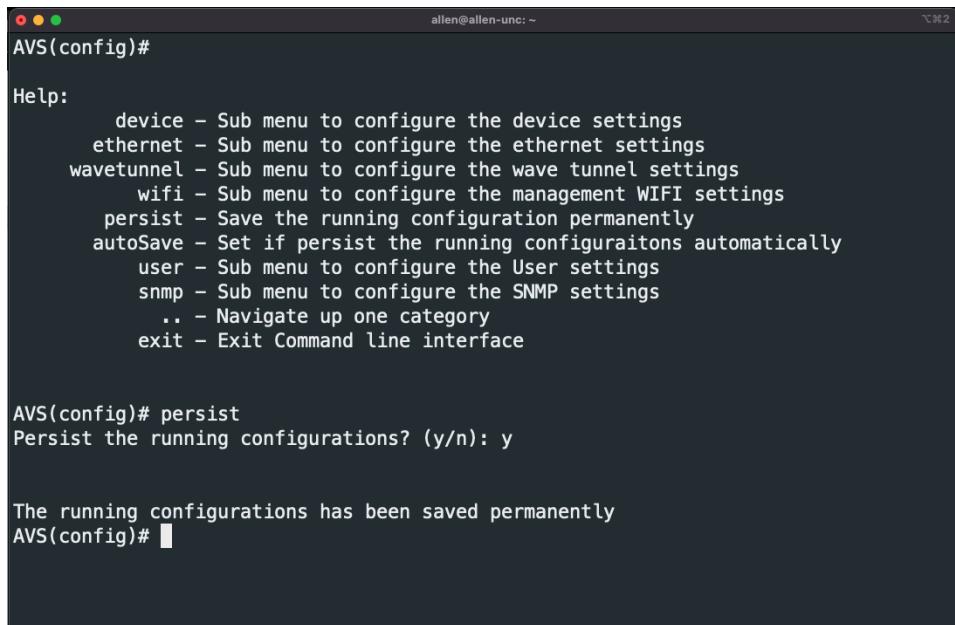


**[CLI]**  
**Config -> autosave**

```
AVS(config)#  
  
Help:  
  device - Sub menu to configure the device settings  
  ethernet - Sub menu to configure the ethernet settings  
  wavetunnel - Sub menu to configure the wave tunnel settings  
    wifi - Sub menu to configure the management WIFI settings  
    persist - Save the running configuration permanently  
    autoSave - Set if persist the running configurations automatically  
      user - Sub menu to configure the User settings  
      snmp - Sub menu to configure the SNMP settings  
      .. - Navigate up one category  
    exit - Exit Command line interface  
  
AVS(config)# autoSave  
  
Set auto-save option as 'enabled' or 'disabled'  
  
AVS(config)# autoSave enabled  
  
The auto-save is set to enabled  
  
AVS(config)#
```

Type **persist** command to save the configurations permanently.



```
allen@allen-unc: ~
AVS(config)# Help:
      device - Sub menu to configure the device settings
      ethernet - Sub menu to configure the ethernet settings
      wavetunnel - Sub menu to configure the wave tunnel settings
          wifi - Sub menu to configure the management WIFI settings
          persist - Save the running configuration permanently
          autoSave - Set if persist the running configuraitons automatically
          user - Sub menu to configure the User settings
          snmp - Sub menu to configure the SNMP settings
          .. - Navigate up one category
          exit - Exit Command line interface

AVS(config)# persist
Persist the running configurations? (y/n): y

The running configurations has been saved permanently
AVS(config)#
```

