ALL-SG8524M-10G

ALL-SG8548M-10G

ALL-SG8524PM-10G

ALL-SG8548PM-10G

User Manual

Default-IP

192.168.1.1

Username & Password:

admin

Disclaimer

The contents of this manual was based on existing production information, the content may be modified due to product version upgrade or other reasons. Our company reserve right that modifies the user manual without any notice or hint.

This user manual is only used as a guide, we had tried its best to guarantee the contents accurately when wrote this user manual. But it does not ensure that the contents of this user manual without any error or any omission, all information in this user manual does not constitute any express or implied warranty.

Preface

Thank you for using our products. This manual will guide you through the installation of the device.

Range of use

This user manual mainly introduces function of Switch, physical feature and WEB configuration, provides installation steps, trouble removal, technology Specification, use criterion and specification of cable and connector. It's suitable for user who wants to know the above content and has experience in installing and maintaining hardware. It supposes that user know of related terms and concept of Ethernet.

Document structure

- Chapter one "ALL-SG85XX-10G Switches Specifications" This chapter introduces hardware, technical index and related module.
- Chapter two "Preparation before installing". This chapter makes a list of requirements of safety, power, environment and so on.
- Chapter three" Installation of Product" .This chapter introduces the installation of Switch, the installation of module, power connection and ground lead connection.
- Chapter four "Common Troubleshooting in Installation" mainly describes problem and ways of disposal in installation or use procedure of Switch.
- Chapter five" Connection of Switch "introduces connects computer or load to Switch.
- Chapter six "ALL-SG85XX WEB Configuration Guide". This chapter introduce how to configure ALL-SG85XX L2+ series Switch.
- Appendix " Connectors and Connection Media"

Related document

Documents	Description
Introduction to Fixed Frame installation	This induction describes the Fixed Frame installation and is furnished with detailed installation examples.

Document formatting convention

Symbol Conventions

 It means reader take note. Notes contain helpful suggestions or references.

 It means reader be careful. In this situation, you might do something that could result in equipment damage or loss of data.

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1.1 ALL-SG85XX NO PoE Switches

1.1.1 ALL-SG8524M-10G

Specifications

Product model		ALL-SG8524M-10G
Standards		IEEE 802.3i,IEEE 802.3u,IEEE 802.3ab,IEEE 802.3az,IEEE802.3ae,IEEE802.3x,IEEE802.3z,IEEE802.3ad ,IEEE802.1P,IEEE802.1Q
Network Media (Cable)		10BASE-T: UTP category 3,4,5 cable (maximum 100m) 100BASE-Tx: UTP category 5,5e cable (maximum 100m) 1000BASE-T:UTP category 5e,6 cable (maximum 100m) 1000Base-X:MMF,SMF 10GBase-X:MMF,SMF
Interface		24 x 10/100/1000Mbps Auto-Negotiation ports 4 x 1000/10000Mbps SFP+ ports 1 x RJ45 Console Port
Transfer Method		Store-and-Forward
Switching Capacity		128Gbps
MAC Address Learning		16K
Packet Forwarding Rate		95.24Mpps
Packet Buffer		1.5MBytes
Jumbo Frame		12KBytes
Indicators	**Per Device**	PWR:Green
	Per Port	Link/Act:Green
Power Supply		AC input: Rated voltage range:100-240V~ Frequency:50-60Hz 36W, internal power
PoE		nonsupport
Power Consumption		18.5W(Max) (220V/50Hz)
Operating Temperature		0°C～45°C
Storage Temperature		-40°C～70°C
Operating Humidity		10%~90% non-condensing
Storage humidity		5%~90% non-condensing
Fan		support
Dimensions (W×D×H)		440x330x44.5mm (19” metal case)

Product appearance

The front panel of ALL-SG8524M-10G Ethernet Switch consists of 24x10/100/1000Mbps RJ45 ports, Four 1000/10000Mbps SFP+ ports, Reset button, One Console port and a series LED indicator, the rear panel provides AC power input interface and grounding terminal. Show as below.

Figure 1-1 ALL-SG8524M-10G Product appearance

Figure 1-1

Front panel

- 1.24x10/100/1000Mbps RJ45 ports: Designed to connect to the device with a bandwidth of 10Mbps, 100Mbps, 1000Mbps. Each has a corresponding Link/Act LED indicator.
- 2.Four SFP+ ports (25S,26S,27S,28S):Designed to install the SFP module and connect to the device with bandwidth 1000/10000Mbps .Each has a corresponding Link/Act LED indicator.
- 3. Console port: Designed to connect with the serial port of a computer or terminal for monitoring and configuring the Switch.
- 4 .Reset button (Reset): Keep the device powered on and push a paper clip into the hole. Press down the button for 6 seconds to restore the Switch to its original factory default settings.
- 5 .LED indicators: The LED Indicators will allow you to monitor, diagnose and troubleshoot any potential problem with the Switch, connection or attached devices.

Rear panel

Figure1-2 ALL-SG8524M-10G rear panel show as below.

Figure 1-2

1.Power is supplied through an external AC power adopter. It supports AC 100~240V, 50/60Hz,36W internal power.

2. Located on the left side of the power supply connector, use wire grounded to lightning protection.

Power supply

AC input:

Rated voltage range:100-240V~

Frequency:50-60Hz

36W, internal power

Heat dissipation solution

To ensure device work normally in the specified environments, ALL-SG8524M-10G adopts sturbine fan to heat dissipation.It should reserve 10cm space for both side of Switch and rear panel of Switch to ventilation.

LED indicator

The LED Indicators will allow you to monitor, diagnose and troubleshoot any potential problem with the Switch, connection or attached devices.

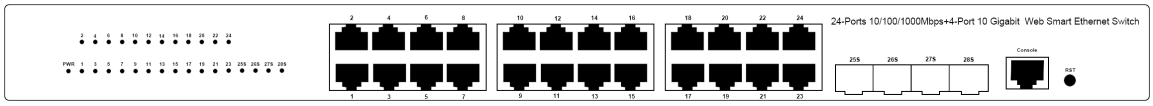


Figure 1-3

The following chart shows the LED indicators of the Switch along with explanation of each indicator.

Indicator	Panel identification	Indicator color	Status	Meaning
Power indicator	PWR	Green	Off	Power Off
			On	Power On
Ethernet ports indicator	1~24 25S-28S	Green	Off	A device is disconnected to the port
			On	A device is connected to the port
			Flashing	Sending or receiving data

1.1.2 ALL-SG8548M-10G

Specifications

Product module		ALL-SG8548M-10G
Standards		IEEE 802.3i,IEEE 802.3u,IEEE802.3ab,IEEE802.3az,IEEE 802.3ae,IEEE802.3x,IEEE802.3z,IEEE802.3ad,IEEE802.1P,IEEE802.1Q
Network Media (Cable)		10BASE-T: UTP category 3,4,5 cable (maximum 100m) 100BASE-Tx: UTP category 5,5e cable (maximum 100m) 1000BASE-T:UTP category 5e,6 cable (maximum 100m) 1000Base-X:MMF,SMF 10GBase-X:MMF,SMF
Interface		48 x 10/100/1000Mbps Auto-Negotiation ports 4 x 1000/10000Mbps SFP+ ports 1 x RJ45 Console Port
Transfer Method		Store-and-Forward
Switching Capacity		176Gbps
MAC Address Learning		16K
Packet Forwarding Rate		130.944Mpps
Packet Buffer		1.5MBytes
Jumbo Frame		12KBytes
Indicators	Per Device	PWR:Green SYS: Green
	Per Port	Link/Activity/Speed: (10/100Mbps Orange,1000Mbps Green) 1G(Orange),10G(Green)
Power Supply		AC input: Rated voltage range:100-240V~ Frequency:50-60Hz 48W, internal power
PoE		nonsupport
Operating Temperature		0°C ~ 45°C
Storage Temperature		-40°C ~ 70°C
Operating Humidity		10%~90% non-condensing
Storage humidity		5%~90% non-condensing
Fan		support
Dimensions (W×D×H)		440x330x44.5mm (19" metal case)

Product appearance

The front panel of ALL-SG8548M-10G Ethernet Switch consists of 48x10/100/1000Mbps RJ45 ports, Four 1000/10000Mbps SFP+ ports, Reset button, One Console port and a series LED indicator, the rear panel provides AC power input interface and grounding terminal. Show as below.

Figure 1-3 ALL-SG8548M-10G Product appearance

Figure 1-4

Front panel

- 1.48x10/100/1000Mbps RJ45 ports: Designed to connect to the device with a bandwidth of 10Mbps,100Mbps,1000Mbps.Each has a corresponding Link/Act/Speed LED indicator.
- 2.Four SFP+ ports (49S,50S,51S,52S):Designed to install the SFP module and connect to the device with bandwidth 1000/10000Mbps. Each has corresponding LED indicators.
- 3.Console port: Designed to connect with the serial port of a computer or terminal for monitoring and configuring the Switch.
- 4.Reset button(Reset):Keep the device powered on and push a paper clip into the hole. Press down the button for 6 seconds to restore the Switch to its original factory default settings.
- 5.LED indicator: The LED Indicators will allow you to monitor, diagnose and troubleshoot any potential problem with the Switch, connection or attached devices.

Rear panel

Figure1-4 ALL-SG8548M-10G rear panel show as below.

Figure 1-5

- 1.Power is supplied through an external AC power adopter. It supports AC 100~240V, 50/60Hz,48W, internal power.
- 2.Located on the left side of the power supply connector, use wire grounded to lightning protection.

Power supply

AC input:

Rated voltage range:100-240V~

Frequency:50-60Hz

48W, internal power

Heat dissipation solution

To ensure device work normally in the specified environments, ALL-SG8548M-10G adopts sturbine fan to heat dissipation.It should reserve 10cm space for both side of Switch and rear panel of Switch to ventilation.

LED indicator

The LED Indicators will allow you to monitor, diagnose and troubleshoot any potential problem with the Switch, connection or attached devices.

Figure 1-6

The following chart shows the LED indicators of the Switch along with explanation of each indicator.

Indicator	Panel identification	Indicator color	Status	Meaning
Power indicator	PWR	Green	Off	Power off
			On	Power On
Ethernet port indicators	1~48	Orange	Off	A device is disconnected to the port
			On	A device is connected to the port at a speed of 10/100Mbps
			Flashing	Sending or receiving data at a speed of 10/100Mbps
		Green	Off	A device is disconnected to the port
			On	A device is connected to the port at a speed of 1000Mbps
			Flashing	Sending or receiving data at a speed of 1000Mbps
1G SFP+ port indicators	49S-52S	Orange	Off	A device is disconnected to the port
			On	A device is connected to the port at a speed of 1Gbps
			Flashing	Sending or receiving data at a speed of 1Gbps
10G SFP+ port indicators		Green	Off	A device is disconnected to the port
			On	A device is connected to the port at a speed of 10Gbps
			Flashing	Sending or receiving data at a speed of 10Gbps
SYS indicator	SYS	Green	Off	System is abnormal or not running
			Flashing	System is normal

1.2 ALL-SG85XX PoE Switches

1.2.1 ALL-SG8524PM-10G

Specifications

Product module		ALL-SG8524PM-10G
Standards		IEEE802.3i,IEEE802.3u,IEEE802.3ab,IEEE802.3x, IEEE802.3az, IEEE802.3ae,IEEE802.3af,IEEE802.3at
Network Media (Cable)		10Base-T: UTP category 3, 4, 5 cable (maximum 100m) 100Base-Tx: UTP category 5, 5e cable (maximum 100m) 1000Base-T: UTP category 5e, 6 cable (maximum 100m) 1000Base-X:MMF,SMF 10GBase-X :MMF,SMF
Interface		24 x 10/100/1000Mbps ports 4 x 1000/10000 Mbps SFP+ ports 1x Console port
Transfer Method		Store-and-Forward
Switching Capacity		16K
MAC Address Learning		128Gbps
Packet Forwarding Rate		95.232Mpps
Packet Buffer		1.5Mbytes
Jumbo Frame		12Kbytes
Indicators	**Per Device**	PWR:Green
	Per Port	Link/Act:Green PoE: Orange
Power Supply		AC input: 100~160VAC,50/60HZ,370W 200~240VAC,50/60HZ,450W
PoE		24x PoE ports compliant with 802.3at/af
Power Pin Assignment		½(+),3/6(-)
PoE Budget		320W@100~160VAC,50/60HZ 400W@200~240VAC,50/60HZ (It's adjustable by Web page)
Power Consumption		468.2W(max) (220V/50Hz)
Operating Temperature		0°C ~ 45°C
Storage Temperature		-40°C ~ 70°C
Operating Humidity		10%~90% non-condensing
Storage humidity		5%~90% non-condensing
Fan		support
Dimensions (W×D×H)		440x330x44.5mm (19" metal case)

Product appearance

The front panel of ALL-SG8524PM-10G Ethernet Switch consists of 24x10/100/1000Mbps RJ45 ports, Four 1000/10000Mbps SFP+ ports, Reset button, One Console port and a series LED indicator, the rear panel provides AC power input interface and grounding terminal. Show as below.

Figure 1-7 ALL-SG8524PM-10G Product appearance

Figure 1-7

Front panel

1.24x10/100/100Mbps RJ45 ports: Designed to connect to the device with a bandwidth of 10Mbps,100Mbps,1000Mbps.Each has a corresponding Link/Act LED indicator and a PoE LED indicator.

2.Four SFP+ ports (25S,26S,27S,28S):Designed to install the SFP module and connect to the device with bandwidth 1000/10000Mbps .Each has a corresponding LED indicator.

3.Console port: Designed to connect with the serial port of a computer or terminal for monitoring and configuring the Switch.

4.Reset button(Reset):Keep the device powered on and push a paper clip into the hole. Press down the button for 6 seconds to restore the Switch to its original factory default settings.

5.LED indicator: The LED Indicators will allow you to monitor, diagnose and troubleshoot any potential problem with the Switch, connection or attached devices.

Rear panel

Figure1-8 ALL-SG8524PM-10G rear panel show as below.

Figure 1-8

1.Power is supplied through an external AC power adopter. It supports AC 100~240V, 50/60Hz.

2.Located on the left side of the power supply connector, use wire grounded to lightning protection.

Power supply

AC input:
100~160VAC,50/60HZ,370W
200~240VAC,50/60HZ,450W

Heat dissipation solution

To ensure device work normally in the specified environment ALL-SG8524PM-10G adopts sturbine fan to heat dissipation.It should reserve 10cm space for both side of Switch and rear panel of Switch to ventilation.

PoE

24x PoE ports compliant with 802.3at/af

LED indicator

The LED Indicators will allow you to monitor, diagnose and troubleshoot any potential problem with the Switch, connection or attached devices.

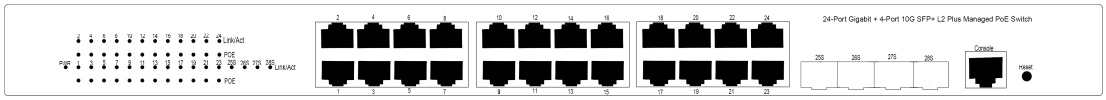


Figure 1-9

The following chart shows the LED indicators of the Switch along with explanation of each indicator.

Indicator	Panel identification	Indicator color	Status	Meaning
Power indicator	PWR	Green	Off	Power off
			On	Power on
SFP+ port indicators	25S-28S	Green	Off	A device is disconnected to the port
			On	A device is connected to the port
			Flashing	Sending or receiving data
PoE LED indicators	1~24	Orange	Off	No PD is connected to the corresponding port, or no power is supplied according to the power limits of the port.
			On	A Powered Device is connected to the port, which supply power successfully.
			Flashing	The PoE power circuit may be in short or the power current may be overloaded.
10/100/1000 Mbps Ethernet port indicators	1~24	Green	Off	A device is disconnected to the port
			On	A device is connected to the port
			Flashin	Sending or receiving data

Indicator	Panel identification	Indicator color	Status	Meaning
			g	

1.2.2 ALL-SG8548PM-10G

Specifications

Product module		ALL-SG8548PM-10G
Standards		IEEE 802.3i, IEEE 802.3u, IEEE802.3ab, IEEE802.3x, IEEE802.3az, IEEE802.3af, IEEE802.3at, IEEE802.3ae
Network Media (Cable)		10Base-T: UTP category 3, 4, 5 cable (maximum 100m) 100Base-Tx: UTP category 5, 5e cable (maximum 100m) 1000Base-T: UTP category 5e, 6 cable (maximum 100m) 1000Base-X:MMF,SMF 10GBase-X:MMF,SMF
Interface		48 x 10/100/1000Mbps ports 4 x 10G SFP+ ports 1x Console port
Transfer Method		Store-and-Forward
Switching Capacity		176Gbps
MAC Address Learning		16K
Packet Forwarding Rate		130.944Mpps
Packet Buffer		1.5MBytes
Jumbo Frame		12KBytes
Indicators	**Per Device**	PWR:Green, SYS:Green
	Per Port	Link/Activity/Speed
Power Supply		100~240VAC,50/60Hz,450W
PoE		48x PoE ports compliant with 802.3at/af
Power Pin Assignment		1/2(+),3/6(-)
PoE Budget		400W (It's adjustable by Web page)
Power Consumption		Maximum(PoE on): 473.7W (220V/50Hz)
Operating Temperature		0℃~45℃
Storage Temperature		-40℃~70℃
Operating Humidity		10%~90% non-condensing
Storage humidity		5%~90% non-condensing
Fan		Support
Dimensions (W×D×H)		440x330x44.5mm (19" metal case)

Product appearance

The front panel of ALL-SG8548PM-10G Ethernet Switch consists of 48x10/100/1000Mbps RJ45 ports, four 1000/10000Mbps SFP+ ports, Reset button, One Console port and a series LED indicator, the rear panel provides AC power input interface and grounding terminal. Show as below.

Figure 1-10 ALL-SG8548PM-10G Product appearance

Figure 1-10

Front panel

- 1.48x10/100/100Mbps RJ45 ports: Designed to connect to the device with a bandwidth of 10Mbps,100Mbps,1000Mbps.Each has a corresponding indicator .
- 2.Four SFP+ ports (49S,50S,51S,52S):Designed to install the SFP module and connect to the device with bandwidth 1000/10000Mbps .Each has two corresponding LED indicators.
- 3.Console port: Designed to connect with the serial port of a computer or terminal for monitoring and configuring the Switch.
- 4.Reset button(Reset):Keep the device powered on and push a paper clip into the hole. Press down the button for 6 seconds to restore the Switch to its original factory default settings.
- 5.LED indicator: The LED Indicators will allow you to monitor, diagnose and troubleshoot any potential problem with the Switch, connection or attached devices.

Rear panel

Figure1-11 ALL-SG8548PM-10G rear panel show as below.

Figure1-11

- 1.Power is supplied through an external AC power adopter. It supports AC 100~240V, 50/60Hz,450W.
- 2.Located on the right side of the power supply connector, use wire grounded to lightning protection.

Power supply

AC input:
100~240VAC,
50/60Hz,
450W

Heat dissipation solution

To ensure device work normally in the specified environment, ALL-SG8548PM-10G adopts sturbine fan to heat dissipation.It should reserve 10cm space for both side of Switch and rear panel of Switch to ventilation.

PoE

48x PoE ports compliant with 802.3at/af

LED indicator

The LED Indicators will allow you to monitor, diagnose and troubleshoot any potential problem with the Switch, connection or attached devices.

Figure1-12

Indicator	Panel identification	Indicator color	Status	Meaning
Power indicator	PWR	Green	Off	Power off
			On	Power On
Ethernet port indicators	1~48	Orange	Off	A device is disconnected to the port
			On	A device is connected to the port at a speed of 10/100Mbps
			Flashing	Sending or receiving data at a speed of 10/100Mbps
		Green	Off	A device is disconnected to the port
			On	A device is connected to the port at a speed of 1000Mbps
			Flashing	Sending or receiving data at a speed of 1000Mbps
1G SFP+ port indicators	49S-52S	Orange	Off	A device is disconnected to the port
			On	A device is connected to the port at a speed of 1Gbps
			Flashing	Sending or receiving data at a speed of

				1Gbps
10G SFP+ port indicators		Green	Off	A device is disconnected to the port
			On	A device is connected to the port at a speed of 10Gbps
			Flashing	Sending or receiving data at a speed of 10Gbps
SYS indicator	SYS	Green	Off	System is abnormal or not running
			Flashing	System is normal

2 Preparation before installing

2.1 Safe suggest

To avoid personal injury and equipment damage, please carefully read the safety suggestions before you install the Switch.

The following safety suggestions do not cover all possible dangers.

2.1.1 Safety Precaution for Installing System

- Keep the chassis clean and free from any dust.
- Do not place the equipment in a walking area.
- Equipment installation and use should be restricted in the contact zone.
- Do not wear loose clothes or accessories that may be hooked or caught by the device during installation and maintenance.
- Turn off all power supplies and remove the power sockets and cables before installing or uninstalling the device.

2.1.2 Movement Safety

- Do not frequently move the device.
- When moving the device, note the balance and avoid hurting legs and feet or straining the back.
- Before moving the device, turn off all power supplies and dismantle all power modules.

2.1.3 Electric safety

- Observe local regulations and specifications when performing electric operations. Relevant operators must be qualified.
- Before installing the device, carefully check any potential danger in the surroundings, such as ungrounded power supply, and damp/wet ground or floor.

- Before installing the device, find out the location of the emergency power supply switch in the room. First cut off the power supply in the case of an accident.
- Try to avoid maintaining the switch that is powered-on alone.
- Be sure to make a careful check before you shut down the power supply.
- Do not place the equipment in a damp location. Do not let any liquid enter the chassis.

⚠ Any nonstandard and inaccurate electric operation may cause an accident such as fire or electrical shock, thus causing severe even fatal damages to human bodies and equipment.

⚠ Direct or indirect touch through a wet object on high-voltage and mains supply may bring a fatal danger.

2.1.4 Anti-static Discharge Damage

To prevent damage from static electricity, pay attention to the following:

- Proper grounding of grounding screws on the back panel of the device.
- Indoor dust prevention.
- Proper humidity conditions.

2.1.5 Fiber Use Safety

Notes:

- When a fiber transceiver works, ensure that the port has been connected with an optical fiber or is covered with a dust cap, to keep out dust and avoid burning your eyes.
- When the optical module is working, do not pull out the fiber cable and stare into the transceiver interface or you may hurt your eyes.

⚠ Do not stare into any optical port under any circumstances, as this may cause permanent damage to your eyes.

2.2 Installation Site Requirements

ALL-SG85XX-10G L2+ Series Switches must be used indoor, the installation site must meet the following requirements to ensure the normal work of the equipment and extend the service life.

2.2.1 Ventilate Requirement

You must ensure that sufficient space (10 cm distance from both sides and the back panel of the cabinet) is reserved at the ventilation openings to ensure the normal ventilation. During the jumper process of the device, prevent the cables from blocking the air intake.

2.2.2 Temperature and Humidity Requirements

In order to ensure the normal work and service life of the equipment, temperature and humidity must be maintained in the machine room. If the machine room is in the environment that does not meet the temperature and humidity requirements for a long time, the equipment will be damaged.

- In an environment with high relative humidity, the insulating material may have bad insulation or even leak electricity. Sometimes the materials may suffer from mechanical performance change and metallic parts may get rusted.

- In an environment with low relative humidity, however, the insulating strip may dry and shrink. Static electricity may occur easily and endanger the circuit on the equipment.
- In a high temperature environment, the greater the harm will greatly reduce the reliability of the equipment; long-term high temperature will also affect the life and accelerate the aging process.

Temperature	Relative Humidity
0°C to 45°C	10% to 90% RH non-condensing

The requirements for the sampling site of the temperature and humidity in the operating environment of the device are as follows:
There is no protective plate at the front or back of the equipment rack.
The vertical height is 1.5 m above the floor.
The distance from the front panel of the equipment is 0.4 m.

2.2.3 Cleanliness requirement

Dust poses a severe threat to the running of the equipment. The indoor dust falling on the equipment may be adhered by the static electricity, causing bad contact of the metallic joint. Such electrostatic adherence may occur more easily when the relative humidity is low, not only affecting the useful life of the equipment, but also causing communication faults. Table 2-2 shows the requirements for the dust content and granularity in the equipment room.

Table 2-2 Requirements for the Dust Content and Granularity in the Equipment Room

Maximum diameter(μm)	0.5	1	3	5
Maximum concentration (Particle size / cubic meter)	1.4×10	7×10	2.4×10	1.3×10

Apart from dust, the salt, acid and sulfide in the air in the equipment room must also meet strict requirements; as such poisonous substances may accelerate the corrosion of the metal and the aging of some parts. The equipment room should be protected from the intrusion of harmful gases (for example, SO2, H2S, NO2, NH3and Cl2), whose requirements are listed in the following table.

Table 2-3 Requirements for Harmful Gases in the Equipment Room

Gas	Average (mg/m3)	Maximum (mg/m3)
SO_2	0.2	1.5
H_2S	0.006	0.03
NO_2	0.04	0.15
NH_3	0.05	0.15
Cl_2	0.01	0.3

2.2.4 EMI

During applications, the switch may be subject to external interference that affect the device through conduction manners such as capacitance coupling, inductive coupling, electromagnetic wave emission, common impedance (including grounding

systems), and wires (power cables, signal cables and outgoing transmission cables). For that purpose, note that:

- For the AC power supply system TN, single-phase three-core power socket with protective earthing conductors (PE) should be adopted to effectively filter out interference from the power grid through the filtering circuit.
- The switch should be located at places free from large power radio launch pad, radar launch pad, and high-frequency large-current devices.
- If necessary, electromagnetic shielding should be adopted. For example, use interface cables to shield cables.
- Interface cables should be laid inside the equipment room. Outdoor cabling is prohibited, avoiding damages to device signal interfaces caused by over-voltage or over-current of lightning.

2.2.5 System Grounding Requirements

A good grounding system is the basis for the stable and reliable operation of the Switch. It is the chief condition to prevent lightning stroke and resist interference. Please carefully check the grounding conditions on the installation site according to the grounding requirements, and perform grounding operations properly as required.

⚠ Effective grounding of the switch is an important guarantee for lightning protection and interference resistance. Therefore, connect the grounding line of the switch properly.

Safety Grounding

The equipment using AC power supply must be grounded by using the yellow/green safety grounding cable show as Figure 2-1. Otherwise, when the insulating resistance decreases the power supply and the enclosure in the equipment, electric shock may occur.

Lightning Grounding

The lightning protection system of a facility is an independent system that consists of the lightning rod, downlead conductor and the connector to the grounding system, which usually shares the power reference ground and yellow/green safety cable ground. The lightning discharge ground is for the facility only, irrelevant to the equipment.

EMC grounding

The grounding required for EMC design includes shielding ground, filter ground, noise and interference suppression, and level reference. All the above constitute the comprehensive grounding requirements. The resistance of earth wires should be less than 1 Ω. The Switch backplane is reserved with one grounding terminal, as shown in Figure 2-1.

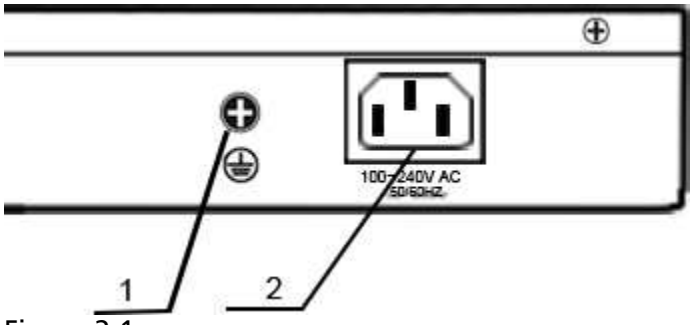


Figure 2-1

2.2.6 Lightning Resistance Considerations

When the AC power cable is imported outdoors and directly connected to the power port of the switch, lightning line bank should be adopted to prevent the switch from being hit by lightning shocks. Usage of the lightning line bank: Connect the mains supply AC cable to the lightning line bank. Then, connect the switch to the lightning line bank. This can help to prevent the current of high-voltage lightning from passing the switch directly through the mains supply cable to a certain extent.

The lightning line banks are not provided and should be purchased by users as required. For the usage of lightning line banks, refer to their related manuals.

2.2.7 EMI Consideration

Electro-Magnetic Interference (EMI), from either outside or inside the equipment or application system, affects the system in the conductive ways such as capacitive coupling, inductive coupling, and electromagnetic radiation.

There are two types of electromagnetic interferences: radiated interference and conducted interference, depending on the type of the transmission path.

When the energy, often RF energy, from a component arrives at a sensitive component via the space, the energy is known as radiated interference. The interference source can be either a part of the interfered system or a completely electrically isolated unit. Conducted interference results from the electromagnetic wire or signal cable connection between the source and the sensitive component, along which cable the interference conducts from one unit to another. Conducted interference often affects the power supply of the equipment, but can be controlled by a filter. Radiated interference may affect any signal path in the equipment and is difficult to shield.

- Effective measures should be taken for the power system to prevent the interference from the electric grid.
- The grounding device of the switch must not be used as the grounding device of the electrical equipment or anti-lightning grounding device. In addition, the grounding device of the switch must be deployed far away from the grounding device of the electrical equipment and anti-lightning grounding device.
- Keep the equipment away from high-power radio transmitter, radar transmitting station, and high-frequency large-current device.
- Measures must be taken to shield static electricity.

2.3 Notes on fiber optic connections

Optical fiber connection, It should pay attention to recognize light connector types and fiber types whether consistent with guiding light for the interface type line, also should pay attention to sending and receiving optical fiber line direction, sending the equipment should be connected with each receiving device, receiving the equipment should be connected with the sending of equipment.

2.4 Installation tools

The instrument list

Common tools	Phillips screwdriver, straight screwdriver, Related cables and optical cables, Mounting bolt, diagonal pliers, strapping tape
Special tools	antistatic tool
Meters	multimeter

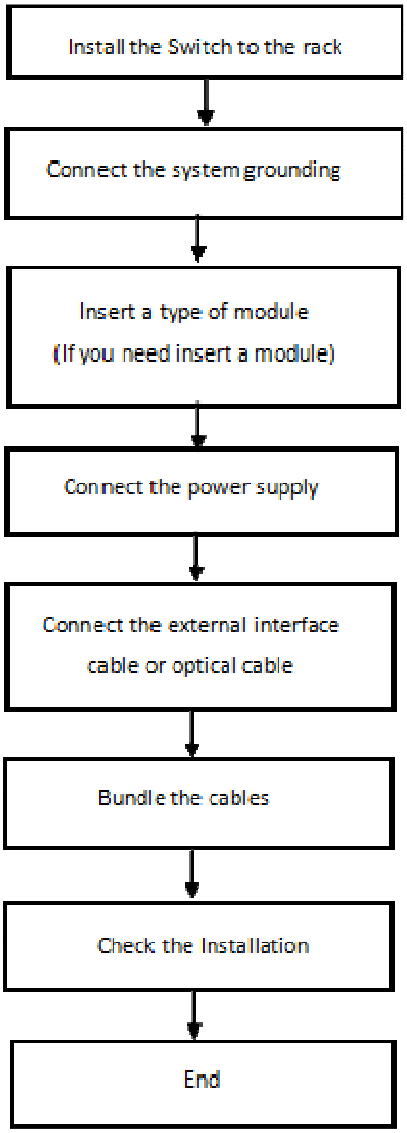
The tool kit is customer supplied.

3 Installation of Product

Please ensure that you have carefully read the section of “Preparation before Installing".
Make sure that the requirements set forth in section of “Preparation before Installing" has been met.

3.1 Installation Process

Only professional technicians are allowed to install the equipment



3.2 Confirmations before Installation

Before installation, please confirm the following points:

- Whether ventilation requirements are met for the switch
- Whether the requirements of temperature and humidity are met for the switch
- Whether power cables are already laid out and whether the requirements of electrical current are met
- Whether related network adaption lines are already laid out

3.3 Installation exchange

Please note the following points when installing:

- Use the corresponding color of the power line to connect the corresponding grounding terminal.
- Make sure that the power cable after connection is in good contact.
- Don’t place heavy objects on the switch.
- Adequate ventilation (10 cm or more) around the equipment to ensure good heat dissipation. Do not stack up.
- The switch work place is far away from the strong power radio transmitter, radio transmitting station, high frequency high current equipment; if necessary, adopt electromagnetic shielding method, such as the interface cable using shielded cable.
- Interface cable line is required in indoor, walking the line was forbidden outdoor to prevent the overvoltage and overcurrent caused by lightning damage device of signal port.

ALL-SG85XX-10G Switches installed

Rack-mountable Installation

ALL-SG85XX-10G a L2+ series of switch can be mounted in an EIA standard-sized, 19-inch rack, which can be placed in a wiring closet with other equipment. To install the Switch, please follow these steps:

a. Attach the mounting brackets on the Switch’s side panels (one on each side) and fix them with the screws provided.

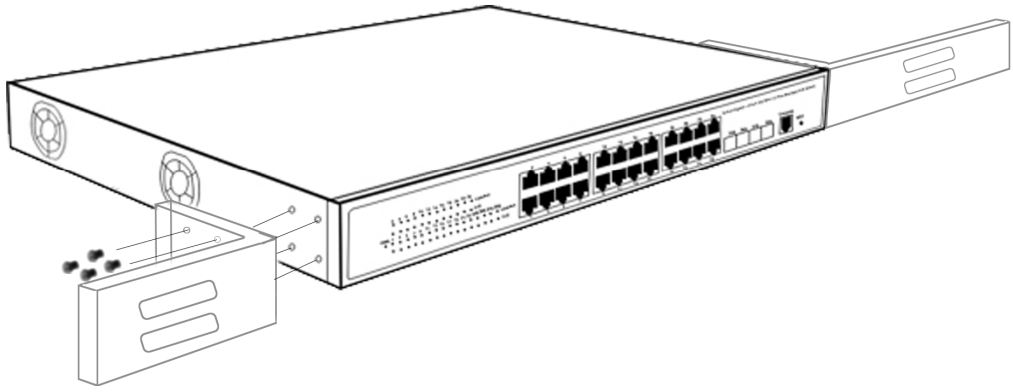


Figure 3-1

b. Use the screws provided with the equipment rack to mount the Switch on the rack and fix it.

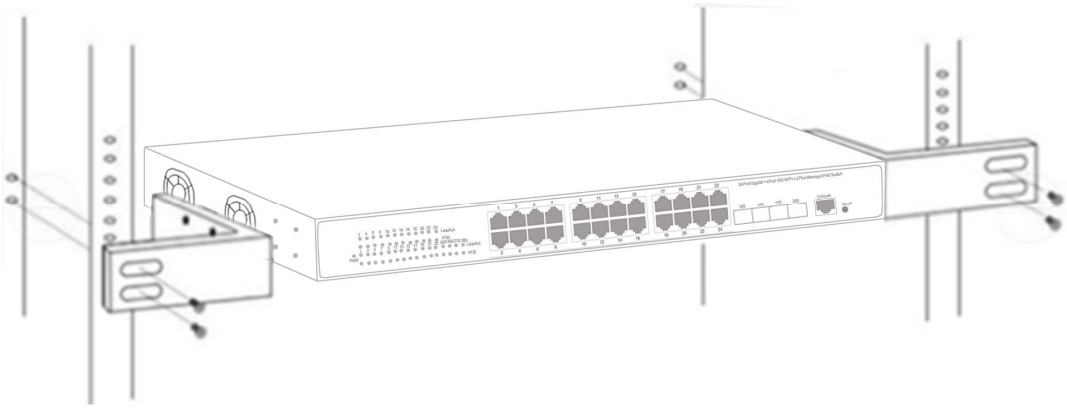


Figure 3-2

Install the switch on the desktop

In many cases, the users are not equipped with the 19-inch standard cabinet, people often use the method is to place the switch on a clean bench at this moment, this operation is relatively simple, the specific installation process is as follows:

Place the switch on the table steadily to ensure that the air around the switch is well ventilated. As shown in figure

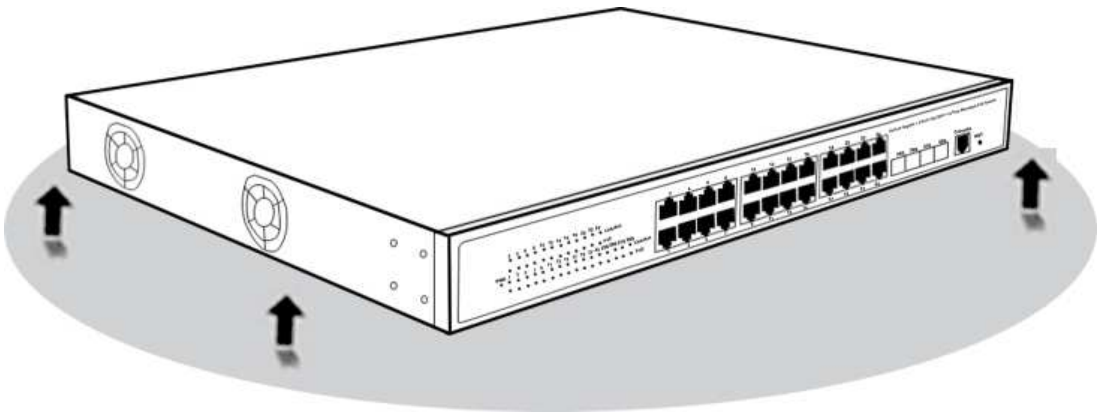


Figure 3-3

3.4 Connect the power cord

Please ensure that the ground wire is connected before connecting the power cord.

Connect the AC power cord

The AC power cord connection is performed as follows:

a: Connect one end of the switch to the power socket on the back panel of the switch cabinet;

b: Plug the other end of the power cord into an external AC power outlet to power the switch

c: Check whether the status indicator on the front panel of the switch is ON. The indicator is ON to indicate that the power supply is connected properly and the switch is initializing.

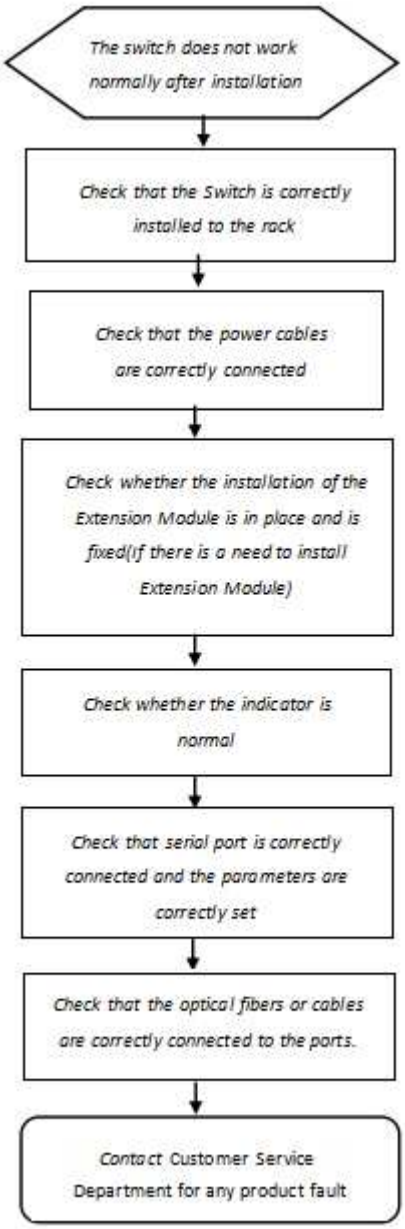
3.5 Checking after Installation

Before checking the installation, switch off the power supply so as to avoid any personal injury or damage to the component due to connection errors.

