/>	28	TE4	Disabled	1	0	0	0	Protect	Disabled

Item	Description
State	Enable or disable port security function on the switch.
Apply	Apply the settings to the switch.
Edit	Delete the selected port.

Security >> Port Security

Edit Port Security

Port	GE1
State	<input type="checkbox"/> Enable
MAC Address	1 (0 - 255, default 1)
Action	<input type="radio"/> Forward <input checked="" type="radio"/> Discard <input type="radio"/> Shutdown

Item	Description
Port	The index number of selected port.
State	Enable or disable port security function on the selected port(s)
MAC Address	Enter the maximum number of MAC addresses that the port is allowed to learn.
Action	<p>Select an action to perform when there is an unknown MAC address on the port.</p> <p>Forward: Forward a packet whose source MAC is unknown to the switch.</p> <p>Discard: Discard a packet whose source MAC is unknown to the switch.</p> <p>Shutdown: Shutdown this port when a packet with unknown source MAC is received.</p>
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

13.7 Protected Port

This page allows to enable protection on specified port(s). Protected port cannot communicate to another protected port, but it can be communicate to unprotect port.

Security >> Protected Port

Protected Port Table

<input type="checkbox"/>	Entry	Port	State
<input type="checkbox"/>	1	GE1	Unprotected
<input type="checkbox"/>	2	GE2	Unprotected
<input type="checkbox"/>	3	GE3	Unprotected
<input type="checkbox"/>	4	GE4	Unprotected
<input type="checkbox"/>	5	GE5	Unprotected
<input type="checkbox"/>	6	GE6	Unprotected
<input type="checkbox"/>	7	GE7	Unprotected
<input type="checkbox"/>	8	GE8	Unprotected
<input type="checkbox"/>	9	GE9	Unprotected
<input type="checkbox"/>	10	GE10	Unprotected
<input type="checkbox"/>	11	GE11	Unprotected
<input type="checkbox"/>	12	GE12	Unprotected
<input type="checkbox"/>	13	GE13	Unprotected
<input type="checkbox"/>	14	GE14	Unprotected
<input type="checkbox"/>	15	GE15	Unprotected
<input type="checkbox"/>	16	GE16	Unprotected
<input type="checkbox"/>	17	GE17	Unprotected
<input type="checkbox"/>	18	GE18	Unprotected
<input type="checkbox"/>	19	GE19	Unprotected
<input type="checkbox"/>	20	GE20	Unprotected
<input type="checkbox"/>	21	GE21	Unprotected
<input type="checkbox"/>	22	GE22	Unprotected
<input type="checkbox"/>	23	GE23	Unprotected
<input type="checkbox"/>	24	GE24	Unprotected
<input type="checkbox"/>	25	TE1	Unprotected
<input type="checkbox"/>	26	TE2	Unprotected
<input type="checkbox"/>	27	TE3	Unprotected
<input type="checkbox"/>	28	TE4	Unprotected
<input type="checkbox"/>	29	LAG1	Unprotected
<input type="checkbox"/>	30	LAG2	Unprotected
<input type="checkbox"/>	31	LAG3	Unprotected
<input type="checkbox"/>	32	LAG4	Unprotected
<input type="checkbox"/>	33	LAG5	Unprotected
<input type="checkbox"/>	34	LAG6	Unprotected
<input type="checkbox"/>	35	LAG7	Unprotected
<input type="checkbox"/>	36	LAG8	Unprotected

Edit

Edit Protected Port

Port	GE1
State	<input type="checkbox"/> Protected

Apply

Close

Item	Description
Protected port to protect port	2 protected ports cannot communicate or forward packets directly.
Protected port to unprotect port	Communicate and forward packets to each other normally.
unprotected port to unprotect port	Communicate and forward packets to each other normally.

13.8 Storm Control

This page allows to configure general settings for Storm Control.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#)
[Logout](#)
[Reboot](#)

Security >> Storm Control

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
 - RADIUS
 - TACACS+
 - AAA
 - Management Access
 - Authentication Manager
 - Port Security
 - Protected Port
 - Storm Control**
 - DoS
 - Dynamic ARP Inspection
 - DHCP Snooping
 - IP Source Guard
 - ACL
 - QoS
 - Diagnostics
 - Management
 - Loop Prevention

Mode
☐ Packet / Sec
☒ Kbits / Sec

IFG
☒ Exclude
☐ Include

Apply

Port Setting Table

<input type="checkbox"/>	Entry	Port	State	Broadcast		Unknown Multicast		Unknown Unicast		Action
				State	Rate (Kbps)	State	Rate (Kbps)	State	Rate (Kbps)	
<input type="checkbox"/>	1	GE1	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	2	GE2	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	3	GE3	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	4	GE4	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	5	GE5	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	6	GE6	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	7	GE7	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	8	GE8	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	9	GE9	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	10	GE10	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	11	GE11	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	12	GE12	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	13	GE13	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	14	GE14	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	15	GE15	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	16	GE16	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	17	GE17	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	18	GE18	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	19	GE19	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	20	GE20	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	21	GE21	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	22	GE22	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	23	GE23	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	24	GE24	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	25	TE1	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	26	TE2	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	27	TE3	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop
<input type="checkbox"/>	28	TE4	Disabled	Disabled	10000	Disabled	10000	Disabled	10000	Drop

Edit

Item	Description
Mode	<p>Select the mode of storm control.</p> <p>Packet/sec: Storm control rate will be calculated by packet-based.</p> <p>Kbits/sec: Storm control rate will be calculated by octet-based.</p>
IFG	<p>Select the rate calculation with/without preamble & IFG (20 bytes).</p> <p>Excluded: Exclude preamble & IFG (20 bytes) when count ingress storm control rate.</p> <p>Included: Include preamble & IFG (20 bytes) when count ingress storm control rate.</p>

Apply	Apply the settings to the switch.
Edit	Edit the settings of selected port.

Security >> Storm Control

Edit Port Setting

Port	GE1
State	<input type="checkbox"/> Enable
Broadcast	<input type="checkbox"/> Enable
	<input type="text" value="10000"/> Kbps (16 - 1000000, default 10000)
Unknown Multicast	<input type="checkbox"/> Enable
	<input type="text" value="10000"/> Kbps (16 - 1000000, default 10000)
Unknown Unicast	<input type="checkbox"/> Enable
	<input type="text" value="10000"/> Kbps (16 - 1000000, default 10000)
Action	<input checked="" type="radio"/> Drop <input type="radio"/> Shutdown

Apply

Close

Item	Description
Port	The index number of selected port.
State	Enable or disable the storm control function on the selected port(s)
Broadcast	Specify the storm control rate for Broadcast packet. Value of storm control rate, Unit: Kbps (Kbits per-second). The range is from 16 to 1000000.
Unknown Multicast	Specify the storm control rate for unknown multicast packet. Value of storm control rate, Unit: Kbps (Kbits per-second). The range is from 16 to 1000000.
Unknown Unicast	Specify the storm control rate for unknown multicast packet. Value of storm control rate, Unit: Kbps (Kbits per-second). The range is from 16 to 1000000.
Action	Select the state of setting. Drop: Packets exceed storm control rate will be dropped. Shutdown: Port exceeds storm control rate will be shutdown.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.


13.9DoS

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 Setting enables activating the security suite.

13.9.1. Property

This page allows to configure DoS setting to enable/disable DoS function for global setting.


28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#)
[Logout](#)
[Reboot](#)

Security >> DoS >> Property

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
 - RADIUS
 - TACACS+
 - AAA
 - Management Access
 - Authentication Manager
 - Port Security
 - Protected Port
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 - Property**
 - Port Setting
 - Dynamic ARP Inspection
 - DHCP Snooping
 - IP Source Guard
 - ACL
 - QoS
 - Diagnostics
 - Management
 - Loop Prevention

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

Apply

Item	Description
POD	Avoid ping of death attack. Ping packets that length is larger than 65536 bytes.
Land	Drop the packets if the source IP address is equal to the destination IP address.

UDP Blat	Drop the packets if the UDP source port equals to the UDP destination port.
TCP Blat	Drop the packages if the TCP source port is equal to the TCP destination port.
DMAC = SMAC	Drop the packets if the destination MAC address is equal to the source MAC address.
Null Scan Attack	Drop the packets with NULL scan.
X-Mas Scan Attack	Drop the packets if the sequence number is zero, and the FIN, URG and PSH bits are set.
TCP SYN-FIN Attack	Drop the packets with SYN and FIN bits set.
TCP SYN-RST Attack	Drop the packets with SYN and RST bits set.
ICMP Fragment	Drop the fragmented ICMP packets.
Ping Max Size	Determine the IPv4/IPv6 PING packet with the length. Determine the IPv4/IPv6 PING packet with the length. 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.
TCP Min Hdr size	Check the minimum TCP header and drops the TCP packets with the header smaller than the minimum size. The length range is from 0 to 31 bytes, and default length is 20 bytes.
IPv6 Min Fragment	Check the minimum size of IPv6 fragments, and drop the packets smaller than the minimum size. The valid range is from 0 to 65535 bytes, and default value is 1240 bytes.
Smurf Attack	Avoid smurf attack. The length range of the net mask is from 0 to 323 bytes, and default length is 0 byte.
Apply	Apply the settings to the switch.

13.9.2. Port Setting

This page allows to configure and display the state of DoS protection for interfaces.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

Save
Logout
Reboot

Security >> DoS >> Port Setting

- Status
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 - IP Source Guard
 - ACL
 - QoS
 - Diagnostics
 - Management
 - Loop Prevention

Port Setting Table

<input type="checkbox"/>	Entry	Port	State
<input type="checkbox"/>	1	GE1	Disabled
<input type="checkbox"/>	2	GE2	Disabled
<input type="checkbox"/>	3	GE3	Disabled
<input type="checkbox"/>	4	GE4	Disabled
<input type="checkbox"/>	5	GE5	Disabled
<input type="checkbox"/>	6	GE6	Disabled
<input type="checkbox"/>	7	GE7	Disabled
<input type="checkbox"/>	8	GE8	Disabled
<input type="checkbox"/>	9	GE9	Disabled
<input type="checkbox"/>	10	GE10	Disabled
<input type="checkbox"/>	11	GE11	Disabled
<input type="checkbox"/>	12	GE12	Disabled
<input type="checkbox"/>	13	GE13	Disabled
<input type="checkbox"/>	14	GE14	Disabled
<input type="checkbox"/>	15	GE15	Disabled
<input type="checkbox"/>	16	GE16	Disabled
<input type="checkbox"/>	17	GE17	Disabled
<input type="checkbox"/>	18	GE18	Disabled
<input type="checkbox"/>	19	GE19	Disabled
<input type="checkbox"/>	20	GE20	Disabled
<input type="checkbox"/>	21	GE21	Disabled
<input type="checkbox"/>	22	GE22	Disabled
<input type="checkbox"/>	23	GE23	Disabled
<input type="checkbox"/>	24	GE24	Disabled
<input type="checkbox"/>	25	TE1	Disabled
<input type="checkbox"/>	26	TE2	Disabled
<input type="checkbox"/>	27	TE3	Disabled
<input type="checkbox"/>	28	TE4	Disabled
<input type="checkbox"/>	29	LAG1	Disabled
<input type="checkbox"/>	30	LAG2	Disabled
<input type="checkbox"/>	31	LAG3	Disabled
<input type="checkbox"/>	32	LAG4	Disabled
<input type="checkbox"/>	33	LAG5	Disabled
<input type="checkbox"/>	34	LAG6	Disabled
<input type="checkbox"/>	35	LAG7	Disabled
<input type="checkbox"/>	36	LAG8	Disabled

Edit

Item	Description
Edit	Edit the settings of selected port.

Security >> DoS >> Port Setting

Edit Port Setting

Port

GE1

State

☐ Enable

Apply

Close

Item	Description
Port	The index number of selected port.
State	Enable or disable the DoS protection on the selected port(s)
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

13.10 Dynamic ARP Inspection

Dynamic ARP inspection (DAI) can prevent ARP spoofing attacks by validating ARP packet in a network. It can intercept, record, and discard ARP packets with invalid IP-to-MAC address bindings; and then protect the network against malicious attacks.

13.10.1. Property

This page allows to configure global property settings for the function of Dynamic ARP Inspection.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) | [Logout](#) | [Reboot](#)

Security >> Dynamic ARP Inspection >> Property

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- Discovery
- Multicast
- Routing
- Security
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 - TACACS+
 - AAA
 - Management Access
 - Authentication Manager
 - Port Security
 - Protected Port
 - Storm Control
 - DoS
 - Dynamic ARP Inspection
 - Property**
 - Statistics
 - DHCP Snooping
 - IP Source Guard
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

State

☐ Enable

VLAN

Available VLAN

Selected VLAN

Port Setting Table

	Entry	Port	Trust	Source MAC Address	Destination MAC Address	IP Address	Rate Limit
<input type="checkbox"/>	1	GE1	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	2	GE2	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	3	GE3	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	4	GE4	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	5	GE5	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	6	GE6	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	7	GE7	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	8	GE8	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	9	GE9	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	10	GE10	Disabled	Disabled	Disabled	Disabled	Unlimited

Security >> Dynamic ARP Inspection >> Property

- ▼ Status
- ▼ Network
- ▼ Port
- ▼ PoE
- ▼ VLAN
- ▼ MAC Address Table
- ▼ Spanning Tree
- ▼ Discovery
- ▼ Multicast
- ▼ Routing
- ▼ Security
 - RADIUS
 - TACACS+
 - ▼ AAA
 - ▼ Management Access
 - ▼ Authentication Manager
 - Port Security
 - Protected Port
 - Storm Control
 - ▼ DoS
 - ▲ Dynamic ARP Inspection
 - Property**
 - Statistics
 - ▼ DHCP Snooping
 - ▼ IP Source Guard
- ▼ ACL
- ▼ QoS
- ▼ Diagnostics
- ▼ Management
- ▼ Loop Prevention

<input type="checkbox"/>	4	GE4	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	5	GE5	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	6	GE6	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	7	GE7	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	8	GE8	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	9	GE9	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	10	GE10	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	11	GE11	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	12	GE12	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	13	GE13	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	14	GE14	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	15	GE15	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	16	GE16	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	17	GE17	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	18	GE18	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	19	GE19	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	20	GE20	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	21	GE21	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	22	GE22	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	23	GE23	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	24	GE24	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	25	TE1	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	26	TE2	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	27	TE3	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	28	TE4	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	29	LAG1	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	30	LAG2	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	31	LAG3	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	32	LAG4	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	33	LAG5	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	34	LAG6	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	35	LAG7	Disabled	Disabled	Disabled	Disabled	Unlimited
<input type="checkbox"/>	36	LAG8	Disabled	Disabled	Disabled	Disabled	Unlimited

[Edit](#)

Item	Description
State	Check the box to enable global property settings.
VLAN	Select VLAN profile(s) to apply the function of Dynamic ARP Inspection.
Apply	Apply the settings to the switch.
Edit	Edit the settings of selected port.

