Web User Manual
L3

Directory

Getting Start

This section provides an introduction to the web-based configuration utility, and covers the following topics:

- Powering on the device
- Connecting to the network
- Starting the web-based configuration utility

● Power

Connecting to Power

Power down and disconnect the power cord before servicing or wiring a switch.

Do not disconnect modules or cabling unless the power is first switched off. The device only supports the voltage outlined in the type plate. Do not use any other power components except those specifically designated for the switch.

Disconnect the power cord before installation or cable wiring.

The switch is powered by the AC 100-240 V 50/60Hz internal high-performance power supply. It is recommended to connect the switch with a single-phase three-wire power source with a neutral outlet, or a multifunctional computer professional source.

Connect the AC power connector on the back panel of the switch to the external power source with the included power cord, and check the power LED is on.

Rear View AC Power Socket

● Connecting to the Network

To connect the switch to the network:

1. Connect an Ethernet cable to the Ethernet port of a computer
2. Connect the other end of the Ethernet cable to one of the numbered Ethernet ports of the switch. The LED of the port lights if the device connected is active.
3. Repeat Step 1 and Step 2 for each device to connect to the switch.

We strongly recommend using CAT-5E or better cable to connect network devices. When connecting network devices, do not exceed the maximum cabling distance of 100 meters (328 feet). It can take up to one minute for attached devices or the LAN to be operational after it is connected. This is normal behavior.

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

● Starting the Web-based Configuration Utility

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

Browser Restrictions

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

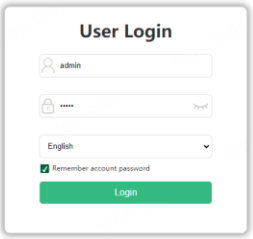
Launching the Configuration Utility
To open the web-based configuration utility:

1. Open a Web browser.
2. Enter the IP address of the device you are configuring in the address bar on the browser (factory default IP address is 192.168.2.1) and then press Enter.

When the device is using the factory default IP address, its power LED flashes continuously. When the device is using a DHCP assigned IP address or an administrator-configured static IP address, the power LED is lit a solid color. Your computer's IP address must be in the same subnet as the switch. For example, if the switch is using the factory default IP address, your

computer’s IP address can be in the following range: 192.168.2.x (whereas x is a number from 2 to 254).

After a successful connection, the login window displays.



Login Window

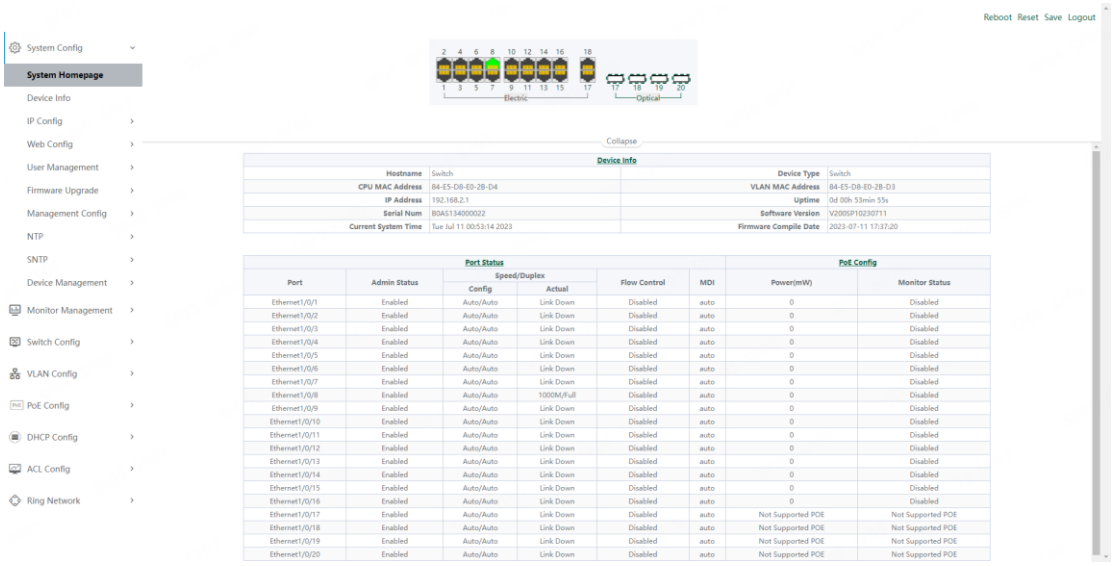
Logging In

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

To log in to the device configuration utility:

1. Enter the default user ID (admin) and the default password (admin).
2. If this is the first time that you logged on with the default user ID (admin) and the default password (admin) it is recommended that you change your password immediately.

When the login attempt is successful, the System Information window displays.



System Information

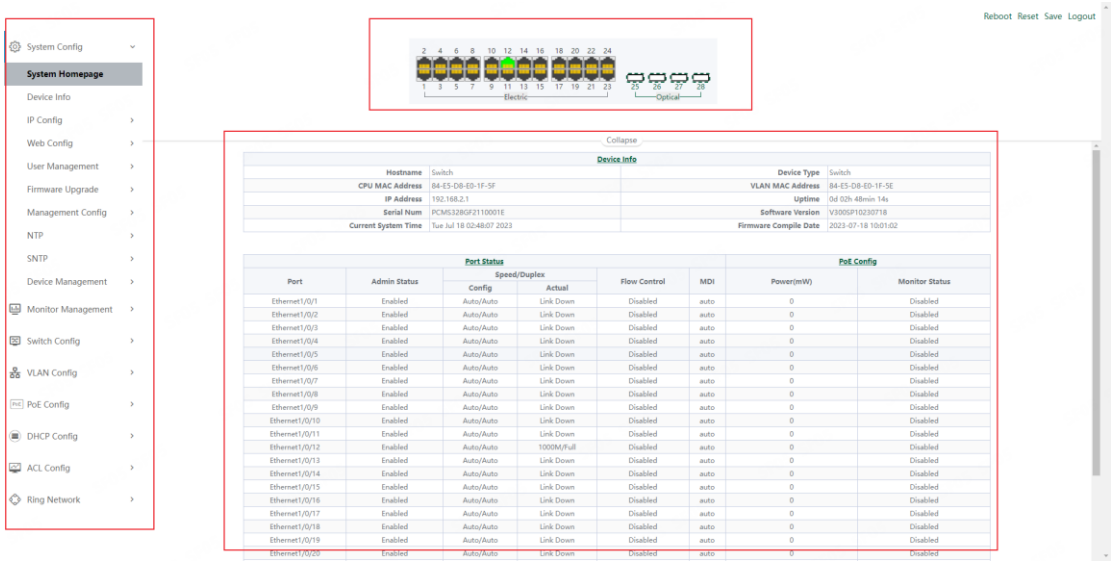
If you entered an incorrect username or password, an error message appears and the Login page remains displayed on the window. If you are having problems logging in, please see the Launching the Configuration Utility section in the Administration Guide for additional information.

- Logging Out

By default, the application logs out after ten minutes of inactivity.
To logout, click Logout in the top right corner of any page. The system logs out of the device.
When a timeout occurs or you intentionally log out of the system, a message appears and the Login page appears, with a message indicating the logged-out state. After you log in, the application returns to the initial page.

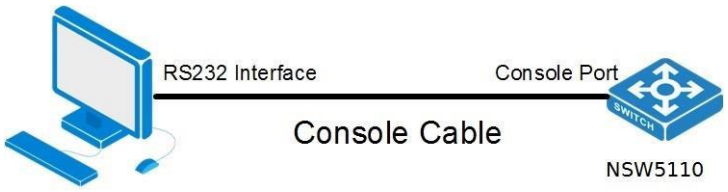
Web-based Switch Configuration

The smart switch software provides rich Layer 2 functionality for switches in your networks. This chapter describes how to use the web-based management interface (Web UI) to configure the switch's features.
For the purposes of this manual, the user interface is separated into four sections, as shown in the following figure:

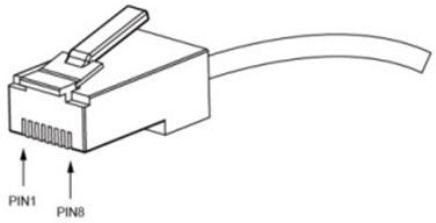


Console Port Interface

The PoE smart switch has a monitor port(Console port). Rate 9600bps, standard RJ45 plug.
Use a dedicated monitoring cable to lead the port to the PC serial port connection, as follows:



The RJ45 connector used by the Console port is shown in the figure below, and the RJ45 plug corresponds to the RJ45 socket, from left to right numbered from 1 to 8.



This cable is used to connect the console port of the switch to the external monitoring terminal. One end of the RJ45 eight-pin plug, the other end is a 25-hole plug(DB25) and 9-hole plug(DB9), RJ45 head into the switch's console port socket, DB25 and DB9 can be used according to the requirements of the terminal serial port, the cable internal connection schematic as follows:

RJ45 <===> DB9
[RTS 1~~~8 CTS]
[DTR 2~~~6 DSR]
[TXD 3~~~2 RXD]
[GND 4~~~5 GND]
[GND 5~~~5 GND]
[RXD 6~~~3 TXD]
[DSR 7~~~4 DTR]
[CTS 8~~~7 RTS]

1. System Config

1.1. System Homepage

The system homepage contains **Device Info** and **Port Status**

Device Info

Hostname	Switch	Device Type	Switch
CPU MAC Address	84-E5-D8-E0-1F-5F	VLAN MAC Address	84-E5-D8-E0-1F-5E
IP Address	192.168.2.1	Uptime	0d 02h 48min 14s
Serial Num	PCMS328GF2110001E	Software Version	V300SP10230718
Current System Time	Tue Jul 18 02:48:07 2023	Firmware Compile Date	2023-07-18 10:01:02

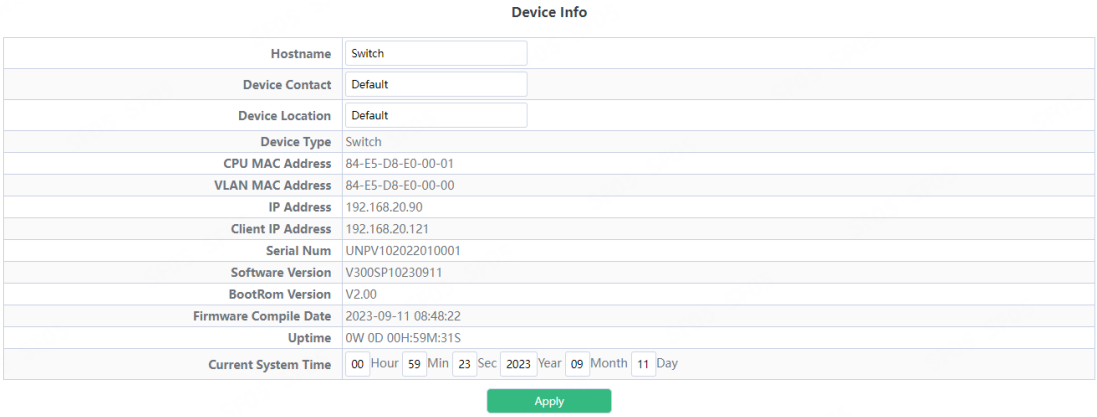
Port Status / **PoE Config**

Port	Admin Status	Speed/Duplex		Flow Control	MDI	Power(mW)	Monitor Status
		Config	Actual				
Ethernet1/0/1	Enabled	Auto/Auto	Link Down	Disabled	auto	0	Disabled
Ethernet1/0/2	Enabled	Auto/Auto	Link Down	Disabled	auto	0	Disabled
Ethernet1/0/3	Enabled	Auto/Auto	Link Down	Disabled	auto	0	Disabled
Ethernet1/0/4	Enabled	Auto/Auto	Link Down	Disabled	auto	0	Disabled
Ethernet1/0/5	Enabled	Auto/Auto	Link Down	Disabled	auto	0	Disabled
Ethernet1/0/6	Enabled	Auto/Auto	Link Down	Disabled	auto	0	Disabled
Ethernet1/0/7	Enabled	Auto/Auto	Link Down	Disabled	auto	0	Disabled
Ethernet1/0/8	Enabled	Auto/Auto	Link Down	Disabled	auto	0	Disabled

Click on **Device Info** or **Port Status** to enter the corresponding page.

1.2. Device Info

The Device Info page allows you to view device information and also set the Hostname, Device Contact, Device Location of the device and the Current System Time.



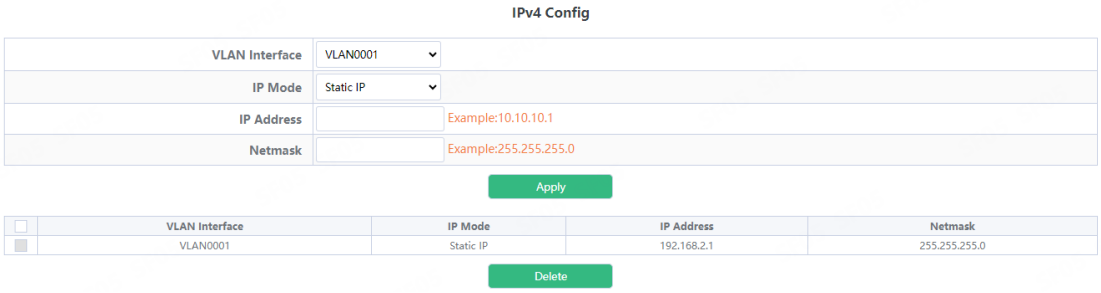
Hostname	Fill in the new **Hostname** of the switch to be changed, 1-64 characters
Device Contact	Fill in the new **Device Contact** of the switch to be changed, 0-255 characters
Device Location	Fill in the new **Device Location** of the switch to be changed, 0-255 characters
Current System Time	Manually changing the current system time, When the switch restart will invalidate.

1.3. IP Config

1.3.1. IPv4 Config

The page can be used to configure IP address and subnet mask for the VLAN interface.

To display the "IPv4 Config" page, click System Config ->IP Config->IPv4 Config, click "Apply" to configure.

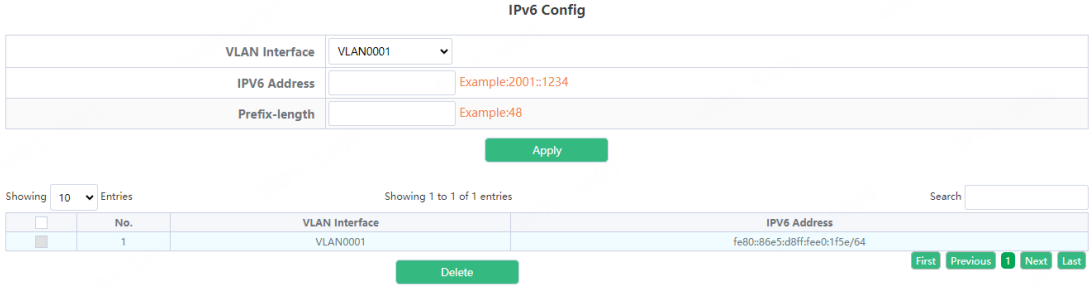


VLAN Interface	VLAN ID of layer 3 interface created
IP Mode	Static IP : User self configuration Dynamic: dhcp-client Automatic acquisition
IP Address	IP Address, e.g. A.B.C.D
Netmask	Netmask:for example :255.255.255.0
Operation	Action: Apply/Delete

1.3.2. IPv6 Config

The page can be used to configure IPv6 address and subnet mask for the VLAN interface.

To display the "IPv6 Config" page, click System Config ->IP Config->IPv6 Config, click "Apply" to configure.

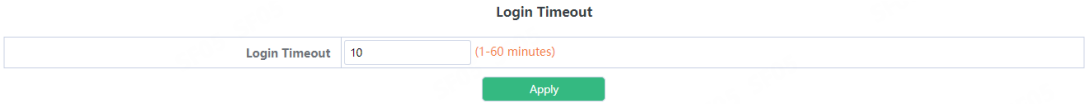


VLAN Interface	VLAN ID of layer 3 interface created
IPv6 Address	IPv6 Address, Example:2001::1234
Prefix-length	Prefix length is 3 to 127, Example :48
Operation	Action: Apply/Delete

1.4. Web Config

1.4.1. Web Timeout

The page can be used to configure Web Login Timeout time.



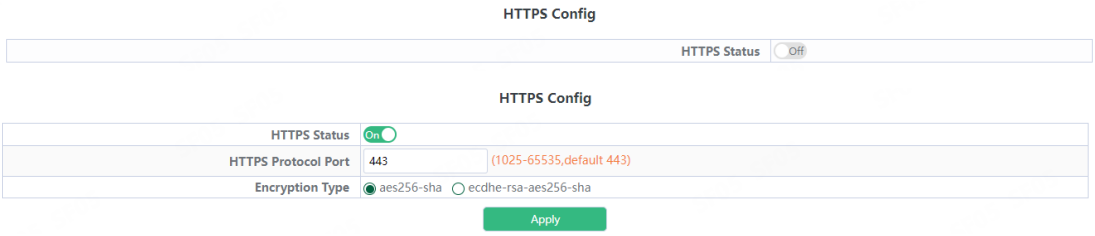
Web Login Timeout	Web Login Timeout: 1-60 minutes, default 10 minutes

1.4.2. HTTP

HTTP Server Config module, the user can start or stop the HTTP service of the switch by using this module again. Default is On.

1.4.3. HTTPS

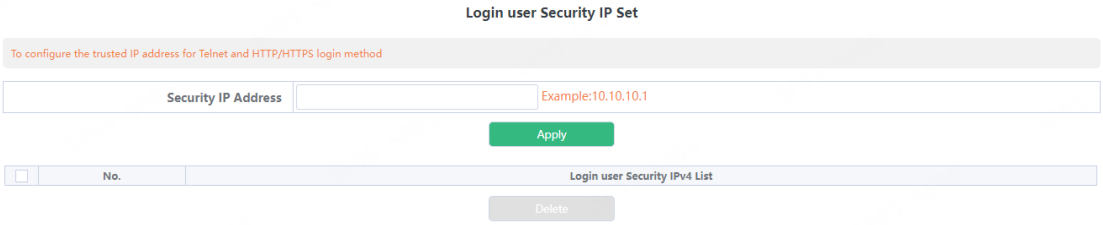
HTTPS Server Config module, the user can start or stop the HTTPS service of the switch by using this module again. Default is Off.



HTTPS Protocol Port	HTTPS Protocol Port: 1025-65535 , default 443
Encryption Type	Type: aes256-sha ecdhe-rsa-aes256-sha

1.4.4. Security IP

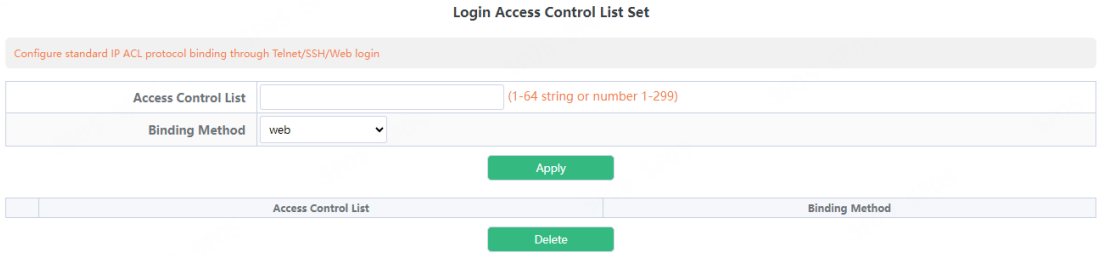
Login user security IP configuration module, where users can configure the security IPv4 address for login switch. Login methods include Telnet/HTTP/HTTPS.



Security IP address	Fill in the specified security IPv4 address	
Operation	Apply	Add address or list number
	Delete	Delete address or list number

1.4.5. ACL

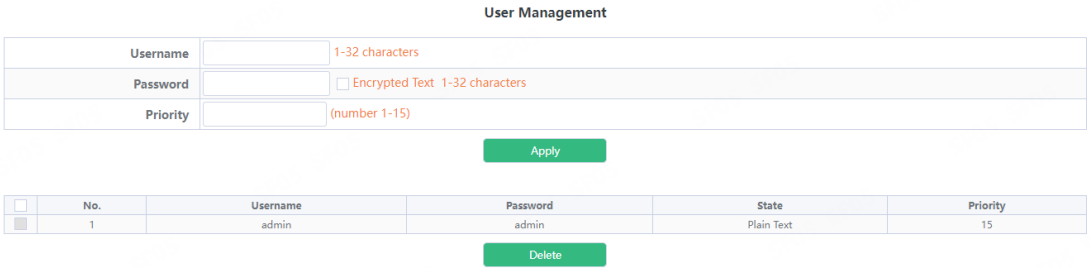
Login user login access control list module, where users can configure the IPV4 access control list. Login methods include Telnet/SSH/Web.



IPv4 access control list	Standard access control list number, scope 1-64 characters or number 1-99	
Binding Method	Binding Method include web/ssh/telnet/all	
Operation	Apply	Add address or list number
	Delete	Delete address or list number

1.5.User Management

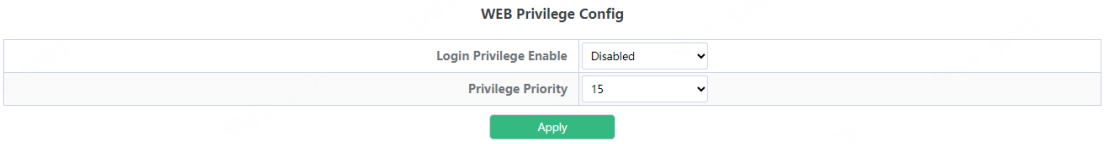
1.5.1.User Management



User Management module, users in this module can add or delete user operations.

Username	User name to operate ,1-32 characters
Password	User password, choose the password encryption, otherwise no encryption of 1-32 characters
Priority	Used to specify permission level.

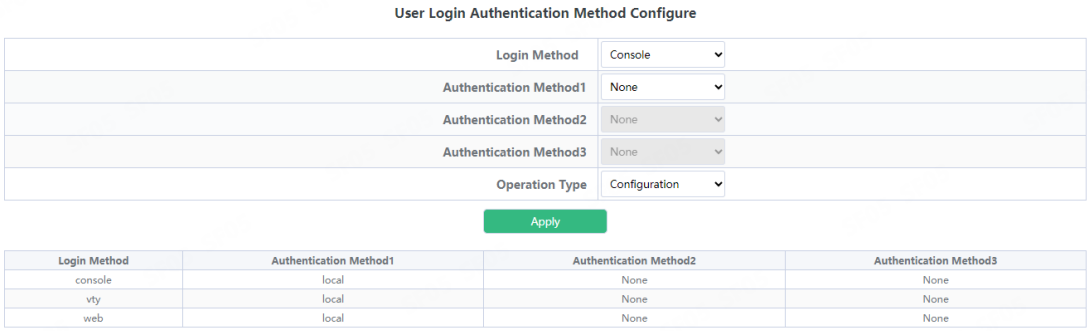
WEB Privilege Config module, users can configure permissions for user accounts to login in the web.



Login Privilege Enable	Change the way users log in to web pages with permissions, When the user priority is lower than the privilege priority, it changes from being unable to log in to being able to log in to the web page but not configure information, and can only view the configuration. Default is disable.
Privilege Priority	Used to specify permission level, default level 15, only the user with the level that is equal to or higher than it can login in the switch by web.

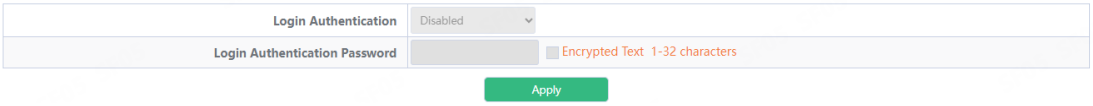
1.5.2. Authentication Method

User Login Authentication Method Configure module, the user can configure console.vty.web authentication method used in login, authentication method can be any one or combination of Local.RADIUS and TACACS preferences from left to right when the login method is combined configuration. If the user has passed the authentication method, the authentication method of the lower preference is ignored. As long as you pass an authentication method, the user can log in.AAA functions and RADIUS servers should be configured before using RADIUS authentication. If local authentication is configured without configuring a local user, the user will be able to log on to the switch through the console method.



Login method	Authentication method	Console, vty and web.
console	local	Authentication using the local user account database
vty	radius	Authentication using remote Radius server
web	tacacs	Authentication using remote Tacas server
Default	Default console no authentication , vty and web local authentication	

Only when the console authentication mode is 'none', can the login authentication mode be configured.



Login Authentication	Default is Disable.
Login Authentication Password	Login Authentication password, choose the password encryption, otherwise no encryption of 1-32 characters

1.6.Firmware Upgrade

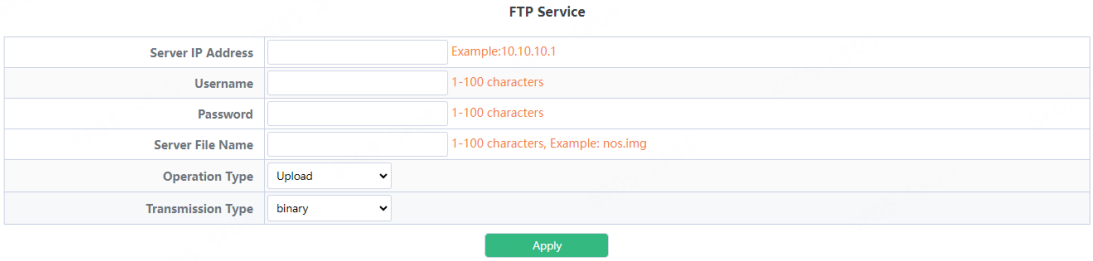
1.6.1.TFTP Service

TFTP client service module, the user can upload or download files by TFTP way, and can upgrade the firmware of the switch by this method.

Server IP address	TFTP address IP peer server, point decimal	
Server File name	Source name to upload or download ,1-100 characters	
Operation type	Upload	Upload upgrade files from the switch to the TFTP server
	Download	Download upgrade files from TFTP server to switch
Transmission type	binary	Transfer files in binary format (default)
	ascii	Transfer files in ascii format

1.6.2.FTP Service

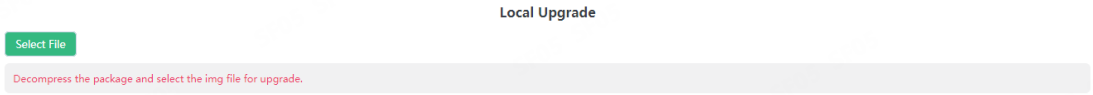
FTP client service module, the user can upload or download files by FTP way, and can upgrade the firmware of the switch by this method.



Server IP Address	FTP address IP peer server, point decimal	
Username	FTP server-to-server username ,1-100 characters	
Password	FTP server-side user password 1-100 characters	
Server File Name	Source name to upload or download ,1-100 characters	
Operation Type	Upload	Upload upgrade files from the switch to the TFTP server
	Download	Download upgrade files from TFTP server to switch
Transmission Type	binary	Transfer files in binary format (default)
	ascii	Transfer files in ascii format

1.6.3. HTTP Upgrade

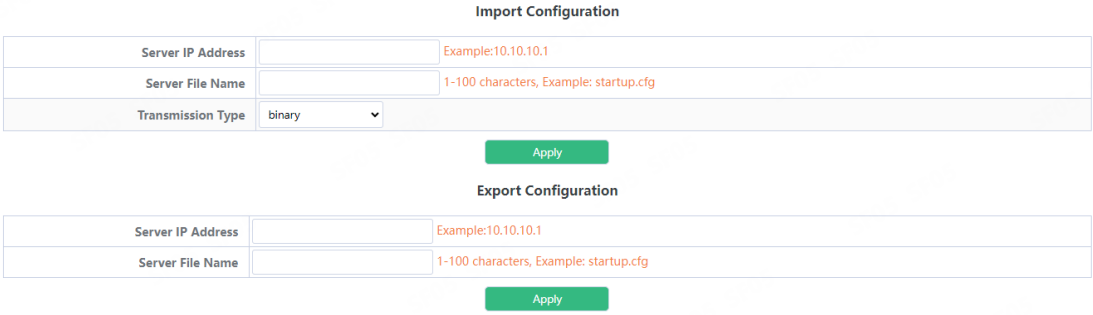
HTTP Upgrade module, the user can select file by HTTP way, and can upgrade the firmware of the switch by this method.



1.7. Management Config

1.7.1. TFTP

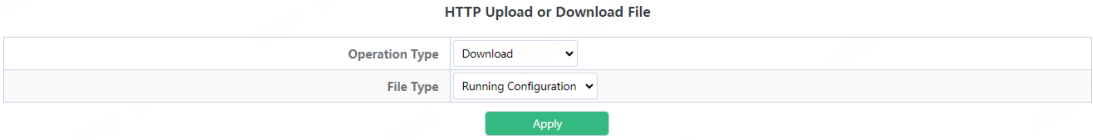
TFTP module, the user can import or export switch configuration by tftp.



Server IP Address	TFTP address IP peer server, point decimal	
Server File Name	Source name to upload or download ,1-100 characters	
Transmission Type	binary	Transfer files in binary format (default)
	ascii	Transfer files in ascii format

1.7.2. HTTP

HTTP module, the user can **Download** or **Upload** switch **Running Configuration** or **Startup Configuration** by http.

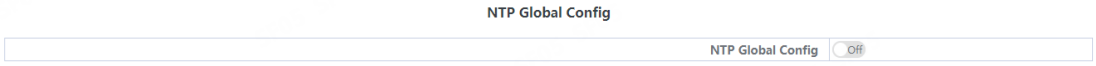


Operation Type	Download	To download files
	Upload	To upload files
File Type	Running Configuration	Switch running configuration
	Startup Configuration	Switch startup configuration

1.8.NTP

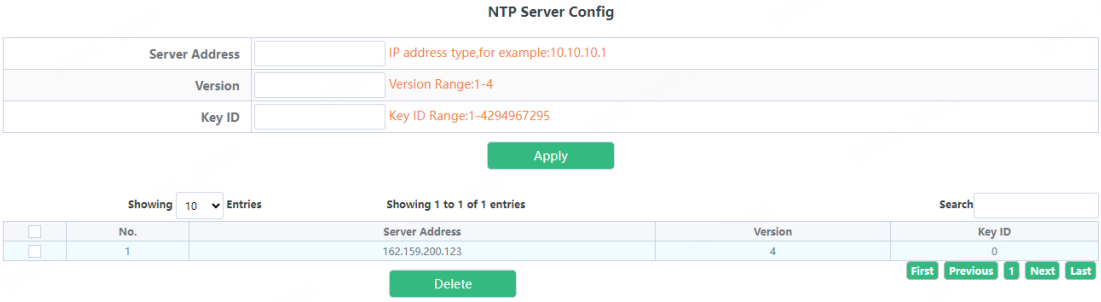
1.8.1.NTP Config

NTP Config module, user can NTP service global switch operation.



NTP Global config Operation	Off	Close operation(default)
	On	Start

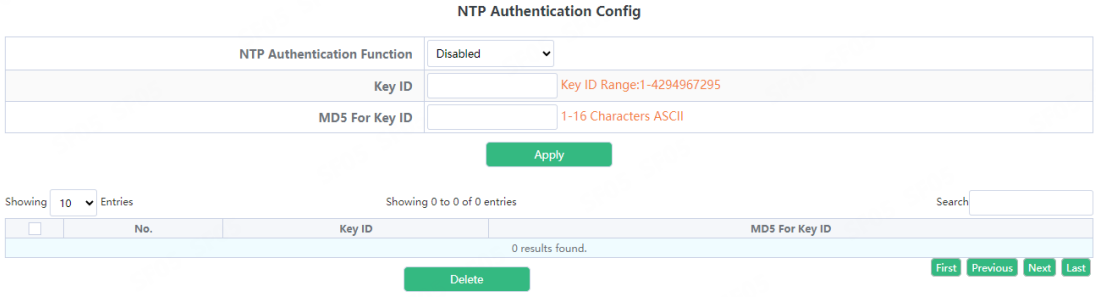
NTP the server configuration module, the user can configure the specified time server of the switch time source in this module.



Server address	The specified time server address decimal point	
Version	Version number, range 1-4, default 4	
Key ID	Secret key value, range 1-4294967295	
Operation	Apply	Add operations
	Delete	Delete operations

1.8.2.NTP Authentication Config

NTP verification configuration module, the user can configure the switch NTP authentication related items.



NTP authenticate switch	Disable	Close NTP validation (default)
	Enable	Enable NTP validation
Key ID	Secret key value, range 1-4294967295	
MD5 For Key ID	The MD5 value of the secret key, which ranges from 1-16 of ascii code	
Operation	Apply	Add operations
	Delete	Delete operations

1.9. SNTP

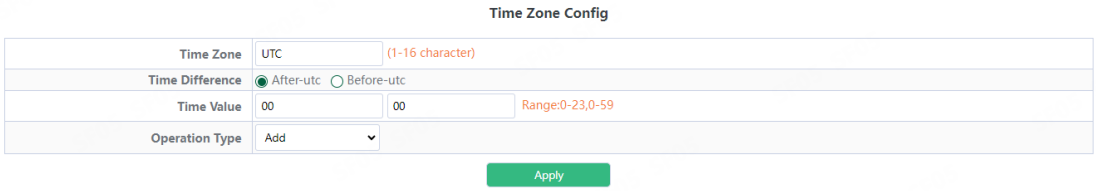
1.9.1. Server Config

SNTP the server settings module, the user can add or delete the specified time server as the clock source.

Server address	The specified time server address decimal point	
Version	Version number, range 1-4, default 4	
Operation	Apply	Add operations
	Delete	Delete operations

1.9.2. Time Zone Config

SNTP the time zone and UTC time difference setting module where the client is located, the user can set the switch's current time zone and name it.



Time zone	Time zone name ,1-16 characters	
Time difference	After-utc	Increased time zone behavior
	Before-utc	Reduced time zone behavior
Time value	Time zone specific change hours 0-23	Time zone specific change minute value 0-59
Operation	Add	Add operations
	Default	Restore time zone default configuration

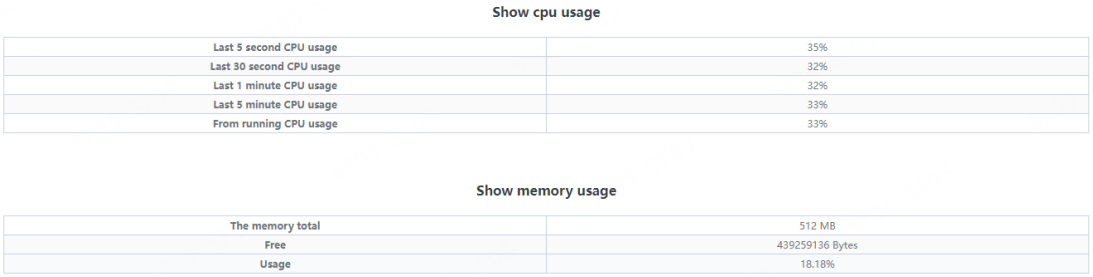
1.10.Device Management

1.10.1.Device Reboot/Reset

Device Reboot/Reset module, the user can restart the switch by **Reboot** button. can also leave the factory initial settings restart by **Reset** button, but also can save the current set configuration by **Save** button.

1.10.2.System Utilization

This module is used to display resource usage cpu current system but also display the current system memory resource usage.

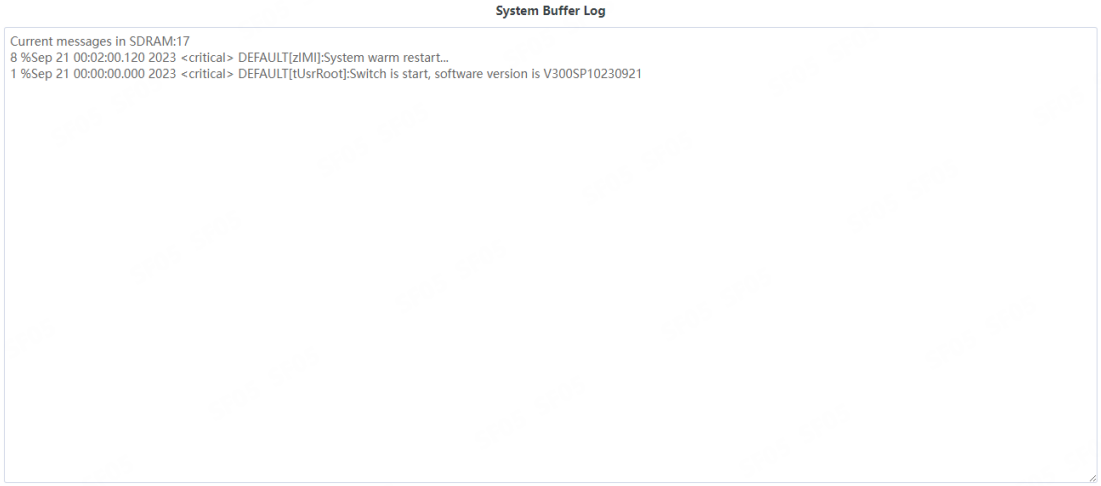


1.10.3.View System Config

This module is used to display configuration information in the current system run.

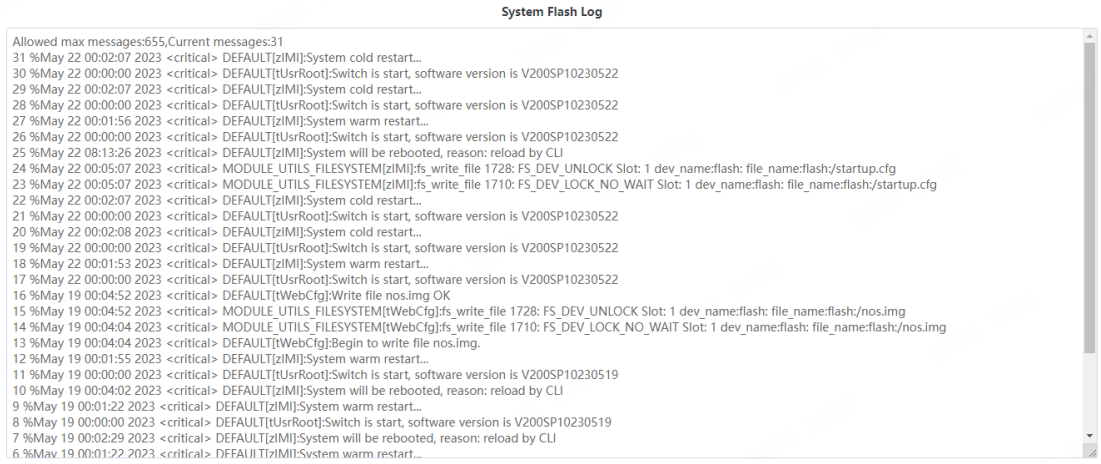
1.10.4.View Logging Buffer

This module is used to display system logging information in the current system run.



1.10.5.View Logging Flash

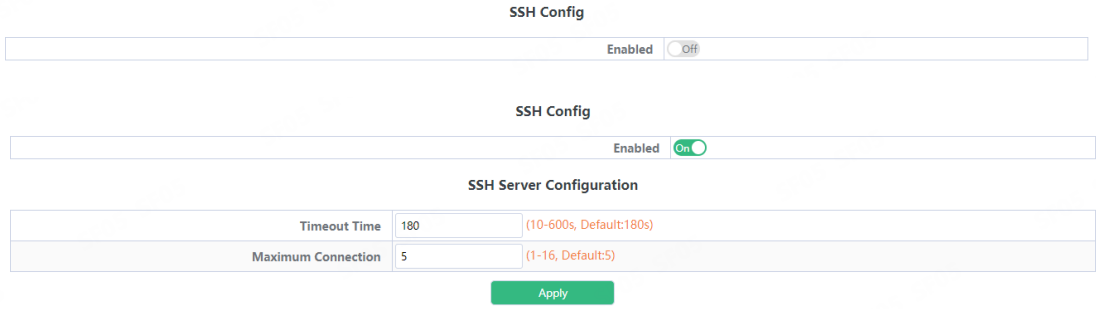
This module is used to display system flash log information in the current system run.



2. Monitor Management

2.1. SSH Config

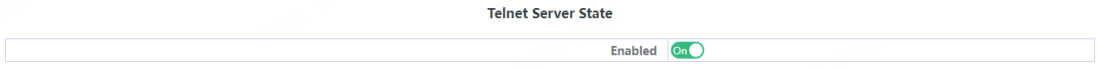
SSH Config module, the user can configure the SSH status and SSH timeout.



