

## **USER MANUAL**

POE SWITCH

#### INTRODUCTION

This manual is to be used for ensuring users use the product correctly through a manual, in order to avoid risks or damage of their property happens when they are operating. Before using the product, please read the product manual carefully and keep it safe for future reference.

#### Overview

This document is applicable for the PoE switch instruction.

#### Agreement

Symbols appearing in the document are instructed as follows:

Symbol	Illustration
oilnstruction	The Instruction Text indicates the supplement and explanation to the main text.
△! Caution	The Caution Text remind a user of some important operations or prevents a user from a potential injury and property loss. If it cannot be avoided, someone will suffer from the injury, the equipment will be damaged, and service will be interrupted.
∆! Danger	The Danger Text indicates a high potential risk. If it cannot be avoided, it will cause a major hazard of personal death.

#### Precautions for safety use

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- In the processing of the installation and usage of this product, strictly abide by the regulations of the national and local electrical safety is necessary.
- The plug or socket of the device is the equipment that can disconnects from the power. DO NOT block it, for easy insertion and removal.
- The external conductors connecting the equipment to the hazardous live terminals need to be installed by professionals
- The protective grounding of the equipment should be connected to the protective grounding of the building equipment.
- Must cut off the power supply of the device, when it is connecting cables, disassembling, or installing devices. DO NOT operate with power on.
- The device is not suitable for the usage scenario where children may be present.
- This product contains button batteries, if that are swallowed, it will cause a serious internal burn to lead to DEATH. Children should stay away from new and used batteries.

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- Please use a power adapter which produced by the authorized manufacturer.
- Keep the device placed horizontally on the desktop when you are using
- The device should away from an exposed fire sources, for example a lit candle.
- The device shouldn't suffer from water droplets or splashes. Place any liquid (such as water cups) on the equipment is strictly prohibited.

#### **Chapter 1 Product introduction**

Lite managed PoE switch, hereinafter referred to as the "device", is a Layer 2 PoE network switch that provides advanced technology of Ethernet PoE power-supply based on meeting high-performance access requirements. The product supports Client Management and achieves such functions of the security network as visualized topology management and port management. With high reliability, easy to install, and easy to maintain, this PoE is equipped with multiple access ports to achieve fast switching, and also it is suitable for devices that have access to a small-scale LAN.

#### 1.1 Install and Power up

Place the switch on a smooth table, connect the power cable, plug it, and turn on the power supply. After being powered on, the switch is initializing automatically while the port indicator is flicking then turns off, and the system initialization is completed. <u>A</u>! CAUTION:

1. DO NOT place heavy objects on the switch and ensure that the switch has good ventilation and heat dissipation.

- 2. Please power OFF before inserting or removing the adapter.
- 3. Please check the power supply. If the initialization does not comply with the above.

#### **1.2 Appearance part instructions**

This chapter describes the detailed instructions of the switch front and rear panels, and the LED indicators.

#### 1.2.1 Front Panel



Diagram of front Panel

#### 1. Indicator Light

Indicator	State	Description		
PoE	Green light always on	PoE port power supply is normal		
	Always off	PoE port is not powered		
Link/Act	Yellow light always on	The device is connected with the port normally		
	Yellow light is flicking	Data is transmitted by the port		
	Always off	Device is not connected with the port		
PoE-MAX	Light on	The gross power of the PoE port has reached or exceeded the alarm value		
	Light off	The gross power of the PoE port is less than the alarm value or haven't been connected with a powered device		

#### $\triangle$ ! CAUTION:

The priority of the PoE port power supply is as follows: The larger the port number, the lower the priority. If the gross power of all powered PoE equipment is higher than the maximum output power of the device, the switch will cut off the power supply for the largest port on the connected device. For example, ports number 1,2,5,8 are in the progress of a 14W normal power supply, and the total power supply of the system is 56W. If now a powered equipment with 15W is connected to one of the ports, the system will cut off the power supply automatically for port 8, because the power supply is overloaded. That is means, ports 1, 2, and 5 are still supplied with 14W power, the new ports supplied with 15W, but Ports 8 will no longer be supplied with the power.

#### 1. Reset Button

Reset hole	Long press for 3 seconds	The device password will be restored to default value		
	Long press for 10 seconds	All device parameters are restored to default values		

#### **Red Port**

Red port is a port with a high priority for up-going forwarding, it is identified an area in red on the device, and has the below privileges:

- Under the circumstance of up-going congestion, data is transmitted firstly on the ports of this area.
- When the gross power of PoE has exceeded the limit, give priority to the output power of ports in the area.

