

850G-12PI
Industrial 12-Port GbE
Managed PoE Switch with 4 GbE SFP Uplinks

User Manual

Version 1.00

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1 Introduction

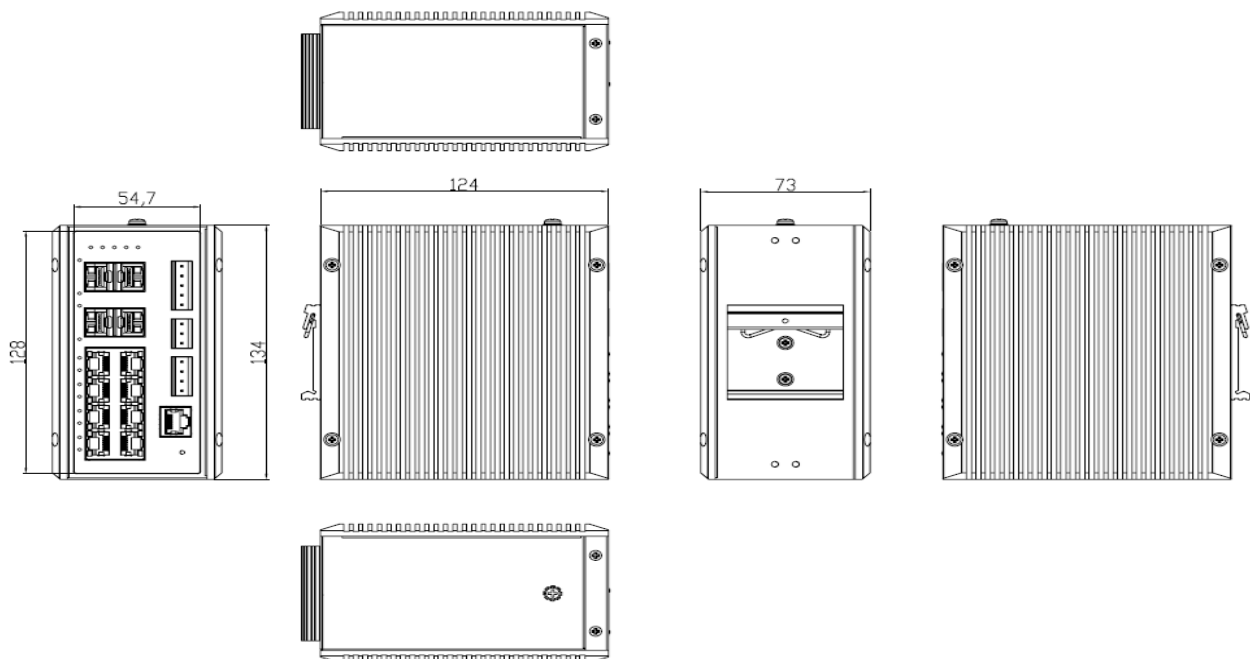
Proscend 850G-12PI Industrial Ethernet Switch features friendly manageability in full Gigabit Ethernet networks, as well as 1000Mbps Ethernet speed over copper and fiber for enabling quality of services, network security, and resilience. As a result, the 850G-12PI is the perfect solution for reducing network response time for mission-critical applications such as video security, transportation, energy, etc.

The 850G-12PI features 8 Gigabit PoE ports, each of the 10/100/1000Base-T ports with Power-over-Ethernet power source is IEEE802.3af/at compliant and provides an additional 4 SFP slots are used to work with SFP (Small form-factor pluggable) fiber transceivers to scale out modern industrial networks with the ring, daisy chain, or tree topologies.

1.1 Features

- Operating temperature -40°C ~ 75°C
- Support IEEE 802.3at/af PoE
- Support ERPS Ring failover protection
- Support Spanning Tree Protocol STP/RSTP/MSTP.
- Support IPv6 manageable
- Support Jumbo frames
- DIN-rail mounted

1.2 Dimensions



1.3 Specifications

| | |
|--|--|
| <p>Interfaces</p> <ul style="list-style-type: none">■ 8 x 10/100/1000BASE-T (RJ45)■ 4 x 100FX/GbE SFP■ 1 x RJ45 console port■ 1 x Reset button■ 1 x 5-pin Terminal Block for Power in■ 1 x 3-pin Terminal Block for DO■ 1 x 4-pin Terminal Block for DI <p>Network Resilience</p> <ul style="list-style-type: none">■ IEEE 802.1D STP, IEEE 802.1w RSTP, IEEE 802.1s MSTP■ LACP: Static trunk <p>Protocols & Security</p> <ul style="list-style-type: none">■ Port-based VLAN■ IEEE 802.1ab Link Layer Discovery Protocol (LLDP)■ IEEE 802.1p QoS, IGMP snooping, 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 <p>Mechanical</p> <ul style="list-style-type: none">■ Dimension (H x D x W): 134 x 124 x 73 mm■ Weight: 1000g■ DIN-rail and Wall mounted■ Aluminum & Metal: IP40 | <p>Management</p> <ul style="list-style-type: none">■ Web-based Management, HTTP/HTTPS, Console, CLI, Telnet, SSH■ SNMP v1, v2c, v3, Syslog■ HTTP/TFTP firmware upgrade■ SNTP■ PoE scheduling, power control <p>Power</p> <ul style="list-style-type: none">■ Input: 48V~57VDC, 4.95A (Max)■ System power consumption: 13 W■ PoE Power Budget: 240W <p>LED Indicators</p> <ul style="list-style-type: none">■ Power input, System Alarm■ Ethernet LAN Port Link & Speed, SFP Port Link■ PoE power output <p>Environment & Regulatory Compliance</p> <ul style="list-style-type: none">■ Operation temperature: -40 to +75°C■ Storage temperature: -40 to +85 °C■ Humidity (non-condensing): 10 to 95% RH EMC Class A■ Emission (EMI/EMS): CE/FCC class A,■ EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8■ Safety: ETL EN62368■ Shock: IEC60068-2-27■ Freefall: IEC60068-2-32■ Vibration: IEC60068-2-6■ MTBF: > 1,000,000 hours@25 degree C <p>Standards and Certifications</p> <ul style="list-style-type: none">■ CE&UKCA■ FCC |
|--|--|

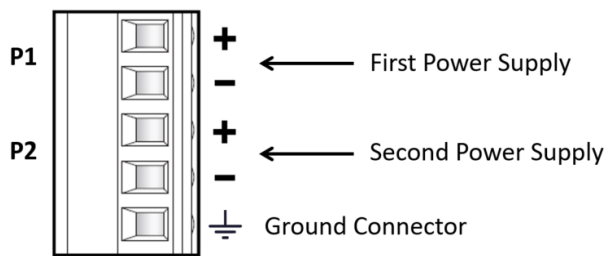
2 Hardware Installation

This chapter introduces how to install and connect the hardware.

2.1 Connecting Power

The 850G-12PI Industrial Ethernet PoE Switch can be powered from two power supplies (input range 48~57 VDC). Two power supplies are in front of the switch.

Insert the positive and negative wires (AWG 20-28) into V+ and V- contacts on the terminal block respectively and use a flat-head screwdriver to push in and open the wire clamp.

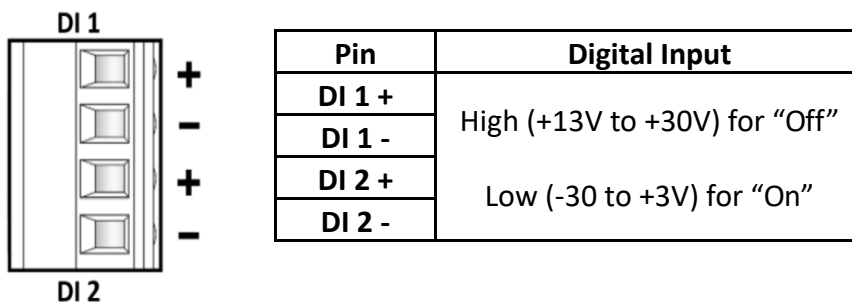


⚠ WARNING

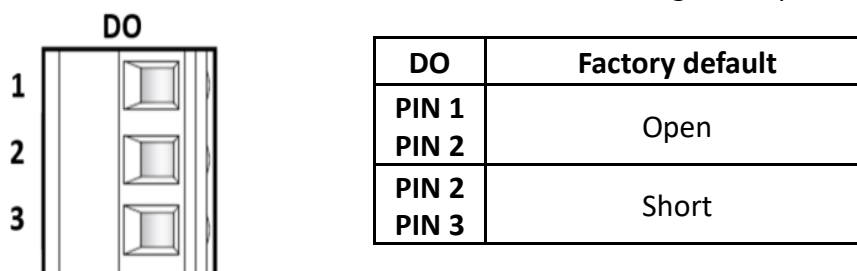
The DC power should be connected to a well-fused power supply.

2.2 Connecting I/O Ports

There are four terminals on the terminal block for digital inputs.




There are three terminals on the terminal block for digital output.



NOTE: DO configuration (Open/Short) can be reversed (Short/Open) from the UI.

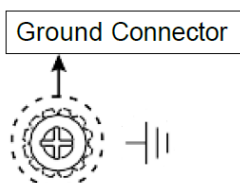
2.3 Reset Button

RESET 

| Function | Operation |
|--------------------------|---|
| Reset | Press the button for 3second. |
| Reset to default setting | Press the button for more than 6 seconds. |


2.4 Ground Connector

The switch must be properly grounded for optimum system performance.



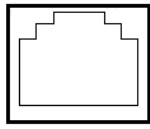
2.5 LED Indicators

The following table explains the LED indicators on the front panel.

| LED | Color | Description |
|---|-----------|---------------------------------------|
| P1 | On: Green | Power on. |
| | Off | Power off. |
| P2 | On: Green | Power on. |
| | Off | Power off. |
| ALM | On: Red | One of the two powers is abnormal |
| | Off | The system is operating normally. |
| PoE | On: Green | Over PoE max power budget. |
| | Off | Below PoE max power budget. |
| SYS | On: Green | System is ready. |
| | Blinking | System is booting up. |
| | Off | No power |
| 1~8 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. |
|  | On: Green | PoE PD (Powered Device) connected. |
| | Off | PoE PD (Powered Device) disconnected. |
| 9~12 SFP Port UPLINK | On: Green | LINK UP at 100/1000Mbps. |
| | Blinking | Traffic detected. |
| | Off | LINK DOWN. |

2.6 Console Connection

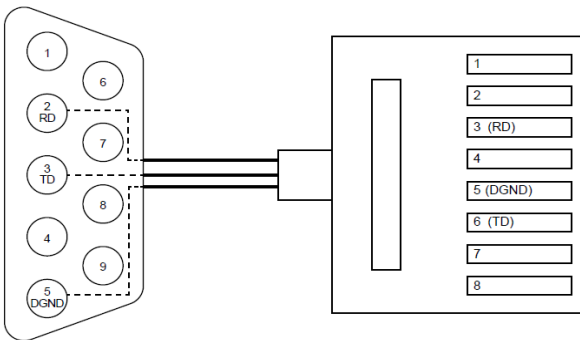
The console port on the front panel is for local management by using a terminal emulator or a computer with terminal emulation software.



CONSOLE

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

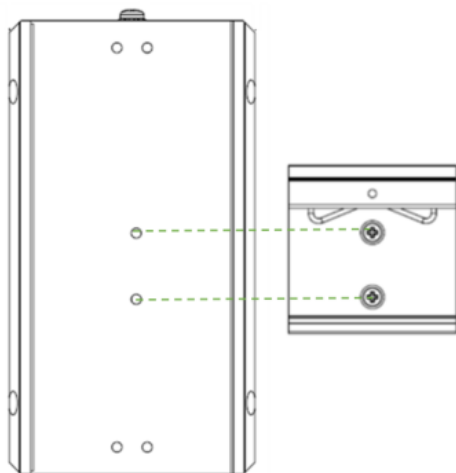
To connect the host PC to the console port, a RJ45 (male) connector-to-RS232 DB9 (female) connector cable is used. The RJ45 connector of the cable is connected to the console port of the switch, the DB9 connector of the cable is connected to the PC COM port. The pin assignment of the console cable is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



NOTE: The console cable is not included in the package.

2.7 DIN-rail Mounting

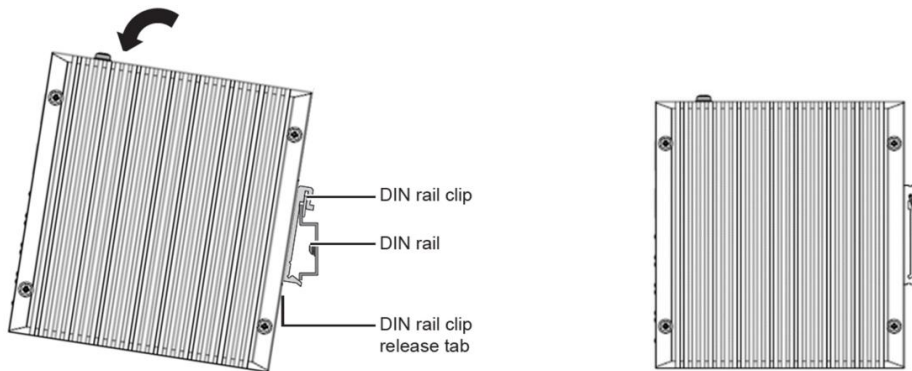
STEP 1: Use the screws to install the DIN-rail kit to attach at the rear side of the switch.



NOTE: The type of screw is flat head M3 x 6mm.

STEP 2: Hook the unit onto the DIN-rail.

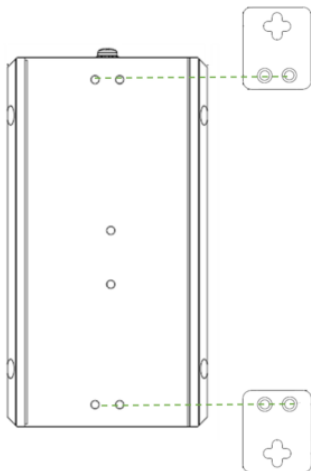
STEP 3: Push the bottom of the unit towards the DIN-rail until it locks in place.



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

2.8 Wall Mounting

Use the screws to install the wall-mounting kit to attach at the rear side of the switch.



NOTE: For all switches (Non-PoE and PoE Series), the operation of wall mounting is the same

The type of screw is flat head M3 x 6mm.

