Prism Mesh Router

User Guide v1.1

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Contents

About this Guide

Purpose

This document provides information of web configuration of the Prism Mesh Access Points:

- MI10
- MO10

Prerequisite Skills and Knowledge

To use this document effectively, you should have a working knowledge of Local Area Networking (LAN) concepts and wireless Internet access infrastructures. In addition, you should be familiar with the following:

- Hardware installers should have a working knowledge of basic electronics and mechanical assembly, and should understand related local building codes.
- Device administrators should have a solid understanding of device management, network operations and troubleshooting knowledge.
-

Conventions Used in this Document

The following typographic conventions and symbols are used throughout this document:

	Very important information. Failure to observe this may result in damage.
	Important information that should be observed.
	Additional information that may be helpful but which is not required.
bold	Menu commands, buttons and input fields are displayed in bold
`code`	File names, directory names, form names, and system-generated output such as error messages are displayed in constant-width type
`<value>`	Placeholder for certain values, e.g. user inputs
[value]	Input field format, limitations, and/or restrictions.

Chapter 1 – Introduction

Thank you for choosing the Prism Mesh Access Point product.

The Prism Mesh Access Point product features 2.4GHz+5GHz 2x2 and 5GHz 4x4 tri-band with a superior connectivity capability across large-range density deployments such as office spaces, training and meeting facilities, shopping mall and hotel.

By utilizing AX6600 data rate, Prism Mesh Access Point product handles multiple clients on each channel, regardless of device or traffic type, delivers very high speed and reliable wireless connection in both outdoor and indoor environments.

Configuration

Access and configure the access point by executing web browser and enter IP address. The default IP address is:

MO10 `IP 192.168.1.1 subnet 255.255.255.0` on WAN port

MI10 `IP 192.168.2.1 subnet 255.255.255.0` on LAN port

`IP 192.168.1.1 subnet 255.255.255.0` on WAN port

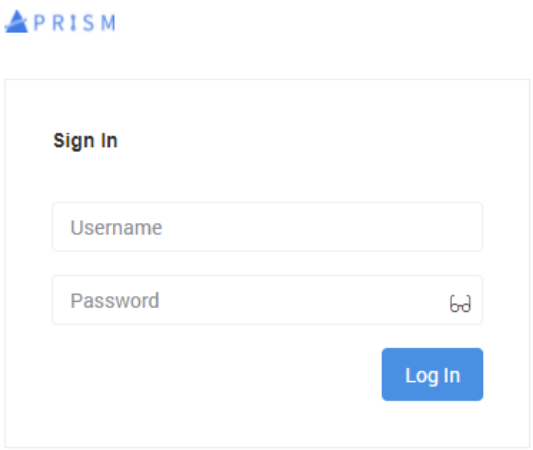
Step 1 Configure your PC with a static IP address on the 192.168.1.x subnet with mask 255.255.255.0. Connect the Access Point into the same physical network as your PC. Open the Web browser and type the default IP address.

ℹ	Please refer to quick installation guide for hardware installation and physical Ethernet port connection on each model.

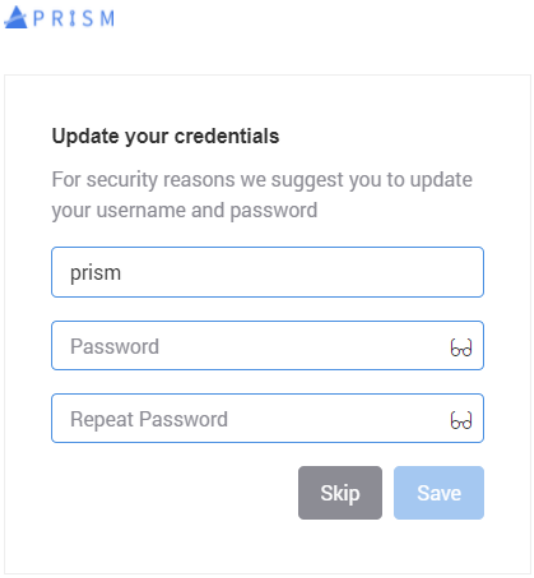
Step 2 Enter the administrator login details to access the Web management.

ℹ	The default administrator settings for web interfaces are: Username: **prism** Password: **prism**

Click Log In to proceed:



You can choose to click Skip or enter a new password then click Save to proceed:



Chapter 2 – Web Menu

This chapter describes the configuration menu page of the Prism Mesh Access Point which works in AP mode, Station mode or Mesh mode by using the Web Interface configuration.

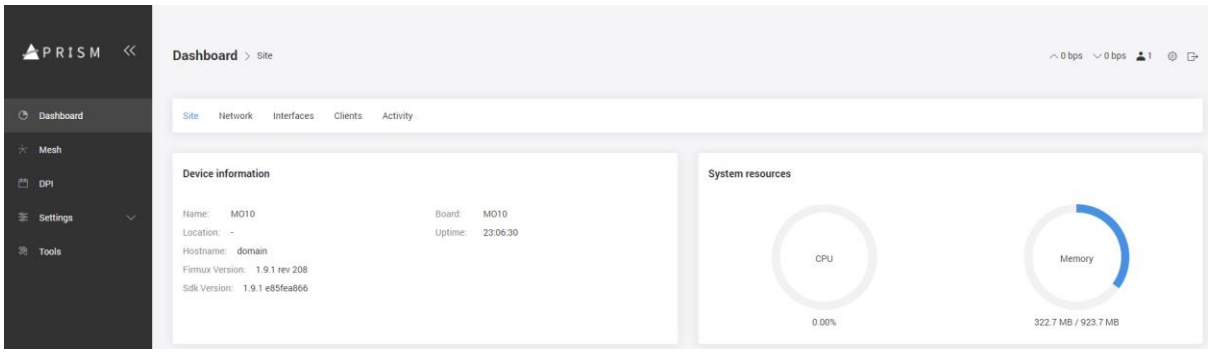
!	The default configuration is AP mode.

The **main menu** consists of the following sub menus:

- **Dashboard** – to show current status
- **Mesh** – to perform Mesh Wizard and show mesh connection information
- **DPI** – to detect and show user's traffic and application information
- **Settings** – to configure the access point
- **Tools** – built-in tools that help to debug the connection

Web Interface

The dashboard page is displayed after successfully logging into the system (see the figure below). From this menu all essential configuration pages are accessible.



The **web management** has the following structure:

Dashboard

Site – show the status related with the whole device

Network – show the status of the network

Interfaces – show the status of each interface, including Ethernet and radios

Client – show the status of client (users) information

Activity – show the event log related to the access point

Mesh

Mesh Wizard – perform mesh configuration

Mesh Information – show the status of the mesh interface, including CAP and RE

Topology – show the topology of mesh connection

DPI

DPI graphs – show user's traffic and application information

Settings

Network – specify the network parameters

Wireless – specify the settings of Wi-Fi radios

Services – specify management's interfaces

System – configure basic access point's information

Users – manage the login credentials

Tools

Site Survey – perform site survey on specific radio and show results

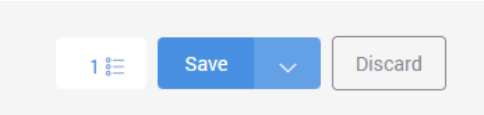
Ping – perform ping to specific address and show results

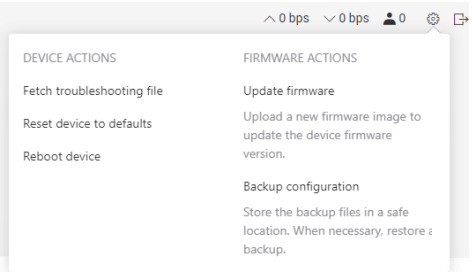
Traceroute – perform traceroute to specific address and show results

View log – show detailed syslog

Device discovery – perform and show discovered device

Speedtest – perform Speedtest and show results

!	Please click **Save** to make changes effective, or click **Discard** to drop changes on top menu. 

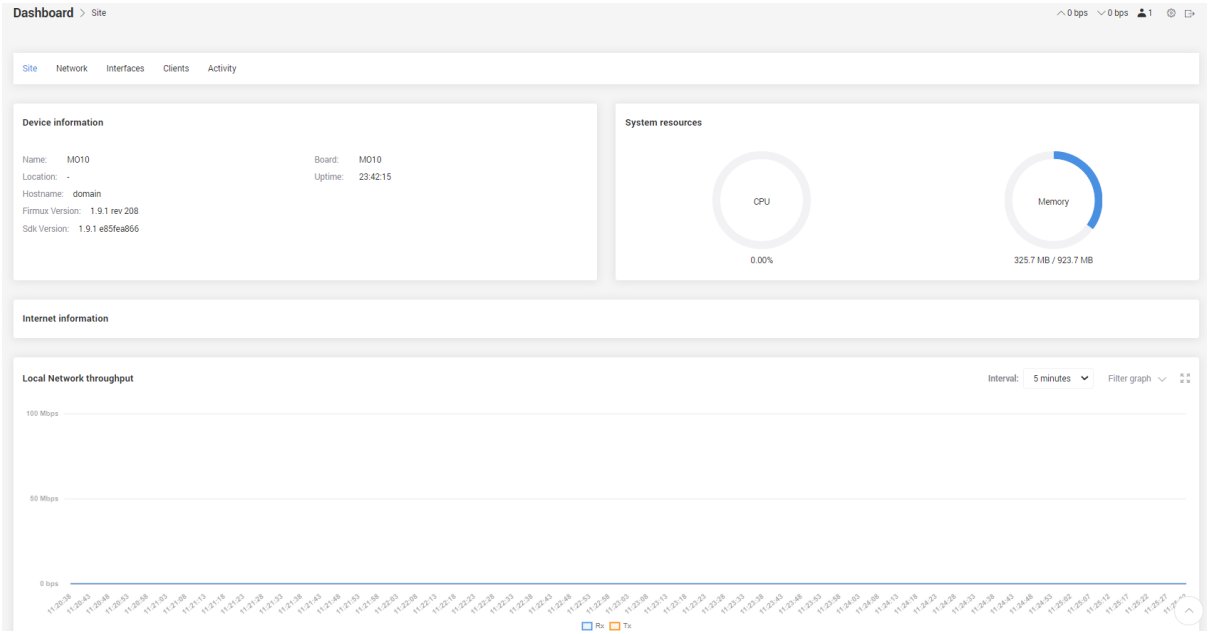
!	**Reset device to defaults**, **Reboot device**, **Update firmware** and **backup configuration** can be performed by clicking tool button on top menu. 

Chapter 3 - Dashboard

This chapter describes the dashboard page of the Prism Mesh Access Point.

Dashboard > Site

The **Site** page shows important information of system and network status.



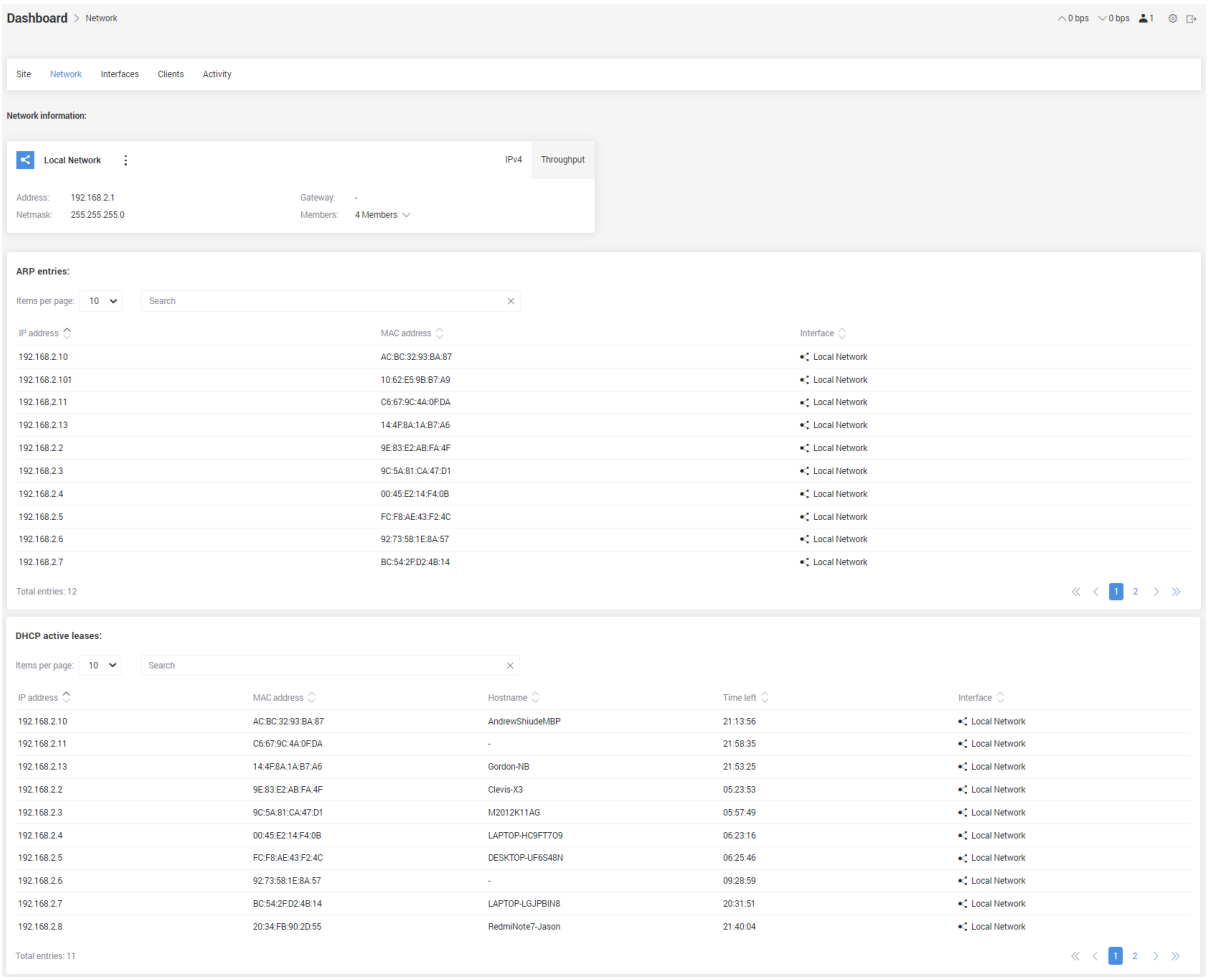
Device information – display the access point's basic information

System resources – display the system utilization

Local Network throughput – show the network throughput in 5 mins, 2 hours, day, week or year

Dashboard > Network

The **Network** page shows the status of the network



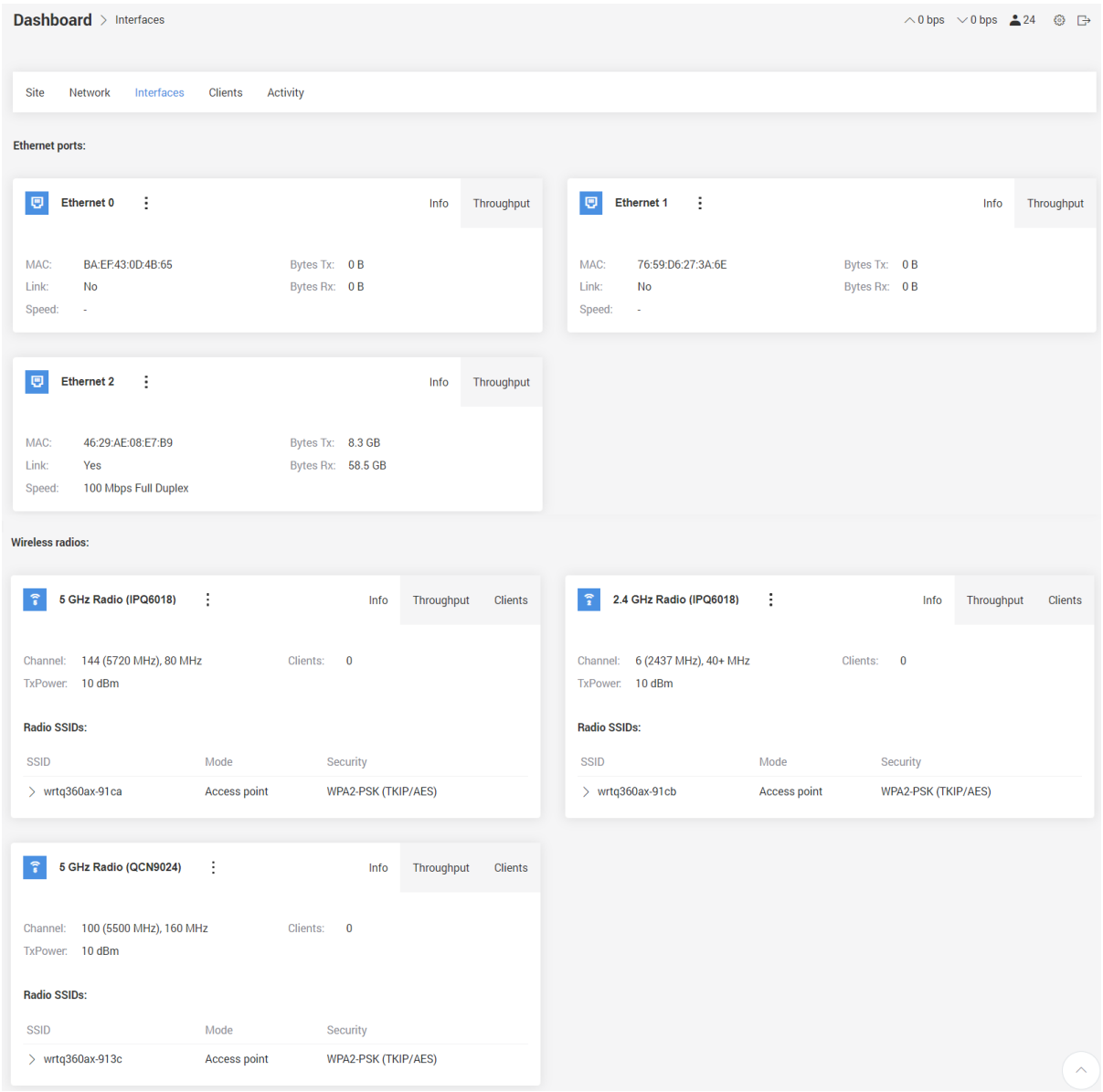
Local Network – display the IP information of network interface of the access point

ARP entries – show all IP and MAC information of the whole network

DHCP active leases – show DHCP active lease time

Dashboard > Interfaces

The **Interfaces** page shows the status of each interface, including Ethernet and radios.



