

Quick User Guide

NMS-1000V

NMS-500



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OVERVIEW

Overview

➤ Main Features:

Dashboard	Providing the at-a-glance view of system, device summary, traffic, PoE network status
Wizard Setup	Easy to use step-by-step guidance
Node Discovery	To detect PLANET managed devices available and allow AP grouping to accelerate AP management
Topology Viewer	A topology of network devices compliant with SNMP, ONVIF, Smart Discovery and LLTD Protocol
Event Reports	The status of a network can be reported via network alarm and system log
Alarm System	Popup alerts and email alerts for the administrator via the SMTP server
Batch Provisioning	Enabling multiple APs to be configured and upgraded at one time by using the designated profile
Coverage Heat Map	Real-time signal coverage of APs on the user-defined floor map to optimize Wi-Fi field deployment
Customized Profile	Allowing the creation and maintenance of multiple wireless profiles
Auto Provisioning	Multi-AP provisioning with one click
Cluster Management	Simplifying high-density AP management
Zone Plan	Optimizing AP deployment with actual signal coverage
Authentication	Built-in RADIUS server seamlessly integrated into the enterprise network
User Control	Allowing on-demand account creation and user-defined access policy
Scalability	Free system upgrade and AP firmware bulk upgrade capability

Overview

➤ Network Management Characteristics

- Built-in DHCP server
- Built-in RADIUS server
- SSL secure access
- Web-based GUI management interface
- SNMP v1, v2c, and v3 management
- Supports PLANET DDNS/Easy DDNS

➤ Industrial-grade Physical Hardware (NMS-1000V)

- 2 10/100/1000BASE-T Gigabit Ethernet RJ45 ports
- 2 USB 3.0 ports for configuration backup and restoration
- 1 audio line out (reserve)
- 1 HDMI interface
- 2 DB-9 COM1,COM2 (reserved)
- 1 3-pin DC power input terminal
- 1 2-pin connector for power on/off button (reserve)
- VESA (100 x 100) panel mount

➤ Industrial-grade Physical Hardware (NMS-500)

- 5 10/100/1000BASE-T Gigabit Ethernet RJ45 ports
- 1 2 USB 3.0 port for configuration backup and restoration
- 1 RS232-to-RJ45 console port (115200, 8, N, 1)
- Dimensions: 430 x 200 x 44 mm (W x D x H)
- Weight: 3kg
- Power: AC 100~240V, 50/60Hz to DC12V 5A max. adapter

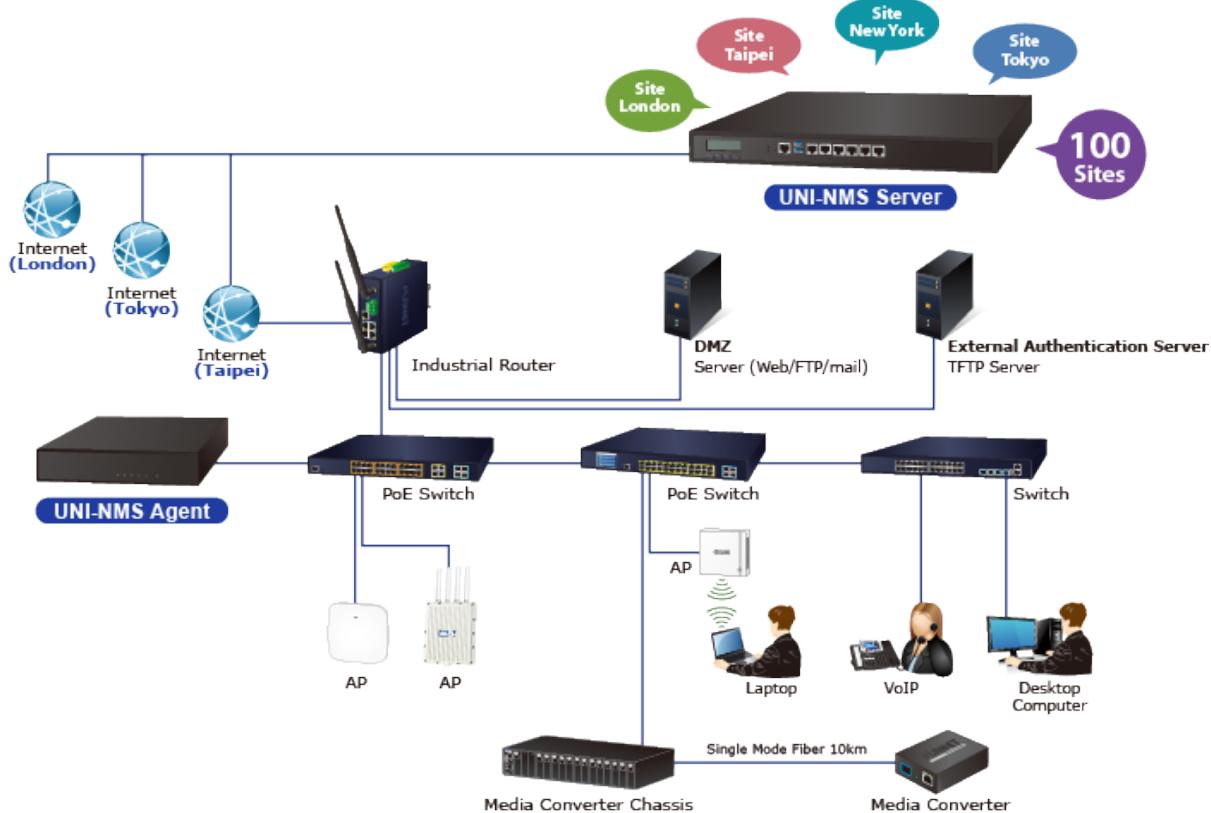
➤ Physical Specifications (NMS-1000V)

Storage	2.5" 32G SATA3 HDD	
Touch LCD Size	NMS-1000V-12: 12.1" TFT-LCD	NMS-1000V-10: 10.1" TFT-LCD
Touch Type	Resistive Touch Window Projected Capacitive Touch	
Display Resolution	NMS-1000V-12: 1024 x 768	NMS-1000V-10: 1280 x 800
Display Luminance (cd/m ²)	NMS-1000V-12: 500	NMS-1000V-10: 350
Display Viewing Angle (H°/V°)	NMS-1000V-12: 160(H)/140(V)	NMS-1000V-10: 160(H)/160(V)
Display Contrast	NMS-1000V-12: 700:1	NMS-1000V-10: 800:1
Display Backlight Lifetime (hrs.)	NMS-1000V-12: 30,000 hrs.	NMS-1000V-10: 40,000 hrs.
Light Transmission (%)	Resistive Touch Window: over 80% Projected Capacitive Touch: over 90%	
Dimensions (W x D x H)	NMS-1000V-12: 319 x 51.7 x 245 mm	NMS-1000V-10: 285 x 49 x 189 mm
Weight	NMS-1000V-12: 2.9 kg	NMS-1000V-10: 2 kg
Enclosure	Aluminum Die-casting Chassis	
Power Requirements	DC IN 9~36V 60W adapter 12V 5A with terminal block AC 100~240V, 2.0A, 60~50Hz.	



APPLICATIONS

Applications





BEFORE FIRST LOGIN

Front & Rear Panels (NMS-1000V)

◆ Front Panel



Front & Rear Panels

◆ Back Panel



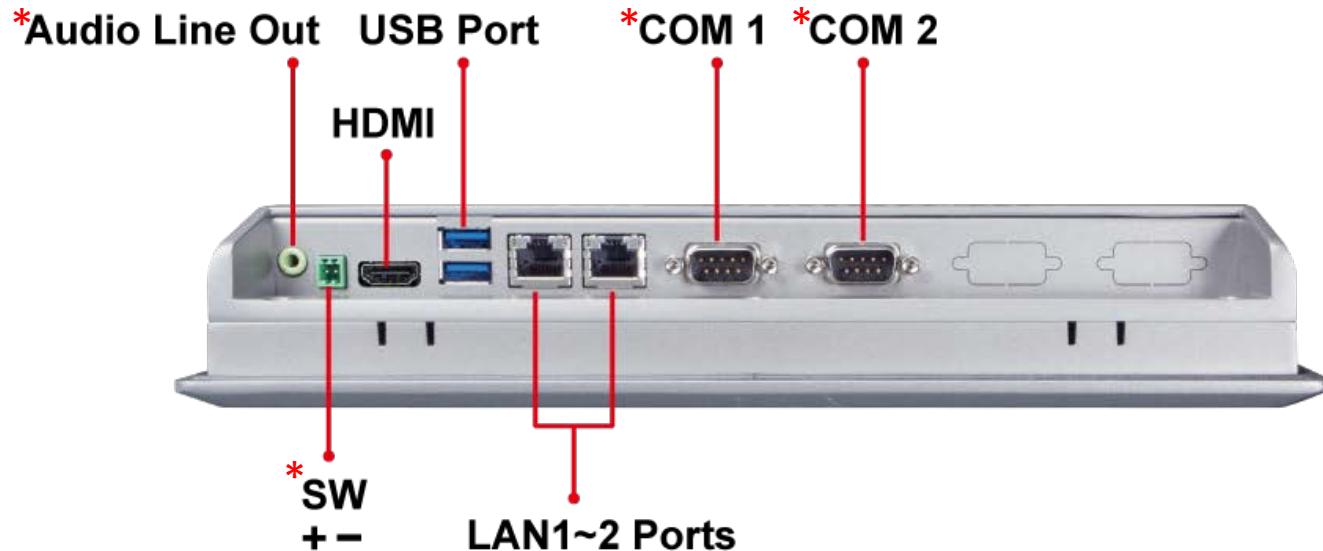
9-36V DC IN



*Just connect NMS-1000V DC IN to turn on system.

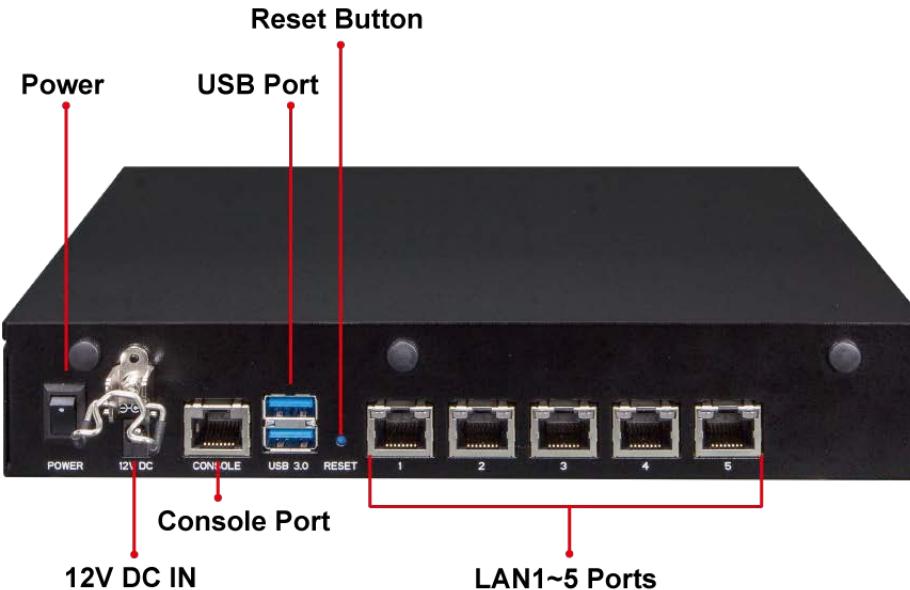
Front & Rear Panels

◆ Bottom Panel

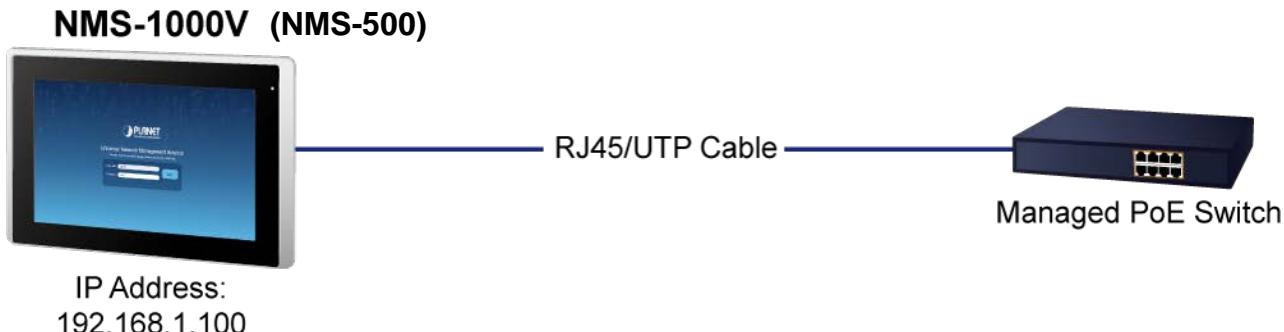


*.Function reserved

Front & Rear Panels (NMS-500)



Device Setting

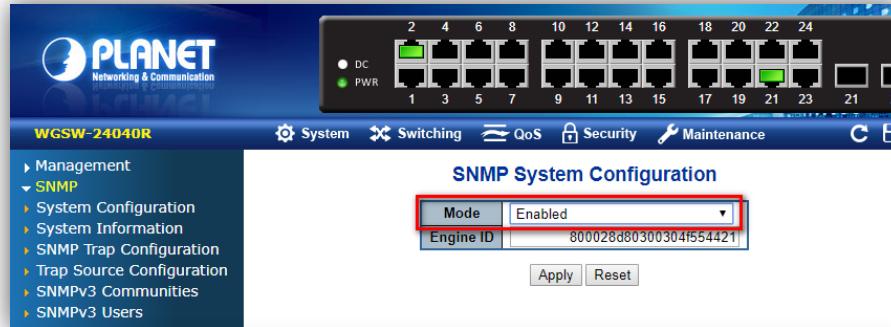


Switch: Log in to the Switch's Web User Interface and refer to the picture below to enable the SNMP and LLDP function as shown in Figures 1 and 2.

AP: Log in to the AP's Web User Interface and refer to Figure 3 below to configure the AP to "Managed AP". Then, click "Apply Change". To support SNMP AP, enable the SNMP function.

IP Cam: The ONVIF function is enabled by default.

Device Setting

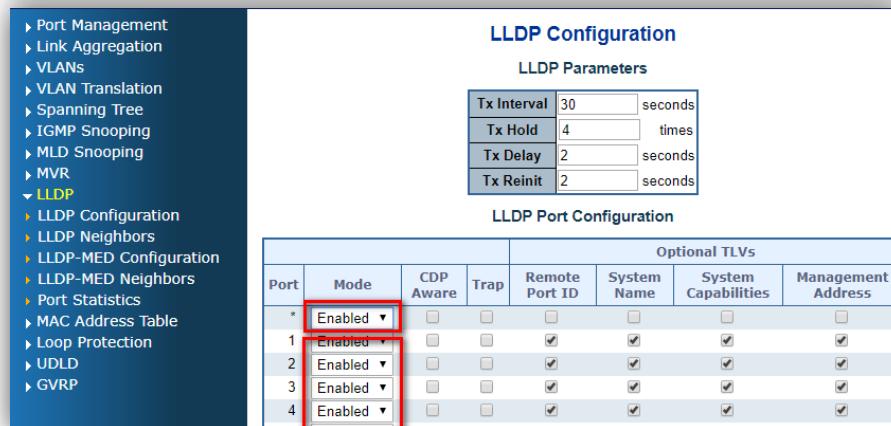


The screenshot shows the 'SNMP System Configuration' page. The left sidebar lists various management options. The main panel displays the 'SNMP System Configuration' settings:

- Mode:** Enabled (highlighted with a red box)
- Engine ID:** 800028d80300304f554421

Buttons for **Apply** and **Reset** are at the bottom.

(Figure 1)



The screenshot shows the 'LLDP Configuration' page. The left sidebar lists various port management options. The main panel displays the 'LLDP Parameters' and 'LLDP Port Configuration' settings:

LLDP Parameters:

Tx Interval	30	seconds
Tx Hold	4	times
Tx Delay	2	seconds
Tx Reinit	2	seconds

LLDP Port Configuration:

Port	Mode	Optional TLVs						
		CDP Aware	Trap	Remote Port ID	System Name	System Capabilities	Management Address	
*	Enabled (highlighted with a red box)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
1	Enabled	<input type="checkbox"/>	<input checked="" type="checkbox"/>					
2	Enabled	<input type="checkbox"/>	<input checked="" type="checkbox"/>					
3	Enabled	<input type="checkbox"/>	<input checked="" type="checkbox"/>					
4	Enabled	<input type="checkbox"/>	<input checked="" type="checkbox"/>					
5								

(Figure 2)

Device Setting

Setup Menu:

- > Operation Mode
- > Setup Wizard
- > WLAN1 (5 GHz)
- > WLAN2 (2.4 GHz)
- > TCP / IP Settings
- > Management
- > Logout

Operation Mode

AP Operation mode configuration is used to configure the managed AP administrative mode.

Standalone AP In Mode Standalone AP, the AP acts as an individual AP in the network, and you manage it by using the Administrator Web User Interface (UI), or SNMP.

Managed AP In Mode Managed AP, the AP is part of the PLANET Wireless AP controller System, and you manage it by using the WAPC Wireless Switch.