- Check that the ground line is connected.
- Check that the cables and power input cables are correctly connected.
- Check that the 100 meter cables are laid out inside the equipment room. In the case of external cabling, check that the lightning resistance socket or network interface lightning protector is connected.
- Check that sufficient ventilation space is available around the device (over 10 cm)

4 Common Troubleshooting in Installation

4.1 General installation troubleshooting process



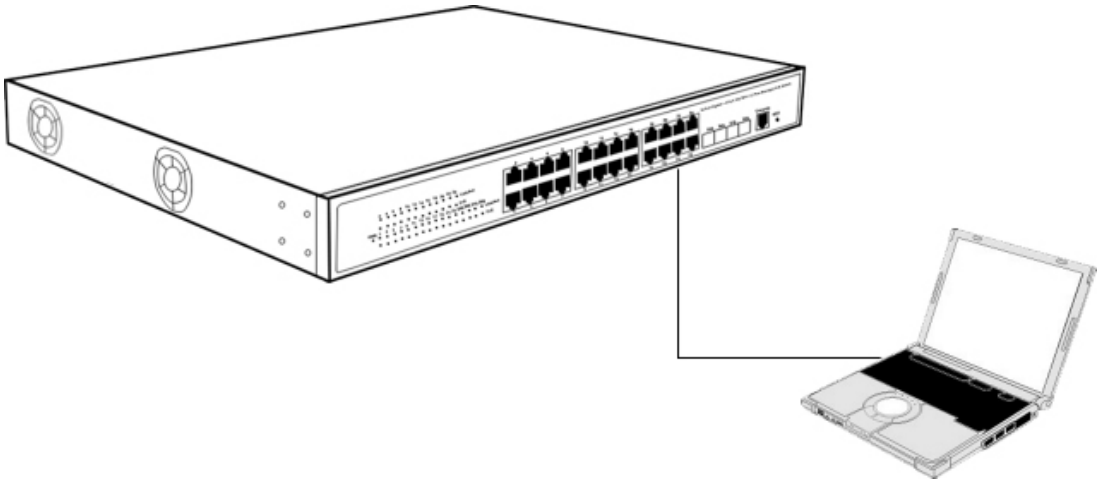
4.2 Common troubleshooting

Symptom	Possible Causes	Solution
The status indicator is not on after the switch is started.	The power supply module does not supply power. The power cable is in loose contact.	Check whether the power socket at the equipment room is normal and whether the power cable of the switch is in good contact.
The RJ45 port is not in connectivity or it is erroneous in receiving/transmitting frames.	The connected twisted pair cable is faulty. The length of the cable exceeds 100 m. The port has special configuration that has no common working mode with the connected switch.	Replace the twisted pair cable. Check that the port configuration has the common working mode with the connected switch.
The fiber port cannot be connected.	The Rx and Tx ends are connected reversely. The interconnected optical module type does not match. The fiber type is not correct. The length of the optical fiber exceeds that rated of the optical module.	Switch the Rx and Tx ends of the optical fiber. Replace the optical module with one of the matched type. Replace the optical fiber with one of the appropriate type. Replace the optical fiber with one of the appropriate length.

5 Connection of Switch

5.1 Connect the Computer (NIC) to the Switch

Use standard Cat.5/5e Ethernet cable (UTP/STP) to connect the Switch to end nodes as described below. Switch ports will automatically adjust to the characteristics (MDI/MDI-X, speed, duplex) of the device to which is connected.



ALL-SG85XX WEB Configuration guide takes ALL-SG8524PM-10G as an example.

Figure 5-1 Connect PC to Switch

5.2 Switch connection to the PD

PoE Switch have PoE power supply function, the maximum output power up to 30W each port, it can make PD devices, such as internet phone, network camera, wireless access point work. You only need to connect the Switch PoE port directly connected to the PD port by network.

Only PoE device support PoE function.

5.3 How to Login the Switch

As the Switch provides Web-based management login, you can configure your computer's IP address manually to log on to the Switch. The default settings of the Switch are shown below.

Parameter	Default Value

Parameter	Default Value
Default IP address	192.168.1.1
Default user name	admin
Default password	admin

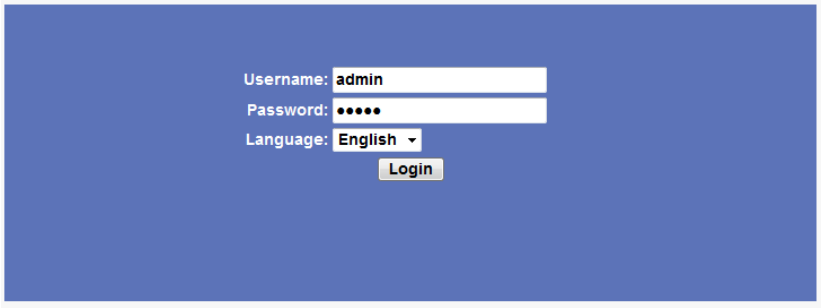
You can log on to the configuration window of the Switch through following steps:

1. Connect the Switch with the computer NIC interface.

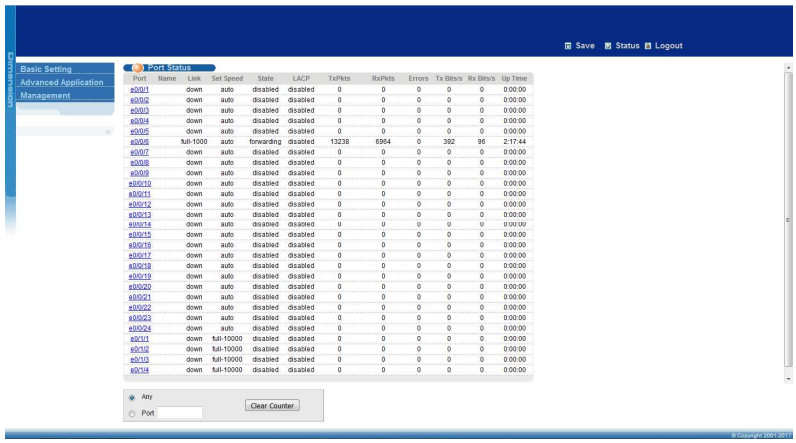
2. Power on the Switch.

3. Check whether the IP address of the computer is within this network segment: 192.168.1.xxx (“xxx" ranges 2~254), for example, 192.168.1.100.

4. Open the browser, and enter http://192.168.1.1 and then press “Enter". The Switch login window appears, as shown below.

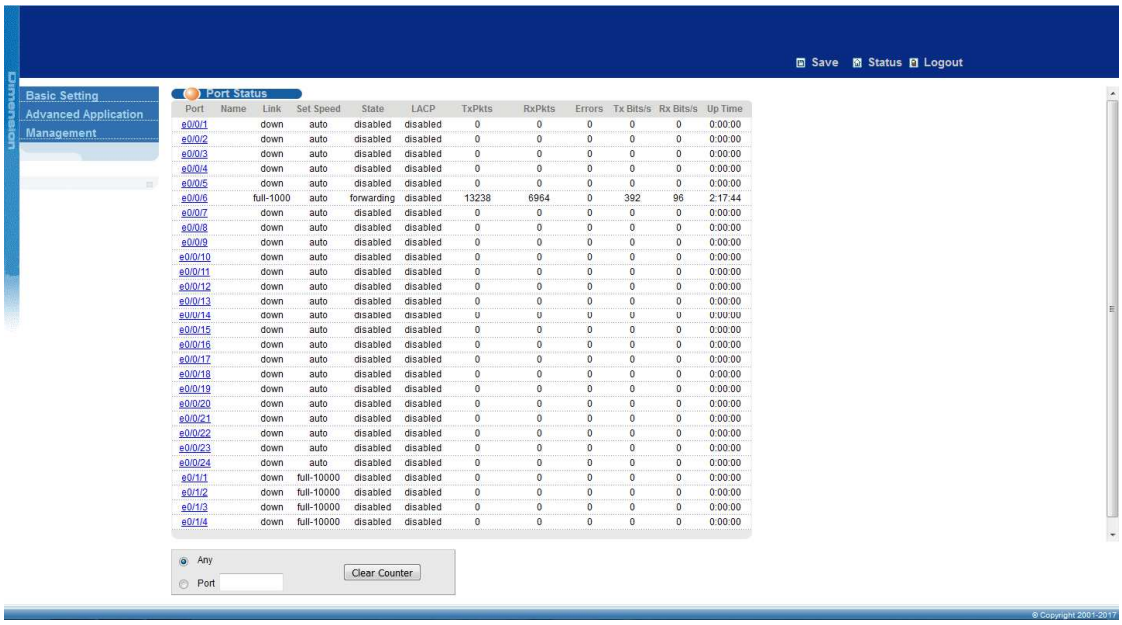


5. Switching language to English. Enter the Username and Password (The factory default Username is admin and Password is admin), and then click “Login" to log in to the Switch configuration window as below.



6 ALL-SG85XX WEB Configuration Guide

Switch configuration interface consists of 3 main areas, areas for the status bar at the top, the area on the left menu bar, right the main configuration window. Select the different functions in the function menu bar, you can modify all settings in the main configuration window.

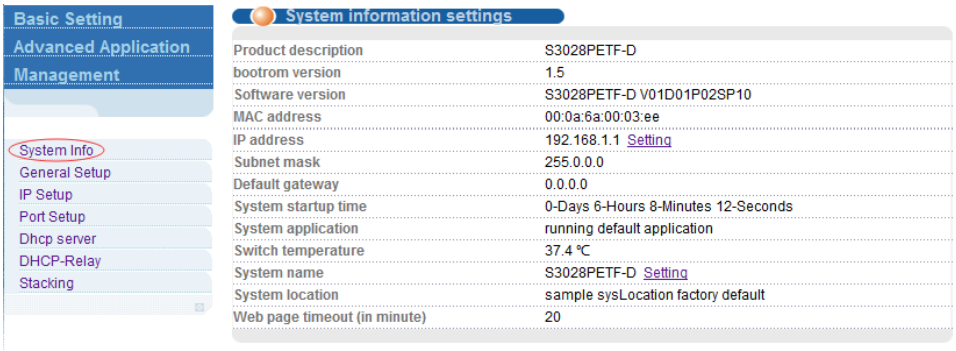


6.1 Basic Setting

Choose Basic Setting, and the following page appears. There are "System Info", "**General Setup** ", "**IP Setup**", "**Port Setup**","**Dhcp server**", "**DHCP-Relay**", "**Stacking**", configuration web pages.

6.1.1 System Info

Selecting "**Basic Setting>System Info**" in the navigation bar, you can view the basic information of System and configure the IP address and System name.



【Parameter Description】

Parameter	Description
IP Address	The management IP of Switch
System name	System name

【Instructions】

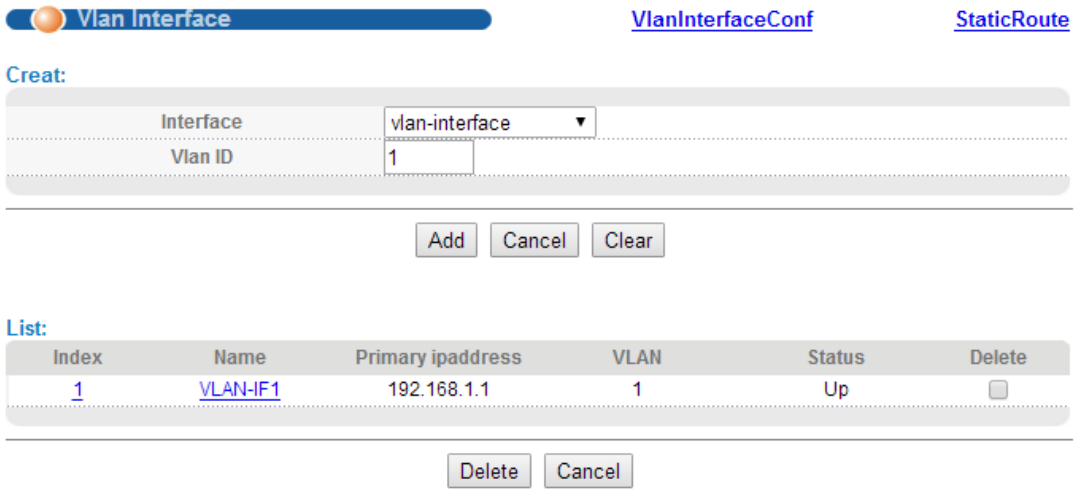
You can view and configure Running System status.

【Configuration example】

Such as: Setting IP address as 192.168.2.1 and System name as Switch.

❖ Configuring IP address as 192.168.2.1

Vlan Interface

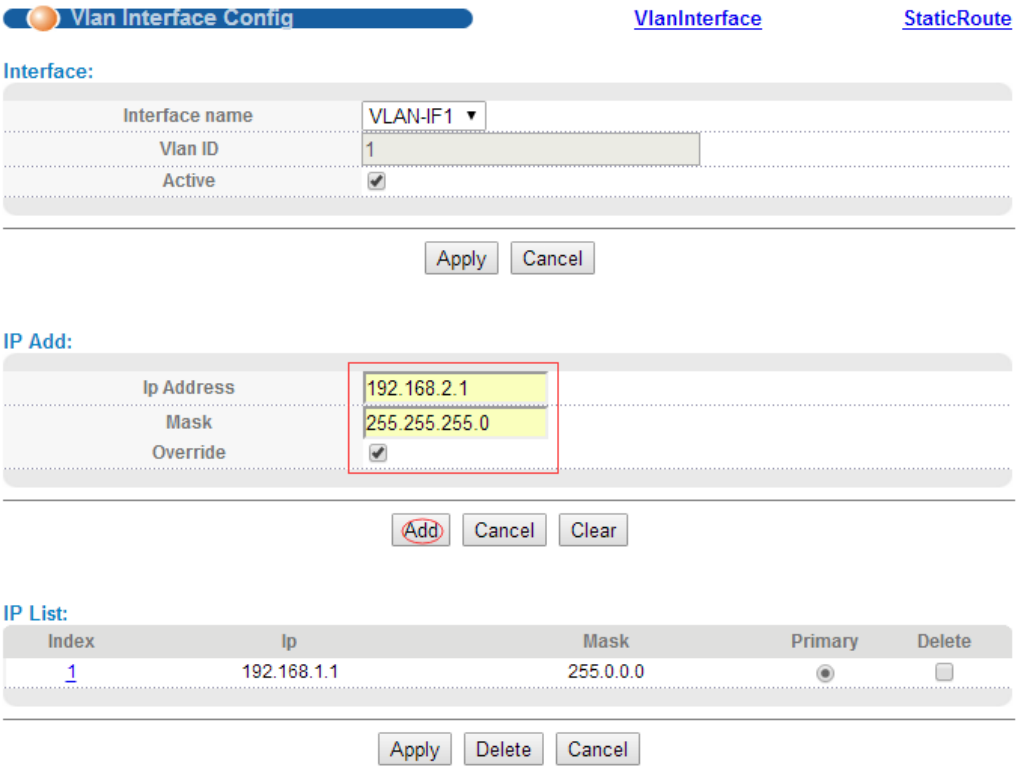


Interface: You can select the way of interface, including vlan-interface and supervlan-interface .

Vlan ID: You can choose the Vlan ID.

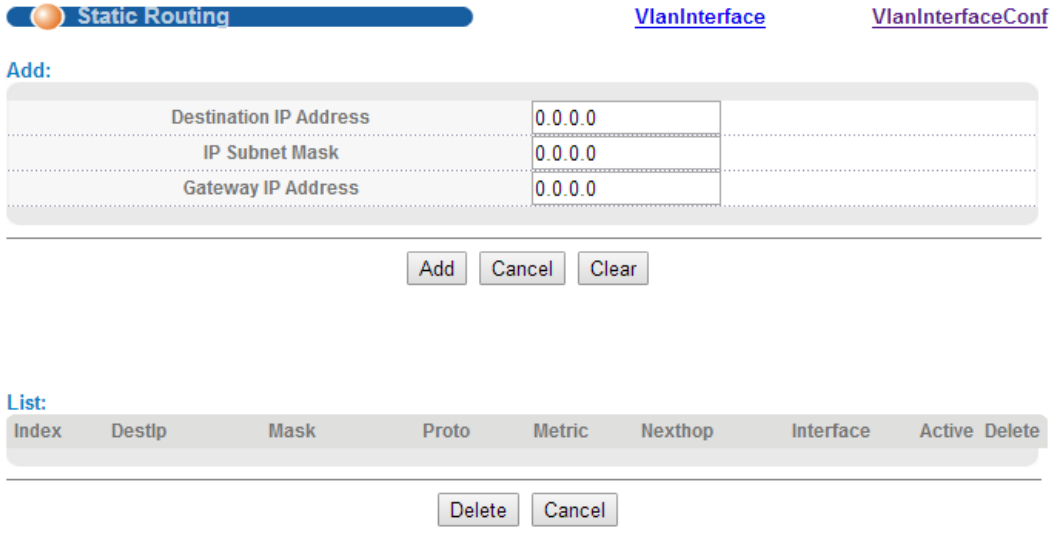
Vlan Interface Config

Set IP address as 192.168.2.1 and mask as 255.255.255.0, and then selecting override.



Override: You can override or not override original main ip address.

Static Routing

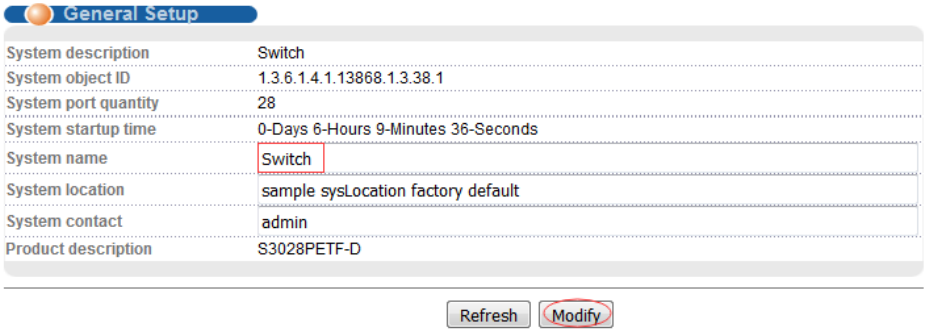


Destination IP Address: Setting destination IP Address of Static Routing.

IP Subnet Mask: Setting IP Subnet Mask.

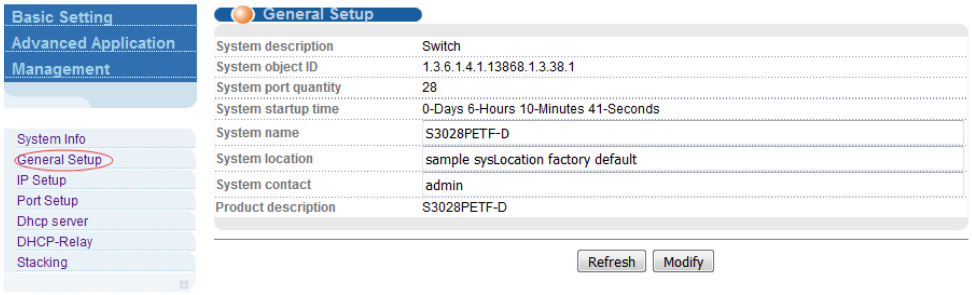
Gateway IP Address: Setting IP Address.

❖Setting System name as Switch.



6.1.2 General Setup

Selecting "**Basic Setting**>**General Setup**" in the navigation bar, you can view the basic information of Switch, Such as System description and so on. You can also modify System name, System contact and System location.

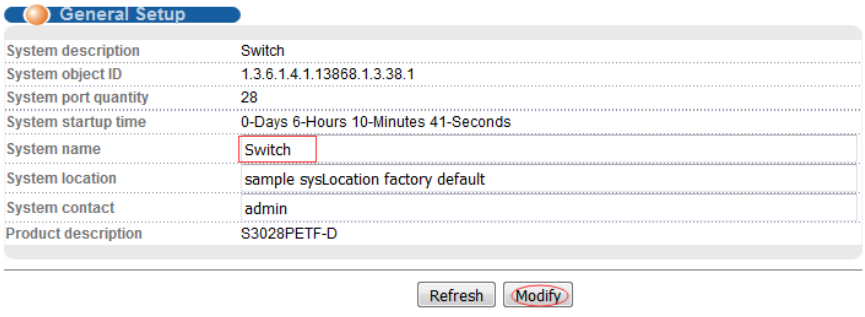


【Parameter Description】

Parameter	Description
System name	System name
System contact	Including company or related URL

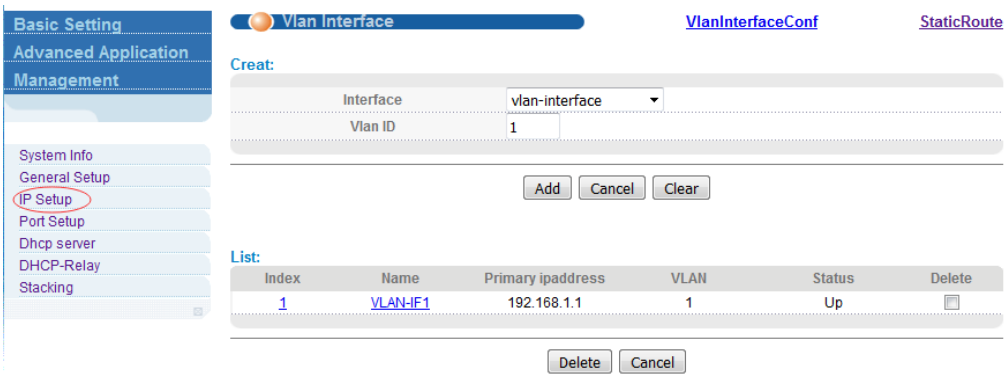
【Configuration example】

Such as: Setting System name as Switch.



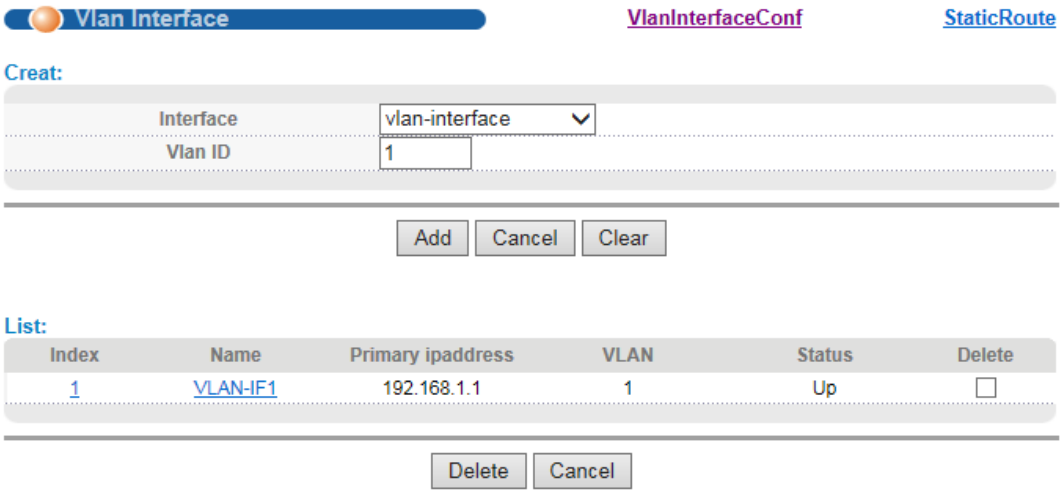
6.1.3 IP Setup

Selecting "**Basic Setting**>**IP Setup**" in the navigation bar, you can configure IP.



6.1.3.1 Vlan interface

Selecting "**Basic Setting**>**IP Setup**>**Vlan interface**" in the navigation bar, you can configure Vlan interface.

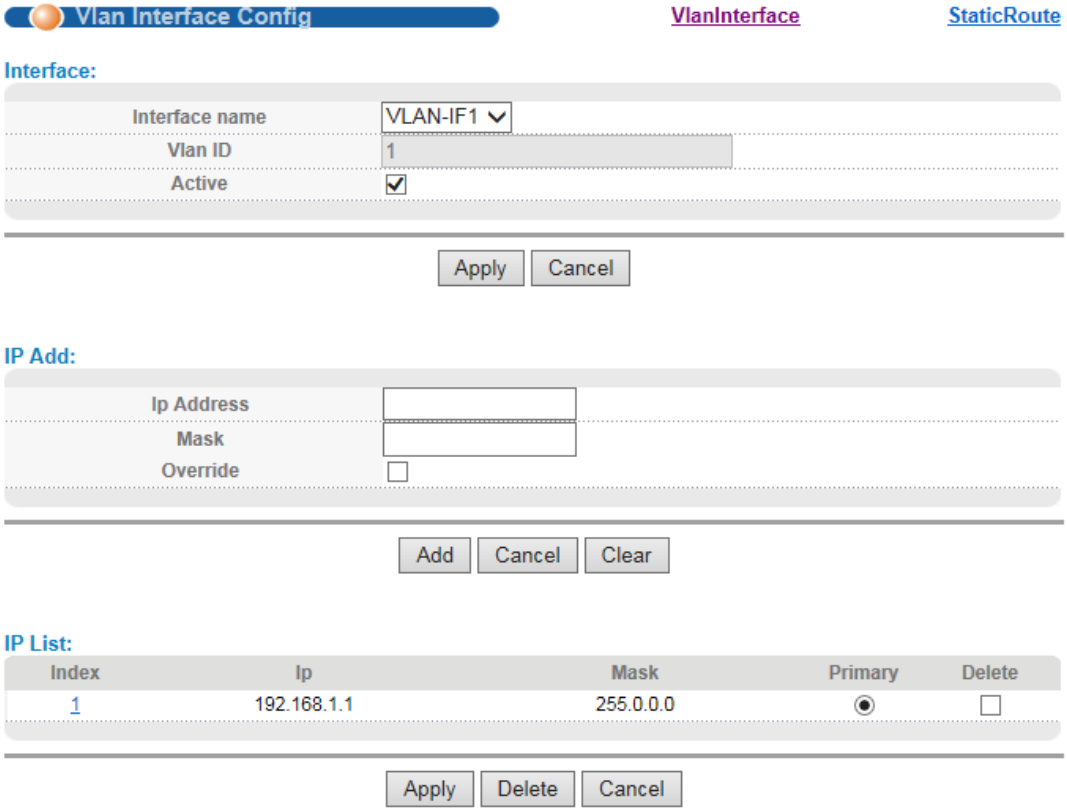


【Parameter Description】

Parameter	Description
Interface	Selecting the interface: vlan-interface Supervlan-interface
Vlan ID	You can specify the vlan ID
Name	The name of interface

6.1.3.2 Vlan interface Config

Selecting "**Basic Setting**>**IP Setup**>**Vlan interface Config**" in the navigation bar, you can configure Vlan interface Config.



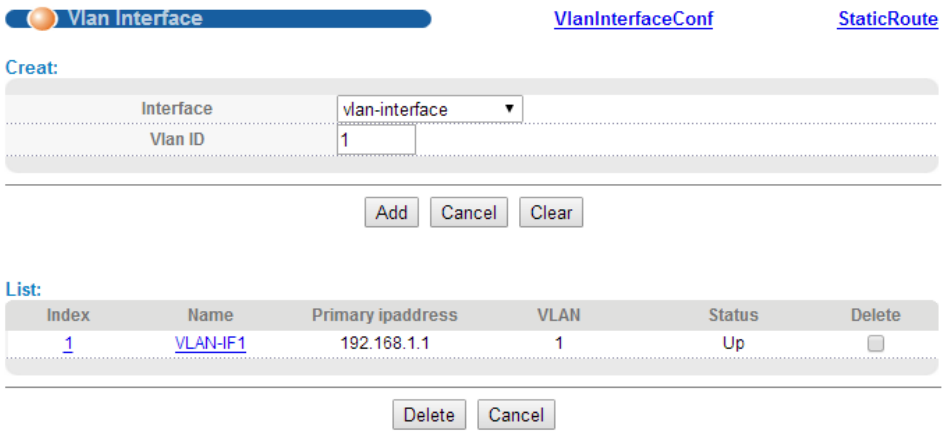
【Parameter Description】

Parameter	Description
Interface name	Name of interface
Vlan ID	You can specify the vlan ID
IP Address	User login in Switch using the IP Address
Override	You can override formeroriginal primary IP or not

【Configuration example】

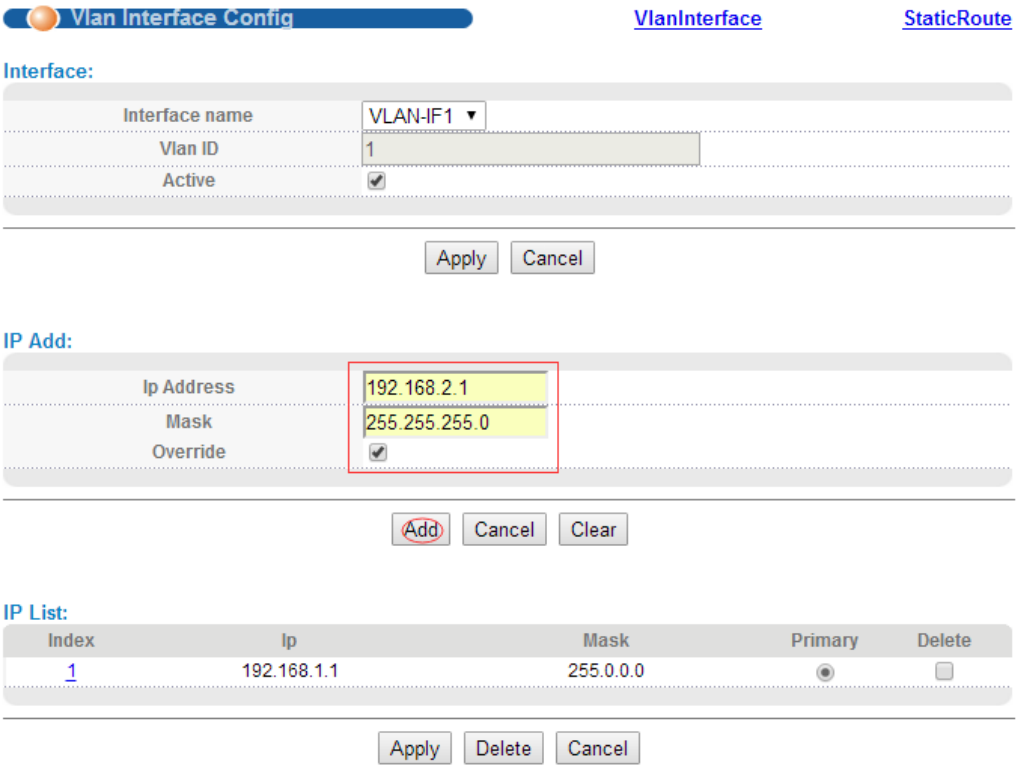
Such as: Setting IP address as 192.168.2.1.

Vlan Interface



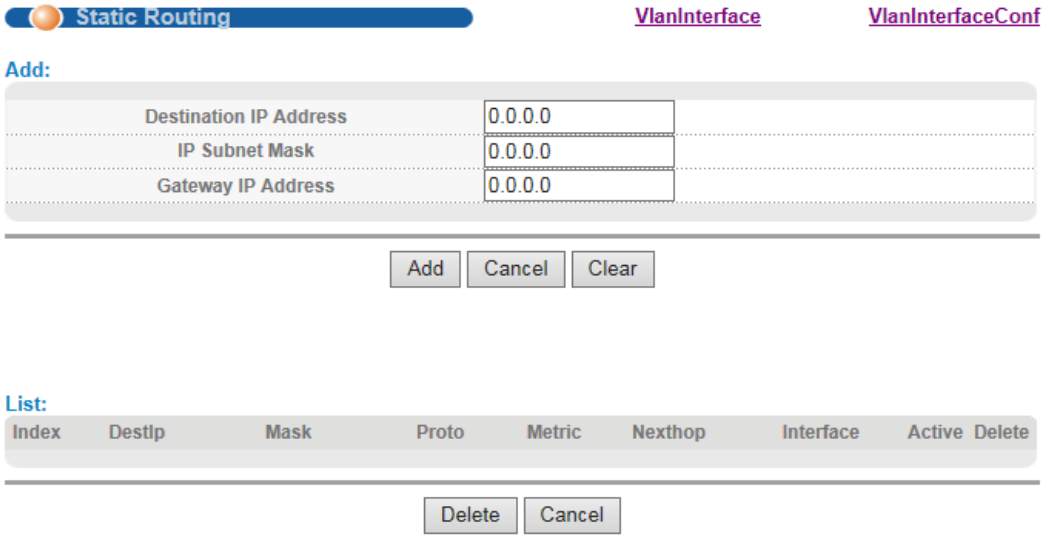
Vlan Interface Config

Setting IP address as 192.168.2.1 and mask as 255.255.255.0.And then selecting override.



6.1.3.3 Static Routing

Selecting "**Basic Setting**>**IP Setup**>**Static Routing**" in the navigation bar, you can specify some routing manually.

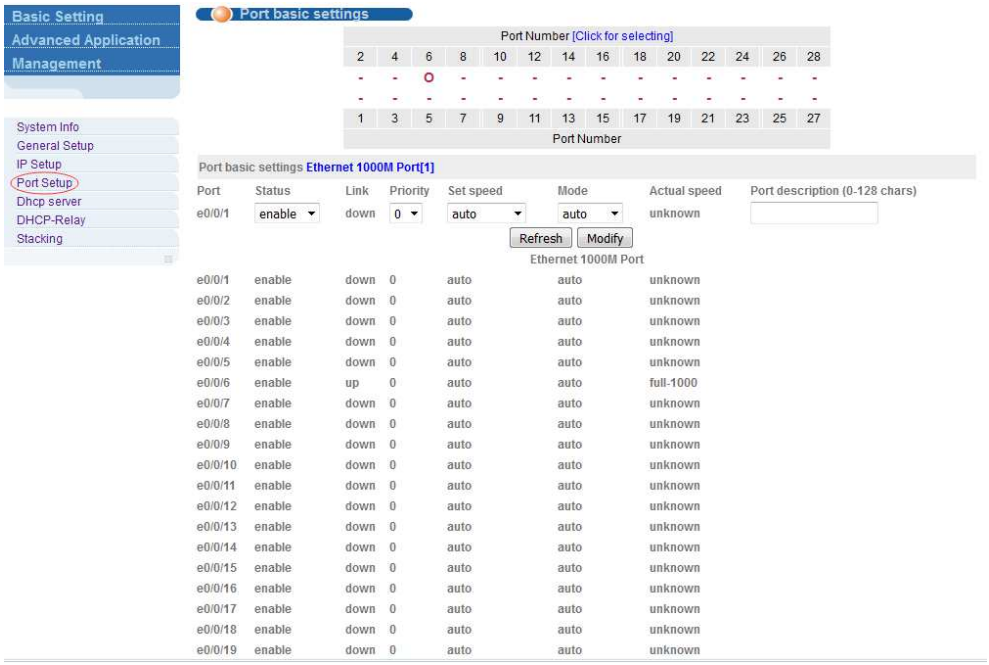


【Parameter Description】

Parameter	Description
Destination IP Address	Setting destination IP Address of Static Routing.
IP Subnet Mask	Setting IP Subnet Mask.
Gateway IP Address	Setting IP Address.

6.1.4 Port Setup

Selecting "**Basic Setting**>**Port Setup**" in the navigation bar, you can configure the related parameter of port.



【Parameter Description】

Parameter	Description
Port	Port number
status	Choose whether to close link port
link	Status: Down up
priority	Set port priority, the range of 0-7
Set speed	Choose the following modes: auto half-100 full-100 half-1000

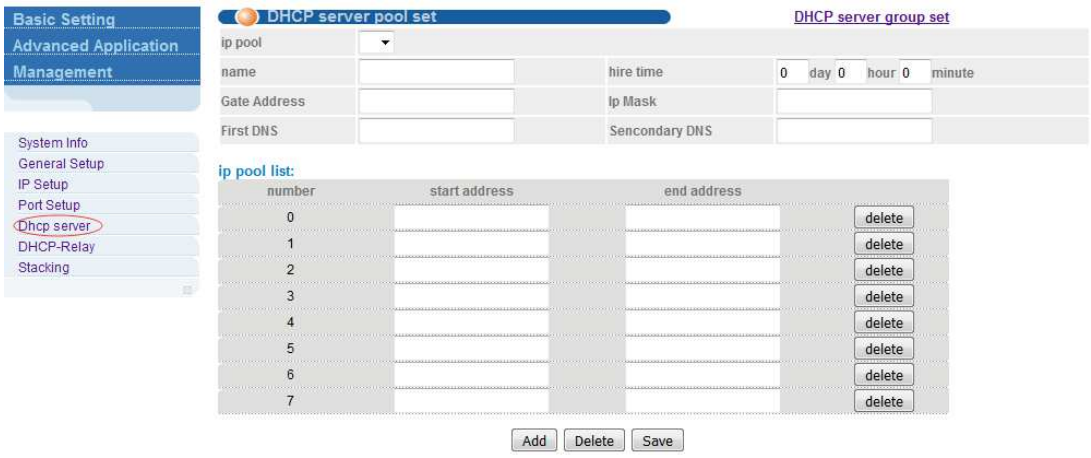
Parameter	Description
	full-1000 Port 25-28 can choose the following modes(10 Gigabit fiber equipment has this function module): Full-1000 Full-10000
Mode	Choose the following kinds: auto slave master
Actual speed	The actual speed of the port
Port description	The port is described

【Configuration example】

Such as: Configure the related parameters for port 1, Status is “enable", Priority is “1", Set speed is “auto", Mode is “auto", Port description is “port 1".

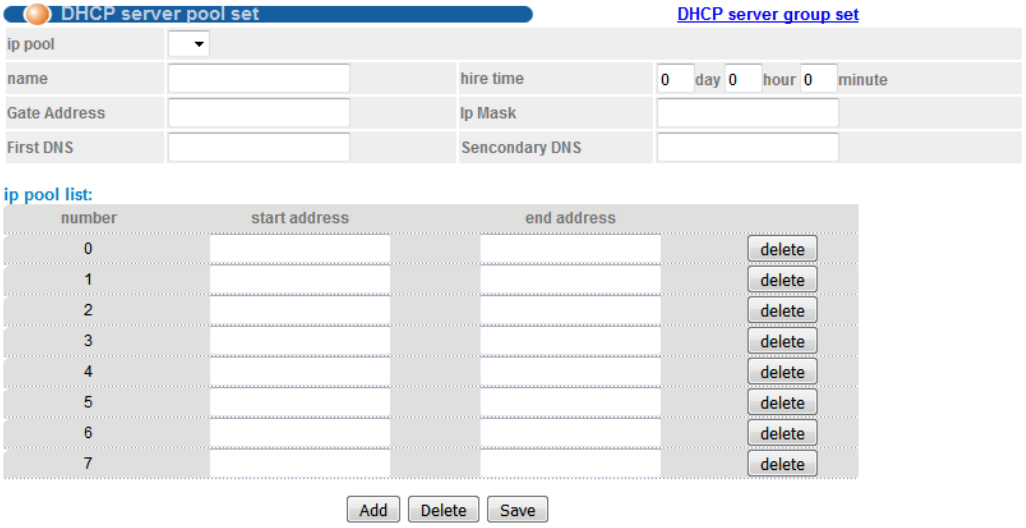
6.1.5 DHCP Server

Selecting “**Basic Setting**>**DHCP Server**" in the navigation bar, you can configure DHCP server pool and DHCP server group.



6.1.5.1 DHCP server pool set

Selecting “**Basic Setting**>**DHCP server**>**DHCP server pool set**" in the navigation bar, you can configure DHCP Server pool set.

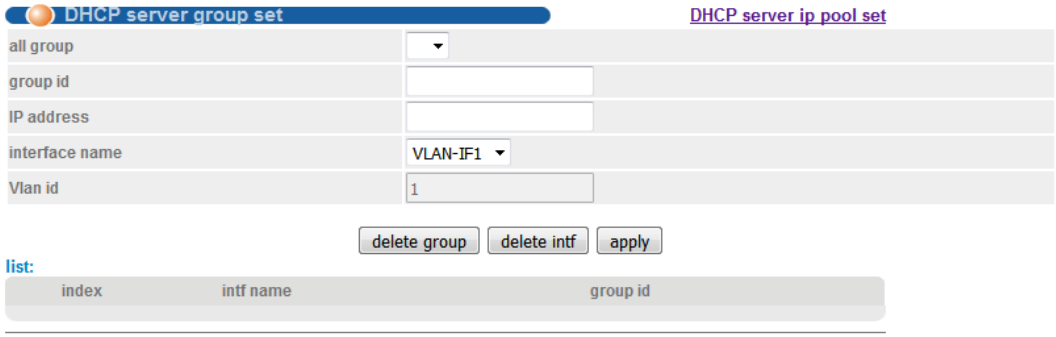


【Parameter Description】

Parameter	Description
ip pool	ip pool ID
name	Set the name of ip pool
hire time	Set hire time
Gate Address	Set Gate Address
Ip Mask	Set Ip Mask
First DNS	Set First DNS
Secondary DNS	Set Secondary DNS

6.1.5.2 DHCP server group set

Selecting "**Basic Setting**>**DHCP server**>**DHCP server group set**" in the navigation bar, you can configure DHCP Server group.