2.9 Web Interface Connect & Login

1. Factory default IP: 192.168.1.1
2. Login with default account and password.

Username: root

Password: 2wsx#EDC

2.10 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 exit
```

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 unsaved change in the configuration will be lost.

3.2 Login

This section provide instruction to 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: root |
| Password | Login user password. The maximum length is 32. Default: 2wsx#EDC |

The image shows a login interface on a light blue background. At the top center is the word "Login" in a large, bold, black font. Below it, there are two input fields: "Username:" followed by a white rectangular box with a black border, and "Password:" followed by a similar white rectangular box with a black border. Below these fields is a button with a blue gradient and the word "LOGIN" in white capital letters.

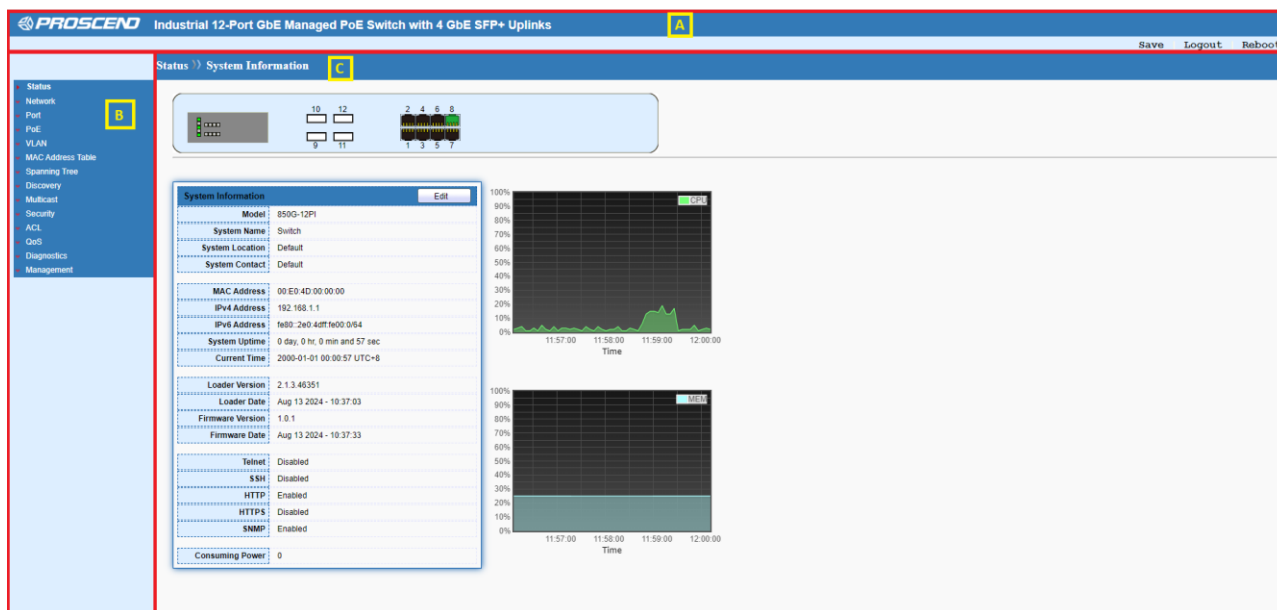
| Item | Description |
|----------|---|
| Username | Login username. The maximum length is 32. Default: root |
| Password | Login user password. The maximum length is 32. Default: 2wsx#EDC |

3.3 Navigation

The main screen is divided into three parts as below.

 - Title Bar,  - Navigation Panel and  - Main Window.

The menu items are divided into main and sub menu to configure the settings and get the status of connectivity on the navigation panel.



(1) **A** : Title Bar

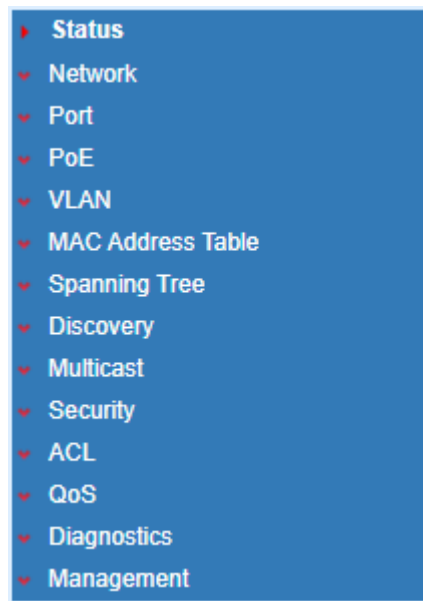
The title bar provides Save, Logout and reboot.



| Item | Description |
|--------|--|
| Save | All configuration should be saved in order to prevent reset after switch reboot. |
| Logout | Logout from the switch. |
| Reboot | Reboot the system and unsaved change in the configuration will be lost. |

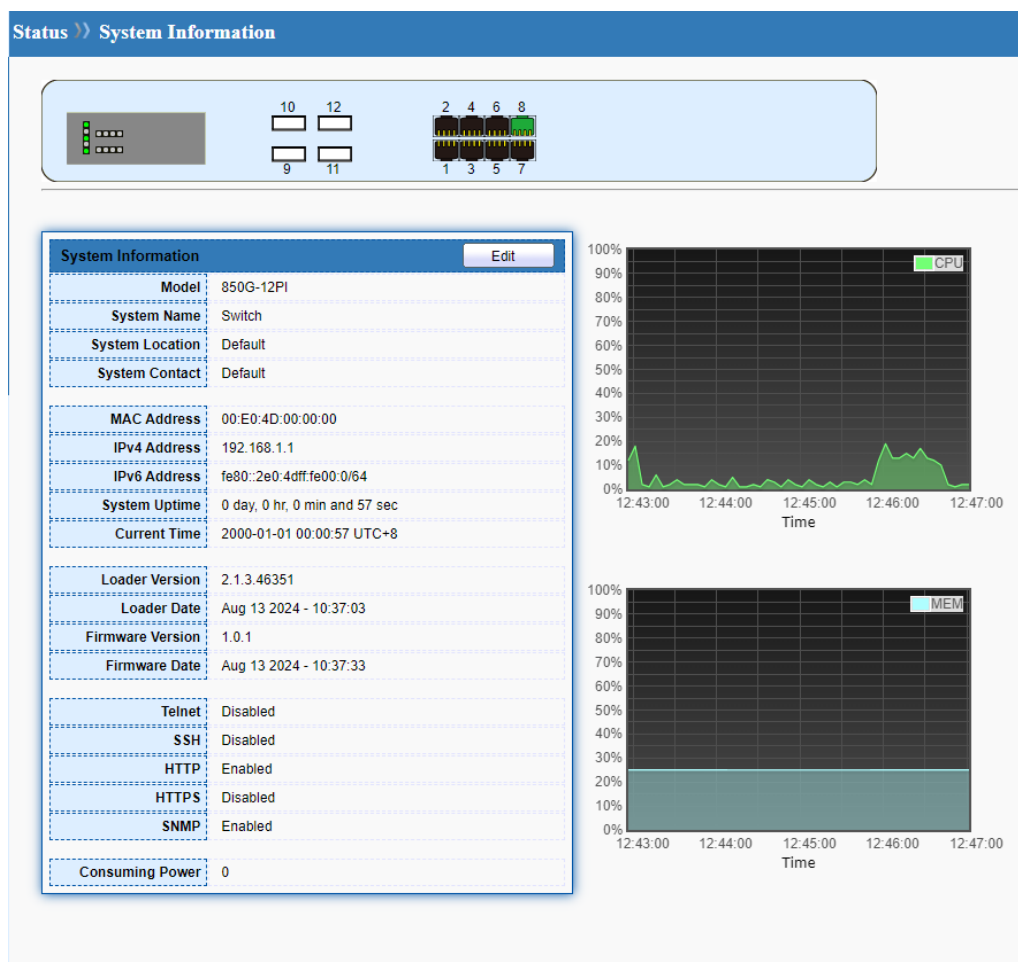
(2) **B** : Navigation Panel-Main Menu and Sub Menu

The menu items are divided into main and sub menu to configure the settings and get the status of connectivity on the navigation panel.



(3) C : Main Window

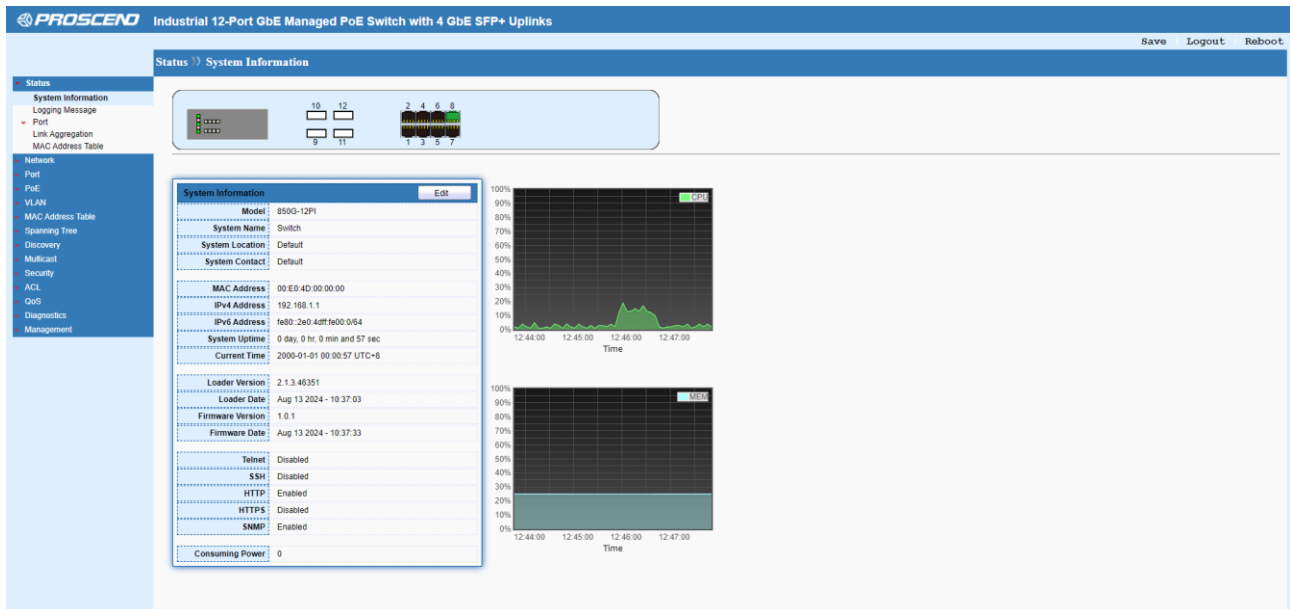
This section shows the information or setting fields from main menu and sub menu.



4 Status

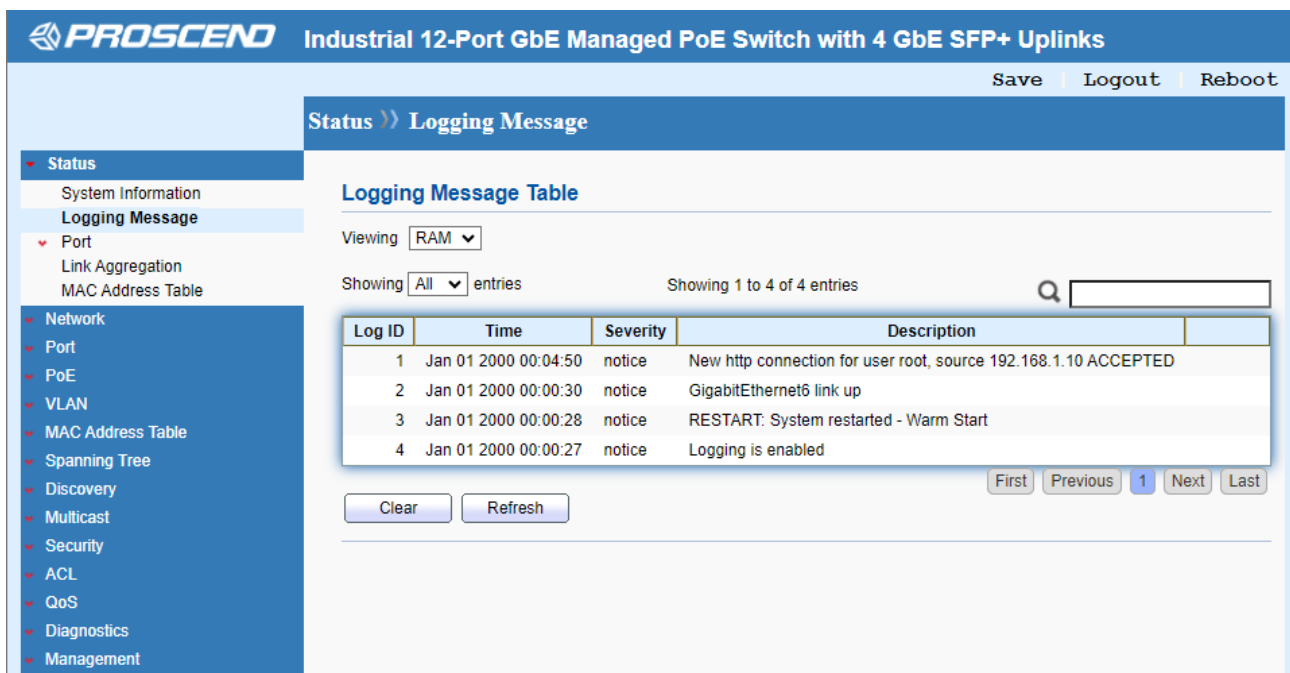
4.1 System Information

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.



4.3 Port

4.3.1 Statistics

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

 **Industrial 12-Port GbE Managed PoE Switch with 4 GbE 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

Security

ACL

QoS

Diagnostics

Management

Port

GE1

MIB Counter

☒ All

☐ Interface

☐ Etherlike

☐ RMON

Refresh Rate

☐ None

☐ 5 sec

☒ 10 sec

☐ 30 sec

Clear

Interface

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

Etherlike

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

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
 - ▼ Security
 - ▼ ACL
 - ▼ QoS
 - ▼ Diagnostics
 - ▼ Management

| | |
|----------------------------------|---|
| 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 | 0 |
| etherStatsPkts | 0 |
| etherStatsBroadcastPkts | 0 |
| etherStatsMulticastPkts | 0 |
| etherStatsCRCAlignErrors | 0 |
| etherStatsUnderSizePkts | 0 |
| etherStatsOverSizePkts | 0 |
| etherStatsFragments | 0 |
| etherStatsJabbers | 0 |
| etherStatsCollisions | 0 |
| etherStatsPkts64Octets | 0 |
| etherStatsPkts65to127Octets | 0 |
| etherStatsPkts128to255Octets | 0 |
| etherStatsPkts256to511Octets | 0 |
| etherStatsPkts512to1023Octets | 0 |
| etherStatsPkts1024to1518Octets | 0 |

4.3.2 Error Disabled

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

Industrial 12-Port GbE Managed PoE Switch with 4 GbE 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

Security

ACL

QoS

Diagnostics

Management

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"/> | 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.

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

Status >> Port >> Bandwidth Utilization

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

Security

ACL

QoS

Diagnostics

Management

Refresh Rate: 5 sec

Transmit (%)

GE12

GE11

GE10

GE9

GE8

GE7

GE6

GE5

GE4

GE3

GE2

GE1

0%

10%

20%

30%

40%

50%

60%

70%

80%

90%

100%

Receive (%)

GE12

GE11

GE10

GE9

GE8

GE7

GE6

GE5

GE4

GE3

GE2

GE1

0%

10%

20%

30%

40%

50%

60%

70%

80%

90%

100%

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20

4.4 Link Aggregation

This page displays status of each Link Aggregation port.

The screenshot shows the Proscend web interface for an Industrial 12-Port GbE Managed PoE Switch. The left sidebar contains a navigation menu with options like Status, Network, Port, PoE, VLAN, MAC Address Table, Spanning Tree, Discovery, Multicast, Security, ACL, QoS, Diagnostics, and Management. The main content area is titled 'Status >> Link Aggregation'. It features a 'Link Aggregation Table' with a search bar and a table listing LAG 1 through LAG 8. Each row shows the LAG name, its type, link status, and active/inactive members.

| 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 Switch.

The screenshot shows the Proscend web interface for an Industrial 12-Port GbE Managed PoE Switch. The left sidebar contains a navigation menu with options like Status, Network, Port, PoE, VLAN, MAC Address Table, Spanning Tree, Discovery, Multicast, Security, ACL, QoS, Diagnostics, and Management. The main content area is titled 'Status >> MAC Address Table'. It features a 'MAC Address Table' with a search bar, a dropdown menu to show all entries, and a table listing MAC addresses by VLAN, MAC address, type, and port. Below the table are 'Clear' and 'Refresh' buttons, and a pagination bar with 'First', 'Previous', '1', 'Next', and 'Last' buttons.


| VLAN | MAC Address | Type | Port |
|------|-------------------|------------|------|
| 1 | 00:E0:4D:00:00:00 | Management | CPU |
| 1 | F4:28:53:10:57:A1 | Dynamic | GE6 |

5 Network

This section allows you to setup map settings, neighbor devices and topology map.

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.

 Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save | Logout | Reboot

Network >> IP Address

Status

Network

IP Address

System Time

Port

PoE

VLAN

MAC Address Table

Spanning Tree

Discovery

Multicast

Security

ACL

QoS

Diagnostics

Management

IPv4 Address

Address Type

Static

Dynamic

IP Address

192.168.1.1

Subnet Mask

255.255.255.0

Default Gateway

192.168.1.254

DNS Server 1

168.95.1.1

DNS Server 2

168.95.192.1

IPv6 Address

Auto Configuration

Enable

DHCPv6 Client

Enable

IPv6 Address

Prefix Length

0

(0 - 128)

IPv6 Gateway

DNS Server 1

DNS Server 2

Operational Status

IPv4 Address

192.168.1.1

IPv4 Default Gateway

192.168.1.254

IPv6 Address

fe80::2e0:4dff:fe00:0/64

IPv6 Gateway

::

Link Local Address

fe80::2e0:4dff:fe00:0/64

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 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
 - System Time
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Security
- ACL
- QoS
- Diagnostics
- Management

Source

☐ SNTP
☐ From Computer
☒ Manual Time

Time Zone

UTC +8:00 ▼

SNTP

Address Type

☒ Hostname
☐ IPv4

Server Address

Server Port

123 (1 - 65535, default 123)

Manual Time

Date

2000-01-01 YYYY-MM-DD

Time

00:26:18 HH:MM:SS

Daylight Saving Time

Type

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

Offset

60 Min (1 - 1440, default 60)

Recurring

From: Day Sun ▼ Week First ▼ Month Jan ▼ Time
 To: Day Sun ▼ Week First ▼ Month Jan ▼ Time

Non-recurring

From: YYYY-MM-DD HH:MM
 To: YYYY-MM-DD HH:MM

Operational Status

Current Time

2000-01-01 00:26:18 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. |

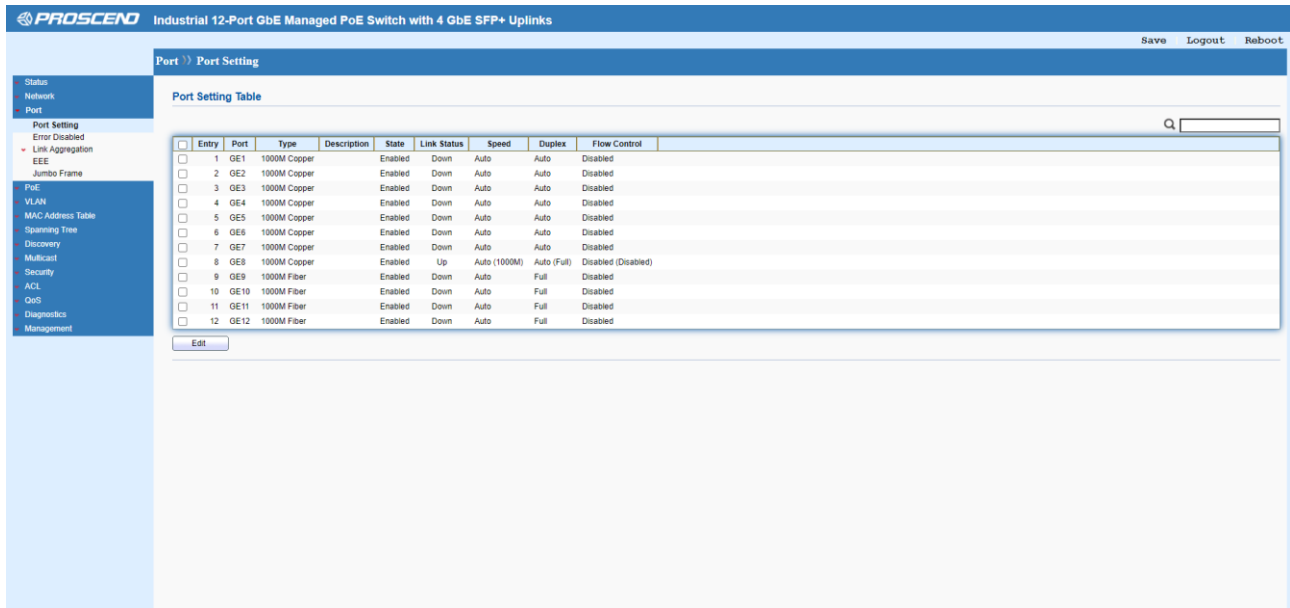
| | |
|----------------------|---|
| Manual Time | |
| Date | Enter the date. |
| Time | Enter the time. |
| Daylight Saving Time | |
| Type | <p>Select the type of daylight saving time.</p> <p>None: Disable daylight saving time.</p> <p>Recurring: Using recurring mode of daylight saving time.</p> <p>Non-Recurring: 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.



The screenshot shows the web interface of a Proscend Industrial 12-Port GbE Managed PoE Switch. The left sidebar contains a navigation menu with options: Status, Network, Port, Port Setting, Error Disabled, Link Aggregation, EEE, Jumbo Frame, PoE, VLAN, MAC Address Table, Spanning Tree, Discovery, Multicast, Security, ACL, QoS, Diagnostics, and Management. The main content area is titled 'Port >> Port Setting' and includes a 'Port Setting Table' with a search bar. The table lists 12 ports with their configurations.

| Entry | Port | Type | Description | State | Link Status | Speed | Duplex | Flow Control |
|--------------------------|------|------|--------------|---------|-------------|--------------|-------------|---------------------|
| <input type="checkbox"/> | 1 | GE1 | 1000M Copper | Enabled | Down | Auto | Auto | Disabled |
| <input type="checkbox"/> | 2 | GE2 | 1000M Copper | Enabled | Down | Auto | Auto | Disabled |
| <input type="checkbox"/> | 3 | GE3 | 1000M Copper | Enabled | Down | Auto | Auto | Disabled |
| <input type="checkbox"/> | 4 | GE4 | 1000M Copper | Enabled | Down | Auto | Auto | Disabled |
| <input type="checkbox"/> | 5 | GE5 | 1000M Copper | Enabled | Down | Auto | Auto | Disabled |
| <input type="checkbox"/> | 6 | GE6 | 1000M Copper | Enabled | Down | Auto | Auto | Disabled |
| <input type="checkbox"/> | 7 | GE7 | 1000M Copper | Enabled | Down | Auto | Auto | Disabled |
| <input type="checkbox"/> | 8 | GE8 | 1000M Copper | Enabled | Up | Auto (1000M) | Auto (Full) | Disabled (Disabled) |
| <input type="checkbox"/> | 9 | GE9 | 1000M Fiber | Enabled | Down | Auto | Full | Disabled |
| <input type="checkbox"/> | 10 | GE10 | 1000M Fiber | Enabled | Down | Auto | Full | Disabled |
| <input type="checkbox"/> | 11 | GE11 | 1000M Fiber | Enabled | Down | Auto | Full | Disabled |
| <input type="checkbox"/> | 12 | GE12 | 1000M Fiber | Enabled | Down | Auto | Full | Disabled |

Below the table is an 'Edit' button.

Edit Port Setting

| | | |
|--------------|--|-----------------------------|
| Port | GE1 | |
| Description | <input type="text"/> | |
| State | <input checked="" type="checkbox"/> Enable | |
| Speed | <input checked="" type="radio"/> Auto | <input type="radio"/> 10M |
| | <input type="radio"/> Auto - 10M | <input type="radio"/> 100M |
| | <input type="radio"/> Auto - 100M | <input type="radio"/> 1000M |
| | <input type="radio"/> Auto - 1000M | |
| | <input type="radio"/> Auto - 10M/100M | |
| | | |
| Duplex | <input checked="" type="radio"/> Auto <input type="radio"/> Full <input type="radio"/> Half | |
| Flow Control | <input type="radio"/> Auto <input type="radio"/> Enable <input checked="" type="radio"/> 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

PROSCEND Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save Logout Reboot

Port >> Error Disabled

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

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 |

Apply

| 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.

PROSCEND Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save Logout Reboot

Port >> Link Aggregation >> Group

Load Balance Algorithm

☒ MAC Address
☐ IP-MAC Address

Apply

Link Aggregation Table

| LAG | Name | Type | Link Status | Active Member | Inactive Member |
|-----------------------------|------|------|-------------|---------------|-----------------|
| <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 | <p>Select Load balance algorithm.</p> <p>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.</p> <p>IP-MAC Address: Aggregated group will balance the traffic</p> |

| | |
|-------|--|
| | 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 | <p>Edit the profile of Link Aggregation group.</p> <p>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.</p> |

The screenshot shows the 'Edit Link Aggregation Group' configuration interface. It includes fields for LAG index (1), Name, Type (Static, Active, Passive), and a Member section with Available Port and Selected Port lists. The 'Apply' and 'Close' buttons are at the bottom.

| 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</p> |

| | |
|--------|--|
| | <p>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.

The screenshot shows the web interface of a Proscend Industrial 12-Port GbE Managed PoE Switch. The breadcrumb navigation is "Port >> Link Aggregation >> Port Setting". The left sidebar contains a menu with "Port" expanded, showing "Port Setting" as the selected option. The main content area is titled "Port Setting Table" and contains a table with 10 columns: LAG, Type, Description, State, Link Status, Speed, Duplex, Flow Control, and an empty column. The table lists LAG 1 through LAG 8, all with "Enabled" state and "Down" link status. Below the table is an "Edit" button.

| 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 | |

| Item | Description |
|------|--------------------------------|
| Edit | Edit the settings of LAG port. |

Edit Port Setting

| | | |
|--------------|--|-----------------------------|
| Port | LAG1 | |
| Description | <input type="text"/> | |
| State | <input checked="" type="checkbox"/> Enable | |
| Speed | <input checked="" type="radio"/> Auto | <input type="radio"/> 10M |
| | <input type="radio"/> Auto - 10M | <input type="radio"/> 100M |
| | <input type="radio"/> Auto - 100M | <input type="radio"/> 1000M |
| | <input type="radio"/> Auto - 1000M | |
| | <input type="radio"/> Auto - 10M/100M | |
| | | |
| Flow Control | <input type="radio"/> Auto <input type="radio"/> Enable <input checked="" type="radio"/> 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.

PROSCEND

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save | Logout | Reboot

Port >> Link Aggregation >> LACP

Status

Network

Port

Port Setting

Error Disabled

Link Aggregation

Group

Port Setting

LACP

EEE

Jumbo Frame

PoE

VLAN

MAC Address Table

Spanning Tree

Discovery

Multicast

Security

ACL

QoS

Diagnostics

Management

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 |

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. |

Edit LACP Port Setting

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

Apply

Close

| 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.

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

Status

Network

Port

Port Setting

Error Disabled

Link Aggregation

EEE

Jumbo Frame

PoE

VLAN

MAC Address Table

Spanning Tree

Discovery

Multicast

Security

ACL

QoS

Diagnostics

Management

Port >> EEE

EEE Setting Table

| <input type="checkbox"/> | Entry | Port | State | Operational Status |
|--------------------------|-------|------|----------|--------------------|
| <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 |

Edit

Port >> EEE

Edit EEE Setting

Port

GE1

State

☐ 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.

The screenshot shows the Proscend web interface for an Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks. The top navigation bar includes 'Save', 'Logout', and 'Reboot' buttons. The left sidebar contains a menu with options: Status, Network, Port, Port Setting, Error Disabled, Link Aggregation, EEE, Jumbo Frame, PoE, VLAN, MAC Address Table, Spanning Tree, Discovery, Multicast, Security, ACL, QoS, Diagnostics, and Management. The 'Jumbo Frame' option is selected. The main content area is titled 'Port >> Jumbo Frame'. It features a 'Jumbo Frame' section with a checkbox labeled 'Enable' which is checked. Below the checkbox is a text input field containing '1522' and a label 'Byte (1518 - 10000, default 1522)'. An 'Apply' button is located below the input field.

| 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, Power Show, Power Passive PD Alive Check and Time Range.

7.1 Global Setting

PROSCEND Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save Logout Reboot

▼ Status

▼ Network

▼ Port

▼ PoE

Global Setting

Power Show

Power Passive

PD Alive Check

Time Range

▼ VLAN

▼ MAC Address Table

▼ Spanning Tree

▼ Discovery

▼ Multicast

▼ Security

▼ ACL

▼ QoS

▼ Diagnostics

▼ Management

PoE >> Global Setting

Nominal Power

Consuming Power

Remaining Power

Schedule Status

240 W

0 W

240 W

Disable ▼

Apply

PoE Schedule Table

Q

| <input type="checkbox"/> | Index | Name | Port List | Schedule Status |
|--------------------------|-------|------|-----------|-----------------|
| <input type="checkbox"/> | 1 | None | | Disable |
| <input type="checkbox"/> | 2 | None | | Disable |
| <input type="checkbox"/> | 3 | None | | Disable |
| <input type="checkbox"/> | 4 | None | | Disable |
| <input type="checkbox"/> | 5 | None | | Disable |
| <input type="checkbox"/> | 6 | None | | Disable |
| <input type="checkbox"/> | 7 | None | | Disable |
| <input type="checkbox"/> | 8 | None | | Disable |
| <input type="checkbox"/> | 9 | None | | Disable |
| <input type="checkbox"/> | 10 | None | | Disable |
| <input type="checkbox"/> | 11 | None | | Disable |
| <input type="checkbox"/> | 12 | None | | Disable |
| <input type="checkbox"/> | 13 | None | | Disable |
| <input type="checkbox"/> | 14 | None | | Disable |
| <input type="checkbox"/> | 15 | None | | Disable |
| <input type="checkbox"/> | 16 | None | | Disable |
| <input type="checkbox"/> | 17 | None | | Disable |
| <input type="checkbox"/> | 18 | None | | Disable |
| <input type="checkbox"/> | 19 | None | | Disable |
| <input type="checkbox"/> | 20 | None | | Disable |
| <input type="checkbox"/> | 21 | None | | Disable |
| <input type="checkbox"/> | 22 | None | | Disable |
| <input type="checkbox"/> | 23 | None | | Disable |
| <input type="checkbox"/> | 24 | None | | Disable |

Edit

| Item | Description |
|-----------------|---|
| Nominal Power | Total PoE power budget of the device can be configured Max Power Limit Range is 240 (W). |
| Consuming Power | Displays the total consuming power for all the PDs. |
| Remaining Power | Displays the Remaining power for all the PDs. |

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| | |
|-----------------|--------------------------------|
| Schedule Status | Enable/Disable schedule status |
|-----------------|--------------------------------|

PoE Schedule Edit

Index
1
Schedule Status
☐ Enable
Name
None

Port List

2 4 6 8

1 3 5 7

☒ Enable
☐ Disable

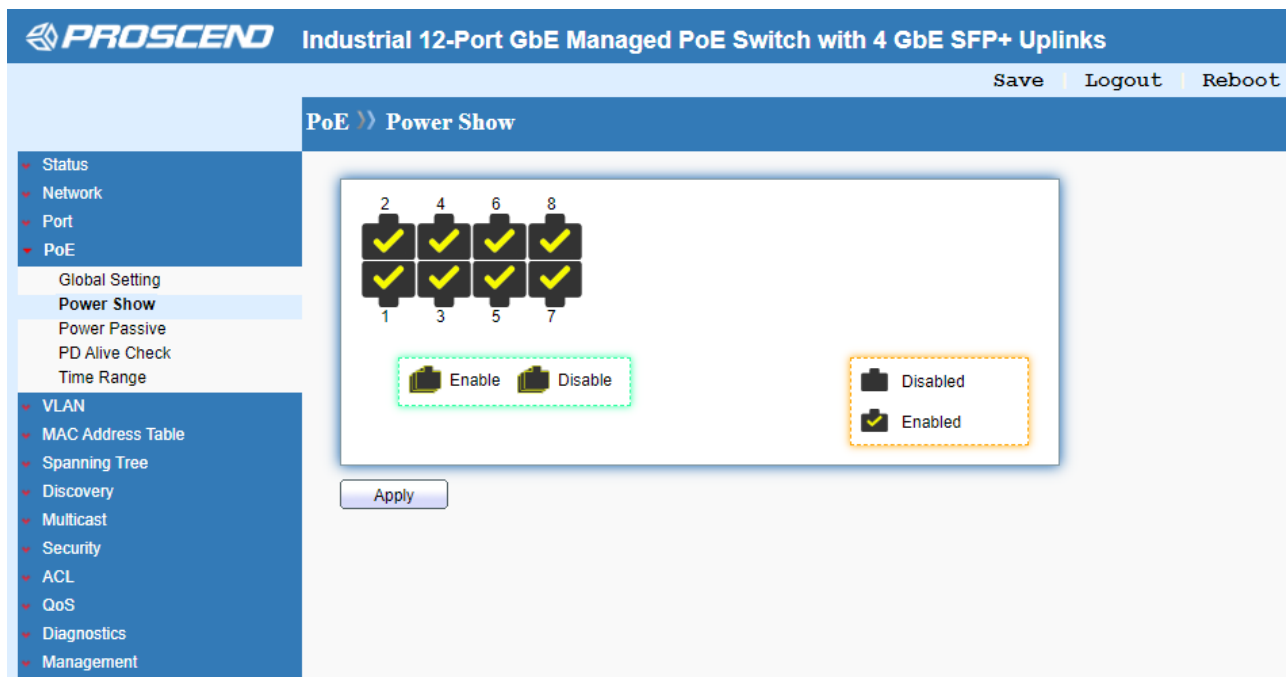
☐ Port No Select
☒ Port Select

Apply
Close

| Item | Description |
|-----------------|---|
| Index | Index of PoE schedule table. |
| Schedule Status | Enable/Disable schedule status. |
| Name | Name of schedule status name. |
| 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. |

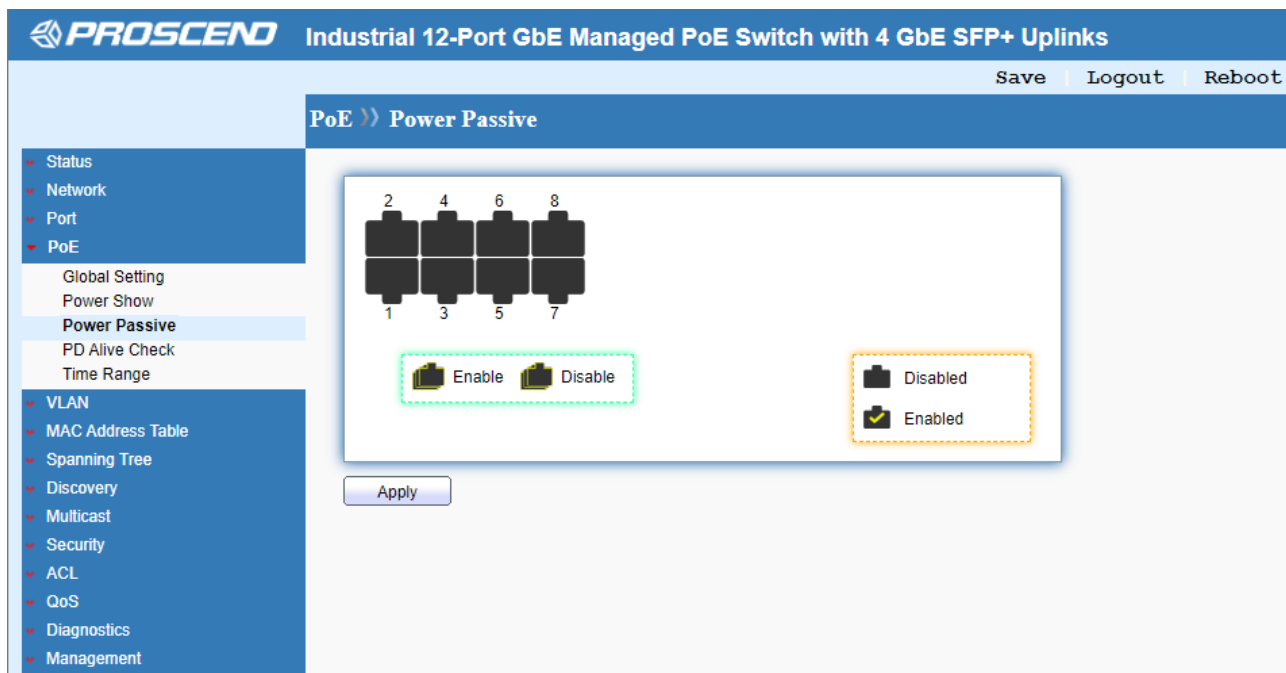
7.2 Power Show

