



eVue Network Configuration and Monitoring Tool

User's Guide

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Products Supported by this Manual:

eVue Version 5.00.0x

Audience

This guide is designed for the person who installs, configures, deploys, and maintains the Ethernet network.

Document Revision Level

This section provides a history of the revision changes to this document.

Revision	Document Version	Date	Description
A	Version 1	07/25/2019	
B	Version 2	04/21/2020	Added eVue Mobile App instructions
C	Version 3	04/23/2020	Added remote firmware update info
D	Version 1	09/14/2021	5.00.0x update

Changes in this Revision

New features and fixes for 5.01.05.

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1 Introduction

The eVue network configuration and monitoring tool simplifies device management, allowing system administrators to monitor and maintain multiple EtherWAN devices on a local or wide area network. With the ability to send notifications by email based on selected levels of severity, eVue provides up to the minute information on critical systems. The software can discover EtherWAN switches and wireless devices on a network and subnets, and display an intuitive visual representation of the network topology.

Key Features

- GUI (web based graphical user interface)
- Automated network discovery and topology visualization
- Server-Client operation to ensure system scalability, reliability and real time status
- Event handling via polling and SNMP trap
- Notification sent-out via email and SNMP trap
- Device configurations via SNMPv1/v2/v3, Web, Telnet, and SSH

2 Installation

Recommended System Specifications

CPU: Intel i5 2.5GHz above

RAM: 4 GB or above

Hard disk: 1 TB, 7200 RPM, SATA-3Gb/s or higher

Operating System: Windows 10 (64-bit)

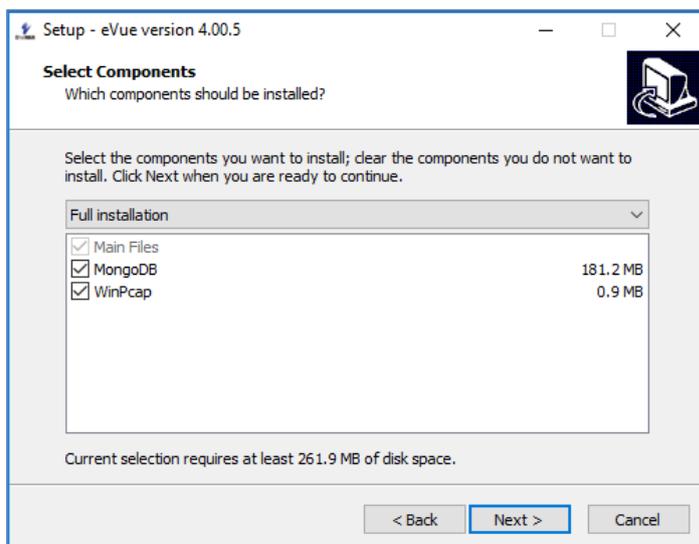
Supported Browsers: Microsoft Edge, Chrome version 64 or later, Firefox version 58 or later.

NOTE: eVue uses SNMP and LLDP to detect switches on the network. SNMP and LLDP must be enabled for all EtherWAN switches that will be used with eVue. Refer to the [Appendix](#) for information on enabling LLDP.

Install eVue

To install eVue, Double click and run the installer. Click the radio button to accept the License Agreement, and then click **Next**.

Click **Next** to install MongoDB and WinPcap:

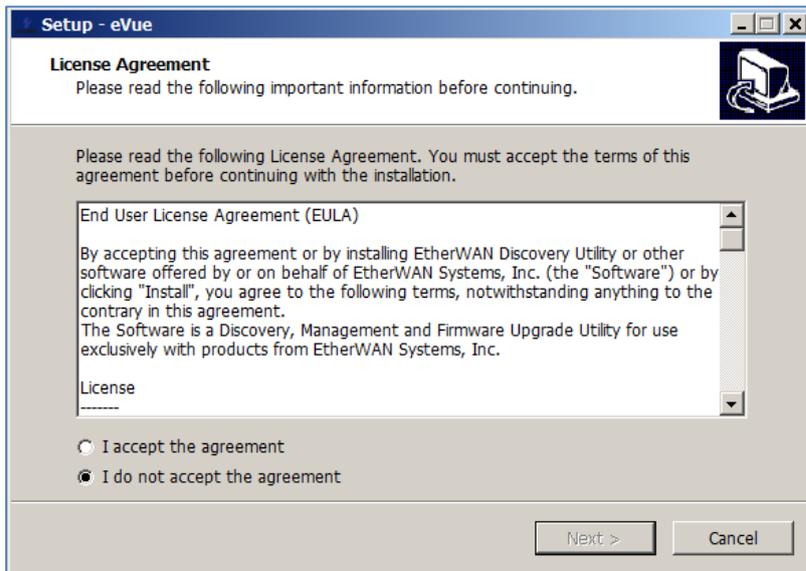


MongoDB is the database used by eVue and mainly stores devices and event information.