Ethernet Ports – display the status of each Ethernet port

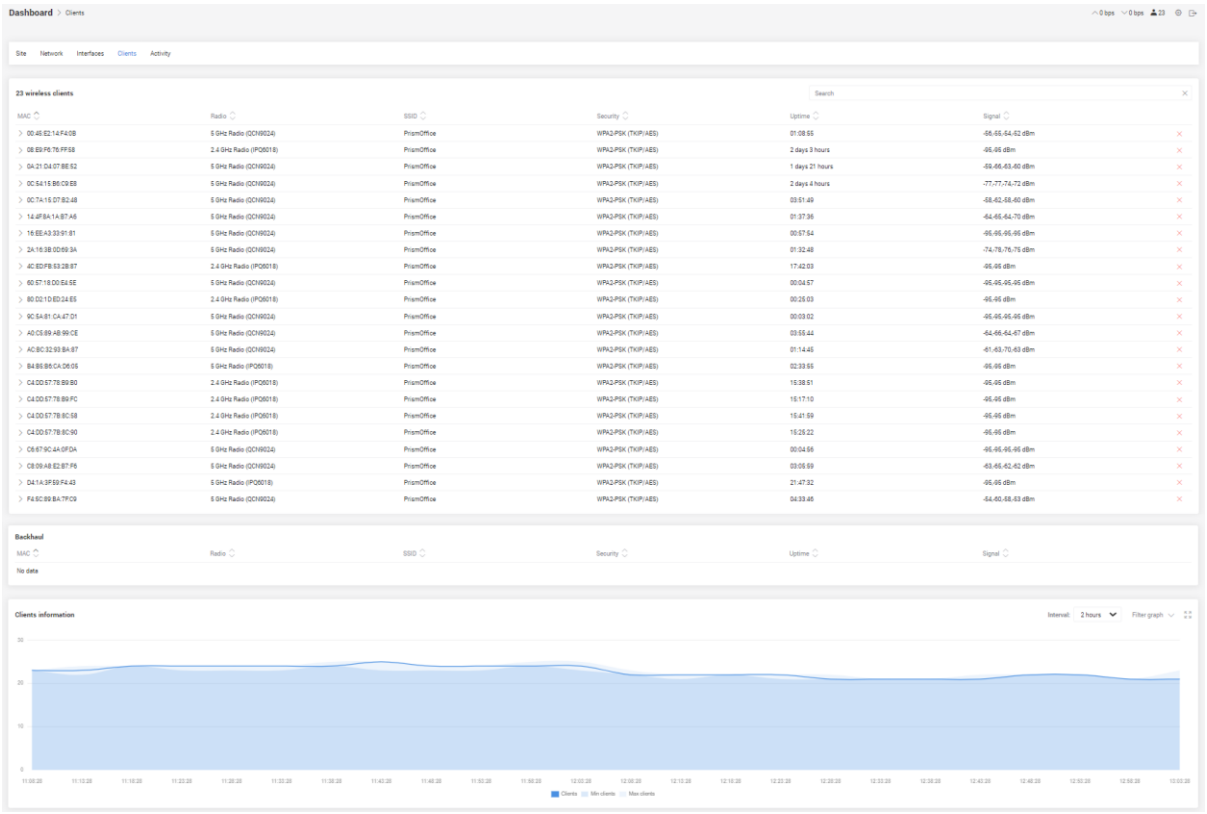
	For MI10, there are three Ethernet ports: - Ethernet 0 (LAN2) - Ethernet 1 (LAN1) - Ethernet 2 (WAN) For MO10, there is only one Ethernet port: - Ethernet 0 (water-proof Ethernet port)

Wireless Radios – display the status of each radio, including channel, bandwidth, Tx power, connected clients (users) and SSID information

	Please follow country-specific regulation.

Dashboard > Clients

The **Clients** page shows the status of connected clients (wireless users) information.



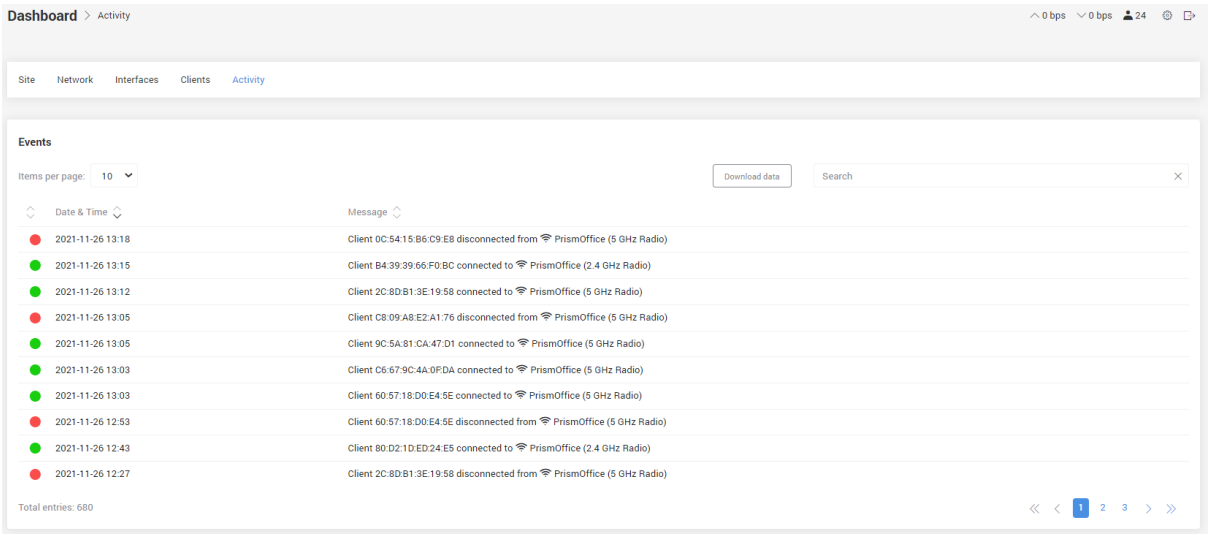
Wireless clients – show the connected clients (wireless users) information, including MAC, Radio, SSID, Security and Uptime

Backhaul – show the connected mesh clients information, including MAC, Radio, SSID, Security and Uptime

Clients information – show the numbers of connected clients in 2 hours, day, week or year

Dashboard > Activity

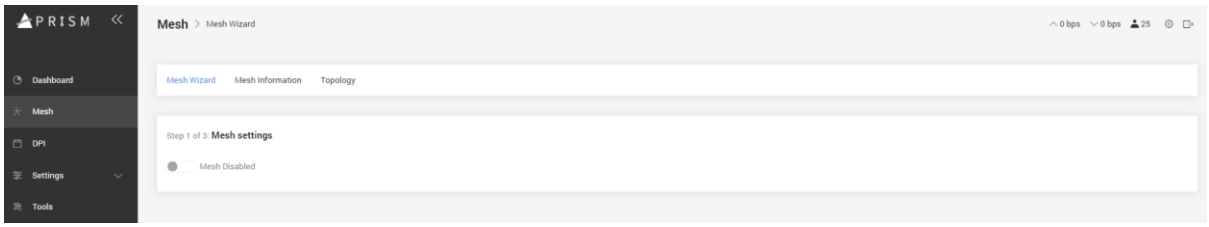
The **Activity** page shows the event log related to the access point.

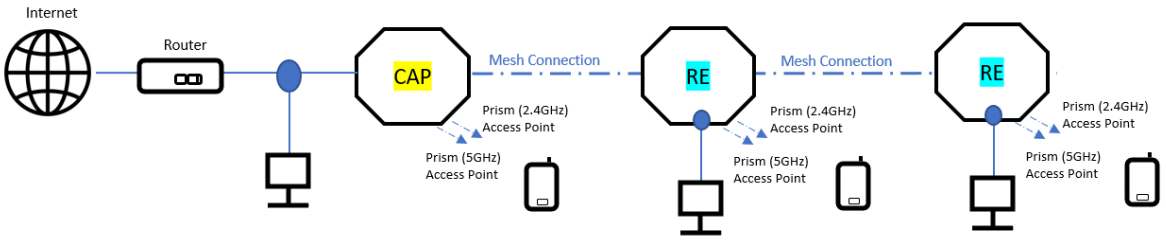


	Event log data is downloadable by clicking **Download data** button.

Chapter 4 - Mesh

This chapter describes the mesh configuration of the Prism Mesh Access Point.





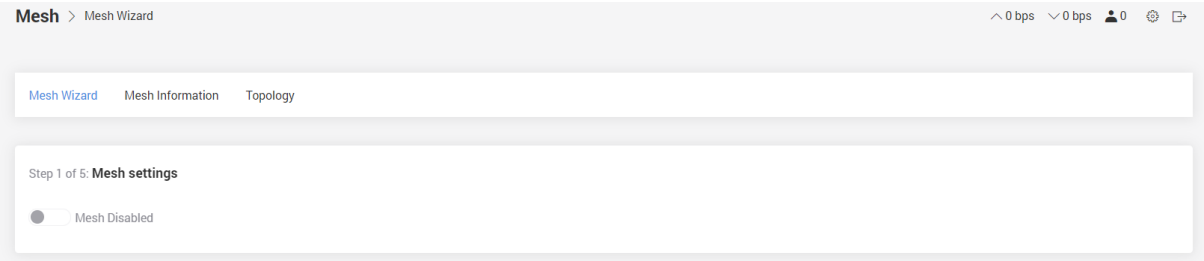
Central Aceess Point (CAP) is the Root (also known as Master) of mesh network that provides Internet connectivty to whole mesh network.

Range Extender (RE) is the Node (also known as Slave) of mesh network that extend Internet connectivity to remote area wirelessly.

	As far as throughput is concerned, suggest not to install more than 4 REs in a daisy chain.

Mesh > Mesh Wizard

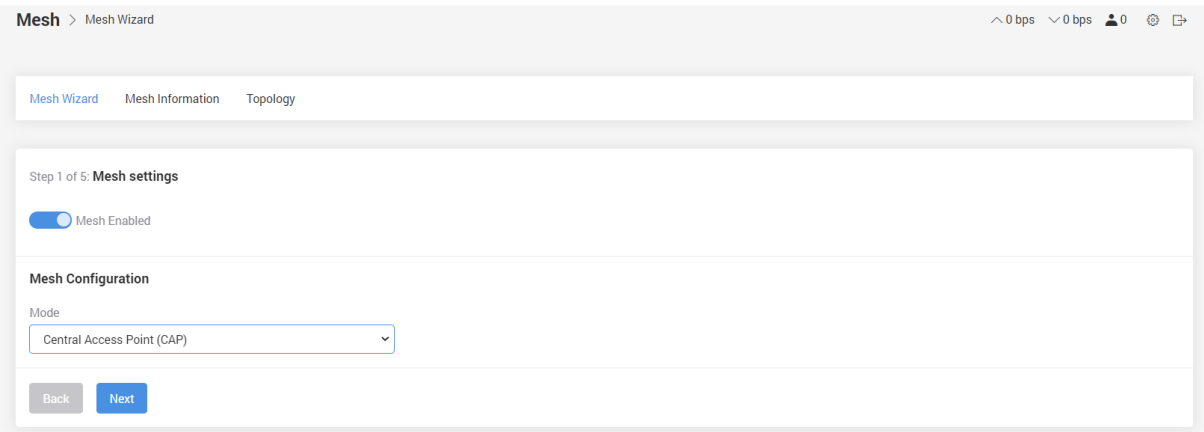
The **Mesh Wizard** page will guide you to establish mesh network step by step.



Mesh > Mesh Wizard (Create a CAP)

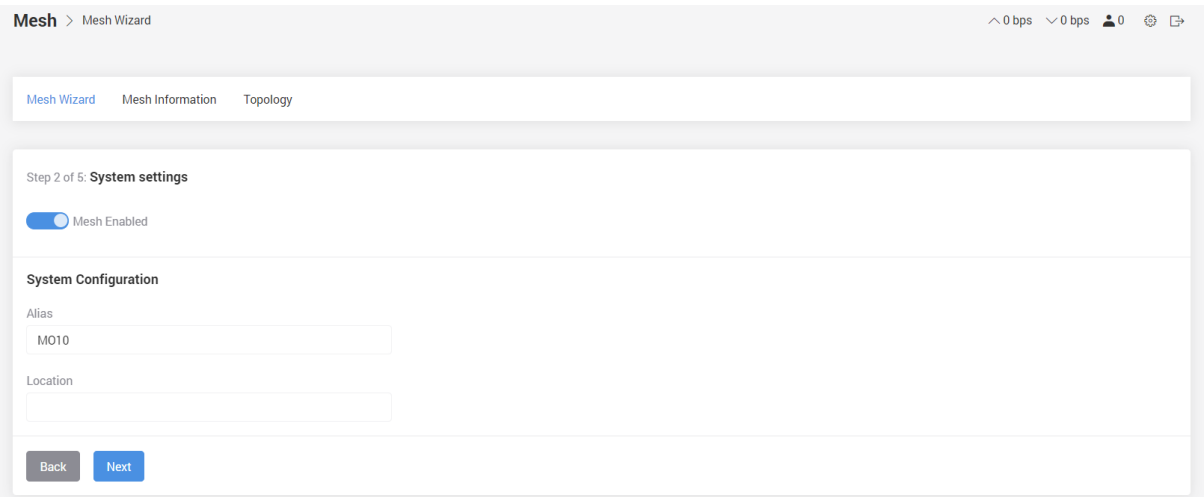
Step 1

To create a CAP, select **Central Access Point (CAP)** from **Mesh Configuration**, then click **Next**.