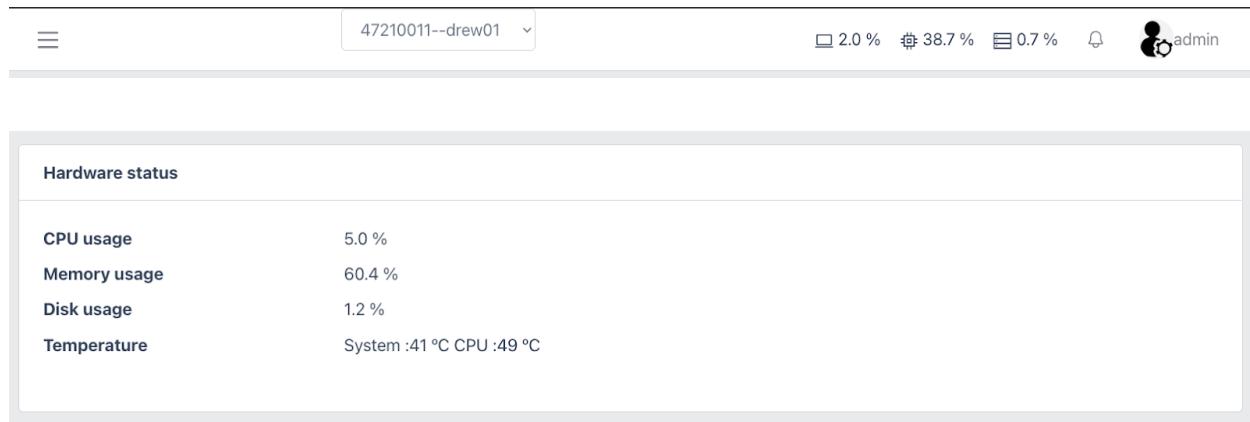
## Monitor the WaveTunnel device

There are several pages in the system you can use to monitor the status of your WaveTunnel device. You can check these sections below for more information.

### Check the system resource usages

You can check the resource usages of System CPU, Memory, Flash Drive and Temperature on this page