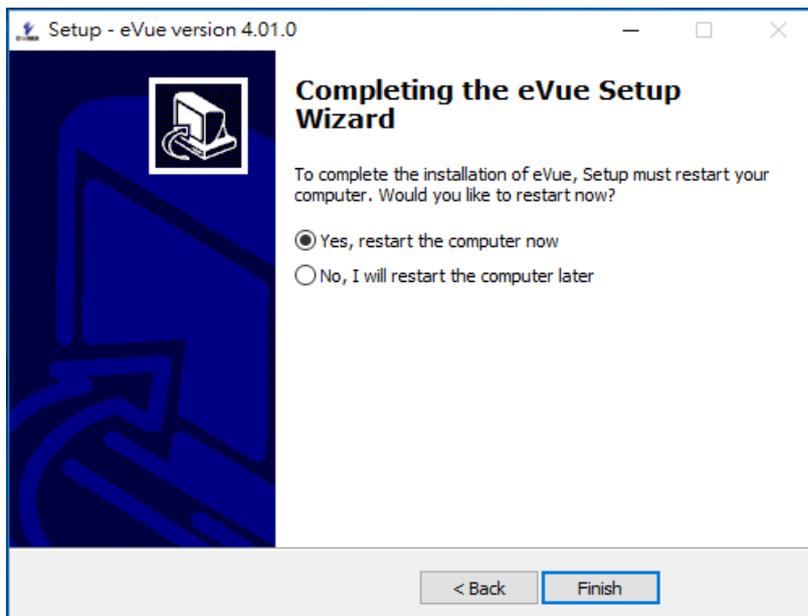
WinPcap is the industry-standard tool for link-layer network access, which allows applications to capture and transmit network packets.

Select the location for the program shortcuts, and click **Next** for the installations. MongoDB and WinPcap are installed sequentially.

Lastly, read and accept the License Agreement for eVue.



You will be prompted to restart the computer.



The first time that you run eVue from **https://localhost:3001**, you will be required to register the software.

Enter the license key provided and click to validate.

Active License Number

Please enter the license key

Active

NOTE: Ensure that these ports are open when using eVue,

Port 22: SSH

Port 69: TFTP

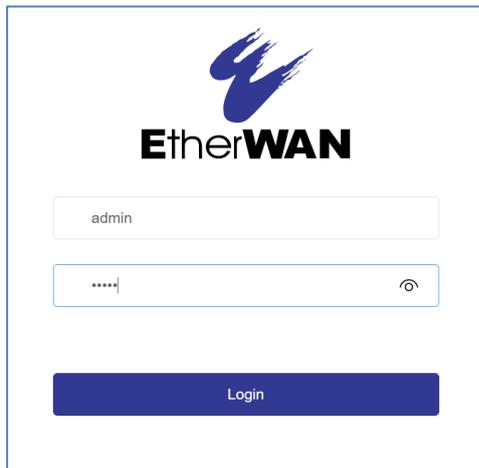
Port 161: SNMP get/set

Port 162: SNMP Trap

Port 3000, 3001: HTTP/HTTPS

ARP (Address Resolution Protocol) is used for EtherWAN product initial discovery.

Login



The screenshot shows the EtherWAN login interface. At the top is the EtherWAN logo. Below it are two input fields: the first contains the text 'admin', and the second contains a masked password '.....' with a toggle icon on the right. A blue 'Login' button is positioned below the password field.

In addition to **admin**, there are two other default login options: **technician** and **operator**. Users logged in as **operator** have read rights only (cannot modify any fields).

The default login name is: **admin**
(Login names are case sensitive)
The login password is: **admin**

To access the software from the local (server) PC:

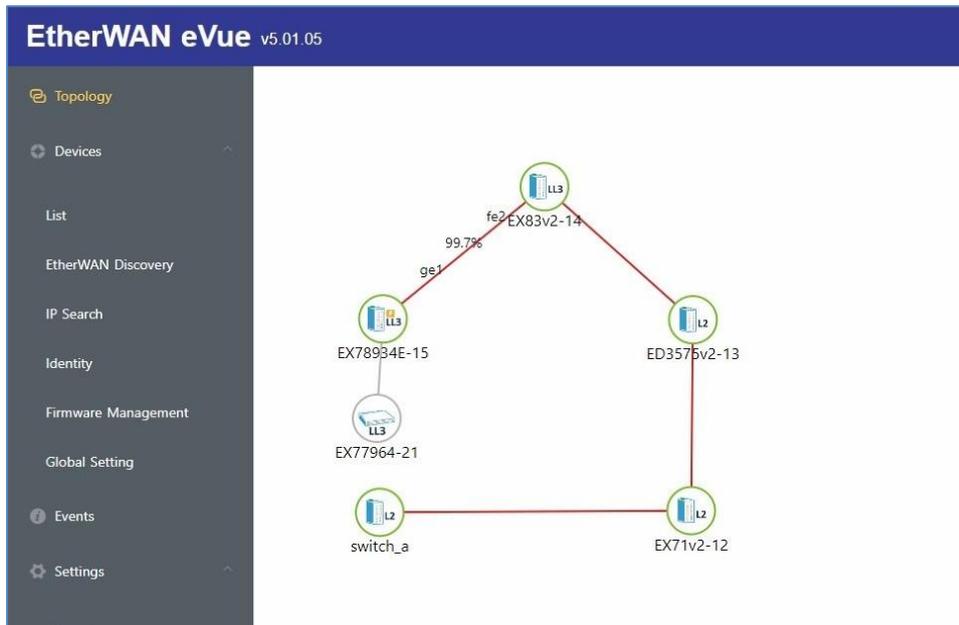
1. Open a web browser
2. In the Internet address bar, enter "localhost:3000" and hit Enter