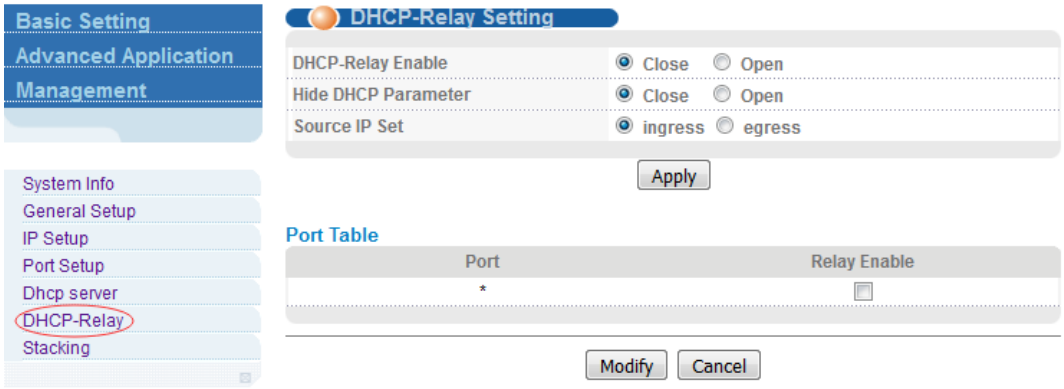


【Parameter Description】

Parameter	Description
group id	DHCP server group id
IP address	DHCP server IP address

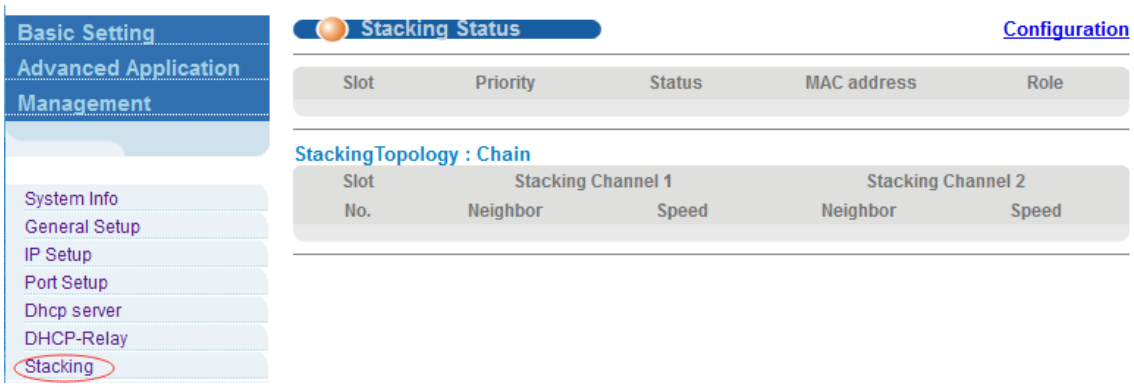
6.1.6 DHCP-Relay

Selecting "**Basic Setting**>**DHCP-Relay**" in the navigation bar, you can You can turn on the DHCP relay function, Hidden DHCP Server. Set the source IP used.



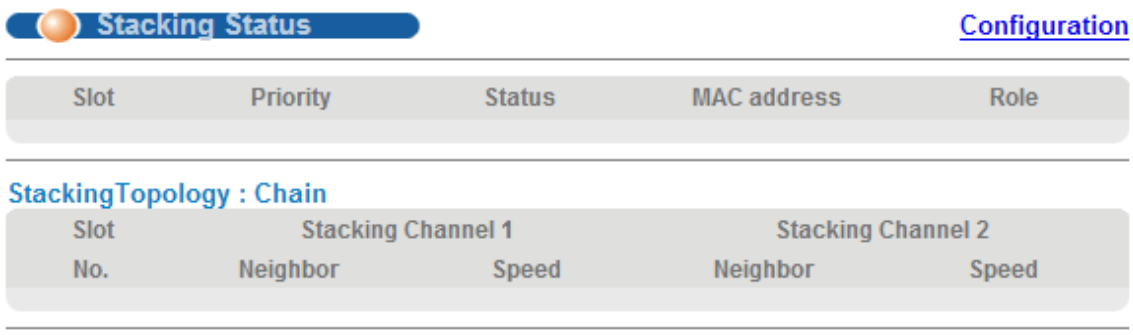
6.1.7 Stacking

Selecting "**Basic Setting**>**Stacking**" in the navigation bar, you can view the stack interface information, neighbor interface information, start the stack function and set system priority.



6.1.7.1 Stacking Status

Selecting "**Basic Setting**>**Stacking**>**Stacking Status**" in the navigation bar, you can view the stack interface information, neighbor interface information.

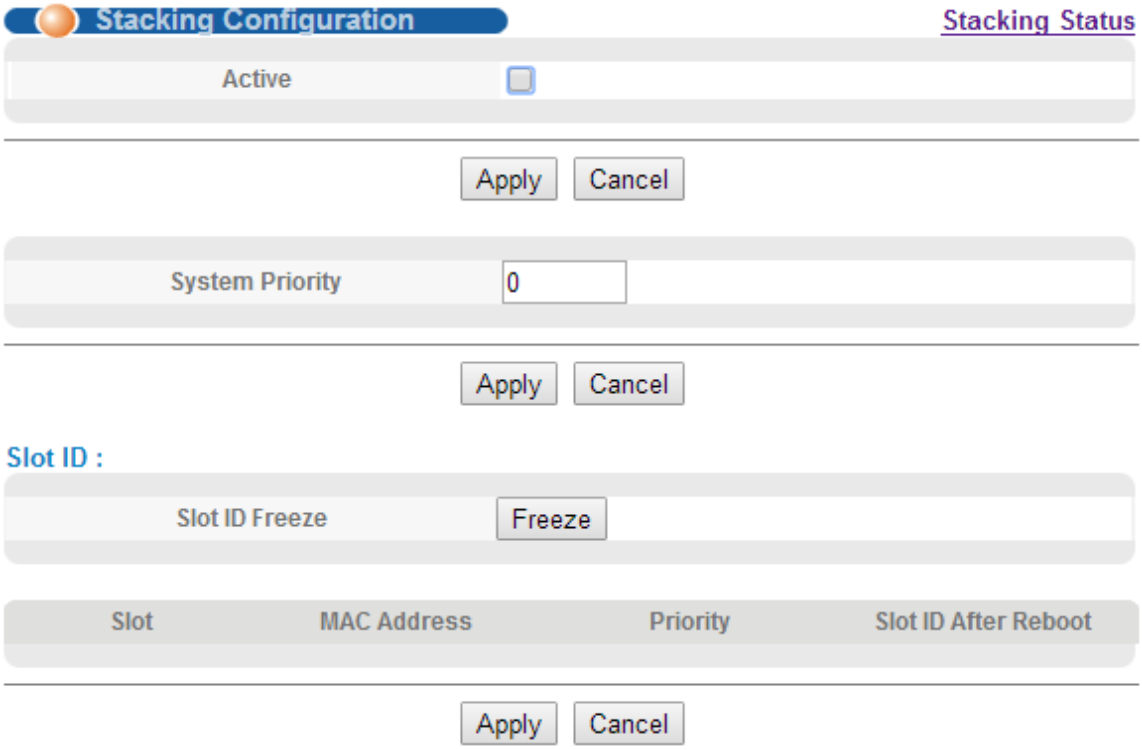


【Parameter Description】

Parameter	Description
Slot	Each device in the system must manually specify an unrepeatable ID number to unique identify
Status	Two different working modes: Single-machine mode: this mode is the same as the general switch, not to provide the stack function. Stack mode: this mode opens the stack function, can make up a stack system with other devices.
Priority	Each device in the system can be assigned a priority, devices with higher-priority more likely to be elected as main device.

6.1.7.2 Stacking Configuration

Selecting "**Basic Setting**>**Stacking**>**Stacking Configuration**" in the navigation bar, you can open stack and set System Priority.



【Parameter Description】

Parameter	Description
Active	Select open or close stack
System Priority	Set system priority, the default is 0

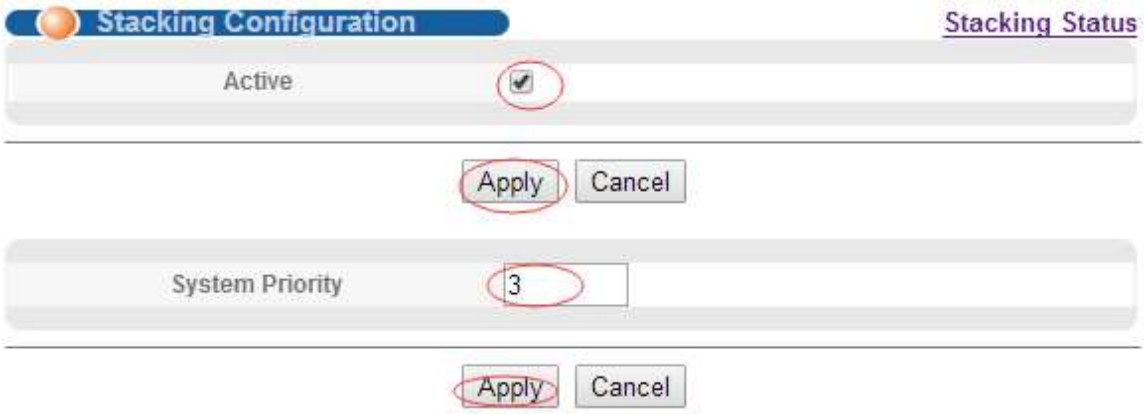
Parameter	Description
Slot id Freeze	Freeze slot ID
Slot id After Reboot	Device number after the device is rebooted

Note:

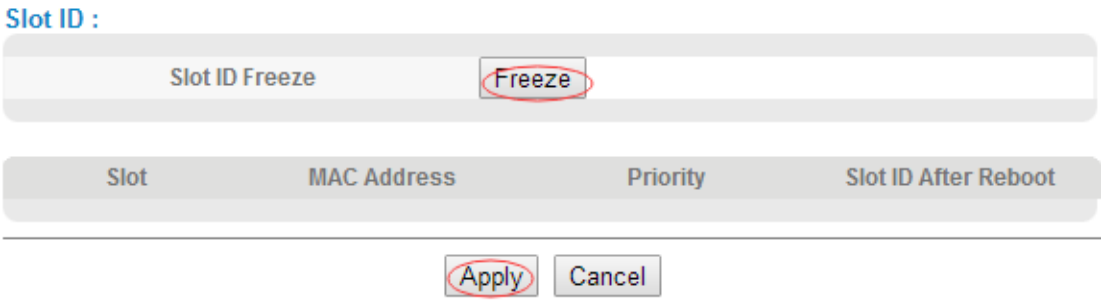
● Some related configuration, only to restart equipment ,can only take effect;

【Configuration example】

1.Activate the Stacking Configuration and configure "System Priority" as 3.

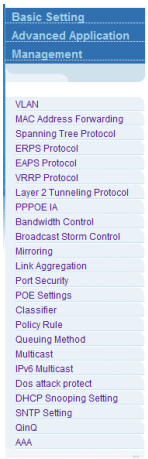


2.Click the "Freeze" button to restore the Slot ID.



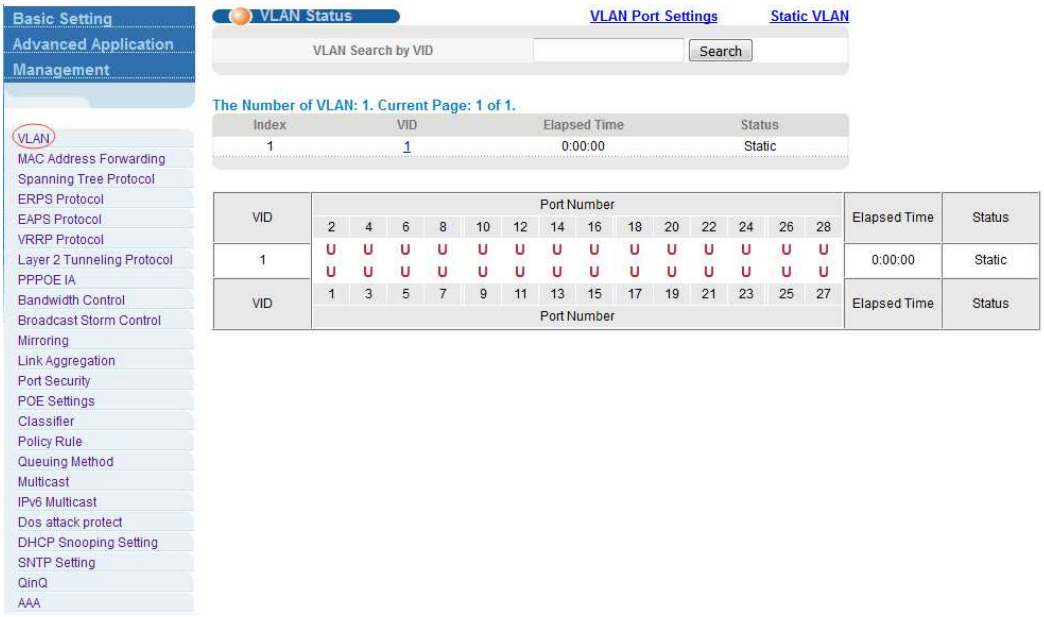
6.2 Advanced Application

Choose Advanced Application, and the following page appears. There are "**VLAN**", "**MAC Address Forwarding** ", "**Spanning Tree Protocol**", "**ERPS Protocol**", " **EAPS Protocol** ", " **VRRP Protocol** ","**Layer 2 Tunneling Protocol**", "**PPPOE IA**", "**Bandwidth Control**", "**Broadcast Storm Control**", "**Mirroring**", "**Link Aggregation**", "**Port Security**","**PoE Settings**","**Classifier**", **Policy Rule**", "**Queuing Method**", "**Multicast**", "**IPv6 Multicast**","**Dos attack protect**", "**DHCP Snooping Setting**", "**SNTP Setting**", "**QinQ**", "**AAA**", configuration web pages.



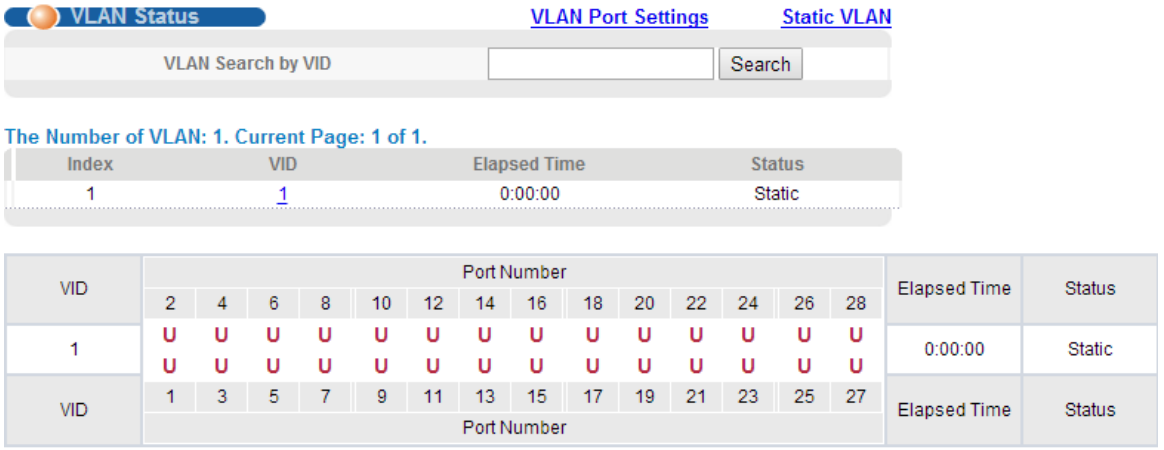
6.2.1 VLAN

Selecting "**Advanced Application**>**VLAN**" in the navigation bar, you can configure VLAN.



6.2.1.1 VLAN Status

Selecting "**Advanced Application**>**VLAN**>**VLAN Status**", in the navigation bar, you can view VLAN status.

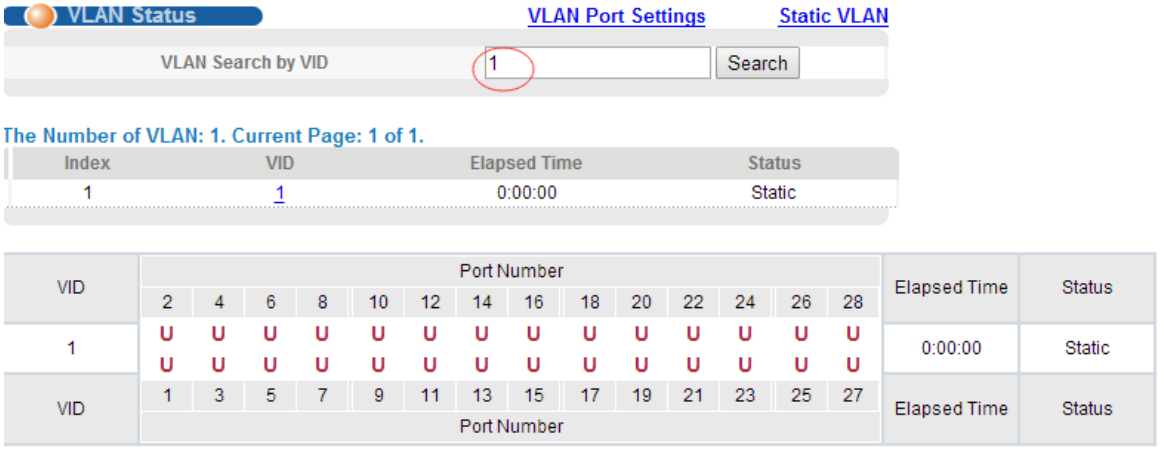


【Parameter Description】

Parameter	Description
VLAN Status	View all vlans configured in the device
VLAN Search by VID	Enter VID to view the specified VLAN

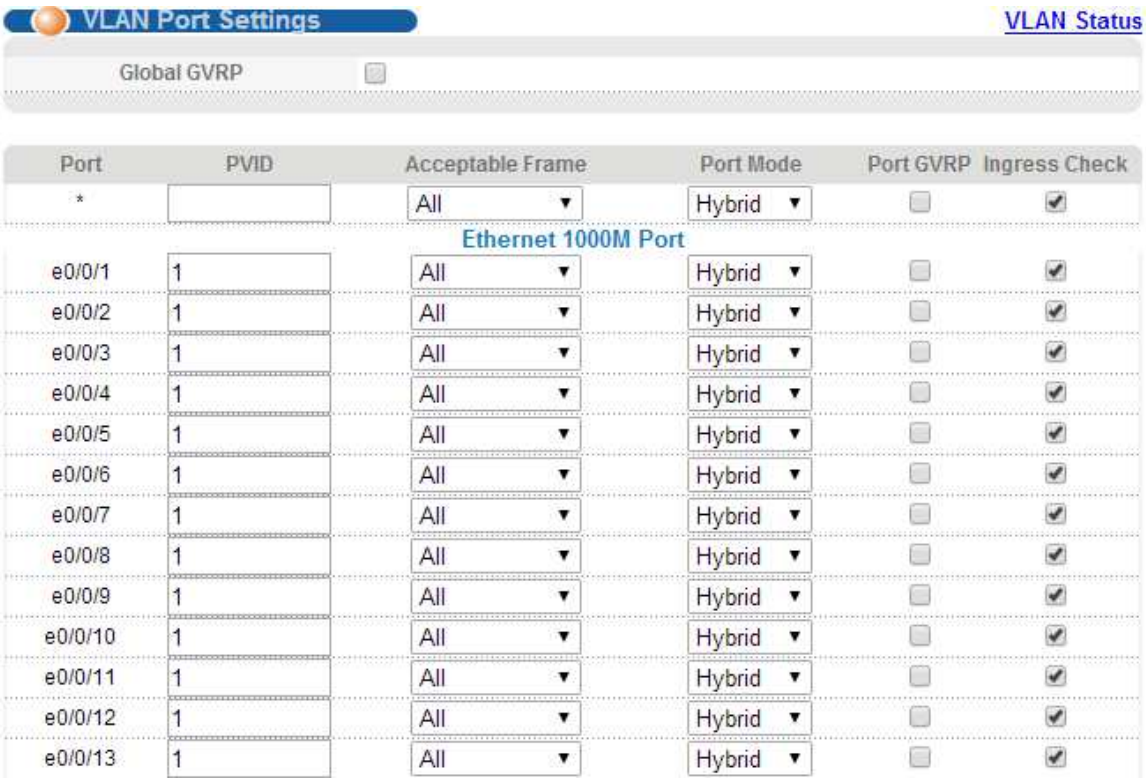
【Configuration example】

Such as: View the VLAN of VID as "1".



6.2.1.2 VLAN Port Settings

Selecting "**Advanced Application**>**VLAN**>**VLAN Port Settings**", in the navigation bar, you can set VLAN port.



【Parameter Description】

Parameter	Description
PVID	The PVID of the port can be modified, the default port PVID is "1"
Acceptable Frame	Choose the following kinds: All Tagged only Untagged only
Port Mode	Choose the following modes: Hybrid: The port can be either a tag member or untag member in a VLAN and can be a member port for multiple vlans. Trunk: The port can only be an tag member in a VLAN and can be a member port for multiple vlans Access: The port can only be a member of untag in VLAN and the port can only be in a VLAN.
Port GVRP	Select open or close GVRP, dynamic VLAN learning function, port mode must be Trunk mode
Ingress Check	Open port filtering function. If the port settings only receive the Tagged type of message, if the Ingress Check function is opened, the Untagged type of message will be discarded when the port

Parameter	Description
	receives the message of the untagged type of message, otherwise it can be forwarded. The default port filtering function opens.

【Instructions】

Hybrid port to packet:

Receives a packet, judge whether there is a VLAN information: if there is no play in port PVID, exchanged and forwarding, if have, whether the Hybrid port allows the VLAN data into: if can be forwarded, or discarded (untag on port configuration is not considered, untag configuration only work when to send it a message).

Hybrid port to send packet:

1. Determine the VLAN in this port attributes (disp interface can see the port to which VLAN untag, which VLAN tag).

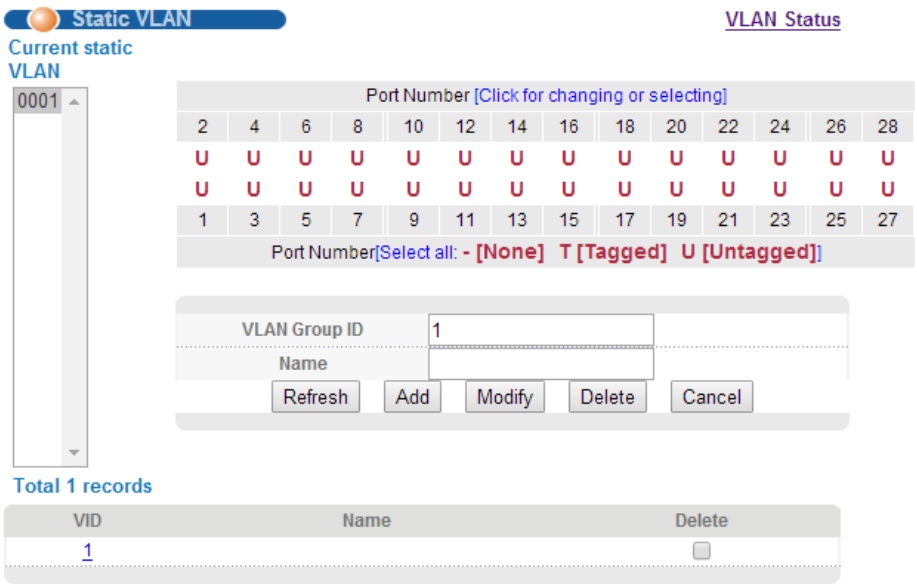
2. If it is untag stripping VLAN information, send again, if the tag is sent directly.

【Configuration example】

Such as: The PVID of port 1 is set to “1", the frame type is set to “All", the port mode is set to “Hybrid", and the port GVRP is not turned on and the entry inspection function is opened.

6.2.1.3 Static VLAN

Selecting “**Advanced Application**>**Static VLAN**" in the navigation bar, you can configure Static VLAN.



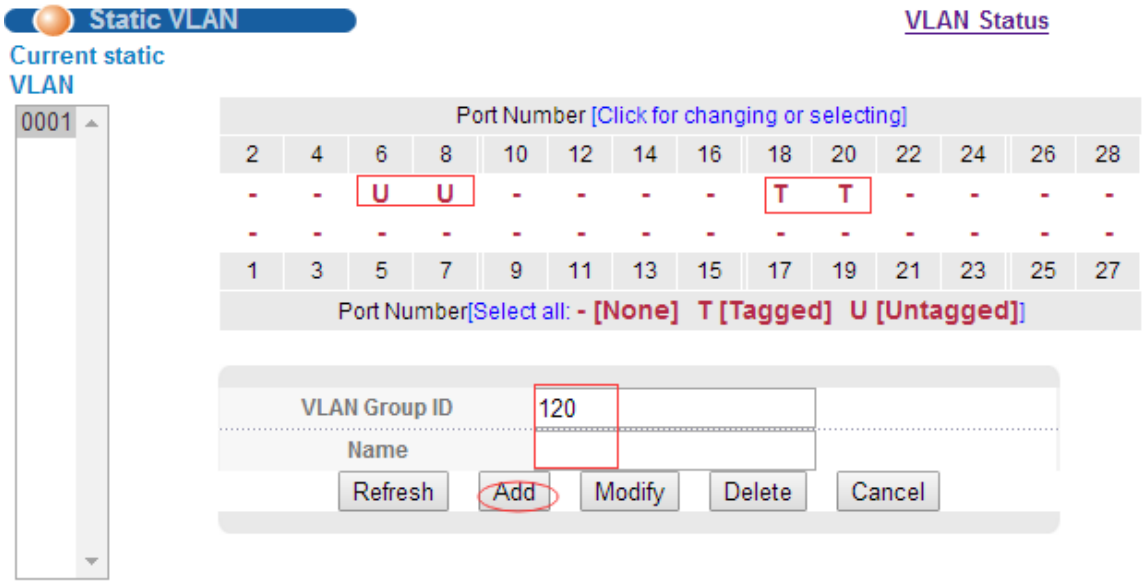
【Parameter Description】

Parameter	Description
VLAN Group ID	VLAN Group ID
Name	VLAN Group name

【Configuration example】

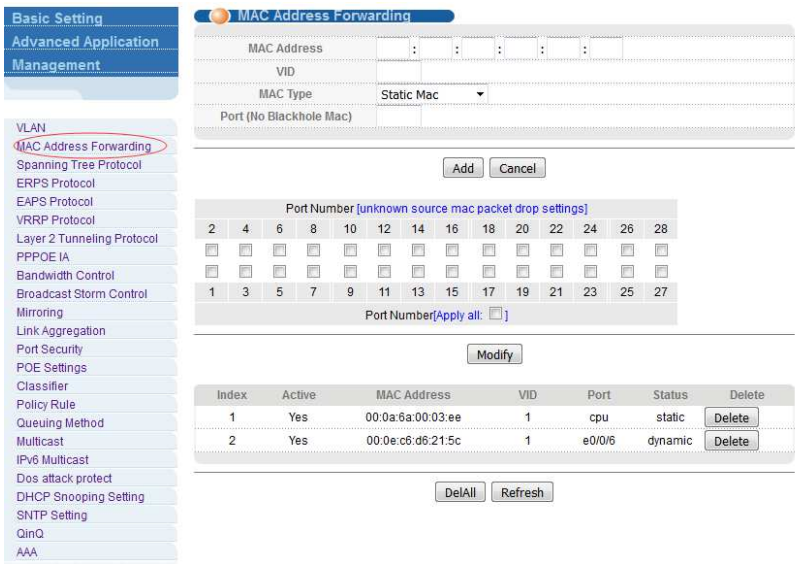
Add and delete VLAN members

Such as: Adding a new VLAN, VLAN Group ID 120 contains non-untag member port 6, 8. Tag member port 18, 20. The user can modify the port member by clicking on the white area below the port number.



6.2.2 MAC Address Forwarding

Selecting "**Advanced Application**>**MAC Address Forwarding**" in the navigation bar, you can configure MAC Address Forwarding.



【Parameter Description】

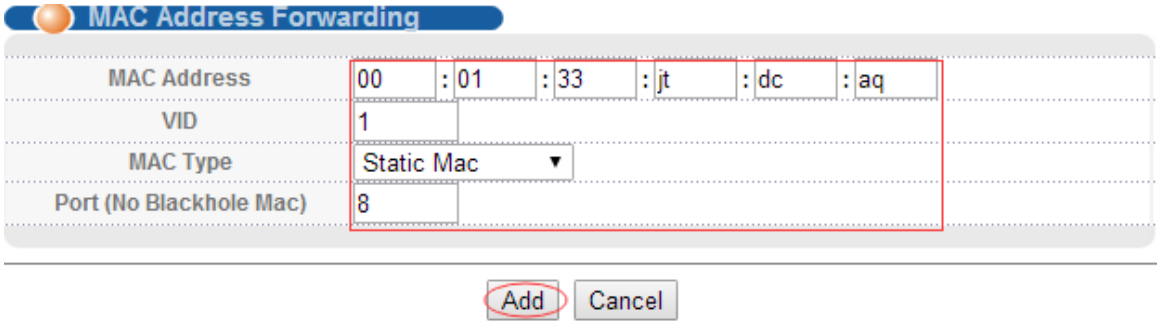
Parameter	Description
MAC Type	MAC Type: Static MAC Dynamic MAC Blackhole MAC Permanent MAC

【Instructions】

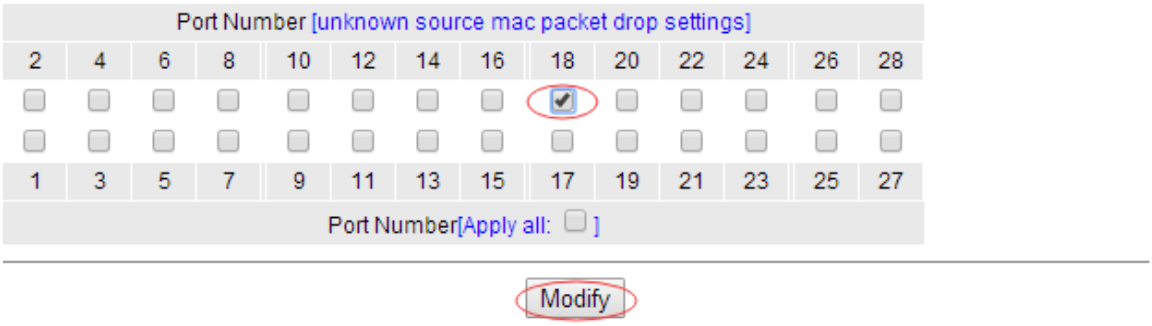
Blackhole MAC: If a PC's MAC address is configured on a switch to be a blackhole MAC, then the PC's package will be discarded by the switch and not forwarded to the network.

【Configuration example】

1. MAC Address Forwarding

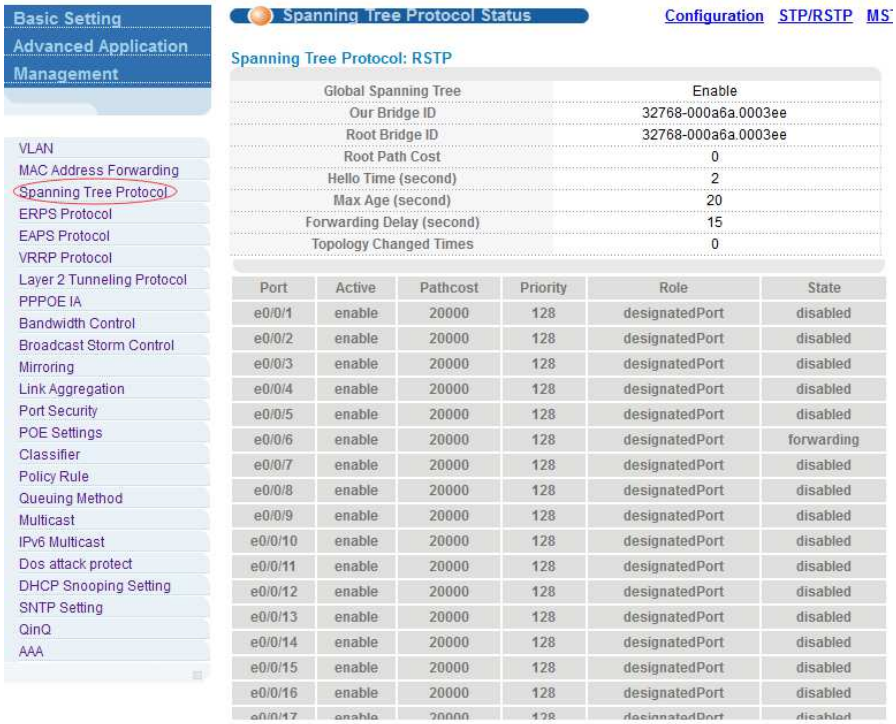


2. Unknown source mac packet drop settings.



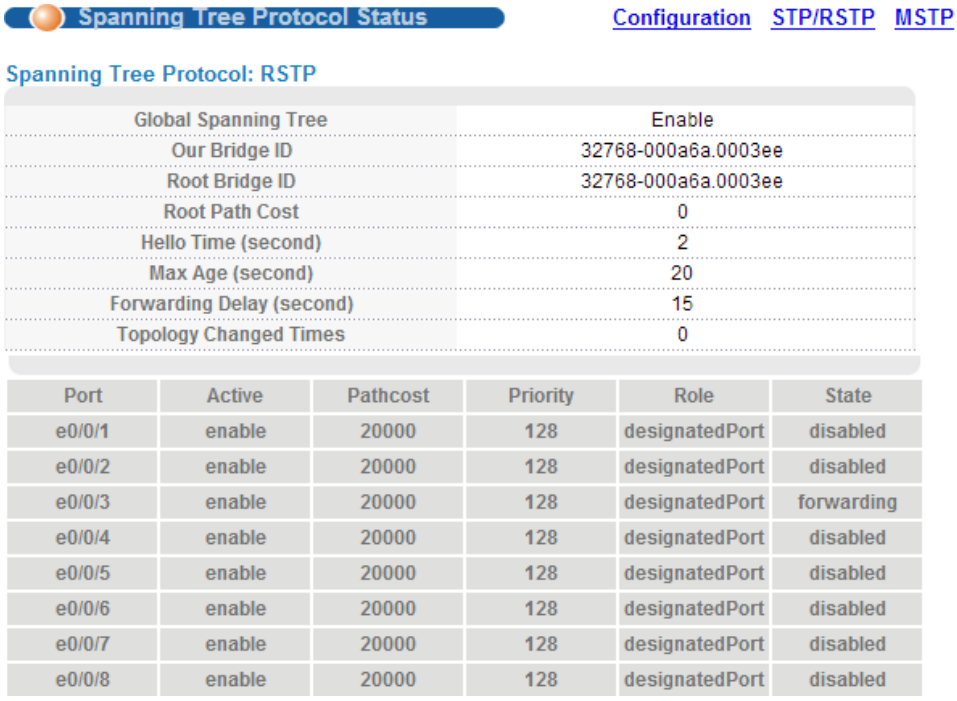
6.2.3 Spanning Tree Protocol

Selecting "**Advanced Application**>**Spanning Tree Protocol**", in the navigation bar, you can configure spanning tree protocol.



6.2.3.1 Spanning Tree Protocol Status

Selecting "**Advanced Application**>**Spanning Tree Protocol**>**Spanning Tree Protocol status**"; in the navigation bar, you can view spanning tree protocol status.

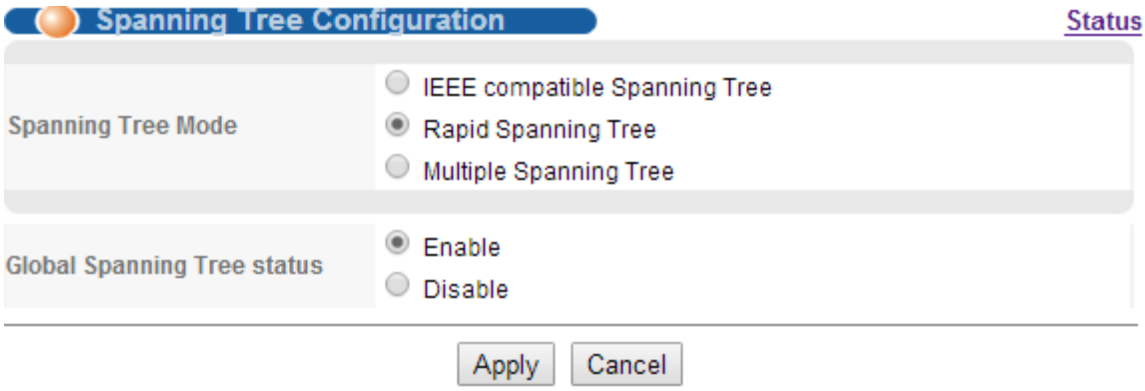


【Parameter Description】

Parameter	Description
Root Path Cost	Configure Root Path Cost
Hello time(second)	Switches sends bpdu in packet interval
Max age(second)	Ports are not yet received a message in the time, will initiate topology changes
Forwarding delay(second)	The state of the port switch time
Topology changed times	The number of topology changes

6.2.3.2 Spanning Tree Configuration

Selecting "**Advanced Application**>**Spanning Tree Protocol**>**Spanning Tree configuration**", in the navigation bar, you can configure spanning tree.



【Parameter Description】

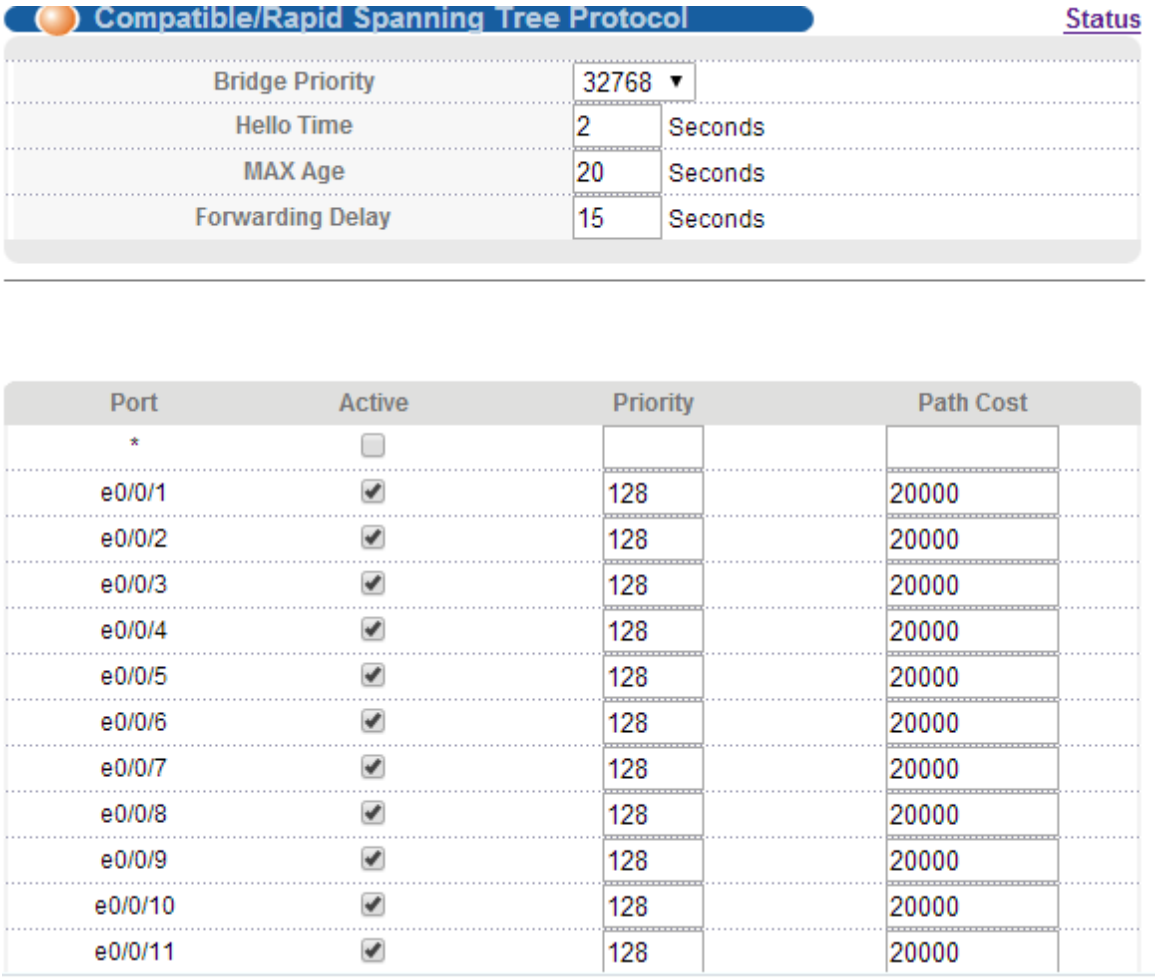
Parameter	Description
Spanning Tree Mode	Spanning tree mode: IEEE Compatible Spanning Tree Rapid Spanning Tree Multiple Spanning Tree
Global Spanning Tree Status	Select open or close Global Spanning

【Configuration example】

Such as: Spanning Tree Mode as "Rapid Spanning Tree", open Global Spanning.

6.2.3.3 Compatible/Rapid Spanning Tree Protocol

Selecting "**Advanced Application**>**Spanning Tree Protocol**>**Compatible/Rapid Spanning Tree Protocol**", in the navigation bar, you can configure Compatible/Rapid Spanning Tree Protocol.



