FIBERROAD

Web-based Network Management System User Manual

Ver. 1.0

Introduction to FRVIEW Platform

FRVIEW is a switch device view management platform independently developed by Shenzhen Fiberroad Technology, which is a full-stack integrated network security operation and maintenance platform. Used SNMP based on TCP/IP protocol suite along with the product MIB and LLDP, it links various communication and transmission devices together to realize the solution of informationization, remote management and smart operation and maintenance. FR-DMVIEW is equipped with rich functions such as one-click scanning through network devices, network topology discovery, device performance perceiving, traffic analysis, data visualization and device malfunction alarm, etc. It adopts data chart interface to provide end users with a more flexible and convenient operation experience, satisfying users' needs to manage the devices in the network at anytime and anywhere and to obtain the operation and running state of the devices in real time.FR-DMVIEW platform has strong compatibility so it can be deployed on Windows, Linux and other operating system platform servers and PCs. It can support domestic mainstream servers, middleware, and databases perfectly.

I. Requirements for Use of The FRVIEW Platform

1） Hardware Requirements:

Device Numbers	CPU	Memory	Hard Disk
1~250	1~250 Inter Xeon 2.0GHz@ 4 cores/4 threads	≥8GB	20GB min

2） Operating System Requirements:

Operating System	Production Environment Version
Windows	Windows 10/8/7,or Window Server 2019/2016/2012 R2/2008
Linux	Ubuntu/Suse/Red Hat/CentOS
IE Browser	Chrome/Firefox/Edge/IE11

3） Software Requirements：

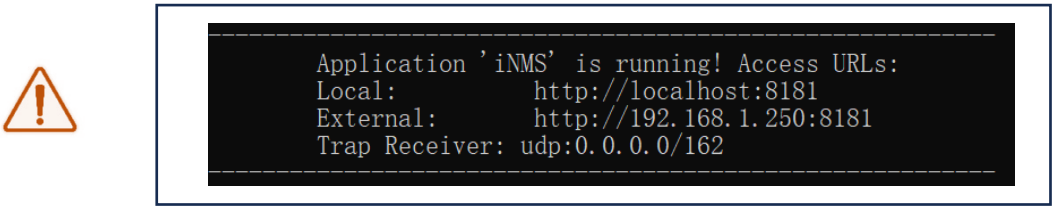
Plugin Name	Download Address and Description Reference
JDK Environment	JDK version should be at least 17 or higher Download: https://www.oracle.com/java/technologies/downloads
WinPcap	https://www.winpcap.org/install/bin/WinPcap_4_1_3.exe

II. Steps for Platform Usage

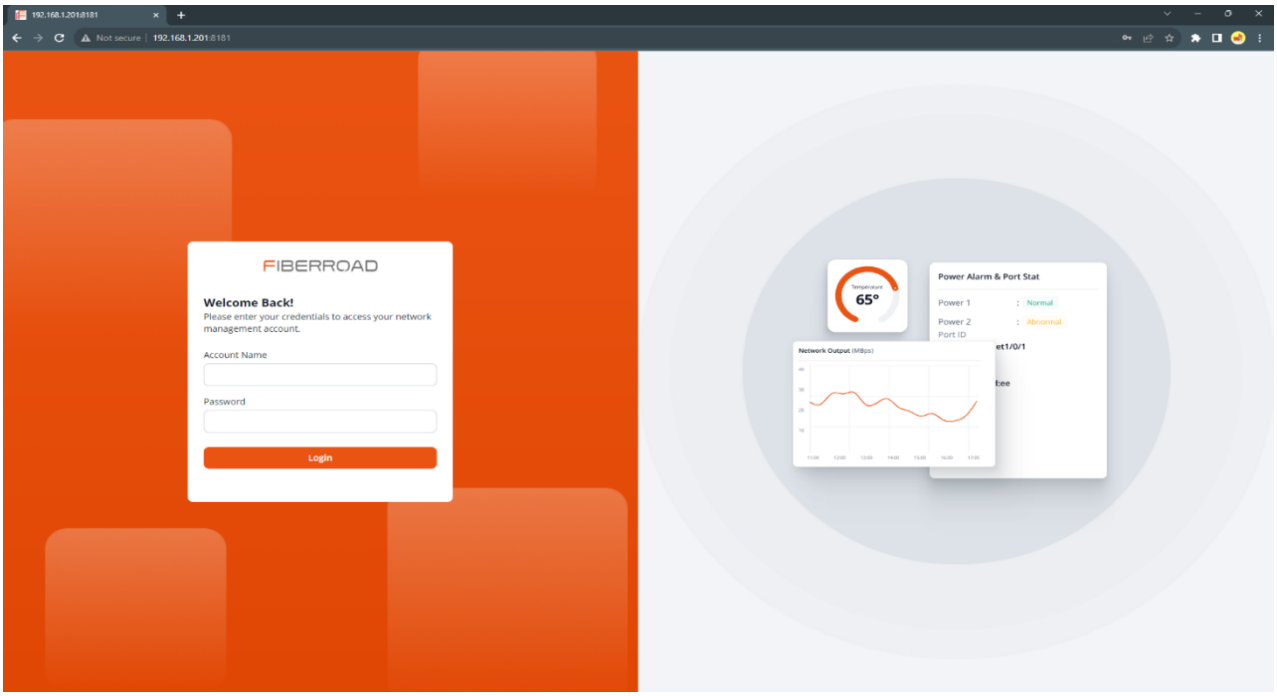
FRVIEW management platform is based on SNMP and LLDP for device management and maintenance. When using the software of the platform, please make sure that the managed device supports SNMP and LLDP, and these protocols are enabled.

1) Installation and Operation of FRVIEW

- FRVIEWv1.0 version employs installation-free design, users only need to unzip the zip package of the software, and then run the inms.bat file under FRVIEW->bin;
- Open the browser and enter **http://localhost:8181** in the browser to enter the interface of the management platform;
- The following shows the login access address (PC or server NIC address) of the back end for reference.