Edit Port Setting

Port	GE1
Trust	<input type="checkbox"/> Enable
Source MAC Address	<input type="checkbox"/> Enable
Destination MAC Address	<input type="checkbox"/> Enable
IP Address	<input type="checkbox"/> Enable
	<input type="checkbox"/> Allow Zero (0.0.0.0)
Rate Limit	0 pps (0 - 50, default 0), 0 is Unlimited

Apply

Close

Item	Description
Port	The index number of selected port.
Trust	Enable the function of DAI for the port(s) selected above.
Source MAC Address	Check it to enable the function of source MAC address validation mechanism for the selected port(s).
Destination MAC Address	Check it to enable the function of destination MAC address validation mechanism for the selected port(s).
IP Address	Check it to enable the function of IP address validation mechanism for the selected port(s). Allow Zero – The IP address of “0.0.0.0” can be applied to the selected port(s) if it is enabled.
Rate Limit	Use the drop down list to choose a rate limitation value (0~50) for the selected port(s).
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

13.10.2. Statistics

This page displays all statistics recorded by Dynamic ARP Inspection function.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

Save
Logout
Reboot

Security » Dynamic ARP Inspection » Statistics

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 - RADIUS
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 - AAA
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 - Statistics
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 - IP Source Guard
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

Statistics Table

<input type="checkbox"/>	Entry	Port	Forward	Source MAC Failure	Destination MAC Failure	Source IP Validation Failure	Destination IP Validation Failure	IP-MAC Mismatch Failure
<input type="checkbox"/>	1	GE1	0	0	0	0	0	0
<input type="checkbox"/>	2	GE2	0	0	0	0	0	0
<input type="checkbox"/>	3	GE3	0	0	0	0	0	0
<input type="checkbox"/>	4	GE4	0	0	0	0	0	0
<input type="checkbox"/>	5	GE5	0	0	0	0	0	0
<input type="checkbox"/>	6	GE6	0	0	0	0	0	0
<input type="checkbox"/>	7	GE7	0	0	0	0	0	0
<input type="checkbox"/>	8	GE8	0	0	0	0	0	0
<input type="checkbox"/>	9	GE9	0	0	0	0	0	0
<input type="checkbox"/>	10	GE10	0	0	0	0	0	0
<input type="checkbox"/>	11	GE11	0	0	0	0	0	0
<input type="checkbox"/>	12	GE12	0	0	0	0	0	0
<input type="checkbox"/>	13	GE13	0	0	0	0	0	0
<input type="checkbox"/>	14	GE14	0	0	0	0	0	0
<input type="checkbox"/>	15	GE15	0	0	0	0	0	0
<input type="checkbox"/>	16	GE16	0	0	0	0	0	0
<input type="checkbox"/>	17	GE17	0	0	0	0	0	0
<input type="checkbox"/>	18	GE18	0	0	0	0	0	0
<input type="checkbox"/>	19	GE19	0	0	0	0	0	0
<input type="checkbox"/>	20	GE20	0	0	0	0	0	0
<input type="checkbox"/>	21	GE21	0	0	0	0	0	0
<input type="checkbox"/>	22	GE22	0	0	0	0	0	0
<input type="checkbox"/>	23	GE23	0	0	0	0	0	0
<input type="checkbox"/>	24	GE24	0	0	0	0	0	0
<input type="checkbox"/>	25	TE1	0	0	0	0	0	0
<input type="checkbox"/>	26	TE2	0	0	0	0	0	0
<input type="checkbox"/>	27	TE3	0	0	0	0	0	0
<input type="checkbox"/>	28	TE4	0	0	0	0	0	0
<input type="checkbox"/>	29	LAG1	0	0	0	0	0	0
<input type="checkbox"/>	30	LAG2	0	0	0	0	0	0
<input type="checkbox"/>	31	LAG3	0	0	0	0	0	0
<input type="checkbox"/>	32	LAG4	0	0	0	0	0	0
<input type="checkbox"/>	33	LAG5	0	0	0	0	0	0
<input type="checkbox"/>	34	LAG6	0	0	0	0	0	0
<input type="checkbox"/>	35	LAG7	0	0	0	0	0	0
<input type="checkbox"/>	36	LAG8	0	0	0	0	0	0

Clear
Refresh

13.11 DHCP Snooping

DHCP snooping is able to validate DHCP messages obtained from untrusted sources and filter out invalid message. For DHCP snooping to function properly, it is suggested to connect DHCP servers to Switch through trusted interfaces; because untrusted DHCP messages will be forwarded to trusted interfaces only.

13.11.1. Property

This page allows to configure global property settings for the function of DHCP snooping Inspection. In default, DHCP snooping is inactive on all VLANs. You can enable such feature on a single VLAN or a range of VLANs.

Security >> DHCP Snooping >> Property

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- ▼ Network
- ▼ Port
- ▼ PoE
- ▼ VLAN
- ▼ MAC Address Table
- ▼ Spanning Tree
- ▼ Discovery
- ▼ Multicast
- ▼ Routing
- ▼ Security

RADIUS
TACACS+

- ▼ AAA
- ▼ Management Access
- ▼ Authentication Manager
 - Port Security
 - Protected Port
 - Storm Control
- ▼ DoS
- ▲ Dynamic ARP Inspection
 - Property
 - Statistics
- ▲ DHCP Snooping
 - Property
 - Statistics
 - Option82 Property
 - Option82 Circuit ID
- ▼ IP Source Guard

- ▼ ACL
- ▼ QoS
- ▼ Diagnostics
- ▼ Management
- ▼ Loop Prevention

State ☐ Enable

VLAN
 Available VLAN
 VLAN 1

Selected VLAN

➤

➤

Port Setting Table

<input type="checkbox"/>	Entry	Port	Trust	Verify Chaddr	Rate Limit
<input type="checkbox"/>	1	GE1	Disabled	Disabled	Unlimited
<input type="checkbox"/>	2	GE2	Disabled	Disabled	Unlimited
<input type="checkbox"/>	3	GE3	Disabled	Disabled	Unlimited
<input type="checkbox"/>	4	GE4	Disabled	Disabled	Unlimited
<input type="checkbox"/>	5	GE5	Disabled	Disabled	Unlimited
<input type="checkbox"/>	6	GE6	Disabled	Disabled	Unlimited
<input type="checkbox"/>	7	GE7	Disabled	Disabled	Unlimited
<input type="checkbox"/>	8	GE8	Disabled	Disabled	Unlimited
<input type="checkbox"/>	9	GE9	Disabled	Disabled	Unlimited
<input type="checkbox"/>	10	GE10	Disabled	Disabled	Unlimited
<input type="checkbox"/>	11	GE11	Disabled	Disabled	Unlimited
<input type="checkbox"/>	12	GE12	Disabled	Disabled	Unlimited
<input type="checkbox"/>	13	GE13	Disabled	Disabled	Unlimited
<input type="checkbox"/>	14	GE14	Disabled	Disabled	Unlimited

Security >> DHCP Snooping >> Property

- ▼ Status
- ▼ Network
- ▼ Port
- ▼ PoE
- ▼ VLAN
- ▼ MAC Address Table
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- ▼ Discovery
- ▼ Multicast
- ▼ Routing
- ▼ Security
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 - Protected Port
 - Storm Control
 - ▼ DoS
 - ▲ Dynamic ARP Inspection
 - Property
 - Statistics
 - ▲ DHCP Snooping
 - Property
 - Statistics
 - Option82 Property
 - Option82 Circuit ID
 - ▼ IP Source Guard
- ▼ ACL
- ▼ QoS
- ▼ Diagnostics
- ▼ Management
- ▼ Loop Prevention

<input type="checkbox"/>	4	GE4	Disabled	Disabled	Unlimited
<input type="checkbox"/>	5	GE5	Disabled	Disabled	Unlimited
<input type="checkbox"/>	6	GE6	Disabled	Disabled	Unlimited
<input type="checkbox"/>	7	GE7	Disabled	Disabled	Unlimited
<input type="checkbox"/>	8	GE8	Disabled	Disabled	Unlimited
<input type="checkbox"/>	9	GE9	Disabled	Disabled	Unlimited
<input type="checkbox"/>	10	GE10	Disabled	Disabled	Unlimited
<input type="checkbox"/>	11	GE11	Disabled	Disabled	Unlimited
<input type="checkbox"/>	12	GE12	Disabled	Disabled	Unlimited
<input type="checkbox"/>	13	GE13	Disabled	Disabled	Unlimited
<input type="checkbox"/>	14	GE14	Disabled	Disabled	Unlimited
<input type="checkbox"/>	15	GE15	Disabled	Disabled	Unlimited
<input type="checkbox"/>	16	GE16	Disabled	Disabled	Unlimited
<input type="checkbox"/>	17	GE17	Disabled	Disabled	Unlimited
<input type="checkbox"/>	18	GE18	Disabled	Disabled	Unlimited
<input type="checkbox"/>	19	GE19	Disabled	Disabled	Unlimited
<input type="checkbox"/>	20	GE20	Disabled	Disabled	Unlimited
<input type="checkbox"/>	21	GE21	Disabled	Disabled	Unlimited
<input type="checkbox"/>	22	GE22	Disabled	Disabled	Unlimited
<input type="checkbox"/>	23	GE23	Disabled	Disabled	Unlimited
<input type="checkbox"/>	24	GE24	Disabled	Disabled	Unlimited
<input type="checkbox"/>	25	TE1	Disabled	Disabled	Unlimited
<input type="checkbox"/>	26	TE2	Disabled	Disabled	Unlimited
<input type="checkbox"/>	27	TE3	Disabled	Disabled	Unlimited
<input type="checkbox"/>	28	TE4	Disabled	Disabled	Unlimited
<input type="checkbox"/>	29	LAG1	Disabled	Disabled	Unlimited
<input type="checkbox"/>	30	LAG2	Disabled	Disabled	Unlimited
<input type="checkbox"/>	31	LAG3	Disabled	Disabled	Unlimited
<input type="checkbox"/>	32	LAG4	Disabled	Disabled	Unlimited
<input type="checkbox"/>	33	LAG5	Disabled	Disabled	Unlimited
<input type="checkbox"/>	34	LAG6	Disabled	Disabled	Unlimited
<input type="checkbox"/>	35	LAG7	Disabled	Disabled	Unlimited
<input type="checkbox"/>	36	LAG8	Disabled	Disabled	Unlimited

[Edit](#)

Item	Description
State	Check the box to enable global property settings.
VLAN	Select VLAN profile(s) to apply the function of DHCP Snooping Inspection.
Apply	Apply the settings to the switch.
Edit	Edit the settings of selected port.

Edit Port Setting

Port	GE1
Trust	<input type="checkbox"/> Enable
Verify Chaddr	<input type="checkbox"/> Enable
Rate Limit	0 pps (0 - 300, default 0), 0 is Unlimited

Apply

Close

Item	Description
Port	The index number of selected port.
Trust	Check it to make the port(s) selected above as trusted interface.
Verify Chaddr	Check it to enable chaddr (client hardware address) validation of GE/LAG port. All DHCP packets will be checked if the client hardware MAC address is the same as source MAC in Ethernet header or not. Default is disabled.
Rate Limit	Input rate limitation (0~300) of DHCP packets. The unit is "pps". "0" means unlimited. Default is unlimited.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

13.11.2. Statistics

This page displays all statistics recorded by DHCP snooping function.

Security >> DHCP Snooping >> Statistics

Statistics Table



<input type="checkbox"/>	Entry	Port	Forward	Chaddr Check Drop	Untrust Port Drop	Untrust Port with Option82 Drop	Invalid Drop	
<input type="checkbox"/>	1	GE1	0	0	0	0	0	
<input type="checkbox"/>	2	GE2	0	0	0	0	0	
<input type="checkbox"/>	3	GE3	0	0	0	0	0	
<input type="checkbox"/>	4	GE4	0	0	0	0	0	
<input type="checkbox"/>	5	GE5	0	0	0	0	0	
<input type="checkbox"/>	6	GE6	0	0	0	0	0	
<input type="checkbox"/>	7	GE7	0	0	0	0	0	
<input type="checkbox"/>	8	GE8	0	0	0	0	0	
<input type="checkbox"/>	9	GE9	0	0	0	0	0	
<input type="checkbox"/>	10	GE10	0	0	0	0	0	
<input type="checkbox"/>	11	GE11	0	0	0	0	0	
<input type="checkbox"/>	12	GE12	0	0	0	0	0	
<input type="checkbox"/>	13	GE13	0	0	0	0	0	
<input type="checkbox"/>	14	GE14	0	0	0	0	0	
<input type="checkbox"/>	15	GE15	0	0	0	0	0	
<input type="checkbox"/>	16	GE16	0	0	0	0	0	
<input type="checkbox"/>	17	GE17	0	0	0	0	0	
<input type="checkbox"/>	18	GE18	0	0	0	0	0	
<input type="checkbox"/>	19	GE19	0	0	0	0	0	
<input type="checkbox"/>	20	GE20	0	0	0	0	0	
<input type="checkbox"/>	21	GE21	0	0	0	0	0	
<input type="checkbox"/>	22	GE22	0	0	0	0	0	
<input type="checkbox"/>	23	GE23	0	0	0	0	0	

Security >> DHCP Snooping >> Statistics

- ▼ Status
- ▼ Network
- ▼ Port
- ▼ PoE
- ▼ VLAN
- ▼ MAC Address Table
- ▼ Spanning Tree
- ▼ Discovery
- ▼ Multicast
- ▼ Routing
- ▼ Security
 - RADIUS
 - TACACS+
 - ▼ AAA
 - ▼ Management Access
 - ▼ Authentication Manager
 - Port Security
 - Protected Port
 - Storm Control
 - ▼ DoS
 - ▲ Dynamic ARP Inspection
 - Property
 - Statistics
 - ▲ DHCP Snooping
 - Property
 - Statistics**
 - Option82 Property
 - Option82 Circuit ID
 - ▼ IP Source Guard
- ▼ ACL
- ▼ QoS
- ▼ Diagnostics
- ▼ Management
- ▼ Loop Prevention

<input type="checkbox"/>	5	GE5	0	0	0	0	0
<input type="checkbox"/>	6	GE6	0	0	0	0	0
<input type="checkbox"/>	7	GE7	0	0	0	0	0
<input type="checkbox"/>	8	GE8	0	0	0	0	0
<input type="checkbox"/>	9	GE9	0	0	0	0	0
<input type="checkbox"/>	10	GE10	0	0	0	0	0
<input type="checkbox"/>	11	GE11	0	0	0	0	0
<input type="checkbox"/>	12	GE12	0	0	0	0	0
<input type="checkbox"/>	13	GE13	0	0	0	0	0
<input type="checkbox"/>	14	GE14	0	0	0	0	0
<input type="checkbox"/>	15	GE15	0	0	0	0	0
<input type="checkbox"/>	16	GE16	0	0	0	0	0
<input type="checkbox"/>	17	GE17	0	0	0	0	0
<input type="checkbox"/>	18	GE18	0	0	0	0	0
<input type="checkbox"/>	19	GE19	0	0	0	0	0
<input type="checkbox"/>	20	GE20	0	0	0	0	0
<input type="checkbox"/>	21	GE21	0	0	0	0	0
<input type="checkbox"/>	22	GE22	0	0	0	0	0
<input type="checkbox"/>	23	GE23	0	0	0	0	0
<input type="checkbox"/>	24	GE24	0	0	0	0	0
<input type="checkbox"/>	25	TE1	0	0	0	0	0
<input type="checkbox"/>	26	TE2	0	0	0	0	0
<input type="checkbox"/>	27	TE3	0	0	0	0	0
<input type="checkbox"/>	28	TE4	0	0	0	0	0
<input type="checkbox"/>	29	LAG1	0	0	0	0	0
<input type="checkbox"/>	30	LAG2	0	0	0	0	0
<input type="checkbox"/>	31	LAG3	0	0	0	0	0
<input type="checkbox"/>	32	LAG4	0	0	0	0	0
<input type="checkbox"/>	33	LAG5	0	0	0	0	0
<input type="checkbox"/>	34	LAG6	0	0	0	0	0
<input type="checkbox"/>	35	LAG7	0	0	0	0	0
<input type="checkbox"/>	36	LAG8	0	0	0	0	0