#### 3. Uplink Port

4 Port switches support 10/100Mbps full-duplex communication, and 8 Port switches support 10/100/1000Mbps full-duplex communication, but do not provide PoE function.

#### 1.2.2 Rear Panel



Diagram of Rear Panel

#### 1. Power Interface

Please use a 48V power supply to connect the powered adapter, if the power supply does not match, the switch will be damaged.

#### 2. Lightning protection grounding pole

Located on the left of the power interface, it must be connected to a lightning protection to prevent the device from a lightning damage.

#### **Chapter 2 ADD DEVICE**

The device can be configured and managed through the VMS Pro client software, including network parameter configuration, port configuration, and network topology display and searching.

The device used for the first time must be activated first, set up the login password. Please install the VMS Pro client first and follow the instructions. Operating steps

1. In the interface of Video Management ---> Auto Search, select the device, Click for activation.

$\bigcirc$	Video Management	ல்	0:::							₽&Ø_	o x
Ums	Soltware	ш.							14:52:0	04 2021-11-11 CPU 💵	
	All equipment		Auto Sea	ırch	Grouping	g	CustomGroup				
protoc	ol type: Private	~	Search	Filter					total nu	ımber: 23 select numbe	er: O
No.			IP								
1	SWITCH	192.1	168.1.100	443	0	9	00-23-63-78-C3-F6	V1.1.0-20211101	0		

2. Set up and confirm the login password for the device on the pop up menu page, then edit the network information to let it have same network segment as the PC which installs VMS Pro client.

i Edit Device Info 🗙						
User	admin					
Password	•••••					
Confirm Pwd	•••••					
IP	192.168.1.100					
Mask	255.255.255.000					
Gateway	192.168.001.001					
		Save				

3. Click "Save", the device is activated and add successfully.

#### oiExplanation:

Before activating the device, please ensure the device IP address, subnet mask and gateway are under same network segment as the PC which installs VMS Pro client. So that the device can be added to the client for management.

#### **Chapter 3 Remote Configuration**

#### 3.1 System Configuration

#### 3.1.1 Device Information

Select **Remote configuration ---> Configuration ---> Information**, basic device information will be displayed, including the device name, model, number of ports, firmware version, MAC address, and port information, etc.

