enLOGIC

Advantage Series

Power Distribution Unit and
Inline Energy Meter
User Manual

Version: 1.2

CONTENTS

Safety Instruction

General Safety Instructions

- This Power Distribution Unit (PDU) unit is intended to provide power to the ITE equipment only. Do not connect the secondary power units to the outlets of the PDU.
- It is recommended not to operate the system with Internet from a public network, but with an internal network protected externally with firewalls.
- When remote accesses are deployed, select a secure access path, such as VPN (Virtual Private Network) or HTTPS.
- Ensure that the current Enlogic firmware is installed on all Enlogic PDU.
- Restrict access authorisations to networks and systems to only persons that need an authorisation and disable unused user accounts.
- This product generates, uses, and radiates radio frequency energy, that can cause harmful interference to radio communications if not installed and used in accordance with the instruction manual. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense

Installation and Operation Safety Instructions

- Assembly and installation of the PDU may only be performed by experienced, trained, and authorised personal.
- Please observe the valid regulations for electrical installation in the country in which the PDU is installed and operated, and the national regulations for accident prevention. Please also observe any internal company regulations, such as work, operating and safety regulations.
- Operating the system in direct contact with water, aggressive materials or inflammable gases and vapours is prohibited.
- The PDU must not be opened. It does not contain any parts that need servicing.
- Internal parts of the PDU can get extremely hot during operation. Be cautious before handling.
- There is a risk of electrical shock from the ground conductor leakage. If the total leakage current exceeds 3.5 mA or if leakage current of the connected load is unknown, connect the ground terminal of the PDU to a dependable ground/earth connection.
- This equipment must be connected to an electrical supply with protected ground outlets and a branch circuit breaker with the same current rating as the equipment. Test all outlets for proper polarity and grounding. Failure to comply with this requirement can result in serious injury
- Use only original Enlogic accessories or products recommended by Enlogic along with the Enlogic PDU.

- Changes and modifications to this equipment can affect the warranty. Enlogic is not responsible for damage to this product, resulting from accident, disaster, or misuse.

Product Labels and Standards

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the **FCC** Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This product is CE compliant and UL tested. An appropriate declaration of conformity has been issued and can be supplied on request.

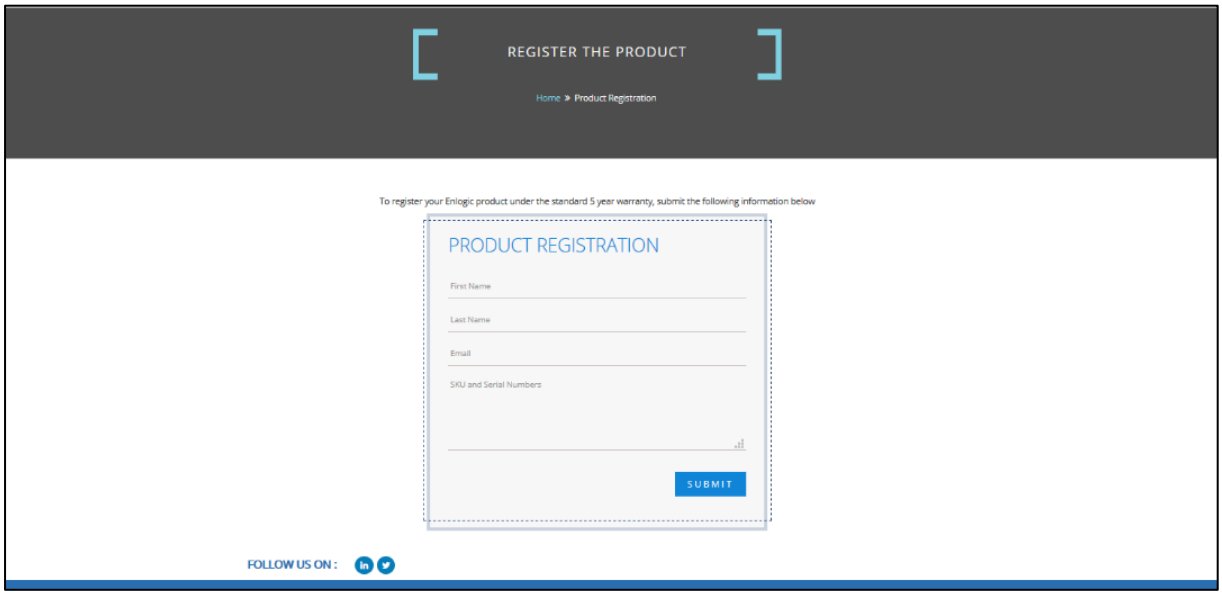
The Power Cable of this product must be used exclusively for the respective PDU only.

This unit is delivered in a cardboard box and contains:

- Quick Start Guide
- Safety Information Sheet
- Warranty Card

Check the unit for any damage that may have occurred during transport. Any damage and other faults, e.g. incomplete delivery, should be reported immediately, in writing, to the shipping company and to Enlogic Systems LLC.

Use the information provided in the enclosed warranty card to register your product online at www.enLOGIC.com.



Follow all local and national codes, when installing the PDU. The PDU should be connected to a dedicated circuit protected by a branch circuit breaker matching the PDU input plug-type for your region:

Table 1: Input Plug Type for Region wise

Regions	PDU Input Plug Type	Input Rating
Europe, International	IEC60320 C20 Inlet (Removable Power Cord)	16A SINGLE PHASE
	CEE 7/4, CEE 7/5, CEE 7/7 Plugs	16A SINGLE PHASE
	IEC60309 316P6 or 316P6W	16A SINGLE PHASE
	IEC60309 332P6 or 332P6W	32A SINGLE PHASE
	IEC60309 363P6 or 363P6W	32A SINGLE PHASE
	IEC60309 516P6 or 516P6W	16A THREE PHASE
	IEC60309 532P6 or 532P6W	32A THREE PHASE
	IEC60309 563P6 or 563P6W	63A THREE PHASE
	3-pin (2P+G)	20A SINGLE PHASE
Australia	3-pin (2P+G)	32A SINGLE PHASE
	5-pin (3P+N+G)	20A THREE PHASE
	5-pin (3P+N+G)	32A THREE PHASE
	IEC60320 C20 Inlet (Removable Power Cord)	20A SINGLE PHASE
	NEMA 5-20P or NEMA L5-20P	20A SINGLE PHASE
	NEMA 6-20P or NEMA L6-20P	20A SINGLE PHASE
	NEMA 6-30P or NEMA L6-30P	30A SINGLE PHASE
	NEMA 5-30P or NEMA L5-30P	30A SINGLE PHASE
North America/Japan	IEC60309 330P9 or 330P9W	30A SINGLE PHASE
	CS8265C	50A SINGLE PHASE
	NEMA L21-20P or NEMA L15-20P	20A THREE PHASE
	NEMA L21-30P or NEMA L15-30P	30A THREE PHASE
	CS8365C	50A THREE PHASE
	IEC60309 460P9 or 460P9W	60A THREE PHASE
	IEC60309 520P6 or 520P6W	20A THREE PHASE
	IEC60309 530P6 or 530P6W or NEMA L22-30P	30A THREE PHASE

Product description

The Advantage Series PDU from Enlogic is a sleek and space saving unit with low profile circuit breakers,
color-coded receptacles and different type of power outlets which can be customised according to needs and IT requirements.

It is an efficient and reliable power distribution system that ensures flawless functioning of the ITE equipment by providing smart and intelligent features like:

- Full featured network management and alerting capabilities supporting HTTP, HTTPS, SSH, SNMP, and email.
- Strong encryption, passwords, and advanced authorization options including local permissions, LDAP/S, and

Product Series	Inlet Power Measurement (Metered)	Outlet Power Measurement	Switchable Outlet
EN1000 Series			
EN2000 Series			
EN5000 Series			
EN6000 Series			
EZ1000 Series			

Active Directory

- Daisy Chain up to 32 Rack PDUs and supports a maximum of 10 environmental sensors each.
- Power Sharing feature that allows the data of the PDU to be recorded even during a Power Failure.

The power distribution systems offered by the Advantage Series from Enlogic

The Advantage Series provides PDU in both current options with unique features:

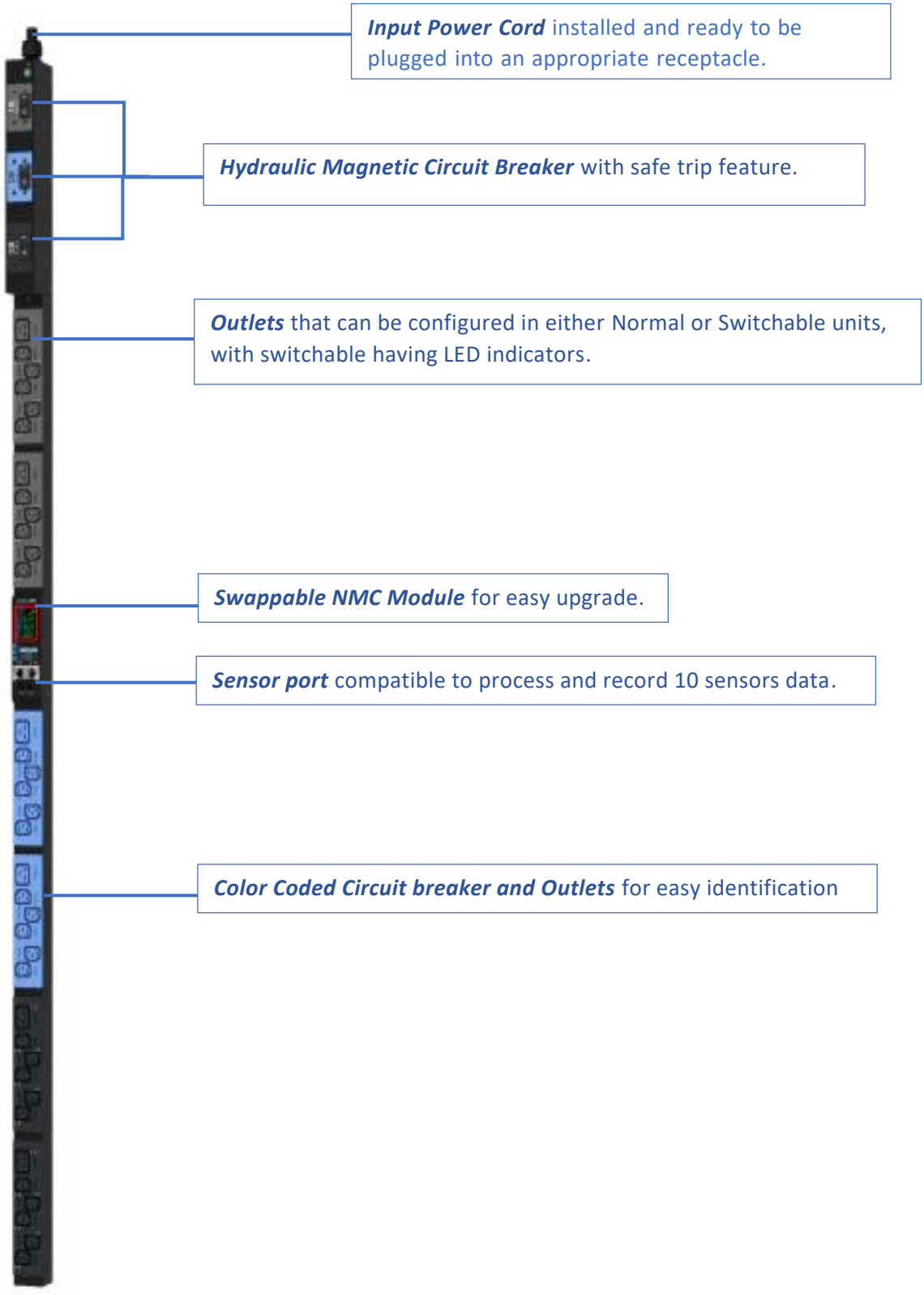
Single-Phase Models
All Single-Phase model support hydraulic magnetic breakers that are colour coded to the corresponding outlets**.**

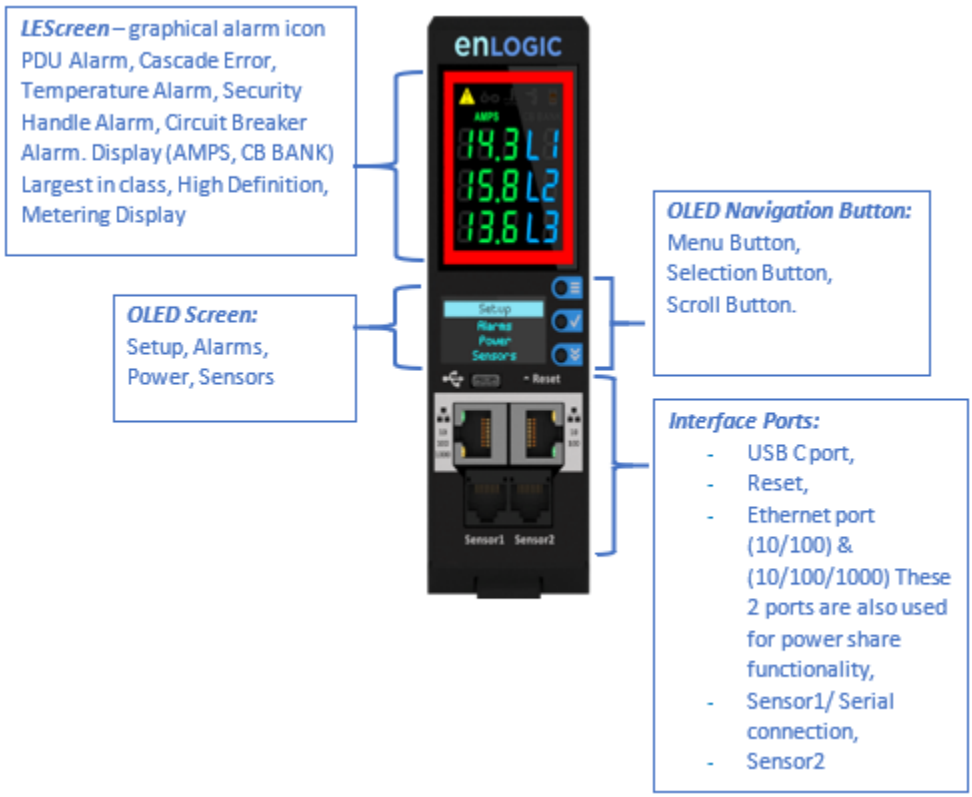
Three-Phase Models
In standard 400V Three-Phase (Wye) configurations, the colour of each circuit breaker and outlet correspond to the appropriate input phase. The PDU is labelled to indicate the input-phase associated with each circuit breaker and outlets.

In North America 208 V Three-phase (delta) configurations, the colour of the circuit breaker corresponds to the line connections and includes a label of the two connected input-phases, (i.e., L1-L2, L2-L3, or L3-L1).

All Three-Phase model rated above 20 A and 16 A, will also use a colour coding scheme, using 3 colours rather than 2 colours, Black, Blue, and grey.

Product Components





There are 2 displays/5 ports on all standard advantage series models, as shown below.

- LED Graphical Alarm Icons: PDU Alarm, Cascade Error Alarm, Temperature Alarm, Security Handle Alarm, and Circuit Breaker Alarm.
- Display (AMPS, CB BANK): Largest In-class HD Metering Display.
- OLED Settings: Set up, Alarms, Power, Sensors (click menu, select and scroll to operate).

Interfaces:

- USB-C: Fast Configuration, Fast upload of firmware and download log files.
- Ethernet Port 1 (10/100/1000): Primary network port / Power Share.
- Ethernet Port 2 (10/100): Daisy chain / Power Share / RNA / Network.
- Sensor-1: Primary Sensor Port / Serial Port – Supporting a total of 4 Sensors per sensor port, for example using our EA9103, which will support 3 x Temperature sensors and one Humidity sensor. Sensor 1 also acts as a serial port, it allows the Serial function which is a user interface that enables us to configure Features and update Firmware.
- Sensor-2: Secondary Sensor Port – Supporting a total of 4 Sensors per sensor port, for example using our EA9103, which will support 3 x Temperature sensors and one Humidity sensor.

The Advantage Series Reset Button features enables the user to:

- Press and hold the reset key button till 8 seconds which will trigger RST option in LED display and reset functionality will be initiated.
- Press and hold the reset key button till 20 seconds which will trigger DEF option in LED display and Default functionality will be initiated
- Press and hold the reset key button also press scroll button and hard reboot functionality will be initiated.

Mounting PDU in Server Cabinet

enLOGIC PDUs are built with tool-less mounting in most rack enclosure designs.

For a list of racks that require a mounting bracket for proper installation, refer **Appendix A: Advantage Series Bracket Mounting Information** for a list ofcompatibility rack manufacturers and installation requirements and *for specific mounting instructions for various rack manufacturers*.

(If the standard mounting pegs or mounting brackets, do not comply with your rack configuration, contact enLOGIC for assistance.) Installation of a bracket, can require a screwdriver.

1. The Advantage Series PDU comes with tool-less mounting pegs for ease and convenience.
2. Determine where the Advantage Series PDU will be mounted in the inside of the server cabinet.

***Note**: If your rack does not require mounting brackets, skip step 4 and 5. If required, attach the mounting brackets to the server cabinet. The standard enLOGIC mounting brackets are secured to the rack using a screwdriver.*

3. Attach the enclosed mounting brackets to the server cabinet using the screws.
4. Insert the pegs into the server rack mounting holes or into the mounting brackets and tighten the mounting pegs into place.

***Note**: The distance between the mounting pegs varies depending on PDU models.*

5. Pull the power cord through the cabinet and tighten the mounting pegs. Proceed with connecting to a power source.

Connecting to Power Source

Before begin the installation, check the Branch Circuit Rating in the **Safety Information** section of this manual. Always follow local and national codes, when installing the PDU. The PDU should be connected to a dedicated circuit protected by a branch circuit breaker that matching the PDU input-plug type.

***Note**: When connecting the enLOGIC PDU to a Power Source, make sure that you have enough length in the PDU power cord to reach the PDU power source.*

1. Turn **Off** the feed circuit breaker.
2. Make sure that all circuit breakers on the enLOGIC PDU are set to **ON**.
3. Connect each enLOGIC PDU to an appropriately rated branch circuit.

***Note:** Refer to the label on the PDU for the input ratings.*

4. Turn **ON** the feed circuit breaker.

The OLED screen will display a status bar, when the PDU operating system is loading. The LED code on the OLED screen will flash in light pink. After 3 seconds later, the Main Menu (Setup, Alarms, Power, Sensors) will display on the LED screen. Switched PDUs in the EN2000 series or EN6000 series show a light corresponding to each outlet as it is powered up.

Connecting PDU to Network

The enLOGIC EN2.0 range of PDUs are set to obtain an IP address via DHCP by default. Therefore, when an enLOGIC PDU is connected to a network for the first time, the PDU will automatically obtain an IP address. In case, the PDU is placed within a static network environment, users are able to configure the PDU to a Static IP via connecting to the PDU by serial cable or upload of a configuration file via USB. The PDU automatically obtains an IP address via DHCP, when connected to a network. Login to the Web UI to configure the PDU and assign a static IP address (if required).

1. Connect a standard Ethernet patch cable to Ethernet Port1/Port2 on the Advantage Series PDU.
2. Connect the other end of the Ethernet cable to the LAN.
3. Make sure that the Ethernet port on the PDU shows a solid green light on the left and a flashing yellow light on the right to indicate successful connectivity to the network. (Gigabit Router is used in this network connection.)
4. Use the menu buttons to look up the IP address of the device on the OLED display by selecting **Setup > Network > IPv4** or **IPv6** as applicable.
5. In a standard web browser, type the PDU IP address and proceed to configure the PDU as shown in.

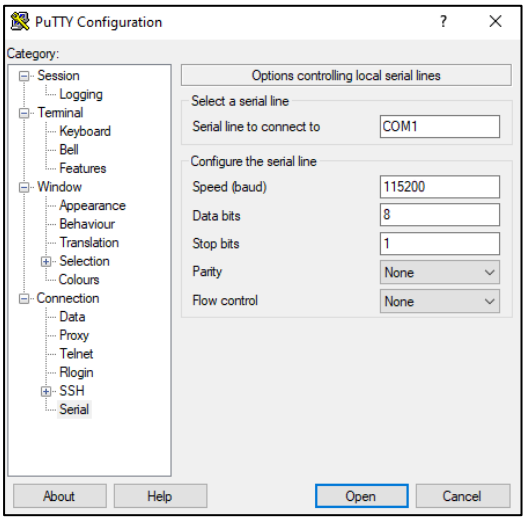
Connecting with Serial Connection

Alternatively, you can configure the network settings using the command line interface (CLI) with a serialconnection. Users can either connect serially using the optional enLOGIC RJ45-DB9 Cable (SKU EA9119) or by creating a unique pinout as described below.

1. Connect the RJ45 end of the serial cable into the port sensor 1 on the PDU.
2. Connect the DB9 end of the cable into the communications (COM) port on your computer.

***Note**: You can need to use a DB9 serial to USB connection cable for this step to connect via USB, if a DB9 serial port is not available on your computer.*

3. Open a communications program such as HyperTerminal or PUTTY.
   Select the COM port. Set the communications port as follows:
   - Bits per second: 115200
   - Data bits: 8
   - Parity: None
   - Stop bits: 1
   - Flow control: None



4. Use the default initial login indicated below.

Note: *Username and Password are both case sensitive.*

- Username: admin
- Password: 12345678

5. The EN2.0> prompt appears after you have logged in.
6. To configure network settings, Type the appropriate net commands in Command prompt and press **Enter** button. All commands are case sensitive. You can type "?" to access the commands.
    - For the Net eth0 and eth1 IPv4 DHCP configuration, configure the below parameter.
    - net tcpip eth0dhcp
    - net tcpip eth1dhcp
    - Enter "Y" to validate and reboot the network management card.
    - For the static IPv4 configuration, configure the below parameters.
    - net tcpip eth0static x.x.x.x (ipaddress) x.x.x.x (netmask) x.x.x.x (gateway)
      Example: net tcpip eth0static 192.168.1.100 255.255.255.0 192.168.1.1
    - Enter "Y" to validate and reboot the network management card.

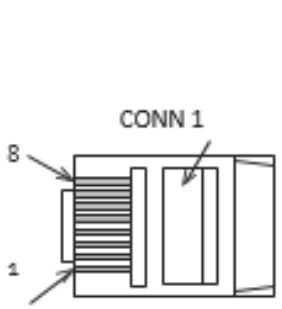
OR

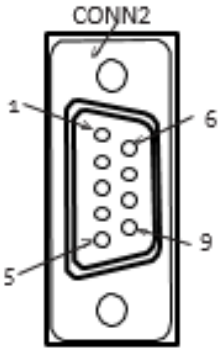
- net tcpip eth1static x.x.x.x (ipaddress) x.x.x.x (netmask) x.x.x.x (gateway)
  Example net tcpip eth1static 192.168.1.100 255.255.255.0 192.168.1.1

Creating Unique Pinout Connection

enLOGIC recommends to purchase our serial cable (EA9119) for use with the Advantage Series iPDU. This ensures an accurate connection. However, to create your own pinout connection for the RJ45 to Serial cable, make the wired connections as shown:

Pin	Description	Pin
1		1
2	RS232 RX	2
3	RS232 TX	3
4		4
5	Ground	5
6		6
7		7
8		8





Refer to the **Web UI** section and **Command Line Interface** section for more information about managing the PDU.

Connecting Sensors (Optional)

To enable the Advantage Series device to detect enLOGIC conditions, connect one or more sensors to the PDU sensor port 1 or 2. The maximum distance for sensor cabling, which is plugged into the device sensor port should not exceed 100 feet (30 m). The maximum number of sensor detection points should not exceed 10.

Refer to the table below to determine how many sensor detection points for each sensor use. For example: If you using the 3 Temperature sensor + 1 Humidity sensor (EA9105), 4 sensor points are in use, so only 4 additional sensor points are available.

Table 2: Connecting Sensors

Sensor Description	No of Sensor Points	enLOGIC SKU
Temperature Sensor	1	EA9102
Temperature and Humidity Sensor	2	EA9103
(3) Temperature + (1) Humidity Sensor	4	EA9105
Sensor Input Hub (3 sensor inputs)	n/a	EA9106
Door Switch Sensor	1	EA9109
Dry Contact Cable	1	EA9110
Spot Fluid Leak Sensor	1	EA9111
Rope Fluid Leak Sensor	1	EA9112
RJ45-DB9 CABLE	1	EA9119
E-Handle (RFID authentication)	2	EA9502
E-Handle (RFID + User PIN authentication)	4	EA9500

For more information about enLOGIC's sensors, refer to the **Installation sheet** included with each sensor.

Getting Started with the PDU

Seven Segment LED Display

The Seven Segment LED display shows data in high visibility at Phase Level and CB Level.

- *Phase Level*
  In this level information about the Current Input at each respective line, L1, L2 and L3.
- *CB Level*
  In this level information about the Current Input at each respective Circuit breaker, 1, 2 and 3.

Indicators and Alarms shown on the Seven Segment LED display

PDU Alarm- It shows the user when a Critical Alarms or Warning Alarms happens in a PDU.

Daisy Chain Indicator- It shows the user if the Daisy Chain is connected or not.

Environmental Sensor Alarm- It shows the user if there is an alarm related to the environmental sensors.

Security Sensor Alarm- It shows the user if there is an alarm related to the door sensors.

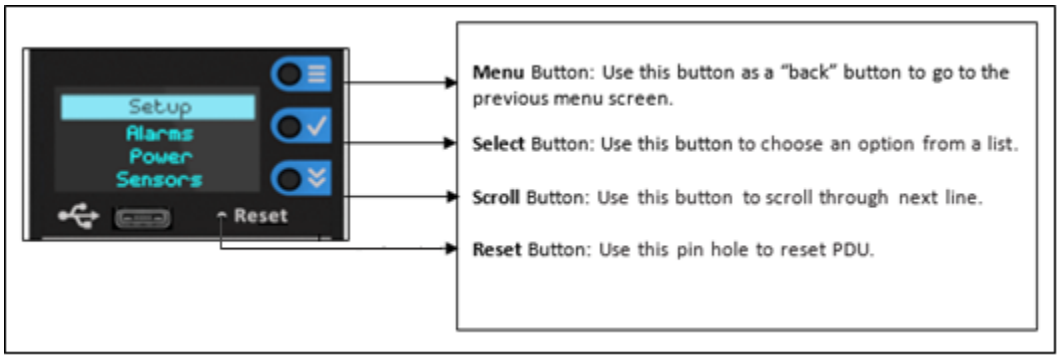
Circuit Breaker Alarm- It shows the user if there is an alarm related to the circuit breaker.

OLED Display and Network Management Controller (NMC)

The Onboard Display provides information about the PDU and connected devices. The Network Management Controller (NMC) of the PDU has a three-button. Use the buttons to change the screen display and retrieve specific data.

OLED Navigation

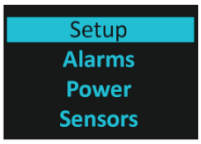
Press on the **menu** button to access the OLED **Main Menu** or previous **Submenu**.
Press on the **scroll** button to navigate through the options.
Press on the **select** button to choose the option.



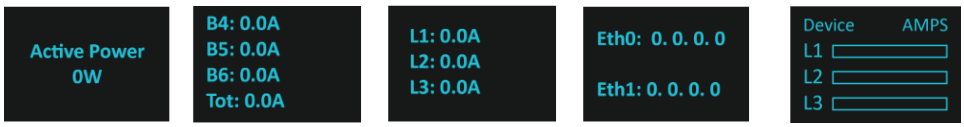
Note: *The highlighted menu item is ready to be selected.*

The Network Controller Display has three modes:

1. **Menu mode** (Network Controller Display main menu): When the PDU is powered up or when a button is pushed while in Standby Mode or Power Save mode.



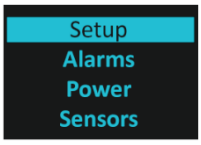
2. **Standby mode**: This happens when a PDU is idle (no buttons pushed) for 30 seconds while in Menu mode. The following screen savers with the respective data comes into view.



3. **Power Save mode**: The PDU enters Power Save mode when it has been in Standby mode for minute. The screen is switched off to save power. To exit Power Save mode, press any button on the display.

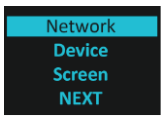
Main Menu Selections

The PDU menu selection hierarchy consists of Setup, Alarms, Power, and Sensors. On the main menu, scroll down to highlight Setup. Press Select. Scroll down to select a submenu and press Select to display the submenu options. Press Menu to return to the previous menu.



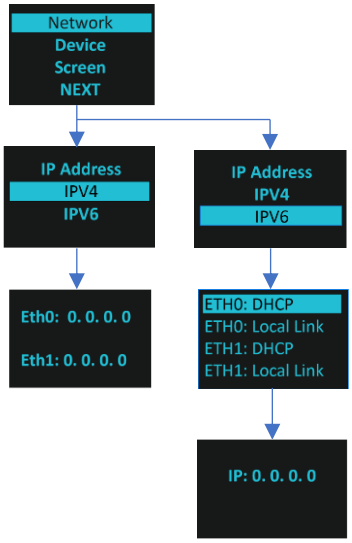
Setup Menu

The Setup menu provides user configuration options including Network, Device, Screen, Language, USB, and Units.



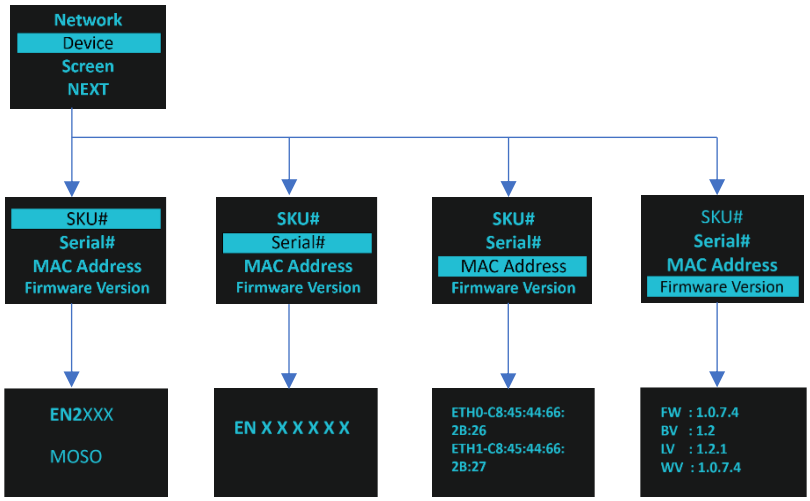
Network Submenu

The Network submenu allows you to view IP address IPv4 or IPv6. On the Setup menu, scroll down to Network. Press Select to enter the Network Submenu. Scroll down to highlight the selected option from the menu. Press Select to display the screens that display the IP address. Press Menu to return to the previous menu.



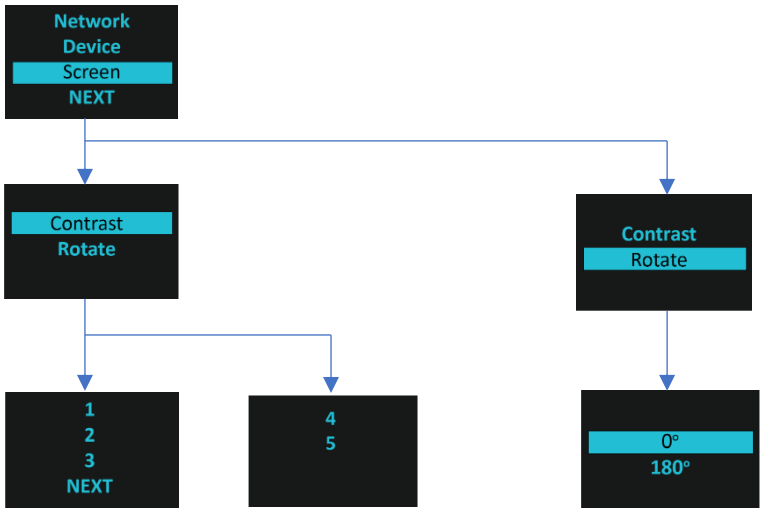
Device Submenu

The Device submenu provides the SKU number, Serial number, MAC address and Firmware version. On the Setup menu, scroll down to highlight Device submenu. Press Select to enter the Device Submenu. Scroll down to the item you wish to display, and press Select. Press Menu to return to the previous menu.



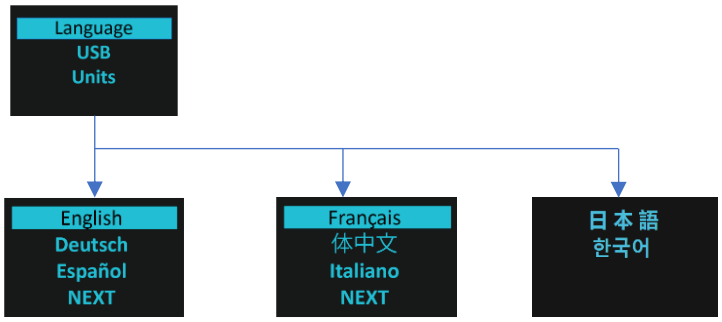
Screen Submenu

The Screen submenu allows you to customize settings for Contrast, Rotate, and Always on. In the Setup menu, scroll down to highlight Screen. Press Select to select the submenu. Press Menu to return to the previous menu.



Language Submenu

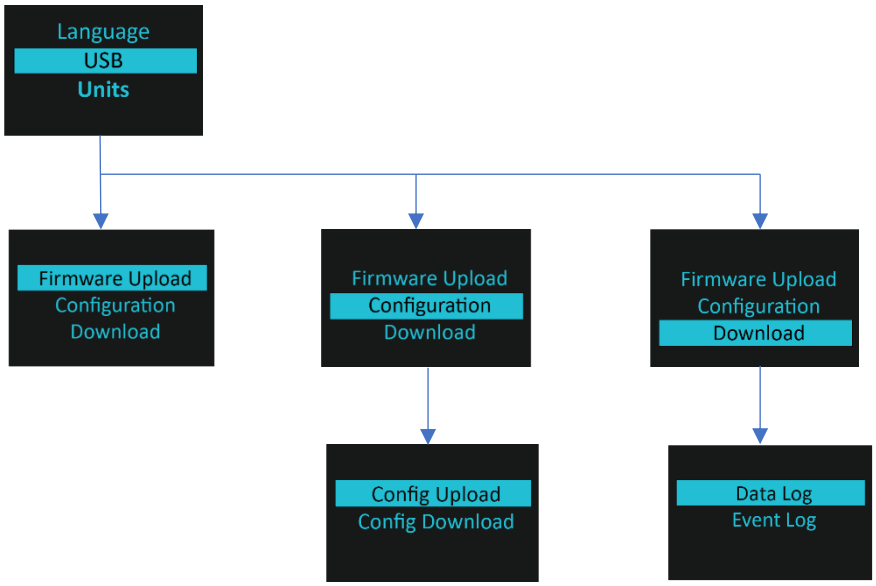
The Language submenu allows you to select the language you need to use. On the Setup menu, scroll down to highlight Lang. Press Select to display the screens to select the submenu. After you select the values, press Select to set the values as displayed on the screen. Press Menu to return to the previous menu.



USB Submenu

The USB submenu allows you to upload firmware file and download event log or data log. On the Setup menu, scroll down to highlight USB. Press Select to enter the USB Submenu. The user will be asked to verify the want to the enter the USB operation and Configuration Mode. After you select Yes, the system will reboot into the USB operation and Configuration Mode.