13.11.3. Option82 Property

You can use information settings including Remote ID and Circuit ID for Option82 Property, also known as the DHCP relay agent, to protect Switch against spoofing attacks

Security >> DHCP Snooping >> Option82 Property

- ▼ Status
- ▼ Network
- ▼ Port
- ▼ PoE
- ▼ VLAN
- ▼ MAC Address Table
- ▼ Spanning Tree
- ▼ Discovery
- ▼ Multicast
- ▼ Routing
- ▼ Security
 - RADIUS
 - TACACS+
 - ▼ AAA
 - ▼ Management Access
 - ▼ Authentication Manager
 - Port Security
 - Protected Port
 - Storm Control
 - ▼ DoS
 - ▲ Dynamic ARP Inspection
 - Property
 - Statistics
 - ▲ DHCP Snooping
 - Property
 - Statistics
 - Option82 Property**
 - Option82 Circuit ID
 - ▼ IP Source Guard
- ▼ ACL
- ▼ QoS
- ▼ Diagnostics
- ▼ Management
- ▼ Loop Prevention

☐ User Defined

Remote ID

Operational Status

Remote ID 00:03:79:09:e0:dc (Switch Mac in Byte Order)

Apply

Port Setting Table

<input type="checkbox"/>	Entry	Port	State	Allow Untrust
<input type="checkbox"/>	1	GE1	Disabled	Drop
<input type="checkbox"/>	2	GE2	Disabled	Drop
<input type="checkbox"/>	3	GE3	Disabled	Drop
<input type="checkbox"/>	4	GE4	Disabled	Drop
<input type="checkbox"/>	5	GE5	Disabled	Drop
<input type="checkbox"/>	6	GE6	Disabled	Drop
<input type="checkbox"/>	7	GE7	Disabled	Drop
<input type="checkbox"/>	8	GE8	Disabled	Drop
<input type="checkbox"/>	9	GE9	Disabled	Drop
<input type="checkbox"/>	10	GE10	Disabled	Drop
<input type="checkbox"/>	11	GE11	Disabled	Drop
<input type="checkbox"/>	12	GE12	Disabled	Drop
<input type="checkbox"/>	13	GE13	Disabled	Drop
<input type="checkbox"/>	14	GE14	Disabled	Drop
<input type="checkbox"/>	15	GE15	Disabled	Drop
<input type="checkbox"/>	16	GE16	Disabled	Drop
<input type="checkbox"/>	17	GE17	Disabled	Drop

Security >> DHCP Snooping >> Option82 Property

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
 - RADIUS
 - TACACS+
 - AAA
 - Management Access
 - Authentication Manager
 - Port Security
 - Protected Port
 - Storm Control
 - DoS
 - Dynamic ARP Inspection
 - Property
 - Statistics
 - DHCP Snooping
 - Property
 - Statistics
 - Option82 Property**
 - Option82 Circuit ID
 - IP Source Guard
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

<input type="checkbox"/>	4	GE4	Disabled	Drop
<input type="checkbox"/>	5	GE5	Disabled	Drop
<input type="checkbox"/>	6	GE6	Disabled	Drop
<input type="checkbox"/>	7	GE7	Disabled	Drop
<input type="checkbox"/>	8	GE8	Disabled	Drop
<input type="checkbox"/>	9	GE9	Disabled	Drop
<input type="checkbox"/>	10	GE10	Disabled	Drop
<input type="checkbox"/>	11	GE11	Disabled	Drop
<input type="checkbox"/>	12	GE12	Disabled	Drop
<input type="checkbox"/>	13	GE13	Disabled	Drop
<input type="checkbox"/>	14	GE14	Disabled	Drop
<input type="checkbox"/>	15	GE15	Disabled	Drop
<input type="checkbox"/>	16	GE16	Disabled	Drop
<input type="checkbox"/>	17	GE17	Disabled	Drop
<input type="checkbox"/>	18	GE18	Disabled	Drop
<input type="checkbox"/>	19	GE19	Disabled	Drop
<input type="checkbox"/>	20	GE20	Disabled	Drop
<input type="checkbox"/>	21	GE21	Disabled	Drop
<input type="checkbox"/>	22	GE22	Disabled	Drop
<input type="checkbox"/>	23	GE23	Disabled	Drop
<input type="checkbox"/>	24	GE24	Disabled	Drop
<input type="checkbox"/>	25	TE1	Disabled	Drop
<input type="checkbox"/>	26	TE2	Disabled	Drop
<input type="checkbox"/>	27	TE3	Disabled	Drop
<input type="checkbox"/>	28	TE4	Disabled	Drop
<input type="checkbox"/>	29	LAG1	Disabled	Drop
<input type="checkbox"/>	30	LAG2	Disabled	Drop
<input type="checkbox"/>	31	LAG3	Disabled	Drop
<input type="checkbox"/>	32	LAG4	Disabled	Drop
<input type="checkbox"/>	33	LAG5	Disabled	Drop
<input type="checkbox"/>	34	LAG6	Disabled	Drop
<input type="checkbox"/>	35	LAG7	Disabled	Drop
<input type="checkbox"/>	36	LAG8	Disabled	Drop

[Edit](#)

Item	Description
Remote ID	The string specified here is used to identify the remote host. User Defined – Check it and manually enter ASCII text string in the entry box.
Apply	Apply the settings to the switch.
Edit	Edit the settings of selected port.

Edit Port Setting

Port	GE1
State	<input type="checkbox"/> Enable
Allow Untrust	<input type="radio"/> Keep
	<input checked="" type="radio"/> Drop
	<input type="radio"/> Replace

Apply

Close

Item	Description
Port	The index number of selected port.
State	Check it to make the port(s) selected above apply the settings configured in this page.
Allow Untrust	Untrusted packets detected by Switch will be performed by the action determined here. Keep: Packets are allowed to pass through. Drop: Packets are blocked and discarded. Replace: Packets will be replaced.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

13.11.4. Option82 Circuit ID

This page allows to setup string as circuit ID for DHCP option82 setting. Circuit ID shall be combined with VLAN name (or VLAN ID number) and interface name (GE/LAG port).

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) | [Logout](#) | [Reboot](#)

Security >> DHCP Snooping >> Option82 Circuit ID

Status
 Network
 Port
 PoE
 VLAN
 MAC Address Table
 Spanning Tree
 Discovery
 Multicast
 Routing
 Security

RADIUS
 TACACS+
 AAA
 Management Access
 Authentication Manager
 Port Security
 Protected Port
 Storm Control
 DoS
 Dynamic ARP Inspection
 Property
 Statistics
 DHCP Snooping
 Property
 Statistics
 Option82 Property
Option82 Circuit ID
 IP Source Guard
 ACL
 QoS
 Diagnostics
 Management
 Loop Prevention

Option82 Circuit ID Table
 Showing All entries Showing 0 to 0 of 0 entries

<input type="checkbox"/>	Port	VLAN	Circuit ID
0 results found.			

Add Edit Delete

First Previous 1 Next Last

Item	Description
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the selected entry.

Security >> DHCP Snooping >> Option82 Circuit ID

Add Option82 Circuit ID

Port	<input type="text" value="GE1"/>
VLAN	<input type="text"/> (1 - 4094) (Keep empty to set without VLAN)
Circuit ID	<input type="text"/>

Apply Close

Item	Description
Port	Use the drop down list to select the port for applying DHCP snooping, Option82 Property function.
VLAN	Choose a number as VLAN ID which is easy to be identified for a packet containing with it. It is optional setting.
Circuit ID	Enter ASCII text string in the entry box. Later, any packet passes through the specified interface will be inserted with such information.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

13.12IP Source Guard

By using the source IP address filtering function, IP source guard can prevent a malicious host from feigning a legal host with its IP address and performing malicious attack.

13.12.1. Port Setting

IP source guard is a port-based feature. Therefore, it is necessary to configure detailed settings for each GE/LAG port interface separately.

Security >> IP Source Guard >> Port Setting

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
 - RADIUS
 - TACACS+
 - AAA
 - Management Access
 - Authentication Manager
 - Port Security
 - Protected Port
 - Storm Control
 - DoS
 - Dynamic ARP Inspection
 - Property
 - Statistics
 - DHCP Snooping
 - IP Source Guard
 - Port Setting**
 - IMPV Binding
 - Save Database
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

Port Setting Table



<input type="checkbox"/>	Entry	Port	State	Verify Source	Current Entry	Max Entry	
<input type="checkbox"/>	1	GE1	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	2	GE2	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	3	GE3	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	4	GE4	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	5	GE5	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	6	GE6	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	7	GE7	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	8	GE8	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	9	GE9	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	10	GE10	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	11	GE11	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	12	GE12	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	13	GE13	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	14	GE14	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	15	GE15	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	16	GE16	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	17	GE17	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	18	GE18	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	19	GE19	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	20	GE20	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	21	GE21	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	22	GE22	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	23	GE23	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	24	GE24	Disabled	IP	0	Unlimited	
<input type="checkbox"/>	25	TE1	Disabled	IP	0	Unlimited	

Security >> IP Source Guard >> Port Setting

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
 - RADIUS
 - TACACS+
 - AAA
 - Management Access
 - Authentication Manager
 - Port Security
 - Protected Port
 - Storm Control
 - DoS
 - Dynamic ARP Inspection
 - Property
 - Statistics
 - DHCP Snooping
 - IP Source Guard
 - Port Setting**
 - IMPV Binding
 - Save Database
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

<input type="checkbox"/>	4	GE4	Disabled	IP	0	Unlimited
<input type="checkbox"/>	5	GE5	Disabled	IP	0	Unlimited
<input type="checkbox"/>	6	GE6	Disabled	IP	0	Unlimited
<input type="checkbox"/>	7	GE7	Disabled	IP	0	Unlimited
<input type="checkbox"/>	8	GE8	Disabled	IP	0	Unlimited
<input type="checkbox"/>	9	GE9	Disabled	IP	0	Unlimited
<input type="checkbox"/>	10	GE10	Disabled	IP	0	Unlimited
<input type="checkbox"/>	11	GE11	Disabled	IP	0	Unlimited
<input type="checkbox"/>	12	GE12	Disabled	IP	0	Unlimited
<input type="checkbox"/>	13	GE13	Disabled	IP	0	Unlimited
<input type="checkbox"/>	14	GE14	Disabled	IP	0	Unlimited
<input type="checkbox"/>	15	GE15	Disabled	IP	0	Unlimited
<input type="checkbox"/>	16	GE16	Disabled	IP	0	Unlimited
<input type="checkbox"/>	17	GE17	Disabled	IP	0	Unlimited
<input type="checkbox"/>	18	GE18	Disabled	IP	0	Unlimited
<input type="checkbox"/>	19	GE19	Disabled	IP	0	Unlimited
<input type="checkbox"/>	20	GE20	Disabled	IP	0	Unlimited
<input type="checkbox"/>	21	GE21	Disabled	IP	0	Unlimited
<input type="checkbox"/>	22	GE22	Disabled	IP	0	Unlimited
<input type="checkbox"/>	23	GE23	Disabled	IP	0	Unlimited
<input type="checkbox"/>	24	GE24	Disabled	IP	0	Unlimited
<input type="checkbox"/>	25	TE1	Disabled	IP	0	Unlimited
<input type="checkbox"/>	26	TE2	Disabled	IP	0	Unlimited
<input type="checkbox"/>	27	TE3	Disabled	IP	0	Unlimited
<input type="checkbox"/>	28	TE4	Disabled	IP	0	Unlimited
<input type="checkbox"/>	29	LAG1	Disabled	IP	0	Unlimited
<input type="checkbox"/>	30	LAG2	Disabled	IP	0	Unlimited
<input type="checkbox"/>	31	LAG3	Disabled	IP	0	Unlimited
<input type="checkbox"/>	32	LAG4	Disabled	IP	0	Unlimited
<input type="checkbox"/>	33	LAG5	Disabled	IP	0	Unlimited
<input type="checkbox"/>	34	LAG6	Disabled	IP	0	Unlimited
<input type="checkbox"/>	35	LAG7	Disabled	IP	0	Unlimited
<input type="checkbox"/>	36	LAG8	Disabled	IP	0	Unlimited

[Edit](#)

Item	Description
Edit	Edit the settings of selected port.

Edit Port Setting

Port	GE1
State	<input type="checkbox"/> Enable
Verify Source	<input checked="" type="radio"/> IP <input type="radio"/> IP-MAC
Max Entry	0 (0 - 50, default 0), 0 is Unlimited


Apply

Close

Item	Description
Port	The index number of selected port.
State	Check it to make the port(s) selected above apply the settings configured in this page.
Verify Source	Specify the type of source IP for the packet coming from. IP: Only the packet with specified IP address will be verified. IP-MAC: Only the packet with specified IP address and MAC address will be verified.
Max Entry	Define the number (0~50) for the port. The default is 0 (no limit).
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

13.12.2. IMPV Binding

This page allows to set the filtering conditions (binding type, MAC address, IPv4 address) for packets through the specified LAN port.


28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) | [Logout](#) | [Reboot](#)

Security >> IP Source Guard >> IMPV Binding

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
 - RADIUS
 - TACACS+
 - AAA
 - Management Access
 - Authentication Manager
 - Port Security
 - Protected Port
 - Storm Control
 - DoS
 - Dynamic ARP Inspection
 - Property
 - Statistics
 - DHCP Snooping
 - IP Source Guard
 - Port Setting
 - IMPV Binding**
 - Save Database
- ACL
- QoS
- Diagnostics
- Management
- Loop Prevention

IP-MAC-Port-VLAN Binding Table

Showing All entries Showing 0 to 0 of 0 entries

<input type="checkbox"/>	Port	VLAN	MAC Address	IP Address	Binding	Type	Lease Time
0 results found.							

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

[First](#)
[Previous](#)
[1](#)
[Next](#)
[Last](#)

Item	Description
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the selected entry.

Add IP-MAC-Port-VLAN Binding

Port	GE1
VLAN	(1 - 4094)
Binding	<input checked="" type="radio"/> IP-MAC-Port-VLAN <input type="radio"/> IP-Port-VLAN
MAC Address	
IP Address	/255.255.255.255

Item	Description
Port	Use the drop down list to select the port for applying IMPV Binding function.
VLAN	Choose a number as VLAN ID which is easy to be identified for a packet containing with it. It is optional setting.
Binding	Select the binding type for such feature. IP-MAC-Port-VLAN: Packets will be allowed to pass through the port interface if they meet the conditions specified by IP address, MAC address, Port setting and VLAN ID setting. IP-Port-VLAN: Packets will be allowed to pass through the port interface if they meet the conditions specified by IP address, Port setting and VLAN ID setting.
MAC Address	Enter the MAC address of the device connecting to the port interface selected above.
IP Address	Enter the IP address with mask address of the device connecting to the port interface selected above.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

13.12.3. Save Database

This page allows to write the database to FLASH or remote TFTP server. Set timeout interval for abortion. Set delay timer for writing to URL.