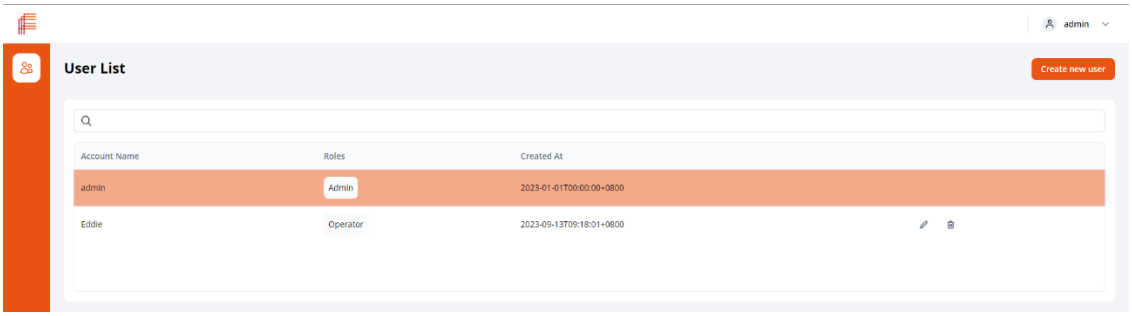
2) Login and Registration



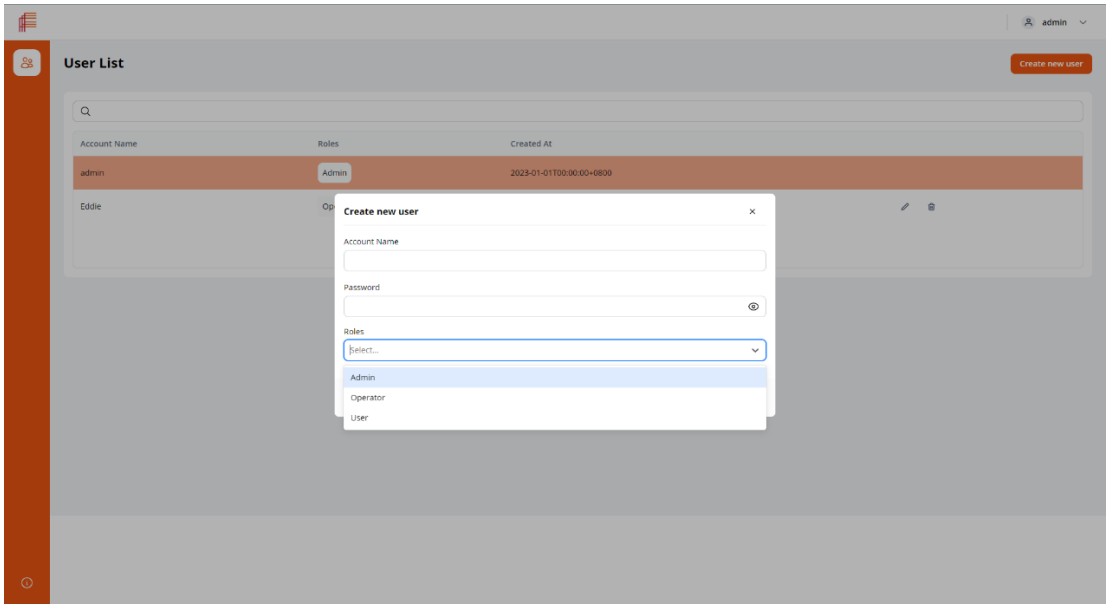
➢ Enter the system default administrator user name and password on the login page: ***admin，admin***;

Click Login to login to the user list page;

⚠	In the current version, the default system administrator admin name and password cannot be changed. Our company will provide this function in the next version.



➢ Click Create new user to create an operation administrator for the system. Users can customize the username and password according to their needs, as shown in the figure below.

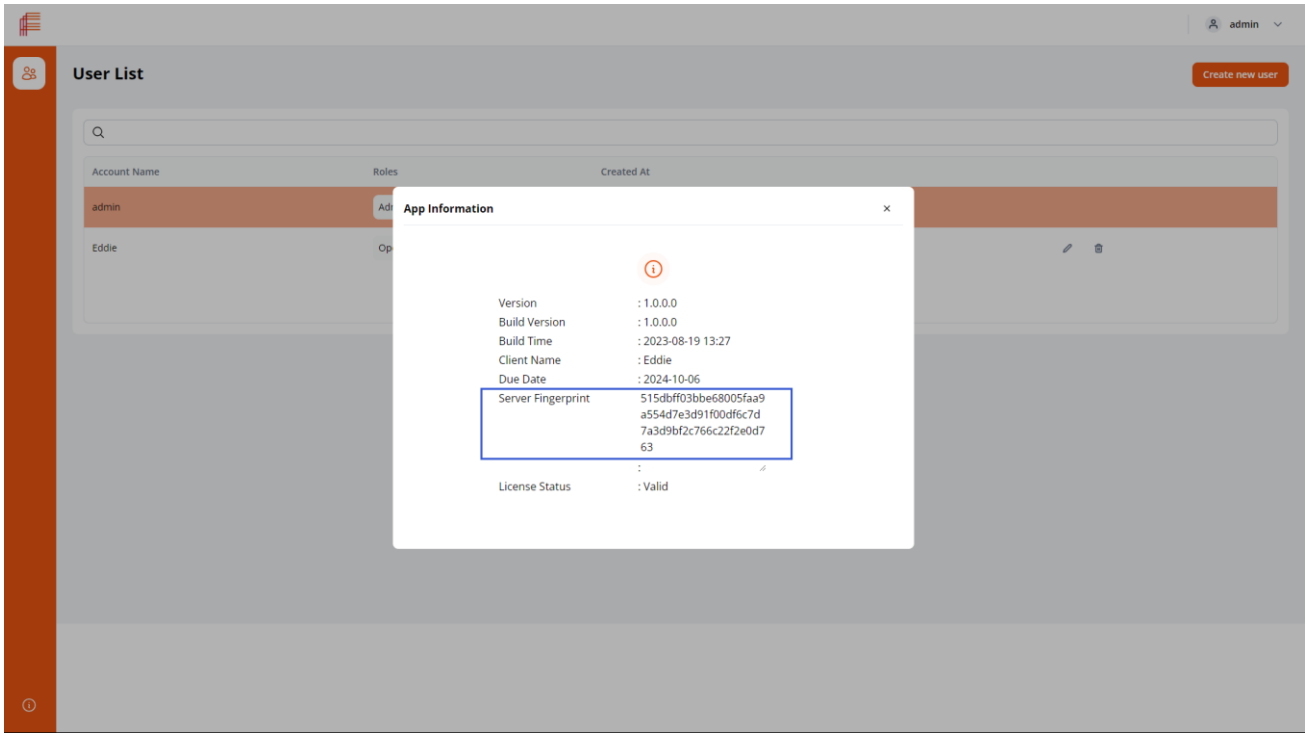


Management Roles Description:

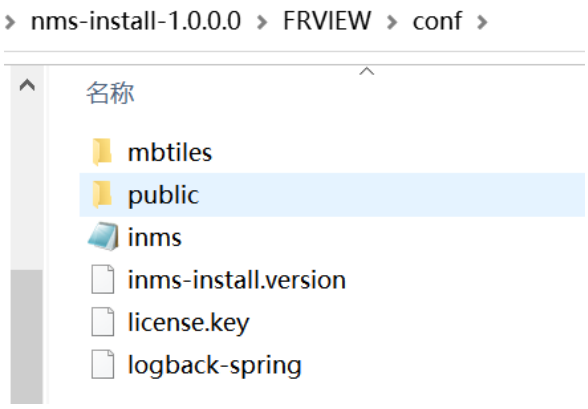
System Administrator	Do not provide platform operation permissions and can only increase user operation and registration permissions; Default username and password: admin, this version cannot be modified;
Device Operator	A user assigned by the system administrator who can perform operations such as discovery and topologization of platform devices. The user name and password are set by the system administrator;
Regular User	Users are assigned by the system administrator and can monitor and supervise the platform equipment without equipment operation rights, and the user name and password are set by the system administrator;

3) Registration of FRWIEW

Please click the symbol at the bottom left corner of the interface to bring up the window as shown in below，



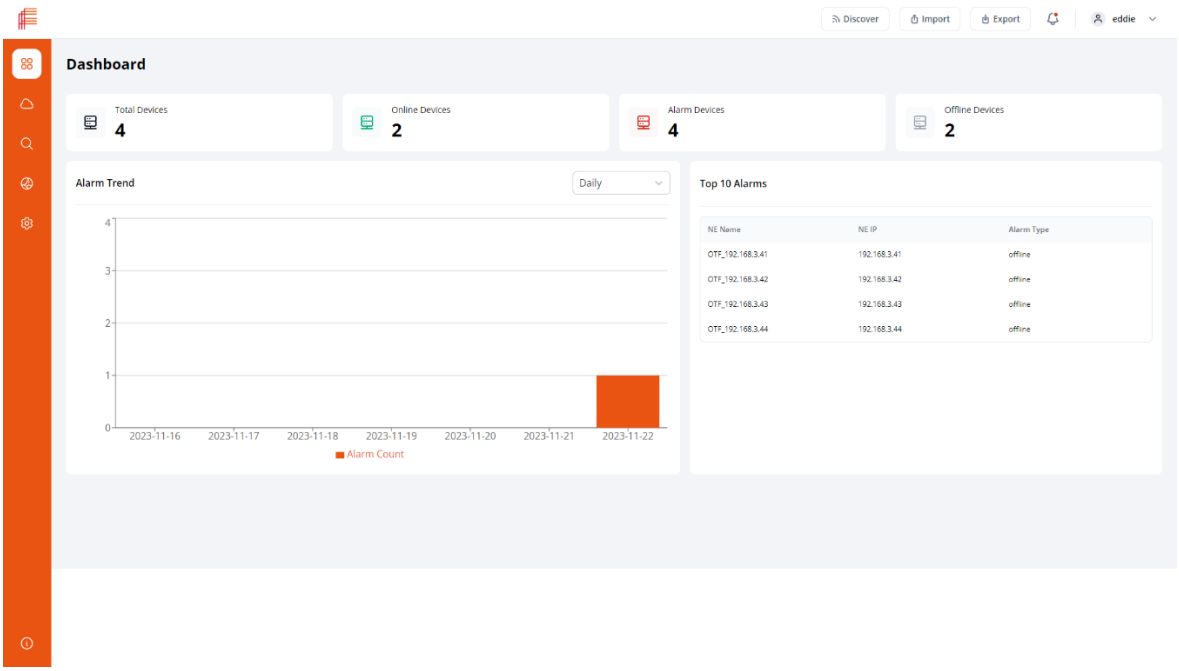
Please copy the content in the blue box and send it to our technical staff for License application. After successful application, please save the activated License file to the directory as below.



4) Device Scanning and Discovery

➢ Please log in with the newly created operator role;