To access the software from a remote (client) PC:

1. Open a web browser
2. In the Internet address bar, enter "<Server_ipaddress>:3000" and hit enter.

(Example: 192.168.10.100:3000)

Configuration and Use



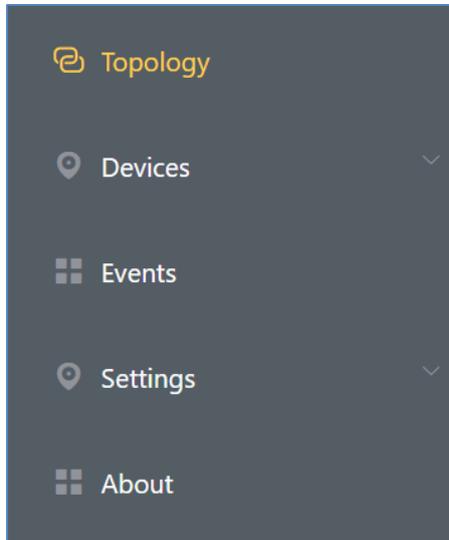
Start screen

When eVue is launched, the Topology screen will display. The Topology view will be empty the first time eVue is run. The **Topology** view displays all EtherWAN devices that eVue has detected on the network, and have been added using the [IP Range Search](#) function. In the Topology view, you can see each device's IP address and device type (L2, LL3, L3, etc.). Dotted lines connecting devices represent blocked ports. Moving the mouse cursor over a specific link will display the real-time port utilization (Port utilization is 99.7% for the upper left link in the example above).

At the bottom of the screen, the **Events** section displays the most recent events by order of occurrence.

40 0 0 0 37 37 0							
	ID	Severity	Time	Service	Node	Message	
<input checked="" type="checkbox"/>	114	Normal	2022/09/21 08:49:34	Login	server	User 'admin' logged in	
<input checked="" type="checkbox"/>	113	Normal	2022/09/21 08:42:37	Login	server	User 'admin' logged in	
<input checked="" type="checkbox"/>	112	Normal	2022/09/20 15:45:22	Login	server	User 'admin' logged in	
<input checked="" type="checkbox"/>	111	Normal	2022/09/20 15:33:56	Login	server	User 'admin' logged in	

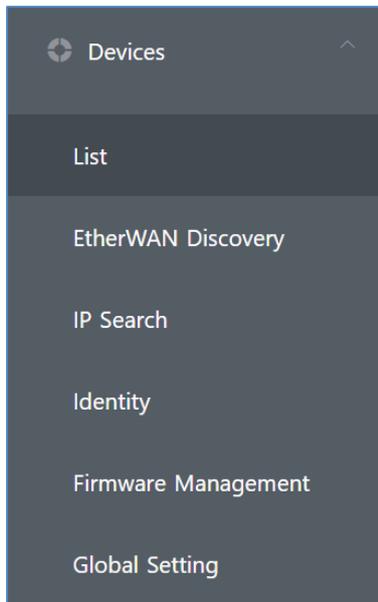
Navigation



Use the navigation labels at the left of the screen to access specific screens and associated functions.

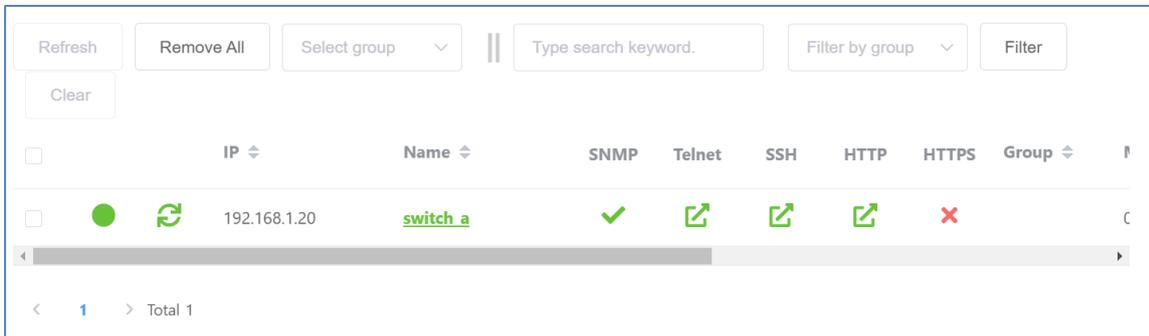
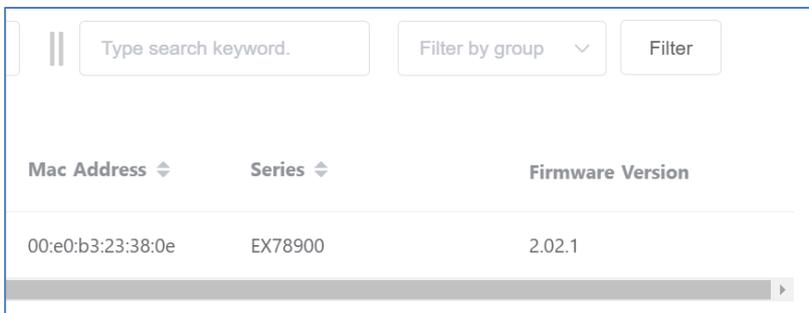
Devices

