



# **ESW4L3 Series Switches**

Web-based configuration guide

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# **Legal Notice**

Warranty

This publication is subject to change.

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# **Preface**

# **Intended Audience**

This document is intended for:

- Network engineers
- Technical support and servicing engineers
- Network administrators

# **Technical Support**

• Windbit Networks Website: <a href="https://www.windbit.com/">https://www.windbit.com/</a>

#### Conventions

#### 1. Conversions

Convention	Description
Bold font	Commands, command options, and keywords appear in <b>bold</b> .
Italic font	Arguments for which you supply values appear in italic.
[]	Elements in square brackets are optional.
{ x   y   z }	Alternative keywords are grouped in braces and separated by vertical bars.
[x y z]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
&<1-n>	The argument before the (&) sign can be inserted consecutively 1-n times.
//	Double slashes at the beginning of a line of code indicate a comment line.

# 2. Signs

The signs used in this document are described as follows:



An alert that calls attention to important rules and information and may result in data loss or equipment damage if not heeded.

# A

#### Caution

An alert that calls attention to essential information that if not understood or followed can result in function failure or performance degradation.



## Note

An alert that contains additional or supplementary information that if not understood or followed will not lead to serious consequences.



## **Specification**

An alert that contains a description of product or version support.

## 3. Note

The manual offers configuration information (including model, port type and command line interface) for indicative purpose only. In case of any discrepancy or inconsistency between the manual and the actual version, the actual version prevails.

# 1 Configuring Switch Eweb

# 1.1 Overview

This document describes how to use the eWeb management system. You can use the eWeb management system to configure common settings for switches.

You can access the eWeb management system through a browser (such as Google Chrome) to manage switches.

# 1.2 Typical Applications

Typical Application	Description
Managing Switches Through	Once switches are properly configured, you can access the eWeb
the eWeb Management System	management system through a browser to manage these switches.

# 1.2.1 Managing Switches Through the eWeb Management System

# **Configuration Environment Requirements**

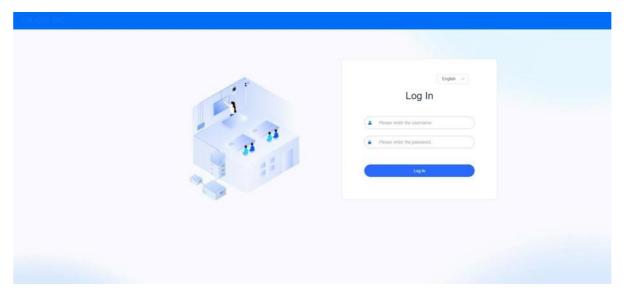
Client requirements:

- 1. Client: A client refers to a PC or a mobile terminal such as a laptop. A network administrator can log into the eWeb graphical user interface (GUI) of a switch from the client's browser to manage switches.
- 2. Browser: Google Chrome is recommended. Exceptions such as garbled characters or formatting errors may occur if an unsupported browser is used.
- **3.** Resolution: You are advised to set the resolution to 1600 x 900 or 1920 x 1080. If other resolutions are used, font and formatting issues may occur.

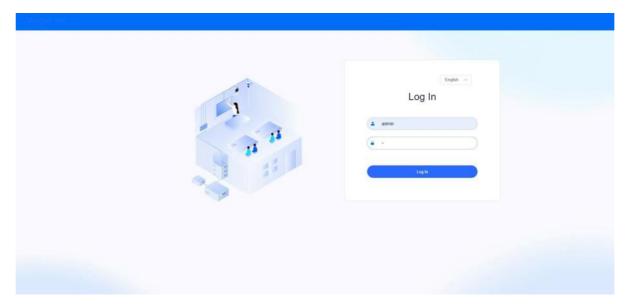
# 1.3 eWeb Management System

# 1.3.1 Logging In

Enter the switch IP address in your browser's address bar. Make sure the IP address is reachable. The login page is displayed.



- 1. Enter the username and password and click on **Log In**. The main interface of the eWeb management system is displayed.
- 2. If you cannot remember your username or password, click on Forgot Password?
- 3. If you need customer service assistance, contact the local technical support.
- **4.** To prevent login through brute-force cracking, your account will be locked for 10 minutes after 5 failed attempts. You cannot log in during the locking period.



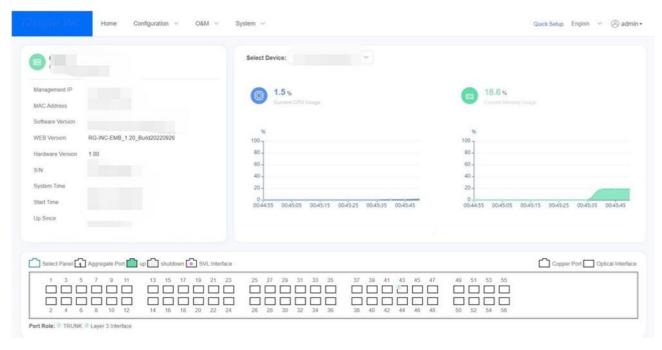
To use the eWeb management system, ensure that the web component has been installed on the switch and



the web service has been enabled (if the web service is not enabled, run the enable service web-server command in config mode to enable it). Otherwise, the login page is not displayed. In most situations, the web component is integrated in the rgos.bin system by default. However, if it is not installed, you can install it via the upgrade file mentioned in this release note.

# 1.3.2 Main Interface

The main eWeb management system interface is displayed.



#### 1. Header

This area displays the links to common functions, including Quick Setup, Change Password, and Exit. You can click these links to switch to specific configuration pages.

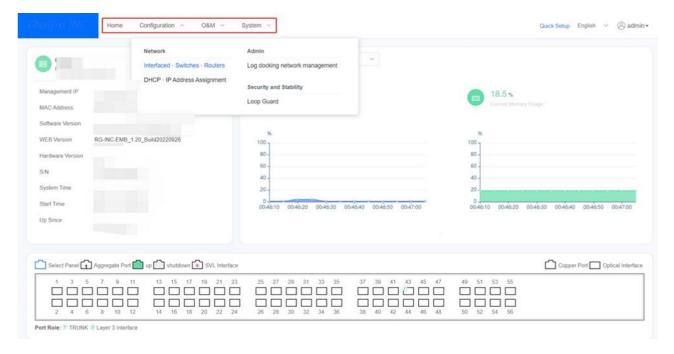


- Change Password: After you click Change Password, the Change Password page is displayed. You can
  enter the old password and the new password to reset the password.
- Exit: When device management is complete, you can click 

  Exit to exit the main interface and return to the login page.

## 2. Navigation Menu

This area displays main tabs of the eWeb management system.



#### 3. Main Operation Area

In this area, you can perform configurations on the eWeb management system. When you click the shortcut menu at the top of the page, the detailed configuration page is displayed.

# 1.3.3 Quick Setup

The switch is not configured when you log in to the eWeb management system for the first time. To simplify the configuration, you can use the **Quick Setup** wizard to configure common settings for the switch.



Note

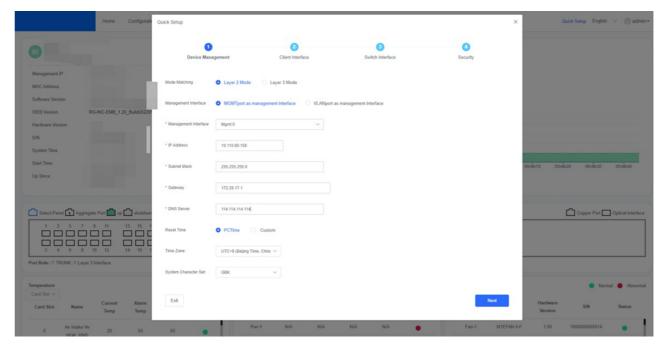
You can click **Quick Setup** in the upper-right corner of the main interface of the eWeb management system to open the **Quick Setup** wizard.

# 1. Quick Setup

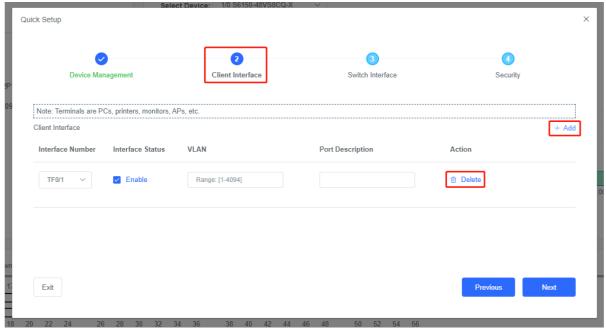
#### Layer 2 Mode

There are four steps in this mode.