AP Controller IP Address

(Figure 3)

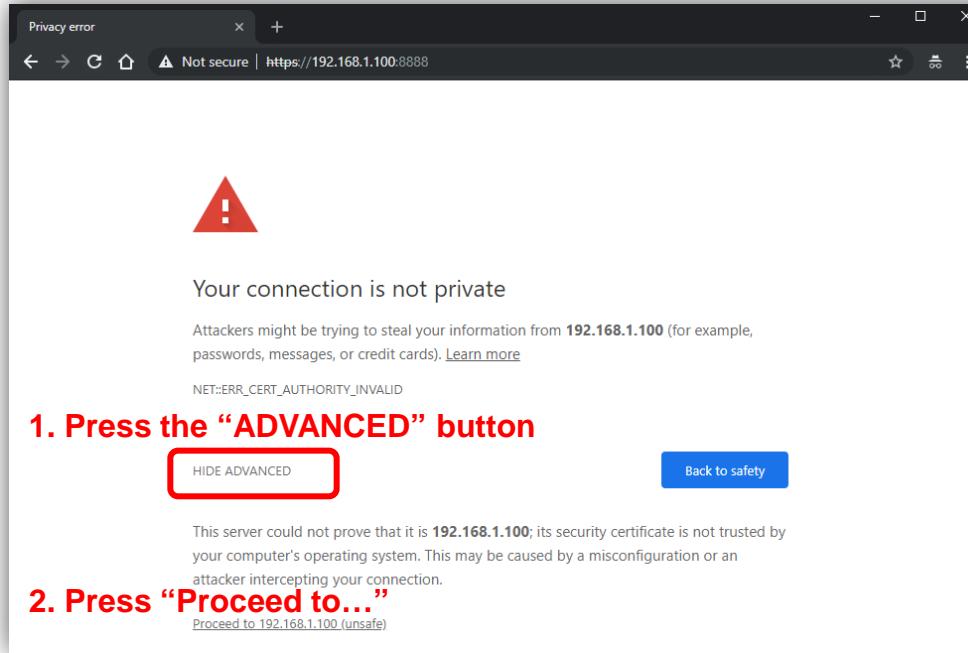
Logging in NMS

- ◆ Username: admin
- ◆ Password: admin



Remote Logging in NMS

- ◆ Open Chrome/Firefox to log in the NMS.(Default IP: <https://192.168.1.100:8888>)
- ◆ Please use Chrome/Firefox to get fully supported. (UI Resolution [1280 x 768](#))





SETUP WIZARD

Account Modification

Steps to modifying account:

- ◆ 1. Please key in a new account, except using "admin"
- ◆ 2. New Password must include at least 1*[a~z], 1*[A~Z], 1*[0~9], 1*[~, !, @, ..., w/o "?"] and must contain at least 8 characters.

Account Modification

		Configuration
User Name	admin123	
Password	1qaz!QAZ	
Retype Password	

*Please key in a new account, except using "admin"
New Password must be included at least 1*[a~z], 1*[A~Z], 1*[0~9], 1*[~, !, @, ..., w/o "?"]

[Next](#)

IP Configuration Setting

- ◆ 1. Select “Static IP” or “DHCP Client” for IP configuration setting.
- ◆ 2. IP status is shown in real time.

*If you want to use the SMTP Alarm function, you must at least enter one DNS server.

IP Configuration Setting

Mode	Configuration	Status
IP Address	<input type="text" value="10.1.0.199"/>	10.1.0.199
Subnet Mask	<input type="text" value="255.255.254.0"/>	255.255.254.0
Default Gateway	<input type="text" value="10.1.1.254"/>	10.1.1.254
DNS Server 1	<input type="text" value="10.1.1.2"/>	10.1.1.2
DNS Server 2	<input type="text" value="10.1.1.3"/>	10.1.1.3

[Back](#) [Next](#)

SNMP Preference Setting

- ◆ 1. Select Region for AP Control (ETSI or FCC).
- ◆ 2. And enter the RO/RW Community for device's SNMP.

SNMP Preference Setting

Configuration	
Region *	ETSI
RO Community	public
RW Community	private

*Select Region for AP Control (ETSI or FCC)

[Back](#) [Next](#)

Devices Discovery

- ◆ 1. Press the Search button to discover PLANET devices.
- ◆ 2. Give a check to a box and press the “Add” button to add a device to the NMS system.
- ◆ 3. Press the Finish button to leave the Wizard mode and finish the start-up setting.

Devices Discovery

Num.	Device Type	Model No.	Device IP	Device Description
1	Media Converter	N/A	10.1.1.250	WPS
2	Media Converter	N/A	10.1.1.252	WPS
3	Wireless	WNAP-C3220E	10.1.1.247	
4	Wireless	WNAP-C3220E	10.1.1.240	
5	Wireless	WNAP-C3220E	10.1.1.248	
6	N/A	GS-4210-48P4S	192.168.1.131	GS-4210-48P4S
7	N/A	WGSW-28040	10.1.1.220	Default Location

1. Search 2. Add 3. Filter by Content Search

4. Finish

Back ○ ○ ○ ●



MAIN UI INTRODUCTION

Home Page - Dashboard UI Structure

A: Top Header Bar

B: Top Header Bar Buttons

C: Dashboard Summary Cards

D: Device Type Summary

E: History Graph

F: Bottom Right Corner



Dashboard

- Switch:** 8 Online, 2 Offline
- Router:** 2 Online, 1 Offline
- Wireless AP:** 20 Online, 0 Offline
- PoE:** 800 Total Usage Watts, 1200 Total Budget Watts

Device Type Summary

Device Type	Count
Switch	7
Industrial Automation	3
IP Camera	20
Wireless(AP)	5
Unknown	2

History Graph

Traffic: PoE | 1 Day | WAN 1

3/4/2020 12:35:30 PM
Rx: 32.5 Mbps
Tx: 8.3 Mbps

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Main Dashboard - Description

Item	Description	Remarks
A	Device Status Summary	<p>1. Roughly shows the system status: Current devices online (total online), clients (total active clients), device groups (total groups)</p> <p>2. Click the PLANET Logo to connect to PLANET Web site.</p>
B	System Menu	<p>From left to right:</p> <ol style="list-style-type: none"> 1. Dashboard: Provides the whole system view and wireless network status 2. Domain: Discovery / Device List / Topology View / Event / syslog page 3. Advanced Graph: future feature 4. AP Control: 1. Preference, 2. Profiles, 3. Control, 4. Map It and 5. Statistics 5. Refresh 6. System Configuration: Alert configuration, Date and Time, Interface, IP, Account, Wizard setting 7. Network Services: 1. Planet DDNS, 2. DHCP Server, 3. SMPT, 4. SNMP Agent, and 5. RADIUS Service, 8. Maintenance: System upgrade, backup and restoration, factory default, system setting. 9. Exit: Click to opt for the logout, reboot or shutting down of the system
C	Local Site Information	<p>1. Switch status, 2. Router status, 3. Access Point status and 4. Total PoE status, *Click Device type button to filter each type of device via device list.</p>
D	Device Type Summary	Show the real-time total quantity of devices under different types
E	History Graph	Show the history graph of WAN traffic / total PoE usage and budget
F	Popup Alert Message Window	Open to show the system event instantly



DASHBOARD INTRODUCTION

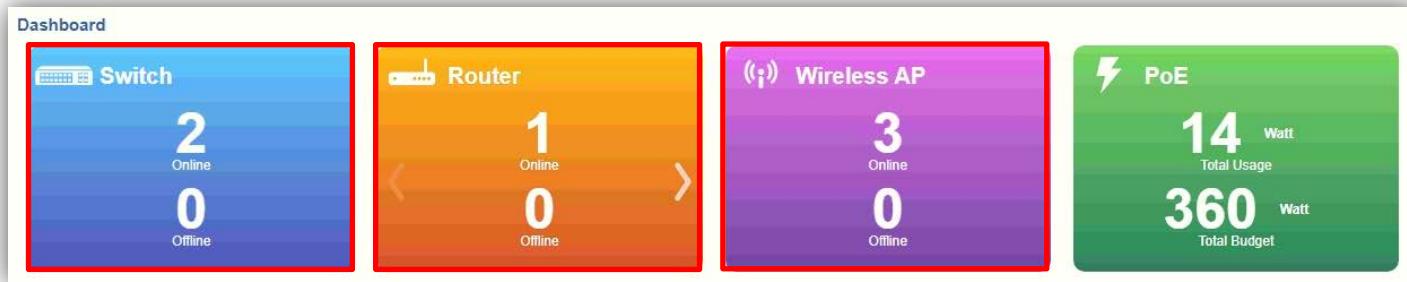
Dashboard - Local Site Information

- **Local Site Information:** In this area, you can view 1. Switch, 2. Router, 3. Access Point online/off status and 4. Total PoE usage and budget status.
- Click the Router “>” button to see the WAN real-time traffic throughput of Mbps, Kbps... Click the Router “<” button to go back to status.



Dashboard (Home)

- Click the Device type button to filter each type device via device list.

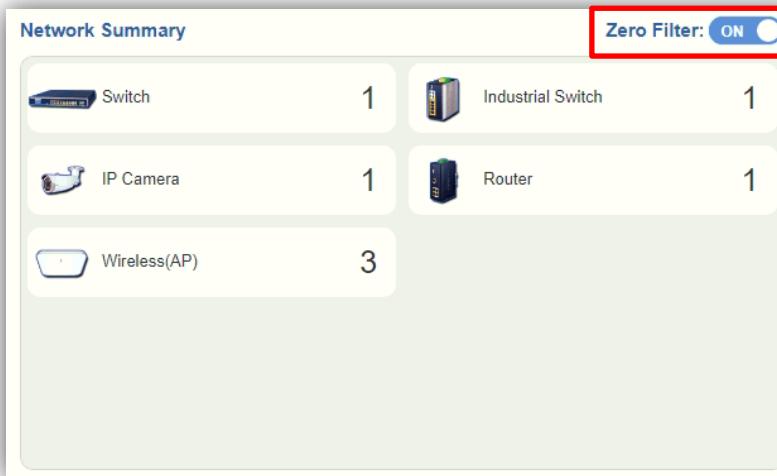



Status	Group	MAC Address	Device Type	Model No.	Version	IP Address	Device Description	Authorization Status	Action
Online		a8:f7:e0:62:31:80	Industrial Switch	IGS-5225-8P4S	v3.440b200331	192.168.1.180	IE L2+ Managed PoE+ Switch	Green Key	
Online		a8:f7:e0:65:e5:e1	Switch	GS-4210-8P2S	v2.305b200330	192.168.1.148	L2/L4 Managed PoE Switch	Green Key	

- **Switch:** Click the “Switch Button” to filter the type of Switch, Industrial Switch, and Media Converter.
- **Router:** Click the “Router Button” to filter the type of Router.
- **Wireless AP:** Click the “Wireless AP Button” to filter the type of Wireless (AP).

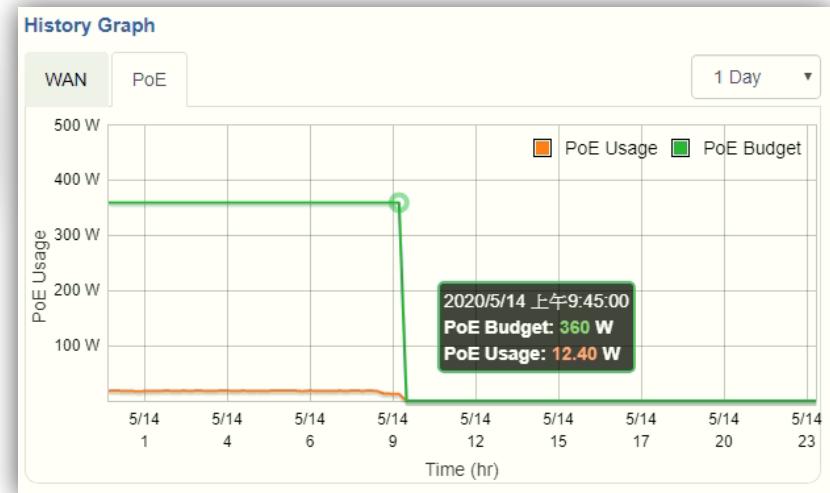
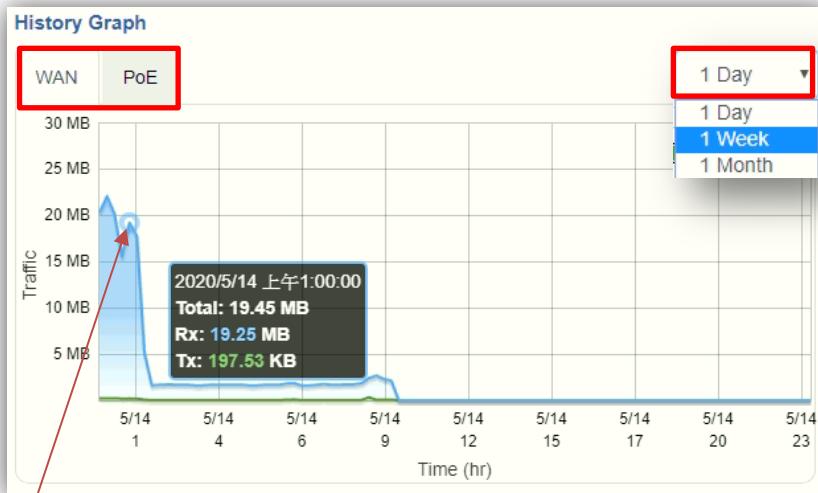
Dashboard - Device Type Summary

- **Device Type Summary :** Show the real-time total quantity of devices under different types.
- **Open the “Zero Filter Button”** to filter the 0 quantity of devices type not shown. If this function is closed, you can see all types that NMS can manage.
- Click the Device type button to filter each type of device via device list.



Dashboard - History Graph

- **History Graph:** Show the history graph of WAN traffic / total PoE usage and budget.
- Press the “WAN” or “PoE” sheet button to change the type of history graph. Press the “Interval Button” to change the interval for day, week, or month. Then you can see the WAN traffic / total PoE usage and budget.



*Moving finger or mouse cursor on graph can let you see the detailed information.



FOOTER INTRODUCTION

Footer - Popup Alert Message

- **Popup Alert Message :** Click the “Message” icon (No. 1) to show the last 30 system events in popup window.
- The last event will be shown on the top page; press the “X” icon (No. 2) to close each message.

PLANET
Networking & Communication
NMS-1000V

Dashboard



Switch
0 Online
0 Offline



Router
0 Online
0 Offline



Wireless AP
0 Online
0 Offline

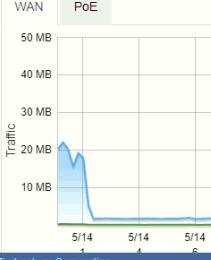
Network Summary

Device Type	Count	Device Type	Count
Switch	0	VoIP	0
Industrial Switch	0	IP Camera	0
Media Converter	0	IP Power	0
Router	0	Wireless(AP)	0
Industrial Automation	0	Unknown	0

Zero Filter: OFF

History Graph

WAN PoE



Traffic

50 MB
40 MB
30 MB
20 MB
10 MB

5/14 1 5/14 4 5/14 6

Alert Message

Status	Connect
Device Type	Industrial Switch
Information	IGS-5225-8P4S 192.168.1.180 a8:ff:e0:62:31:80

Alert Message

Time	10:05:00
Status	Disconnect
Device Type	Industrial Switch
Information	IGS-5225-8P4S 192.168.1.180 a8:ff:e0:62:31:80

Alert Message

Time	09:18:00
Status	Connect
Device Type	Industrial Switch
Information	IGS-5225-8P4S 192.168.1.180 a8:ff:e0:62:31:80

Alert Message

Time	09:18:00
Status	Disconnect
Device Type	Industrial Switch
Information	IGS-5225-8P4S 192.168.1.180 a8:ff:e0:62:31:80

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SYSTEM MENU - DOMAIN

Discovery

- ◆ Press the “Domain” icon (No. 1) , and then press Discovery (No. 2) and Search (No. 3) to find the managed APs and continue other settings.

2. 

3. 

Device(s)	Client(s)	Group(s)	Total: 5	Refresh	Add	All	Filter by Content	Search
39	0	0						
1	00:30:4fa:00:88	Unknown	HDP-1261PT	2.12.44.12.7	192.168.100.78	PLANET HDP-1261PT		
2	a8:f7:e0:00:88:87	Media Converter	IGT-900-T2S	v1.440b220912	192.168.100.47	IE Managed Converter		
3	00:30:4fa:00:44	Unknown	VTS-700WP	2.12.43.13.4	192.168.100.82	PLANET VTS-700WP		
4	a8:f7:e0:00:8b:11	Wireless	WDAP-W1800AXU	v1.2102b230519	192.168.100.77	Indoor 1800AX Wireless AP		
5	a8:f7:e0:90:bf:a5	Industrial Switch	BSP-360	v3.253b220526	192.168.100.195	BSP-360		

- **Support Authorization:** If the devices support MQTT protocol, the status will show “Blue Key”.

Key	Status
	Supported
	Not supported
	Managed by the other NMS

Adding Devices to List

- ◆ Select devices (No. 1) by checking the boxes, and then press the “Apply” icon (No. 2) to add devices to management list.

1. 

2. 

Discovery	Device List	Topology View						Total: 5	Refresh	Add	All		Filter by Content	
	Num.	MAC Address	Device Type	Model No.	Version	Device IP	Device Description	Support Authorization						
<input checked="" type="checkbox"/>	1	00:30:4f:a0:00:88	Unknown	HDP-1261PT	2.12.44.12.7	192.168.100.78	PLANET HDP-1261PT	 						
<input checked="" type="checkbox"/>	2	a8:f7:e0:00:88:87	Media Converter	IGT-900-2T2S	v1.440b220912	192.168.100.47	IE Managed Converter	 						
<input checked="" type="checkbox"/>	3	00:30:4f:a0:00:44	Unknown	VTS-700WP	2.12.43.13.4	192.168.100.82	PLANET VTS-700WP	 						
<input checked="" type="checkbox"/>	4	a8:f7:e0:00:8b:11	Wireless	WDAP-W1800AXU	v1.2102b230519	192.168.100.77	Indoor 1800AX Wireless AP	 						
<input checked="" type="checkbox"/>	5	a8:f7:e0:90:bf:a5	Industrial Switch	BSP-360	v3.253b220526	192.168.100.195	BSP-360	 						

Manual Add Devices to List

- ◆ Press (No. 1) “+” button to manual add device and enter the devices info., then press the “Apply” icon (No. 2) to add devices to management list. **If the PLANET devices is in different sub-net or VLAN, it still works.**

39 0 0
Device(s) Client(s) Group(s)

Total: 39, Offline: 10, Online: 29

	Status	Group	MAC Address	Device Type	Model No.	Version	IP Address	Device Description	Action
<input type="checkbox"/>			00:30:4f:bd:22:66	Camera	ICA-M3580P	N/A	192.168.100.114	ICA-M3580P	
<input type="checkbox"/>			00:55:b1:ff:8b:73	Switch	SGS-6310-24T4X	Version 100687	192.168.100.45	SGS-6310-24T4X	

Manual Add

Manual add device

Model No.	IPOE-173S
Device Type	Switch
IP Address	192.168.100.114
Device Description	ICA-M3580P
MAC Address	00:30:4f:bd:22:66
Firmware Version	
Username	
Password	
Web Protocol	<input checked="" type="radio"/> HTTP <input type="radio"/> HTTPS
HTTPS Port	443
Location	

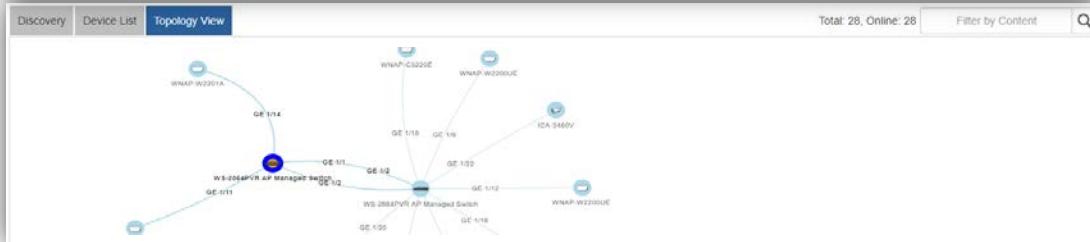
- Required fields: Include **Model No., IP Address, MAC Address**
- Suggested input fields: **Firmware Version**

Device List and Topology View

- ◆ Press “Device List” to see the device status.
- ◆ Press “Topology View” to see the domain network topology after one minute.