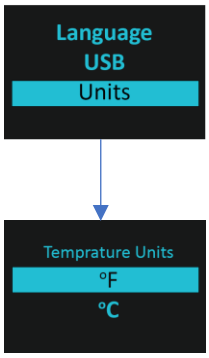
***Note**: If a USB drive is not present in the USB slot the PDU will enter normal operation.*
***Note**: If you are in USB mode and you want to exit USB mode, you must remove the USB drive before existing USB mode. Otherwise, the PDU will reboot and re-enter USB mode*.



Units Submenu

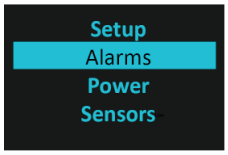
The Units submenu displays the temperature units. On the Setup menu, scroll down to highlight Units. Press Select to enter the Units Submenu. After you select the values, press Select to set the values as displayed on the screen. Press Menu to return to the previous menu.

***Note**: This can only be done locally at the PDU.*



Alarms Menu

The Alarms menu displays active alarms for the PDU. On the Main Menu, scroll down to highlight Alarms. Press Select to display the Alarm Screen. When you finish your review, press Menu to return to the main menu.

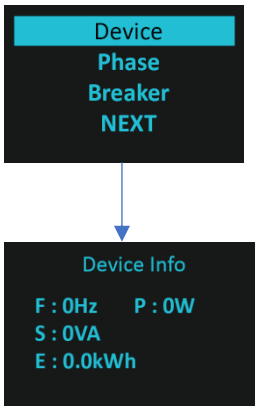


Power Menu

The Power menu manages device, phase, breaker and outlet. On the Main Menu, scroll down to highlight Power. Press Select. Scroll down to select a submenu and press Select to display the submenu options. Press Menu to return to the previous menu.

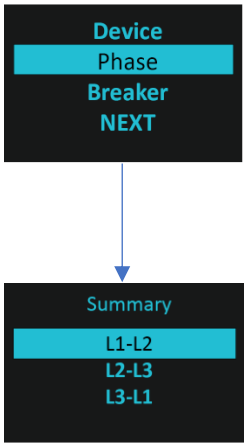
Device Submenu

The Device submenu is to display current, voltage and power. On the Power menu, scroll down to highlight Device. Press Select to display the power values for the entire PDU. Press Menu to return to the previous menu.



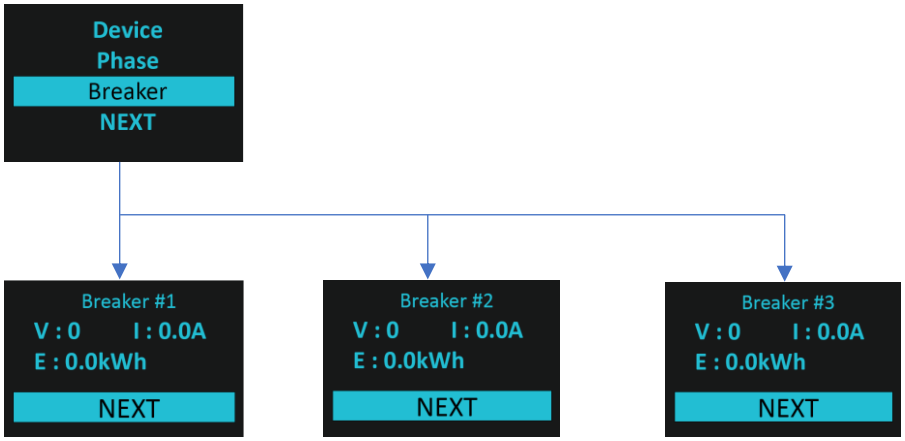
Phase Submenu

The Phase submenu is to display the status of 3-Phase. On the Power menu, scroll down to highlight Phase. Press Select to display the screens to set the values for the submenu. After you select the phase, press Select to display the values for that phase on the screen. Press Menu to return to the previous menu.



Breaker Submenu

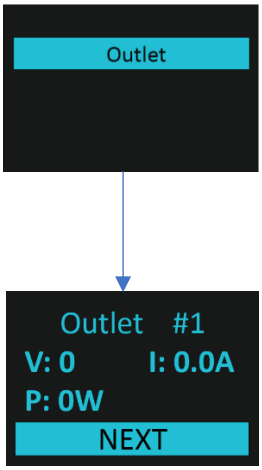
The Breaker submenu is to display power values for the breakers. Press Select to display the values of the first breaker. To go to the next breaker, Select next. Press Menu to return to the previous menu.



Outlet Submenu

The Outlet submenu is to display voltage, current and power from outlet number 1 to number n. On the Power menu, scroll down to highlight Outlet. Press Select to display values for the first outlet. To go to the next outlet, Select next. Press Menu to return to the previous menu.

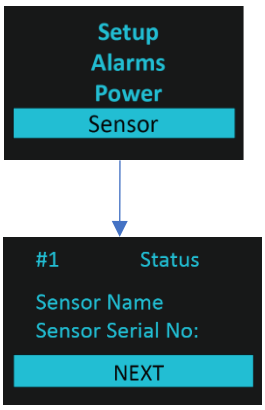
***Note**: Custom outlet names noted in the WebGUI do not make changes to the local display. This is done to make it easier to map to outlet numbers which can locally be seen on the outlets themselves.*



Sensors Menu

The Sensor menu is to display temperature, humidity, door switch, fluid leak etc. On the Main Menu, scroll down to highlight Sensor. Press Select. This will display the sensor data for the first sensor. To go to the next sensor, Select next. Press Menu to return to the previous menu.

***Note**: Maximum of 10 sensors are configured per PDU.*



Web User Interface (UI)

Ensure that the ethernet cable is connected and active which is indicated by a solid green light on the right and a flashing yellow light on the left. This indicates successful connectivity to the network.

Use the menu buttons to look up the IP address of the device on the OLED display by selecting **Setup > Network > IPv4 or IPv6 as applicable.**

In a standard web browser, enter the PDU IP address ("https://IP ADDRESS") and proceed to configure the PDU as shown in the Web Configuration section.

The supported Web browsers are Google Chrome (mobile and desktop), Mozilla Firefox, and Microsoft Edge on mobile and desktop

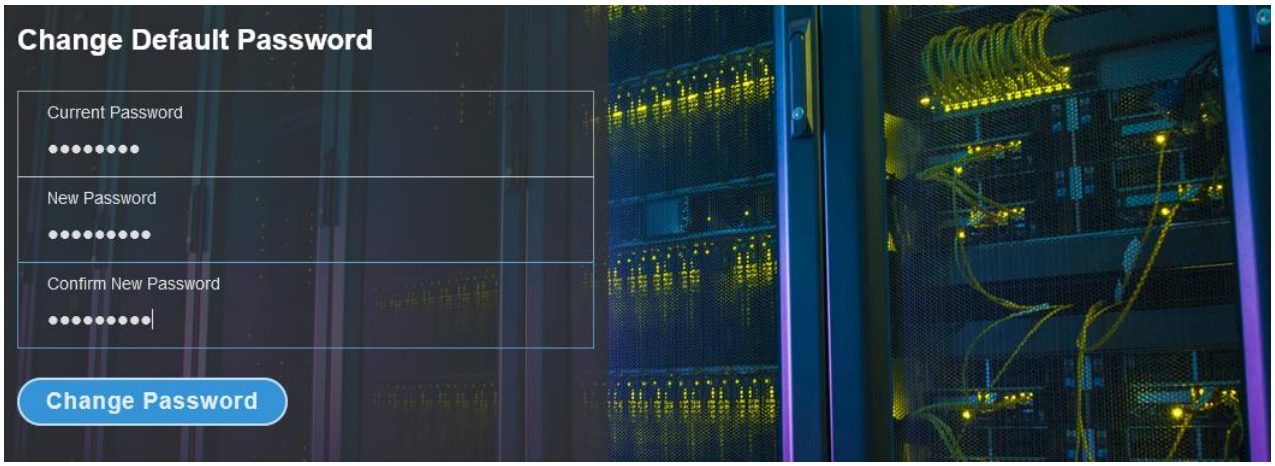
If browser displays "can't reach this page" please double check that you are using the "https://" protocol not "http://"

Introduction to Web UI

When we login for the first time and in the case of a password expiry, the password must be entered on the login page.

On the login page:

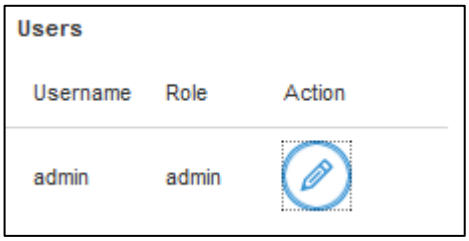
1. A **Change Default Password** screen comes to view.
2. Type the **Current Password**, **New Password** and **Confirmed New Password**.



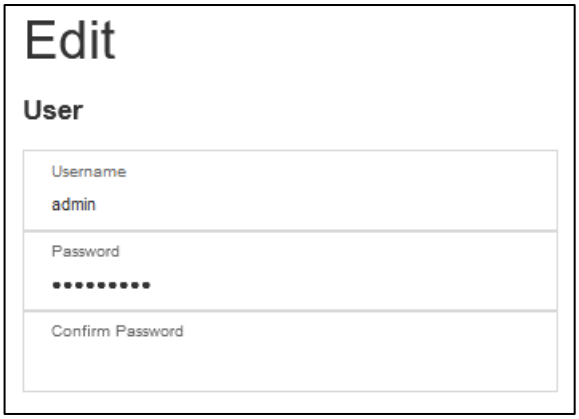
3. Click **Change Password** button to complete the process.

After the initial (First time) login, to change the password inside the web UI:

1. Click on the **User Settings** icon, the User Settings page comes to view.
2. In the **User** section, click the  icon next your **Username** and **Role** to edit/change the password

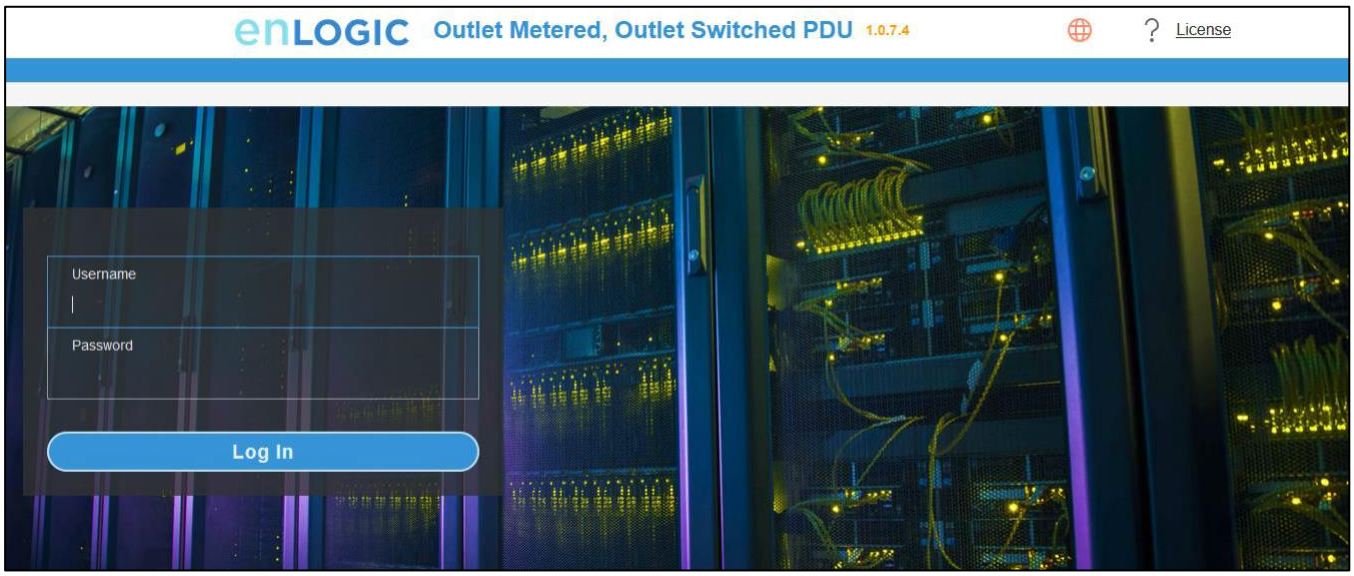


3. Type the new password in the **Password** and **Confirm Password**.



4. Click **Save** button to complete the setting.

Navigating through the Web UI



This is the landing page once you login.

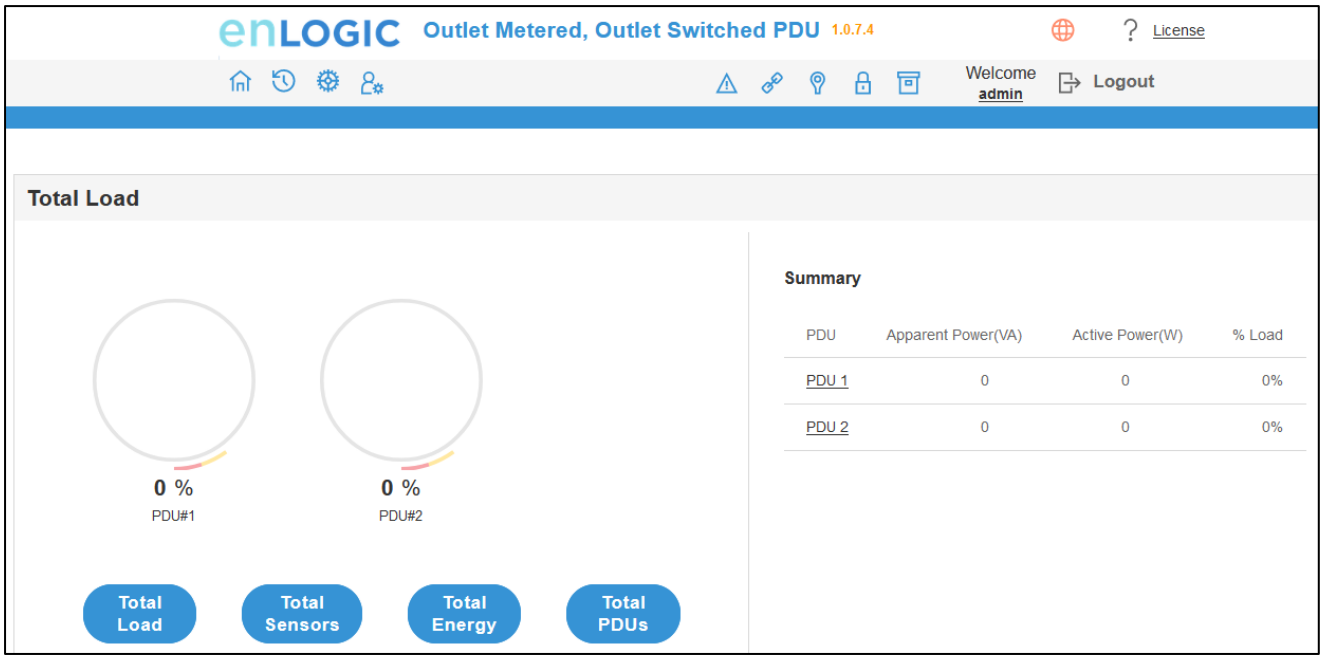


Table 3: Menu Icon Description

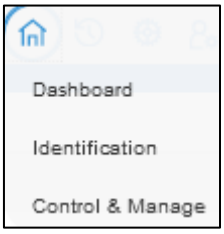
Icon	Description
	Home Icon Click this Home icon to redirect/move to home page. Home page provides an overview of the PDU with access to the Dashboard, Identification, and Control & Manage.
	Logs icon Click this icon to view and download the logs and data logs of the PDU.
	Settings Icon This settings icon allows the user to setup the Network Settings, System Management, SNMP Manager, Email Setup, Event Notifications, Trap Receiver, Thresholds, Rack Access Control and Smart Rack Control.
	User Settings Icon Click this icon to view the logged-in user or admin or manager. Also the user can change the account passwords and manage user accounts through this page. Users and Roles can be added.

	Alarms Click this Alarm icon to view the details of the active critical alarms and active warning alarms. The Alarms are configured, based on different Thresholds which are set by the user on different parameters like Power, Voltage, Input Phase, Circuit Breaker and External Sensors. Icon colors can be changed based on PDU alarm status. Critical Alarm always have high precedence over warnings. • **Red** - Critical Alarms • **Yellow** - Warnings
	Link- This Icon indicates the daisy-chain connection status alarms.
	Sensor Warning This icon represents the sensor related alarms like: • Temp • Humidity • Dry
	This icon indicates the Door and HID sensor status alarms.
	This icon indicates the CB and Outlet status alarms.
	This icon allows the user to select a Language. Currently seven languages are available to choose: English, French, Italian, Korean, German, Spanish, Japanese and Chinese.
	click this icon to find Information about the PDU. Go to www.enLOGIC.com to get more information.

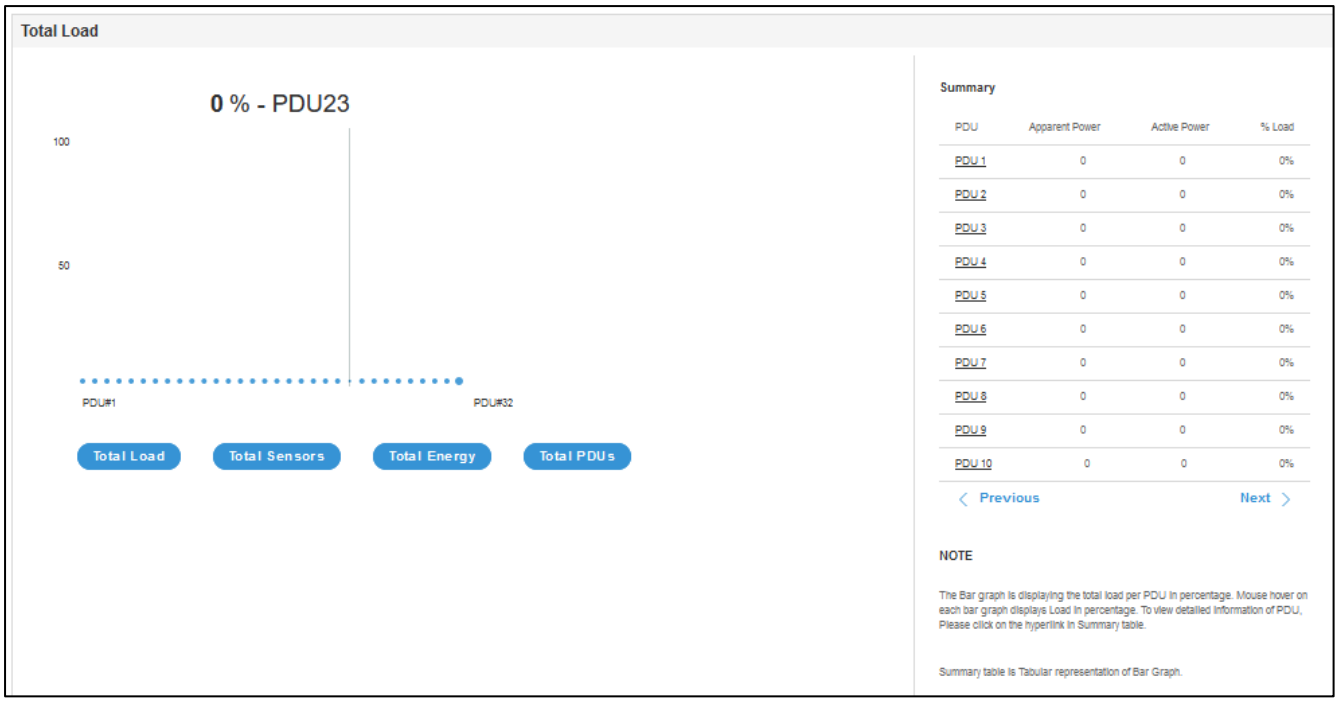
Dashboard

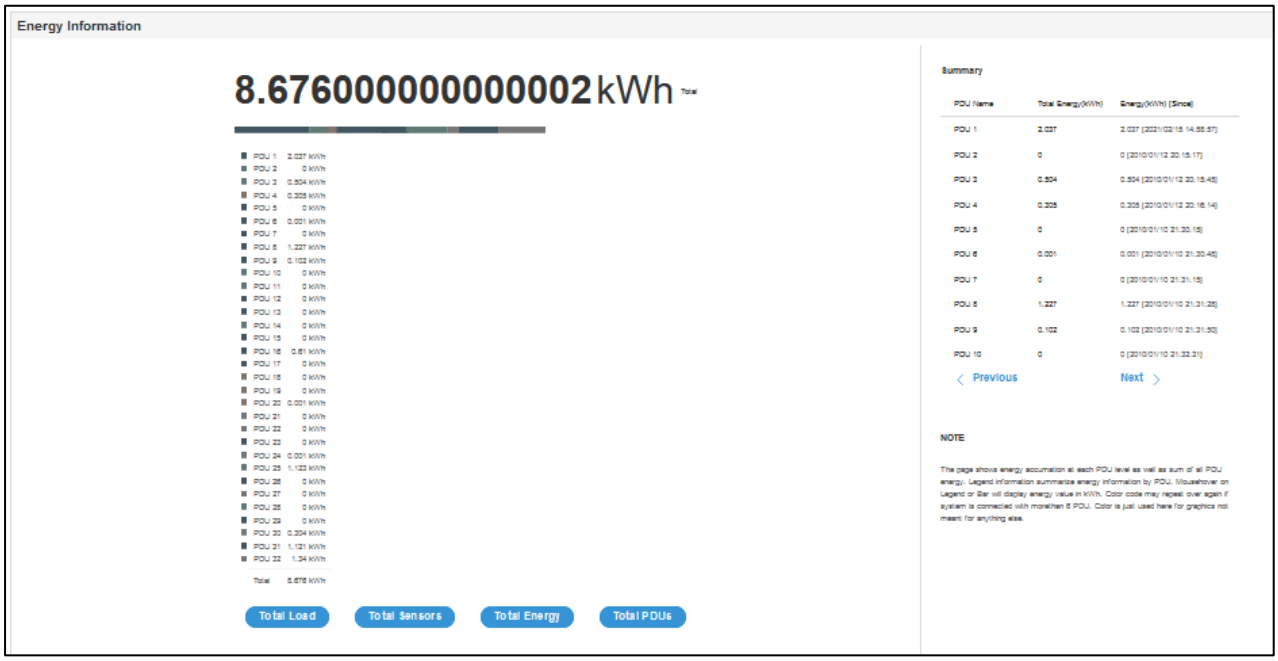
In this page, the user can view information of Total Load, Total Sensors, Total Energy and Total PDUs.

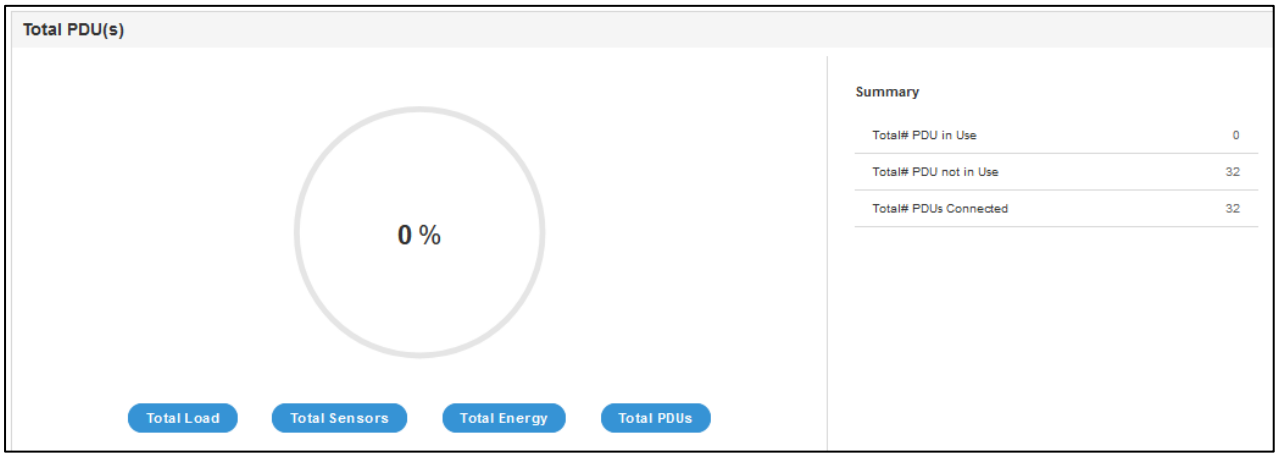
1. Click on the **Home** icon to dropdown the Home menu.

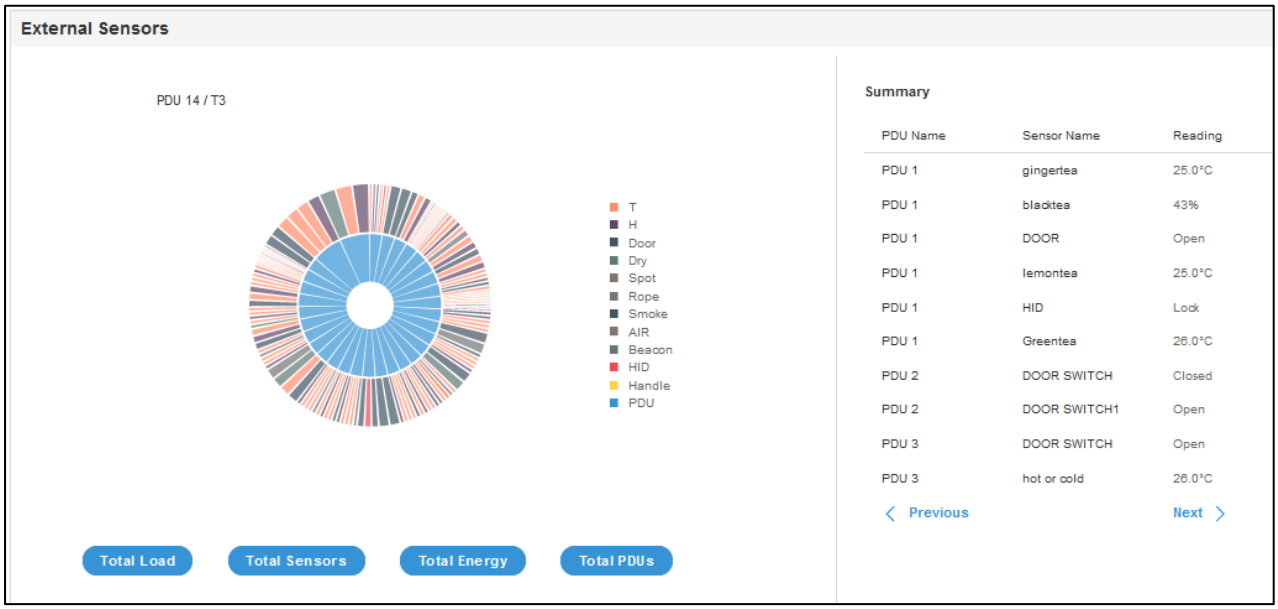


2. Select **Dashboard** to view information.




Energy Information
8.676000000000002 kWh
Total Load
Total Sensors
Total Energy
Total PDUs
Summary
NOTE

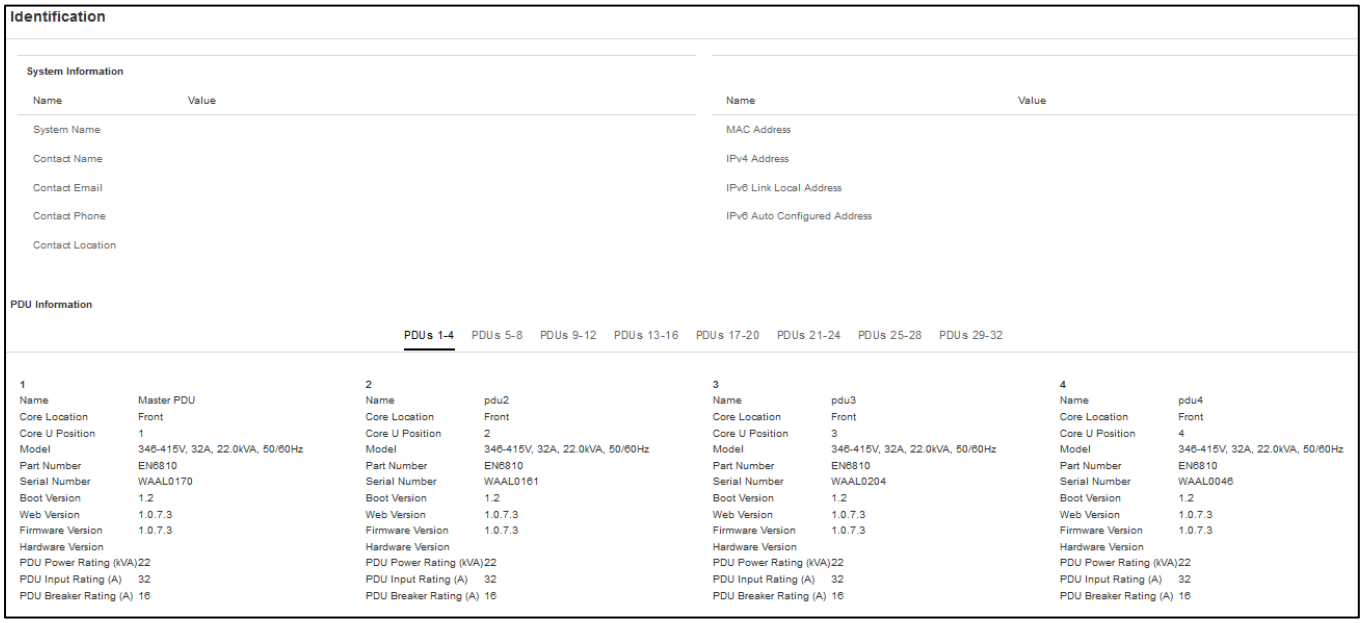

Total PDU(s)
0 %
Total Load
Total Sensors
Total Energy
Total PDUs
Summary
Total# PDU in Use 0
Total# PDU not in Use 32
Total# PDUs Connected 32



Identification

In this page, the user can view the **System Information**, and individual **PDU Information**.

1. Click on the **Home** icon to dropdown the Home menu
2. Select **Identification** to view the information.

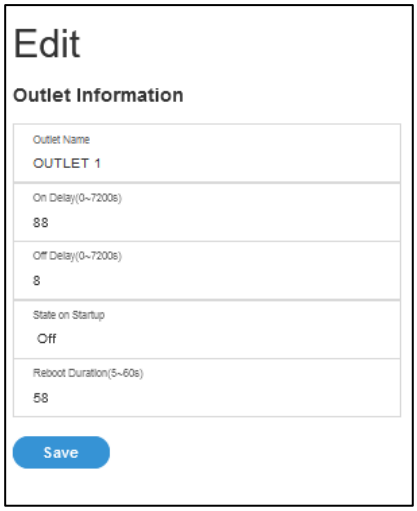


Control and Manage

In this page, the user can view and control the **Power Outlet** of the PDU.

1. Click on the **Home** icon to dropdown the Home menu
2. Select **Control & Manage**.

3. Enable the **Outlet Control Enabled**.
4. Click the  icon to edit/change the Outlet information below,
    - **Outlet name** to identify the outlet.
    - **On delay time** (0-7200 seconds)
    - **Off delay time** (0-7200 seconds)
    - **State on startup** (On, Off, and last known can be selected)
    - **Reboot duration** (configure time between 5 to 60 seconds)



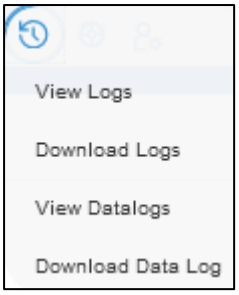
On the top right side of the Control & Manage page there is an  icon, to **Reset PDU Energy**

View Logs

In this page, the user can view, download, and clear the Actions performed by the PDU.
Some of the actions performed by the PDU are:

- Generating **Event**, **Audit** and **Application logs**,
- Recording **Power Share** details.

1. Click on the **System Administration** icon to dropdown the System Administration menu.



2. Select the **View Logs** to view the information.

On the top- right side of the view log page, Click the below options as required:

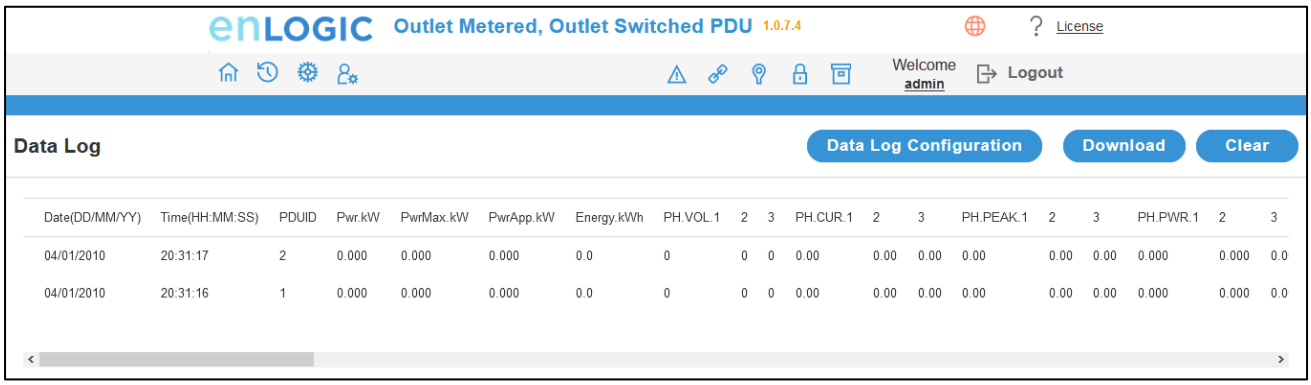
- **Download** Log: to download the logs
- **Clear** Log: to delete/clear the logs.

View Data Logs

In this page, the user can view, configure, download, and clear the Data recorded by the PDU.
The Data recorded by the PDU are:

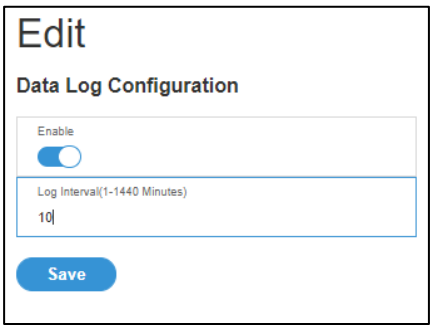
- **Energy** information
- **Power** information
- **Date and Time** information

1. Click on the **System Administration** icon to dropdown the System Administration menu.
2. Select the **View Data Logs** to view the information.