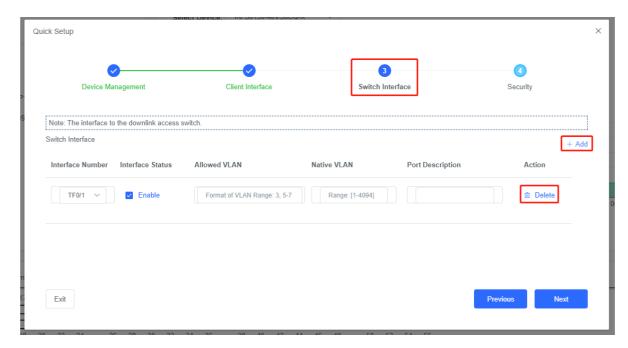
# (1) Device Management



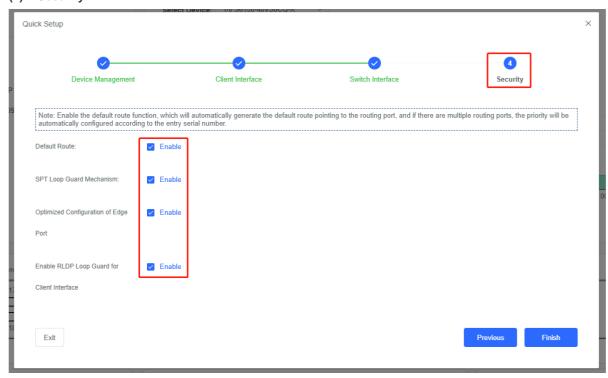
## (2) Client Interface



(3) Switch Interface



# (4) Security



Layer 3 Mode

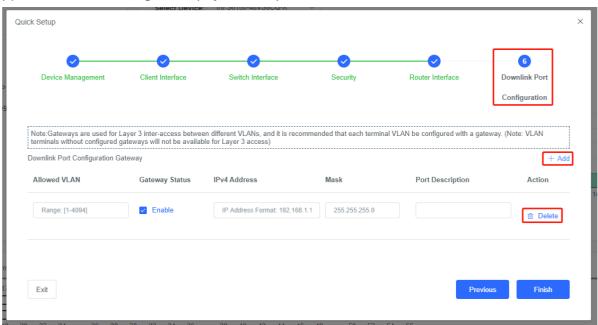
There are six steps in this mode.

The first four steps are the same as those in Layer 2 mode, so only the last two steps are described here.

# (1) Router Interface (Layer 3 Mode)



#### (2) Downlink Port Configuration (Layer 3 Mode)



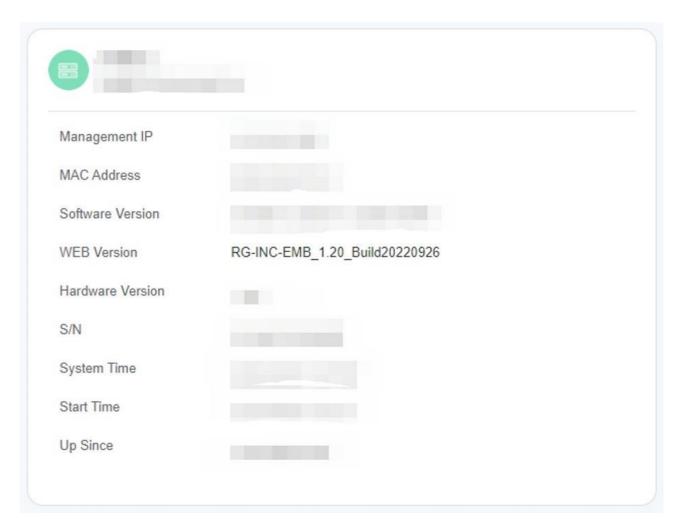
# 1.3.4 Home Page

After you log into the eWeb management system, you will be automatically redirected to the home page. You can also click on **Home**, in the navigation menu, to switch to the home page.

On this page, you can view the CPU, memory usage, system version, current system time, and other switch information. By analyzing the top 5 interface traffic, you can identify common network problems on this page and quickly solve any problems.

#### 1. Switch Overview

At the top of the home page, you can view the switch name, model, management IP address, MAC address, software version, hardware version, serial number, system time, startup time, and uptime. You can reset the system time on the **System Time** page by choosing **O&M** > **Basic Configuration** > **System Time**.



#### 2. Interfaces

In the upper part of the home page is the interface panel where interface information is displayed. The panel shows the basic interface configurations, such as interface type, state, aggregated interface, and virtual switching link (SVL) interface.

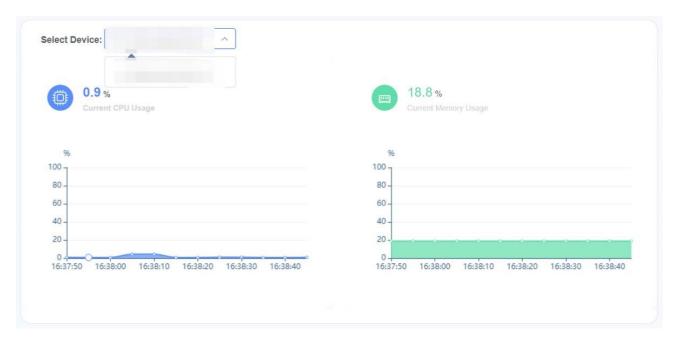


# 3. CPU/Memory Usage

The CPU and memory usage of the switch is displayed at the top of the home page.

CPU: indicates the CPU usage of the switch service module.

**Memory**: indicates the memory usage of the switch service module.



## 4. Temperature/Power Module/Fan

The middle part of the home page displays the temperature, power module status, fan status of the switch at different positions.



In the **Temperature** panel, you can view the temperature of a card slot by selecting a card clot from the **Card Slot** drop-down list box.

#### 5. Bandwidth



You can click on **More**, in the **Top 5 Interface Bandwidth Utilization** panel, to learn more details on the use of interface bandwidth.



Back: returns to the home page.

Refresh: re-queries the interface bandwidth utilization.

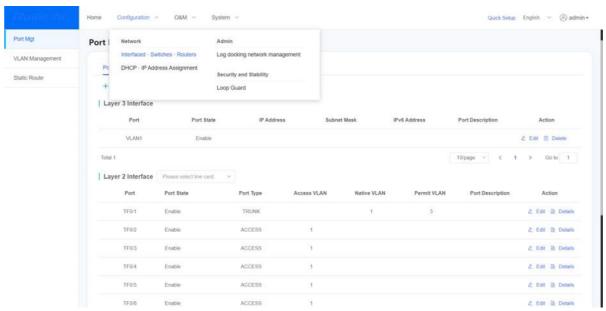
Clear: deletes statistics about a selected interface, such as the number of error packets and conflicting count.

Clear All: deletes statistics about all interfaces, such as the number of error packets and conflicting count.