※ If you do not see the topology, please check devices to enable SNMP and LLDP function.

Discovery Device List Topology View								
	Status	Group	MAC Address	Device Type	Model No.	Version	IP Address	Device Description
■	●		00:30:4f:00:06:45	IP camera	ICA-3460V	N/A	192.168.1.177	PLANET
■	●		88:dc:96:56:7c:84	Wireless	WBS-502AC	1.0.0.11	192.168.1.172	WBS-502AC
■	●		8c:88:2b:00:00:46	Wireless	WNAP-W2201A	v1.3465cb170926	192.168.1.195	WNAP-W2201A
■	●		a8:f7:e0:55:41:7a	Wireless	WDAP-C7200E	WDAP-C7200E-AP-ETSI-V3.0-Build20200321131724	192.168.1.129	C7200E_2F
■	●		a8:f7:e0:60:2f:7b	Router	IVR-100	v1.1907b200428	192.168.1.1	PLANET IVR-100 VPN Gateway
■	●		a8:f7:e0:62:31:80	Industrial Switch	IGS-5225-8P4S	v3.440b200331	192.168.1.180	IE L2+ Managed PoE+ Switch
■	●		a8:f7:e0:65:e5:e1	Switch	GS-4210-8P2S	v2.305b200330	192.168.1.148	L2/L4 Managed PoE Switch



- **Authorization Status:** If the devices support MQTT protocol and are managed currently with NMS, the authorization status will show “Green Key”.

Key	Status
	Managed
	Not supported
	Managed Fail
	Managed by the other NMS

Device Identification

- ◆ Press the “Identification” icon to modify the device description, type, and devices’ detailed information.

Discovery		Device List		Topology View							
Total:	39	Offline:	10	Online:	29	<input type="button" value="+"/> <input type="button" value="Delete"/>		All		<input type="button" value="Filter by Content"/> <input type="button" value="Search"/>	
	Status	Group	MAC Address	Device Type	Model No.	Version	IP Address	Device Description	Action		
<input type="checkbox"/>			00:30:4f:bc:a5:cb	VoIP	ICF-1800	14.0.1.4.r1	192.168.100.74	ICF-1800			
<input type="checkbox"/>			00:30:4f:bd:22:66	Camera	ICA-M3580P	N/A	192.168.100.114	ICA-M3580P			
<input type="checkbox"/>			00:55:b1:ff:8b:73	Switch	SGS-6310-24T4X	Version 100687	192.168.100.45	SGS-6310-24T4X			
<input type="checkbox"/>			64:9d:99:11:68:34	Switch	SGS-5240-24T4X	1.2.0	192.168.100.46	SGS-5240-24T4X			

Home > Site > Management > Identification

Identification		<input type="button" value="Apply"/>	<input type="button" value="Back"/>	<input type="button" value="Reset"/>
Device Description	ICF-1800			
Device Type	VoIP			
Username				
Password				
Web Protocol	<input checked="" type="radio"/> HTTP <input type="radio"/> HTTPS			
HTTPs Port	443			
Location				
<input type="button" value="Diagnostic Device Function"/>				

► **Diagnostic Device Function Button:** If the devices support SNMP protocol and cannot respond to the broadcast requirement, press this button to change the NMS function by unicast.

Remarks: Executing this function will increase the CPU loading of NMS.



Device Information

Device Information

- ◆ Press the “Device Information” icon to use the virtual panel function of the switch.

	a8:f7:e0:6f:7e:ad	Switch	GS-6320-24UP2T2XV	v2.2112b230704	192.168.100.10	GS-6320-24UP2T2X(v2)
	a8:f7:e0:74:44:91	Industrial Switch	IGS-5225-8P2S2X	v3.440b230619	192.168.203.12	IGS-5225-8P2S2X
	a8:f7:e0:88:00:23	Industrial Switch	IGS-6325-8UP2S2X	v2.2112b230807	192.168.201.33	IGS-6325-8UP2S2X(v2)

GS-6320-24UP2T2XV

• GS-6320-24UP2T2XV

Uptime: 16 days 7 hours 33 minutes 9 seconds



System
Traffic
PoE
Port

PoE Usage:  8.6W

ERPS: OFF

LLDP: ON

SNMP: ON

Save Configuration

Uplink Port: 25, 26

Data Rate: 1.52 KB 12.61 KB

Device Type: Switch

Firmware Version: v2.2112b230704

MAC Address: a8:f7:e0:6f:7e:ad

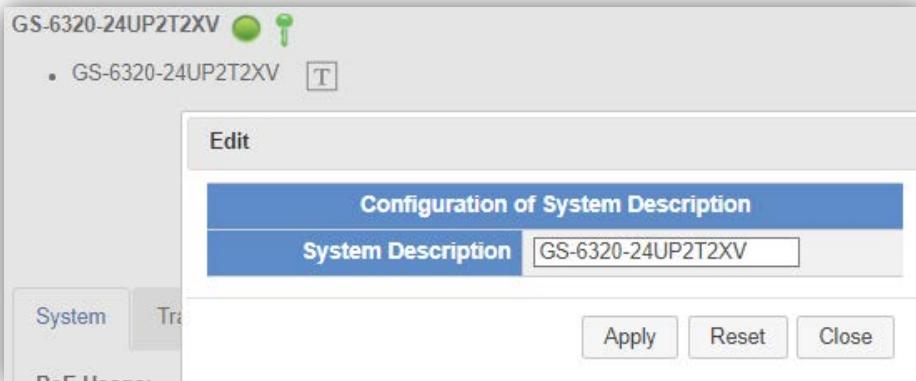
IP Address: 192.168.100.10

Subnet Mask: 255.255.255.0

Gateway: 192.168.100.1

- **Virtual panel function :** On this page, can monitor and control the switch.

Device Information - Virtual Panel



➤ [Edit](#): Configure the Switch System Name in SNMP.

System Information Configuration

System Contact	Default Contact
System Name	GS-6320-24UP2T2XV
System Location	Default Location

Device Information - System

System Traffic PoE Port Save Configuration

PoE Usage:  8.6W

ERPS: OFF STP: 

LLDP:  SNMP: 

- **PoE Usage:** Show **total** PoE usage power
- **ERPS:** Show ERPS Ring status.
- **LLDP:** On/Off LLDP function
- **SNMP:** On/Off SNMP function
- **STP:** On/Off STP function
- **Save Configuration:** After configuring the switch, press the button to finish the save configuration.

Save Configuration

Device Information - System

Uplink Port: 25, 26
 Data Rate:  1.52 KB
 12.61 KB

Device Type: Switch
 Firmware Version: v2.2112b230704
 MAC Address: a8:f7:e0:6f:7e:ad

IP Address: 192.168.100.10
 Subnet Mask: 255.255.255.0
 Gateway: 192.168.100.1

 **Uplink Port:** To configure the Uplink Port by edit icon.

 **LAN Configuration:** To configure LAN IP, subnet mask, and default gateway by edit icon.

Uplink Port: 25, 26
 Data Rate:  1.52 KB
 12.61 KB

Data Rate: Show
 Uplink port upload&
 download traffic.

Press keyboard "Ctrl" to do multi-selections.

Uplink Configuration	
Port	Port 19 Port 20 Port 21 Port 22 Port 23 Port 24 Port 25 Port 26 Port 27

Apply Reset Close

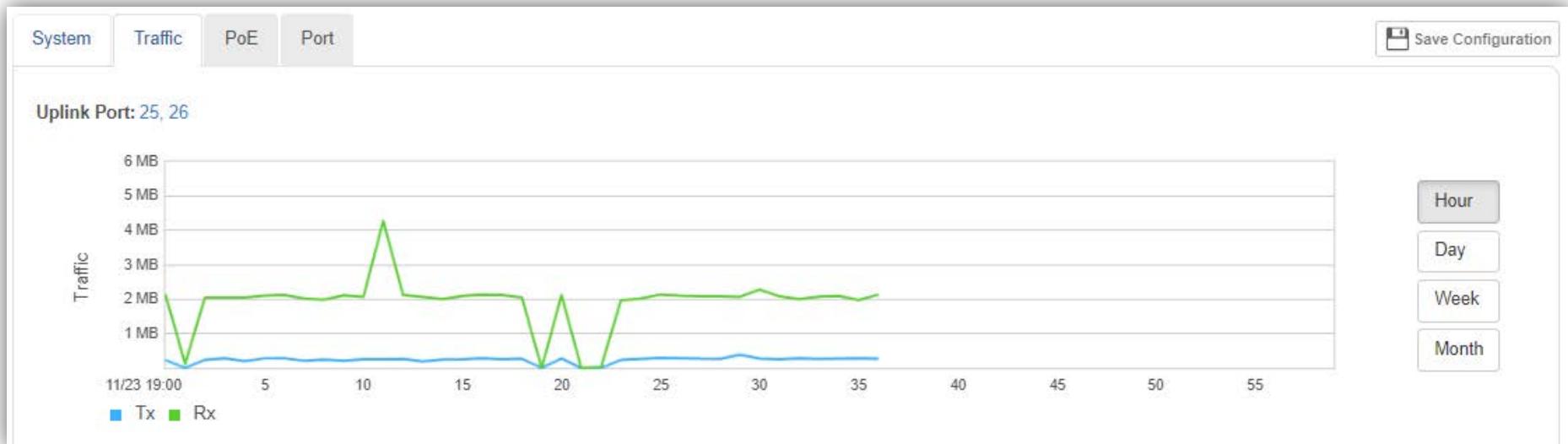
LAN Configuration

LAN Configuration	
IP Address	192.168.100.10
Netmask	255.255.255.0
Gateway	192.168.100.1

Apply Reset Close

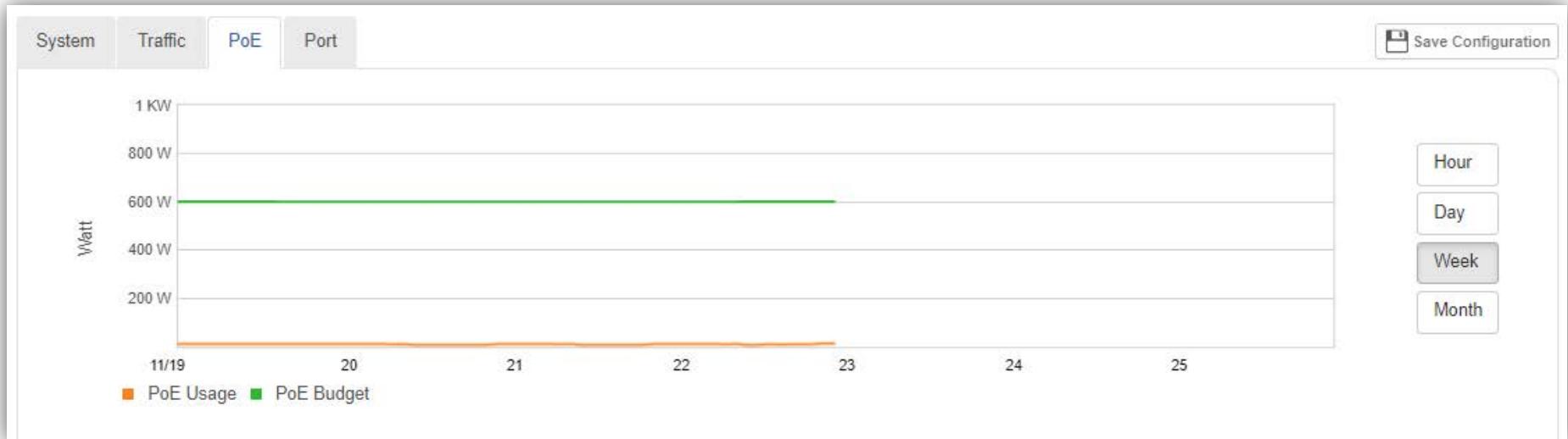
Device Information - Traffic

- **Traffic:** On this page, you can see the traffic history graph of TX/RX on uplink port by selecting hour, day, week or month.



Device Information - PoE

- **PoE:** On this page, you can see the total PoE history graph of PoE usage/PoE Budget by selecting hour, day, week or month.



Device Information - Port

- ▶ **Port:** On this page, you can manage each port on the switch.

System	Traffic	PoE	Port	Save Configuration			
 <input checked="" type="checkbox"/> ON	Port 1: SGS-6310-24T4X 	VLAN:1 	Mode: Access Speed:1G PVID:1 0W/95W (0%)  PD Alive Check: Disable 				
 <input checked="" type="checkbox"/> ON	Port 2: WGS-5225-8T2SV_Flat 	VLAN:1 	Mode: Access Speed:1G PVID:1 0W/95W (0%)  PD Alive Check: Disable 				
 <input checked="" type="checkbox"/> ON	Port 3: WGS-5225-8P2SV_Flat 	VLAN:1 	Mode: Access Speed:1G PVID:1 0W/95W (0%)  PD Alive Check: Disable 				
 <input checked="" type="checkbox"/> ON	Port 4: 	VLAN:204 	Mode: Access Speed:UNDEFINED PVID:204 0W/95W (0%)  PD Alive Check: Disable 				
 <input checked="" type="checkbox"/> ON	Port 5: 	VLAN:1 	Mode: Access Speed:UNDEFINED PVID:1 0W/95W (0%)  PD Alive Check: Disable 				
 <input checked="" type="checkbox"/> ON	Port 6: IGT-900-2T2S 	VLAN:1 	Mode: Access Speed:1G PVID:1 0W/95W (0%)  PD Alive Check: Disable 				
 <input checked="" type="checkbox"/> ON	Port 7: A10 	VLAN:1 	Mode: Access Speed:100M PVID:1 1.3W/95W (1%)  PD Alive Check: Disable 				

Device Information - Port



Port 1: Port Description VLAN: 1,2,4 Mode: Hybrid Speed: 10/100 PVID: 1
 ON Traffic:  80 Mbps  30 Mbps PoE:  15W/30W (50%)  PD Alive Check: Enable  



- Shows per port connection status, port disable, or PoE in use.
- Press the On/Off button to enable/disable port.



Disconnected



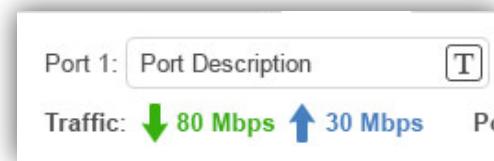
Connected



PoE in use



Port function disabled



Port 1: Port Description
 Traffic:  80 Mbps  30 Mbps Po

- Port description edit by "T" icon.
- Port download & upload traffic.



VLAN: 1,2,4 Mode: Hybrid Speed: 10/100 PVID: 1

- Shows Port VLAN, Mode, Link Speed and PVID info.

Device Information - Port

Port 1: Port Description VLAN: 1,2,4 Mode: Hybrid Speed: 10/100 PVID: 1

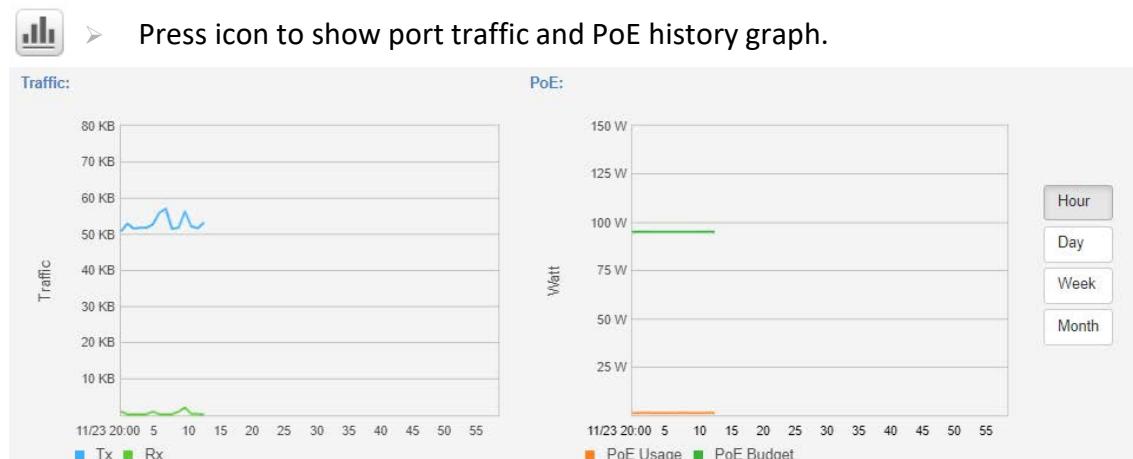
ON Traffic:  80 Mbps  30 Mbps PoE:  15W/30W (50%)  PD Alive Check: Enable  

PoE:  15W/30W (50%)

- Shows Port PoE usage, budget or health (%)

 PD Alive Check: **Enable**

- Shows Port PD alive check status.



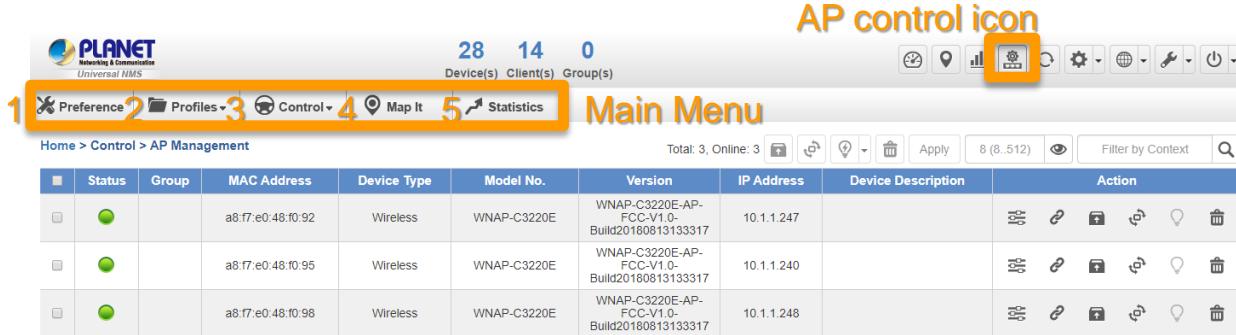
- Get IP camera snapshot via switch ONVIF function.