Step 2

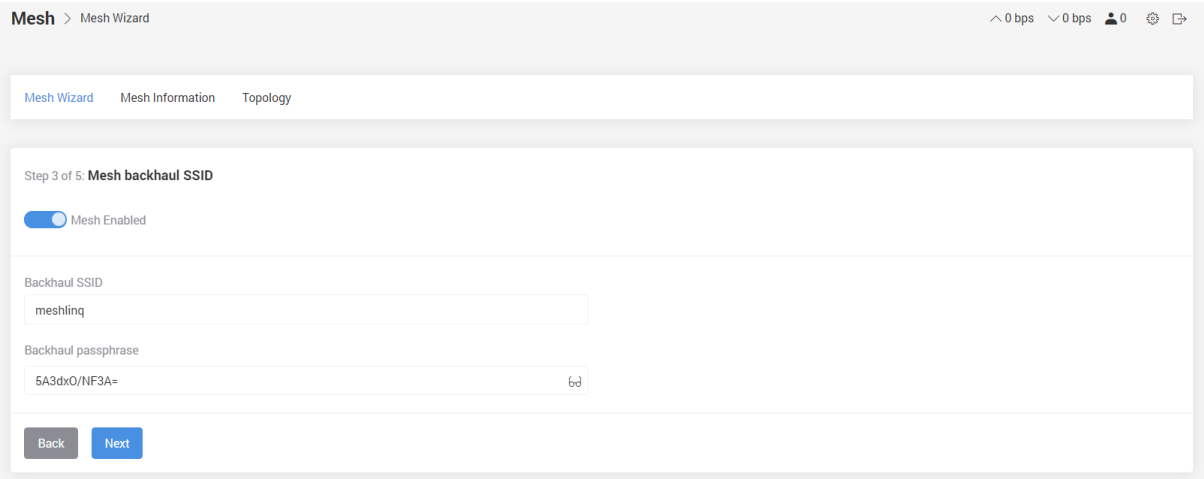
Enter **Alias** and **Location**, then click **Next**.



	Alias and **Location** can be kept blank.

Step 3

Enter **Backhaul SSID** and **Backhaul passphrase**, then click **Next**.



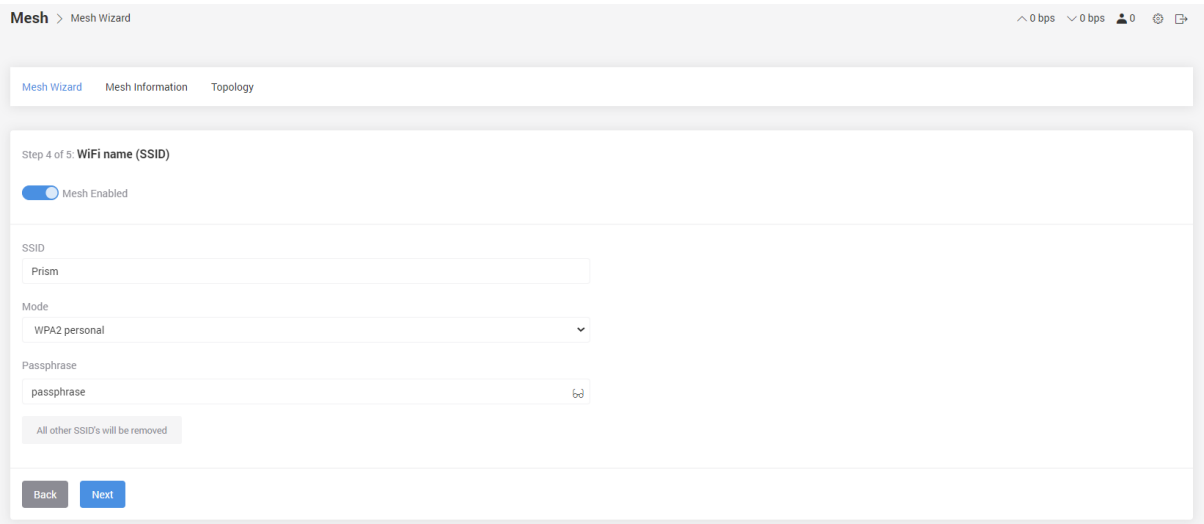
Backhaul SSID – an unique ID for establishing wireless mesh connection

Backhaul passphrase – password for wireless mesh connection

	1. **Backhaul SSID** is used for mesh connection only. 2. Suggest to keep **Backhaul SSID** and **Backhaul passphrase** unchanged if you are not familiar with network configuration.

Step 4

Enter **WiFi name (SSID)**, **Security Mode** and **Passphrase**, then click **Next**.



WiFi name – specify the WiFi SSID name that can be associated by station (user) devices

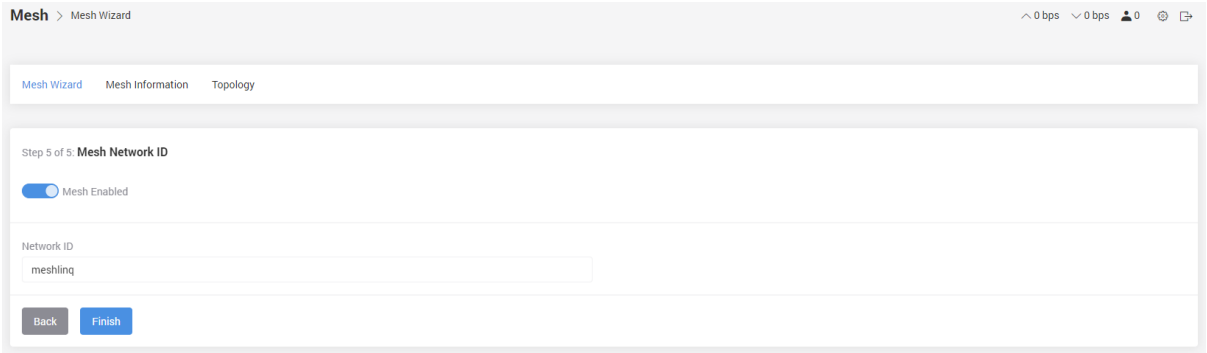
Mode – specify the security mode from menu, including Open, WPA2 personal, WPA2 enterprise and WPA3 enterprise

Passphrase – specify the password of the WiFi SSID

	1. **WiFi name (SSID)**, **Security Mode** and **Passphrase**, are used for stations (users) to connect. 2. WPA2 enterprise and WPA3 enterprise are required to connect external RADIUS server.

Step 5

Enter **Network ID**, then click **Finish**.



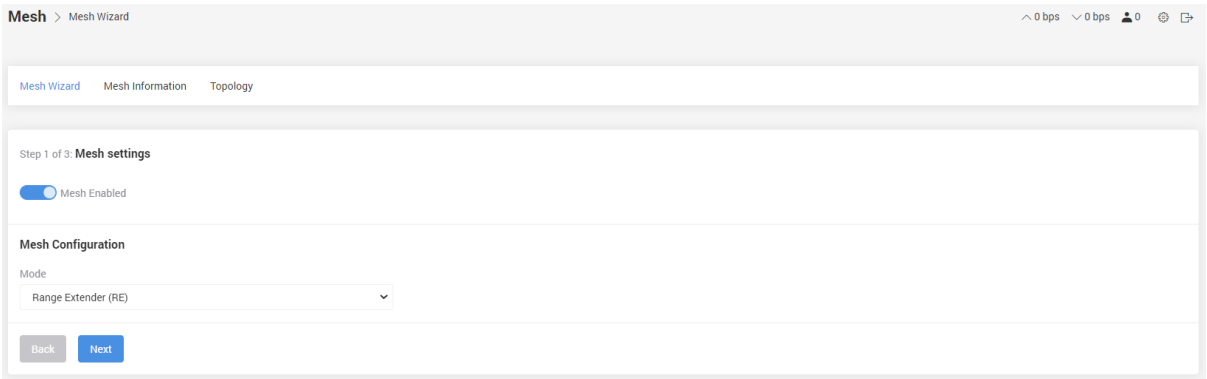
Network ID – an unique ID for adding RE into existing mesh connection

	Please note that RE's Network ID should be the same as CAP's.

Mesh > Mesh Wizard (Add a RE)

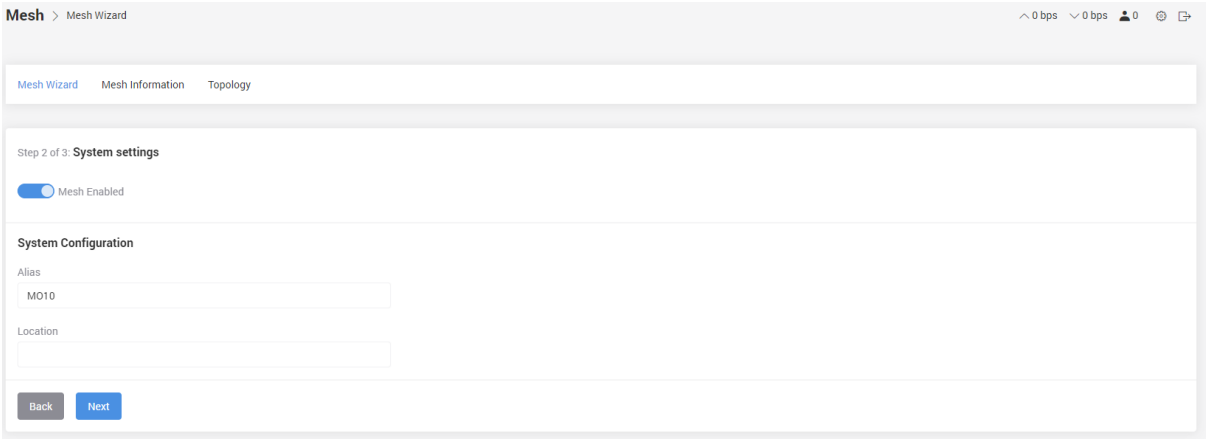
Step 1

To add a RE, select **Range Extender (RE)** from **Mesh Configuration**, then click **Next**.



Step 2

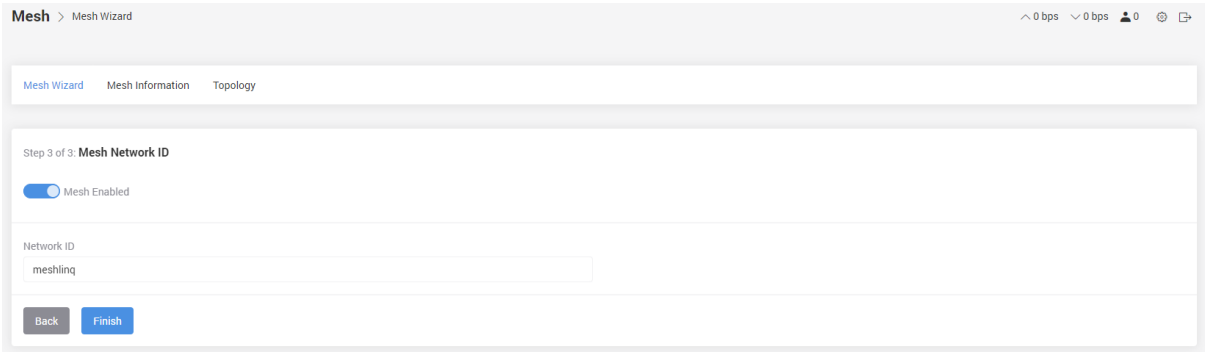
Enter **Alias** and **Location**, then click **Next**.



	Alias and **Location** can be kept blank.

Step 3

Enter **Network ID**, then click **Finish**.

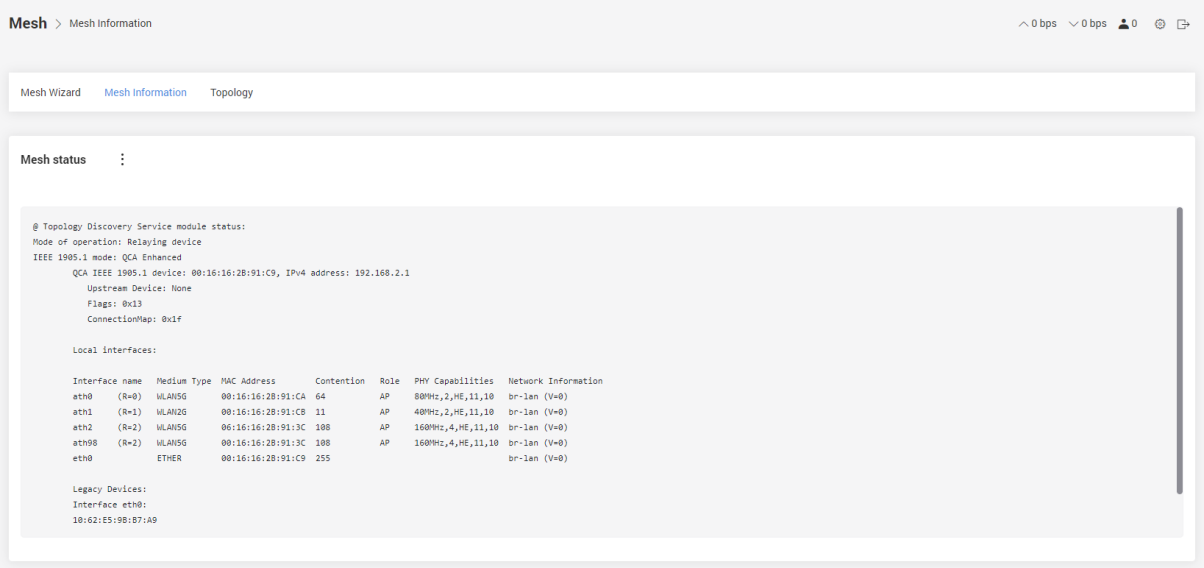


Network ID – an unique ID for adding RE into existing mesh connection

	Please note that RE's Network ID should be the same as CAP's.

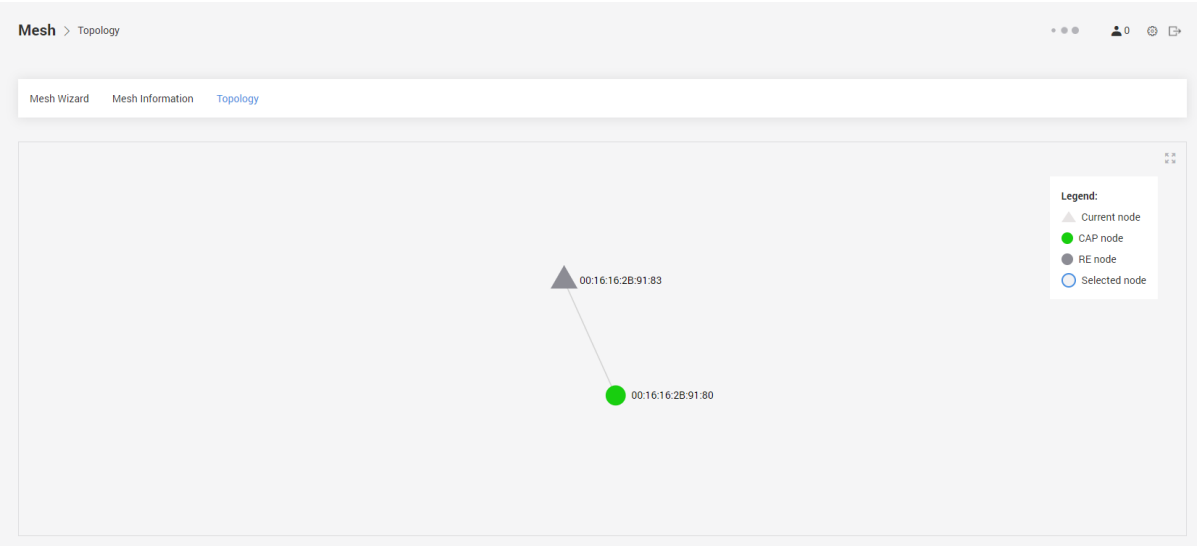
Mesh > Mesh Information

Mesh status is shown here.