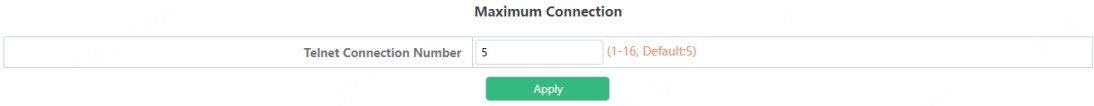
Enabled Operation	Off: Close operation(default)	
	On: Start	
Timeout Time	Timeout of exit SSH login status , 10-600 seconds(default 180 s)	
Maximum Connection	Maximum number of connections logged in by SSH, range 1-16(default 5)	
Operation	Apply	Add operations

2.2. Telnet Config

Telnet server status module, where users can enabled on or off login switches by Telnet.



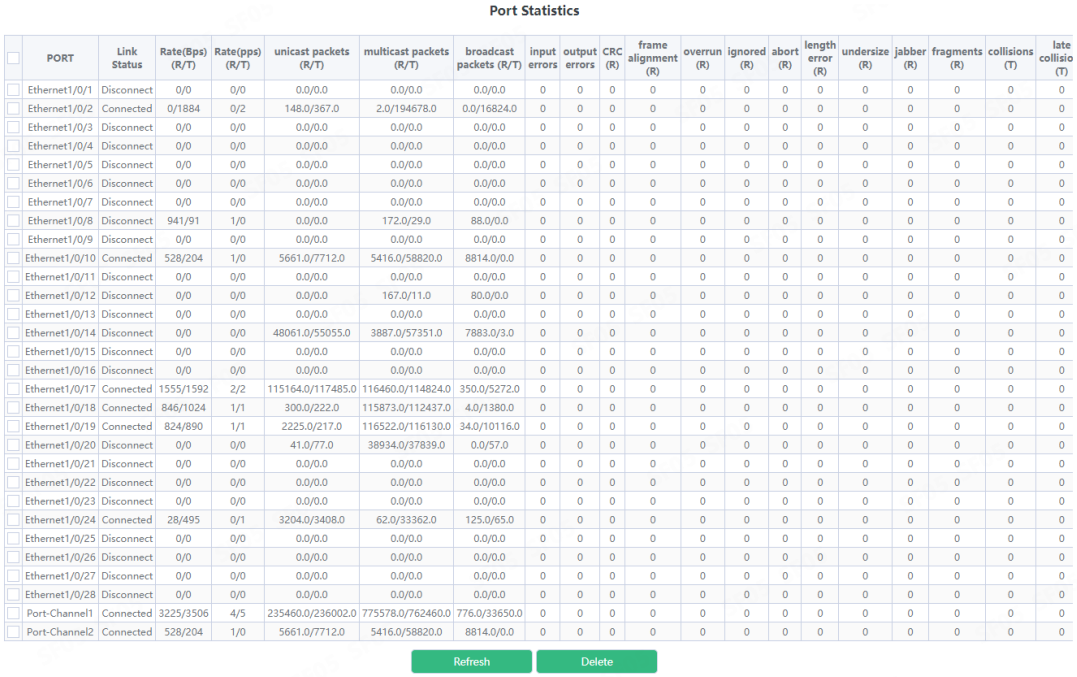
Telnet connect the maximum number module, the user can configure the maximum number of connections to the switch by Telnet.



Telnet access connection number	Maximum number of connections logged in by Telnet, range 1-16(default 5)	
Operation	Apply	Add operations

2.3.Port Statistics

This page displays port statistics information.

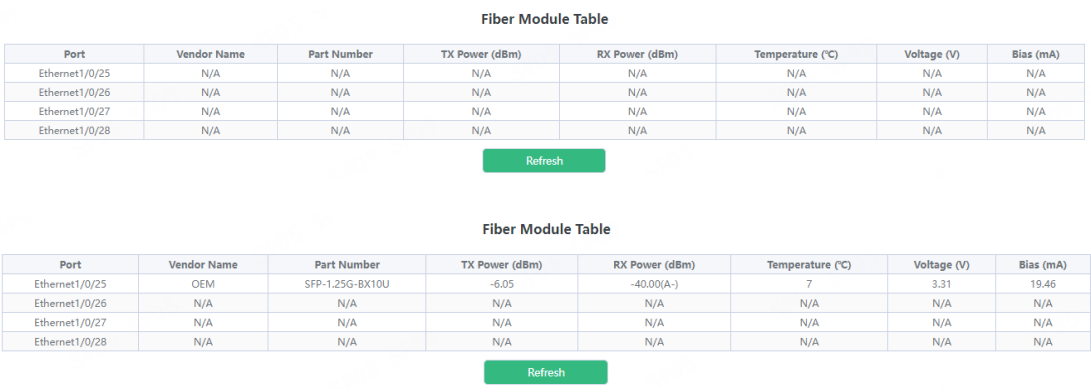


Port	physical ports
Link Status	Link Status: Connected; Disconnect
Rate(bps) (R/T)	Rate(bps): Received/Transmit;
Rate(pps) (R/T)	Rate(pps): Received/Transmit;
Unicast packets(R/T)	Unicast packets: Received/Transmit;
multicast packets(R/T)	multicast packets: Received/Transmit;
brocast packets(R/T)	brocast packets: Received/Transmit;
Input errors	Input erros
output errors	Output erros
CRC(R)	CRC(Cyclic Redundancy Check) Received;
frame alignment (R)	Frame Alignment Received;
overrun (R)	Overrun Received;

ignored (R)	Ignored Received;
abort (R)	Abort Received;
length error (R)	Length error Received;
undersize (R)	Undersize Received;
jabber (R)	Jabber Received;
fragments (R)	Fragments Received;
collisions (T)	Collisions Transmit;
late collisions (T)	Late Collisions Transmit;
pause frame (R/T)	Pause Frame Received/Transmit;
Refresh	Refresh Port Statistics
Delete	Select the port and click delete to clear Port Statistics

2.4. DDMI Status

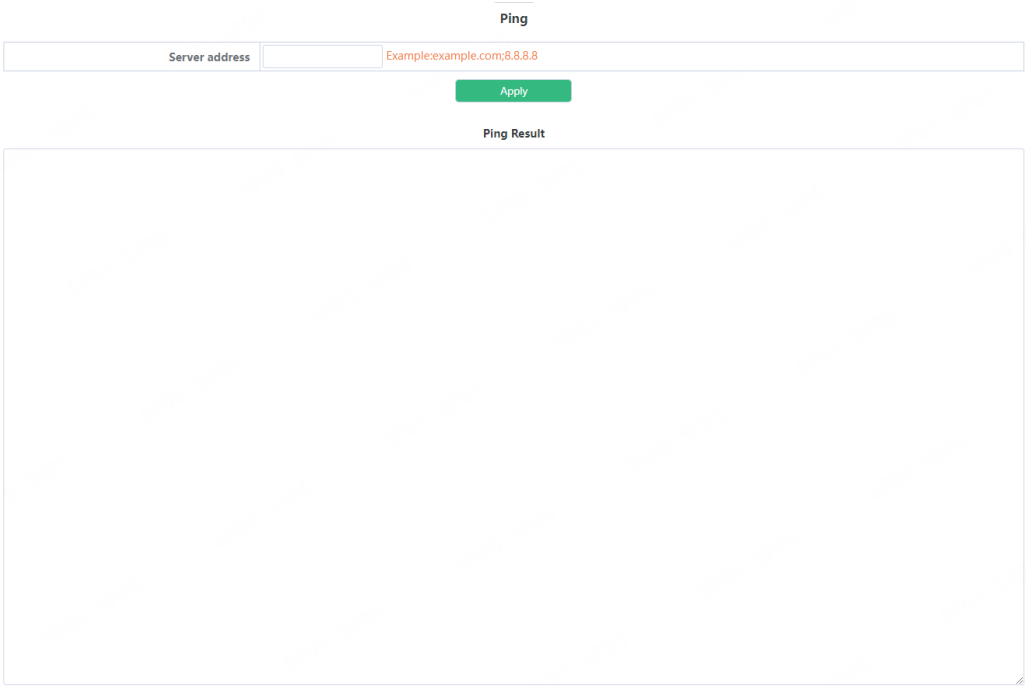
This page displays fiber module information.



Port	fiber ports
Temperature (℃)	Display the temperature of the fiber module
Bias (mA)	Display the Bias of the fiber module.
RX Power (dBm)	Display the RX Power of the fiber module.
TX Power (dBm)	Display the TX Power of the fiber module.

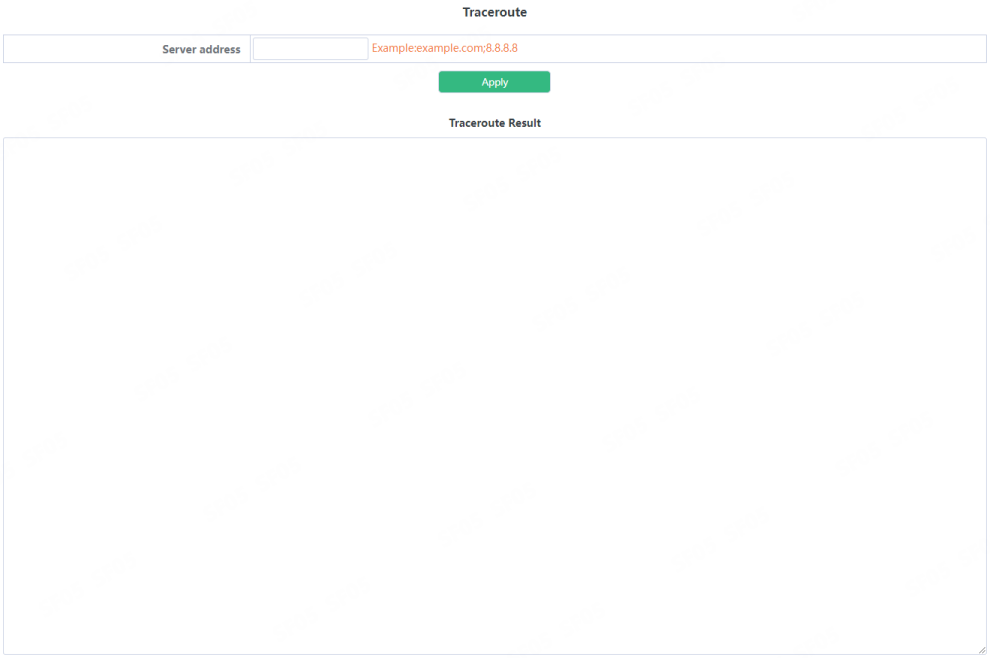
2.5. Ping

The user can run ping command.



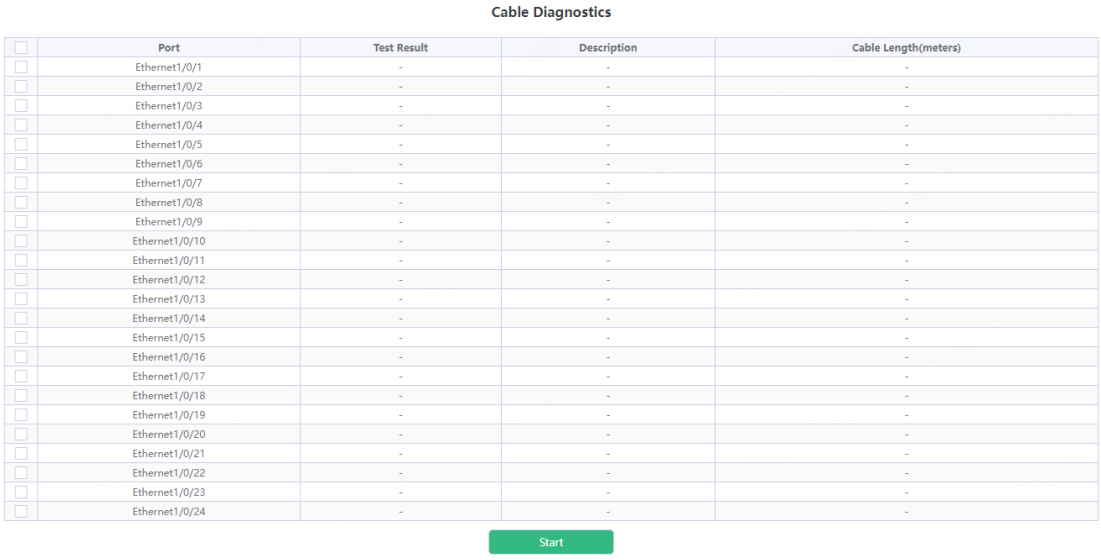
2.6. Traceroute

The user can run route tracking command.



2.7.Cable Diagnostics

This chapter can be used to detect port link lines.
To display the “Cable Diagnostics” page, click Monitor Management ->Cable Diagnostics, click "Apply" to configure.



Cable Diagnostics

	Port	Test Result	Description	Cable Length(meters)
	Ethernet1/0/1	Disconnect	Please check whether the network cable is connectedAbnormal	(1, 2) 1 (3, 6) 1 (4, 5) 2 (7, 8) 1
	Ethernet1/0/2	Normal	Normal(Correctly terminated pair)	(1, 2) 1 (3, 6) 1 (4, 5) 1 (7, 8) 1
	Ethernet1/0/3	Disconnect	Please check whether the network cable is connected(Open pair,no link partner)	(1, 2) 2 (3, 6) 2 (4, 5) 1 (7, 8) 2
	Ethernet1/0/4	Disconnect	Please check whether the network cable is connected(Open pair,no link partner)	(1, 2) 2 (3, 6) 2 (4, 5) 2 (7, 8) 1
	Ethernet1/0/5	Disconnect	Please check whether the network cable is connected(Open pair,no link partner)	(1, 2) 2 (3, 6) 2 (4, 5) 2 (7, 8) 1
	Ethernet1/0/6	Disconnect	Please check whether the network cable is connected(Open pair,no link partner)	(1, 2) 2 (3, 6) 2 (4, 5) 2 (7, 8) 1
	Ethernet1/0/7	Disconnect	Please check whether the network cable is connected(Open pair,no link partner)	(1, 2) 1 (3, 6) 1 (4, 5) 2 (7, 8) 2
	Ethernet1/0/8	Disconnect	Please check whether the network cable is connected(Open pair,no link partner)	(1, 2) 2 (3, 6) 1 (4, 5) 2 (7, 8) 2

2.8. SNMP Config

2.8.1. Global Config

SNMP network management function switch module, users can enable or disable SNMP functions. SNMP Agent State and Trap state default is disable. Security IP state

SNMP Management

Agent State	Disabled
RMON	Disabled
Trap	Disabled
Security IP	Disabled

Save

2.8.2. User Config

SNMP user management module, users can add or delete SNMP user operations in this module.

Users

Username	(1-32 characters)
Group Name	(1-32 characters)
Security Level	noAuthNoPriv
IPv4 Access Control List	(1-64 characters)
IPv6 Access Control List	(1-64 characters)

Apply

User Configuration Status Table

Showing 10 Entries Showing 0 to 0 of 0 entries Search

	Username	Group Name	Security Level	Authentication Protocol	Privacy Protocol	IPv4 Access Control List	IPv6 Access Control List
	0 results found.						

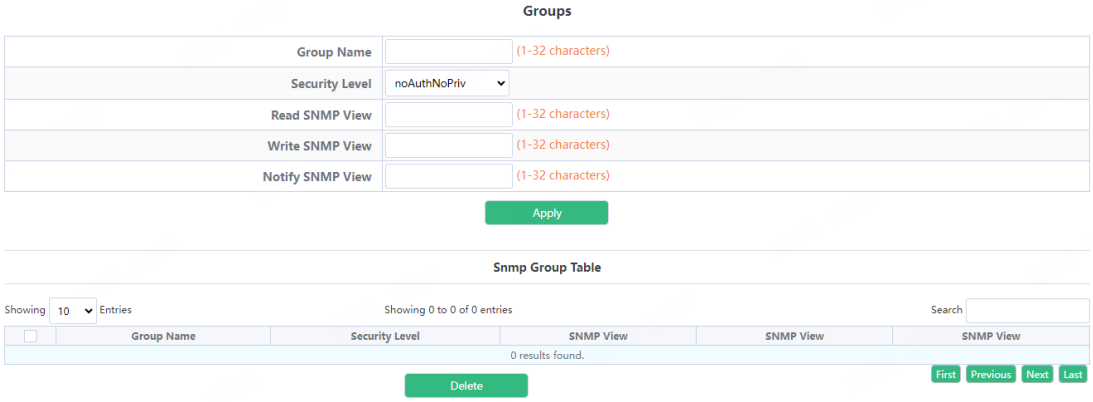
First Previous Next Last

Delete

Username	User name to operate ,1-32 characters	
Group Name	User group to join ,1-32 characters	
Security Level	noAuthNoPriv	Uncertified non-encrypted level
	authNoPriv	Authentication but not encryption level
	authpriv	Authentication and encryption level
Authentication protocol:	MD5	HMAC MD5 algorithm for authentication
	SHA	Authentication uses HMAC SHA algorithms
Authentication password:	Password for authentication	
Privacy protocol:	DES	Encryption DES algorithm
	AES	Encryption AES algorithm
	3DES	Encryption with 3 DES algorithm
Privacy password:	Password for encryption	
IPv4 access control list	Standard IPv4 access control list number, range 1-64 characters	
IPv6 access control list	Standard IPv6 access control list number, range 1-64 characters	

2.8.3.Group Config

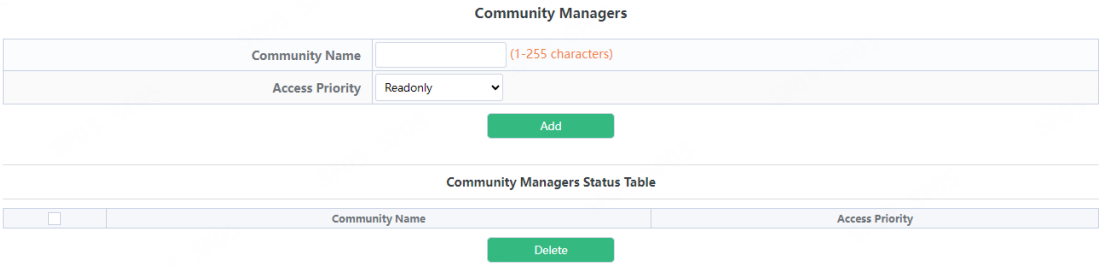
SNMP group management module in which users can add or delete SNMP group operations.



Group Name	User group name to operate ,1-32 characters	
Security level	noAuthNoPriv	Uncertified non-encrypted level
	authNoPriv	Authentication but not encryption level
	authpriv	Authentication and encryption level
Read SNMP view	Name of readable view, including 1-32 characters	
Write SNMP view	Name of writable view, including 1-32 characters	
Notify SNMP view	Notice the name of the view, including 1-32 characters	
Operation	Apply	Add SNMP groups
	Delete	Delete SNMP groups

2.8.4. Community Config

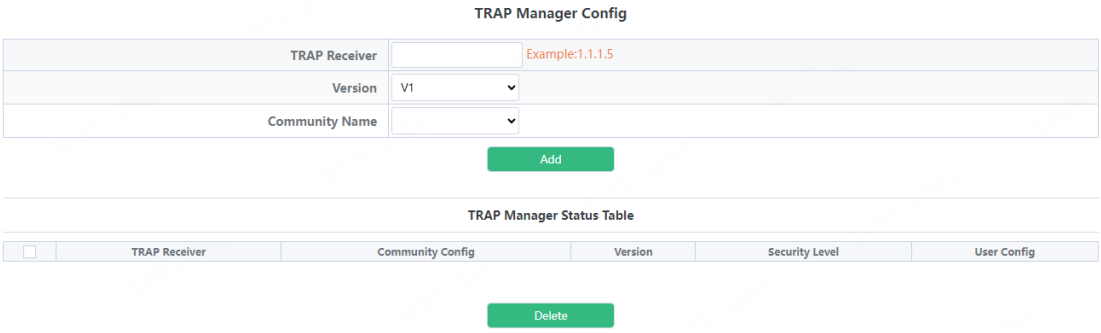
The community management module where users can configure SNMP community management.



Community Name	Community string name ,1-255 characters	
Access Priority	Read only	Read-only permission level
	Read-write	Read and write permission level
Operation	Add	Do Community string add operations
	Delete	Do Community string delete operations

2.8.5. Trap Config

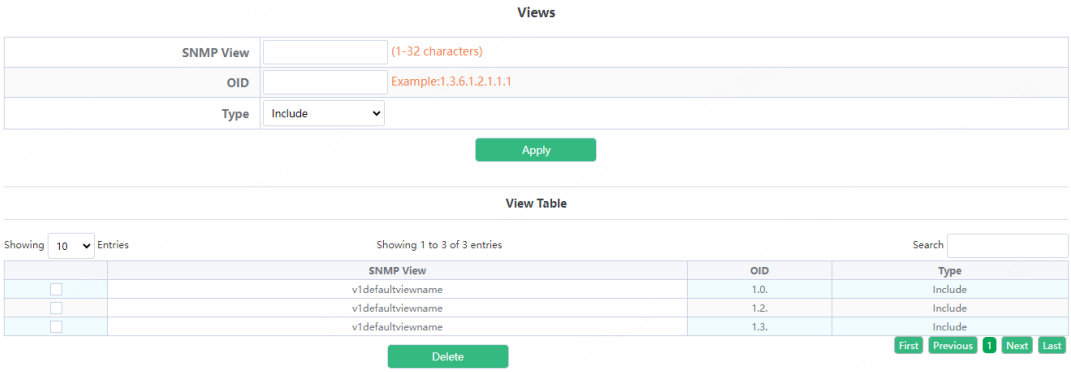
The trap config where users can configure trap management settings.



Trap Receiver	Recipient IPv4/IPv6 address of Trap information	
Community Name	Community string name, V1/V2 version :1-255 characters, V3 version :1-24 characters	
Version	Three versions:V1/V2C/V3	
Security level (V3 version support only)	noAuthNoPriv	Uncertified non-encrypted level
	authNoPriv	Authentication but not encryption level
	authpriv	Authentication and encryption level
Operation	Add	For Trap information receiver add operation
	Delete	For Trap information receiver remove operation

2.8.6. View Config

SNMP view management module in which users can add or delete SNMP view operations.



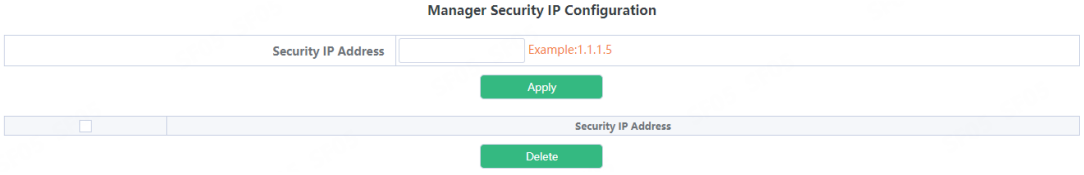
SNMP view	User view name to operate, 1-32 characters	
OID	OID number to operate, decimal	
Type:	Include	Include this OID
	Exclude	Exclude this OID
Operation	Apply	Add view
	Delete	Delete View

SNMP Engineid configuration module, the user can configure SNMP Engineid operation in this module.

Engineid	Engine id, Hex ,1-32 characters	
Operation	configuration	Configuration operations
	Default	Restore default (default is company ID plus local MAC address)

2.8.7. Security IP Config

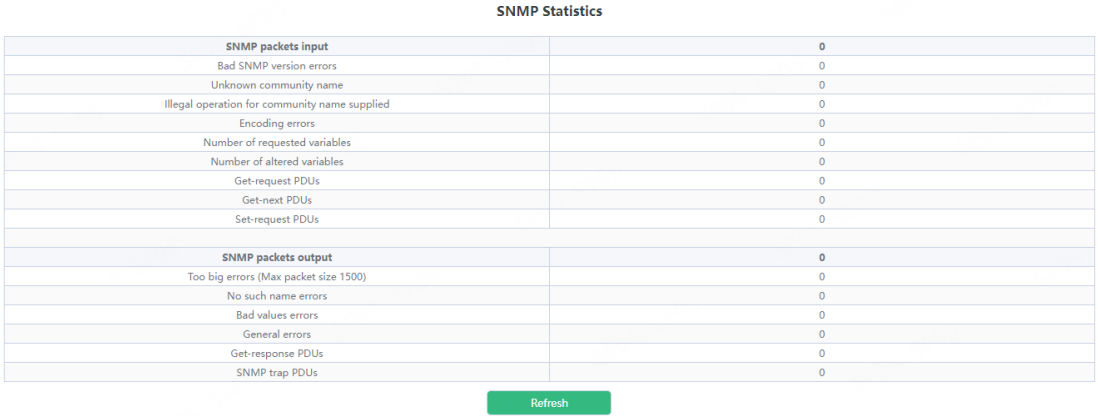
The administrator IP the address setting module, where the user can add or delete the SNMP manager's safe IP address.



Security IP address	SNMP Management Security IPv4/IPv6 Address	
Operation	Apply	Add a Security IP
	Delete	Delete a Security IP

2.8.8. SNMP Statistics

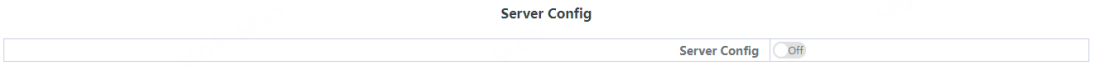
SNMP statistical information module, users in this module can view the SNMP function feedback information.



2.9. Onvif Config

2.9.1. Server Config

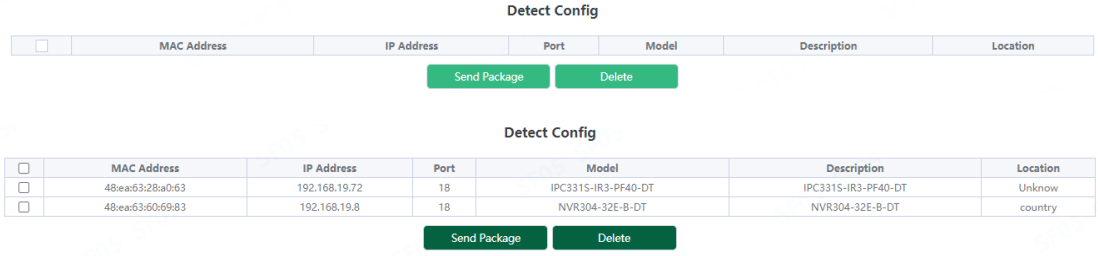
Onvif server global switch configuration module, user can Onvif server global switch operation.



Server config Operation	Off: Close operation(default)
	On: Start

2.9.2. Detect Config

Onvif detect config module, Click the **Send** button to send an Onvif detection packet to discover the device.

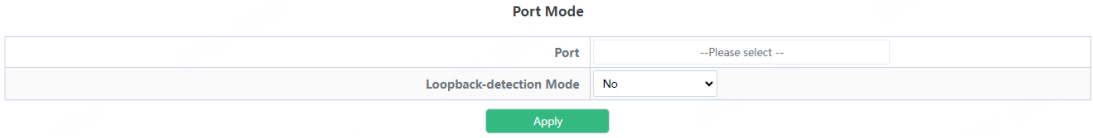


2.10.Loopback Detection

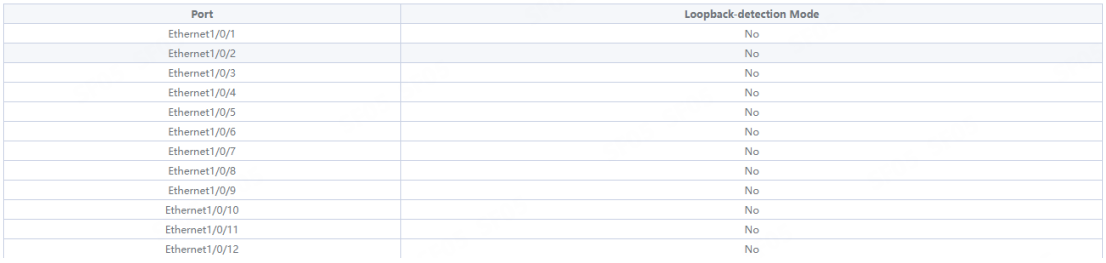
2.10.1.Port Mode

The configuration of the page is used to set the loop detection control method.

To display the “Port Mode” page, click Monitor Management ->Loopback Detection->Port Mode, click "Apply" to configure.



Port	Ethernet port name
Loopback-detection mode	Operation in case of loop: No: no control mode Shutdown: Disable port block : Block port
Operation	Operation of loop detection function: Apply: Configure control mode



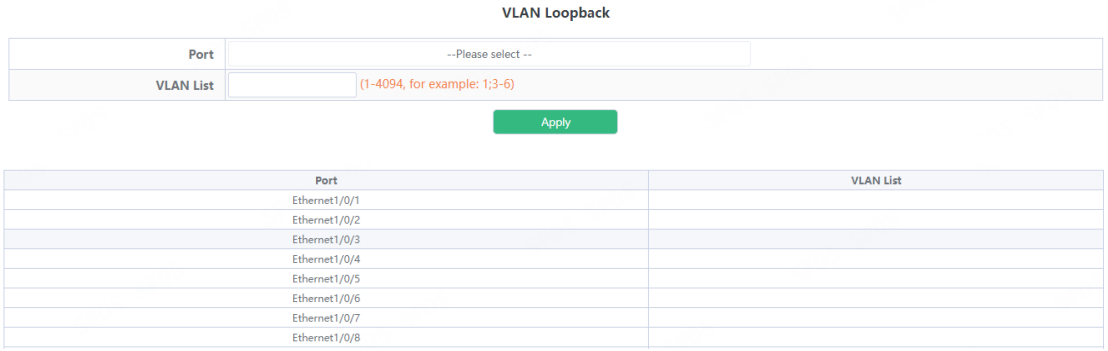
Port	Loopback-detection Mode
Ethernet1/0/1	No
Ethernet1/0/2	No
Ethernet1/0/3	No
Ethernet1/0/4	No
Ethernet1/0/5	No
Ethernet1/0/6	No
Ethernet1/0/7	No
Ethernet1/0/8	No
Ethernet1/0/9	No
Ethernet1/0/10	No
Ethernet1/0/11	No
Ethernet1/0/12	No

Port	Ethernet port name
Loopback-detection mode	Shutdown: Disable port block : Block port No:Disable port loop detection

2.10.2. VLAN Loopback

This page can be used to configure VLAN loop detection function enabled or disabled.

To display the "VLAN Loopback" page, click Monitor Management ->Loopback Detection->VLAN Loopback, click "Apply" to configure.

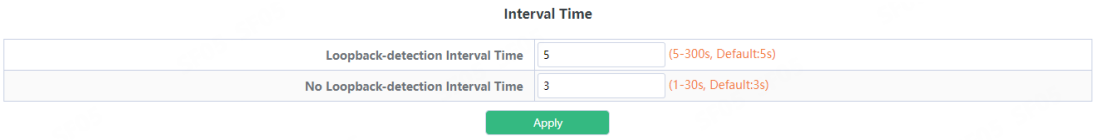


Port	Ethernet port name
VLAN ID	VLAN ID, range 1-4094
Operation	Apply: Set VLAN loop detection

2.10.3. Interval Time

This page can be used to configure the loop detection interval.

To display the "Interval Time" page, click Monitor Management ->Loopback Detection-> Interval Time, click "Apply" to configure.

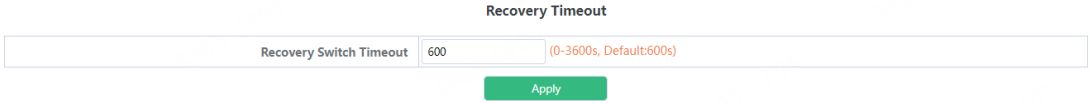


Loopback-detection interval time	Interval time between loops, size 5-300 seconds, default is 5.
No Loopback-detection interval time	No loop interval, size 1-30 seconds, default is 3.
Operation	Configuration: Set the test time by yourself. Default: Restore the default configuration, there is a loop detection interval of 35 seconds, there is no loop detection interval of 15 seconds.

2.10.4.Recovery Timeout

This page is used to configure loop detection to automatically return to an uncontrolled state.

To display the “Recovery Timeout” page, click Monitor Management ->Loopback Detection-> Recovery Timeout, click "Apply" to configure.

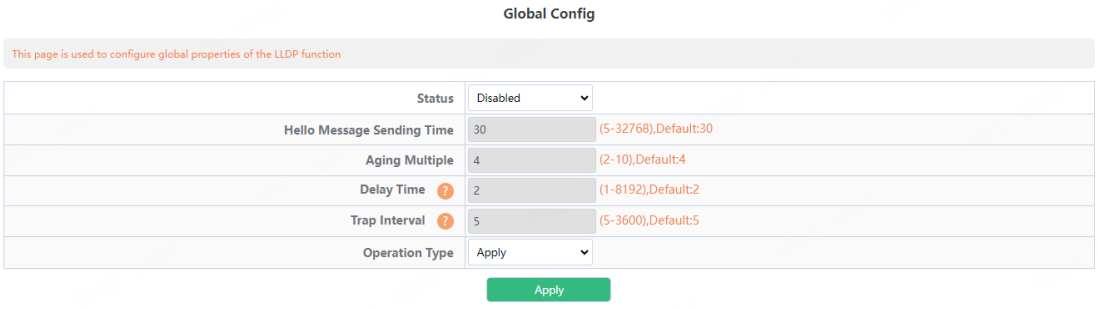


Recovery switch timeout	When a port is disabled or blocked due to a loop, it automatically recovers to an uncontrolled time, the size range is 0-3600 seconds. When it is configured as 0, the auto recovery function is disabled. Default is 600

2.11.LLDP Config

2.11.1.Global Config

This page can be configured to enable or disable LLDP functionality, configure the interval between sending updates, configure the value of the message aging time multiplier, configure the sending delay time of the update message, configure the interval between sending Trap messages.



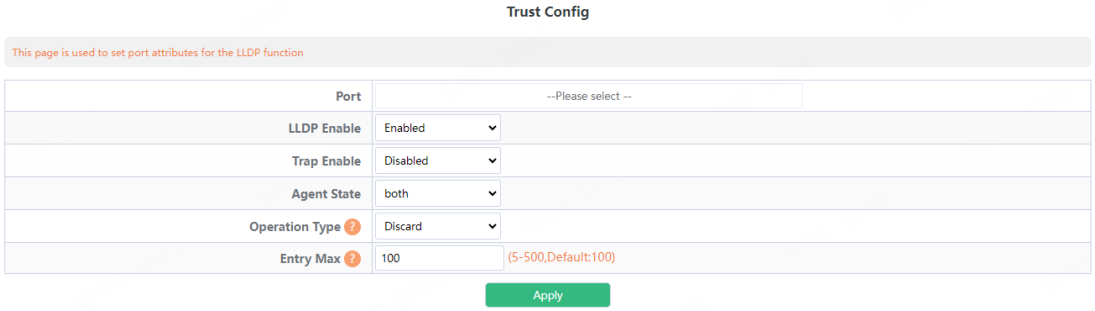
Status(lldp enable)	Enable：Global On LLDP Function Disable：Global Off LLDP Function

Hello Message Sending Time	Update message sending interval between 5-32768 seconds. the default configuration is 30 seconds.

Aging Multiple	Numerical magnitude between 2-10, the default configuration is 4
Delay Time	Value between 1-8192 seconds, the default configuration is 2
Trap Interval	Value between 5 and 3600 seconds, the default configuration is 5
Operation Type	Apply: User self-configuration Default: Restore default configuration

2.11.2.Port Config

This page can be configured to enable or disable LLDP Port functionality.

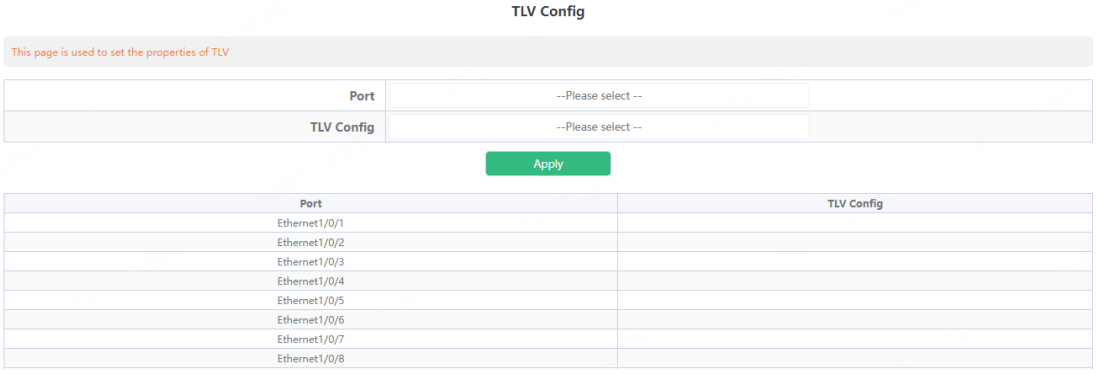


Port	Ethernet port name
LLDP port Enable type	Enable or disable LLDP functions
LLDP port Trap enable type	Enable or disable Trap functions
LLDP mode	Agent State: Send; Receive; Both; Disable;
LLDP too mangy neighbors value	Discard: Discard new neighbor information Delete: Delete the neighbor information with the least aging time in the remore table, and then add new neighbor information
LLDP neighbors max-num value	Remote table maximum save entry size 5-500

Port	LLDP Enable	Trap Enable	Agent State	Operation Type	Entry Max
Ethernet1/0/1	Enabled	Enabled	Both	Discard	100
Ethernet1/0/2	Enabled	Disabled	Both	Discard	100
Ethernet1/0/3	Enabled	Disabled	Both	Discard	100
Ethernet1/0/4	Enabled	Disabled	Both	Discard	100
Ethernet1/0/5	Enabled	Disabled	Both	Discard	100
Ethernet1/0/6	Enabled	Disabled	Both	Discard	100
Ethernet1/0/7	Enabled	Disabled	Both	Discard	100
Ethernet1/0/8	Enabled	Disabled	Both	Discard	100
Ethernet1/0/9	Enabled	Disabled	Both	Discard	100
Ethernet1/0/10	Enabled	Disabled	Both	Discard	100
Ethernet1/0/11	Enabled	Disabled	Both	Discard	100
Ethernet1/0/12	Enabled	Disabled	Both	Discard	100
Ethernet1/0/13	Enabled	Disabled	Both	Discard	100
Ethernet1/0/14	Enabled	Disabled	Both	Discard	100
Ethernet1/0/15	Enabled	Disabled	Both	Discard	100
Ethernet1/0/16	Enabled	Disabled	Both	Discard	100
Ethernet1/0/17	Enabled	Disabled	Both	Discard	100
Ethernet1/0/18	Enabled	Disabled	Both	Discard	100

2.11.3.TLV Config

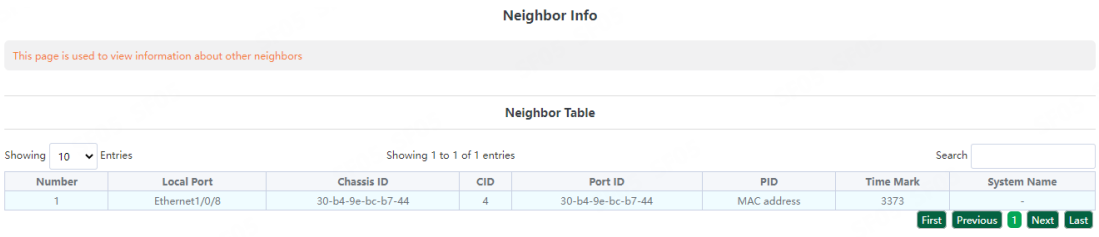
This page can configure port TLV properties.



Port	Ethernet port name
LLDP Port Description	Port description name information needs to be configured
LLDP System Capability	Information describing system capabilities
LLDP System Description	Message describing the system
LLDP System Name	System name information

2.11.4.Neighbor Info

This page can be used to view LLDP configuration messages.



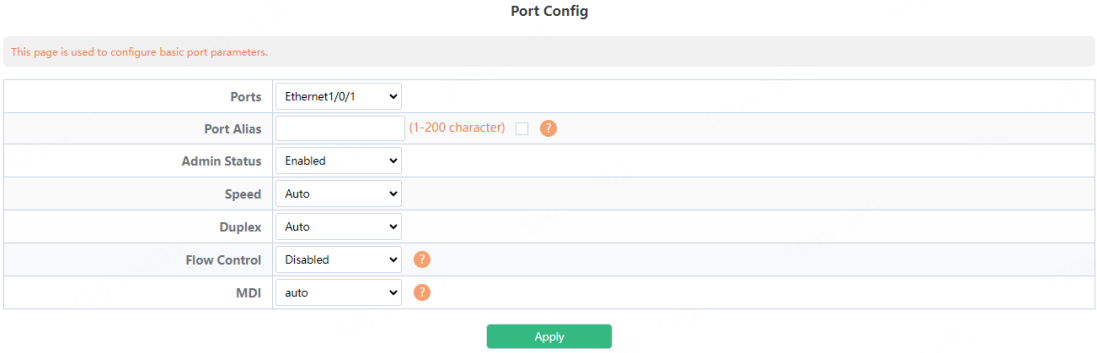
3. Switch Config

3.1. Port Config

3.1.1. Port Config

This page is mainly used to configure the basic of physical ports.