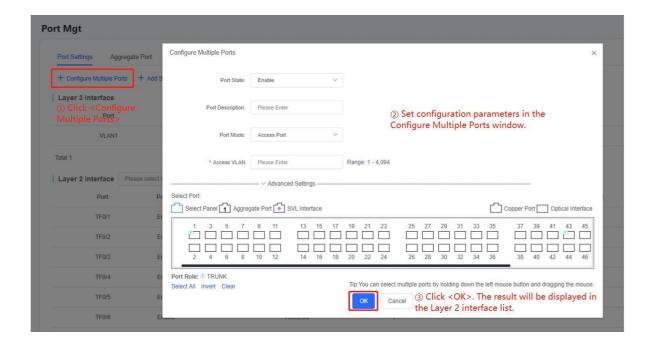
# 1.3.5 Configuration

# 1. Port Management

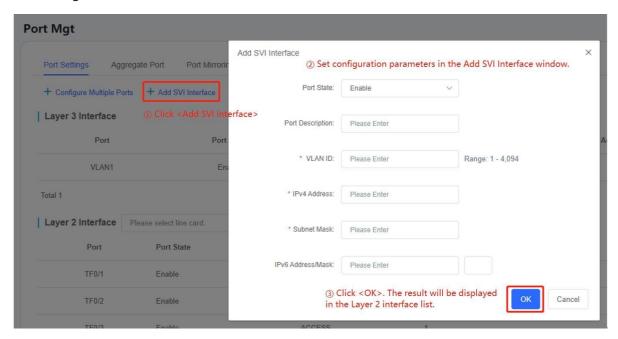
# **Port Configuration**



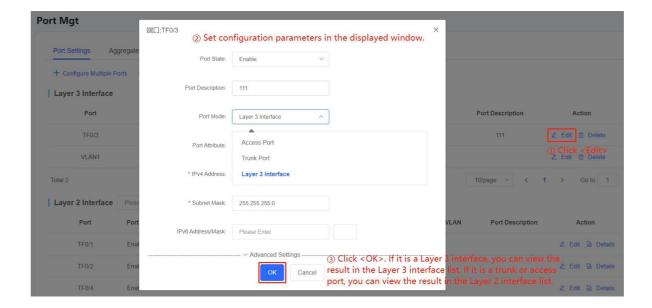
• Configuring multiple ports



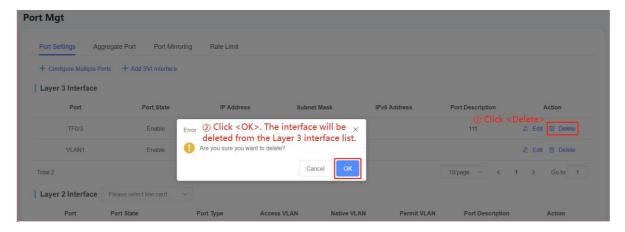
## Adding an SVI



Editing a Layer 3 interface



# Deleting a Layer 3 interface



## • Editing a Layer 2 interface



Layer 2 interface details



Click **Details**. You can view detailed information about a selected port.

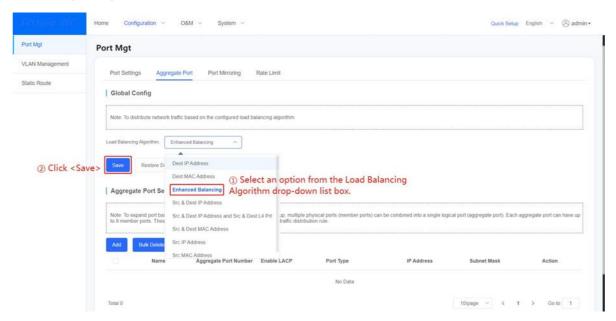
## **Port Aggregation**



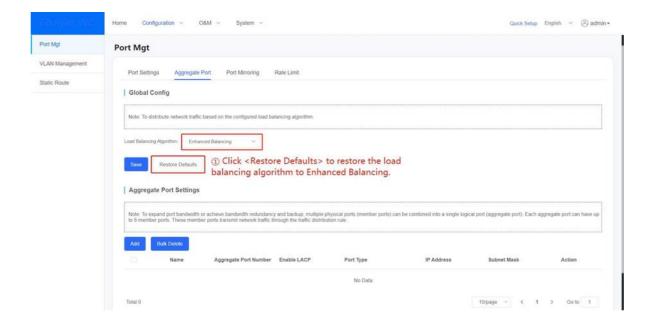
#### Note

To increase bandwidth or provide redundancy, multiple physical ports (member ports) can be combined into a single logical port (aggregate port). Each aggregate port can have up to 8 member ports. These member ports transmit network traffic based on traffic distribution rules.