Mesh > Mesh Information

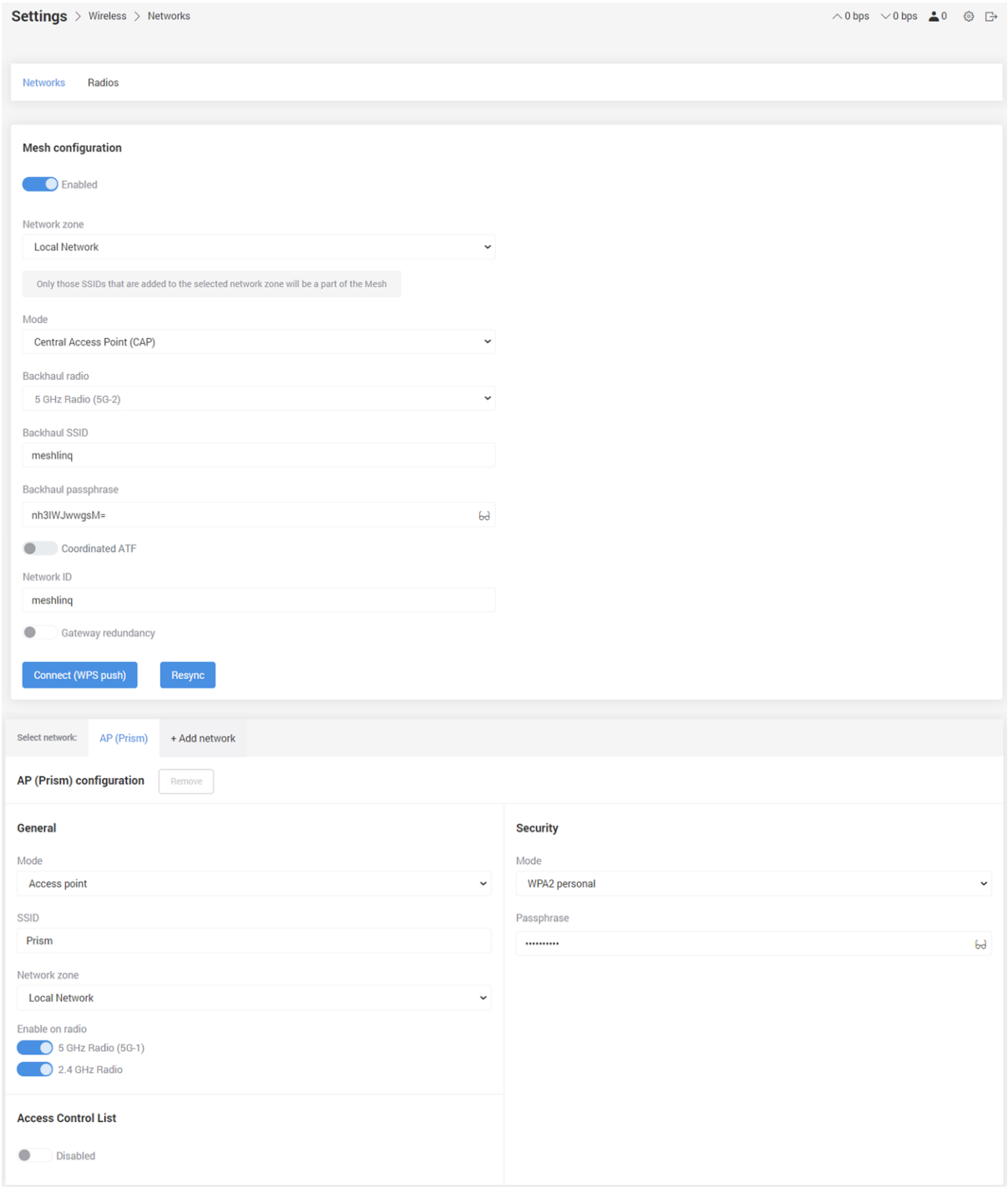
Mesh topology is shown here.



Settings > Wireless > Networks

Once mesh configuration is enabled, go to **Settings > Wireless > Networks** for detailed settings.

The following describes the default settings of **Central Access Point (CAP)**.



Network zone – Local Network in default

	To know more about **Network zone**, please refer **Settings > Network > Zones**. In CAP mode, the **DHCP client** is enabled in **Local Network** configuration, and **DHCP server** is enabled as well. If no IP assigned by exteranl DHCP server to this interface, it will fall back to default IP address 192.168.2.1.

Mode – **Central Access Point (CAP)** is selected

Backhaul radio – the default radio of mesh connection is **5GHz Radio (5G-2)**

Backhaul SSID – the default is **meshlinq** for mesh connection

Backhaul passphrase – the default is generated as a random password

Coordinated ATF – disabled in mesh settings

Network ID – an unique ID for adding RE into existing mesh connection

Gateway redundancy – disabled in mesh settings

Connect (WPS push) – force to send the Network ID manually

Resync – force to send the CAP's RF configuration to RE

Select Network AP (Prism) – once mesh is configured as CAP, the other two radio interfaces will be changed to **Access Point** mode automatically

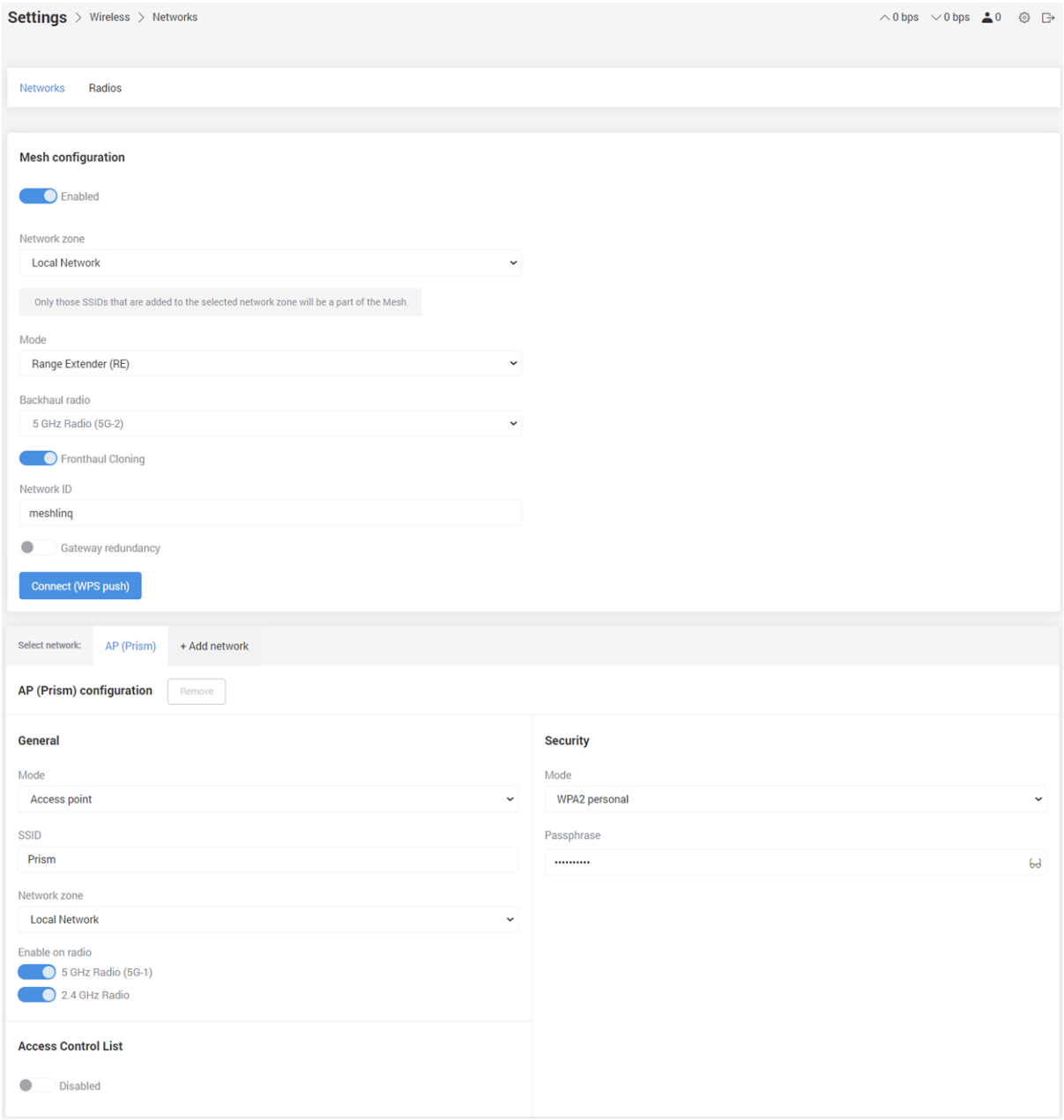
SSID – the name of Access Point

Network zone – **Local Network** in default

Enable on radio – both of **5 GHz Radio (5G-1)** and **2.4 GHz Radio** are enabled

Access Control List – **disabled** in default

The following describes the default settings of **Range Extender (RE)**.



Network zone – Local Network in default

	To know more about **Network zone**, please refer **Settings > Network > Zones**. In RE mode, the **DHCP client** is enabled in **Local Network** configuration, but **DHCP server** is disabled. If no IP assigned by exteranl DHCP server to this interface, it will fall back to default IP address 192.168.2.1.

Mode – **Range Extender (RE)** is selected

Backhaul radio – the default radio of mesh connection is **5GHz Radio (5G-2)**

Fronthaul Cloning – enabled to get the same Wi-Fi radio settings from CAP

Network ID – an unique ID for adding RE into existing mesh connection

Gateway redundancy – disabled in mesh settings

Connect (WPS push) – force to send the Network ID manually

Select Network AP (Prism) – once mesh is configured as RE, one radio is configured to mesh connection and the other two radio interfaces will be changed to **Access Point** mode automatically

SSID – the name of Access Point

Network zone – **Local Network** in default

Enable on radio – show radio interface used by the Wi-Fi access point

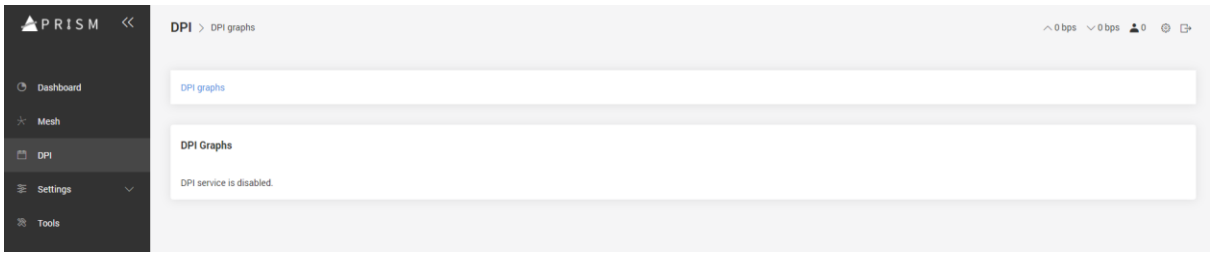
Access Control List – **disabled** in default

Security – the security settings of the Wi-Fi access point

Chapter 5 - DPI

DPI > DPI graphs

DPI will be available in future release.

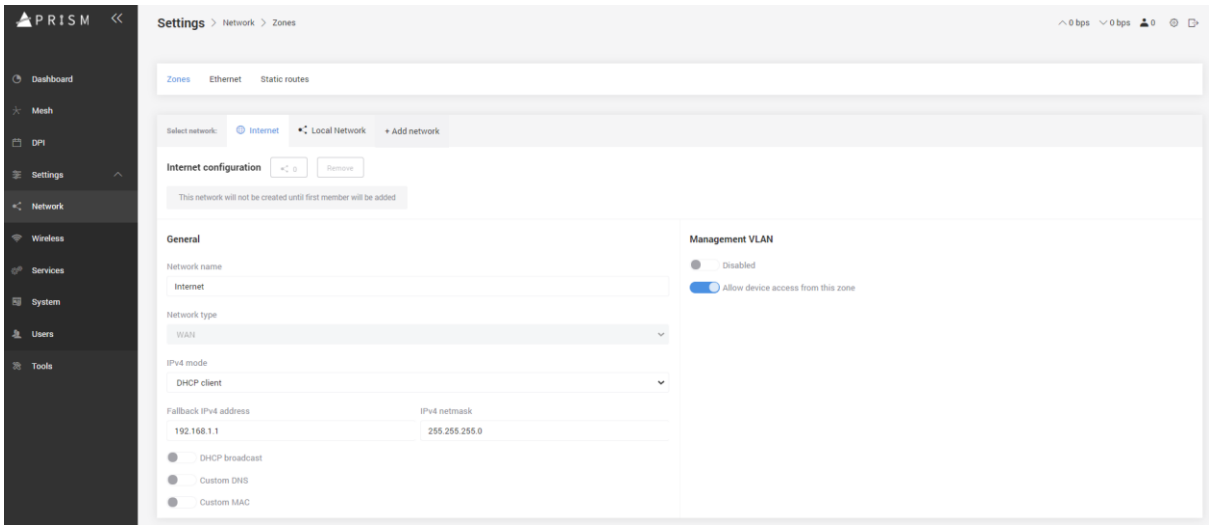


Chapter 6 - Settings

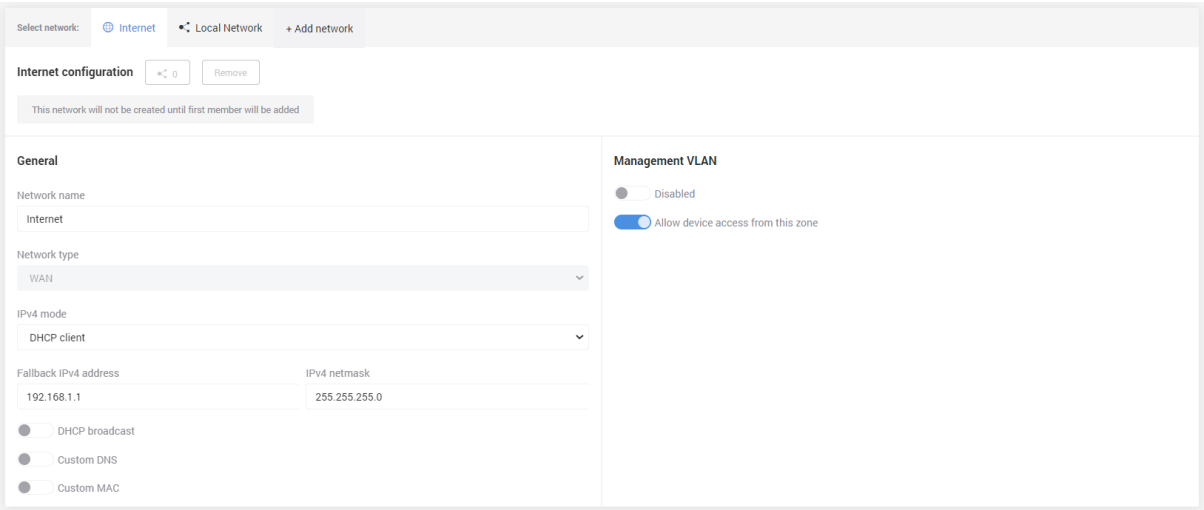
This chapter describes the settings of the Prism Mesh Access Point.

Settings > Network > Zones

There are two default configurations for interface type in network zones, **Internet** for WAN type and **Local Network** for LAN type. You can also define some new user-defined zone configurations for your network planning.



Internet configuration in default is defined as DHCP client. If no IP assigned by exteranl DHCP server to this interface, it will fall back to defined IP address.



Network name – editable name

IPv4 mode – can be selected as DHCP client or static mode. Once the interface is assinged to a new IP, the web login IP addreess is changed accordingly.

Fallback IPv4 address – enter the defined IP address. The IP address can also be used for web login.

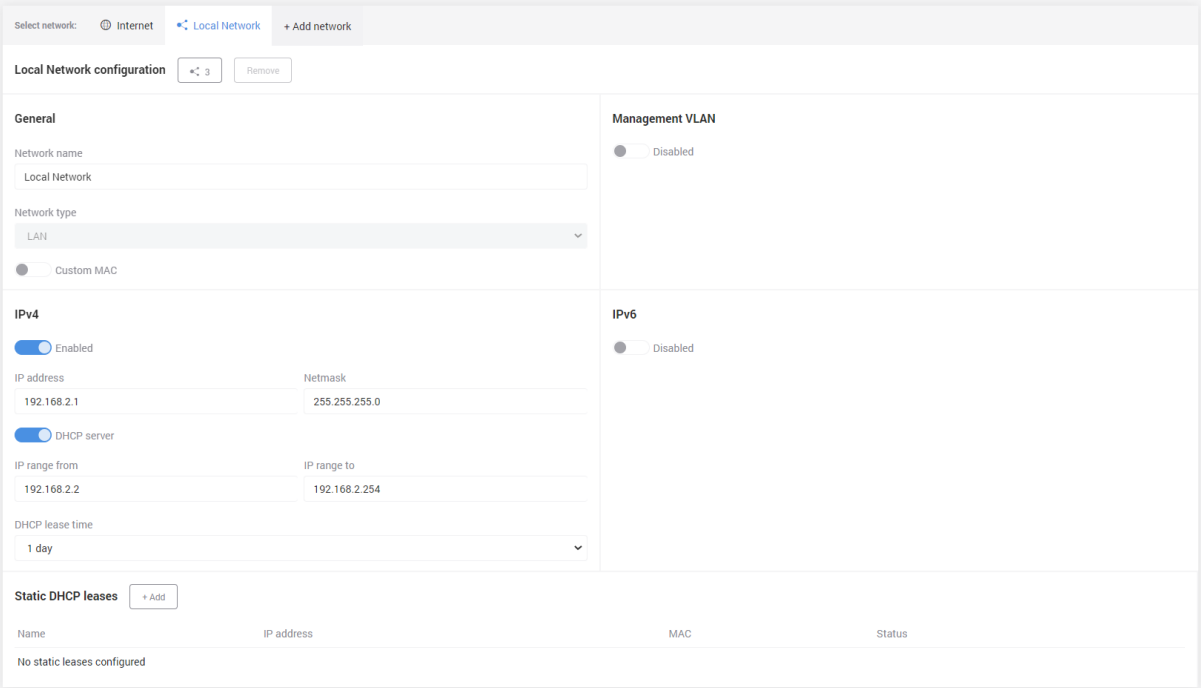
IPv4 netmask - enter the defined netmask

DHCP broadcast – enable to broadcasting DHCP dicovery message

Custom DNS – a DNS server can be specified

Custom MAC – the MAC address of physical Ethernet port can be changed to meet network setting

Local Network configuration in default is defined as a fixed IP and DHCP server is enabled.