To display the "Port Config" page, click Switch Config->Port Config->Port Config, click "Apply" to configure.



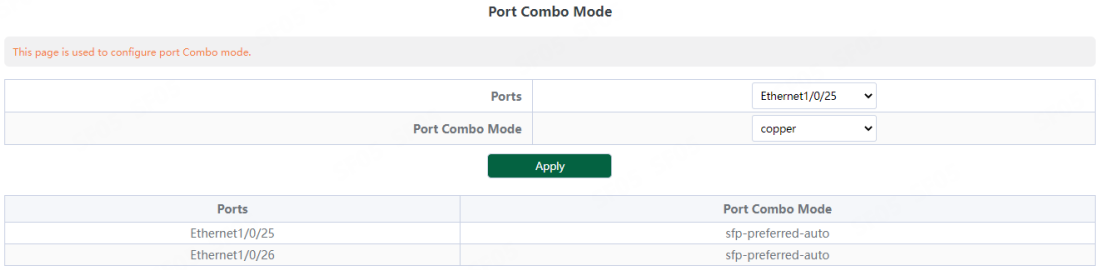
Ports	Select physical ports
Port Alias	Set port alias name, value 1-200
Admin status	Port status: Enabled Disabled
Speed	Port Speed: Auto, 10M, 100M, 1000M
Duplex	Port Duplex: Auto, Half, Full
Flow Control	Port Flow Control: Disabled, Enabled
Mdi	Mdi: auto, across, normal, default is auto.

Port	Port Alias	Admin Status	Speed/Duplex		Flow Control	MDI
			Config	Actual		
Ethernet1/0/1		Enabled	Auto/Auto	Link Down	Disabled	auto
Ethernet1/0/2		Enabled	Auto/Auto	Link Down	Disabled	auto
Ethernet1/0/3		Enabled	Auto/Auto	1000M/Full	Disabled	auto
Ethernet1/0/4		Enabled	Auto/Auto	Link Down	Disabled	auto
Ethernet1/0/5		Enabled	Auto/Auto	Link Down	Disabled	auto
Ethernet1/0/6		Enabled	Auto/Auto	Link Down	Disabled	auto
Ethernet1/0/7		Enabled	Auto/Auto	Link Down	Disabled	auto
Ethernet1/0/8		Enabled	Auto/Auto	1000M/Full	Disabled	auto
Ethernet1/0/9		Enabled	Auto/Auto	Link Down	Disabled	auto
Ethernet1/0/10		Enabled	Auto/Auto	Link Down	Disabled	auto
Ethernet1/0/11		Enabled	Auto/Auto	Link Down	Disabled	auto
Ethernet1/0/12		Enabled	Auto/Auto	Link Down	Disabled	auto
Ethernet1/0/13		Enabled	Auto/Auto	Link Down	Disabled	auto
Ethernet1/0/14		Enabled	Auto/Auto	Link Down	Disabled	auto
Ethernet1/0/15		Enabled	Auto/Auto	Link Down	Disabled	auto
Ethernet1/0/16		Enabled	Auto/Auto	Link Down	Disabled	auto

Port	physical ports
Port Alias	Port alias description
Admin status	Port status: Enabled Disabled
Speed	Port rate: 10: 10M 100: 100M 1000: 1000M Auto: Automatic negotiation rate
Duplex	Duplex: Auto: Automatic negotiation mode Half: Half duplex mode Full: Full duplex mode
Flow control	Port Flow Control Status:
Mdi	Mdi: auto, across, normal, default is auto.

3.1.2. Port Combo Mode(Specific)

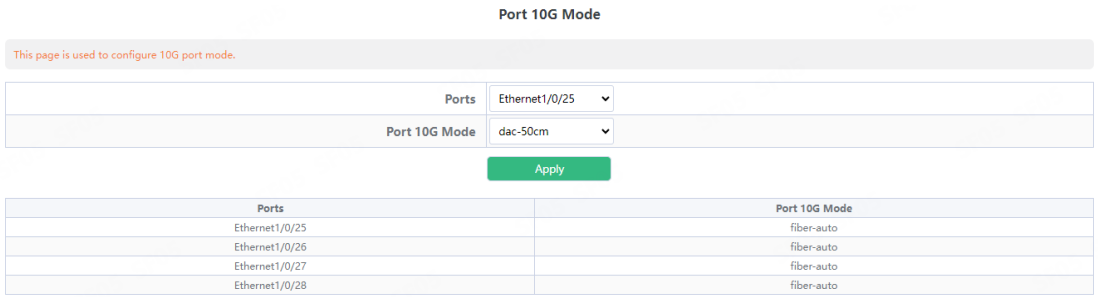
This page is mainly used to configure the basic of combo ports.



Port	Select physical ports
Port Combo Mode	copper: select copper fiber: select fiber sfp-preferred-auto: auto mode

3.1.3. Port 10G Mode(Specific)

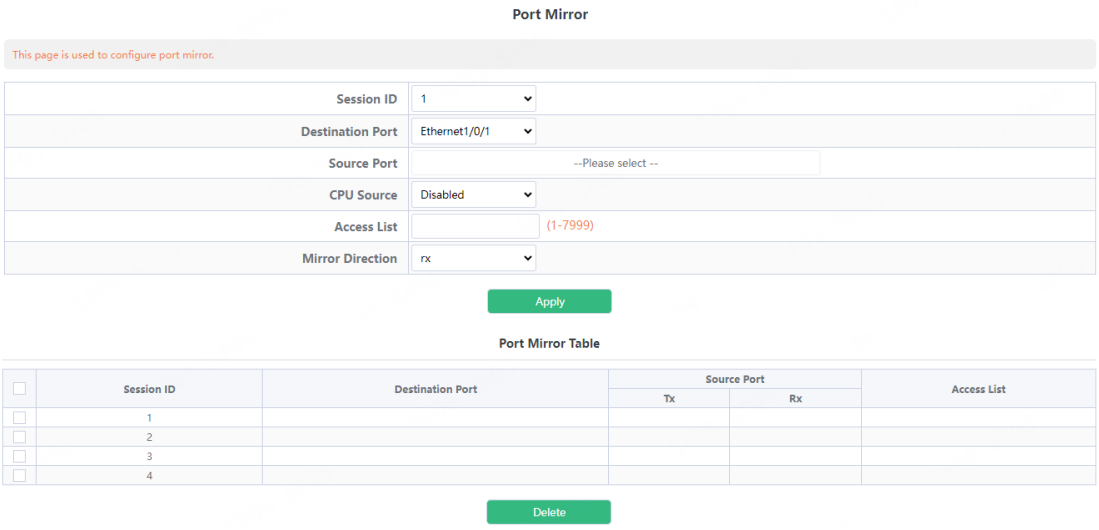
This page is mainly used to configure the basic of 10G ports.



Port	Select physical ports
Port 10G Mode	dac-50cm: DAC 50cm dac-100cm: DAC 100cm dac-300cm: DAC 300cm dac-500cm: DAC 500cm fiber-10g: Fiber forced 10G fiber-1g: Fiber forced 1G fiber-2500M: Fiber forced 2500M fiber-auto: Fiber Auto mode

3.2. Port Mirror

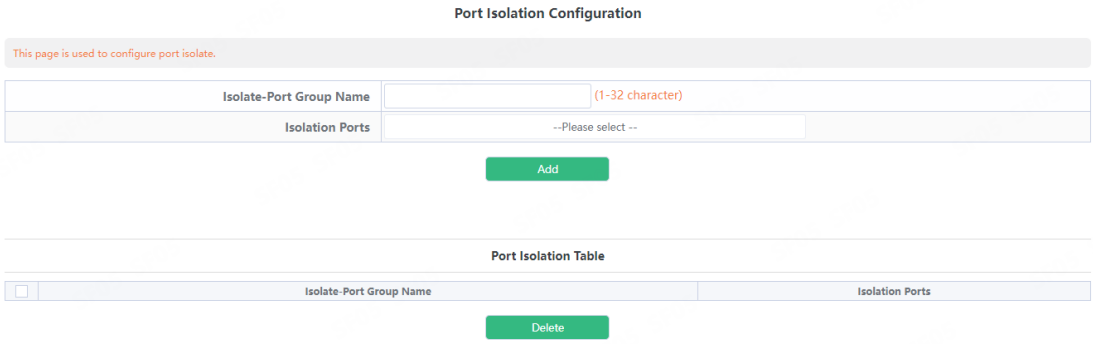
This section can be used for port mirroring function configuration. To display the "Port Mirror" page, click Switch Config ->Port Mirror, click "Apply" to configure.



Session	Mirror Session
Destination port	Mirror destination port
Source port	Mirror Source Port
CPU Source	CPU Source: Disabled Enabled
Access list	The access control list set for the mirror source port
Mirror direction	What kind of data is needed to filter to the destination port: Both: Sending and receiving Rx: receive Tx: send

3.3. Port Isolate

This page is mainly used to configure the port isolation.



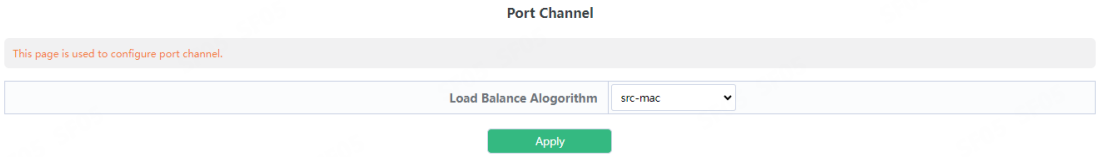
Isolate-Port Group Name	The name of isolate-port Group, value 1-32 character
Isolation Ports	Select isolation ports to add isolate group

3.4. Port Channel

3.4.1. Port Channel Group

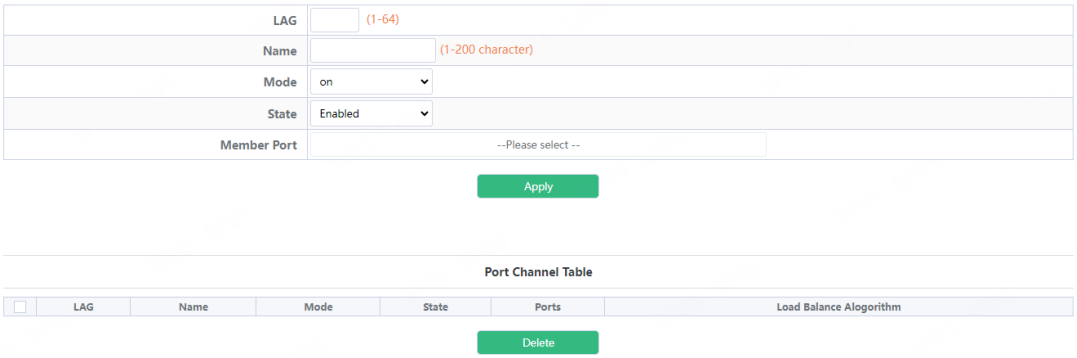
This section can be used to create convergent groups.

To display the "Port Channel Group" page, click Port channel -> Port Channel Group, click "Apply" to configure.



Load balance mode	**src-mac:** Execute load balancing according to source MAC **dst-mac:** Execute load balancing according to target MAC **src-dst-mac :** Execute load balancing based on source and target MAC **src-ip:** Execute load balancing according to source IP **dst-ip:** Execute load balancing

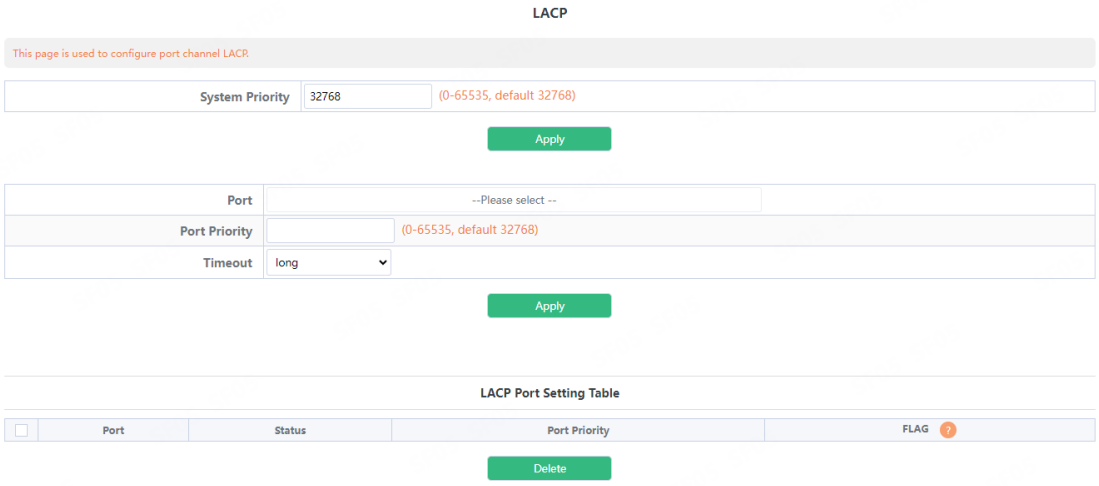
	according to target IP **dst-src-ip** ： Execute load balancing according to target IP source **dst-src-mac-ip** ： Perform load balancing based on target and source Mac and source IP **ingress-port** ： ingress port.



LAG	To create a convergent group number, value 1-8.
Name	The name of LAG group, value 1-32 character
mode	On：force port to join port channel without LACP. enabled Active：Enable the LACP on the port and set it to Active mode; Passive：Enable LACP on the port and set it to passive mode
State	Enabled Disabled
Member Port	Ethernet port name

3.4.2. LACP

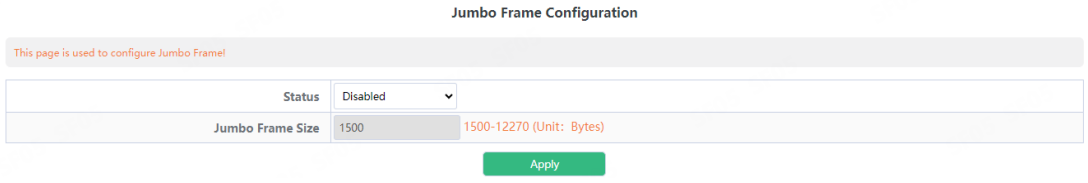
This page is available with setting system priority and port priority. To display the "LACP" page, click Switch Config -> Port channel->LACP,



LACP system priority	Range :0-65535
Port list	Ethernet port name added to convergence group
LACP port priority	Range :0-65535
Timeout	long short

3.5. Jumbo Frame

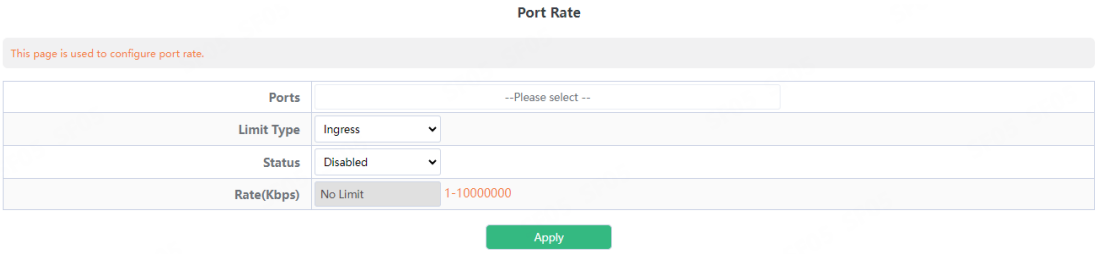
This page is used to configure Jumbo Frame.



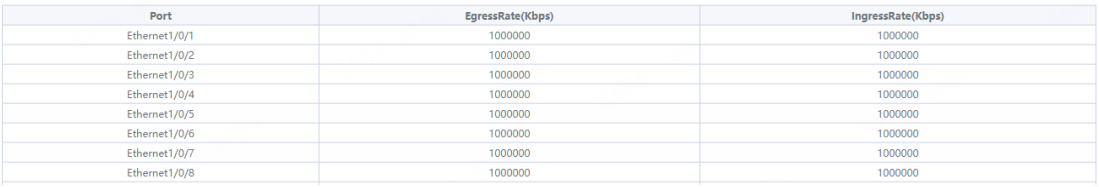
Status	Disabled(default) Enabled
Jumbo Frame Size(Unit: Bytes)	Size 1500-12270, default is 1500.

3.6. Port Rate

The page is configured for Port Rate.
To display the “Port Rate” page, click Switch Config -> Port Rate, click "Apply" to configure.



Ports	Ethernet port name
Limit Type	Limit type: Egress: send Ingress : receive All: send and receive
Status	Disabled Enabled
Rate	Bandwidth control rate in the range of Kbps 1-1000000

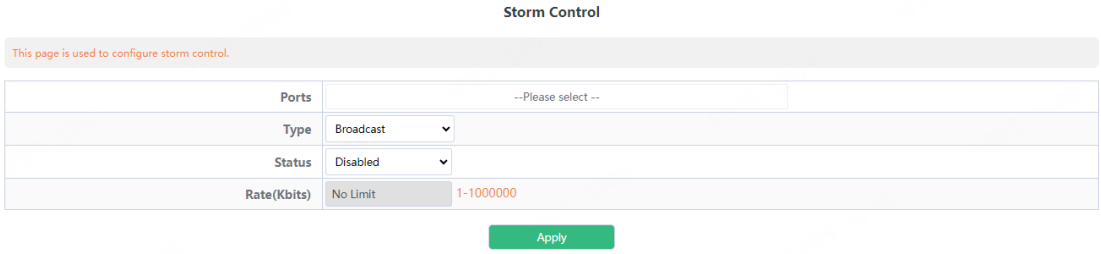


Port	EgressRate(Kbps)	IngressRate(Kbps)
Ethernet1/0/1	1000000	1000000
Ethernet1/0/2	1000000	1000000
Ethernet1/0/3	1000000	1000000
Ethernet1/0/4	1000000	1000000
Ethernet1/0/5	1000000	1000000
Ethernet1/0/6	1000000	1000000
Ethernet1/0/7	1000000	1000000
Ethernet1/0/8	1000000	1000000

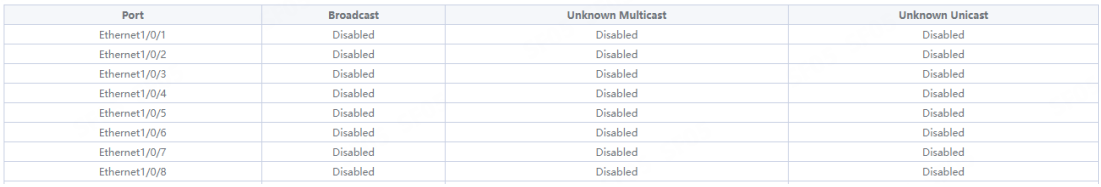
Port	Ethernet port name
Ingress bandwidth threshold(Kb)	Displays the current received data bandwidth limit in the range of Kbps 1-1000000
Engress bandwidth threshold(Kb)	Displays the bandwidth limit of the current sending data, ranging from 1-1000000kbps

3.7. Storm Control

This page can be configured for the storm control function of the port. To display the “Storm Control” page, click Switch Config -> Storm Control, click "Apply" to configure.



Port	Ethernet port name
Type	Broadcast/Multicast/Unicast
Status	Disabled: Disable Storm Control Enabled: Turn on the storm control function and configure the speed limit
Rate	storm control rate, ranging from 1-1000000 kbps or pps 1-1488095



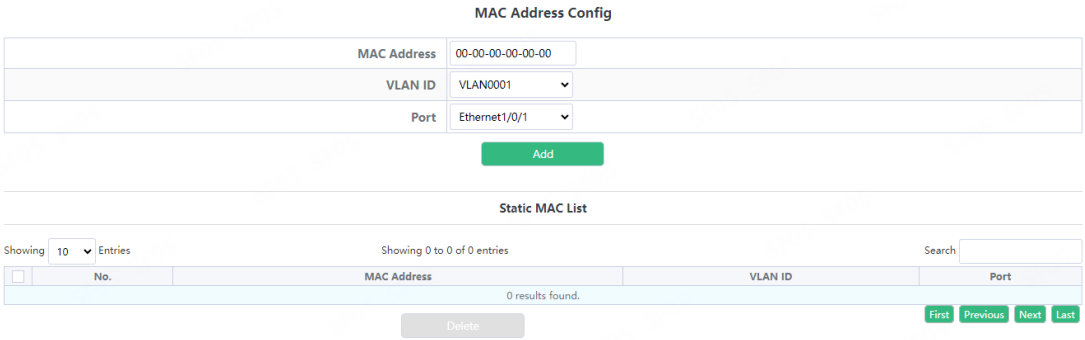
Port	Broadcast	Unknown Multicast	Unknown Unicast
Ethernet1/0/1	Disabled	Disabled	Disabled
Ethernet1/0/2	Disabled	Disabled	Disabled
Ethernet1/0/3	Disabled	Disabled	Disabled
Ethernet1/0/4	Disabled	Disabled	Disabled
Ethernet1/0/5	Disabled	Disabled	Disabled
Ethernet1/0/6	Disabled	Disabled	Disabled
Ethernet1/0/7	Disabled	Disabled	Disabled
Ethernet1/0/8	Disabled	Disabled	Disabled

Port	Ethernet port name
storm-control type	Broadcast/Multicast/Unicast

3.8.MAC Address Config

3.8.1.Static MAC

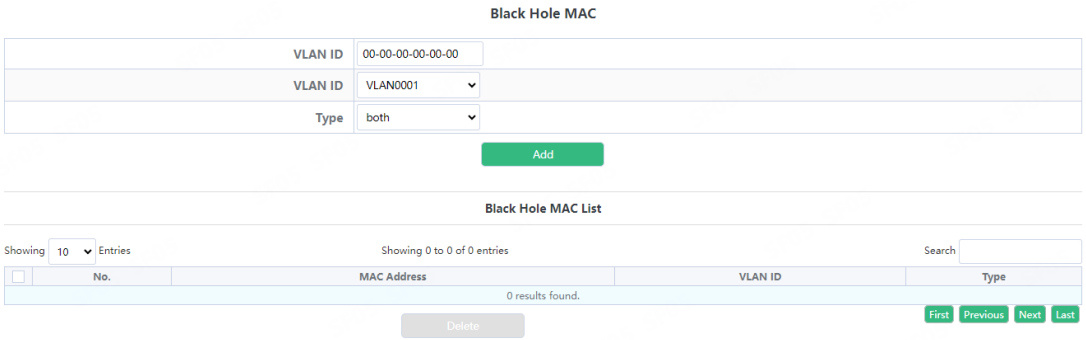
Configure Static MAC addresses, and establish the mapping relationship between MAC addresses and ports and VLANs.



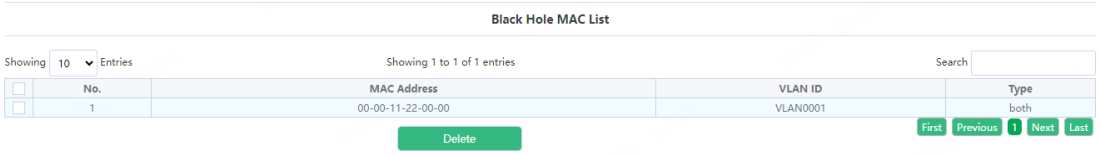
MAC address	Hexadecimal MAC address, the format is xx-xx-xx-xx-xx-xx	
VLAN ID	Created VLAN ID	
Port	Mapped port	
Operation	Add	The mapping relationship between MAC address and port and VLAN will be added
	Remove	Delete the mapping relationship of the specified MAC address, VLAN, and port

3.8.2.Black Hole MAC

Configure Blackhole MAC addresses, and establish the mapping relationship between MAC addresses and ports and VLANs.



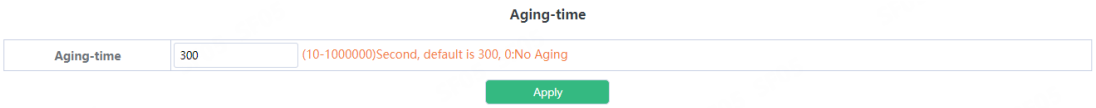
MAC address	Hexadecimal MAC address, the format is xx-xx-xx-xx-xx-xx, packets with this address will be discarded and will not be forwarded to the network by the switch	
VLAN ID	Created VLAN ID	
Blackhole based type	source	Source based on source address filter
	destination	Target based on target address filter
	both	Both are based on source address and destination address filters, the default value is both
Operation	Add	The mapping relationship between MAC address and port and VLAN will be added
	Delete	Delete the mapping relationship of the specified MAC address, VLAN, and port



Display current existing MAC address, port, VALN mapping relationship

3.8.3. Aging-time

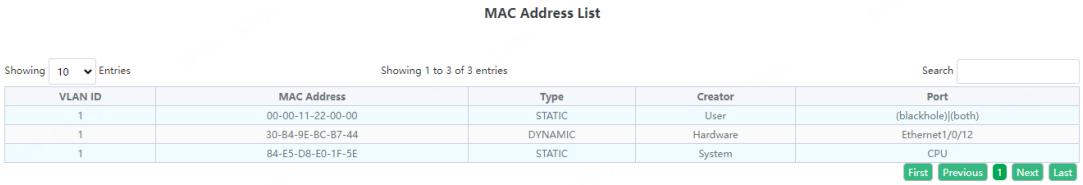
Each time the switch learns a MAC address, it will store the address and set the aging time. When the time is over, the address will be removed from the switch.



MAC address Aging-time	The aging time range is 10-1000000, 0 means no aging	
Operation	Apply	Set the aging time into the switch

3.8.4. MAC Address List

Quickly query the MAC address in the switch.

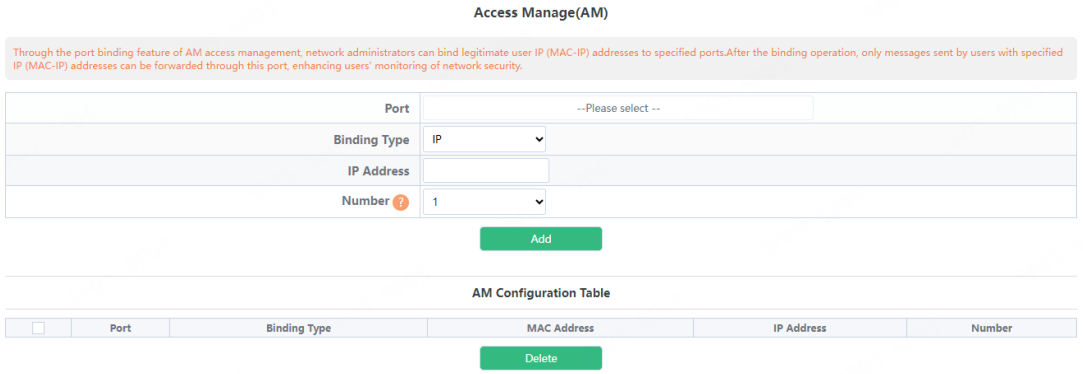


VLAN ID	The created VLAN ID, showing the address in the VLAN
MAC Address	Hexadecimal MAC address, the format is xx-xx-xx-xx-xx-xx
Type	MAC address type
Creator	MAC address creator
Port	Find the MAC address by port

Note: Check the small box at the back to make the condition take effect. By default, there is no condition. When there is no condition, all MAC address information will be displayed.

3.9. AM

AM module, the user can set up AM IP segment and MAC-IP segment on the specified port, allowing / rejecting messages from within the segment to be forwarded through the port.

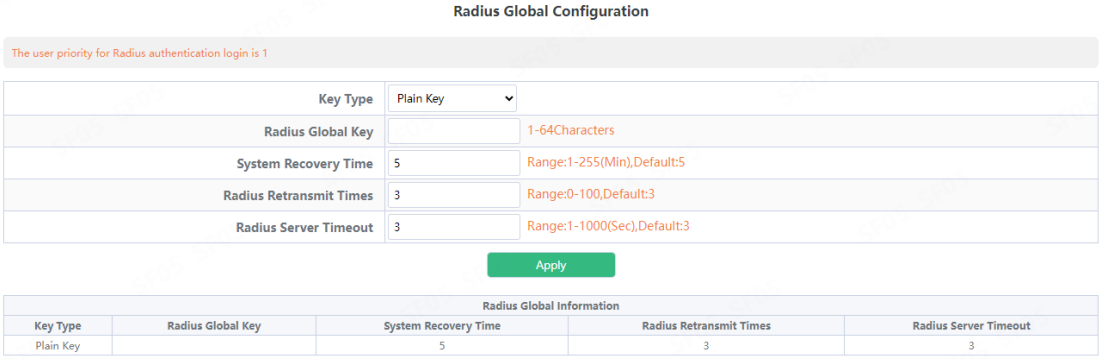


Port	Designated port number
Binding Type	Select IP or MAC-IP method
IP address	Beginning IP address, decimal point
Number	Number of consecutive addresses after starting IP address ,1-32
MAC address	Source MAC address

3.10.AAA

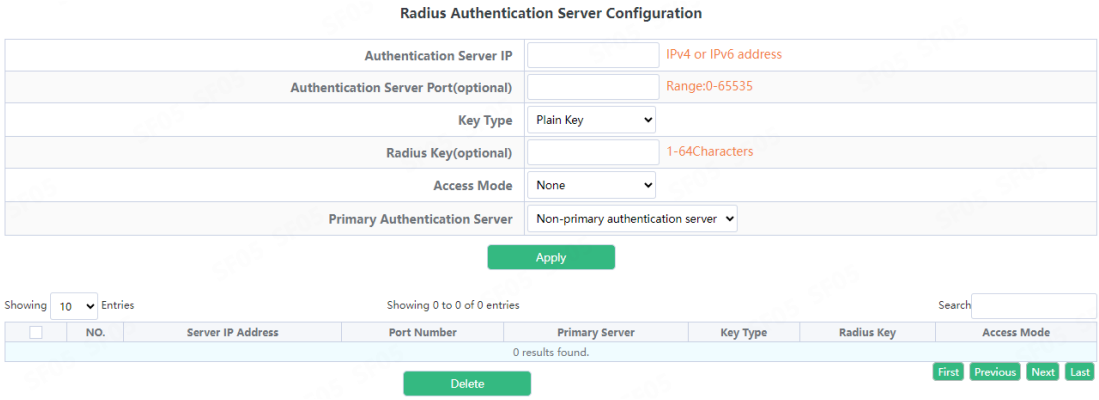
3.10.1.Radius

Radius Global Configuration module, users in this module can configure the global Radius function services.



Key Type	Plain Key: 1-64 character
	Cipher Key: 1-64 character, input plaintext application to encrypt ciphertext.
Radius Global Key	Key string ,1-64 characters, select Use default and click Apply can set Radius Key default.
System Recovery Time	Radius service recovery time from downtime to accessibility, 1-255 minutes, default is 5.
Radius Retransmit Times	Radius authentication packet retransmission time, 1-100 seconds, default is 3.
Radius Server Timeout	The corresponding time of the radius server, 1-1000 seconds, default is 3.

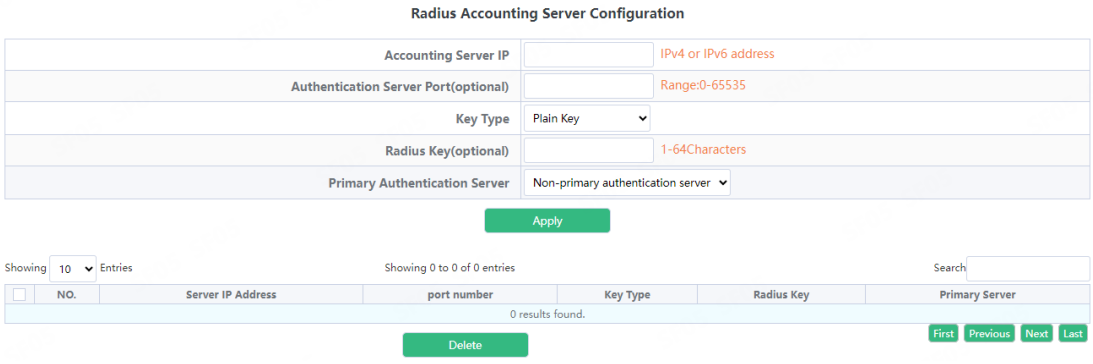
Radius Authentication Configuration module, users in this module can configure the Radius authentication server.



Authentication Server IP	The address of IPv4 or IPv6 of the radius authentication server	
Authentication Server port	Port number of radius authentication server(optional),0-65535	
Key Type	Plain Key: 1-64 character	
	Cipher Key: 1-64 character, input plaintext application to encrypt ciphertext.	
Radius Key	Key string ,1-64 characters	
Access Mode	None: All services can use current RADIUS server by default	
	Telnet: RADIUS server only use telnet authentication	
	Dot1x: RADIUS server only use 802.1x authentication	
	Wireless: RADIUS server only use wireless authentication	
Primary Authentication Server	Primary authentication server	Specify radius server as primary authentication server
	Non-Primary authentication server	Specify radius server as non-primary authentication server

3.10.2.Radius Accounting

Radius authentication and accounting module, users in this module can configure the Radius billing server.

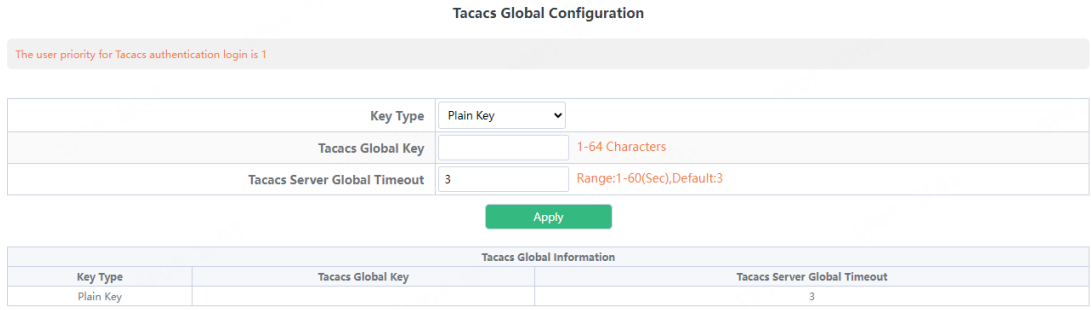


Accounting Server IP	Radius authentication server IPv4 or IPv6 address
Accounting Server Port	Radius authentication server port number (optional),0-65535
Key Type	Plain Key: 1-64 character
	Cipher Key: 1-64 character, input plaintext application to encrypt ciphertext.
Radius Key	Key string ,1-64 characters

Primary Accounting Server	Primary accounting server	Specify radius server as primary accounting server
	Non-Primary accounting server	Specify radius server as non-primary accounting server

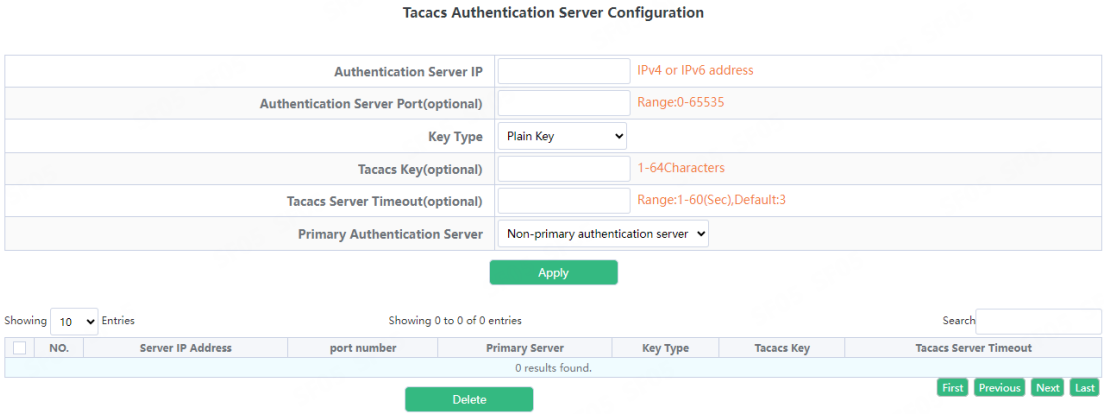
3.10.3. Tacacs

Tacacs global configuration module, users in this module can configure the global Tacacs function services.



Key Type	Plain Key: 1-64 character
	Cipher Key: 1-64 character, input plaintext application to encrypt ciphertext.
Tacacs Global Key	Tacacs authentication global key ,1-64 characters
Tacacs Server Global Timeout	Tacacs authentication timeout ,1-60 seconds, default 3 seconds

Tacacs server configuration module, users in this module can configure the Tacacs authentication server.



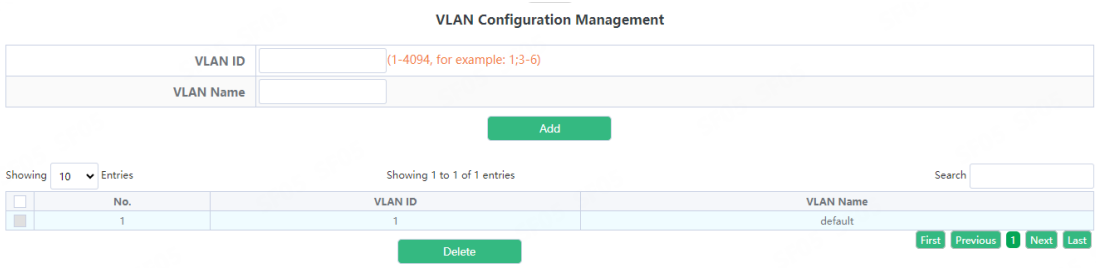
Authentication Server IP	Tacacs authentication server IPv4 address, decimal point	
Authentication Server Port	Tacacs authentication server port number (optional),0-65535	
Key Type	Plain Key: 1-64 character	
	Cipher Key: 1-64 character, input plaintext application to encrypt ciphertext.	
Tacacs Key	Configure tacacs+ server encryption key 1-64 Characters	
Tacacs Server Timeout	Configure the tacacs+ server authentication time Interval <1-60> second Deafult is 3.	
Primary Authentication Server	Primary accounting server	Specify Tacacs server as primary accounting server
	Non-Primary accounting server	Specify Tacacs server as non-primary accounting server

4. VLAN Config

4.1. VLAN Config

4.1.1. VLAN ID

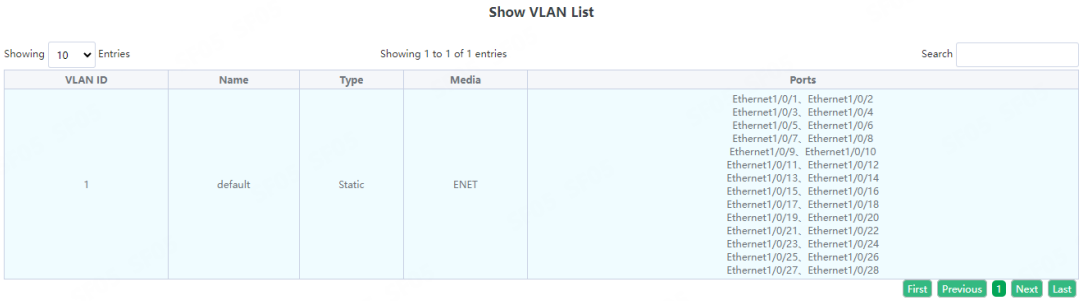
VLAN configuration function module, users add or delete VLANs in this module。



VLAN ID	The serial number of the VLAN, range: 2-4094	
VLAN name	By default, the default is VLAN plus four-digit serial number, range: 1-64 characters.	
Operation	Add	Add VLAN
	Delete	Remove VLAN

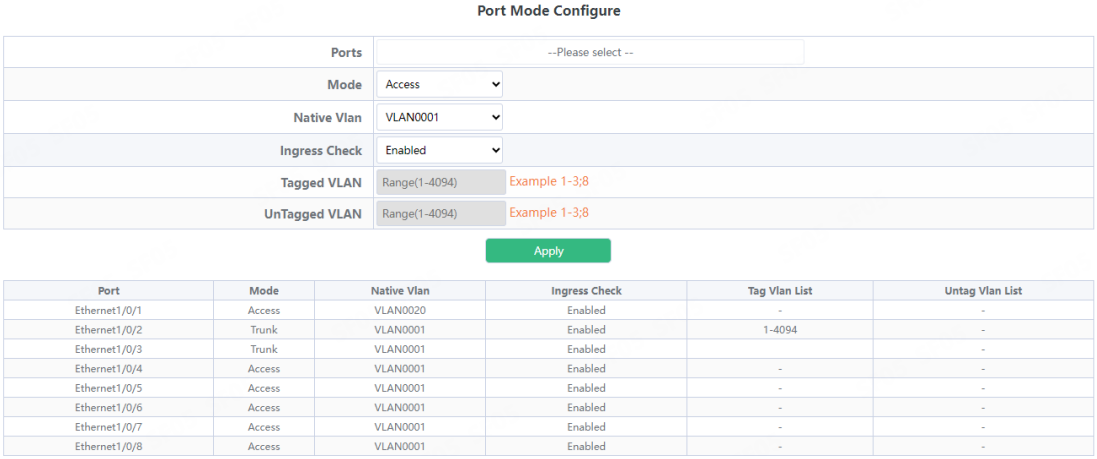
4.1.2. Show VLAN

Show VLAN function module, display VLANs in this module。



4.1.3. Port Config

Switch port type setting, the user can change the switch port type in this module.