SYSTEM MENU - AP CONTROL

AP Control UI – Structure & Description

AP control icon

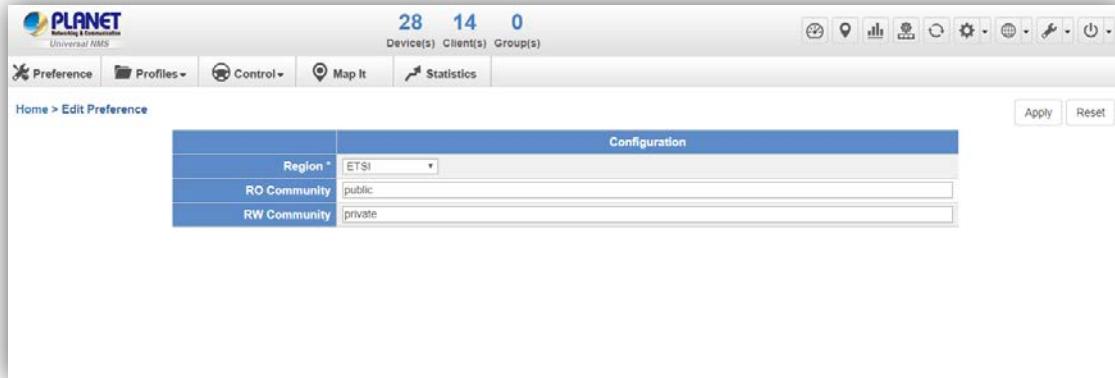


The screenshot shows the PLANET Universal HMS interface. At the top, there's a navigation bar with icons for Preference (highlighted with a yellow box), Profiles, Control, Map It, and Statistics. To the right of the navigation bar are device counts: 28 Device(s), 14 Client(s), and 0 Group(s). Further right are various configuration and monitoring icons. Below the navigation bar is a main menu bar with Home, Control, AP Management, and other options. The main content area is titled "Main Menu" and displays a table of managed APs. The table has columns for Status, Group, MAC Address, Device Type, Model No., Version, IP Address, Device Description, and Action. Three AP entries are listed, each with a green signal strength icon and a checkbox. The Action column contains icons for edit, delete, and other management functions. A yellow box highlights the "Control" icon in the top right corner of the screenshot.

Item	Description	Remarks
1	Preference	Edit region, RO community, RW community
2	Profiles	Set up SSID, Radio (2.4G, 5G) Profiles
3	Control	AP and AP group management
4	Map It	Edit the map of AP location and coverage
5	Statistics	Show the statuses of managed APs and active clients

Item	Description	Remarks
1	Preference	Edit region, RO community, RW community
2	Profiles	Set up SSID, Radio (2.4G, 5G) Profiles
3	Control	AP and AP group management
4	Map It	Edit the map of AP location and coverage
5	Statistics	Show the statuses of managed APs and active clients

Main Menu – Preference



[Preference]

- **Preference:** On this page, you can choose the device region of FCC or ETSI.
- Then edit **SNMP RO community and RW community** for public or private use. **(Set up for all devices, not only for APs)**
- Select Apply or Reset.
- Noted: Device of FCC and device of ETIS cannot be shown at the same time.

Main Menu – Profiles

Preference | Search | **Profiles** | Control | Map It | Statistics

Home > SSID Profile > SSID

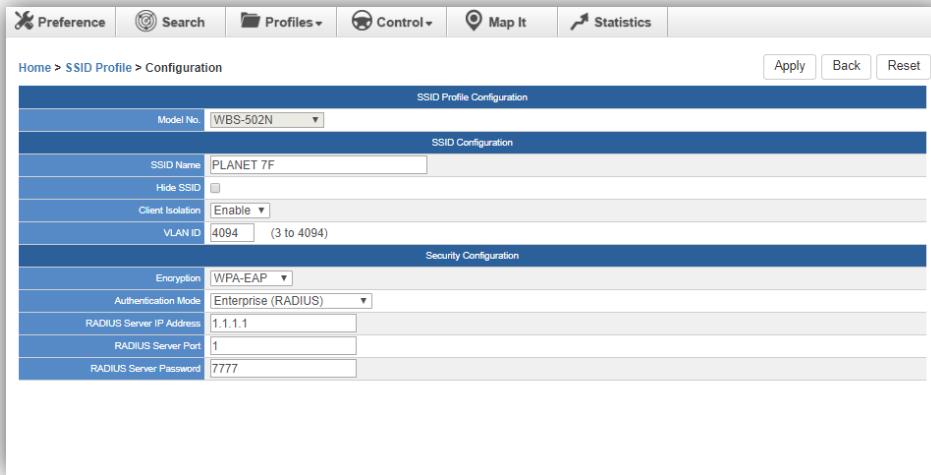
	Num.	Model No.	SSID Name	SSID Broadcast	Security	Encryption	Client Isolation	Action	
1	1	WBS-502N	6F Customer	Enabled	WPA-Mixed	Personal (Pre-Shared Key)	Enabled		
2	2	WBS-502N	Btest 502N	Enabled	WPA2	Personal (Pre-Shared Key)	Disabled		
3	3	WBS-502N	PLANET 7F	Enabled	WPA-EAP	Enterprise (RADIUS)	Enabled		
4	4	WBS-502N	Test 502N	Enabled	WPA	Personal (Pre-Shared Key)	Enabled		
5	5	WNAP-C3220A	3F_C3220A	Enabled	WPA2	Personal (Pre-Shared Key)	Enabled		
6	6	WNAP-C3220A	Test C3220A	Enabled	Disable	Disabled	Disabled		
7	7	WNAP-C3220E	Test C3220E	Enabled	WPA-EAP	Enterprise (RADIUS)	Disabled		
8	8	WNAP-W2200UE	1F_W2200UE	Enabled	WPA	Personal (Pre-Shared Key)	Disabled		
9	9	WNAP-W2200UE	PLANET 7F	Enabled	WPA2	Personal (Pre-Shared Key)	Enabled		
10	10	WNAP-W2200UE	Test W2200UE	Enabled	WPA2	Personal (Pre-Shared Key)	Enabled		

Total Profile: 10

[Profiles]

- **Profiles:** On this page, you can create the SSID and 2.4GHz/5GHz profiles for further AP provisioning.
- **SSID Profiles:** Click the “Add new profile” button to add a new SSID profile.
- **Radio Profiles:** Click the “Add new profile” button to add a new 2.4GHz radio profile or 5GHz radio profile.
- You can create up to 32 profiles for each type of profiles (SSID, 2.4G radio, 5G radio).

Main Menu – Profiles



SSID Profile Configuration

Model No.: WBS-502N

SSID Name: PLANET 7F

Hide SSID:

Client Isolation: Enable

VLAN ID: 4094 (3 to 4094)

Encryption: WPA-EAP

Authentication Mode: Enterprise (RADIUS)

RADIUS Server IP Address: 1.1.1.1

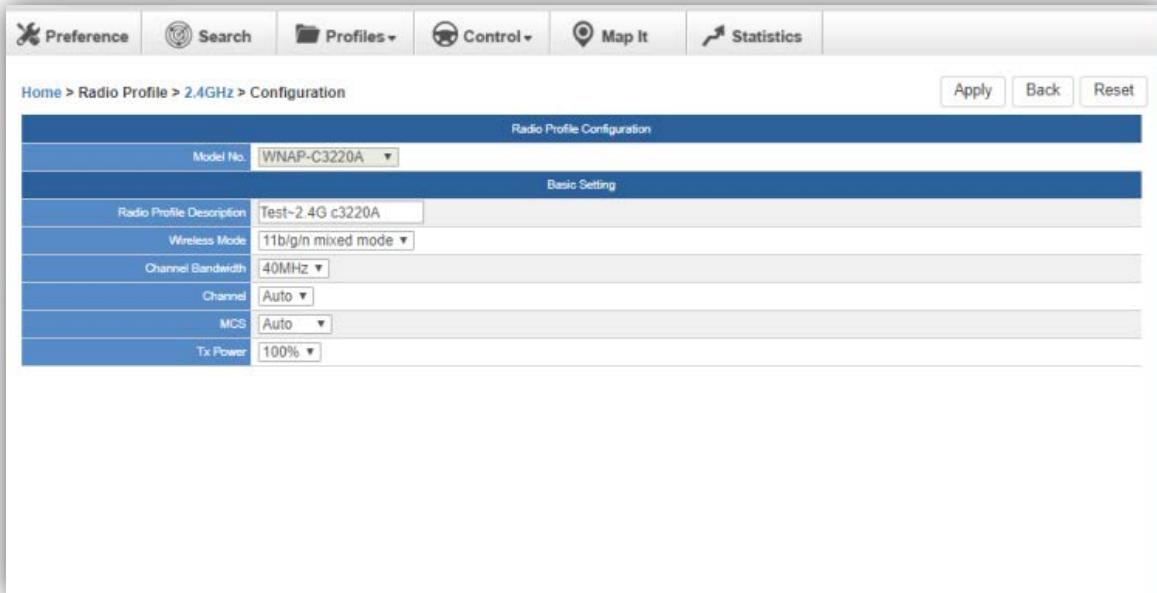
RADIUS Server Port: 1

RADIUS Server Password: 7777

[SSID Profile Configuration]

- On the SSID profile configuration page, enter the value that you preferred and then click “Apply” to save the profile.
-  Add new profile: Click it to add a new profile.
-  Delete selected item: Click it to delete the selected profile.
-  Edit: Click it to edit the profile.
-  Delete: Click it to delete the single profile.
- Filter: You can filter the search result by entering the keywords in the field next to the magnifier icon. The keywords include: SSID Name

Main Menu – 3/Profiles



The screenshot shows the Radio Profile Configuration page for the WMAP-C3220A model. The page has a header with tabs: Preference, Search, Profiles (selected), Control, Map It, and Statistics. Below the header, the URL is Home > Radio Profile > 2.4GHz > Configuration. The main area is titled "Radio Profile Configuration" and contains the following settings:

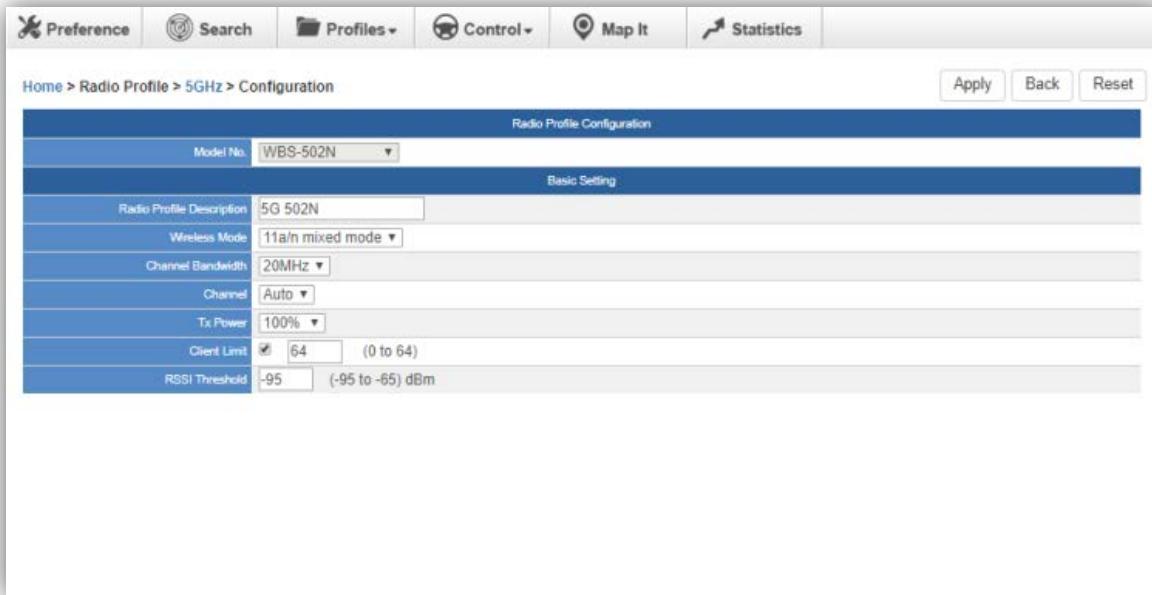
Basic Setting	
Model No.	WNAP-C3220A
Radio Profile Description	Test-2.4G c3220A
Wireless Mode	11b/g/n mixed mode
Channel Bandwidth	40MHz
Channel	Auto
MCS	Auto
Tx Power	100%

At the top right of the configuration page are three buttons: Apply, Back, and Reset.

[2.4GHz Radio Profile Configuration]

- On the Radio profile configuration page, enter the value that you preferred and then click “Apply” to save the profile.
- Apply: Click this button to save the settings.
- Back: Click this button to return to the previous page.
- Reset: Click this button to reset all fields to default value.

Main Menu – 3/Profiles



The screenshot shows the 'Radio Profile Configuration' screen for a 'WBS-502N' model. The 'Basic Setting' tab is selected. The configuration fields are as follows:

- Model No.: WBS-502N
- Radio Profile Description: 5G 502N
- Wireless Mode: 11a/n mixed mode
- Channel Bandwidth: 20MHz
- Channel: Auto
- Tx Power: 100%
- Client Limit: 64 (0 to 64)
- RSSI Threshold: -95 (-95 to -65) dBm

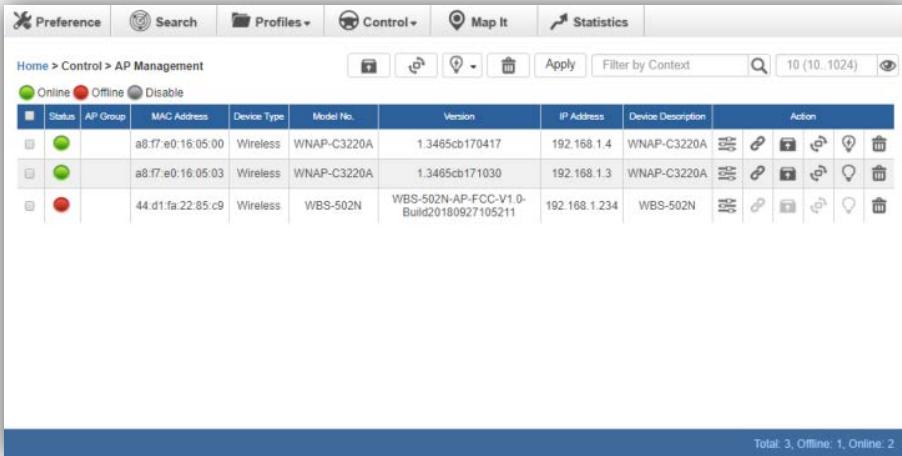
Buttons at the top right include 'Apply', 'Back', and 'Reset'.

[5GHz Radio Profile Configuration]

➤ **Remarks:**

1. Strongly suggest you to keep the values as default except the fields like Channel, Network Mode, Channel Bandwidth, Tx Power, IAPP, and Tx/Rx to prevent any unexpected error or impact on the performance.
2. WMM Capable is not allowed to be disabled.

Main Menu – Control



The screenshot shows the AP Management page under the Control menu. It displays a table of three AP devices. The columns are: Status, AP Group, MAC Address, Device Type, Model No., Version, IP Address, Device Description, and Action. The first two APs are online (green), while the third is offline (red). The table includes a header row and three data rows. A toolbar at the top provides search, filter, and apply functions.

Status	AP Group	MAC Address	Device Type	Model No.	Version	IP Address	Device Description	Action	
Online		a8:f7:e0:16:05:00	Wireless	WNAP-C3220A	1.3465cb170417	192.168.1.4	WNAP-C3220A		
Online		a8:f7:e0:16:05:03	Wireless	WNAP-C3220A	1.3465cb171030	192.168.1.3	WNAP-C3220A		
Offline		44:d1:fa:22:85:c9	Wireless	WBS-502N	WBS-502N-AP-FCC-V1.0-Build20180927105211	192.168.1.234	WBS-502N		

Total: 3, Offline: 1, Online: 2

[Control - AP Management]

- **Control:** On this page, the system allows you to control the AP or AP group with specific actions.
- **AP Management:** Go to this page to control single AP or multiple APs.
- **AP Group Management:** Go to this page to create multiple APs as a group or control AP group.
- **Filter:** You can filter the AP list by entering the keyword in the field next to the magnifier icon. The keyword should be in any context that belongs to the fields like AP Group, MAC Address, Model, Version, IP Address, and Name.
- **Apply:** Click this button to apply the setting. The profile setting will not take effect until you click the “Apply” button on the Control’s main page.

Main Menu – Control

➤ Status:

-    Connection status: online, offline, Wi-Fi disabled
-  In progress: action in progress
-  Finished/Successful: action finished and successful.
-  Failed: action failed.

➤ Action:

-  Setting: edit setting and allocate profile to AP
-  Link: link to the AP's web page
-  Firmware Update: Upgrade AP's firmware
-  Reboot: Reboot the AP
-  Delete: Delete the AP from the control list
-  LED Control: Control the AP's LED.
Mouse-click in a sequential order:
LED blink-> LED off-> LED on

➤ Remarks:

To configure multiple APs at one time, select multiple APs and then choose one of the action icons on the top of the page.

The "Link" action is not allowed for multiple APs.