On the top- right side of the View Data Log page, Click the below options as required:

- **Data Log Configuration**
  This button allows us to:
  - **Enable** Data Log Configuration if data log is required.
  - **Log Interval** time that need to be recorded



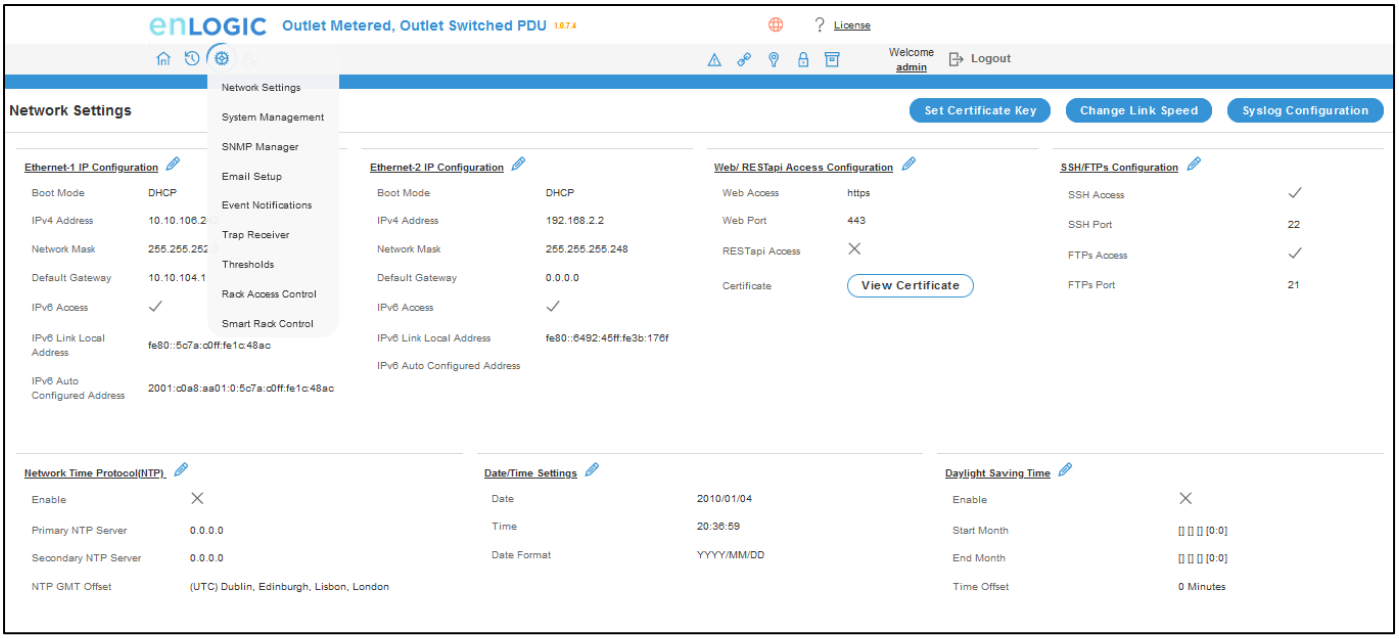
- **Download** Data Log: to download the logs
- **Clear** Data Log: to delete/clear the logs.

Network Settings

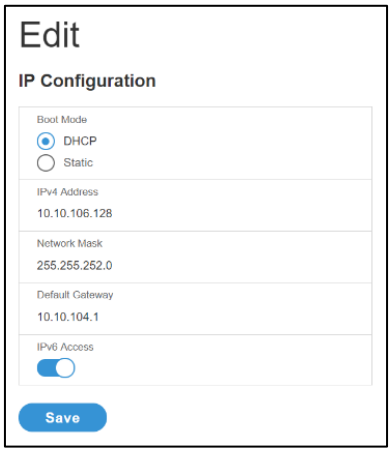
This page allows the management of IP Configuration, Web RESTapi Access Configuration, SSH/FTPs Configuration, Network Time Protocol (NTP), Date/Time Settings and Daylight-Savings Time.

This PDU supports IPv4 and IPV6 with full featured network management and alerting capabilities. After you select your Internet protocol option, you will be able to communicate via HTTP, HTTPS, SNMP, FTPS and Email for network communications.

1. Click on the **Settings** icon to dropdown the Settings menu.
2. Select the **Network Settings** to view the information.



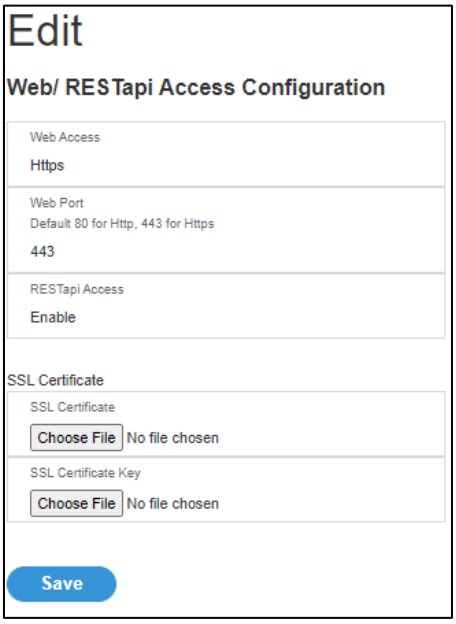
3. Click the  icon to edit/change the **IP Configuration** information below,
    - Select **Static** to manually and Type the following information:
        - **IPv4 address**
        - **Network Mask**
        - **Default Gateway**.
    - Select **DHCP**, if you wish to auto-configure the PDU IP address.
    - Click **Save** button to complete setting.



4. By default, accessing the PDU uses HTTPS port setting.

   Click the  icon to edit/change the **Web/RESTapi Access Configuration** information below,

   - **Web Access** (**HTTP** or **HTTPS**)
   - **Web *Port*** (Default 80 for HTTP, and 443 for HTTPS).
   - Enable **RESTapi Access**.
   - To access the HTTPS settings, upload the **SSL Certificate** and **SSL Certificate Key** provided by Enlogic.
   - Click **Save** button to complete setting.

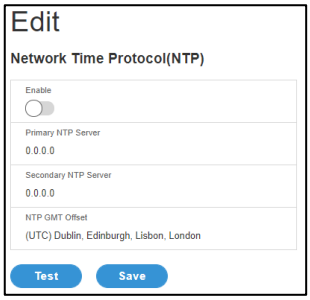


5. You can link the PDU to a **Network Time Protocol (NTP)** server and let it set the date and time.

   Click the  icon to edit/change the NTP Setting information below,

   - **Enable** the NTP settings.
   - To synchronize the PDU time with a selected server,
     - Type the valid **Primary** NTP server address
     - Type the valid **Secondary** NTP server address

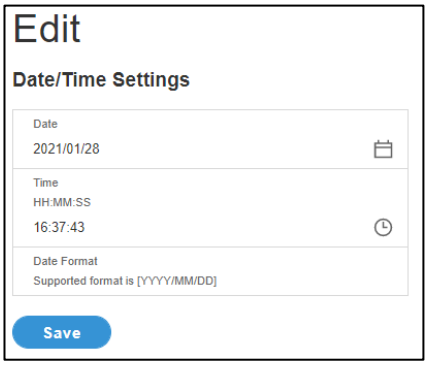
- Select the desired **NTP GMT offset** time from the dropdown list.
- Click **Test** button to check if the network is valid or not.
- Click **Save** button to complete setting.



6. You can manually set the internal clock on the PDU.

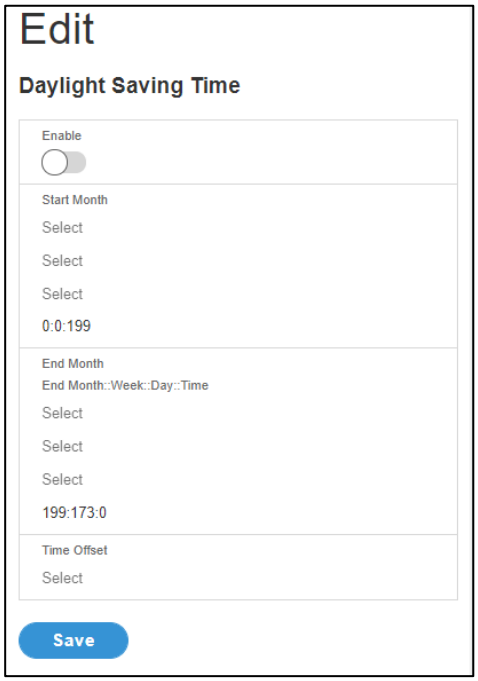
   Click the  icon to edit/change the **Date/Time Setting** information below,

   - Type the **Date** in YYYY-MM-DD format or use the calendar icon.
   - Type the **Time** in HH: MM: SS format and time is measured in 24-hour format.
   - Click **Save** button to complete setting.



7. Click the  icon to edit/change the **Daylight Saving Time** information below,

   - **Enable** the Daylight Saving Time.
   - Select the specifics of the **Start Month**:
     - Month
     - Week
     - Day
     - Time
   - Select the specifics of the **End Month**:
     - Month
     - Week
     - Day
     - Time
   - Assign the **Time Offset.**
   - Click **Save** button to complete setting.

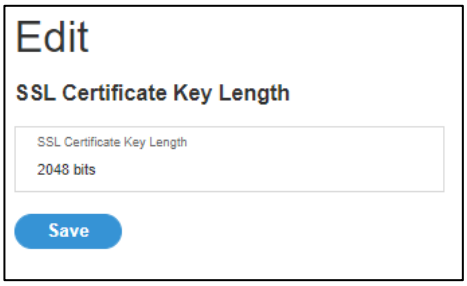


On the top- right side of the Network Settings page, Click the below options as required:

- **Set Certificate Key**

  Below are the steps to edit SSL Certificate Key Length.

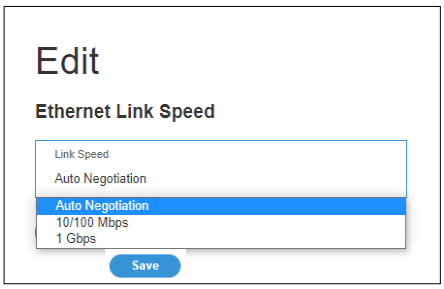
  - Click **Set Certificate Key** button.
  - Select **bits** (**1024/2048)** from dropdown menu.
  - Click **Save** button to complete setting.



- **Change Link Speed**

  Below are the steps to change the Ethernet link speed.

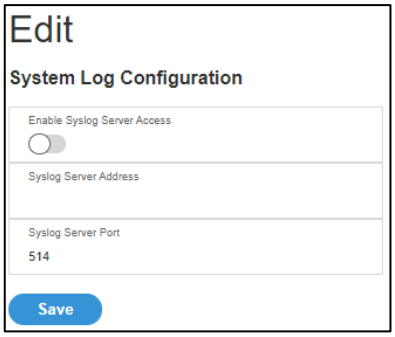
  - Click **Change Link Speed** button.
  - Select speed (as required below) from dropdown menu.
    - **Auto Negotiation**
    - **10/100 Mbps**
    - **1 Gbps**
  - Click **Save** button to complete setting.



- **Syslog Configuration**

  Below are the steps to configure the Syslog.

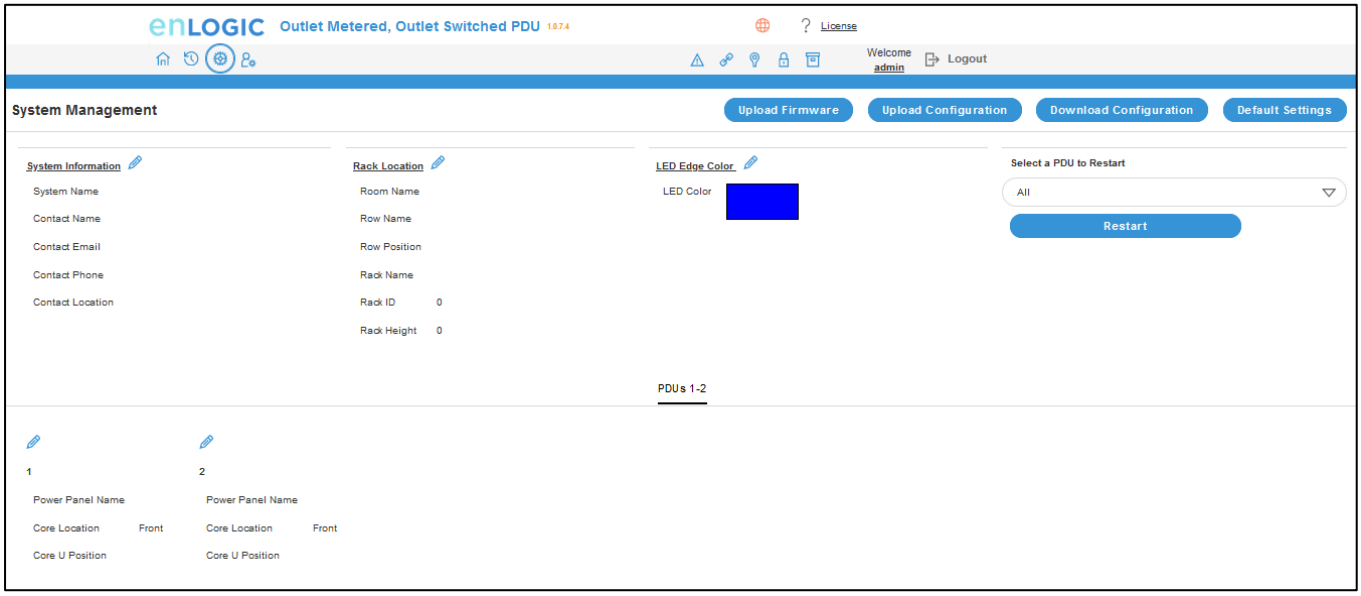
  - Click **Syslog Configuration** button.
  - Enable the **Enable Syslog Server Access**.
  - Type the **Syslog Server Address**.
  - Select **Syslog Server Port** number.
  - Click **Save** button to complete setting.



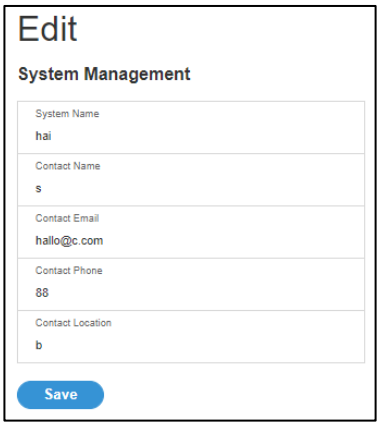
System Management

This page allows the user to perform functions like, **Uploading Firmware**, **Uploading Configuration**, **Downloading Configuration** and setting the PDU to its **Default Settings**.
It also allows the user to **Restart** the PDU.

1. Click on the **Settings** icon to dropdown the Settings menu.
2. Select the **System Management** to view the information.

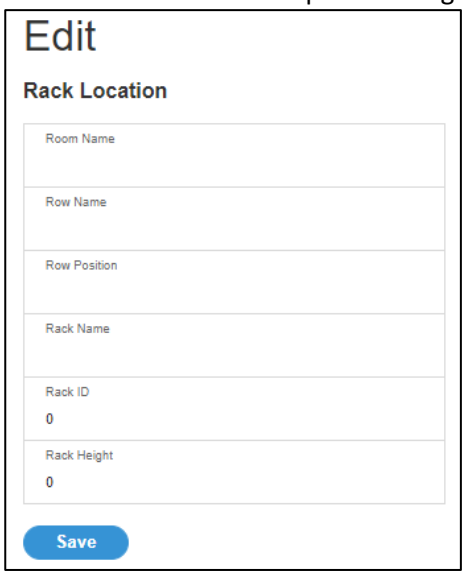


3. Click the  icon to edit/change the **System Information** below,
   - Enter the **System Name** of the PDU for identification.
   - Enter the **Contact Name** of the contact person.
   - Enter the **Contact Email** of the contact person.
   - Enter the **Contact Phone** of the contact person.
   - Enter the **Contact Location** of the contact person.
   - Click **Save** button to complete setting.



4. Click the  icon to edit/change the **Rack Location** below,

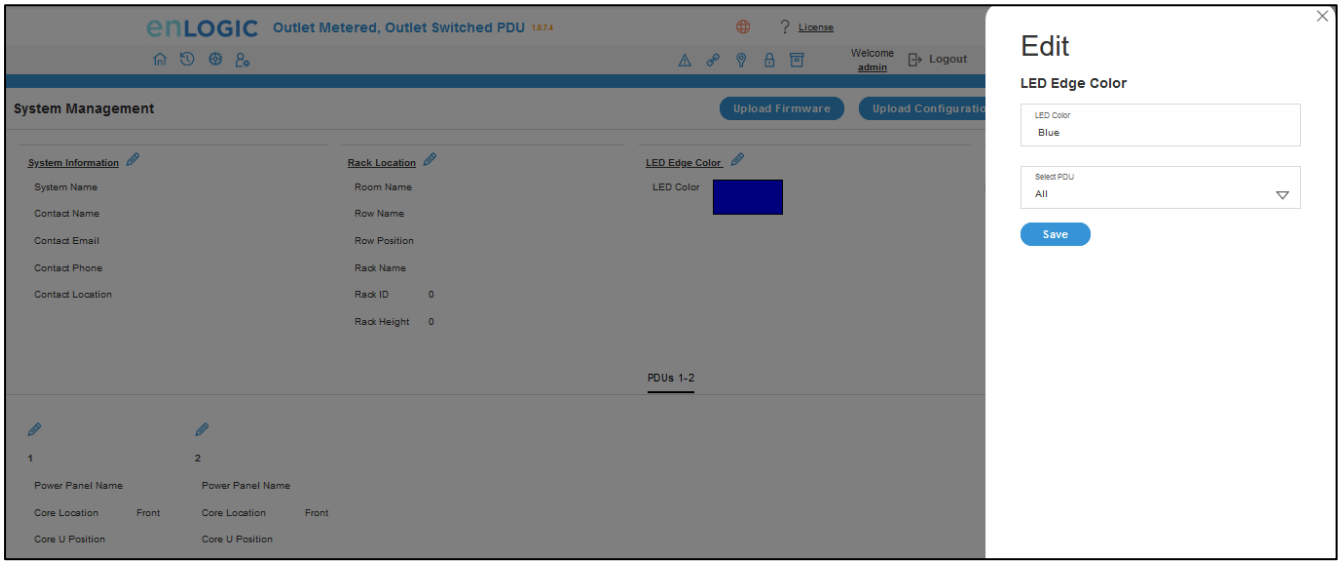
- Enter the **Room Name** to identify the cabinet or room where the PDU is located.
- Enter the **Row Name** where the PDU is located on the rack.
- Enter the **Row Position** where the PDU is located on the rack.
- Enter the **Rack Name** where the PDU is located.
- Enter the **Rack ID** for identification of rack.
- Enter the **Rack Height** where the PDU is located on the rack**.**
- Click **Save** button to complete setting.



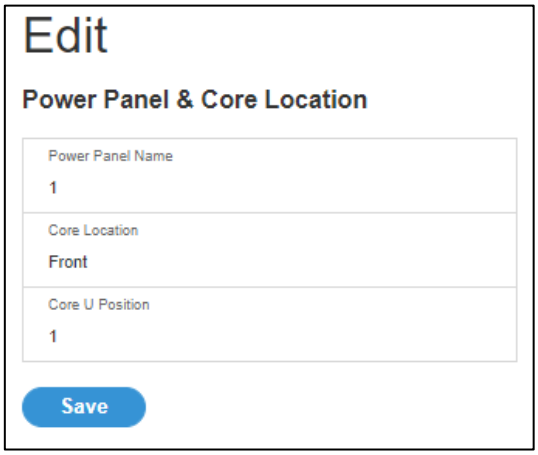
5. The LED Edge Color can be configured into 7 different colours for the easy identification. The colours are red, blue, white, yellow, green, cyan, and pink.

   Click the  icon to edit/change the **LED Edge Color** information below,

   - Select the **LED Color**.
   - **Select PDU**.
   - Click **Save** button to complete setting.



6. Click the  icon to edit/change the **Power Panel & Core Location** information below,
    - Enter the **Power Panel Name** to identify the PDU.
    - Select **Core Location** to identify which side the PDU is located **Front** or **Back**
    - Enter **Core U Position** to identify the rack location.
    - Click **Save** button to complete setting.



SNMP Management

This page allows the user to manage the transfer of data from the PDU to the MIB Browser.

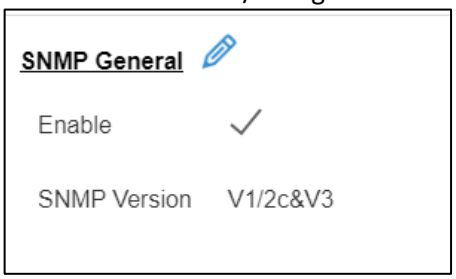
Simple Network Management Protocol (SNMP) is used to manage the Advantage Series PDU(s) remotely.

SNMP allows the user to monitor and detect network faults and to even configure variable data in the PDU.

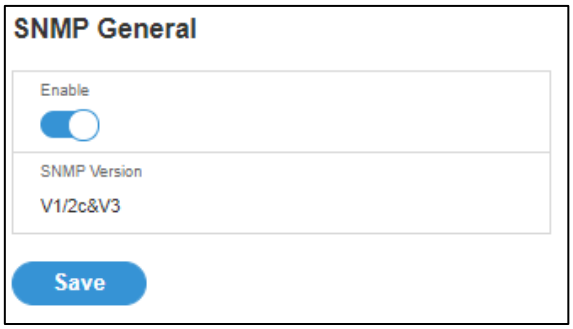
(Refer **SNMP**)

1. Click on the **Settings** icon to dropdown the Settings men.
2. Select the **SNMP Management** to view the information.
3. To access the PDU data inside a MIB Browser.

   Click the icon to edit/change the **SNMP General** below,

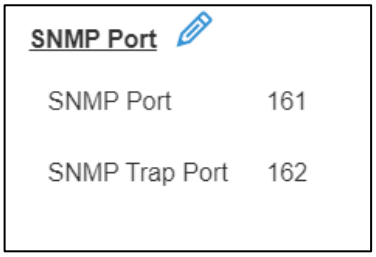


- Enable the **SNMP General**.
- Click **Save** button to complete setting.



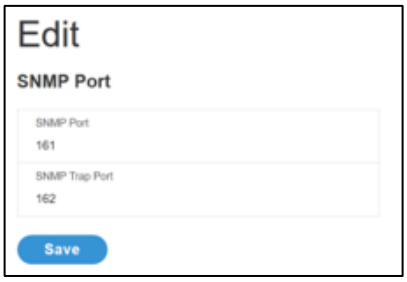
4. To secure the link between the PDU and the MIB Browser.

   Click the icon to edit/change the **SNMP Port** below,



- Enter the **SNMP Port** number.

- Enter the **SNMP Trap Port** number.
- Click **Save** button to complete setting.



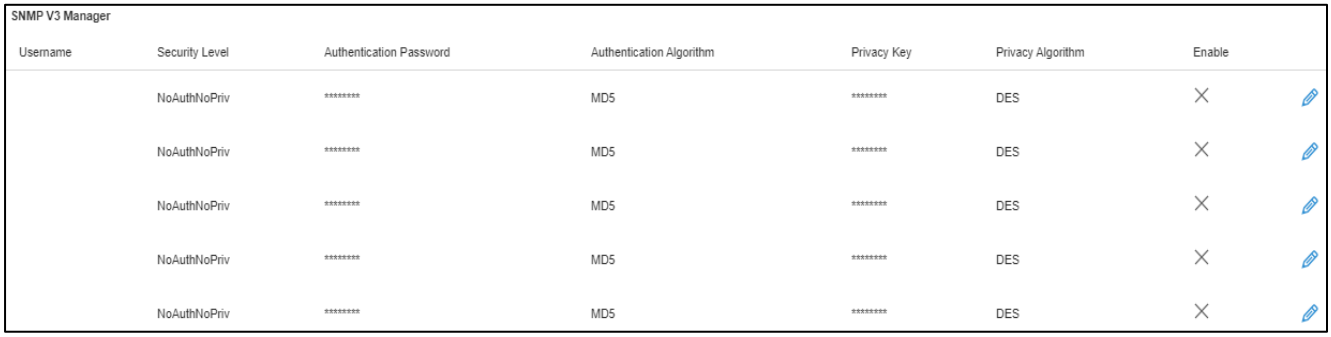
5. Configuring users for SNMP V1/V2c.

   Click the  icon to edit/change the **SNMP V1/2c Manager** below,

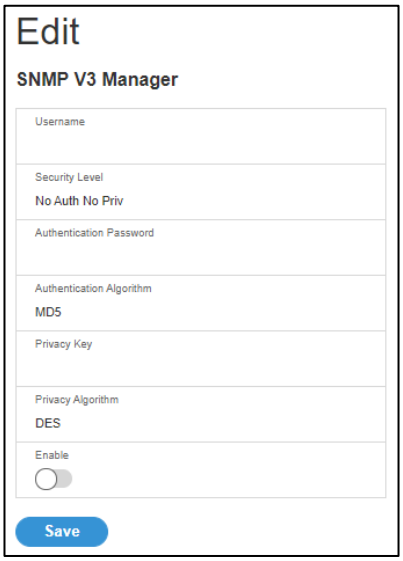
- Enter the **IP Address**.
- Define the security to **public** or **private** in the,
  - **Read Community**
  - **Write Community**
- **Enable** the SNMP V1/V2c.
- Click **Save** button to complete setting.

6. Configuring users for SNMP V3 to ensure higher security of data transfer, to the MIB browser.

Click the  icon to edit/change the **SNMP V3 Manager** below,



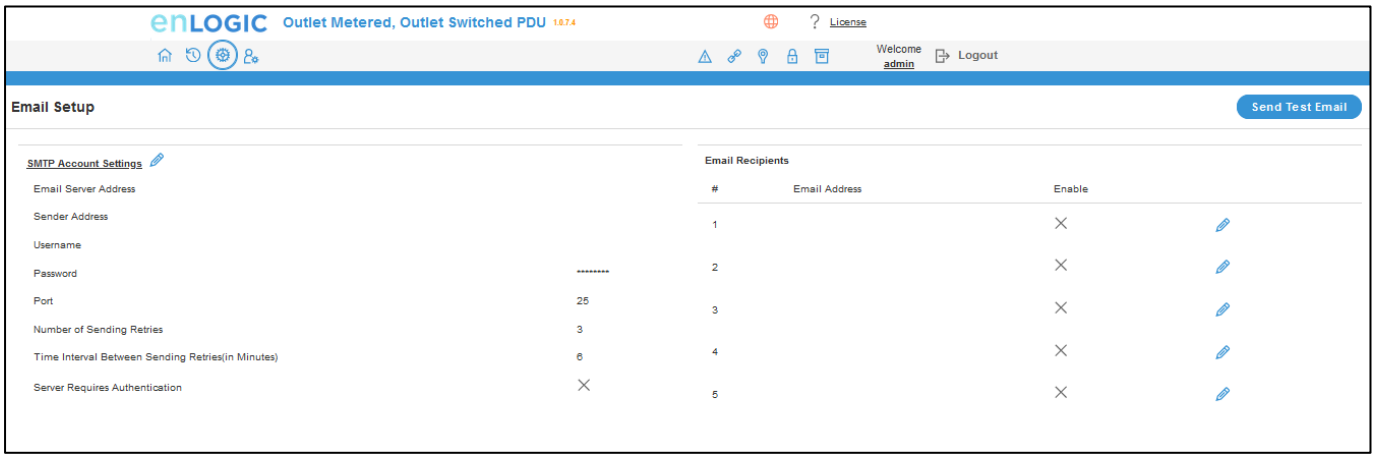
- Enter the **Username**.
- Assign the **Security Level** from the dropdown menu.
  - **NoAuthNoPriv**: No authentication and no privacy. This is the default.
  - **AuthNoPriv**: Authentication and no privacy.
  - **AuthPriv**: Authentication and privacy.
- Type a new unique password as the **Authentication Password**.
- Select the **Authentication Algorithm**.
  - **MD5**
  - **SHA**
- Type a new unique password as the **Privacy Key**.
- Select the **Privacy Algorithm.**
  - **DES**
  - **AES-128**
  - **AES-192**
  - **AES-256**
- **Enable** the SNMP V3.
- Click **Save** button to complete setting.


Edit
SNMP V3 Manager
Username
Security Level
No Auth No Priv
Authentication Password
Authentication Algorithm
MD5
Privacy Key
Privacy Algorithm
DES
Enable
Save

Email Setup

In this page, the user can configure the PDU to send alerts or event messages via email. To do this, the information about the Simple Mail Transfer Protocol (SMTP) server needs to be configured.

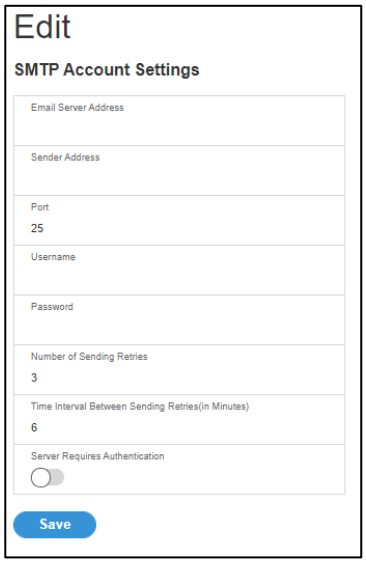
1. Click on the **Settings** icon to dropdown the Settings menu.
2. Select the **SNMP Management** to view the information.



3. To set the SMTP server settings to receive Emails and notifications.

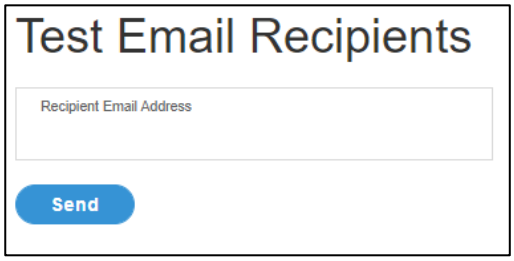
   Click the  icon to edit/change the **SMTP Account Settings** below,

   - Enter the **Email Server Address**, which is the IP address of the SMTP for accepting messages.
   - Enter the **Sender Address**, which is the email address that the email is sent to.
   - Configure the **Port** number, which is the communication endpoint on the server. The default is **25**.
   - Enter the **Username** for SMTP security.
   - Enter the **Password** for SMTP security.
   - Assign the **Number of Sending Retries**, which is the number of times the PDU will attempt to resend a message if the message fails. The default is **3**.
   - Type the **Time Interval Between Sending Retries** (in minutes). The default is **6** minutes.
   - Enable the **Server Requires Authentication** to password protect the SMTP.
   - Click **Save** button to complete setting.



On the top- right side of the Email Setup page, Click the below options as required:

- **Send Test Email**
  This button allows us to send a test mail to check if the feature is active or not.
  - Enter the **Recipient Email Address**.
  - Click the **Send** button to send the Email.



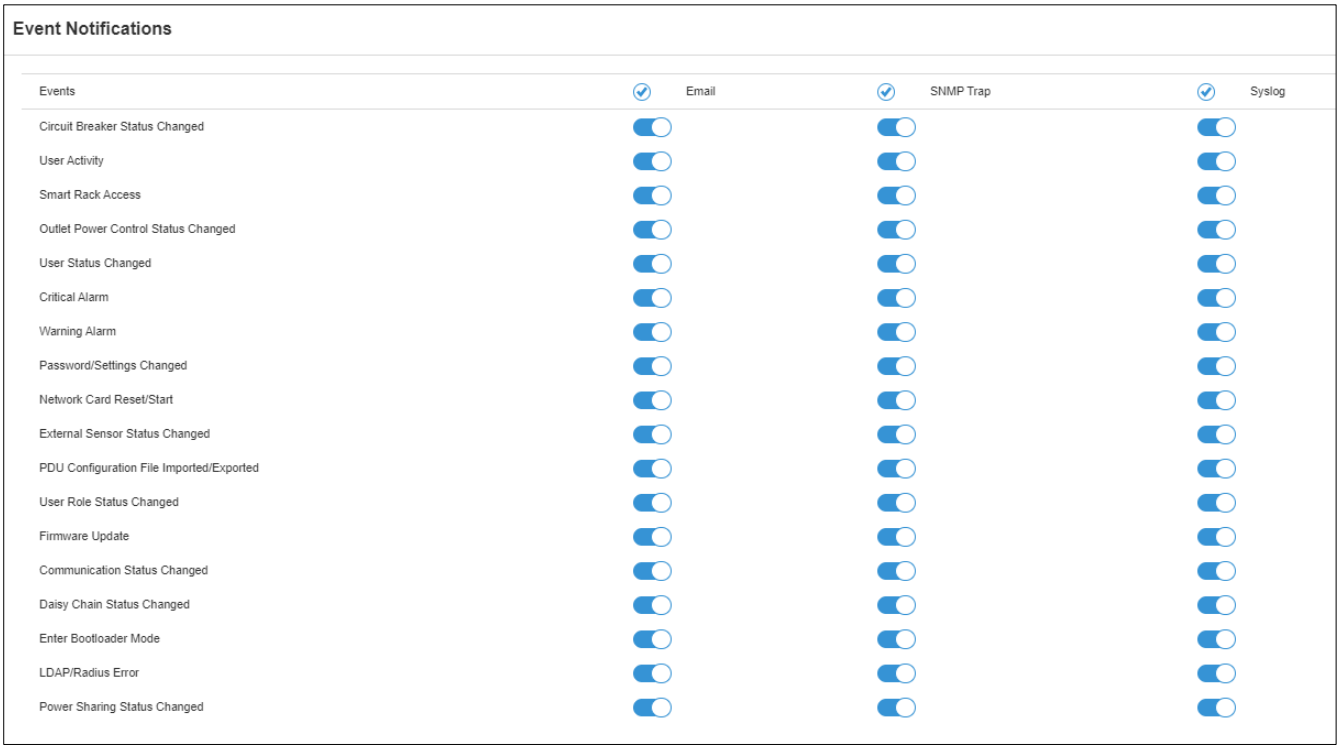
Event Notification

In this page the user can assign the Event notifications from the PDU to the Syslog, SNMP Trap, and Email.

An event notification has two parts:

- Event: the situation where the PDU meets certain condition (i.e., temperature sensor exceeds the warning limit. Or circuit breaker status is changed).
- Action: the response to the event (i.e., send an SMTP message and SNMP trap.)

1. Click on the **Settings** icon to dropdown the Settings menu.
2. Select **Event Notification** to view information.
3. **Enable** the **Email**, **SNMP Trap** and **Syslog** to the respective Events to receive notification.



The Critical and Warning Alarms are enabled at the SNMP Trap, as default. The notifications for these default events enabled, can only be received after the configuration of **Traps Receiver**.

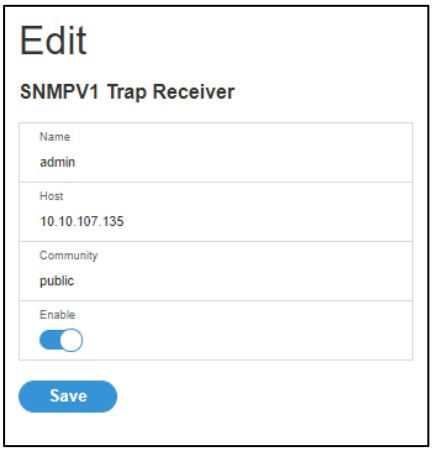
Trap Receiver

This page allows us to configure the Trap receiver by typing in name, host, and community. Typically, the Read Community and Write Community are public.

1. Click on the **Settings** icon to dropdown the Settings menu.
2. Select **Trap Receiver** to view information.
3. Configuring users for SNMP V1 Trap Settings that allows the communication to the MIB browser.

Click the  icon to edit/change the **SNMP V1 Trap Receiver** settings below,

- Enter the **Name**, which allows us to identify the different receivers.
- Enter the **Host** IP address to which the traps are sent.
- Assign the **Community** to **public** or **private** security.
- **Enable** the SNMP V3.
- Click **Save** button to complete setting.

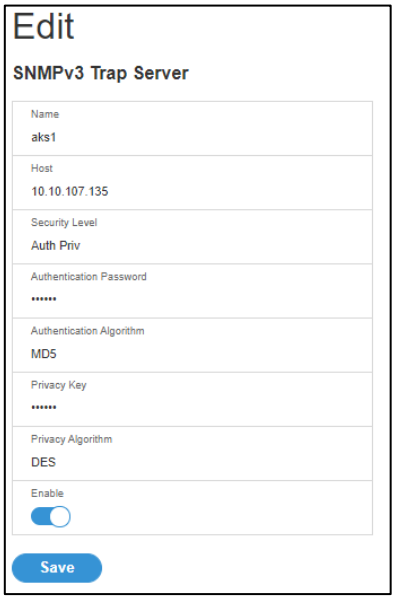


4. Configuring users for SNMP V3 Trap Settings that allows for encrypted communication to the MIB browser.

Click the  icon to edit/change the **SNMP V3 Trap Receiver** settings below,

- Enter the **Name**, which allows us to identify the different receivers.
- Enter the **Host** IP address to which the traps are sent.
- Assign the **Security Level** from the dropdown menu.
    - **NoAuthNoPriv**: No authentication and no privacy. This is the default.
    - **AuthNoPriv**: Authentication and no privacy.