【Parameter Description】

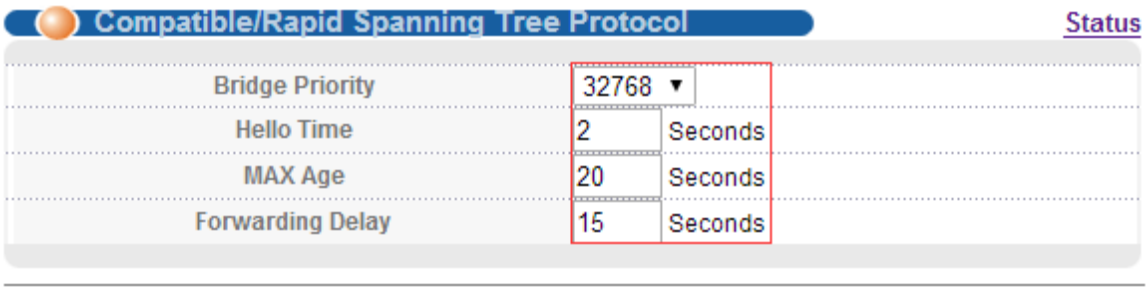
Parameter	Description
Bridge Priority	Set bridge priority, the default instance bridge

Parameter	Description
	priority for 32768
Hello Time	Switches sends bpdu in packet interval
Max Age	Ports are not yet received a message in the time, will initiate topology changes
Forwarding Delay	The state of the port switch time
Port Priority	Set port instance priority, defaults to 128
Path Cost	Configure port costs

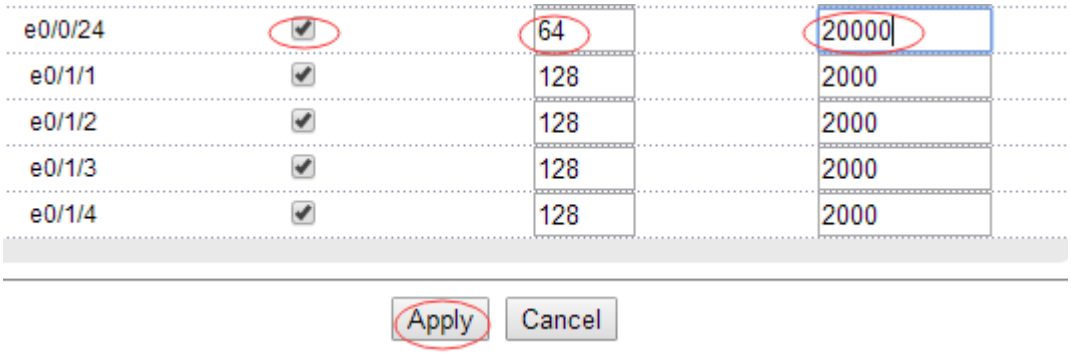
【Configuration example】

Such as:

1. Configure the bridge priority as 32768, the Hello Time is 2 seconds, the MAX Age is 20 seconds, and the Forwarding Delay is 15 seconds.

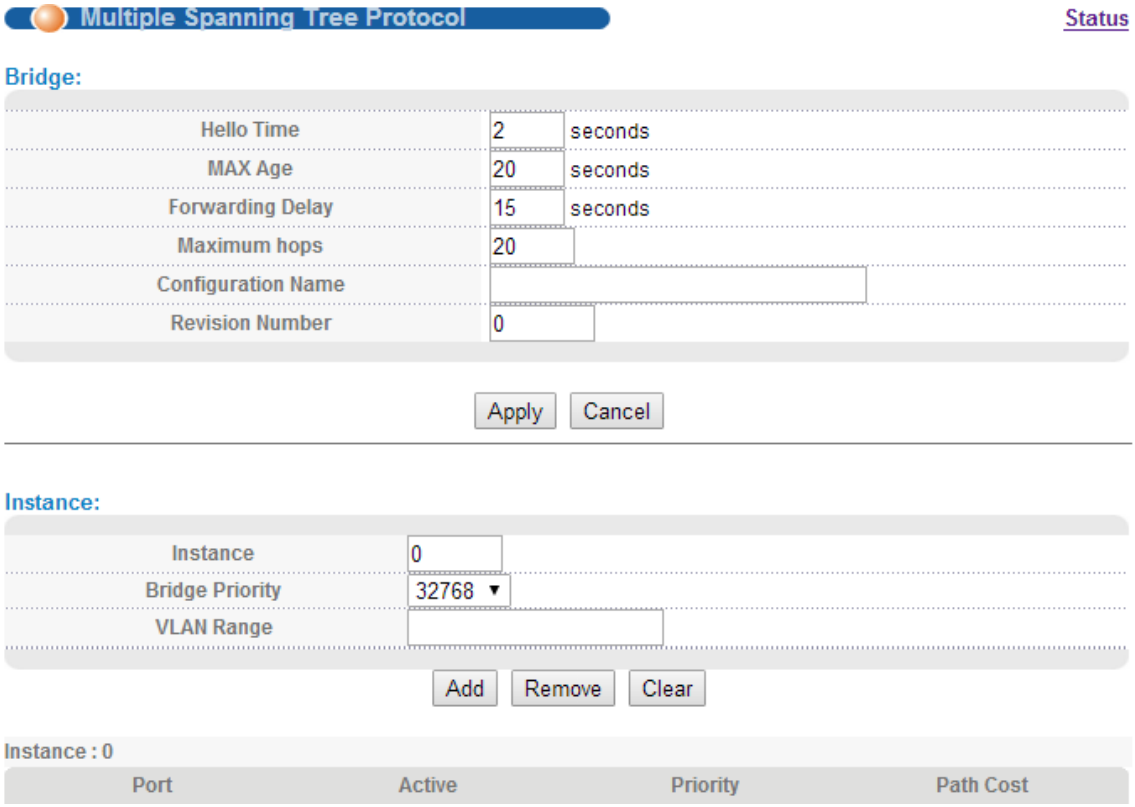


2. The priority of port 24 is 64, and the path cost is 20000.



6.2.3.4 Multiple Spanning Tree Protocol

Selecting "**Advanced Application**>**Spanning Tree Protocol**>**Multiple Spanning Tree Protocol**", in the navigation bar, you can configure Multiple Spanning Tree Protocol.

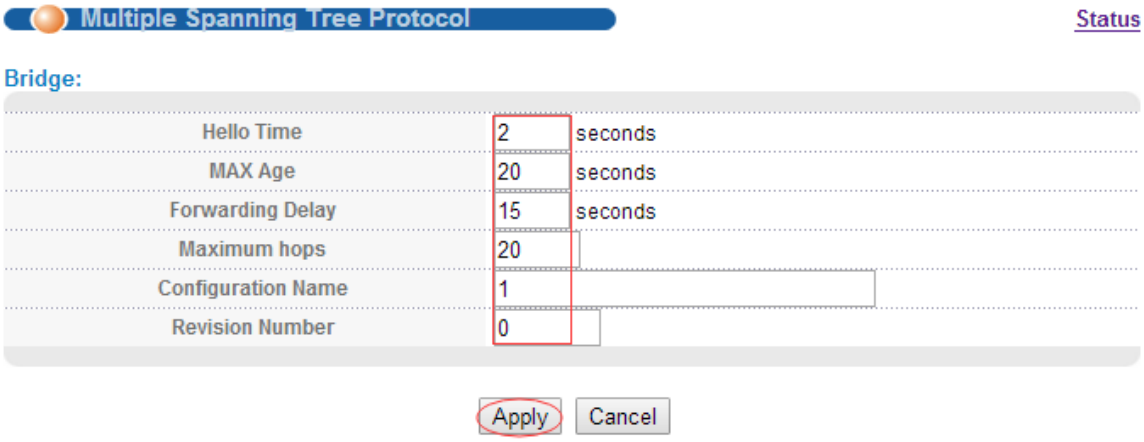


【Parameter Description】

Parameter	Description
Hello Time	Switches sends bpdu in packet interval
Max age	Ports are not yet received a message in the time, will initiate topology changes
Forwarding Delay	The state of the port switch time
Maximum Hops	Set the maximum number of hops that BPDUs can support in the spanning tree
Configuration Name	Fill in configuration name
Revision Number	Set revision number
Instance	Instance number
Bridge Priority	Priority setting bridge example, the default instance bridge priority for 32768
VLAN Range	Set VLAN range
Port Priority	Set port instance priority, defaults to 128
Path Cost	Configure port costs

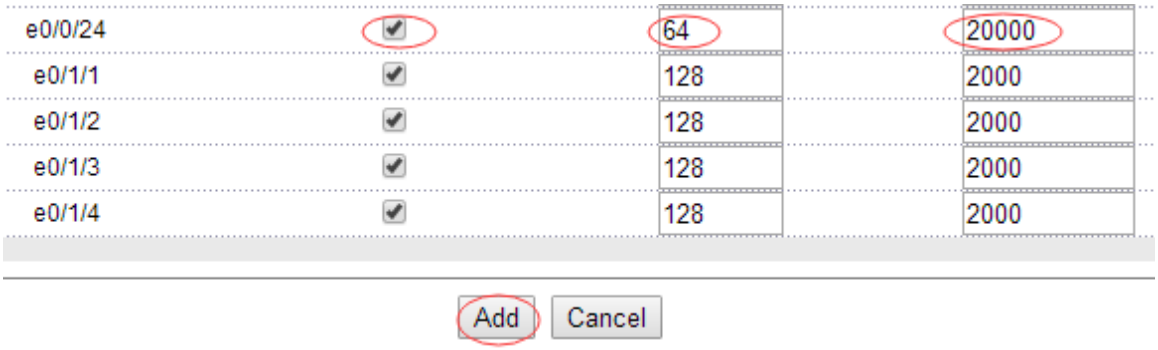
【Configuration example】

1. Bridge



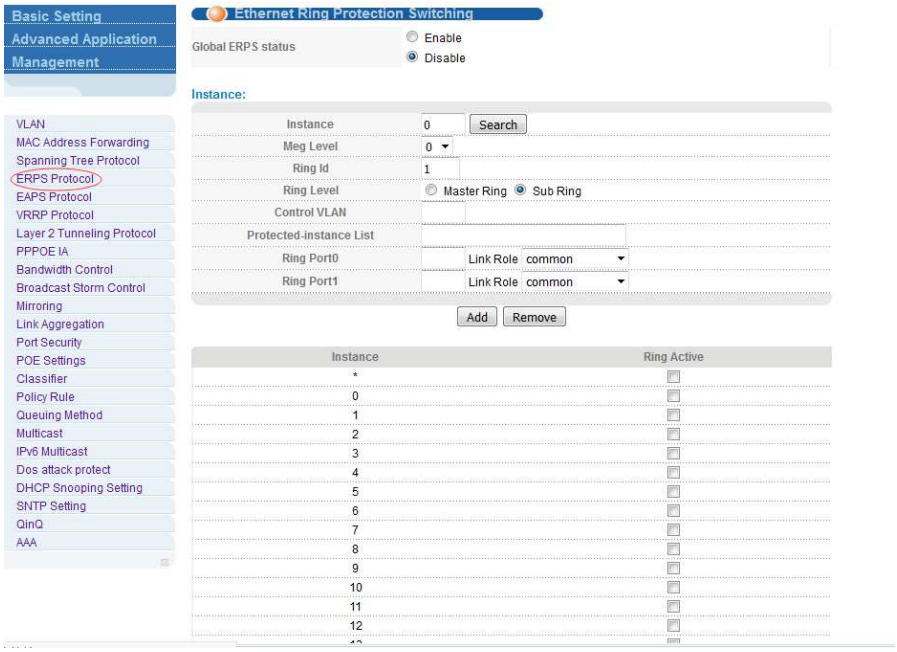
2. Instance

3. The priority of port 24 is 64, and the path cost is 20000.



6.2.4 ERPS Protocol

Selecting "**Advanced Application**>**ERPS Protocol**", in the navigation bar, you can configure ERPS protocol.



【Parameter Description】

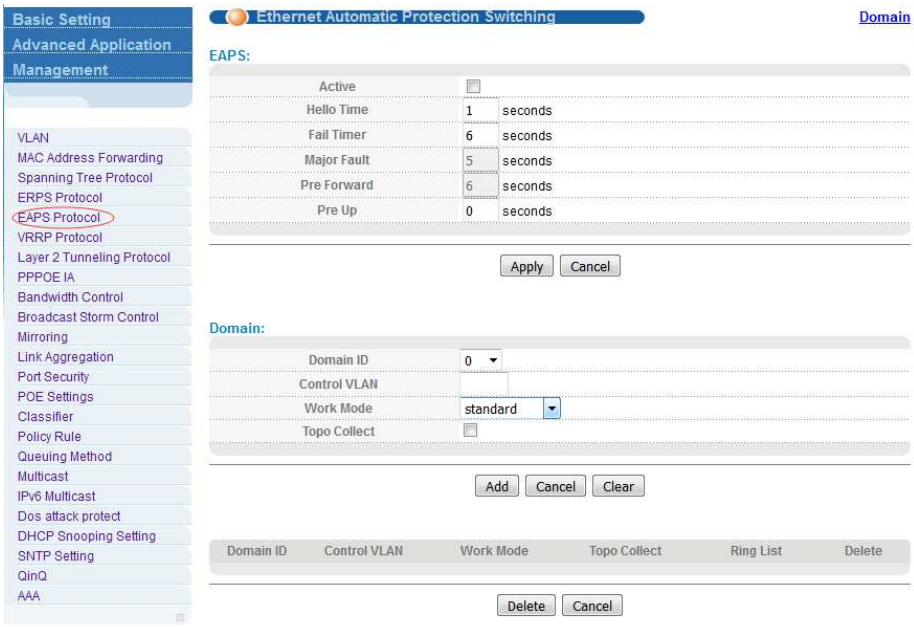
Parameter	Description
Global ERPS status	Select open or close ERPS
Instance	The range of 0-15, active instance.
Meg level	The range of 0-7
Ring Id	The range of 1-239
Ring Level	Master Ring and Sub Ring
Control VLAN	You must configure the VLAN before configuring the ERRP ring
Protected-instance List	Application of MST instance
Ring port1	Configurable ports are common, owner, neighbor, next-neighbor
Ring port2	Configurable ports are common, owner, neighbor, next-neighbor

【Configuration example】

Such as: Open Global ERPS

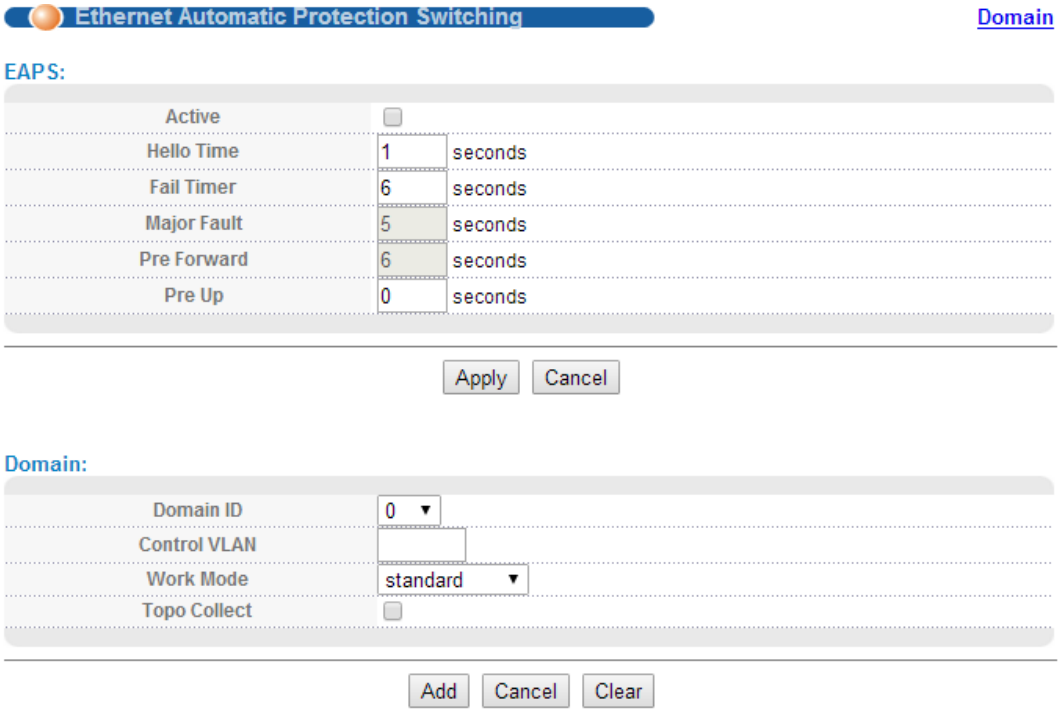
6.2.5 EAPS Protocol

Selecting "**Advanced Application**>**EAPS Protocol**", in the navigation bar, you can configure EAPS protocol.



6.2.5.1 Ethernet Automatic Protection Switching

Selecting "**Advanced Application**>**EAPS Protocol**>**Ethernet automatic protection switching**", in the navigation bar, you can configure Ethernet automatic protection switching.

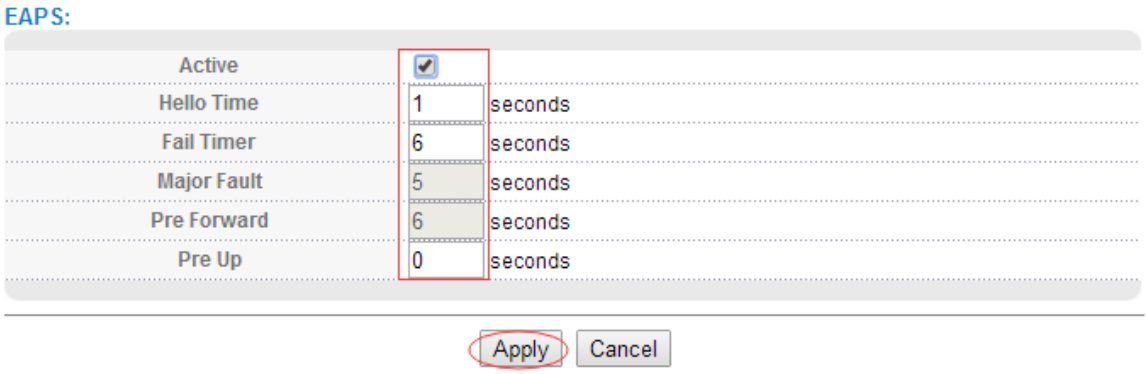


【Parameter Description】

Parameter	Description
Active	Select open or close EAPS
Hello time	Switches sends bpdu in packet interval
Fail Timer	Configure the information timeout
Major Fault	The Major Fault timer will be automatically updated by the system
Pre Forward	The Pre forward timer will be automatically updated by the system
Pre Up	Loop recovery wait time
Domain ID	You need to specify the Domain ID when creating the EAPS Domain
Control VLAN	You must configure the VLAN before configuring the EAPS Ring
Work mode	Work mode: standard huawei eips-subring
Topo Collect	Select open or close Topo Collect

【Configuration example】

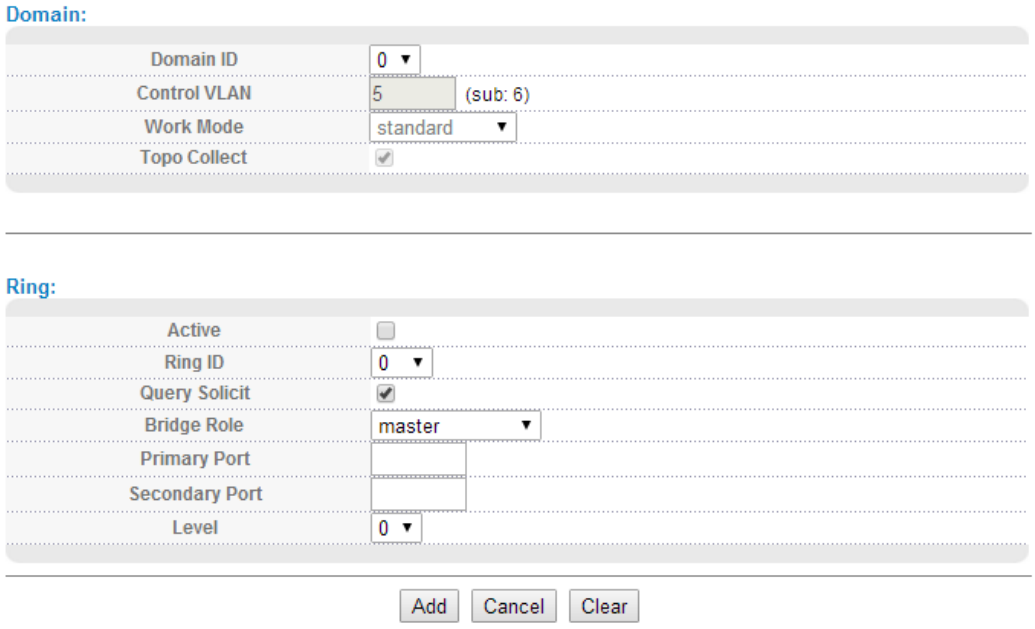
1. EAPS



2. Domain

6.2.5.2 EAPS Domain

Selecting "**Advanced Application>EAPS Protocol>EAPS Domain**", in the navigation bar, you can configure EAPS Domain.



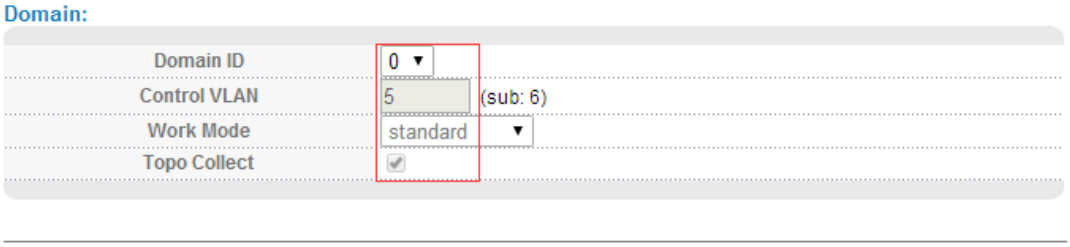
【Parameter Description】

Parameter	Description
Domain ID	Select Domain ID
Control VLAN	You must configure the VLAN before configuring the EAPS Ring
Work mode	Work mode: standard huawei eips-subring
Topo Collect	Select open or close Topo Collect
Active	Select open or close Ring
Ring ID	Select ring ID
Query Solicit	Select open or close Query Solicit
Bridge Role	Bridge Role: mastesr transit edge assistant-edge
Level	Level:

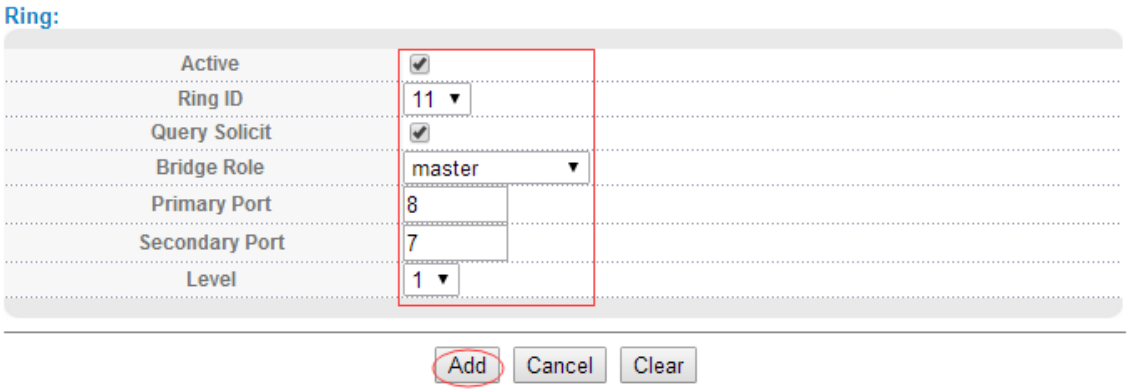
Parameter	Description
	0, 1

【Configuration example】

1. Configure Domain

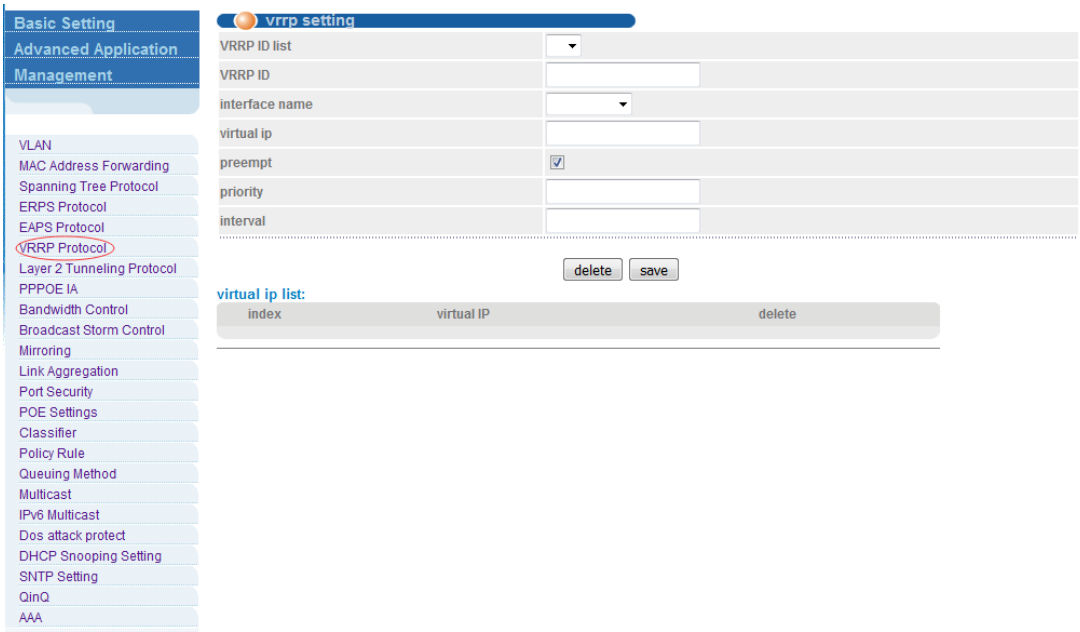


2. Configure Ring



6.2.6 VRRP Protocol

Selecting "**Advanced Application>VRRP Protocol**"; in the navigation bar, you can configure the VRRP Protocol.

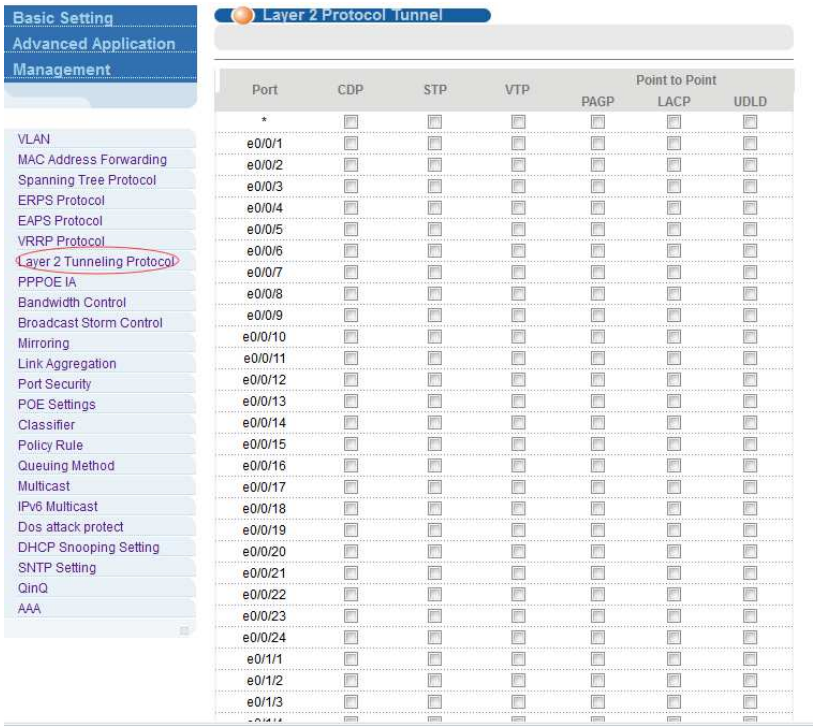


【Parameter Description】

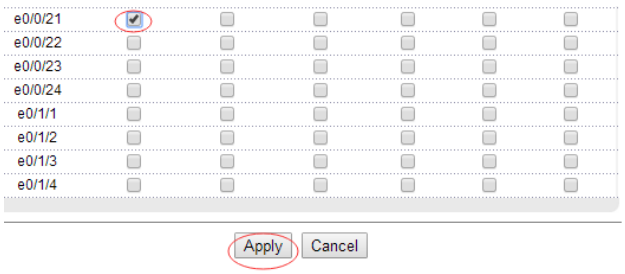
Parameter	Description
VRRP ID list	You select VRRP ID
VRRP ID	VRRP ID
Interface name	Specify vlan
virtual ip	Set virtual ip
preempt	Enable or disable preempt
priority	VRRP priority
interval	Set VRRP timer interval

6.2.7 Layer 2 Tunneling Protocol

Selecting "**Advanced Application**>**EAPS Protocol Layer 2 Tunneling Protocol**"; in the navigation bar, you can configure the specified protocol message that enters the port to perform a tunnel operation.

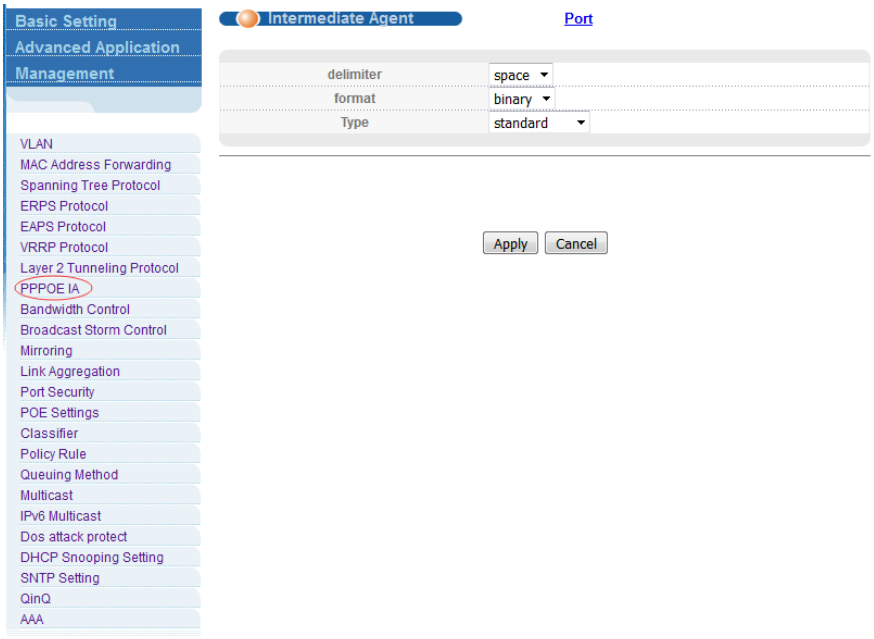


【Configuration example】



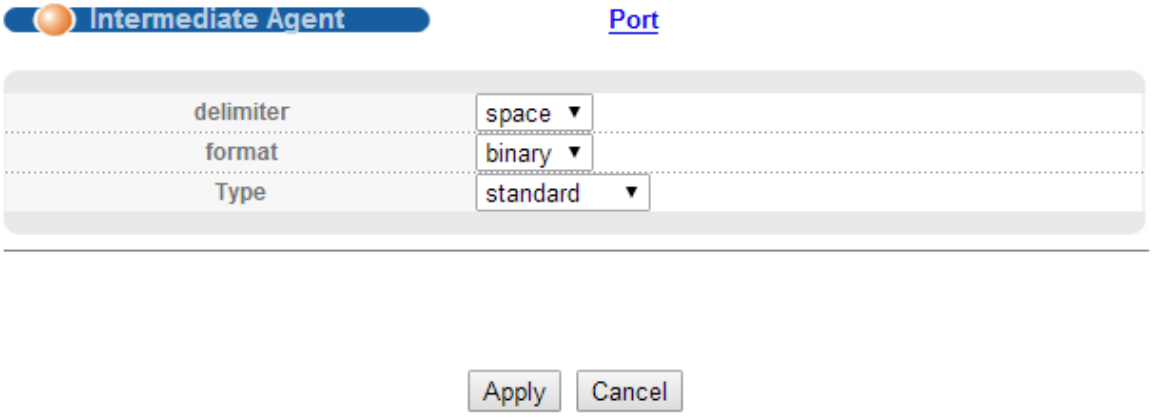
6.2.8 PPPoE IA

Selecting “**Advanced Application**>**PPPoE IA**", in the navigation bar, you can configure PPPoE IA.



6.2.8.1 Intermediate Agent

Selecting “**Advanced Application**>**PPPoE IA**>**Intermediate Agent**", in the navigation bar, you can configure Intermediate Agent.



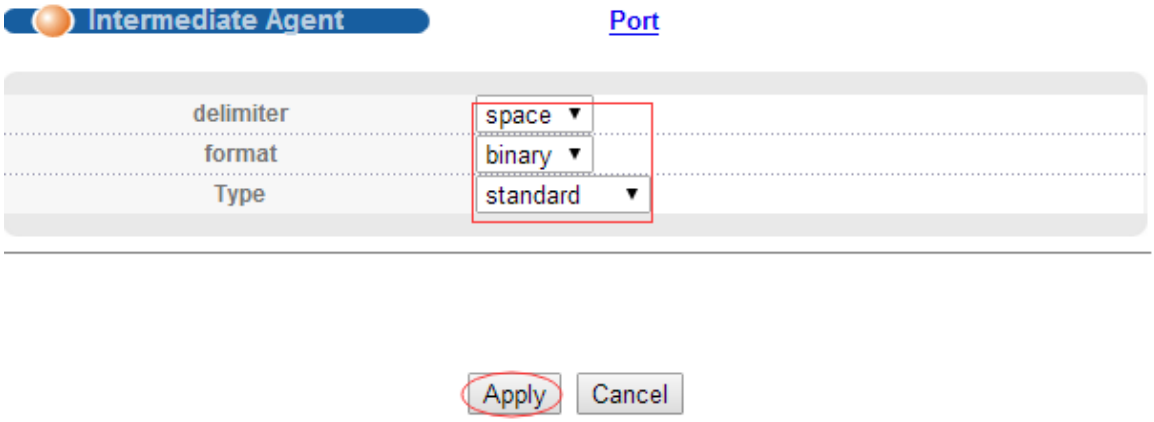
【Parameter Description】

Parameter	Description
delimiter	Configure delimiter, choose “space", “:", “.", “#", “/"
format	Configure format, choose binary, ascii
type	Configure the message type, choose standard,

Parameter	Description
	Huawei, self-defined

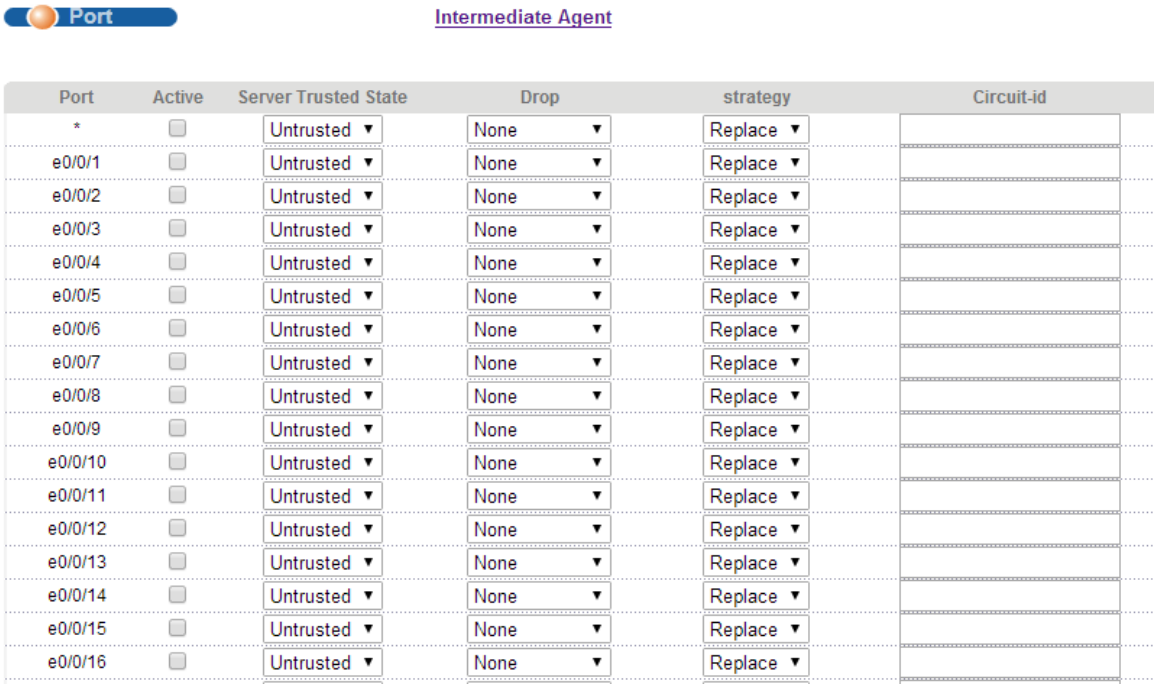
【Configuration example】

Such as: Configure Intermediate Agent.



6.2.8.2 Port

Selecting "**Advanced Application**>**PPPoE IA**>**Port**", in the navigation bar, you can configure port.



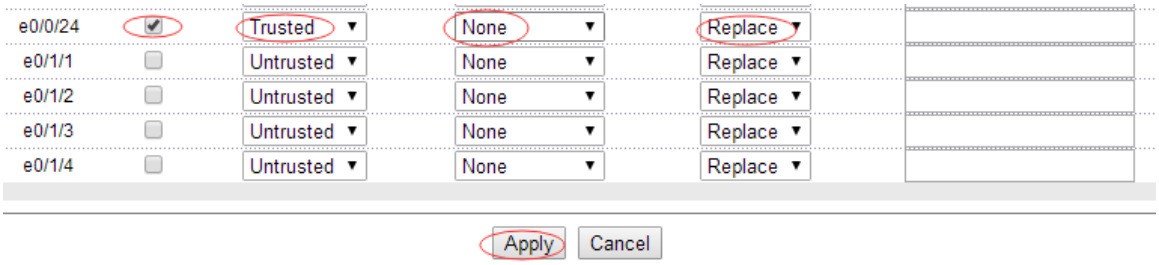
【Parameter Description】

Parameter	Description
active	Select open or close port PPPOE IA

Parameter	Description
Server Trusted State	Configure the upstream port to be Trusted or Untrusted
Drop	Configure the pppoe padi/pado packets received by the port
Strategy	Configuration options to handle policies, choose Drop, Keep, Replace

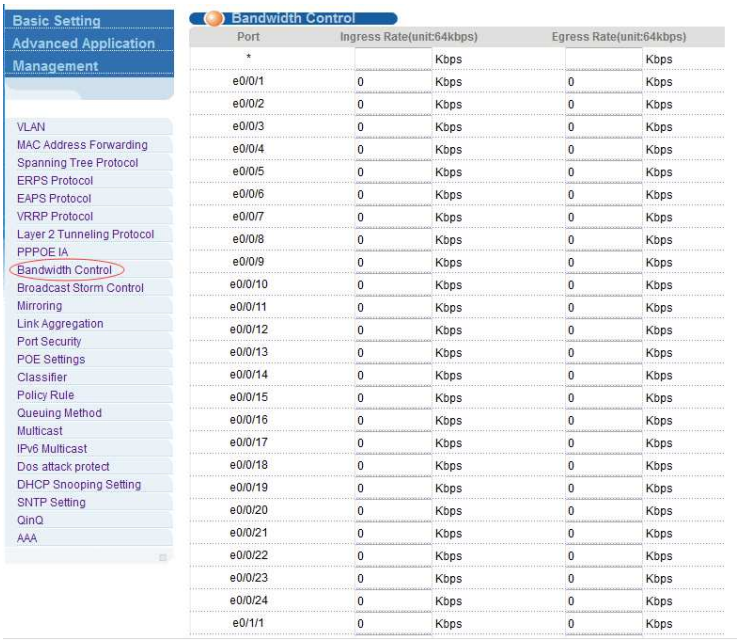
【Configuration example】

Such As: Configure port.



6.2.9 Bandwidth Control

Selecting "**Advanced Application**>**Bandwidth Control**", in the navigation bar, you can configure Bandwidth Control.