Basic Information Device Model R5-SW08 Port Number 9 Version V1.1.0-20211101 MAC Address 00-23-63-78-C3-F6 Device Name R5-SW08 Port Information Port Information    Index Port same bandwidth Port type   1 Eth1 100M Electrical interface   2 Eth2 100M Electrical interface   3 Eth3 100M Electrical interface   4 Eth4 100M Electrical interface   5 Eth5 100M Electrical interface   6 Eth5 100M Electrical interface   7 Eth6 100M Electrical interface   8 Eth8 100M Electrical interface   9 Ge1 100M Electrical interface	Informati	on Ma	nagement					
Device Model       RS-SW08         Port Number       9         Version       V1.1.0-20211101         MAC Address       00-23-63-78-C3-F6         Device Name       RS-SW08         Port Information       RS-SW08         Port Information         Index       Port name         bandwidth       Port type         1       Eth1       100M         2       Eth2       100M         3       Eth3       100M         4       Eth4       100M         5       Eth5       100M         6       Eth6       100M         6       Eth6       100M         6       Eth6       100M         6       Eth6       100M         7       Eth7       100M         8       Eth8       100M         9       Ge1       100M	Basic Info	rmation						
Port Number       9         Version       V1.1.0-20211101         MAC Address       00-23-63-78-C3-F6         Device Name       RS-SW08         Port Information         Port Name         Image: Im	Device Mo	del	RS-SW08					
Version       V1.10-20211101         MAC Address       00-23-63-78-C3-F6         Device Name       RS-SW08         Port Information         Information       Port type         1       Eth1       100M       Electrical interface         2       Eth2       100M       Electrical interface         3       Eth3       100M       Electrical interface         4       Eth4       100M       Electrical interface         5       Eth5       100M       Electrical interface         6       Eth6       100M       Electrical interface         7       Eth7       100M       Electrical interface         8       Eth8       100M       Electrical interface         9       Ge1       100M       Electrical interface	Port Numb	er	9					
MAC Address 00-23-63-78-C3-F6 Device Name RS-SW08 Port Information <u>index Port name bandwidth Port type</u> 1 Eth1 100M Electrical interface 2 Eth2 100M Electrical interface 3 Eth3 100M Electrical interface 4 Eth4 100M Electrical interface 5 Eth5 100M Electrical interface 6 Eth6 100M Electrical interface 7 Eth7 100M Electrical interface 8 Eth8 100M Electrical interface 9 Ge1 1000M Electrical interface	Version		V1.1.0-20211101					
MAC Address     00-23-63-78-C3-F6       Device Name     RS-SW08       Port Information     Port type       1     Eth1     100M       2     Eth2     100M       3     Eth3     100M       4     Eth4     100M       5     Eth5     100M       6     Eth6     100M       7     Eth7     100M       8     Eth8     100M       9     Ge1     100M								
Device Name       RS-SW08         Port Information       Port type         index       Port name       bandwidth       Port type         1       Eth1       100M       Electrical interface         2       Eth2       100M       Electrical interface         3       Eth3       100M       Electrical interface         4       Eth4       100M       Electrical interface         5       Eth5       100M       Electrical interface         6       Eth6       100M       Electrical interface         7       Eth7       100M       Electrical interface         8       Eth8       100M       Electrical interface         9       Ge1       1000M       Electrical interface         9       Ge1       1000M       Electrical interface	MAC Addre	255	00-23-63-78-C3-F6					
Port Information       Port sype         1       Eth1       100M       Electrical interface         2       Eth2       100M       Electrical interface         3       Eth3       100M       Electrical interface         4       Eth4       100M       Electrical interface         5       Eth5       100M       Electrical interface         6       Eth6       100M       Electrical interface         7       Eth7       100M       Electrical interface         8       Eth8       100M       Electrical interface         9       Ge1       1000M       Electrical interface	Device Na	me	RS-SW08					
indexPort namebandwidthPort type1Eth1100MElectrical interface2Eth2100MElectrical interface3Eth3100MElectrical interface4Eth4100MElectrical interface5Eth5100MElectrical interface6Eth6100MElectrical interface7Eth7100MElectrical interface8Eth8100MElectrical interface9Ge11000MElectrical interface	Port Inforr	nation						
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2       Eth2       100M       Electrical interface         3       Eth3       100M       Electrical interface         4       Eth4       100M       Electrical interface         5       Eth5       100M       Electrical interface         6       Eth6       100M       Electrical interface         7       Eth7       100M       Electrical interface         8       Eth8       100M       Electrical interface         9       Ge1       1000M       Electrical interface	1	Eth1	100M	Electrical interface				
3       Eth3       100M       Electrical interface         4       Eth4       100M       Electrical interface         5       Eth5       100M       Electrical interface         6       Eth6       100M       Electrical interface         7       Eth7       100M       Electrical interface         8       Eth8       100M       Electrical interface         9       Ge1       1000M       Electrical interface	2	Eth2	100M	Electrical interface				
4       Eth4       100M       Electrical interface         5       Eth5       100M       Electrical interface         6       Eth6       100M       Electrical interface         7       Eth7       100M       Electrical interface         8       Eth8       100M       Electrical interface         9       Ge1       1000M       Electrical interface	3	Eth3	100M	Electrical interface				
5       Eth5       100M       Electrical interface         6       Eth6       100M       Electrical interface         7       Eth7       100M       Electrical interface         8       Eth8       100M       Electrical interface         9       Ge1       1000M       Electrical interface	4	Eth4	100M	Electrical interface				
6       Eth6       100M       Electrical interface         7       Eth7       100M       Electrical interface         8       Eth8       100M       Electrical interface         9       Ge1       1000M       Electrical interface	5	Eth5	100M	Electrical interface				
7     Eth7     100M     Electrical interface       8     Eth8     100M     Electrical interface       9     Ge1     1000M     Electrical interface	6	Eth6	100M	Electrical interface				
8     Eth8     100M     Electrical interface       9     Ge1     1000M     Electrical interface	7	Eth7	100M	Electrical interface				
9 Ge1 1000M Electrical interface	8	Eth8	100M	Electrical interface				
Save Refresh	9	Ge1	1000M	Electrical interface				
Save Refresh								
	Save	Refrest						

#### 3.1.2 Device Maintenance

You can reboot the device, restore the default Settings, download logs, and upgrade.

#### **Operating Steps**

1. Select **Remote config ---> Management ---> System management,** have access to the Maintenance page.

	Remote config	×
Information	Management	
System Managemer	ent	
	System Default	
	Syetem Reboot	
	DownLoad Log	
System Upgrade		
Select a File		
Upgrade progress		Upgrade

2. Select function buttons to achieve different functions

System default	All parameters are restored to factory Settings. After the restoration, the device needs to be reactivated.
System Reboot	Remote reboot device.
Download Log	The serial port logs from the switch can be downloaded, you can check the problems through analyzing the error types of the switch.
Upgrade	Click Select upgrade documents, click upgrade, the device upgrade. Current Progress shows the upgrade progress.