**[WEB GUI]**  
**Monitoring -> Device -> General**

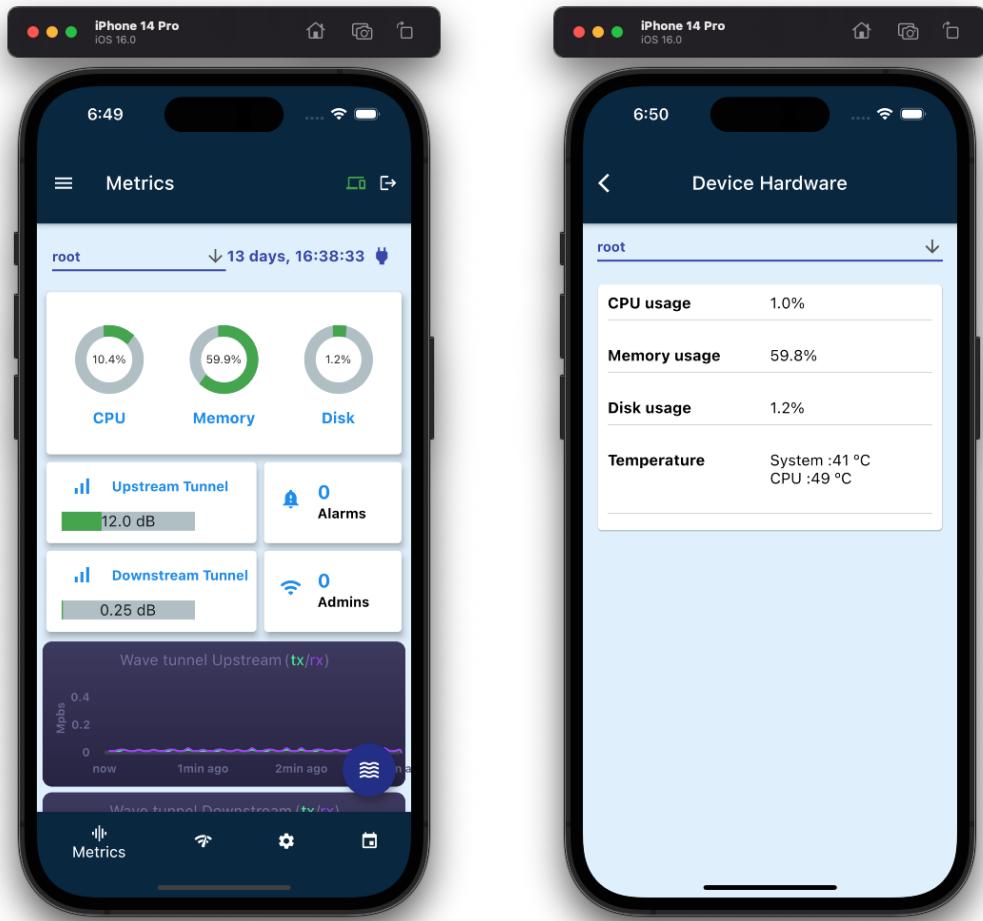


The screenshot shows a web-based monitoring interface for a WaveTunnel device. At the top, there is a header with a user icon and the text "admin". Below the header, there is a navigation bar with a dropdown menu showing "47210011--drew01". To the right of the dropdown are three progress bars: CPU (2.0 %), Memory (38.7 %), and Disk (0.7 %). Below the header, there is a section titled "Hardware status" containing the following data:

Hardware status	
CPU usage	5.0 %
Memory usage	60.4 %
Disk usage	1.2 %
Temperature	System :41 °C CPU :49 °C

## [Mobile App] Dashboard

You can click the Dashboard widget to see the usage of system resources.



## [CLI] Show -> Device -> Hardware

```

AVS# show
Incomplete Command: show

Help:
  device - Show the device settings
  ethernet - Show the ethernet interface settings
  wavetunnel - Show the wave tunnel settings
  wifi - Show the management WIFI settings
  events - Show the last n events;Use 'show events n'
  running - Show the running configurations
  permanent - Show the permanent configurations

AVS# show device hardware

Device hardware information

```

Description	Value
Device Uptime	13 days, 16:39:59
CPU usage %	5.0
Memory usage %	61.5
Disk usage %	1.2
Device Temperature	System :41 °C CPU :50 °C

```

AVS# ■

```

## Check the accumulated traffics of ethernet ports

On this page, you can check the accumulated traffic statistics of each ethernet port since last boot up. It includes Bytes sent, Bytes received, Packets sent, Packets received, Error in, Error out, Drop in and Drop out. These values are reset when the system is rebooted.

### [WEB GUI]

Monitoring -> Ethernet

The screenshot shows a web-based network management interface for an AirVine device. The top navigation bar includes tabs for 'Config Guide GA-Draft.docx', 'Picture Capture - Google Slides', 'AirVine - Device Management', 'AirVine - Device Management', and 'Google Translate'. The main content area is titled '47210104--root'. On the left, a sidebar contains icons for Home, Devices, Monitoring, Configuration, Logs, and Help. The main content is divided into two sections: 'Ethernet Port Configurations' and 'Ethernet Port Statistics'.

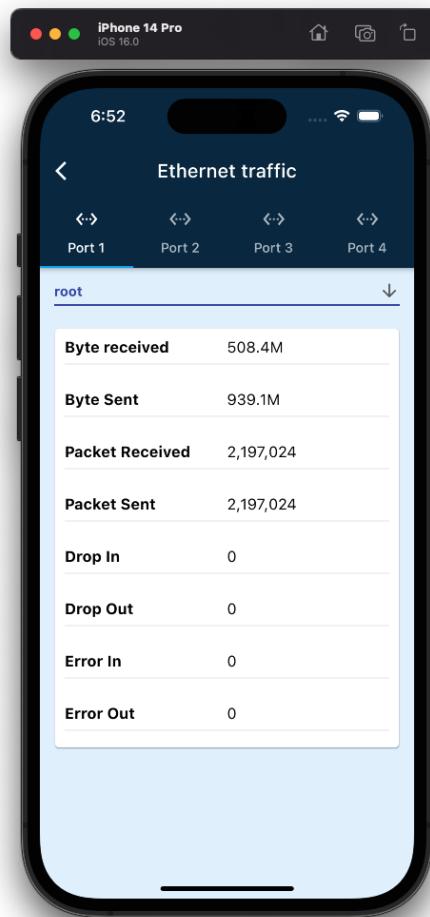
**Ethernet Port Configurations**

Port Name	Port Enabled	Management Port	Management Vlan	Trunk Vlans	Untagged Vlan
Port 1	Yes	No	N/A	N/A	N/A
Port 2	Yes	No	N/A	N/A	N/A
Port 3	Yes	No	N/A	N/A	N/A
Port 4/Mgmt Port	Yes	No	N/A	N/A	N/A