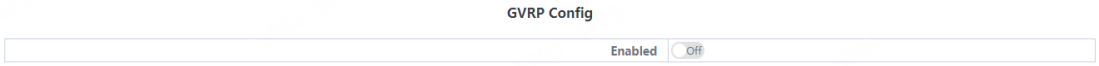


Port	Port name	
Mode	Access	
	Trunk	
	Hybrid	
Native Vlan	Port PVID	
Ingress Check	Enabled	When a data packet enters the switch, the VLAN ingress filter checks whether the ingress port of the data packet belongs to the given (forwarded) VLAN
	Disabled	When a data packet enters the switch, the VLAN ingress filter does not check whether the ingress port of the data packet belongs to the given (forwarded) VLAN
Tagged VLAN	Tag VLAN range 1-4094,example 1-3;8	
UnTagged VLAN	Untag VLAN range 1-4094,example 1-3;8	

4.2.GVRP Config

4.2.1.GVRP Config

The switch starts the global GVRP setting, and the user turns on or off the global GVRP.



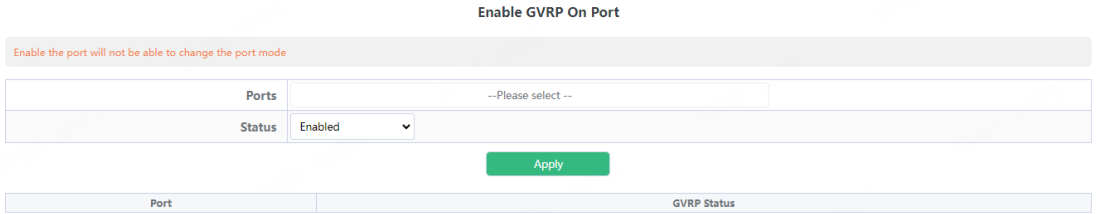
Enable/Disable global GVRP	Enable	Start the global GVRP module function
	Disable	Disable the global GVRP module function

The switch configures GARP parameters, and the user sets the value of various timers to manage GARP.

Join timer	200-500ms	
Leave timer	500-1200ms	
Leaveall timer	500-60000ms	
Operation	Apply	Modify the value of the timer

4.2.2.GVRP Port

The switch port starts GVRP settings, and the user opens or closes the port GVRP.

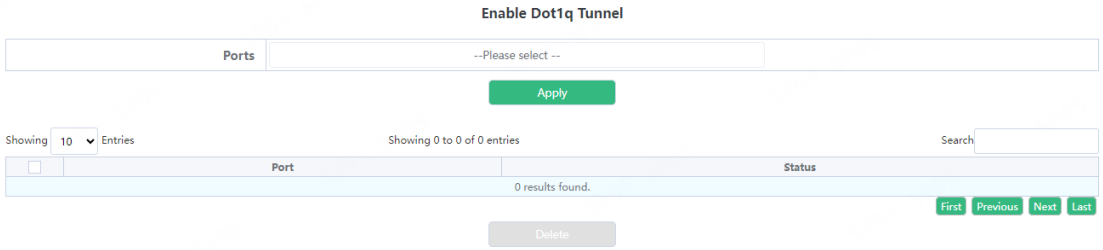


Port	Port name	
Enable/Disable GVRP	Enable	Start the port GVRP module function
	Disable	Disable the port GVRP module function

4.3.QINQ

4.3.1.Enable Dot1q Tunnel

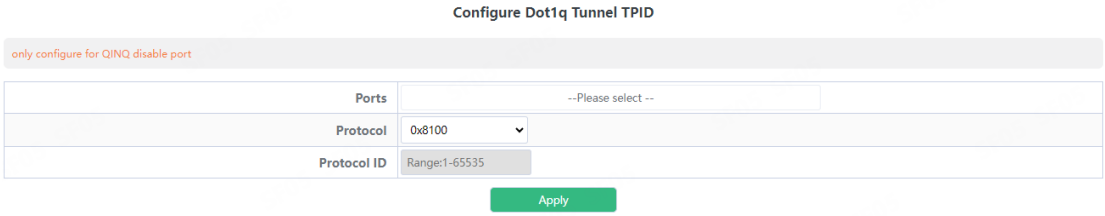
Switch dot1q tunnle configuration, the user configures the port to enable the dot1q tunnel function.



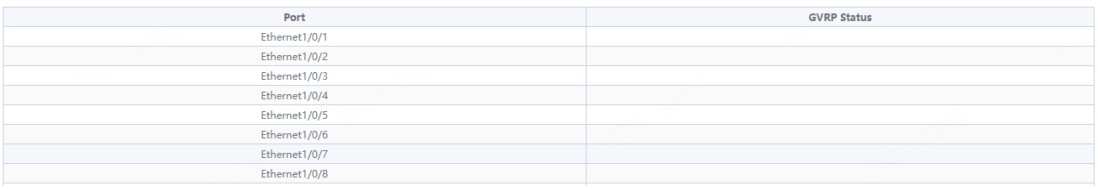
Port	Port name	
Operation	Apply	Enable dot1q tunnel
	Delete	Disable dot1q tunnel

4.3.2.Dot1q Tunnel TPID

Switch port dot1q tunnle tpid configuration, users configure port dot1q tunnel tpid parameters.

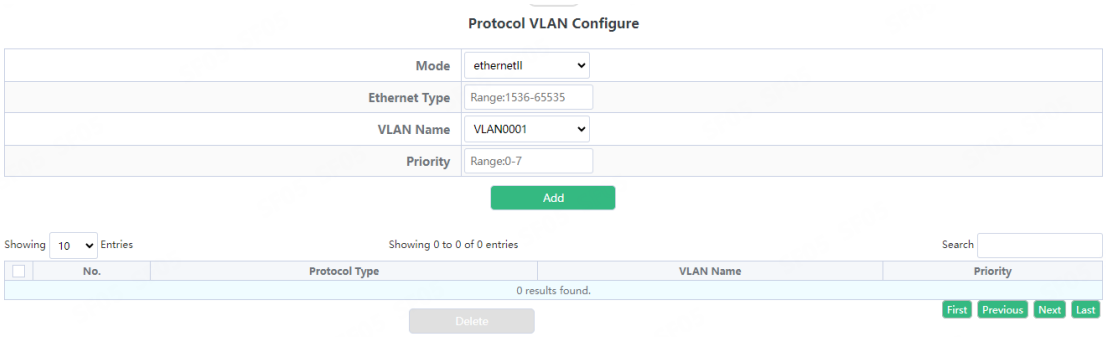


Port	Port name	
Protocol	0x8100	Set the outer TPID to 0x8100
	0x9100	Set the outer TPID to 0x9100
	0x9200	Set the outer TPID to 0x9200
	protocol ID	Set a custom TPID
Protocol ID	The value of the custom TPID	



4.4. Protocol VLAN

The switch protocol vlan settings, and the user can config the protocol vlan.

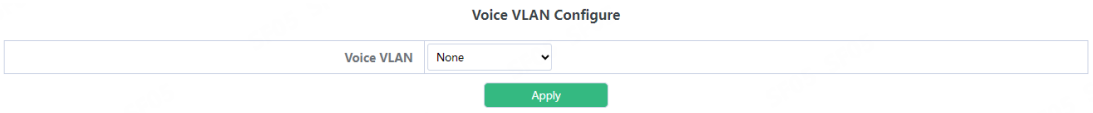


Mode	ethernetII	Configure EthernetII Encapsulation
	snap	Configure LLC Encapsulation
	llc	Configure SNAP Encapsulation
Ethernet Type	Packet protocol type, Configure Packet protocol type number, 1536-65535	
VLAN Name	Configure the VLAN ID.	
Priority	Configure priority value, 0-7	
Operation	Add	Add the protocol vlan
	Delete	Delete the protocol vlan

4.5. Voice VLAN

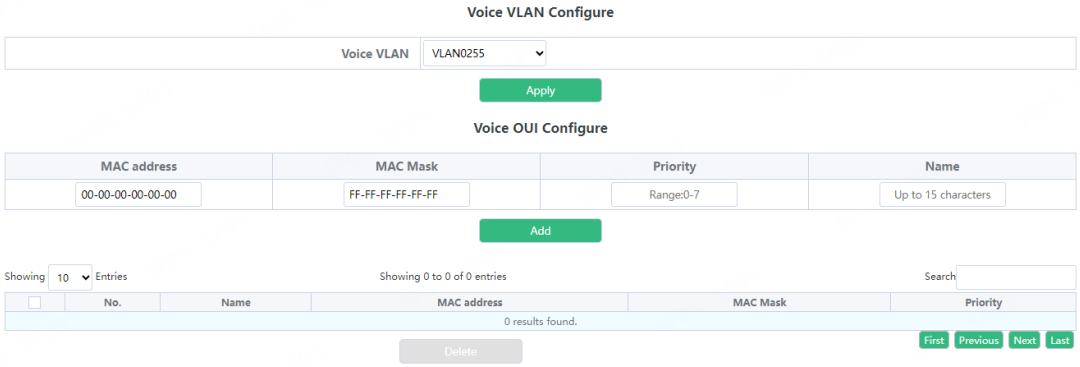
4.5.1. VLAN Config

The voice vlan configure module, and the user can select vlan to enable voice vlan



Voice VLAN	Select vlan to enable voice vlan

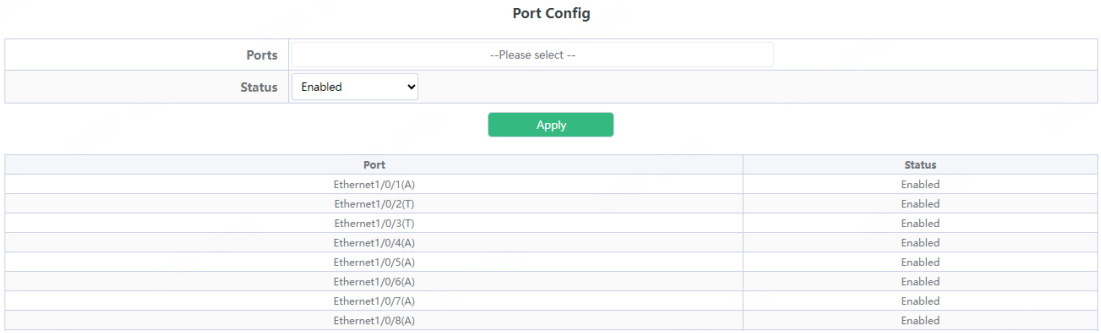
The voice oui configure module, and the user can set voice oui



MAC address	The voice equipment MAC address, shown in xx-xx-xx-xx-xx-xx format.
MAC Mask	The last eight digit of the mask code of the MAC address, the valid values are: 0xff, 0xfe, 0xfc, 0xf8, 0xf0, 0xe0, 0xc0, 0x80, 0x0
Priority	The priority of the voice traffic, the valid range is 0 - 7
Name	The voice-name is the name of the voice equipment, which is to facilitate the equipment management

4.5.2. Port Config

The voice vlan port config module, and the user can select port to enable voice vlan

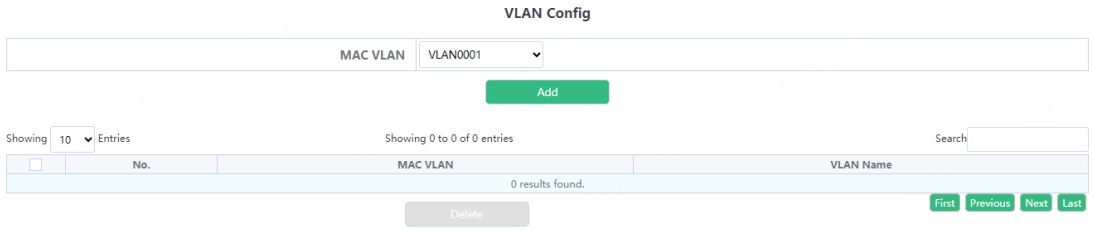


Port	Port name	
Status	Enable	Enable voice vlan
	Disable	Disable voice vlan

4.6.MAC VLAN

4.6.1.VLAN Config

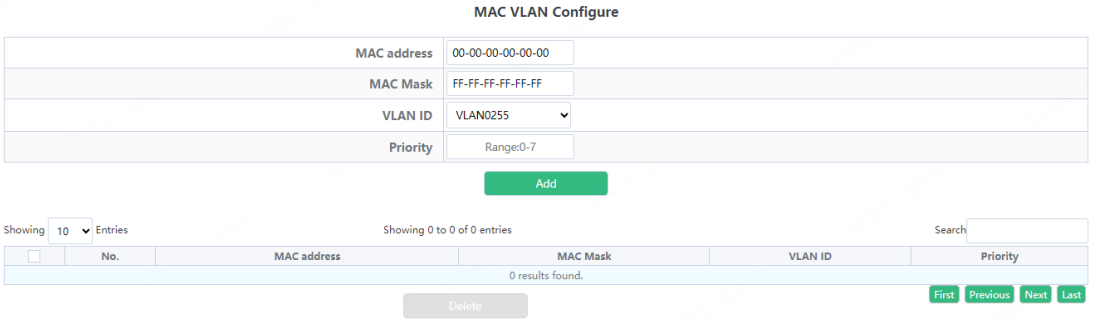
The mac vlan configure module, and the user can select vlan to add mac vlan



MAC VLAN	Select vlan to add mac vlan

4.6.2.VLAN Member

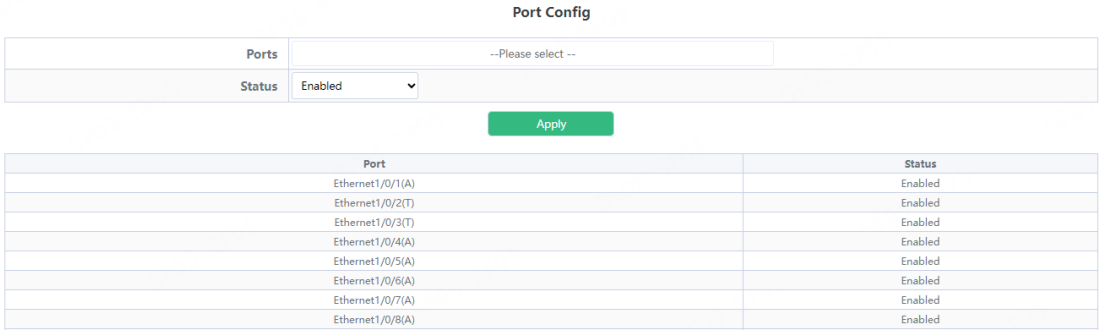
the user can set mac vlan



MAC address	The MAC address which is shown in the form of XX-XX-XX-XX-XX-XX
MAC Mask	The MAC address mask which is shown in the form of XX-XX-XX-XX-XX-XX
VLAN ID	Vlan-id is the ID of the VLAN with a valid range of 1-4094
Priority	Priority-id is the level of priority and is used in the VLAN tag with a valid range of 0-7

4.6.3.Port Config

The mac vlan port config module, and the user can select port to enable mac vlan



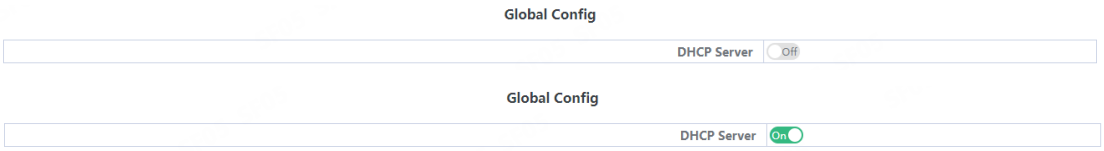
Port	Port name	
Status	Enable	Enable mac vlan
	Disable	Disable mac vlan

5.DHCP Config

5.1.DHCP Server

5.1.1.Global Config

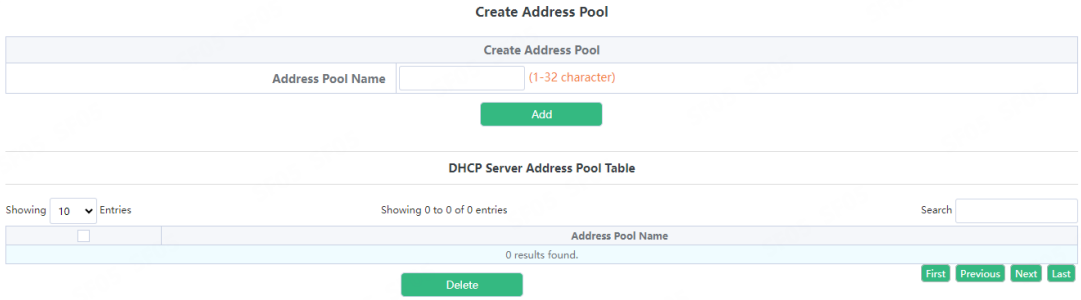
DHCP status configuration and query, the user configures the DHCP server status in this module, and checks the DHCP server status



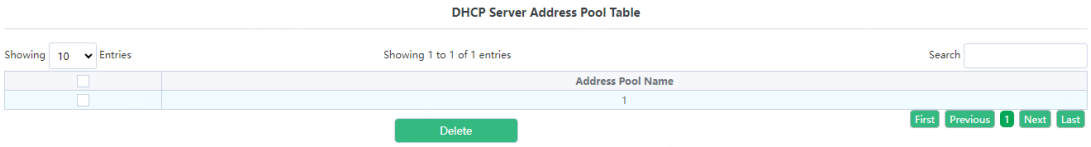
DHCP server	Off	Close DHCP server
	On	Open DHCP server

5.1.2. Create Address Pool

DHCP server address pool name configuration, user settings add and delete the address pool name.



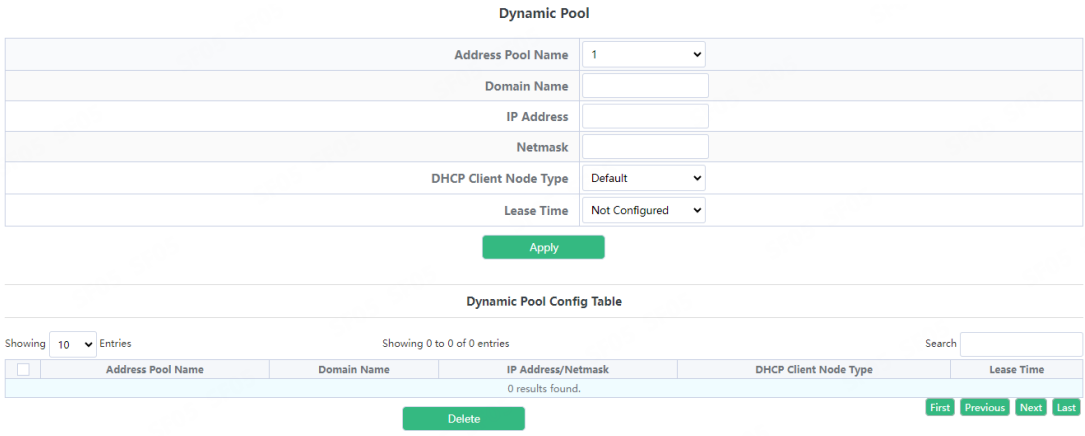
DHCP Address pool name	The name of the created address pool	
Operation type	Add pool	Add the address pool of the DHCP server
	Delete	Delete the address pool of the DHCP server



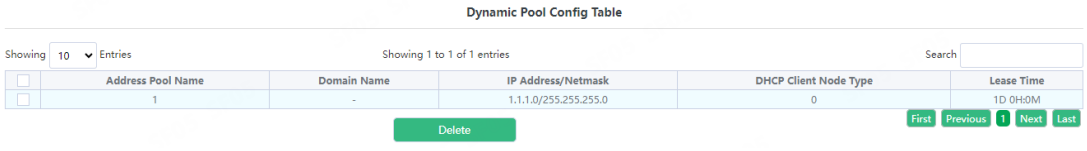
Display the address pool of the current DHCP server

5.1.3. Dynamic Pool

Switch DHCP address pool configuration, the user configures the DHCP address pool parameters.



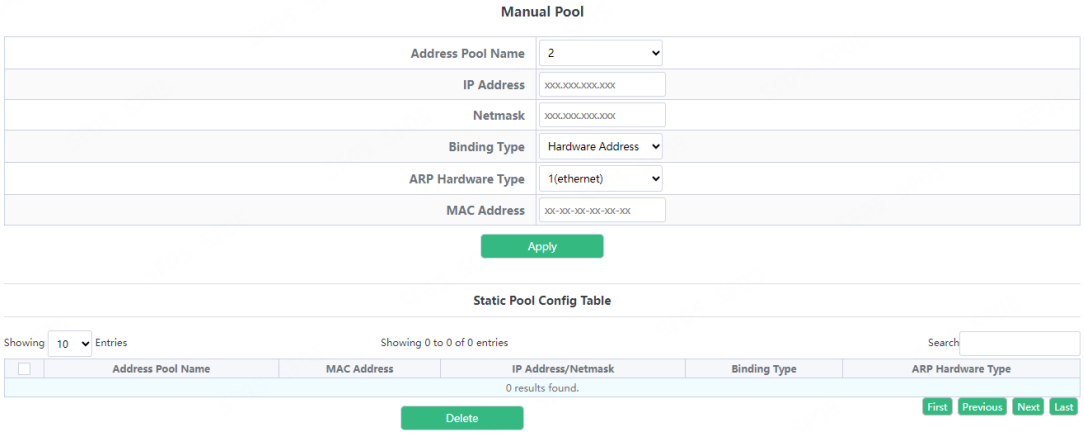
DHCP pool name	The name of the created address pool	
DHCP pool domain name	The domain name of the currently selected address pool. After configuration, you need to tick the box at the back to apply the domain name to the switch during application.	
Address range	IP address	Network number of the address pool
	Network mask	Netmask of the address pool
DHCP client node type	b-node	Broadcast node
	p-node	For point-to-point nodes
	m-node	Used for hybrid nodes to perform point-to-point communication after broadcasting
	h-node	Hybrid nodes that broadcast after peer-to-peer communication
	Designate	Hexadecimal node type, from 0 to 255
Address lease timeout	Infinite	The lease period of the address is unlimited, and the number of days/hours/minutes below do not need to be filled in
	Specified	There is a time limit for the lease of the address. You can rent it according to the lease time filled in below, and it will be automatically recovered if the time is exceeded
Operation	add	Add the above four parameters with check boxes to the switch, the parameters without check boxes will not be operated
	Delete	Restore the four parameters with check boxes to the default configuration, and the parameters without check boxes will not be operated



Information display of the currently configured address pool

5.1.4. Manual Pool

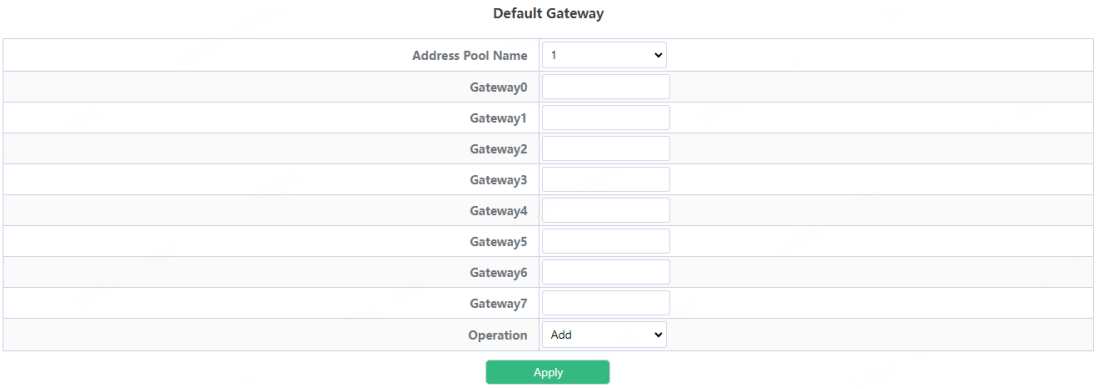
Switch static address pool configuration, and manually bind client parameters.



Address Pool Name	The name of the created address pool
IP address	IP address assigned by the DHCP server to the client
Netmask	The subnet mask assigned by the DHCP server to the client IP
Binding Type	Hardware Address Client identifier: The identifier of the client,
ARP Hardware Type	The protocol type used by the client is rfc\ethernet\ieee802. RFC ID: RFC protocol number, valid range is 1-255.
MAC address	MAC address, for example: 44-11-22-33-44-55 (MAC address)
Operation	Apply
	Delete

5.1.5. Default Gateway

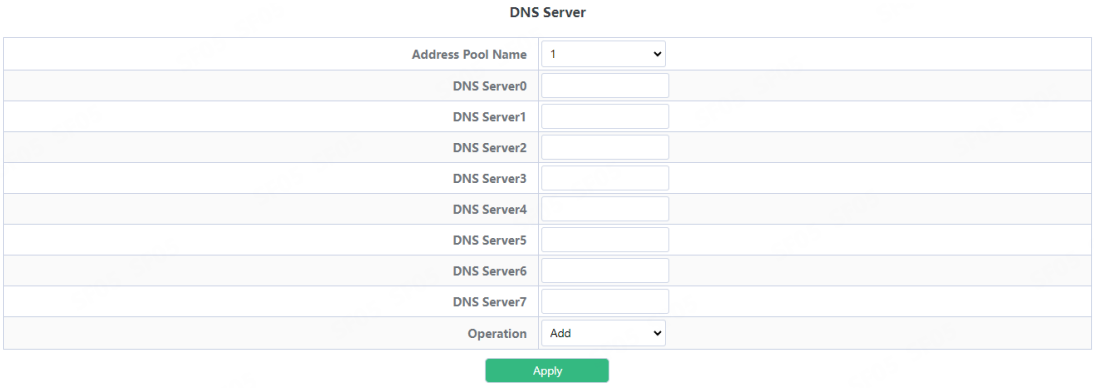
The switch DHCP client default gateway configuration, the user configures the gateway parameters of the DHCP address pool.



DHCP pool name	The name of the created address pool	
Gateway0-7	Gateway IP address in dotted decimal format. Gateway 0 has the highest priority. The smaller the number, the higher the priority. The gateway can be set to zero or more, but the setting must start with 0 and no vacancies can appear in the middle, otherwise the gateway will be Ignore the following parameters, such as setting gateway 0-1 and gateway 7, only gateway 0-1 takes effect	
Operation	Add	Add the gateway effectively set above to the currently selected DHCP address pool
	Delete	Clear all gateways and restore to the default state

5.1.6.DNS Server

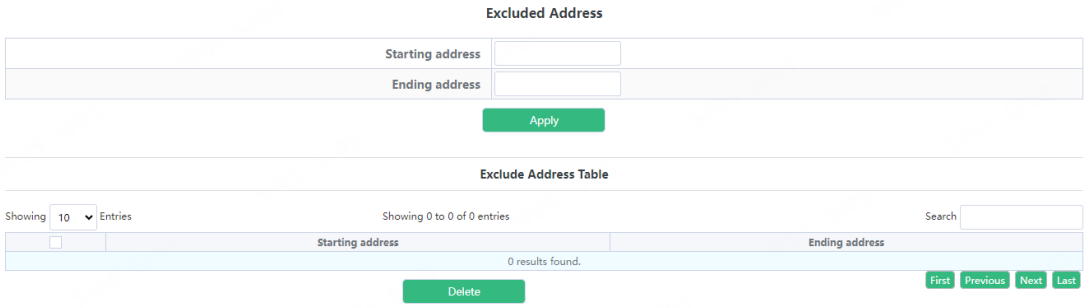
The switch DHCP client DNS server configuration, the user configures the DNS server parameters of the DHCP address pool.



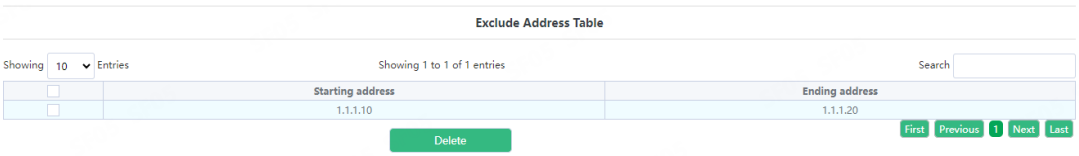
DHCP pool name	The name of the created address pool	
DNS server 0-7	For the IP address in dotted decimal format, DNS server 0 has the highest priority. The smaller the number, the higher the priority. The DNS server can be set to zero or more, but the setting must start from 0 and there can be no vacancies in the middle, otherwise the DNS server The following parameters will be ignored, such as setting DNS server 0-1 and DNS server 7, only DNS server 0-1 takes effect	
Operation	Add	Add the DNS server effectively set above to the currently selected DHCP address pool
	Delete	Clear all DNS servers and restore to the default state

5.1.7. Excluded Address

Excluding the dynamic allocation address configuration, the user configures the addresses that are not used for dynamic allocation



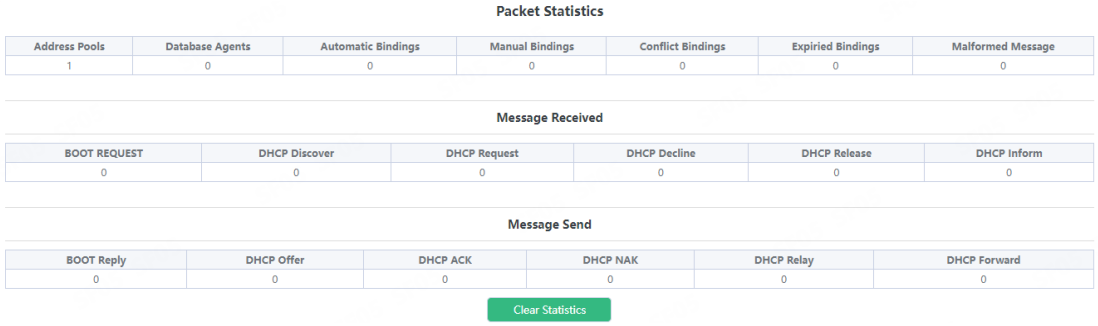
Starting address	Start address not used for dynamic allocation	
Ending address	End address not used for dynamic allocation	
Operation type	Apply	Add the address range that is not used and dynamically allocated to the switch
	Delete	Delete the address range that is not used and dynamically allocated from the switch



Display the address range currently not used for dynamic allocation

5.1.8. Packet Statistics

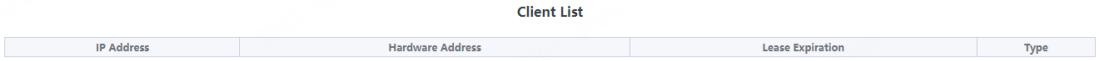
DHCP server data packet statistics, users can view DHCP data packets.



It can be viewed in real time by clicking "Clear Statistics"

5.1.9. Client List

The DHCP server's IP and MAC binding status, the user can view the binding entries and the relationship between the bound IP and MAC.

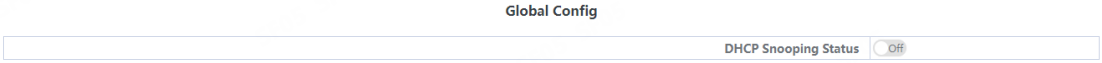


IP address	Client's IP address	
Hardware address	The hardware address or MAC address of the client	
Lease expiration	Client IP expiration time	
Type	Manual	Manual binding
	Dynamic	Dynamic allocation

5.2. DHCP Snooping

5.2.1. Global Config

With the enabling and disabling of the DHCP Snooping module, users can view and operate the status of DHCP Snooping.



DHCP Snooping status	Off	Disable DHCP Snooping
	On	Enable DHCP Snooping

Display the current DHCP Snooping status

DHCP Snooping defense action number configuration, if the number of alarm messages is greater than the set number, it will force the restoration of the earliest defense measures to send new defense measures.

DHCP Snooping packet receiving rate limit sets the number of DHCP messages sent per second.

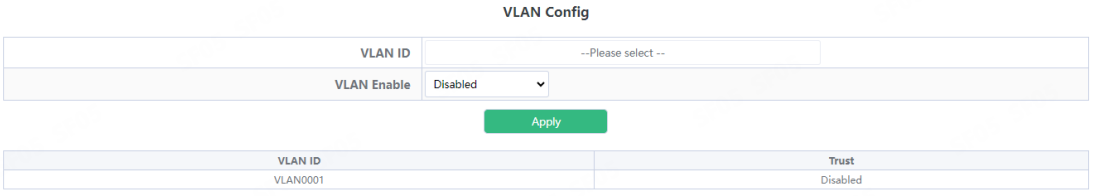
DHCP Snooping action Num	Set the maximum number of defense actions to avoid exhaustion of switch resources caused by attacks.	
Limit Rate(Packet per second)	Range: 0-100	
Operation	Apply	Configure the number of defense actions filled in above, default is 10, Configure the number of packets per second

Display the current number of DHCP Snooping defense actions

Display the number of packets per second configured for the current DHCP Snooping.

5.2.2.VLAN Config

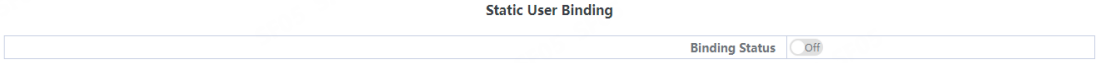
With the enabling and disabling of the DHCP Snooping VLAN module, users can view and operate the status of DHCP Snooping VLAN.



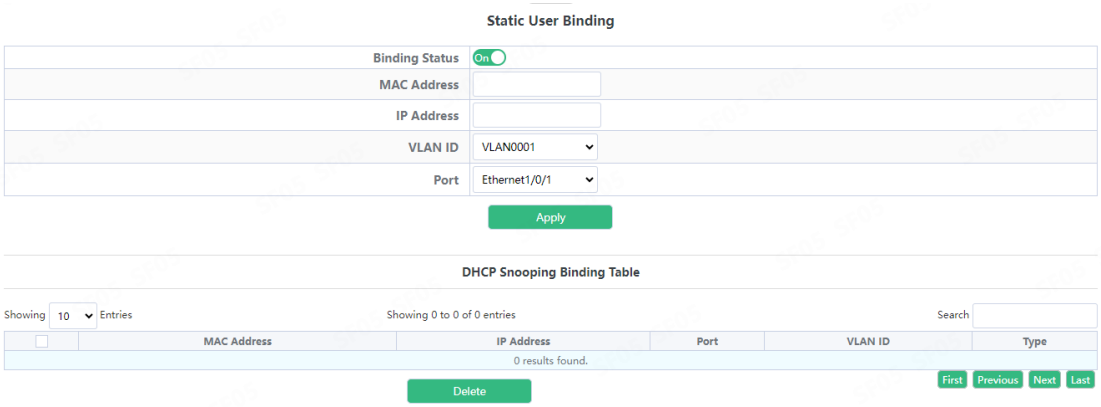
Port	Port name	
VLAN Enable	Enable	Enable DHCP Snooping VLAN
	Disable	Disable DHCP Snooping VLAN

5.2.3. Static User Binding

When DHCP Snooping binding is enabled and disabled, users can view and operate the status of DHCP Snooping. When configuring this binding, users must ensure that the binding status is in the on state.



DHCP Snooping binding status	Off	Disable DHCP Snooping binding function
	On	Enable DHCP Snooping binding function



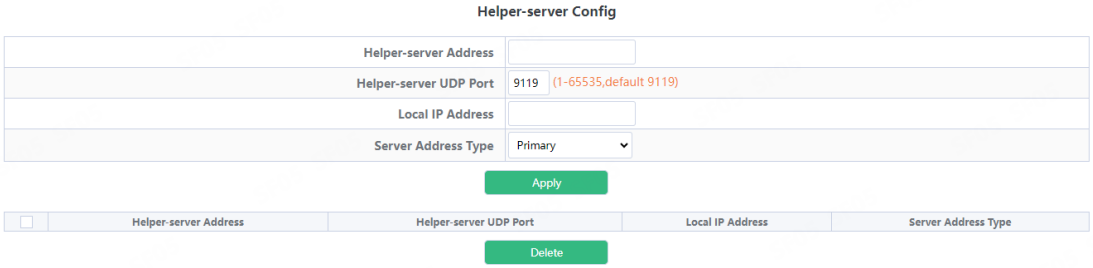
Shows whether the current DHCP Snooping binding status function is enabled.

When DHCP Snooping binding is enabled and disabled, users can view and operate the status of DHCP Snooping. When configuring this binding, users must ensure that the binding status is in the on state.

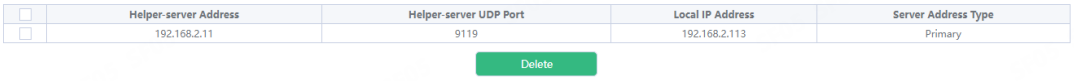
MAC address	The MAC address of the statically bound user is the only index of the bound user	
User IP address	Statically bind the user's IP address	
User mask	Statically bind the user's subnet mask	
VLAN ID	Statically bind the VLAN ID of the user	
Port	Bind the user's access port statically, the port is associated with the VLAN ID, and the port is required to allow the VLAN to pass	
Operation	Apply	Add DHCP Snooping binding user relationship
	Delete	Delete DHCP Snooping binding user relationship

5.2.4. Helper-server Config

DHCP SNOOPING will send the monitored binding information to HELPER SERVER for storage. If the switch starts abnormally, you can recover the bound data from the HELPER SERVER



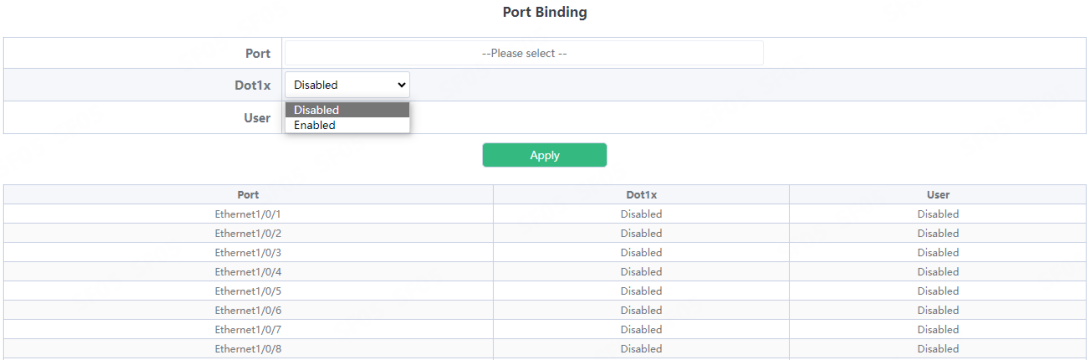
Helper-server address	HELPER server address	
Helper-server UDP port	DHCP SNOOPING and HELPER SERVER use UDP protocol for communication, the port range is 1-65535.	
Local IP address	The effective management IP address of the switch	
Second address	Two HELPER server addresses are allowed, DHCP SNOOPING will first try to connect to the PRIMARY server. Only when the PRIMARY server cannot be accessed, the switch HELPER server will connect to the SECONDARY server. Set the PRIMARY server before setting up the SECONDARY server.	
Operation	Apply	Add HELPER server address
	Delete	Delete the HELPER server address, you can leave it blank when deleting



Display the process and error messages or results generated during application execution

5.2.5. Port Binding

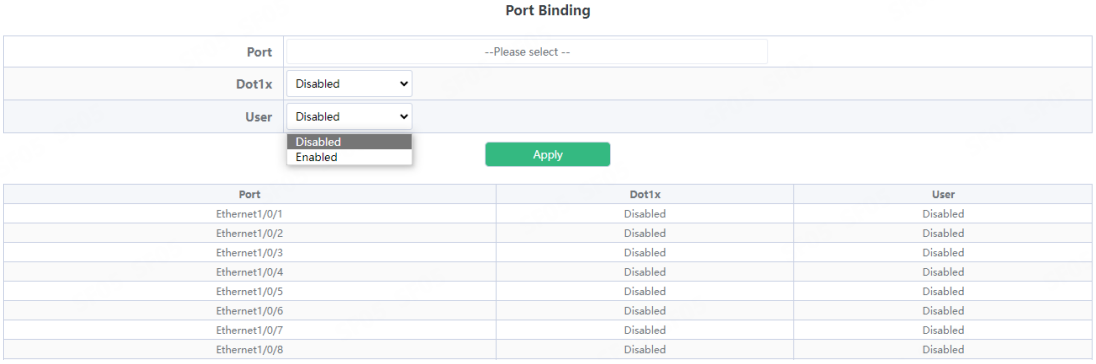
DHCP SNOOPING will notify the DOT1X module of the binding information captured by the user controlled by the DOT1X. DHCP Snooping port binding dot1x function needs to enable DHCP Snooping binding configuration first.