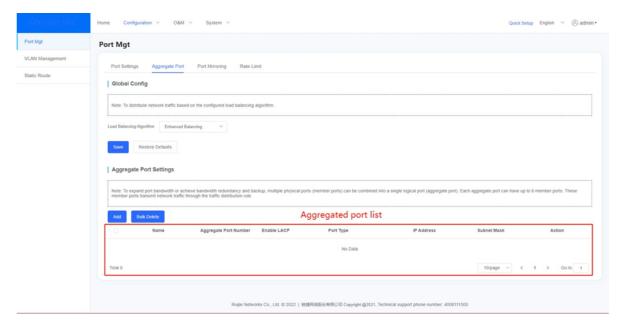
## Saving configurations



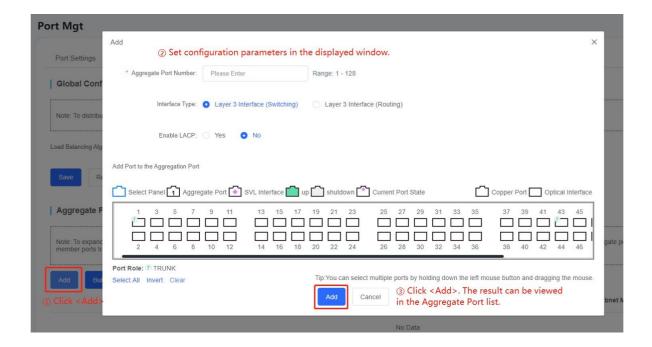
Restoring default settings



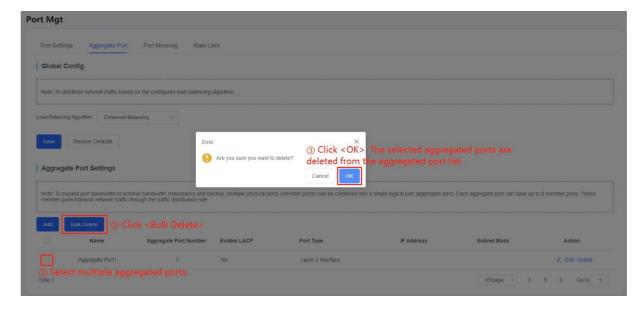
Querying the aggregate port list



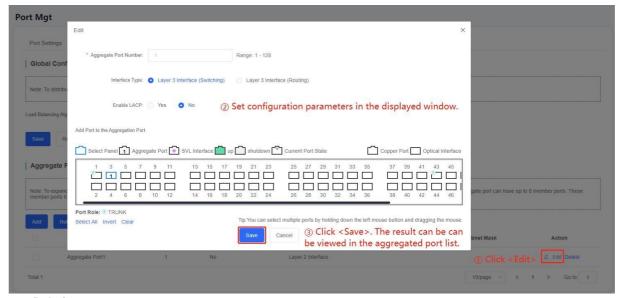
Adding an aggregate port



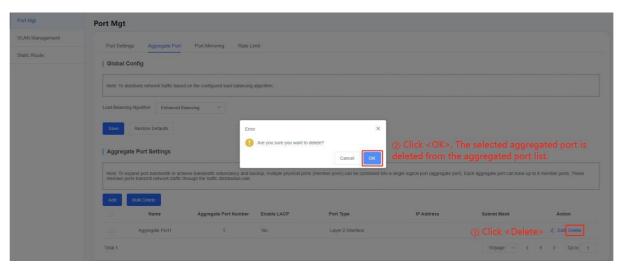
Deleting multiple aggregate ports



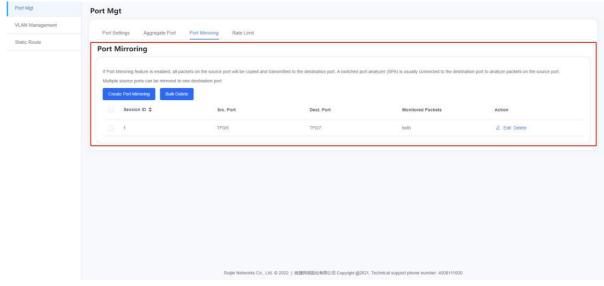
Editing an aggregate port



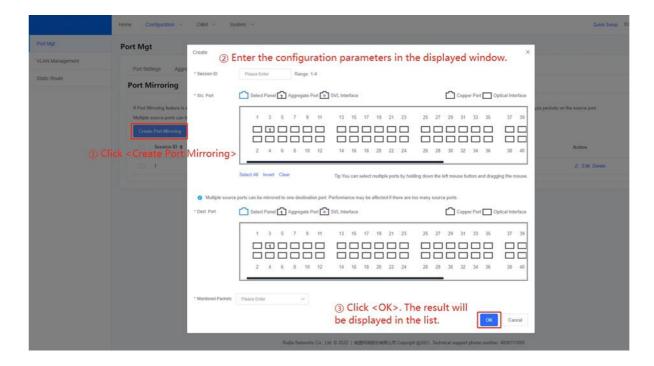
Deleting an aggregate port



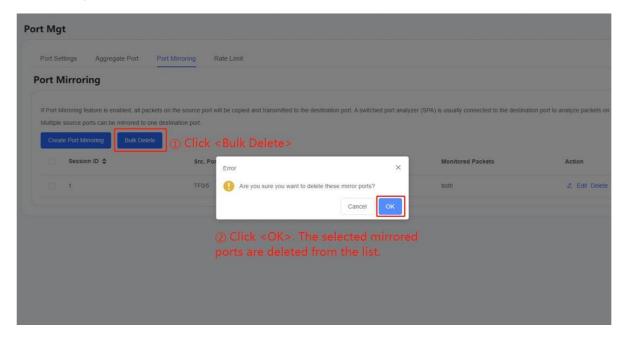
#### **Port Mirroring**



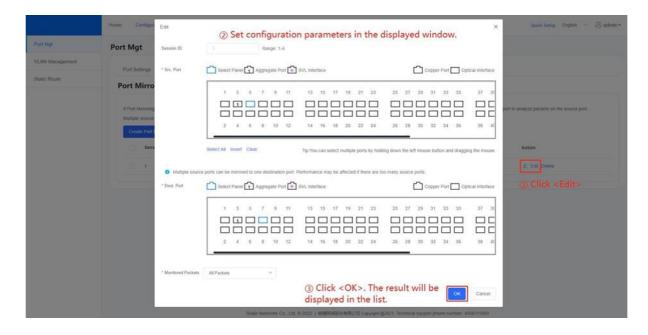
Creating port mirroring



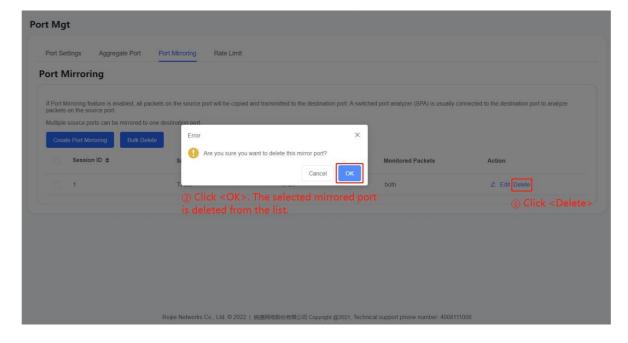
Deleting multiple mirrored ports



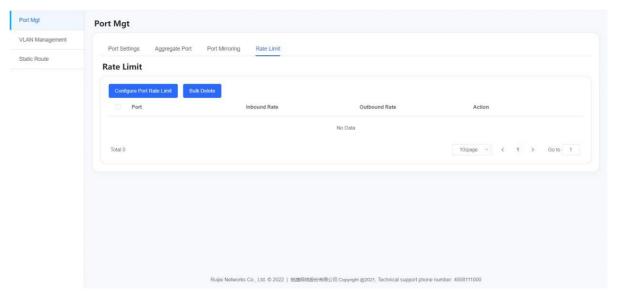
Editing a mirrored port



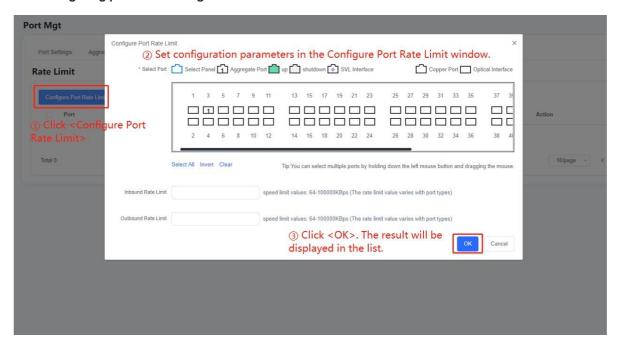
# Deleting a mirrored port



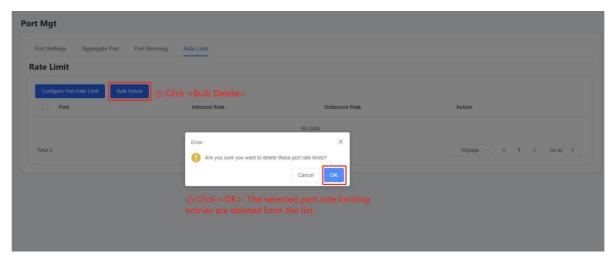
## **Rate Limiting**



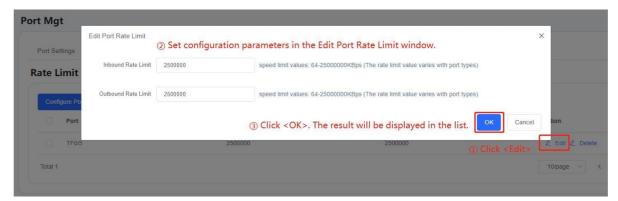
Configuring port rate limiting



Deleting multiple rate limiting entries



• Editing a port rate limiting entry

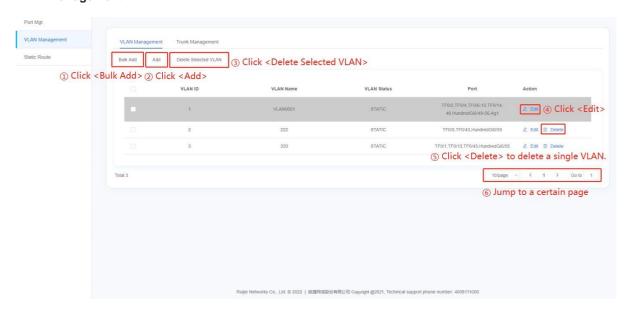


• Deleting a port rate limiting entry



# 2. VLAN Management

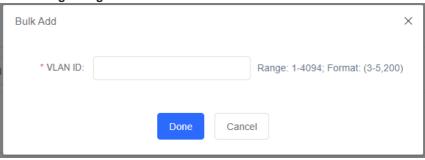
## **VLAN Management**



# Adding multiple VLANs

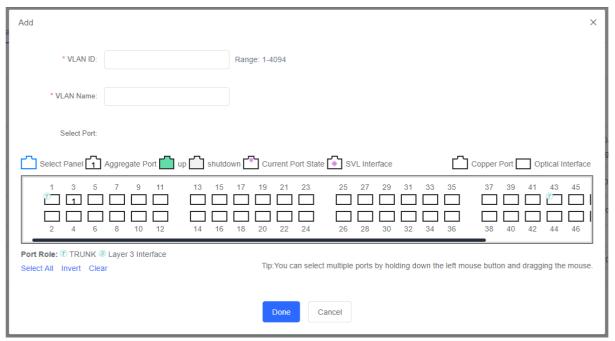
To add multiple VLANs, click Bulk Add and the Bulk Add window is displayed. Enter the VLAN ID and click Done .

Adding a single VLAN



To add a single VLAN, click and the **Add** window is displayed. Set configuration parameters and click

Done



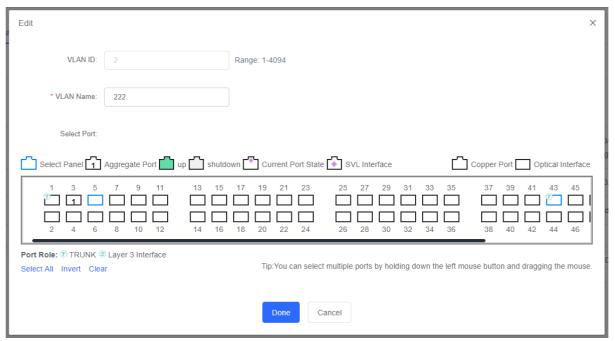
# • Deleting multiple VLANs

To delete the selected VLANs, click on before each VLAN to select multiple VLANs, then click Delete Selected VLAN . The error message is displayed. Click



# Editing a VLAN

To edit a VLAN, click and the **Edit** window is displayed. Set configuration parameters and click

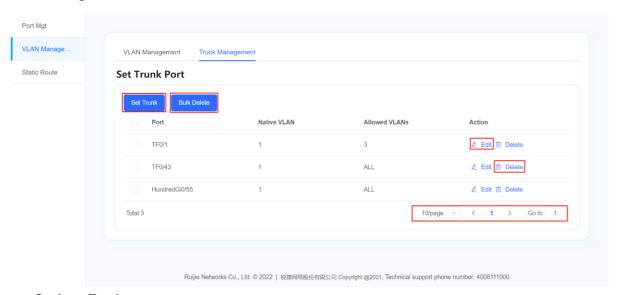


## Deleting a VLAN

To delete a VLAN, click Delete . The **Error** dialog box is displayed. Click



#### **Trunk Management**



# Setting a Trunk port

To set a trunk port, click . The **Configure Trunk Port** window is displayed. Set configuration parameters and click .