This page displays the current PoE mode of all ports.



7.3 Power Passive

This page displays the current passive status of all ports and allow user to configure passive PoE(30W) mode of selected port.



7.4 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.

PROSCENO

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save

Logout

Reboot

Status

Network

Port

PoE

Global Setting

Power Show

Power Prio

PD Alive Check

Time Range

VLAN

MAC Address Table

Spanning Tree

Discovery

Multicast

Security

ACL

QoS

Diagnostics

Management

PoE >> PD Alive Check

PD Alive Check Table

Q

| <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 | |

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) |

| 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 | The action to the Power Device when the system detects that the Power Device cannot respond the keep-a-live probe packet. |

| | |
|-------------|--|
| | <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. |

7.5 Time Range

This page allow a user to add schedule status.

The screenshot shows the web interface for a Proscend Industrial 12-Port GbE Managed PoE Switch. The top navigation bar includes 'Save', 'Logout', and 'Reboot' buttons. The left sidebar contains a menu with options: Status, Network, Port, PoE, Global Setting, Power Show, Power Passive, PD Alive Check, Time Range, VLAN, MAC Address Table, Spanning Tree, Discovery, Multicast, Security, ACL, QoS, Diagnostics, and Management. The main content area is titled 'PoE >> Time Range'. It features a search bar with a magnifying glass icon and a text input field. Below the search bar is a table with columns: Range Name, Days, Start Time, End Time, and a search icon. The table currently shows '0 results found.' Below the table are three buttons: 'Add', 'Edit', and 'Delete'.

The screenshot shows the 'Time Range Add' dialog box. It has a dashed border and contains the following fields:

- Range Name:** A text input field with the value 'Name_Default'.
- Date:** A section containing:
 - Day selection: Radio buttons for Mon, Tue, Wed, Thu, Fri, Sat, and Sun.
 - Time range: Two text input fields labeled 'From' and 'to', with values '01:00' and '23:00' respectively.

 At the bottom of the dialog are two buttons: 'Apply' and 'Close'.

| Item | Description |
|------------|---|
| Range Name | Name of range. |
| Date | Week: Enables/Disables the PD Alive Check. Time: User can configure the PoE Schedule time from 0 to 24 Hrs |
| 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.

PROSCEND Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save | Logout | Reboot

VLAN >> VLAN >> Create VLAN

VLAN

Available VLAN: VLAN 2, VLAN 3, VLAN 4, VLAN 5, VLAN 6, VLAN 7, VLAN 8, VLAN 9

Created VLAN: VLAN 1

Apply

VLAN Table

Showing All entries Showing 1 to 1 of 1 entries

| <input type="checkbox"/> | VLAN | Name | Type |
|--------------------------|------|---------|---------|
| <input type="checkbox"/> | 1 | default | Default |

Edit Delete

First Previous 1 Next Last

| 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.

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

VLAN >> VLAN >> VLAN Configuration

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

VLAN Configuration Table

VLAN default ▼


| Entry | Port | Mode | Membership | | | PVID | |
|-------|------|-------|--------------------------------|---------------------------------|------------------------------|---|-------------------------------------|
| 1 | GE1 | Trunk | <input type="radio"/> Excluded | <input type="radio"/> Forbidden | <input type="radio"/> Tagged | <input checked="" type="radio"/> Untagged | <input checked="" type="checkbox"/> |
| 2 | GE2 | Trunk | <input type="radio"/> Excluded | <input type="radio"/> Forbidden | <input type="radio"/> Tagged | <input checked="" type="radio"/> Untagged | <input checked="" type="checkbox"/> |
| 3 | GE3 | Trunk | <input type="radio"/> Excluded | <input type="radio"/> Forbidden | <input type="radio"/> Tagged | <input checked="" type="radio"/> Untagged | <input checked="" type="checkbox"/> |
| 4 | GE4 | Trunk | <input type="radio"/> Excluded | <input type="radio"/> Forbidden | <input type="radio"/> Tagged | <input checked="" type="radio"/> Untagged | <input checked="" type="checkbox"/> |
| 5 | GE5 | Trunk | <input type="radio"/> Excluded | <input type="radio"/> Forbidden | <input type="radio"/> Tagged | <input checked="" type="radio"/> Untagged | <input checked="" type="checkbox"/> |
| 6 | GE6 | Trunk | <input type="radio"/> Excluded | <input type="radio"/> Forbidden | <input type="radio"/> Tagged | <input checked="" type="radio"/> Untagged | <input checked="" type="checkbox"/> |
| 7 | GE7 | Trunk | <input type="radio"/> Excluded | <input type="radio"/> Forbidden | <input type="radio"/> Tagged | <input checked="" type="radio"/> Untagged | <input checked="" type="checkbox"/> |
| 8 | GE8 | Trunk | <input type="radio"/> Excluded | <input type="radio"/> Forbidden | <input type="radio"/> Tagged | <input checked="" type="radio"/> Untagged | <input checked="" type="checkbox"/> |
| 9 | GE9 | Trunk | <input type="radio"/> Excluded | <input type="radio"/> Forbidden | <input type="radio"/> Tagged | <input checked="" type="radio"/> Untagged | <input checked="" type="checkbox"/> |
| 10 | GE10 | Trunk | <input type="radio"/> Excluded | <input type="radio"/> Forbidden | <input type="radio"/> Tagged | <input checked="" type="radio"/> Untagged | <input checked="" type="checkbox"/> |
| 11 | GE11 | Trunk | <input type="radio"/> Excluded | <input type="radio"/> Forbidden | <input type="radio"/> Tagged | <input checked="" type="radio"/> Untagged | <input checked="" type="checkbox"/> |
| 12 | GE12 | Trunk | <input type="radio"/> Excluded | <input type="radio"/> Forbidden | <input type="radio"/> Tagged | <input checked="" type="radio"/> Untagged | <input checked="" type="checkbox"/> |
| 13 | LAG1 | Trunk | <input type="radio"/> Excluded | <input type="radio"/> Forbidden | <input type="radio"/> Tagged | <input checked="" type="radio"/> Untagged | <input checked="" type="checkbox"/> |
| 14 | LAG2 | Trunk | <input type="radio"/> Excluded | <input type="radio"/> Forbidden | <input type="radio"/> Tagged | <input checked="" type="radio"/> Untagged | <input checked="" type="checkbox"/> |
| 15 | LAG3 | Trunk | <input type="radio"/> Excluded | <input type="radio"/> Forbidden | <input type="radio"/> Tagged | <input checked="" type="radio"/> Untagged | <input checked="" type="checkbox"/> |
| 16 | LAG4 | Trunk | <input type="radio"/> Excluded | <input type="radio"/> Forbidden | <input type="radio"/> Tagged | <input checked="" type="radio"/> Untagged | <input checked="" type="checkbox"/> |
| 17 | LAG5 | Trunk | <input type="radio"/> Excluded | <input type="radio"/> Forbidden | <input type="radio"/> Tagged | <input checked="" type="radio"/> Untagged | <input checked="" type="checkbox"/> |
| 18 | LAG6 | Trunk | <input type="radio"/> Excluded | <input type="radio"/> Forbidden | <input type="radio"/> Tagged | <input checked="" type="radio"/> Untagged | <input checked="" type="checkbox"/> |
| 19 | LAG7 | Trunk | <input type="radio"/> Excluded | <input type="radio"/> Forbidden | <input type="radio"/> Tagged | <input checked="" type="radio"/> Untagged | <input checked="" type="checkbox"/> |
| 20 | LAG8 | Trunk | <input type="radio"/> Excluded | <input type="radio"/> Forbidden | <input type="radio"/> Tagged | <input checked="" type="radio"/> Untagged | <input checked="" type="checkbox"/> |

Apply

| Item | Description |
|------------|---|
| VLAN | Configure the VLAN settings of selected VLAN ID. |
| Membership | <p>Excluded: Specify the VLAN profile excluded in the VLAN.</p> <p>Forbidden: Specify the VLAN profile forbidden in the VLAN.</p> <p>Tagged: Specify the VLAN profile tagged in the VLAN.</p> <p>Untagged: Specify the VLAN profile untagged in the VLAN.</p> |
| 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.


Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

VLAN » VLAN » Membership

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

Membership Table

| | 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 | LAG1 | Trunk | 1UP | 1UP |
| <input type="radio"/> | 14 | LAG2 | Trunk | 1UP | 1UP |
| <input type="radio"/> | 15 | LAG3 | Trunk | 1UP | 1UP |
| <input type="radio"/> | 16 | LAG4 | Trunk | 1UP | 1UP |
| <input type="radio"/> | 17 | LAG5 | Trunk | 1UP | 1UP |
| <input type="radio"/> | 18 | LAG6 | Trunk | 1UP | 1UP |
| <input type="radio"/> | 19 | LAG7 | Trunk | 1UP | 1UP |
| <input type="radio"/> | 20 | 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.

PROSCEND Industrial 12-Port GbE Managed PoE Switch with 4 GbE 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

Surveillance VLAN

GVRP

MAC Address Table

Spanning Tree

Discovery

Multicast

Security

ACL

QoS

Diagnostics

Management

Port Setting Table

Q

| <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 | LAG1 | Trunk | 1 | All | Enabled | Disabled | 0x8100 |
| <input type="checkbox"/> | 14 | LAG2 | Trunk | 1 | All | Enabled | Disabled | 0x8100 |
| <input type="checkbox"/> | 15 | LAG3 | Trunk | 1 | All | Enabled | Disabled | 0x8100 |
| <input type="checkbox"/> | 16 | LAG4 | Trunk | 1 | All | Enabled | Disabled | 0x8100 |
| <input type="checkbox"/> | 17 | LAG5 | Trunk | 1 | All | Enabled | Disabled | 0x8100 |
| <input type="checkbox"/> | 18 | LAG6 | Trunk | 1 | All | Enabled | Disabled | 0x8100 |
| <input type="checkbox"/> | 19 | LAG7 | Trunk | 1 | All | Enabled | Disabled | 0x8100 |
| <input type="checkbox"/> | 20 | LAG8 | Trunk | 1 | All | Enabled | Disabled | 0x8100 |

Edit

Edit Port Setting

| | |
|-------------------|---|
| Port | GE1 |
| Mode | <div><input type="radio"/> Hybrid</div> <div><input type="radio"/> Access</div> <div><input checked="" type="radio"/> Trunk</div> <div><input type="radio"/> Tunnel</div> |
| PVID | <div>1</div> <div>(1 - 4094)</div> |
| Accept Frame Type | <div><input checked="" type="radio"/> All</div> <div><input type="radio"/> Tag Only</div> <div><input type="radio"/> Untag Only</div> |
| Ingress Filtering | <div><input checked="" type="checkbox"/> Enable</div> |
| Uplink | <div><input type="checkbox"/> Enable</div> |
| TPID | <div>0x8100</div> |

Apply

Close

| Item | Description |
|-------------------|--|
| Edit | Edit the settings of the selected port. |
| Port | The index number of the selected port. |
| Mode | <p>Select the VLAN mode of the port.</p> <p>Hybrid: Support all functions as defined in IEEE 802.1Q specification.</p> <p>Access: Accept only untagged frames and join an untagged VLAN.</p> <p>Trunk: An untagged member of one VLAN at most, and is a tagged member of zero or more VLANs.</p> <p>Tunnel: Accept packets with tag stacking (double tagging) by following the 802.1Q-in-Q tunneling.</p> |
| PVID | <p>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.</p> <p>For port under Access Mode, VLAN ID provided as PVID would automatically be selected as the untagged VLAN.</p> |
| Accept Frame Type | <p>Specify the acceptable-frame-type of the specified interfaces. It's only available with Hybrid mode.</p> <p>All: Accept frames regardless it's tagged with 802.1q or not.</p> <p>Tag Only: Accept frames only with 802.1q tagged.</p> <p>Untag Only: Accept frames untagged.</p> |
| Ingress Filtering | <p>Enable or disable the Ingress Filtering function.</p> <p>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.</p> |
| 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 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.

PROSCEND Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save | Logout | Reboot

VLAN >> Voice VLAN >> Property

- Status
- Network
- Port
- PoE
- VLAN
 - VLAN
 - Voice VLAN
 - Property
 - Voice OUI
 - Protocol VLAN
 - MAC VLAN
 - Surveillance VLAN
 - GVRP
 - MAC Address Table
 - Spanning Tree
 - Discovery
 - Multicast
 - Security
 - ACL
 - QoS
 - Diagnostics
 - Management

State ☐ Enable

VLAN

None

CoS / 802.1p Remarking ☐ Enable

CoS / 802.1p Remarking

6

Port Aging Time

1440

 Min (30 - 65536, default 1440)

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

Apply

Port Setting Table

Q

| <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 | LAG1 | Disabled | Auto | Voice Packet |
| <input type="checkbox"/> | 14 | LAG2 | Disabled | Auto | Voice Packet |
| <input type="checkbox"/> | 15 | LAG3 | Disabled | Auto | Voice Packet |
| <input type="checkbox"/> | 16 | LAG4 | Disabled | Auto | Voice Packet |
| <input type="checkbox"/> | 17 | LAG5 | Disabled | Auto | Voice Packet |
| <input type="checkbox"/> | 18 | LAG6 | Disabled | Auto | Voice Packet |
| <input type="checkbox"/> | 19 | LAG7 | Disabled | Auto | Voice Packet |
| <input type="checkbox"/> | 20 | LAG8 | Disabled | Auto | Voice Packet |

Edit

| 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 displays the web management interface for a Proscend Industrial 12-Port GbE Managed PoE Switch. The breadcrumb navigation shows the path: VLAN >> Voice VLAN >> Voice OUI. The left sidebar contains a menu with categories like Status, Network, Port, PoE, VLAN, MAC Address Table, Spanning Tree, Discovery, Multicast, Security, ACL, QoS, Diagnostics, and Management. Under the VLAN category, the 'Voice OUI' option is selected. The main content area is titled 'Voice OUI Table' and shows a list of 8 pre-defined entries. Each entry consists of a checkbox, an OUI (e.g., 00:E0:BB), and a Description (e.g., 3COM). Below the table are buttons for 'Add', 'Edit', and 'Delete'. At the bottom right of the table, there are pagination controls: 'First', 'Previous', '1' (current page), 'Next', and 'Last'. The top right of the interface has links for 'Save', 'Logout', and 'Reboot'.

| | OUI | Description |
|--------------------------|----------|-------------|
| <input type="checkbox"/> | 00:E0:BB | 3COM |
| <input type="checkbox"/> | 00:03:6B | Cisco |
| <input type="checkbox"/> | 00:E0:75 | Veritel |
| <input type="checkbox"/> | 00:D0:1E | Pingtel |
| <input type="checkbox"/> | 00:01:E3 | Siemens |
| <input type="checkbox"/> | 00:60:B9 | NEC/Philips |
| <input type="checkbox"/> | 00:0F:E2 | H3C |
| <input type="checkbox"/> | 00:09:6E | Avaya |

VLAN >> Voice VLAN >> Voice OUI

Add Voice OUI

OUI

: : : 00 : 00 : 00

Description

NOTE:16 maximum user defined OUI allowed.

Apply

Close

| 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 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.

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

VLAN >> Protocol VLAN >> Protocol Group

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

Protocol Group Table

Showing All entries Showing 0 to 0 of 0 entries

| <input type="checkbox"/> | Group ID | Frame Type | Protocol Value |
|--------------------------|----------|------------|----------------|
| 0 results found. | | | |

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

VLAN >> Protocol VLAN >> Protocol Group

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. |

8.3.2 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.

The screenshot displays the web interface of a Proscend Industrial 12-Port GbE Managed PoE Switch. The top navigation bar includes the Proscend logo, the device 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, Security, ACL, QoS, Diagnostics, and Management. The main content area is titled 'VLAN >> Protocol VLAN >> Group Binding'. It features a 'Group Binding Table' section with a search bar and a table showing 0 results. The table has columns for Port, Group ID, and VLAN. Below the table are buttons for Add, Edit, and Delete, and a pagination control showing '1' of 1 pages.

Add Group Binding

Port

Available Port

Selected Port

>

<

Group ID

None ▾

VLAN

(1 - 4094)

Note: Only VLAN Hybrid port can be set Protocol VLAN

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 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 shows the Proscend web interface for an Industrial 12-Port GbE Managed PoE Switch. The breadcrumb navigation is VLAN >> MAC VLAN >> MAC Group. The left sidebar contains a menu with options like Status, Network, Port, PoE, VLAN, MAC Group, MAC Address Table, etc. 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'. There are also pagination controls showing 'First', 'Previous', '1', 'Next', and 'Last'.

The screenshot shows the 'Add MAC Group' dialog box. It contains three input fields: 'Group ID' with a value of '(1 - 2147483647)', 'MAC Address', and 'Mask' with a value of '(9 - 48)'. Below the input fields are two buttons: 'Apply' and 'Close'.

| 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.

The screenshot displays the web interface of a Proscend Industrial 12-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 the path: VLAN >> MAC VLAN >> Group Binding. On the left, a sidebar menu lists various configuration categories, with 'VLAN' expanded to show 'MAC VLAN' and 'Group Binding' selected. The main content area is titled 'Group Binding Table' and shows a search bar, a filter dropdown set to 'All', and a table with columns for Port, Group ID, and VLAN. The table currently displays '0 results found.' and includes 'Add', 'Edit', and 'Delete' buttons. Pagination controls at the bottom show 'First', 'Previous', '1' (current page), 'Next', and 'Last'.

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 Surveillance VLAN

Surveillance VLAN can be configured for the Switch to identify the packets coming from an IP camera automatically and assign those traffics to a specific VLAN ID and CoS/802.1p value, this helps you to prioritize those traffics and improve video quality.

8.5.1 Property

This page is for setting up the VLAN to which the video traffic should be assigned and to enable/disable Surveillance VLAN on each port.

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

VLAN » Surveillance VLAN » Property

- Status
- Network
- Port
- PoE
- VLAN
 - VLAN
 - Voice VLAN
 - Protocol VLAN
 - MAC VLAN
 - Surveillance VLAN
 - Property
 - Surveillance OUI
 - GVRP
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Security
- ACL
- QoS
- Diagnostics
- Management

State

☐ Enable

VLAN

None ▼

CoS / 802.1p
Remarking

☐ Enable
6 ▼

Port Aging Time

1440
Min (30 - 65536, default 1440)
Note: Aging Time = Port Aging Time + OUI Aging Time(30 mins)

Apply

Port Setting Table

| <input type="checkbox"/> | Entry | Port | State | Mode | QoS Policy |
|--------------------------|-------|------|----------|------|--------------|
| <input type="checkbox"/> | 1 | GE1 | Disabled | Auto | Video Packet |
| <input type="checkbox"/> | 2 | GE2 | Disabled | Auto | Video Packet |
| <input type="checkbox"/> | 3 | GE3 | Disabled | Auto | Video Packet |
| <input type="checkbox"/> | 4 | GE4 | Disabled | Auto | Video Packet |
| <input type="checkbox"/> | 5 | GE5 | Disabled | Auto | Video Packet |