Port	Port name	
DHCP Snooping binding dot1x status	Enable	Enable the dot1x status of DHCP Snooping port binding
	Disable	Disable the dot1x binding status of the DHCP Snooping port

Display the dot1x binding status of each DHCP Snooping port of the switch

When this function is enabled on the port, DHCP SNOOPING will treat the captured binding information as a trusted user who is allowed to access all resources. The DHCP Snooping port binding user status function needs to enable the DHCP Snooping binding configuration first.

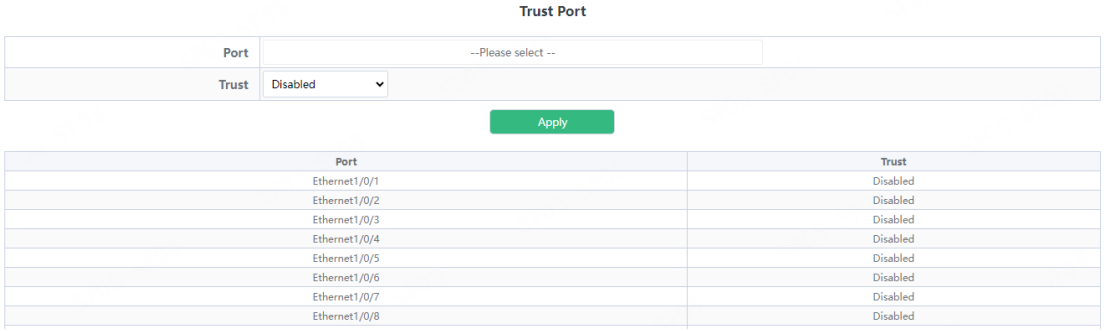


Port	Port name	
DHCP Snooping binding user status	Enable	Enable DHCP Snooping port binding user status
	Disable	Disable DHCP Snooping port binding user status

Display the status of users bound to each DHCP Snooping port of the switch

5.2.6. Trust Port

When a port changes from an untrusted port to a trusted port, the original defense action of the port will be automatically deleted; all security history records will be cleared.



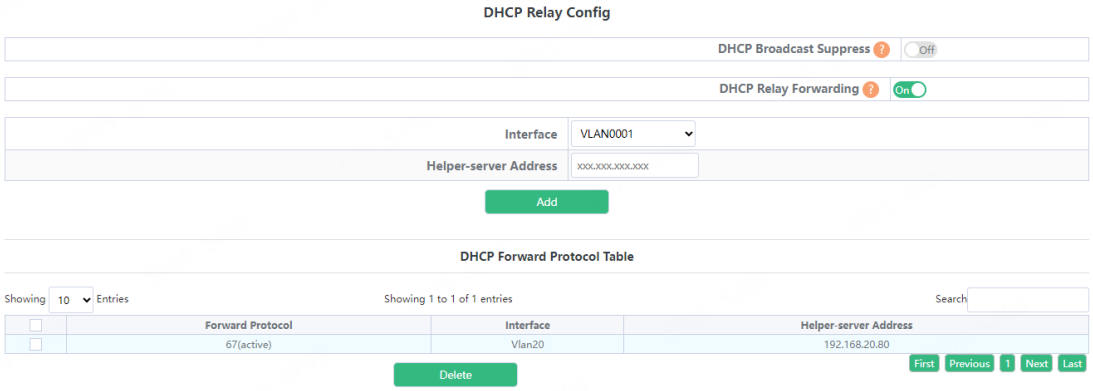
Port	Port name	
DHCP Snooping binding trust status	Enable	Enable DHCP Snooping port trust attribute status
	Disable	Disable the trust attribute status of the DHCP Snooping port

Display the trust attribute status of each DHCP Snooping port of the switch

5.3. DHCP Relay Config

5.3.1. DHCP Relay Config

The switch DHCP relay configuration, the user configures the port range, and the switch sends UDP broadcast messages to the port.

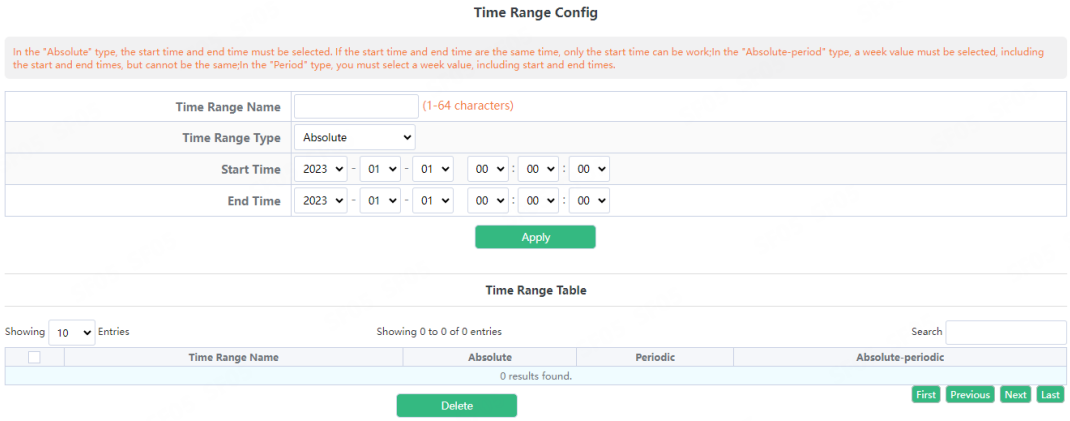


DHCP Broadcast Suppress	On: Enable DHCP broadcast suppress function Off: Disable DHCP broadcast suppress function Default is off	
DHCP Relay Forwarding	On: Sets DHCP relay to forward UPD broadcast packets on the port Off: Disable DHCP Relay Forwarding Defaul is off	
Interface	Established Layer 3 interface	
Helper-server Address	IP address of the Layer 3 interface	
Operation	Add	Add a Layer 3 interface for DHCP to forward UDP packets
	Delete	Delete the Layer 3 interface through which DHCP forwards UDP packets

6.ACL Config

6.1.Time Range Config

Time Range configuration module, the user can add or delete the operation of in this module, which can be applied to various ACL.
In the absolute mode you must input the start-time , end-time is not necesary.
You must input the weeks, start-time and end-time, but need not input the date including start and end time in the absolute-periodic.
You must input the weeks, start-time and end-time, but need not input the date including start and end time, and may input multi-week values,separate them with ",", such as:1-7:monday-sunday;31:daily;96:weekdays;127:weekend.
Input date format: YYYY.MM.DD.Input week format: number (1:Monday etc.),if input multi-week values,separate them with ",",such as:1,2 identify monday&tuesday..Input time format: HH:MM:SS.

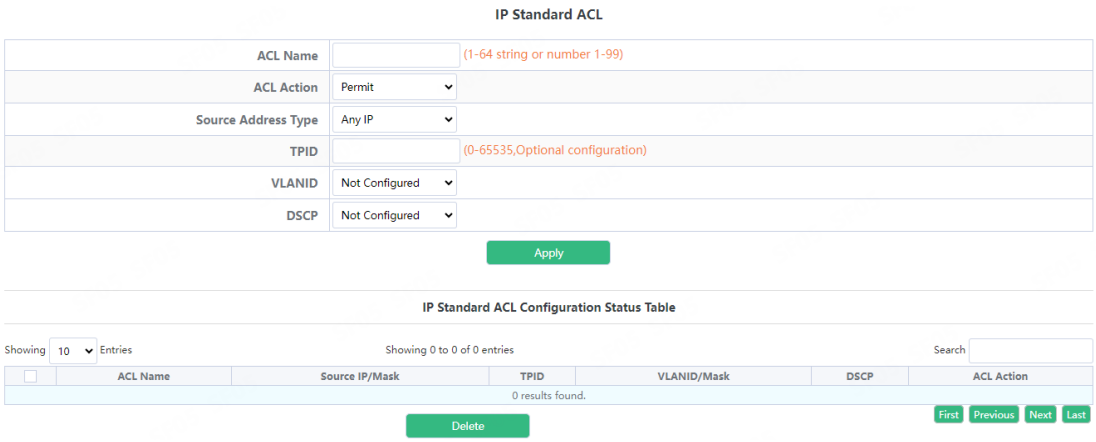


Time range name	Time period names must begin with alphabetic or numeric characters ,1-64 characters	
Time range type	absolute	Absolutely
	absolute-periodic	Absolute-periodic
	periodic	periodic
Week	Start or end weeks, "1-7":"monday-sunday"; "31":"daily"; "96":"weekdays"; "127":"weekend"	
Time	Start or end time,HH:MM:SS	
Date	Start or end date,YYYY.MM.DD, range2001.1.1-2038.12.31	
Operation type	Apply	Add operations
	Delete	Delete operations

6.2. IP ACL

6.2.1. IP Standard ACL

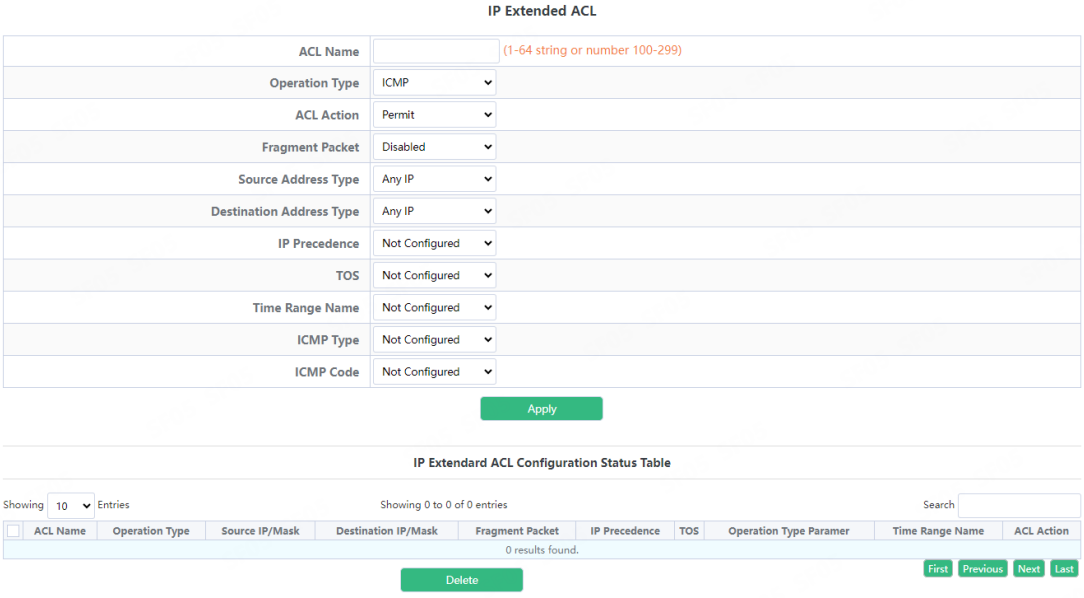
The digital standard IP access list configuration module, where users can create or modify parameters for the digital standard IP access list.



List name	Digital Standard IP Access List Number 1-99	
Rule	permit	Rule permit
	deny	Rule deny
Source address type	Any IP	Match any IP address
	Specified IP	Match IP specified address
	Host IP	Match the specified host IP
Source IP	Source IP address, decimal point	
Reverse network mask	Source IP address mask, decimal point	
tpid	Label Protocol Identification ,0-65535	
VLANID	VLAN ID, 1-4094	
VLANID mask	VLAN mask, 0-4095	
dcsp	IP message priority ,0-63	

6.2.2. IP Extended ACL

Digital extension IP access list configuration module, where users can create or modify parameters for digital extension IP access list.



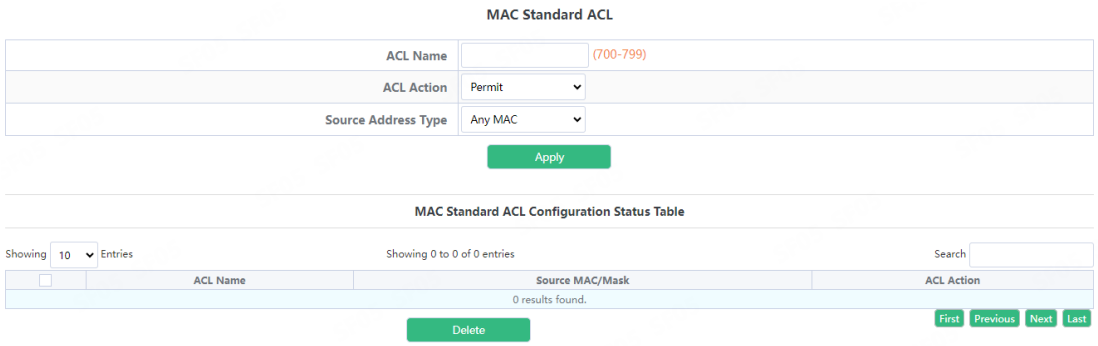
List name	Digital extensions IP access list numbers ,100-199	
Operation type	Extended operation type:ICMP.IGMP.TCP.UDP.EIGRP.GRE.IGRP.IPINIP.OSPF.IP.or Specified_protocol	
ACL Action	permit	Rule permit
	deny	Rule deny
Fragment packet	Optional whether long messages are transmitted in pieces	
Source address type	Any IP	Match any IP address
	Specified IP	Match IP specified address

	Host IP	Match the specified host IP
Source IP	Source IP address, decimal point	
Reverse network mask	Source IP address mask, decimal point	
Destination address type	Any IP	Match any IP address
	Specified IP	Match IP specified address
	Host IP	Match the specified host IP
Destination IP	Destination IP, decimal points	
Reverse network mask	Destination IPaddress mask, decimal point	
IP precedence	IP priority ,0-7	
TOS	Service type ,0-15	
Time range name	Time period names to be applied must begin with alphabetic or numeric characters ,1-64 characters	
ICMP type	ICMP message type ,0-255	
ICMP code	ICMP message code ,0-255	

6.3.MAC ACL

6.3.1.MAC Standard ACL

The digital standard MAC access list configuration module, where users can create or modify parameters for the digital standard MAC access list.

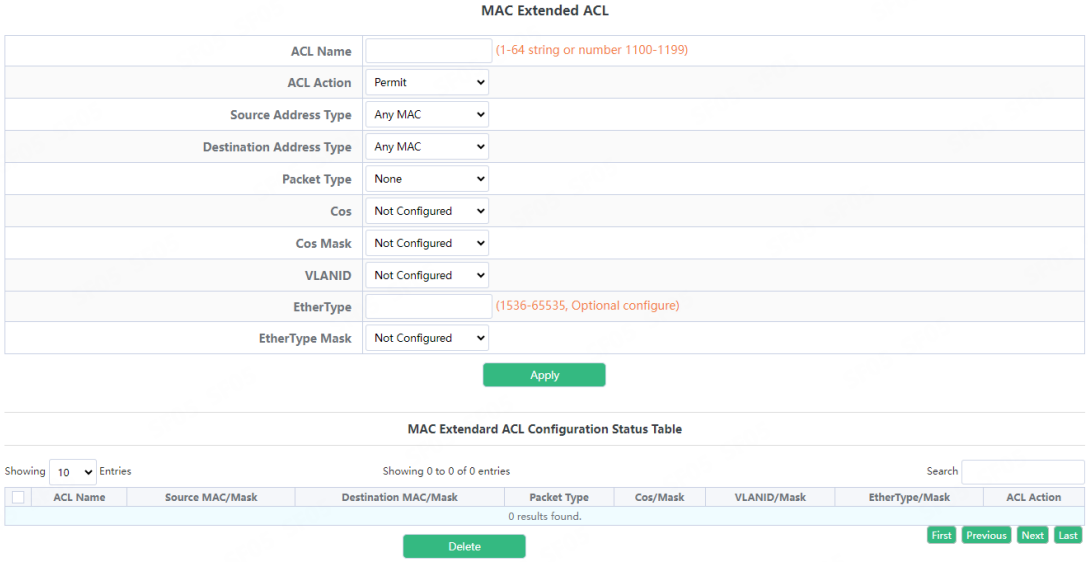


List name	Digital Standard MAC Access List Number 700-799	
ACL Action	permit	Rule permit
	deny	Rule deny
Source address type	Any MAC	Match any MAC address
	Specified MAC	Match MAC specified address
	Host MAC	Match the specified host MAC
Source MAC	Source MAC address	

Reverse network mask	source MAC address inverse mask

6.3.2. MAC Extended ACL

Name extension MAC access list configuration module, where users can create or modify parameters for named extension MAC access list.

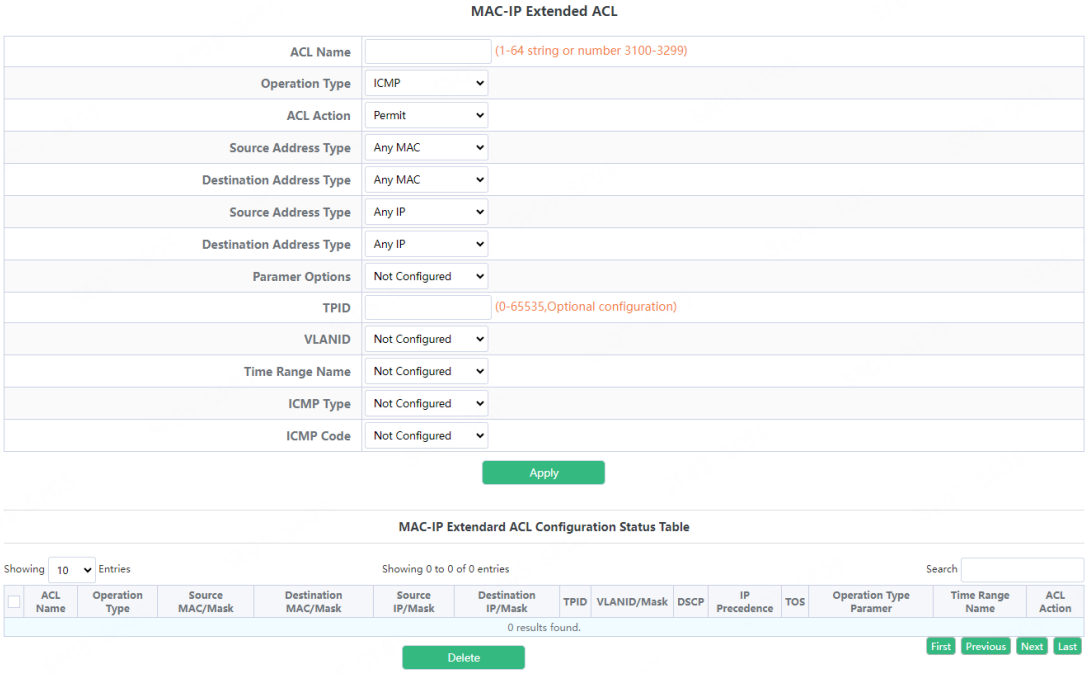


List name	Digital Extension MAC-IP Access List Number ,3100-3199	
ACL Action	permit	Rule permit
	deny	Rule deny
Source address type	Any MAC	Match any MAC address
	Specified MAC	Match MAC specified address
	Host MAC	Match the specified host MAC
Source MAC	Source MAC address	
Reverse network mask	source MAC address inverse mask	
Destination address type	Any MAC	Match any MAC address
	Specified MAC	Match MAC specified address
	Host MAC	Match the specified host MAC
Destination MAC	Destination MAC address	
Reverse network mask	Destination MAC address inverse mask	
Packet type	none	none
	tagged-802-3	Format of marked Ethernet 802-3 packets
	tagged-eth2	Format of marked Ethernet II packets

	untagged-802-3	Format of unmarked Ethernet 802-3 packets
	untagged-eth2	Format of unmarked Ethernet II packets
cos	cos, 0-7	
cos mask	cos mask, 0-7	
VLANID	VLAN ID, 1-4094	
VLANID mask	VLAN mask, 0-4095	
etherType	Ethernet type field value, 1536-65535	
etherType mask	Ethernet type field value mask, 0-65535	

6.4. MAC-IP Extended ACL

Name extension MAC-IP access list configuration module, where users can create or modify parameters for named extension MAC-IP access list.



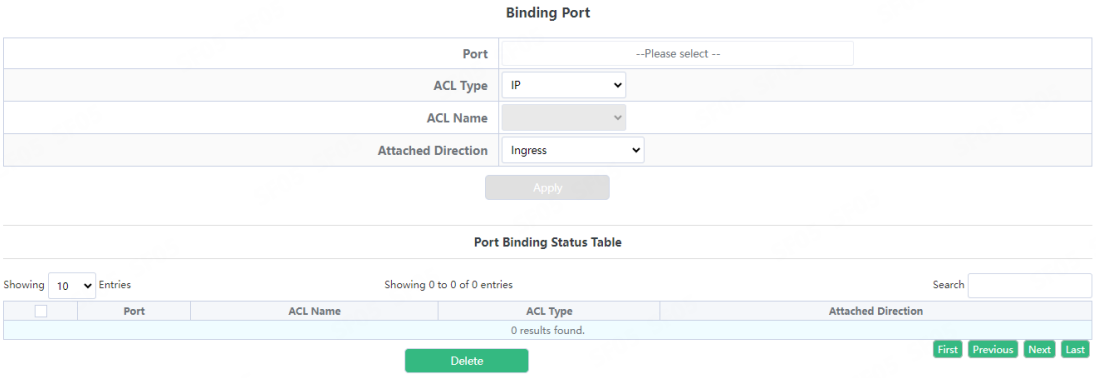
List name	Digital Extension MAC-IP Access List Number ,3100-3199	
Operation type	Extension operation type : ICMP. IGMP. TCP. UDP. EIGRP. GRE. IGRP. IPINIP. OSPF. IP. or Specified_protocol	
ACL Action	permit	Rule permit
	deny	Rule deny
Source address type	Any MAC	Match any MAC address
	Specified	Match MAC specified address

	MAC	
	Host MAC	Match the specified host MAC
Source MAC	Source MAC address	
Reverse network mask	source MAC address inverse mask	
Destination address type	Any MAC	Match any MAC address
	Specified MAC	Match MAC specified address
	Host MAC	Match the specified host MAC
Destination MAC	Destination MAC address	
Reverse network mask	Destination MAC address inverse mask	
Source address type	Any IP	Match any IP address
	Specified IP	Match IP specified address
	Host IP	Match the specified host IP
Source IP	Source IP address, decimal point	
Reverse network mask	Source IP address mask, decimal point	
Destination address type	Any IP	Match any IP address
	Specified IP	Match IP specified address
	Host IP	Match the specified host IP
Destination IP	Destination IP, decimal points	
Reverse network mask	Destination IPaddress mask, decimal point	
tpid	Label Protocol Identification ,0-65535	
VLANID	VLAN ID, 1-4094	
VLANID mask	VLAN mask, 0-4095	
dcsp	IP message priority 0-63	
IP precedence	IP priority ,0-7	
TOS	Service type ,0-15	
Time range name	Time period names to be applied must begin with alphabetic or numeric characters ,1-64 characters	
ICMP type	ICMP message type ,0-255	
ICMP code	ICMP message code ,0-255	

6.5. ACL Binding

6.5.1. Binding Port

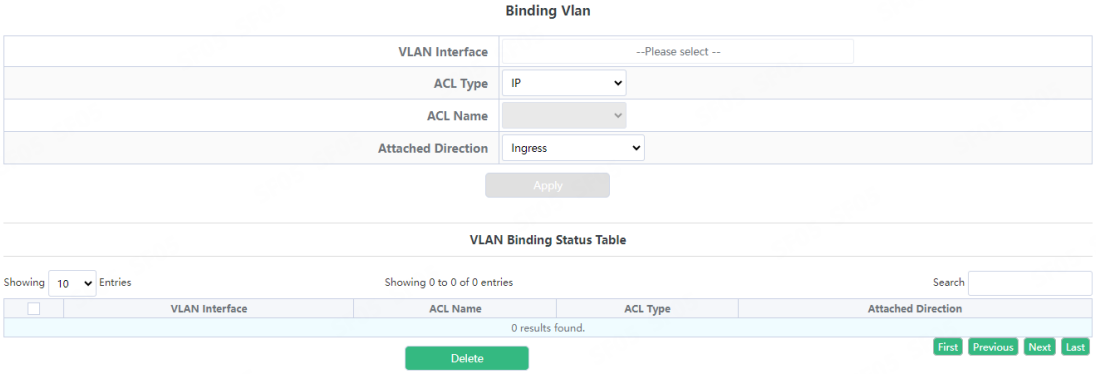
ACL port binding module, the user can bind and delete the access list of the specified port.



Port	Designated port number	
ACL type	IP	IP type
	MAC	MAC type
	MAC-IP	MAC-IP type
List name	Specify access list name ,1-64 characters	
ACL Attached Direction	in	Application ACL only
	in and traffic-statistics	Application ACL and flow monitoring
Operation type	Apply	Add operations
	Delete	Delete operations

6.5.2. Binding Vlan

ACL vlan binding module, where users can bind and delete access lists to specified VLAN.



VLAN interface	Specifies the VLAN number to operate on	
ACL type	Specifies the type of ACL to bind: IP.MAC.MAC-IP	
List name	Specify access list name ,1-64 characters	
ACL Attached Direction	in	Application ACL only
	in and traffic-statistics	Application ACL and flow monitoring
Operation type	Add	Add operations
	Remove	Delete operations

7.Ring Network

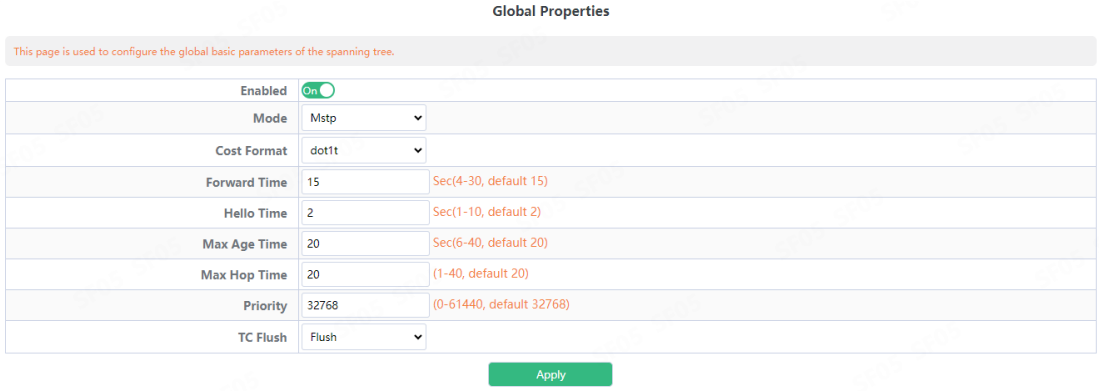
7.1.Spanning-tree

7.1.1.Global Properties

This page uses the build tree function with global enable.

To display the "Global Properties" page, click Ring Network -> Spanning-tree -> Global Properties, click "Apply" to configure.

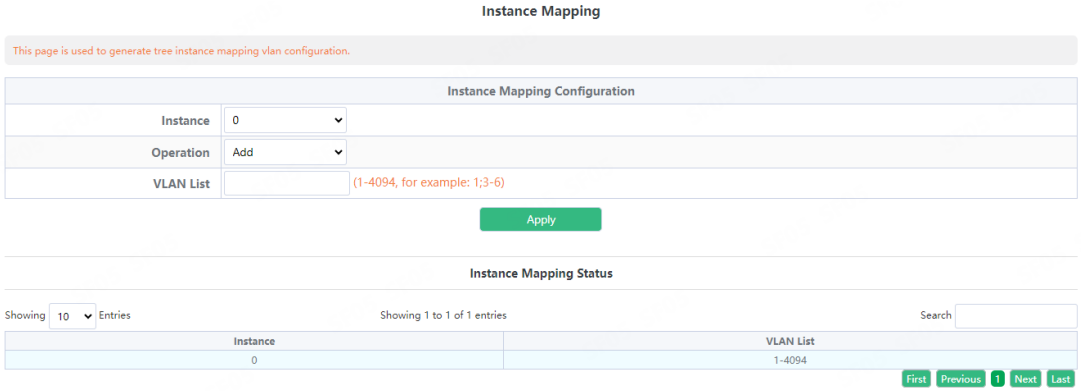
entry	describe
Operation	On: enable spanning tree function Off: disables spanning tree functionality



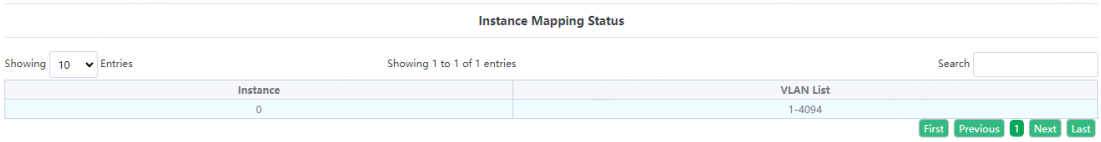
Mode	Generating tree protocol type: Mstp.Stp.Rstp
Cost Format	Path cost format:Dot1t.Dot1d
Forward Time	Size range :4-30, in seconds,the following conditions shall be met: 2 * (Bridge_Forward_Delay - 1.0 seconds) >= Bridge_Max_Age Bridge_Max_Age >= 2 * (Bridge_Hello_Time + 1.0 seconds)
Hello Time	Size range :1-10, in seconds,the following conditions shall be met: 2 * (Bridge_Forward_Delay - 1.0 seconds) >= Bridge_Max_Age Bridge_Max_Age >= 2 * (Bridge_Hello_Time + 1.0 seconds)
Max Age Time	Size range :6-40, in seconds,the following conditions shall be met: 2 * (Bridge_Forward_Delay - 1.0 seconds) >= Bridge_Max_Age Bridge_Max_Age >= 2 * (Bridge_Hello_Time + 1.0 seconds)
Max Hop Time	Numerical range :1-40
Priority	Numerical range :0-61440, and an integer multiple of 4096

7.1.2. Instance Mapping

This page can be used to configure the mapping relationship between the spanning tree instance and the VLAN.



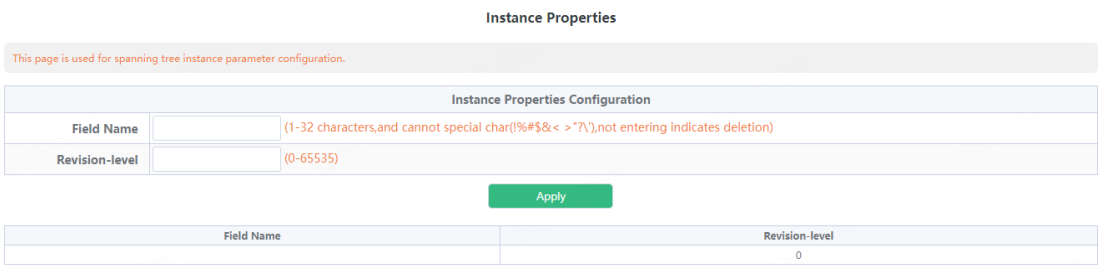
entry	describe
Instance name	Generating tree instance ID, range 0-64
Operation	Add: Add the above configuration information Delete: Delete the above configuration information
VLAN name	VLAN ID, range : 1-4094



entry	describe
Instance name	Generating tree instance ID, size range 0-64
VLAN name	VLAN ID, range : 1-4094

7.1.3. Instance Properties

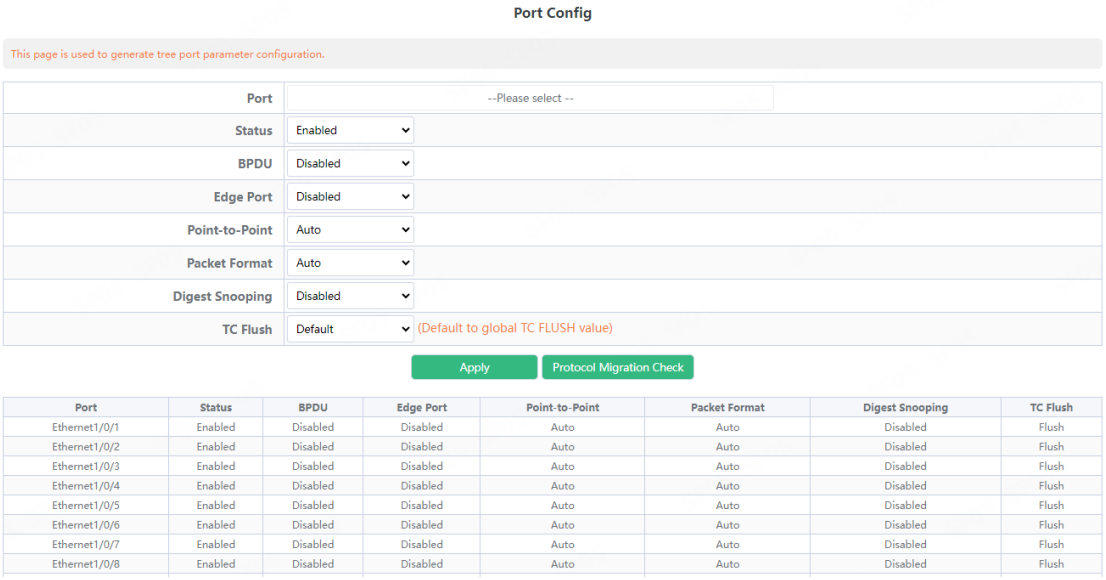
This page can be used to configure MSTP domain name and MSTP revision level.



entry	describe
Field name	MSTP domain name, the length is 1-32 characters
Revision-level	Range :0-65535
Operation	Apply: Use the above configuration

7.1.4. Port Config

This page can be used to configure enable or disable the tree generation function under the port.

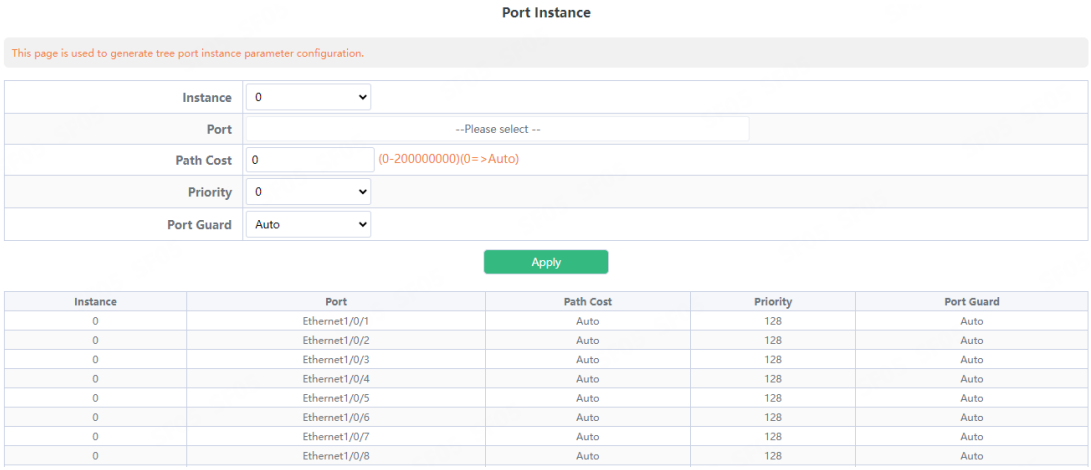


Port	Ethernet port name
Status	Enable: Port enable spanning tree function Disable: Port disables spanning tree functionality
BPDU	Disabled; VLAN:1-4094
Edge Port	Disabled; Enabled; BPDU Filter; BPDU Guard;
Point-to-Point	Auto; Disabled; Enabled;
Packet Format	Auto; Privacy;

	Standard;
Digest Snooping	Disabled; Enabled;
TC Flush	no Flush; Flush; Limit
Operation	Apply
	Protocol Migration Check

7.1.5. Port Instance

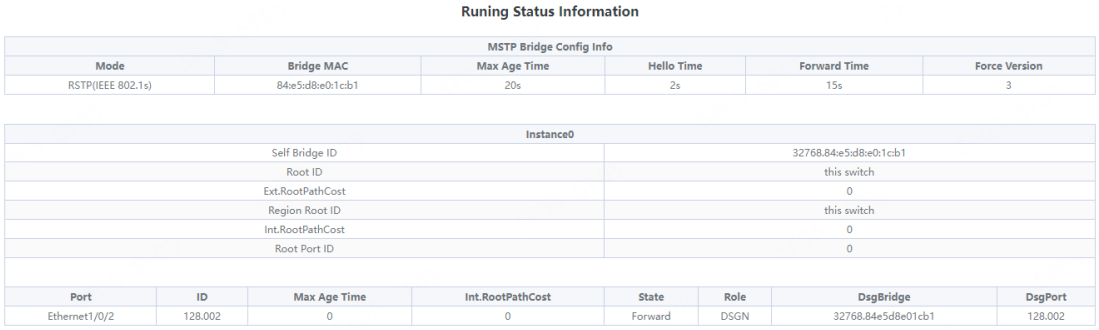
This page can be used for configuration of instance port priority.



Instance name	Generate tree instance name
Port	Ethernet port name
Cost	Size range :0-200000000
Priority	The size range is :0-240, multiple of 16
Priority	Auto; Root Guard; Loop Guard;
Operation	Configuration: Apply the above configuration

7.1.6. Status

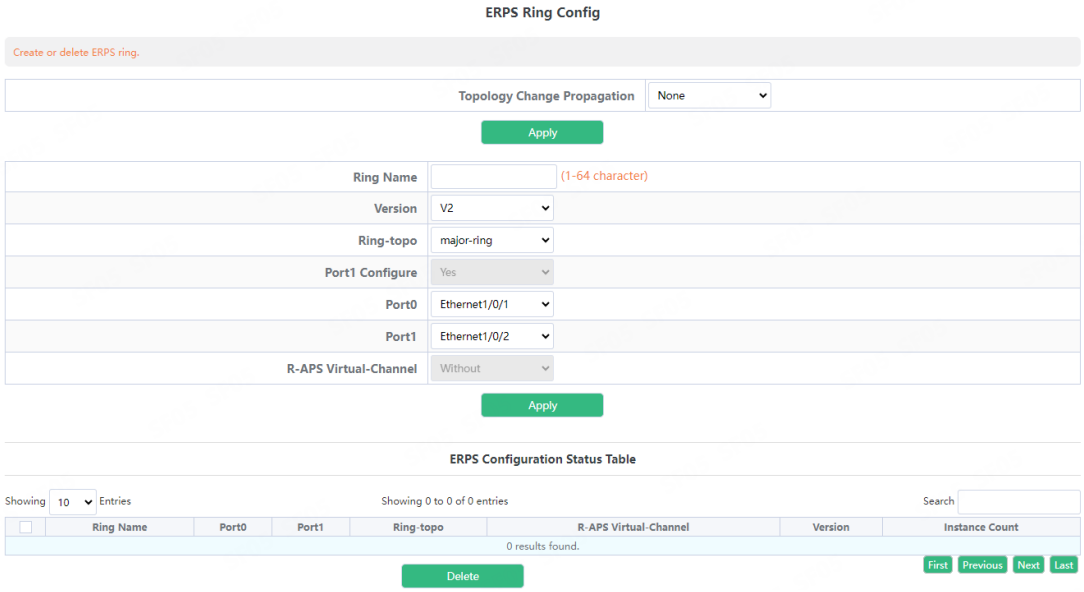
This page can be used to view information for the spanning-tree status.



7.2. ERPS

7.2.1. ERPS Ring Config

This page can be used for configuration of ERPS Ring.