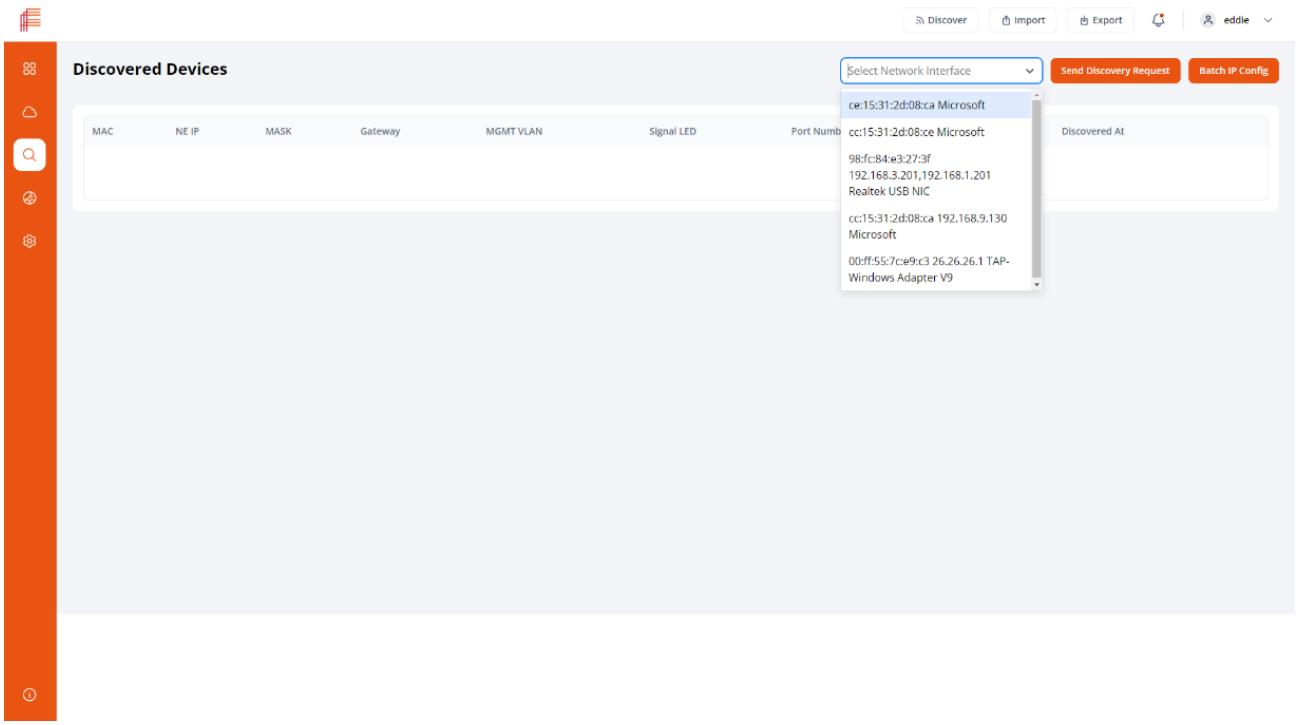
After Login, you will enter the FRVIWE platform homepage



Icon Function Description:

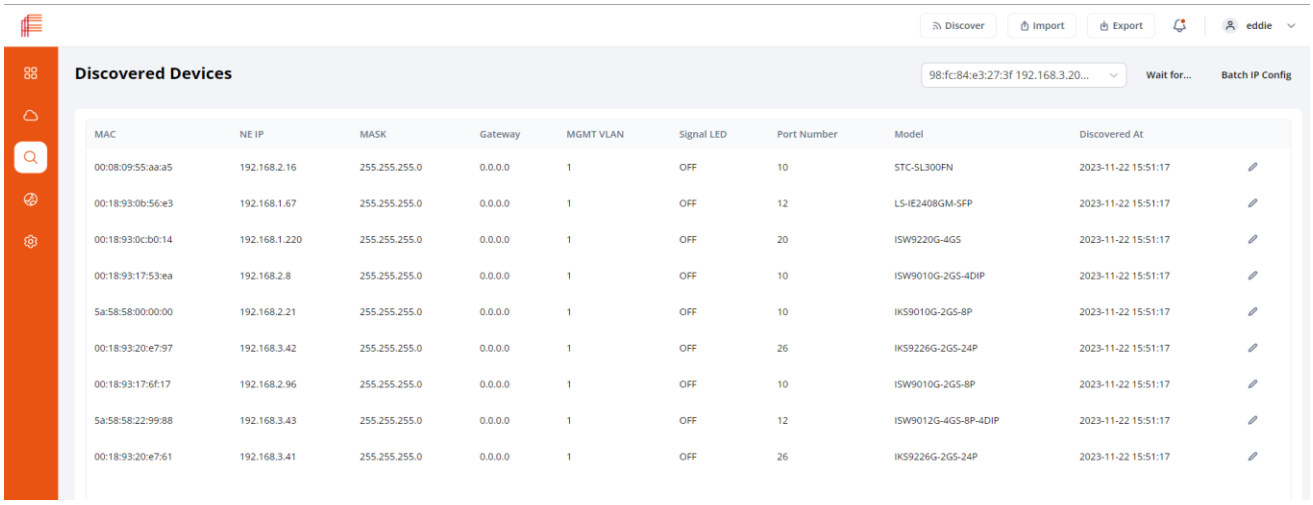
	Dashboard page
	Web page
	Device Discovery page
	Device Map Display page
	System Parameter Setting

Click the icon to enter the Discovered Devices page as shown below:



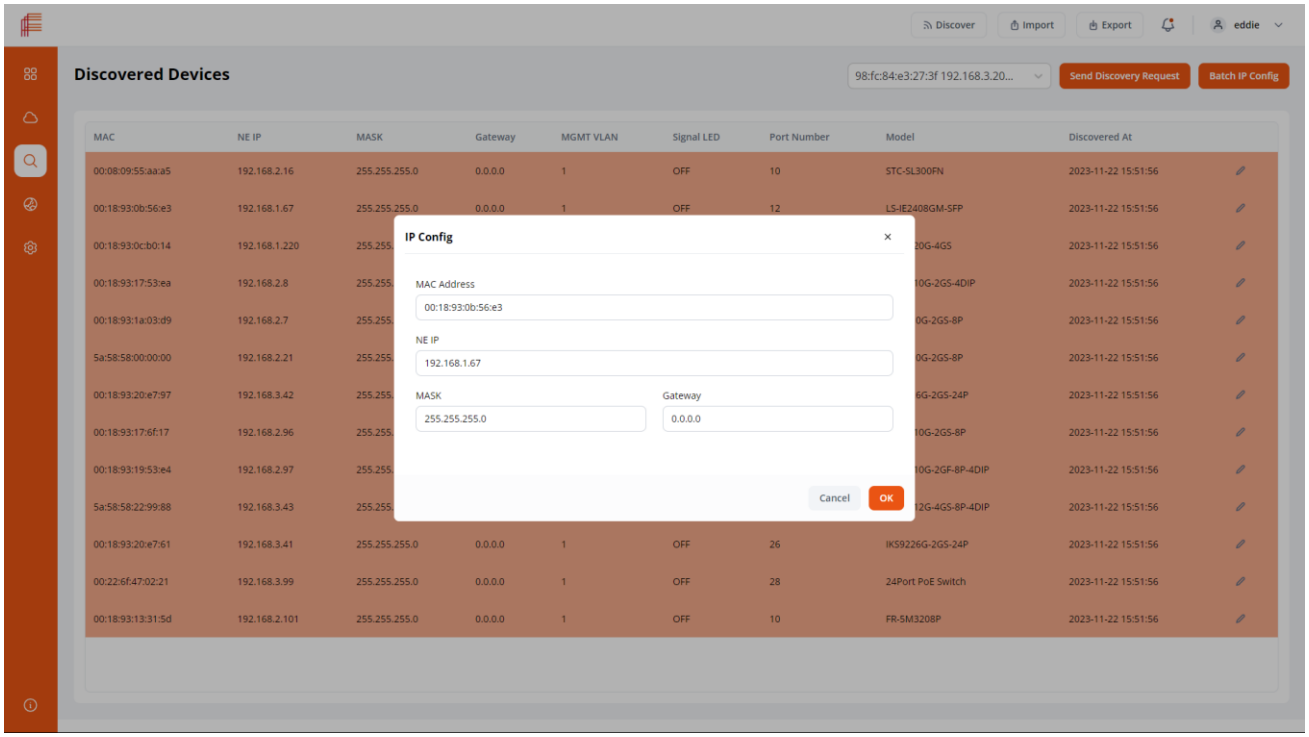
Select the NIC which is directly connected to the switch via the drop-down menu.