| <input type="checkbox"/> | 6 | GE6 | Disabled | Auto | Video Packet |
| <input type="checkbox"/> | 7 | GE7 | Disabled | Auto | Video Packet |
| <input type="checkbox"/> | 8 | GE8 | Disabled | Auto | Video Packet |
| <input type="checkbox"/> | 9 | GE9 | Disabled | Auto | Video Packet |
| <input type="checkbox"/> | 10 | GE10 | Disabled | Auto | Video Packet |
| <input type="checkbox"/> | 11 | GE11 | Disabled | Auto | Video Packet |
| <input type="checkbox"/> | 12 | GE12 | Disabled | Auto | Video Packet |
| <input type="checkbox"/> | 13 | LAG1 | Disabled | Auto | Video Packet |
| <input type="checkbox"/> | 14 | LAG2 | Disabled | Auto | Video Packet |
| <input type="checkbox"/> | 15 | LAG3 | Disabled | Auto | Video Packet |
| <input type="checkbox"/> | 16 | LAG4 | Disabled | Auto | Video Packet |
| <input type="checkbox"/> | 17 | LAG5 | Disabled | Auto | Video Packet |
| <input type="checkbox"/> | 18 | LAG6 | Disabled | Auto | Video Packet |
| <input type="checkbox"/> | 19 | LAG7 | Disabled | Auto | Video Packet |
| <input type="checkbox"/> | 20 | LAG8 | Disabled | Auto | Video Packet |

Edit

Edit Port Setting

| | |
|------------|--|
| Port | GE5 |
| State | <input type="checkbox"/> Enable |
| Mode | <input checked="" type="radio"/> Auto <input type="radio"/> Manual |
| QoS Policy | <input checked="" type="radio"/> Video Packet <input type="radio"/> All |

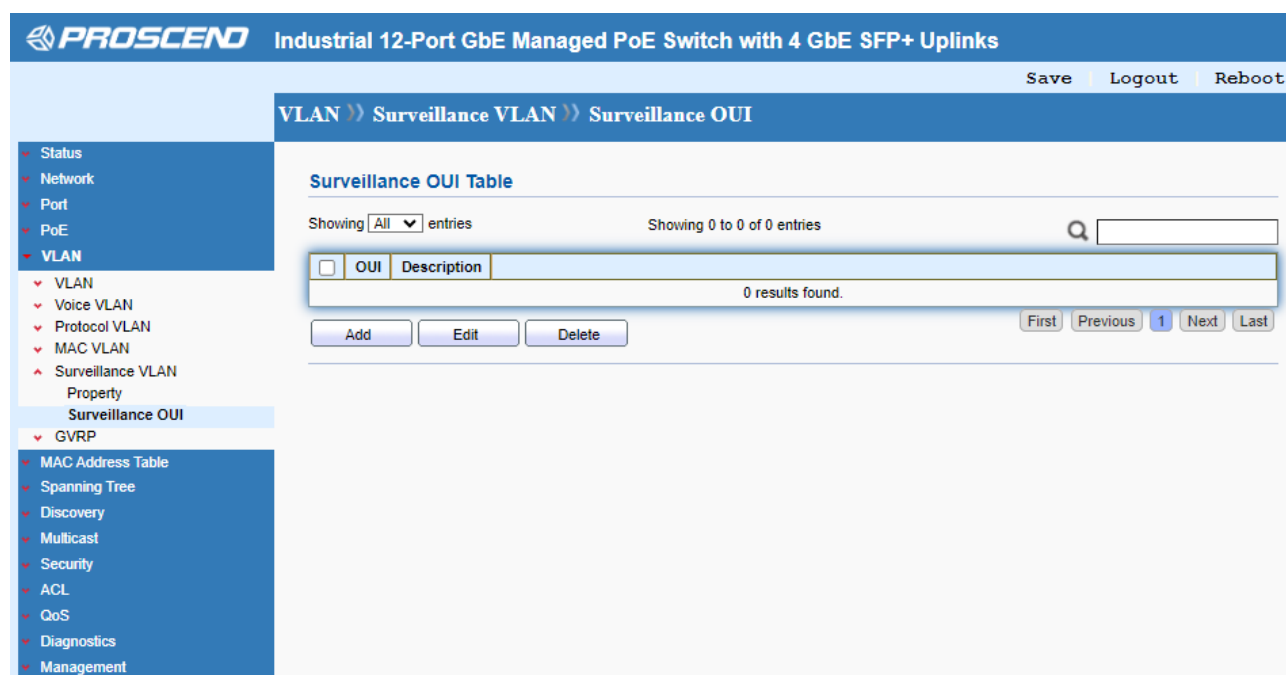
Apply Close

| Item | Description |
|---------------------------|--|
| State | Enable or disable the port settings for this function. |
| VLAN | Choose a VLAN profile (created in VLAN → Create VLAN) as Surveillance VLAN. |
| CoS / 802.1p Remarking | Specify the CoS/802.1p number you wish ingress packets be tagged with, so that QoS can prioritize it correctly. If enabled, the qualified packets will be remarked by this value. |
| Port Aging Time | Default is 1440. VLAN entry will be aged out after this time if no packet passes through. |
| Apply | Apply the settings to the switch. |
| Edit | Edit the existing entry. |
| Port | The index number of selected port. |
| State | Enable or disable surveillance VLAN function of the port. |
| Mode | <p>Select surveillance VLAN mode of the port.</p> <p>Auto: Surveillance VLAN auto detect packets that match OUI table and add received port into surveillance VLAN ID tagged member.</p> <p>Manual: User need add interface to VLAN ID tagged member manually.</p> |
| QoS Policy | <p>Select QoS Policy mode of the port.</p> <p>Video Packet: QoS attributes are applied to packets with OUI in the source MAC address.</p> <p>All: QoS attributes are applied to packets that are classified to the Surveillance VLAN.</p> |

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

8.5.2 Surveillance OUI

Filtering Surveillance traffic is based on the OUI of the IP cameras. Users can add, edit, and delete OUI on this page.



| Item | Description |
|-------------|--|
| Add | Add a new entry. |
| Edit | Edit the existing entry. |
| Delete | Delete the existing entry. |
| OUI | Enter OUI MAC address of monitored IP camera. It can't be edited in edit dialog. |
| Description | Enter a description of the specified MAC address to the surveillance VLAN OUI table. |
| Apply | Apply the settings to the switch. |
| Close | Close the setting page and back to previous page. |

8.6 GVRP

8.6.1 Property

This page allows to enable or disable the GVRP function.

PROSCEND

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save | Logout | Reboot

VLAN >> GVRP >> Property

Status

Network

Port

PoE

VLAN

VLAN

Voice VLAN

Protocol VLAN

MAC VLAN

Surveillance VLAN

GVRP

Property

Membership

Statistics

MAC Address Table

Spanning Tree

Discovery

Multicast

Security

ACL

QoS

Diagnostics

Management

State ☐ Enable

Operational Timeout

Join 20 ms

Leave 60 ms

LeaveAll 1000 ms

Apply

Port Setting Table

Q

| <input type="checkbox"/> | 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 |
| <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 | LAG1 | Disabled | Enabled | Normal |
| <input type="checkbox"/> | 14 | LAG2 | Disabled | Enabled | Normal |
| <input type="checkbox"/> | 15 | LAG3 | Disabled | Enabled | Normal |
| <input type="checkbox"/> | 16 | LAG4 | Disabled | Enabled | Normal |
| <input type="checkbox"/> | 17 | LAG5 | Disabled | Enabled | Normal |
| <input type="checkbox"/> | 18 | LAG6 | Disabled | Enabled | Normal |
| <input type="checkbox"/> | 19 | LAG7 | Disabled | Enabled | Normal |
| <input type="checkbox"/> | 20 | LAG8 | Disabled | Enabled | Normal |

| 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 |

Apply

Close

| 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. |

8.6.2 Membership

This page displays information about membership of GVRP.

VLAN >> GVRP >> Membership

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

Membership Table

Showing All entries

Showing 0 to 0 of 0 entries



| VLAN | Member | Dynamic Member | Type |
|------------------|--------|----------------|------|
| 0 results found. | | | |

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

8.6.3 Statistics

This page displays detailed statistics of each port.

PROSCEND

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save | Logout | Reboot

VLAN >> GVRP >> Statistics

Status

Network

Port

PoE

VLAN

VLAN

Voice VLAN

Protocol VLAN

MAC VLAN

Surveillance VLAN

GVRP

Property

Membership

Statistics

MAC Address Table

Spanning Tree

Discovery

Multicast

Security

ACL

QoS

Diagnostics

Management

Port: GE1

Statistics

☒ All

☐ Receive

☐ Transmit

☐ Error

Refresh Rate

☐ None

☐ 5 sec

☒ 10 sec

☐ 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 Industrial 12-Port GbE Managed PoE Switch. The top navigation bar includes the Proscend logo, the device name, and links for Save, Logout, and Reboot. A left sidebar contains a menu with options like Status, Network, Port, PoE, VLAN, MAC Address Table, Spanning Tree, Discovery, Multicast, Security, ACL, QoS, Diagnostics, and Management. The main content area is titled 'MAC Address Table >> Dynamic Address'. It features an 'Aging Time' configuration section with a text input field 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 checkboxes, VLAN, MAC Address, and Port, and navigation buttons (First, Previous, 1, Next, Last). The table contains one entry: VLAN 1, MAC Address 00:13:3B:0C:24:01, Port GE8. At the bottom of the table are buttons for 'Clear', 'Refresh', and 'Add Static Address'.

| 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.

MAC Address Table >> Static Address

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table

- Dynamic Address
- Static Address
- Filtering Address

- Spanning Tree
- Discovery
- Multicast
- Security
- ACL
- QoS
- Diagnostics
- Management

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 | 1 (1 - 4094) |
| Port | GE5 v |

| 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.

MAC Address Table >> Filtering Address

- Status
- Network
- Port
- PoE
- VLAN
- **MAC Address Table**

- Dynamic Address
- Static Address

Filtering Address

- Spanning Tree
- Discovery
- Multicast
- Security
- ACL
- QoS
- Diagnostics
- Management

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. |

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.

PROSCEND Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save Logout Reboot

Spanning Tree >> Property

▼ Status

▼ Network

▼ Port

▼ PoE

▼ VLAN

▼ MAC Address Table

▼ Spanning Tree

▼ Discovery

▼ Multicast

▼ Security

▼ ACL

▼ QoS

▼ Diagnostics

▼ Management

Property

Port Setting

MST Instance

MST Port Setting

Statistics

State

Operation Mode

Path Cost

BPDU Handling

Priority

Hello Time

Max Age

Forward Delay

Tx Hold Count

Region Name

Revision

Max Hop

☐ Enable

☐ STP
☒ RSTP
☐ MSTP

☒ Long
☐ Short

☐ Filtering
☒ Flooding

(0 - 61440, default 32768)

Sec (1 - 10, default 2)

Sec (6 - 40, default 20)

Sec (4 - 30, default 15)

(1 - 10, default 6)

(0 - 65535, default 0)

(1 - 40, default 20)

Operational Status

Bridge Identifier

Designated Root Bridge

Root Port

Root Path Cost

Topology Change Count

Last Topology Change

32768-00:E0:4D:00:00:00

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

N/A

0

0

0D/0H/0M/0S

Apply

| Item | Description |
|-------|--------------------------------------|
| State | Enable or disable the STP operation. |

| | |
|--------------------|--|
| Operation Mode | <p>STP: Enable the Spanning Tree (STP) operation.</p> <p>RSTP: Enable the Rapid Spanning Tree (RSTP) operation.</p> <p>MSTP: Enable the Multiple Spanning Tree Protocol (MSTP)</p> |
| Path Cost | <p>Specify the path cost method.</p> <p>Long: Specifies that the default port path costs are within the range: 1~200,000,000.</p> <p>Short: Specifies that the default port path costs are within the range: 1~65,535.</p> |
| BPDU Handling | <p>Specify the BPDU forward method when the STP is disabled.</p> <p>Filtering: Filter the BPDU when STP is disabled.</p> <p>Flooding: Flood the BPDU when STP is disabled.</p> |
| 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

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save Logout Reboot

Spanning Tree >> Port Setting

Status

Network

Port

PoE

VLAN

MAC Address Table

Spanning Tree

Property

Port Setting

MST Instance

MST Port Setting

Statistics

Discovery

Multicast

Security

ACL

QoS

Diagnostics

Management

Port Setting Table

Q

| <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 | Enabled | 20000 | 128 | Disabled | Disabled | Disabled | Disabled | Disabled | Disabled | 0-00:00:00:00:00:00 | 128-1 | 20000 |
| <input type="checkbox"/> | 2 | GE2 | Enabled | 20000 | 128 | Disabled | Disabled | Disabled | Disabled | Disabled | Disabled | 0-00:00:00:00:00:00 | 128-2 | 20000 |
| <input type="checkbox"/> | 3 | GE3 | Enabled | 20000 | 128 | Disabled | Disabled | Disabled | Disabled | Disabled | Disabled | 0-00:00:00:00:00:00 | 128-3 | 20000 |
| <input type="checkbox"/> | 4 | GE4 | Enabled | 20000 | 128 | Disabled | Disabled | Disabled | Disabled | Disabled | Disabled | 0-00:00:00:00:00:00 | 128-4 | 20000 |
| <input type="checkbox"/> | 5 | GE5 | Enabled | 20000 | 128 | Disabled | Disabled | Disabled | Disabled | Disabled | Disabled | 0-00:00:00:00:00:00 | 128-5 | 20000 |
| <input type="checkbox"/> | 6 | GE6 | Enabled | 20000 | 128 | Disabled | Disabled | Disabled | Disabled | Disabled | Disabled | 0-00:00:00:00:00:00 | 128-6 | 20000 |
| <input type="checkbox"/> | 7 | GE7 | Enabled | 20000 | 128 | Disabled | Disabled | Disabled | Disabled | Disabled | Disabled | 0-00:00:00:00:00:00 | 128-7 | 20000 |
| <input type="checkbox"/> | 8 | GE8 | Enabled | 20000 | 128 | Disabled | Disabled | Disabled | Enabled | Disabled | Forwarding | 0-00:00:00:00:00:00 | 128-8 | 20000 |
| <input type="checkbox"/> | 9 | GE9 | Enabled | 20000 | 128 | Disabled | Disabled | Disabled | Disabled | Disabled | Disabled | 0-00:00:00:00:00:00 | 128-9 | 20000 |
| <input type="checkbox"/> | 10 | GE10 | Enabled | 20000 | 128 | Disabled | Disabled | Disabled | Disabled | Disabled | Disabled | 0-00:00:00:00:00:00 | 128-10 | 20000 |
| <input type="checkbox"/> | 11 | GE11 | Enabled | 20000 | 128 | Disabled | Disabled | Disabled | Disabled | Disabled | Disabled | 0-00:00:00:00:00:00 | 128-11 | 20000 |
| <input type="checkbox"/> | 12 | GE12 | Enabled | 20000 | 128 | Disabled | Disabled | Disabled | Disabled | Disabled | Disabled | 0-00:00:00:00:00:00 | 128-12 | 20000 |
| <input type="checkbox"/> | 13 | LAG1 | Enabled | 20000 | 128 | Disabled | Disabled | Disabled | Disabled | Disabled | Disabled | 0-00:00:00:00:00:00 | 128-13 | 20000 |
| <input type="checkbox"/> | 14 | LAG2 | Enabled | 20000 | 128 | Disabled | Disabled | Disabled | Disabled | Disabled | Disabled | 0-00:00:00:00:00:00 | 128-14 | 20000 |
| <input type="checkbox"/> | 15 | LAG3 | Enabled | 20000 | 128 | Disabled | Disabled | Disabled | Disabled | Disabled | Disabled | 0-00:00:00:00:00:00 | 128-15 | 20000 |
| <input type="checkbox"/> | 16 | LAG4 | Enabled | 20000 | 128 | Disabled | Disabled | Disabled | Disabled | Disabled | Disabled | 0-00:00:00:00:00:00 | 128-16 | 20000 |
| <input type="checkbox"/> | 17 | LAG5 | Enabled | 20000 | 128 | Disabled | Disabled | Disabled | Disabled | Disabled | Disabled | 0-00:00:00:00:00:00 | 128-17 | 20000 |
| <input type="checkbox"/> | 18 | LAG6 | Enabled | 20000 | 128 | Disabled | Disabled | Disabled | Disabled | Disabled | Disabled | 0-00:00:00:00:00:00 | 128-18 | 20000 |
| <input type="checkbox"/> | 19 | LAG7 | Enabled | 20000 | 128 | Disabled | Disabled | Disabled | Disabled | Disabled | Disabled | 0-00:00:00:00:00:00 | 128-19 | 20000 |
| <input type="checkbox"/> | 20 | LAG8 | Enabled | 20000 | 128 | Disabled | Disabled | Disabled | Disabled | Disabled | Disabled | 0-00:00:00:00:00:00 | 128-20 | 20000 |

Edit

Protocol Migration Check

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

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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 |

Apply Close

| 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 switch supports up to 16 independent MST instances (0~15) with which the VLAN can be associated.

| PROSCEND Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks | | | | | | | | | |
|--|----------|-------------------------|------------------------|-----------|----------------|---------------|--------|--|--|
| Spanning Tree >> MST Instance | | | | | | | | | |
| MST Instance Table | | | | | | | | | |
| MSTI | Priority | Bridge Identifier | Designated Root Bridge | Root Port | Root Path Cost | Remaining Hop | VLAN | | |
| 0 | 32768 | 32768-00-E0-4D-00-00-00 | 0-00-00-00-00-00-00 | N/A | 0 | 0 | 1-4094 | | |
| 1 | 32768 | 32768-00-E0-4D-00-00-00 | 0-00-00-00-00-00-00 | N/A | 0 | 0 | | | |
| 2 | 32768 | 32768-00-E0-4D-00-00-00 | 0-00-00-00-00-00-00 | N/A | 0 | 0 | | | |
| 3 | 32768 | 32768-00-E0-4D-00-00-00 | 0-00-00-00-00-00-00 | N/A | 0 | 0 | | | |
| 4 | 32768 | 32768-00-E0-4D-00-00-00 | 0-00-00-00-00-00-00 | N/A | 0 | 0 | | | |
| 5 | 32768 | 32768-00-E0-4D-00-00-00 | 0-00-00-00-00-00-00 | N/A | 0 | 0 | | | |
| 6 | 32768 | 32768-00-E0-4D-00-00-00 | 0-00-00-00-00-00-00 | N/A | 0 | 0 | | | |
| 7 | 32768 | 32768-00-E0-4D-00-00-00 | 0-00-00-00-00-00-00 | N/A | 0 | 0 | | | |
| 8 | 32768 | 32768-00-E0-4D-00-00-00 | 0-00-00-00-00-00-00 | N/A | 0 | 0 | | | |
| 9 | 32768 | 32768-00-E0-4D-00-00-00 | 0-00-00-00-00-00-00 | N/A | 0 | 0 | | | |
| 10 | 32768 | 32768-00-E0-4D-00-00-00 | 0-00-00-00-00-00-00 | N/A | 0 | 0 | | | |
| 11 | 32768 | 32768-00-E0-4D-00-00-00 | 0-00-00-00-00-00-00 | N/A | 0 | 0 | | | |
| 12 | 32768 | 32768-00-E0-4D-00-00-00 | 0-00-00-00-00-00-00 | N/A | 0 | 0 | | | |
| 13 | 32768 | 32768-00-E0-4D-00-00-00 | 0-00-00-00-00-00-00 | N/A | 0 | 0 | | | |
| 14 | 32768 | 32768-00-E0-4D-00-00-00 | 0-00-00-00-00-00-00 | N/A | 0 | 0 | | | |
| 15 | 32768 | 32768-00-E0-4D-00-00-00 | 0-00-00-00-00-00-00 | N/A | 0 | 0 | | | |

Edit MST Instance Setting

| | | |
|-------------------------------|--|--------------------------|
| MSTI | 3 | |
| VLAN | Available VLAN 1 2 3 4 5 6 7 8 | Selected VLAN (Empty) |
| 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.

24 GbE Switch with 4 10G SFP+ Up Links

Spanning Tree >> MST Port Setting

MST Port Setting Table

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 | 20000 | 20 |
| <input type="checkbox"/> | 2 GE2 | 20000 | 128 | Disabled | Forwarding | RSTP | Boundary | 0-00:00:00:00:00:00 | 128-2 | 20000 | 20 |
| <input type="checkbox"/> | 3 GE3 | 20000 | 128 | Disabled | Disabled | RSTP | Boundary | 0-00:00:00:00:00:00 | 128-3 | 20000 | 20 |
| <input type="checkbox"/> | 4 GE4 | 20000 | 128 | Disabled | Disabled | RSTP | Boundary | 0-00:00:00:00:00:00 | 128-4 | 20000 | 20 |
| <input type="checkbox"/> | 5 GE5 | 20000 | 128 | Disabled | Disabled | RSTP | Boundary | 0-00:00:00:00:00:00 | 128-5 | 20000 | 20 |
| <input type="checkbox"/> | 6 GE6 | 20000 | 128 | Disabled | Disabled | RSTP | Boundary | 0-00:00:00:00:00:00 | 128-6 | 20000 | 20 |
| <input type="checkbox"/> | 7 GE7 | 20000 | 128 | Disabled | Disabled | RSTP | Boundary | 0-00:00:00:00:00:00 | 128-7 | 20000 | 20 |
| <input type="checkbox"/> | 8 GE8 | 20000 | 128 | Disabled | Disabled | RSTP | Boundary | 0-00:00:00:00:00:00 | 128-8 | 20000 | 20 |
| <input type="checkbox"/> | 9 GE9 | 20000 | 128 | Disabled | Disabled | RSTP | Boundary | 0-00:00:00:00:00:00 | 128-9 | 20000 | 20 |
| <input type="checkbox"/> | 10 GE10 | 20000 | 128 | Disabled | Disabled | RSTP | Boundary | 0-00:00:00:00:00:00 | 128-10 | 20000 | 20 |
| <input type="checkbox"/> | 11 GE11 | 20000 | 128 | Disabled | Disabled | RSTP | Boundary | 0-00:00:00:00:00:00 | 128-11 | 20000 | 20 |
| <input type="checkbox"/> | 12 GE12 | 20000 | 128 | Disabled | Disabled | RSTP | Boundary | 0-00:00:00:00:00:00 | 128-12 | 20000 | 20 |
| <input type="checkbox"/> | 13 GE13 | 20000 | 128 | Disabled | Disabled | RSTP | Boundary | 0-00:00:00:00:00:00 | 128-13 | 20000 | 20 |
| <input type="checkbox"/> | 14 GE14 | 20000 | 128 | Disabled | Disabled | RSTP | Boundary | 0-00:00:00:00:00:00 | 128-14 | 20000 | 20 |
| <input type="checkbox"/> | 15 GE15 | 20000 | 128 | Disabled | Disabled | RSTP | Boundary | 0-00:00:00:00:00:00 | 128-15 | 20000 | 20 |
| <input type="checkbox"/> | 16 GE16 | 20000 | 128 | Disabled | Disabled | RSTP | Boundary | 0-00:00:00:00:00:00 | 128-16 | 20000 | 20 |
| <input type="checkbox"/> | 17 GE17 | 20000 | 128 | Disabled | Disabled | RSTP | Boundary | 0-00:00:00:00:00:00 | 128-17 | 20000 | 20 |
| <input type="checkbox"/> | 18 GE18 | 20000 | 128 | Disabled | Disabled | RSTP | Boundary | 0-00:00:00:00:00:00 | 128-18 | 20000 | 20 |
| <input type="checkbox"/> | 19 GE19 | 20000 | 128 | Disabled | Disabled | RSTP | Boundary | 0-00:00:00:00:00:00 | 128-19 | 20000 | 20 |

Spanning Tree >> MST Port Setting

Edit MST Port Setting

| | |
|--------------------|------------------------------|
| MSTI | 0 |
| Port | GE5 |
| Path Cost | 0 (0 - 200000000) (0 = Auto) |
| Priority | 128 |
| Port Role | Disabled |
| Port State | Disabled |
| Mode | RSTP |
| Type | Boundary |
| Designated Bridge | 0-00:00:00:00:00:00 |
| Designated Port ID | 128-5 |
| 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.


Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

Spanning Tree >> Statistics

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

Statistics Table

Refresh Rate sec