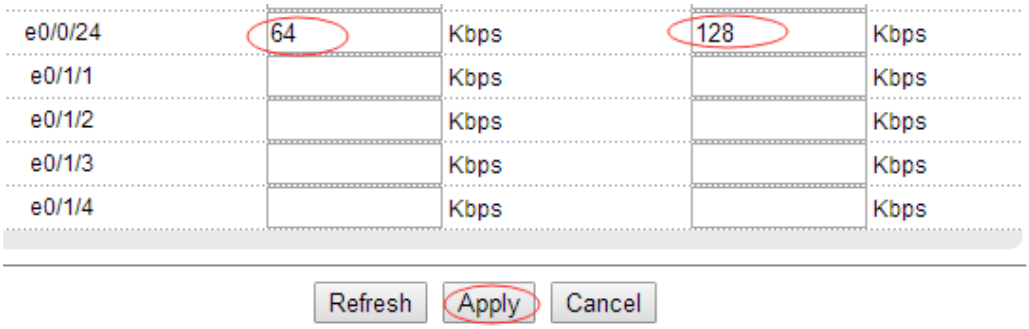


【Instructions】

1 Mbit/s = 1000 Kbit/s = 1000 / 8 KB/s = 125 KB/s. That is, the theoretical rate of 1M bandwidth is 125 KB/s.

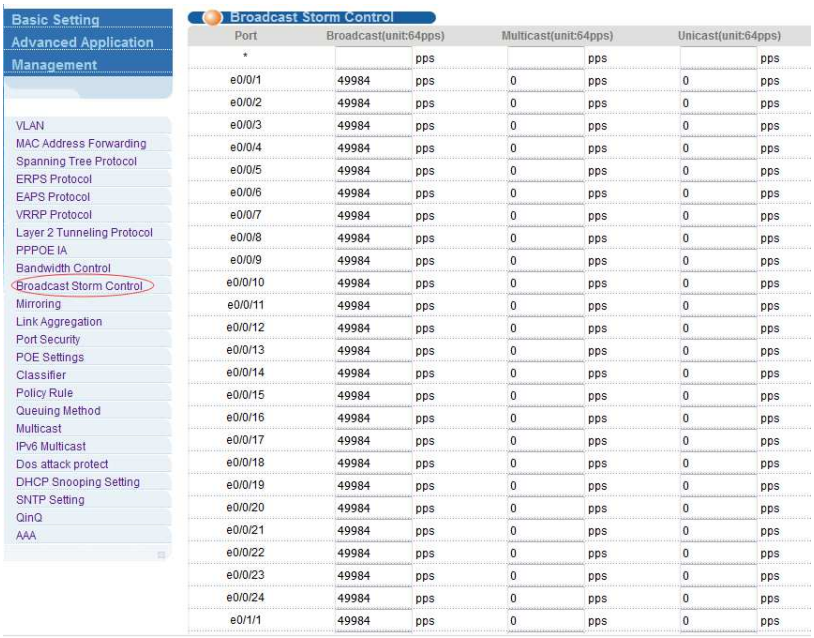
【Configuration example】

Such as: Configure port-24 Ingress Rate is 64kbps, Egress Rate is 128kbps.



6.2.10 Broadcast Storm Control

Selecting "**Advanced Application**>**Broadcast Storm Control**"; in the navigation bar, you can configure Broadcast Storm Control.



【Parameter Description】

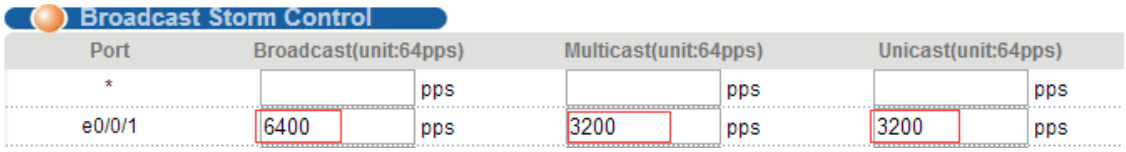
Parameter	Description
Broadcast	Broadcast rate limitation(the range of: 64-32000000, unit: pps, you must enter multiple of 64, default to 49984)
Multicast	Multicast rate limitation(the range of: 64-32000000, unit: pps, you must enter multiple of 64, default to 49984)
Unicast	Unicast rate limitation(the range of: 64-32000000, unit: pps, you must enter multiple of 64, default to 49984)

【Instructions】

1 Mbit/s = 1000 Kbit/s = 1000 / 8 KB/s = 125 KB/s. That is, the theoretical rate of 1M bandwidth is 125 KB/s.

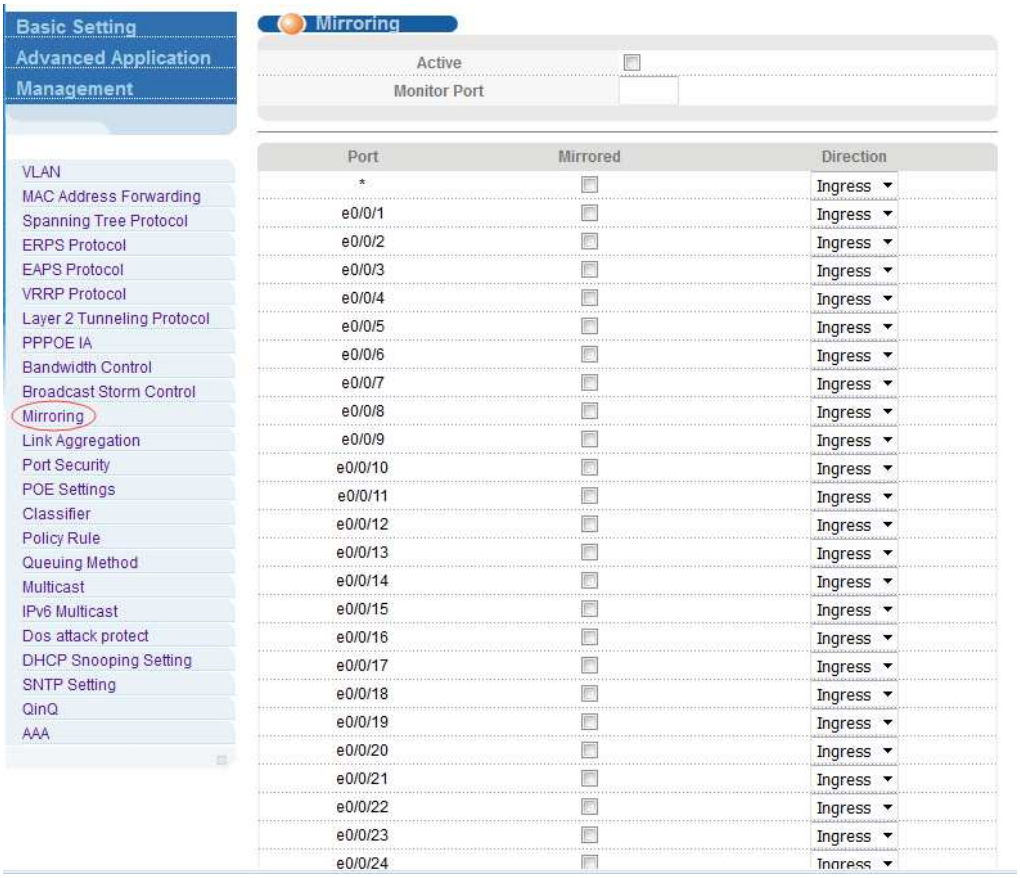
【Configuration example】

Such as: Set Port1 broadcast as 6400 pps, multicast as 3200 pps, unicast as 3200 pps.



6.2.11 Mirroring

Selecting "**Advanced Application**>**Mirroring**", in the navigation bar, you can configure mirroring.

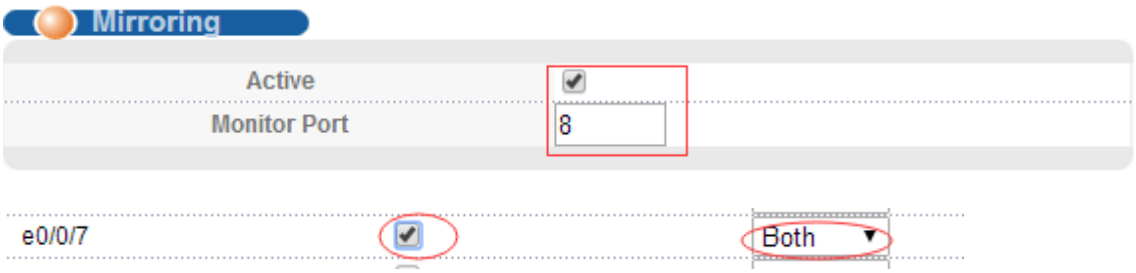


【Parameter Description】

Parameter	Description
Active	Select open or close Mirroring
Monitor Port	Set up the monitoring port and forward the flow data of the source port to the message analyzer to analyze the message and then forward to the monitoring port
Mirrored	Check the box to configure the mirror source port
Direction	Configure the direction of the mirror message, choose: Ingress, Egress, Both

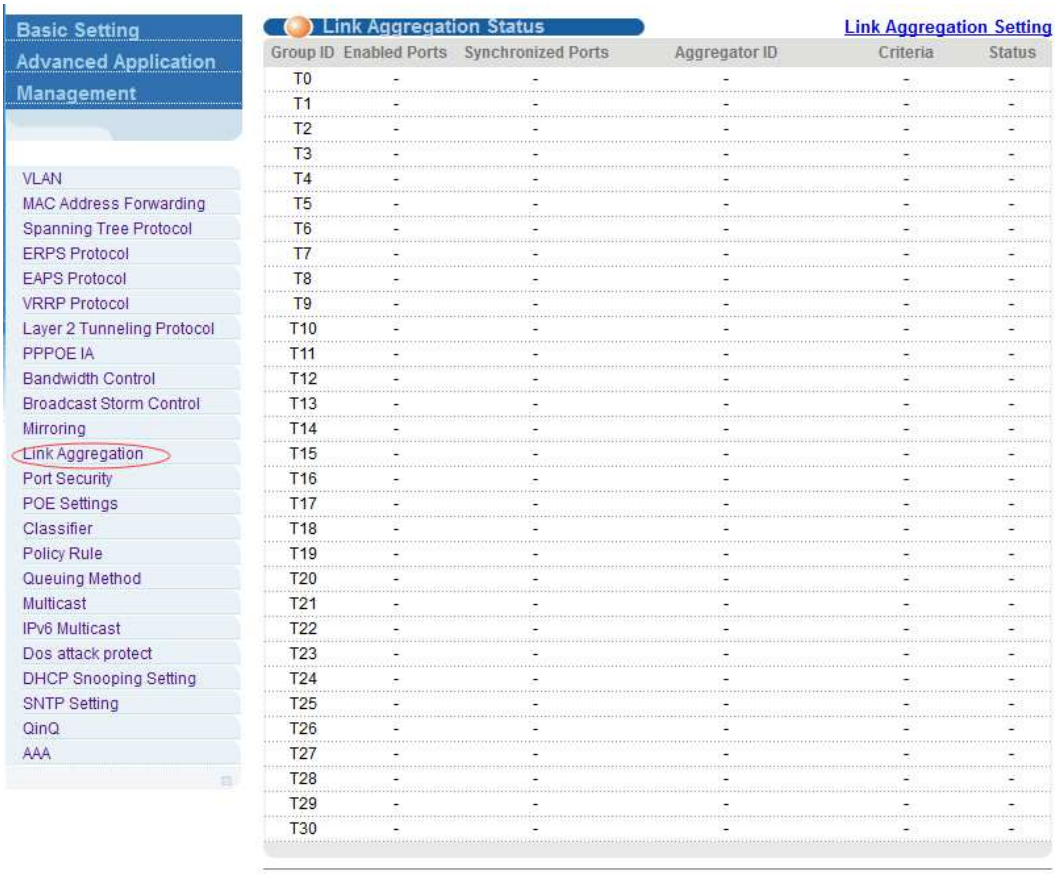
【Configuration example】

Such as: Open mirroring, configure monitoring port is port 8, the source port is port 7, and the mirror message is in both direction.



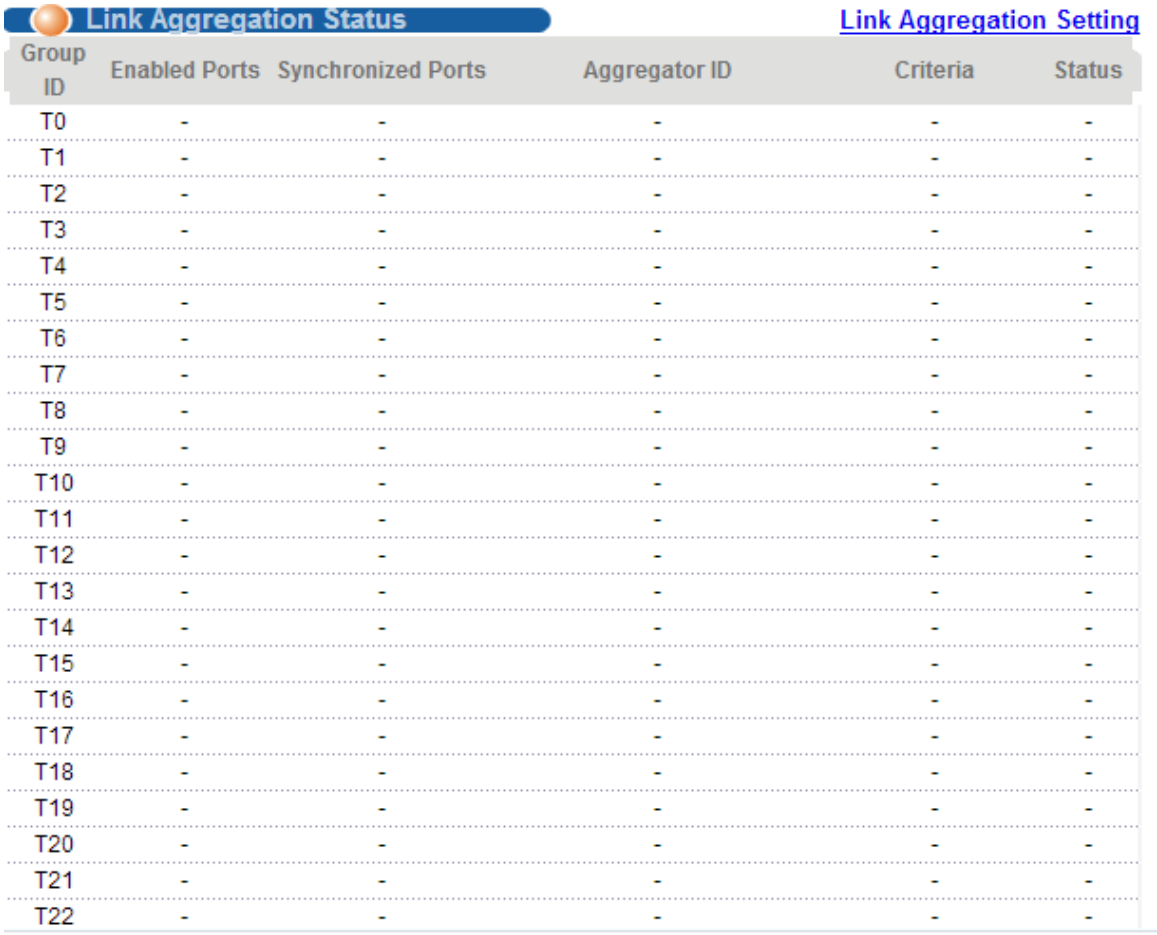
6.2.12 Link Aggregation

Selecting "**Advanced Application**>**Link Aggregation**", in the navigation bar, you can configure link aggregation.



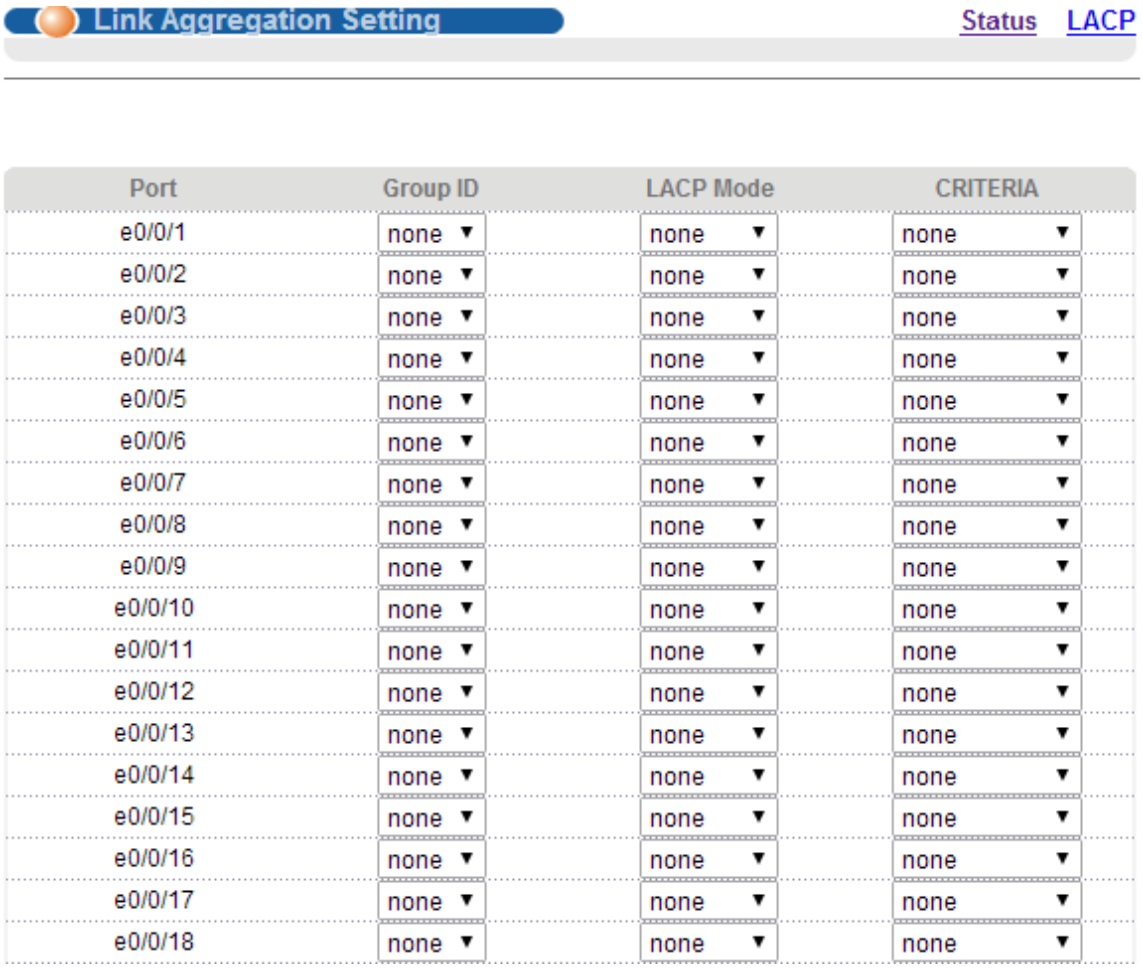
6.2.12.1 Link Aggregation status

Selecting "**Advanced Application**>**Link Aggregation**>**Link Aggregation Status**", in the navigation bar, you can view link aggregation status, you can view Group ID, Enabled Ports, Synchronized Ports, Aggregator ID, Criteria, Status.



6.2.12.2 Link Aggregation Setting

Selecting "**Advanced Application**>**Link Aggregation**>**Link Aggregation Setting**", in the navigation bar, you can set Link Aggregation.



【Parameter Description】

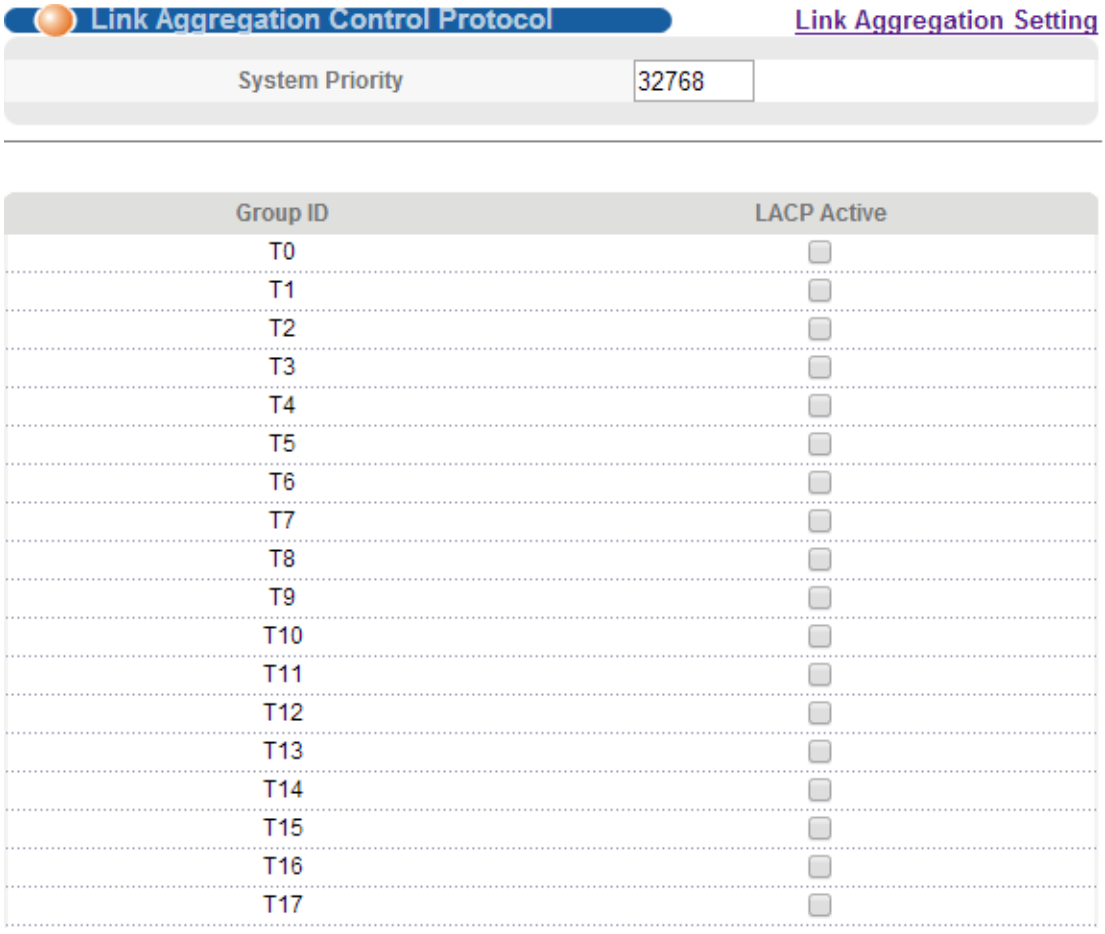
Parameter	Description
Group ID	Add the port to the specified Aggregation Group ID
LACP mode	Configure port aggregation(static/active/passive)
Criteria	Configure the Aggregation Group load balancing (src-mac/dst-mac/src-dst-mac/src-ip/dst-ip/src-dst-ip)

【Configuration example】

Such as: configure parameter of Aggregation Group port-8.

6.2.12.3 Link Aggregation Control Protocol

Selecting "**Advanced Application**>**Link Aggregation**>Link Aggregation Control Protocol", in the navigation bar, you can configure Link Aggregation Control Protocol.



【Parameter Description】

Parameter	Description
System priority	Aggregation group system priority, the default is 32768(the range of 1-65535)

【Configuration example】

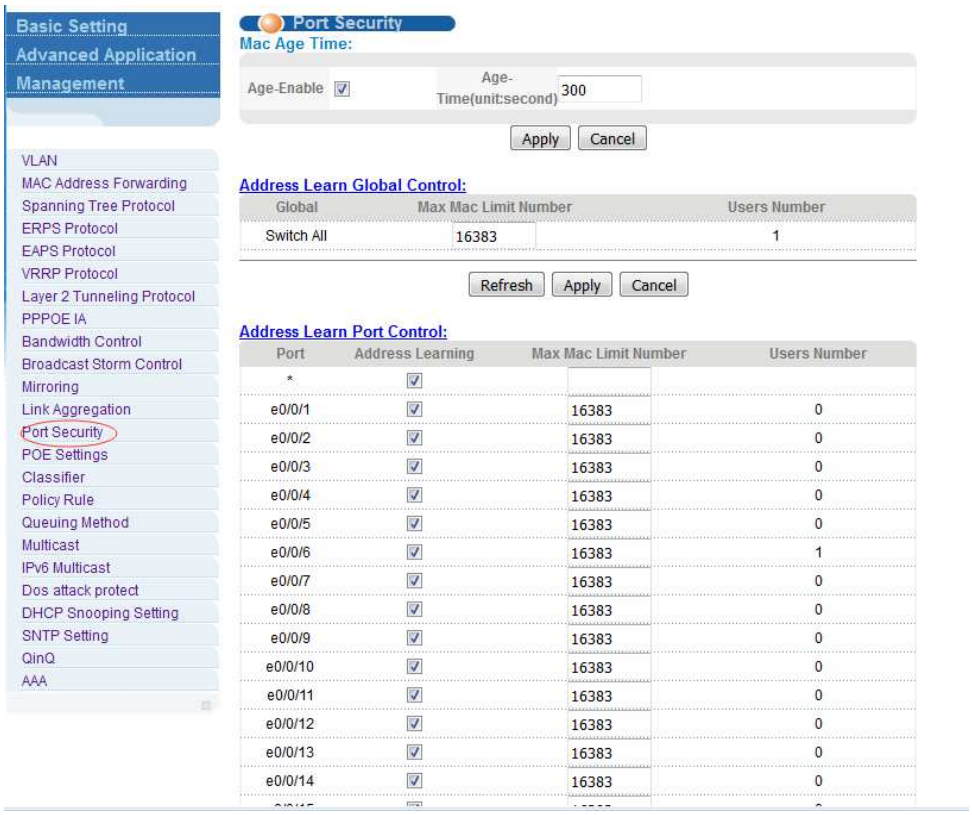
Such as:

1.Open aggregation group T1 LACP.

2.The priority for configuring port 8 is 64.

6.2.13 Port Security

Selecting "**Advanced Application**>**Port Security**", in the navigation bar, you can configure port address learn control.

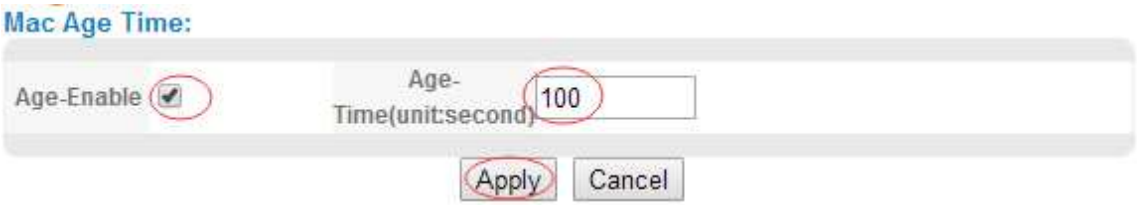


【Parameter Description】

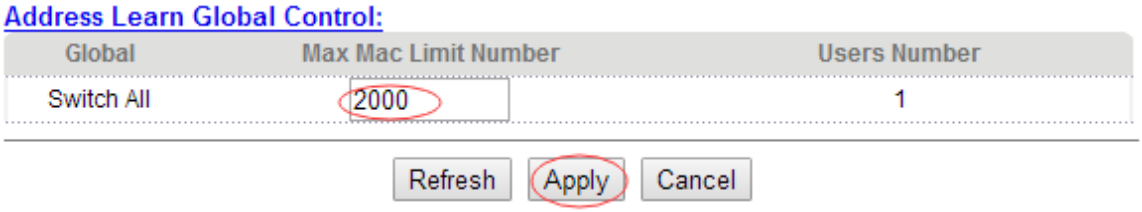
Parameter	Description
Age-Enable	Open age-enable
Age-Time	Set Age Time(the range of 10-1000000, unit: second)
Max Mac Limit Number (Global)	Set the global Max MAC Limit Number(0-16384)
Address Learning	The MAC address learning function of port enables the power switch (the default port MAC learning function opens)
Max Mac Limit Number (Port)	Set the port Max MAC Limit Number(0-16384)

【Configuration example】

1.Configure mac Age Time, open Age-Time, Age-Time (second) is 100.

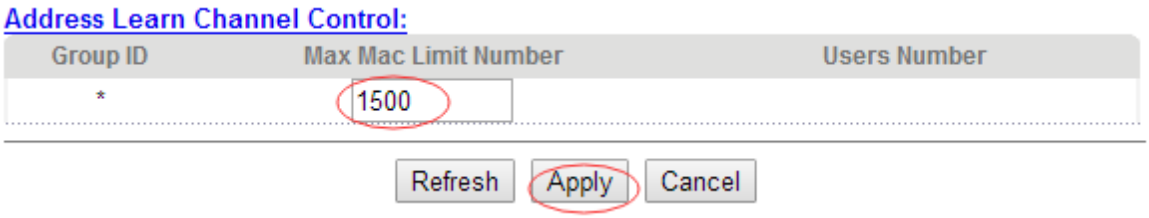


2.Configure Address Learn Global Control, set max mac limit number is 2000.

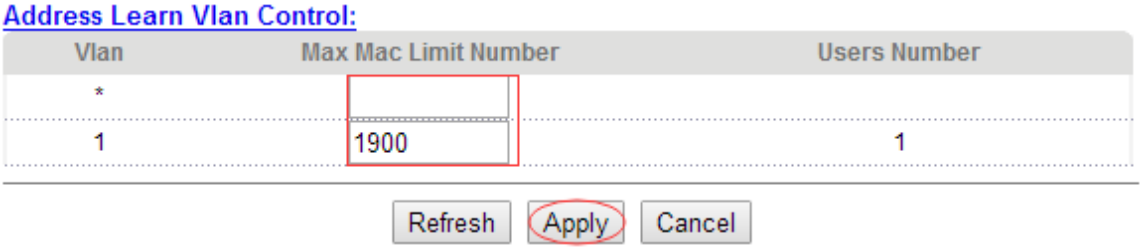


3.Port 8 address learn control, Max Mac Limit Number is 1800.

4.Configure Address Learn Channel Control, set max mac limit number (channel) is 1500.



5.Configure Address Learn Vlan Control, set Max Mac Limit Number (Vlan) is 1900.

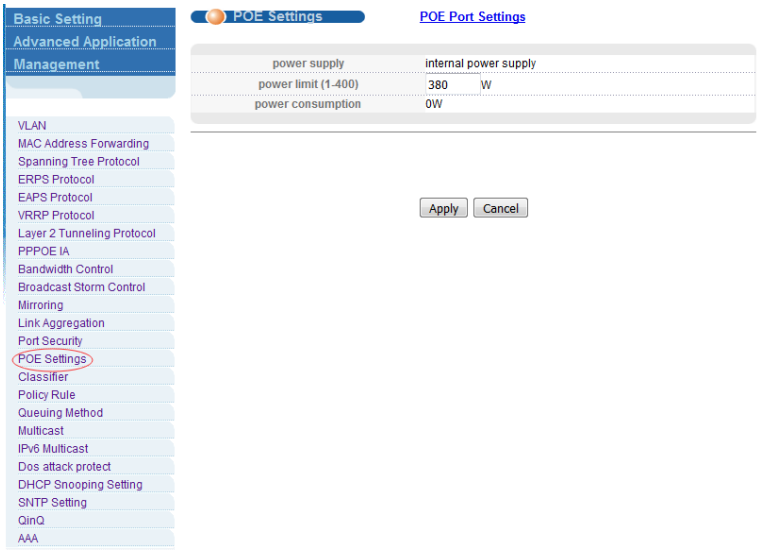


6.2.14 POE Settings

Selecting "**Advanced Application**>**POE Settings**", in the navigation bar, you can

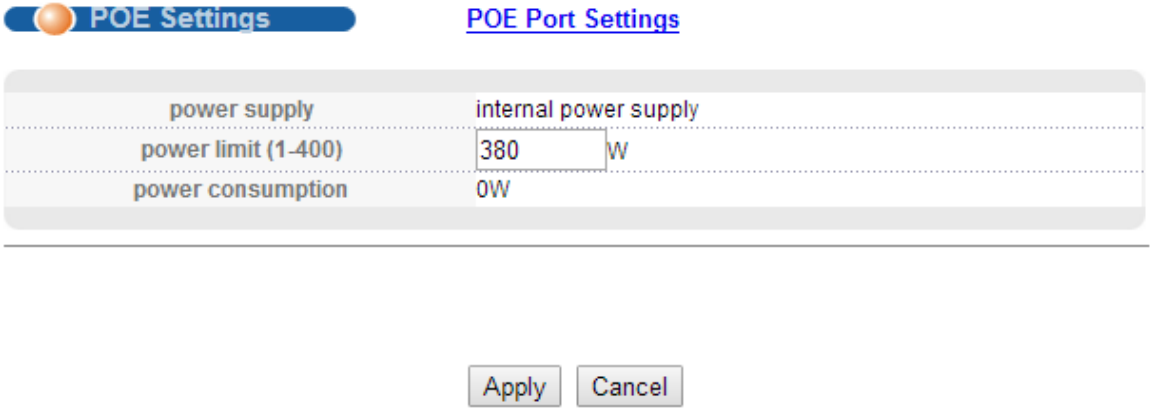
configure POE.

Only POE devices have this function



6.2.14.1 POE Settings

Selecting "**Advanced Application**>**POE Settings**>**POE Settings**", in the navigation bar, you can configure POE.

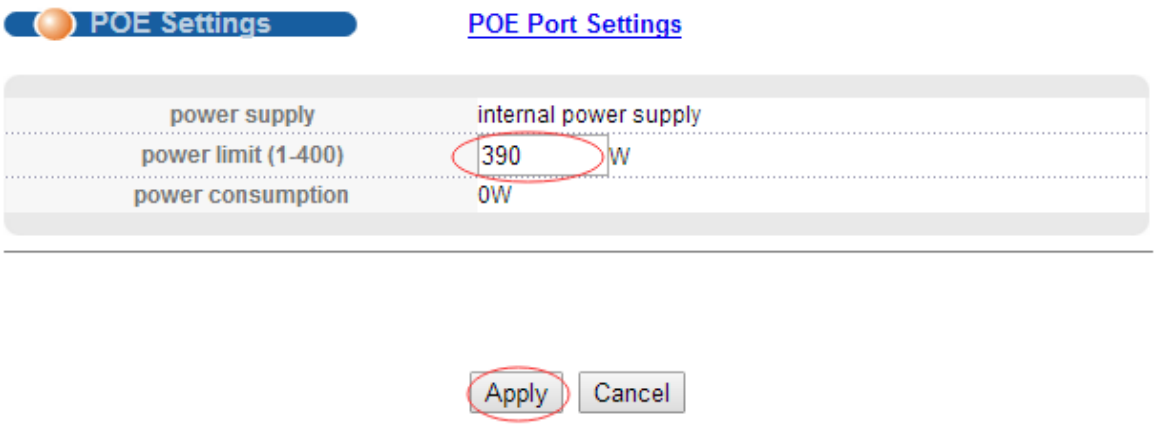


【Parameter Description】

Parameter	Description
power limit (1-400)	The power of switch POE can be limited

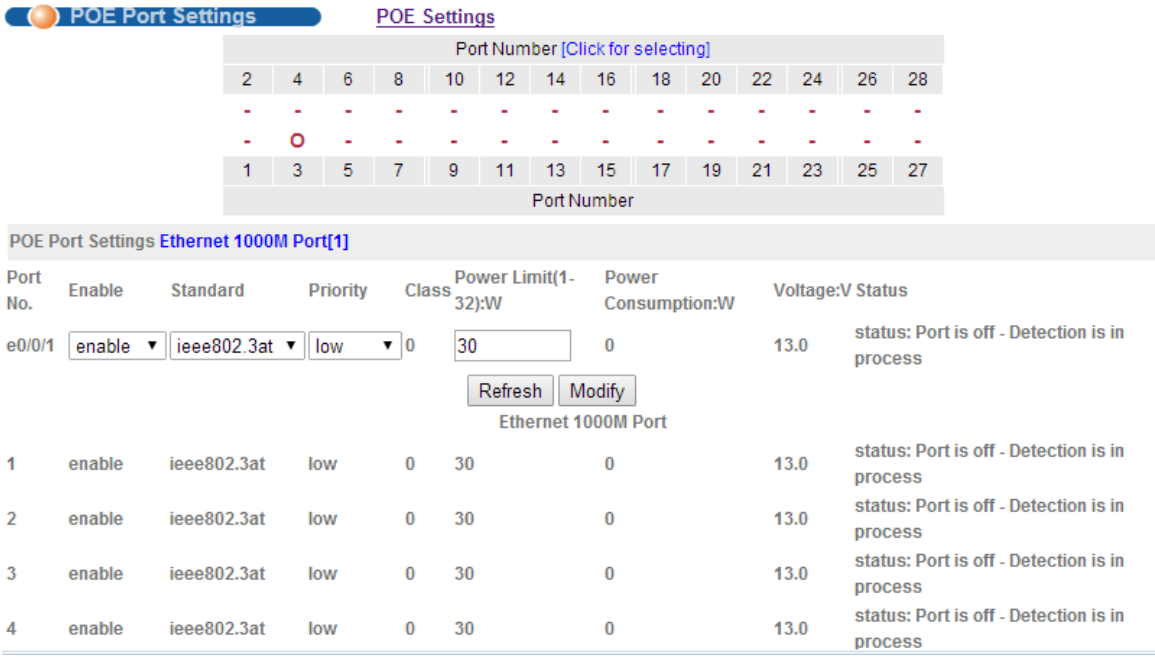
【Configuration example】

Such as: set power limit is 390 W.



6.2.14.2 POE Port Settings

Selecting "**Advanced Application>POE Settings>POE Port Settings**", in the navigation bar, you can configure POE Port.



【Parameter Description】

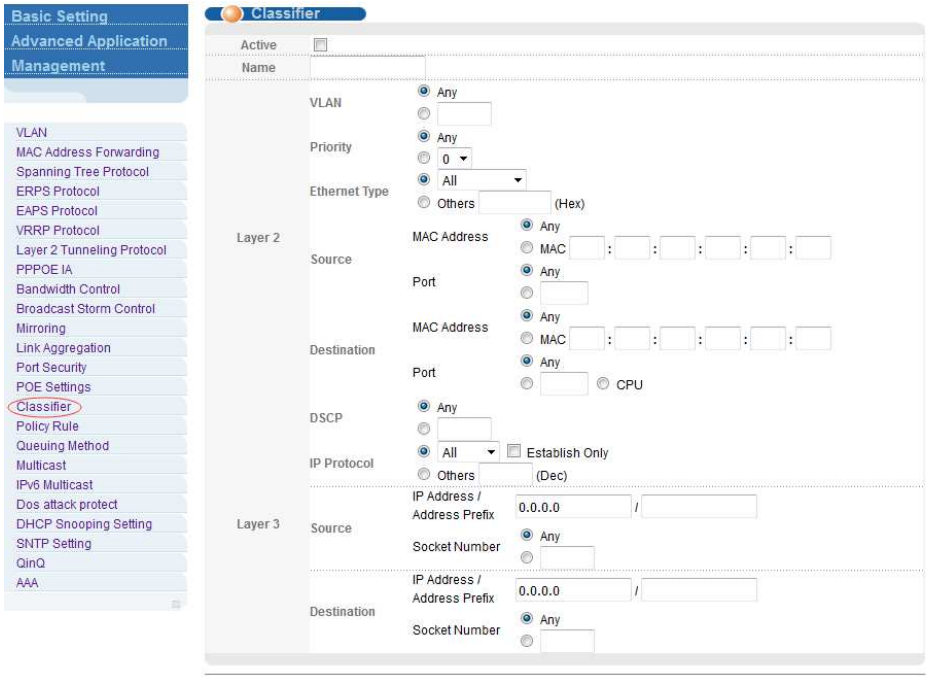
Parameter	Description
Enable	Turn the port POE power on and off and the default is open
Standard	Configure ieee802.3af, ieee802.3at mode, default to ieee802.3at
Priority	Configure port Priority low, critical, high, the default priority is low
Power limit	The power of switch POE can be limited

【Configuration example】

Such as: Configure the POE for port 1.