## • Deleting multiple trunk ports

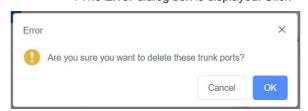
To delete multiple trunk ports, click on next to each trunk port to select multiple trunk ports, and then click

Bulk Delete

The Error dialog box is displayed. Click

OK

.



#### Editing a trunk port

To edit a Trunk port, click 🙋 Edit . The Edit Trunk Port window is displayed. Set configuration parameters and click ok .



#### Deleting a trunk port

To delete a selected trunk port, click Delete. The **Error** dialog box is displayed. Click



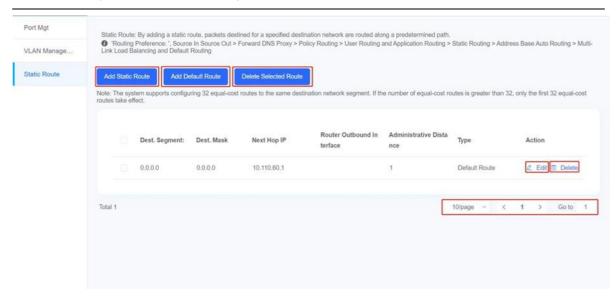
#### 3. Static Route

Packets destined for a specific destination network are routed along a pre-determined path when a static route is configured. The routing priority is source in source out > forward DNS proxy > policy-based routing > user-defined routing and app-based routing > static route > auto routing > multi-link load balancing and default route.



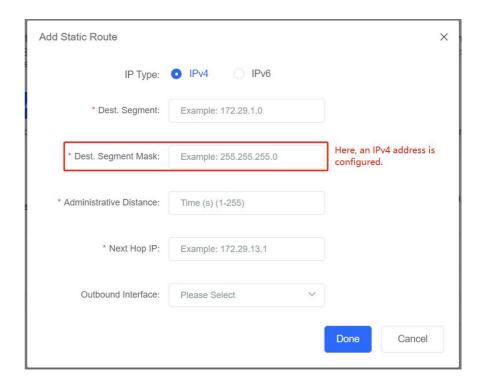
# Note

The system supports up to 32 equal-cost routes to the same destination subnet. If more than 32 equal-cost routes are configured, only the ones configured first will be taken into account.



# Adding a static route

To add a static route, click **Add Static Route**. The **Add Static Route** window is displayed. Set configuration parameters and click Done .



# Adding a default route

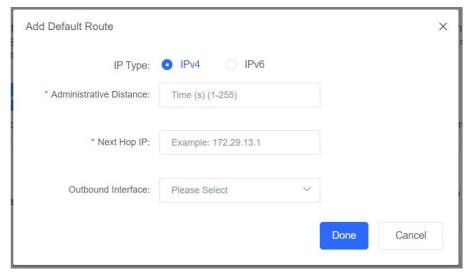
To add a default route, click

Add Default Route

The Add Default Route window is displayed. Set configuration parameters and click

Done

Done



# Deleting the selected routes

To delete the selected routes, click on next to each route to select multiple routes, and then click

Delete Selected Route

A dialog box is displayed. Click

Delete Selected Route

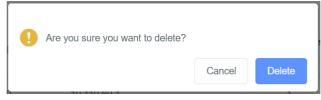


# • Editing a static route



# Deleting a static route

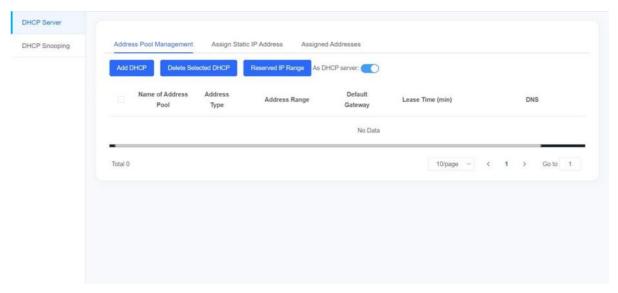
To delete a static route, click Delete . A dialog box is displayed. Click