| <input type="checkbox"/> | 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 | LAG1 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 14 | LAG2 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 15 | LAG3 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 16 | LAG4 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 17 | LAG5 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 18 | LAG6 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 19 | LAG7 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 20 | 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 web interface of a Proscend Industrial 12-Port GbE Managed PoE Switch. The breadcrumb navigation is "Discovery >> LLDP >> Property". The left sidebar contains a menu with categories: Status, Network, Port, PoE, VLAN, MAC Address Table, Spanning Tree, Discovery (expanded), Multicast, Security, ACL, QoS, Diagnostics, and Management. Under the "Discovery" category, the "LLDP" sub-menu is selected, showing options for Property, Port Setting, MED Network Policy, MED Port Setting, Packet View, Local Information, Neighbor, and Statistics. The main content area is titled "LLDP" and contains the following settings:

- State:** ☒ Enable
- LLDP Handling:** ☐ Filtering, ☐ Bridging, ☒ Flooding
- TLV Advertise Interval:** 30 (Sec (5 - 32767, default 30))
- Hold Multiplier:** 4 (2 - 10, default 4)
- Reinitializing Delay:** 2 (Sec (1 - 10, default 2))
- Transmit Delay:** 2 (Sec (1 - 8191, default 2))
- LLDP-MED:**
 - Fast Start Repeat Count:** 3 (1 - 10, default 3)


An "Apply" button is located at the bottom of the configuration area.

| 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.


Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

[Discovery](#) >> [LLDP](#) >> **Port Setting**

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- **Discovery**
 - ▲ LLDP
 - Property
 - Port Setting**
 - MED Network Policy
 - MED Port Setting
 - Packet View
 - Local Information
 - Neighbor
 - Statistics
- Multicast
- Security
- ACL
- QoS
- Diagnostics
- Management

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 |

[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 |
| <input type="button" value="Apply"/> <input type="button" value="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 Industrial 12-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 the path: Discovery >> LLDP >> MED Network Policy. On the left, a sidebar menu lists various configuration categories, with 'Discovery' expanded to show 'LLDP' and its sub-items, including 'MED Network Policy' which is currently selected. The main content area is titled 'MED Network Policy' and features a toggle switch for 'MED Network Policy Voice Auto Mode' set to 'Enable'. Below this is an 'Apply' button. A section titled 'MED Network Policy Table' contains a search bar, a table with columns for Policy ID, Application, VLAN, VLAN Tag, Priority, and DSCP, and a message indicating '0 results found.' At the bottom of the table are 'Add', 'Edit', and 'Delete' buttons, and a pagination control showing 'First', 'Previous', '1', 'Next', and 'Last'.

| 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

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
 - ▲ LLDP
 - Property
 - Port Setting
 - MED Network Policy
 - MED Port Setting**
 - Packet View
 - Local Information
 - Neighbor
 - Statistics
- Multicast
- Security
- ACL
- QoS
- Diagnostics
- Management

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 | |

[Edit](#)

Discovery >> LLDP >> MED Port Setting

Edit MED Port Setting

| | | | |
|-----------------------|--|---------------------------|--|
| Port | GE2 | | |
| State | <input type="checkbox"/> Enable | | |
| Optional TLV | Available TLV | Selected TLV | |
| | <div>Location</div> <div>Inventory</div> | <div>Network Policy</div> | |
| Network policy | Available Policy | Selected Policy | |
| | <div>1 (Voice)</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) | | |

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

| 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.

PROSCEND Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save Logout Reboot

Discovery >> LLDP >> Packet View

Packet View Table

| | Entry | Port | In-Use (Bytes) | Available (Bytes) | Operational Status |
|-----------------------|-------|------|----------------|-------------------|--------------------|
| <input type="radio"/> | 1 | GE1 | 48 | 1440 | Not Overloading |
| <input type="radio"/> | 2 | GE2 | 48 | 1440 | Not Overloading |
| <input type="radio"/> | 3 | GE3 | 48 | 1440 | Not Overloading |
| <input type="radio"/> | 4 | GE4 | 48 | 1440 | Not Overloading |
| <input type="radio"/> | 5 | GE5 | 48 | 1440 | Not Overloading |
| <input type="radio"/> | 6 | GE6 | 48 | 1440 | Not Overloading |
| <input type="radio"/> | 7 | GE7 | 48 | 1440 | Not Overloading |
| <input type="radio"/> | 8 | GE8 | 48 | 1440 | Not Overloading |
| <input type="radio"/> | 9 | GE9 | 48 | 1440 | Not Overloading |
| <input type="radio"/> | 10 | GE10 | 49 | 1439 | Not Overloading |
| <input type="radio"/> | 11 | GE11 | 49 | 1439 | Not Overloading |
| <input type="radio"/> | 12 | GE12 | 49 | 1439 | Not Overloading |

Detail

11.1.6 Local Information

This page shows detailed local information of LLDP.

PROSCEND

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save | Logout | Reboot

Discovery >> LLDP >> Local Information

Status

Network

Port

PoE

VLAN

MAC Address Table

Spanning Tree

Discovery

LLDP

Property

Port Setting

MED Network Policy

MED Port Setting

Packet View

Local Information

Neighbor

Statistics

Multicast

Security

ACL

QoS

Diagnostics

Management

Device Summary

Chassis ID Subtype

MAC address

Chassis ID

00:E0:4D:00:00:00

System Name

Switch

System Description

850G-12PI

Supported Capabilities

Bridge

Enabled Capabilities

Bridge

Port ID Subtype

Local

Port Status Table

Q

| | 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 |

Detail

11.1.7 Neighbor

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

PROSCEND

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save | Logout | Reboot

Discovery >> LLDP >> Neighbor

Status

Network

Port

PoE

VLAN

MAC Address Table

Spanning Tree

Discovery

LLDP

Property

Port Setting

MED Network Policy

MED Port Setting

Packet View

Local Information

Neighbor

Statistics

Multicast

Security

ACL

QoS

Diagnostics

Management

Neighbor Table

Showing All entries

Showing 1 to 1 of 1 entries

Q

| | Local Port | Chassis ID Subtype | Chassis ID | Port ID Subtype | Port ID | System Name | Time to Live |
|--------------------------|------------|--------------------|------------|-----------------|-------------------|-------------|--------------|
| <input type="checkbox"/> | GE8 | Local | PCI-AE-DON | MAC address | 00:13:38:0C:24:01 | | 3437 |

Clear | Refresh | Detail

First | Previous | 1 | Next | Last

11.1.8 Statistics

This page shows global statistics and statistics of each port.

PROSCEND

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

SaveLogoutReboot

DiscoveryLLDPStatistics

Global Statistics

Insertions1

Deletions0

Drops0

AgeOuts0

Clear

Refresh

Statistics Table

Q

| Entry | Port | Transmit Frame | Receive Frame | | | Receive TLV | | Neighbor |
|--------------------------|---------|----------------|---------------|---------|-------|-------------|--------------|----------|
| | | Total | Total | Discard | Error | Discard | Unrecognized | |
| <input type="checkbox"/> | 1 GE1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 2 GE2 | 0 | 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 | 387 | 15 | 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 |

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 displays the web interface of a Proscendo Industrial 12-Port GbE Managed PoE Switch. The top navigation bar includes the Proscendo logo, the device name, and links for Save, Logout, and Reboot. The breadcrumb trail indicates the current location: Multicast >> General >> Property. On the left, a sidebar menu lists various configuration categories, with 'Multicast' expanded to show 'General' and 'Property'. The 'Property' sub-menu is active, listing options like Group Address, Router Port, Forward All, Throttling, Filtering Profile, Filtering Binding, IGMP Snooping, MLD Snooping, MVR, Security, ACL, QoS, Diagnostics, and Management. The main content area is titled 'Multicast Forward Method' and contains two sections: 'Unknown Multicast Action' and 'Multicast Forward Method'. The 'Unknown Multicast Action' section has three radio buttons: 'Flood' (selected), 'Drop', and 'Forward to Router Port'. The 'Multicast Forward Method' section has two rows, one for IPv4 and one for IPv6, each with two radio buttons: 'DMAC-VID' (selected) and 'DIP-VID'. An 'Apply' button is located at the bottom of the configuration area.

| 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 | <p>Set the IPv4 multicast forward method.</p> <p>DMAC-VID: Forward using destination multicast MAC address and VLAN IDs.</p> <p>DIP-VID: Forward using destination multicast IP address and VLAN ID.</p> |
| IPv6 | <p>Set the IPv6 multicast forward method.</p> <p>DMAC-VID: Forward using destination multicast MAC address and VLAN IDs.</p> <p>DIP-VID: Forward using destination multicast IPv6 address and VLAN ID.</p> |
| 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.

The screenshot displays the web management interface for a Proscend Industrial 12-Port GbE Managed PoE Switch. The breadcrumb navigation shows 'Multicast > General > Group Address'. On the left, a sidebar menu lists various configuration categories, with 'Multicast' expanded to show sub-options like 'General', 'Property', 'Group Address', 'Router Port', 'Forward All', 'Throttling', 'Filtering Profile', 'Filtering Binding', 'IGMP Snooping', 'MLD Snooping', 'MVR', 'Security', 'ACL', 'QoS', 'Diagnostics', and 'Management'. The main content area is titled 'Group Address Table'. It features a dropdown for 'IP Version' set to 'IPv4', a search bar, and a table with columns: 'VLAN', 'Group Address', 'Member', 'Type', and 'Life (Sec)'. The table currently shows '0 results found.' Below the table are buttons for 'Add', 'Edit', 'Delete', and 'Refresh'. At the bottom right of the table area are pagination controls: 'First', 'Previous', '1' (selected), 'Next', and 'Last'. The top right of the interface includes 'Save', 'Logout', and 'Reboot' links.

| 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

The screenshot shows the 'Add Group Address' configuration window. It includes the following elements:

- VLAN:** A dropdown menu with '1' selected.
- IP Version:** A dropdown menu with 'IPv4' selected.
- Group Address:** A text input field.
- Member:** A section containing a list of available ports (GE1, GE2, GE3, GE4, GE5, GE6, GE7, GE8) and a 'Selected Port' list. Arrows indicate the ability to move ports between the two lists.
- Buttons:** 'Apply' and 'Close' buttons at the bottom.

| 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 | It is an identifier for the group member. Packets sent to such address will be transferred to all interfaces defined in Member Ports. Specify the IPv4/IPv6 multicast address you wish to assign for the static group (defined in VLAN). |
| 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.

PROSCEND

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save | Logout | Reboot

Multicast >> General >> Router Port

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

Security

ACL

QoS

Diagnostics

Management

Router Port Table

IP Version IPv4

Showing All entries Showing 0 to 0 of 0 entries

VLAN

Member

Static Port

Forbidden Port

Life (Sec)

0 results found.

Add

Edit

Refresh

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

The screenshot shows the 'Add Router Port' configuration window. It is organized into three main sections: VLAN, IP Version, and Port. The VLAN section includes an 'Available VLAN' list with the number '1' and an empty 'Selected VLAN' list, with arrows for moving items between them. The IP Version section features a dropdown menu currently set to 'IPv4'. The Port section includes an 'Available Port' list with options GE1 through GE8 and an empty 'Selected Port' list, also with transfer arrows. At the bottom of the window are 'Apply' and 'Close' buttons.

| 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.


Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

Multicast >> General >> Forward All

- 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
- Security
- ACL
- QoS
- Diagnostics
- Management

Forward All Table

IP Version IPv4

Showing All entries
Showing 0 to 0 of 0 entries

☐ **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

| | | |
|------------|--|---------------|
| VLAN | Available VLAN | Selected VLAN |
| | <div>1</div> | |
| IP Version | IPv4 | |
| Type | <input checked="" type="radio"/> Static <input type="radio"/> Forbidden | |
| Port | Available Port | Selected Port |
| | <div>GE1 GE2 GE3 GE4 GE5 GE6 GE7 GE8</div> | |

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: 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. |

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

Industrial 12-Port GbE Managed PoE Switch with 4 GbE 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

Security

ACL

QoS

Diagnostics

Management

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 | LAG1 | 256 | Deny |
| <input type="checkbox"/> | 14 | LAG2 | 256 | Deny |
| <input type="checkbox"/> | 15 | LAG3 | 256 | Deny |
| <input type="checkbox"/> | 16 | LAG4 | 256 | Deny |
| <input type="checkbox"/> | 17 | LAG5 | 256 | Deny |
| <input type="checkbox"/> | 18 | LAG6 | 256 | Deny |
| <input type="checkbox"/> | 19 | LAG7 | 256 | Deny |
| <input type="checkbox"/> | 20 | LAG8 | 256 | Deny |

Edit

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

Multicast >> General >> Throttling

Edit Throttling

Port

GE5

IP Version

IPv4

Max Group

256

(0 - 256)

Exceed Action

☒ Deny
☐ 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 | <p>Deny: It is default setting. The IGMP join report (for multicast service) received by such interface will be discarded.</p> <p>Replace: When it is selected, a new group with IGMP report received will replace the existing group.</p> |
| Apply | Apply the settings to the switch. |
| Close | Close the setting page and back to previous page. |

12.1.5 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.

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

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
- Security
 - ACL
 - QoS
 - Diagnostics
 - Management

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

(1 - 128)

IP Version

IPv4

Start Address

End Address

Action

☒ Allow
 ☐ Deny

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

| 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 | <p>Allow: When it is selected, the request for multicast traffic will be forwarded to the multicast group normally.</p> <p>Deny: It is default setting. The forwarding request of multicast traffic will be discarded.</p> |
| Apply | Apply the settings to the switch. |
| Close | Close the setting page and back to previous page. |

12.1.6 Filtering Binding

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

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

Status

Network

Port

PoE

VLAN

MAC Address Table

Spanning Tree

Discovery

Multicast

Security

ACL

QoS

Diagnostics

Management

General

Property

Group Address

Router Port

Forward All

Throttling

Filtering Profile

Filtering Binding

IGMP Snooping

MLD Snooping

MVR

Multicast >> General >> Filtering Binding

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 | LAG1 | |
| <input type="checkbox"/> | 14 | LAG2 | |
| <input type="checkbox"/> | 15 | LAG3 | |
| <input type="checkbox"/> | 16 | LAG4 | |
| <input type="checkbox"/> | 17 | LAG5 | |
| <input type="checkbox"/> | 18 | LAG6 | |
| <input type="checkbox"/> | 19 | LAG7 | |
| <input type="checkbox"/> | 20 | LAG8 | |

Edit

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

Multicast >> General >> Filtering Binding

Edit Filtering Binding

Port

GE9

IP Version

IPv4

Profile ID

☐ Enable

Apply

Close

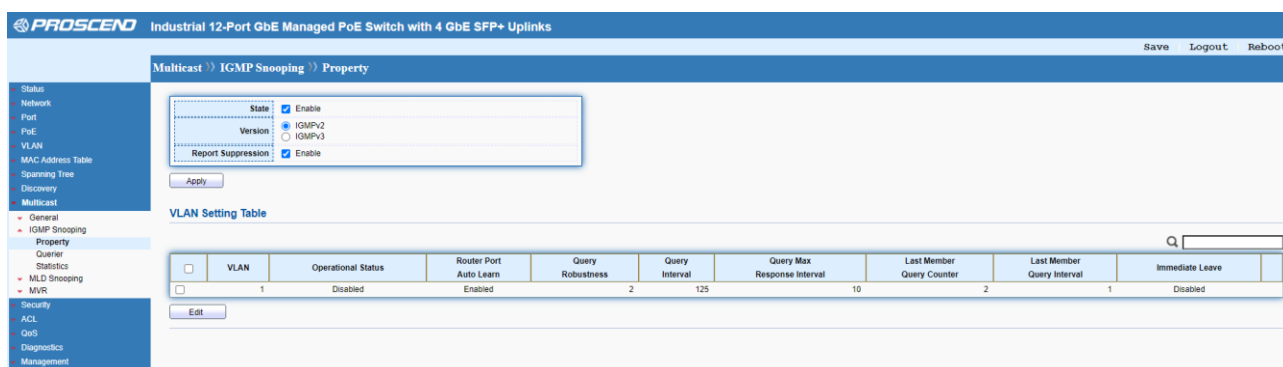
| Item | Description |
|------------|---|
| Port | The index number of selected port. |
| IP Version | The selected IP Version. |
| Profile ID | Enable or disable selected filtering profile for the selected port/interface. |
| Apply | Apply the settings to the switch. |
| Close | Close the setting page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



| 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 Response Interval | It specifies the maximum allowed time before sending a responding report in units of 1/10 second. |
| Last Member Query | After querying for specified times (defined here) and still not |

| | |
|----------------------------|--|
| Counter | 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 shows the web interface of a Proscend Industrial 12-Port GbE Managed PoE Switch. The breadcrumb navigation is Multicast >> IGMP Snooping >> Querier. The left sidebar contains a tree view with categories like Status, Network, Port, PoE, VLAN, MAC Address Table, Spanning Tree, Discovery, Multicast, General, IGMP Snooping (with sub-items Property, Querier, and Statistics), MLD Snooping, MVR, Security, ACL, QoS, Diagnostics, and Management. The main content area is titled 'Querier Table' and features a search bar and a table with columns: ☐, VLAN, State, Operational Status, Version, and Querier Address. The table contains one entry for VLAN 1 with State 'Disabled' and Operational Status 'Disabled'. Below the table is an 'Edit' button.

The screenshot shows the 'Edit Querier' configuration dialog box. It has a title bar 'Multicast >> IGMP Snooping >> Querier' and a subtitle 'Edit Querier'. The dialog contains three fields: 'VLAN' with the value '1', 'State' with a checked 'Enable' checkbox, and 'Version' with radio buttons for 'IGMPv2' (selected) and 'IGMPv3'. At the bottom are 'Apply' and 'Close' buttons.

| 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.


Industrial 12-Port GbE Managed PoE Switch with 4 GbE 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
- Security
- ACL
- QoS
- Diagnostics
- Management

| Receive Packet | |
|-----------------------------|---|
| Total | 9 |
| Valid | 1 |
| InValid | 8 |
| 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.

The screenshot shows the Proscend web interface for an Industrial 12-Port GbE Managed PoE Switch. The 'Multicast >> MLD Snooping >> Property' page is active. In the configuration box, 'State' is set to 'Enable', 'Version' is set to 'MLDv1', and 'Report Suppression' is set to 'Enable'. An 'Apply' button is present. Below this is the 'VLAN Setting Table' which lists parameters for VLAN 1: Operational Status (Disabled), Router Port Auto Learn (Enabled), Query Robustness (2), Query Interval (125), Query Max Response Interval (10), Last Member Query Counter (2), Last Member Query Interval (1), and Immediate Leave (Disabled). An 'Edit' button is at the bottom of the table.