Clicking the **Devices** label opens a drop-down menu for five functions: List, EtherWAN Discovery, IP Search, Identity, and Firmware Management

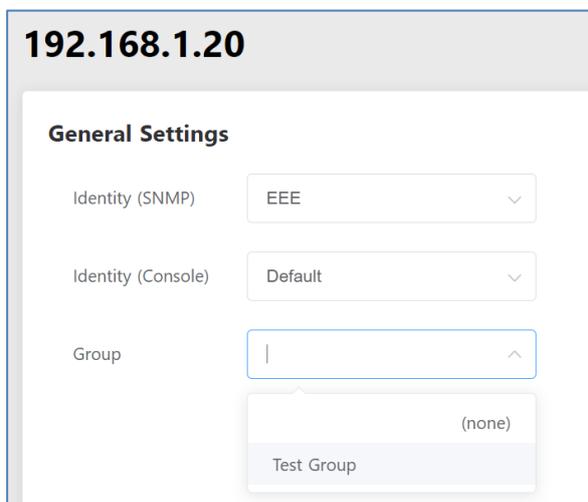


List

This screen shows all devices currently monitored by eVue. To remove a specific device from the system, select the device by clicking the checkbox on the left, and then click the **Remove** button. Using the **Remove All** button will remove all devices.

Groups – Devices can be assigned to user-defined groups for easier viewing and management. To add a new group, click on **Select group** and then **Add New Group**. Assign the new group a name and color, then click **Confirm**. The new group will be displayed in the **Topology** view. To add a switch to a defined group, click on the switch name. A new window will open with a **General Settings** panel on the left. Select the group from the dropdown list in the Group field. Then click the **Update** button. The **List** view can be filtered by group, using the **Filter by group** and **Filter** buttons at the top right.





Filter – To quickly locate a specific switch, enter an IP address or a host name in the **Type search keyword** field, and click **Filter**. All device that match the search criteria will display

Telnet, SSH, HTTP, and HTTPS – You can directly connect to any switch on the list by clicking the  icon under the corresponding protocol. An  icon indicates that the protocol is not enabled on the device.

Device Configuration – Clicking on the device name in the **List** view opens a configuration screen that allows for SSH enabling, User Account Management, and Firmware Upgrade Scheduling functions.

Configuration

Host IP

Enable SSH

User Account Management

[Add/Edit User Account](#)

Firmware Upgrade

Current Version: 2.02.1

Device information for all known devices is displayed at the bottom of the configuration screen.

Port	Link	Remote Device IP	Remote Device Port
ge1	✓	-	-
ge2	✗	-	-
ge3	✓	192.168.1.10	fe5

EtherWAN Discovery

EtherWAN Discovery can discover all the devices in the same LAN that are not already listed by eVue.



To start EtherWAN Discovery, click the **Refresh** button to show all the current network adaptors for the host machine. If you are running eVue on **localhost:3000**, then the adaptors on your PC will be displayed.

EtherWAN Discovery

Refresh 乙太網路(192.168.1.100) VMware Network Adapter VMnet1(192.168.114.1) VMware Network Adapter VMnet8(192.168.145.1)
 Wi-Fi(10.210.24.17)

IP	MAC	Subnet	Default Gateway	VID1	VID2	NIC
No Data						

Select the desired network interface by clicking the corresponding check box, and then click the **Discovery** button. A list of found devices will display, showing the IP address, MAC address, subnet, default gateway, and corresponding NIC.

IP Search

The IP search function can find desired devices from different network segments. To start a search, enter the desired IP range, SNMP identity, and click the **Search** button. The allowable IP range search is 512 nodes.

IP Search

Add || IP Range: 192.168.1.1 ~ 192.168.1.200 198/200

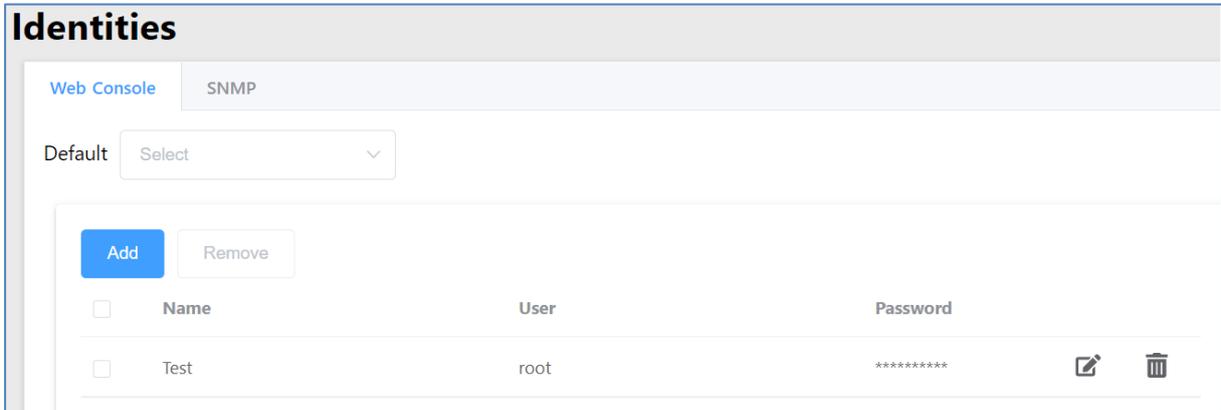
SNMP:

<input type="checkbox"/>	IP	Name	Mac Address	Brand	Series	Model	Firmware Version	Console Identity
<input checked="" type="checkbox"/>	192.168.1.10	switch_a	00:e0:b3:98:01:aa	EtherWAN	EX77000	77000	4.02.0.12	Default <input type="button" value="v"/>
<input checked="" type="checkbox"/>	<input type="button" value="+"/>	192.168.1.20	switch_a	00:e0:b3:23:38:0e	EtherWAN	EX78900	78921SC	2.02.1 <input type="button" value="Has been set"/>

All found devices with SNMP enabled will be displayed. Click the + icon next to a device to set a console identity for that device. After an identity has been set, the device will show in both the **Topology** and **List** views.

Identity

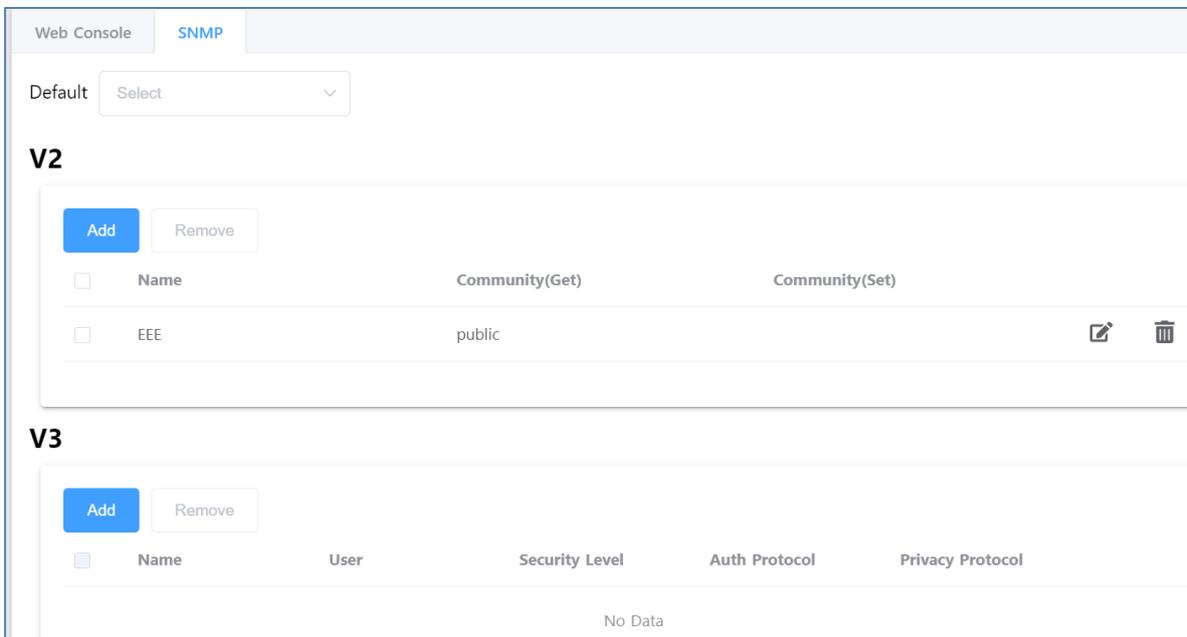
Console identity: Create console identities in order to use remote configuration and firmware upgrade functions. Click the **Add** button, then enter a name for the device identity, and the username and password required to access the device.



The screenshot shows the 'Identities' management page for the 'Web Console' tab. At the top, there are tabs for 'Web Console' and 'SNMP'. Below the tabs is a 'Default' dropdown menu set to 'Select'. There are two buttons: 'Add' (blue) and 'Remove' (grey). Below these is a table with columns for 'Name', 'User', and 'Password'. A single entry is visible with 'Test' as the name, 'root' as the user, and '*****' as the password. To the right of the entry are edit and delete icons.

<input type="checkbox"/>	Name	User	Password		
<input type="checkbox"/>	Test	root	*****		

SNMP identity: When eVue used for the first time, it is necessary to establish SNMP identities. SNMP version can be v2 or v3 (Community get: public). After SNMP identity is set up, the **IP Search** function will be available. Click the **Add** button, then fill in the Community (Get) and Community (Set) fields.