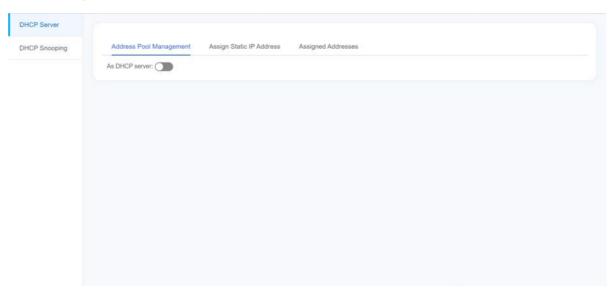
## 4. DHCP Server

**DHCP Address Pool Management** 

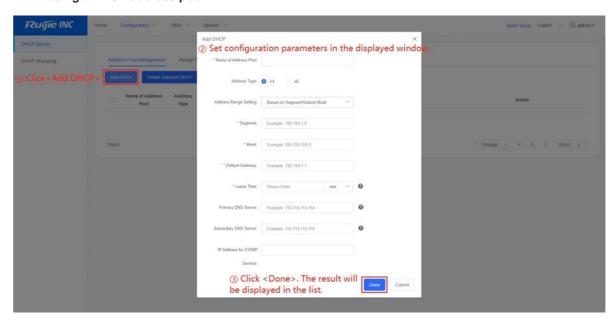
Enabling the DHCP server



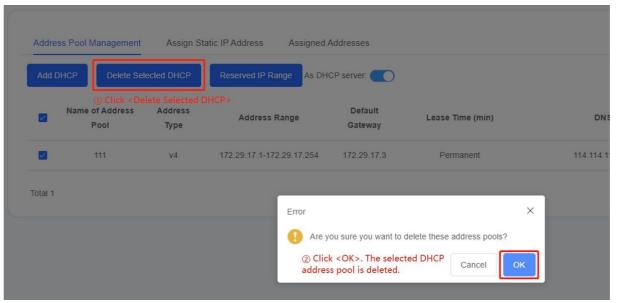
Disabling the DHCP server



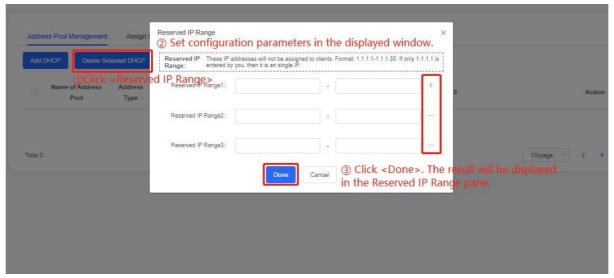
Adding a DHCP address pool



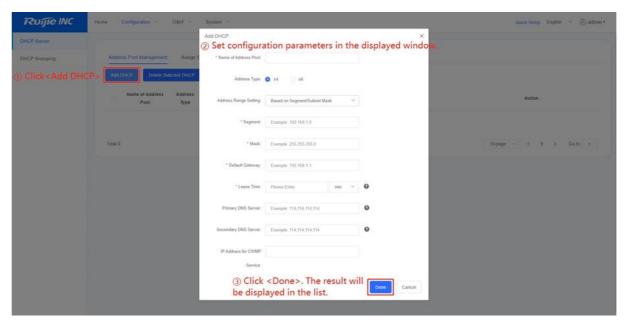
Deleting the selected DHCP address pool



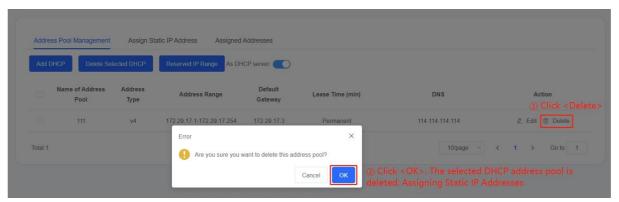
Configuring the reserved IP range



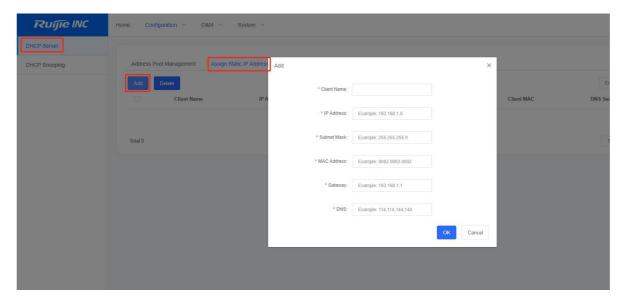
Editing a DHCP address pool



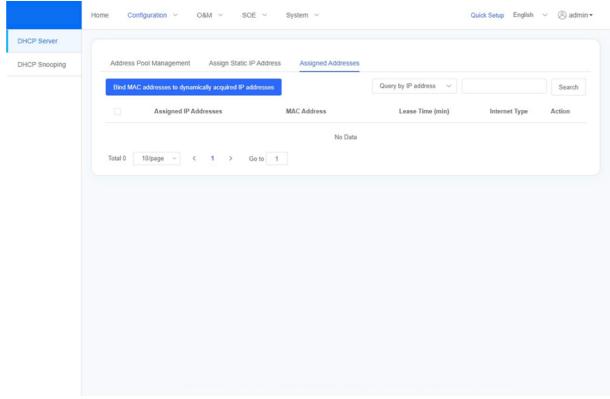
Deleting a DHCP address pool



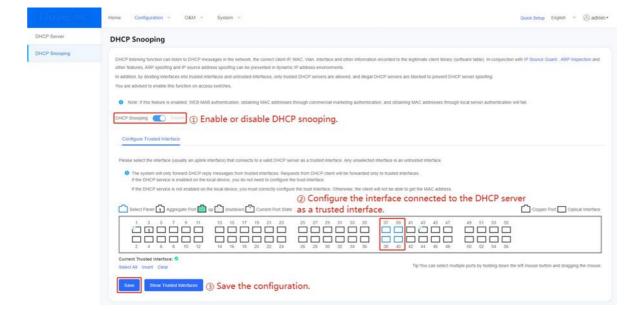
 Choose DHCP Server > Assign Static IP Address > Add to access the Add static IP address page and add a static IP address.



## The Assigned IP Addresses Page

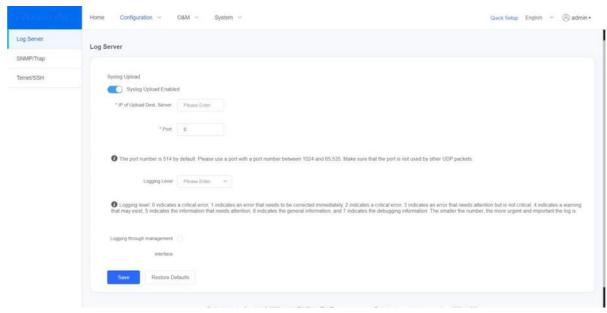


# 5. Configuring DHCP Snooping



## 6. Logs

#### **Configuring the Log Server**



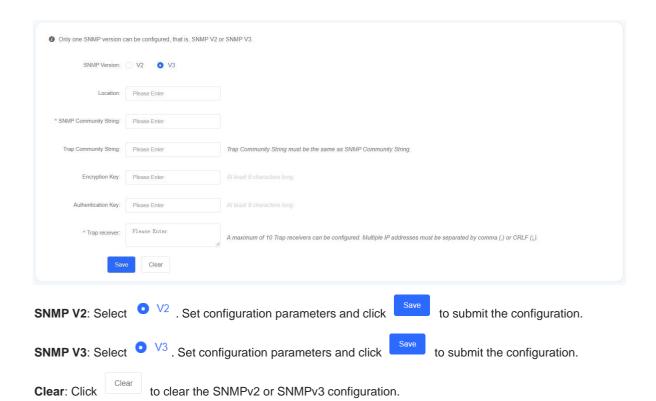
# **Configuring SNMP or the Trap Function**

The Simple Network Management Protocol (SNMP) enables a network administrator to easily monitor and manage nodes on a network.

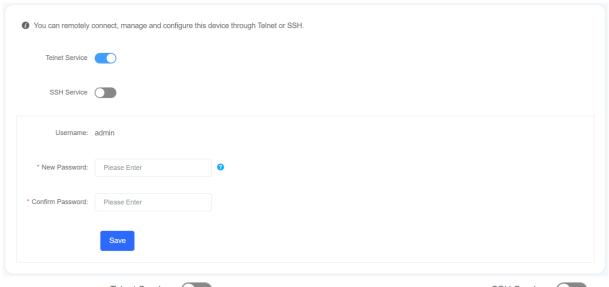
- SNMP Version: indicates the SNMP version supported by the switch, which can be SNMPv2 or SNMPv3.
- Location: indicates the location of the switch.
- **SNMP Community String**: is used by the management host to connect to a switch.
- Trap Community String: is used to connect to the management host. When an alarm is generated on a switch, the switch can send the alarm to the management host.
- Trap receiver: refers to the management host that receives alarms from a switch. A maximum of 10 trap receivers can be configured.

SNMPv3 is more secure than SNMPv2. The encryption password and authentication password of SNMP users need to be configured.





## **Configuring Telnet or SSH**



Telnet/SSH: Click

Telnet Service

to enable or disable the Telnet service, and click

to enable or disable the SSH service. The default username is admin. Set configuration parameters and click

to submit Telnet or SSH configurations. When both the Telnet service and SSH service are disabled, you do not need to set a password.

1 You can remotely connect, manage and configure this device through Telnet or SSH.



When configuring a switch through Telnet, you must log in with this password.



#### Note

Remember the new password for login next time.

## 7. STP Loop Guard

## **Global Settings**

The purpose of SPT Loop Guard feature is to discover and start an optimal tree topology of LAN to ensure stability of the network. SPT protocol: a protocol used to avoid broadcast storms caused by link loops and to provide redundant backup of links. Enable STP Loop Guard Priority: Range: 0-Handshake Time: Time (s): 1-15. Default: 8 10. Default: 2 Aging Time: Forward Delay: Time (s): 6-40. Time (s): 4-30. Default: 15 Default: 20 SPT Mode: MST Name MST Version: No more than Range: 0-32 characters. 65535. Default: 0

**Enable or disable STP Loop Guard**: Click guard.



**Enable STP Loop Guard** 

to enable or disable STP loop

**Global Settings**: Enable **STP Loop Guard** and set configuration parameters. There are three STP modes, which are STP, RSTP, and MSTP. Click to submit the global settings.

## **Port Settings**

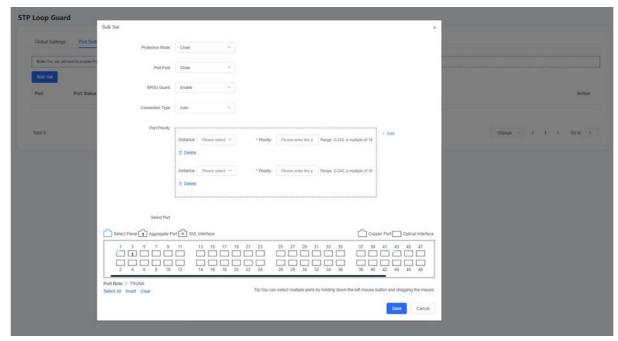


## Note

You are advised to enable Port Fast on the port directly connected to a PC.

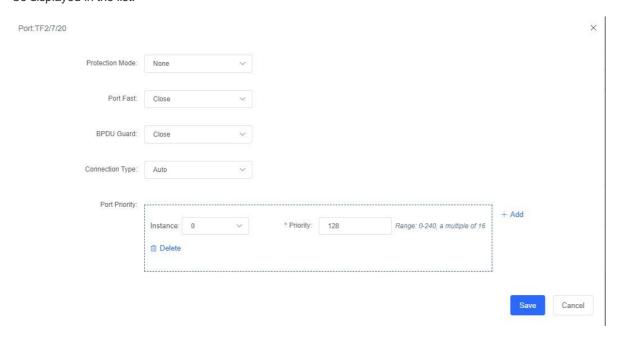
# 1. Setting the STP loop guard function for multiple ports

Click Bulk Set window is displayed. Set configuration parameters. Add or delete the port priority by clicking + Add or Delete . Select multiple ports and click to submit the configuration. The result will the appear on the list.