| 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. |

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) |

| 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 | After querying for specified times (defined here) and still not |

| | |
|----------------------------|--|
| Counter | 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.


Industrial 12-Port GbE Managed PoE Switch with 4 GbE 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
- Security
- ACL
- QoS
- Diagnostics
- Management

| 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 |

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.

PROSCENDO Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save | Logout | Reboot

Multicast >> MVR >> Property


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

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.

 Industrial 12-Port GbE Managed PoE Switch with 4 GbE 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

Security

ACL

QoS

Diagnostics

Management

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 | LAG1 | None | Disabled |
| <input type="checkbox"/> | 14 | LAG2 | None | Disabled |
| <input type="checkbox"/> | 15 | LAG3 | None | Disabled |
| <input type="checkbox"/> | 16 | LAG4 | None | Disabled |
| <input type="checkbox"/> | 17 | LAG5 | None | Disabled |
| <input type="checkbox"/> | 18 | LAG6 | None | Disabled |
| <input type="checkbox"/> | 19 | LAG7 | None | Disabled |
| <input type="checkbox"/> | 20 | LAG8 | None | Disabled |

Edit

| Item | Description |
|------|--------------------------|
| Edit | Edit the selected entry. |

Edit Port Setting

Port

GE1

Role

☒ None
☐ Receiver
☐ Source

Immediate Leave

☐ Enable

Apply

Close

| 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.

The screenshot displays the web management interface for a Proscend Industrial 12-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 the path: Multicast >> MVR >> Group Address. On the left, a sidebar menu lists various configuration categories, with 'Multicast' expanded to show 'General', 'IGMP Snooping', 'MLD Snooping', 'MVR' (which is further expanded to show 'Property', 'Port Setting', and 'Group Address'), 'Security', 'ACL', 'QoS', 'Diagnostics', and 'Management'. The main content area is titled 'Group Address Table'. It features a search bar, a dropdown menu set to 'All' entries, and a status indicator 'Showing 0 to 0 of 0 entries'. Below this is a table with columns: VLAN, Group Address, Member, Type, and Life (Sec). The table currently shows '0 results found.' At the bottom of the table area are buttons for 'Add', 'Edit', 'Delete', and 'Refresh'. Navigation controls at the bottom right include 'First', 'Previous', '1' (the current page), 'Next', and '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: (0.0.0.0 - 0.0.0.0)

Member

Available Port

Selected Port

>

<

| 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.

The screenshot displays the web interface of a Proscend Industrial 12-Port GbE Managed PoE Switch. The top navigation bar includes the Proscend logo, the device 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, 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, and Management. The main content area is titled 'Security >> RADIUS'. It features a 'Use Default Parameter' section with input fields for 'Retry' (value 3, range 1-10, default 3), 'Timeout' (value 3, range 1-30, default 3), and 'Key String'. Below this is an 'Apply' button. The 'RADIUS Table' section shows a search bar and a table with columns: Server Address, Server Port, Priority, Retry, Timeout, and Usage. The table currently displays '0 results found.' and includes 'Add', 'Edit', and 'Delete' buttons. Navigation controls at the bottom of the table include 'First', 'Previous', '1', 'Next', and '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.

PROSCEND

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save | Logout | Reboot

Security >> TACACS+

Status

Network

Port

PoE

VLAN

MAC Address Table

Spanning Tree

Discovery

Multicast

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

Use Default Parameter

Timeout

5

Sec (1 - 30, default 5)

Key String

Apply

TACACS+ Table

Showing All entries

Showing 0 to 0 of 0 entries

☐

Server Address

Server Port

Priority

Timeout

0 results found.

Add

Edit

Delete

First

Previous

1

Next

Last

| 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) | |

| 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. |

13.3 AAA

13.3.1 Method List

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

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

Security >> AAA >> Method List

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

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. |

Security >> AAA >> Method List

Add Method List

Name

Method 1

☒ Empty
☐ None
☐ Local
☐ Enable
☐ RADIUS
☐ TACACS+

Method 2

☒ Empty
☐ None
☐ Local
☐ Enable
☐ RADIUS
☐ TACACS+

Method 3

☒ Empty
☐ None
☐ Local
☐ Enable
☐ RADIUS
☐ TACACS+

Method 4

☒ Empty
☐ None
☐ Local
☐ Enable
☐ RADIUS
☐ TACACS+


Apply

Close

| 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.


Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

Security >> AAA >> Login Authentication

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

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

13.4 Management Access

13.4.1 Management VLAN


Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

Security >> Management Access >> Management VLAN

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

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.


Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

Security » Management Access » Management Service

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

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 checked="" 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) |

13.4.3 Management ACL

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

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

Security >> Management Access >> Management ACL

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

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. | | | |

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

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

| 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.

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

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

Security >> Management Access >> Management ACE

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 Managemet 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) | |
| <input type="button" value="Apply"/> <input type="button" value="Close"/> | | |

| 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 switch 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.

The screenshot shows the web interface for a Proscend Industrial 12-Port GbE Managed PoE Switch. The page is titled "Security > Authentication Manager > Property". On the left is a navigation menu with options like Status, Network, Port, PoE, VLAN, MAC Address Table, Spanning Tree, Discovery, Multicast, 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, DeS, Dynamic ARP Inspection, DHCP Snooping, IP Source Guard, ACL, QoS, Diagnostics, and Management. The main content area has a "Property" section with a "Port Mode Table" and an "Authentication Type" configuration box. The "Authentication Type" box includes checkboxes for "802.1x", "MAC-Based", "WEB-Based", and "Enable", a "Guest VLAN" dropdown menu, and a "MAC-Based User ID Format" dropdown menu. Below this is an "Apply" button. The "Port Mode Table" is a table with columns: Entry, Port, Authentication Type (802.1x, MAC-Based, WEB-Based), Host Mode, Order, Method, Guest VLAN, and VLAN Assign Mode. It lists 12 ports (GE1 to GE12) with their respective configurations. An "Edit" button is located at the bottom of the 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 |

| 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 | |
| <input type="button" value="Apply"/> <input type="button" value="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 web interface of a Proscend Industrial 12-Port GbE Managed PoE Switch. The navigation menu on the left includes Status, Network, Port, PoE, VLAN, MAC Address Table, Spanning Tree, Discovery, Multicast, Security, RADIUS, TACACS+, AAA, Management Access, Authentication Manager, Property, Port Setting (selected), MAC-Based Local Account, WEB-Based Local Account, Sessions, Port Security, Protected Port, Storm Control, DDoS, Dynamic ARP Inspection, DHCP Snooping, IP Source Guard, ACL, QoS, Diagnostics, and Management. The main content area is titled 'Security > Authentication Manager > Port Setting'. It contains a 'Port Setting Table' with columns for 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. The table lists 12 ports (GE1 to GE12) with their respective settings. An 'Edit' button is located below 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) | |


Apply Close

| 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.


Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

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

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

MAC-Based Local Account Table

Showing All entries Showing 0 to 0 of 0 entries

| <input type="checkbox"/> | MAC Address | Control | 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 MAC-Based Local Account

| | | |
|---|--|------------|
| MAC Address : | <input type="text"/> | |
| Port Control : | <input type="radio"/> Force Authorized <input checked="" type="radio"/> Force Unauthorized <input type="checkbox"/> User Defined | |
| VLAN : | <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 | <p>Specify a control type for the host.</p> <p>Force Authorized: Click it to forcefully authenticate the host specified above.</p> <p>Force Unauthorized: The host specified above will not be authenticated by Switch.</p> |
| 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.

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

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

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) |
| <input type="button" value="Apply"/> <input type="button" value="Close"/> | |

| 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.

PROSCEND Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save Logout Reboot

Security > Authentication Manager > Sessions

Sessions Table

Showing All entries

Showing 0 to 0 of 0 entries

| Session ID | Port | MAC Address | Current Type | Status | Operational Information | | | | Authorized Information | |
|------------------|------|-------------|--------------|--------|-------------------------|--------------|---------------|------------|------------------------|-------------------------|
| | | | | | VLAN | Session Time | Inactive Time | Quiet Time | VLAN | Reauthentication Period |
| 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.

PROSCEND Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save Logout Reboot

Security >> Port Security

State ☐ Enable

Apply

Port Security Table

| Entry | Port | State | MAC Address | Action |
|--------------------------|------|-------|-------------|-----------|
| <input type="checkbox"/> | 1 | GE1 | Disabled | 1 Discard |
| <input type="checkbox"/> | 2 | GE2 | Disabled | 1 Discard |
| <input type="checkbox"/> | 3 | GE3 | Disabled | 1 Discard |
| <input type="checkbox"/> | 4 | GE4 | Disabled | 1 Discard |
| <input type="checkbox"/> | 5 | GE5 | Disabled | 1 Discard |
| <input type="checkbox"/> | 6 | GE6 | Disabled | 1 Discard |
| <input type="checkbox"/> | 7 | GE7 | Disabled | 1 Discard |
| <input type="checkbox"/> | 8 | GE8 | Disabled | 1 Discard |
| <input type="checkbox"/> | 9 | GE9 | Disabled | 1 Discard |
| <input type="checkbox"/> | 10 | GE10 | Disabled | 1 Discard |
| <input type="checkbox"/> | 11 | GE11 | Disabled | 1 Discard |
| <input type="checkbox"/> | 12 | GE12 | Disabled | 1 Discard |
| <input type="checkbox"/> | 13 | LAG1 | Disabled | 1 Discard |
| <input type="checkbox"/> | 14 | LAG2 | Disabled | 1 Discard |
| <input type="checkbox"/> | 15 | LAG3 | Disabled | 1 Discard |
| <input type="checkbox"/> | 16 | LAG4 | Disabled | 1 Discard |
| <input type="checkbox"/> | 17 | LAG5 | Disabled | 1 Discard |
| <input type="checkbox"/> | 18 | LAG6 | Disabled | 1 Discard |
| <input type="checkbox"/> | 19 | LAG7 | Disabled | 1 Discard |
| <input type="checkbox"/> | 20 | LAG8 | Disabled | 1 Discard |

Edit

| 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
State
MAC Address
Action

GE1
☐ Enable
 (0 - 255, default 1)
☐ Forward
☒ Discard
☐ 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 port protection.

The screenshot displays the web interface of a Proscend Industrial 12-Port GbE Managed PoE Switch. The top navigation bar includes the Proscend logo, the device name, and links for Save, Logout, and Reboot. A left sidebar contains a tree view of configuration categories: Status, Network, Port, PoE, VLAN, MAC Address Table, Spanning Tree, Discovery, Multicast, Security (expanded), Storm Control, DoS, Dynamic ARP Inspection, DHCP Snooping, IP Source Guard, ACL, QoS, Diagnostics, and Management. The Security section is expanded, showing sub-items like RADIUS, TACACS+, AAA, Management Access, Authentication Manager, Port Security, Protected Port (selected), Storm Control, DoS, Dynamic ARP Inspection, DHCP Snooping, and IP Source Guard. The main content area is titled 'Security >> Protected Port' and features a 'Protected Port Table'. This table lists 12 ports (GE1 to GE12) with their current state, all of which are 'Unprotected'. Each row has a checkbox in the first column. Above the table is a search bar with a magnifying glass icon. Below the table is an 'Edit' button.

| <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 |

13.8 Storm Control

This page allows to configure general settings for Storm Control.

Security >> Storm Control

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

Mode

☐ Packet / Sec
☒ Kbits / Sec

IFG

☒ Exclude
☐ Include

Port Setting Table

Q

| <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 |

| Item | Description |
|-------|---|
| Mode | Select the mode of storm control. Packet/sec: Storm control rate will be calculated by packet-based. Kbits/sec: Storm control rate will be calculated by octet-based. |
| IFG | Select the rate calculation with/without preamble & IFG (20 bytes). Excluded: Exclude preamble & IFG (20 bytes) when count ingress storm control rate. Included: Include preamble & IFG (20 bytes) when count ingress storm control rate. |
| Apply | Apply the settings to the switch. |
| Edit | Edit the settings of selected port. |

Edit Port Setting

| | |
|-------------------|---|
| Port | GE1 |
| State | <input type="checkbox"/> Enable |
| Broadcast | <input type="checkbox"/> Enable |
| | 10000 Kbps (16 - 1000000, default 10000) |
| Unknown Multicast | <input type="checkbox"/> Enable |
| | 10000 Kbps (16 - 1000000, default 10000) |
| Unknown Unicast | <input type="checkbox"/> Enable |
| | 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. |

13.9 DoS

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

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

PROSCEND Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save Logout Reboot

Security >> DoS >> Property

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

| | |
|--------------------|---|
| 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 512 Byte (0 - 65535, default 512) |
| TCP Min Hdr size | <input checked="" type="checkbox"/> Enable 20 Byte (0 - 31, default 20) |
| IPv6 Min Fragment | <input checked="" type="checkbox"/> Enable 1240 Byte (0 - 65535, default 1240) |
| Smurf Attack | <input checked="" type="checkbox"/> Enable 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.

Security >> DoS >> Port Setting

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

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 |

[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.

The screenshot displays the web interface of a Proscend Industrial 12-Port GbE Managed PoE Switch. The top navigation bar includes the Proscend logo, the device name, and links for Save, Logout, and Reboot. The main menu on the left lists various configuration categories, with 'Security' expanded to show 'Dynamic ARP Inspection' and its 'Property' sub-option. The main content area is titled 'Security >> Dynamic ARP Inspection >> Property'. It features a 'State' section with an 'Enable' checkbox and a 'VLAN' section with two lists: 'Available VLAN' (containing 'VLAN 1') and 'Selected VLAN' (empty). Below these is an 'Apply' button. A 'Port Setting Table' is also present, showing a list of 20 ports (1-20) with columns for Entry, Port, Trust, Source MAC Address, Destination MAC Address, IP Address, and Rate Limit. All ports are currently set to 'Disabled' for Trust and have an 'Unlimited' rate limit. An 'Edit' button is located at the bottom of the table.

| Entry | Port | Trust | Source MAC Address | Destination MAC Address | IP Address | Rate Limit |
|-------|------|----------|--------------------|-------------------------|------------|------------|
| 1 | GE1 | Disabled | Disabled | Disabled | Disabled | Unlimited |
| 2 | GE2 | Disabled | Disabled | Disabled | Disabled | Unlimited |
| 3 | GE3 | Disabled | Disabled | Disabled | Disabled | Unlimited |
| 4 | GE4 | Disabled | Disabled | Disabled | Disabled | Unlimited |
| 5 | GE5 | Disabled | Disabled | Disabled | Disabled | Unlimited |
| 6 | GE6 | Disabled | Disabled | Disabled | Disabled | Unlimited |
| 7 | GE7 | Disabled | Disabled | Disabled | Disabled | Unlimited |
| 8 | GE8 | Disabled | Disabled | Disabled | Disabled | Unlimited |
| 9 | GE9 | Disabled | Disabled | Disabled | Disabled | Unlimited |
| 10 | GE10 | Disabled | Disabled | Disabled | Disabled | Unlimited |
| 11 | GE11 | Disabled | Disabled | Disabled | Disabled | Unlimited |
| 12 | GE12 | Disabled | Disabled | Disabled | Disabled | Unlimited |
| 13 | LAG1 | Disabled | Disabled | Disabled | Disabled | Unlimited |
| 14 | LAG2 | Disabled | Disabled | Disabled | Disabled | Unlimited |
| 15 | LAG3 | Disabled | Disabled | Disabled | Disabled | Unlimited |
| 16 | LAG4 | Disabled | Disabled | Disabled | Disabled | Unlimited |
| 17 | LAG5 | Disabled | Disabled | Disabled | Disabled | Unlimited |
| 18 | LAG6 | Disabled | Disabled | Disabled | Disabled | Unlimited |
| 19 | LAG7 | Disabled | Disabled | Disabled | Disabled | Unlimited |
| 20 | LAG8 | Disabled | Disabled | Disabled | Disabled | Unlimited |

| 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. |

Security >> Dynamic ARP Inspection >> Property

Edit Port Setting

Port : GE1