The screenshot shows the 'Identities' management page for the 'SNMP' tab. At the top, there are tabs for 'Web Console' and 'SNMP'. Below the tabs is a 'Default' dropdown menu set to 'Select'. There are two buttons: 'Add' (blue) and 'Remove' (grey). Below these are two sections: 'V2' and 'V3'. The 'V2' section has a table with columns for 'Name', 'Community(Get)', and 'Community(Set)'. A single entry is visible with 'EEE' as the name and 'public' as the community string. To the right of the entry are edit and delete icons. The 'V3' section has a table with columns for 'Name', 'User', 'Security Level', 'Auth Protocol', and 'Privacy Protocol'. It currently shows 'No Data'.

<input type="checkbox"/>	Name	Community(Get)	Community(Set)		
<input type="checkbox"/>	EEE	public			

<input type="checkbox"/>	Name	User	Security Level	Auth Protocol	Privacy Protocol
No Data					

Firmware Management

On the Firmware Management screen, devices are grouped by model number. Click on the corresponding icon to see information about that device model.

Firmware Management

Firmware Information

[Upload Firmware](#) || Filter by series. ▾

File ↕	Series	Version
No Data		

Click the **Upload Firmware** button to upload new firmware to a device. Select the desired firmware file, and fill out the **Version** and **Series** fields. Then click **Upload**.

Upload New Firmware

File

[Select File](#)

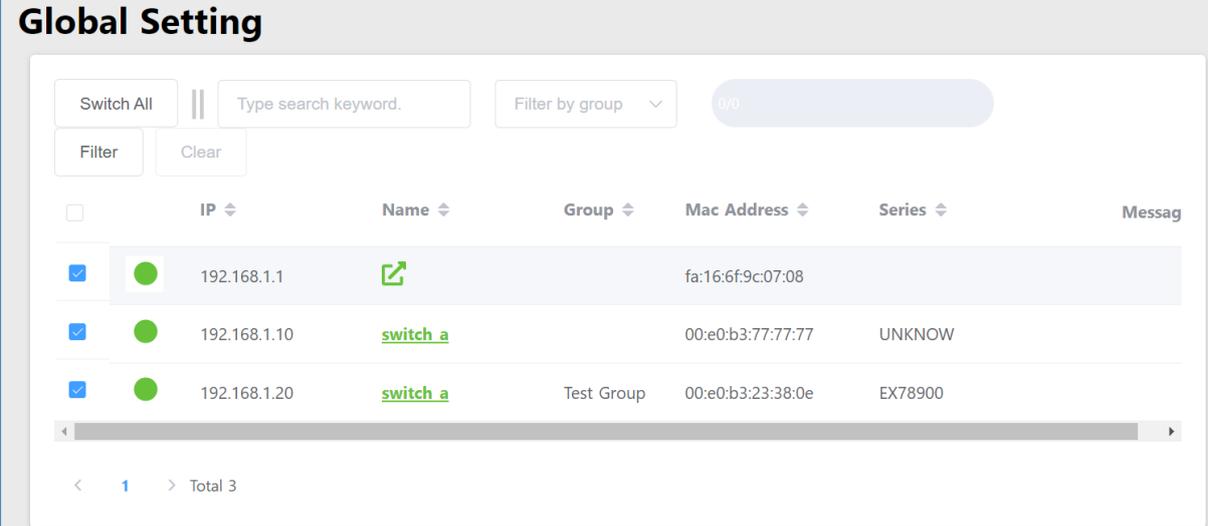
Version

Series

[Cancel](#) [Upload](#)

Global Setting

On this screen, multiple switches can be configured to enable or disable SSH, HTTP, and HTTPS at once. Select the switches to be configured by clicking the check box to the right of the switch name. Then click the **Switch** button.



Global Setting

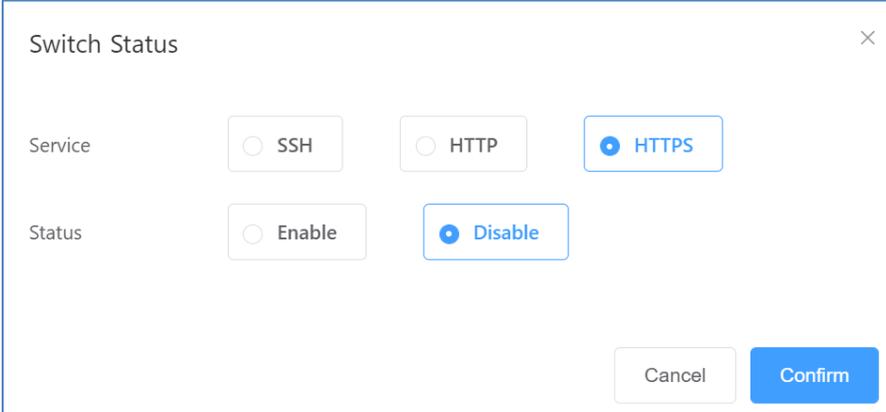
Switch All || Type search keyword. Filter by group 0/0

Filter Clear

<input type="checkbox"/>	IP	Name	Group	Mac Address	Series	Message
<input checked="" type="checkbox"/>	192.168.1.1			fa:16:6f:9c:07:08		
<input checked="" type="checkbox"/>	192.168.1.10	switch a		00:e0:b3:77:77:77	UNKNOW	
<input checked="" type="checkbox"/>	192.168.1.20	switch a	Test Group	00:e0:b3:23:38:0e	EX78900	

< 1 > Total 3

Select the service, then select enable or disable. Click Confirm to apply this configuration to all selected devices.