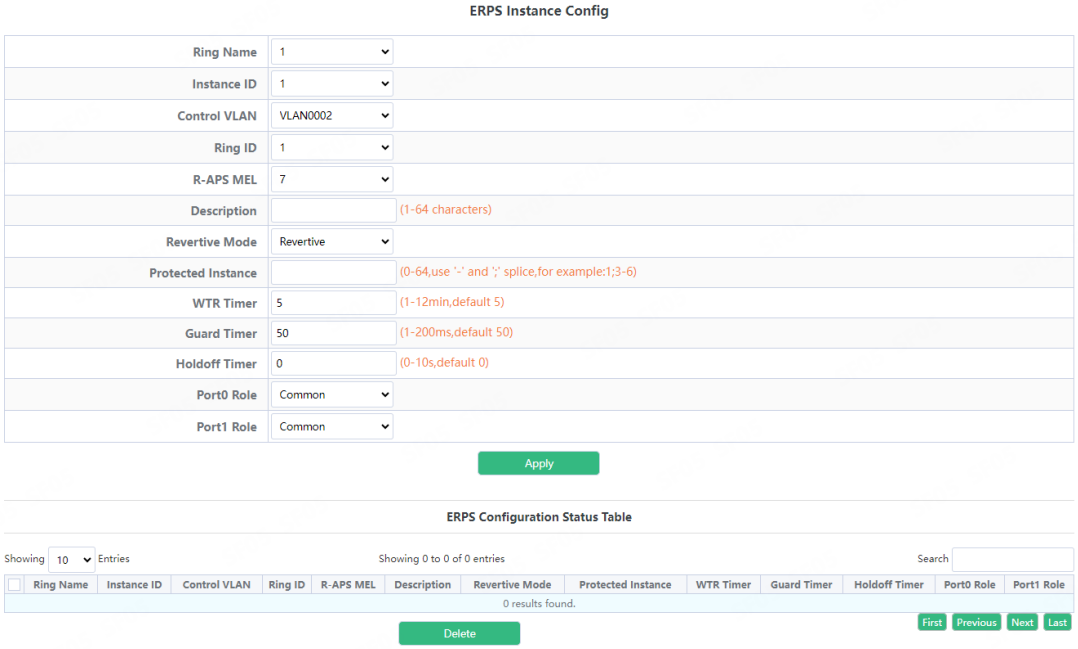
Topology Change Propagation	None; ERPS; STP;
Ring Name	The ERPS ring name created, 1-64 character
Version	If configured ERPS ring to support v1, this ring will not support multi-instance. ERPS ring instance does not support

	the management commands of MS, FS. If configured ERPS ring to support v2, the instance of this ring will deal with the ERPS packets according to the v1 format. Package the R-APS packets and resolve the fields according to v1 format. The fields defined by v2 will not be dealt. V1: Means to support v1 which is released in 2008-06 and the amendment (2009-04) V2: Means to support v2 which is released in 2010-03 and the amendment (2010-06)
Ring-topo	major-ring: Configure the ERPS ring as the major ring open-ring: Configure the ERPS ring as the open ring
Port1 Configure	No: Port1 is not allowed to be configured. Yes: Port1 is allowed to be configured.
Port0	Select port as Port 0 for ERPS
Port1	Select port as Port 1 for ERPS
R-APS Virtual-Channel	Configure if there is the R-APS virtual channel in ERPS ring according to the configuration. Inputting: Success or error. If there is not R-APS virtual channel on the ERPS ring, the R-APS channel of all the instances of ERPS ring will be unblocked forever and it only blocks the data channel; otherwise, the R-APS channel and the data channel will be blocked at the same time. Without: The R-APS virtual channel is not existed in this ERPS ring. With: The R-APS virtual channel is existed in this ERPS ring.

Operation	Apply
	Delete

7.2.2. ERPS Instance Config

This page can be used for configuration of ERPS Instance.

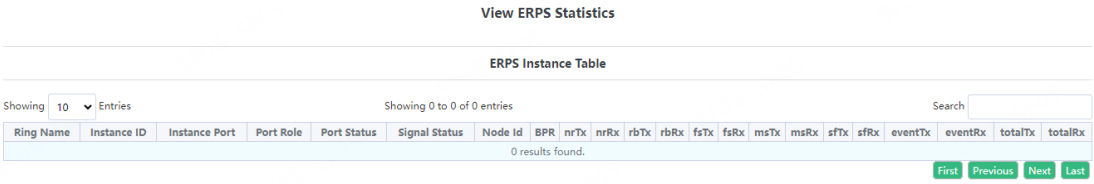


Ring Name	Select the ERPS ring you created
Instance ID	Create the ERPS ring instance ID, id of ERPS ring, the range is 1 to 16
Control Vlan	vlan id of R-APS packets, range is from 2 to 4094
Ring ID	ERPS ring id and the range is 1 to 64
R-APS MEL	The level value of APS packets, range is from 1 to 7
Description	ERPS instance name, the maximum string is 64, and it is made up with letters, numbers and underlines; the first and last characters cannot be underlines.
Revertive Mode	Configure the ERPS ring instance as non-revertive. If this ERPS ring supports v1, then cannot be configured. Only configured on the RPL owner node of the sub ring. Non-Reviertive; Reviertive;

Protect ID	The MSTP instance list protected by ERPS ring instance
WTR Timer	WTR timer is used to avoid the frequent protection switching of RPL owner node because of the periodic (intermittent) default.The interval is 1min and the range is from 1 to 12min, default is 5min.
Guard Timer	The guard timer is used for the Ethernet node to avoid the error handling and the close loop according to the outdated R-APS packets. The interval is 10ms and the range is 10ms to 2s, default is 500ms.
Holdoff Timer	The interval is 1s and the range is 0 to 10s, default is 0s.
Port0 Role	Common is default config, it is the ordinary transmission node type. • Owner • Neighbour • Common
Port1 Role	
Operation	Apply
	Delete

7.2.3. View ERPS Statistics

This page can be used for configuration of ERPS Statistics.



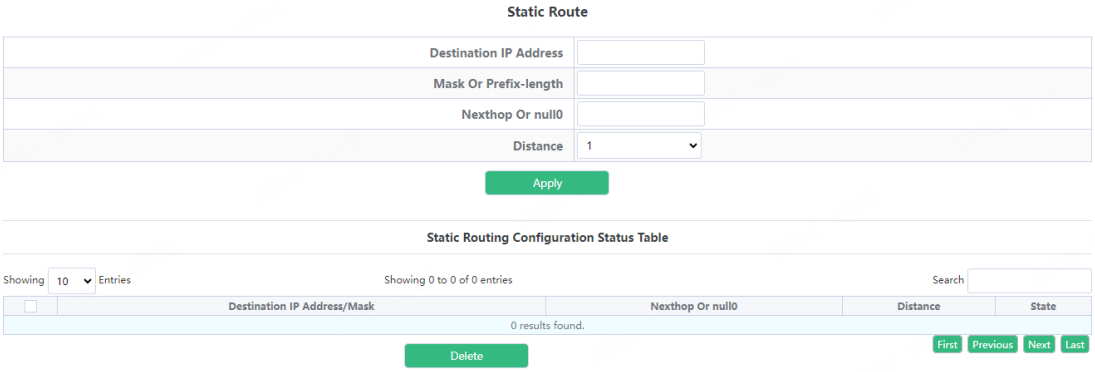
Ring Name	The ERPS ring name whe you created
Instance ID	The ERPS ring instance ID when you
Intance Port	The ERPS ring member ports
Port Role	ERPS ring node roles: RPL Owner, RPL neighbor,
Port States	Blocked: port is in block status forwarding: port is in forwarding status

Signal Status	ERPS ring port fault status: Non-failed: no fault Failed: fault happened
Last NodeID	The node ID information is the last bit of the
Last Bpr	The block link information carried by the receiving last R-APS saved by ERPS ring port, it is port0 or port1 which was blocked.
rbTX	RB transport statistics
rbRX	RB receive statistics
nrTX	NR transport statistics
nrRX	NR receive statistics
fsTX	FS transport statistics
fsRX	FS receive statistics
msTX	MS transport statistics
msRX	MS receive statistics
sfTX	SF transport statistics
sfRX	SF receive statistics
eventTX	Event transport statistics
eventRX	Event receive statistics
totalTX	Total transport statistics
totalRX	Total receive statistics

8. Route Config

8.1. Static Route

This page can be used for the basic configuration of static routing.

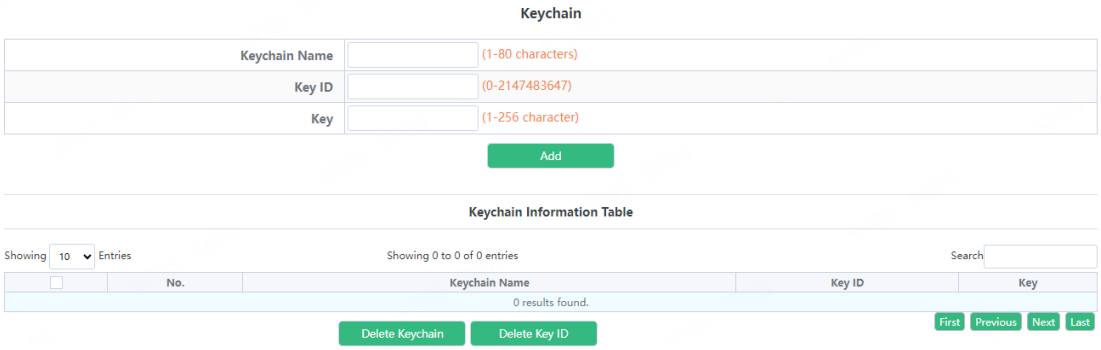


Destination IP address	IP address, format :10.10.11.11
Network mask or prefix-length	Subnet mask in the following format :255.255.255.0; or mask length
Nexthop or Interface null0	IP address, format :10.10.11.11. or null0
Distance	Range :1-255
Operation type	Apply：Add the above settings Delete：Delete the above

8.2. RIP Route

8.2.1. Keychain

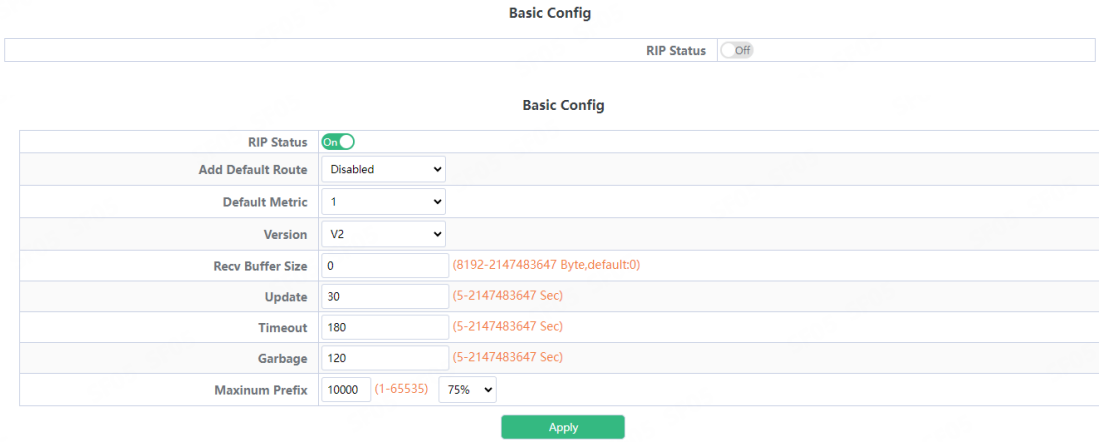
This page can be used for config keychain function.



Keychain Name	Keychain Name, range 1-80 characters
Key ID	Key ID, range 0-2147483647
Key	Key, range 1-256 character。

8.2.2. Basic Config

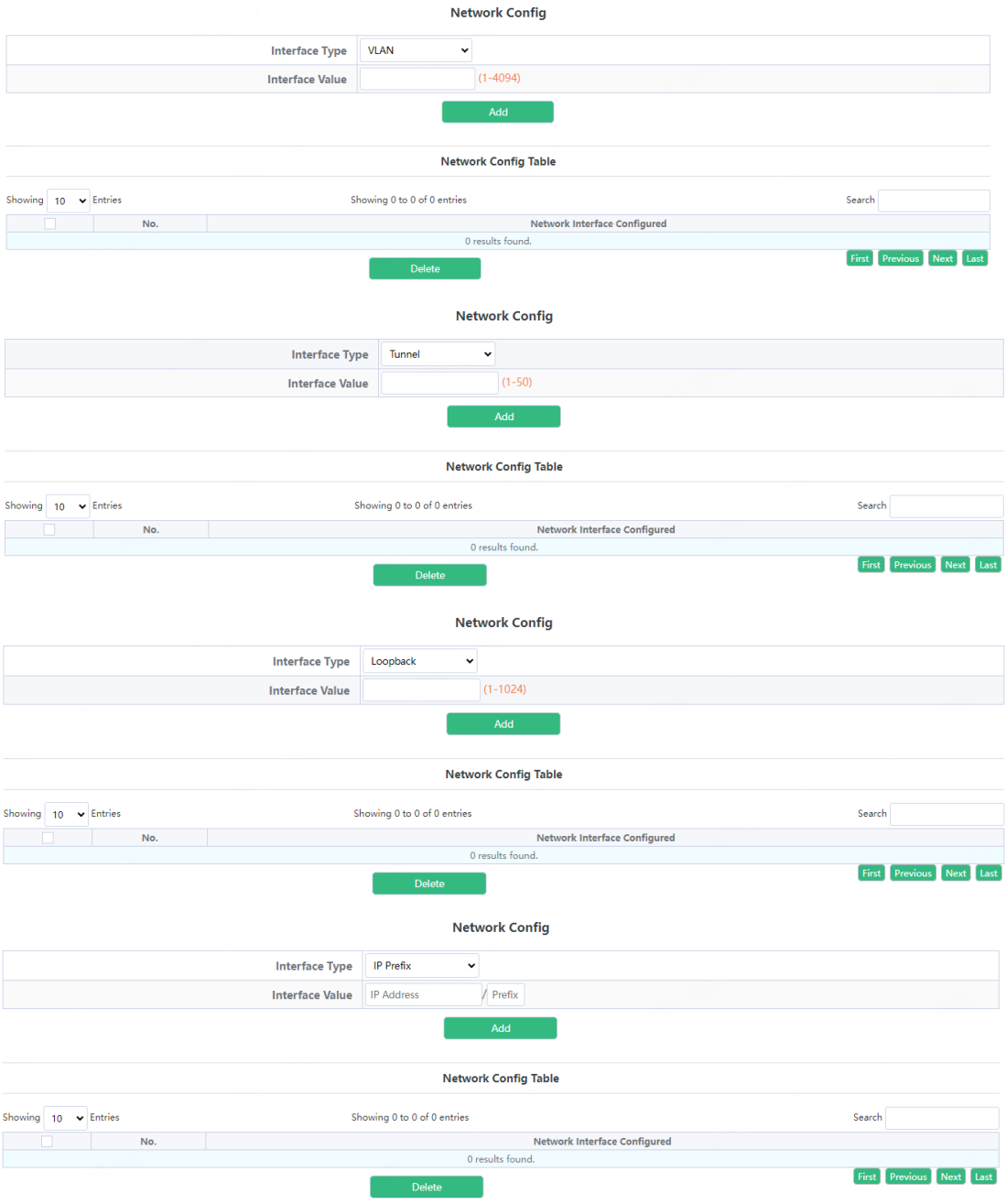
This page can be used for enable RIP function.



Add Default Route	Control distribution of default route, distribute a default route.
Default Metric	Set a metric of redistribute routes, range is 1-16, default is 1.
Version	Config RIP version v1/v2, default is v2.
Recv Buffer Size	The RIP UDP receive buffer size value, default is 8192.
Update	Routing table update timer value in second. Default is 30.
Timeout	Routing information timeout timer. Default is 180.
Garbage	Garbage collection timer. Default is 120.
Maximum Prefix	Maximum number of RIP routes, default is 10000. Percentage of maximum routes to generate a warning (Default 75%)

8.2.3. Network Config

This page can be used for RIP network config.

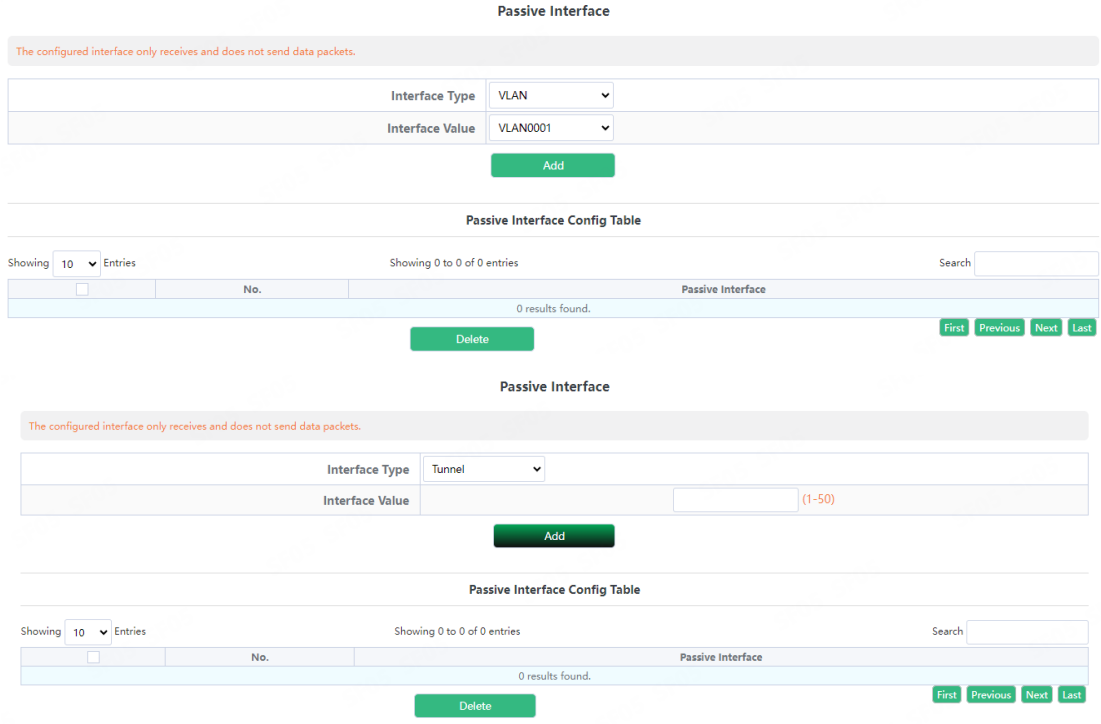


Interface Type	VLAN: vlan Tunnel: Tunnel interface Loopback: loopback IP Prefix: IP prefix <network>/<length>, e.g., 35.0.0.0/8

Interface Value	VLAN: interface name, 1-4094. Tunnel: Tunnel interface number, 1-50. Loopback: Loopback ID <1-1024> IP Prefix: IP prefix <network>/<length>, e.g., 35.0.0.0/8

8.2.4. Passive Interface

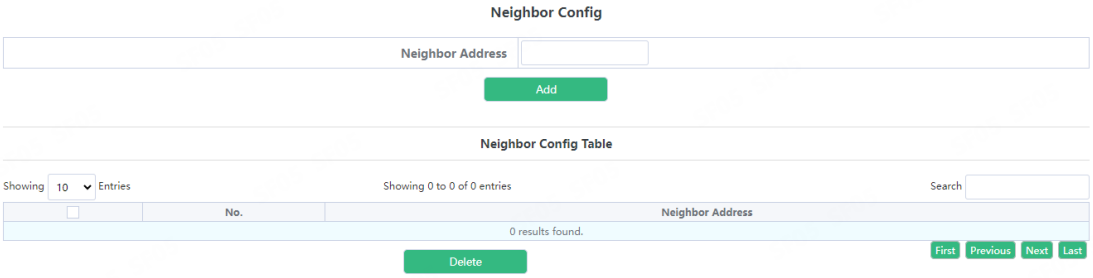
This page can be used for RIP passive interface.



Interface Type	VLAN: vlan Tunnel: Tunnel interface
Interface Value	VLAN: interface name, 1-4094. Tunnel: Tunnel interface number, 1-50.

8.2.5. Neighbor Config

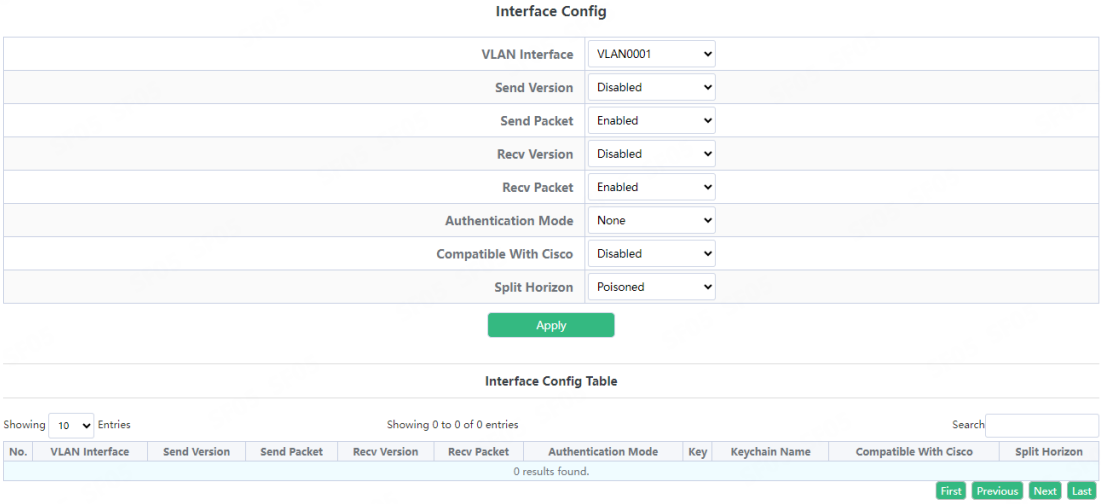
This page can be used for RIP neighbor config.



Neighbor Address	Neighbor address: A.B.C.D

8.2.6. Interface Config

This page can be used for RIP interface config.

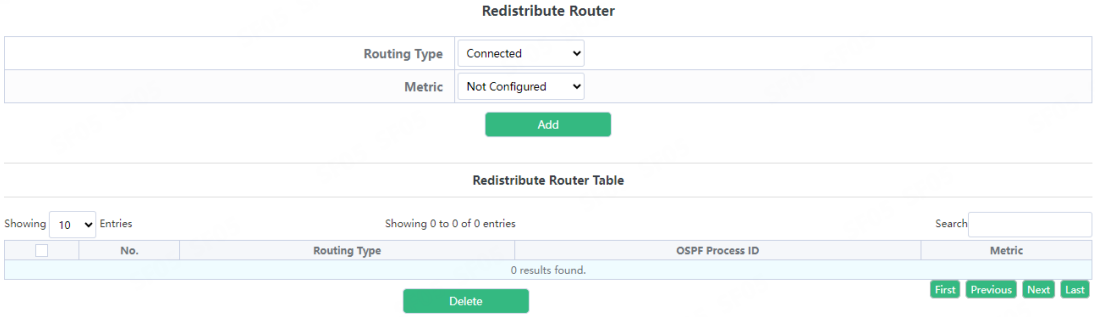


VLAN Interface	Select Interface VLAN
Send Version	Advertisement transmission 1: RIP version 1 1 2: RIP version 1 RIP version 2 1-compatible: RIPv1-compatible 2: RIP version 2 2 1: RIP version 2 RIP version 1
Recv Version	Advertisement reception 1: RIP version 1 2: RIP version 2
Authentication Mode	None: Not config MD5: Keyed message digest Plaintext: Clear text authentication
Compatible With Cisco	Compatible with cisco

Split Horizon	Poisoned: means configure the split horizon with poison reverse.,Split Horizon with poison reverse by default.
	Enabled: enable split horizon
	Disabled: disable split horizon

8.2.7. Redistribute Router

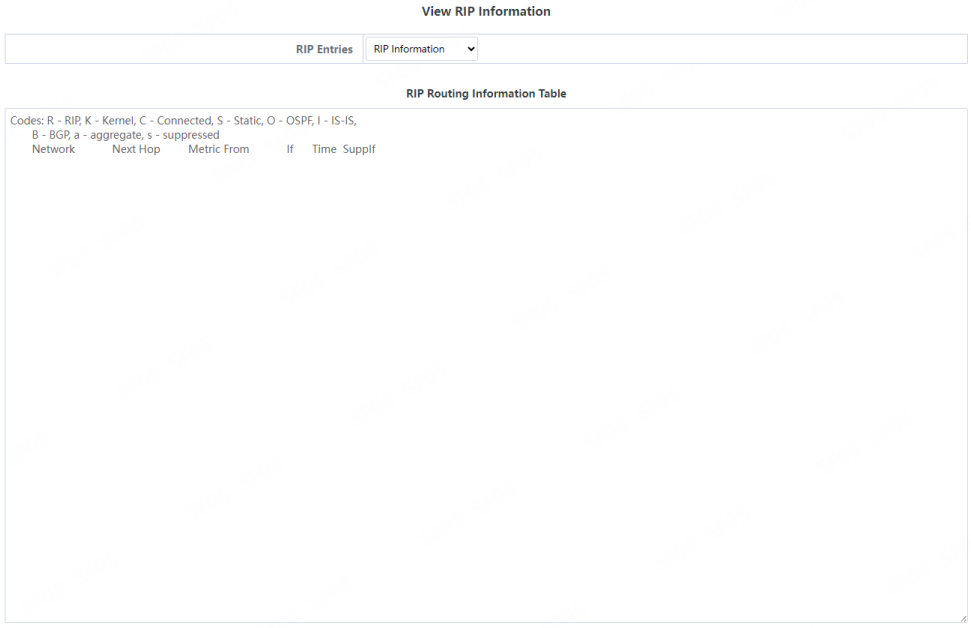
This page can be used for RIP Redistribute Router config.



Routing Type	Connected: redistribute connected routes
	Kernel: redistribute kernel routes
	OSPF Route: redistribute ospf routes
	BGP Route: redistribute bgp routes
	Static Route: redistribute static routes
Metric	0-16, default is not configured
OSPF Process ID	Redistribute OSPF Process ID, 1-65535, No parameters indicate the default process

8.2.8. View RIP Information

This page can be used for view RIP information.

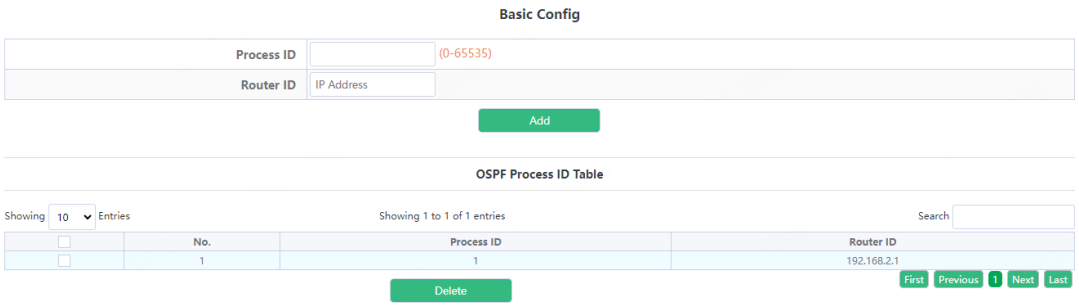


RIP Entries	RIP Information	Show the RIP related messages
	RIP Interface	Show the routes in the RIP route database
	RIP Protocol	Show the RIP process parameter and statistics information

8.3. OSPF Route

8.3.1. Basic Config

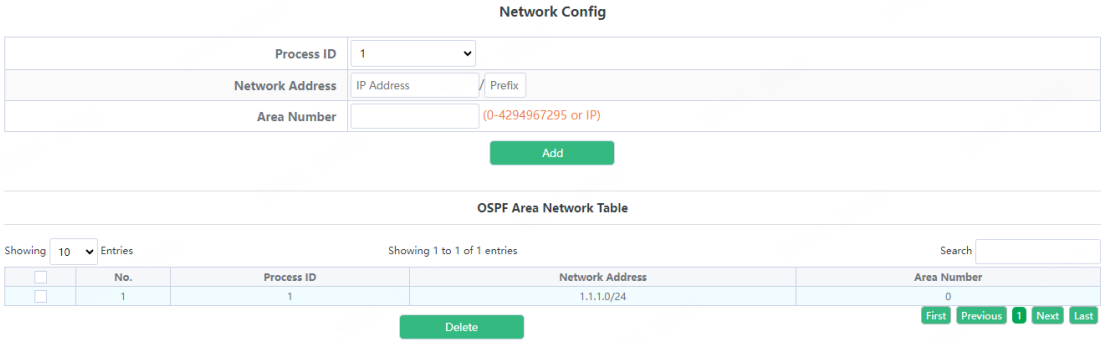
This page can be used for OSPF basic config.



Process ID	OSPF process ID, 0-65535.
Router ID	OSPF router-id in IP address format: A.B.C.D

8.3.2. Network Config

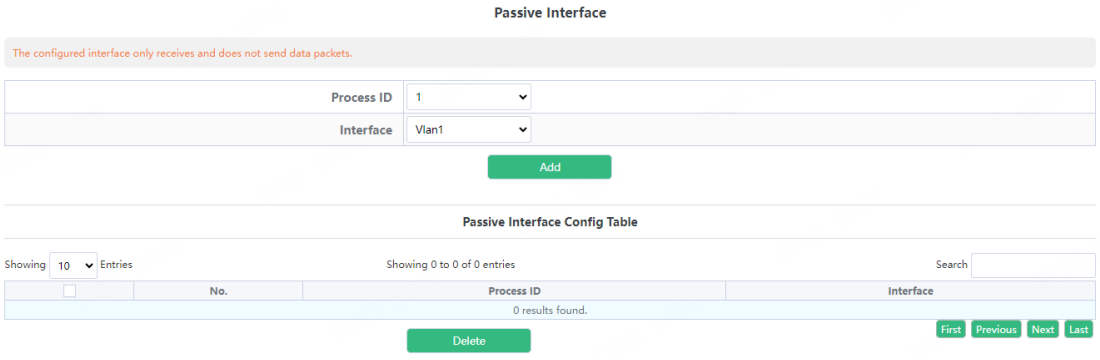
This page can be used for OSPF network config.



Process ID	Select OSPF process ID.
Network Address	OSPF network prefix:A.B.C.D/M
Area Number	Set the OSPF area ID OSPF area ID as a decimal value:0-4294967295 OSPF area ID in IP address format: A.B.C.D

8.3.3. Passive Interface

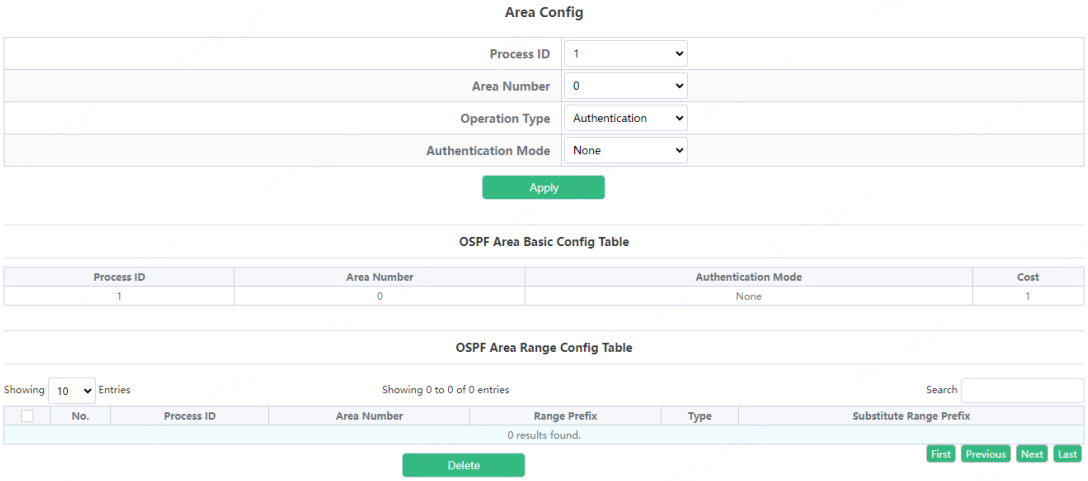
This page can be used for OSPF passive interface.



Process ID	Select OSPF process ID.
Interface Value	Interface name

8.3.4. Area Config

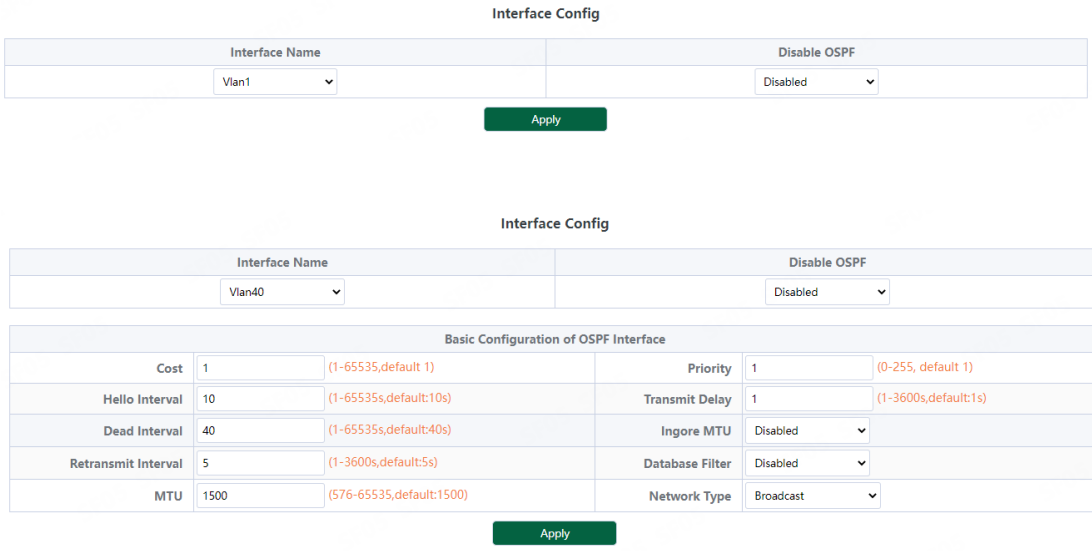
This page can be used for OSPF area config.



Process ID	Select OSPF process ID.
Area Number	Select the OSPF area ID
Operation Type	Authentication: Enable authentication Default-Cost: Set the summary-default cost of a NSSA or stub area Range: Summarize routes matching address/mask (border routers only)
Authentication Mode	None: Not config MD5: Use message-digest authentication Plaintext: Use text authentication
Cost	Stub's advertised default summary cost, 0-16777215
Range Prefix	Area range prefix: A.B.C.D/M
Type	Advertise: Advertise this range (default) Not-Advertise: DoNotAdvertise this range Substitute: Announce area range as another prefix

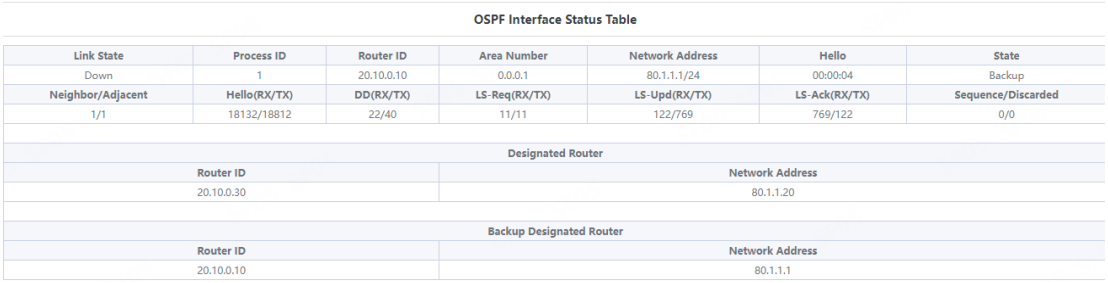
8.3.5. Interface Config

This page can be used for OSPF interface config.



Interface Name	Select Interface VLAN name
Disable OSPF	Enabled: Set Disable OSPF. Disabled: Set Enable OSPF.
Cost	Interface cost, <1-65535>
Priority	Router priority, <0-255>
Hello Interval	Time between HELLO packets, <1-65535> Seconds
Transmit Delay	Link state transmit delay <1-3600> Seconds
Dead Interval	Interval after which a neighbor is declared dead, <1-65535> Seconds
Ignore MTU	Ignores the MTU in DBD packets Disabled: Set disable ignore mtu Enabled: Set enable ignore mtu
Retransmit Interval	Time between retransmitting lost link state advertisements, <1-3600> Seconds
Database Filter	Filter OSPF LSA during synchronization and flooding Disabled: Set disable database filter. Enabled: Set enable database filter.
MTU	OSPF interface MTU, <576-65535> MTU size
Network Type	Network type

	Broadcast: Specify OSPF broadcast multi-access network non-broadcast: Specify OSPF NBMA network point-to-multipoint: Specify OSPF point-to-multipoint network point-to-point: Specify OSPF point-to-point network



OSPF Interface Status Table

Link State	Process ID	Router ID	Area Number	Network Address	Hello	State
Down	1	20.10.0.10	0.0.0.1	80.1.1.1/24	00:00:04	Backup
Neighbor/Adjacent	**Hello(RX/TX)**	**DD(RX/TX)**	**LS-Req(RX/TX)**	**LS-Upd(RX/TX)**	**LS-Ack(RX/TX)**	**Sequence/Discarded**
1/1	18132/18812	22/40	11/11	122/769	769/122	0/0

Designated Router

Router ID	Network Address
20.10.0.30	80.1.1.20

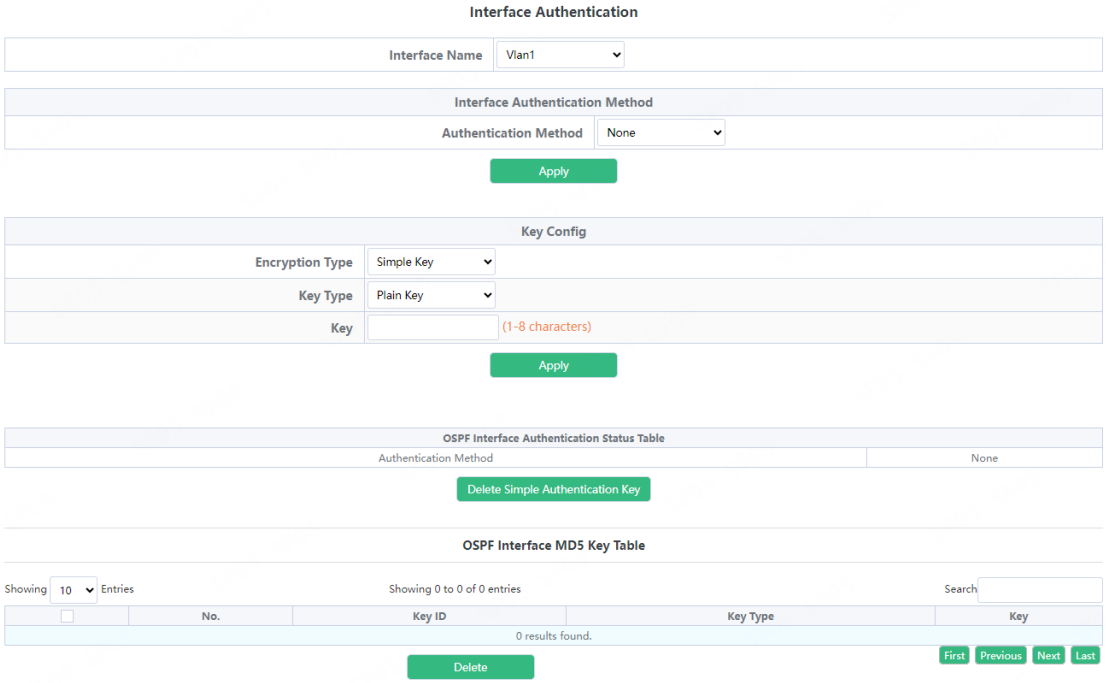
Backup Designated Router

Router ID	Network Address
20.10.0.10	80.1.1.1

Link State	Interface vlan link state
Process ID	OSPF process ID
Router ID	OSPF router ID
Area Number	OSPF interface area number
Network Address	OSPF interface network address
Hello	OSPF Hello due
State	OSPF interface state
Neighbor/Adjacent	OSPF interface Neighbor Count/ Adjacent neighbor count
Hello(RX/TX)	Hello received/sent
DD(RX/TX)	DD received/sent
LS-Req(RX/TX)	LS-Req received/sent
LS-Upd(RX/TX)	LS-Upd received/sent
LS-Ack(RX/TX)	LS-Ack received/sent
Sequence/Discarded	Crypt Sequence Number/Discarded
Designated Router	OSPF interface Designated Router
Router ID	Designated Router ID
Network Address	Designated Router Network Address
Backup Designated Router	OSPF interface Backup Designated Router
Router ID	Backup Designated Router ID
Network Address	Backup Designated Router Network Address

8.3.6. Interface Authentication

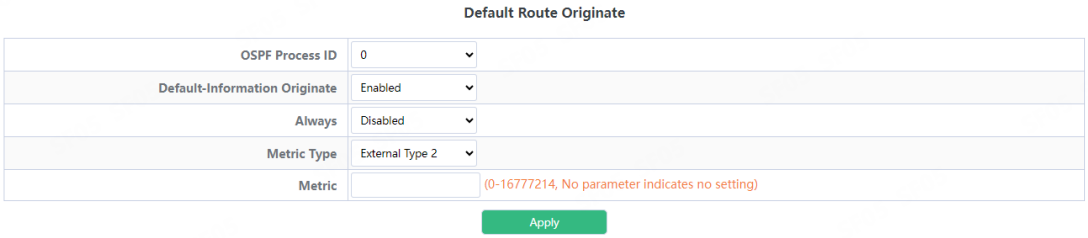
This page can be used for OSPF interface authentication config.