  - **AuthPriv**: Authentication and privacy.
- Type a new unique password as the **Authentication Password**.
- Select the **Authentication Algorithm**.
  - **MD5**
  - **SHA**
- Type a new unique password as the **Privacy Key**.
- Select the **Privacy Algorithm.**
  - **DES**
  - **AES-128**
  - **AES-192**
  - **AES-256**
- **Enable** the SNMP V3.
- Click **Save** button to complete setting.



On the top- right side of the Email Setup page, Click the below options as required:

- **Send Test Trap**
  This button allows us to send a test Trap to check if the feature is active or not.

Defining Thresholds

The Thresholds are limits, defined by the user over parameters like power, phase, circuit breaker and sensor to send alert notifications when the value crosses above or below the limit.

To access the PDU Thresholds page,

1. Click on the **Settings** icon to dropdown the Settings menu.
2. Select **Thresholds** to view information.

Power Thresholds

The PDU will send alert notifications when a power threshold wattage crosses above or below the settings you specify in the Power Threshold.

Below are the steps to change the Power Thresholds settings and alarm notifications,

a) Choose **Power Threshold** tab in the PDU Threshold page.

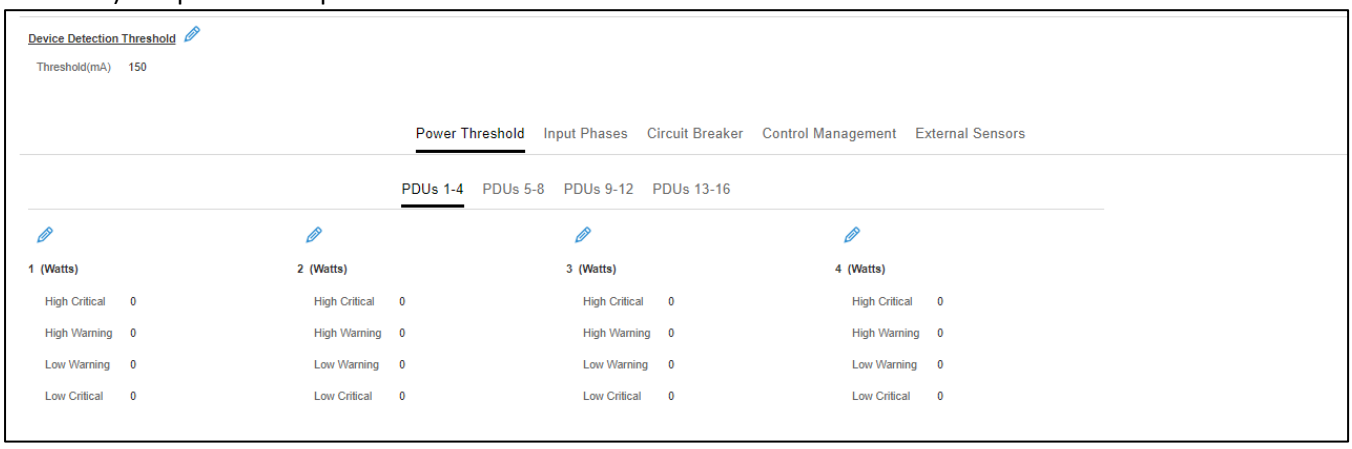
b) Click  icon edit/change the Power Threshold Setting.

c) In the **PDU Power Threshold Setting** dialog boxes, change the fields as needed:

- Low Critical (W)
- Low Warning (W)
- High Warning (W)
- High Critical (W)
- Reset Threshold (W)
- Alarm State Change Delay (samples)

d) Click **Save** button to complete the setting.

e) Repeat the steps for all PDUs.



Input Phases

The PDU will send alert notifications when a phase current and voltage alarm crosses above or below the settings you specify in the Input Phase Threshold.

Below are the steps to change the Input Phase Settings and alarm notifications,

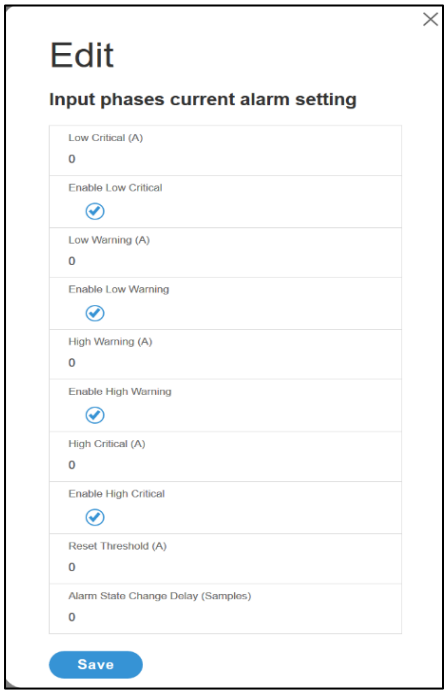
a) Choose the **Input Phases** tab in the PDU Threshold page.

b) Click  icon to edit/change the Phase Current Settings.

c) In the **Input Phase Current Alarm Setting** dialog boxes, change the fields as needed:

- Low Critical (A)

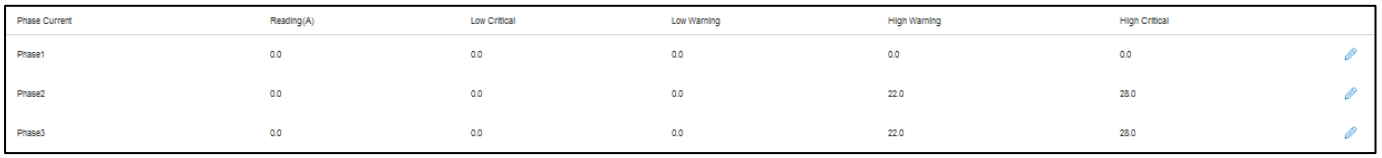
- Low Warning (A)
- High Warning (A)
- High Critical (A)
- Reset Threshold (A)
- Alarm State Change Delay (samples)



d) Click **Save** button to complete the setting.

e) Repeat steps 1 - 4 for all PDUs.

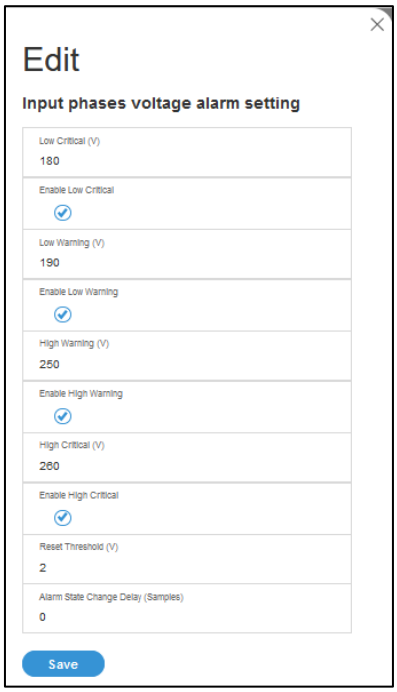
f) Click  icon to edit/change the Phase Voltage Settings.



g) In the **Input Phase Voltage Alarm Setting** dialog boxes, change the fields as needed:

- Low Critical (V)
- Low Warning (V)
- High Warning (V)
- High Critical (V)
- Reset Threshold (V)

- Alarm State Change Delay (samples)



h) Click **Save** button to complete the setting.

i) Repeat the steps for all PDUs.

Circuit Breaker

The PDU will send alert notifications when a circuit breaker amperage crosses above or below the settings you specify in the Circuit Breaker Threshold.

Below are the steps to change the Circuit Breaker Settings and alarm notifications,

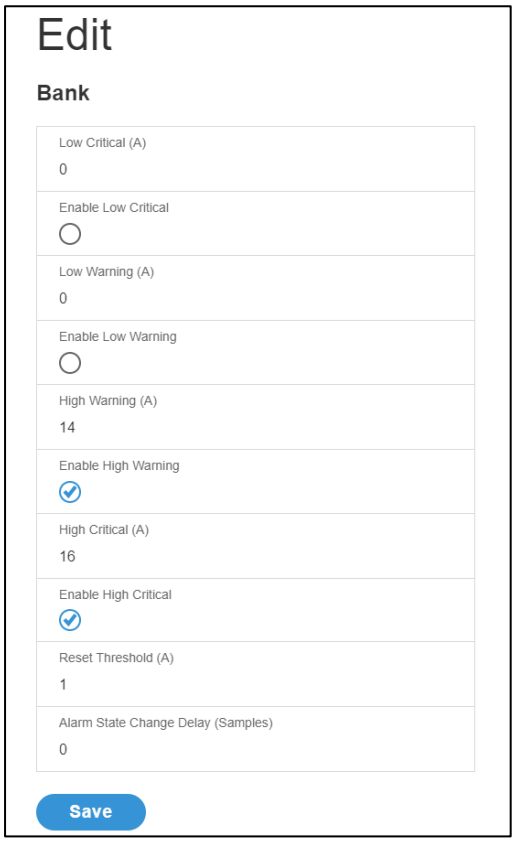
a) Choose the **Circuit Breaker** tab in the PDU Threshold page.

b) Click  icon to edit/change the Circuit Breaker Settings,

- Low Critical (A)
- Low Warning (A)
- High Warning (A)
- High Critical (A)
- Reset Threshold (A)
- Alarm State Change Delay (samples)

c) Click **Save** button to complete the setting.

d) Repeat the steps for all PDUs.



Control Management

The PDU will send alert notifications when an outlet wattage crosses above or below the settings you specify in the Control Management Threshold.

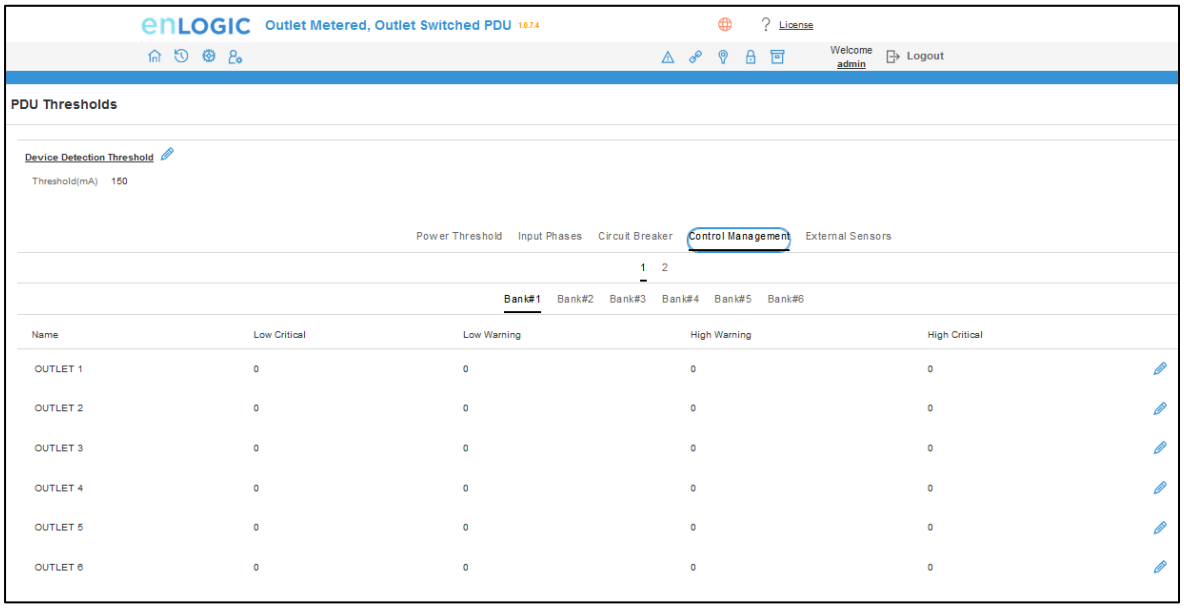
a) Choose the **Control Management** tab in the PDU Threshold page.

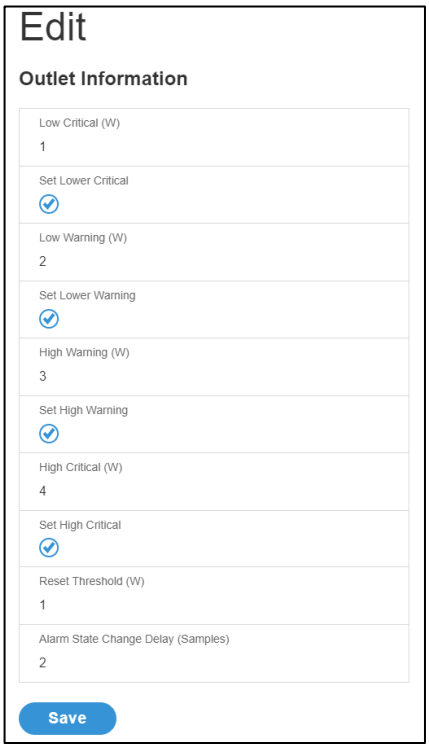
b) Click  icon to edit/change the Control Management Settings,

- Low Critical (W)
- Low Warning (W)
- High Warning (W)
- High Critical (W)
- Reset Threshold (W)
- Alarm State Change Delay (samples)

c) Click **Save** button to complete the setting.

d) Repeat the steps for all PDUs..





External Sensors

The PDU will communicate about the sensor location, alarms, notifications, and details. The External Sensors section displays the connected sensors on the PDU.Choose the External Sensors tab PDU Threshold page.

a) Choose the **External Sensors** tab in the PDU Threshold page

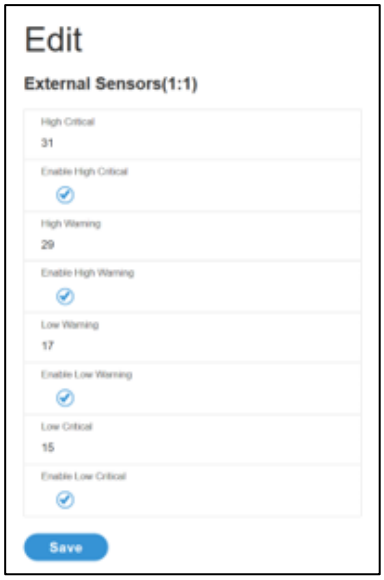
b) Click  icon to edit/change the External Sensors Settings,

- Low Critical
- Low Warning
- High Warning

- High Critical

c) Click **Save** button to complete the setting.

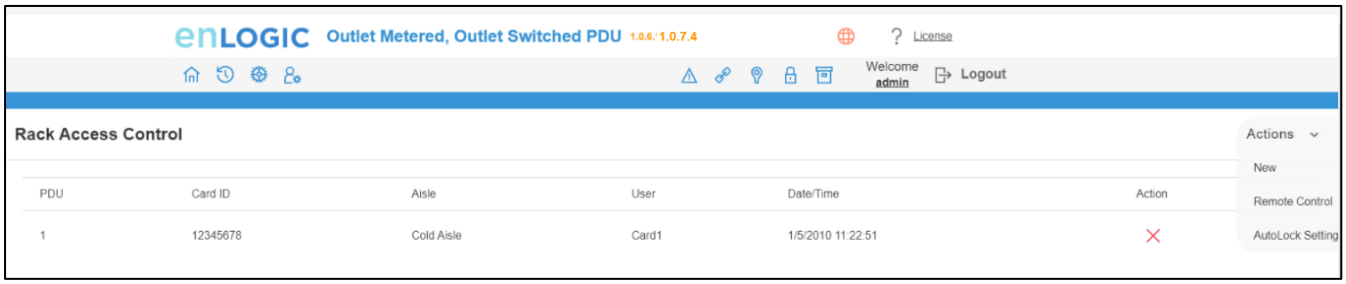
d) Repeat the steps for all PDUs.



Rack Access Control

This page allows you to configure the Rack Access functions to control and monitor the Racks.

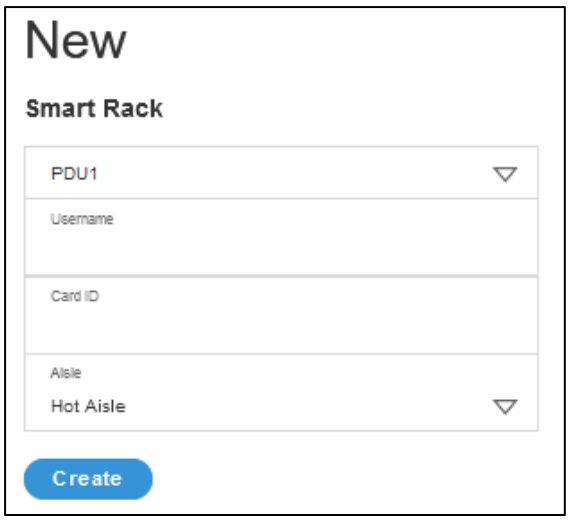
1. Click on the **Settings** icon to dropdown the Settings menu.
2. Select **Rack Access Control** to view information.



On the top- right side of the Rack Access Control page, Click the below options as required:

- **Actions**
  - **New**

    To assign new Rack access to the PDU

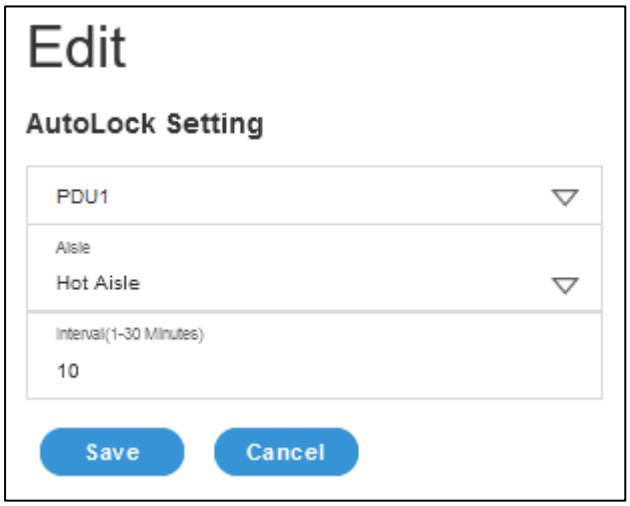


  - **Remote Control**

    Used to perform Lock, Unlock and Close functions

  - **AutoLock Settings**

    To assign Automatic locking functions within a time limit to the PDU.



Handle and Compatible Cards Types

Below are the card lists which are supported on the different swing handle,

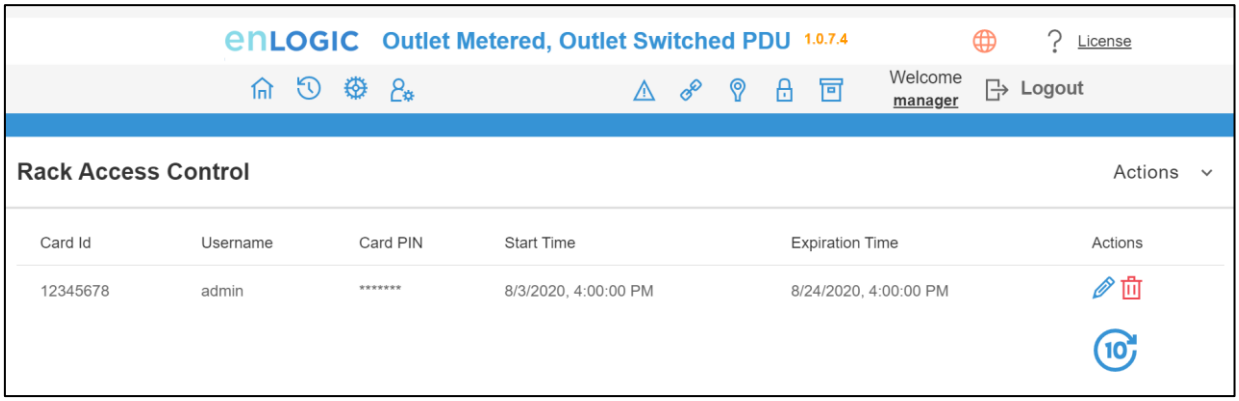
a) MYFARE® Classic 4K
b) MYFARE® Plus 2K
c) MYFARE® DESFire 4K
d) HID® iCLASS

Smart Rack Control

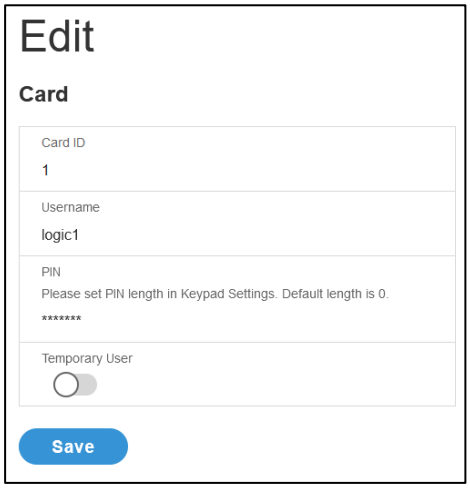
This page allows you to configure the Smart Rack Access functions to control and monitor the Racks. It is used to set up the access control server door Handle (above 4 Handle and Compatible Cards) that has lot of options. So the user can use the editing option to modify the data as required.

A total of 200 cards are compatible with the smart rack control.

1. Click on the **Settings** icon to dropdown the Settings menu.
2. Select **Smart Rack Control** to view information.



3. Click  icon to edit/change the Rack Access Control Settings
   - Enter the **Card ID** to ensure security and restrictive access.
   - Enter **Username** of the card holder.
   - Enter **PIN** (as set in card configuration page).
   - Enable or Disable **Temporary User** as per user status.
   - Click **Save** button to complete setting.



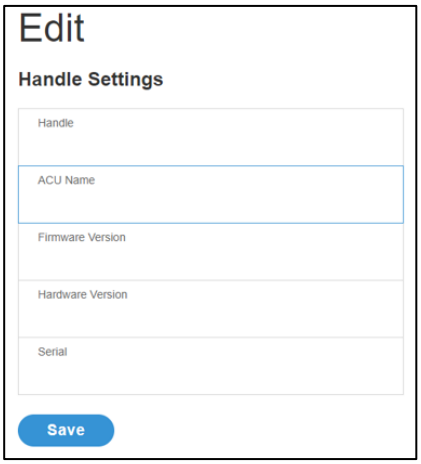
On the top- right side of the Rack Access Control page, Click the below options as required:

- **Action**

- To add card details, select **Add Card**.
  - Enter the **Card ID**.
  - Enter **Username** of the card holder.
  - Enter **PIN** (as set in card configuration page).
  - Enable or Disable **Temporary User** as per user status.
  - Click **Save** button to complete setting.

- To edit rack access details, select **Rack Access Settings**.
  - Select **Aisle Control** to **Standalone** or **Combined** as per rack.
  - Set **Autolock Time**.
  - Set **Door Open Time**.
  - Set **Max Door Open Time**.
  - Select the access type in **Work Mode**.
  - Click **Save** button to complete setting.

- To edit handle settings, select **Rack Access Settings**.
  - Enter **Handle** name for identification.
  - Enter **ACU Name** for identification.
  - The **Firmware Version** and **Hardware Version** are non-editable fields and are filled by default in their respective Versions.
  - Enter **Serial** number of the handle.
  - Click **Save** button to complete setting.



- Select **Remote Control** to perform **Lock**, **Unlock** and **Close** functions.

- Select **Beacon Settings** to **Enable Beacon** Lock and **Color**. Click **Save** button to complete setting.

- Select **Status LED Settings** to configure **Function** and **Color** of the LED. Click **Save** button to complete setting.

- Select **Sensor Harness Configuration** to configure the sensor harness. Click **Save** button to complete setting.

User Settings

The Advantage Series PDU comes with a standard **Admin** profile and a standard **User** profile.

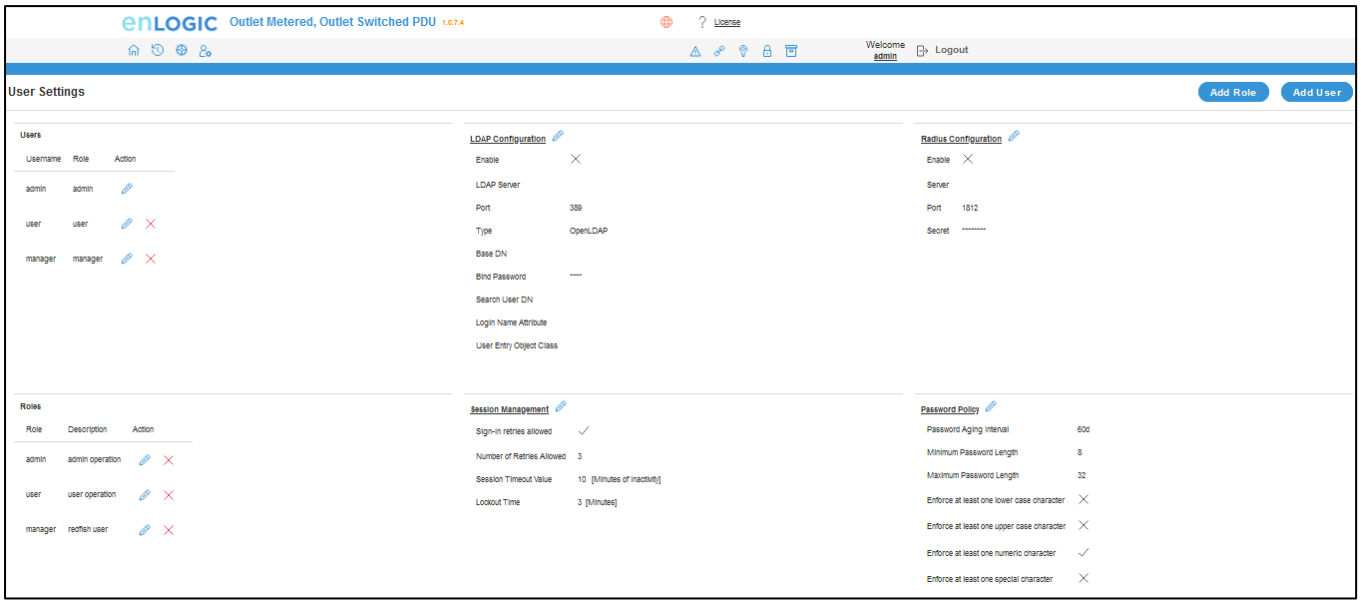
- The Admin profile istypically the system administrator and it has the “Admin Role” with full operating permissions.
- The default User profile includes the default “User Role” permissions. All other user privileges must be added by the Admin user. Users are defined by their unique login credentials and by their user role.

Before setting up the user profile, determine the roles required. Each user must be given a Role. These Roles define the permissions which are granted to the user.

1. Click on the **User Settings** icon to dropdown the User Settings menu.

Table 4: User Roles and Default Permission

Role	Default Permissions
Admin	Complete system permissions (that cannot be modified or deleted)
User	Limited permissions that can be modified or deleted. By default, these permissions are: Change own Password
Manager	Complete system permissions (that cannot be modified or deleted)

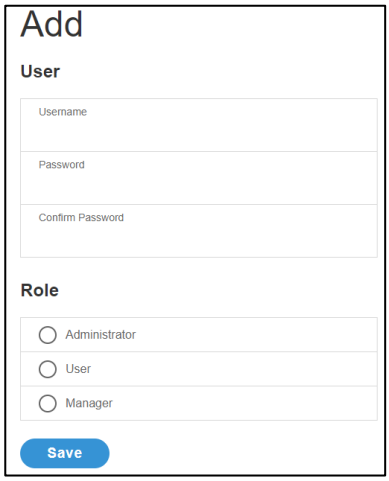


On the top- right side of the Rack Access Control page, Click the below options as required

Add Users/Change Password.

To create a new user profile:

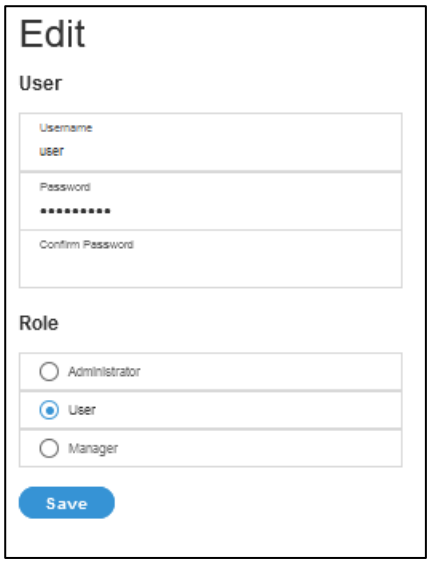
1. Click on the **User Settings**, the user settings page opens.
2. Click **on the** Add User icon, to create a new user profile.
3. The add user window opens, enter the information:
   - Username
   - Password
   - Confirm Password
4. In the add user window assign role to set admin, user or manager privileges.
5. Select “Save” to save the new user profile.



Modify:

To edit the existing user profile,

1. In **User Settings** select the Edit next to the username to modify.
2. Make changes to the user profile and select “Save” to save the new user profile.



Delete:

To delete the existing user profile,

1. Go to User Settings.
2. Go to the username.
3. Select the X next to the username to delete.

LDAP Server Settings

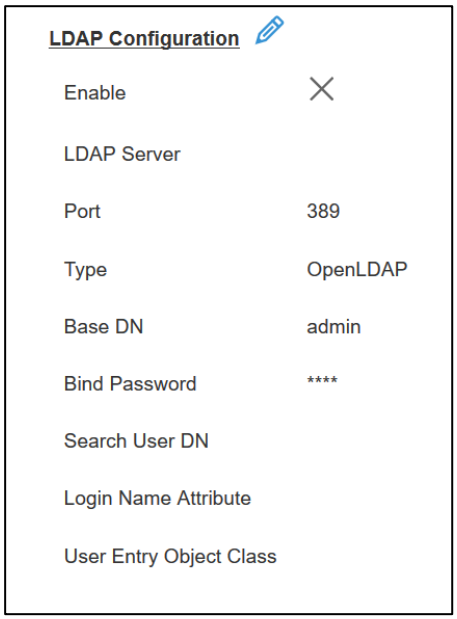
To setup LDAP to access the Active Directory (AD) and provide authentication when logging into the PDU via the Web Interface:

1. In **User Setting,** go to LDAP Configuration.
2. Select the LDAP Enable checkbox.
3. From the **Type** (Type of LDAP Server) drop down menu, select **Open LDAP**.
4. Type Port number.

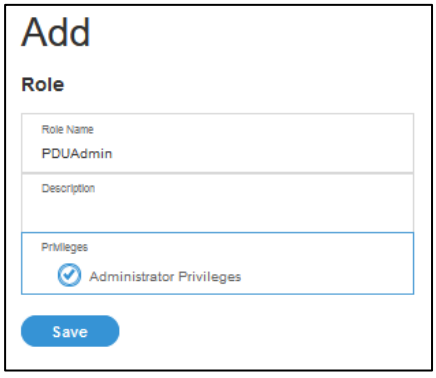
***Note**: For Microsoft, this is typically 389.*

5. Type Password in the Bind Password and Confirm Password fields.
6. In the Base DN field, type in the account.
   i.e. CN=myuser, CN=Users, DC=EMEA, DC=mydomain, DC=com
7. Type Password in the Bind Password and Confirm Password fields.
8. Search User DN.
9. Type SAMAccountName (typically) in the Login Name Attribute field.
10. Type Person Name in the User Entry Object Class field.

With these LDAP settings configured, the Bind is complete. (see below)



- Once the LDAP is configured, the PDU must understand for which group authentication occurs. A role must be created on the PDU to reference a group within Active Directory (AD).
    a) Within the Web Interface, go to **User Settings**, click on the **Add Role** button
    b) Type **Role Name,** which was created in AD *i.e. PDUAdmin.*
    c) Administratior privileges must be enabled.

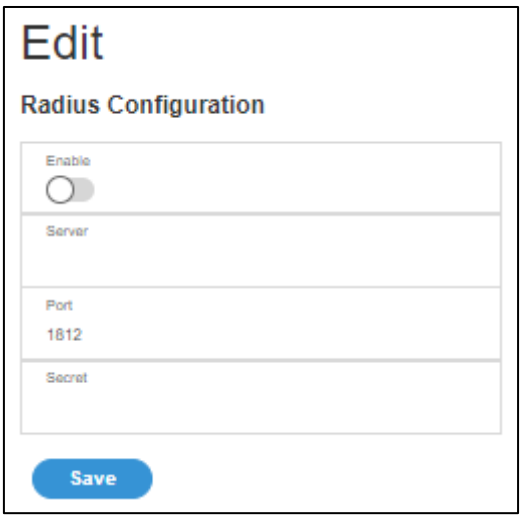


d) Once LDAP authentication is ready to use.

- To test this, click **save**, then click "**LDAP Configuration**" again and type **Active Directory user name/password** into the test box.
- Click **Test LDAP Configuration**. If a box pops up with all green "SUCCEEDED" (no X's), the LDAP is successfully configured.

Radius Configuration

1. In the **User Settings** go to **Radius Configuration** and click the edit pencil.
2. Select the Enable button.
   - Type **Server IP address**, **Port number**, and **Secret** in the corresponding field.
   - Click **save** button to complete the Radius authentication.

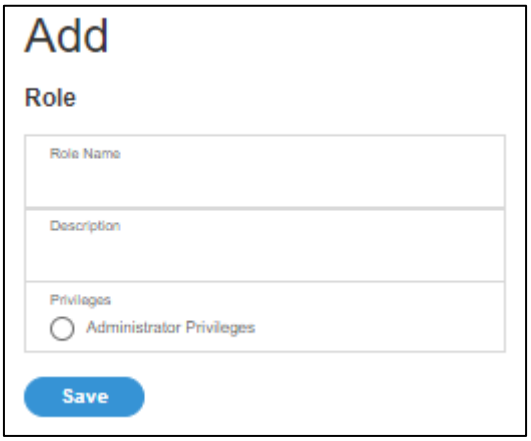


Roles

In the **User Settings,** go to **Roles** to change user roles, privileges and settings.

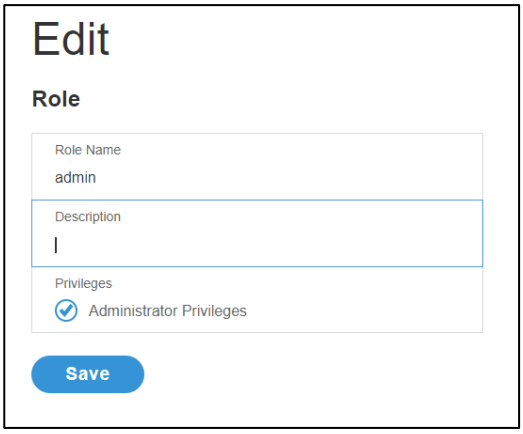
To create a new role:

1. Click **Add Role** button on the top right corner.
2. type the **Role Name** and **Description**.
3. In the Privileges tab, click Edit.
4. Select the privileges to add to that user role. Set parameters if necessary.
5. Click **OK**.
6. Click **Save**.