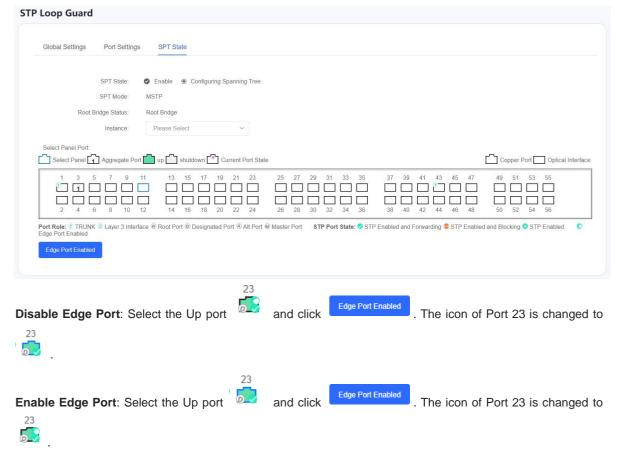


# 2. Editing the STP loop guard function for a single port

Click in the **Action** column. A window is displayed. Set configuration parameters. Add or delete the port priority by clicking or Delete. Click to submit the configuration. Then the result will be displayed in the list.



### **STP State**

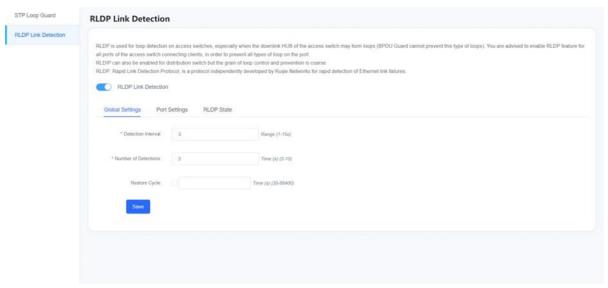


#### 8. RLDP

The Rapid Link Detection Protocol (RLDP) is independently developed by Ruijie Networks for rapid detection of Ethernet link failures. It is used for loop detection on access switches where a loop occurs on the downstream hub of the access switch (BPDU guard cannot prevent this type of loops). We recommend enabling RLDP on the access switch ports connected to clients to prevent all types of loops.

RLDP can also be enabled for distribution switches, but the loop guard performance is coarse-grained.

### **Global Settings**

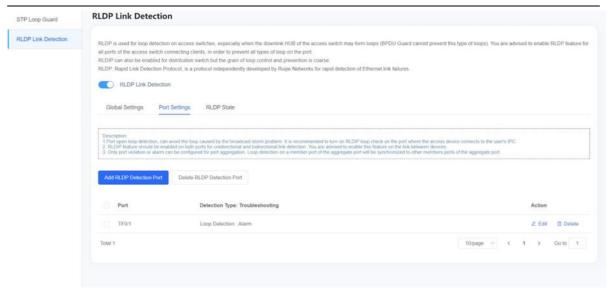


- 1. **Save**: After you have entered the detection interval, number of detections, and restoration cycle (optional), click to save the global settings.
- 2. **RLDP Link Detection**: Click RLDP Link Detection to enable or disable RLDP.

## **Port Configuration**

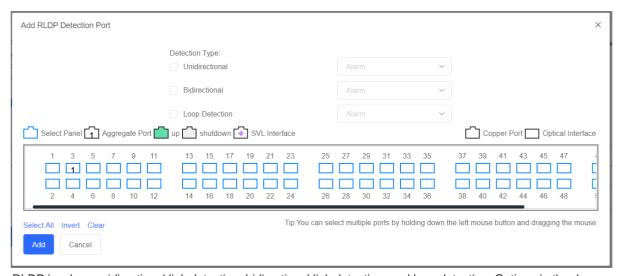


- (1) Enabling loop detection on a port can prevent broadcast storm caused by loops. You are advised to enable loop detection on ports of the access switch connecting to a client.
- (2) RLDP must be enabled on both ports for unidirectional and bidirectional link detection. You are advised to enable RLDP on the link between switches.
- Only port violation or alarm detection types can be configured for aggregate ports. Loop detection ona member port of the aggregate port will be synchronized to other member ports of the aggregate port.



1. Adding an RLDP-enabled port

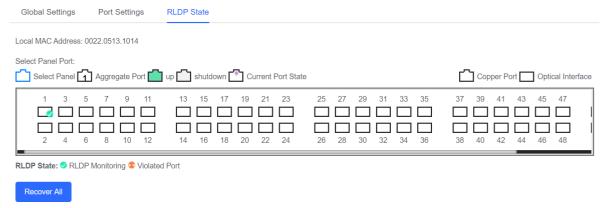
Click Add RLDP Detection Port window is displayed.



RLDP involves unidirectional link detection, bidirectional link detection, and loop detection. Options in the drop-down list boxes corresponding to these three types include **Alarm**, **Disable port learning and forwarding**, **Port violation**, and **Disable SVI**. You can select multiple ports one by one, or using the Select All Invert Clear

button. Click to submit the configuration. The result will be displayed in the list.

#### **RLDP State**



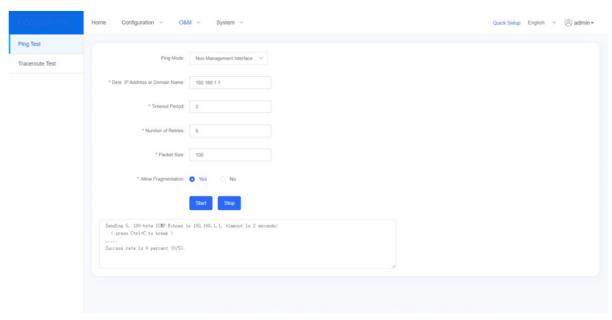
RLDP State: You can select RLDP Monitoring or Violated Port.

Restore All: You can click to recover all violated ports.

## 1.3.6 O&M

## 1. Ping or Tracert

## **Performing a Ping Test**

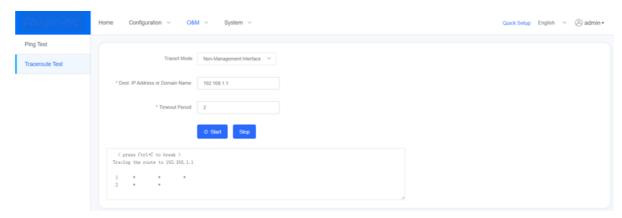


1. Start: Select Non-Management Interface from the Ping Mode drop-down list box to select the ping mode. You can select Non-Management Interface and Management Interface, and there may be multiple management interfaces. Enter the destination IP address or domain name, timeout period, number of attempts, and packet size. The Allow Fragmentation item is displayed only when Ping Mode is set to Non-Management

Interface. After setting configuration parameters, click to run the ping test. After the ping test is complete, the test results will be displayed.

2. **Stop**: Click to stop the current ping test.

#### **Performing a Tracert Test**



1. Start: Select Non-Management Interface from the Tracert Mode drop-down list box to select the tracert mode. You can select Non-Management Interface and Management Interface, and there may be multiple

management interfaces. Enter the destination IP address or domain name and timeout period. Click run the tracert test. After the tracert test is complete, the test results will be displayed.

2. **Stop**: Click to stop the current tracert test.

## 2. Performing One-Click Collection

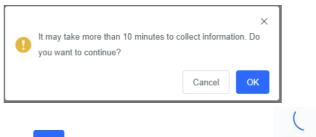
You can use the One-Click Collect function to collect switch fault information for troubleshooting.



Collecting fault information may take about 10 minutes. After the collection is complete, you can download the collected fault information to a file named **tech\_vsd0\_20210716142650.tar.gz**.

One-Click Collect: Click One-Click Collect

. The Error dialog box is displayed.



Click . The collecting process starts, and complete, the **Error** dialog box is displayed.