Once selected, click the Discovered Devices button. As shown in the figure below:



5) Device IP Address Modification

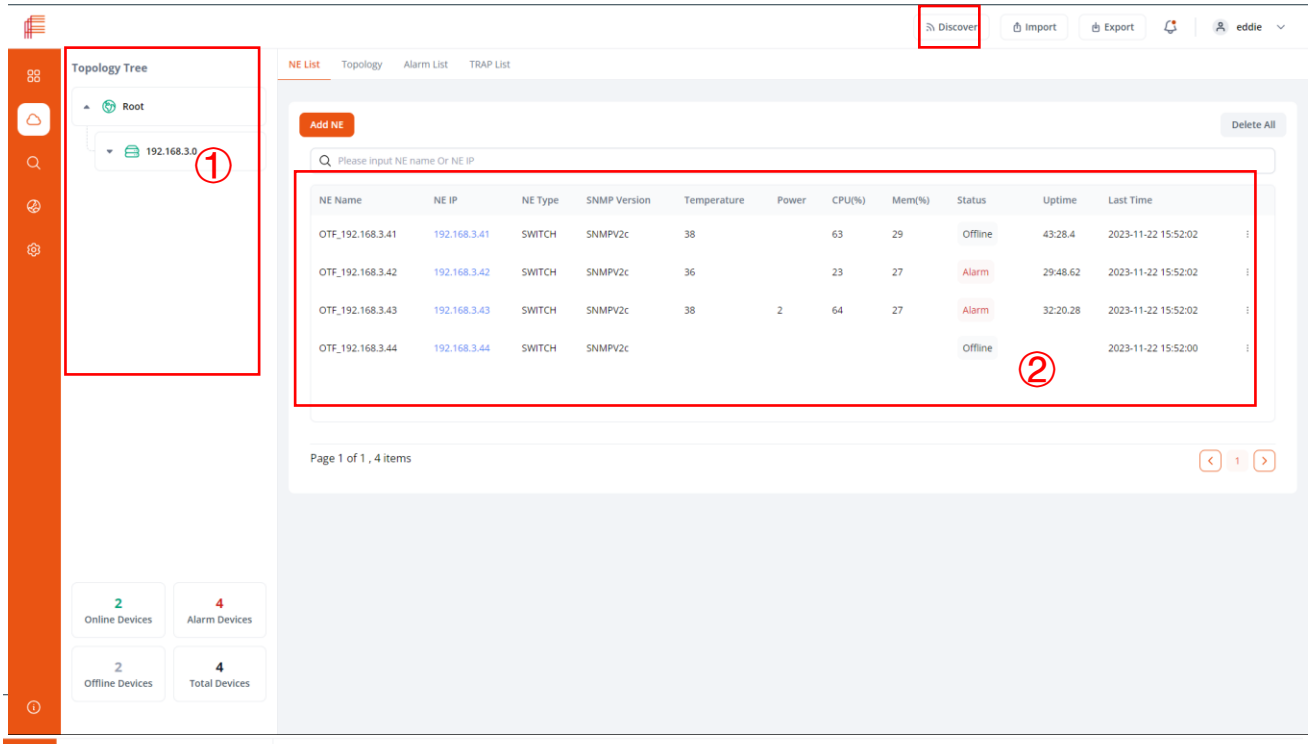
➢ After scanning out the network devices, click the button then the IP Config page as shown below will pop up. Enter the address you need to modify in the device IP to modify it.