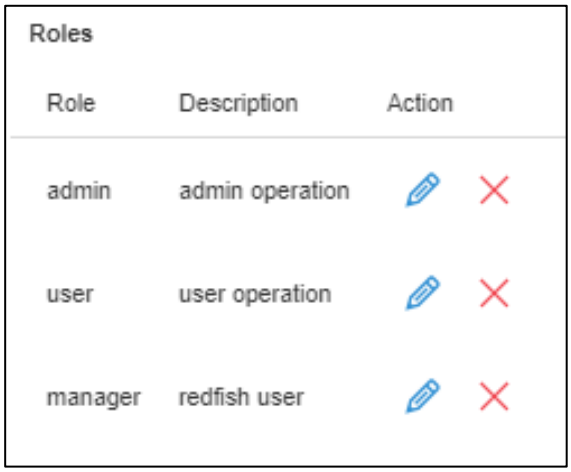
To modify a custom user role:

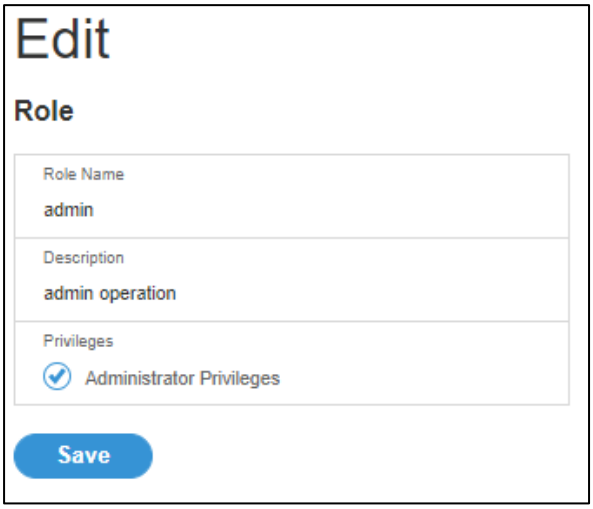
1. Select the role.
2. click Edit Button.
3. Edit the role name and privileges as needed. click **Save**.



To delete a user role:

1. Select the role.
2. Click **Delete** Button.
3. click **Yes** to confirm the change.

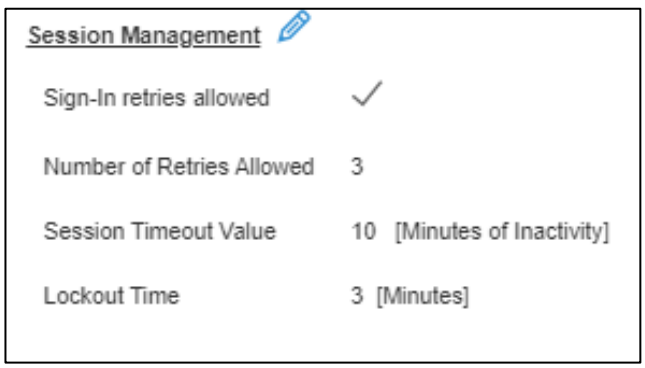


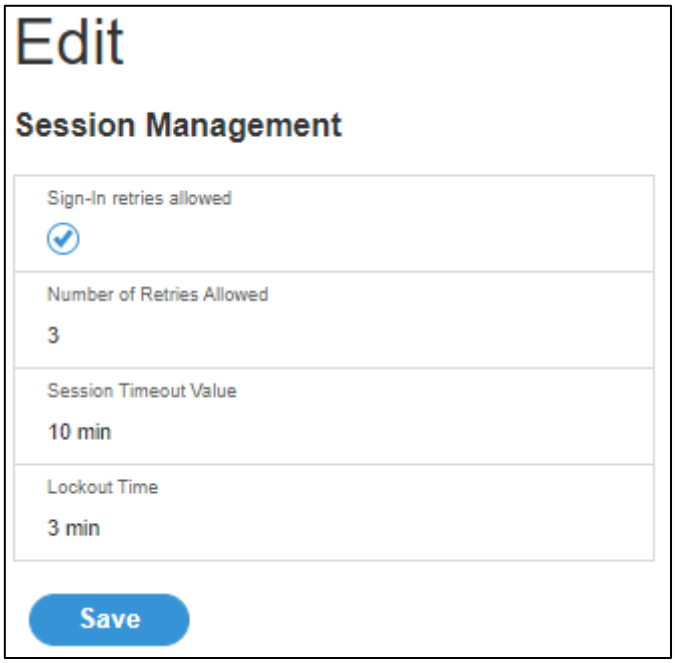


Session Management

Session management supports the users to manage the Sign-In retries, number of retries allowed, session timeout value and lockout time.

- Click  to setup the parameters.





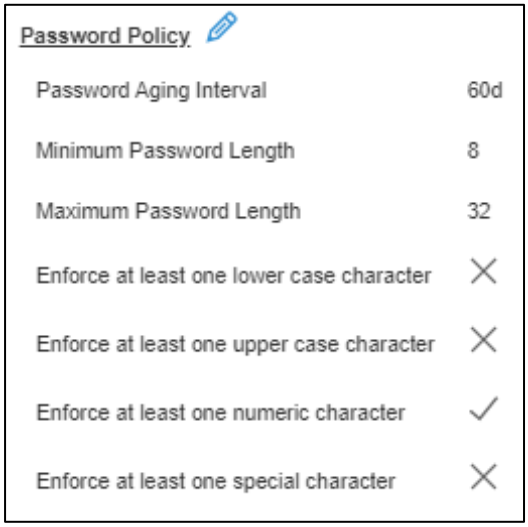
Password Policy

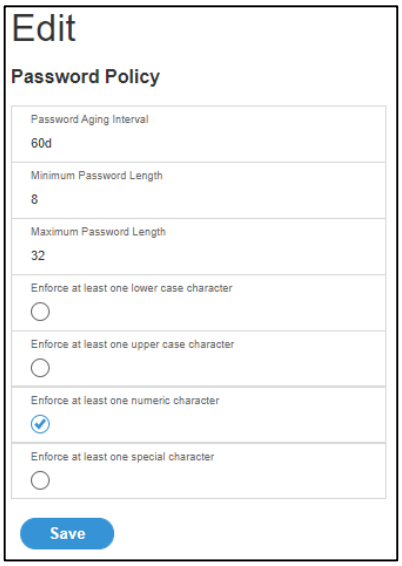
You can set a requirement for users to change their password at set intervals using the Password Aging Interval policy. You can also specify criteria for passwords to ensure that your users enter strong passwords.

1. Go to User Setting -> Password Policy.
2. If desired, choose a password aging interval from the Password Interval dropdown menu.
3. If you wish to specify password criteria, enable the **Strong Password** radio button.
4. Set the Minimum Password Length and Maximum Password Length from the dropdown menus.

***Note**: Minimum password length cannot be below 8 characters and the maximum allowed up to 32.*

5. Enable the **checkboxes** to force the users to use specific types of characters within the password.
6. Click **Save** button to complete the settings.

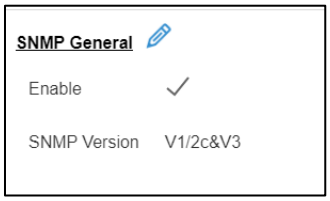



Edit
Password Policy
Password Aging Interval
60d
Minimum Password Length
8
Maximum Password Length
32
Enforce at least one lower case character
Enforce at least one upper case character
Enforce at least one numeric character
Enforce at least one special character
Save

SNMP

Simple Network Management Protocol (SNMP) is used to manage the Advantage Series PDU(s) remotely. SNMP allows the user to monitor and detect network faults and to even configure variable data in the PDU.

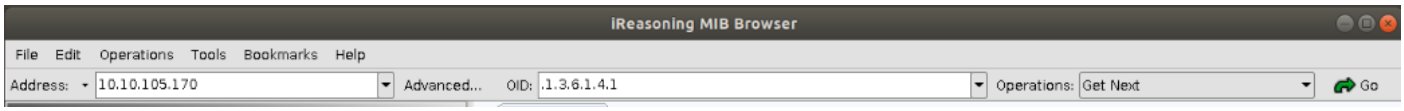
Enable the SNMP in the Web UI (Refer SNMP Management)



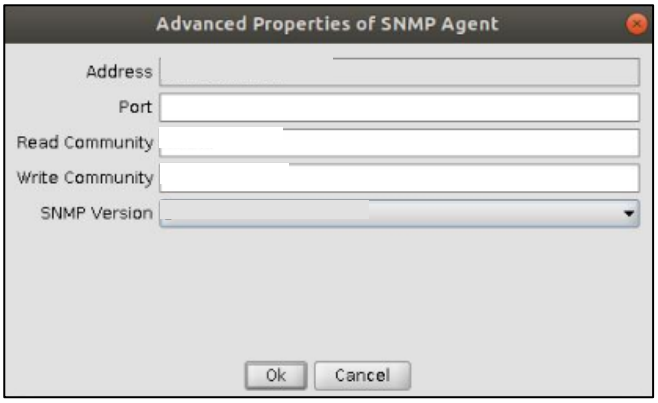
Working with MIB Browser

Download the MIB browser and install it.

1. Open the **MIB browser**-> Type the IP address of the PDU.



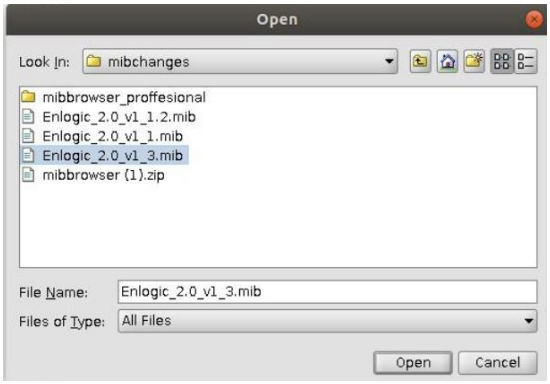
2. Click the Advanced button-> The Advance Properties of SNMP Agent window opens.



3. In Advance Properties of SNMP Agent window-> Enter the respective Port, Read Community, Write Community.
4. Select the SNMP manager version- **1** / **2** / **3**.

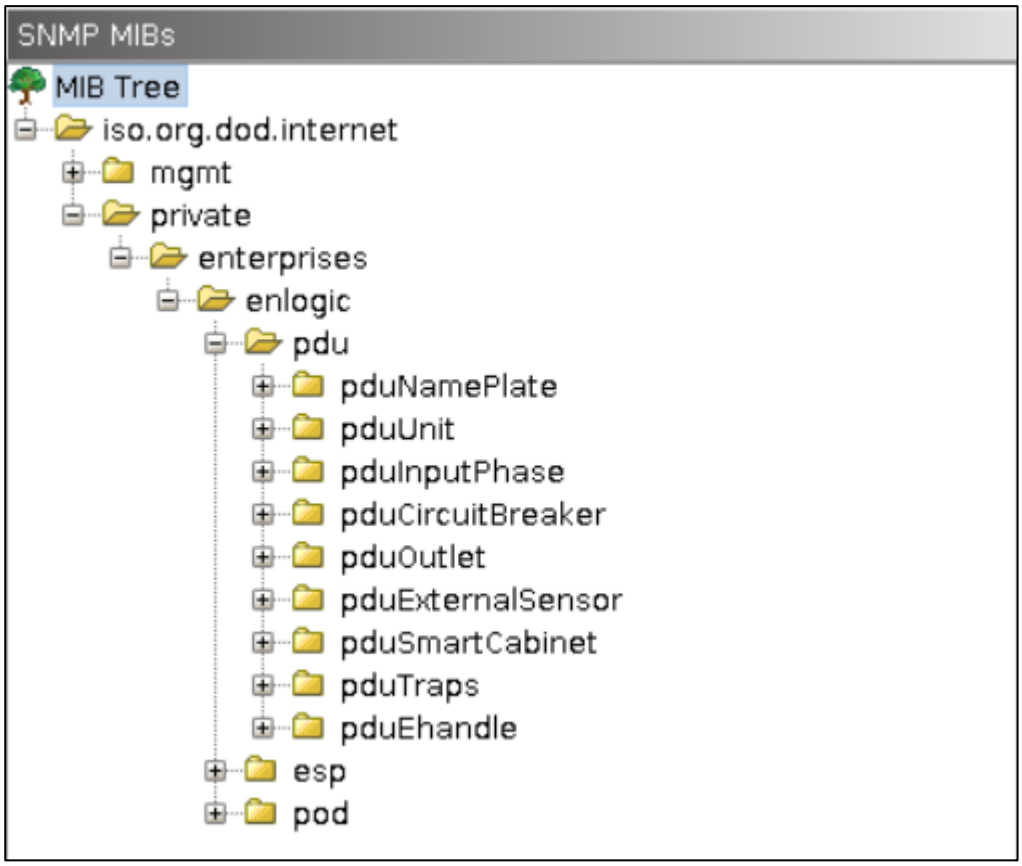
Loading the MIB file

Click on **File** -> select **Load MIBs**



The **Open** window comes to view:

1. Select the latest version of the **mib file**
2. Click **Open**-> The **mib file** gets loaded.
3. The **MIB Tree** comes to view on the SNMP MIBs-> Expand the MIB Tree and select the **iso.org.dod.internet**

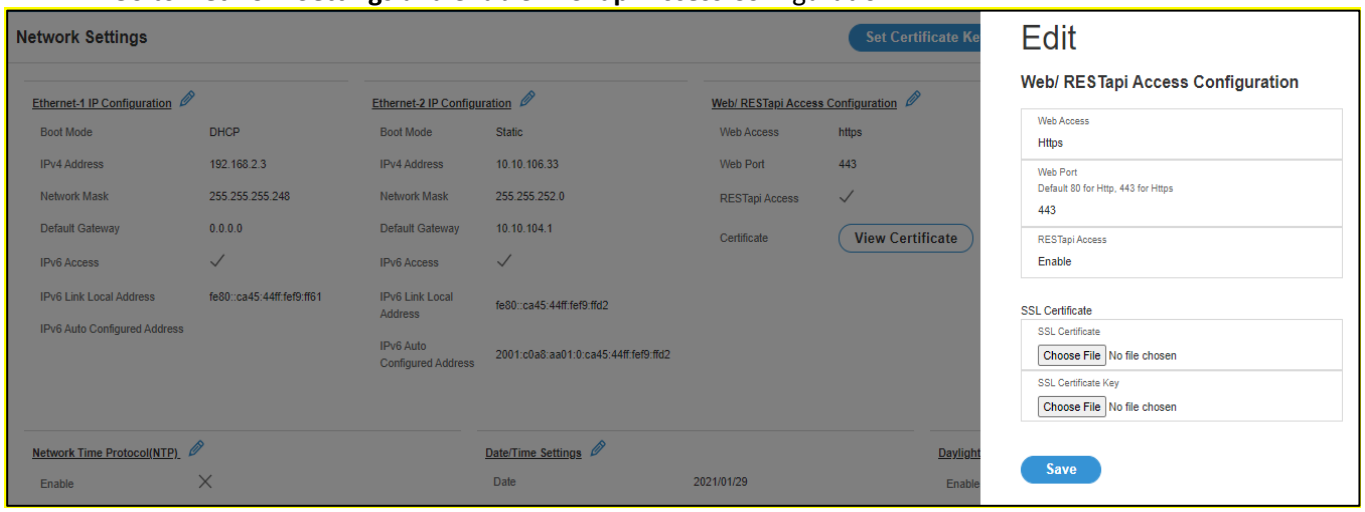


4. Right click on the **iso.org.dod.internet** and select **walk** to monitor the PDU data.

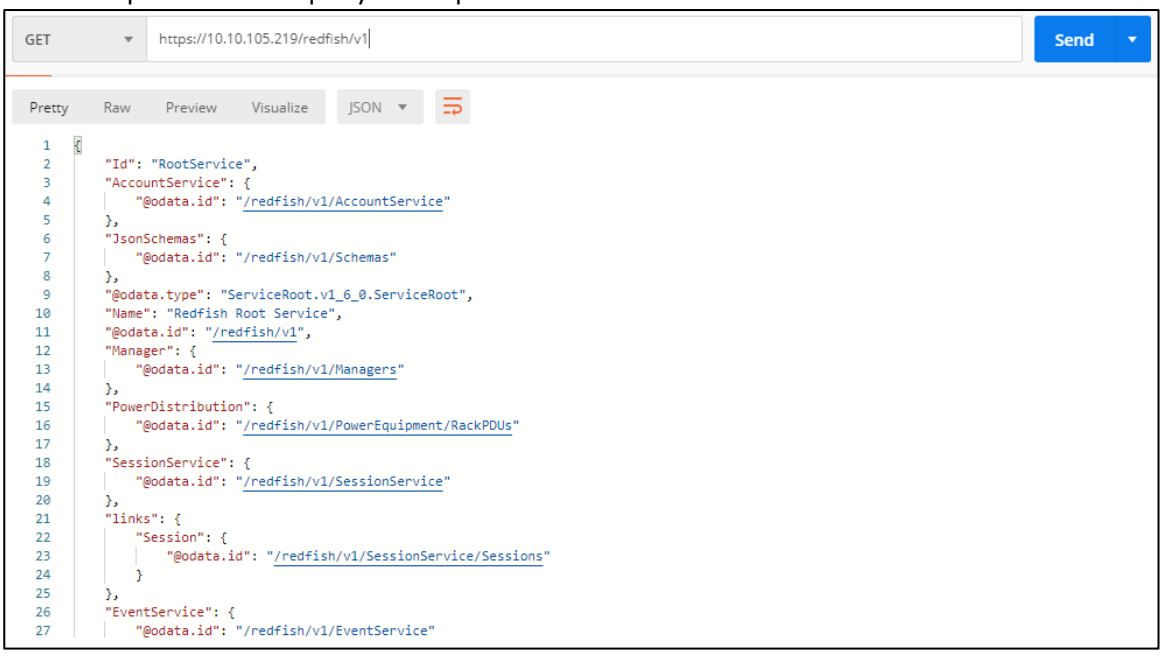
Redfish

Redfish API is tested using POSTMAN, which is a Google Chrome extension app for GET, POST and DELETE method requests.

1. To setup the **Redfish access**, type the PDU IP in chrome and login to the PDU using the credentials.
2. Go to **Network Settings** and enable **RESTapi Access** Configuration.



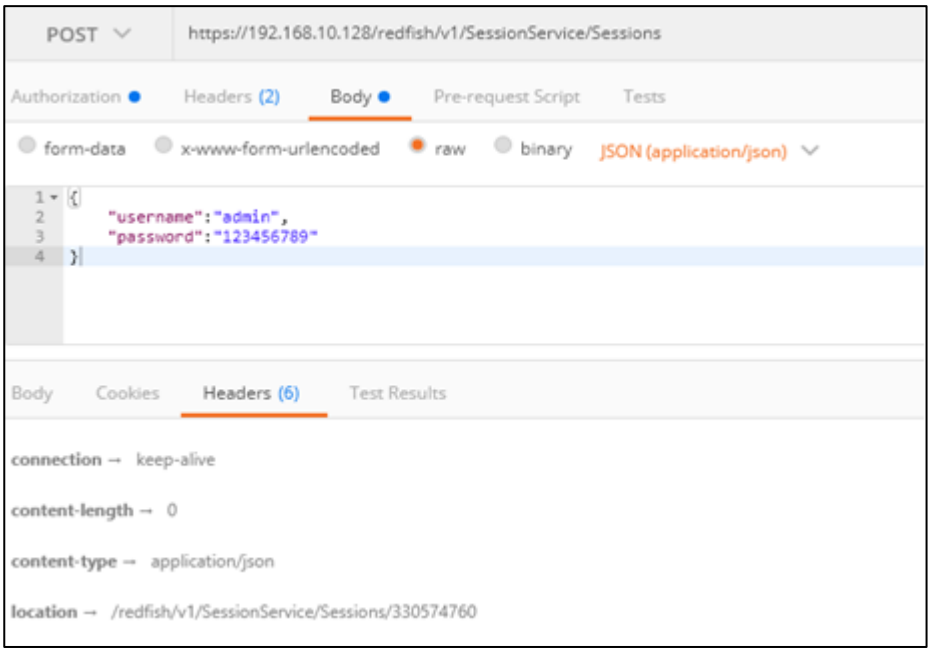
3. Click **Save**, **Confirm** and apply changes. The PDU will reboot
4. Open **POSTMAN** app. Add the basic authentication header, which is required for all the query requests.
    - For **GET** request, type the URL request, basic authentication header with username and password and query the request.



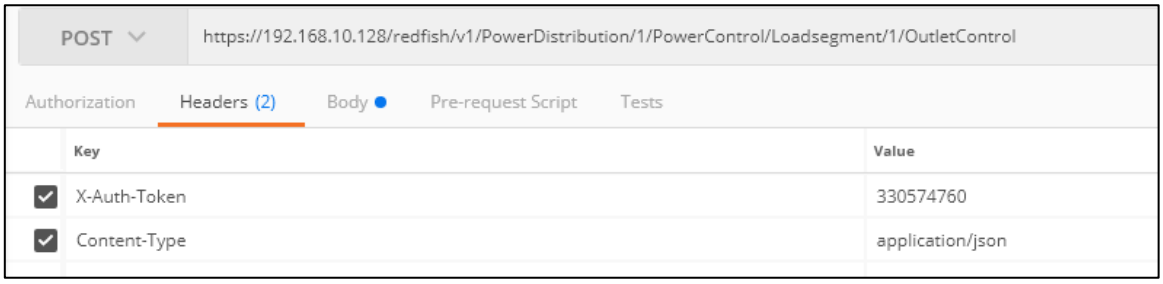
    - For **POST** request, include the json object type along with the basic authentication header.
    - Create a session using POST method:

POST query the URL **http://{pdu_ip}/redfish/v1/SessionService/Sessions** along with the two headers (basic auth and json object type) and the body:

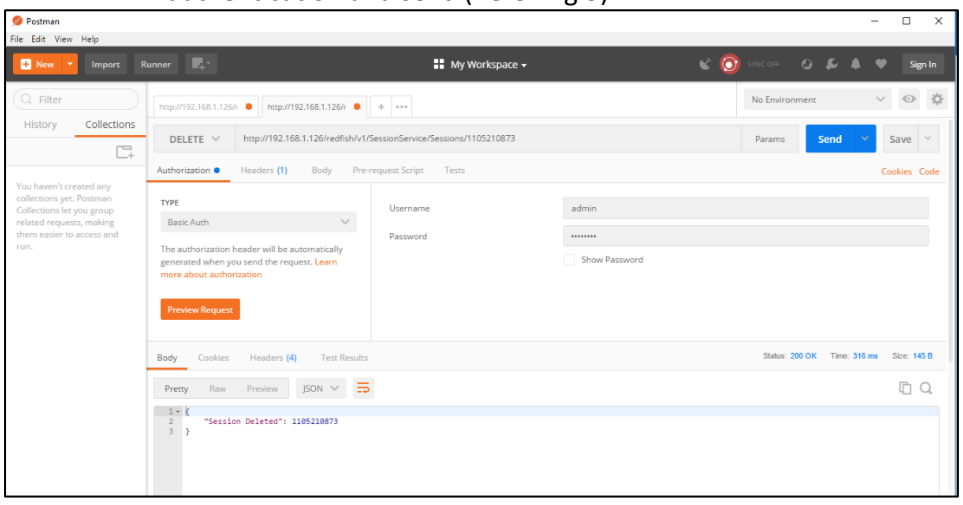
{
"username":"admin",
"password":"123456789"
}



- Use the **X-Auth Token** from the response body along with the other two headers and basic authentication for any POST requests.



- For **DELETE** request, type the URL for session or users want to delete along with the basic authentication and send (Refer Fig.5).



Redfish URLs Supported with GET Method

Session Service

S.No	URL
1	https://<ip_addr>/redfish/v1/
2	/redfish/v1/SessionService
3	/redfish/v1/SessionService/Sessions
4	/redfish/v1/SessionService/Sessions/{session_ids}

Account Service

S.No	URL
1	/redfish/v1/AccountService
2	/redfish/v1/AccountService/Accounts
3	/redfish/v1/AccountService/Accounts/{username}
4	/redfish/v1/AccountService/Roles
5	/redfish/v1/AccountService/Roles/{rolename}

Managers

S.No	URL
1	/redfish/v1/Managers
2	/redfish/v1/Managers/manager
3	/redfish/v1//Managers/manager/NetworkProtocol
4	/redfish/v1//Managers/1/LogServices
5	/redfish/v1//Managers/1/LogServices/Log
6	/redfish/v1//Managers/1/LogServices/Log/Entries

Metrics

S.No	URL
1	/redfish/v1/PowerEquipment/RackPDUs/{pdu_id}/Metrics

Power Equipment

S.No	URL
1	/redfish/v1/PowerEquipment
2	/redfish/v1/PowerEquipment/RackPDUs
3	/redfish/v1/PowerEquipment/RackPDUs/{pdu_id}

Branches

S.No	URL
1	/redfish/v1/PowerEquipment/RackPDUs/{pdu_id}/Branches
2	/redfish/v1/PowerEquipment/RackPDUs/{pdu_id} /Branches/#cbnumber

Outlets

S.No	URL
1	/redfish/v1/PowerEquipment/RackPDUs/{pdu_id}/Outlets
2	/redfish/v1/PowerEquipment/RackPDUs/{pdu_id}/Outlets/#outletnumber

Sensor

S.No	URL
1	/redfish/v1/PowerEquipment/RackPDUs/{pdu_id}/Sensors/Power{cbnum#}

2	/redfish/v1/PowerEquipment/RackPDUs/{pdu_id}/Sensors/Current{cbnum}
3	/redfish/v1/PowerEquipment/RackPDUs/{pdu_id}/Sensors/VoltageAL1N
4	/redfish/v1/PowerEquipment/RackPDUs/{pdu_id}/Sensors/CurrentOUTLET#
5	/redfish/v1/PowerEquipment/RackPDUs/{pdu_id}/Sensors/VoltageOUTLET#
6	/redfish/v1/PowerEquipment/RackPDUs/{pdu_id}/Sensors/PowerOUTLET#
7	/redfish/v1/PowerEquipment/RackPDUs/2/Sensors/EnergyOUTLET44
8	/redfish/v1/PowerEquipment/RackPDUs/2/Sensors/PowerMains1-6
9	/redfish/v1/PowerEquipment/RackPDUs/2/Sensors/CurrentMains1-3
10	/redfish/v1/PowerEquipment/RackPDUs/2/Sensors/VoltageMains1-6
11	/redfish/v1/PowerEquipment/RackPDUs/2/Sensors/FreqMains
12	/redfish/v1/PowerEquipment/RackPDUs/2/Sensors/PDUPower

Mains

S.No	URL
1	/redfish/v1/PowerEquipment/RackPDUs/{pdu_id}/Mains
2	/redfish/v1/PowerEquipment/RackPDUs/{pdu_id}/Mains/AC1

Redfish URLs Supported with POST Method

S.No	URL
1	/redfish/v1/AccountService/Accounts
2	/redfish/v1/PowerDistribution/{pdu_id}/PowerControl/Loadsegment/{loadseg_id} /OutletControl

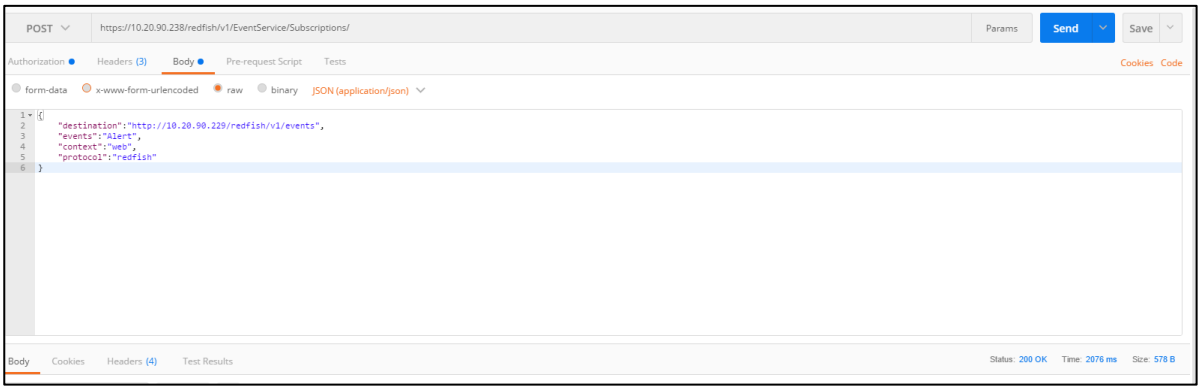
Redfish URLs Supported with DELETE Method

S.No	URL
1	/redfish/v1/AccountService/Accounts/test_user
2	/redfish/v1/SessionService/Sessions/<SessionID>

Event Service

Subscribe Event Service:

1. Using **POST** method, create a session and apply the generated X-auth-token to the headers.
2. Query the URL **http://<pdu_ip_addr>/redfish/v1/EventService/Subscriptions** using POST method with the following body:
   {
   "destination":"http://<ip_addr>/redfish/v1/events",
   "events":"Alert",
   "context":"web",
   "protocol":"redfish"
   }



3. To verify the subscriptions, query the URL using **GET** method to observe the result of subscription added
   http://<pdu_ip_addr>/redfish/v1/EventService/Subscriptions/1.

4. To Delete the Subscription, query the URL using **DELETE** method to observe the result of subscription deleted **http://<pdu_ip_addr>/redfish/v1/EventService/Subscriptions/1**.

The Command Line Interface (CLI)

The Command Line Interface (CLI) is an alternate method used to manage and control the PDU status and parameters, as well as basic admin functions. Through the CLI a user can:

- Reset the PDU
- Display PDU and network properties
- Configure the PDU and network settings
- Switch outlets on/off
- View user information

The CLI can be accessed over a serial connection using a program such as HyperTerminal.

Logging in with HyperTerminal

To login through HyperTerminal, set the COM settings to the following parameters:

- Bits per second: 115200
- Data bits: 8
- Parity: None
- Stop bits: 1
- Flow control: None

CLI Commands and Prompts

CLI Options

To display a list of available options in the CLI, **type '?'** in the command prompt. This will display the 5 main categories of command options available: sys, net, usr, dev & pwr.

```
EN2.0>?
Sys     PDU system configure and setting
Net     PDU net application configure and setting
Usr     PDU user operation
Dev     PDU device setting
Pwr     PDU power setting
```

To display a list of options available for one of the menus (sys, net, usr, dev or pwr), type the menu command and press enter.

***Note**: You can also type the menu command with '?' to show a list of commands.*

For example, below shows the available system options:

```
EN2.0>sys

parameter Error
sys: system setting
usage:
        sys [date/time/ntp] [2012-09-11/14:16:20/133.100.11.8 133.100.11.9 (serv
erl server2)]
        sys [ver/def/rst]
   sys upd [pduid] [conf/all]
        sys log [del|edit] [event|data] [on|off] [interval]
        sys ledcolor [pduid]/all] [dark/red/green/yellow/blue/pink/cyan/white]
        sys dualinput get
        sys dualinput set [NA/EMEA]
```

CLI Commands Table

The following is a list of commands available in the CLI to execute. The commands are divided into 5 main categories: System setting (sys), Network configuration (net), User setting (usr), Device setting (dev) and Power (pwr).

Table 5: Sys Commands

Sys Commands	Description	Example
sys date [yyyy-mm-dd]	Sets the user input date	EN2.0>sys date 2013-08-12 SUCCESS
sys date	Query on PDU date	EN2.0>sys date SUCCESS Date:2013-08-12 Time:04:58:16
sys time[hh:mm:ss]	Sets the user input time	EN2.0>sys time 09:20:50 SUCCESS
sys time	Query on PDU time	EN2.0>sys time SUCCESS Date:2013-08-12 Time:09:20:53
sys ntp [primary_ip] [secondary_ip]	Sets the NTP	EN2.0>sys ntp 129.6.15.28 129.6.15.29 SUCCESS
sys ver	Query on the system versions – firmware, web, boot loader and language version	EN2.0>sys ver SUCCESS Firmware Version: 1.0.6.1 Boot loader Version: 1.1 LANGUAGE Version: 1.01 Web Version: 1.0.5.8
sys def	Set the PDU system to default settings	EN2.0>sys def Reboot required for change to take effort System Reboot now, Are you sure?(Y/N):
sys rst	Resets the PDU system	EN2.0>sys rst Reboot required for change to take effort System Reboot now, Are you sure?(Y/N):
sys upd [pduid] [conf/all]	Updates the configuration file	EN2.0>sys upd conf Reboot required for change to take effort System Reboot now, Are you sure?(Y/N):

sys log [del|edit] [event|data] [on|off] [interval]	Edits the data log configuration interval	EN2.0>sys log edit data on 5 SUCCESS EN2.0>sys log edit data off SUCCESS
sys ledcolor [pduid]/all] [dark/red/green/yellow/blue/pink/cyan/white]	Update color of LED	EN2.0>sys ledcolor pduid dark SUCCESS

Table 6: Net Commands

Net Commands	Description	Example
net ssh [on/off]	Sets ssh on/off	EN2.0>net ssh SUCCESS SSH Port: 22 SSH server is running
net ftps [on/off]	Sets ftps on/off	EN2.0>net ftps SUCCESS FTPS Port: 21 Service is running Is Ftp
net http [on/off]	Sets https on/off	EN2.0>net http SUCCESS HTTPS Port: 80 Status: ON EN2.0>net https on Reboot required for change to take effort WEB protocol is changed, reboot to validate System Reboot now, Are you sure?(Y/N):
net https [on/off]	Sets https on/off	EN2.0>net https SUCCESS HTTPS Port: 443 Status: OFF EN2.0>net https on Reboot required for change to take effort WEB protocol is changed, reboot to validate System Reboot now, Are you sure?(Y/N):
net redfish [on/off]	Sets redfish on/off	EN2.0>net redfish SUCCESS Status: ON EN2.0>net redfish off SUCCESS Status: OFF

net [snmp] [v1v2c/v3/trap] [on/off]		EN2.0>net snmp SUCCESS v1v2c: ON v3: ON trap: ON EN2.0>net snmp v1v2c off SUCCESS
net [mac/tcpip]	Displays the mac address, IPv4	EN2.0>net mac SUCCESS MAC Addr: C8-45-44-66-2B-65 MAC Addr: C8-45-44-66-2B-67 EN2.0>net tcpip SUCCESS eth0 IPv4 Addr: 10.10.105.37 eth0 IPv6 Link Local Addr: fe80:ca45:44ff: fe66:2b65 eth0 IPv6 DHCP Addr: 2001:c0a8: aa01:0:ca45:44ff: fe66:2b65 eth1 IPv4 Addr: 192.168.2.2
net tcpip [eth0dhcp/eth1dhcp/ eth0static/eth1static ip nm gw]	Changes the network to DHCP or Static mode	EN2.0>net tcpip dhcp eth0dhcp Reboot required for change to take effort Network is reconfigured, reboot to validate System Reboot now, Are you sure? (Y/N): Y EN2.0>net tcpip eth1static <10.10.94.20 255.255.255.0 10.10.94.1> Reboot required for change to take effort Network is reconfigured, reboot to validate System Reboot now, Are you sure?(Y/N):Y

net ip [v4] [v4v6]	Sets ipv4	EN2.0>net ip SUCCESS IPV4 EN2.0>net ipv4 Reboot required for change to take effort IP protocol is changed, reboot to validate System Reboot now, Are you sure?(Y/N):
net phy [auto/10100mbps]	Set the link speed to auto negotiation/10100mbps	EN2.0>net phy SUCCESS link speed: auto negotiation EN2.0>net phy 10100mbps Reboot required for change to take effort Phy speed is changed, reboot to validate System Reboot now, Are you sure?(Y/N):
net cert [def]	Updates the certificate file	EN2.0>net cert SUCCESS Custom certificate key file active, in /cert/cert.key Custom certificate cert file active, in /cert/cert.crt EN2.0>net cert def Removing custom certificate key file, in /cert/cert.key Removing custom certificate file, in /cert/cert.crt Reboot required for change to take effect Certificate Setting changed, reboot to validate System Reboot now, Are you sure?(Y/N):

Table 7: Usr Commands

Usr Commands	Description	Example
usr list	Lists out the PDU users	EN2.0>usr list SUCCESS Usr Role Privilege Role id ========== admin admin Administrator 1 user user User 2 manager manager Administrator 3
usr login	Displays the logged in user details	EN2.0>usr login SUCCESS username: admin ip address: 10.10.94.211 client type: SSH
usr unlock [username]	Unlocks the blocked user	EN2.0>usr unlock en_user SUCCESS

Table 8: Dev Commands

Dev Commands	Description	Example
dev daisy [rna/qna] [init] [create]	Setting the PDU Daisychain to RNA or QNA mode	EN2.0>dev daisy SUCCESS Daisy chain unit number: 1 Daisy chain address list: 0 0 0 Daisy Mode: QNA EN2.0>dev daisy qna create Reboot required for change to take effort System Reboot now, Are you sure?(Y/N):
dev outlet pdu ID [status/outlet index] [on/off]	Displays outlet status. Turn on/off the outlet power	EN2.0>dev outlet 1 status SUCCESS Relay Outlet Status Outlet# 1: Open Outlet# 2: Open Outlet# 3: Open Outlet# 4: Open Outlet# 5: Open Outlet# 6: Open Outlet# 7: Open Outlet# 8: Open EN2.0>dev outlet 1 1 on SUCCESS
dev [sensor/usb] [on/off]	Lists out the connected sensors on PDU Turn on/off the USB	EN2.0>dev sensor SUCCESS EN2.0>dev usb on SUCCESS
dev hid [cold/hot] [lock/unlock]	Displays the PDU Rack Access details Locks/Unlocks the HID	EN2.0>dev hid 1 SUCCESS EN2.0>dev hid 1 hot unlock SUCCESS
dev ledstrip [on/off]	Turns on/off the ledstrip	EN2.0>dev ledstrip on SUCCESS
dev powershare	Displays the status of PDU power share	EN2.0>dev power share SUCCESS PDU 1: Downstream: 0 Upstream: 1 Mains: 1 PDU 2: Downstream: 1

		Upstream: 1 Mains: 1 PDU 3: Downstream: 1 Upstream: 1 Mains: 1
dev ehandle [pduID] [cold/hot] [lock/unlock]	Enables ehandle function	dev ehandle 1 hot lock

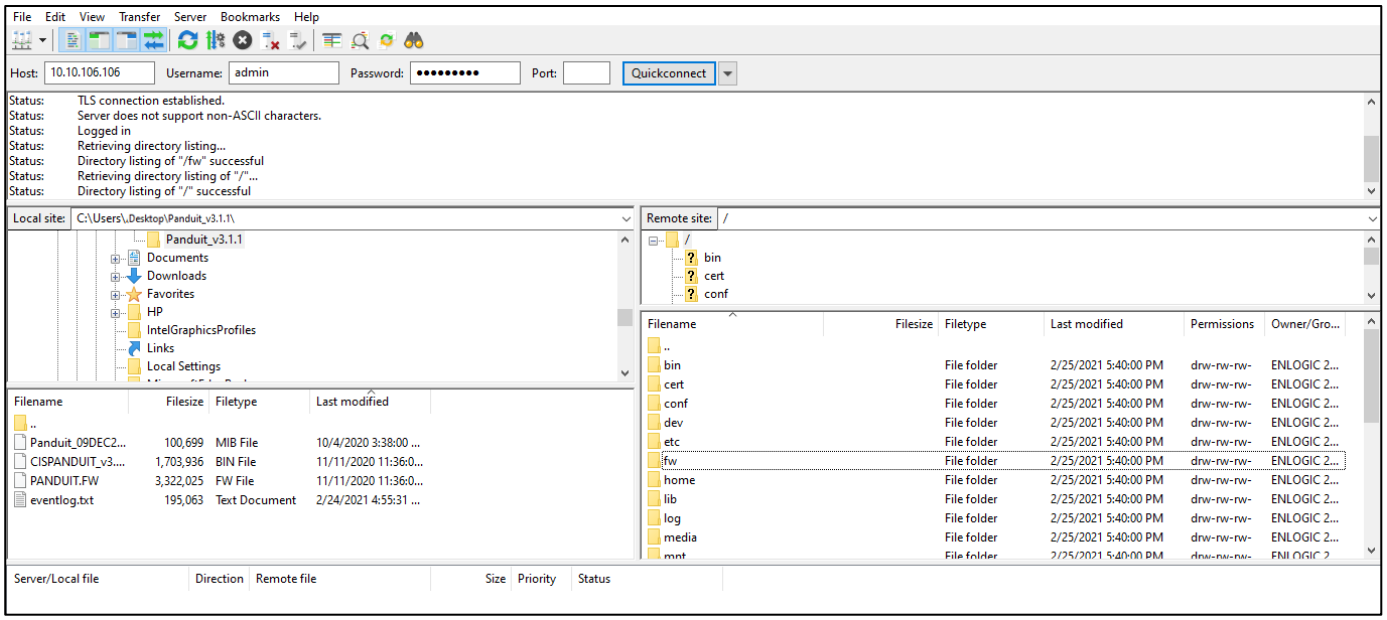
Table 9: Pwr Commands

Pwr Commands	Description	Example
pwr [unit/phase/cb/outlet] [idx]	Displays the power readings	EN2.0>pwr unit 1 SUCCESS UNIT power Feature voltage: 0V current: 0.0A active power: 0W apparent power: 0W power factor: 1.00 energy: 0.000kWh EN2.0>pwr outlet 3 SUCCESS OUTLET 3 power Feature voltage: 0V current: 0.0A active power: 0W apparent power: 0W

FTPS

File Transfer Protocol is used to transfer files from the PDU file system into the local drives under a secure network and vice-versa.