Security >> IP Source Guard >> Save Database

- ▼ Status
- ▼ Network
- ▼ Port
- ▼ PoE
- ▼ VLAN
- ▼ MAC Address Table
- ▼ Spanning Tree
- ▼ Discovery
- ▼ Multicast
- ▼ Routing
- ▼ Security
 - RADIUS
 - TACACS+
 - ▼ AAA
 - ▼ Management Access
 - ▼ Authentication Manager
 - Port Security
 - Protected Port
 - Storm Control
 - ▼ DoS
 - ▲ Dynamic ARP Inspection
 - Property
 - Statistics
 - ▼ DHCP Snooping
 - ▲ IP Source Guard
 - Port Setting
 - IMPV Binding
 - Save Database
- ▼ ACL
- ▼ QoS
- ▼ Diagnostics
- ▼ Management
- ▼ Loop Prevention

Type	<input checked="" type="radio"/> None <input type="radio"/> Flash <input type="radio"/> TFTP	
Filename	<input type="text"/>	
Address Type	<input checked="" type="radio"/> Hostname <input type="radio"/> IPv4	
Server Address	<input type="text"/>	
Write Delay	<input type="text" value="300"/>	Sec (15 - 86400, default 300)
Timeout	<input type="text" value="300"/>	Sec (0 - 86400, default 300)

[Apply](#)

14 ACL

The Access Control List (ACL) is a sequential list of permit or deny conditions that apply to IP addresses, MAC addresses, or other more specific criteria. This switch tests ingress packets against the conditions in an ACL one by one. A packet will be accepted as soon as it matches a permit rule, or dropped as soon as it matches a deny rule. If no rules match, the frame is accepted.

14.1 MAC ACL

The function is used to show the Access Control List (ACL) based on Layer 2 filtering, the MAC layer. The ACL is composed by many Access Control Element (ACE) rules. You can create a new ACL here; then add multiple ACEs.

The screenshot displays the web interface of a Proscend 28-Port GbE Managed PoE Switch. The top navigation bar includes the Proscend logo, the switch model name, and links for Save, Logout, and Reboot. A left sidebar contains a menu with various configuration options, with 'ACL' currently selected. The main content area is titled 'ACL >> MAC ACL'. It features a form for creating a new ACL profile with an 'ACL Name' input field and an 'Apply' button. Below this is an 'ACL Table' section showing a list of entries. The table has columns for 'ACL Name', 'Rule', and 'Port'. The current view shows '0 results found.' and includes navigation buttons like 'First', 'Previous', '1', 'Next', and 'Last'. A 'Delete' button is also present.

Item	Description
ACL Name	Enter the name for creating ACL profile.
Apply	Apply the settings to the switch.
Delete	Delete the selected entry.

14.2 MAC ACE

This page shows ACE based on MAC address. You may choose ACL, permit, and deny particular packet or frame, even shutdown the port.

ACL >> MAC ACE

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
 - MAC ACL
 - MAC ACE**
 - IPv4 ACL
 - IPv4 ACE
 - IPv6 ACL
 - IPv6 ACE
 - ACL Binding
- QoS
- Diagnostics
- Management
- Loop Prevention

ACE Table

ACL Name None ▾

Showing All ▾ entries

Showing 0 to 0 of 0 entries

<input type="checkbox"/>	Sequence	Action	Source MAC		Destination MAC		Ethertype	VLAN	802.1p		
			Address	Mask	Address	Mask			Value	Mask	
0 results found.											

[First](#) [Previous](#) [1](#) [Next](#) [Last](#)

Item	Description
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the selected entry.

Add ACE

ACL Name	ACL
Sequence	<input type="text"/> (1 - 2147483647)
Action	<input checked="" type="radio"/> Permit <input type="radio"/> Deny <input type="radio"/> Shutdown
Source MAC	<input checked="" type="checkbox"/> Any <input type="text"/> / <input type="text"/> (Address / Mask)
Destination MAC	<input checked="" type="checkbox"/> Any <input type="text"/> / <input type="text"/> (Address / Mask)
Ethertype	<input checked="" type="checkbox"/> Any 0x <input type="text"/> (0x600 ~ 0xFFFF)
VLAN	<input checked="" type="checkbox"/> Any <input type="text"/> (1 - 4094)
802.1p	<input checked="" type="checkbox"/> Any <input type="text"/> / <input type="text"/> (Value / Mask) (0 - 7)

Item	Description
ACL Name	The name of selected ACL profile.
Sequence	Assign a sequence number to this ACE. The sequence is used to identify which one of ACEs in an ACL is firstly used to match ingress packets. The switch port bound with an ACL use the contained ACE rules, start with the one with lower sequence number to match the packet first.
Action	Select the action applied to the packet matched this ACE. Permit or deny the packets into switch core, or shutdown the port for stopping further transmission.
Source MAC	Specify the source MAC address for filtering. Any: All packets will be filtered. Or, enter the IP address to filter the packets coming from that address.
Destination MAC	Specify the destination MAC address for filtering. Any: All packets will be filtered. Or, enter the IP address to filter the packets coming from that

	address.
Ethertype	Specify Ethernet type for filtering. Select Any. Or, enter the value with the format of "0x600 ~ 0xFFF".
VLAN	Specify VLAN profile for filtering. Select Any. Or, enter a VLAN number. The packets coming from the VLAN specified here will be filtered by Vigor device.
802.1p	Specify the 802.1p priority value for filtering. Select Any, or a number from 0 to 7.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

14.3 IPv4 ACL

This page shows ACE based on IPv4 address. You may choose ACL, permit, and deny particular packet or frame, even shutdown the port.

PROSCEND 28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

Save Logout Reboot

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

Item	Description
ACL Name	Enter the name for creating ACL profile.
Apply	Apply the settings to the switch.
Delete	Delete the selected entry.

14.4 IPv4 ACE

You may provide filtering/matching criteria for one or more of following packet characteristic (such as Protocol over the IP layer, Source/Destination IPv4 address, Type of Service, Source/Destination port number, TCP flags, ICMP Type, if chosen protocol contains ICMP), for this ACE to identify the packet.

PROSCEND 28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks Save Logout Reboot

ACL >> IPv4 ACE

ACE Table

ACL Name None

Showing All entries Showing 0 to 0 of 0 entries Q

	Sequence	Action	Protocol	Source IP		Destination IP		Source Port	Destination Port	TCP Flags	Type of Service		ICMP	
				Address	Mask	Address	Mask				DSCP	IP Precedence	Type	Code
0 results found.														

First Previous 1 Next Last

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
 - MAC ACL
 - MAC ACE
 - IPv4 ACL
 - IPv4 ACE**
 - IPv6 ACL
 - IPv6 ACE
 - ACL Binding
- QoS
- Diagnostics
- Management
- Loop Prevention

Item	Description
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the selected entry.

Add ACE

ACL Name	ACL
Sequence	<input type="text" value="1"/> (1 - 2147483647)
Action	<input checked="" type="radio"/> Permit <input type="radio"/> Deny <input type="radio"/> Shutdown
Protocol	<input checked="" type="radio"/> Any <input type="radio"/> Select <input type="text" value="ICMP"/> <input type="radio"/> Define <input type="text" value=""/> (0 - 255)
Source IP	<input checked="" type="radio"/> Any <input type="text" value=""/> / <input type="text" value=""/> (Address / Mask)
Destination IP	<input checked="" type="radio"/> Any <input type="text" value=""/> / <input type="text" value=""/> (Address / Mask)
Type of Service	<input checked="" type="radio"/> Any <input type="radio"/> DSCP <input type="text" value=""/> (0 - 63) <input type="radio"/> IP Precedence <input type="text" value=""/> (0 - 7)
Source Port	<input checked="" type="radio"/> Any <input type="radio"/> Single <input type="text" value=""/> (0 - 65535) <input type="radio"/> Range <input type="text" value=""/> - <input type="text" value=""/> (0 - 65535)
Destination Port	<input checked="" type="radio"/> Any <input type="radio"/> Single <input type="text" value=""/> (0 - 65535) <input type="radio"/> Range <input type="text" value=""/> - <input type="text" value=""/> (0 - 65535)
TCP Flags	Urg: <input type="radio"/> Set <input type="radio"/> Unset <input checked="" type="radio"/> Don't care Ack: <input type="radio"/> Set <input type="radio"/> Unset <input checked="" type="radio"/> Don't care Psh: <input type="radio"/> Set <input type="radio"/> Unset <input checked="" type="radio"/> Don't care Rst: <input type="radio"/> Set <input type="radio"/> Unset <input checked="" type="radio"/> Don't care Syn: <input type="radio"/> Set <input type="radio"/> Unset <input checked="" type="radio"/> Don't care Fin: <input type="radio"/> Set <input type="radio"/> Unset <input checked="" type="radio"/> Don't care
ICMP Type	<input checked="" type="radio"/> Any <input type="radio"/> Select <input type="text" value="Echo Reply"/> <input type="radio"/> Define <input type="text" value=""/> (0 - 255)
ICMP Code	<input checked="" type="radio"/> Any <input type="radio"/> Define <input type="text" value=""/> (0 - 255)

Apply Close

Item	Description
ACL Name	The name of selected ACL profile.
Sequence	Assign a sequence number to this ACE. The sequence is used to identify which one of ACEs in an ACL is firstly used to match ingress packets. The switch port bound with an ACL use the contained ACE rules, start with the one with lower sequence number to match the packet first.
Action	Select the action applied to the packet matched this ACE.

	Permit or deny the packets into switch core, or shutdown the port for stopping further transmission.
Protocol	<p>Specify the protocol for filtering.</p> <p>Any: All packets will be filtered.</p> <p>Select: Choose one of the protocol (e.g., ICMP, IP in IP, TCP, EGP, IGP...) from the drop down list. Packets passing through the selected protocol will be filtered.</p> <p>Define: Specify a protocol number (0-255). For example, 6 for TCP, 17 for UDP...,etc.</p>
Source IP	<p>Specify the source IPv4 address for filtering.</p> <p>Any: All packets will be filtered.</p> <p>Or, enter the IP address to filter the packets coming from that address.</p>
Destination IP	<p>Specify the destination IPv4 address for filtering.</p> <p>Any: All packets will be filtered.</p> <p>Or, enter the IP address to filter the packets coming from that address.</p>
Type of Service	<p>Any: All packets will be filtered.</p> <p>DSCP: All IP traffic is mapped to queues based on the DSCP field in the IP header. If traffic is not IP traffic, it is mapped to the lowest priority queue.</p> <p>IP Precedence: All IP traffic is mapped to queues based on the IP Precedence field in the IP header. If traffic is not IP traffic, it is mapped to the lowest priority queue.</p>
Source Port	<p>Specify the source port number for filtering the packets.</p> <p>Any: All packets will be filtered.</p> <p>Single: Only the packets passing through the number defined here will be filtered.</p> <p>Range: Only the packets passing through the port range defined here will be filtered.</p>
Destination Port	<p>Specify the destination port number for filtering the packets.</p> <p>Any: All packets will be filtered.</p> <p>Single: Only the packets passing through the number defined here will be filtered.</p> <p>Range: Only the packets passing through the port range defined here will be filtered.</p>
TCP Flags	Specify the TCP Flag (control bit) options.
ICMP Type	Any: All packets will be filtered.

	<p>Select: Choose one of the type (e.g., Destination Unreachable Echo Reply, MLD Query....) from the drop down list.</p> <p>Define: Specify a type number (0 – 255) for ICMP code. For example, 0 means “Echo Reply”; 254 means “RFC3692-style Experiment 2”.</p>
ICMP Code	<p>Each ICMP type can be defined with different codes. For example, if you define ICMP Type as “3”, then the available codes for Type 3 will be 0-15.</p> <p>Any: All packets will be filtered.</p> <p>Or, enter 0 to 255 based on the ICMP type specified.</p>
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

14.5 IPv6 ACL

This page shows ACE based on Ipv6 address. You may choose ACL, permit, and deny particular packet or frame, even shutdown the port.

The screenshot shows the Proscend 28-Port GbE Managed PoE Switch web interface. The top navigation bar includes the Proscend logo, the switch model name, and links for Save, Logout, and Reboot. The left sidebar menu lists various configuration options, with 'ACL' currently selected. The main content area is titled 'ACL >> IPv6 ACL'. It features an 'ACL Name' input field with a dashed border, an 'Apply' button, and an 'ACL Table' section. The 'ACL Table' section includes a search bar and a table with columns for 'ACL Name', 'Rule', and 'Port'. The table currently shows '0 results found.' and has navigation buttons for 'First', 'Previous', '1', 'Next', and 'Last'. A 'Delete' button is also present below the table.

Item	Description
ACL Name	Enter the name for creating ACL profile.
Apply	Apply the settings to the switch.
Delete	Delete the selected entry.

14.6 IPv6 ACE

This page allows to create ACE based on IPv6 address.

PROSCEND 28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks Save Logout Reboot

ACL >> IPv6 ACE

ACE Table

ACL Name None

Showing All entries Showing 0 to 0 of 0 entries Q

	Sequence	Action	Protocol	Source IP		Destination IP		Source Port	Destination Port	TCP Flags	Type of Service		ICMP	
				Address	Prefix	Address	Prefix				DSCP	IP Precedence	Type	Code
0 results found.														

First Previous 1 Next Last

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
 - MAC ACL
 - MAC ACE
 - IPv4 ACL
 - IPv4 ACE
 - IPv6 ACL
 - IPv6 ACE
 - ACL Binding
- QoS
- Diagnostics
- Management
- Loop Prevention

Item	Description
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the selected entry.

Add ACE

ACL Name :	ACL
Sequence :	<input type="text"/> (1 - 2147483647)
Action :	<input checked="" type="radio"/> Permit <input type="radio"/> Deny <input type="radio"/> Shutdown
Protocol :	<input checked="" type="radio"/> Any <input type="radio"/> Select <input type="text"/> TCP <input type="radio"/> Define <input type="text"/> (0 - 255)
Source IP :	<input checked="" type="radio"/> Any <input type="radio"/> <input type="text"/> / <input type="text"/> (Address / Prefix (0 - 128))
Destination IP :	<input checked="" type="radio"/> Any <input type="radio"/> <input type="text"/> / <input type="text"/> (Address / Prefix (0 - 128))
Type of Service :	<input checked="" type="radio"/> Any <input type="radio"/> DSCP <input type="text"/> (0 - 63) <input type="radio"/> IP Precedence <input type="text"/> (0 - 7)
Source Port :	<input checked="" type="radio"/> Any <input type="radio"/> Single <input type="text"/> (0 - 65535) <input type="radio"/> Range <input type="text"/> - <input type="text"/> (0 - 65535)
Destination Port :	<input checked="" type="radio"/> Any <input type="radio"/> Single <input type="text"/> (0 - 65535) <input type="radio"/> Range <input type="text"/> - <input type="text"/> (0 - 65535)
TCP Flags :	Urg: <input type="radio"/> Set <input type="radio"/> Unset <input checked="" type="radio"/> Don't care Ack: <input type="radio"/> Set <input type="radio"/> Unset <input checked="" type="radio"/> Don't care Psh: <input type="radio"/> Set <input type="radio"/> Unset <input checked="" type="radio"/> Don't care Rst: <input type="radio"/> Set <input type="radio"/> Unset <input checked="" type="radio"/> Don't care Syn: <input type="radio"/> Set <input type="radio"/> Unset <input checked="" type="radio"/> Don't care Fin: <input type="radio"/> Set <input type="radio"/> Unset <input checked="" type="radio"/> Don't care
ICMP Type :	<input checked="" type="radio"/> Any <input type="radio"/> Select <input type="text"/> Destination Unreachable <input type="radio"/> Define <input type="text"/> (0 - 255)
ICMP Code :	<input checked="" type="radio"/> Any <input type="radio"/> Define <input type="text"/> (0 - 255)

Item	Description
ACL Name	The name of selected ACL profile.
Sequence	Assign a sequence number to this ACE. The sequence is used to identify which one of ACEs in an ACL is firstly used to match ingress packets. The switch port bound with an ACL use the contained ACE rules, start with the one with lower sequence number to match the packet first.