Interface Name	Select interface vlan name
Authentication Method	None: No Authentication
	Simple: Simple Authentication
	MD5: MD5 Authentication
Simple Key	Simple Authentication Key, 1-8 characters
MD5 Key	MD5 Authentication Key, 1-16 characters
Plain key	1-8 characters
Cipher Key	1-16 characters, input plaintext application to encrypt ciphertext
Key ID	MD5 Key ID, 1-255

8.3.7. Default Route Originate

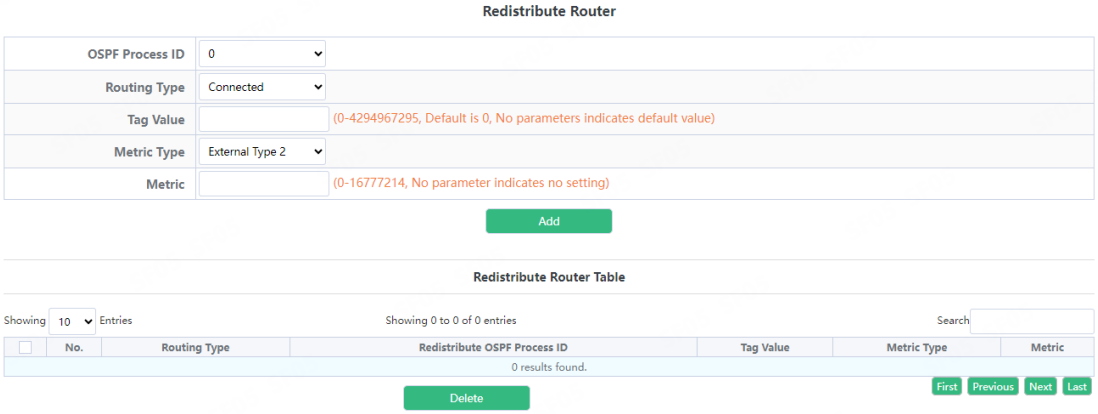
This page can be used for OSPF default route originate config.



OSPF Process ID	Select OSPF Process ID
Default-Information Originate	Create a default external route to OSPF route area, Enabled/Disabled
Always	Whether default route exist in the software or not, the default route is always advertised. Enabled/Disabled
Metric Type	External Type 1: Set the OSPF external type 1 metric value
	External Type 2: Set the OSPF External Type 2 metric value, default is External Type 2
Metric	Set the metric value for creating default route, Ranges between 0-16777214

8.3.8. Redistribute Router

This page can be used for OSPF redistribute router config.



OSPF Process ID	Select OSPF Process ID
Routing Type	Connected: introduce from direct route
	Kernel: introduce from kernel route
	BGP Route: introduce from BGP route
	RIP Route: introduce from the RIP route
	OSPF Route: introduce from OSPF route
	Static Route: introduce from static route
Tag Value	External identification number of the external route, ranging between 0-4294967295, defaulted at 0
Redistribute OSPF Process ID	OSPF process ID, 0 by default
Metric Type	External Type 1: Set the OSPF external type 1 metric value
	External Type 2: Set the OSPF External Type 2 metric value, default is External Type 2
Metric	Set the metric value for creating default route, Ranges between 0-16777214

8.3.9. View OSPF Information

This page can be used for view OSPF Information config.

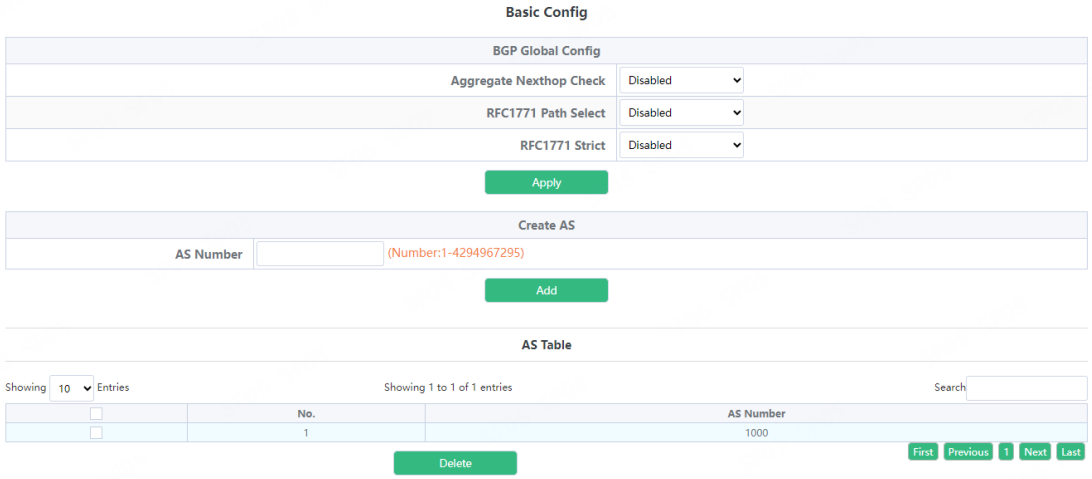
OSPF Entries	OSPF Information	Display OSPF main messages
	OSPF Database	Display the OSPF link state data base

		messages
	OSPF Neighbor	Display the OSPF adjacent point messages

8.4. BGP Route

8.4.1. Basic Config

This page can be used for BGP basic config.

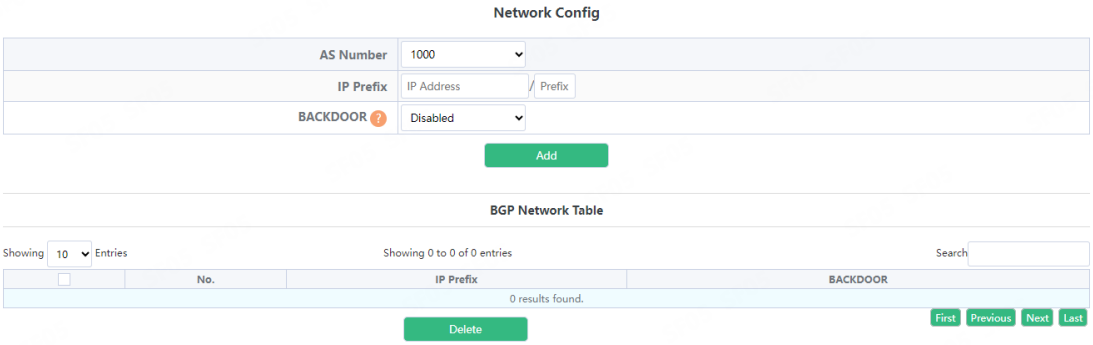


Aggregate Nexthop Check	Configures whether BGP checks all the route next-hop in aggregating. When check is enabled, the aggregate will not be performed if the next-hop of the covered routes are not in accordance. When checking is disabled, all covered route will be aggregated into the aggregate route. Default is disabled
RFC1771 Path Select	After this attribute is set, path selecting will follow the way defined in rfc 1771, namely not checking the AS internal metric, when different AS exist, which should be perform without this attribute set

	Default is disabled
RFC1771 Strict	Set whether strictly follows the rfc1771 restrictions. With this attribute set, generation types of routes from protocols such as RIP, OSPF, ISIS, etc will be regarded as IGP(internal generated),or else as incomplete.
AS Number	AS number, ranging from 1 to 4294967295, it can be shown in decimal notation(such as 6553700) or delimiter method(such as 100.100)

8.4.2.Network Config

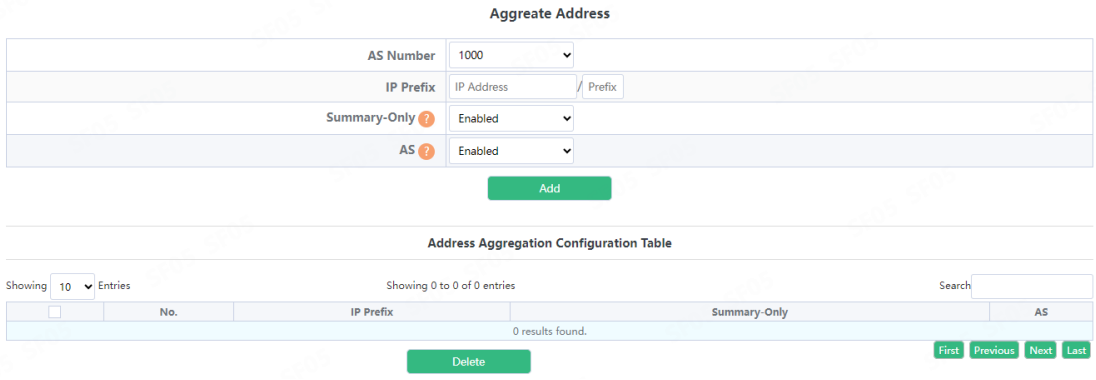
This page can be used for BGP network config.



AS Number	AS Number
IP Prefix	Network prefix identifie
BACKDOOR	back door parameters

8.4.3.Aggreate Address

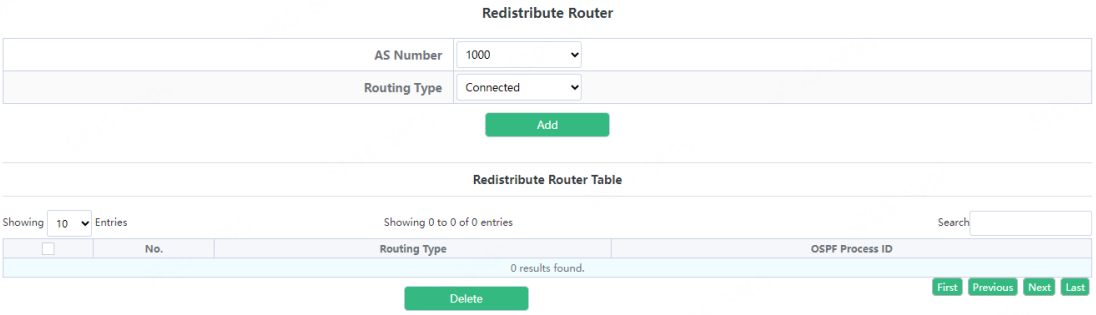
This page can be used for BGP aggregate address config.



AS Number	AS Number
IP Prefix	IP address, length of mask.
Summary-Only	Send summary only ignoring specific route.
AS	Show AS on the path in list, each AS is shown once.

8.4.4. Redistribute Router

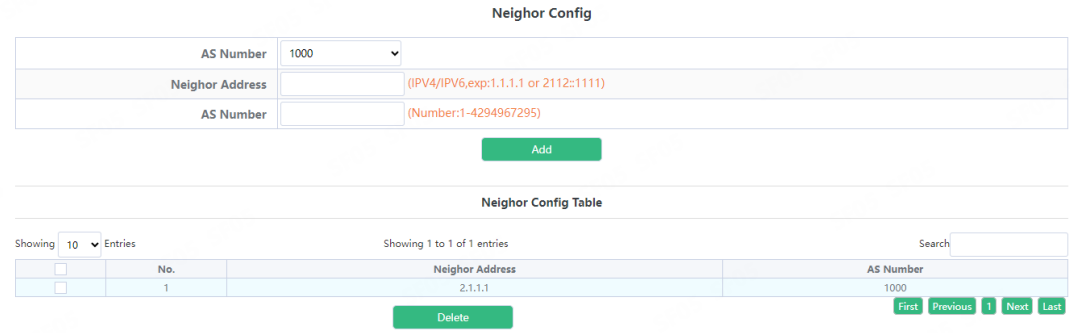
This page can be used for BGP redistribute router config. Route from other ways will be distributed into the BGP route table



AS Number	AS Number	
Routing Type	Connected	redistribute connected route
	Kernel	Redistribute kernel route
	OSPF Route	redistribute OSPF Route
	RIP Route	redistribute RIP Route
	Static Route	redistribute Static Route

8.4.5.Neighbor Config

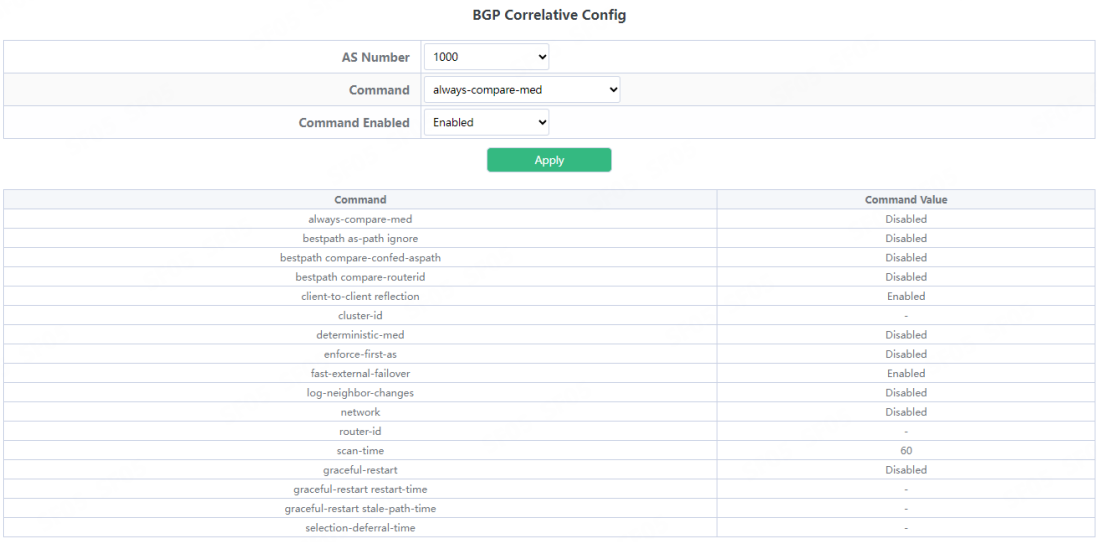
This page can be used for BGP neighbor config.



AS Number	AS Number
Neighbor Address	Neighbor IP address
AS Number	Neighbor AS number, ranging from 1 to 4294967295, it can be shown in decimal notation (such as 6553700) or delimiter method (such as 100.100).

8.4.6.BGP Correlative Config

This page can be used for BGP correlative config.



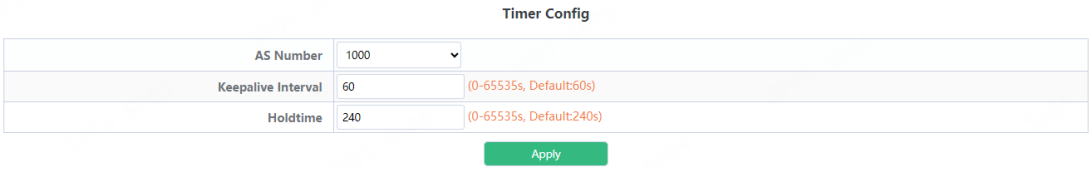
AS Number	AS Number	
Command	always-compare-med	Configures If MED comparation is always performed

	bestpath as-path ignore	Set to ignore the AS-PATH length
	bestpath compare-confed-aspath	Set to concern the confederation AS-PATH length
	bestpath compare-routerid	Compare route ID
	client-to-client reflection	Configures whether the route reflection is performed
	cluster-id	Configure the route reflection ID during the route reflection
	deterministic-med	Use the best MED for the same prefix in the AS to compare with other AS
	enforce-first-as	Enforces the first AS position of the route AS-PATH contain the neighbor AS number or else disconnect this peer when the BGP is reviving the external routes
	fast-external-failover	Fast reset when the BGP neighbor connection varies at the interface other than wait for TCP timeout
	log-neighbor-changes	Output log message when BGP neighbor changes
	network	Set whether check the IGP accessibility of the BGP network route or not
	router-id	Configure the router ID manually
	scan-time	Set the time interval of the periodical next-hop validation
	graceful-restart	Enable BGP to support GR and set restart-time and stale-path-time as the default value
	graceful-restart restart-time	Configure BGP GR's restart-time(Receiving Speaker enables a timeout timer for a neighbor, it uses the restart-time as the timeout.) A restart-time specifies the longest waiting

		time from Receiving Speaker finds restarting to the received OPEN messages. If Receiving Speaker does not receive OPEN messages after exceed the time, it can delete SATLE route saved by neighbor. Default is 120s.
	graceful-restart stale-path-time	Configure stale-path-time for BGP GR. Specify the longest waiting time that delete stale route from the received OPEN messages to the received EOR for Receiving Speaker. Default is 360s.
	selection-deferral-time	Configure selection-deferral-time for BGP GR. Specify the longest waiting time that start to count selection route from the received OPEN messages to the received EOR for Restarting Speaker. If Restarting Speaker does not receive EOR after exceed the time, it can count selection route. Default is 120s.
Command	Enable Disable	
Enabled		

8.4.7. Timer Config

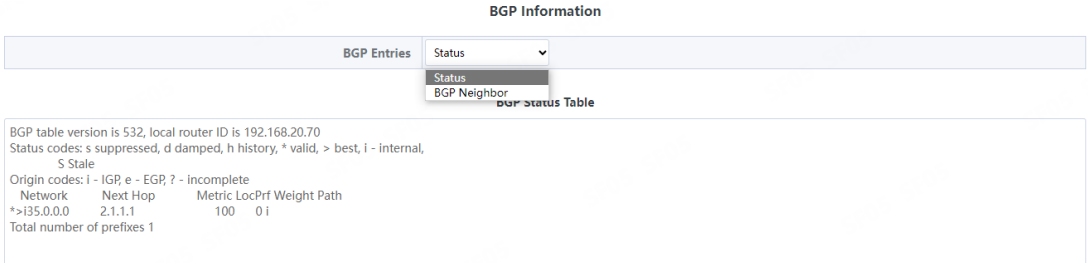
This page can be used for BGP Timer config.



AS Number	AS Number
Keepalive Interval	KEEPALIVE interval, default is 60s.
Holdtime	Hold Time, default is 240s.

8.4.8. View BGP Information

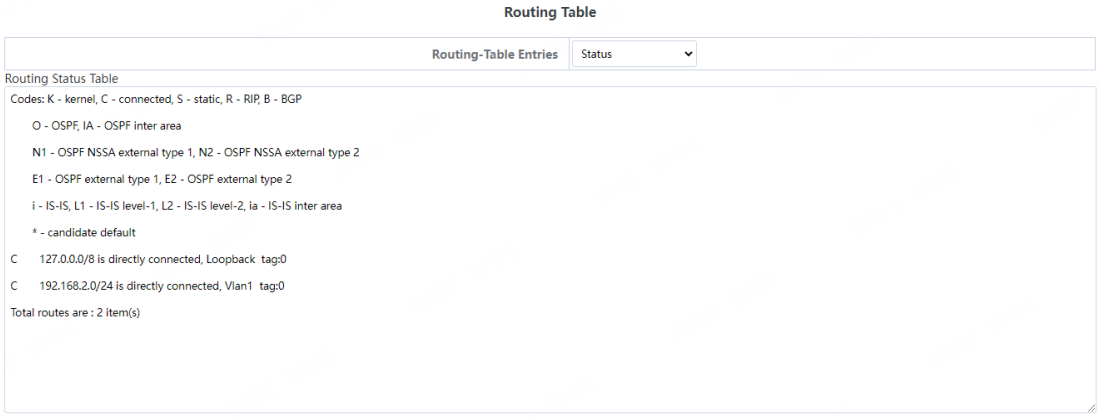
This page can be used for view BGP Information.



BGP Entries	BGP Routing Messages	For displaying the routing messages permitted by BGP
	BGP Neighbor	Show neighbor information of specified BGP or total BGP processes

8.5. Routing Table

This page can be view for the basic status of routing table.



Routing-Table Entries	Status; Database; Connect Route; RIP Roue;

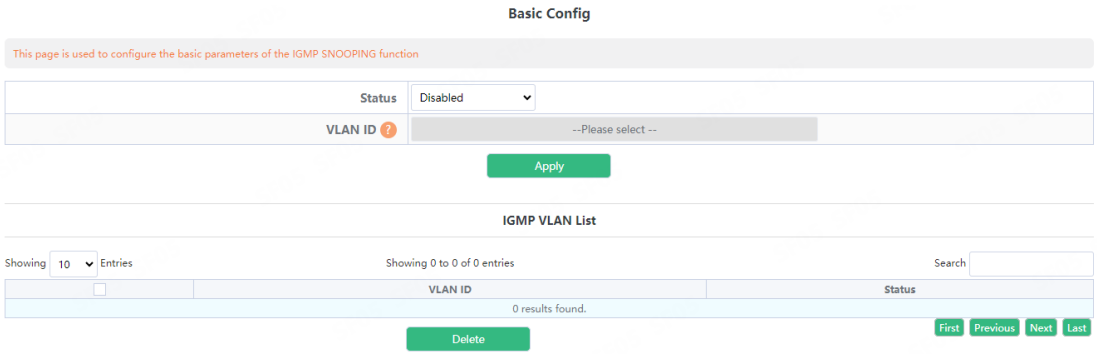
	Static Route; Statistics; OSPF Route; Kernel Route; FIB;

9. Multicast Manage

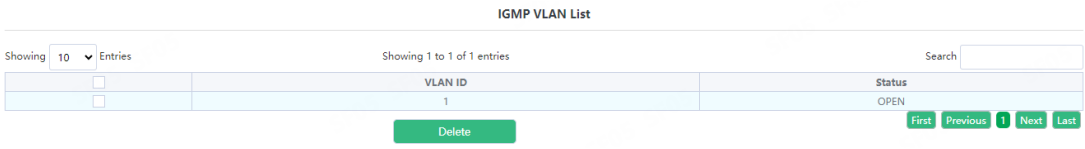
9.1. IGMP Snooping Config

9.1.1. Basic Config

Switch IGMP Snooping global switch, snooping IGMP messages



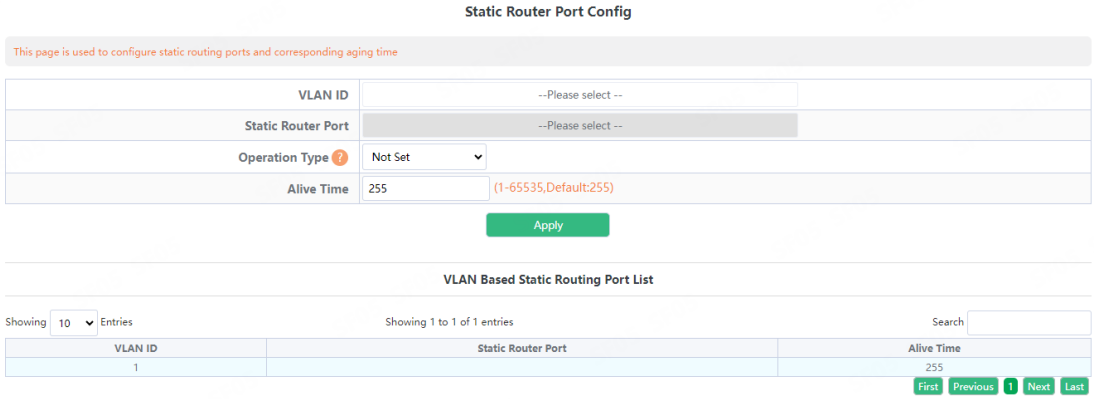
Switch on-off IGMP Snooping	Enable	Turn on the global switch of IGMP Snooping on the switch
	Disable	Turn off the global switch of IGMP Snooping on the switch
VLAN ID	Created VLAN ID	



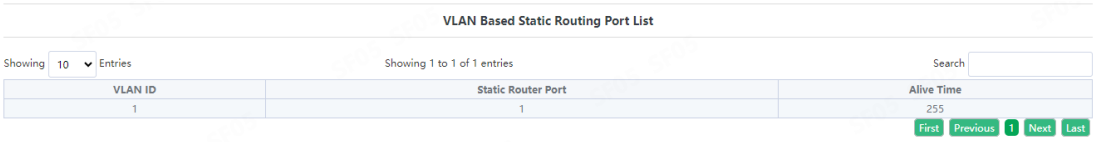
Display the current existing VLAN interface and the running status of IGMP Snooping under the VLAN interface

9.1.2. Static Router Port

IGMP Snooping mrouter port parameter configuration.



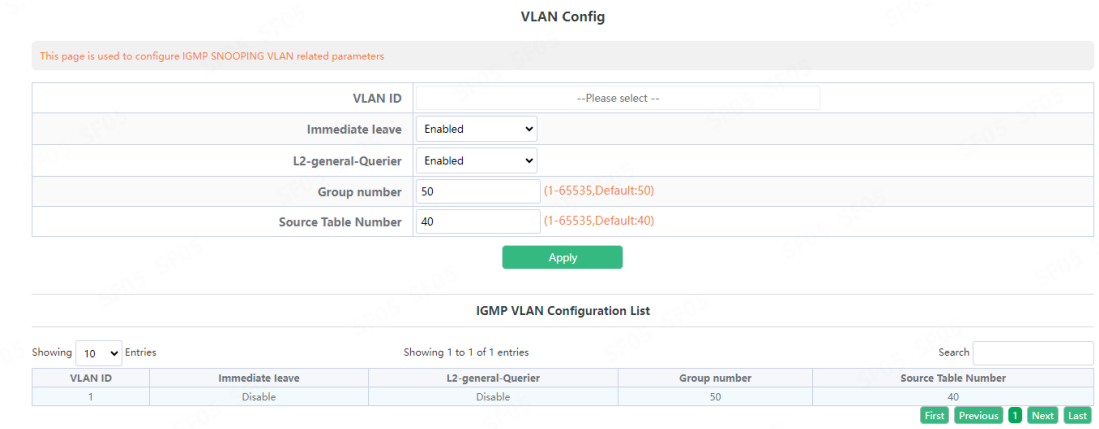
VLAN ID	Created VLAN ID	
Mrouter port	Port name	
Mrouter port alive time	Time to live of the port, range: 1-65535	
Operation type	Apply	Add the mrouter port parameter configuration checked under the selected VLAN



Display current configuration information

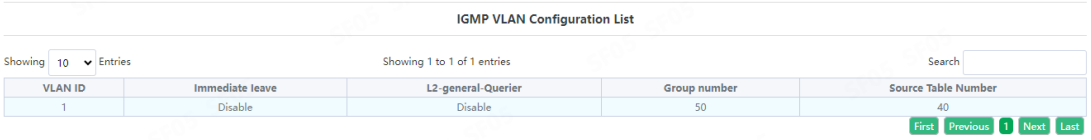
9.1.3. VLAN Config

Configure IGMP Snooping based on VLAN interface.



VLAN ID	Created VLAN ID	
Immediate leave configuration	IGMP fast leave function in VLAN	
L2-general-querier configuration	Used to send regular queries regularly to help switches in this network segment learn the mrouter port	
Group number	The upper limit of the total number of groups. When the number of joined groups reaches the limit, the newly joined groups will be rejected to prevent hostile attacks. The default is 50, and the range: 1-65535.	
Source table number	The maximum number of source entries in each group, including include sources and exclude sources. The default is 40, and the range: 1-65535.	
Operation	Configuration	Configure the checked parameters into the selected VLAN

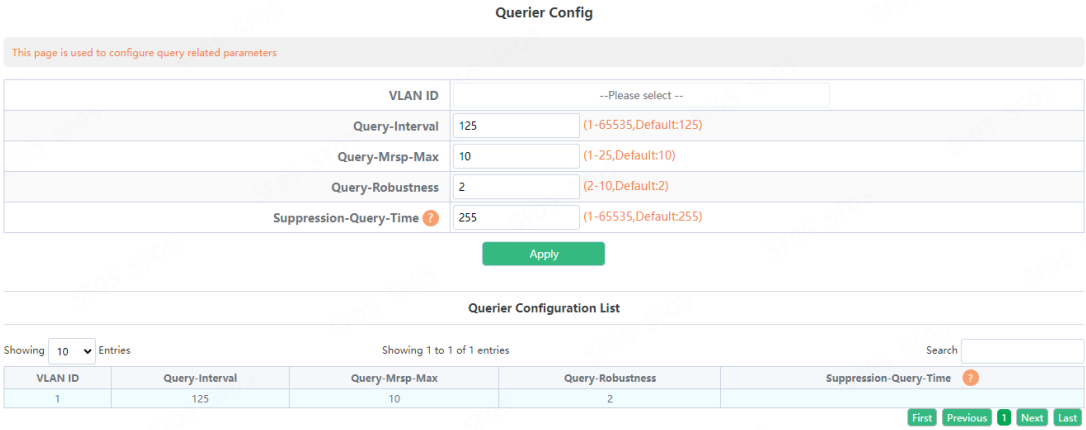
Note: Whether it is to configure parameters or restore the default state, it is required to check the box at the back to take effect. The group number and the number of source table entries are unified functions, so the two function parameters will take effect together (when one parameter is set, the other will be set to the default value).



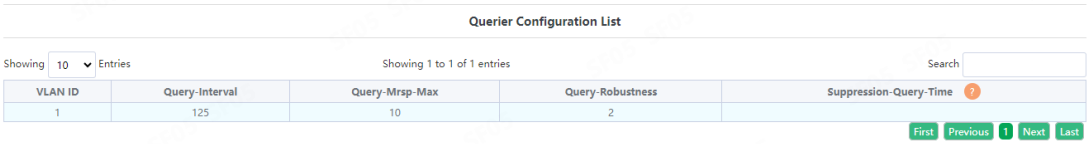
Display the configuration parameters of the existing VLAN

9.1.4. Querier Config

IGMP Snooping query parameter configuration.



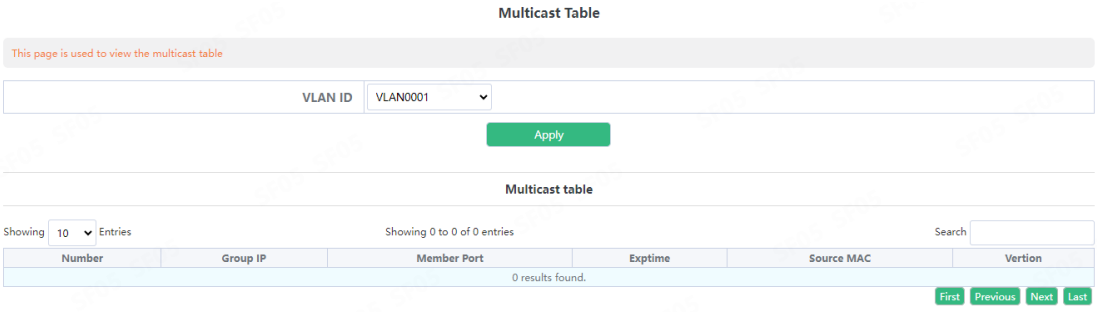
VLAN ID	Created VLAN ID	
Query-Interval	IGMP Snooping query interval, range: 1-65535	
Query-mrsp configuration	Maximum response time for group query	
Query-robustness configuration	IGMP Snooping robustness, range: 2-10	
Suppression-query-time configuration	Prohibited query time, range: 1-65535	
Operation type	Apply	Add the mrouter port parameter configuration checked under the selected VLAN



Display current configuration information

9.1.5. Multicast Table

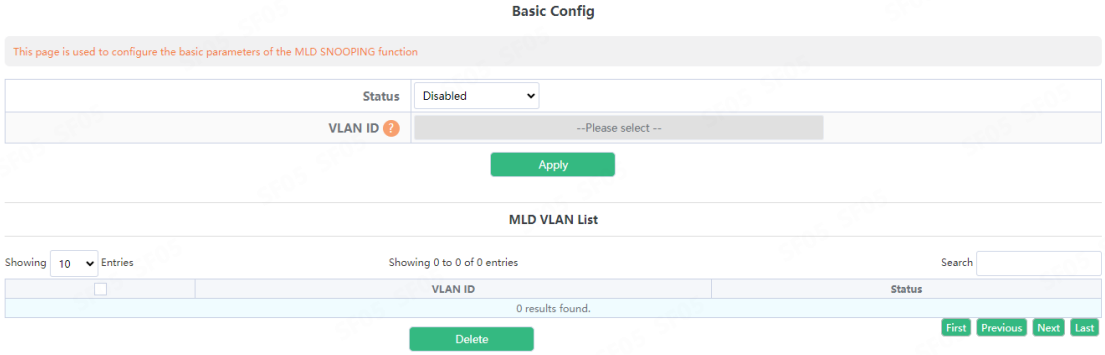
The page displayed multicast table information.



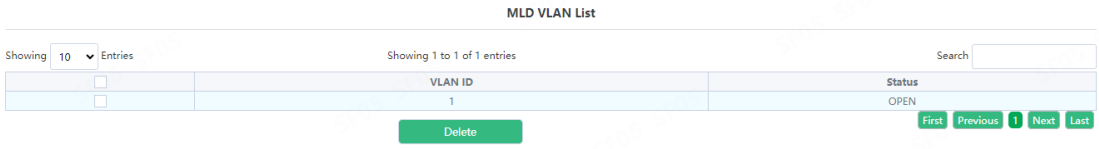
9.2.MLD Snooping Config

9.2.1.Basic Config

Switch MLD Snooping global switch, MLD snooping messages



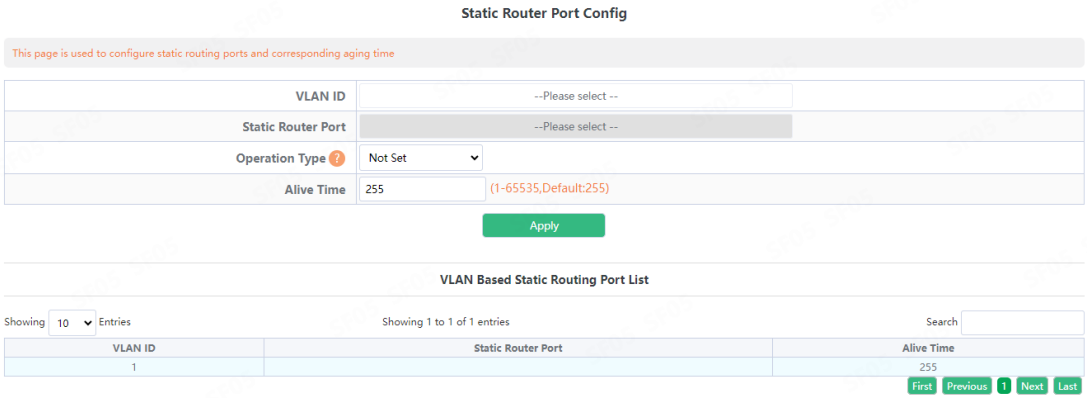
Switch on-off IGMP Snooping	Enable	Turn on the global switch of IGMP Snooping on the switch
	Disable	Turn off the global switch of IGMP Snooping on the switch
VLAN ID	Created VLAN ID	



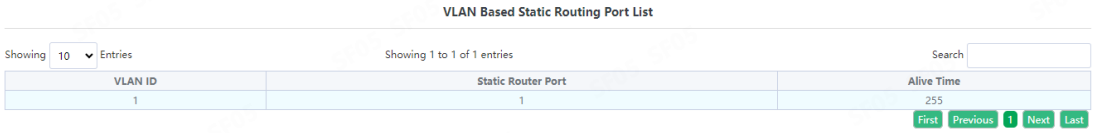
Display the current existing VLAN interface and the running status of IGMP Snooping under the VLAN interface

9.2.2.Static Router Port

MLD Snooping mrouter port parameter configuration.



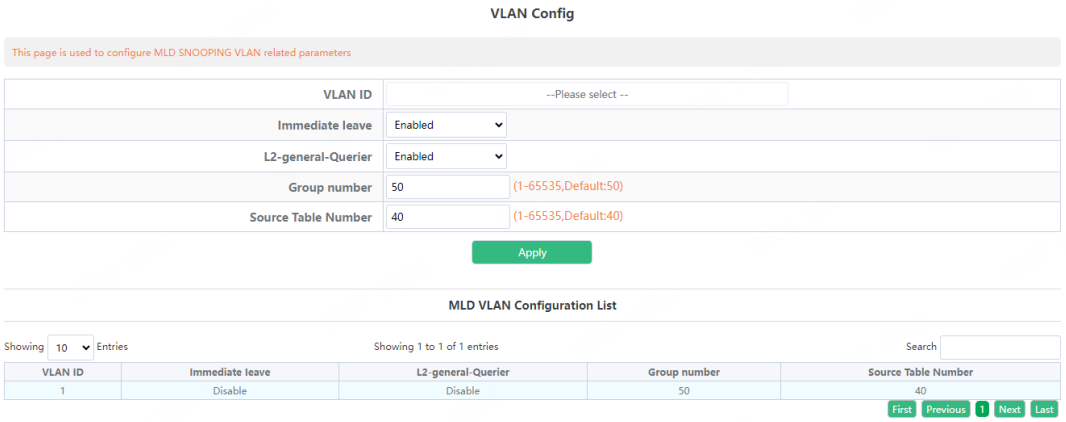
VLAN ID	Created VLAN ID	
Mrouter port	Port name	
Mrouter port alive time	Time to live of the port, range: 1-65535	
Operation type	Apply	Add the mrouter port parameter configuration checked under the selected VLAN



Display current configuration information

9.2.3. VLAN Config

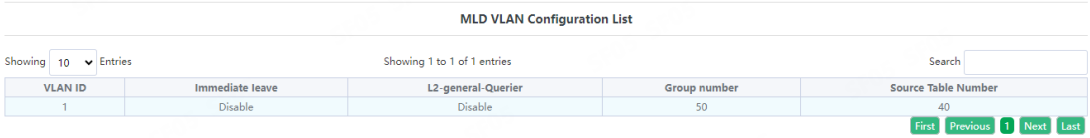
Configure MLD Snooping based on VLAN interface.



VLAN ID	Created VLAN ID
Immediate leave configuration	MLD fast leave function in VLAN

L2-general-querier configuration	Used to send regular queries regularly to help switches in this network segment learn the mrouter port	
Group number	The upper limit of the total number of groups. When the number of joined groups reaches the limit, the newly joined groups will be rejected to prevent hostile attacks. The default is 50, and the range: 1-65535.	
Source table number	The maximum number of source entries in each group, including include sources and exclude sources. The default is 40, and the range: 1-65535.	
Operation	Configuration	Configure the checked parameters into the selected VLAN

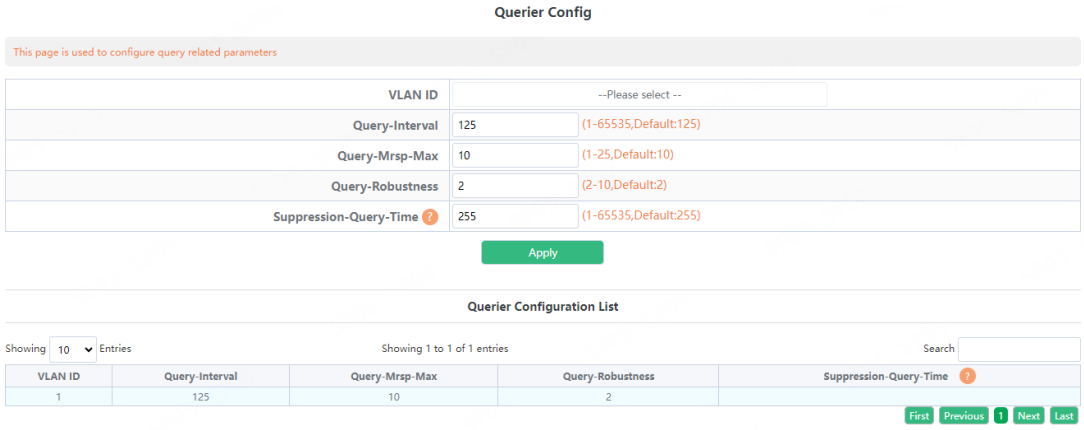
Note: Whether it is to configure parameters or restore the default state, it is required to check the box at the back to take effect. The group number and the number of source table entries are unified functions, so the two function parameters will take effect together (when one parameter is set, the other will be set to the default value).



Display the configuration parameters of the existing VLAN

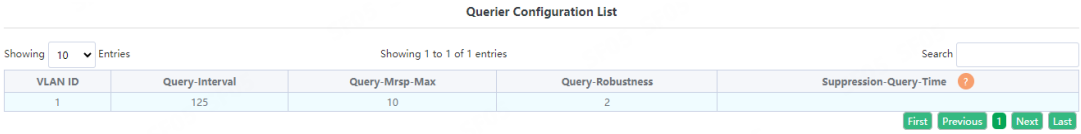
9.2.4. Querier Config

MLD Snooping query parameter configuration.