**Ethernet Port Statistics**

Port Name	Bytes Sent	Bytes Received	Packets Sent	Packets Received	Error In	Error Out	Drop In	Drop Out
Port 1	939.1M	508.3M	6,576,269	2,196,766	0	0	0	0
Port 2	0.0B	0.0B	0	0	0	0	0	0
Port 3	0.0B	0.0B	0	0	0	0	0	0
Port 4/Mgmt Port	0.0B	0.0B	0	0	0	0	0	0

**[Mobile App]**  
**Monitoring -> Ethernet Port ->Traffic**



[CLI]

Show -> ethernet -> stats

```

ssh admin@10.16.113.10
AVS# show ethernet stats
Incomplete Command: show ethernet

Help:
management - Show the management ip settings
internal - Show the internal ip settings
lag - Show the ethernet port link aggregation
port1 - Show the port 1 interface
port2 - Show the port 2 interface
port3 - Show the port 3 interface
port4 - Show the Port 4 interface
stats - Show the ethernet port statistics

AVS# show ethernet stats

Ethernet port statistics:


| Port Name        | Bytes sent | Bytes received | Packets sent | Packets received | Error in | Error out | Drop in | Drop out |
|------------------|------------|----------------|--------------|------------------|----------|-----------|---------|----------|
| Port 1           | 939.3M     | 508.4M         | 6,577,115    | 2,197,537        | 0        | 0         | 0       | 0        |
| Port 2           | 0.0B       | 0.0B           | 0            | 0                | 0        | 0         | 0       | 0        |
| Port 3           | 0.0B       | 0.0B           | 0            | 0                | 0        | 0         | 0       | 0        |
| Port 4/Mgmt Port | 0.0B       | 0.0B           | 0            | 0                | 0        | 0         | 0       | 0        |


AVS# 

```

## Check the historical statistic

The WaveTunnel collects the historical statistics every 10 minutes, and the collected data last for 30 days. You can query the TX/RX traffic going through the WaveTunnel connection or ethernet ports with different criteria.

### [WEB GUI] Statistics



## Check the events and alarms

The System events and user operations are logged in the event database. These events are classified by category, severity and type. You can do the full search or sorting to locate the events you want to check. For some critical events, it will be translated as an alarm to notify the user on the Dashboard banner or sending out the SNMP trap.

### [WEB GUI] Events

Datetime	Category	Severity	Type	Message
2022-09-23 18:50:31	System	Info	Admin	admin user login successfully
2022-09-22 23:28:06	System	Warning	Admin	Backup file 20220831_22_01_39.tar.gz has been deleted
2022-09-22 21:55:38	System	Info	Admin	admin user login successfully
2022-09-22 21:26:46	System	Info	Admin	admin user login successfully
2022-09-22 11:27:42	System	Info	Admin	admin user login successfully
2022-09-19 15:52:16	System	Info	Admin	admin user login successfully
2022-09-19 14:36:38	System	Info	Admin	admin user login successfully
2022-09-17 16:51:22	System	Info	Admin	admin user login successfully
2022-09-17 11:47:35	System	Info	Admin	admin user login successfully
2022-09-16 10:40:20	System	Info	Admin	admin user logout successfully
2022-09-16 10:35:47	System	Info	Admin	admin user logout successfully
2022-09-16 10:01:56	System	Info	Admin	admin user logout successfully
2022-09-16 09:41:17	System	Info	Admin	admin user login successfully
2022-09-15 22:34:20	System	Info	Admin	admin user login successfully
2022-09-15 17:20:44	System	Info	Admin	admin user logout successfully
2022-09-15 12:14:48	System	Info	Admin	admin user login successfully
2022-09-15 11:54:17	System	Info	Admin	admin user logout successfully
2022-09-15 11:43:51	System	Info	Admin	admin user login successfully
2022-09-15 11:41:33	System	Info	Admin	admin user login successfully

The alarms shown on the top banner. You can check the list and acknowledge it.