6.2.15 Classifier

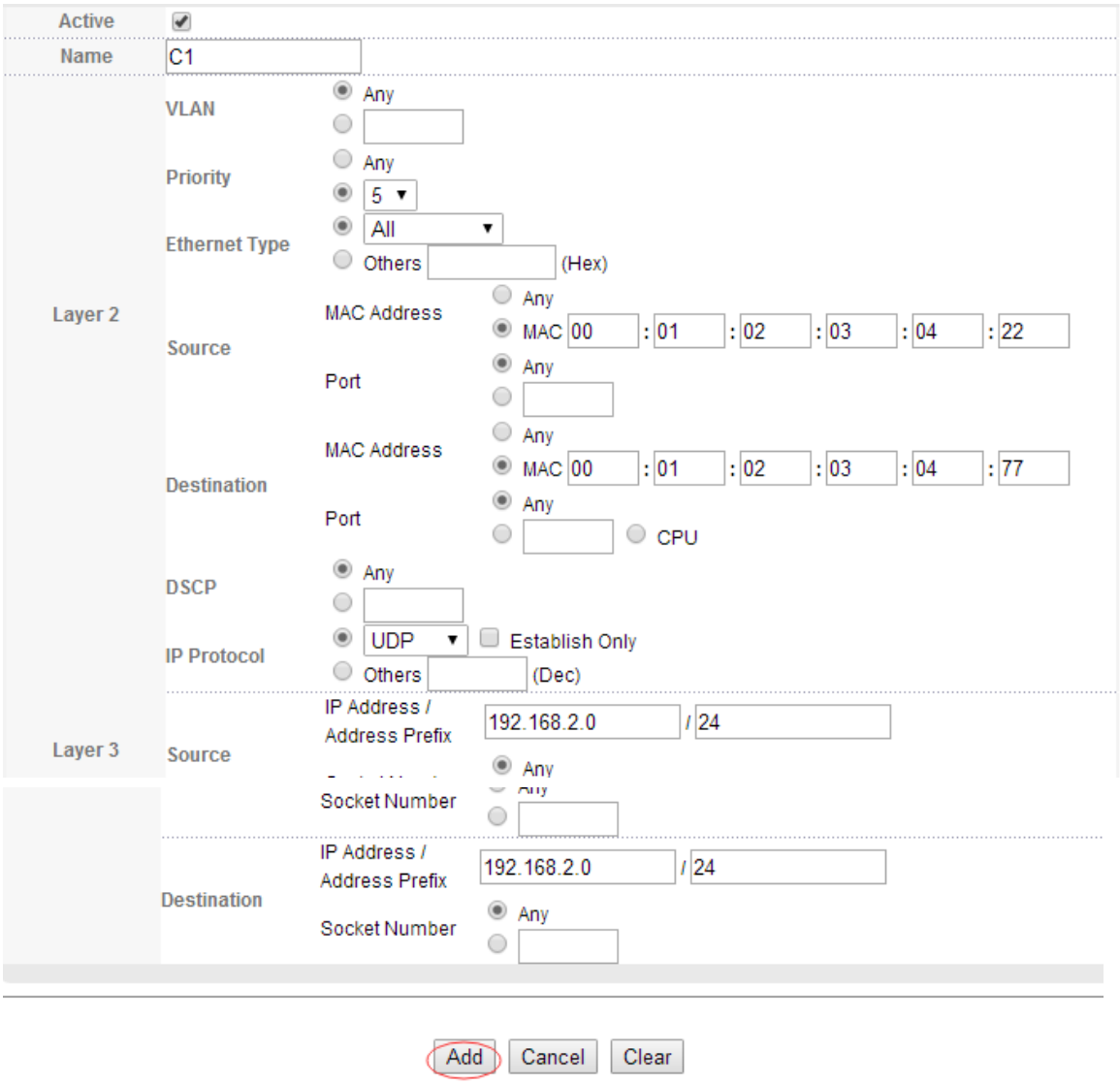
Selecting "**Advanced Application**>**Classifier**", in the navigation bar, you can configure Classifier.



【Parameter Description】

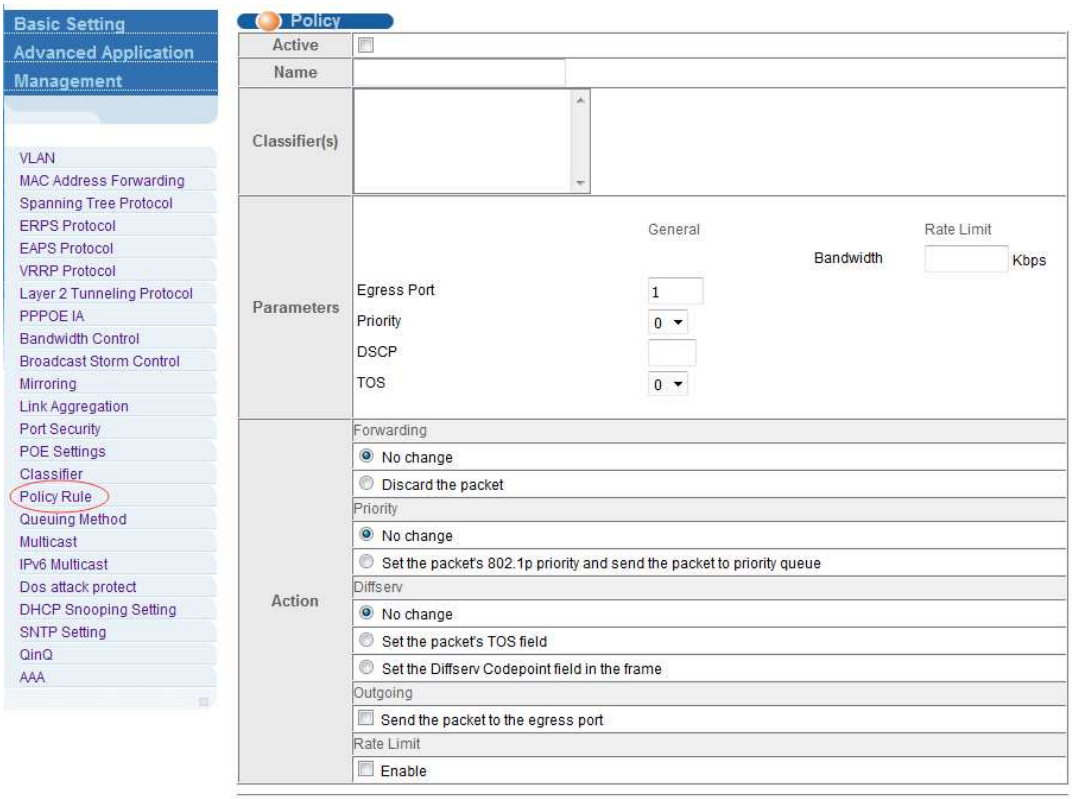
Parameter	Description
Active	Active Classifier
Layer2	Set VLAN, Priority, Ethernet type, Source Mac Address, DSCP, IP Protocol
Layer3	Set Source IP

【Configuration example】



6.2.16 Policy Rule

Selecting "**Advanced Application**>**Policy Rule**", in the navigation bar, you can configure Policy Rule.

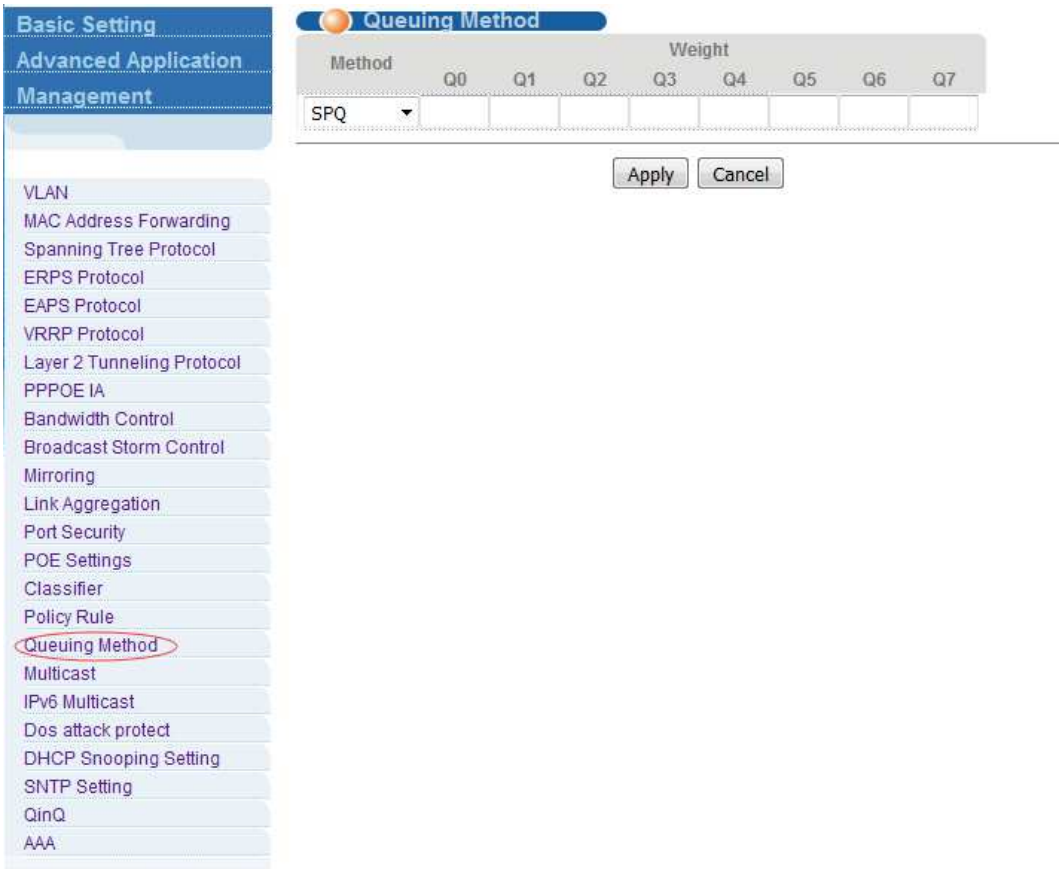


【Parameter Description】

Parameter	Description
Active	Active Policy Rule
Classifier(s)	You need to match the set of classification rules
Parameter	Set Bandwidth, Egress Port, Priority, DSCP, TOS

6.2.17 Queuing Method

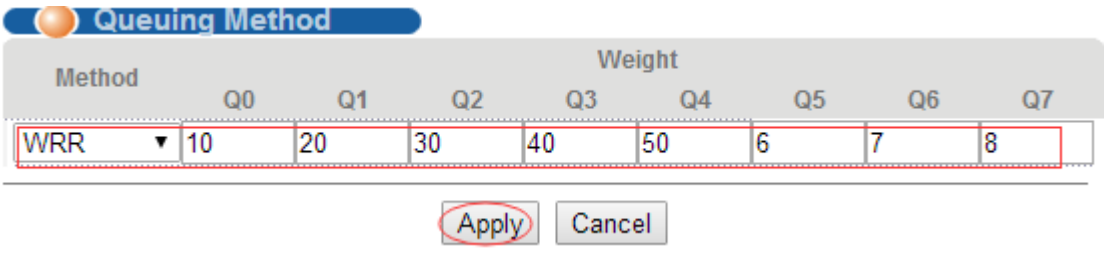
Selecting "**Advanced Application**>**Queuing Method**", in the navigation bar, you can configure queuing method.



【Parameter Description】

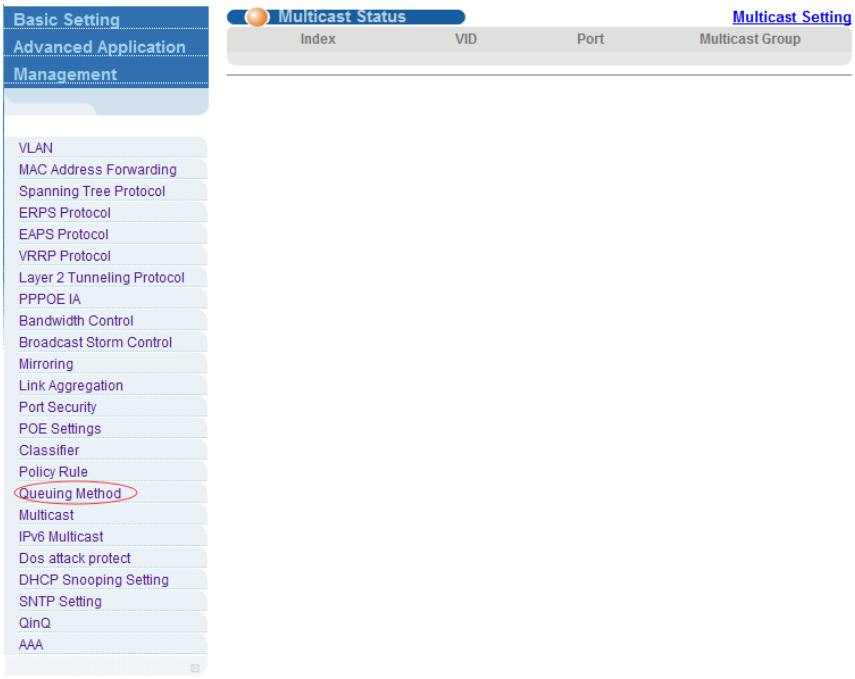
Parameter	Description
Method	Five method: SPQ,WRR,SP+WRR,WFQ,SP+WFQ

【Configuration Example】



6.2.18 Multicast

Selecting "**Advanced Application**>**Multicast**", in the navigation bar, you can configure Multicast.

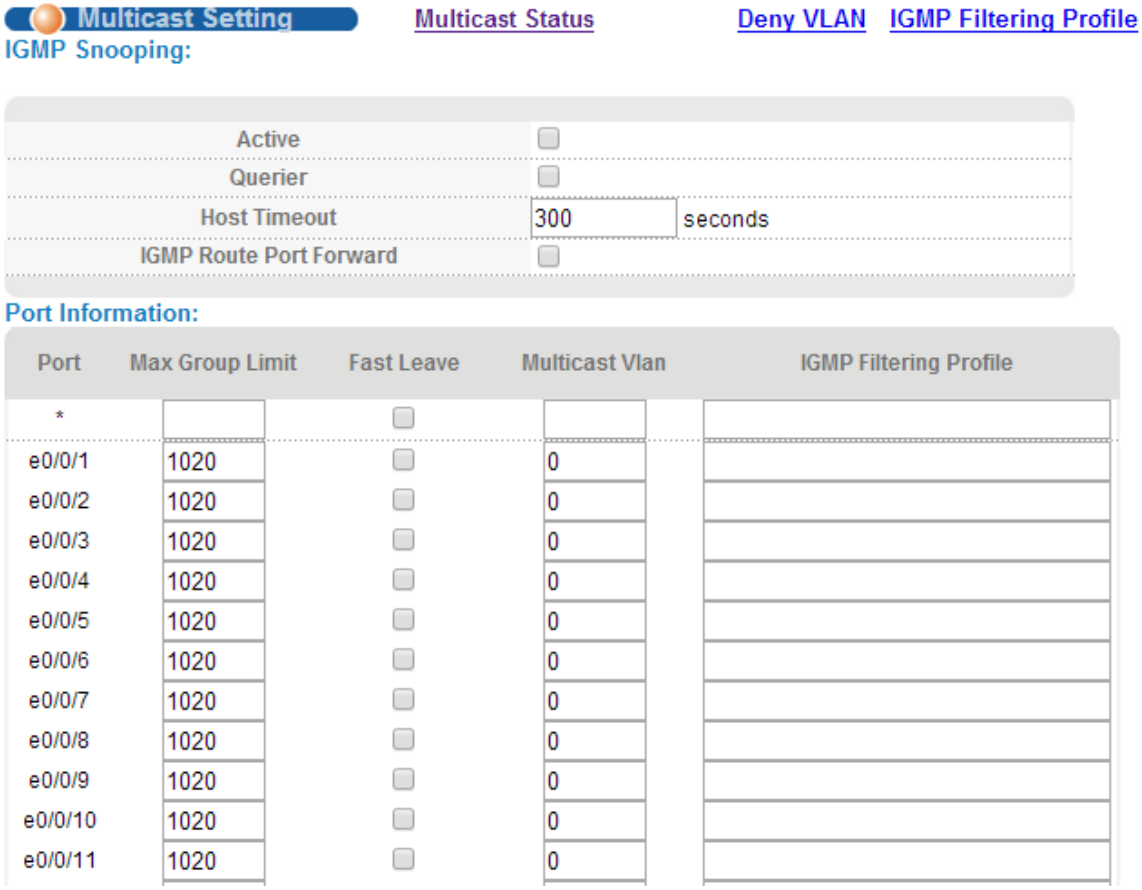


6.2.18.1 Multicast Status

Selecting "**Advanced Application>Multicast>Multicast Status**", in the navigation bar, you can view all multicast. This includes the static configuration and the multicast that is learned through the IGMP-Snooping protocol.

6.2.18.2 Multicast Settings

Selecting "**Advanced Application>Multicast>Multicast Settings**", in the navigation bar, you can set multicast.

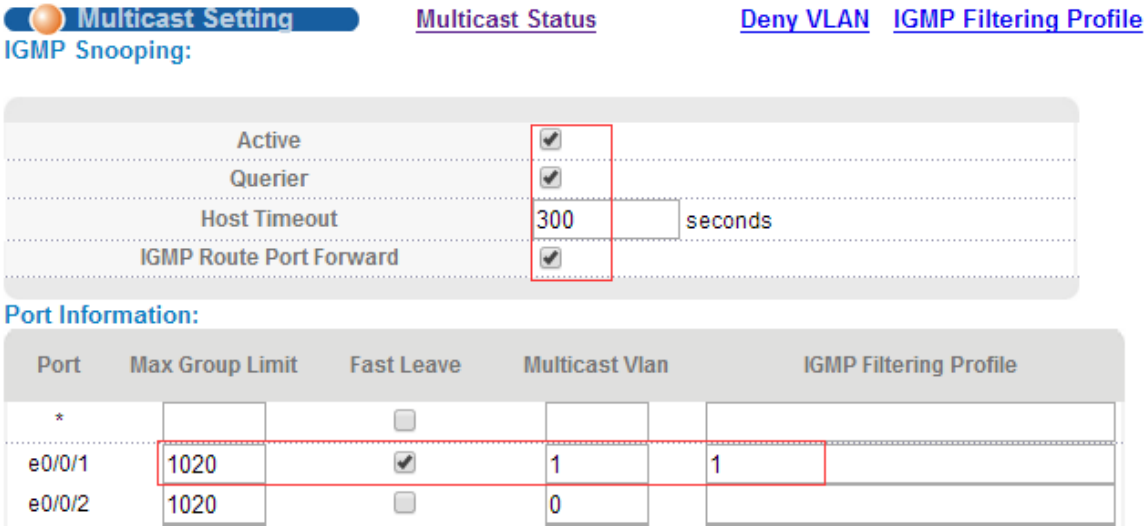


【Parameter Description】

Parameter	Description
Active	Open IGMP-snooping
Querier	Open IGMP-snooping timed query function
Host Timeout	Configure the dynamic group sowing time (default 300s)
IGMP Route Port Forward	Open IGMP Route Port Forward
Max Group Limit	Max learning group of configuration port (default 1020)
Fast Leave	Open port quick exit function (i.e., when the port receives the IGMP and leaves the message, immediately remove the port from the reshuffle group)
Multicast Vlan	The configuration group multicast the default VLAN
IGMP Filtering Profile	The configuration port refers to the multicast preview, which can only be learned to the group broadcast group that is allowed in the group

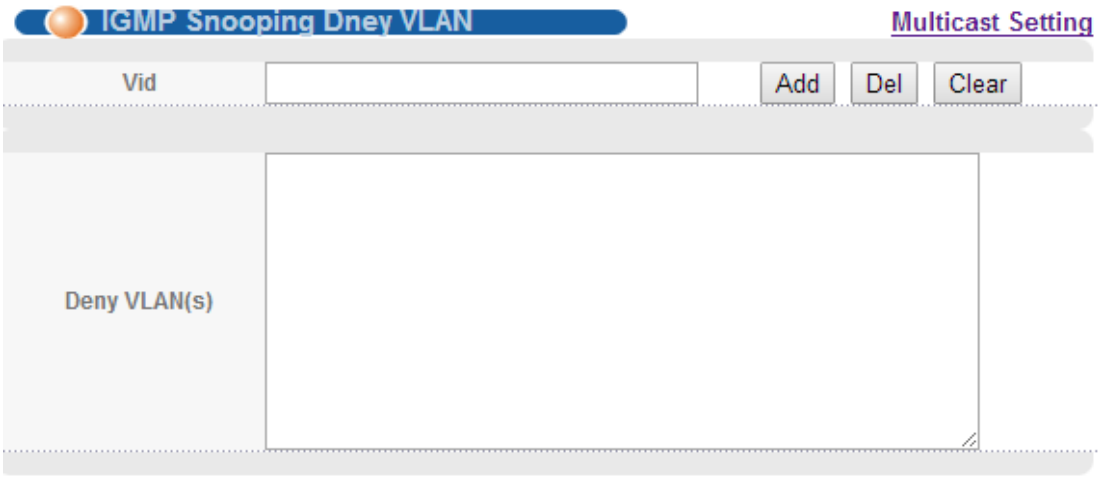
Parameter	Description
	broadcast preview, and cannot be learned to the multicast group which is forbidden by the group broadcast preview

【Configuration Example】



6.2.18.3 IGMPSnooping Dney VLAN

Selecting "**Advanced Application**>**Multicast**>**IGMP Snooping Dney VLAN**", in the navigation bar, you can preview the banned group broadcast group, unable to learn the multicast group that is prohibited by the group preview.

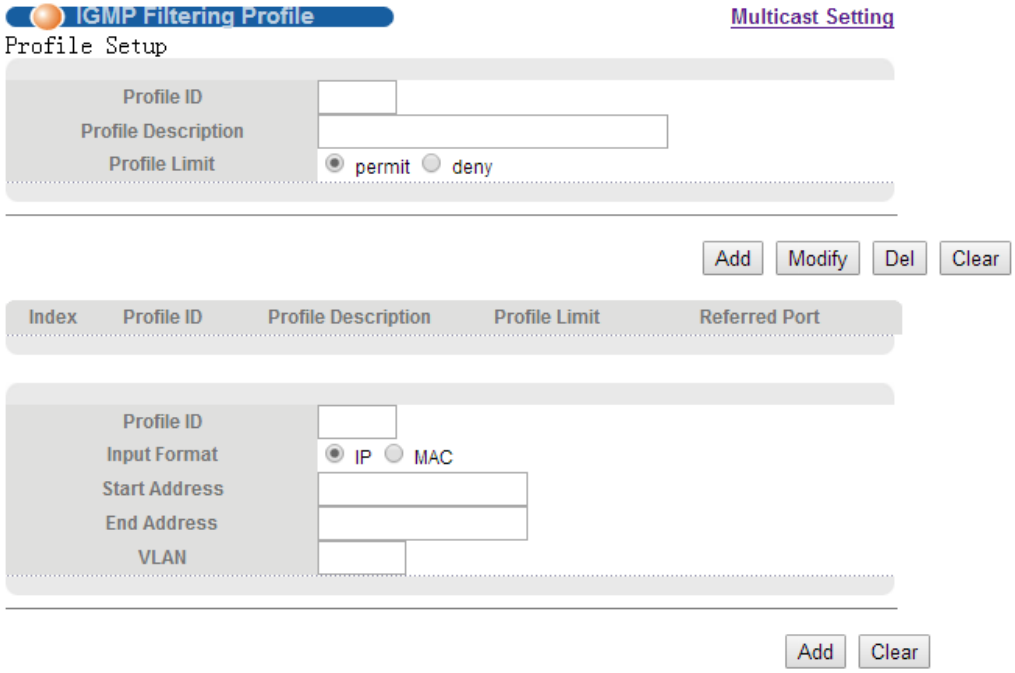


【Parameter Description】

Parameter	Description
Vid	Vlan's ID

6.2.18.4 IGMP Filtering Profile

Selecting "**Advanced Application**>**Multicast**>**IGMP Filtering Profile**", in the navigation bar, you can add and remove the preview feature of the modified group.



【Parameter Description】

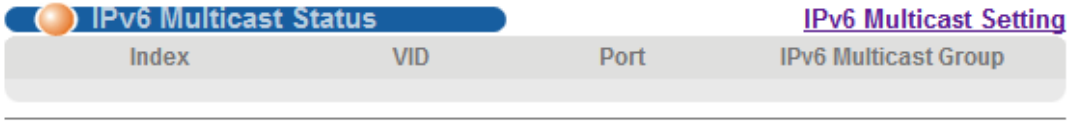
Parameter	Description
Profile ID	The range of 1-128
Profile Limit	Profile rules can be permit or deny
Input Format	The preview address can be configured to be either IP or MAC

6.2.19 IPv6 Multicast

Selecting "**Advanced Application**>**IPv6 Multicast**", in the navigation bar, you can configure IPv6 Multicast.

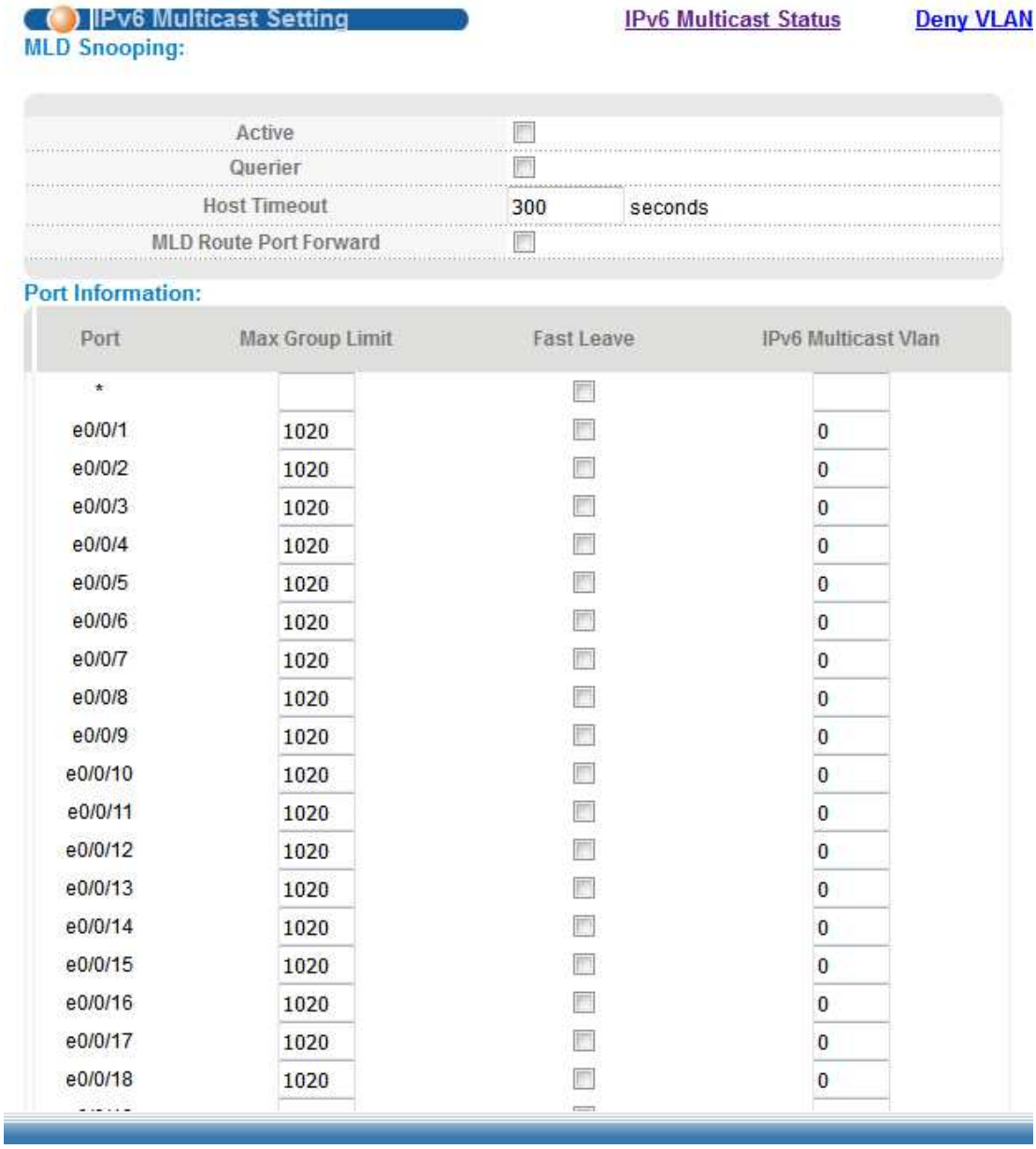
6.2.19.1 IPv6 Multicast Status

Selecting "**Advanced Application**>**IPv6 Multicast**>**IPv6 Multicast Status**", in the navigation bar, you can view all IPv6 Multicast groups.



6.2.19.2 IPv6 Multicast Setting

Selecting "**Advanced Application**>**IPv6 Multicast**>**IPv6 Multicast Setting**", in the navigation bar, you can configure IPv6 Multicast.

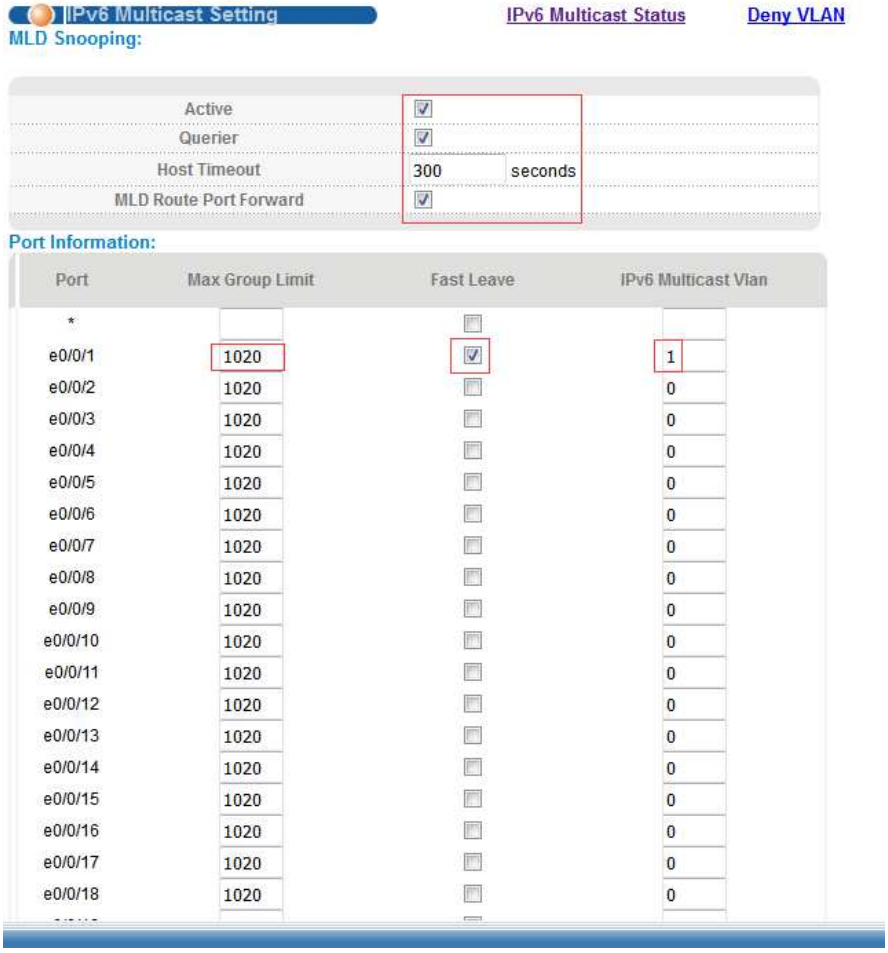


【Parameter Description】

Parameter	Description
Active	Enable or disable MLD snooping
Querier	Enable or disable MLD snooping timed Querier
Host Timeout	Configure Dynamic IPv6 multicast aging time (default 300s)
MLD Route Port Forward	Enable or disable MLD Route Port Forward
Max Group Limit	Configure maximum learning IPv6 Multicast message of port(default 1020)

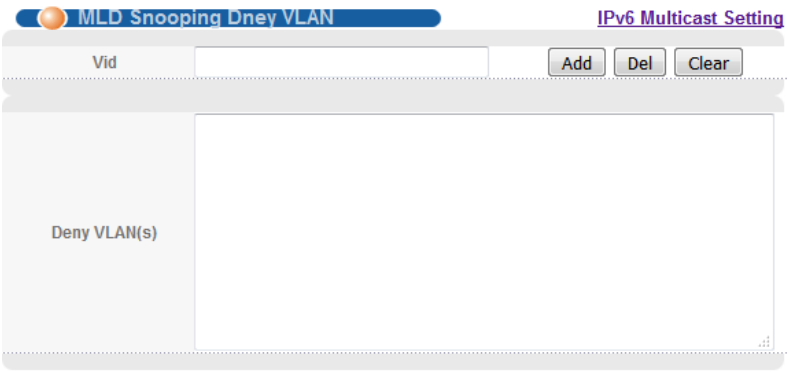
Parameter	Description
Fast Leave	Enable or disable Fast Leave (That is, when the port receives IGMP leave message, the port is deleted immediately from the IPv6 multicast group)
IPv6 Multicast VLAN	Configure IPv6 multicast default VLAN

【Configuration Example】



6.2.19.3 MLD Snooping Dney VLAN

Selecting "**Advanced Application**>**IPv6 Multicast**>**MLD Snooping Dney VLAN**", in the navigation bar, you can configure MLD Snooping Dney VLAN.

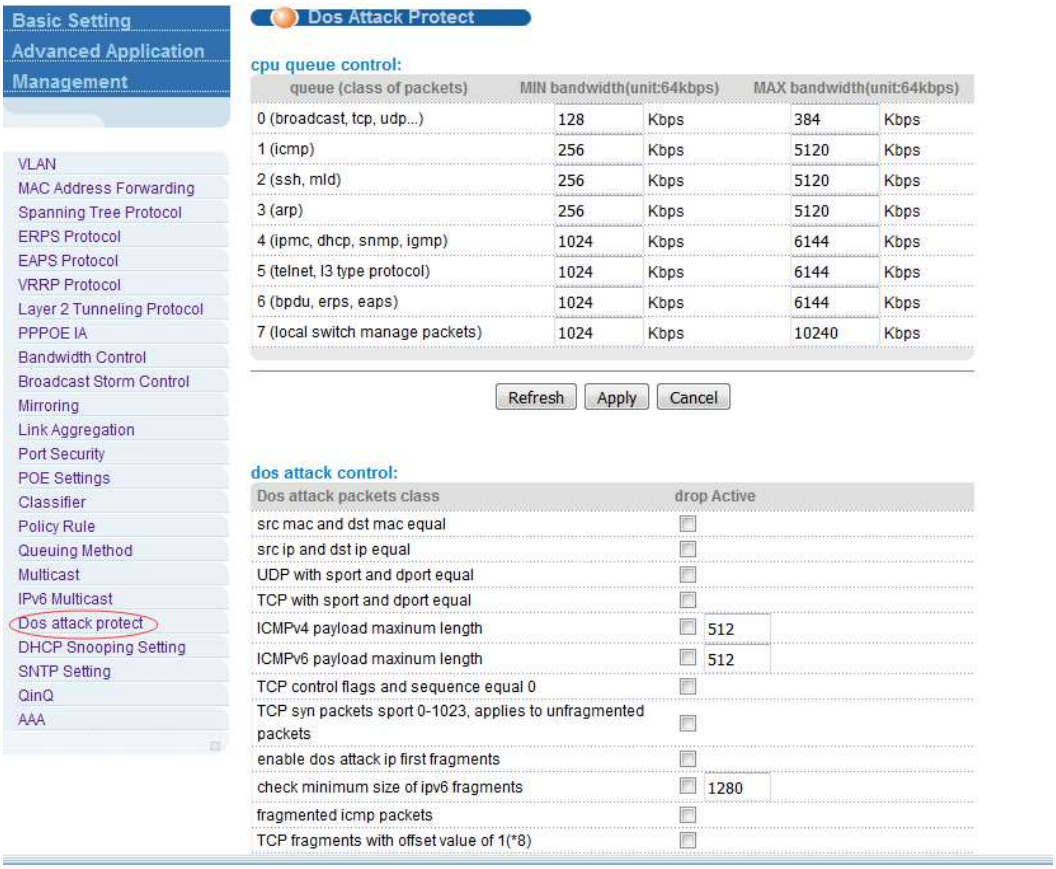


【Parameter Description】

Parameter	Description
Vid	Vlan ID

6.2.20 Dos attack protect

Selecting "**Advanced Application**>**Dos attack protect**", in the navigation bar, you can configure dos attack protect.

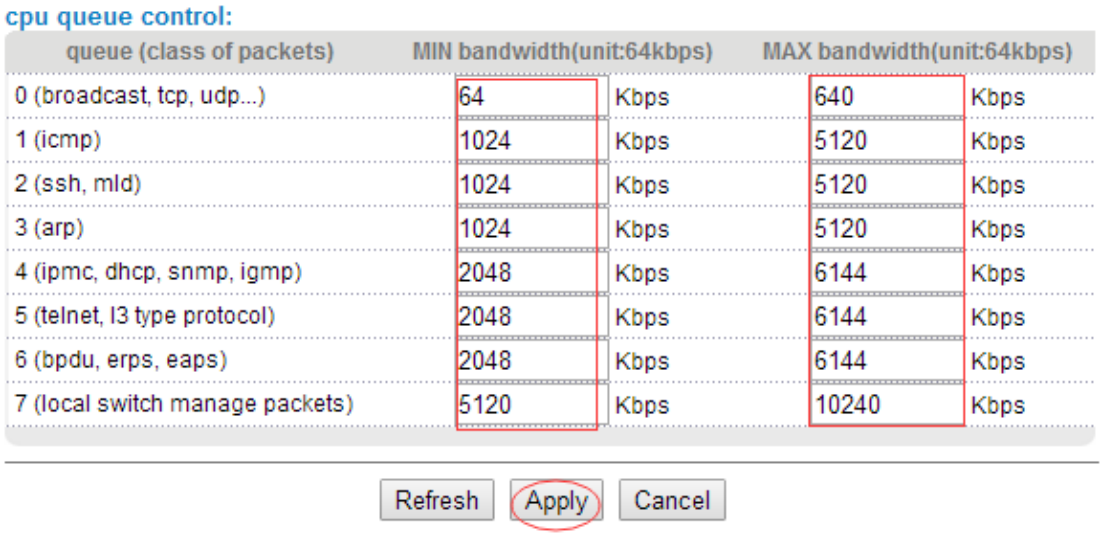


【Parameter Description】

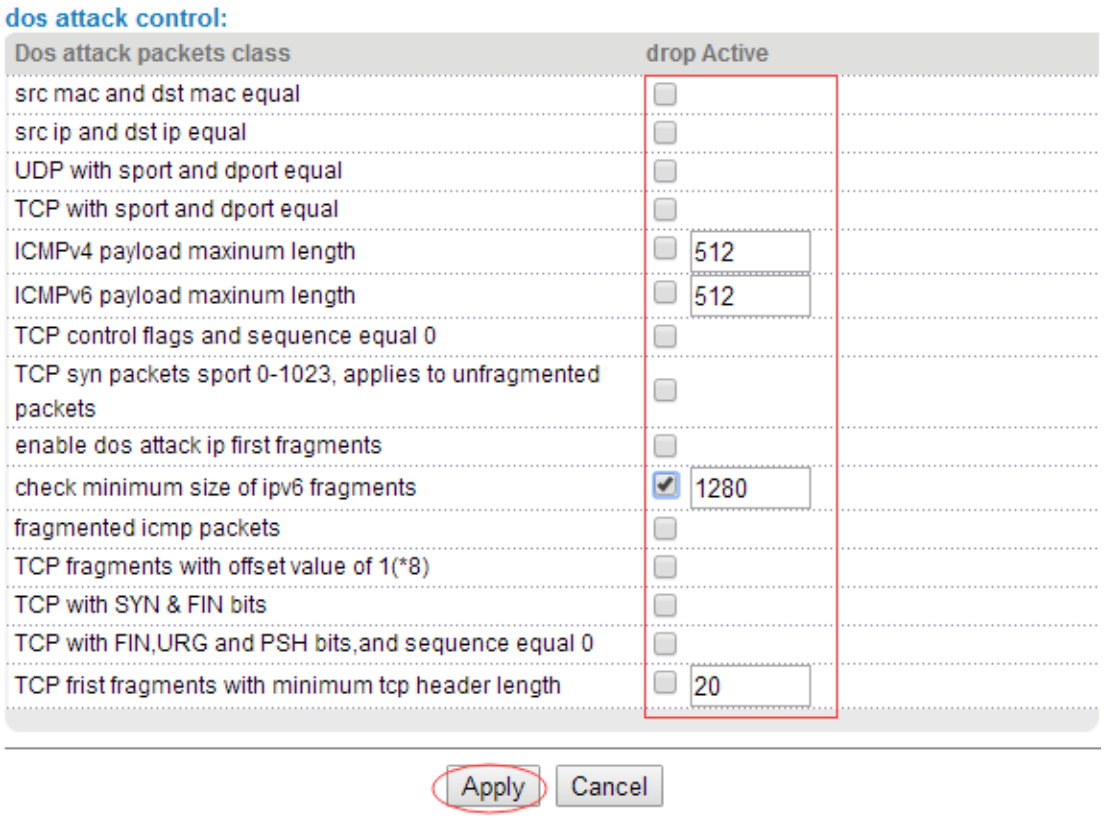
Parameter	Description
cpu queue control	The CPU queue is controlled by setting minimum bandwidth and maximum bandwidth (minimum value is 64kbps)
dos attack control	The DOS attack is controlled by the discarding behavior of the corresponding message

【Configuration Example】

1.cpu queue control

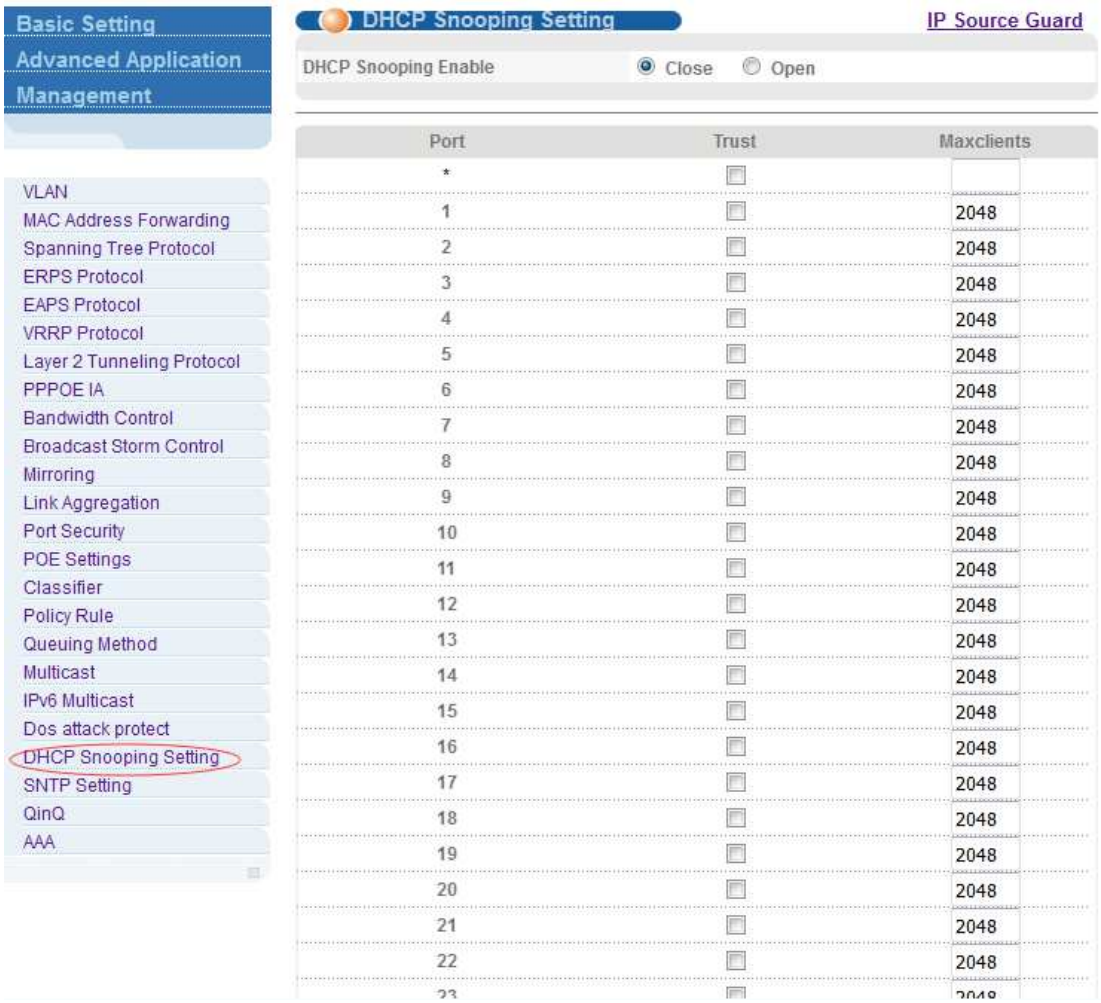


2.dos attack control



6.2.21 DHCP Snooping Setting

Selecting "**Advanced Application**>**DHCP Snooping Setting**", in the navigation bar, you can configure DHCP Snooping.