Switch Status

Service

SSH HTTP HTTPS

Status

Enable Disable

Cancel Confirm

Events

The Events screen displays the most recent events. All events can be acknowledged or removed by clicking the **Ack All** button in the upper left corner of the screen. Events can be filtered by severity, service (Ping-monitor, SNMP Monitor, or Login), or text in the Event message. The **Clear All** button allows for the clearing of either all events or events from a week ago.

Events

Ack all

||

		ID	Severity	Time	Service	Node	Message
<input type="checkbox"/>	<input checked="" type="checkbox"/>	28	Normal	2021/09/26 14:32:30	Login	server	User 'admin' logged in
<input type="checkbox"/>	<input checked="" type="checkbox"/>	27	Normal	2021/09/26 08:40:39	Login	server	User 'admin' logged in
<input type="checkbox"/>	<input checked="" type="checkbox"/>	26	Normal	2021/09/26 08:17:19	Login	server	User 'admin' logged in
<input type="checkbox"/>	<input checked="" type="checkbox"/>	25	Normal	2021/09/26 07:33:05	Login	server	User 'admin' logged in
<input type="checkbox"/>	<input checked="" type="checkbox"/>	24	Critical	2021/09/23 15:21:38	ping-monitor	192.168.1.20	Ping 192.168.1.20 is down.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	23	Critical	2021/09/23 15:21:38	ping-monitor	192.168.1.10	Ping 192.168.1.10 is down.

Events can be sorted by:

1. ID number
2. Severity (All, Unknown, Cleared, Normal, Warning, Major, Critical)
3. Date
4. Service
5. Node
6. Message

Definitions for event severity levels:

Critical (7)

This state indicates that numerous devices on the network are affected by the event. Resolving this problem should be a priority for all personnel.

Major (6)

A device is completely down or in danger of going down. Attention should be paid to this problem immediately.

Warning (4)

An event has occurred that may require action. This severity can also be used to indicate a condition that should be noted (logged) but does not require direct action. An example would be a login failure, or when a link goes up unexpectedly.

Normal (3)

Informational message only. No action is required.

Cleared (2)

This severity is reserved for use in alarms to indicate that an alarm describes a self-clearing error condition that has been corrected, and service restored.

Indeterminate (1)

Severity for this event could not be determined.

The table below shows some example events and their corresponding severity level.

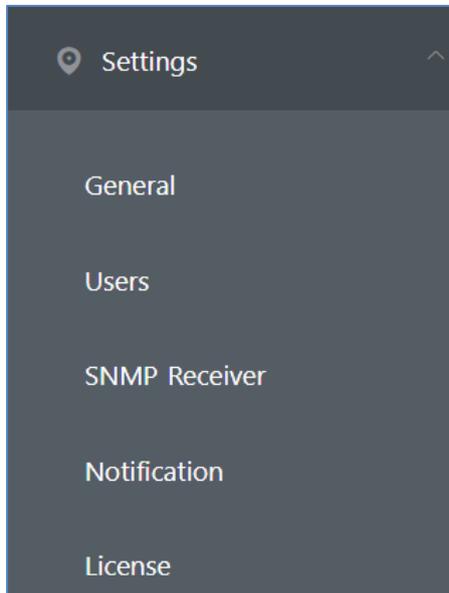
Traps from Device	Critical	Major	Warning	Normal	Cleared
Loopback detect		✓			
MAC Notification			✓		
Alpha-ring topology change		✓			
Digital input (DI 01) is triggered		✓			
Digital input (DI 02) is triggered		✓			
Power up				✓	
Power down	✓				

Traps from Device	Critical	Major	Warning	Normal	Cleared
PoE up				✓	
PoE down		✓			
PoE overload	✓				
PoE system error	✓				
Alpha-ring coupling topology change		✓			
Storm detect		✓			
Loopback detect recovery					✓
Dying gasp	✓				
User login			✓		
User logout			✓		
User login failure		✓			
Temperature over specified range	✓				
Temperature under specified range				✓	
Humidity over specified range	✓				
Humidity under specified range				✓	
Digital input is triggered		✓			
Temperature within specified range					✓
Humidity within specified range					✓
Digital input within specified range					✓
Storm detect		✓			
Storm detect recovery					✓
Loopback detect		✓			
MAC Notification			✓		
Alpha-ring topology change		✓			
Digital input (DI 01) is triggered		✓			
Digital input (DI 02) is triggered		✓			
Power up				✓	
Power down	✓				

Traps from Device	Critical	Major	Warning	Normal	Cleared
eVue Login				✓	
eVue Login fail			✓		
eVue Login fail too many times (account locked)		✓			
eVue monitoring: Ping up					✓
eVue monitoring: Ping down	✓				
eVue monitoring: Telnet up					✓
eVue monitoring: Telnet down		✓			
eVue monitoring: SSH up					✓
eVue monitoring: SSH down		✓			
eVue monitorin: SNMP up					✓
eVue monitoring: SNMP down		✓			

Settings

Clicking the **Settings** label opens a drop-down menu for five functions: General, Users, SNMP Receiver, Notification, and License



General

Configure e-mail notifications on this screen. Fields are Host, Port, Secure, Require TLS (used to convey a request to ignore recipient-side policy mechanisms), User, Auth Name, and Auth Password.