Main Menu – Control

Home > Control > AP Management > AP Configuration

AP Information		AP LAN Setting	
Model No.	WNAP-C3220A	DHCP Mode	Static
Device MAC	a8:7:e0:16:05:00	Current Status	Configured
Device Description	WNAP-C3220A	Device IP	192.168.1.4
System Uptime	0 day 3 hour 44 minute 58 second	Device Mask	255.255.255.0
		Device Gateway	192.168.1.1
		Clone >>	192.168.1.1
		NTP Client Update	Disable
		NTP Server	0.0.0.0
		UPNP Enable	Disable
			Enable

2.4G Profile		5G Profile	
SSID 1	3F_C3220A	Disable	
SSID 2	Test_C3220A	Disable	
SSID 3	Disable	Disable	
SSID 4	Disable	Disable	
SSID 5	Disable	Disable	
Radio Profile	Test-2.4G C3220A	Disable	

[AP Configuration]

- Procedure of configuring AP's setting:

 1. Edit the basic AP Information.
 2. Click the “Clone >>” button if you want to use the same IP configuration as the previous LAN settings. Otherwise, please enter the preferred LAN setting.
 3. If there are already profiles created, you can designate the SSID profile and Radio profile to this AP. You can do this step later once AP's basic setting is done

- On the AP Group Configuration page, you can create an AP group with the same model of AP.
- Save: Click this button to save the group/setting.
- Back: Click this button to return to the previous page.
- Reset: Click this button to reset all fields to default value.
- Remarks: The system allows to create up to 32 AP groups.

Main Menu – Control



The screenshot shows the AP Group Management page with the following details:

	Num.	Group Name	Group Description	Action
1	2200UE G	2200UE Group		
2	c3220a G1	C3220A GROUP		

Total: 2

[3/Control - AP Group Management]

- On the AP Group Management page, you can create AP group and control one or more AP groups.
- Add new group: Click it to add an AP group.
- Delete selected item: Click it to delete the selected AP group.
- Apply: Click this button to apply the setting. The profile setting will not take effect to a group until you click the “Apply” button.

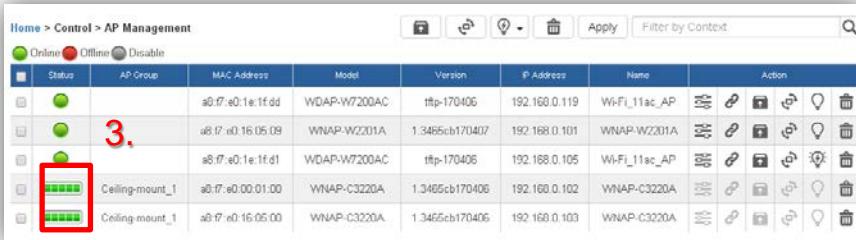
➤ Remarks:

To do profile provisioning to multiple AP groups at one time, select multiple AP groups, and then click the “Apply” button.

The "Link" action is not allowed for multiple APs or AP group.

Main Menu – Control

Home > Control > AP Management



Status	AP Group	MAC Address	Model	Version	IP Address	Name	Action					
Online	a8:07:e0:1e:ff:dd	WDAP-W7200AC	tftp-170406	192.160.0.119	Wi-Fi_11ac_AP							
Online	a8:07:e0:16:05:09	WNAP-W2201A	1.3465cb170407	192.168.0.101	WNAP-W2201A							
Online	a8:07:e0:1e:ff:d1	WDAP-W7200AC	tftp-170406	192.168.0.105	Wi-Fi_11ac_AP							
Online	Ceiling-mount_1	a8:07:e0:00:01:00	WNAP-C3220A	1.3465cb170406	192.160.0.102	WNAP-C3220A						
Online	Ceiling-mount_1	a8:07:e0:16:05:00	WNAP-C3220A	1.3465cb170406	192.160.0.103	WNAP-C3220A						

➤ Procedure of profile provisioning to AP groups:

1. Select the AP group.
2. Click the “Apply” button.
3. Go to “3/Control-> AP Management” to check whether the status is becoming “In progress”. Wait until the status comes “Online”.

➤ Action:

- Setting: Edit setting and allocate profile to group
- Firmware Update: Upgrade AP group's firmware
- Reboot: Reboot the AP group
- Delete: Delete the AP group from the control list
- LED Control: Control the AP group's LED.

Mouse-click in a sequential order:

LED blink-> LED off-> LED on

Main Menu – Map It

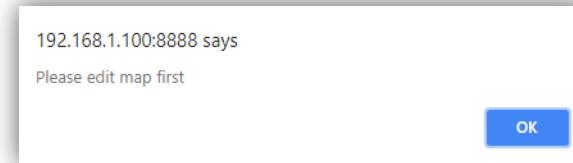


[Map It]

- **Map It:** On this page, the system allows you to upload your floor map to the system and you can add managed APs to the actual position against the floor map. This is convenient to user to view and adjust the actual deployment by reference to its real transmission power and channel allocation.
- The system allows user to upload up to 10 floor maps.

*Please use mouse to use this function.

- A system message will prompt to remind you to edit map first if there is no other map available in the system. Click “OK” to continue.

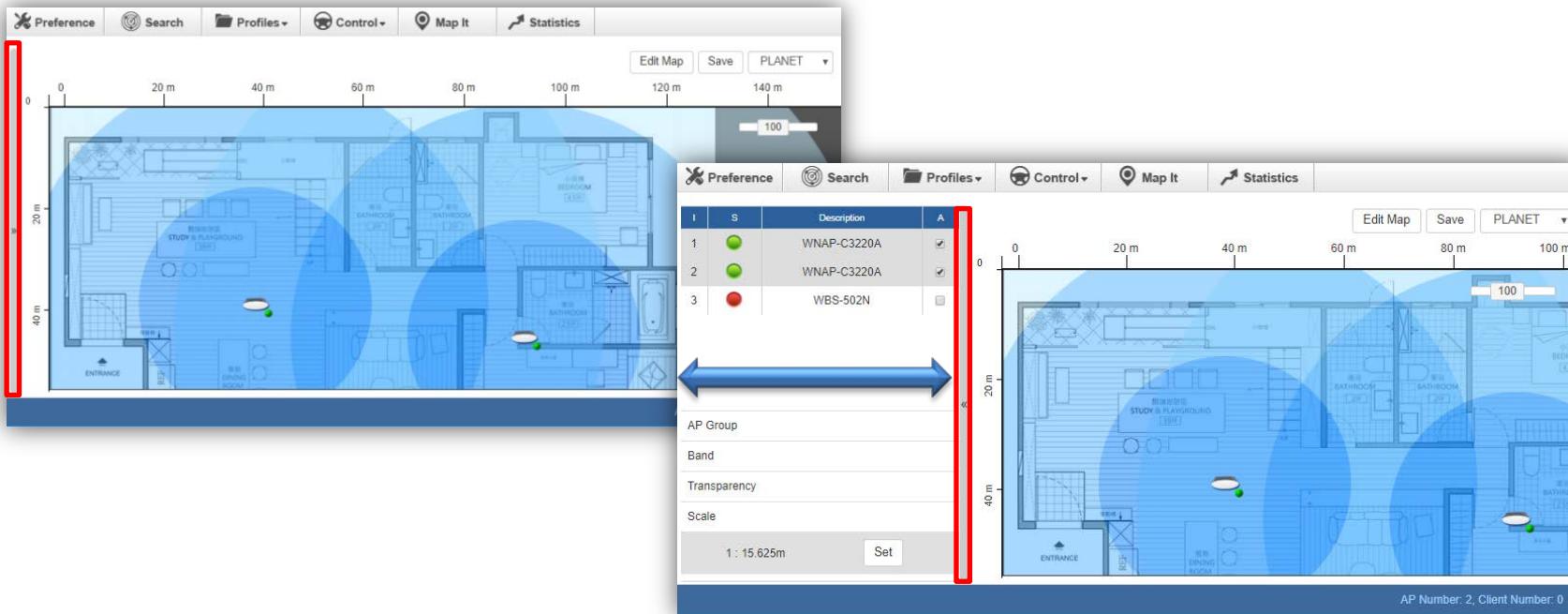


- On the Edit Map page, click “Choose File” and enter the map’s description. Then click “Apply” to upload the map.



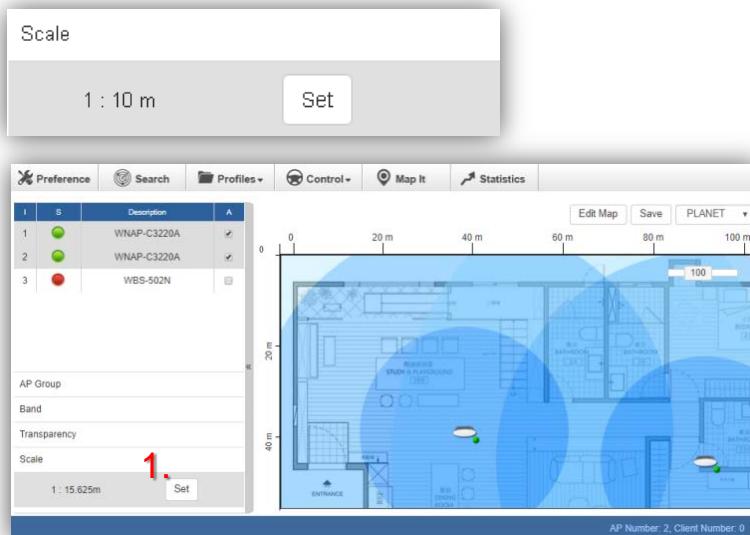
Main Menu – Map It

- After finishing map uploading, you can click the sidebar at the left-side of the window to expand the AP list.

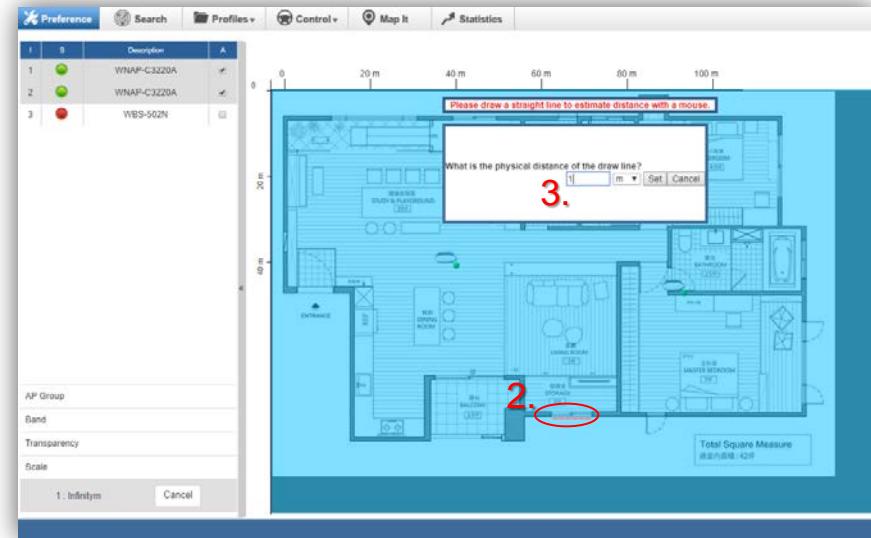


Main Menu – Map It

- Setting Scale: 1. Click “Scale” to start to reset the map scale.

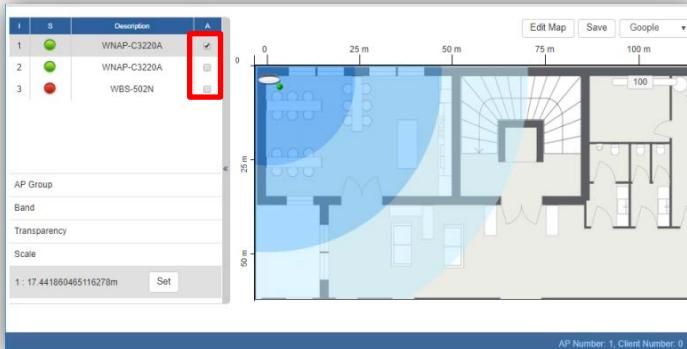


- Press the “Set” button to draw a line on the map. Fill its physical distance in the blank and press “Set” or “Cancel”. For example, in the graph below, set the door width to 0.8 m.



Main Menu – Map It

- Drag and drop the AP onto the map or select multiple APs by clicking the checkbox.



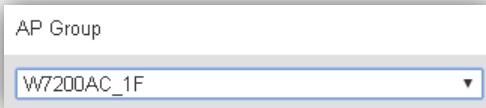
- Once the allocation is done, click "Save" to save the setting.



- To upload more maps or edit current map, click the "Edit Map" button to re-enter the Edit Map page.

Main Menu – Map It

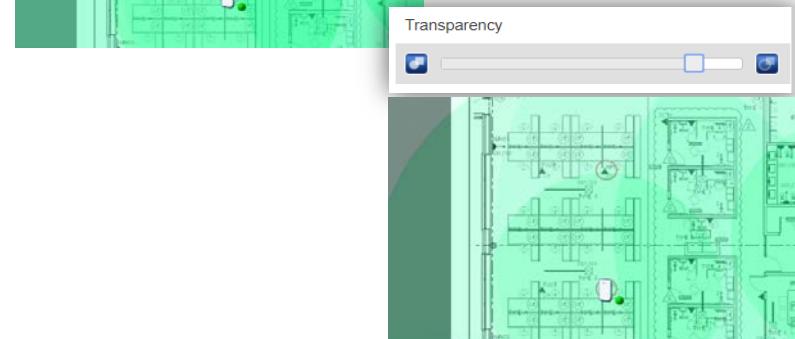
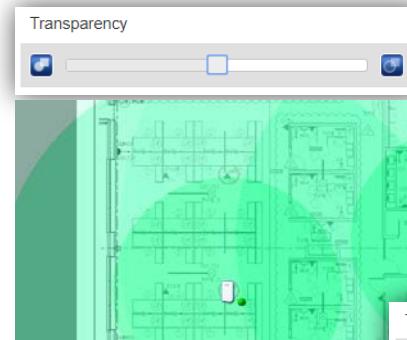
- The lower-left side area provides map control options.
- AP Group: To filter the managed APs shown on the map, the selected AP group is displayed.



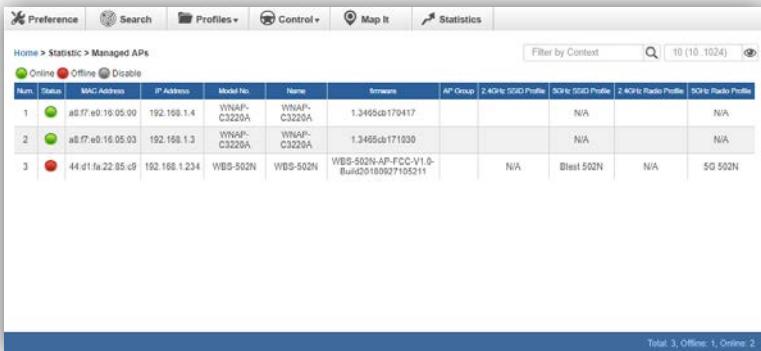
- Band: Select “2.4GHz” to show APs with 2.4GHz frequency or select “5GHz” to show APs with 5GHz frequency.



- Transparency: Slide the bar to adjust the transparency of the map.



Main Menu – Statistics



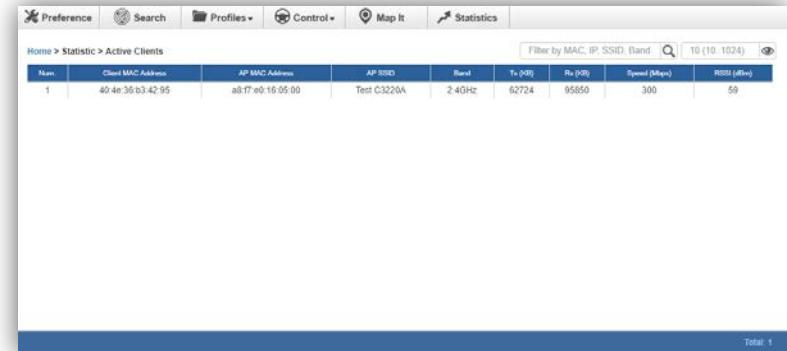
This screenshot shows the 'Statistics - Managed APs' page. The table lists three managed access points (APs) with their details:

Num	Status	MAC Address	IP Address	Model No.	Name	Firmware	AP Group	2.4GHz SSID Profile	5GHz SSID Profile	2.4GHz Radio Profile	5GHz Radio Profile
1	Online	a8:f7:e0:16:05:00	192.168.1.4	WNAP-C3220A	WNAP-C3220A	1.3465cb170417				N/A	N/A
2	Online	a8:f7:e0:16:05:03	192.168.1.3	WNAP-C3220A	WNAP-C3220A	1.3465cb171030				N/A	N/A
3	Offline	44:d1:fa:22:05:c9	192.168.1.234	WBS-502N	WBS-502N	WBS-502N-AP-FCC-V1.0-Build20180927105211				Blest:502N	N/A

Total: 3, Offline: 1, Online: 2

[Statistics – Managed APs]

- **Managed APs:** On this page, you can observe the current configuration of all managed APs.
- **Filter:** You can filter the AP list by entering the keyword in the field next to the magnifier icon. The keyword should be in any context that belongs to the fields of this page.



This screenshot shows the 'Statistics - Active Clients' page. The table lists one active client with its details:

Num	Client MAC Address	AP MAC Address	AP RSSI	Band	Tx (dB)	Rx (dB)	Speed (Mbps)	RSSI (dBm)
1	40:4e:36:b3:42:95	a8:f7:e0:16:05:00	Test C3220A	2.4GHz	62724	95850	300	59

Total: 1

[Statistics – Active Clients]

- **Active Clients:** On this page, you can observe the statuses of all associated clients including traffic statistics, transmission speed and RSSI signal strength.
- **Filter:** You can filter the search result by entering the keywords in the field next to the magnifier icon. The keywords include MAC Address, IP Address, SSID and Band.



SYSTEM MENU – REFRESH

System Menu – Refresh



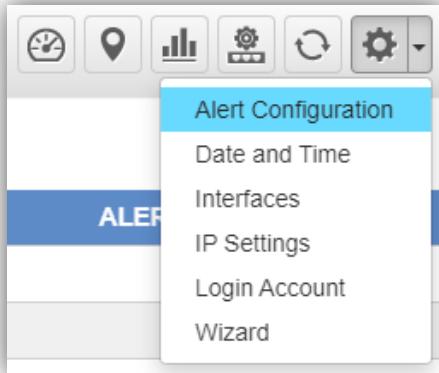
[System Menu – Refresh]

- **Refresh:** The page content will be updated every 1 minute automatically by default. If you require the system to update immediately, you may click “Manually” to refresh the page content.



SYSTEM MENU - SYSTEM CONFIGURATION

System Menu – System Configuration



[System Menu – System Configuration]

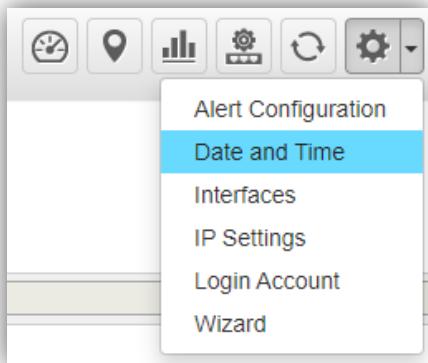
- **Alert Configuration:** On this page, you can configure the system event notice enable or disable by Popup Alert Message and SMTP function.
- After configuration is done, click “Apply” to apply the setting.