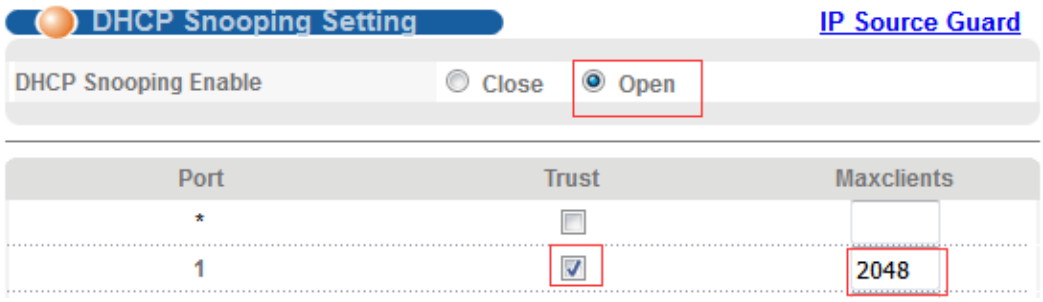
6.2.21.1 DHCP Snooping Setting

Selecting "**Advanced Application**>**DHCP Snooping Setting**>**DHCP Snooping Setting**", in the navigation bar, you can configure DHCP Snooping.

【Parameter Description】

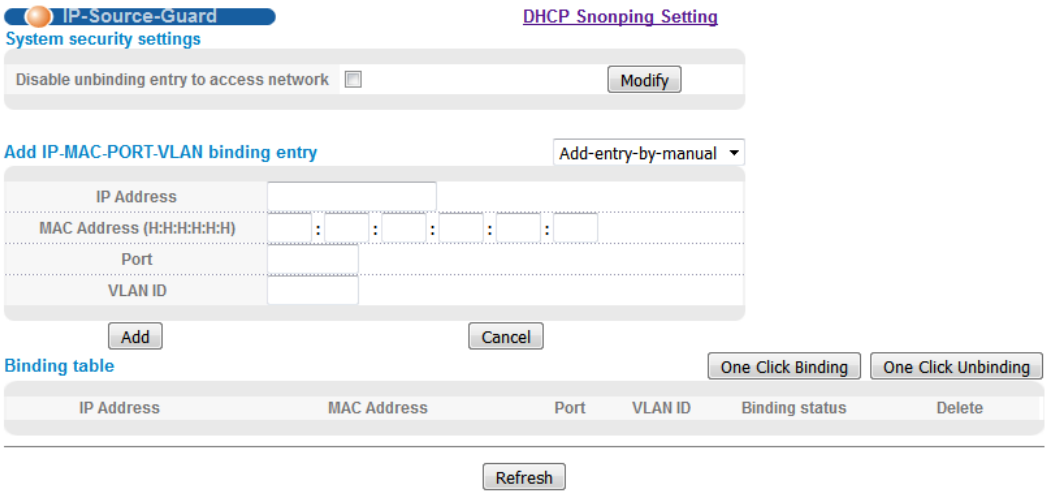
Parameter	Description
DHCP Snooping Enable	Enable or disable DHCP Snooping serve
Trust	Enable or disable the DHCP Snooping port trust property state
Maxclients	Set Maxclients

【Configuration Example】



6.2.21.2 IP Source Guard

Selecting "**Advanced Application**>**DHCP Snooping Setting**>**IP Source Guard**", in the navigation bar, you can configure IP Source Guard.



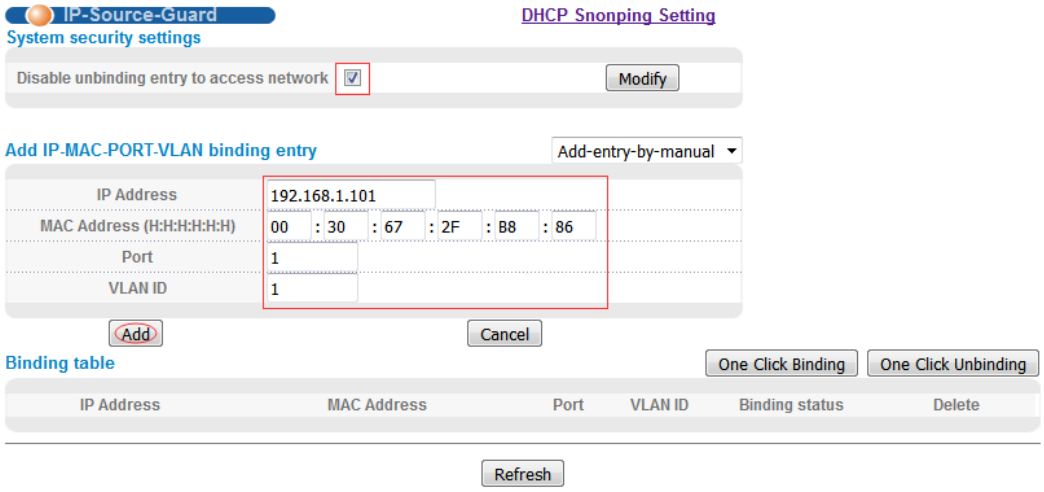
【Parameter Description】

Parameter	Description
Disable unbinding entry to access network	Enable or Disable unbinding entry to access network

【Instructions】

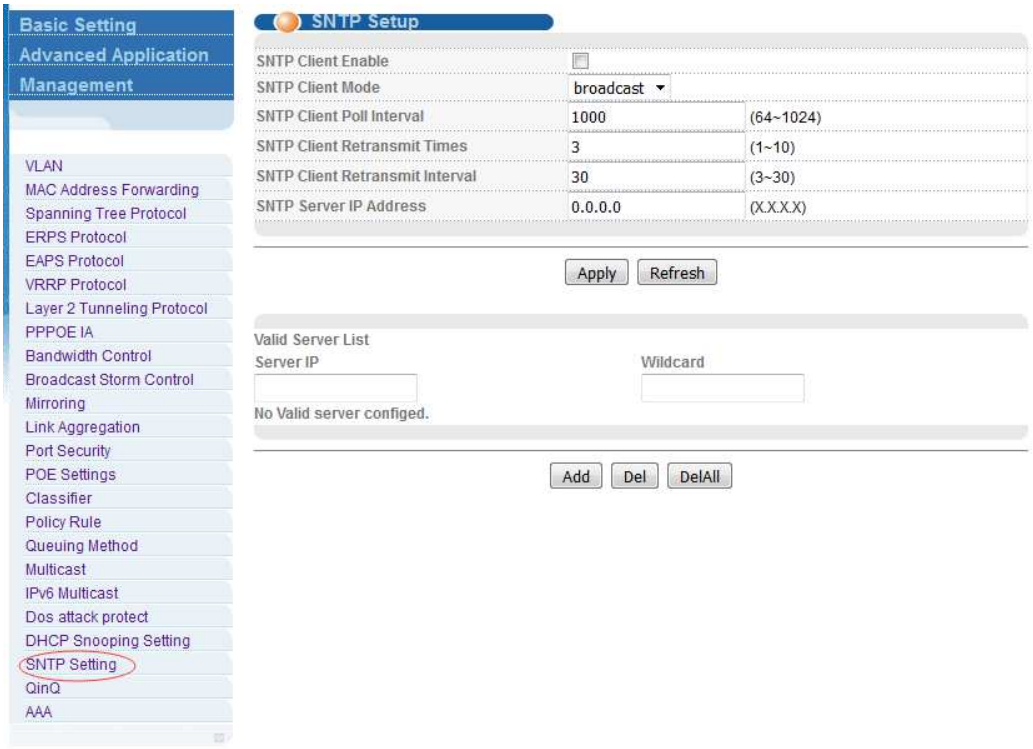
If you want to access shall be binding and switch the IP address of the same network segment.

【Configuration Example】



6.2.22 SNTP Setting

Selecting "**Advanced Application**>**SNTP Setting**", in the navigation bar, you can configure SNTP.



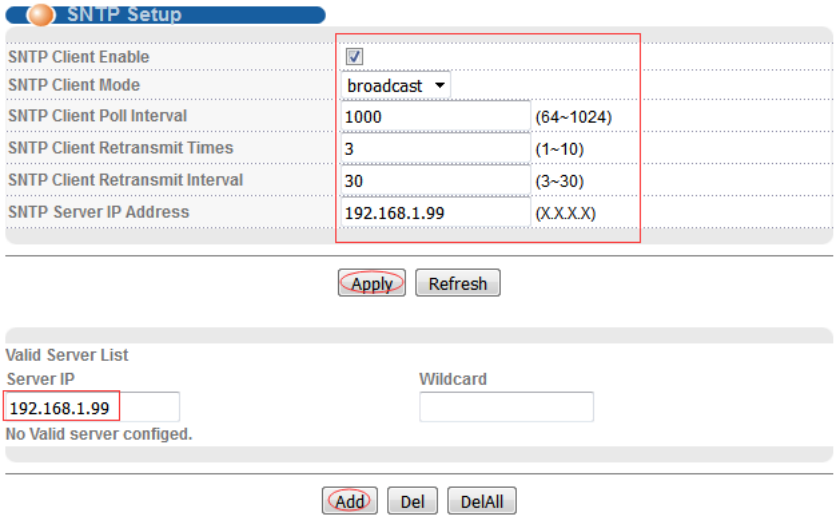
【Parameter Description】

Parameter	Description
SNTP Client Enable	Enable or disable SNTP Client
SNTP Client Mode	SNTP Client Mode: broadcast, anycast multicast unicast
SNTP Client Poll Interval	It's interval that SNTP Client sends requests to SNTP Server
SNTP Client Retransmit Times	If SNTP Client does not receive a response within a certain period of time after sending a request,it will resend the request until the number of retransmissions exceeds the set value
SNTP Client Retransmit Interval	It's interval that SNTP Client resends requests to SNTP Server
SNTP Server IP Address	Set SNTP Server IP Address
Valid Server List Server IP	SNTP only receives the messages from Valid Server List Server IP configured

【Instructions】

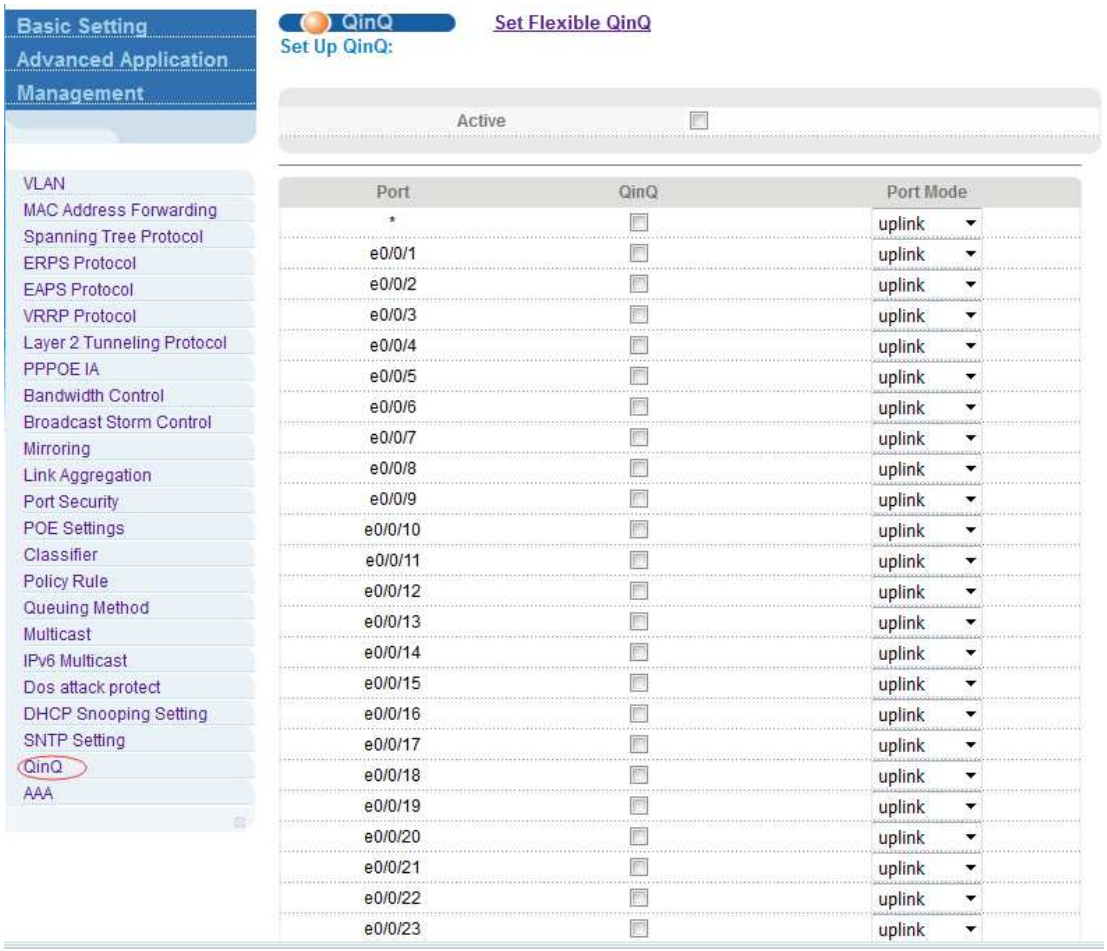
SNTP Client receives and transmits messages from any SNTP Server when work mode of SNTP Client is broadcast or multicast.Local time cannot be synchronized to standard time if there is a malicious attack server (which provides incorrect time)

【Configuration Example】



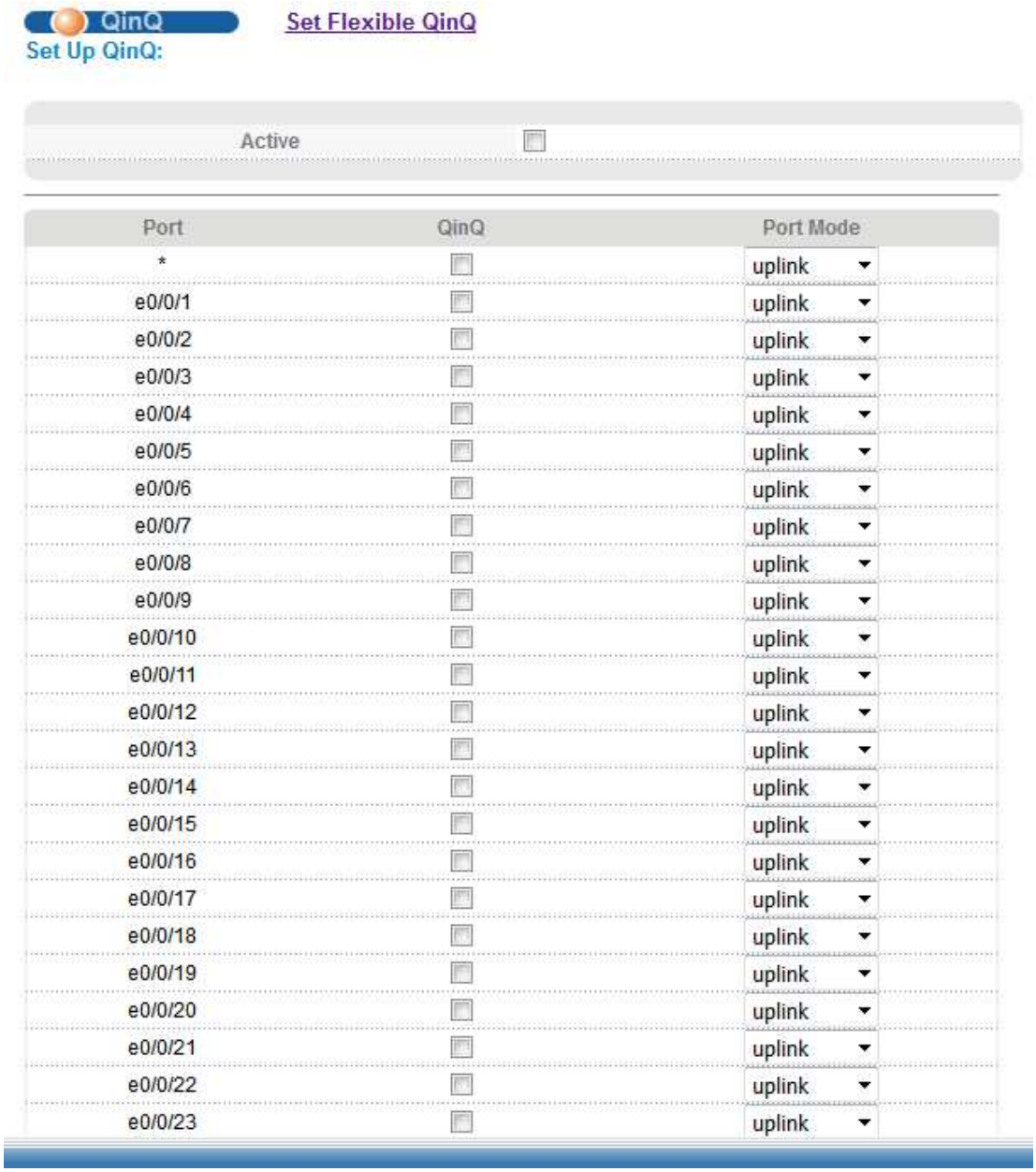
6.2.23 QinQ

Selecting "**Advanced Application**>**QinQ**", in the navigation bar, you can configure QinQ.



6.2.23.1 Set Up QinQ

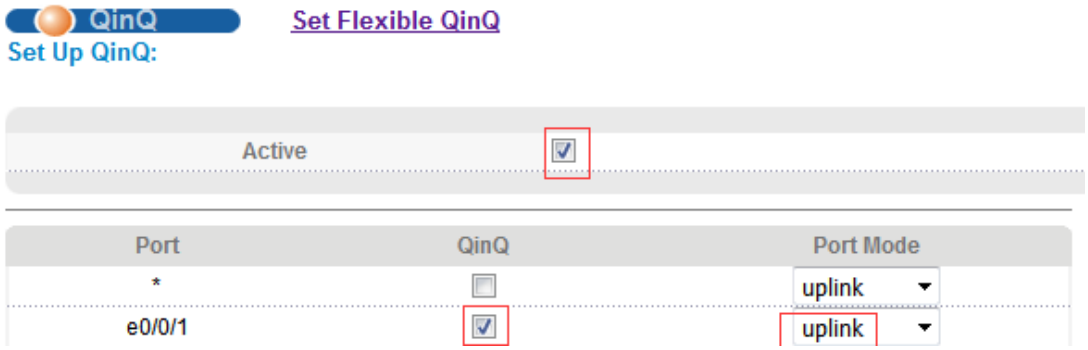
Selecting "**Advanced Application**>**QinQ**>**Set up QinQ**", in the navigation bar, you can configure QinQ.



【Parameter Description】

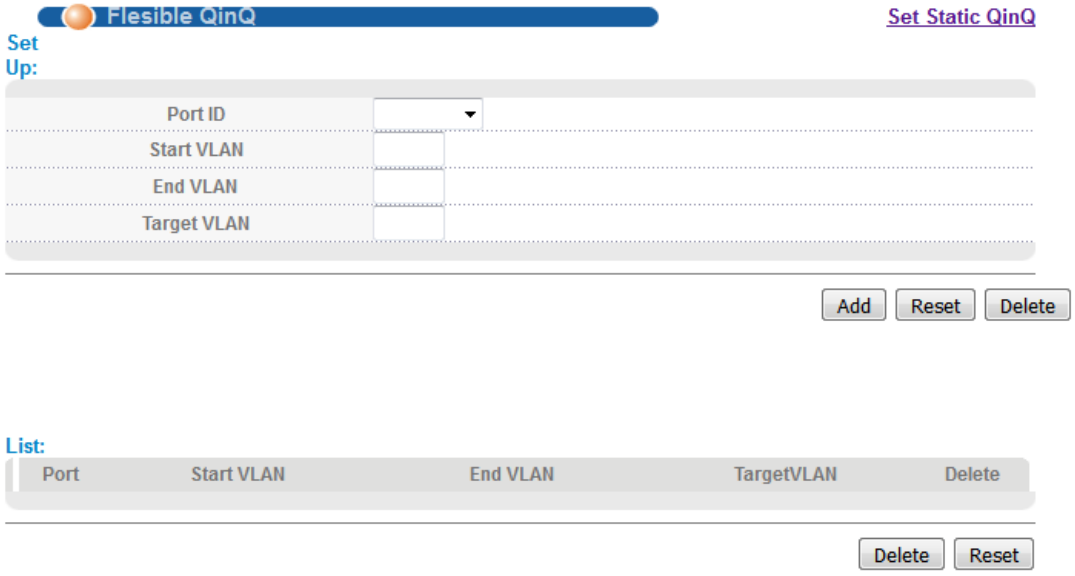
Parameter	Description
Active	Enable or disable global QinQ
QinQ	Enable or disable QinQ of ports
Port Mode	Port Mode: uplink, customer

【Configuration Example】

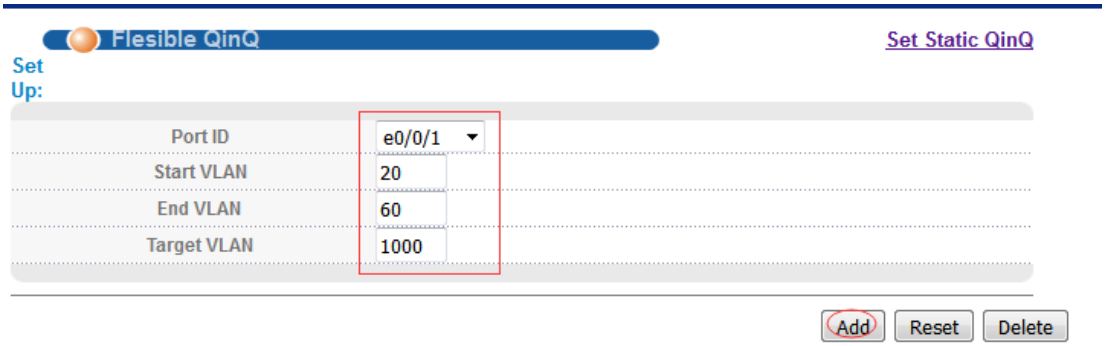


6.2.23.2 Flesible QinQ

Selecting "**Advanced Application**>**QinQ**>**Flesible QinQ**", in the navigation bar, you can configure Flesible QinQ.

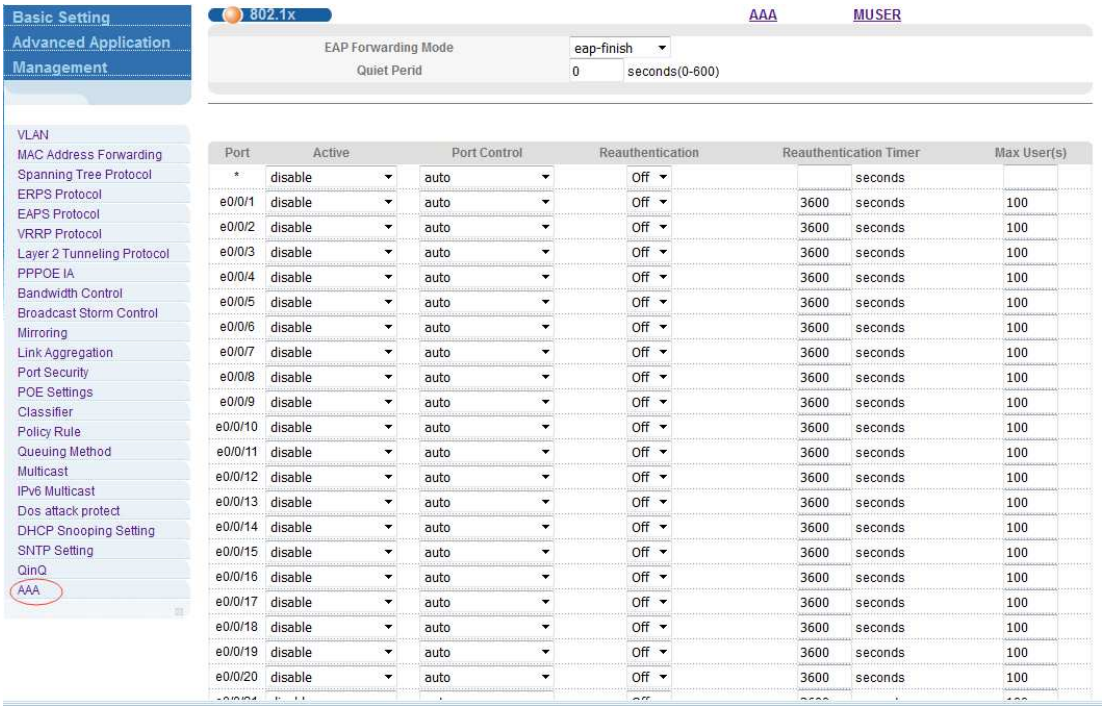


【Configuration Example】



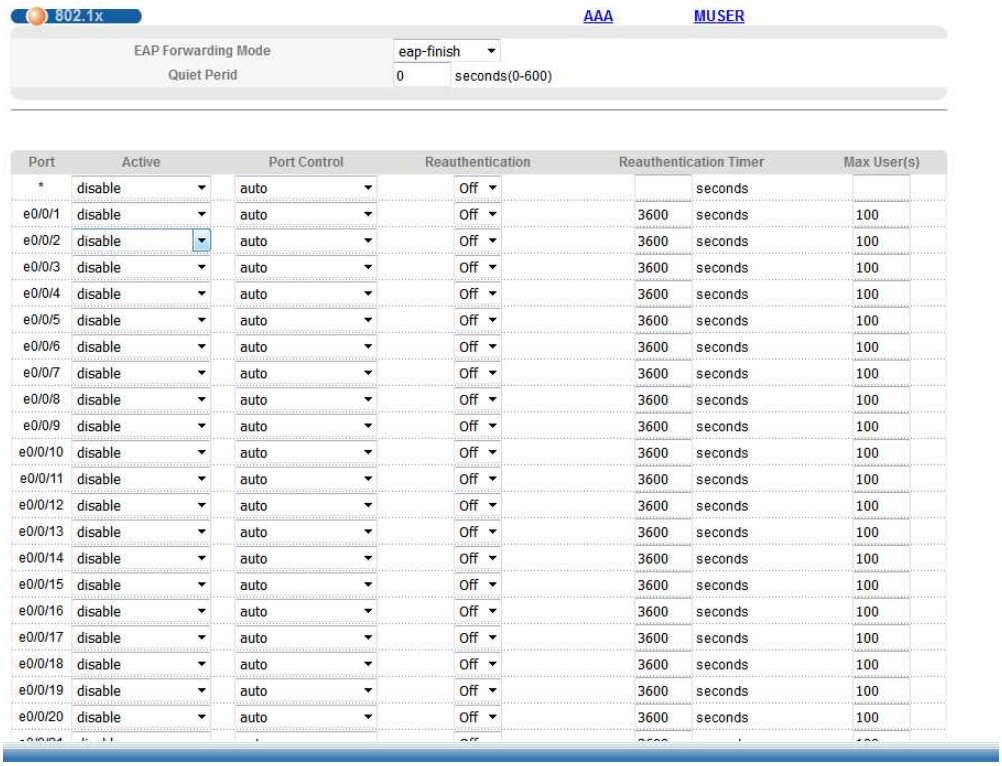
6.2.24 AAA

Selecting "**Advanced Application**>**AAA**", in the navigation bar, you can configure AAA.



6.2.24.1 802.1x

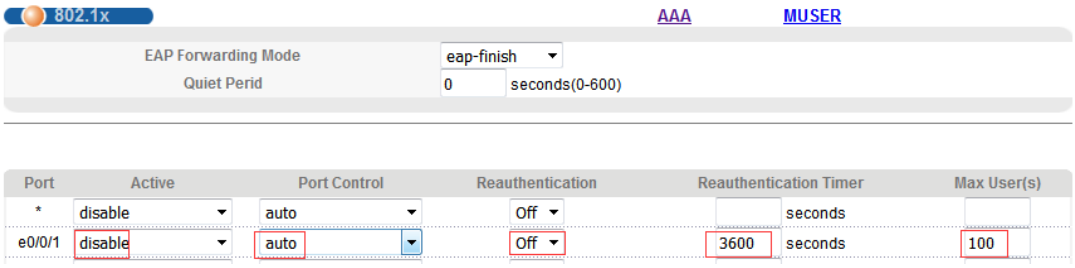
Selecting "**Advanced Application**>**AAA**>**802.1x**", in the navigation bar, you can configure 802.1x.



【Parameter Description】

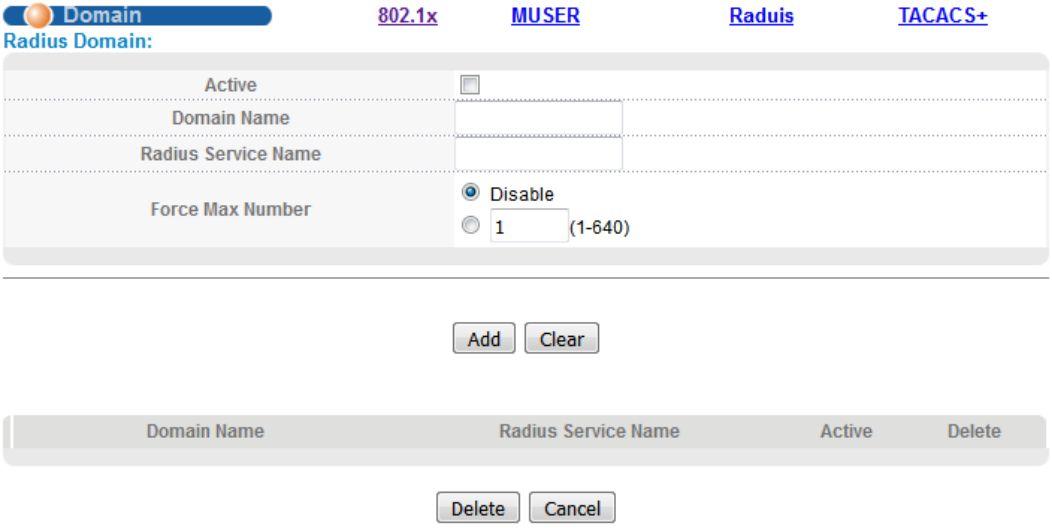
Parameter	Description
EAP Forwarding Mode	EAP Forwarding Mode : eap-finish, Eap-tansfer
Quiet Period	If the same user fails to log in more than the allowed value, he or she will not be allowed to try to log in at a certain time
Active	Active: disable portbased(multi) portbased(single) macbased
Port Control	Port Control: auto forceauthorized forceunauthorized
Reauthentication	After user authentication is passed, the port can be configured to reauthenticate or periodically re-authenticate
Reauthentication Timer	Time range of Reauthentication Timer: 10-3600 seconds
Max user(s)	The maximum number of users: 1-100

【Configuration Example】



6.2.24.2 Radius Domain

Selecting "**Advanced Application**>**AAA**>**Radius Domain**", in the navigation bar, you can configure Radius Domain.



【Parameter Description】

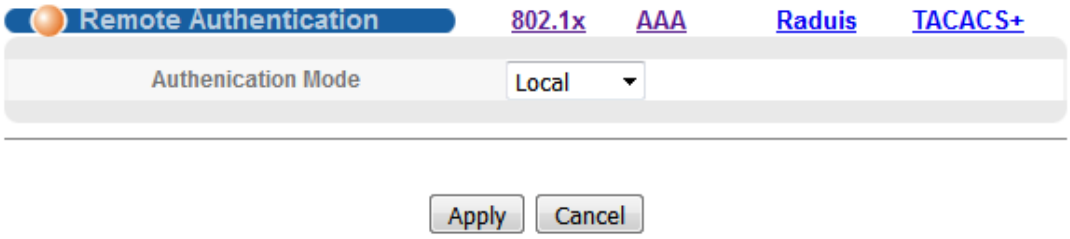
Parameter	Description
Active	Enable or disable radius domain
Domain Name	Set domain name
Radius Server Name	Set Radius Server name
Force Max Number	Maximum number of user connections range: 1-640

【Instructions】

It needs to provide user name and password when the client is authenticated. The user name information generally includes the ISP information of user, domain and the ISP one-to-one correspondence, the main information domain is the domain of the user is authenticated and accounted by which RADIUS server.

6.2.24.3 Remote Authentication

Selecting "**Advanced Application**>**AAA**>**Remote Authentication**", in the navigation bar, you can configure Remote Authentication.

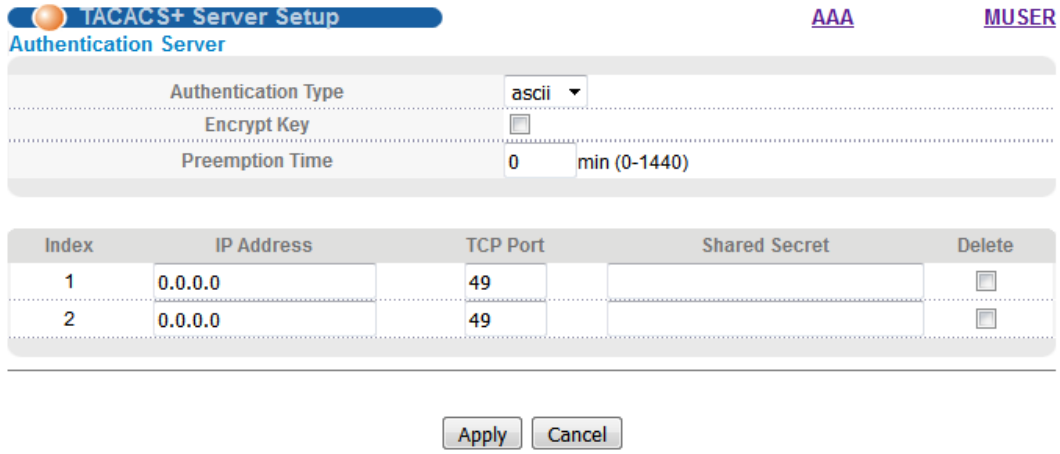


【Parameter Description】

Parameter	Description
Authenication Mode	Authenication Mode: Local, Radius, Tacacs+

6.2.24.4 TACACS+ Server Setup

Selecting "**Advanced Application**>**AAA**>**TACACS+ Server Setup**", in the navigation bar, you can configure TACACS+ Server Setup.

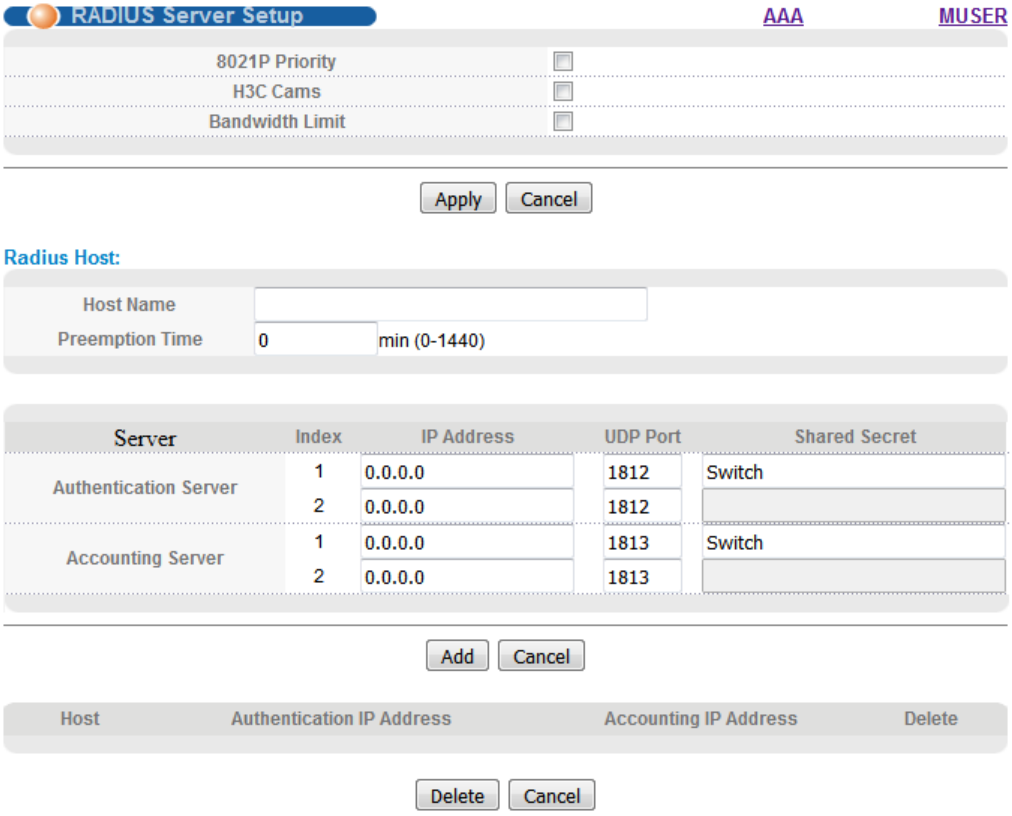


【Parameter Description】

Parameter	Description
Authenication Type	Authenication Mode: ascii, Chap, pap
Preemption Time	The time range of Preemption Time: 0-1440 minutes

6.2.24.5 Radius Server Setup

Selecting "**Advanced Application**>**AAA**>**Radius Server Setup**", in the navigation bar, you can configure Radius Server Setup.