General Settings

Email

Host

Port

Secure

Require TLS

User

Auth Name

Auth Password

New Auth Password

Users

Three types of user can be set up: Admin, Technician, and Operator. Admins have full read and configuration rights, Technicians only have rights to upgrade firmware, manage configuration files, and acknowledge events. Operators have read rights only.

User Configuration

Name	Password	Role	
admin	*****	admin	
api	*****	admin	 

In the User section, the password, contact email, and interface language can be set for the current user type. You must be logged in as that user type to make changes (Example: User logged in as **admin** can only modify fields related to **admin** user account.) The email account



entered here is only used in case of a lost password. You can also set the Auto-logout Timeout.

Password complexity requirements are:

1. Password length is minimum 12 characters and maximum 35 characters, without spaces.
2. The password must contain characters from the following categories:
 - Uppercase English letters, (A to Z)
 - Lowercase English letters, (a to z)
 - Numbers, (0 to 9)
 - Non-alphanumeric characters

SNMP Receiver

Configure the capture, display, and logging of SNMP traps on this screen.

<input type="checkbox"/>	OID ↕	Description ↕	Severity ↕	Message		
<input type="checkbox"/>	1.0.8802.1.1.2.0.0.1	IldpRemTablesChange	Major	IldpRemTablesChange		
<input type="checkbox"/>	1.3.6.1.2.1.17.0.2	topologyChange	Major	topologyChange		
<input type="checkbox"/>	1.3.6.1.4.1.2736.1.1.1.15.1	ewnLoopbackDetected	Major	Loopback detect		

Notification

Notification Condition

Click **+Add** button to create a new notification condition. Enter a name in the **Condition Name** field, and click **Update**.

In this section, remote SNMP servers can be added and removed. Click **Add** button to create a new remote SNMP server. Enter the IP address and the SNMP community.

Notification Configuration

Condition

Add
Remove

<input type="checkbox"/>	Name	Severity	Configuration	Email
No Data				

Remote SNMP Server

Add
Remove

<input type="checkbox"/>	Host	Identity
No Data		

License

This is a read-only screen that displays current licensing information.

License

License Number: 1797efe0-c4e7-7209-d2e4-fa38e230aaa7

End Date: 2023-8-1

Node: 100

Result: Success

Reactive

Appendix I

Command reference for enabling LLDP on EtherWAN switches. (NOTE: Some legacy EtherWAN switches, such as the EX96000 and Espresso series, do not support LLDP, and are incompatible with eVue.

EG99000 CLI:

Command Mode	Global Configuration
Syntax	lldp enable
Parameters	None
Example usage	switch_a(config)# lldp enable

EG99000 GUI:

LLDP General Settings

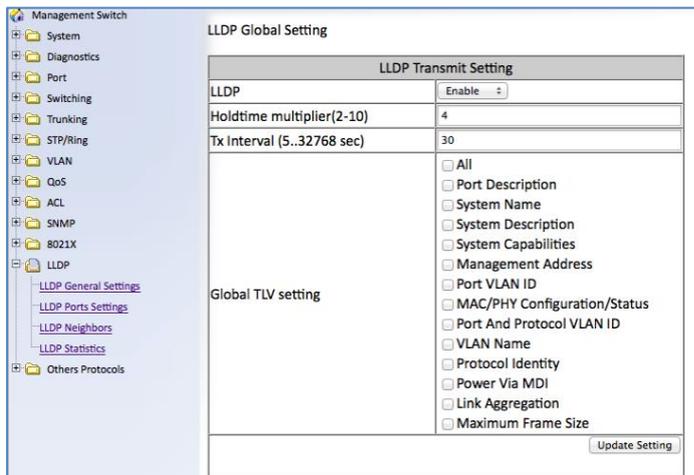
▼ LLDP General Settings 🔗 ↻

LLDP General Settings

LLDP Status	Enabled ▾
Holdtime Multiplier (2-10)	<input type="text" value="4"/>
Tx Interval (5-32768 sec)	<input type="text" value="30"/>
Global TLV	<input type="checkbox"/> All <input type="checkbox"/> Port Description <input type="checkbox"/> System Name <input type="checkbox"/> System Description <input type="checkbox"/> System Capabilities <input type="checkbox"/> Management Address <input type="checkbox"/> Port VLAN ID <input type="checkbox"/> MAC/PHY Configuration/Status <input type="checkbox"/> Port And Protocol VLAN ID <input type="checkbox"/> VLAN Name <input type="checkbox"/> Protocol Identity <input type="checkbox"/> Link Aggregation <input type="checkbox"/> Maximum Frame Size

Command Mode	Global Configuration
Syntax	lldp enable
Parameters	None
Example usage	switch_a(config)# lldp enable

All EX Series Managed Switches GUI



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