Home > Alert Configuration

	ENABLE	ALERT_MESSAGE	SMTP
System Start	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
System Shutdown	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
System Reboot	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
System Firmware Upgrade Successful	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
System Firmware Upgrade Fail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Management Add Device	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Management Delete Device	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Management Device Connect	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Management Device Disconnect	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Management Device Set Profile	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Management Device Profiles Setting Done	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Management Device Profiles Setting Failed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Web Login	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

[Alert Configuration]

System Menu – System Configuration



[System Menu – System Configuration]

Home > System > Date & Time

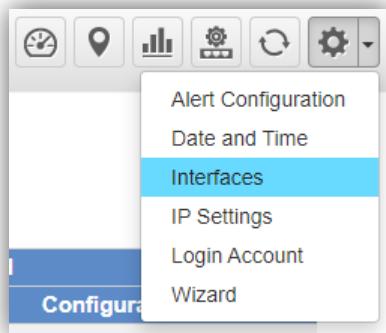
Time Configuration

Current Date and Time	2020-03-20 15:19:06
Time Mode Setting	<input checked="" type="radio"/> Auto <input type="radio"/> Manual
Time Zone	Asia <input type="button" value="▼"/> Taipei <input type="button" value="▼"/>
Server1	pool.ntp.org
Server2	europe.pool.ntp.org
Server3	north-america.pool.ntp.org
Server4	asia.pool.ntp.org
Server5	oceania.pool.ntp.org

Apply Reset

[Date and Time configuration]

System Menu – System Configuration



- **Interface:** On the PORT page, you can see each Port status and you can configure the speed for down, auto, 10/100 Mbps HDX/FDX, and 1GMbps FDX on the Port Statistics page.
- Click “Apply” to apply the setting.

[System Menu – System Configuration]

Port Configuration		Port Statistics		
Port	Port Description	Link	Speed	
			Current	Configuration
1		●	Down	Auto ▾
2		●	1Gbps FDX	Auto ▾

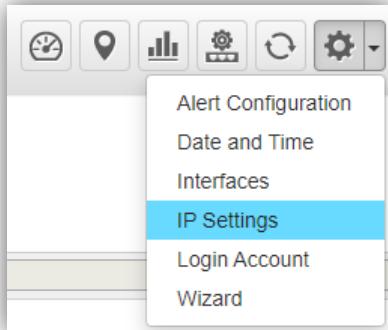
[Port Settings]

System Menu – System Configuration

Port Configuration		Port Statistics							
Port	Packets		Bytes		Errors		Drops		
	Received	Transmitted	Received	Transmitted	Received	Transmitted	Received	Transmitted	
1	0	0	0	0	0	0	0	0	0
2	478835	169696223	156746461	23195	0	420366	5201	0	0

[Port Statistics information]

System Menu – System Configuration



- **IP Settings:** On this page, you can configure the static ID of SAPC or choose it as DHCP client.
- After configuration is done, click “Apply” to apply the setting. The window will prompt you to change network setting that will cause the system to restart.

[System Menu – System Configuration]

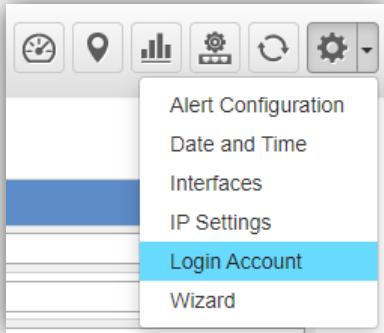
Home > System > IP Settings

	Configuration	Status
Mode	Static IP	Static
IP Address	10.1.0.199	10.1.0.199
Subnet Mask	255.255.254.0	255.255.254.0
Default Gateway	10.1.1.254	10.1.1.254
DNS Server 1	10.1.1.3	10.1.1.3
DNS Server 2	10.1.1.4	10.1.1.4

Apply Reset

[IP Settings]

System Menu – System Configuration



- [Login Account](#): On this page, you can modify the login user name and password.
- Enter the new user name and new password directly in the corresponding fields, and then click “Apply” to apply the setting. The login window will be prompted to ask you to enter the new account to re-log in the system.

[System Menu – System Configuration]

Home > System > Edit User

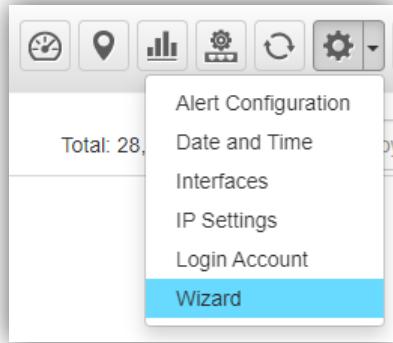
Configuration	
User Name	<input type="text" value="admin123"/>
Password	<input type="password"/>
Retype Password	<input type="password"/>

*Please key in a new account, except using "admin"
New Password must be included at least 1*[a~z], 1*[A~Z], 1*[0~9], 1*[~, !, @, ...] and must contain at least 8 characters.

[Login Account]

- ◆ *Please key in a new account, except using "admin"
- ◆ New Password must include at least 1*[a~z], 1*[A~Z], 1*[0~9], 1*[~, !, @, ...] and must contain at least 8 characters.

System Menu – System Configuration



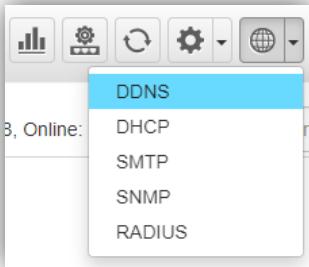
- [Wizard](#): Select Wizard for setup wizard again.

[System Menu – System Configuration]



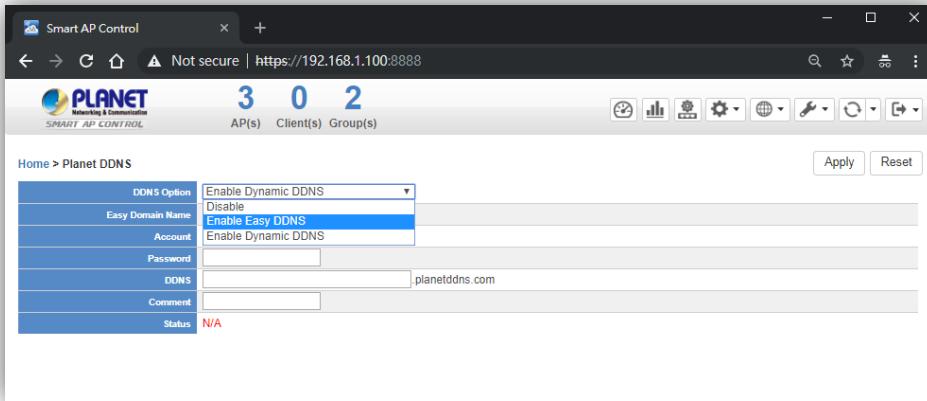
SYSTEM MENU - NETWORK SERVICES

System Menu – Network Services



- **Network Services:** On this page, you can set up DDNS, DHCP, SMTP, SNMP, and RADIUS of the system.
- **DDNS:** Click “DDNS” to use PLANET Easy DDNS services or Dynamic DDNS. (Supports PLANET DDNS/Easy DDNS) <https://www.planetddns.com/>
- Click “Apply” to apply the setting.

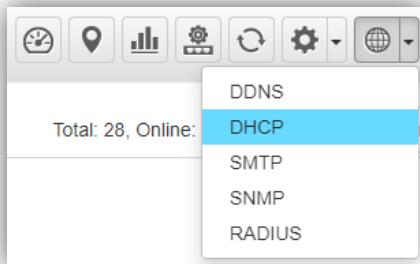
[System Menu – DDNS]



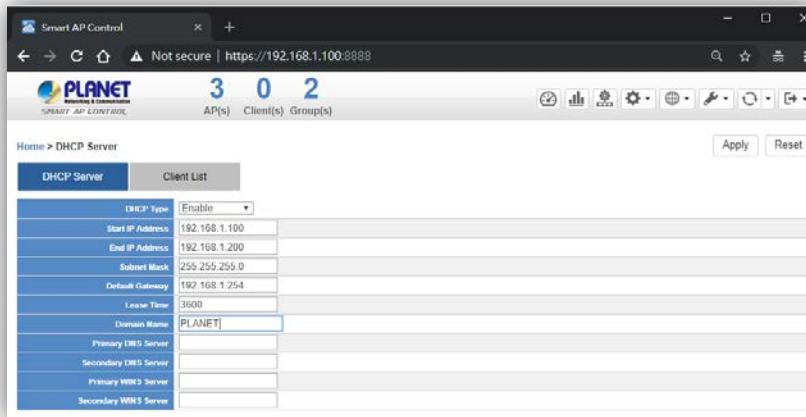
The screenshot shows the PLANET Smart AP Control interface with the title "Smart AP Control". The header displays "3 0 2 AP(s) Client(s) Group(s)". The main content area is titled "Home > Planet DDNS". The "DDNS Option" dropdown is set to "Enable Dynamic DDNS". The "Easy Domain Name" field contains "planetddns.com". The "Status" field shows "N/A". There are "Apply" and "Reset" buttons at the bottom right. The left sidebar shows the navigation path: Home > Planet DDNS.

[DDNS Setting]

System Menu – Network Services



[System Menu – DHCP]

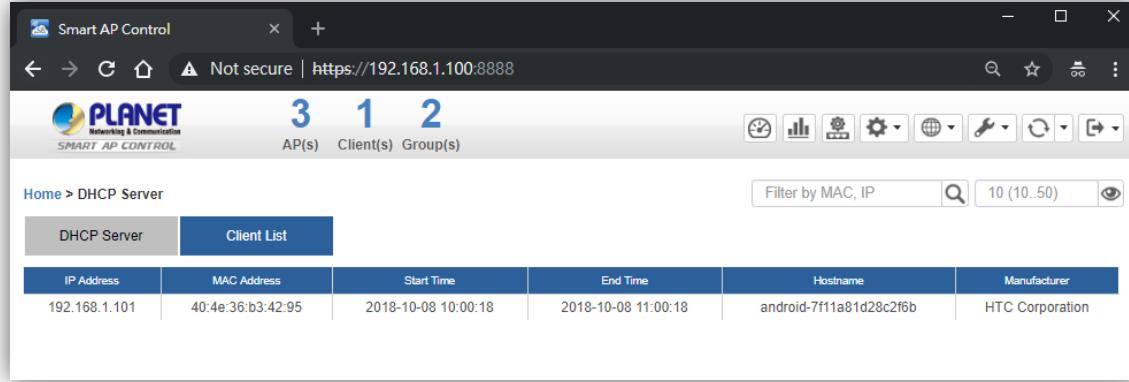


The screenshot shows a web-based management interface for a PLANET Smart AP. The top header displays "Smart AP Control" and the PLANET logo. The main title is "Smart AP Control". The sub-navigation bar shows "Home > DHCP Server". The main content area is titled "DHCP Server" and contains a "Client List" tab. The configuration form includes fields for "DHCP Type" (set to "Enable"), "Start IP Address" (192.168.1.100), "End IP Address" (192.168.1.200), "Subnet Mask" (255.255.255.0), "Default Gateway" (192.168.1.254), "Lease Time" (3600), "Domain Name" (PLANET), and "Primary DNS Server" (empty). Buttons for "Apply" and "Reset" are at the bottom right.

[DHCP Setting]

- **Network Services:** On this page, you can set up DDNS, DHCP, SMTP, SNMP, and RADIUS of the system.
- **DHCP:** On the DHCP Server page, choose “Enable” to use DHCP server service. On Client list page, you can see the Client detailed information.
- Click “Apply” to apply the setting.

System Menu – Network Services

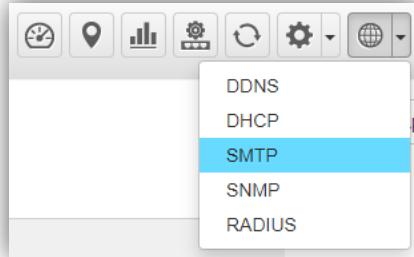


The screenshot shows the 'Smart AP Control' web interface at <https://192.168.1.100:8888>. The top navigation bar displays 'AP(s) 3', 'Client(s) 1', and 'Group(s) 2'. Below the navigation is a toolbar with various icons. The main content area shows the 'Home > DHCP Server' page. A 'Client List' tab is selected. A table lists one client entry:

IP Address	MAC Address	Start Time	End Time	Hostname	Manufacturer
192.168.1.101	40:4e:36:b3:42:95	2018-10-08 10:00:18	2018-10-08 11:00:18	android-7f11a81d28c2f6b	HTC Corporation

[Client List Information]

System Menu – Network Services



- **Network Services:** On this page, you can set up DDNS, DHCP, SMTP, SNMP, and RADIUS of the system.
- **SMTP:** On the SMTP page, choose “Enable” to use SMTP service.
- Click “Apply” to apply the setting.

[System Menu – SMTP]

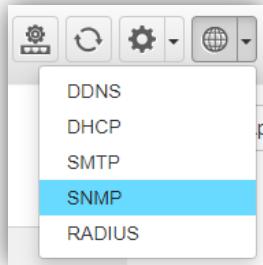
Home > SMTP Configuration

SMTP Configuration	
SMTP Email Alarm	<input type="button" value="Enable"/>
External SMTP Server	
DNS or IP Address	smtp.domain.com or 192.168.0.1
Port	587
Authentication	
Username	example@domain.com
Password	Password
Email Subject	
Prefix	[NMS-500]
Mail To	
1.	<input type="text" value="example@domain.com"/>

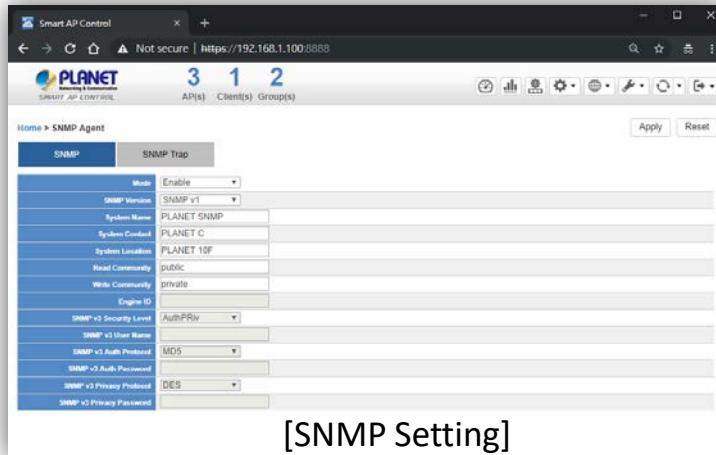
Test Apply Reset

[SMTP Setting]

System Menu – Network Services



[System Menu – SNMP]

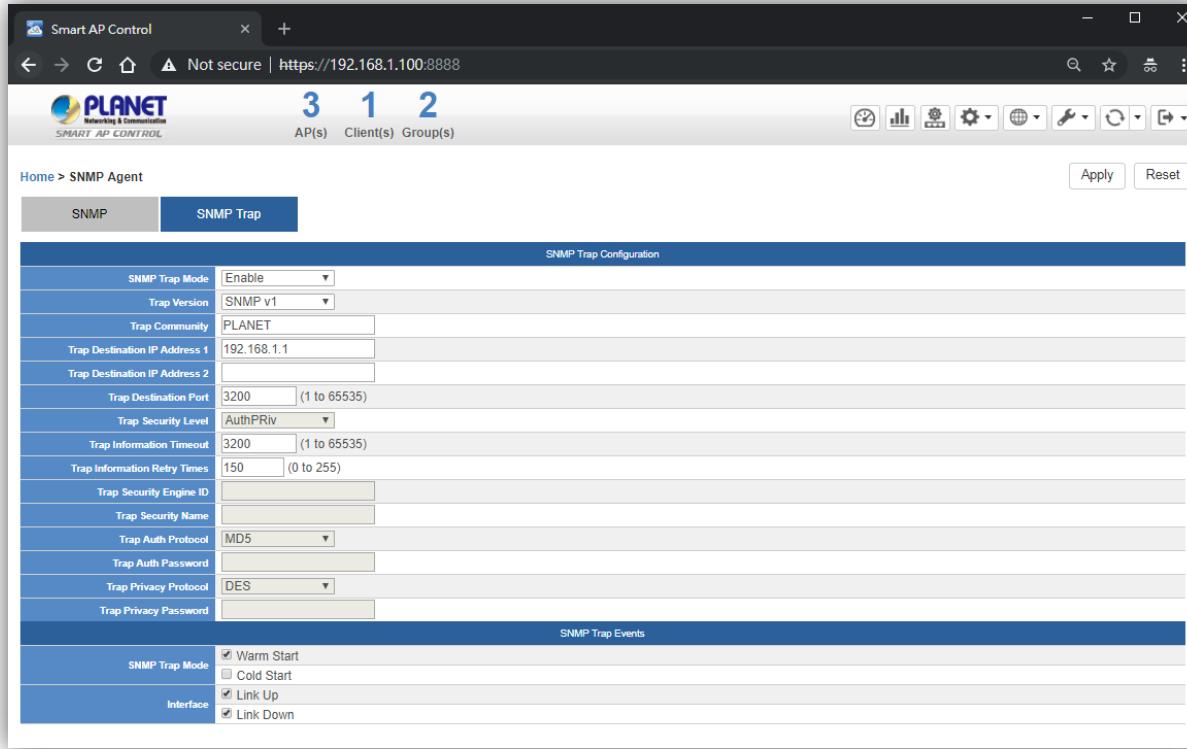


The screenshot shows the Smart AP Control interface with the URL https://192.168.1.100:8888. The top navigation bar shows 'Smart AP Control' with three icons (3, 1, 2) and tabs for AP(s), Client(s), and Group(s). The main menu on the left includes Home, System, Network, Security, Application, and Help. The current page is 'Home > SNMP Agent'. The 'SNMP' tab is selected, and the 'SNMP Trap' sub-tab is active. The configuration form includes fields for Mode (Enable), SNMP Version (SNMP v1), System Name (PLANET SNMP), System Contact (PLANET C), System Location (PLANET 10F), Read Community (public), Write Community (private), Engine ID, and various SNMP v3 parameters like Security Level (Auth+Priv), User Name, Auth Protocol (MD5), Auth Password, Privacy Protocol (DES), and Privacy Password. Buttons for Apply and Reset are at the bottom right.