Trust : ☐ Enable

Source MAC Address : ☐ Enable

Destination MAC Address : ☐ Enable

IP Address : ☐ Allow Zero (0.0.0.0)

Rate Limit : 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.

PROSCEND Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save | Logout | Reboot

Security >> Dynamic ARP Inspection >> Statistics

Status

Network

Port

PoE

VLAN

MAC Address Table

Spanning Tree

Discovery

Multicast

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

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 | LAG1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| <input type="checkbox"/> | 14 | LAG2 | 0 | 0 | 0 | 0 | 0 | 0 | |
| <input type="checkbox"/> | 15 | LAG3 | 0 | 0 | 0 | 0 | 0 | 0 | |
| <input type="checkbox"/> | 16 | LAG4 | 0 | 0 | 0 | 0 | 0 | 0 | |
| <input type="checkbox"/> | 17 | LAG5 | 0 | 0 | 0 | 0 | 0 | 0 | |
| <input type="checkbox"/> | 18 | LAG6 | 0 | 0 | 0 | 0 | 0 | 0 | |
| <input type="checkbox"/> | 19 | LAG7 | 0 | 0 | 0 | 0 | 0 | 0 | |
| <input type="checkbox"/> | 20 | 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

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

State

☐ Enable

VLAN

Available VLAN

Selected VLAN

VLAN 1

Apply

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 | LAG1 | Disabled | Disabled | Unlimited |
| <input type="checkbox"/> | 14 | LAG2 | Disabled | Disabled | Unlimited |
| <input type="checkbox"/> | 15 | LAG3 | Disabled | Disabled | Unlimited |
| <input type="checkbox"/> | 16 | LAG4 | Disabled | Disabled | Unlimited |
| <input type="checkbox"/> | 17 | LAG5 | Disabled | Disabled | Unlimited |
| <input type="checkbox"/> | 18 | LAG6 | Disabled | Disabled | Unlimited |
| <input type="checkbox"/> | 19 | LAG7 | Disabled | Disabled | Unlimited |
| <input type="checkbox"/> | 20 | 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. |

Security >> DHCP Snooping >> Property

Edit Port Setting

Port
Trust
Verify Chaddr
Rate Limit

GE1
☐ Enable
☐ Enable
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 | LAG1 | 0 | 0 | 0 | 0 | 0 | |
| <input type="checkbox"/> | 14 | LAG2 | 0 | 0 | 0 | 0 | 0 | |
| <input type="checkbox"/> | 15 | LAG3 | 0 | 0 | 0 | 0 | 0 | |
| <input type="checkbox"/> | 16 | LAG4 | 0 | 0 | 0 | 0 | 0 | |
| <input type="checkbox"/> | 17 | LAG5 | 0 | 0 | 0 | 0 | 0 | |
| <input type="checkbox"/> | 18 | LAG6 | 0 | 0 | 0 | 0 | 0 | |
| <input type="checkbox"/> | 19 | LAG7 | 0 | 0 | 0 | 0 | 0 | |
| <input type="checkbox"/> | 20 | LAG8 | 0 | 0 | 0 | 0 | 0 | |

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

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

☐ User Defined

Remote ID

Operational Status

Remote ID 00:e0:4d:00:00:00 (Switch Mac in Byte Order)

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 | LAG1 | Disabled | Drop |
| <input type="checkbox"/> | 14 | LAG2 | Disabled | Drop |
| <input type="checkbox"/> | 15 | LAG3 | Disabled | Drop |
| <input type="checkbox"/> | 16 | LAG4 | Disabled | Drop |
| <input type="checkbox"/> | 17 | LAG5 | Disabled | Drop |
| <input type="checkbox"/> | 18 | LAG6 | Disabled | Drop |
| <input type="checkbox"/> | 19 | LAG7 | Disabled | Drop |
| <input type="checkbox"/> | 20 | LAG8 | Disabled | Drop |

| 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. |

Security >> DHCP Snooping >> Option82 Property

Edit Port Setting

Port

GE1

State

☐ Enable

☒ Keep

☒ Drop

☐ Replace

Allow Untrust

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).

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

Status

Network

Port

PoE

VLAN

MAC Address Table

Spanning Tree

Discovery

Multicast

Security

RADIUS

TACACS+

AAA

Management Access

Authentication Manager

Port Security

Protected Port

Storm Control

DoS

Dynamic ARP Inspection

DHCP Snooping

Property

Statistics

Option82 Property

Option82 Circuit ID

IP Source Guard

ACL

QoS

Diagnostics

Management

Security >> DHCP Snooping >> Option82 Circuit ID

Option82 Circuit ID Table

Showing All entries

Showing 0 to 0 of 0 entries

Q

☐

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

GE1

VLAN

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

Circuit ID

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. |

13.12 IP 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.

The screenshot displays the web management interface for a Proscend Industrial 12-Port GbE Managed PoE Switch. The breadcrumb navigation path is **Security >> IP Source Guard >> Port Setting**. The left sidebar shows a tree view with categories like Status, Network, Port, PoE, VLAN, MAC Address Table, Spanning Tree, Discovery, Multicast, Security, and Management. Under the Security category, the 'IP Source Guard' sub-menu is expanded, showing options for Port Setting, IMPV Binding, and Save Database. The main content area is titled 'Port Setting Table' and contains a table with 20 rows, each representing a port configuration. The table columns are: Entry, Port, State, Verify Source, Current Entry, and Max Entry. All ports are currently in a 'Disabled' state. Below the table is an 'Edit' button.

| Entry | Port | State | Verify Source | Current Entry | Max Entry |
|-------|------|----------|---------------|---------------|-----------|
| 1 | GE1 | Disabled | IP | 0 | Unlimited |
| 2 | GE2 | Disabled | IP | 0 | Unlimited |
| 3 | GE3 | Disabled | IP | 0 | Unlimited |
| 4 | GE4 | Disabled | IP | 0 | Unlimited |
| 5 | GE5 | Disabled | IP | 0 | Unlimited |
| 6 | GE6 | Disabled | IP | 0 | Unlimited |
| 7 | GE7 | Disabled | IP | 0 | Unlimited |
| 8 | GE8 | Disabled | IP | 0 | Unlimited |
| 9 | GE9 | Disabled | IP | 0 | Unlimited |
| 10 | GE10 | Disabled | IP | 0 | Unlimited |
| 11 | GE11 | Disabled | IP | 0 | Unlimited |
| 12 | GE12 | Disabled | IP | 0 | Unlimited |
| 13 | LAG1 | Disabled | IP | 0 | Unlimited |
| 14 | LAG2 | Disabled | IP | 0 | Unlimited |
| 15 | LAG3 | Disabled | IP | 0 | Unlimited |
| 16 | LAG4 | Disabled | IP | 0 | Unlimited |
| 17 | LAG5 | Disabled | IP | 0 | Unlimited |
| 18 | LAG6 | Disabled | IP | 0 | Unlimited |
| 19 | LAG7 | Disabled | IP | 0 | Unlimited |
| 20 | LAG8 | Disabled | IP | 0 | Unlimited |

| Item | Description |
|------|-------------------------------------|
| Edit | Edit the settings of selected port. |

Security >> IP Source Guard >> Port Setting

Edit Port Setting

Port

GE1

State

☐ Enable

Verify Source

☒ IP
☐ IP-MAC

Max Entry

(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.

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

Security >> IP Source Guard >> IMPV Binding

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

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. |

Security >> IP Source Guard >> IMPV Binding

Add IP-MAC-Port-VLAN Binding

Port

GE1

VLAN

(1 - 4094)

Binding

☒ IP-MAC-Port-VLAN
 ☐ IP-Port-VLAN

MAC Address

IP Address

/ 255.255.255.255

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

| 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 | <p>Select the binding type for such feature.</p> <p>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.</p> <p>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.</p> |
| 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
- ▼ Security
 - RADIUS
 - TACACS+
 - ▼ AAA
 - ▼ Management Access
 - ▼ Authentication Manager
 - Port Security
 - Protected Port
 - Storm Control
 - ▼ DoS
 - ▼ Dynamic ARP Inspection
 - ▼ DHCP Snooping
 - ▲ IP Source Guard
 - Port Setting
 - IMPV Binding
 - Save Database
- ▼ ACL
- ▼ QoS
- ▼ Diagnostics
- ▼ Management

| | | |
|----------------|--|-------------------------------|
| Type | <input checked="" type="radio"/> None <input type="radio"/> Flash <input type="radio"/> TFTP | |
| Filename | <input style="width: 100%;" type="text"/> | |
| Address Type | <input checked="" type="radio"/> Hostname <input type="radio"/> IPv4 | |
| Server Address | <input style="width: 100%;" type="text"/> | |
| Write Delay | <input style="width: 100px;" type="text" value="300"/> | Sec (15 - 86400, default 300) |
| Timeout | <input style="width: 100px;" type="text" value="300"/> | Sec (0 - 86400, default 300) |

[Apply](#)

14 ACL

The Access Control List (ACL) is a sequential list of permits 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 rule 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 Industrial 12-Port GbE Managed PoE Switch. The top navigation bar includes the Proscend logo, the device 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, Security, ACL, QoS, Diagnostics, and Management. The 'ACL' category is expanded, showing sub-items: MAC ACL, MAC ACE, IPv4 ACL, IPv4 ACE, IPv6 ACL, IPv6 ACE, and ACL Binding. The main content area is titled 'ACL >> MAC ACL'. It features an 'ACL Name' input field with an 'Apply' button below it. Below this is an 'ACL Table' section with a search bar and a table header with columns: ACL Name, Rule, and Port. The table currently shows '0 results found.' and has pagination controls (First, Previous, 1, Next, Last). A 'Delete' button is located 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. |

14.2 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.

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

ACL >> MAC ACE

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

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 | <p>Specify the source MAC 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 MAC | <p>Specify the destination MAC 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> |

| | |
|-----------|---|
| Ethertype | Specify Ethernet type for filtering. Select Any. Or, enter the value with the format of “0x600 ~ 0xFF”. |
| 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. |

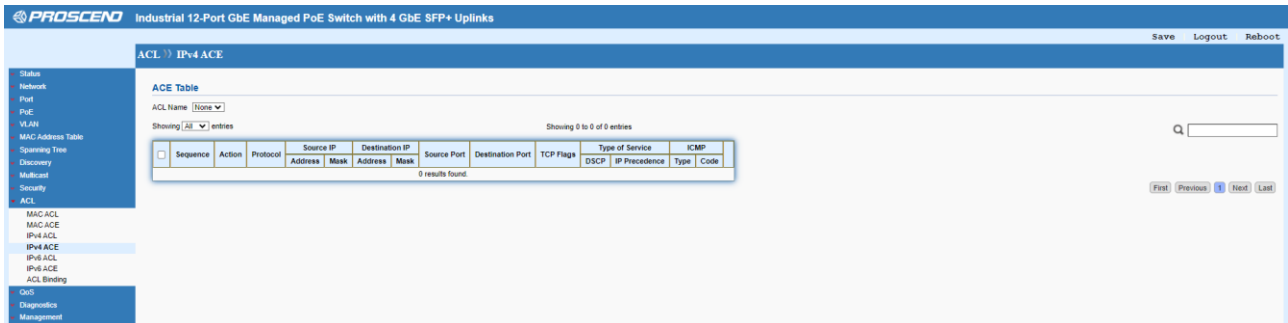
14.3 IPv4 ACL

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

| 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.



| 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="button" value="v"/> <input type="radio"/> Define <input type="text" value=""/> (0 - 255) |
| Source IP | <input checked="" type="checkbox"/> Any <input type="text" value=""/> / <input type="text" value=""/> (Address / Mask) |
| Destination IP | <input checked="" type="checkbox"/> 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="button" value="v"/> <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) |

| 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. |

| | |
|------------------|--|
| | <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 | <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. |

14.5 IPv6 ACL

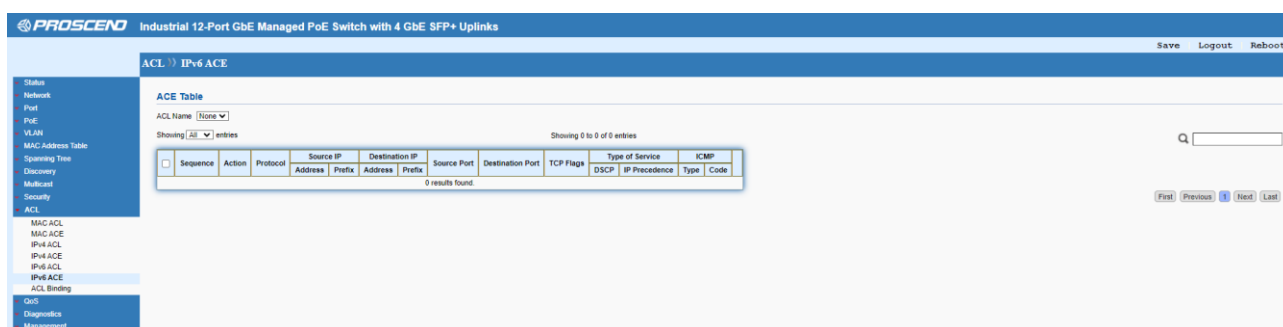
This page shows ACE based on Ipv6 address. You may choose ACL, permit, and deny particular packet or frame, even shutdown the port.

The screenshot displays the web management interface for a Proscend Industrial 12-Port GbE Managed PoE Switch. The top navigation bar includes the Proscend logo, the device name, and links for Save, Logout, and Reboot. A left-hand menu lists various configuration categories, with 'ACL' currently selected. Under 'ACL', 'IPv6 ACL' is highlighted. The main content area is titled 'ACL >> IPv6 ACL' and contains a form for creating or editing an ACL. The form includes a text input field for 'ACL Name', an 'Apply' button, and a section titled 'ACL Table'. The 'ACL Table' section shows a search bar, a table with columns for 'ACL Name', 'Rule', and 'Port', and a message indicating '0 results found'. Navigation buttons like 'First', 'Previous', 'Next', and 'Last' are present at the bottom of the table area. A 'Delete' button is also visible 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.



| 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="TCP"/> <input type="radio"/> Define <input type="text" value=""/> (0 - 255) |
| Source IP | <input checked="" type="radio"/> Any <input type="radio"/> <input type="text" value=""/> / <input type="text" value=""/> (Address / Prefix (0 - 128)) |
| Destination IP | <input checked="" type="radio"/> Any <input type="radio"/> <input type="text" value=""/> / <input type="text" value=""/> (Address / Prefix (0 - 128)) |
| 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="Destination Unreachable"/> <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) |

| 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</p> |

| | |
|-----------|--|
| | <p>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 | <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.

ACL >> ACL Binding

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

ACL Binding Table

| <input type="checkbox"/> | 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 | LAG1 | | | |
| <input type="checkbox"/> | 14 | LAG2 | | | |
| <input type="checkbox"/> | 15 | LAG3 | | | |
| <input type="checkbox"/> | 16 | LAG4 | | | |
| <input type="checkbox"/> | 17 | LAG5 | | | |
| <input type="checkbox"/> | 18 | LAG6 | | | |
| <input type="checkbox"/> | 19 | LAG7 | | | |
| <input type="checkbox"/> | 20 | LAG8 | | | |

Bind Unbind Edit

| 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. |

ACL >> ACL Binding

Add ACL Binding

| | |
|---|--------|
| Port | GE1 |
| Note: ACL without any rules cannot be bound | |
| MAC ACL | None ▾ |
| IPv4 ACL | None ▾ |
| IPv6 ACL | None ▾ |

| 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.

PROSCEND Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save | Logout | Reboot

QoS >> General >> Property

State

☐ Enable

Trust Mode

☒ CoS
☐ DSCP
☐ CoS-DSCP
☐ IP Precedence

Apply

Port Setting Table

Q

| | Entry | Port | CoS | Trust | Remarking | | |
|--------------------------|-------|------|-----|---------|-----------|----------|---------------|
| | | | | | CoS | DSCP | IP Precedence |
| <input type="checkbox"/> | 1 | GE1 | 0 | Enabled | Disabled | Disabled | Disabled |
| <input type="checkbox"/> | 2 | GE2 | 0 | Enabled | Disabled | Disabled | Disabled |
| <input type="checkbox"/> | 3 | GE3 | 0 | Enabled | Disabled | Disabled | Disabled |
| <input type="checkbox"/> | 4 | GE4 | 0 | Enabled | Disabled | Disabled | Disabled |
| <input type="checkbox"/> | 5 | GE5 | 0 | Enabled | Disabled | Disabled | Disabled |
| <input type="checkbox"/> | 6 | GE6 | 0 | Enabled | Disabled | Disabled | Disabled |
| <input type="checkbox"/> | 7 | GE7 | 0 | Enabled | Disabled | Disabled | Disabled |
| <input type="checkbox"/> | 8 | GE8 | 0 | Enabled | Disabled | Disabled | Disabled |
| <input type="checkbox"/> | 9 | GE9 | 0 | Enabled | Disabled | Disabled | Disabled |
| <input type="checkbox"/> | 10 | GE10 | 0 | Enabled | Disabled | Disabled | Disabled |
| <input type="checkbox"/> | 11 | GE11 | 0 | Enabled | Disabled | Disabled | Disabled |
| <input type="checkbox"/> | 12 | GE12 | 0 | Enabled | Disabled | Disabled | Disabled |
| <input type="checkbox"/> | 13 | LAG1 | 0 | Enabled | Disabled | Disabled | Disabled |
| <input type="checkbox"/> | 14 | LAG2 | 0 | Enabled | Disabled | Disabled | Disabled |
| <input type="checkbox"/> | 15 | LAG3 | 0 | Enabled | Disabled | Disabled | Disabled |
| <input type="checkbox"/> | 16 | LAG4 | 0 | Enabled | Disabled | Disabled | Disabled |
| <input type="checkbox"/> | 17 | LAG5 | 0 | Enabled | Disabled | Disabled | Disabled |
| <input type="checkbox"/> | 18 | LAG6 | 0 | Enabled | Disabled | Disabled | Disabled |
| <input type="checkbox"/> | 19 | LAG7 | 0 | Enabled | Disabled | Disabled | Disabled |
| <input type="checkbox"/> | 20 | LAG8 | 0 | Enabled | Disabled | 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, mapped to queues based on the CoS value in the VLAN</p> |
| 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 supports multiple queues for each interface. The higher numbered queue represents the higher priority.


Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

QoS >> General >> Queue Scheduling

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

Queue Scheduling Table

| Queue | Method | | | |
|-------|----------------------------------|-----------------------|--------|-------------------|
| | Strict Priority | WRR | Weight | WRR Bandwidth (%) |
| 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 | |


Apply

| 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.


Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

QoS >> General >> CoS Mapping

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

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
- Security
- ACL
- QoS
 - General
 - Property
 - Queue Scheduling
 - CoS Mapping
 - **DSCP Mapping**
 - IP Precedence Mapping
 - Rate Limit
- Diagnostics
- Management

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.

 Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save | Logout | Reboot

QoS >> General >> IP Precedence Mapping

Status

Network

Port

PoE

VLAN

MAC Address Table

Spanning Tree

Discovery

Multicast

Security

ACL

QoS

General

Property

Queue Scheduling

CoS Mapping

DSCP Mapping

IP Precedence Mapping

Rate Limit

Diagnostics

Management

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.

PROSCENO Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save | Logout | Reboot

QoS >> Rate Limit >> Ingress / Egress Port

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Security
- ACL
- QoS
 - General
 - Rate Limit
 - Ingress / Egress Port
 - Egress Queue
- Diagnostics
- Management

Ingress / Egress Port Table

Q

| <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 | |

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

PROSCENIO Industrial 12-Port GbE Managed PoE Switch with 4 GbE 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) | 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 | |

| Item | Description |
|------|----------------------------|
| Edit | Edit the selected port(s). |

Edit Egress Queue

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

| Item | Description |
|-------------|--|
| Port | The index number of selected port. |
| Queue (1~8) | <p>Total eight queue rules.</p> <p>Enable or disable egress bandwidth control.</p> <p>Enter the rate value,<16-1000000>, unit:16 Kbps.</p> |
| 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

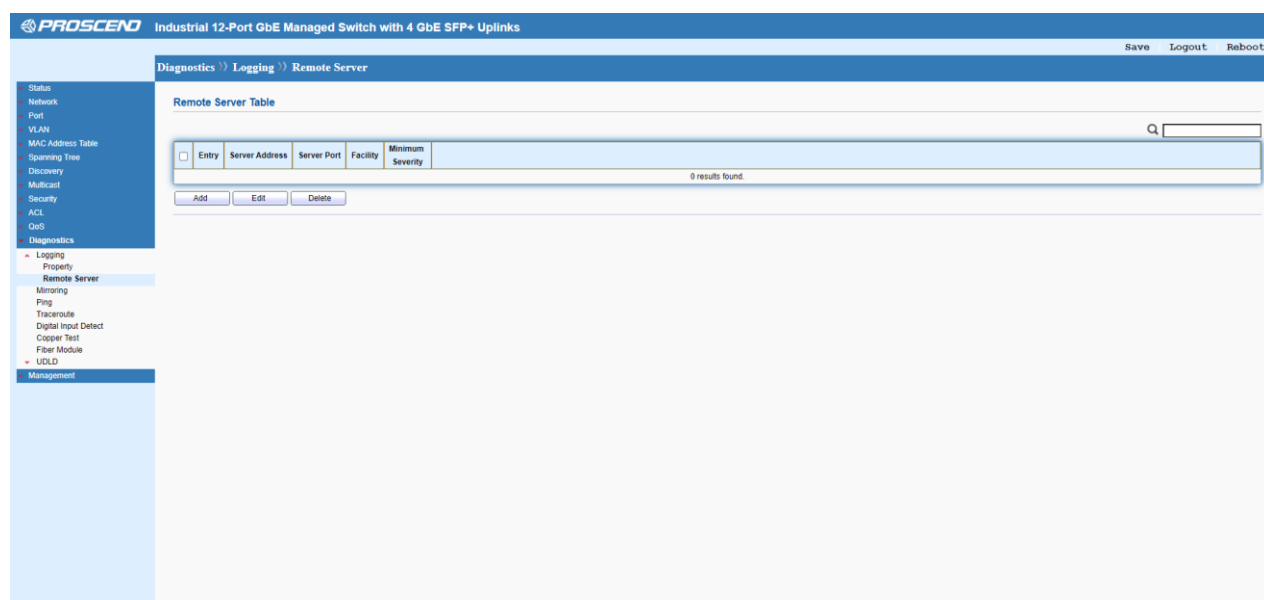
The screenshot shows the web interface of a Proscend Industrial 12-Port GbE Managed PoE Switch. The breadcrumb navigation is "Diagnostics >> Logging >> Property". The left sidebar lists various system functions, with "Logging" expanded to show "Property", "Remote Server", "Mirroring", "Ping", "Traceroute", "Digital Input Detect", "Copper Test", "Fiber Module", "UDLD", and "Management". The main content area is titled "Logging" and contains three sections: "Console Logging", "RAM Logging", and "Flash Logging". Each section has a "State" checkbox and a "Minimum Severity" dropdown menu. The "State" checkboxes for Console and RAM Logging are checked, while the "Flash Logging" checkbox is unchecked. The "Minimum Severity" dropdown for all three sections is set to "Notice". A note below each dropdown lists the severity levels: "Note: Emergency, Alert, Critical, Error, Warning, Notice". An "Apply" button is located at the bottom of the configuration area.