Network name – editable name

Custom MAC – the MAC address of physical Ethernet port can be changed to meet network setting

IPv4 – default is enabled. The interface will be changed to bridge mode by disabling it.

IP address – enter the defined IP address. The IP address can also be used for web login.

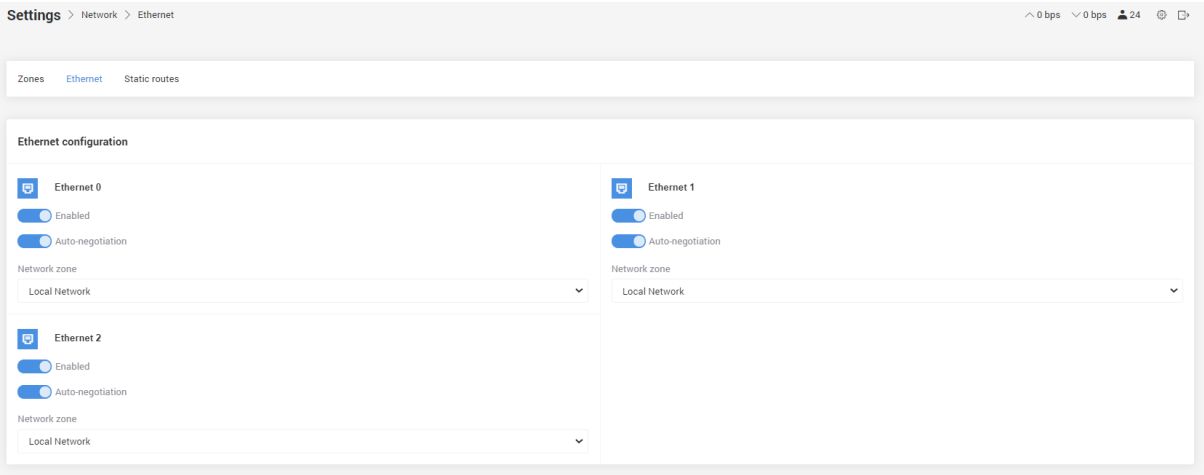
Netmask – enter the defined netmask

DHCP server – default is enabled. IP range and lease time can be user-defined

Static DHCP leases – a static IP can be assign to specific MAC address

Settings > Network > Ethernet

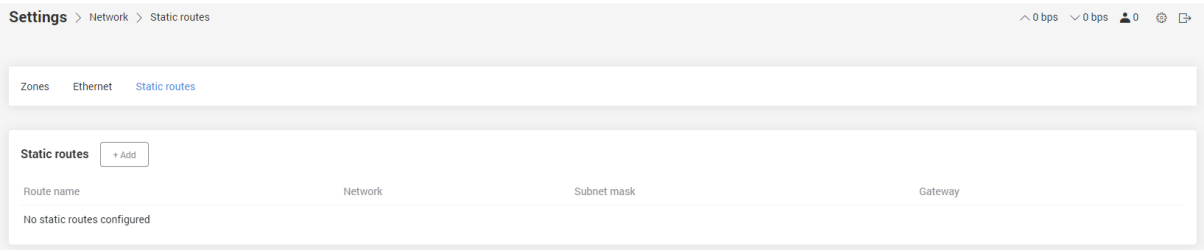
The Ethernet physical port can be flexibly assigned to different zone, according network plan and topology case by case.



	MO10 has only one physical port - Ethernet 0. MI10 has three physical ports - Ethernet 0, Ethernet 1 and Ethernet 2.

Settings > Network > Static routes

Static routes allow you to manually adding routing rules to remote networks in table.



Route name – user defined name

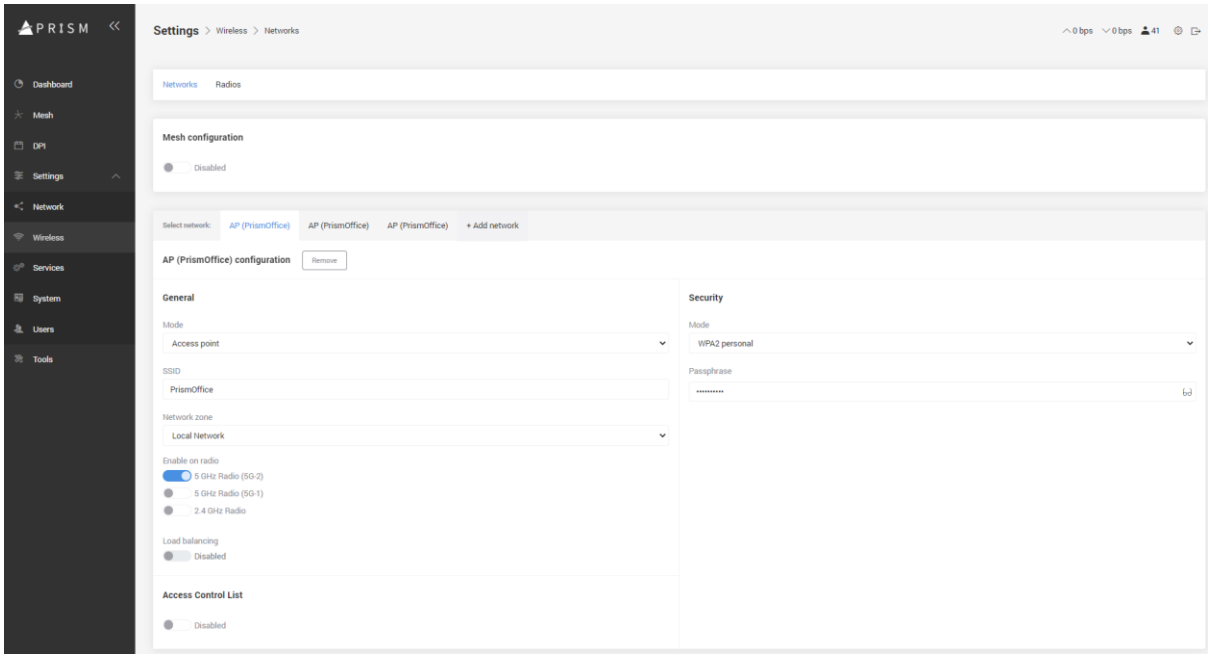
Network - The network address of destination network

Subnet mask - The subnet mask of destination network

Gateway - the ip address of the router to the desired network

Settings > Wireless > Networks

All wireless settings can be configured from here.

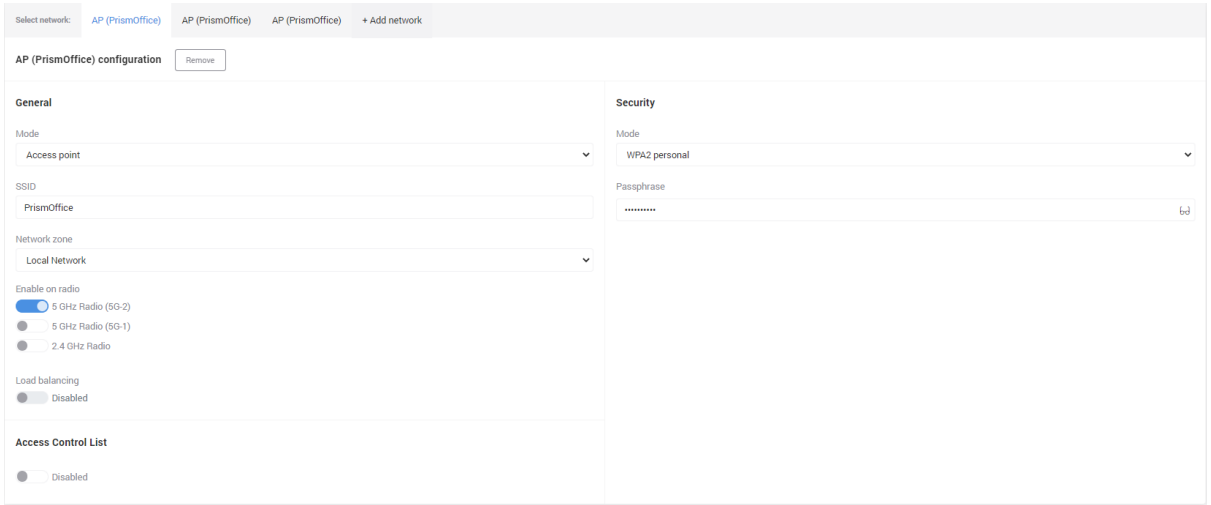


Mesh configuration – disable in default

	Suggest to configure mesh connection by using Mesh Wizard. Please refer to Chapter 4 when mesh configuration is enabled.

Mode – The mode can be selected to **Access Point** or **Station** mode

Access Point Mode



SSID – The name of Wi-Fi network

Network zone – Select the default network zone or user-defined zone

Enable on radio – the setting can be applied to other radio by clicking enable button

Load balancing – two or more of radios should be selected before enabling it

Security – the security of Wi-Fi network

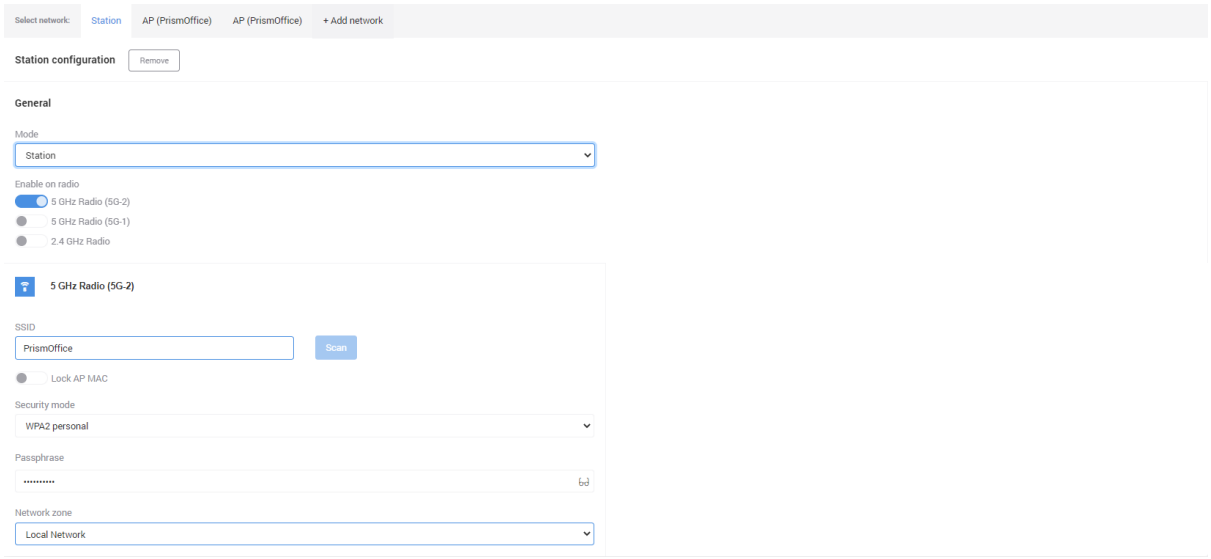
Access Control List – two policies can be choosed, **Deny** or **Allow**

Deny – to permit specific MAC

Allow – to block specific MAC

	Maximum 8 SSIDs can be added and configured.

Station Mode



Enable on radio – select the radio to work as station

SSID – Clicking **Scan** to do the site survey and select the Wi-Fi network the station would like to connect.

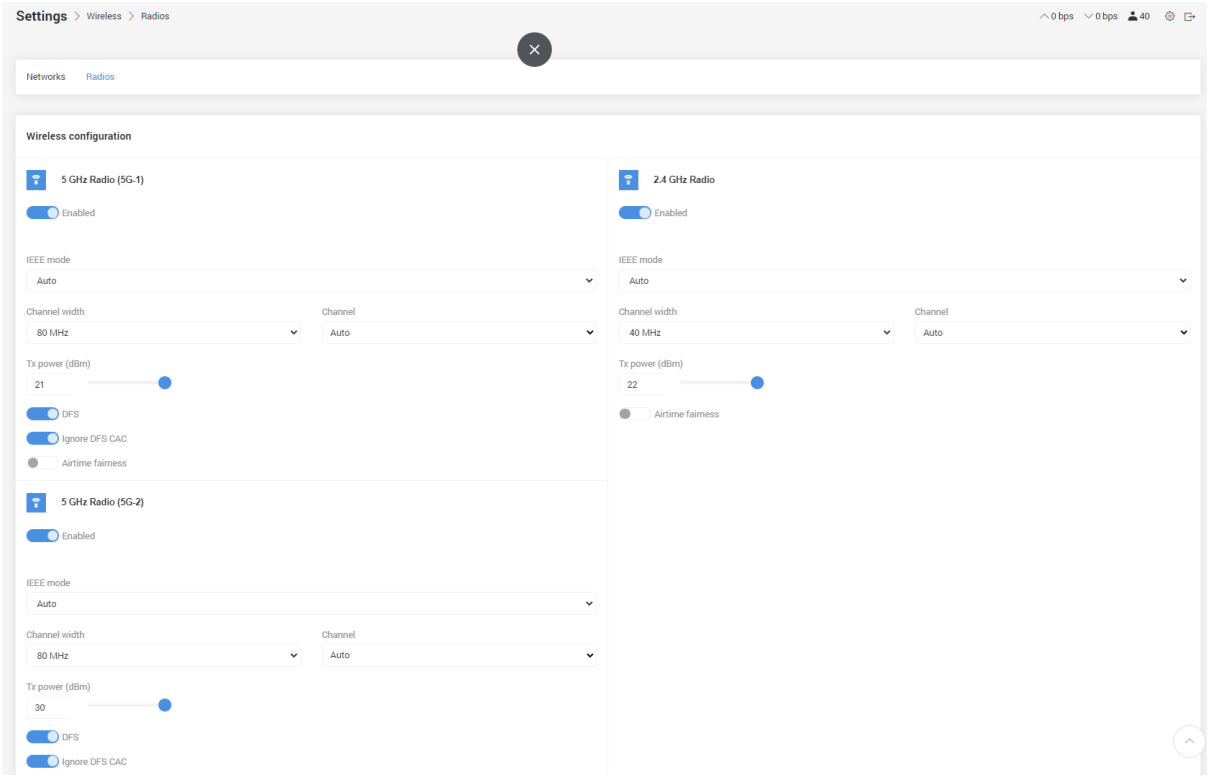
Security – the security of Wi-Fi network

Network zone – Select the default network zone or user-defined zone

	It requires network administrator to carefully plan the network.

Settings > Wireless > Radios

This page shows you the radio parameters for each radio.



5 GHz Radio (5G-1) – Wi-Fi 5GHz 2x2 radio, normally as Access Point

2.4 GHz Radio – Wi-Fi 2.4GHz 2x2 radio, normally as Access Point

5 GHz Radio (5G-2) – Wi-Fi 5GHz 4x4 radio, dedicated backhaul radio once mesh is enabled

Enable – default is **enabled**

IEEE mode – **Auto** in default. 4 modes can be chosen from Auto, 802.11ac, 802.11ax or 802.11n

Channel width – 4 channel width parameters can be chosen from drop-down menu 20MHz, 40MHz , 80MHz or 160MHz, depending on radio capability

Channel – **Auto** in default. Channel can be selected from drop-down menu

Tx power (dBm) – **10** dBm in default

DFS – default is enabled

i	In many countries, regulatory requirements may limit the number of 5 GHz channels available or place additional restrictions on their use because the spectrum is shared with other technologies and services. For instance, some of the Unlicensed National Information Infrastructure (U-NII) bands are used by radar systems. Wi-Fi networks operating in those bands are required to employ a radar detection and avoidance capability.