#### 3.2 Network Configuration

Select **Remote config ---> Internet**, Network parameters can be configured for different clients. Network parameters include IPv4 address, subnet mask, gateway address, and port.

Internet	_
IPv4 Address	192.168.001.100
Mask Address	255.255.255.000
Gateway	192.168.001.001
DNS1	000.000.000
DNS2	000.000.000
Port	443
	Save Refresh

#### $\circ \textbf{iExplanation:}$

After IPv4 addressed is reset, it will cause the device IP and the PC IP that are not in the same network segment, so the device management and configuration do not work. Planning the device's IP address at first is suggested when the device being used for the first time.

#### 3.3 Port Configuration

### Select **Remote Configuration ---> Port** to proceed with the related configuration. **•iExplanation:**

The supported functions of the device itself exists difference, details is subjected to the actual interface.

#### 3.3.1 Attributes Configuration

In **Attributes Configuration** interface, you can configure the port rate, duplex mode, scream control, and on-off.

Pata	Include automatic negotiation 10Mbps, 100Mbps, 1000Mbps rates,
Rate	etc. auto-negotiated is default

Duplex	This version only support auto-negotiated mode
Stream Control	When in the processing of the function of the port scream control, after the stream control is opened, it can avoid packet loss effectively. The function is the default open.
On-off	Port on-off, after turn off, the port haven't transmitted data, other device is still supplied by power.

#### 3.3.2 Remote Configuration

Devices that support the remote function, turn on or turn off the switch, the port of the remote function can be turned on or off.

When the remote function has been turned on, the transmission distance can reach 250m.

After the remote function has been turned on, the port rate will be matched to 10Mbps; after it has been turned off, the port rate will be restored to auto-negotiated.

#### 3.3.3 PoE Port Configuration

For the devices that support the PoE function, the PoE function can be turned on for providing the power to other PD devices.

Turn on or off the PoE, data transmission is not influenced.

#### 3.4 Log management

If the device is abnormal or need to check the operation records, the log of device can be checked at the interface of log searching.

#### **Operating Steps**

1. Select **Remote Configuration ---> Log**, enter the page of the log.

Log	_						
Main Type	All	~					
Start Time:	2021/12/7 0:00		End	Time:	2021/12/7 23:59	Ē	Search
Sub Type:	All	~	Port	:	All	~	
Export path							Export
index	Operating time	Main type	Sub type	Port		ip	

#### 2. Setting Search Conditions

Main Type	When searched by the type, the system, operating, account, warn, that can be selected in the main type, a total of 4.
Start Time	Searching Start Time for log
End Time	Searching End Time for log
Sub Type	Sub Type can select the related type according the different type of Main Type
Port	Searching the log in corresponding port

1. Searching Log, click "Search", the specific log can be viewed.

Log							
Main Type	All	~					
Start Time:	2021/12/7 0:00	<b></b>	End	Time:	2021/12/7 23:59	i	Search
Sub Type:	All	~	Port	:	All	~	
Export path							Export
index	Operating time	Main type	Sub type	Port			
1	12/07/2021 15:15:08	Operate	Search Log			172.20.57.5	
2	12/07/2021 15:15:08	Operate	Search Log			172.20.57.5	
3	12/07/2021 15:15:08	Operate	Search Log			172.20.57.5	
4	12/07/2021 15:15:07	Operate	Search Log			172.20.57.5	
5	12/07/2021 15:15:07	Operate	Search Log			172.20.57.5	
6	12/07/2021 15:15:07	Operate	Search Log			172.20.57.5	
7	12/07/2021 15:15:03	Operate	Search Log			172.20.57.5	
8	12/07/2021 15:13:05	Operate	Search Log			172.20.57.5	
9	12/07/2021 15:12:45	Operate	Search Dev			172.20.57.5	
10	12/07/2021 15:12:34	Account	Login			172.20.57.5	
11	12/07/2021 14:19:46	Alarm	Port net link	Eth2			
12	12/07/2021 14:19:44	Alarm	Port net off	Eth2			
13	12/07/2021 07:23:07	Alarm	Port net link	Eth2			
14	12/07/2021 07:23:05	Alarm	Port net off	Eth2			

1. Click **Export**, select Export path.

2. Give the exported document a name, format is stored by .xlsx, log back-up has been finished.

#### 3.5 User management

Device only support one admin user, can't add or delete, but can change the password.