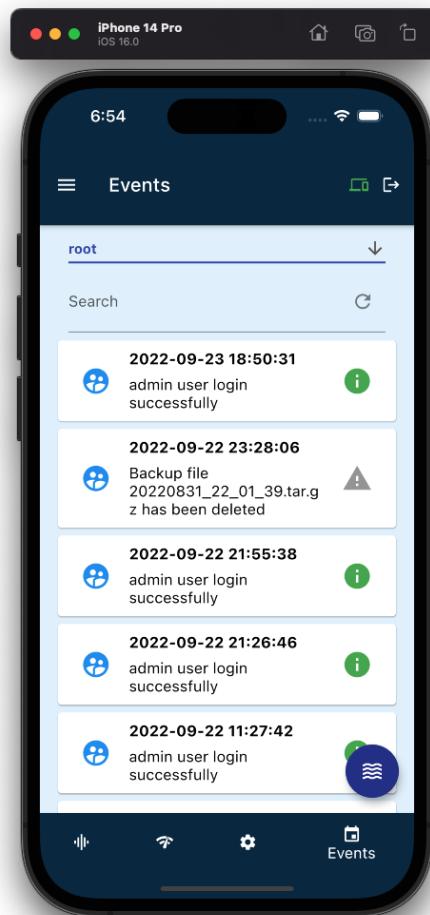
Recent Alarms

Ack All Alarms

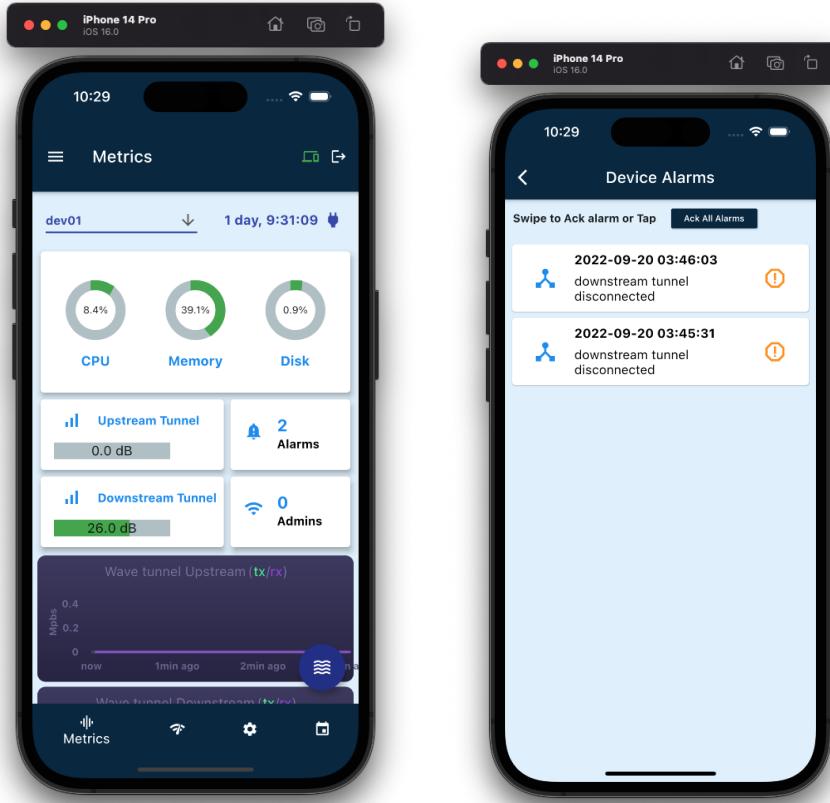
[Critical] [2022-09-20 03:46:03] downstream tunnel disconnected