| 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.



| 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 | | |

Apply

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.

Diagnostics >> Mirroring

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Security
- ACL
- QoS
- Diagnostics
 - Logging
 - Property
 - Remote Server
 - Mirroring
 - Ping
 - Traceroute
 - Digital Input Detect
 - Copper Test
 - Fiber Module
 - UDLD
- Management

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: ☐ Enable

Monitor Port: GE1

☐ Send or Receive Normal Packet

Ingress Port

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

Selected Port:

Egress Port

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

Selected Port:

Apply Close

| Item | Description |
|--------------|--|
| Session ID | The index number of selected session ID. |
| State | Enable or disable the specified mirror session. |
| Monitor Port | Specify the port where you wish to observe the mirrored packets. Enable: The destination port is able to function as a port connecting to network, communicating with other network devices. Disable: Only observe the mirrored packets. |
| 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 displays the web interface of a Proscend Industrial 12-Port GbE Managed PoE Switch. The top navigation bar includes the Proscend logo, the device name, and links for Save, Logout, and Reboot. A left sidebar contains a menu with options like Status, Network, Port, PoE, VLAN, MAC Address Table, Spanning Tree, Discovery, Multicast, Security, ACL, QoS, Diagnostics, Logging, Property, Remote Server, Mirroring, Ping, Traceroute, Digital Input Detect, Copper Test, Fiber Module, UDLD, and Management. 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 1-65535 and a 'User Defined' checkbox). Below this are 'Ping' and 'Stop' buttons. The 'Ping Result' section shows a 'Packet Status' table with columns for Status and values for N/A, Transmit Packet (0), Receive Packet (0), and Packet Lost (0%). Below that is a 'Round Trip Time' table with columns for Min, Max, and Average, all showing 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. |

| 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.

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

Diagnostics >> Traceroute

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Security
- ACL
- QoS
- Diagnostics
 - Logging
 - Property
 - Remote Server
 - Mirroring
 - Ping
 - Traceroute**
 - Digital Input Detect
 - Copper Test
 - Fiber Module
 - UDLD
- Management

Address Type
☒ Hostname
 ☐ IPv4

Server Address

Time to Live
 (2 - 255, default 30)

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 Digital Input Detect

This page allows to check the status of digital input.


Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

Diagnostics >> Digital Input Detect

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Security
- ACL
- QoS
- Diagnostics
 - Logging
 - Property
 - Remote Server
 - Mirroring
 - Ping
 - Traceroute
 - Digital Input Detect**
 - Copper Test
 - Fiber Module
 - UDLD
- Management

Digital Input

Disable ▼

Note: triggering conditions


Apply

Digital Input Status

| | |
|-----|-----|
| DI1 | Off |
| DI2 | Off |

16.6 Copper Test

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


Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

Diagnostics >> Copper Test

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Security
- ACL
- QoS
- Diagnostics
 - Logging
 - Property
 - Remote Server
 - Mirroring
 - Ping
 - Traceroute
 - Digital Input Detect
 - Copper Test**
 - Fiber Module
 - UDLD
- Management

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. |

16.7 Fiber Module

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

The screenshot shows the 'Fiber Module' diagnostics page. The table below represents the data shown in the interface:

| Port | Temperature (C) | Voltage (V) | Current (mA) | Output Power (mW) | Input Power (mW) | OE Present | Loss of Signal |
|------|-----------------|-------------|--------------|-------------------|------------------|------------|----------------|
| GE9 | N/S | N/S | N/S | N/S | N/S | Remove | Loss |
| GE10 | N/S | N/S | N/S | N/S | N/S | Remove | Loss |
| GE11 | N/S | N/S | N/S | N/S | N/S | Remove | Loss |
| GE12 | N/S | N/S | N/S | N/S | N/S | Remove | Loss |

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

16.8 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.

16.8.1 Property

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

Diagnostics >> UDLD >> Property

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Security
- ACL
- QoS
- Diagnostics
 - Logging
 - Mirroring
 - Ping
 - Traceroute
 - Digital Input Detect
 - Copper Test
 - Fiber Module
 - UDLD
 - Property
 - Neighbor
 - Management

Message Time

Sec (1 - 90, default 15)

Port Setting Table

| <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 |

| 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. |

Diagnostics >> UDLD >> Property

Edit Port Setting

Port
GE1

Mode

☒ Disabled
 ☐ Normal
 ☐ Aggressive

| 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. |

16.8.2 Neighbor

This page displays information of the neighboring devices.


Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

Diagnostics >> UDLD >> Neighbor

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Security
- ACL
- QoS
- Diagnostics
 - Logging
 - Mirroring
 - Ping
 - Traceroute
 - Digital Input Detect
 - Copper Test
 - Fiber Module
 - UDLD
 - Property
 - Neighbor**
- Management

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 Industrial 12-Port GbE Managed PoE Switch. The top header includes the Proscend logo and the device name. Below the header, there are links for 'Save', 'Logout', and 'Reboot'. The main navigation menu on the left lists various configuration categories, with 'Management' currently selected. The 'User Account' page is displayed, showing a table with one user entry: 'root' with 'Admin' privileges. The table has columns for 'Username' and 'Privilege'. Below the table are buttons for 'Add', 'Edit', and 'Delete'. The page also includes a search bar and pagination controls.

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save Logout Reboot

Management >> User Account

User Account

Showing All entries Showing 1 to 1 of 1 entries

| <input type="checkbox"/> | Username | Privilege |
|--------------------------|----------|-----------|
| <input type="checkbox"/> | root | Admin |

Add Edit Delete

First Previous 1 Next Last

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.

Management >> Firmware >> Upgrade / Backup

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

User Account

▲ Firmware

Upgrade / Backup

Active Image

▼ Configuration

▼ SNMP

▼ RMON

Action

- ☒ Upgrade
- ☐ Backup

Method

- ☐ TFTP
- ☒ HTTP

Filename

選擇檔案 未選擇任何檔案

Apply

17.2.2 Active Image

This page allows to boot the system from flash image partition 0 / 1.

PROSCENO

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save

Logout

Reboot

Management >> Firmware >> Active Image

Status

Network

Port

PoE

VLAN

MAC Address Table

Spanning Tree

Discovery

Multicast

Security

ACL

QoS

Diagnostics

Management

User Account

Firmware

Upgrade / Backup

Active Image

Configuration

SNMP

RMON

Active Image

☒ Image0

☐ Image1

Note: the image was selected for the next boot

Active Image

| | |
|----------|---------------------|
| Firmware | Image0 |
| Version | 1.0.1 |
| Name | |
| Size | 6619969 Bytes |
| Created | 2024-08-13 10:37:33 |

Backup Image

| | |
|----------|---------------------|
| Firmware | Image1 |
| Version | 1.0.1 |
| Name | |
| Size | 6619969 Bytes |
| Created | 2024-08-13 10:37:33 |

Apply


17.3 Configuration

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.

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Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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


Management >> Configuration >> Upgrade / Backup

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Security
- ACL
- QoS
- Diagnostics
- Management
 - User Account
 - Firmware
 - Upgrade / Backup
 - Active Image
 - Configuration
 - Upgrade / Backup**
 - Save Configuration
 - SNMP
 - RMON

| | |
|---------------|---|
| Action | <input checked="" type="radio"/> Upgrade <input type="radio"/> Backup |
| Method | <input type="radio"/> TFTP <input checked="" type="radio"/> HTTP |
| Configuration | <input checked="" type="radio"/> Running Configuration <input type="radio"/> Startup Configuration <input type="radio"/> Backup Configuration <input type="radio"/> RAM Log <input type="radio"/> Flash Log |
| Filename | <input type="text" value="選擇檔案"/> 未選擇任何檔案 |

17.3.2 Save Configuration

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


Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

Management >> Configuration >> Save Configuration

- Status
- Network
- Port
- PoE
- VLAN
- MAC Address Table
- Spanning Tree
- Discovery
- Multicast
- Security
- ACL
- QoS
- Diagnostics
- Management
 - User Account
 - Firmware
 - Upgrade / Backup
 - Active Image
 - Configuration
 - Upgrade / Backup
 - Save Configuration**
 - SNMP
 - RMON

| | |
|------------------|---|
| Source File | <input checked="" type="radio"/> Running Configuration <input type="radio"/> Startup Configuration <input type="radio"/> Backup Configuration |
| Destination File | <input checked="" type="radio"/> Startup Configuration <input type="radio"/> Backup Configuration |

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.

PROSCEND Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save | Logout | Reboot

Management >> Configuration >> Save Configuration

Source File

- ☒ Running Configuration
- ☐ Startup Configuration
- ☐ Backup Configuration

Destination File

- ☒ Startup Configuration
- ☐ Backup Configuration

Apply | Restore Factory Default

| 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.


Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

Management >> SNMP >> Group

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

Group Table

Showing All entries
 Showing 0 to 0 of 0 entries

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

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

Configure **SNMP View** to associate a non-default view with a group.

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

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

Management >> SNMP >> Group

Add Group

Group

Version

☒ SNMPv1
☐ SNMPv2
☐ SNMPv3

Security Level

☒ No Security
☐ Authentication
☐ Authentication and Privacy

View

☒ Read

all

☐ Write

all

☐ Notify

all

Apply

Close

| Item | Description |
|----------------|---|
| Group | Enter a name for the group. |
| Version | Specify SNMP version. |
| 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> |
| 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.

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

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

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-Write |

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

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

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

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

Management >> SNMP >> Community

Add Community

Community

Type

☒ Basic
 ☐ Advanced

View

all

Access

☒ Read-Only
 ☐ Read-Write


Group

[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.


Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

Management >> SNMP >> User

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

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. | | | | | |

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

[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 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.

The screenshot shows the web interface of a Proscend Industrial 12-Port GbE Managed PoE Switch. The breadcrumb navigation is Management >> SNMP >> Engine ID. The left sidebar lists various configuration categories, with Management expanded to show Engine ID. The main content area has a 'Local Engine ID' section with a 'User Defined' checkbox and a text field containing '80006a920300e04d000000' (10 - 64 Hexadecimal Characters). Below this is an 'Apply' button. The 'Remote Engine ID Table' section shows 'Showing 0 to 0 of 0 entries' and a table with columns 'Server Address' and 'Engine ID'. The table is empty, displaying '0 results found.' and navigation buttons (First, Previous, 1, Next, Last) at the bottom.

| 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) |

Apply Close

| 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.

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

Save | Logout | Reboot

Management >> SNMP >> Trap Event

Status

Network

Port

PoE

VLAN

MAC Address Table

Spanning Tree

Discovery

Multicast

Security

ACL

QoS

Diagnostics

Management

User Account

Firmware

Configuration

SNMP

View

Group

Community

User

Engine ID

Trap Event

Notification


RMON

| | |
|------------------------|--|
| Authentication Failure | <input checked="" type="checkbox"/> Enable |
| Link Up / Down | <input checked="" type="checkbox"/> Enable |
| Cold Start | <input checked="" type="checkbox"/> Enable |
| Warm Start | <input checked="" type="checkbox"/> Enable |

Apply

17.4.7 Notification

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


Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

Management >> SNMP >> Notification

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

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](#)
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For SNMPv1,2 Notification, [SNMP Community](#) needs to be defined.
For SNMPv3 Notification, [SNMP User](#) must be created.

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

| 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.

| Entry | Port | Bytes Received | Drop Events | 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 | Frames Greater than 1024 Bytes |
|--------------------------|------|----------------|-------------|------------------|-------------------|-------------------|--------------------|-------------------|------------------|-----------|---------|------------|--------------------|---------------------------|----------------------------|----------------------------|-----------------------------|--------------------------------|
| <input type="checkbox"/> | 1 | GE1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 2 | GE2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 3 | GE3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 4 | GE4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 5 | GE5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 6 | GE6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 7 | GE7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 8 | GE8 | 7208276 | 0 | 27508 | 708 | 3125 | 0 | 0 | 0 | 0 | 0 | 12853 | 4200 | 40 | 1436 | 8979 | 0 |
| <input type="checkbox"/> | 9 | GE9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 10 | GE10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 11 | GE11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 12 | GE12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 13 | LAG1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 14 | LAG2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 15 | LAG3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 16 | LAG4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 17 | LAG5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 18 | LAG6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 19 | LAG7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> | 20 | LAG8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

17.5.2 History

This page allows to configure RMON history table.

Industrial 12-Port GbE Managed PoE Switch with 4 GbE SFP+ Uplinks

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

Management >> RMON >> History

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

History Table

Showing All entries Showing 0 to 0 of 0 entries

| <input type="checkbox"/> | Entry | Port | Interval | Owner | Sample | |
|--------------------------|-------|------|----------|-------|---------|---------|
| | | | | | Maximum | Current |
| 0 results found. | | | | | | |

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

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

| 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.

The screenshot displays the web management interface for a Proscend Industrial 12-Port GbE Managed PoE Switch. The top navigation bar includes the Proscend logo, the device name, and links for Save, Logout, and Reboot. The left sidebar shows a tree view of configuration categories, with 'Management' expanded to show 'Event' as the selected option. The main content area is titled 'Management >> RMON >> Event' and contains an 'Event Table' section. This section includes a search bar, a table with columns for Entry, Community, Description, Notification, Time, and Owner, and a status bar indicating '0 results found'. Below the table are buttons for Add, Edit, Delete, and View, along with pagination controls (First, Previous, 1, Next, Last).

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

Add Event

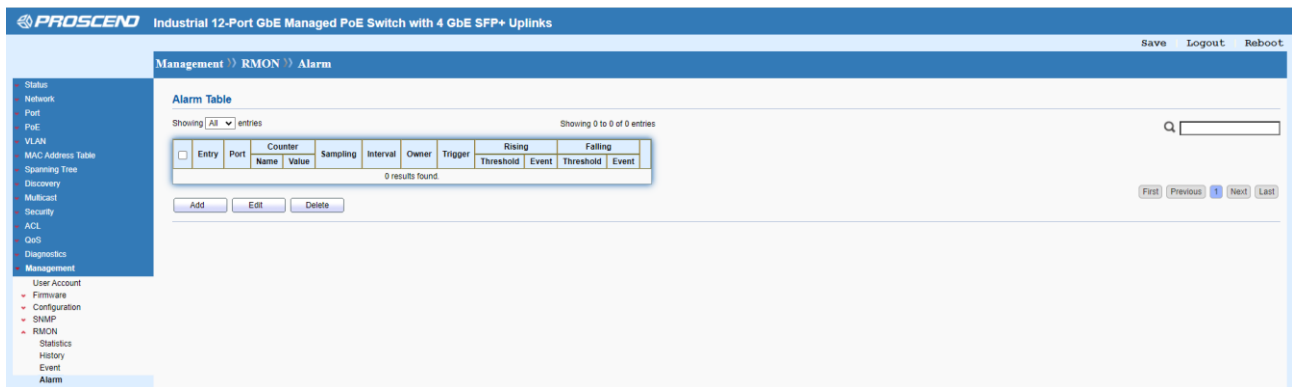
| | |
|--------------|--|
| Entry | 1 |
| Notification | <input checked="" type="radio"/> None <input type="radio"/> Event Log <input type="radio"/> Trap <input type="radio"/> Event Log and Trap |
| Community | Default Community |
| Description | Default Description |
| Owner | Test |

Apply Close

| Item | Description |
|--------------|---|
| Entry | The index number of entry. |
| Notification | <p>Indicates the notification of the event, the possible types are:</p> <p>None: No SNMP log is created; no SNMP trap is sent.</p> <p>Event Log: Create SNMP log entry when the event is triggered.</p> <p>Trap: Send SNMP trap when the event is triggered.</p> <p>Event Log and Trap: Create SNMP log entry and sent SNMP trap when the event is triggered.</p> |
| 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.



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

Management >> RMON >> Alarm

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 | <p>The method of sampling the selected variable and calculating the value to be compared against the thresholds, possible 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. |