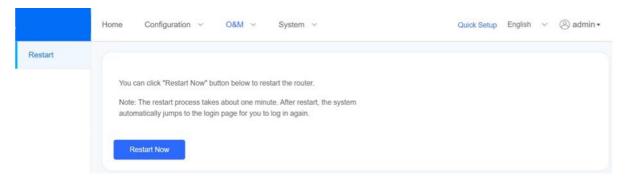
is displayed. After the collection process is



Click Download to download the collected information in a tar.gz compressed file.

# 3. Restarting the Switch

Click **Restart Now** to restart a switch. The restart process takes about 1 minute. Do not perform any operation during this period. After the switch is successfully restarted, the current page will be refreshed automatically.



# **Upgrading the Switch**

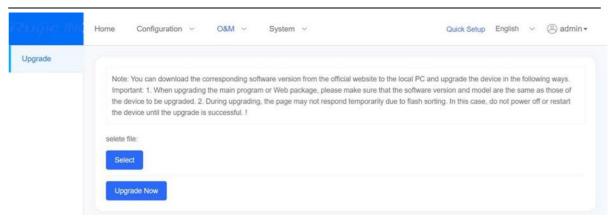


## Note

Please download the required software version file and use it to upgrade the switch.

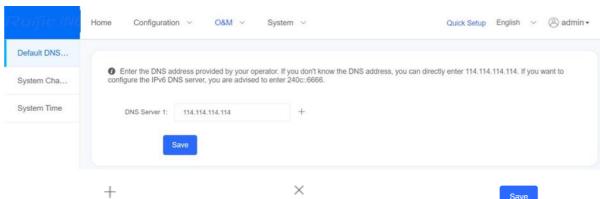
### Caution

- When upgrading the main program or the web package, ensure that the version and model are the same as those of the current switch.
- 2. During upgrading, there may be no response temporarily due to flash loading. In this case, do not power off or restart the switch until the upgrade is successful.



# 5. Basic Configurations

## **Default DNS Server**



1. You can click the configuration. to add a DNS server, click

to delete a DNS server, or click

to submit

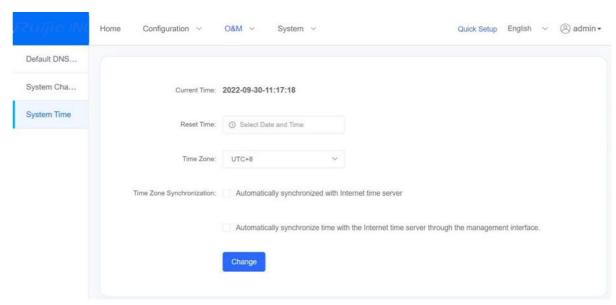
### **System Character Set**



System character set: There are two options in the System Character Set drop-down list box, which are UTF-

8 and GBK. The default value is UTF-8. After a character set is selected, click to save the configuration.

System Time

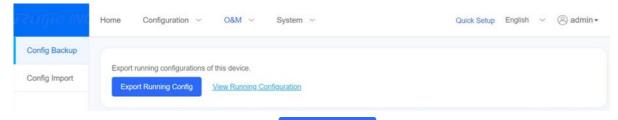


You can manually select the system time or select **Time Zone Synchronization** to automatically synchronize the switch system time with the Internet time server.

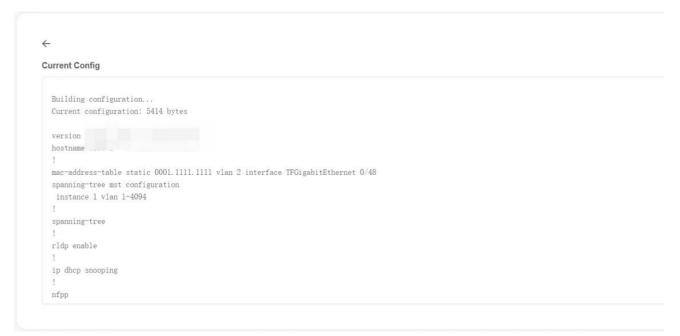
# 6. Configuration Management

## **Performing Configuration Backup**

The configuration backup function enables you to import or view the running configuration of the switch.



- 1. **Export running configuration**: You can click Export Running Configuration to generate the **config.text** text file.
- 2. **View running configuration**: You can click <u>View Running Configuration</u> to switch to the **Current Config** page.



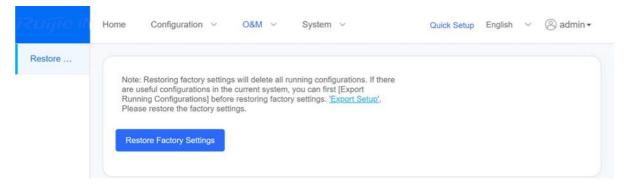
# **Importing Configurations**



- 1. Import configurations: You can click to select the configuration file to be imported, and then click to import the configuration file.
- 2. View running configuration: You can click View Running Configuration to switch to the Current Config page.

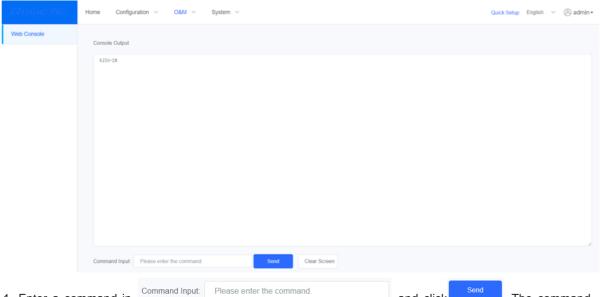
# 7. Restoring Factory Settings

You can click **Restore Factory Settings** to delete all the configurations of the switch and restore the switch to factory settings. To save the current configuration, you are advised to export the current configuration by clicking **Export Setup**.



### 8. Web Console

The web console simulates the connection of a client connection tool such as xshell, rt, mobaxterm to the controller of the switch.



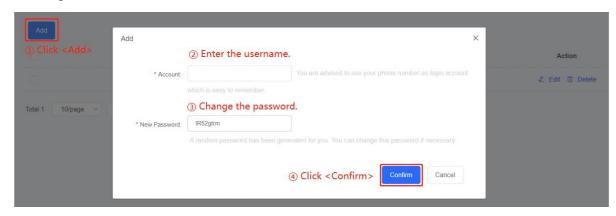
- 1. Enter a command in execution result will be displayed in the console.
- 2. Click Clear Screen to clear the output result.

# 1.3.7 **System**

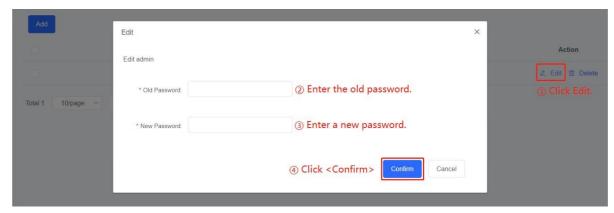
# 1. Admin Account

In addition to the admin account that comes with the eWeb management system, you can also create and maintain other accounts (only the network administrator has this privilege).

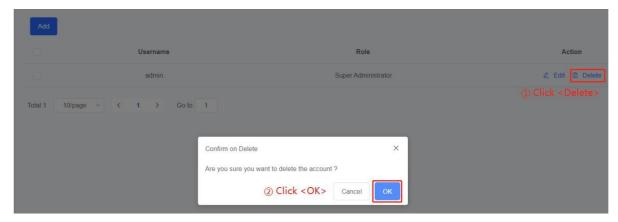
1. Adding an account



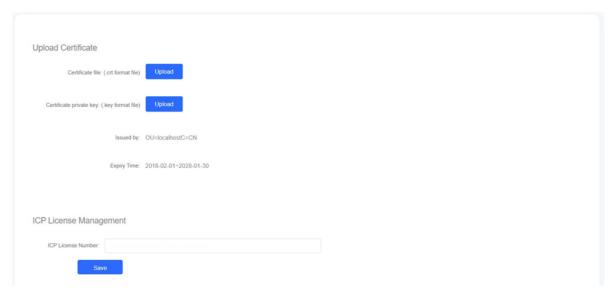
2. Changing the password



3. **Deleting an account** (the admin account cannot be deleted)



# 2. Certificates and Registration



## 3. Operation Log

The operation log records users' key operations. You can query the operation log based on the search criteria.