Ignore DFS CAC – default is enabled

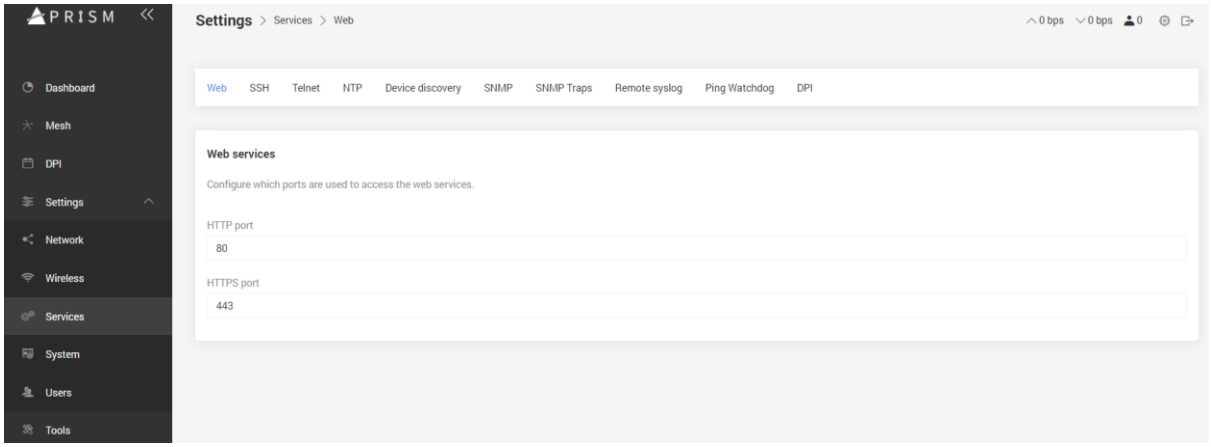
i	Channel Availability Check (CAC) is used to detect radar signals. The radio scans a target dynamic frequency selection (DFS) channel for radar signals for 60 seconds. After the 60-second scan, if no radar signals are detected, the radio can transmit on the target DFS channel. During the 60-second scan, if radar signals are detected on a target DFS channel, the radio must move to another DFS channel and restart the 60-second CAC.

Airtime fairness – default is disabled

i	Airtime Fairness ensures that every client has equal access to air time, regardless of client capability (for example, operating system, 802.11 mode, low RSSI). The regulated wireless spectrum, where all wireless communication takes place, is shared amongst all clients on the wireless access point as well as neighboring APs on the same channel.

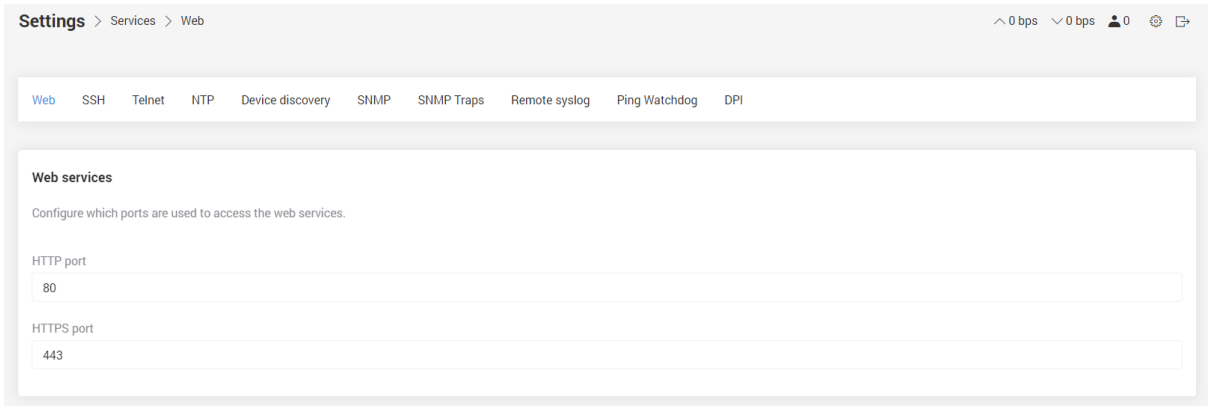
Settings > Services

The function of services allows network administrator to manage the mesh access point easily.



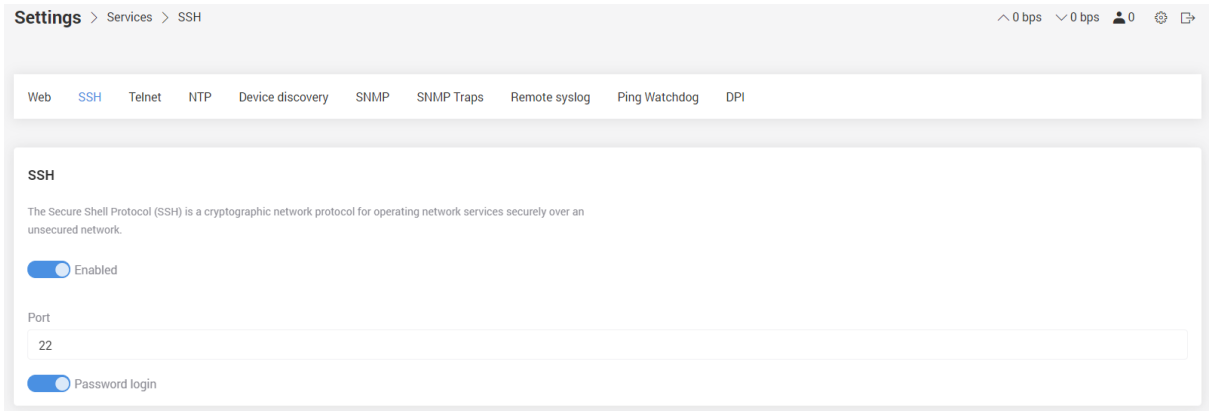
Settings > Services > Web

It provides you to configure specific port to access the web services through HTTP or HTTPS.



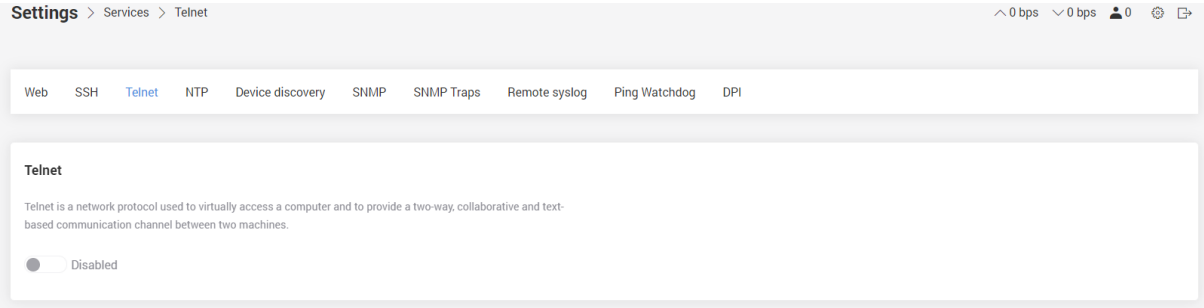
Settings > Services > SSH

It allows you to enable SSH port for accessing the mesh access point.



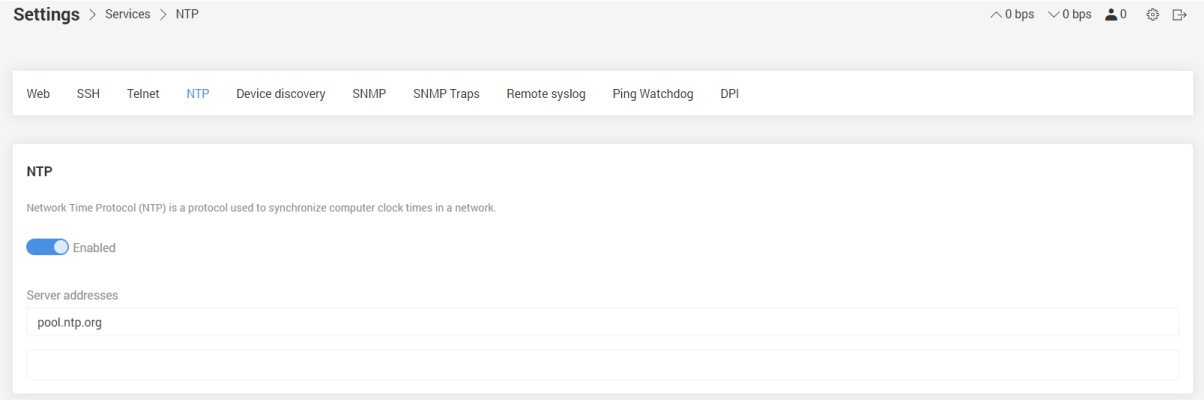
Settings > Services > Telnet

It allows you to enable Telnet for accessing the mesh access point.



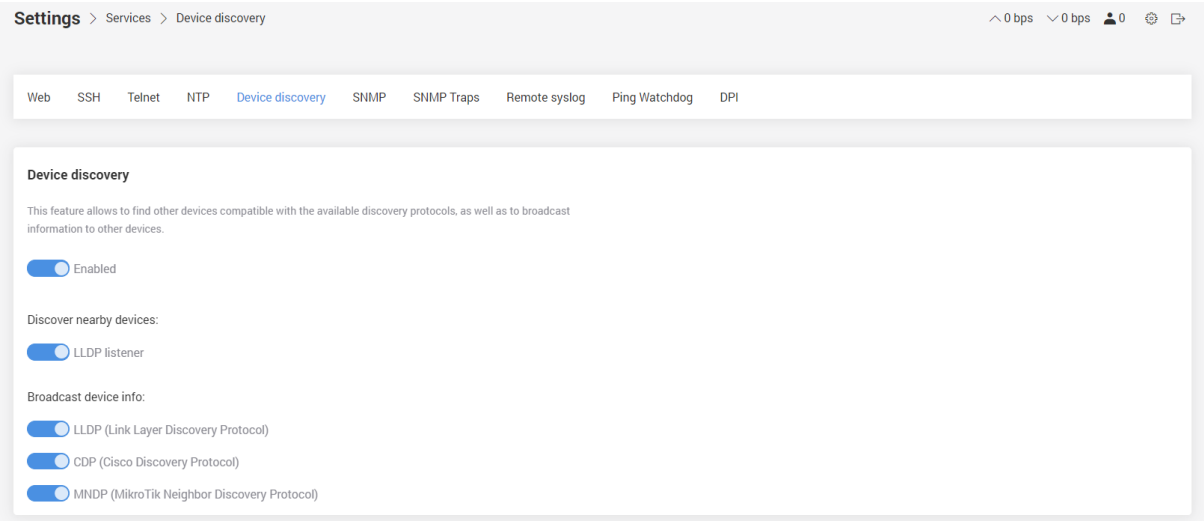
Settings > Services > NTP

It allows you to enable NTP and configure NTP server address to synchronize the mesh access point time with NTP server.



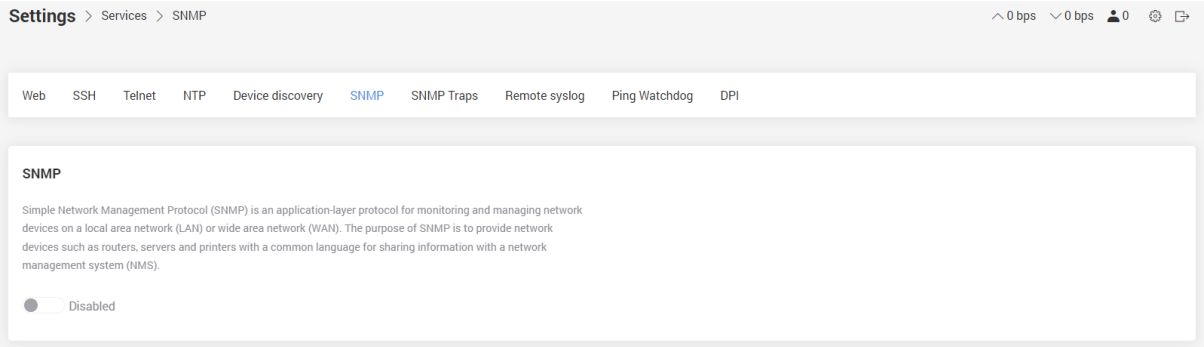
Settings > Services > Device discovery

This feature allows to find other devices, as well as to broadcast information to other devices, in the same network.



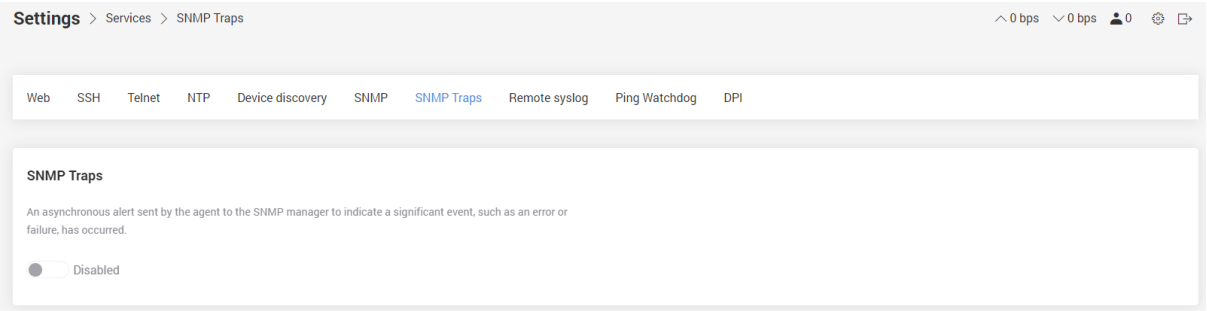
Settings > Services > SNMP

It allows you to enable SNMP to be managed by a network management system (NMS).



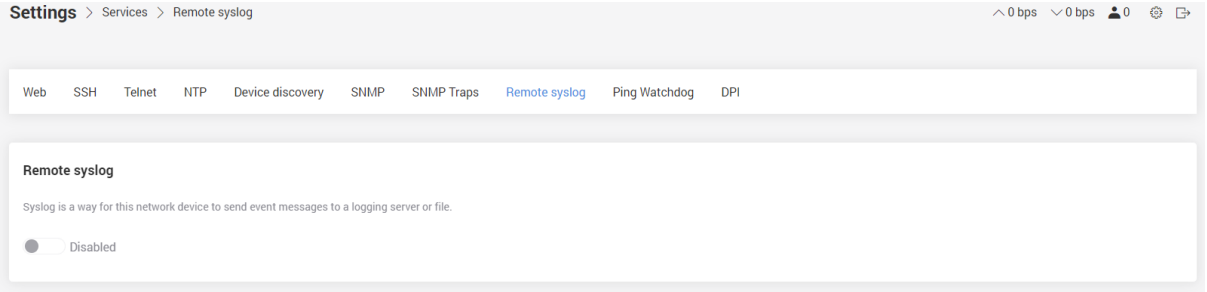
Settings > Services > SNMP Traps

The SNMP trap is a type of SNMP protocol, that sends an unrequested message to the manager to notify about an important event.



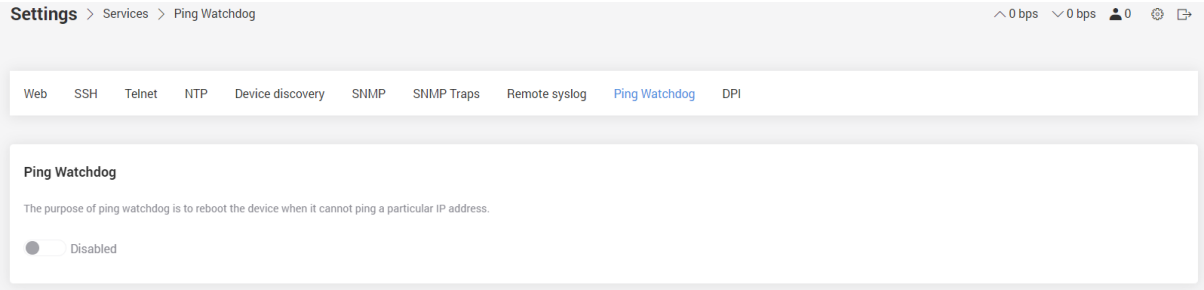
Settings > Services > Remote syslog

By enabling this function, syslog will be stored in a file or sent a remote logging server.