Action	Select the action applied to the packet matched this ACE. Permit or deny the packets into switch core, or shutdown the port for stopping further transmission.
Protocol	Specify the protocol for filtering. Any: All packets will be filtered. Select: Choose one of the protocol (e.g., ICMP, IP in IP, TCP, EGP, IGP...) from the drop down list. Packets passing through the selected protocol will be filtered. Define: Specify a protocol number (0-255). For example, 6 for TCP, 17 for UDP...,etc.
Source IP	Specify the source IPv4 address for filtering. Any: All packets will be filtered. Or, enter the IP address to filter the packets coming from that address.
Destination IP	Specify the destination IPv4 address for filtering. Any: All packets will be filtered. Or, enter the IP address to filter the packets coming from that address.
Type of Service	Any: All packets will be filtered. DSCP: All IP traffic is mapped to queues based on the DSCP field in the IP header. If traffic is not IP traffic, it is mapped to the lowest priority queue. IP Precedence: All IP traffic is mapped to queues based on the IP Precedence field in the IP header. If traffic is not IP traffic, it is mapped to the lowest priority queue.
Source Port	Specify the source port number for filtering the packets. Any: All packets will be filtered. Single: Only the packets passing through the number defined here will be filtered. Range: Only the packets passing through the port range defined here will be filtered.
Destination Port	Specify the destination port number for filtering the packets. Any: All packets will be filtered. Single: Only the packets passing through the number defined here will be filtered. Range: Only the packets passing through the port range defined here will be filtered.
TCP Flags	Specify the TCP Flag (control bit) options.

ICMP Type	<p>Any: All packets will be filtered.</p> <p>Select: Choose one of the type (e.g., Destination Unreachable Echo Reply, MLD Query....) from the drop down list.</p> <p>Define: Specify a type number (0 – 255) for ICMP code. For example, 0 means “Echo Reply”; 254 means “RFC3692-style Experiment 2”.</p>
ICMP Code	<p>Each ICMP type can be defined with different codes. For example, if you define ICMP Type as “3”, then the available codes for Type 3 will be 0-15.</p> <p>Any: All packets will be filtered.</p> <p>Or, enter 0 to 255 based on the ICMP type specified.</p>
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

14.7 ACL Binding

This section allows to bind Access Control Lists created in previous section to an interface (physical port or aggregation). A physical port can only be bound with one of the IPv4 and IPv6 ACL, not both.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#)
[Logout](#)
[Reboot](#)

Status
Network
Port
PoE
VLAN
MAC Address Table
Spanning Tree
Discovery
Multicast
Routing
Security
ACL
QoS
Diagnostics
Management
Loop Prevention

MAC ACL
MAC ACE
IPv4 ACL
IPv4 ACE
IPv6 ACL
IPv6 ACE
ACL Binding

ACL >> ACL Binding

ACL Binding Table

☐
Entry
Port
MAC ACL
IPv4 ACL
IPv6 ACL

<input type="checkbox"/>	1	GE1			
<input type="checkbox"/>	2	GE2			
<input type="checkbox"/>	3	GE3			
<input type="checkbox"/>	4	GE4			
<input type="checkbox"/>	5	GE5			
<input type="checkbox"/>	6	GE6			
<input type="checkbox"/>	7	GE7			
<input type="checkbox"/>	8	GE8			
<input type="checkbox"/>	9	GE9			
<input type="checkbox"/>	10	GE10			
<input type="checkbox"/>	11	GE11			
<input type="checkbox"/>	12	GE12			
<input type="checkbox"/>	13	GE13			
<input type="checkbox"/>	14	GE14			
<input type="checkbox"/>	15	GE15			
<input type="checkbox"/>	16	GE16			
<input type="checkbox"/>	17	GE17			
<input type="checkbox"/>	18	GE18			
<input type="checkbox"/>	19	GE19			
<input type="checkbox"/>	20	GE20			
<input type="checkbox"/>	21	GE21			
<input type="checkbox"/>	22	GE22			
<input type="checkbox"/>	23	GE23			
<input type="checkbox"/>	24	GE24			
<input type="checkbox"/>	25	TE1			
<input type="checkbox"/>	26	TE2			
<input type="checkbox"/>	27	TE3			
<input type="checkbox"/>	28	TE4			
<input type="checkbox"/>	29	LAG1			
<input type="checkbox"/>	30	LAG2			
<input type="checkbox"/>	31	LAG3			
<input type="checkbox"/>	32	LAG4			
<input type="checkbox"/>	33	LAG5			
<input type="checkbox"/>	34	LAG6			
<input type="checkbox"/>	35	LAG7			
<input type="checkbox"/>	36	LAG8			

Item	Description
Bind	Edit the settings of specified port(s).
Unbind	Unbind all existing ACL rules on specified port(s).
Edit	Edit the existing entry.

Add ACL Binding

Port	GE1
Note: ACL without any rules cannot be bound	
MAC ACL	None ▾
IPv4 ACL	None ▾
IPv6 ACL	None ▾
<input type="button" value="Apply"/> <input type="button" value="Close"/>	

Item	Description
Port	The index number of selected port.
MAC ACL	Select MAC ACLs to be bound on this port, so Switch may filter packets by using it.
IPv4 ACL	Select IPv4 ACLs to be bound on this port, so Switch may filter packets by using it.
IPv6 ACL	Select IPv6 ACLs to be bound on this port, so Switch may filter packets by using it.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

15 QoS

QoS (Quality of Service) functions to provide different quality of service for various network applications and requirements and optimize the bandwidth resource distribution so as to provide a network service experience of a better quality.

15.1 General

15.1.1. Property

This page allows to specify Ingress Trust Mode for basic QoS mode.

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Save | Logout | Reboot

QoS >> General >> Property

▼ Status

▼ Network

▼ Port

▼ PoE

▼ VLAN

▼ MAC Address Table

▼ Spanning Tree

▼ Discovery

▼ Multicast

▼ Routing

▼ Security

▼ ACL

▼ QoS

▲ General

Property

Queue Scheduling

CoS Mapping

DSCP Mapping

IP Precedence Mapping

▼ Rate Limit

▼ Diagnostics

▼ Management

▼ Loop Prevention

State

☐ Enable

Trust Mode

☒ CoS

☐ DSCP

☐ CoS-DSCP

☐ IP Precedence

Apply

Port Setting Table

	Entry	Port	CoS	Trust	Remarking	
					CoS	DSCP
<input type="checkbox"/>	1	GE1	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	2	GE2	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	3	GE3	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	4	GE4	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	5	GE5	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	6	GE6	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	7	GE7	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	8	GE8	0	Enabled	Disabled	Disabled

QoS >> General >> Property

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
 - General
 - Property
 - Queue Scheduling
 - CoS Mapping
 - DSCP Mapping
 - IP Precedence Mapping
 - Rate Limit
- Diagnostics
- Management
- Loop Prevention

<input type="checkbox"/>	5	GE5	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	6	GE6	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	7	GE7	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	8	GE8	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	9	GE9	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	10	GE10	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	11	GE11	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	12	GE12	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	13	GE13	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	14	GE14	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	15	GE15	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	16	GE16	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	17	GE17	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	18	GE18	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	19	GE19	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	20	GE20	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	21	GE21	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	22	GE22	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	23	GE23	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	24	GE24	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	25	TE1	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	26	TE2	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	27	TE3	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	28	TE4	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	29	LAG1	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	30	LAG2	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	31	LAG3	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	32	LAG4	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	33	LAG5	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	34	LAG6	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	35	LAG7	0	Enabled	Disabled	Disabled
<input type="checkbox"/>	36	LAG8	0	Enabled	Disabled	Disabled

[Edit](#)

Item	Description
State	Enable or disable the function of QoS mode.
Trust Mode	<p>Select the QoS operation mode.</p> <p>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.</p> <p>DSCP: All IP traffic is mapped to queues based on the DSCP field in the IP header. If traffic is not IP traffic, it is mapped to the lowest priority queue.</p> <p>CoS-DSCP: All IP traffic is mapped to queues based on the DSCP field in the IP header. If traffic is not IP but has VLAN tag, mapped to queues based on the CoS value in the VLAN tag.</p> <p>IP Precedence: All IP traffic is mapped to queues based on the DSCP field in the IP header. If traffic is not IP but has VLAN tag,</p>

	mapped to queues based on the CoS value in the VLAN
Apply	Apply the settings to the switch.
Edit	Edit the selected port(s).

QoS >> General >> Property

Edit Port Setting

Port	GE1
CoS	0 (0 - 7)
Trust	<input checked="" type="checkbox"/> Enable

Remarking	
CoS	<input type="checkbox"/> Enable
DSCP	<input type="checkbox"/> Enable
IP Precedence	<input type="checkbox"/> Enable

Item	Description
Port	The index number of selected port.
CoS	Specify the default CoS priority value for those ingress frames without given trust QoS tag (802.1q/DSCP/IP Precedence, depending on configuration).
Trust	Enable: Traffic will follow trust mode in general setting. Disable: No QoS service for this port.
Remarking	
CoS	Enable: Egress traffic will be marked with CoS value according to the Queue to CoS mapping table. Disable: Disable CoS remarking function for outgoing packets.
DSCP	Egress traffic will be marked with DSCP value according to the Queue to DSCP mapping table once it is enabled.
IP Precedence	Egress traffic will be marked with IP Precedence value according to the Queue to IP Precedence mapping table once it is enabled.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

15.1.2. Queue Scheduling

The Switch 850X-28P supports multiple queues for each interface. The higher numbered queue represents the higher priority.

The screenshot shows the web interface of a Proscend 28-Port GbE Managed PoE Switch. The top navigation bar includes the Proscend logo, the switch model name, and links for Save, Logout, and Reboot. The main navigation menu on the left lists various configuration categories: Status, Network, Port, PoE, VLAN, MAC Address Table, Spanning Tree, Discovery, Multicast, Routing, Security, ACL, QoS, General, Property, Queue Scheduling, CoS Mapping, DSCP Mapping, IP Precedence Mapping, Rate Limit, Diagnostics, Management, and Loop Prevention. The 'Queue Scheduling' page is active, displaying a 'Queue Scheduling Table' with the following data:

Queue	Method			WRR Bandwidth (%)
	Strict Priority	WRR	Weight	
1	<input checked="" type="radio"/>	<input type="radio"/>	1	
2	<input checked="" type="radio"/>	<input type="radio"/>	2	
3	<input checked="" type="radio"/>	<input type="radio"/>	3	
4	<input checked="" type="radio"/>	<input type="radio"/>	4	
5	<input checked="" type="radio"/>	<input type="radio"/>	5	
6	<input checked="" type="radio"/>	<input type="radio"/>	9	
7	<input checked="" type="radio"/>	<input type="radio"/>	13	
8	<input checked="" type="radio"/>	<input type="radio"/>	15	

An 'Apply' button is located below the table.

Item	Description
Queue	There are eight queue ID numbers allowed to be configured.
Strict Priority	Egress traffic from the higher priority queue will be transmitted first, lower priority queue shall wait until all traffic in SP queue is transmitted.
WRR	The number of packets sent from the queue is proportional to the weight of the queue.
Weight	If the queue type is WRR, set the queue weight for the queue.
WRR Bandwidth (%)	Display the percentage of traffic which can be sent by current queue compared to total WRR queues.
Apply	Apply the settings to the switch.

15.1.3. CoS Mapping

This section allows to configure how ingress frames with CoS/802.1p tag map to QoS queues, and QoS queues to CoS/802.1p on egress frames. Actual effectiveness is based on how QoS is configured in previous QoS section. This page provides settings for user to configure mapping only.

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[Save](#)
[Logout](#)
[Reboot](#)

QoS >> General >> CoS Mapping

- Status
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- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
 - General
 - Property
 - Queue Scheduling
 - CoS Mapping**
 - DSCP Mapping
 - IP Precedence Mapping
 - Rate Limit
- Diagnostics
- Management
- Loop Prevention

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

Item	Description
CoS to Queue Mapping	
CoS	Display the class of service value (0 to 7).
Queue	Define the queue ID (level 1 to 8) for different CoS values.
Apply	Apply the settings to the switch.
Queue to CoS Mapping	
Queue	Display the queue ID (level 1 to 8) for different CoS values.
CoS	Display the class of service value (0 to 7).
Apply	Apply the settings to the switch.

15.1.4. DSCP Mapping

This section allows to configure how ingress packets with DSCP tag map to QoS queues, and QoS queues to DSCP on egress packets. Actual effectiveness is based on how QoS is configured in previous QoS section. This page provides settings for user to configure mapping only.

QoS >> General >> DSCP Mapping

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
 - General
 - Property
 - Queue Scheduling
 - CoS Mapping
 - **DSCP Mapping**
 - IP Precedence Mapping
 - Rate Limit
- Diagnostics
- Management
- Loop Prevention

DSCP to Queue Mapping

DSCP	Queue	DSCP	Queue	DSCP	Queue	DSCP	Queue
0 [CS0]	1 ▼	16 [CS2]	3 ▼	32 [CS4]	5 ▼	48 [CS6]	7 ▼
1	1 ▼	17	3 ▼	33	5 ▼	49	7 ▼
2	1 ▼	18 [AF21]	3 ▼	34 [AF41]	5 ▼	50	7 ▼
3	1 ▼	19	3 ▼	35	5 ▼	51	7 ▼
4	1 ▼	20 [AF22]	3 ▼	36 [AF42]	5 ▼	52	7 ▼
5	1 ▼	21	3 ▼	37	5 ▼	53	7 ▼
6	1 ▼	22 [AF23]	3 ▼	38 [AF43]	5 ▼	54	7 ▼
7	1 ▼	23	3 ▼	39	5 ▼	55	7 ▼
8 [CS1]	2 ▼	24 [CS3]	4 ▼	40 [CS5]	6 ▼	56 [CS7]	8 ▼
9	2 ▼	25	4 ▼	41	6 ▼	57	8 ▼
10 [AF11]	2 ▼	26 [AF31]	4 ▼	42	6 ▼	58	8 ▼
11	2 ▼	27	4 ▼	43	6 ▼	59	8 ▼
12 [AF12]	2 ▼	28 [AF32]	4 ▼	44	6 ▼	60	8 ▼
13	2 ▼	29	4 ▼	45	6 ▼	61	8 ▼
14 [AF13]	2 ▼	30 [AF33]	4 ▼	46 [EF]	6 ▼	62	8 ▼
15	2 ▼	31	4 ▼	47	6 ▼	63	8 ▼

Queue to DSCP Mapping

Queue	DSCP
1	0 [CS0] ▼
2	8 [CS1] ▼
3	16 [CS2] ▼
4	24 [CS3] ▼
5	32 [CS4] ▼
6	40 [CS5] ▼
7	48 [CS6] ▼
8	56 [CS7] ▼

Item	Description
DSCP to Queue Mapping	
DSCP	Display the DSCP value (0 to 63).
Queue	Define the queue ID (level 1 to 8) for different DSCP values.
Apply	Apply the settings to the switch.
Queue to DSCP Mapping	
Queue	Display the queue ID (level 1 to 8) for different DSCP values.
DSCP	Display the DSCP value (0 to 63).
Apply	Apply the settings to the switch.

15.1.5. IP Precedence Mapping

This section allows to configure how ingress packets with IP Precedence tag map to QoS queues, and QoS queues to IP Precedence on egress packets. Actual effectiveness is based on how QoS is configured in previous QoS section. This page provides settings for user to configure mapping only.

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Save | Logout | Reboot

QoS >> General >> IP Precedence Mapping

Status

Network

Port

PoE

VLAN

MAC Address Table

Spanning Tree

Discovery

Multicast

Routing

Security

ACL

QoS

General

Property

Queue Scheduling

CoS Mapping

DSCP Mapping

IP Precedence Mapping

Rate Limit

Diagnostics

Management

Loop Prevention

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

Item	Description
IP Precedence to Queue Mapping	
IP Precedence	Display the IP Precedence value (0 to 7).
Queue	Define the queue ID (level 1 to 8) for different IP Precedence values.
Apply	Apply the settings to the switch.
Queue to IP Precedence Mapping	
Queue	Display the queue ID (level 1 to 8) for different IP Precedence values.
IP Precedence	Display the IP Precedence value (0 to 7).
Apply	Apply the settings to the switch.