1. Enable the FTPS Access in the Web UI.



2. Enter the IP address of the PDU at the **Host.**
3. Enter the **Username** and **Password** of a person with the role having administrative privileges.
4. Enter the **Port** number set for the FTPS.
5. Click the **Quickconnect** button to connect the PDU and Local Drive through the FTPS Client.
6. The **Local Site** containing the local drives and **Remote Site** containing the PDU file system comes to view.
7. Using Drag and Drop we can transfer the files between Local and Remote site. We can also use right click and select the upload and download function to perform the file transfer.

Sensors

The Advantage Series PDU can monitor conditions (environment and security) with enLOGIC's sensors. Sensors are connected to the Advantage Series PDU through the RJ45 connection or Sensor Input Hub, which can connect to three additional sensors. Following are the sensors available:

- Temperature Sensor
- Temperature and Humidity Sensor
- (3) Temperature + (1) Humidity Sensor
- Sensor Input Hub (3 sensor inputs)
- Door Switch Sensor
- Dry Contact Cable
- Spot Fluid Leak Sensor

- Rope Fluid Leak Sensor
- RJ45-DB9 Cable
- LED Light Strip Sensor
- Ext Modbus kit
- HID RACK Access kit
- ehandle

Sensor Overview

For detailed specifications of each sensor, refer to Appendix C of this manual.

enLOGIC sensors allow the users and administrators to monitor, report, and alarm specific conditions in and around a PDU, Inline Meter, and server rack. Conditions such as temperature, humidity, leak, and switches are vital aspects of maintaining an efficient-working data center atmosphere.

enLOGIC PDUs and Inline Meters are designed to collect a maximum of 6 sensor measurements each. For example, the 3 Temperature and 1 Humidity sensors (model EA9105) collect 4 sensor measurements. The 1 Temperature and 1 Humidity sensors (model EA9103) collect 2 sensor measurements. All other enLOGIC sensors collect 1 sensor measurement each.

***Note**: The 3 Temperature and 1 Humidity sensors (model EA9105) can only be plugged directly into the Sensor 1 or Sensor 2 port on the PDU or Inline Meter. It is not recommended to plug EA9105 directly into the Sensor Hub (model EA9106).*

1. Plug the sensor into the PDU through the RJ45 connection or Sensor Input Hub.

***Note**: It can take 1-3 minutes (depending on model and configuration) for PDU to recognize the sensor*.

2. Log in to the enLOGIC Web UI. (The sensors are identified and displayed, after login).
3. Identify each sensor through the serial number in the External Sensors section of the enLOGIC Web UI.
4. Make sure that the Advantage Series PDU begins to automatically manage sensors. If the sensors are not auto managed, refer to the **Viewing and Managing Sensor Information** section.
5. Click **Setup** button to configure the sensor name, description, location, and alarm setup. Refer to the **Viewing and Managing Sensor Information** section for more information.

Temperature and Humidity Sensor Installation Instructions EA9102, EA9103, and EA9105

1. Secure the sensor box to the perforated rack enclosure door by threading a cable tie through the recessed channel in the sensor box and door.

***Note**: There are two recessed channels on the back of the sensor box, which is included with a magnet to secure the sensor.*

2. Secure the RJ45 cable along with the desired path to the PDU using the remaining cable ties.
3. For the 3 Temperature and 1 Humidity sensors (model EA9105) only: Secure the two additional temperature probes near the top and the bottom of the perforated rack enclosure door using the cable ties.
4. Use the RJ45 Quick Disconnect Coupler and Ethernet Cable to extend the length of the sensor input cable and/or to serve as an easy disconnect point for rack door removal. Refer to the Advantage Series User Manual for instructions on, how to create custom cord lengths using the RJ45 Quick Disconnect Coupler.

***Note**: Use either the 1.8m Ethernet cable included with the enLOGIC sensor or any other CAT5 or CAT6 Ethernet cable with a standard RJ45 plug.*

5. Plug the sensor cable (or connected Ethernet cable) into the Sensor 1 or Sensor 2 port on the PDU/Inline Energy Meter or the Sensor Hub (model EA9106).

***Note**:*

- *It can take 1-3 minutes (depending on model and configuration) for PDU to recognize the sensor.*
- *Only plug the 3 Temperature and 1 Humidity sensors (model EA9105) directly into the Sensor 1 or Sensor 2 port. It is not recommended to plug this sensor into the Sensor Hub (model EA9106).*

6. The enLOGIC sensor is installed and ready for use.

Sensor Input Hub Installation Instructions EA9106

1. Secure the sensor box to the perforated rack enclosure door by threading a cable tie through the recessed channel in the sensor box and door.

***Note**: There are two recessed channels on back of the sensor box, which includes the magnet to secure the sensor*.

2. Secure the RJ45 cable along the desired path to the PDU using the remaining cable ties.
3. For the 3 Temperature and 1 Humidity sensors (model EA9105) only: Secure the two additional temperature probes near the top and the bottom of the perforated rack enclosure door using the cable ties.
4. Use the RJ45 Quick Disconnect Coupler and an Ethernet cable to extend the length of the sensor input cable and/or to serve as an easy disconnect point for rack door removal. Refer to the Advantage Series User Manual for instructions on how to create custom cord lengths using the RJ45 Quick Disconnect Coupler.

***Note**: Use either the 1.8m Ethernet cable included with the enLOGIC sensor or any other CAT5 or CAT6 Ethernet cable with a standard RJ45 plug*.

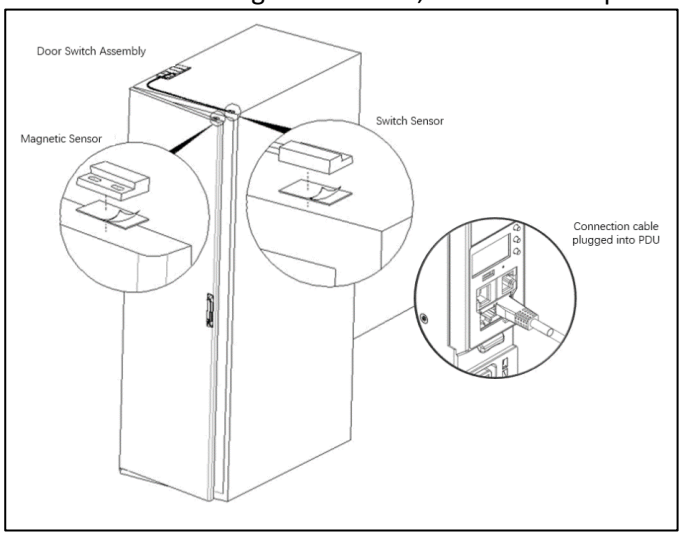
5. Plug the sensor cable (or the connected Ethernet cable) into the Sensor 1 or Sensor 2 port on the PDU/Inline Energy Meter or the Sensor Hub (model EA9106).

***Note**: Only plug the 3 Temperature and 1 Humidity sensors (model EA9105) directly into the Sensor 1 or Sensor 2 port. It is not recommended to plug this sensor into the Sensor Hub (model EA9106).*

Door Switch Sensor Installation Instructions EA9109

Top Door Mounting Option

1. Attach the door switch assembly to the top of the rack using the Adhesive backed mount and cable ties.
2. Attach the Switch Sensor to the top corner of the rack (on the side that the rack door will close) using double-sided tape. Secure the cable to the top of the rack using cable ties.
3. Attach the Magnetic Sensor to the rack door using double-sided tape.
4. Thread the sensor connection cable through the rack. Secure the cable with cable ties. Plug the cable into a sensor port on the PDU.
5. Log into the Web Interface, or Serial to manage the door sensor alarm and notification settings. The sensor is designed to alarm, if the door is opened more than 10 mm.

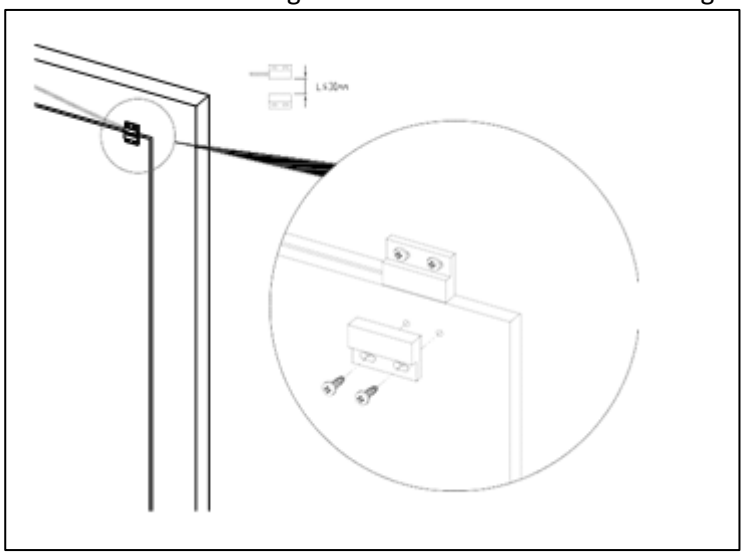


Inside Door Mounting Option

1. Attach the Door Switch assembly to the top of the rack using the Adhesive backed mount and cable ties.
2. Attach the Switch Sensor to the inside of the rack (on the side that the rack door will close) using 4 screws (FS00041). Secure the cable to the top of the rack using cable ties.
3. Attach the Magnetic Sensor to the rack door using screws.
4. Thread the sensor connection cable through the rack. Secure the cable with cable ties. Plug the cable into a sensor port on the PDU.
5. Log into the Web Interface, or Serial to manage the door sensor alarm and notification settings. The sensor is designed to alarm, if the door is opened more than 10 mm.

Door Mounting Option

1. Attach the Door Switch assembly to the top of a door jamb using the Adhesive backed mount and cable ties.
2. Attach the Switch Sensor to the door (on the side that the rack do0g5000000000vv0or will close) using the 4 screws (FS00041). Secure the cable to the top of the rack using cable ties.
3. Attach the Magnetic Sensor to the rack door using screws. (See below.)



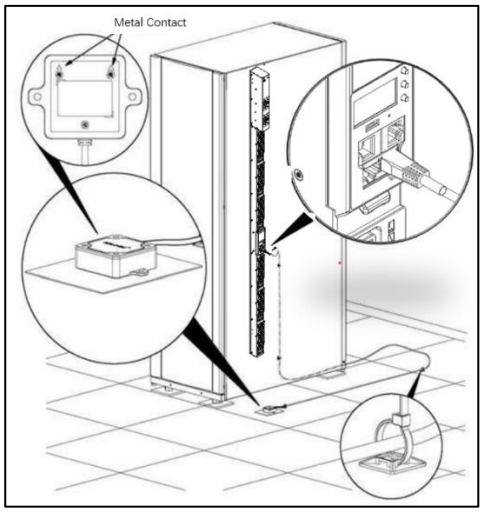
4. Thread the sensor connection cable through the rack. Secure the cable with cable ties. Plug the cable into a sensor port on the PDU.
5. Log into the Web Interface, or Serial to manage the Door Sensor alarm and notification settings. The sensor is designed to alarm, if the door is opened more than 10mm.

Dry Contact Cable Installation Instructions EA9110

1. Attach the open wire leads on the dry contact cable to a dry contact sensor. *Refer to instructions for the dry contact sensor for this step.*
2. Connect the RJ-45 jack of the enLOGIC Dry Contact Cable to a sensor port on the PDU, Inline Energy Meter, or Sensor Hub (model EA9106).
3. Go to the enLOGIC Web UI to setup specific conditions to monitor and alarm for this sensor.

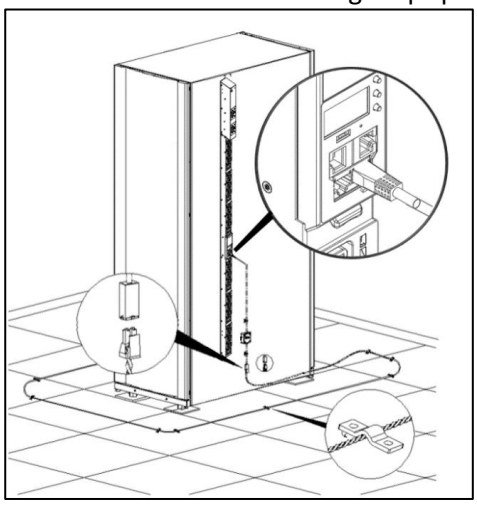
Spot Fluid Leak Sensor Installation Instructions EA9111

1. Place the fluid sensor on the surface to be monitored. Secure the cable using cable ties and/or adhesive mounts.
   ***Note**: The Spot Fluid Leak Sensor uses electronic circuits to detect the presence of liquid. Certain materials, such as metal surfaces or cement floor, can activate a false leak signal. To avoid this occurrence, place the sensor on the installation pad, (provided). The installation pad is best to install on a clean, dry surface.*
2. Plug the RJ-45 cable into a sensor port on the enLOGIC PDU, Inline Energy Meter, or Sensor Hub (model EA9106)
3. Go to the enLOGIC Web UI to setup specific conditions to monitor and alarm for this sensor.



Rope Fluid Leak Sensor Installation Instructions EA9112

1. Connect the RJ-45 jack on the Rope Fluid Leak Sensor assembly to a sensor port on the enLOGIC PDU, Inline Energy Meter, or Sensor Hub (model EA9106).
2. Thread the Rope Fluid Leak Sensor cable (EW00253) through the rack and along the desired path of detection.
   ***Note**: Up to 5 Rope Fluid Leak Sensor Cables can be connected to lengthen the detection zone. These can be purchased through enLOGIC.*
3. Secure the Rope Fluid Leak Sensor cable to the rack and ground using the cable ties and/or adhesive mounting strips provided.



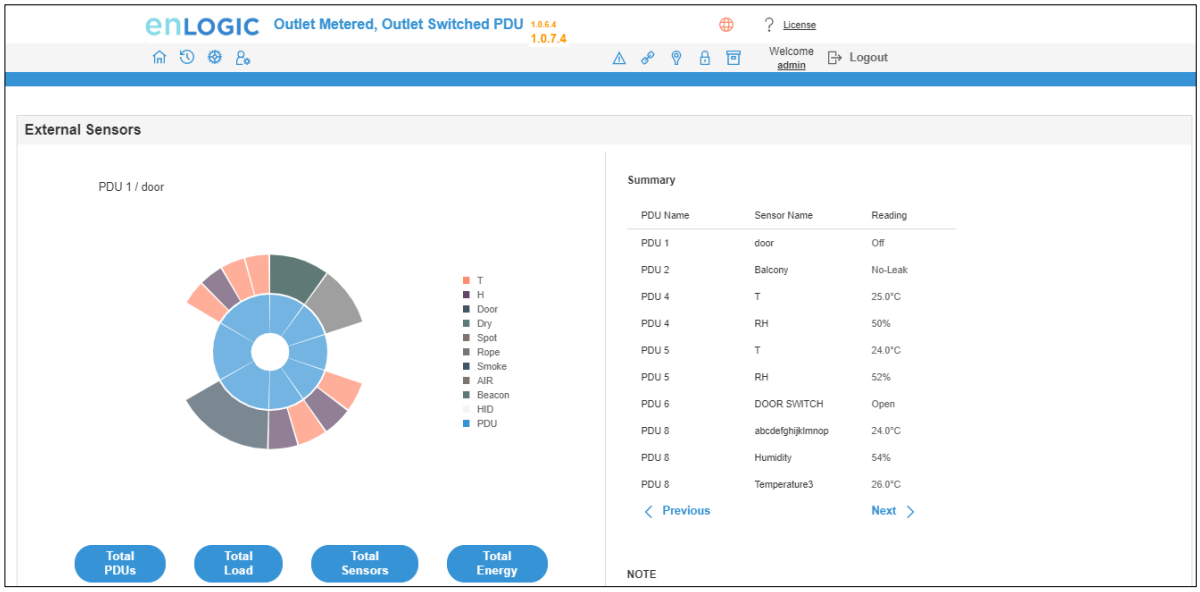
Note:

- *The wire mount (shown here) is for installation on the floor or ground surface. This must be used in the detectionarea.*
- *If mounting to a cabinet or wall, use the adhesive-backed mount (provided). The adhesive-backed is mounted in the detection area to prevent and notify delay leakage.*

Detecting Sensors

The sensor serial number is listed in the enLOGIC Web UI, when the sensor is detected. To identify each detected sensor:

1. Go to Overview/Dashboard.
2. Select **Total Sensors** to view all connected sensors.



Configuring Sensors

To configure the sensor name, location, alarms, notifications, and details, open up the Web UI:

1. Go to **Dashboard** to view all connected external sensors.
2. Select **Total Sensors** to view the External Sensors page.
3. Go to Settings -> Threshold -> External Sensors to configure.
4. In the **Edit** dialog box, type new data in the following fields, (for example in the 3 Temperature and 1 Humidity sensor):
    - High Critical
    - High Warning
    - Low Warning
    - Low Critical
5. Click **Save** to complete the sensor setup. Repeat this process for additional sensors.

Viewing and Managing Sensor Information

Readings of the sensors are available in the enLOGIC Web UI, when they are connected properly. The main Dashboard page and External Sensors page show the connected sensors information.

To View Connected Sensors

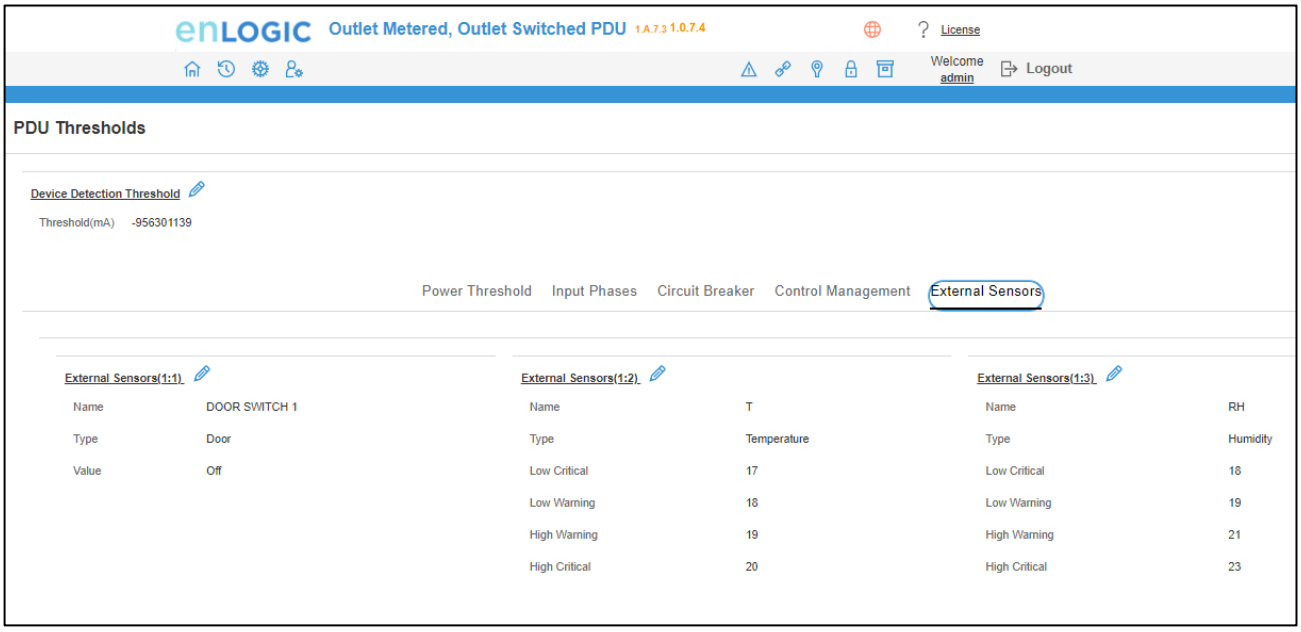
1. Open the **Dashboard**.
2. View the External Sensors section on the Dashboard page to see:
   - A list of sensors, which can be connected.
   - Information of each managed sensor: Sensor Name, Location, and Measurement.
3. Go to **Overview/Identification (**bottom of the page shows all connected sensors).
4. Below information is displayed for each connected sensor:
   - Type
   - Name
   - Serial number
   - ID
   - PDU name
   - Location

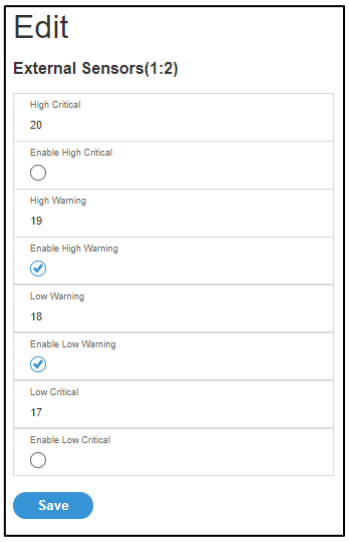
External Sensors

External Sensors, Type	Sensor Name	Serial Number	Sensor ID	PDU	Location
Temperature	T1	07080002	1	PDU#1	
Temperature	T2	07080002	2	PDU#1	
Temperature	T3	07080002	3	PDU#1	
Humidity	RH	07080002	4	PDU#1	

Edit External Sensor Threshold

1. Go to **Settings/PDU thresholds** to view all connected external sensors.
2. In the **External Sensor** section, select the sensor to edit.
3. Click **Edit** icon in the **Action** field.
4. Type new data in the following fields, for example in the 3 Temperature & 1 Humidity sensor:
   - High Critical
   - High Warning
   - Low Warning
   - Low Critical
5. Click **Save** to proceed further.





Monitoring the External Sensor

You can view the sensor details including name, location, value, etc.

From the Dashboard in the Web Interface, go to the **External Sensors** section or **Settings/PDU thresholds** to view all connected external sensors to view details.

Daisy Chain and RNA–Redundant Network Access

Daisy-Chain Functionality

In daisy chain mode, up to **64** PDUs can be connected via one (1) IP address. This allows user to gather information and data of all daisy chained PDUs from the master PDU.

The daisy chain functionality reduces the network services cost for PDUs. For example, a standard network switch is used in a data center can contain 24 ports. Without using the daisy chain function, each port supplies network services to one (1) PDU. However, if using the daisy chain features of enLOGIC, a typical network switch with 24 ports can supply network services for up to **1536** PDUs.

Daisy-Chain Setup

Follow below steps to setup the connection up to **64** PDUs of the same SKU via single IP address:

1. Configure the PDU, which is first in line on the Daisy Chain.

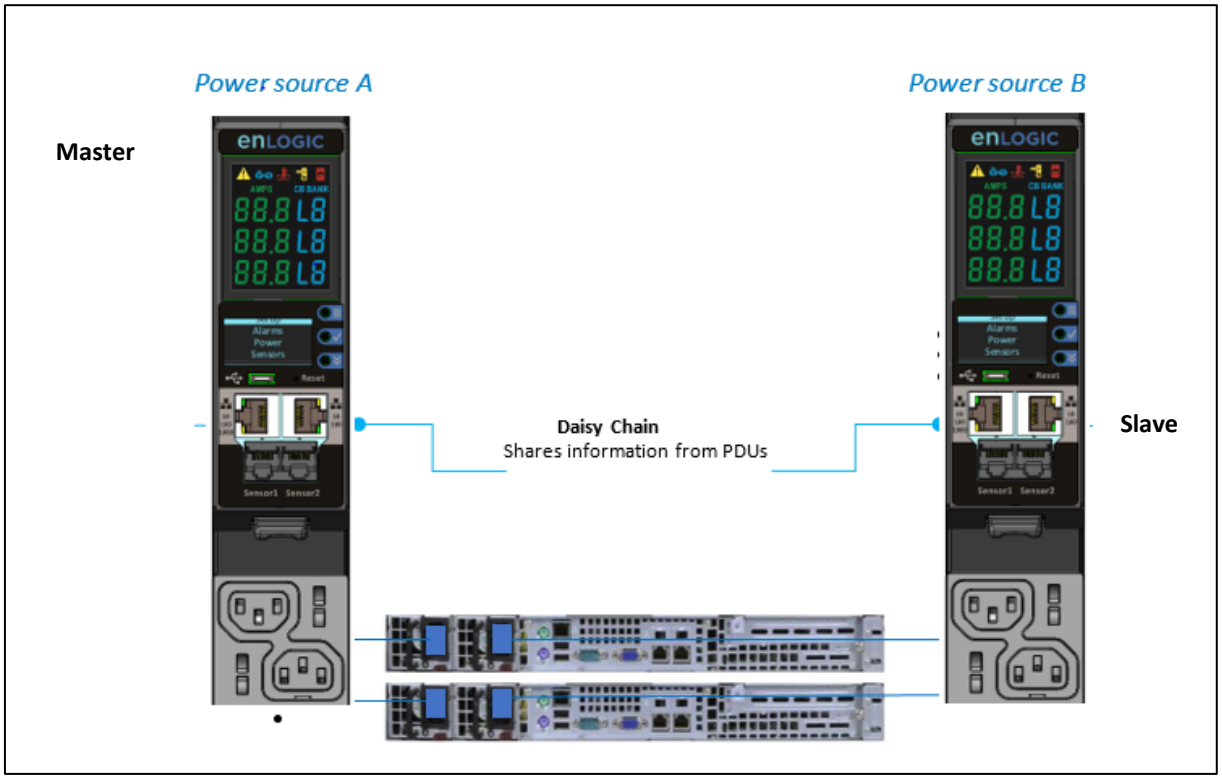
***Note**: Refer to the*

Network Settings *section for more information.*

2. After the initial PDU is configured, connect the Ethernet cord from the 10/100 port (on the configured PDU) to the 10/100/1000 port (on the second PDU) in the daisy chain line.
3. Repeat **step 2**, connecting PDUs from the 10/100 port to the 10/100/1000 port for up to **64** PDUs.

***Note:** The length of the Ethernet cords connecting the PDUs must be less than 6 m (20 ft.).*

4. By default, the Daisy Chain command is enabled in the PDU configuration file and default mode of the PDU is QNA. Go to the **web interface** (or management software) to manage and control the PDUs in the Daisy Chain.


Power source A
Power source B
Master
Slave
Daisy Chain
Shares information from PDUs

RNA (Redundant Network Access) Functionality

enLOGIC RNA allows to secure the access of PDU data and statistics on 2 separate private networks. RNA is used with a redundant power delivery design including two rack PDUs for each IT rack. PDUs are used in RNA applications that must be the same SKU.

How it Works

- Using enLOGIC RNA, the landlord and tenant maintain two separate private networks that do not overlap.
- enLOGIC RNA works using a redundant power delivery design (i.e., two rack PDUs for each IT rack).
- Each PDU is separately connected to the Tenant or Landlord's private communications network.
- The two PDUs are connected with the data communications bus to allow PDUs to share user-defined information.
- Each PDU acts like a master PDU to report PDU data to both networks.

RNA Setup

To setup RNA mode on Daisy chain setup the user must,

1. Configure the PDU for RNA Mode (*using CLI*).
2. Connect the LAN Network cords and Ethernet cords between PDUs.

To Connect PDUs for RNA Setup

After the PDUs are configured for RNA:

1. Connect the LAN network cable from network switch to the PDU1 Port1.
2. Connect another LAN NETWORK cable to Port 2 of last PDU in the daisy chain setup.
3. Connect the Ethernet cable from the Landlord PDU port 2 to Tenant PDU port 1 (to establish daisy chain connection).
4. Next step is to configure RNA mode to establish RNA connection.

To Configure RNA Mode in the CLI

1. Login to the CLI and type the command 'dev daisy rna' on the last PDU of daisy chain setup.
2. The following message will appear:

```
SUCCESS
System Reboot now, Are you sure? (Y/N)
```

3. Type **Y** to confirm reboot.
4. After reboot, the PDU will be setup to RNA Mode.

***Note**: RNA mode enabled PDU's shouldn't be placed in between the daisy chain system*.

PDU setup with LAN for RNA

Daisy Chain and RNA Commands in CLI

The following is a list of executable commands available in the CLI for enLOGIC RNA use only.

Table 10: RNA Commands

Command	Description	Example
dev daisy rna	Changes mode from daisy chain to RNA	EN2.0> dev daisy rna System Reboot now, Are you sure?(Y/ N):
dev daisy qna	Changes mode from RNA to daisy chain	EN2.0> dev daisy qna System Reboot now, Are you sure?(Y/ N):

Appendix A: Advantage Series Bracket Mounting Information

Whenever you mounting the Advantage Series PDU, refer to the table below for specific mounting requirements and verify whether the separate bracket kit is required for proper mounting.

Table 11: Advantage Series Bracket Mounting Information

Manufacturer	Models	Separate Bracket Kit Required?	Note
APC	Net shelter SX	No	Mount enLOGIC PDU directly in rack.
Chatsworth	Terra frame	Yes	Mount using Chatsworth Power Strip Lashing Bracket, part number 35086-C02 for 42U rack or 35086-Cxx for others.
Chatsworth	Global frame	Yes	Mount using L-shape PDU brackets that are included with rack. Note: mount up to 2 rack PDUs.
Cisco	R-Series	No	Mount enLOGIC PDU directly in rack.
Cooper	Delta3	Yes	Mount using Cooper part number PDUMTGBRKT.
Dell	PowerEdge	No	Mount enLOGIC PDU directly in rack.
Eaton	Paramount	Yes	Mount using Eaton part number PDUBRCKT.
Eaton	Vantage S2	No	Mount enLOGIC PDU directly in rack.
Emerson	DCF Rack	No	Mount enLOGIC PDU directly in rack.
Emerson	DCM Rack	No*	Bracket kit not required, but more advanced mounting options are available with Emerson full-height PDU mounting brackets.
HP	G2 Series	Yes	Mount using enLOGIC part number EA9120.
HP	100 Series	Yes	Mount using enLOGIC part number EA9120.

HP	Intelligent Series Rack	Yes	Mount using enLOGIC part number EA9120.
Knürr	Miracel®	Yes	Mount using PDU mounting brackets included with Miracle rack.
Knürr	DCM	Yes	Mount using small bracket included with rack; more advanced mounting options with Emerson full-height PDU mounting brackets.
Panduit	Net-Serv Cabinets	Yes	Mount with Panduit part number SVPDUB.
Rittal	TS8	Yes	Mount with enLOGIC part number EA9120.
Schroff	Varistar	Yes	Contact Schroff for mounting bracket options.
Wrightline	Paramount	Yes	Mount enLOGIC PDU using Eaton part number PDUBRCKT.
Wrightline	Vantage S2	No	Mount enLOGIC PDU directly in rack.
Wrightline	Vantage	Yes	Mount with Eaton part number 4PRPWRBRKT.