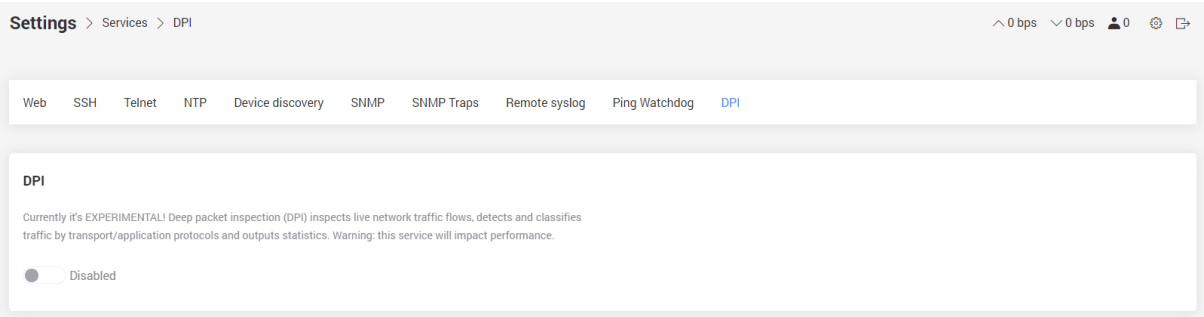
Settings > Services > Ping Watchdog

By enabling ping watchdog, the device will be reboot when it cannot ping a particular IP address with defined rules.



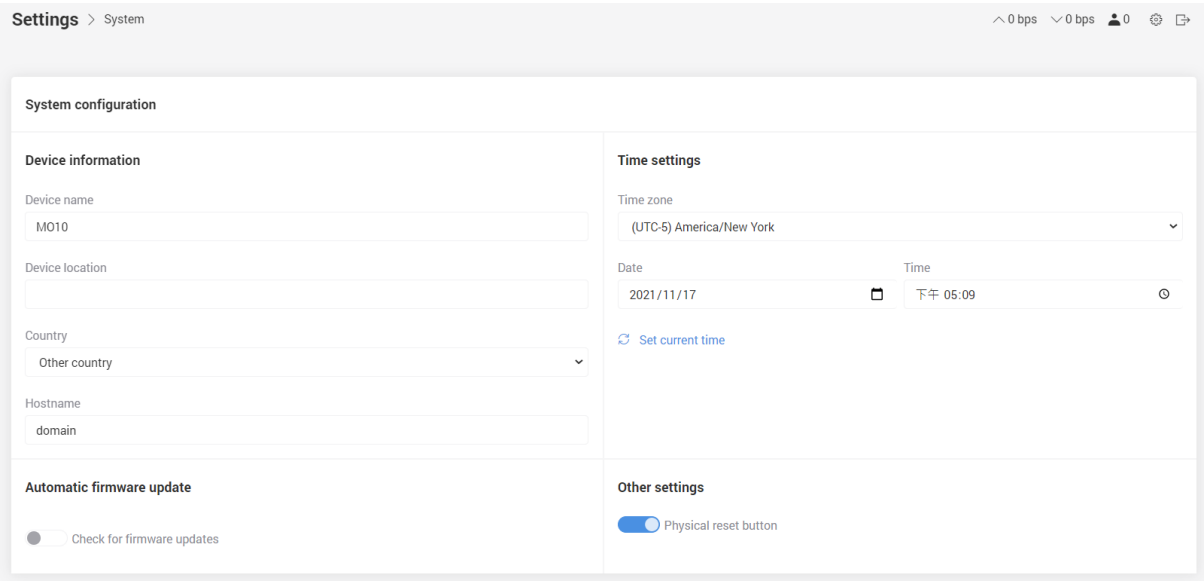
Settings > Services > DPI

DPI will be available at future release.



Settings > System

This page allows you to configure system-related settings.



Device information –**Device name**, **Device location**, **Country**, **Hostname** can be edited here

Time settings – can be manully entered or synchronized with NTP server

Automatic firmware update – external HTTP server is necessary when enabling firmware update

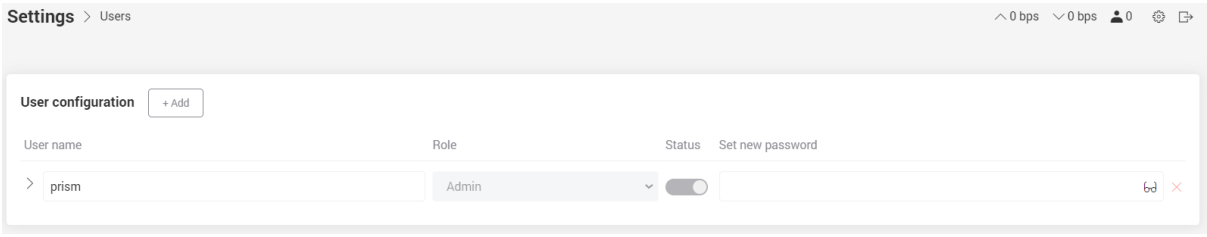
i	Example files in http server: Mango_zefir-master-cc99739-7773762.bin 2021-Nov-24 20:01:11 21.2M application/octet-stream firmwares.json 2021-Nov-24 20:01:12 0.2K application/octet-stream

	Example firmwares.json:
	
	{
	"mango": {
	"checksum": "0675d2cd94a1af66c3fa0a3553ab5bee",
	"image": "Mango_zefir-master-cc99739-7773762.bin",
	"version": {
	"firmux": "7773762",
	"release": "1.9.0",
	"sdk": "cc99739"
	}
	}
	}

Other settings – **Physical reset button** can be enabled/disabled

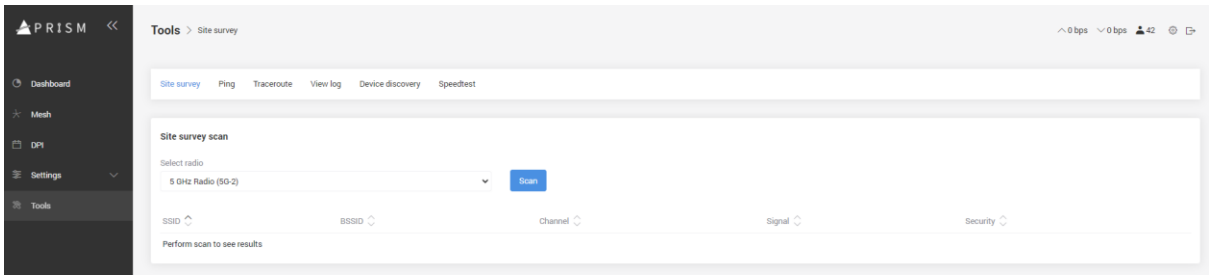
Settings > Users

This function allows you to change the username or reset the password, and to add new credentials.



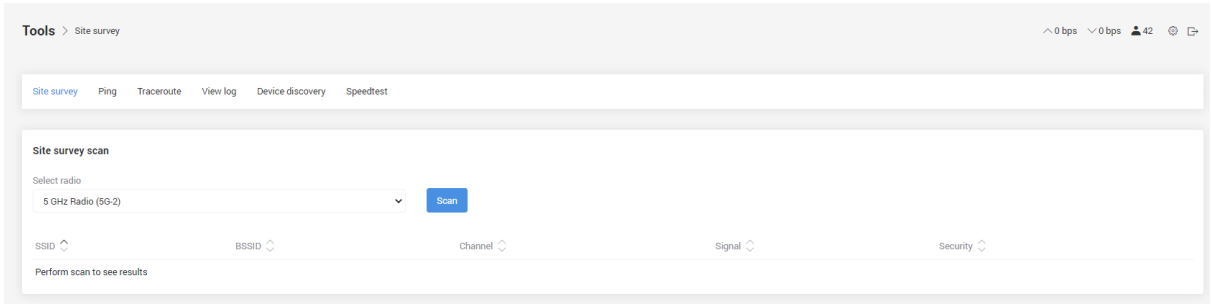
Chapter 7 - Tools

This chapter describes the utility functions of the Prism Mesh Access Point.



Tools > Site survey

This function allows you to perform site survey per radio to understand the usage of other Wi-Fi networks in the environment.

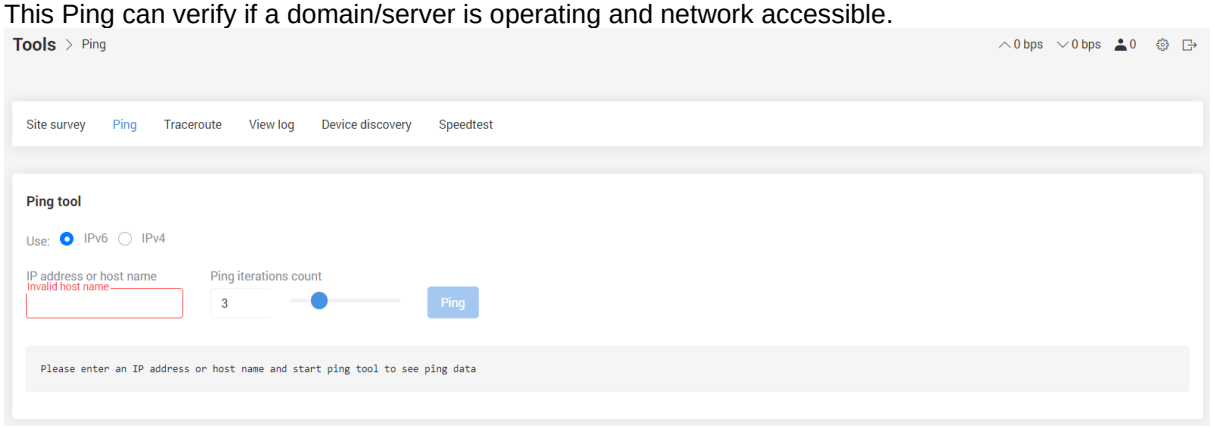


Select radio – choose the radio from drop-down menu

Scan – by clicking the button can see the results of site survey

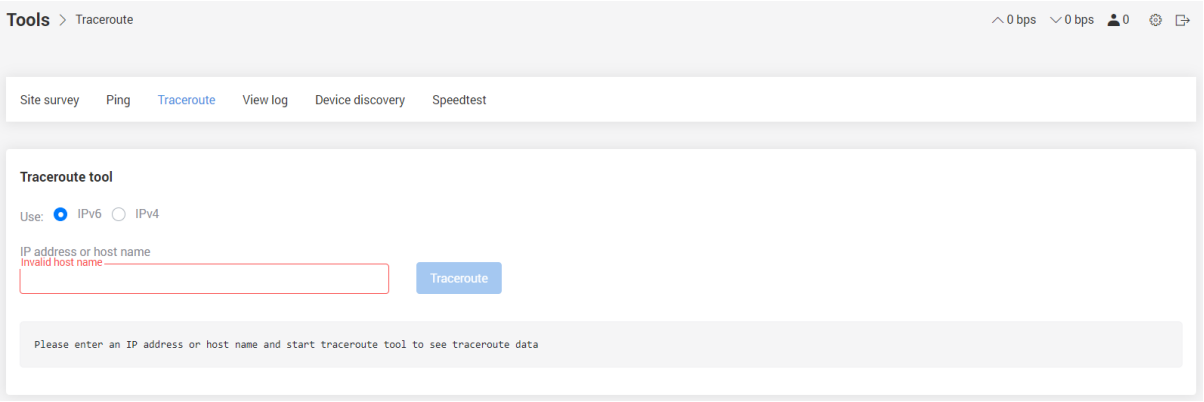
Tools > Ping

This Ping can verify if a domain/server is operating and network accessible.



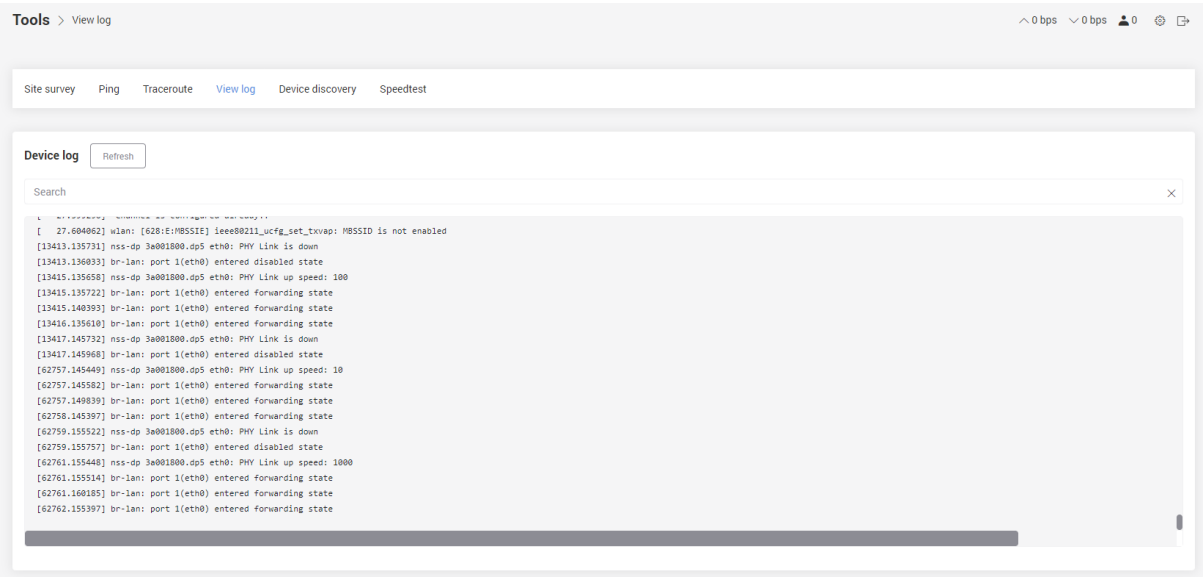
Tools > Traceroute

The Traceroute is a utility that uses ICMP packets to record the route through the internet from one computer/server to another.



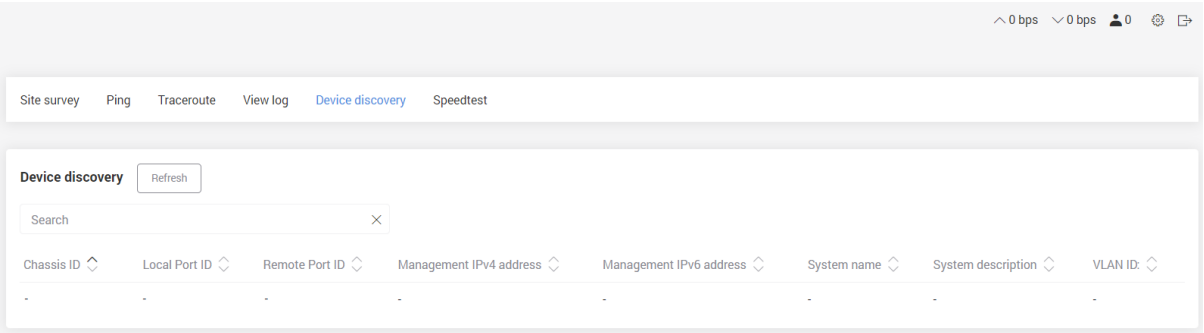
Tools > View log

It shows you the real-time system log.



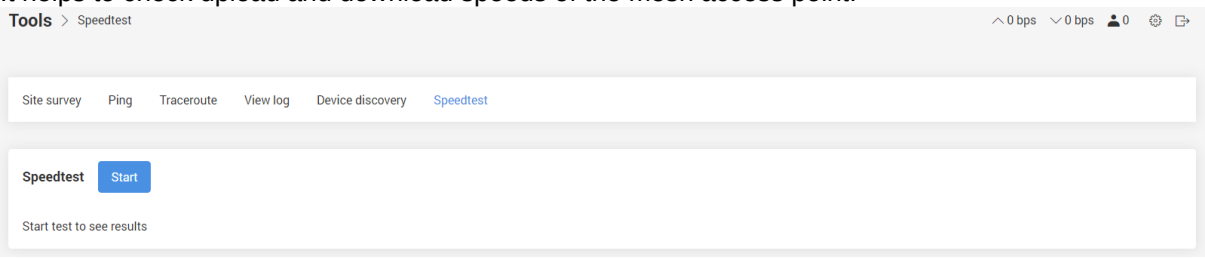
Tools > Device discovery

It shows you the discovered devices in the same netowrk.