15.2 Rate Limit

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

15.2.1. Ingress/Egress Port

This page allows to configure ingress/egress port rate limit. The ingress/egress rate limit is the number of bits per second that can be received from the ingress interface. Excess bandwidth above this limit is discarded. The configuration result for each port will be displayed on the table listed on the lower side of this web page.

PROSCEND 28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

Save | Logout | Reboot

QoS » Rate Limit » Ingress / Egress Port

Status

Network

Port

PoE

VLAN

MAC Address Table

Spanning Tree

Discovery

Multicast

Routing

Security

ACL

QoS

General

Rate Limit

Ingress / Egress Port

Egress Queue

Diagnostics

Management

Loop Prevention

Ingress / Egress Port Table

<input type="checkbox"/>	Entry	Port	Ingress		Egress	
			State	Rate (Kbps)	State	Rate (Kbps)
<input type="checkbox"/>	1	GE1	Disabled		Disabled	
<input type="checkbox"/>	2	GE2	Disabled		Disabled	
<input type="checkbox"/>	3	GE3	Disabled		Disabled	
<input type="checkbox"/>	4	GE4	Disabled		Disabled	
<input type="checkbox"/>	5	GE5	Disabled		Disabled	
<input type="checkbox"/>	6	GE6	Disabled		Disabled	
<input type="checkbox"/>	7	GE7	Disabled		Disabled	
<input type="checkbox"/>	8	GE8	Disabled		Disabled	
<input type="checkbox"/>	9	GE9	Disabled		Disabled	
<input type="checkbox"/>	10	GE10	Disabled		Disabled	
<input type="checkbox"/>	11	GE11	Disabled		Disabled	
<input type="checkbox"/>	12	GE12	Disabled		Disabled	
<input type="checkbox"/>	13	GE13	Disabled		Disabled	
<input type="checkbox"/>	14	GE14	Disabled		Disabled	
<input type="checkbox"/>	15	GE15	Disabled		Disabled	
<input type="checkbox"/>	16	GE16	Disabled		Disabled	
<input type="checkbox"/>	17	GE17	Disabled		Disabled	
<input type="checkbox"/>	18	GE18	Disabled		Disabled	
<input type="checkbox"/>	19	GE19	Disabled		Disabled	
<input type="checkbox"/>	20	GE20	Disabled		Disabled	
<input type="checkbox"/>	21	GE21	Disabled		Disabled	
<input type="checkbox"/>	22	GE22	Disabled		Disabled	
<input type="checkbox"/>	23	GE23	Disabled		Disabled	
<input type="checkbox"/>	24	GE24	Disabled		Disabled	
<input type="checkbox"/>	25	TE1	Disabled		Disabled	
<input type="checkbox"/>	26	TE2	Disabled		Disabled	
<input type="checkbox"/>	27	TE3	Disabled		Disabled	
<input type="checkbox"/>	28	TE4	Disabled		Disabled	

Edit

Item	Description
Edit	Edit the selected port(s).

QoS » Rate Limit » Ingress / Egress Port

Edit Ingress / Egress Port

Port	GE1	
Ingress	<input type="checkbox"/> Enable	
	<input type="text" value="1000000"/>	Kbps (16 - 1000000)
Egress	<input type="checkbox"/> Enable	
	<input type="text" value="1000000"/>	Kbps (16 - 1000000)

Item	Description
Port	The index number of selected port.
Ingress	Enable or disable ingress bandwidth control. Enter the rate value,<16-1000000>, unit:16 Kbps.
Egress	Enable or disable Egress bandwidth control. Enter the rate value,<16-1000000>, unit:16 Kbps.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

15.2.2. Egress Queue

PROSCENO 28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

Save Logout Reboot

QoS » Rate Limit » Egress Queue

Egress Queue Table

Entry	Port	Queue 1	Queue 2	Queue 3	Queue 4	Queue 5	Queue 6	Queue 7	Queue 8
		State	CIR (Kbps)	State	CIR (Kbps)	State	CIR (Kbps)	State	CIR (Kbps)
<input type="checkbox"/>	1 GE1	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	2 GE2	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	3 GE3	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	4 GE4	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	5 GE5	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	6 GE6	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	7 GE7	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	8 GE8	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	9 GE9	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	10 GE10	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	11 GE11	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	12 GE12	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	13 GE13	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	14 GE14	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	15 GE15	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	16 GE16	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	17 GE17	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	18 GE18	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	19 GE19	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	20 GE20	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	21 GE21	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	22 GE22	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	23 GE23	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	24 GE24	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	25 TE1	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	26 TE2	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	27 TE3	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
<input type="checkbox"/>	28 TE4	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled

Edit

Item	Description
Edit	Edit the selected port(s).

QoS >> Rate Limit >> Egress Queue

Edit Egress Queue

Port	GE1
Queue 1	<input type="checkbox"/> Enable <input type="text" value="1000000"/> Kbps (16 - 1000000)
Queue 2	<input type="checkbox"/> Enable <input type="text" value="1000000"/> Kbps (16 - 1000000)
Queue 3	<input type="checkbox"/> Enable <input type="text" value="1000000"/> Kbps (16 - 1000000)
Queue 4	<input type="checkbox"/> Enable <input type="text" value="1000000"/> Kbps (16 - 1000000)
Queue 5	<input type="checkbox"/> Enable <input type="text" value="1000000"/> Kbps (16 - 1000000)
Queue 6	<input type="checkbox"/> Enable <input type="text" value="1000000"/> Kbps (16 - 1000000)
Queue 7	<input type="checkbox"/> Enable <input type="text" value="1000000"/> Kbps (16 - 1000000)
Queue 8	<input type="checkbox"/> Enable <input type="text" value="1000000"/> Kbps (16 - 1000000)

Item	Description
Port	The index number of selected port.
Queue (1~8)	Total eight queue rules. Enable or disable egress bandwidth control. Enter the rate value,<16-1000000>, unit:16 Kbps.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

16 Diagnostics

16.1 Logging

This section allows enable system logging into local syslog and specific remote syslog server for storage.

16.1.1. Property

The screenshot shows the web interface of a Proscendo 28-Port GbE Managed PoE Switch. The breadcrumb navigation is "Diagnostics >> Logging >> Property". The left sidebar contains a menu with categories: Status, Network, Port, PoE, VLAN, MAC Address Table, Spanning Tree, Discovery, Multicast, Routing, Security, ACL, QoS, Diagnostics, Logging (expanded), Remote Server, Mirroring, Ping, Traceroute, Copper Test, Fiber Module, UDLD, Management, and Loop Prevention. The "Logging" section is active, showing "Property" as the selected option. The main configuration area includes: "State" (checked, Enable), "Aggregation" (checked, Enable), "Aging Time" (300, with a note "Sec (15 - 3600, default 300)"), "Console Logging" (State: checked, Enable; Minimum Severity: Notice, with a note "Note: Emergency, Alert, Critical, Error, Warning, Notice"), "RAM Logging" (State: checked, Enable; Minimum Severity: Notice, with a note "Note: Emergency, Alert, Critical, Error, Warning, Notice"), and "Flash Logging" (State: unchecked, Disable; Minimum Severity: Notice, with a note "Note: Emergency, Alert, Critical, Error, Warning, Notice"). An "Apply" button is at the bottom.

Item	Description
State	Enable or disable the function of syslog.
Console Logging	
State	Enable or disable to write log into console.
Minimum Severity	Select severity (Emergency, Alert, Critical, Error, Warning, Notice, informational and debug) of log messages which you wish to filter out for review.
RAM Logging	
State	Enable or disable to write log into RAM.
Minimum Severity	Select severity (Emergency, Alert, Critical, Error, Warning, Notice, informational and debug) of log messages which you wish to filter out for review.

Flash Logging	
State	Enable or disable to write log into Flash.
Minimum Severity	Select severity (Emergency, Alert, Critical, Error, Warning, Notice, informational and debug) of log messages which you wish to filter out for review.
Apply	Apply the settings to the switch.

16.1.2. Remote Server

This page allows to enable system logging into specific remote syslog server for storage.

The screenshot displays the web interface of a Proscend 28-Port GbE Managed PoE Switch. The top navigation bar includes the Proscend logo, the switch model name, and links for Save, Logout, and Reboot. The left sidebar contains a menu with categories like Status, Network, Port, PoE, VLAN, MAC Address Table, Spanning Tree, Discovery, Multicast, Routing, Security, ACL, QoS, Diagnostics, Logging, Property, Remote Server, Mirroring, Ping, Traceroute, Copper Test, Fiber Module, UDLD, Management, and Loop Prevention. The main content area is titled 'Diagnostics >> Logging >> Remote Server'. Below this, there is a 'Remote Server Table' with a search bar and a table with columns: Entry, Server Address, Server Port, Facility, Minimum Severity, and an empty column. The table shows '0 results found.' and there are 'Add', 'Edit', and 'Delete' buttons below it.

Item	Description
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the selected entry.

Add Remote Server

Address Type	<input checked="" type="radio"/> Hostname <input type="radio"/> IPv4 <input type="radio"/> IPv6	
Server Address	<input type="text"/>	
Server Port	<input type="text" value="514"/>	(1 - 65535, default 514)
Facility	<input type="text" value="Local 7"/>	
Minimum Severity	<input type="text" value="Notice"/>	
Note: Emergency, Alert, Critical, Error, Warning, Notice		
<input type="button" value="Apply"/> <input type="button" value="Close"/>		

Item	Description
Address Type	Select the address type or remote server.
Server Address	Enter the Hostname/IPv4/IPv6 address of Syslog server.
Server Port	Specify the port that syslog should be sent to.
Facility	One device supports multiple facilities (represented with facility ID, local0 to local7) of remote Syslog server. For each facility ID contains different syslog server configuration, please choose a facility ID for such Syslog server.
Minimum Severity	Select severity (Emergency, Alert, Critical, Error, Warning, Notice, informational and debug) of log messages which you wish to filter out for review.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

16.2 Mirroring

This section provides ability to mirror packets coming in or going out on any port to a destination port. Through the packet duplication in the destination port, this feature is convenient for system administrator to monitor / understand the traffic operation. Session ID 1 to 4 can be enabled simultaneously and operate independently.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) | [Logout](#) | [Reboot](#)

Diagnostics >> Mirroring

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
 - Logging
 - Mirroring**
 - Ping
 - Traceroute
 - Copper Test
 - Fiber Module
- UDLD
- Management
- Loop Prevention

Mirroring Table

	Session ID	State	Monitor Port	Ingress Port	Egress Port	
<input type="radio"/>	1	Disabled	---	---	---	
<input type="radio"/>	2	Disabled	---	---	---	
<input type="radio"/>	3	Disabled	---	---	---	
<input type="radio"/>	4	Disabled	---	---	---	

Edit

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

Item	Description
Edit	Edit the selected port(s).

Edit Mirroring

Session ID	1	
State	<input type="checkbox"/> Enable	
Monitor Port	GE1	
	<input type="checkbox"/> Send or Receive Normal Packet	
Ingress Port	Available Port GE1 GE2 GE3 GE4 GE5 GE6 GE7 GE8	Selected Port (Empty list)
Egress Port	Available Port GE1 GE2 GE3 GE4 GE5 GE6 GE7 GE8	Selected Port (Empty list)

Apply Close

Item	Description
Session ID	The index number of selected session ID.
State	Enable or disable the specified mirror session.
Monitor Port	<p>Specify the port where you wish to observe the mirrored packets.</p> <p>Enable: The destination port is able to function as a port connecting to network, communicating with other network devices.</p> <p>Disable: Only observe the mirrored packets.</p>
Ingress Port	Select the port(s) which you wish to mirror the traffic, ingress for mirror the packets into the port going out from the port.
Egress Port	Select the port(s) which you wish to mirror the traffic, egress for

	mirror the packets going out from the port.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

16.3 Ping

After finished the Ping test, the results will be shown on the lower side of this page.

The screenshot shows the Proscend 28-Port GbE Managed PoE Switch web interface. The top navigation bar includes 'Save', 'Logout', and 'Reboot' buttons. The left sidebar contains a menu with options like Status, Network, Port, PoE, VLAN, MAC Address Table, Spanning Tree, Discovery, Multicast, Routing, Security, ACL, QoS, Diagnostics, Logging, Mirroring, Ping, Traceroute, Copper Test, Fiber Module, UDLD, Management, and Loop Prevention. The main content area is titled 'Diagnostics >> Ping'. It features a configuration box with 'Address Type' (radio buttons for Hostname, IPv4, IPv6), 'Server Address' (text input), and 'Count' (text input with a range of 1 to 65535). Below the configuration box are 'Ping' and 'Stop' buttons. The 'Ping Result' section displays two tables: 'Packet Status' and 'Round Trip Time'.

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

Item	Description
Address Type	Select the address type or remote server.
Server Address	Enter the Hostname/IPv4/IPv6 address.
Count	It means how many times to send ping request packet. Enter a number between 1 and 65535 as the count and the default configuration is 4.
Ping	Start the Ping process.
Stop	Stop the Ping process.

16.4 Traceroute

After finished the trace route test, the results will be shown on the lower side of this page.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#)
[Logout](#)
[Reboot](#)

Diagnostics >> Traceroute

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
 - Logging
 - Mirroring
 - Ping
 - Traceroute**
 - Copper Test
 - Fiber Module
- UDLD
- Management
- Loop Prevention

Address Type
☒ Hostname
 ☐ IPv4

Server Address

Time to Live
 (2 - 255, default 30)

☐ User Defined

Traceroute Result

Item	Description
Address Type	Select the address type or remote server.
Server Address	Enter the Hostname/IPv4 address.
Time to Live	Enter the value of “Time to Live” for trace route process. The default configuration is 30.
Apply	Start the trace route process.
Stop	Stop the trace route process.

16.5 Copper Test

After finished copper test, the results will be shown on the lower side of this page.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#)
[Logout](#)
[Reboot](#)

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
 - Logging
 - Mirroring
 - Ping
 - Traceroute
 - Copper Test
 - Fiber Module
 - UDLD
- Management
- Loop Prevention

Diagnostics >> Copper Test

Port

GE1

Copper Test

Copper Test Result

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

Item	Description
Port	Select the port for testing copper.
Copper Test	Start copper test process.

16.6 Fiber Module

This page allows to check the detailed information of SFP module.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#)
[Logout](#)
[Reboot](#)

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
 - Logging
 - Mirroring
 - Ping
 - Traceroute
 - Copper Test
 - Fiber Module
 - UDLD
- Management
- Loop Prevention

Diagnostics >> Fiber Module

Fiber Module Table

	Port	Temperature (C)	Voltage (V)	Current (mA)	Output Power (mW)	Input Power (mW)	OE Present	Loss of Signal
<input type="radio"/>	TE1	N/S	N/S	N/S	N/S	N/S	Remove	Loss
<input type="radio"/>	TE2	N/S	N/S	N/S	N/S	N/S	Remove	Loss
<input type="radio"/>	TE3	N/S	N/S	N/S	N/S	N/S	Remove	Loss
<input type="radio"/>	TE4	N/S	N/S	N/S	N/S	N/S	Remove	Loss

[Refresh](#)
[Detail](#)

Item	Description
Refresh	Refresh the page to see new status of SFP.
Detail	Get details of SFP module.