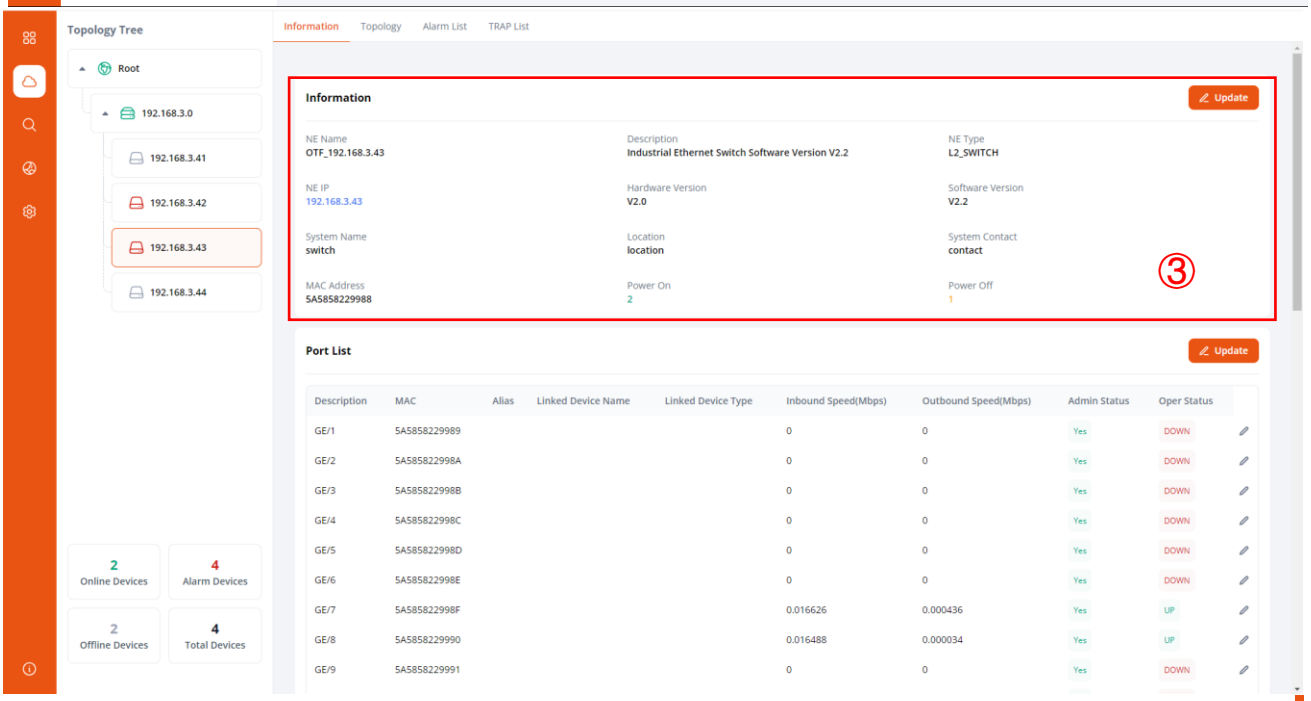


The current version of IP address modification only supports temporary IP address, and the default IP will be restored after the device is powered off. If you need to solidify the IP, please enter the switch through the web page to save it.

6) Network Device Discovery

➢ Under the modified IP address segment in the previous operation, click the button Discover .In the pop-up discovery window, enter the IP address segment of the device need to be discovered. As shown in the figure below:



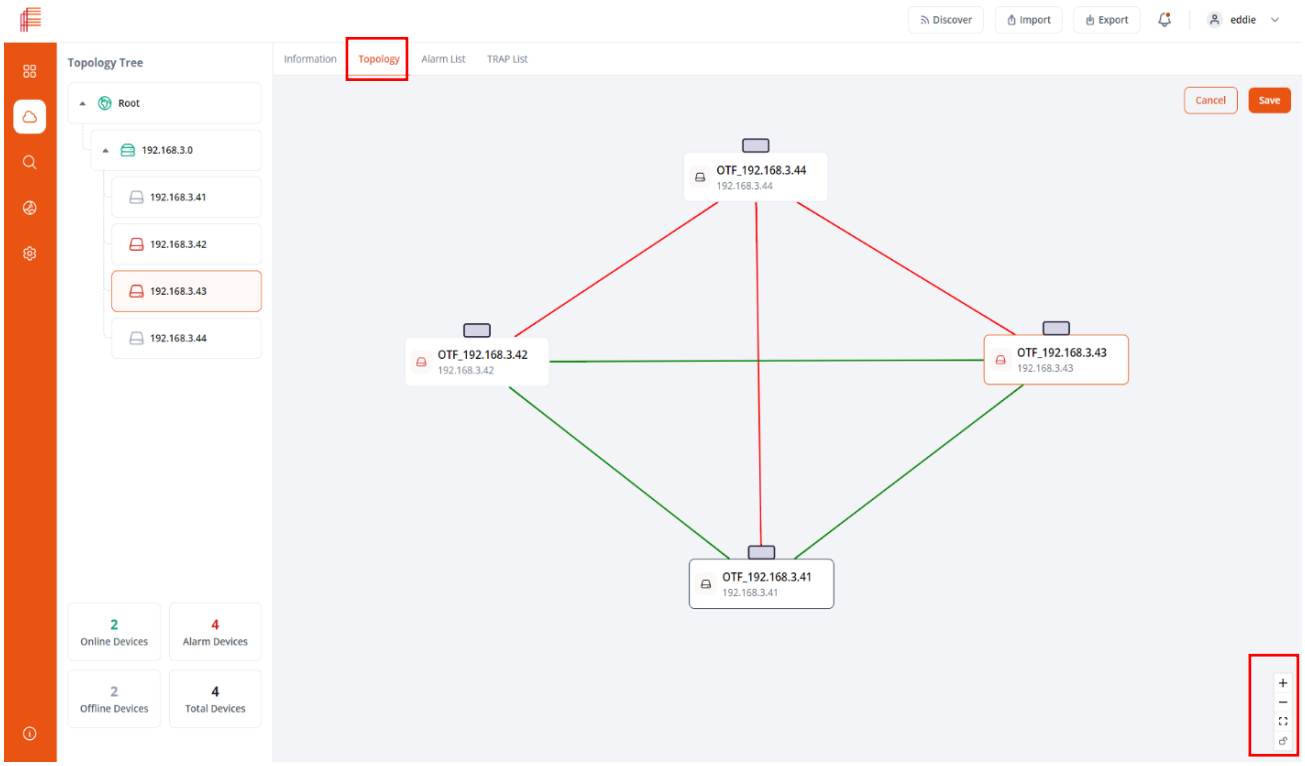


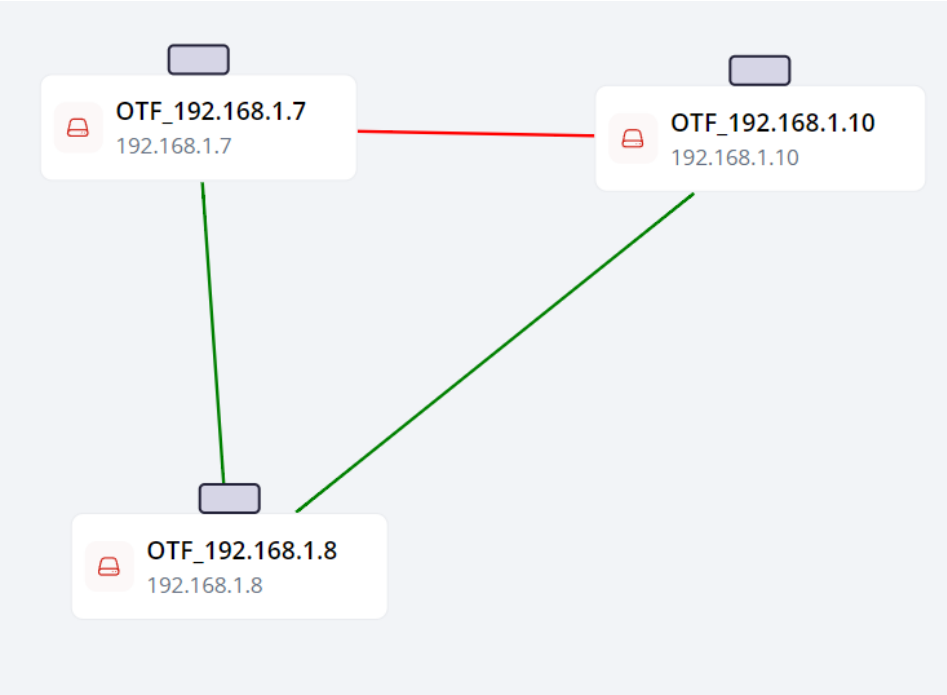
➢ Page Function Description:

Topology Tree	Displays drop-down tree icons and IP addresses of all devices	①
Roo	Device root, including devices in different network segments.	
IP Address segment	Overview of devices in the network segment	②
IP Address	Overview of a single selected device	③

7) Display of Network Topology

➢ After network device being discovered, click to the button Topology to reveal the network topology map, which is automatically loaded and does not need manual engagement, as shown in the following figure:



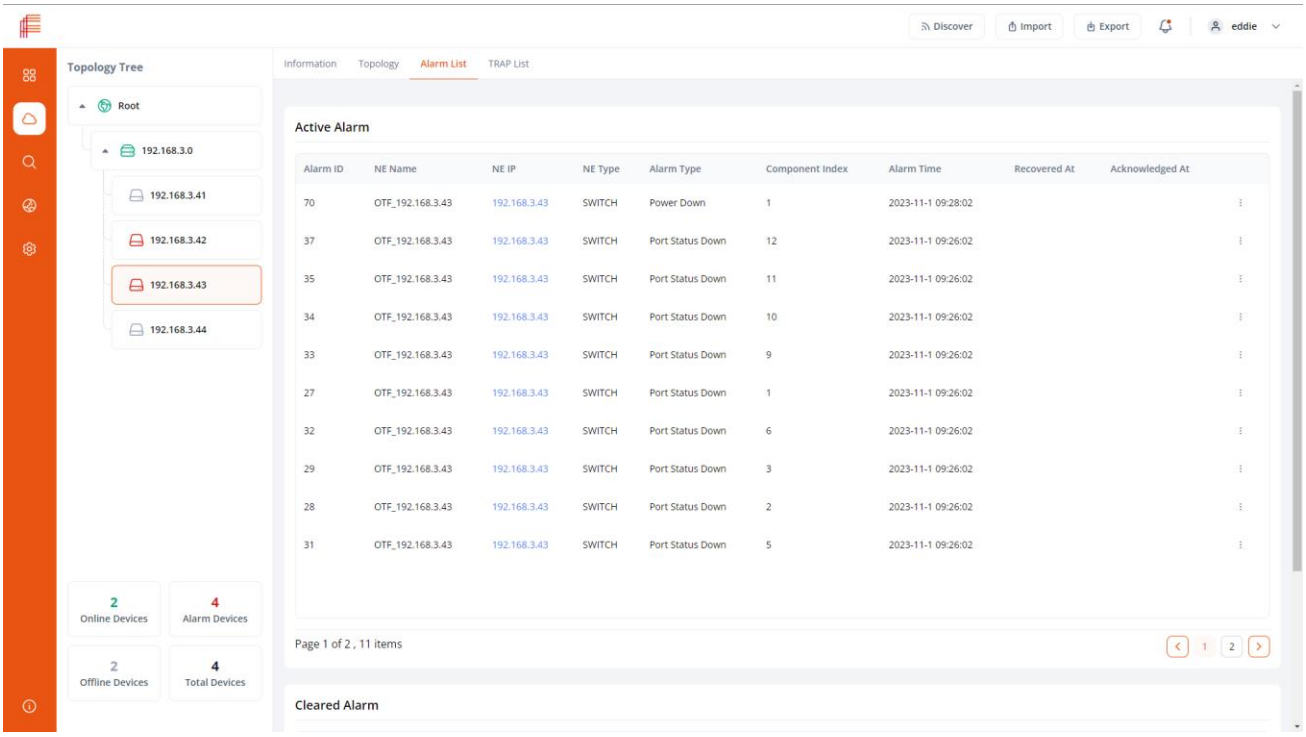


Adjustment Instructions for Topology Diagram:

+	Topology Diagram Enlargement
−	Topological Diagram Reduction
⛶	Topology Diagram Centered
🔒	Topology Diagram Lock Button, you need to convert the state to unlocked one to modify or drag the icon
Red Line	Connected abnormally
Green Line	Connected normally

8) Network Malfunction Alarm

FRVIEW platform provides real-time device alarm information, including device power supply, device ports, device temperature and other information. When a network device, such as a switch is added to the platform, all the alarm information will be reflected with the device. As shown in the figure below:



IV. Appendix: Instructions for Enabling SNMP and LLDP Features on the Switch

1) Interpretation of nouns

- **SNMP（Simple Network Management Protocol）**

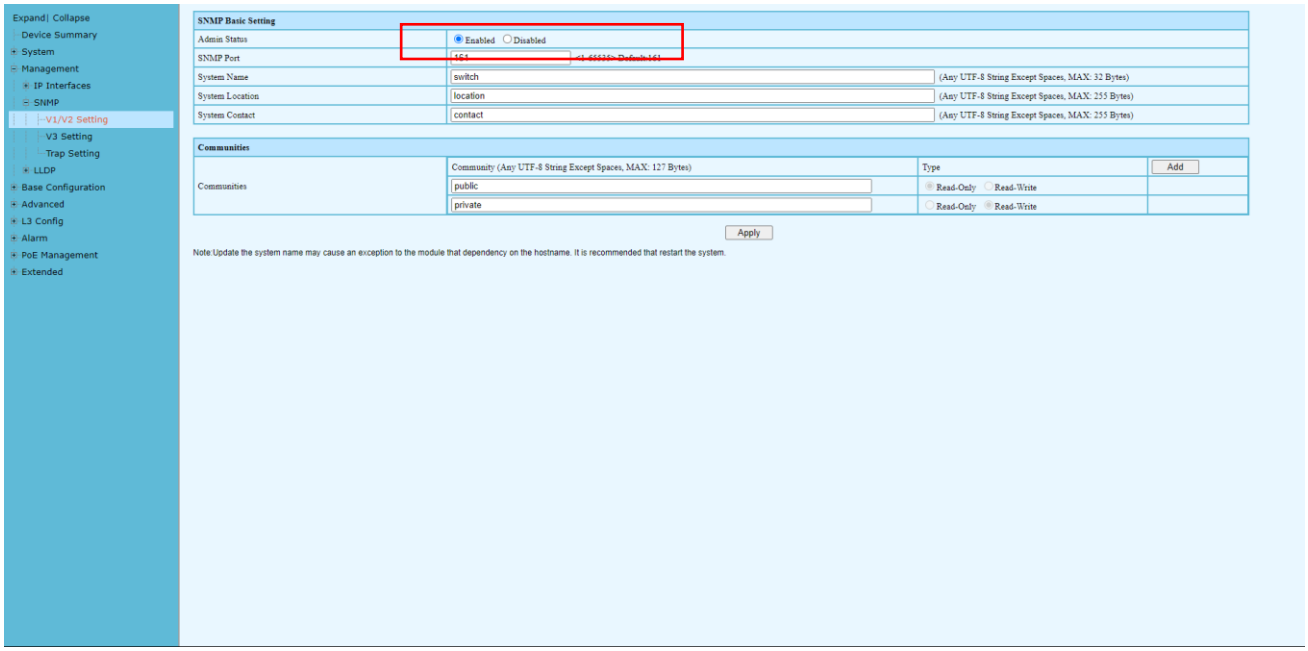
  SNMP is a set of network management protocols defined by the Internet Engineering Task Force. Problems with the network can be detected by received event reports from devices through SNMP. It is a management protocol designed specifically for IP-based network management nodes (servers, workstations, routers, switches, etc.).

- **LLDP（Link Layer Discovery Protocol）**

  LLDP is a standard link layer protocol, mainly composed of management address, device identification, interface identification and other information, and publish these information to the directly connected neighboring devices to discern the link condition of the network.

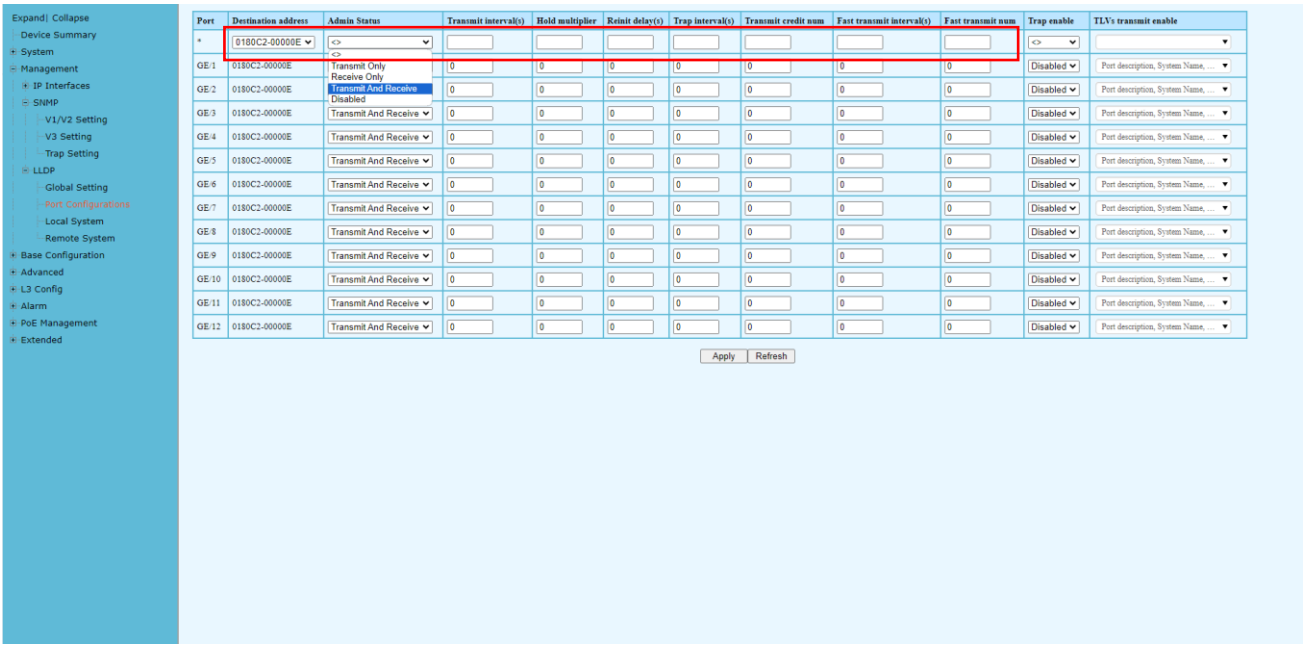
2) Switch Set-up

➢ Enable SNMP Function



As shown in the above figure, you can enter the IP address of the switch to access the embedded Web page of it, and then click Management Settings->SNMP->V1/V2 Settings->Apply to save the configuration.

➢ Enable LLDP Function



As shown in the above figure, you can click Management Settings->LLDP->Port Configuration and select 0180C2-00000E as destination address, Transmit And Receive as administrative state, and then save the configuration and exit.

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