[SNMP Setting]

- **Network Services:** On this page, you can set up DDNS, DHCP, SMTP, SNMP, and RADIUS of the system.
- **SNMP:** On the SNMP Agent page, choose “Enable” to use SNMP v1, v2c, v3 service. On the SNMP Trap page, you can set up the SNMP Trap Configuration.
- Click “Apply” to apply the setting.

System Menu – Network Services



The screenshot shows the Smart AP Control web interface for configuring the SNMP Trap settings. The top navigation bar indicates there are 3 AP(s), 1 Client(s), and 2 Group(s) currently managed.

The main page title is "Home > SNMP Agent". The "SNMP Trap" tab is active. The configuration section is titled "SNMP Trap Configuration".

The configuration fields include:

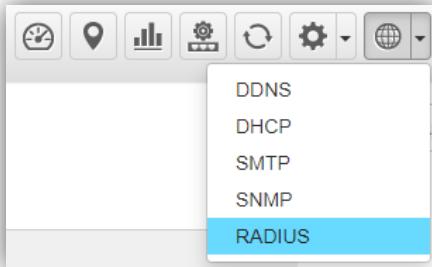
- SNMP Trap Mode: Enable (selected)
- Trap Version: SNMP v1
- Trap Community: PLANET
- Trap Destination IP Address 1: 192.168.1.1
- Trap Destination IP Address 2: (empty)
- Trap Destination Port: 3200 (1 to 65535)
- Trap Security Level: AuthPRiv
- Trap Information Timeout: 3200 (1 to 65535)
- Trap Information Retry Times: 150 (0 to 255)
- Trap Security Engine ID: (empty)
- Trap Security Name: (empty)
- Trap Auth Protocol: MD5
- Trap Auth Password: (empty)
- Trap Privacy Protocol: DES
- Trap Privacy Password: (empty)

The "SNMP Trap Events" section includes checkboxes for trap types:

- SNMP Trap Mode: Warm Start (checked), Cold Start (unchecked)
- Interface: Link Up (checked), Link Down (checked)

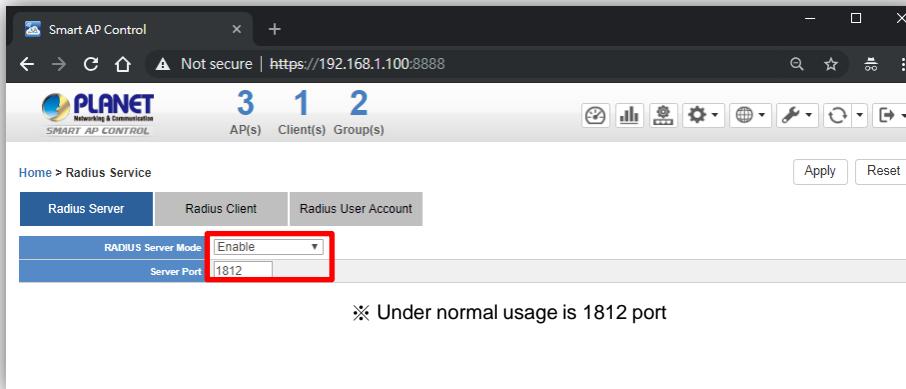
[SNMP Trap Configuration]

System Menu – Network Services



[System Menu – RADIUS]

- **Network Services:** On this page, you can set up DDNS, DHCP, SMTP, SNMP, and RADIUS of the system.
- **RADIUS:** On the RADIUS page, choose “Enable” to use RADIUS service. On RADIUS Client page and RADIUS User Account page, you can see the detailed information of them.
- Click “Apply” to apply the setting.



Smart AP Control

Not secure | https://192.168.1.100:8888

PLANET Networking & Communication SMART AP CONTROL

3 AP(s) 1 Client(s) 2 Group(s)

Radius Server Radius Client Radius User Account

RADIUS Server Mode: **Enable** Server Port: **1812**

※ Under normal usage is 1812 port

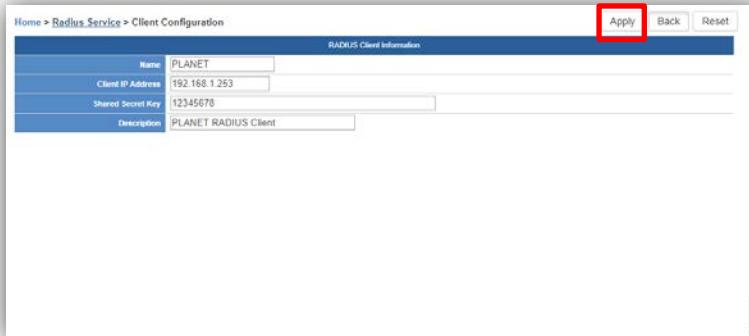
[RADIUS Setting]

System Menu – Network Services



[System Menu – RADIUS Client]

- [Add Radius Client Configuration](#): On this page, you can set up Name, Client IP, Shared Secret Key, and Description of the system.
- Click “Apply” to apply the setting.
- [AP RADIUS Setup](#): You should go to AP’s Web UI to RADIUS page to set up Radius Server IP, Password and Server Port (1812), and enable the function.



This screenshot shows the 'Client Configuration' page for a RADIUS client. The page has a header 'RADIUS Client Information'. It contains four input fields: 'Name' (PLANET), 'Client IP Address' (192.168.1.253), 'Shared Secret Key' (12345678), and 'Description' (PLANET RADIUS Client). Below the fields is a row of buttons: 'Apply' (highlighted with a red box), 'Back', and 'Reset'.

[RADIUS Client Setting]

System Menu – Network Services

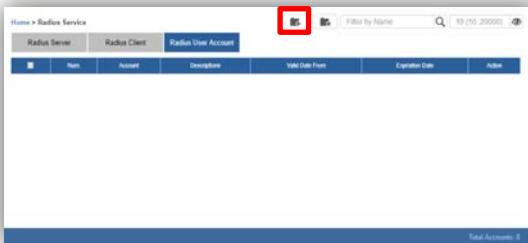
Home > Radius Service

	Radius Server	Radius Client	Radius User Account			
	Num.	Name	Client IP Address	Secret Key	Description	Action
<input type="checkbox"/>	1	PLANET	192.168.1.253	12345678	PLANET RADIUS Client	 

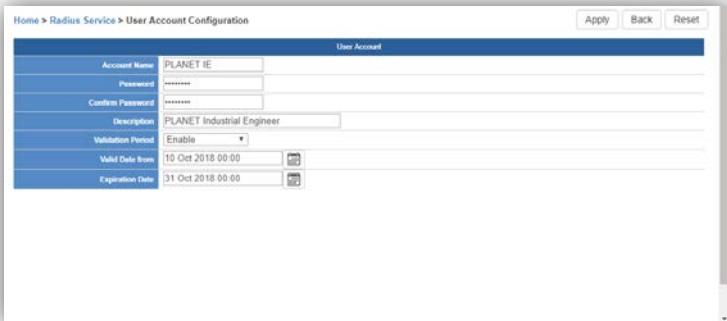
Total Clients: 1

[RADIUS Client Setting Finished]

System Menu – Network Services



[System Menu – RADIUS]


 A screenshot of a 'User Account' configuration form. The form fields include:

- Account Name: PLANET IE
- Password: (redacted)
- Confirm Password: (redacted)
- Description: PLANET Industrial Engineer
- Validation Period: Enable
- Valid Date From: 10 Oct 2018 00:00
- Expiration Date: 31 Oct 2018 00:00

 The form has 'Apply', 'Back', and 'Reset' buttons at the top right.

[RADIUS User Account Setting]

- **Add RADIUS User Account:** On this page, you can set up Account Name, Password, Description, and Validation Period information of the system.
- Click “Apply” to apply the setting.

System Menu – Network Services

Home > Radius Service

Radius Server	Radius Client	Radius User Account				
<input type="checkbox"/>	Num.	Account	Description	Valid Date From	Expiration Date	Action
<input type="checkbox"/>	1	PLANET IE	PLANET Industrial Engineer	10 Oct 2018 00:00	31 Oct 2018 00:00	 

Total Accounts: 1

[RADIUS User Account Setting Finished]



SYSTEM MENU - MAINTENANCE

System Menu – Maintenance



[System Menu – Maintenance]

- **Backup/Restore:** On this page, you can back up and restore the system profiles with the system file (*.tar.gz.enc).
- Click “backup” to start backing up the system profiles file in HDD or USB.
- Use the “Choose File” button to choose the right system profiles file and click “restore” to start restoring the system.
- Please use the system default file name to restore system, or it may fail.



Home > Maintenance > Backup/Restore

System Setting		Raw Data	
Mode	<input type="radio"/> Local <input checked="" type="radio"/> USB	Option	<input checked="" type="radio"/> Backup <input type="radio"/> Restore
 HDD Detected  Bad Format  Not Detected			
Status	Volume	Capacity	Free Space
	No data	No data	No data
Information USB HDD not detected			

Please format the USB HDD to FAT32 on a windows platform before using it for backup!

[System Setting]

System Menu – Maintenance



[System Menu – Maintenance]

- [Backup/Restore](#): On this page, you can [back up the raw data](#) file.
- [Auto Daily Backup](#): Enable to backup raw data everyday in USB.
- [Disk Utilization Threshold](#): Hyperlink to configure the Storage Threshold page.
- [Manual Backup](#): Click button to back up raw data immediately in USB.
※ Installation of USB storage is required.

Home > Maintenance > Backup/Restore

System Setting Raw Data

Auto Daily Backup Backup raw data will at 00:00 everyday, please don't shutdown the power.

Disk Utilization Threshold 85% 

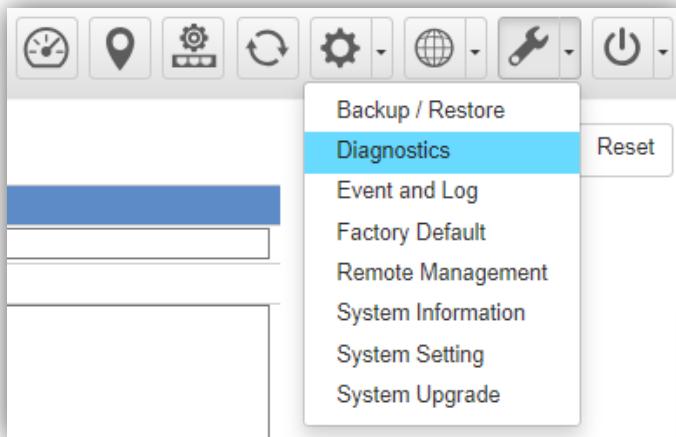
HDD Detected Bad Format Not Detected

Status	Volume	Capacity	Free Space	Information
	No data	No data	No data	USB HDD not detected

Please format the USB HDD to FAT32 on a windows platform before using it for backup!

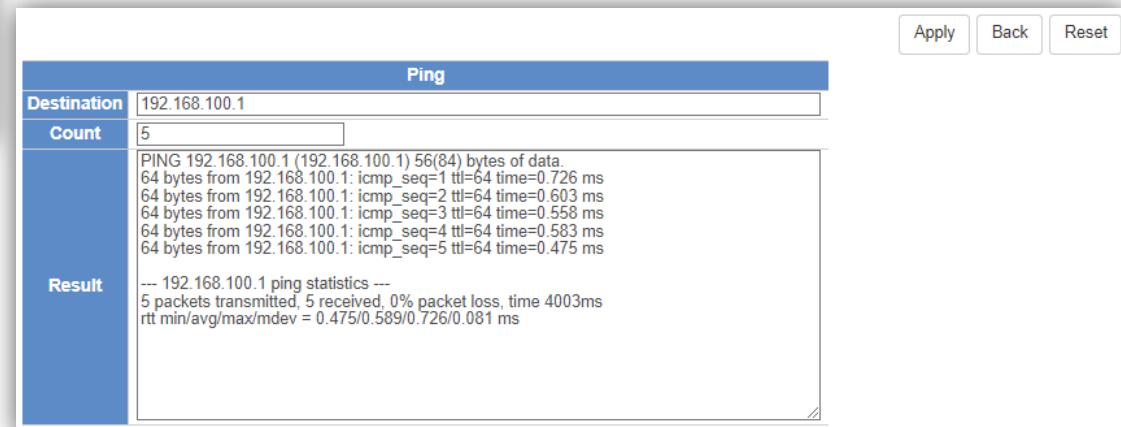
[Raw Data]

System Menu – Maintenance



[System Menu – Maintenance]

- **Diagnostics:** On this page, you can use ping tool to ping the other devices.



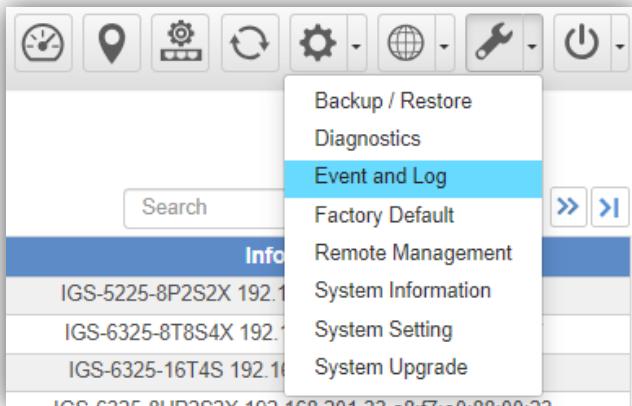
The screenshot shows a 'Ping' tool window. At the top, there are buttons for Apply, Back, and Reset. The 'Destination' field contains '192.168.100.1'. The 'Count' field contains '5'. The 'Result' section displays the following output:

```

PING 192.168.100.1 (192.168.100.1) 56(84) bytes of data.
64 bytes from 192.168.100.1: icmp_seq=1 ttl=64 time=0.726 ms
64 bytes from 192.168.100.1: icmp_seq=2 ttl=64 time=0.603 ms
64 bytes from 192.168.100.1: icmp_seq=3 ttl=64 time=0.558 ms
64 bytes from 192.168.100.1: icmp_seq=4 ttl=64 time=0.583 ms
64 bytes from 192.168.100.1: icmp_seq=5 ttl=64 time=0.475 ms

--- 192.168.100.1 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4003ms
rtt min/avg/max/mdev = 0.475/0.589/0.726/0.081 ms
  
```

System Menu – Maintenance



[System Menu – Maintenance]

- **Event and Log:** Click “System Setting” to [adjust the Brightness](#) of touch screen. (Only for NMS-1000V)
- **Search Field:** To choose the information you want by entering the key word.

System Event

- ◆ Press the “Event” icon (No. 1) to see the full system event by day.
- ◆ Press the “<<”& “>>” icon (No. 2) to select daily report.

Home > Maintenance > Event and Log

1. **Event** 2. **<< 2023-11-23 >>**

ID	Type	Time	Source	Status	Device Type	Information
1	System	17:31:15	192.168.100.5	Connect	Industrial Switch	IGS-6325-8T8S4X 192.168.201.31 a8:f7:e0:61:d9:9f
2	System	17:31:15	192.168.100.5	Connect	Industrial Switch	IGS-6325-8UP2S2X 192.168.201.33 a8:f7:e0:88:00:23
3	System	17:31:15	192.168.100.5	Connect	Industrial Switch	IGS-5225-8P2S2X 192.168.203.12 a8:f7:e0:74:44:91
4	System	17:31:15	192.168.100.5	Connect	Industrial Switch	IGS-6325-16T4S 192.168.201.32 a8:f7:e0:6a:6b:71
5	System	17:31:15	192.168.100.5	Disconnect	IP Power Management	EPD-1506VR-US 192.168.100.83 4c:13:65:04:eb:93
6	System	17:31:15	192.168.100.5	Disconnect	Switch	M4250-9G1F-PoE 192.168.100.194 94:18:65:65:a0:e0
7	System	17:31:15	192.168.100.5	Disconnect	IP Power Management	IPM-8221 192.168.100.84 00:50:56:c2:00:08
8	System	17:31:15	192.168.100.5	Disconnect	Industrial Switch	IGS-5225-4P2S 192.168.201.37 a8:f7:e0:61:b9:d8
9	System	17:31:15	192.168.100.5	Disconnect	Industrial Switch	IGS-5225-4T2S(v2) 192.168.201.36 a8:f7:e0:2f:10:4e
10	System	17:31:15	192.168.100.5	Disconnect	Industrial Switch	WGS-5225-8T2SV 192.168.202.41 a8:f7:e0:5b:4d:8c
11	System	17:31:04	192.168.100.5	Disconnect	Industrial Switch	IGS-5225-8P2S2X 192.168.203.12 a8:f7:e0:74:44:91
12	System	17:31:04	192.168.100.5	Disconnect	Industrial Switch	IGS-6325-8T8S4X 192.168.201.31 a8:f7:e0:61:d9:9f
13	System	17:31:04	192.168.100.5	Disconnect	Industrial Switch	IGS-6325-16T4S 192.168.201.32 a8:f7:e0:6a:6b:71

Syslog Server

- ◆ Press the “Syslog” icon (No. 1) to see the full syslog by day (Open the devices remote syslog function.).
- ◆ Press the “<<” & “>” icon (No. 2) to select daily report.
- ◆ Press the “Drop-down ” menu (No. 3) to select severity and device ID.

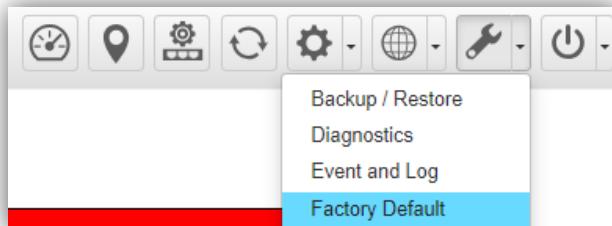


Click button to clear all syslog in NMS immediately.

1. 2. 3.