VLAN ID	Created VLAN ID
Query-Interval	MLD Snooping query interval, range: 1-65535

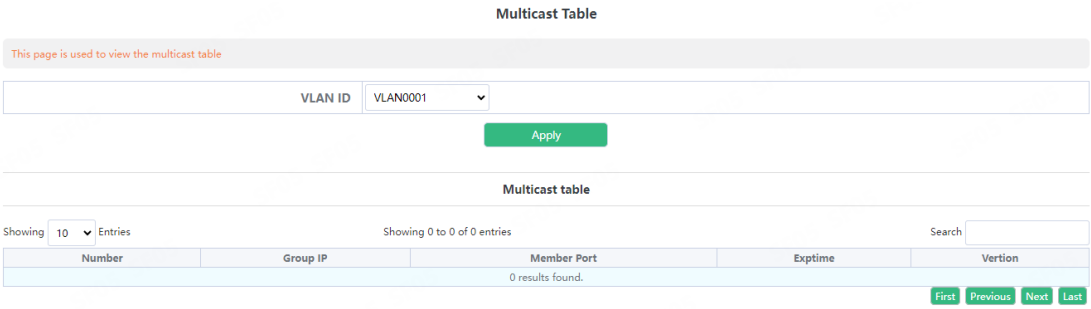
Query-mrsp configuration	Maximum response time for group query	
Query-robustness configuration	MLD Snooping robustness, range: 2-10	
Suppression-query-time configuration	Prohibited query time, range: 1-65535	
Operation type	Apply	Add the mrouter port parameter configuration checked under the selected VLAN



Display current configuration information

9.2.5.Multicast Table

The page displayed multicast table information.

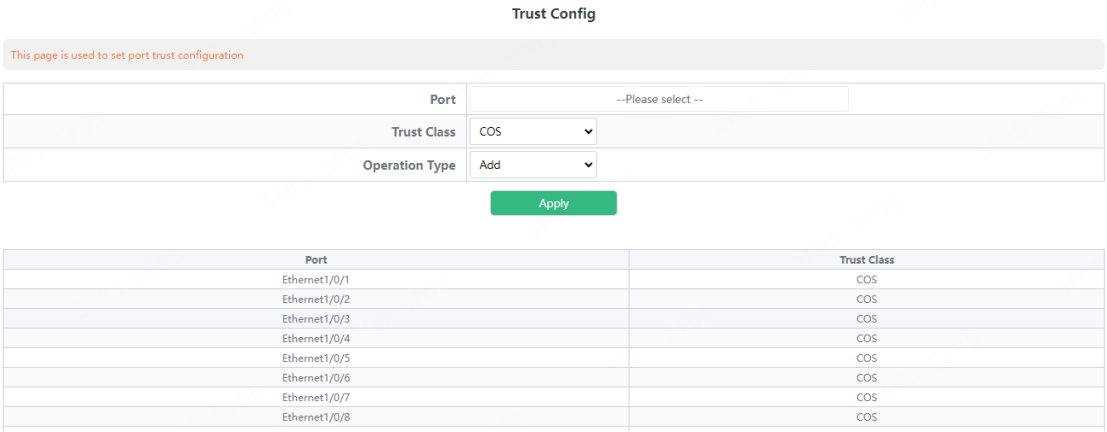


10.QoS Config

10.1.Port Config

10.1.1.Trust Config

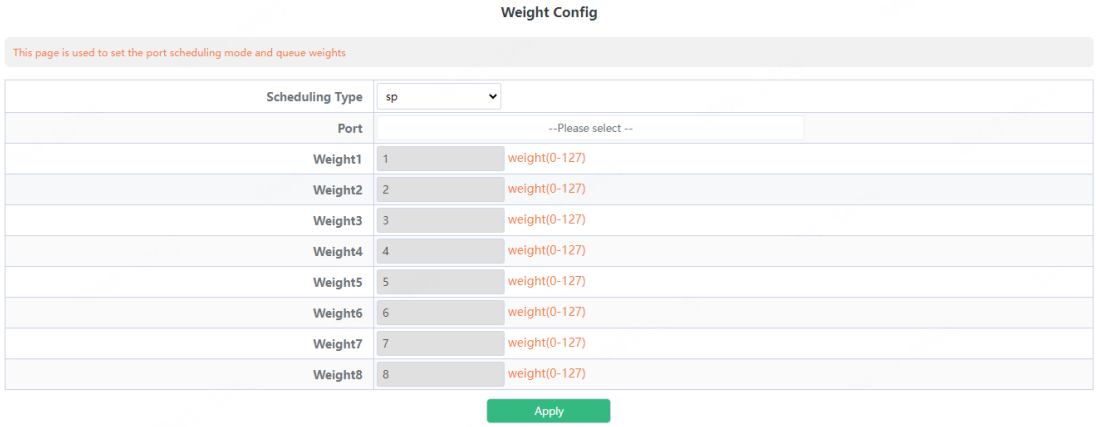
Configure port trust rules



Port	To configure the port name, click to expand the remaining ports	
Trust class	COS	Cos to int mapping based on intp field
	DSCP	Intp field based on dscp to intp mapping
Operation	add	Add a trust rule for the port
	Delete	Remove a trust rule for the port

10.1.2.Weight Config

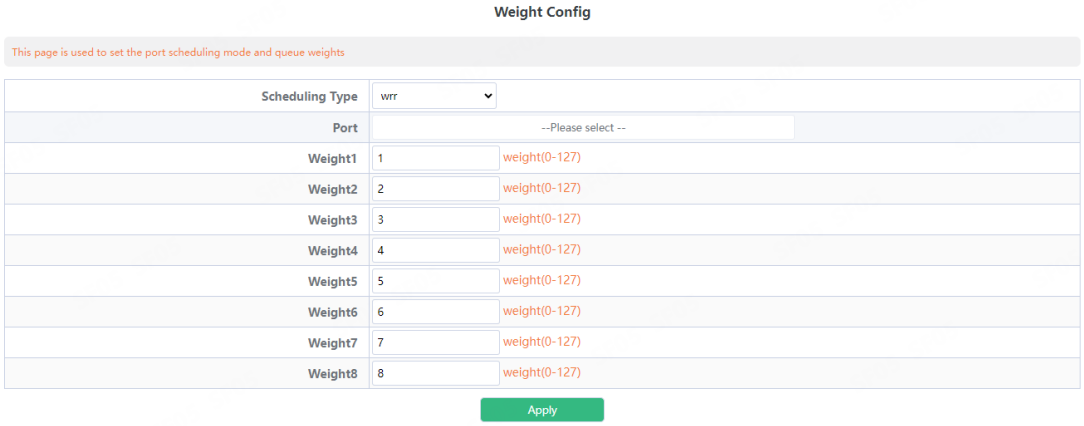
Configure the port to process the priority of packets according to different queue scheduling algorithms



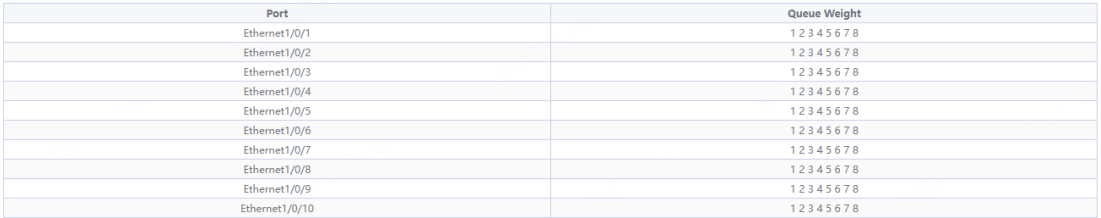
Port	To configure the port name, click to expand the remaining ports	
Queue schedule algorithm	sp	Strict queuing priority, packet transmission in order of priority.
	wrr	Weighted round-robin scheduling. Rotate scheduling between queues to ensure that each queue gets a certain amount of service time

	wdrr	Weighted difference round-robin scheduling, based on message length transmission, based on the combined effect of weight and K value to generate the length of transmission in the message queue

Configure the weight value of the eight queues of each port, and allocate the number of packets according to the weight value



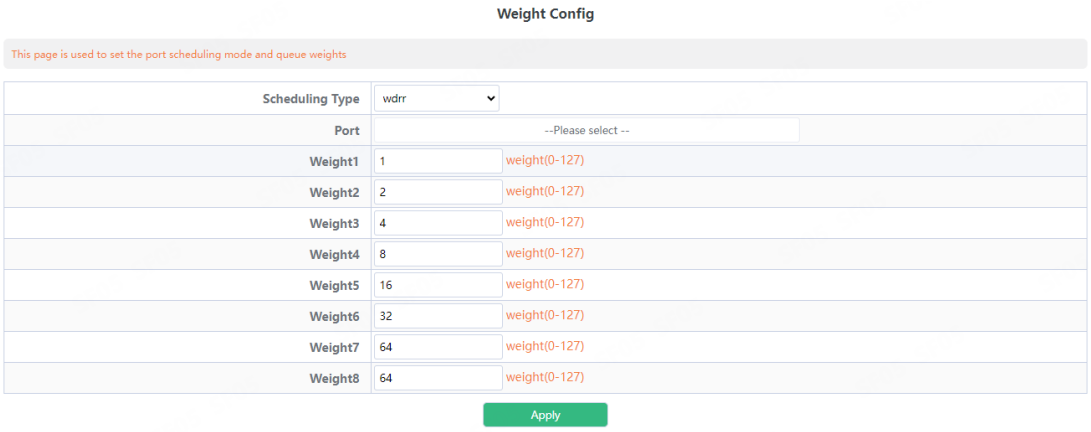
Port	To configure the port name, click to expand the remaining ports	
Weight1	The weight value of queue 1, the range is 0-127	
Weight2	The weight value of queue 2, the range is 0-127	
Weight3	The weight value of queue 3, the range is 0-127	
Weight4	The weight value of queue 4, the range is 0-127	
Weight5	The weight value of queue 5, the range is 0-127	
Weight6	The weight value of queue 6, the range is 0-127	
Weight7	The weight value of queue 7, the range is 0-127	
Weight8	The weight value of queue 8, the range is 0-127	
Operation	Apply	Add the weight of each queue to the port, and fill in all the weights of each queue before adding



Port	Queue Weight
Ethernet1/0/1	1 2 3 4 5 6 7 8
Ethernet1/0/2	1 2 3 4 5 6 7 8
Ethernet1/0/3	1 2 3 4 5 6 7 8
Ethernet1/0/4	1 2 3 4 5 6 7 8
Ethernet1/0/5	1 2 3 4 5 6 7 8
Ethernet1/0/6	1 2 3 4 5 6 7 8
Ethernet1/0/7	1 2 3 4 5 6 7 8
Ethernet1/0/8	1 2 3 4 5 6 7 8
Ethernet1/0/9	1 2 3 4 5 6 7 8
Ethernet1/0/10	1 2 3 4 5 6 7 8

Infomation feedback window

Configure the weight value of the eight queues of each port, transmit based on the length of the message, and generate the transmission length in the message queue based on the combined action of the weight and the K value



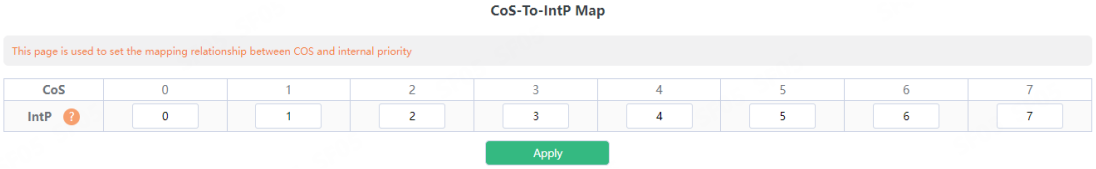
Port	To configure the port name, click to expand the remaining ports	
Weight1	The weight value of queue 1, the range is 0-32767	
Weight2	The weight value of queue 2, the range is 0-32767	
Weight3	The weight value of queue 4, the range is 0-32767	
Weight4	The weight value of queue 8, the range is 0-32767	
Weight5	The weight value of queue 16, the range is 0-32767	
Weight6	The weight value of queue 32, the range is 0-32767	
Weight7	The weight value of queue 64, the range is 0-32767	
Weight8	The weight value of queue 64, the range is 0-32767	
Operation	Apply	Add the weight of each queue to the port, and fill in all the weights of each queue before adding

Port	Queue Weight
Ethernet1/0/1	1 2 4 8 16 32 64 64
Ethernet1/0/2	1 2 4 8 16 32 64 64
Ethernet1/0/3	1 2 4 8 16 32 64 64
Ethernet1/0/4	1 2 4 8 16 32 64 64
Ethernet1/0/5	1 2 4 8 16 32 64 64
Ethernet1/0/6	1 2 4 8 16 32 64 64
Ethernet1/0/7	1 2 4 8 16 32 64 64
Ethernet1/0/8	1 2 4 8 16 32 64 64
Ethernet1/0/9	1 2 4 8 16 32 64 64
Ethernet1/0/10	1 2 4 8 16 32 64 64

Infomation feedback window

10.1.3.CoS-To-IntP Config

Configure the value mapped from the COS value to the internal priority (queue).

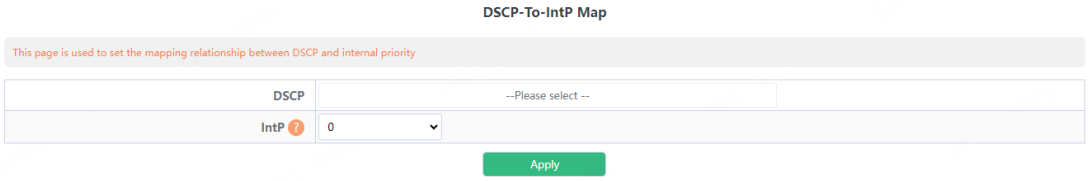


CoS value	The COS value carried in the message or the default COS value assigned when entering	
IntP value	The value of the internal priority (queue) to which the COS value will be mapped	
Operation type	Configuration	Configure the value of COS to IntP

Display the execution process and the current mapping relationship

10.1.4.DSCP-To-IntP Config

Configure the value mapped from the DSCP value to the IntP value.



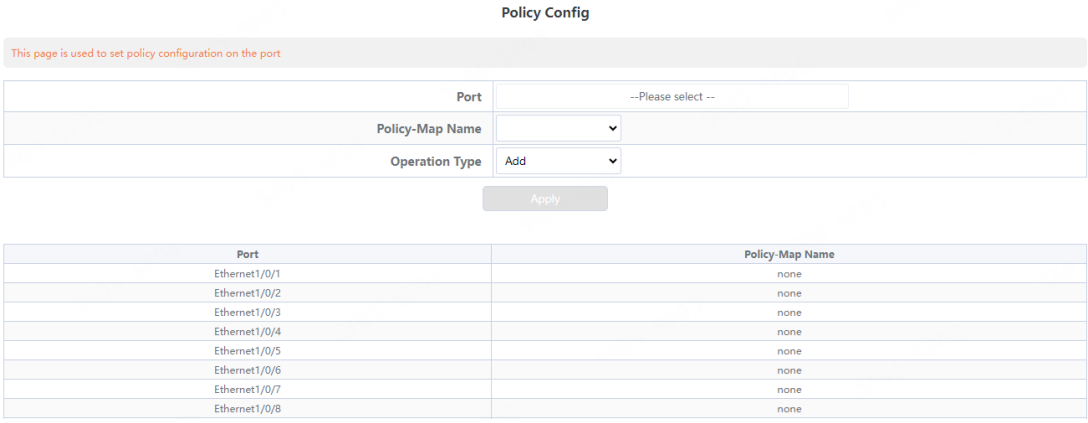
DSCP value1-DSCP value8(optional)	Up to eight DSCP values can be configured to the new IntP value, among which DSCP value1 is required, DSCP valuce2-8 is optional, range: 0-63	
IntP value	New IntP value, range: 0-7	
Operation type	Apply	Configure DSCP to IntP value

DSCP	Internal Priority	DSCP	Internal Priority	DSCP	Internal Priority	DSCP	Internal Priority
0	0	16	2	32	4	48	6
1	0	17	2	33	4	49	6
2	0	18	2	34	4	50	6
3	0	19	2	35	4	51	6
4	0	20	2	36	4	52	6
5	0	21	2	37	4	53	6
6	0	22	2	38	4	54	6
7	0	23	2	39	4	55	6
8	1	24	3	40	5	56	7
9	1	25	3	41	5	57	7
10	1	26	3	42	5	58	7
11	1	27	3	43	5	59	7
12	1	28	3	44	5	60	7
13	1	29	3	45	5	61	7
14	1	30	3	46	5	62	7
15	1	31	3	47	5	63	7

Shows the execution process and the current mapping relationship. The vertical d1 represents the tens digit of DSCP, and the horizontal d2 represents the single digit of DSCP. The value of the intersection of the two is the mapping value.

10.1.5.Policy Config

Configure the port's policy table, and the port will process packets according to the rules of the classification table in the policy table.

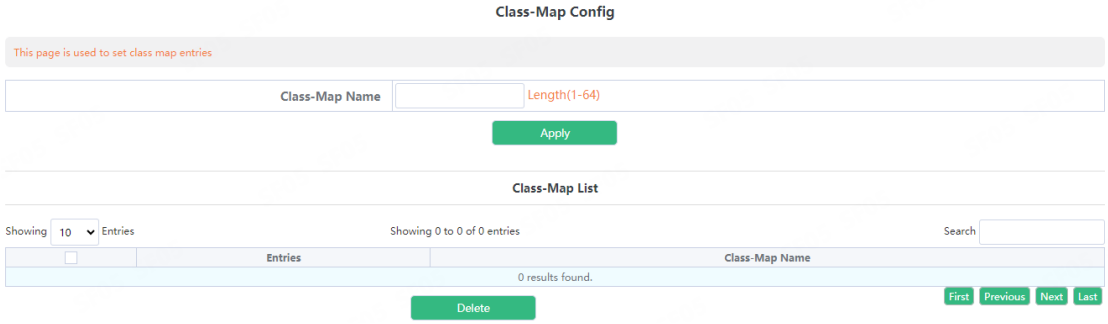


Port	To configure the port name, click to expand the remaining ports	
Policy map name	The name of the policy table, added by the policy table configuration	
Operation	Add	policy for adding ports
	Delete	Delete port policy

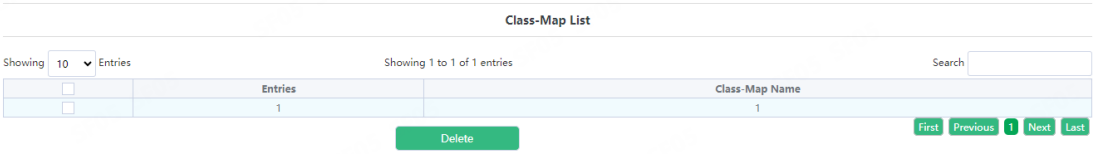
10.2.Class-Map Config

10.2.1.Class-Map Config

Create and delete classification tables, view the currently configured classification tables



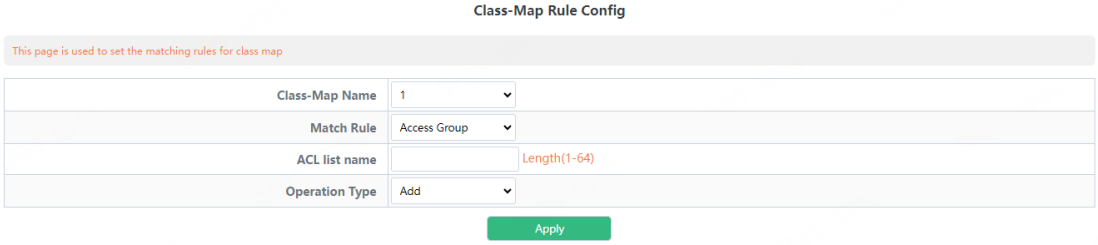
Class-map name	Class-map name, range:1-64 character	
Operation	Add	Add Class-map
	Delete	Remove Class-map



Display the currently created class-map name

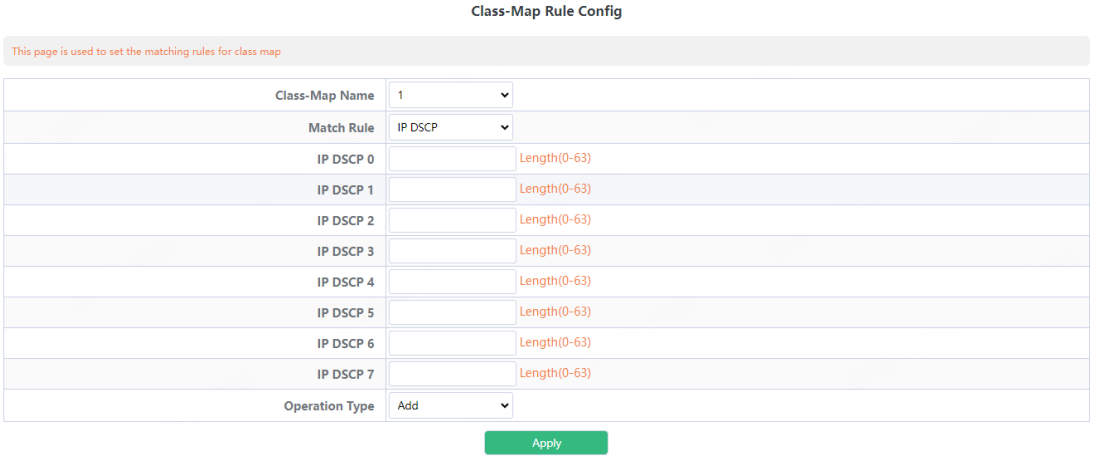
10.2.2.Class-Map Rule Config

Set the rules and corresponding parameters for classification matching

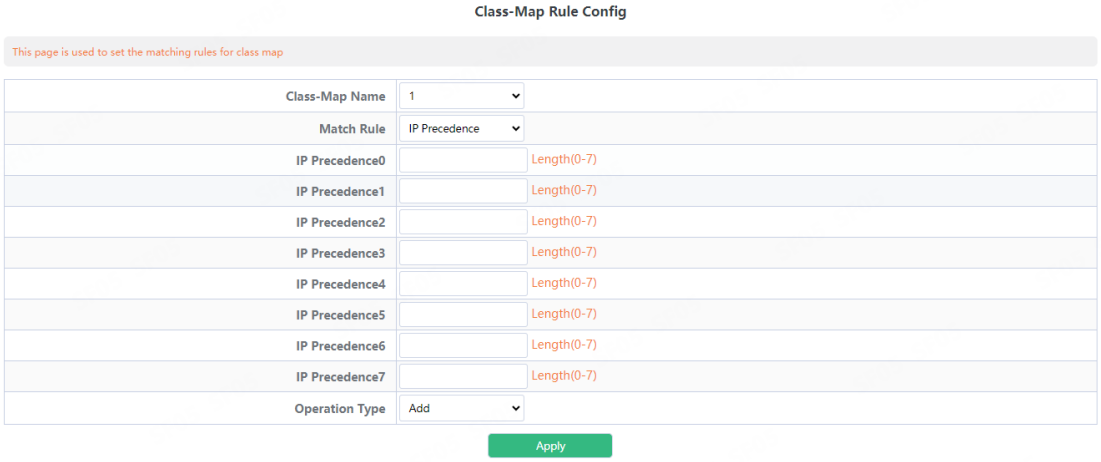


Classification criteria rule	accesss-group	Match the specified IP ACL, MAC ACL or IPv6 standard ACL or MAC-IP ACL

Class-map name	The name of the created class-matching table, select by clicking the drop-down	
ACL list name	Created ACL name, 1-64 characters	
Operation	Add	Add matching rules
	Del	Remove matching rules

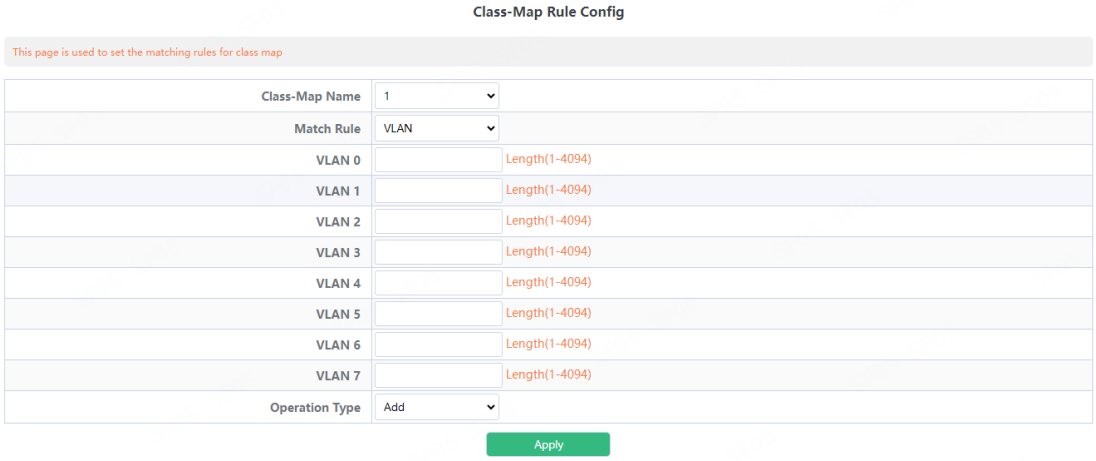


Classification criteria rule	ip dscp	Match the specified DSCP value, this parameter is the DSCP list
Class-map name	The name of the created class-matching table, select by clicking the drop-down	
IP dscp0-7	One or more DSCP values can be set, up to 8 DSCP values can be set, the range is 0~63;	
Operation	Add	Add matching rules
	Del	Remove matching rules

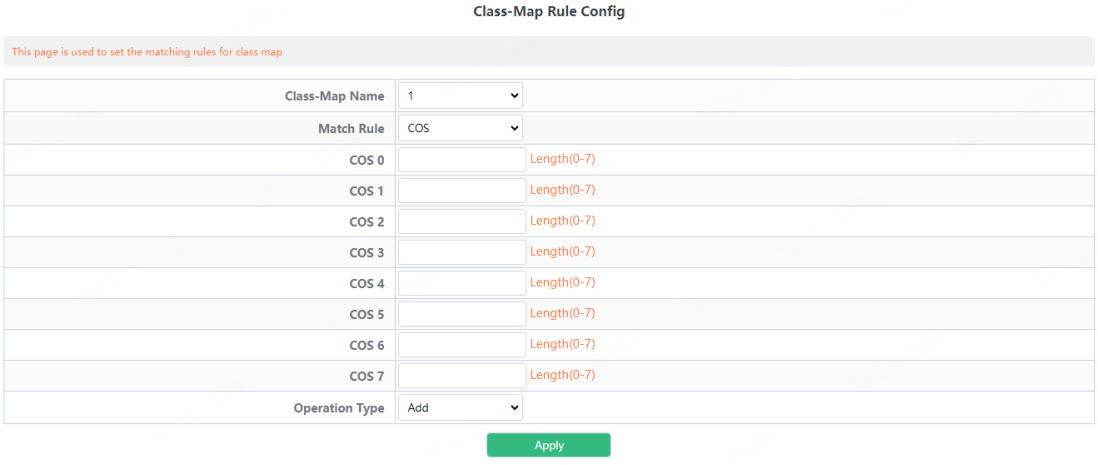


Classification criteria rule	ip precedence	Match the specified ip priority, this parameter is the IP priority list
Class-map name	The name of the created class-matching table, select by	

	clicking the drop-down	
IP precedence0-7	One or more ip priority values can be set, the list contains up to 8 IP priority values, and the valid range is 0~7;	
Operation	Add	Add matching rules
	Del	Remove matching rules

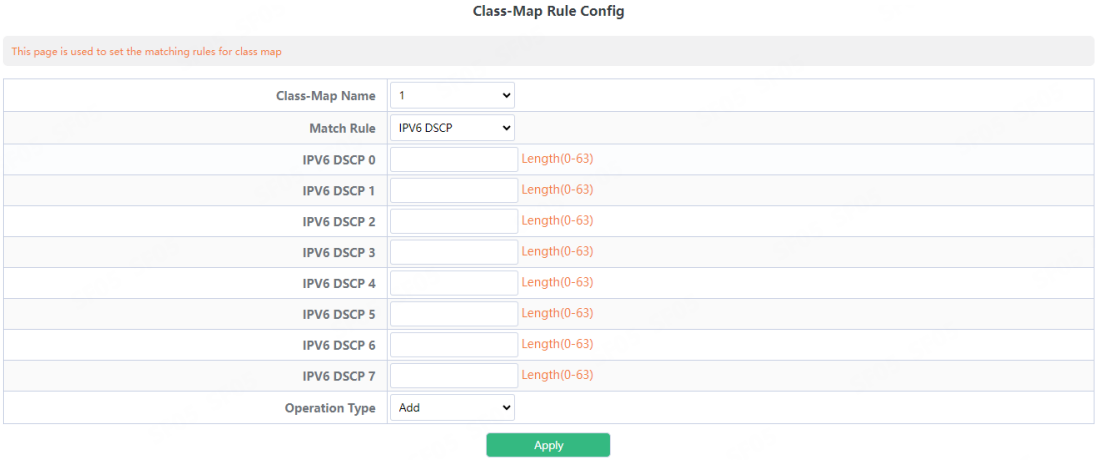


Classification criteria rule	vlan	Match the specified vlan, this parameter is a list of vlan id
Class-map name	The name of the created class-matching table, select by clicking the drop-down	
Vlan0-7	One or more VLAN IDs can be set, including 8 VLAN IDs at most, ranging from 1 to 4094	
Operation	Add	Add matching rules
	Del	Remove matching rules

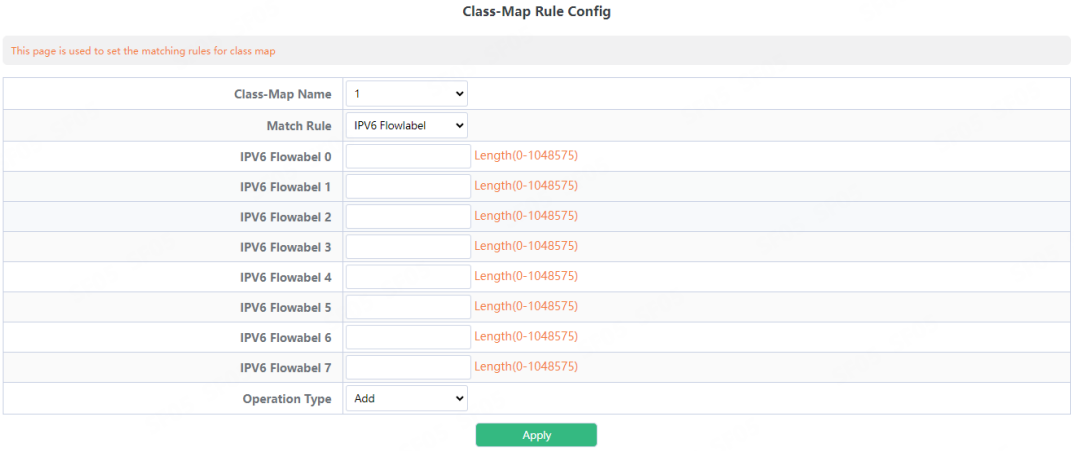


Classification criteria rule	cos	Match the specified CoS value, this parameter is a list of vlan id
Class-map name	The name of the created class-matching table, select by clicking the drop-down	

Cos 0-7	One or more cos values can be set, the parameter is a CoS list composed of up to 8 CoS, the range is 0~7;	
Operation	Add	Add matching rules
	Del	Remove matching rules



Classification criteria rule	ipv6 dscp	Match the specified ipv6 DSCP value, this parameter is the ipv6 DSCP list
Class-map name	The name of the created class-matching table, select by clicking the drop-down	
IPv6 dscp0-7	One or more ipv6 DSCP values can be set, up to 8 DSCP values can be set, the range is 0~63;	
Operation	Add	Add matching rules
	Del	Remove matching rules



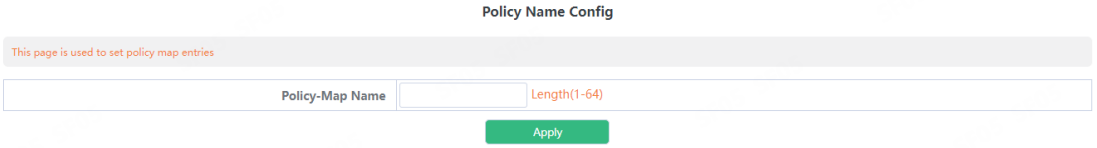
Classification criteria rule	ipv6 flowlabel	Match the specified IPv6 flow label, this parameter is the value of the IPv6 flow label DSCP list
Class-map name	The name of the created class-matching table, select by clicking the drop-down	
IPv6	One or more IPv6 flowlabel values can be set, ranging from	

flowlabel0-7	0 to 1048575;	
Operation	Add	Add matching rules
	Remove	Remove matching rules

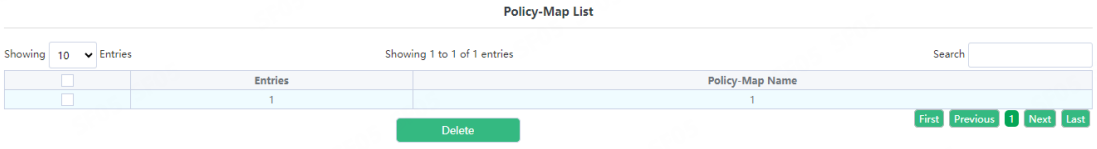
10.3.Policy-Map Config

10.3.1.Policy Name Config

Create and delete policy tables, and collaborate with classification tables to create packet in and out rules



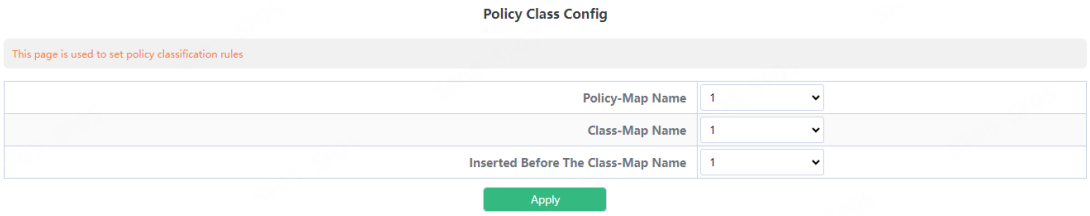
Policy-map name	Policy-map name, range:1-64 character	
Operation	Apply	Add policy-map
	Delete	Remove policy-map



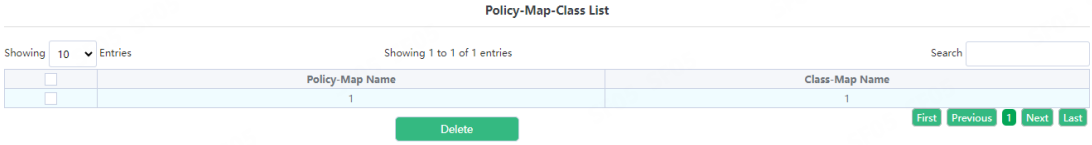
Display the currently created policy-map.

10.3.2.Policy Class Config

Apply the class-map to the policy-map.



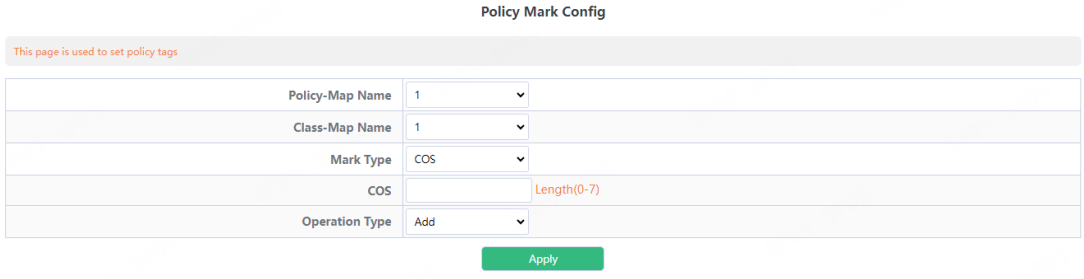
policy-map name	The name of the created policy-map	
class-map name	The name of the classification table created by the classification matching table, this table will be applied to the policy -map	
Inserted before the class-map name	Prior to the insertion of the classification matching table, the name of the classification table that has been applied to the strategy table, and the priority of the newly applied classification matching table is increased	
Operation	Add	Add an association between the strategy table and the classification table



Display the association between the created policy table and the classification matching table

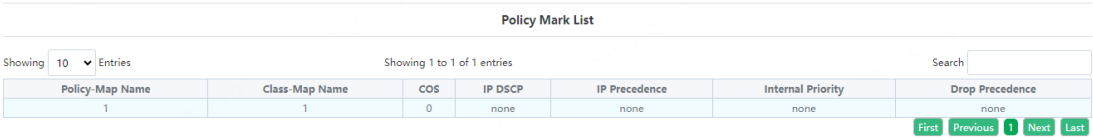
10.3.3.Policy Mark Config

Configure the priority of packets in the policy mapping configuration mode. Assign a new DSCP and IP priority to the classified traffic. Only the classified traffic that meets the matching criteria will be assigned a new value.



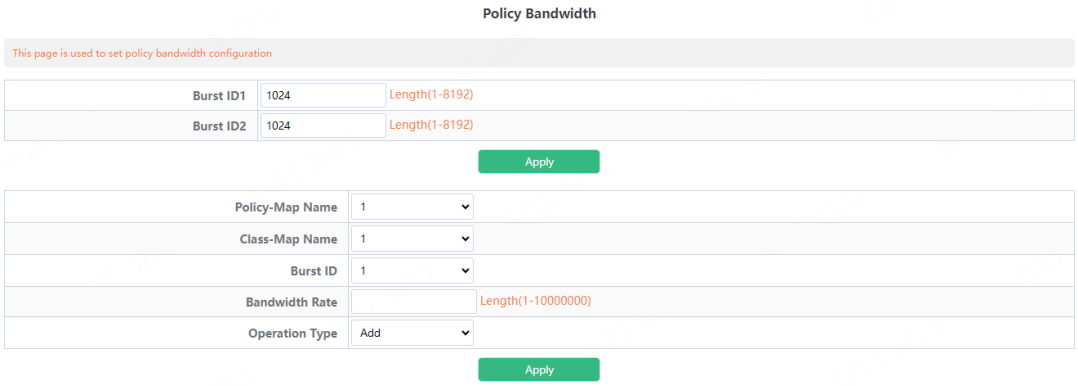
Classification criteria rule	ip dscp	Set the DSCP value again according to the rules defined in the policy-map and class-map
	ip precedence	Set the IP priority again

		according to the rules defined in the policy-map and class-map
	drop-precedence	Set the discarding priority again according to the rules defined in the policy-map and class-map
	internal-priority	Set the internal priority again according to the rules defined by the policy-map and class-map
	cos	Set the COS value again according to the rules defined by the policy table and the classification matching table
Policy-map name	The name of the created policy table	
Class-map name	Created classification match table	
DSCP	DSCP value, range: 0-63	
Precedence	IP priority, range:0-7	
Drop-precedence	drop priority, range: 0-2	
Internal-priority	internal priority, range: 0-7	
COS	COS value, range: 0-7	
Operation	Add	Add the priority and queue value associated with the strategy table and the classification matching table
	Delete	Remove the priority and queue value associated with the strategy table and the classification matching table

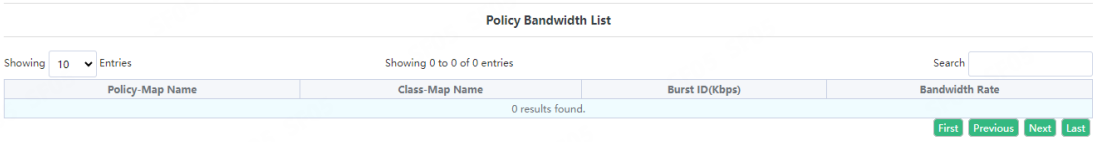


10.3.4. Policy Bandwidth

Configure the new aggregation strategy and the information rate and burst id of the aggregation strategy.

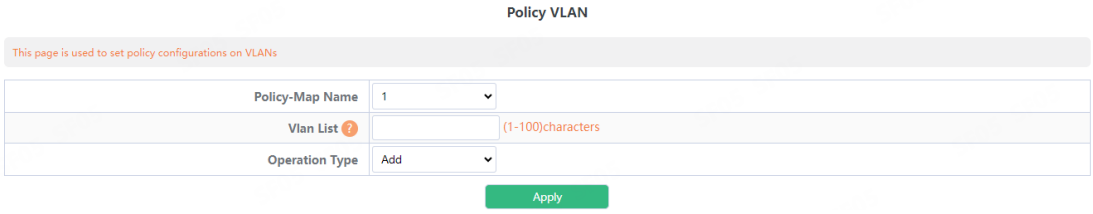


Aggregate policer name	New aggregate policer name, range: 1-64 character.	
Committed Information Rate	Information Rate, range: 1-10000000kbit/s	
Policy burst id configuration	Burst id configuration, range: 1-2	
Operation	Add	Add aggregate policer
	Remove	Remove aggregate policer



10.3.5. Policy VLAN

Configure VLAN Association Policy.



Policy-map name	The name of the created strategy, select by clicking the drop-down	
VLAN List	VLAN ID, range: 1-4094	
Operation	Add	Add VLAN-based policy
	Remove	Remove VLAN-based policy

VLAN Policy List

Showing 10 Entries Showing 0 to 0 of 0 entries Search

VLAN ID	Policy-Map Name
0 results found.	

First Previous Next Last