[Critical] [2022-09-20 03:45:31] downstream tunnel disconnected

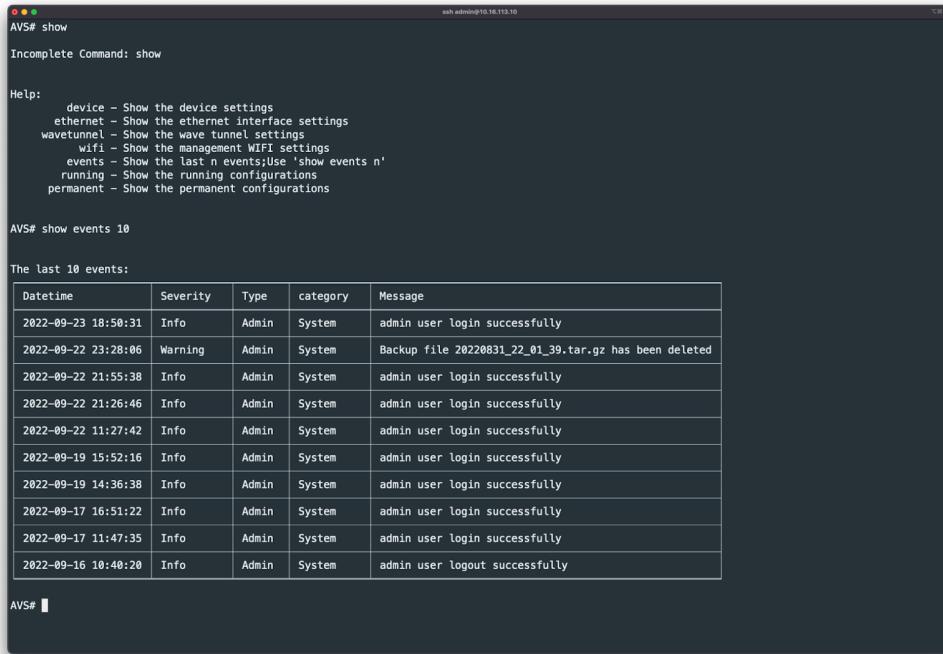
## [Mobile App] Events



The alarms shown on the top banner. You can check the list and acknowledge it.



**[CLI]**  
Show -> events



```

AVS# show
Incomplete Command: show

Help:
  device - Show the device settings
  ethernet - Show the ethernet interface settings
  wavetunnel - Show the wave tunnel settings
    wifi - Show the management WIFI settings
  events - Show the last n events;Use 'show events n'
  running - Show the running configurations
  permanent - Show the permanent configurations

AVS# show events 10

The last 10 events:

```

Datetime	Severity	Type	category	Message
2022-09-23 18:50:31	Info	Admin	System	admin user login successfully
2022-09-22 23:28:06	Warning	Admin	System	Backup file 20220831_22_01_39.tar.gz has been deleted
2022-09-22 21:55:38	Info	Admin	System	admin user login successfully
2022-09-22 21:26:46	Info	Admin	System	admin user login successfully
2022-09-22 11:27:42	Info	Admin	System	admin user login successfully
2022-09-19 15:52:16	Info	Admin	System	admin user login successfully
2022-09-19 14:36:38	Info	Admin	System	admin user login successfully
2022-09-17 16:51:22	Info	Admin	System	admin user login successfully
2022-09-17 11:47:35	Info	Admin	System	admin user login successfully
2022-09-16 10:40:20	Info	Admin	System	admin user logout successfully

# User Management

## User Login

This is the page for the user to login to the management interface. The user authentication is provided by the Linux user database and the default user is “admin”. You can create more admin users based on your needs.

### [WEB GUI]

Type the [http://\[management IP\]](http://[management IP]) on your browser