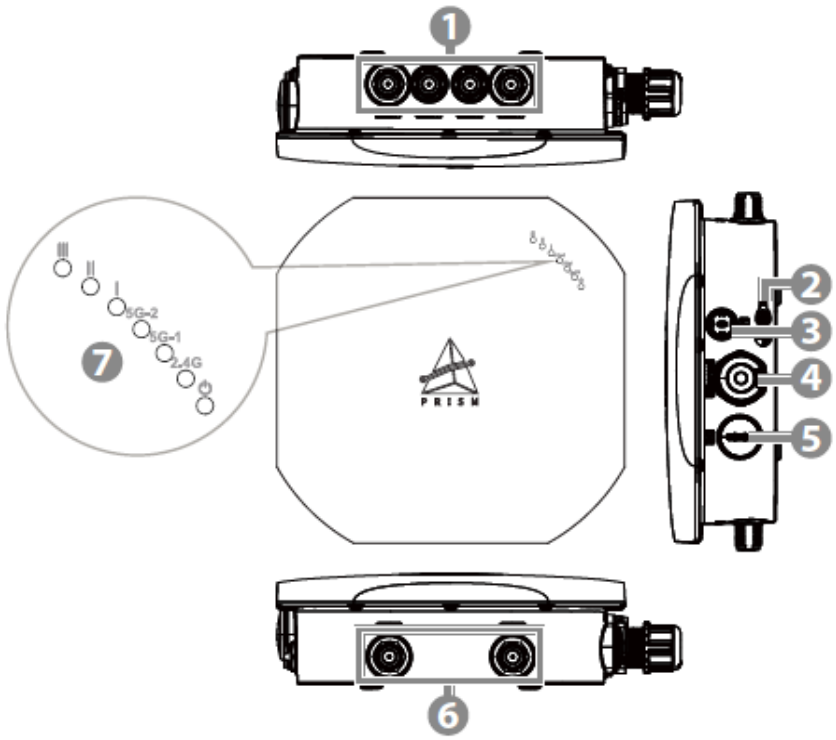
Tools > Speedtest

It helps to check upload and download speeds of the mesh access point.



Chapter 8 - Appendix

I/O Description, Wall Mount, and Basic Installation of MO10

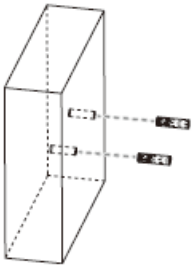


No.	Description
1	Antennas 1 – 4: 5GHz 4x4 (Tx/Rx)
2	Grounding
3	Gore-tex
4	Ethernet (RJ-45): For PoE/data transfer
5	DC 12V (optional)
6	Antennas 5 – 6: 2.4GHz/5GHz 2x2 (Tx/Rx)
7	LEDs (see table below for definitions)

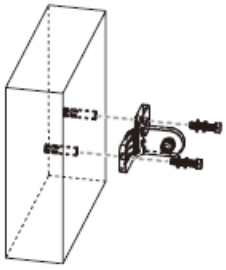
LED	Color	Definition
⏻	Green	On: Powered on and ready Off: Powered off or not working properly
2.4G		2.4GHz Wireless is working
5G-1		5GHz Wireless is working
5G-2		5GHz Wireless is working
I		Mesh link established (signal strength -80 dBm to -66 dBm)
II		Mesh link established (signal strength -65 dBm to -56 dBm)
III		Mesh link established (signal strength > -55 dBm)

Installing the Wall Mount

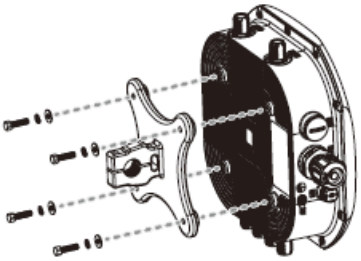
1 Measure and install two screw anchors into the wall.



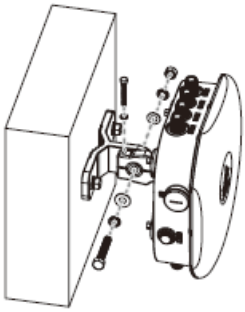
2 Secure the bracket to the wall using two sets of bolts, washers, and cushions.



3 Secure the mount to the router using four sets of bolts, washers, and cushions.



4 Secure the router to the bracket using two sets of bolts, washers, cushions, and nuts.

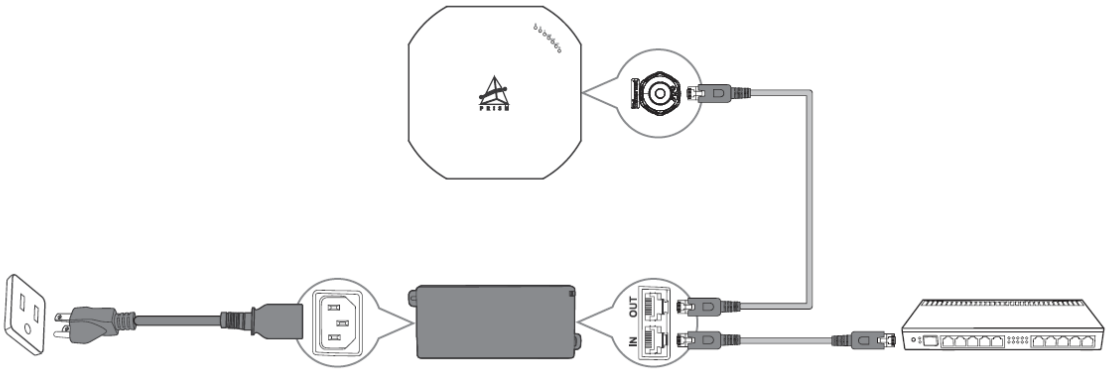


Connecting the Router (PoE)

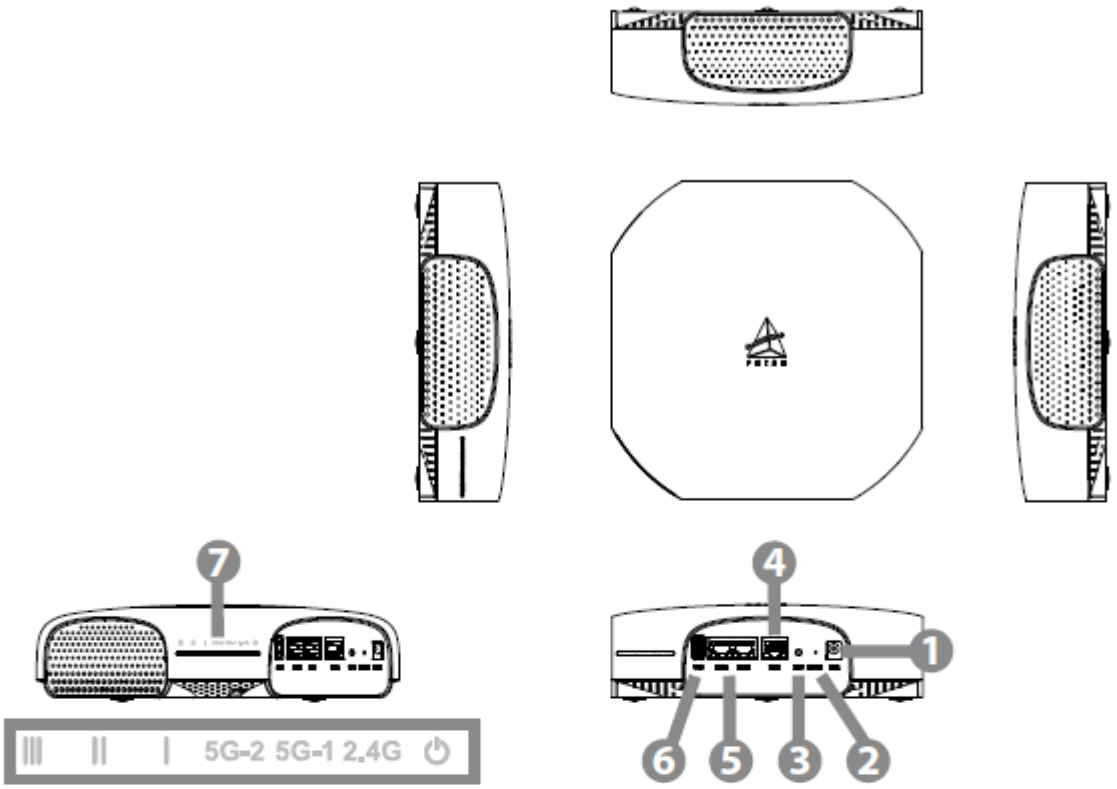
The PoE (Power over Ethernet) adapter allows the router to be powered by the same Ethernet (RJ-45) connection that also provides it data. To setup the PoE connection for the router follow the steps below:

1. Following the instructions in the “Connecting an RJ-45 Cable” section, connect the Ethernet port on the router to the **OUT** port on the PoE adapter using an RJ-45 cable.
2. Connect the **IN** port on the PoE adapter to a hub/router with Internet access using an RJ-45 cable.
3. Connect the power socket on the PoE adapter to a 100 - 220V power outlet/source using the supplied power cable.

This Equipment Is Not Suitable for Use in Locations Where Children Are Likely to Be Present.



I/O Description, Wall Mount, and Basic Installation of MI10

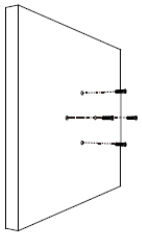


No.	Description
1	Power (DC 12V)
2	Reset
3	WPS
4	Ethernet (RJ-45): WAN
5	Ethernet (RJ-45): LAN
6	USB
7	LEDs (see table below for definitions)

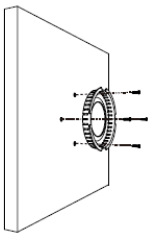
LED	Color	Definition
⏻	Green	On: Powered on and ready Off: Powered off or not working properly
2.4G		2.4GHz Wireless is working
5G-1		5GHz Wireless is working
5G-2		5GHz Wireless is working
I		Mesh link established (signal strength -80 dBm to -66 dBm)
II		Mesh link established (signal strength -65 dBm to -56 dBm)
III		Mesh link established (signal strenth > -55 dBm)

Installing the Wall Mount

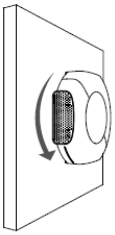
1 Measure and install 4 anchors into the wall.



2 Secure the mounting bracket to the wall using 4 screws.



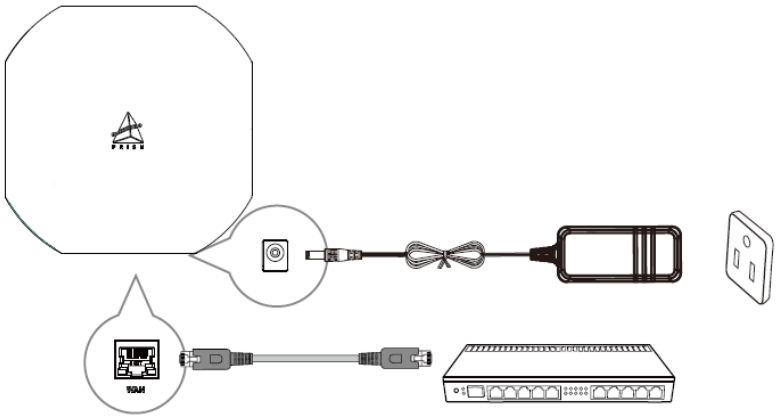
3 Turn and secure MI10 to the mounting bracket.



Connecting the Router

To setup the router with DC power connection follow the steps below:

1. Connecting an RJ-45 cable to the WAN port on the MI10
2. Following step1, connect this RJ-45 cable to a hub/router with Internet access
3. Plug in the power adaptor to the power socket on the MI10
4. Connect the power adaptor to a 100 - 220V power outlet/source



FCC/IC Statement

MO10 Statement

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:
Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance **31 cm** between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Country Code selection feature to be disabled for products marketed to the US/CANADA

Industry Canada statement:

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference
(2) This device must accept any interference, including interference that may cause undesired operation of the device

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :
(1) L'appareil ne doit pas produire de brouillage;
(2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
This radio transmitter [IC: 26296-MO10] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.
Le présent émetteur radio [IC: *26296-MO10*] a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué pour tout type figurant sur la liste, sont strictement interdits pour l'exploitation de l'émetteur.

Type	Connector	Gain				
		2.4G	UNII 1	UNII 2A	UNII 2C	UNII 3
Dipole ANT6	**N type**	-	-	-	5.3	4.9
Dipole ANT2	**N type**	-	-	-	5.1	6.8
Dipole ANT5	**N type**	-	-	-	5.4	4.8
Dipole ANT4	**N type**	-	-	-	5.7	6.3
Dipole ANT3	**N type**	5.6	4.3	5.2	-	-
Dipole ANT1	**N type**	7.4	5.3	5.6	-	-

Caution:
the device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;

Avertissement:
les dispositifs fonctionnant dans la bande de 5150 à 5250MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

Radiation Exposure Statement:
This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance **31 cm** between the radiator & your body.

Déclaration d'exposition aux radiations:
Cet équipement est conforme Canada limites d'exposition aux radiations dans un environnement non contrôlé. Cet équipement doit être installé et utilisé à distance minimum de **31 cm** entre le radiateur et votre corps.

Professional installation instruction (MO10)

Please be advised that due to the unique function supplied by this product, the device is intended for use with our interactive entertainment software and licensed third-party only. The product will be distributed through controlled distribution channel and installed by trained professional and will not be sold directly to the general public through retail store.

1. Installation personal

   This product is designed for specific application and needs to be installed by a qualified personal who has RF and related rule knowledge. The general user shall not attempt to install or change the setting.

2. Installation location

   The product shall be installed at a location where the radiating antenna can be kept **31 cm** from nearby person in normal operation condition to meet regulatory RF exposure requirement.

3. External antenna

   Use only the antennas which have been approved by the applicant. The non-approved antenna(s) may produce unwanted spurious or excessive RF transmitting power which may lead to the violation of FCC/IC limit and is prohibited.

4. Installation procedure

   Please refer to user’s manual for the detail.

5. Warning

   Please carefully select the installation position and make sure that the final output power does not exceed the limit set force in relevant rules. The violation of the rule could lead to serious federal penalty.

Instructions d'installation professionnelle (MO10)

Veuillez noter que l'appareil etant dedie a une fonction unique, il doit etre utilise avec notre logiciel proprietaire de divertissement interactif . Ce produit sera propose par un reseau de distribution controle et installe par des professionels; il ne sera pas propose au grand public par le reseau de la grande distribution.

1. Installation

   Ce produit est destine a un usage specifique et doit etre installe par un personnel qualifie maitrisant les radiofrequences et les regles s'y rapportant. L'installation et les reglages ne doivent pas etre modifies par l'utilisateur final.

2. Emplacement d'installation

   En usage normal, afin de respecter les exigences reglementaires concernant l'exposition aux radiofrequences, ce produit doit etre installe de facon a respecter une distance de **31 cm** entre l'antenne emettrice et les personnes.

3. Antenn externe.

   Utiliser uniiquement les antennes approuvees par le fabricant. L'utilisation d'autres antennes peut conduire a un niveau de rayonnement essentiel ou non essentiel depassant les niveaux limites definis par FCC/IC, ce qui est interdit.

4. Procedure d'installation

   Consulter le manuel d'utilisation.

5. Avertissement

   Choisir avec soin la position d'installation et s'assurer que la puissance de sortie ne depasse pas les limites en vigueur. La violation de cette regle peut conduire a de serieuses penalites federales.

MI10 Statement

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:
Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 28 **cm** between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Country Code selection feature to be disabled for products marketed to the US/CANADA

Industry Canada statement:

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference
(2) This device must accept any interference, including interference that may cause undesired operation of the device

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :
(1) L'appareil ne doit pas produire de brouillage;
(2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Caution:

the device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;

Avertissement:

les dispositifs fonctionnant dans la bande de 5150 à 5250MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

Radiation Exposure Statement:

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance **28 cm** between the radiator & your body.

Déclaration d'exposition aux radiations:
Cet équipement est conforme Canada limites d'exposition aux radiations dans un environnement non contrôlé. Cet équipement doit être installé et utilisé à distance minimum de **28 cm** entre le radiateur et votre corps.