Appendix B: Advantage Series Product Range for EMEA

Table 12: EN2000, EN5000 and EN6000 Series for EMA

EN2000, EN5000, and EN6000 Series								
Phase	**Input Circuit**	**Max Power**	**Total Outlets**	**Outlet configuration**	**Chassis Depth/ (L x W x D)mm**	**Max Chassis Depth at breaker/mm**	**Max Chassis Depth at NMC/mm**	**SKU**
Single	16	3.68 kVA	24	(20)C13, (4)C19	1490 x 52 x 53	53	63	EN2326
	32	7.4 kVA	24	(20)C13, (4)C19	1750 x 52 x 53	53	63	EN2325
	32	7.4 kVA	32	(24)C13, (8)C19	1750 x 52 x 53	75	63	EN2329
	32	7.4 kVA	24	(20)C13, (4)C19	1750 x 52 x 53	53	63	EN5325
	32	7.4 kVA	32	(24)C13, (8)C19	1750 x 52 x 53	75	63	EN5329
	32	7.4 kVA	24	(20)C13, (4)C19	1750 x 52 x 53	53	63	EN6325
	32	7.4 kVA	32	(24)C13, (8)C19	1750 x 52 x 53	75	63	EN6329
Phase	**Input Circuit**	**Max Power**	**Total Outlets**	**Outlet configuration**	**Chassis Depth/ (L x W x D)mm**	**Max Chassis Depth at breaker/mm**	**Max Chassis Depth at NMC/mm**	**SKU**
Three	16	11.0 kVA	24	(18)C13, (6)C19	1750 x 52 x 53	75	63	EN2402
	32	22.0 kVA	24	(12)C13, (12)C19	1750 x 52 x 53	75	63	EN2808
	32	22.0 kVA	36	(24)C13, (12)C19	1750 x 85 x 53	53	63	EN2810
	16	11.0 kVA	24	(18)C13, (6)C19	1750 x 52 x 53	53	63	EN5402
	32	22.0 kVA	24	(12)C13, (12)C19	1750 x 52 x 53	75	63	EN5808
	32	22.0 kVA	36	(24)C13, (12)C19	1750 x 85 x 53	53	63	EN5810
	16	11.0 kVA	24	(18)C13, (6)C19	1750 x 52 x 53	53	63	EN6402
	32	22.0 kVA	24	(12)C13, (12)C19	1750 x 52 x 53	75	63	EN6808
	32	22.0 kVA	36	(24)C13, (12)C19	1750 x 85 x 53	53	63	EN6810

Table 13: EN1000 Series for EMA

EN1000 Series								
Phase	**Input Circuit**	**Max Power**	**Total Outlets**	**Outlet configuration**	**Chassis Depth/ (L x W x D)mm**	**Max Chassis Depth at breaker/ mm**	**Max Chassis Depth at NMC/ mm**	**SKU**
Single	16	3.68 kVA	24	(20)C13, (4)C19	1490 x52 x53	53	63	EN1326
	32	7.4 kVA	42	(36)C13, (6)C19	1750 x 52 x 53	53	63	EN1337
	30	5.0 kVA	42	(36)C13, (6)C19	1750 x 52 x 53	95	63	EN1315
Phase	**Input Circuit**	**Max Power**	**Total Outlets**	**Outlet configuration**	**Chassis Depth/ (L x W x D)mm**	**Max Chassis Depth at breaker/ mm**	**Max Chassis Depth at NMC/ mm**	**SKU**
Three	16	11.0 kVA	42	(36)C13, (6)C19	1750 x 52 x 53	53	63	EN1403
	32	22.0 kVA	42	(30)C13, (12)C19	1750 x 55 x 53	75	63	EN1811
	30	8.6 kVA	42	(36)C13, (6)C19	1750 x 52 x 53	95	63	EN1805
	30	8.6 KVA	38	(30)C13, (6)C19, (5)5-20R	1750 x 52 x 53	75	63	EN1806

Appendix C: Advantage Series Product Range for North America

Table 14: EN2000, EN5000 and EN6000 Series for North America

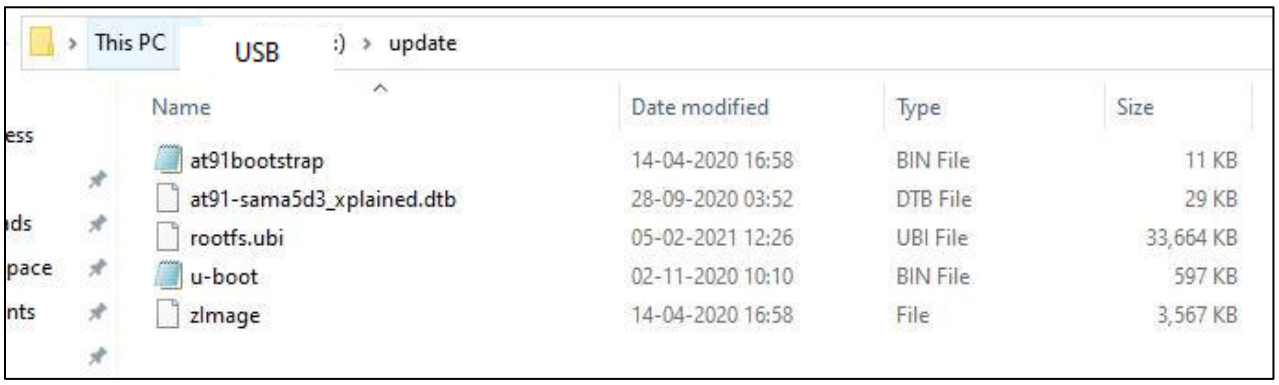
EN2000, EN5000, and EN6000 Series								
Phase	**Input Circuit**	**Max Power**	**Total Outlets**	**Outlet configuration**	**Chassis Depth/ (L x W x D)mm**	**Max Chassis Depth at breaker/mm**	**Max Chassis Depth at NMC/mm**	**SKU**
Single	20	3.3 kVA	16	(12)C13, (4)C19	917 x 52 x 53	53	63	EN2316-E
	30	5.0 kVA	24	(20)C13, (4)C19	1750 x 52 x 53	75	63	EN2324
	30	5.0 kVA	36	(30)C13, (6)C19	1750 x 52 x 53	75	63	EN2333
	30	5.0 kVA	24	(20)C13, (4)C19	1750 x 52 x 53	75	63	EN6324
	30	5.0 kVA	36	(30)C13, (6)C19	1750 x 52 x 53	75	63	EN6333
Phase	**Input Circuit**	**Max Power**	**Total Outlets**	**Outlet configuration**	**Chassis Depth/ (L x W x D)mm**	**Max Chassis Depth at breaker/mm**	**Max Chassis Depth at NMC/mm**	**SKU**
Three	30	8.6 kVA	36	(30)C13, (6)C19	1750 x 52 x 53	95	63	EN2804
	30	8.6 kVA	36	(30)C13, (6)C19	1750 x 52 x 53	95	63	EN2804-S
	60	17.3 kVA	24	(12)C13, (12)C19	1750 x 52 x 53	75	63	EN2902
	30	8.6 kVA	36	(30)C13, (6)C19	1750 x 52 x 53	95	63	EN6804
	30	8.6 kVA	36	(30)C13, (6)C19	1750 x 52 x 53	95	63	EN6804-S
	60	17.3 kVA	24	(12)C13, (12)C19	1750 x 52 x 53	75	63	EN6902

Firmware Update Procedures

enLOGIC PDUs and Inline Meters can be updated to support the most recent firmware by enLOGIC in a variety of ways.

USB Method

1. Go to www.enLOGIC.com and download the most recent Firmware version, 'enlogic.tar'.
2. Extract the 'enlogic.tar' and copy its contents to a folder named **update**
3. Copy the **update** folder to the USB drive



4. Insert the USB drive into the USB port of the PDU.
5. Go to **Setup**-> **USB menu** on the OLED.
6. Select Firmware Upload and click Yes to confirm.

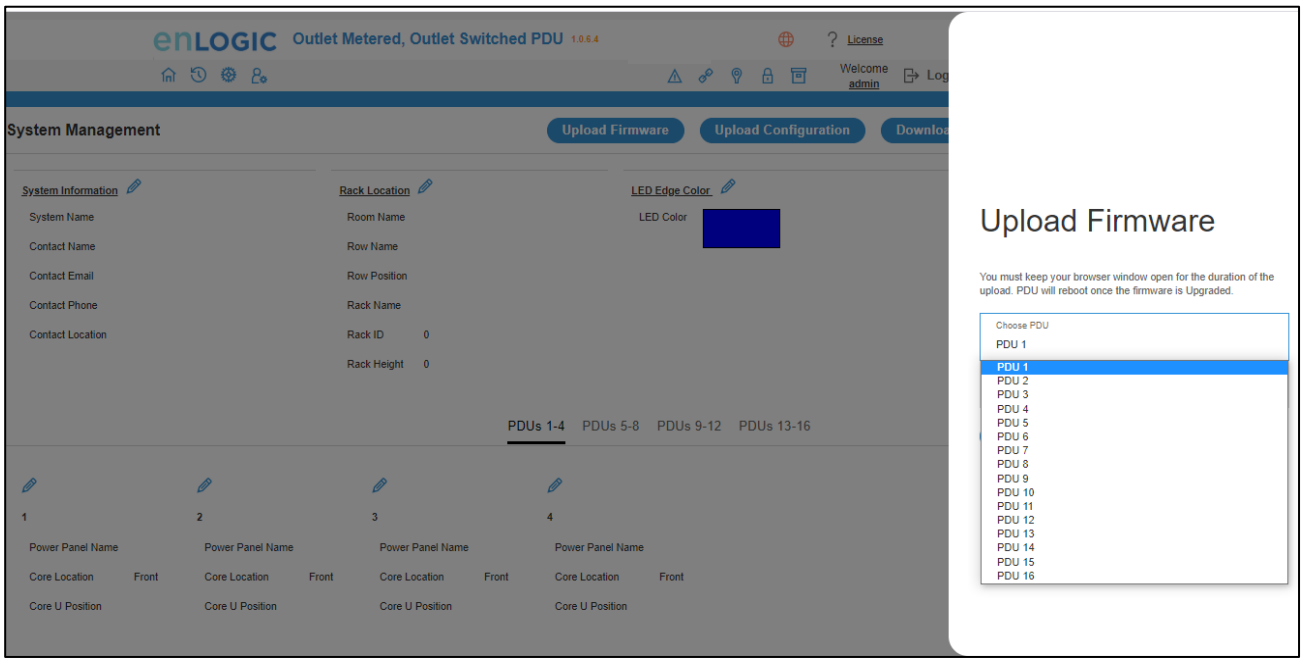
***Note**: The OLED will show the Firmware update progress. It also shows the process of updating. When the update is complete, the PDU will automatically reboot.*

7. Remove the USB.
8. Go to **Setup -> Device -> Firmware** to confirm that the Firmware uploaded successfully.

Web Interface Method

1. Go to www.enLOGIC.com and download the most recent Firmware version, 'EnLOGIC.tar'. Save this file into a folder location.
2. Go to System management page and select the Upload Firmware option.
3. Select the PDU you want to upload firmware, and upload the enLOGIC.tar file.

***Note**: PDU will reboot and Firmware upgrade will complete.*



FTPS Method

To access the PDU using an FTPS program, FTPS must be enabled through the PDU Web Interface or through CLI or through SSH.

8. In the Web Interface, go to Network Settings -> FTPS.
9. Select the check box to **enable FTPS Access**.
10. Login to an FTP program with a role with administration privileges.
11. Transfer the firmware file enlogic.tar to /fw folder.
12. Connect to the PDU via SSH using a program such as HyperTerm or PUTTY.
13. Login using a role with administration privileges.
14. Type the command sys upd <pduid> all.

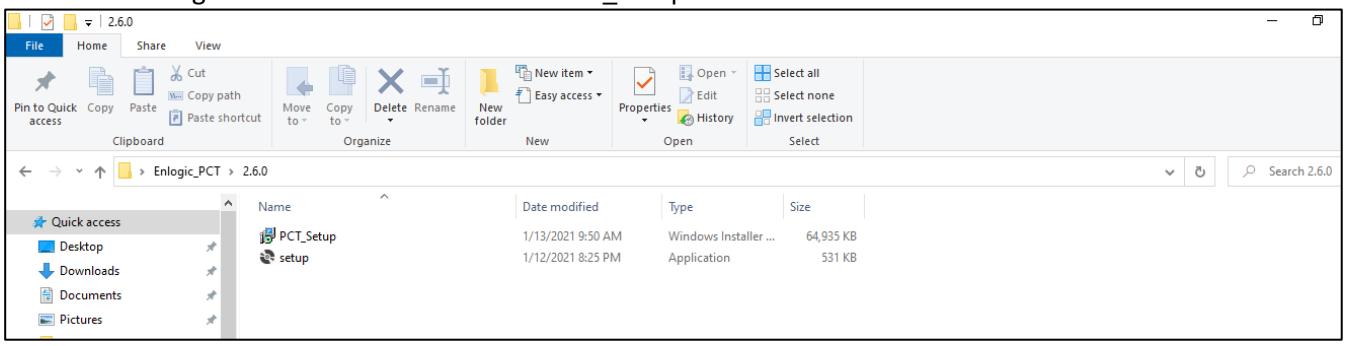
After reboot message indication in console, Issue sys upd <pduid> rst (In Daisy chain for slaves).

***Note:** For Master PDU / Standalone configuration, type the command sys upd <pduid> all and (Y/N) prompt will be appeared for PDU reboot, type Y. When the upload is finished, the system will reboot automatically.*

PCT Software Method

How to use PCT Software Tool?

1. Installing PCT Tool Double click on the PCT_Setup.msi that is shared



2. Click on the Next option to proceed and the tool will be installed
3. Click on the CIS-PCT-2.0 icon to open the tool 

Firmware Flashing Tool

Before working on the PCT tool make sure of the following:

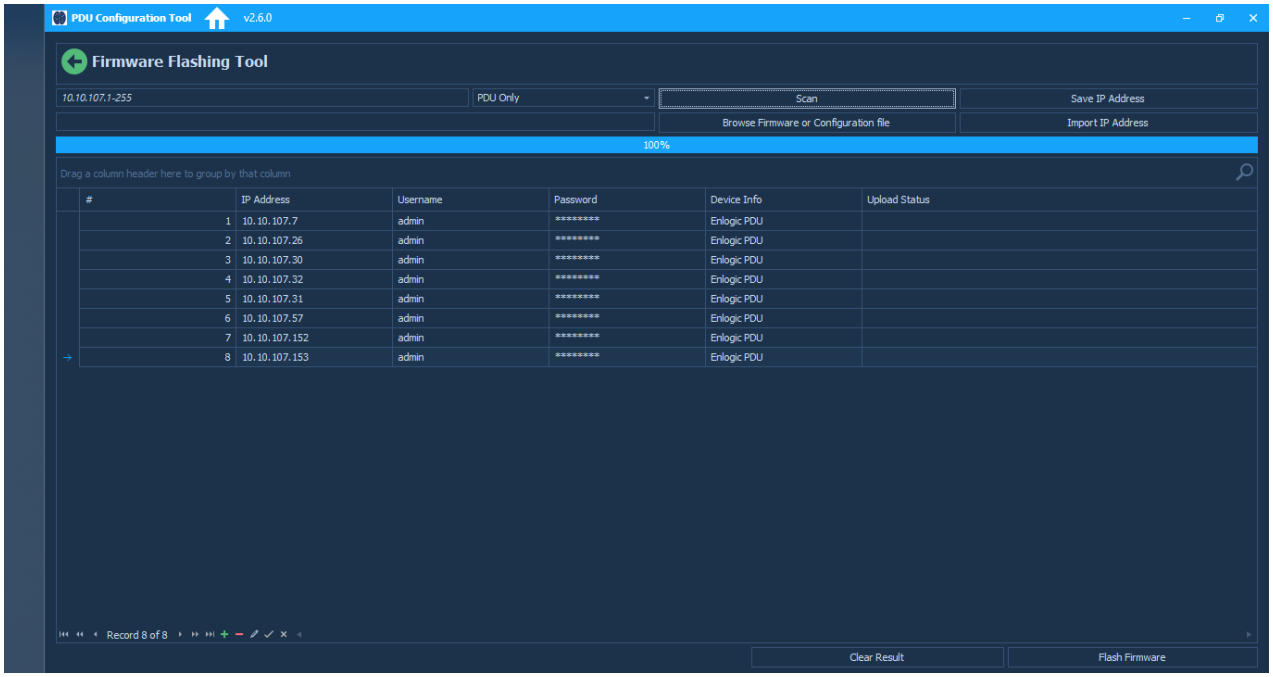
- The SNMP with IP 0.0.0.0 or the system IP (on which the tool is installed) should be enabled. Putting the PDU to default will enable the IP(0.0.0.0)
- Enable SSH with default port 22
- Enable FTPS with default port 21

Go to **Tools** in the PCT home page to upload the Firmware

Scan - Give the IP range and scan for the IPs in the network. It will list out all the IPs int the network

The format of the scan range should be **192.168.0.1-255** (No spaces between the -)

Scan Type - In the Scan Type, select **PDU Only** to scan only the Enlogic PDUs

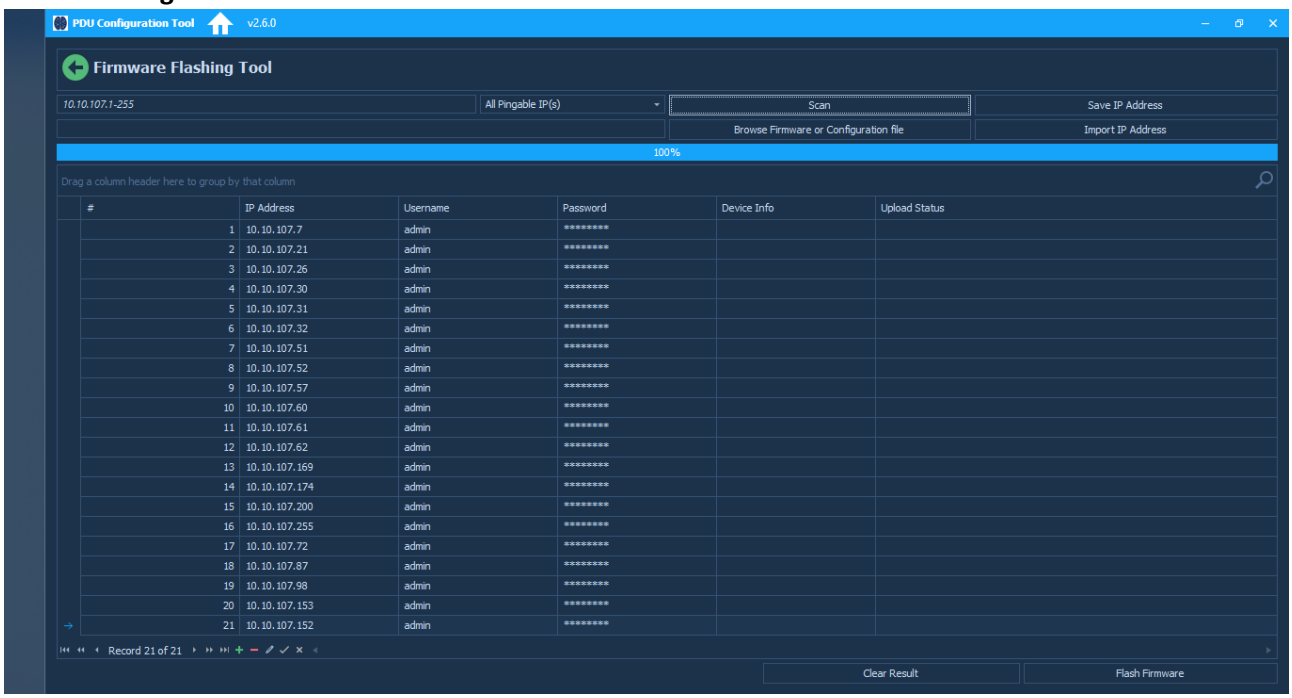


After scan, it will list out only the Enlogic PDU IPs in the network with the default username and default password
The default username and password displayed will be ‘admin’ and ‘12345678’
You can change it to any valid username of ‘admin’ privilege to upload the firmware/ configuration file
Enter the current password of the PDU in the **Password** field

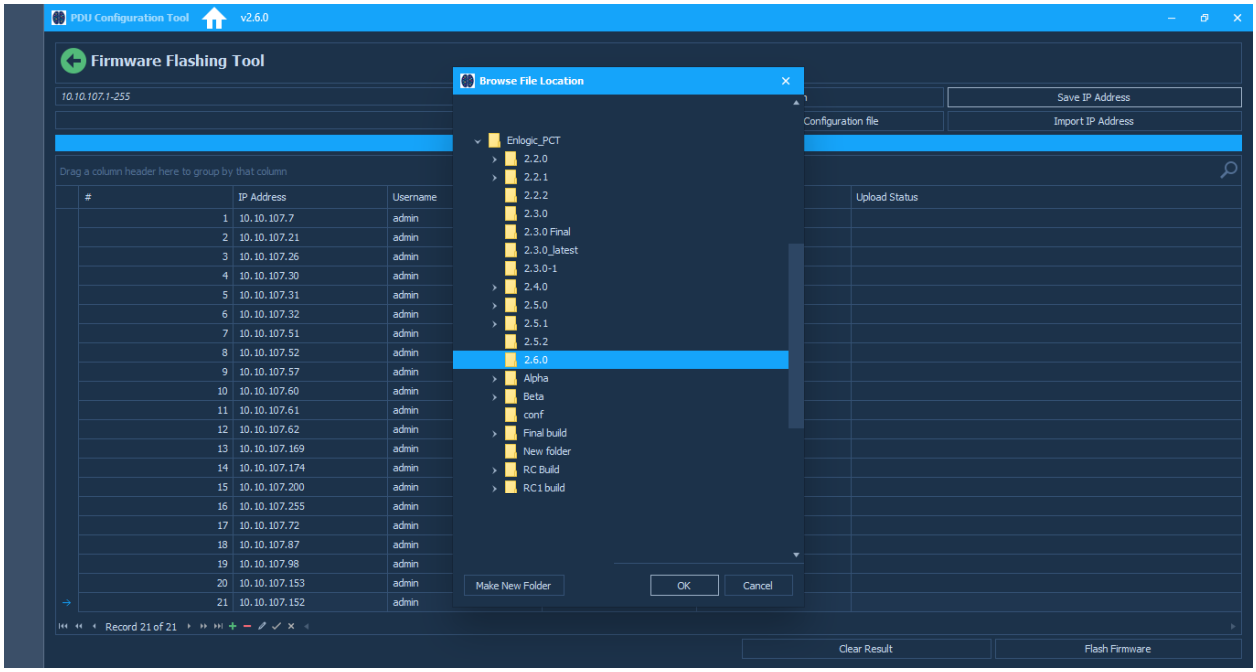
Clear Result - The Clear Result option will clear all the IP entries. Clicking on the button will ask for Confirmation.

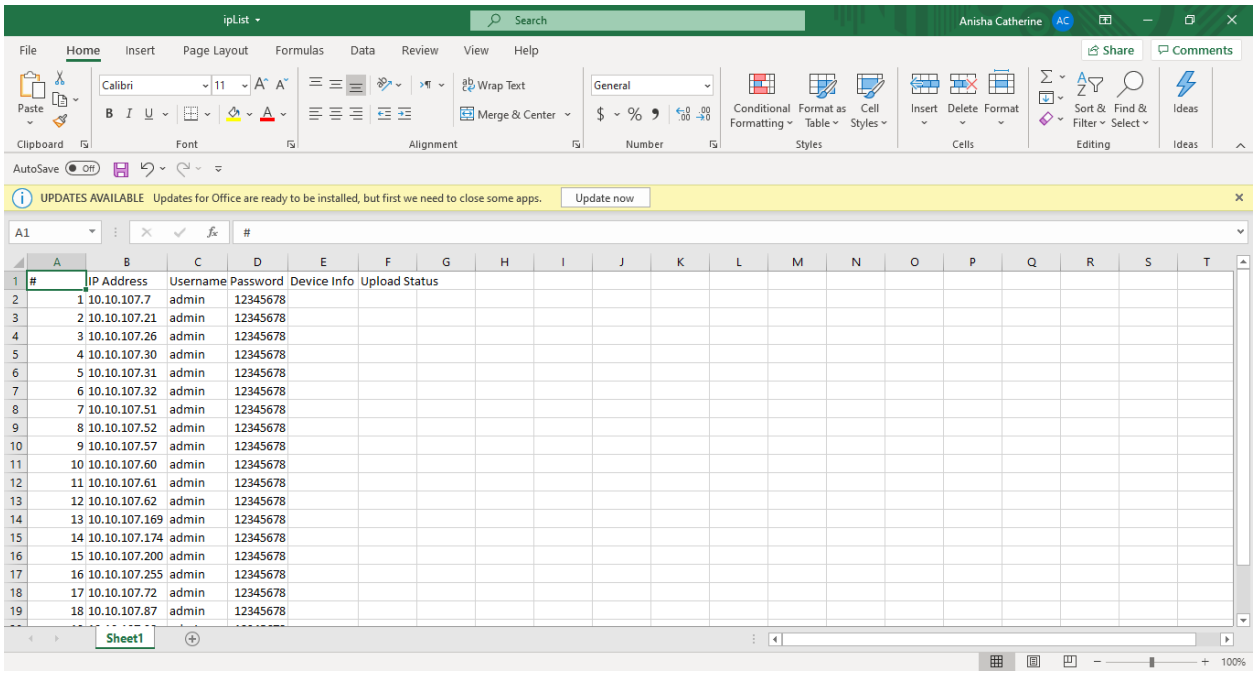
Click on the **Yes** button to confirm and delete all the entries.

Select **All Pingable IPs** to scan all the IPs in the network



Save IP Address - You can save the IP addresses. It will save in a excel sheet in the selected location





Import IP Address - You can also import the IP addresses from the excel sheet

From the IP addresses list, if u want u upload the firmware only on specified IPs then you need to delete the remaining IPs from the list by selecting the IP and clicking on ` _' button

Edit the PDUs username and password before uploading the firmware file. It will show default username and password. To edit it click on the username and password field and edit it

If you want to add any entry, then click on the **'+'** button. An empty field will appear, and you can enter the IP, username and password

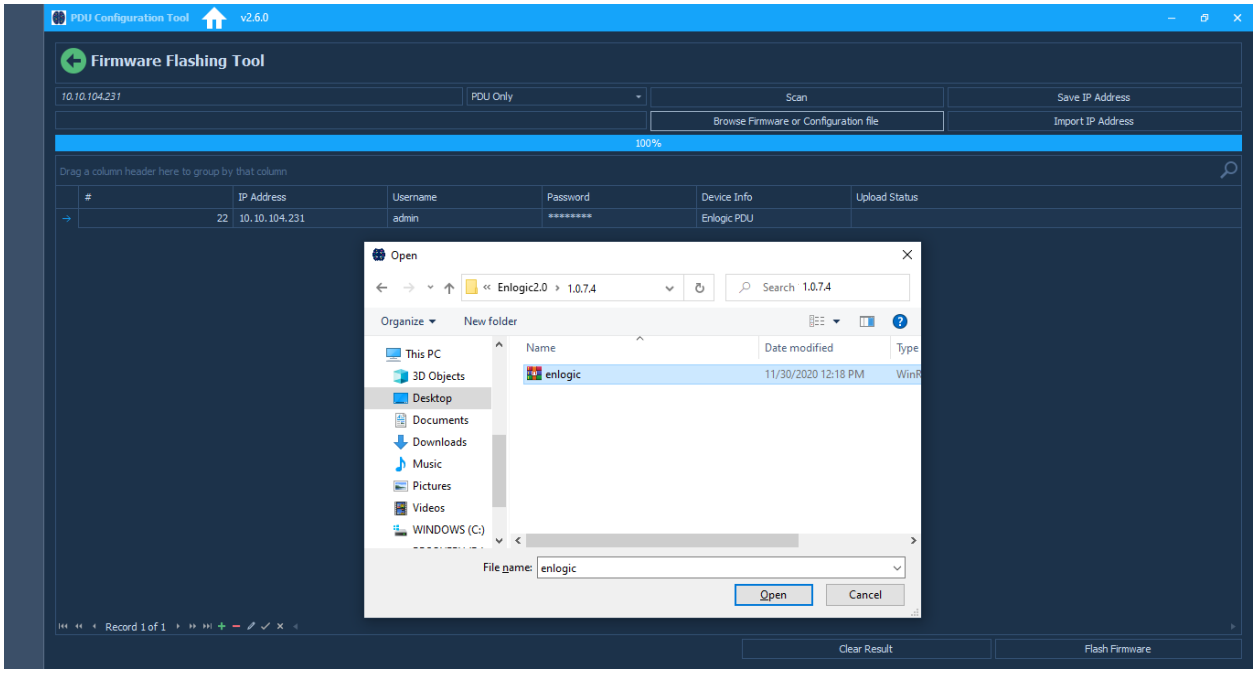
The pen symbol button is used to edit the field. Select the field you want to edit and click on the pen symbol
The tick symbol is to end any edit and the close symbol is to close an edit
Note: *After IP scan, even though only one field is highlighted when you select it, the firmware/ conf file upload will happen to all the IPs in the list.*

If you want to upload firmware or conf.ini file on only one IP, then either do the following:

- If your IP is in the list, then remove all IPs by selecting it and removing it using the **'_'** button
- You can skip IP scan and just enter the PDU details (IP, username and password) by clicking on the **'+'** button to add a new field
- You can also give only your IP in the IP scan range and scan it. It will list out your IP with the default username and password

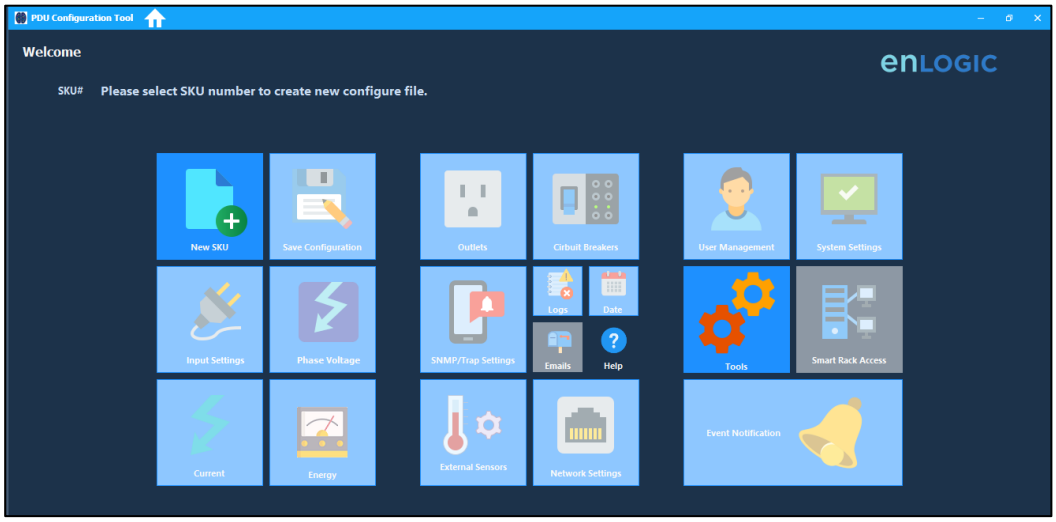
PDUs with default passwords – For default PDUs enter the default password in the **Password** field. The PDU will get set back to the current password (i.e., 12345678) during Configuration/Firmware Upload

Browse Firmware or Configuration File - Select the firmware file or the configuration file that you want to upload on the scanned IP addresses and click on the Upload Firmware
Note: PCT tool will upload the Firmware only on the master PDU
PCT tool will upload the configuration file on the master and all the slave PDUS connected



Home Page

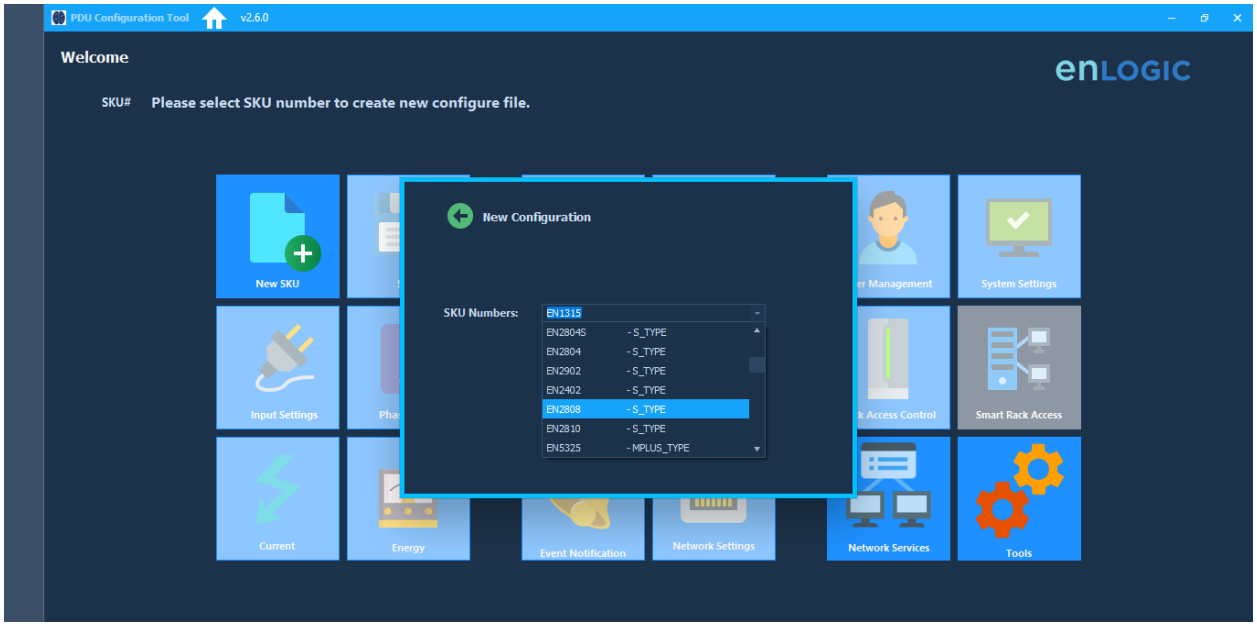
You can see the home page, when you open the enLOGIC PCT Tool. Only New SKU, Tools, Network Services and Help option will be enabled first.