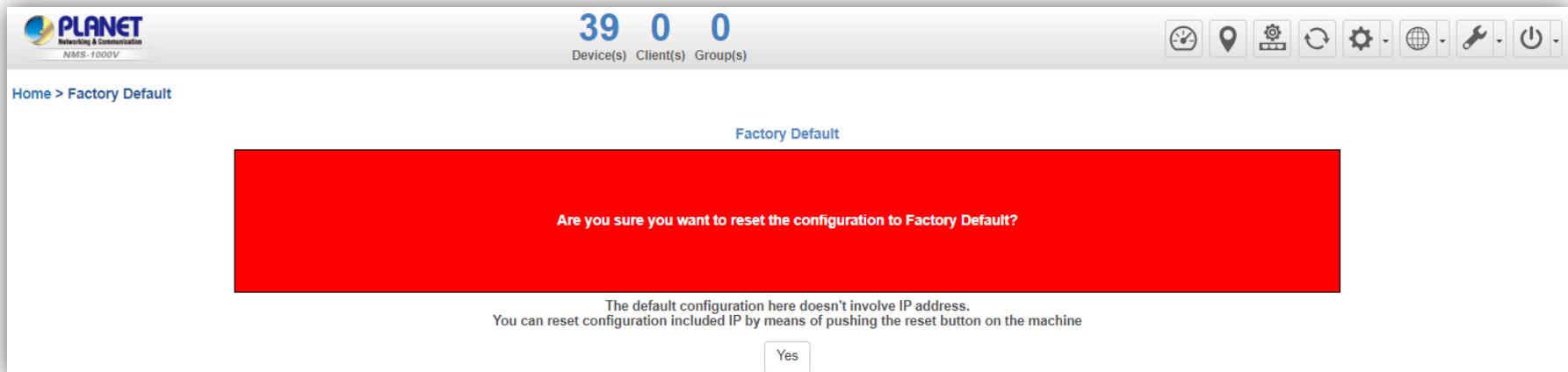
Event	Syslog	<< 2023-11-23 >>	Severity: Any	Device: Any		Search	Clear	1 / 956	>> >>
ID	Severity	Time	Source		Information				
1	Informational	17:34:50	192.168.100.1 (VR-300)		Nov 23 17:31:14 VR-300 : 08[NET] received packet: from 10.1.16.2[500] to 10.1.22.150[500] (92 bytes)				
2	Informational	17:34:50	192.168.100.1 (VR-300)		Nov 23 17:31:14 VR-300 : 08[ENC] parsed INFORMATIONAL_V1 request 4195056392 [HASH N(DPD)]				
3	Informational	17:34:50	192.168.100.1 (VR-300)		Nov 23 17:31:14 VR-300 : 08[ENC] generating INFORMATIONAL_V1 request 4149599449 [HASH N(DPD_ACK)]				
4	Informational	17:34:50	192.168.100.1 (VR-300)		Nov 23 17:31:14 VR-300 : 08[NET] sending packet: from 10.1.22.150[500] to 10.1.16.2[500] (92 bytes)				
5	Informational	17:34:20	192.168.100.1 (VR-300)		Nov 23 17:30:44 VR-300 : 07[NET] received packet: from 10.1.16.2[500] to 10.1.22.150[500] (92 bytes)				
6	Informational	17:34:20	192.168.100.1 (VR-300)		Nov 23 17:30:44 VR-300 : 07[ENC] parsed INFORMATIONAL_V1 request 3082799402 [HASH N(DPD)]				
7	Informational	17:34:20	192.168.100.1 (VR-300)		Nov 23 17:30:44 VR-300 : 07[ENC] generating INFORMATIONAL_V1 request 3668208006 [HASH N(DPD_ACK)]				
8	Informational	17:34:20	192.168.100.1 (VR-300)		Nov 23 17:30:44 VR-300 : 07[NET] sending packet: from 10.1.22.150[500] to 10.1.16.2[500] (92 bytes)				
9	Informational	17:33:50	192.168.100.1 (VR-300)		Nov 23 17:30:14 VR-300 : 06[NET] received packet: from 10.1.16.2[500] to 10.1.22.150[500] (92 bytes)				

System Menu – Maintenance



- **Factory Default:** Click “Factory Default” to reset the system to factory default. Once clicked, the warning window will prompt you to reset system to default.

[System Menu – Maintenance]



39 0 0
Device(s) Client(s) Group(s)

Home > Factory Default

Factory Default

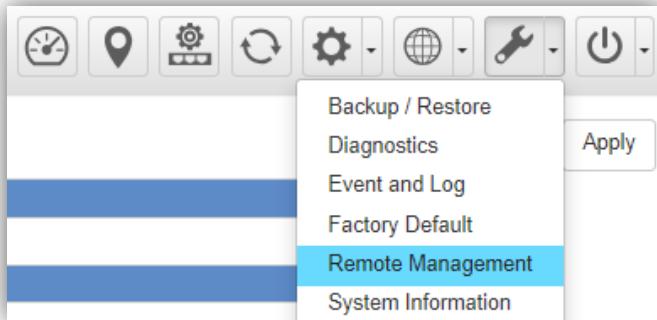
Are you sure you want to reset the configuration to Factory Default?

The default configuration here doesn't involve IP address.
You can reset configuration included IP by means of pushing the reset button on the machine

Yes

[Factory Default Warning]

System Menu – Maintenance



[System Menu – Maintenance]

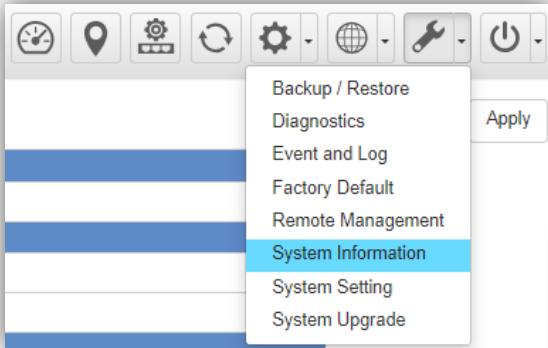
- **Remote Management:** On this page, you can set the profile for UNC-NMS to manage the NMS-500/NMS-1000V.
- **Remote Management drop-down menu:** To select the permissions of UNC-NMS to monitor or control NMS-500/NMS-1000V.
- **Server DNS or IP Address:** Enter the UNC-NMS DNS or IP address.
- **Port:** Enter the UNC-NMS control port (default is 8887).
- **Import UNC-NMS CA:** To import the UNC-NMS CA file into NMS-500/NMS-1000V. (Account/Password/Device ID will be automatically taken out)

Home > Maintenance > Remote Management

NMS Agent Configuration							
Remote Management: <input type="button" value="Disable"/> <input style="background-color: #0070C0; color: white; border: 1px solid #0070C0; padding: 2px 5px; border-radius: 5px;" type="button" value="Enable"/> Server DNS or IP Address: <input type="text" value="192.168.1.1"/> Port: <input type="text" value="8887"/>	External NMS Server: <input type="text" value="192.168.1.1"/> Authentication: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Account:</td> <td><input type="text" value="test"/></td> </tr> <tr> <td>Password:</td> <td><input type="text" value="test"/></td> </tr> <tr> <td>Device ID:</td> <td><input type="text"/></td> </tr> </table>	Account:	<input type="text" value="test"/>	Password:	<input type="text" value="test"/>	Device ID:	<input type="text"/>
Account:	<input type="text" value="test"/>						
Password:	<input type="text" value="test"/>						
Device ID:	<input type="text"/>						
<input type="button" value="Apply"/>							
Import UNC-NMS CA <input checked="" type="checkbox" value="Replace CA"/> <small>選擇檔案</small> <small>未選擇任何檔案</small>							

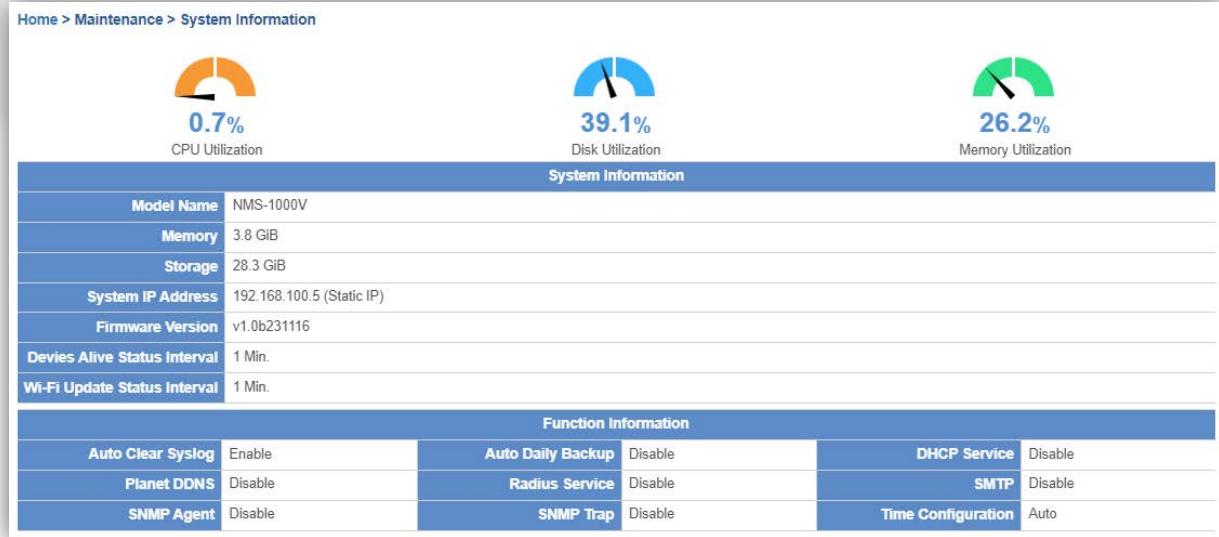
[Remote Management]

System Menu – Maintenance

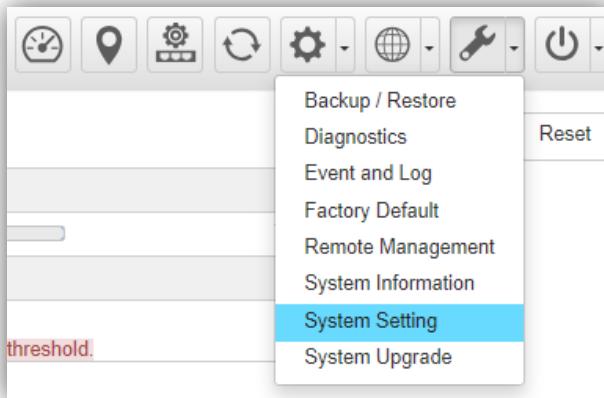


[System Menu – Maintenance]

➤ **System Information:** On this page, you can overview the NMS system information, just like the CPU/Disk/Memory Utilization, FW version, etc.



System Menu – Maintenance



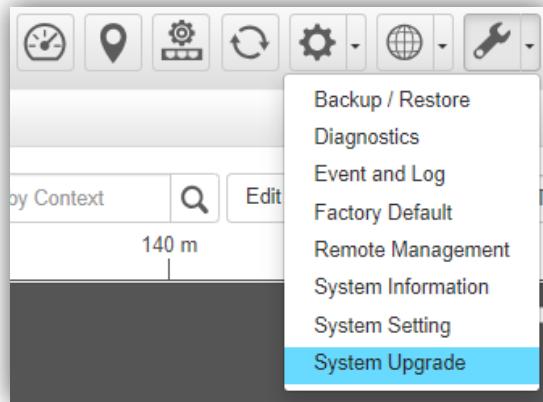
- **System Setting:** Click “System Setting” to **adjust the Brightness** of touch screen. (Only for NMS-1000V)
- **Auto Logout Time:** Set auto logout time when idle NMS Web.
- **Auto Clear Syslog:** Default enable auto clear Syslog when disk utilization reaches 85% storage threshold.
- **Storage Threshold:** Default enable auto clear Raw data when disk utilization reaches 85% storage threshold.

[System Menu – Maintenance]

Home > Maintenance > System Setting

	Apply	Reset
Auto Logout Time	<input type="checkbox"/> Manual <input type="text" value="5 hour"/>	
Brightness Adjust	<input type="range" value="70"/>	
Auto Clear Syslog	<input checked="" type="checkbox"/> Disk Utilization 85%	
Storage Threshold	<input checked="" type="checkbox"/> Disk Utilization 85% ⓘ	
To keep the system stable, auto cleaning of Raw Data in the disk is a must when it reaches the storage threshold.		

System Menu – Maintenance



- **System Upgrade:** On this page, you can upgrade the system to the latest version with new patch.
- Click “Choose File” to designate the system patch file for upgrade. Then, click the upgrade icon at the upper-right corner to start the system upgrade.
- Please regularly check PLANET official website for the system upgrade file.

*Only by remote login be used for the NMS-1000V to do firmware upgrade.

[System Menu – Maintenance]



Home > Maintenance > System Upgrade

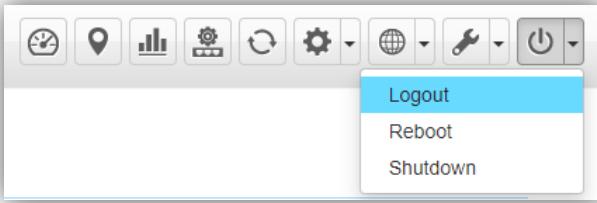
Current version	v1.0b231116
File name	<input type="button" value="選擇檔案"/> 未選擇任何檔案

[System Upgrade]



SYSTEM MENU - EXIT

System Menu – Exit



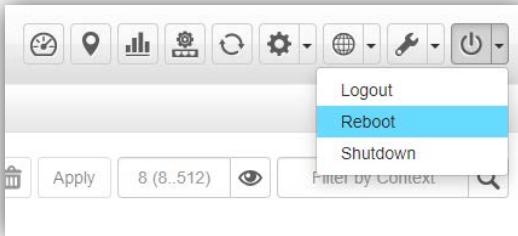
[System Menu – Logout]

- **Exit:** On this page, you can log out, reboot, or shut down the system.
- **Logout:** Click “Logout” to log out the system.
- Once clicked, the login window will prompt you to re-log in the system.



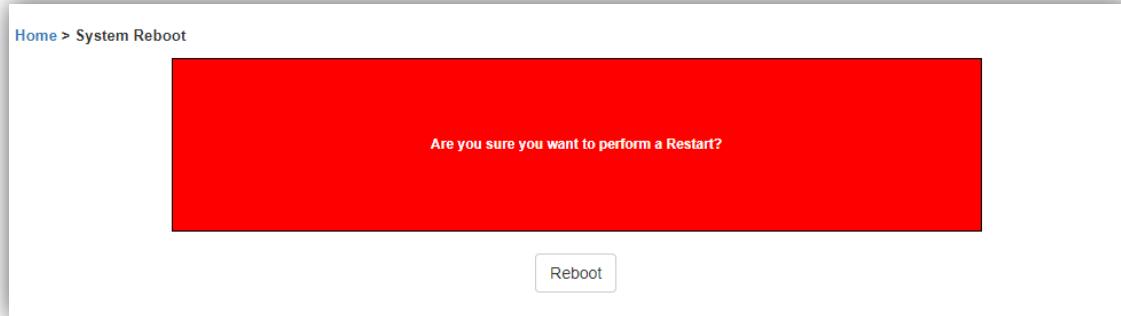
[Login Window]

System Menu – Exit



[System Menu – Reboot]

- **Logout:** On this page, you can log out, reboot, or shut down the system.
- **Reboot:** Click “Reboot” to restart the system.
- **Shutdown:** Click “Shutdown” to close the system and shut down the MV.
- Once clicked, the warning window will prompt you to reboot or shut down the system.



[Reboot Warning]



HDMI OUTPUT

HDMI Output

➤ **HDMI Output:** NMS-1000V-12 and NMS-1000V-10 support HDMI Output function.

※ Please follow the steps below to make sure this function works correctly.

- 1 · Open NMS-1000 to log in page.
- 2 · Make sure the TV or Screen supports [resolutions of 1024 x 768](#) for best optimization.
- 3 · Connect NMS-1000V and TV or Screen with HDMI cable.



APPENDIX

Appendix – MQTT Devices Support List

Please click



Supported Devices

Switch / Industrial Switch / Router / AP

Photo	Model	Description	Version	Release Date	Download
Switch					
	GS-4210-24T2S	24-Port Layer 2 Managed Gigabit Ethernet Switch W/2 SFP Interfaces	v2.305b201130	2020-11-30	
	GS-4210-16T2S	16-Port Layer 2 Managed Gigabit Ethernet Switch W/2 SFP Interfaces	v2.305b200904	2020-09-04	
	GS-4210-8P2S	8-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000X SFP Managed Switch	v2.305b200904	2020-09-04	

Appendix – Console

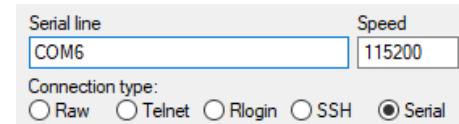
- When the “UNI-NMS login” appears, please enter user login account “adminuser”, and password “adminuser”.

COM6 - PuTTY

```
NMS-500 login: adminuser
Password:
1) View IP Status      4) Factory Default      7) Shutdown
2) Ping                 5) Logout                  8) System Information
3) Restart Network     6) Reboot                 9) BIOS Information

Please enter your choice: 1
IP Address: 192.168.3.110
Netmask: 255.255.255.0
Gateway: 192.168.3.254
Please enter your choice: 2
Please input IP Address: 192.168.3.254
PING 192.168.3.254 (192.168.3.254) 56(84) bytes of data.
64 bytes from 192.168.3.254: icmp_seq=1 ttl=64 time=0.556 ms
64 bytes from 192.168.3.254: icmp_seq=2 ttl=64 time=0.675 ms
64 bytes from 192.168.3.254: icmp_seq=3 ttl=64 time=0.530 ms

--- 192.168.3.254 ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2000ms
rtt min/avg/max/mdev = 0.530/0.587/0.675/0.063 ms
Please enter your choice: 3
Restart network will take a few seconds
.....Network restart finished.
Please enter your choice: 4
[WARNING] All the configuration will lose. System will reboot at the end of fact
Do you wish to run factory default? [N/y]n
Please enter your choice: 5
```



```
NMS-500 login: adminuser
Password:
1) View IP Status      4) Factory Default      7) Shutdown
2) Ping                 5) Logout                  8) System Information
3) Restart Network     6) Reboot                 9) BIOS Information

Please enter your choice: 8
Firmware Version:
  v1.0b231002
MAC Address:
  a8:f7:e0:aa:da:12
  a8:f7:e0:aa:da:13
  a8:f7:e0:aa:da:14
  a8:f7:e0:aa:da:15
  a8:f7:e0:aa:da:16
Please enter your choice: 9
BIOS Information
  Vendor: American Megatrends Inc.
  Version: 5.12
  Release Date: 09/27/2022
Please enter your choice: 9
```



THANK YOU