【Parameter Description】

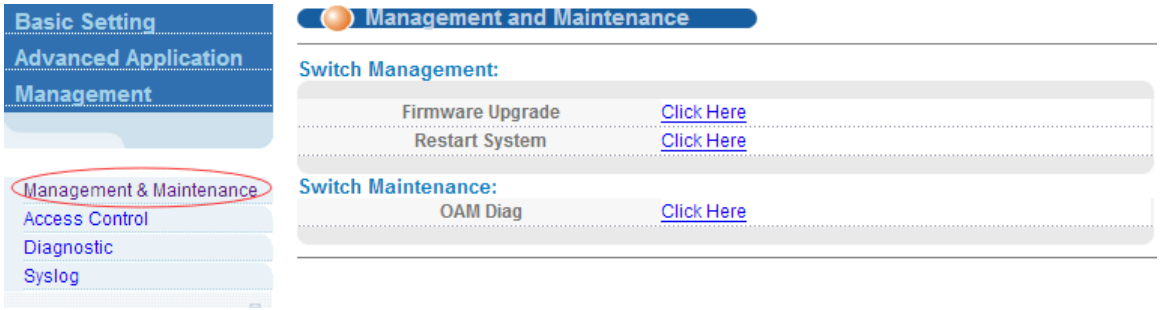
Parameter	Description
8021P Priority	After this function is turned on, if the user authentication is pass, it will modify the PVID of the user's port.
H3C Cams	In this feature, you can configure the version information of transmitting clients to the radius server through the radius attribute client-version.
Bandwidth limit	After this function is turned on, if the user authentication is pass, it will modify the Bandwidth of the user's port.

6.3 Management

Choose Management, and the following page appears. There are "**Management & Maintenance**", "**Access Control** ", "**Diagnostic**", "**Syslog**", configuration web pages.

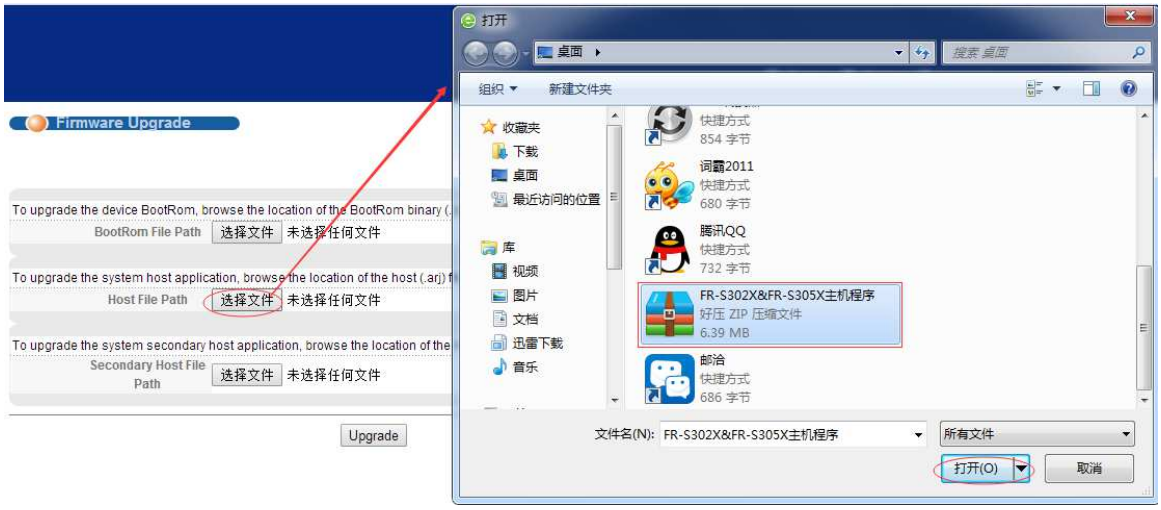
6.3.1 Management &Maintenance

Selecting "**Management**> **Management & Maintenance**", in the navigation bar, you can Upgrade Firmware , Restart System and Maintenance switch.

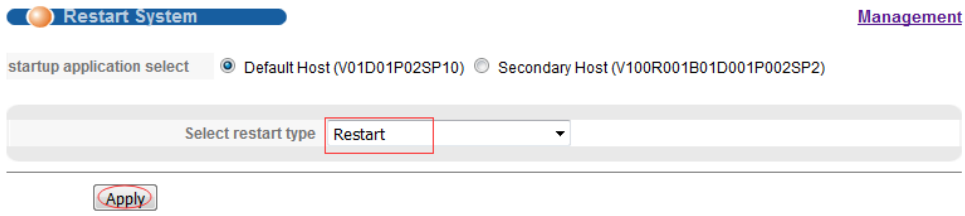


【Configuration Example】

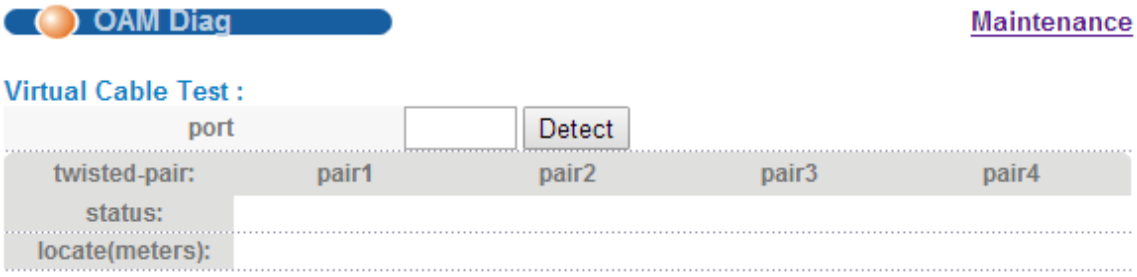
1.Firmware Upgrade



2.Restart system. Restart type: Restart, Restart with Factory Defaults.



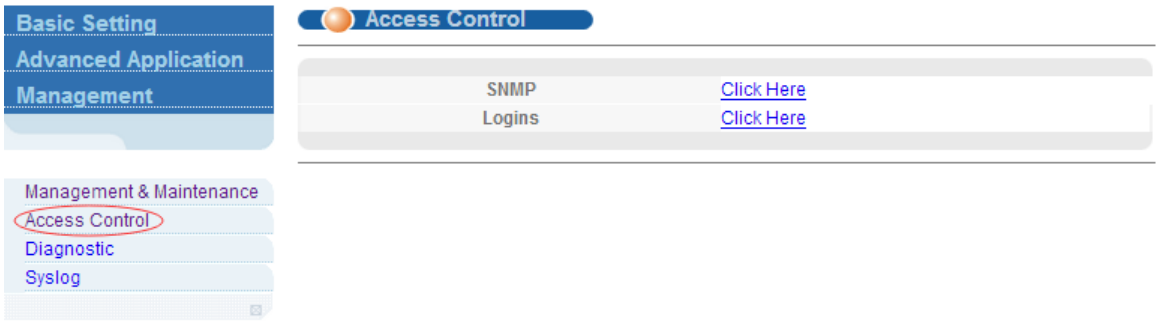
3.OAM Diag, Virtual cable can be tested.



6.3.2 Access Control

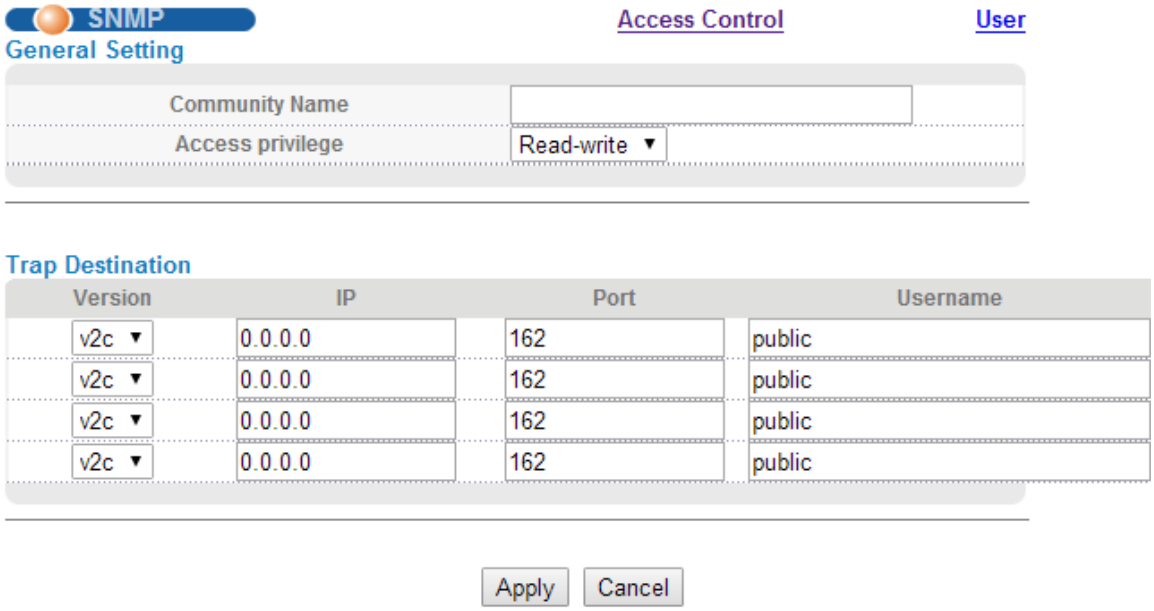
Selecting "**Management> Access Control**", in the navigation bar, you can set

SNMP and Logins.



6.3.2.1 SNMP

Selecting "**Management**> **Access Control**>**SNMP**", in the navigation bar, you can configure SNMP.

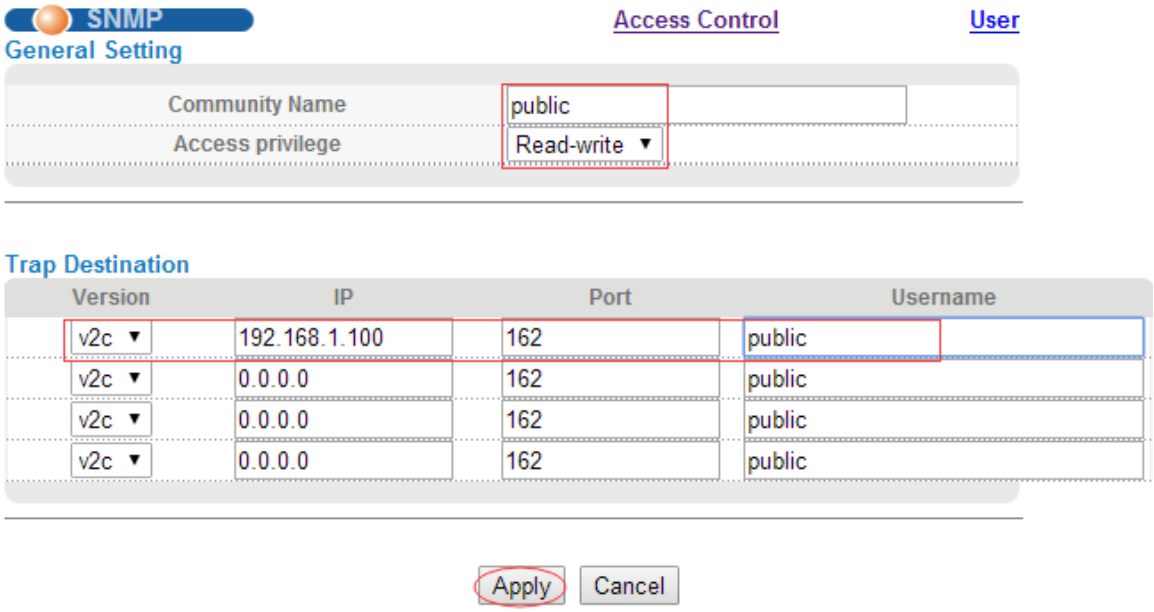


【Parameter Description】

Parameter	Description
Community Name	Community string, is equal to the NMS and Snmp agent communication between the password
Access privilege	Read-only: specify the NMS (Snmp host) of MIB variables can only be read, cannot be modified Read- write: specify the NMS (Snmp host) of MIB variables can only read, can also be modified
Version	Set version: v1, v2c, v3
IP	Set the IP address of the trap host

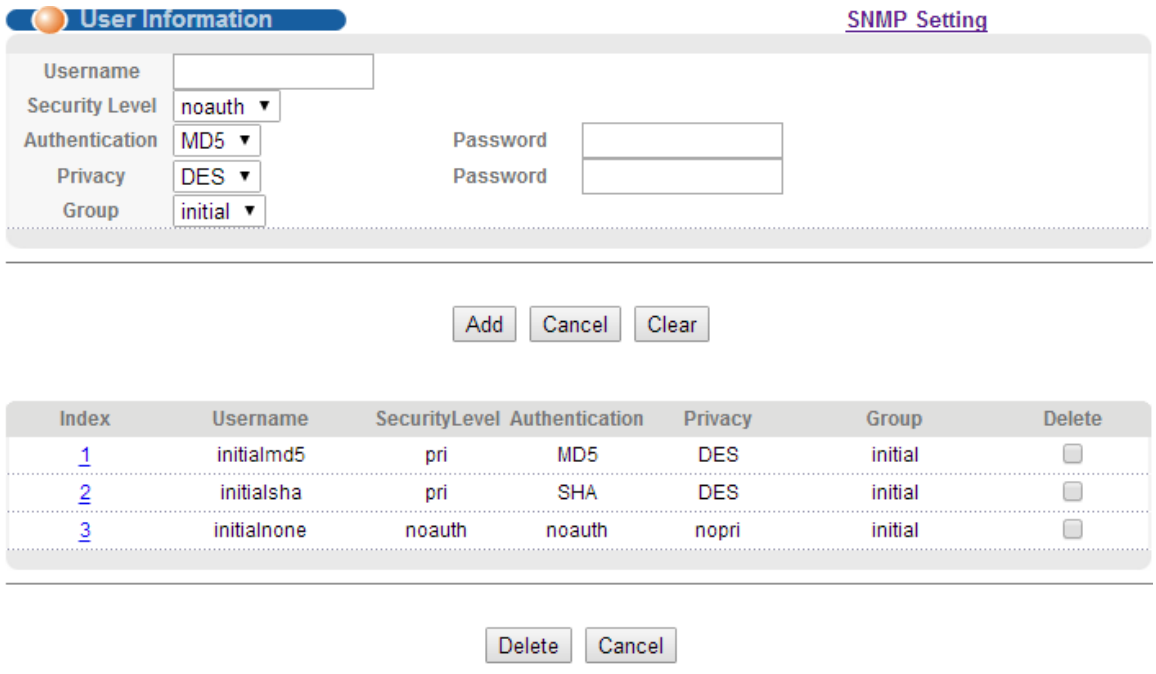
【Configuration Example】

Such as: Add a group name public community, access to Read-Write. Set host 192.168.1.100 to receive trap messages. The specified version is v2c.



6.3.2.2 User Information

Selecting "**Management**> **Access Control**>**User Information**", in the navigation bar, you can add user, set Security Level, Authentication, Privacy, Group, Password.

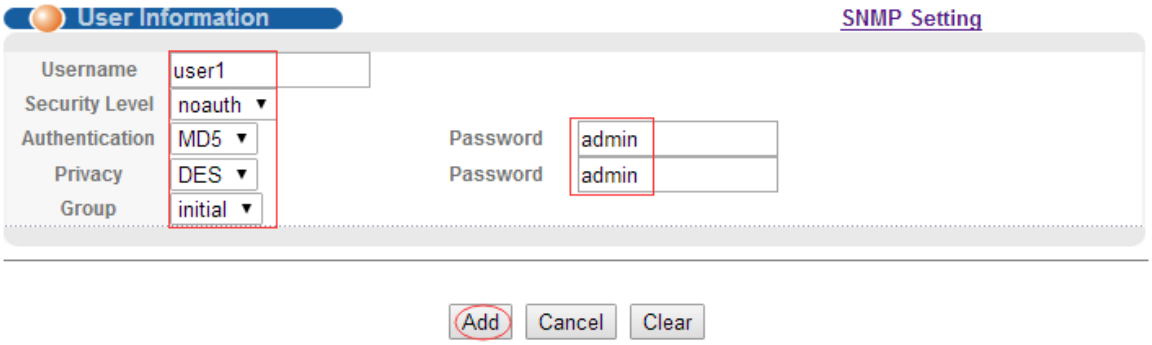


【Parameter Description】

Parameter	Description
Username	Snmp username
Security Level	noauth auth pri
Authentication	MD5 SHA
Privacy	DES Privacy
Group	User group name
Password	Encrypted password

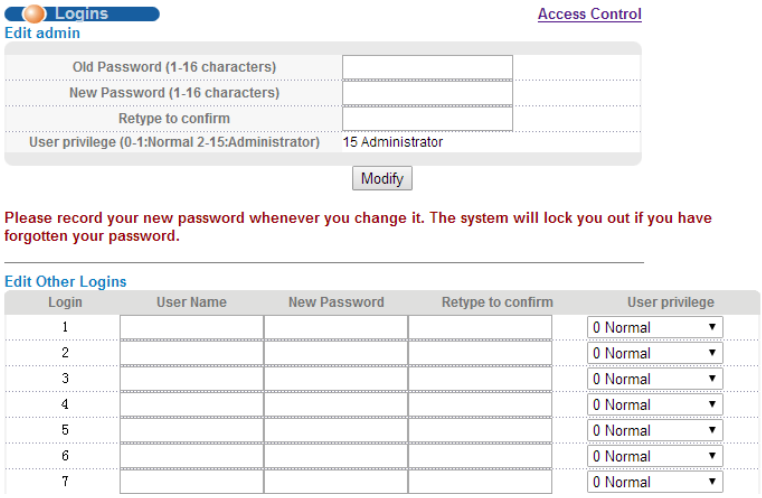
【Configuration Example】

Such as: Add group initial, add username user1.



6.3.2.3 Logins

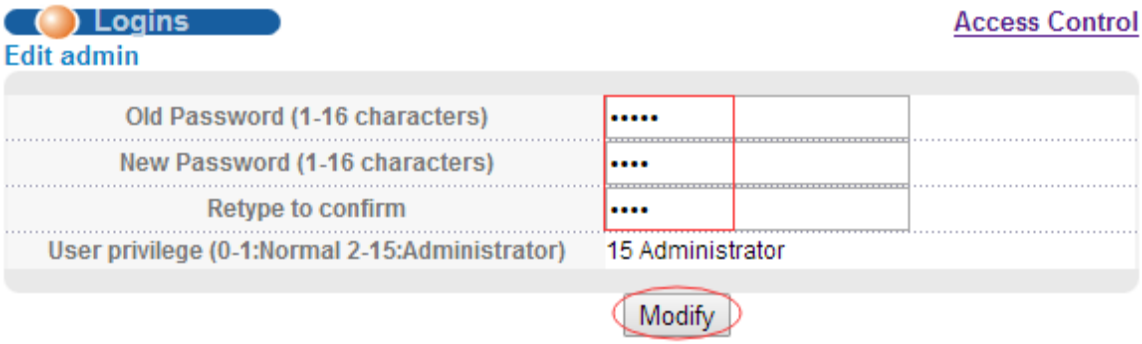
Selecting "**Management**>**Access Control**>**Logins**", in the navigation bar, you can modify admin password, configurable ordinary users.

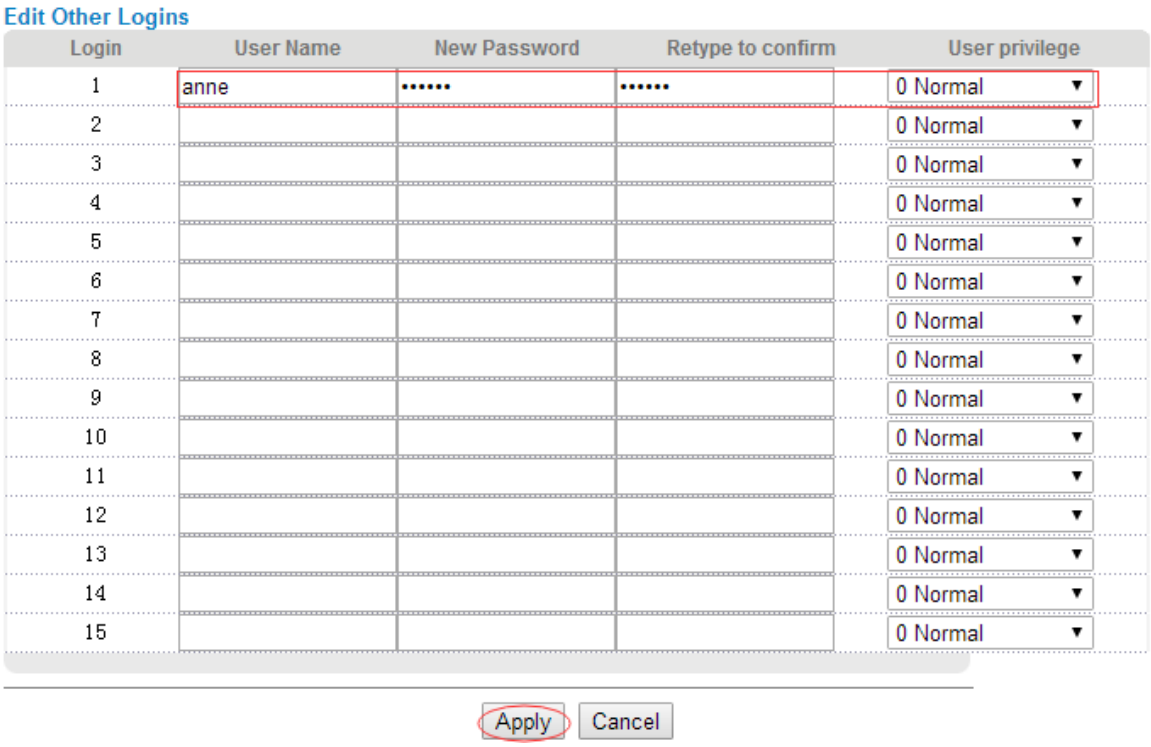


【Parameter Description】

Parameter	Description
User privilege	0-1: Normal 2-15: administrator

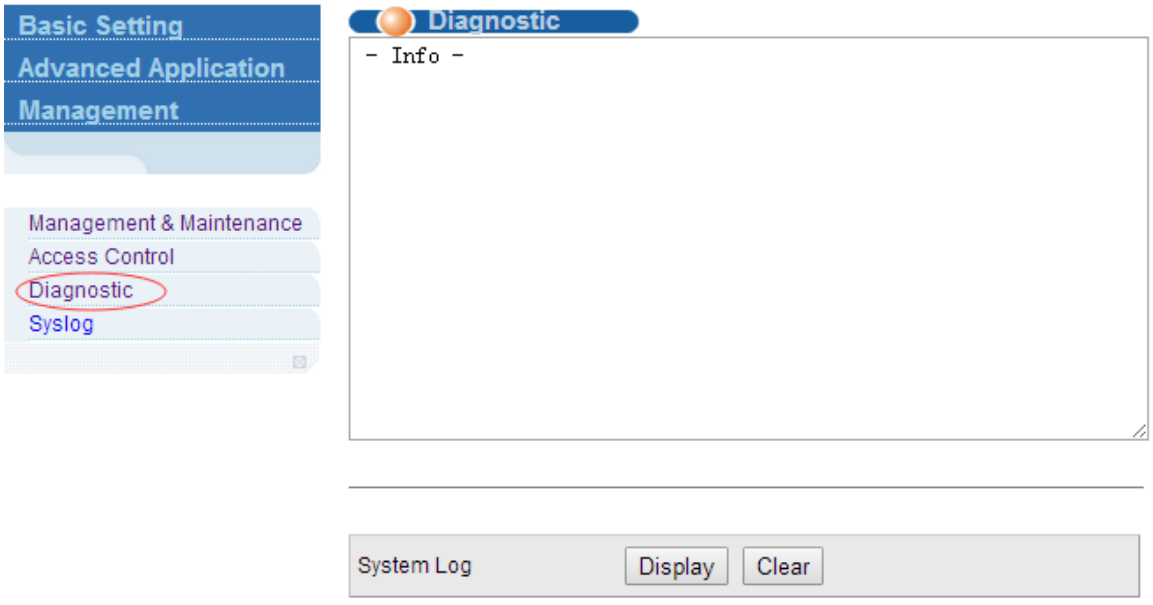
【Configuration Example】





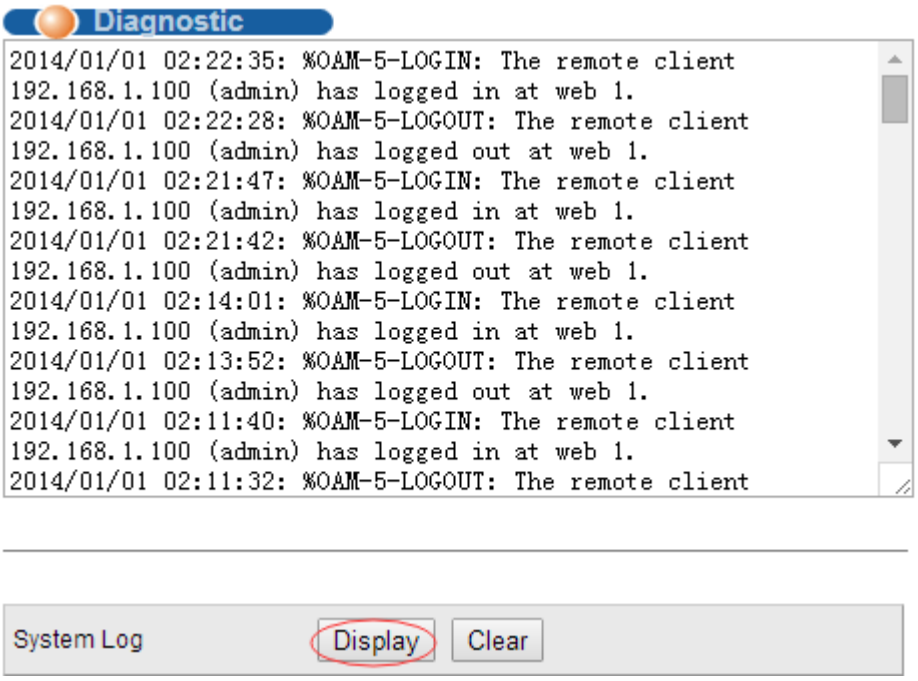
6.3.3 Diagnostic

Selecting "**Management**> **Diagnostic**", in the navigation bar, you can Display or Clear System Log.



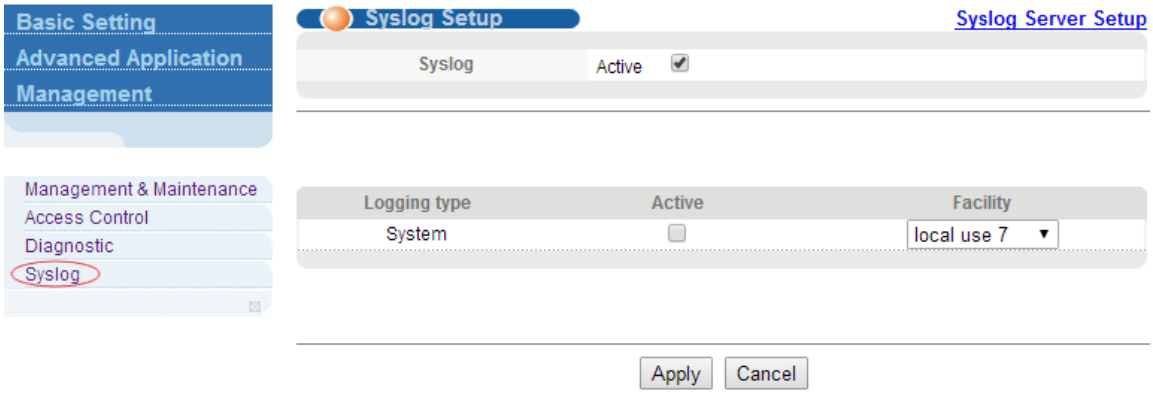
【Configuration Example】

Such as: Display System Log.



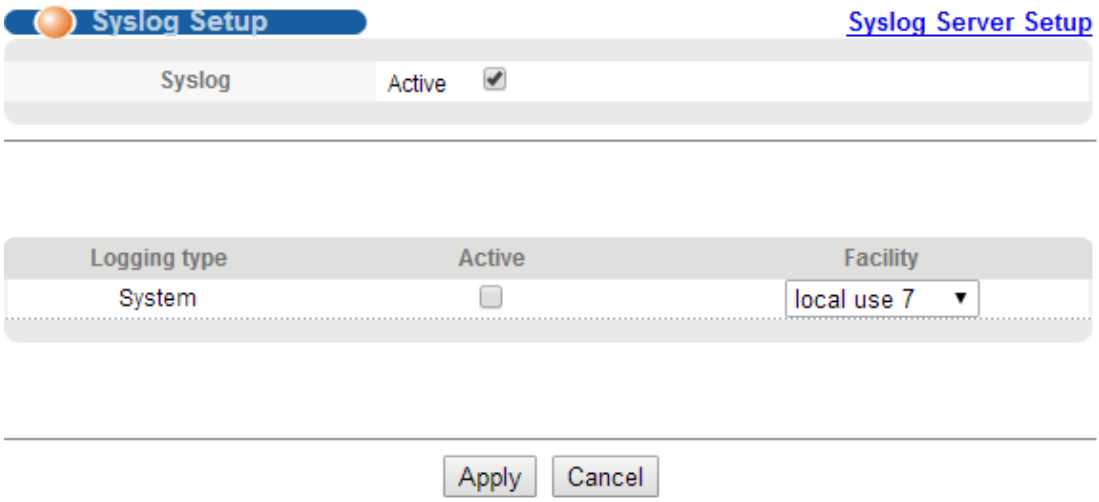
6.3.4 Syslog

Selecting "**Management**> **Syslog**", in the navigation bar, you can configure syslog.



6.3.4.1 Syslog Setup

Selecting "**Management**>**Syslog**>**Syslog Setup**", in the navigation bar, you can start the logging function globally and the logging function of the corresponding module.

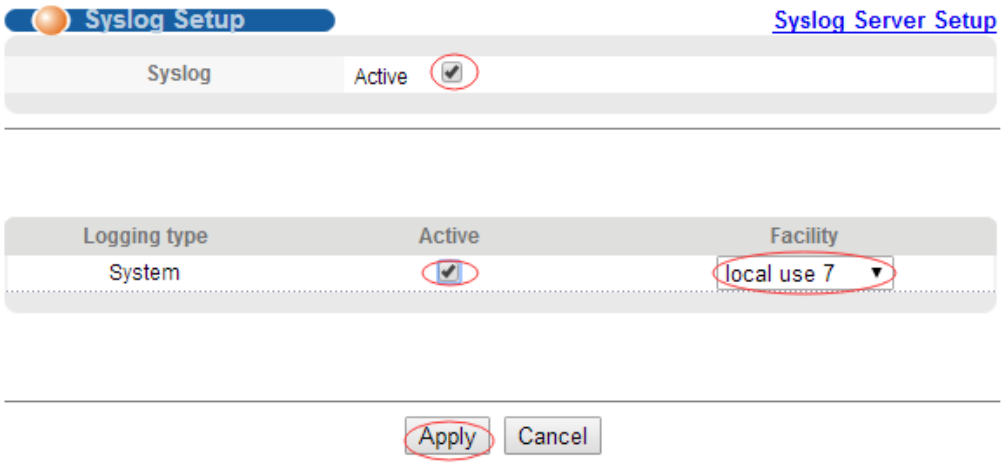


【Parameter Description】

Parameter	Description
Facility	local use 0-7 kernel userlevel mail system sercurity_1-2 sysogd lineprinter Networknews uucp clock_1-2 ftp logaudit logalert

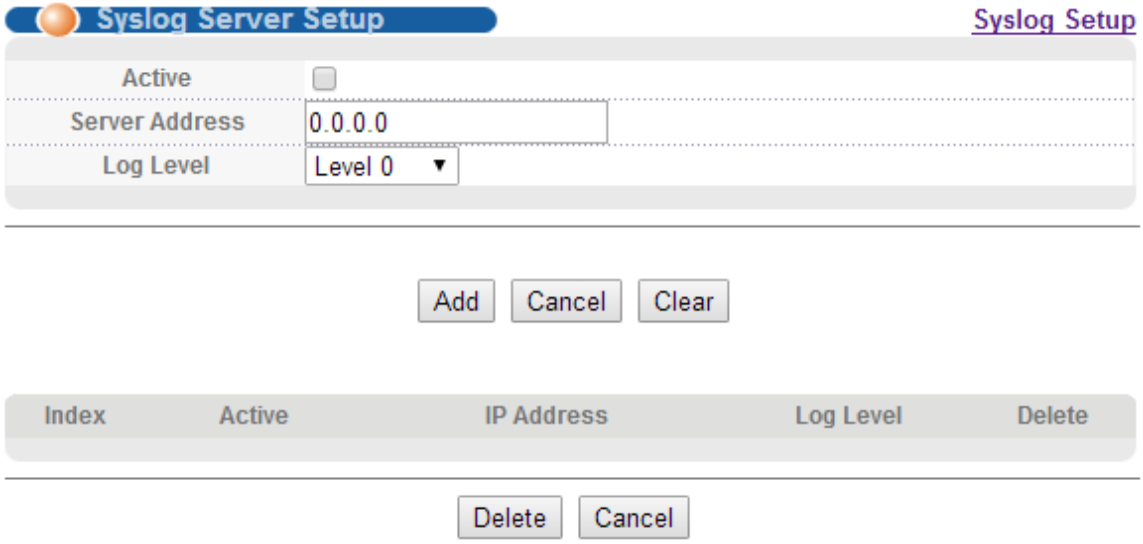
【Configuration Example】

Such as:



6.3.4.2 Syslog Server Setup

Selecting "**Management**>**Syslog**>**Syslog Server Setup**", in the navigation bar, you can set syslog server.



【Parameter Description】

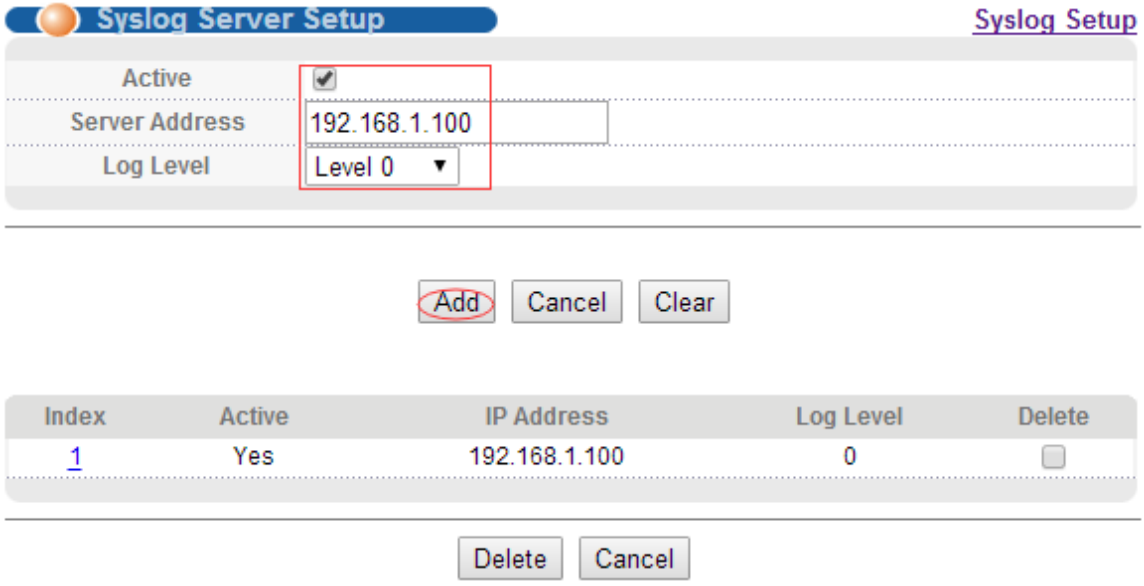
Parameter	Description
Server Address	Syslog Server Address
Log Level	Level 0 Level 0-1 Level 0-2 Level 0-3 Level 0-4 Level 0-5 Level 0-6 Level 0-7

【Instructions】

Open the log switch, set up the syslog server, and the system log will be automatically pushed to the server.

【Configuration Example】

Such as: 1)set server address is 192.168.1.100.



Appendix: Connectors and Connection Media

1000BASE-T/100BASE-TX/10BASE-T Ports

The 1000BASE-T/100BASE-TX/10BASE-T is a port that supports adaptation of three rates, and automatic MDI/MDIX Crossover at these three rates.

The 1000BASE-T complies with IEEE 802.3ab, and uses the cable of 100-ohm Category-5 or Supper Category-5 UTP or STP, which can be up to 100 m.

The 1000BASE-T port uses four pairs of wires for transmission, all of which must be connected. Figure A-1 shows the connections of the twisted pairs used by the 1000BASE-T port.

Figure A-1 Four Twisted Pairs of the 1000BASE-T

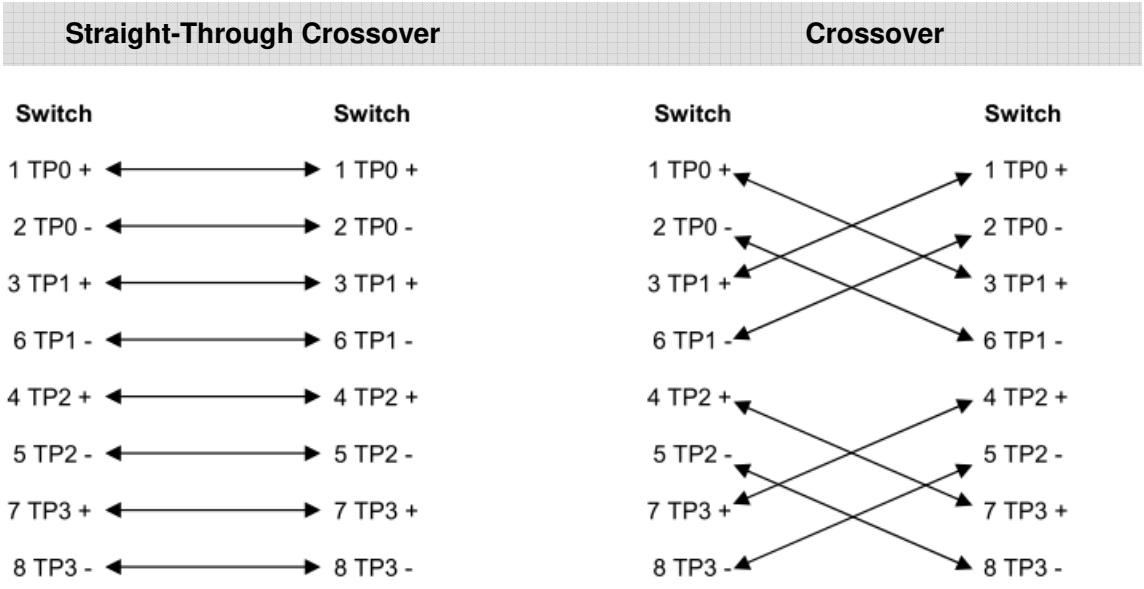


Figure A-1

In addition to the above cables, the 100BASE-TX/10BASE-T can also use 100-ohm Category-3, 4, 5 cables for 10 Mbps, and 100-ohm Category-5 cables for 100 Mbps, both of which can be up to 100 m. Figure A-2 shows the pinouts of the 100BASE-TX/10BASE-T.

Figure A-2 Pinouts of the 100BASE-TX/10BASE-T

Pin	Socket	Plug
1	Input Receive Data+	Output Transmit Data+
2	Input Receive Data-	Output Transmit Data-
3	Output Transmit Data+	Input Receive Data+
6	Output Transmit Data-	Input Receive Data-
4,5,7,8	Not Used	Not Used

Figure A-2

The following is 100BASE-TX / 10BASE-T feasible direct twisted pair and cross twisted pair connection.

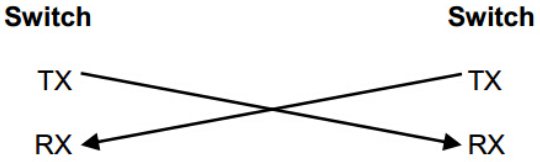
Figure A-3.

Figure A-3

Optical Fiber Connection

For the optical fiber ports, select single-mode or multiple-mode optical fibers for connection according to the fiber module connected. The connection schematic diagram is shown in Figure A-4:

Figure A-4 Optical Fiber Connections



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