#### **Operating Steps**

Select <b>Remote Configuration&gt;</b>	User,	enter the	edit interfa	ace of user
--	-------	-----------	--------------	-------------

User			
User Information			
User	admin	)	
Password	•••••	Confirm Password	••••••
Save	tefresh		

#### Password

It consists of two or more combinations of 8-16 digits, lowercase letters, uppercase letters or special characters. Passwords are divided into three levels: weak, medium, and strong. To protect your personal privacy and corporate data, and avoid network security issues on your device, it is recommended that you set a strong password that complies with security standards.

#### **Chapter 4 Topology presentation**

In the interface of topology presentation, the relation of topology in different added devices can be viewed by the client, and related configuration can be operated.

#### 4.1 Related operating

Select the device which needs checked, selected Control Panel ---> **Topology presentation**, enter the interface of topology.



#### Interface Description

- Imputing the alias or IP of the device at the top left corner, corresponding topology graph can be viewed.
- The upper right corner show the meaning of different icon color, and icons of export, refresh topology graph and path.
- Zoom in and zoom out the topology at the bottom of right corner, or zoom in and out directly through scrolling the muse wheel.
- The level of the display layer of topology graph can be set up at the bottom left corner.

#### $\circ \textbf{iExplanation:}$

Enter the interface of topology graph for the first time, if no topology graph is displayed, please click refresh and try again.

#### **Related Operating/Icons description**

Action/Icon	Operating	Details
Double- click Device	Look over the details of device	The type of the device and the information of IP, Panel status, and Port are displayed.
Right-click Device	Look over the device status	Skip to the interface of device status, and see details at <i>device status.</i>
	Run alarm processing	The information of alarm and event is displayed, and perform alarm elimination operation
	Run remote configuration	Skip to the interface of remote configuration, and see details at <i>Remote Configuration.</i>
	Modify the device name	Modify the name on the interface of topology
	Set as root node	Set the current device to the root node in the topology
	Upgrade device	Supports the connected NVR, DVR, and IPC upgrades
	Export topology graph	Select the export path, and export the current topology graph
品	Show Path	Select IPC and current device, the path between the selected device can be displayed
Q	Refresh topology graph	Refresh the interface of topology and display it

#### 4.2 Topology Setting

#### Operating steps

- Click 🙆 which at the interface of the bottom of the left corner to proceed with the basic setting of the topology.
- Set the display level: 1~10;
- Click "OK", save the setting.



#### ∘iExplanation:

After the setting changed,  $\bigcirc$  needs to be clicked to refresh for displaying the latest

#### **Chapter 5 Device Status**

In the interface of topology graph, right-click the device, then click the Device Status, the device using condition, panel status, port status, PoE port status, and the port statistics can be looked over.

atus Device	e User Information					
IS POE F	ower 💻	4.04	N/65W			
stics POE P	ower Peak	31.46	W/65W			
Status						
Devic	e Panel Status					
E 6	ectric Port			Alarm	Normal	Not Connect
		2 3 4	5 6 7	8 G1		
Port I	Information	2 3 4	5 6 7	8 G1	ice Alias	
Port I Por Eth1	nformation t name Device T IPC	VPP Device IP 172.020.057.045	5 6 7	8 G1	ice Alias	
Port I Por Eth1 Eth2	nformation t name Device T IPC IPC	ype Device 1P 172.020.057.045 172.020.057.049	5 6 7	B GI	ice Alias	
Port I Por Eth1 Eth2 Eth2	nformation t name Device T IPC IPC	Vpe         Device IP           172.020.057.045         172.020.057.049	5 6 7 IP CAMERA IP CAMERA	B GI	ice Alias	_
Port I Por Eth1 Eth2 Eth3 Eth4	nformation t name Device T IPC IPC	Vpe         Device IP           172.020.057.045         172.020.057.049	5 6 7	B B Dev	ice Alias	_
Port I Por Eth1 Eth2 Eth3 Eth4 Eth4 Eth5	nformation t name Device T IPC IPC	Vpe         Device IP           172.020.057.045         172.020.057.049	5 6 7	s G1	ice Alias	

- **Port Status:** Check the condition of the port rate, the duplex mode, and the scream control
- **Port Statistics:** Check the Bytes that sent/received by the port, the packets count, the rate, and the peak rate. Set an interval of refresh automatically, and run Refreshing or Clearing data statistics by hand.
- **PoE Port Status:** Check the port switch and output power corresponding to the port number.

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