16.7 UDLD

Unidirectional Link Detection (UDLD) is a layer 2 protocol used to determine the physical status of a link. The purpose of Unidirectional Link Detection (UDLD) is to detect and deter issues that arise from Unidirectional Links. UDLD helps to prevent forwarding loops and blackholing of traffic by identifying and acting on logical one-way links that would otherwise go undetected.

16.7.1. Property

PROSCEND

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

Save | Logout | Reboot

Diagnostics >> UDLD >> Property

Status

Network

Port

PoE

VLAN

MAC Address Table

Spanning Tree

Discovery

Multicast

Routing

Security

ACL

QoS

UDLD

Logging

Mirroring

Ping

Traceroute

Copper Test

Fiber Module

UDLD

Property

Neighbor

Management

Loop Prevention

Message Time

15

Sec (1 - 90, default 15)

Apply

Port Setting Table

Q

<input type="checkbox"/>	Entry	Port	Mode	Bidirectional State	Operational Status	Neighbor
<input type="checkbox"/>	1	GE1	Disabled	Unknown		0
<input type="checkbox"/>	2	GE2	Disabled	Unknown		0
<input type="checkbox"/>	3	GE3	Disabled	Unknown		0
<input type="checkbox"/>	4	GE4	Disabled	Unknown		0
<input type="checkbox"/>	5	GE5	Disabled	Unknown		0
<input type="checkbox"/>	6	GE6	Disabled	Unknown		0
<input type="checkbox"/>	7	GE7	Disabled	Unknown		0
<input type="checkbox"/>	8	GE8	Disabled	Unknown		0
<input type="checkbox"/>	9	GE9	Disabled	Unknown		0
<input type="checkbox"/>	10	GE10	Disabled	Unknown		0
<input type="checkbox"/>	11	GE11	Disabled	Unknown		0
<input type="checkbox"/>	12	GE12	Disabled	Unknown		0
<input type="checkbox"/>	13	GE13	Disabled	Unknown		0
<input type="checkbox"/>	14	GE14	Disabled	Unknown		0
<input type="checkbox"/>	15	GE15	Disabled	Unknown		0
<input type="checkbox"/>	16	GE16	Disabled	Unknown		0
<input type="checkbox"/>	17	GE17	Disabled	Unknown		0
<input type="checkbox"/>	18	GE18	Disabled	Unknown		0
<input type="checkbox"/>	19	GE19	Disabled	Unknown		0
<input type="checkbox"/>	20	GE20	Disabled	Unknown		0
<input type="checkbox"/>	21	GE21	Disabled	Unknown		0
<input type="checkbox"/>	22	GE22	Disabled	Unknown		0
<input type="checkbox"/>	23	GE23	Disabled	Unknown		0
<input type="checkbox"/>	24	GE24	Disabled	Unknown		0
<input type="checkbox"/>	25	TE1	Disabled	Unknown		0
<input type="checkbox"/>	26	TE2	Disabled	Unknown		0
<input type="checkbox"/>	27	TE3	Disabled	Unknown		0
<input type="checkbox"/>	28	TE4	Disabled	Unknown		0

Edit

Item	Description
Message Time	Enter the message interval in aggressive mode, default is 15.
Apply	Apply the settings to the switch.
Edit	Edit the selected port.

Edit Port Setting

Port	GE1
Mode	<input checked="" type="radio"/> Disabled <input type="radio"/> Normal <input type="radio"/> Aggressive

Apply Close

Item	Description
Port	The index number of selected port.
Mode	<p>Disabled: Disable the UDLD on selected port.</p> <p>Normal: Port state is marked as undetermined and behaves according to STP state.</p> <p>Aggressive: UDLD attempts to re-establish the state of the port and put into the error-disable state if unable to re-establish port state.</p>
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

16.7.2. Neighbor

This page displays information of the neighboring devices.

Diagnostics >> UDLD >> Neighbor

- ▼ Status
- ▼ Network
- ▼ Port
- ▼ PoE
- ▼ VLAN
- ▼ MAC Address Table
- ▼ Spanning Tree
- ▼ Discovery
- ▼ Multicast
- ▼ Routing
- ▼ Security
- ▼ ACL
- ▼ QoS
- ▼ Diagnostics
 - ▼ Logging
 - ▼ Mirroring
 - ▼ Ping
 - ▼ Traceroute
 - ▼ Copper Test
 - ▼ Fiber Module
 - ▲ UDLD
 - Property
 - Neighbor**
 - ▼ Management
 - ▼ Loop Prevention

Neighbor Table



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

[Refresh](#)

17 Management

17.1 User Account

This page allows to Add/Edit/Delete the user account for device management.

The screenshot displays the web interface of a Proscend 28-Port GbE Managed PoE Switch. The top header shows the Proscend logo and the device name. On the right, there are links for Save, Logout, and Reboot. A left sidebar contains a navigation menu with categories like Status, Network, Port, PoE, VLAN, MAC Address Table, Spanning Tree, Discovery, Multicast, Routing, Security, ACL, QoS, Diagnostics, and Management. The Management section is expanded, showing sub-items like User Account, Firmware, Configuration, SNMP, RMON, and Loop Prevention. The main content area is titled 'Management >> User Account' and contains a 'User Account' section. This section includes a search bar, a table with columns for Username and Privilege, and buttons for Add, Edit, and Delete. The table shows one entry: 'root' with 'Admin' privilege. Pagination controls at the bottom of the table show 'First', 'Previous', '1', 'Next', and 'Last'.

Username	Privilege
root	Admin

17.2 Firmware

17.2.1. Upgrade / Backup

This page allows to upgrade the current image in the flash partition or backup the firmware from selected flash image partition 0 / 1.

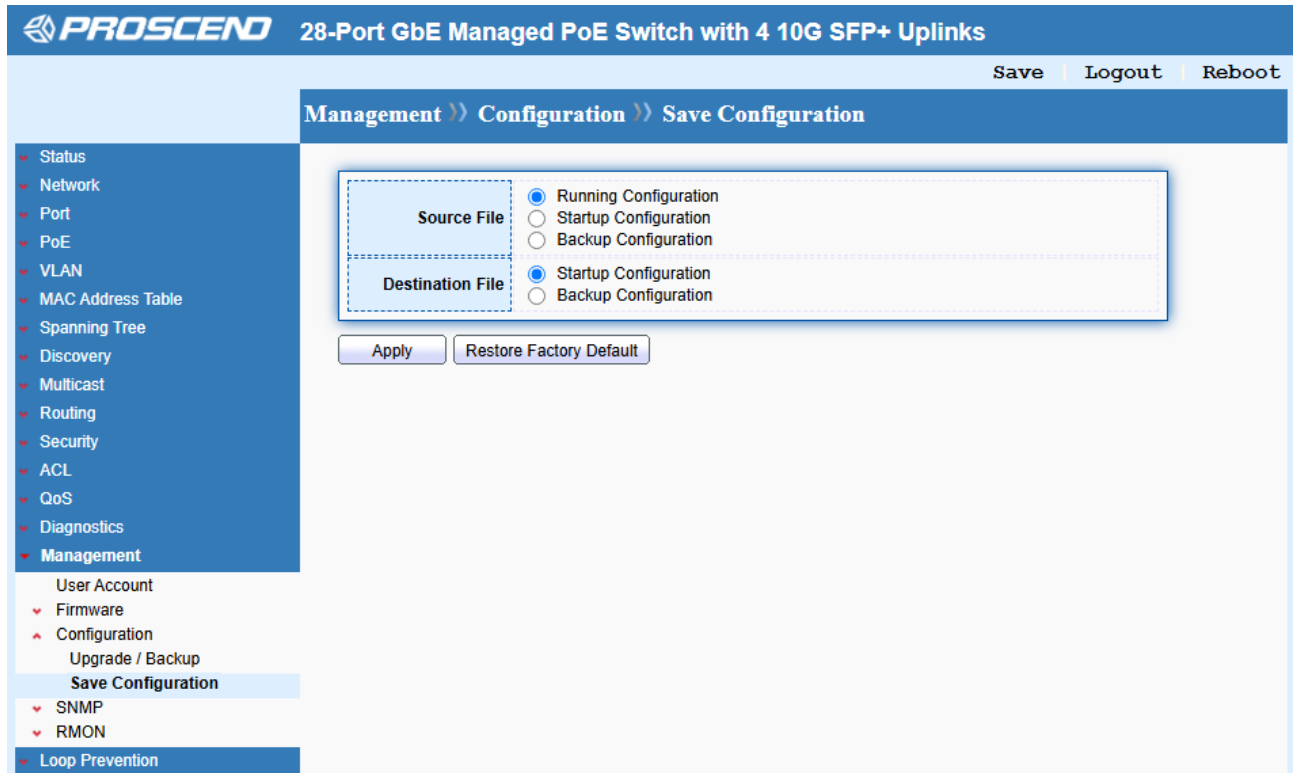
17.3.1. Upgrade / Backup

This page allows to upgrade the Running/Startup/Backup configuration or backup the Running/Startup/Backup configuration and RAM/Flash log via TFTP or HTTP.

The screenshot displays the web interface of a Proscendo 28-Port GbE Managed PoE Switch. The top header bar is blue with the Proscendo logo and the device name. On the right of the header are links for 'Save', 'Logout', and 'Reboot'. Below the header is a navigation breadcrumb: 'Management >> Configuration >> Upgrade / Backup'. A left-hand navigation menu is visible, listing various system functions like Status, Network, Port, PoE, VLAN, MAC Address Table, Spanning Tree, Discovery, Multicast, Routing, Security, ACL, QoS, Diagnostics, and Management. Under 'Management', sub-items like User Account, Firmware, Configuration, Upgrade / Backup (highlighted), Save Configuration, SNMP, RMON, and Loop Prevention are listed. The main content area is titled 'Upgrade / Backup' and contains a form with the following fields: 'Action' with radio buttons for 'Upgrade' (selected) and 'Backup'; 'Method' with radio buttons for 'TFTP' and 'HTTP' (selected); 'Configuration' with radio buttons for 'Running Configuration' (selected), 'Startup Configuration', 'Backup Configuration', 'RAM Log', and 'Flash Log'; and 'Filename' with a text input field containing the Chinese text '選擇檔案' and a button '未選擇任何檔案'. An 'Apply' button is located at the bottom of the form.

17.3.2. Save Configuration

This page allows to save configuration from different source to specified destination file or reset to factory default.



17.4 SNMP

Simple Network Management Protocol (SNMP) is an "Internet-standard protocol for managing devices on IP networks".

17.4.1. View

This page allows to create MIB views (Management information base) and then include or exclude OID (Object Identifier) in a view.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#)
[Logout](#)
[Reboot](#)

Management >> SNMP >> View

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
 - User Account
 - Firmware
 - Configuration
 - SNMP
 - View**
 - Group
 - Community
 - User
 - Engine ID
 - Trap Event
 - Notification
 - RMON
 - Loop Prevention

View Table

Showing All entries Showing 1 to 1 of 1 entries

<input type="checkbox"/>	View	OID Subtree	Type
<input type="checkbox"/>	all	.1	Included

Add
Delete

First
Previous
1
Next
Last

Item	Description
Add	Add a new OID string.
Delete	Delete the existing OID string.

Management >> SNMP >> View

Add View

View

OID Subtree

Type

☒ Included
 ☐ Excluded

Apply
Close

Item	Description
View	Enter a name of the MIB view.
OID Subtree	Enter an OID string to be included or excluded from the MIB

	view.
Type	Determine to include or exclude the selected MIBs.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

17.4.2. Group

This page allows to group SNMP users and assign different authorization and access privileges.

The screenshot displays the web interface of a Proscend 28-Port GbE Managed PoE Switch. The top navigation bar includes the Proscend logo, the device name, and links for Save, Logout, and Reboot. The breadcrumb trail shows Management >> SNMP >> Group. On the left, a sidebar menu lists various configuration categories, with 'Management' expanded to show 'Group' as the selected option. The main content area is titled 'Group Table' and features a search bar, a table with columns for Group, Version, Security Level, and View (Read, Write, Notify), and pagination controls. Below the table, there is a section for configuring SNMP views with 'Add', 'Edit', and 'Delete' buttons.

Item	Description
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the selected entry.

Add Group

Group	<input type="text"/>
Version	<input checked="" type="radio"/> SNMPv1 <input type="radio"/> SNMPv2 <input type="radio"/> SNMPv3
Security Level	<input checked="" type="radio"/> No Security <input type="radio"/> Authentication <input type="radio"/> Authentication and Privacy
View	<input checked="" type="checkbox"/> Read
	<input type="text" value="all"/>
	<input type="checkbox"/> Write
	<input type="text" value="all"/>
	<input type="checkbox"/> Notify
	<input type="text" value="all"/>

Apply

Close

Item	Description
Group	Enter a name for the group.
Version	Specify SNMP version.
Security Level	Specify SNMP security level for the group. It is available when SNMPv3 is selected. No Security: No authentication and no encryption. Authentication: Requires authentication but no encryption. Authentication and Privacy: Requires authentication and encryption.
View	Users of this group have the right to Read/Write/Notify the selected MIB view.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

17.4.3. Community

This page allows to add/remove multiple communities of SNMP.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) | [Logout](#) | [Reboot](#)

Management >> SNMP >> Community

Community Table

Showing All entries Showing 1 to 1 of 1 entries

<input type="checkbox"/>	Community	Group	View	Access
<input type="checkbox"/>	public		all	Read-Only

[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](#)

Item	Description
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the selected entry.

Management >> SNMP >> Community

Add Community

Community	<input type="text"/>
Type	<input checked="" type="radio"/> Basic <input type="radio"/> Advanced
View	all <input type="text"/>
Access	<input checked="" type="radio"/> Read-Only <input type="radio"/> Read-Write
Group	<input type="text"/>

[Apply](#)
[Close](#)

Item	Description
Community	Enter a name as community name.
Type	<p>Basic: View and access right can be specified for such SNMP community profile.</p> <p>Advanced: Specify one of the SNMP groups for such SNMP community profile.</p>
View	Simply specify one of the view profiles (created in SNMP→View) from the drop down list.
Access	<p>Read Only: It allows unidirectional access to node-specific information.</p> <p>Read & Write: It allows bidirectional access to node-specific information.</p>
Group	Specify the SNMP group configured by user (SNMP→Group) to define the object available to the community.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

17.4.4. User

This page allows to configure SNMP user profile.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) | [Logout](#) | [Reboot](#)

Management >> SNMP >> User

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
 - User Account
 - Firmware
 - Configuration
 - SNMP
 - View
 - Group
 - Community
 - User**
 - Engine ID
 - Trap Event
 - Notification
 - RMON
- Loop Prevention

User Table

Showing All entries
Showing 0 to 0 of 0 entries

<input type="checkbox"/>	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](#)

Item	Description
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the selected entry.

Add User

User	<input type="text"/>
Group	Test ▾
Security Level	<input type="radio"/> No Security <input type="radio"/> Authentication <input checked="" type="radio"/> Authentication and Privacy
Authentication	
Method	<input type="radio"/> None <input checked="" type="radio"/> MD5 <input type="radio"/> SHA
Password	<input type="text"/>
Privacy	
Method	<input type="radio"/> None <input checked="" type="radio"/> DES
Password	<input type="text"/>
<input type="button" value="Apply"/> <input type="button" value="Close"/>	

Item	Description
User	Enter a name for creating new SNMP user.
Group	Choose one of the SNMP group from the drop down list. Then, this user profile will be grouped under the selected SNMP group.
Security Level	<p>Specify SNMP security level for the group. It is available when SNMPv3 is selected.</p> <p>No Security: No authentication and no encryption.</p> <p>Authentication: Requires authentication but no encryption.</p> <p>Authentication and Privacy: Requires authentication and encryption.</p>
Authentication	
Method	At present, available methods include None, MD5 and SHA.
Password	Enter a password for the selected method.
Privacy	
Method	At present, available methods include DES and None.
Password	Enter a password for the selected method.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

17.4.5. Engine ID

This page allows to configure and display SNMP Local/Remote engine ID.

PROSCEND 28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

Save Logout Reboot

Management >> SNMP >> Engine ID

Local Engine ID

☐ User Defined

Engine ID: 80006a920300037909e0dd (10 - 64 Hexadecimal Characters)

Apply

Remote Engine ID Table

Showing All entries Showing 0 to 0 of 0 entries

0 results found.

Add Edit Delete First Previous 1 Next Last

Item	Description
Engine ID	The user defined engine ID is range 10 to 64 hexadecimal characters, and the hexadecimal number must be divided by "2". User Defined: If it is checked, the local engine ID will be configured manually. If not, the default Engine ID which is made up of MAC and Enterprise ID will be used instead.
Apply	Apply the settings to the switch.
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the selected entry.

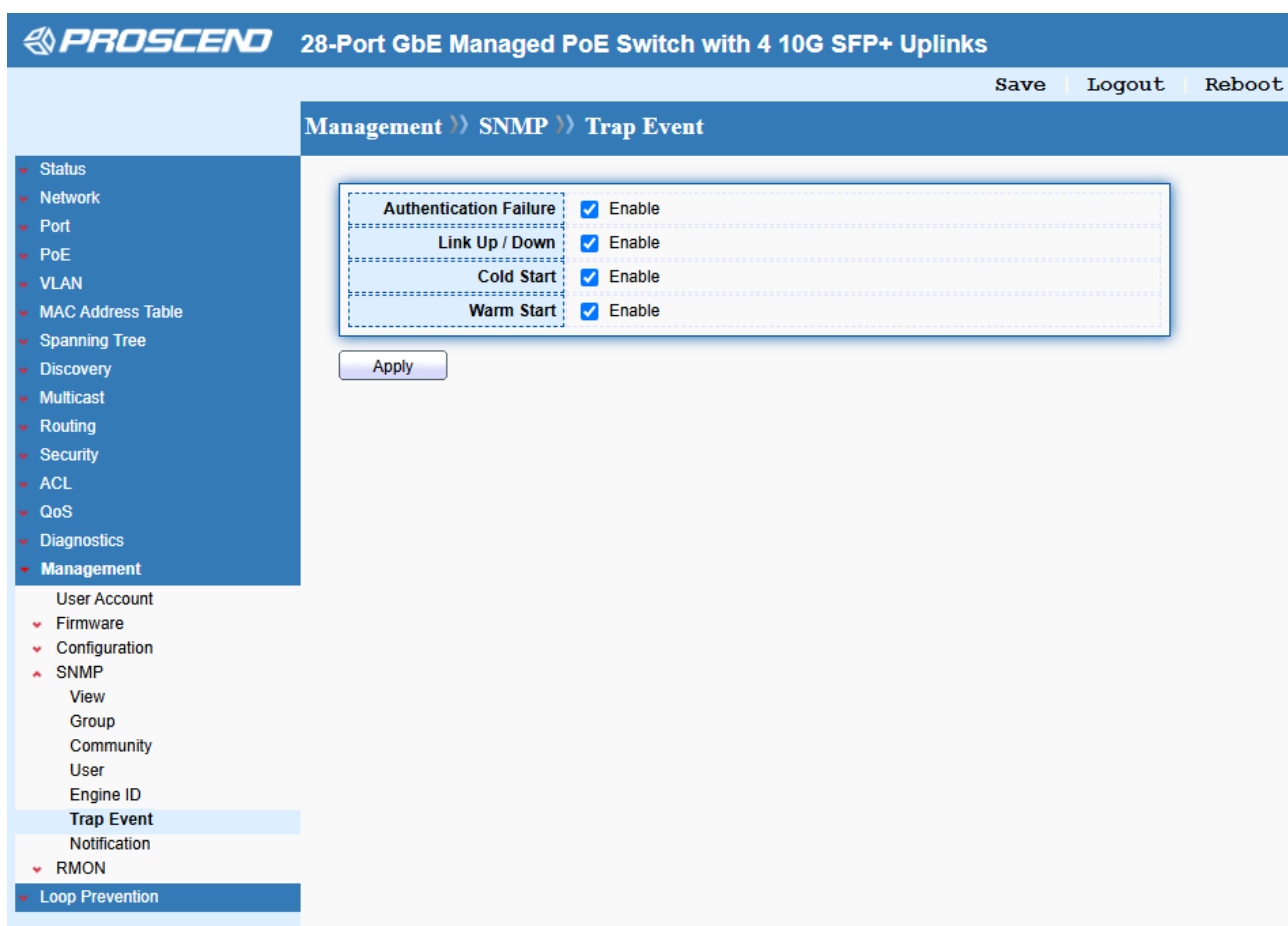
Add Remote Engine ID

Address Type	<input checked="" type="radio"/> Hostname <input type="radio"/> IPv4 <input type="radio"/> IPv6
Server Address	<input type="text"/>
Engine ID	<input type="text"/> (10 - 64 Hexadecimal Characters)

Item	Description
Address Type	Specify the address type for entering hostname or IPv4/IPv6 address.
Server Address	Enter the IP address or the host name of the SNMP server.
Engine ID	Specify the engine ID for remote SNMP server. The engine ID is range 10 to 64 hexadecimal characters, and the hexadecimal number must be divided by 2.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

17.4.6. Trap Event

This page allows to add or delete SNMP trap receiver IP address and community name.



17.4.7. Notification

This page allows to configure a host to receive SNMPv1/v2/v3 notification.

Management >> SNMP >> Notification

Notification Table

Showing All entries

Showing 0 to 0 of 0 entries



<input type="checkbox"/>	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](#)

- ▼ Status
- ▼ Network
- ▼ Port
- ▼ PoE
- ▼ VLAN
- ▼ MAC Address Table
- ▼ Spanning Tree
- ▼ Discovery
- ▼ Multicast
- ▼ Routing
- ▼ Security
- ▼ ACL
- ▼ QoS
- ▼ Diagnostics
- ▼ Management
 - User Account
 - ▼ Firmware
 - ▼ Configuration
 - ▲ SNMP
 - View
 - Group
 - Community
 - User
 - Engine ID
 - Trap Event
 - Notification
 - ▼ RMON
 - ▼ Loop Prevention

Item	Description
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the selected entry.

Add Notification

Address Type	<input checked="" type="radio"/> Hostname <input type="radio"/> IPv4 <input type="radio"/> IPv6
Server Address	<input type="text"/>
Version	<input checked="" type="radio"/> SNMPv1 <input type="radio"/> SNMPv2 <input type="radio"/> SNMPv3
Type	<input checked="" type="radio"/> Trap <input type="radio"/> Inform
Community / User	<input type="text" value="public"/>
Security Level	<input checked="" type="radio"/> No Security <input type="radio"/> Authentication <input type="radio"/> Authentication and Privacy
Server Port	<input checked="" type="checkbox"/> Use Default <input type="text" value="162"/> (1 - 65535, default 162)
Timeout	<input checked="" type="checkbox"/> Use Default <input type="text" value="15"/> Sec (1 - 300, default 15)
Retry	<input checked="" type="checkbox"/> Use Default <input type="text" value="3"/> (1 - 255, default 3)

Item	Description
Address Type	Specify the address type for entering hostname or IPv4/IPv6 address.
Server Address	Enter the IP address or the host name of the SNMP server.
Version	Specify SNMP version.
Type	Specify Notification Type. Trap: Send SNMP traps to the host. Inform: Send SNMP informs to the host. If it is used, Timeout and Retry also shall be defined.
Community/User	Use the drop down list to choose one of the community profiles.
Security Level	Specify SNMP security level for the group. It is available when SNMPv3 is selected. No Security: No authentication and no encryption. Authentication: Requires authentication but no encryption.

	Authentication and Privacy: Requires authentication and encryption.
Server Port	Specify the UDP port number for the recipient's server. Use Default: If it is checked, the default number (162) will be used automatically.
Timeout	Specify the SNMP informs timeout. It is available when Inform is selected as Type. Use Default: If it is checked, the default number (15) will be used automatically.
Retry	Specify the SNMP informs retry count. It is available when Inform is selected as Type. Use Default: If it is checked, the default number (3) will be used automatically.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

17.5 RMON

Remote Network Monitoring (RMON) was developed by the Internet Engineering Task Force (IETF) to support monitoring and protocol analysis of Local Area Networks (LANs).

17.5.1. Statistics

This page shows the RMON statistics table.

The screenshot shows the 'RMON Statistics' page in the ProScend web interface. The table has the following columns: Entry, Port, Bytes Received, Discards, Packets Received, Broadcast Packets, Multicast Packets, CRC & Align Errors, UnderSize Packets, OverSize Packets, Fragments, Jabbers, Collisions, Frames of 64 Bytes, Frames of 65 to 127 Bytes, Frames of 128 to 255 Bytes, Frames of 256 to 511 Bytes, Frames of 512 to 1023 Bytes, and Frames Greater than 1024 Bytes. The table contains 36 rows of data for different ports and interfaces, with values for each of the listed statistics.

17.5.2. History

This page allows to configure RMON history table.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) | [Logout](#) | [Reboot](#)

Management >> RMON >> History

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
 - User Account
 - Firmware
 - Configuration
 - SNMP
 - RMON
 - Statistics
 - History**
 - Event
 - Alarm
 - Loop Prevention

History Table

Showing All entries

	Entry	Port	Interval	Owner	Sample	
					Maximum	Current
<input type="checkbox"/>						

The SNMP service is currently disabled.
For RMON configuration to be effective, the [SNMP service](#) must be enabled.

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

Item	Description
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the selected entry.
View	View the statistics of selected entry.

Management >> RMON >> History

Add History

Entry	1		
Port	GE1		
Max Sample	50	(1 - 50, default 50)	
Interval	1800	(1 - 3600, default 1800)	
Owner	Test		

[Apply](#)
[Close](#)

Item	Description
Entry	The index number of entry.
Port	Select the port which wants to be monitored.
Max Sample	Indicates the maximum data entries associated this History control entry stored in RMON. The range is from 1 to 50, default value is 50.
Interval	Indicates the interval in seconds for sampling the history statistics data. The range is from 1 to 3600, default value is 1800 seconds.
Owner	Enter the name of owner.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

17.5.3. Event

This page allows to configure RMON Event table.

PROSCENDO 28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

Save | Logout | Reboot

Management >> RMON >> Event

Event Table

Showing All entries Showing 0 to 0 of 0 entries

<input type="checkbox"/>	Entry	Community	Description	Notification	Time	Owner
0 results found.						

First Previous 1 Next Last

The SNMP service is currently disabled.
For RMON configuration to be effective, the [SNMP service](#) must be enabled.

Add Edit Delete View

Item	Description
Add	Add a new entry.
Edit	Edit the existing entry.

Delete	Delete the selected entry.
View	View the statistics of selected entry.

Management >> RMON >> Event

Add Event

Entry 1

Notification

☒ None
☐ Event Log
☐ Trap
☐ Event Log and Trap

Community Default Community

Description Default Description

Owner Test

Apply Close

Item	Description
Entry	The index number of entry.
Notification	Indicates the notification of the event, the possible types are: None: No SNMP log is created; no SNMP trap is sent. Event Log: Create SNMP log entry when the event is triggered. Trap: Send SNMP trap when the event is triggered. Event Log and Trap: Create SNMP log entry and sent SNMP trap when the event is triggered.
Community	Specify the community when trap is sent.
Description	Indication of this event.
Owner	Enter the name of owner.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

17.5.4. Alarm

This page allows to configure RMON Event table.

28-Port GbE Managed PoE Switch with 4 10G SFP+ Uplinks

[Save](#) | [Logout](#) | [Reboot](#)

Management >> RMON >> Alarm

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
 - User Account
 - Firmware
 - Configuration
 - SNMP
 - Statistics
 - History
 - Event
 - Alarm**
 - Loop Prevention

Alarm Table

Showing All entries
 Showing 0 to 0 of 0 entries

	Entry	Port	Counter		Sampling	Interval	Owner	Trigger	Rising		Falling	
			Name	Value					Threshold	Event	Threshold	Event
0 results found.												

[First](#)
[Previous](#)
[1](#)
[Next](#)
[Last](#)

The SNMP service is currently disabled.
 For RMON configuration to be effective, the [SNMP service](#) must be enabled.

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

Item	Description
Add	Add a new entry.
Edit	Edit the existing entry.
Delete	Delete the selected entry.

Add Alarm

Entry	1
Port	GE1
Counter	Drop Events
Sampling	<input checked="" type="radio"/> Absolute <input type="radio"/> Delta
Interval	100 Sec (1 - 2147483647, default 100)
Owner	
Trigger	<input checked="" type="radio"/> Rising <input type="radio"/> Falling <input type="radio"/> Rising and Falling
Rising	
Threshold	100 (0 - 2147483647, default 100)
Event	1 - Default Description
Falling	
Threshold	20 (0 - 2147483647, default 20)
Event	1 - Default Description

Item	Description
Entry	The index number of entry.
Port	Select the port which wants to be monitored.
Counter	Indicates the particular variable to be sampled.
Sampling	<p>The method of sampling the selected variable and calculating the value to be compared against the thresholds, possible sample types are:</p> <p>Absolute: Get the sample directly.</p> <p>Delta: Calculate the difference between samples (default).</p>
Interval	Indicates the interval in seconds for sampling and comparing the rising and falling threshold. The range is from 1 to 2 ³¹ -1. Default is 100.
Owner	Enter the name of owner.
Trigger	The method of sampling the selected variable and calculating the value to be compared against the thresholds, possible

	<p>sample types are:</p> <p>Rising: Trigger alarm when the first value is larger than the rising threshold.</p> <p>Falling: Trigger alarm when the first value is less than the falling threshold.</p> <p>Rising and Falling: Trigger alarm when the first value is larger than the rising threshold or less than the falling threshold.</p>
Rising	
Threshold	Rising threshold value (-2147483648-2147483647).
Event	Rising event index.
Falling	
Threshold	Falling threshold value (-2147483648-2147483647)
Event	Falling event index.
Apply	Apply the settings to the switch.
Close	Close the setting page and back to previous page.

18 Loop Prevention

18.1 Property

This page allows to Enable Loop Prevention.

The screenshot displays the web interface of a Proscend 28-Port GbE Managed PoE Switch. The top header bar includes the Proscend logo and the device name. On the right side of the header, there are links for 'Save', 'Logout', and 'Reboot'. A left-hand navigation menu lists various configuration categories, with 'Loop Prevention' currently selected. The main content area is titled 'Loop Prevention >> Property'. Within this area, there is a 'State' label followed by an unchecked checkbox and the text 'Enable'. Below this, there is an 'Apply' button. At the bottom of the left navigation menu, 'Property' and 'Status' are listed as sub-options under 'Loop Prevention'.

18.2 Status

This page allows check loop state of each port.

Loop Prevention >> Status

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Routing
- Security
- ACL
- QoS
- Diagnostics
- Management
- **Loop Prevention**

Property

Status

Loop Prevention Show State Table

Q

Entry	Port	Loop 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	TE1	Normal
26	TE2	Normal
27	TE3	Normal
28	TE4	Normal

Note:

1. Looping port is **blocking** and cannot receive and transmit packet
2. Looping port will be **auto recovery** when looping dismissed