New SKU Configuration File Creation

Select the SKU to create the conf.ini file

After the SKU is selected, all the pdu settings will be enabled

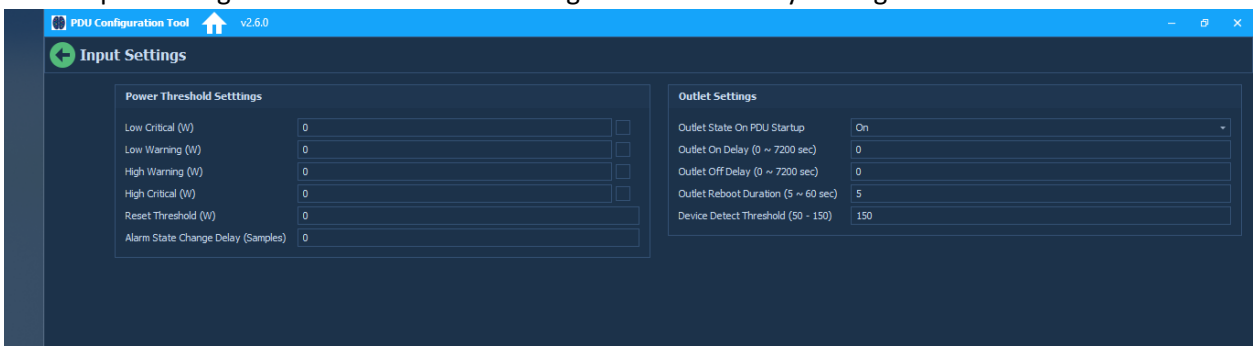


Creating Configuration File

Select each option, edit the settings, and click on the back button
Clicking on the back button will auto save the settings.
Note:
Do not click on the Home button to go to the next settings page after editing any page as it will not autosave the settings made

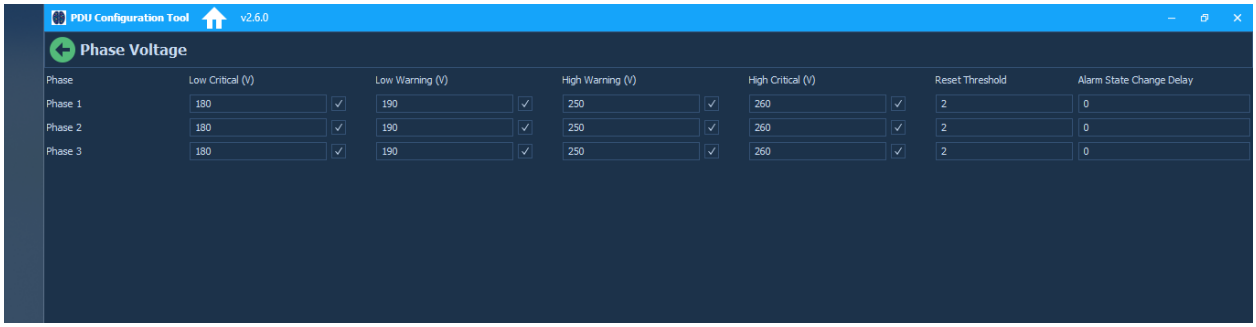
Input Settings

Go to Input Settings for Power Threshold settings and Outlet Delay settings



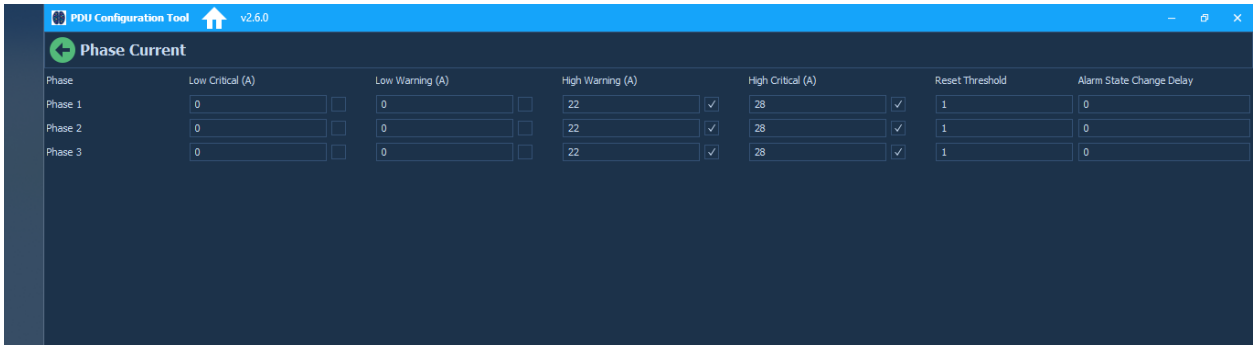
Phase Voltage Settings

Go to Phase Voltage page for Input Phase Voltage settings



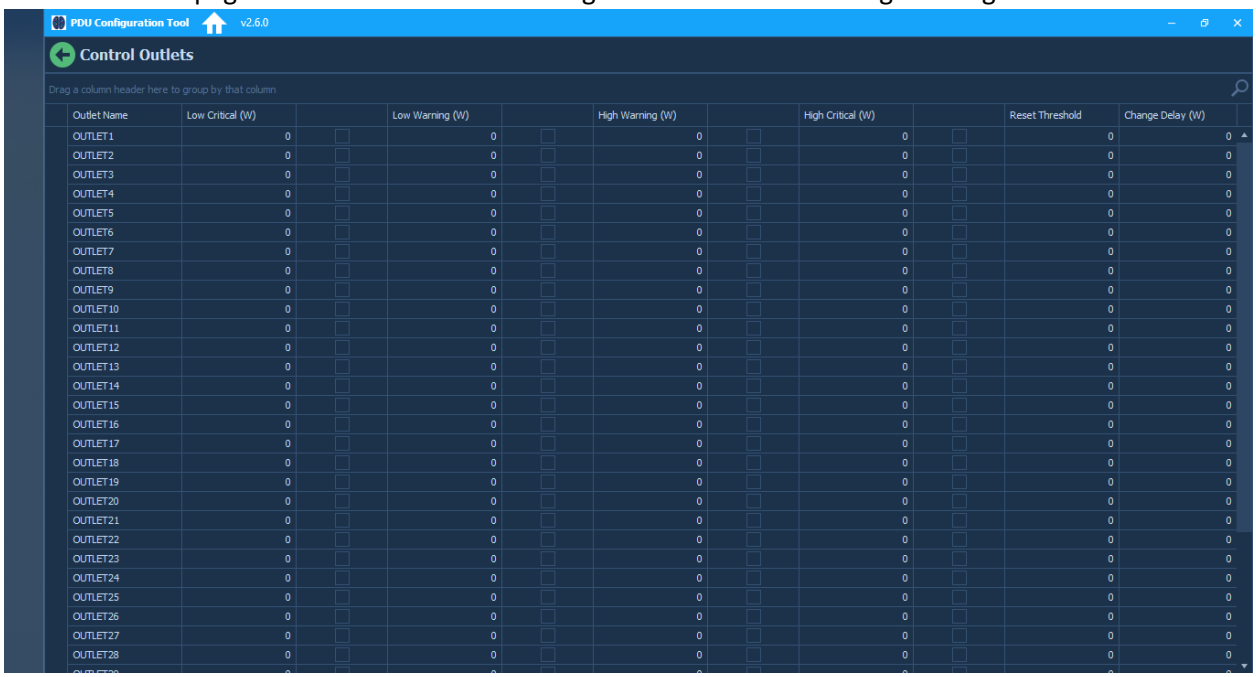
Phase Current Settings

Go to the Current page for Input Phase Current settings



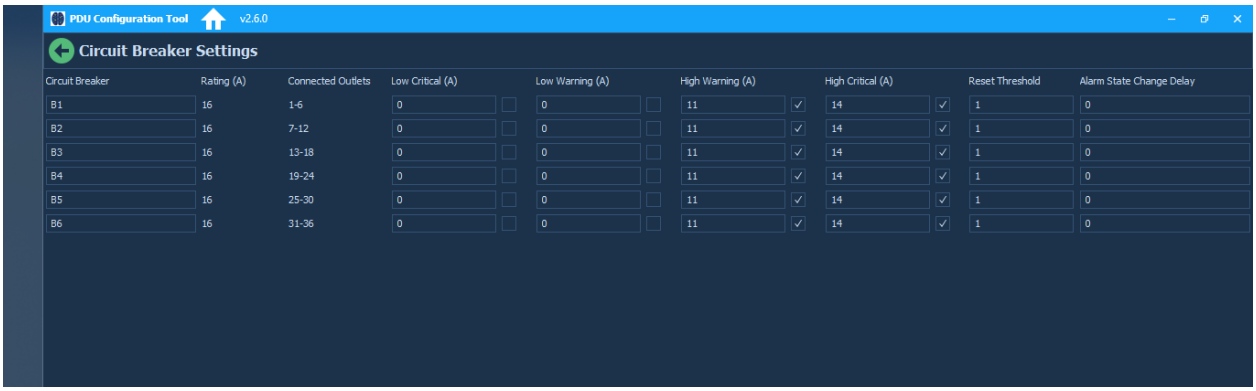
Control Outlets

Control Outlets page has Outlet Threshold settings and Outlet name change settings



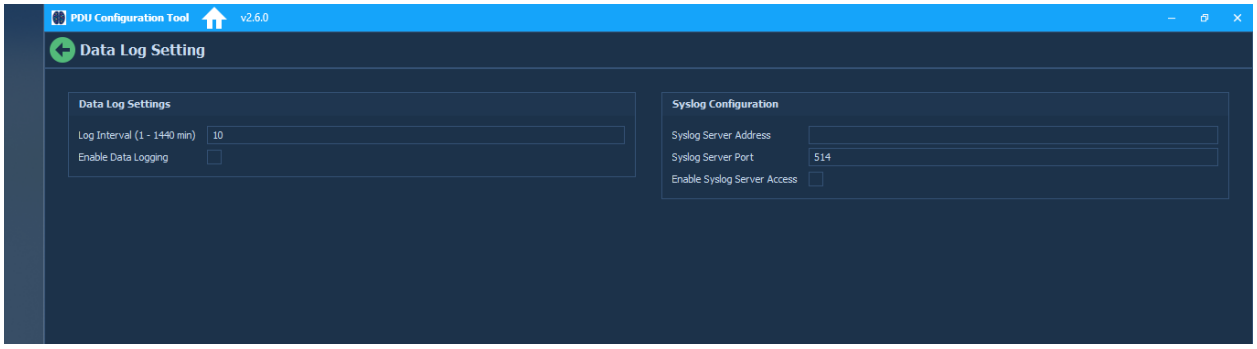
Circuit Breaker

This page contains Circuit Breaker Threshold settings

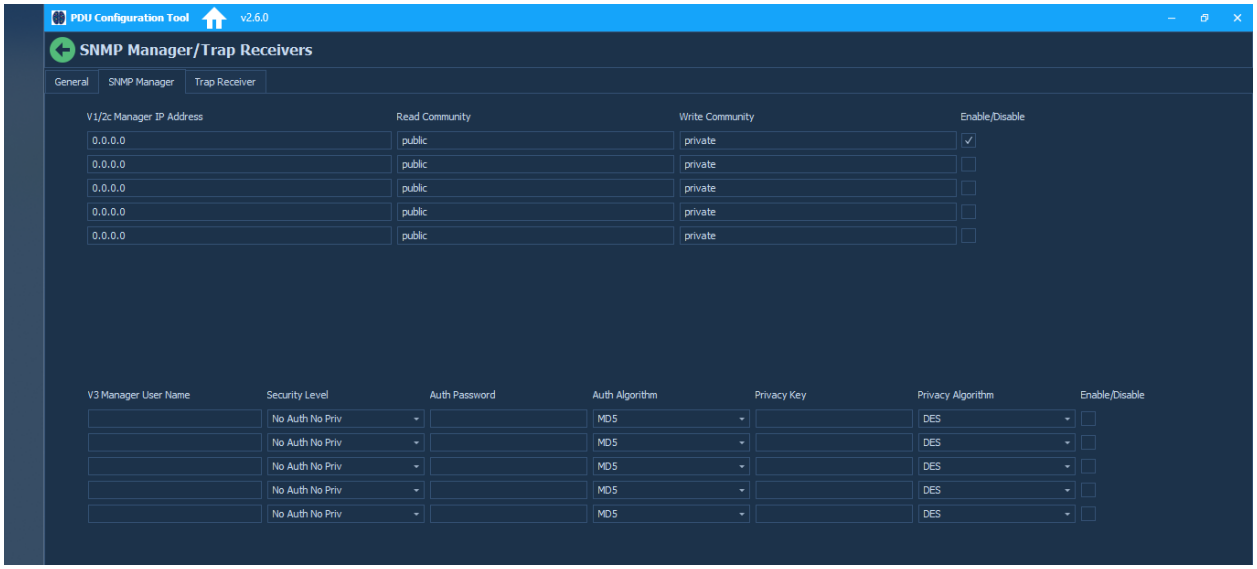


Data log and Syslog Settings

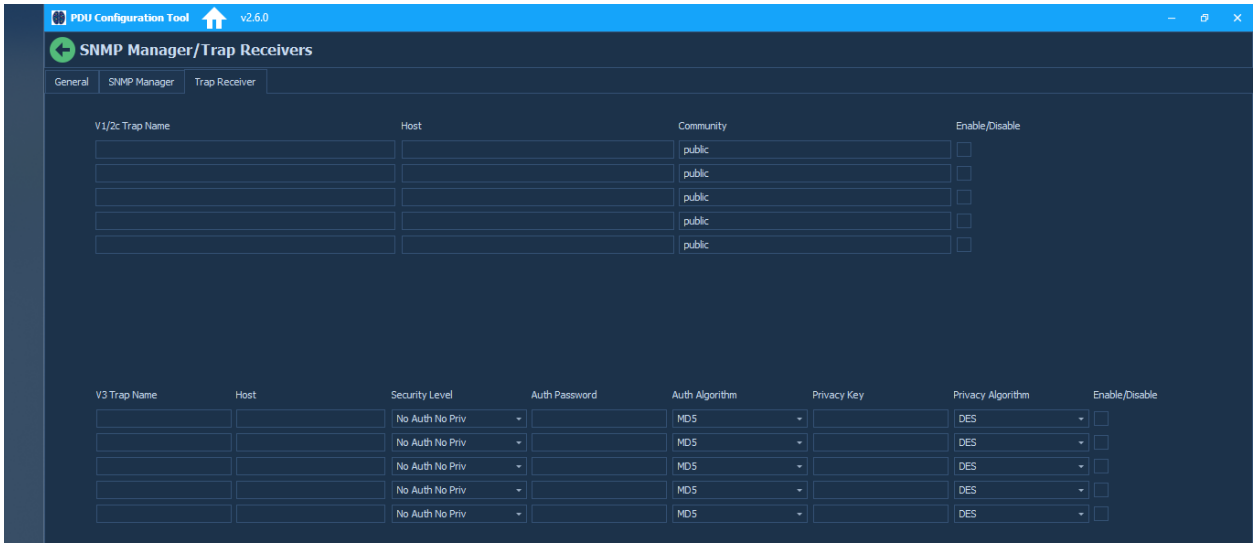
Logs page contains Data log and Syslog settings



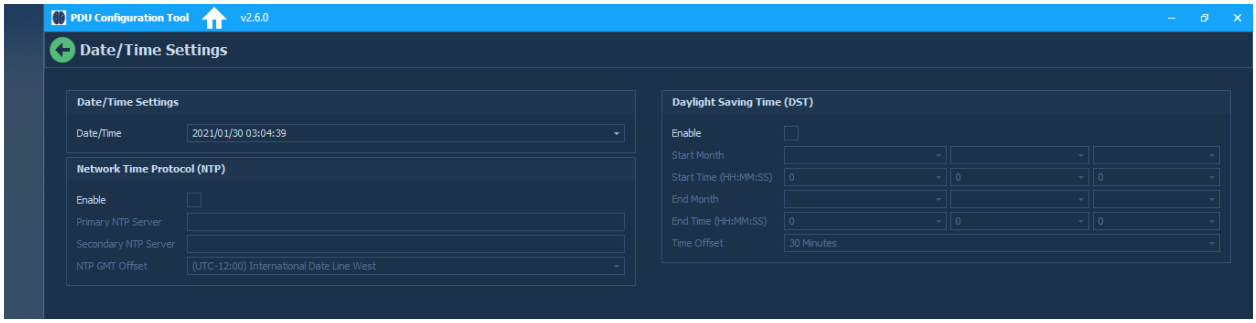
SNMP Settings



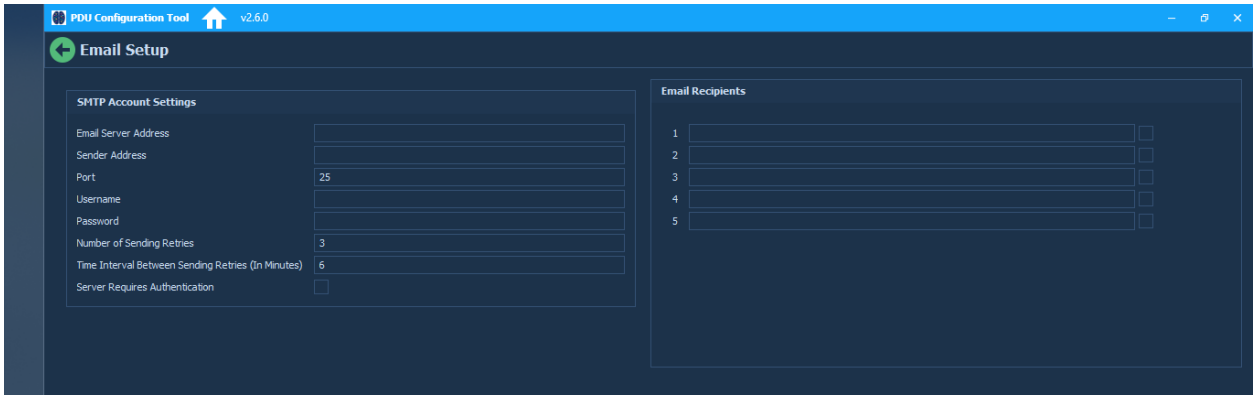
Trap Settings



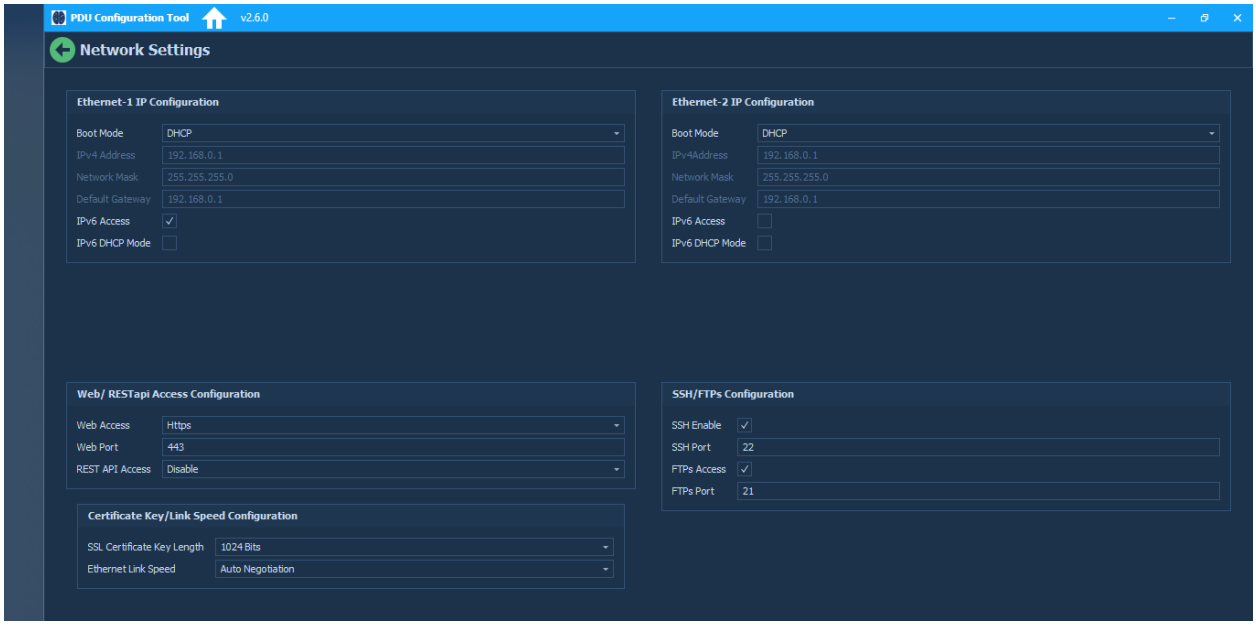
Date/Time Settings



Email Setup

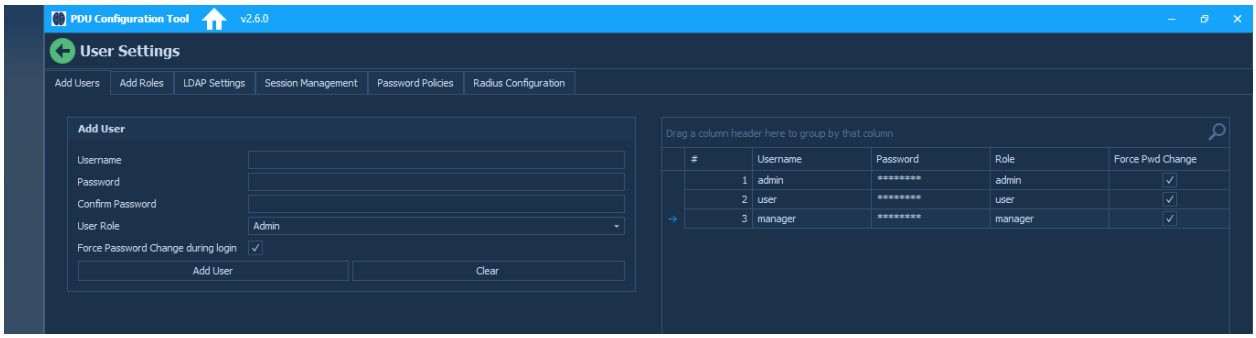


Network Settings

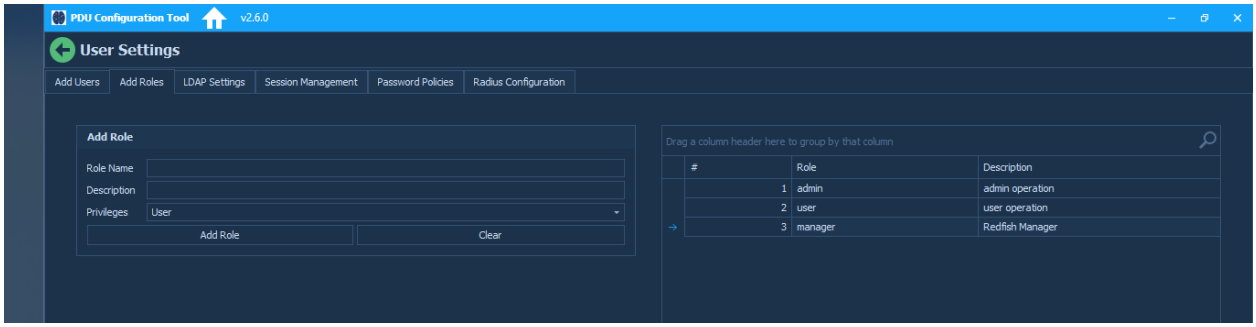


User Settings – User

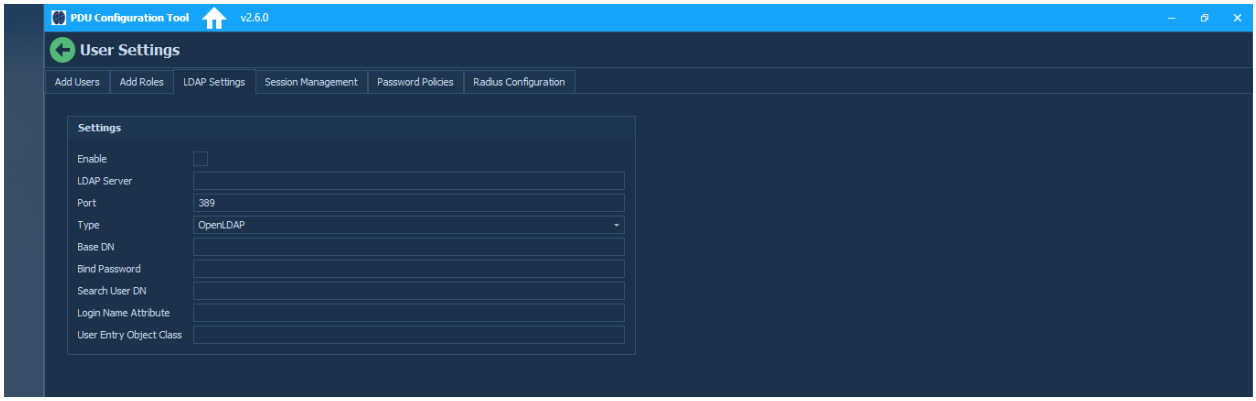
This page allows you to add new users with the roles – admin, manager and user
It also asks the user to enable/disable **Force Password change** at the time of Web UI login
When Force Password Change is Enabled for a user, the PDU will ask for password change after the configuration file is uploaded for that user
When Force Password Change is Disabled, PDU will just login with the current user and will not request for password change



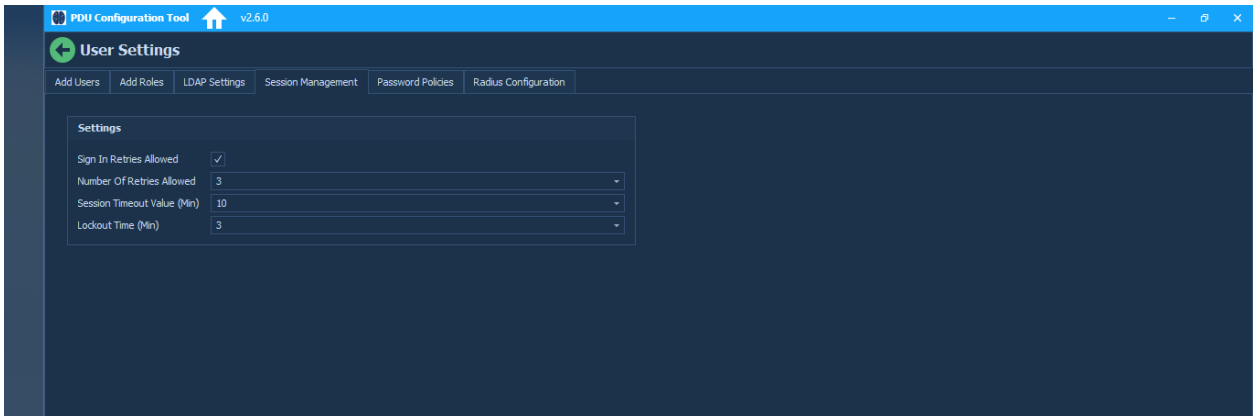
User Settings – Roles



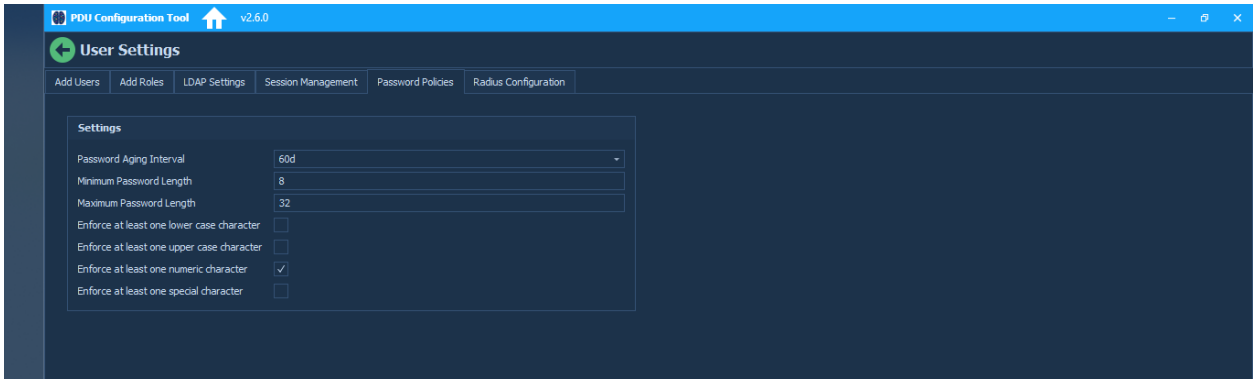
LDAP Settings



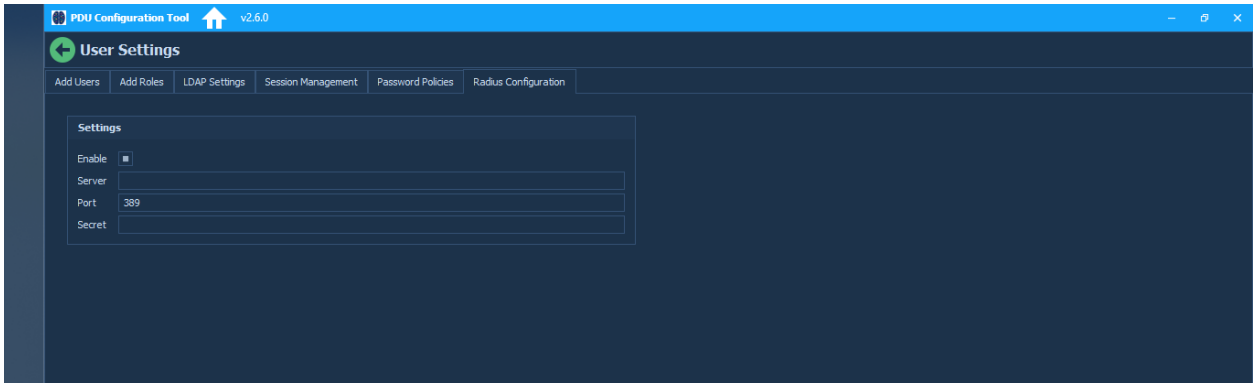
Sessions Settings



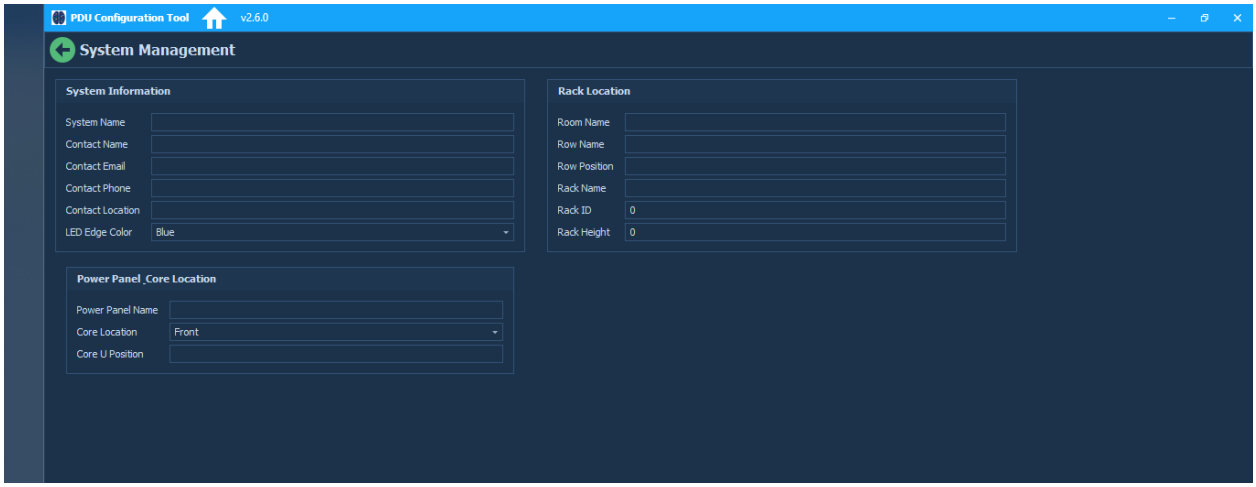
Password Policies



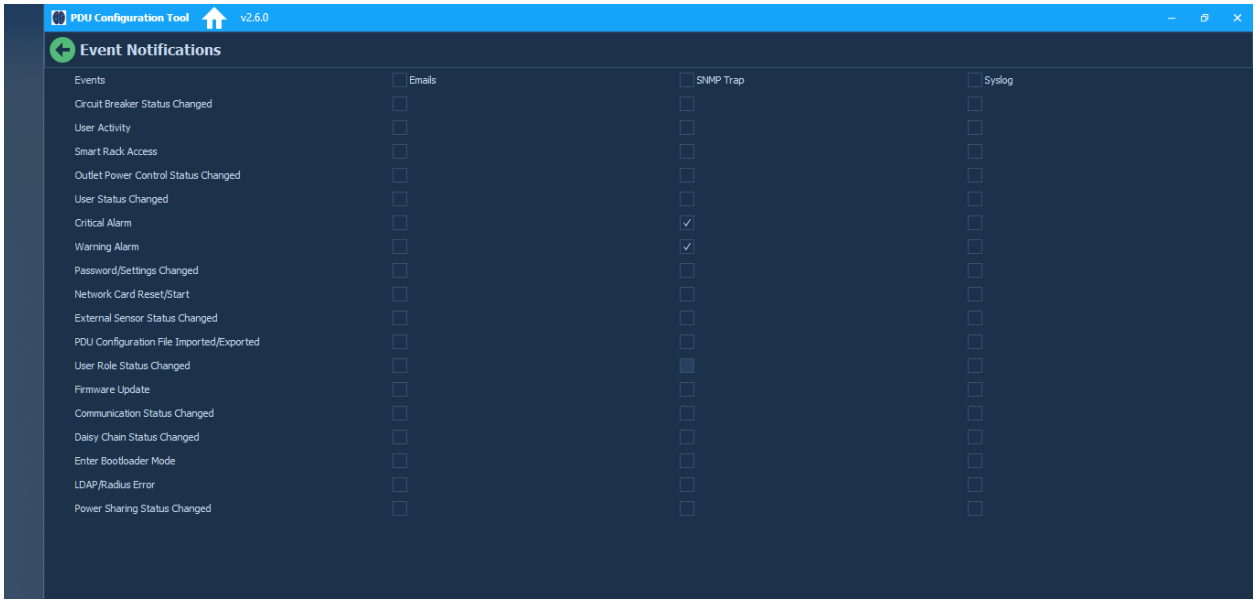
Radius Configuration



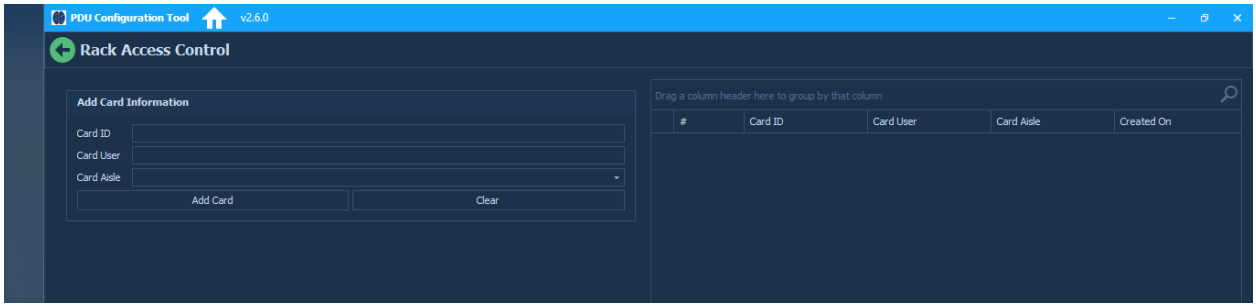
System Settings



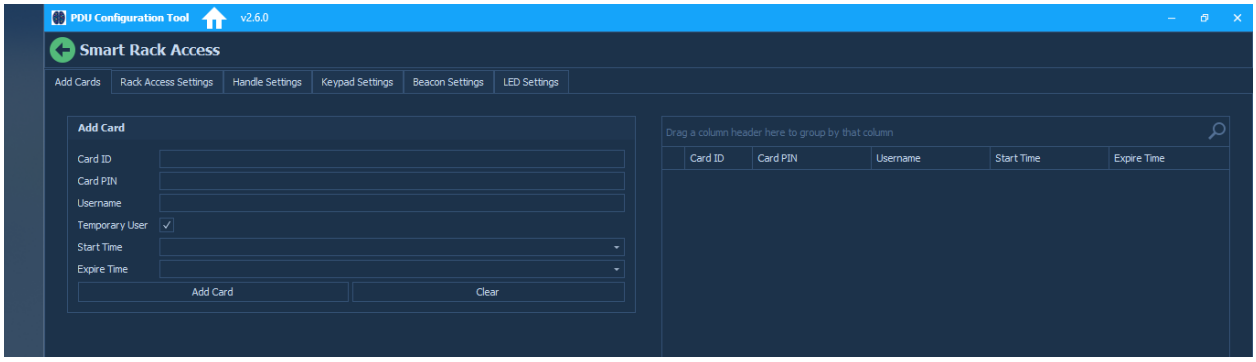
Event Notification

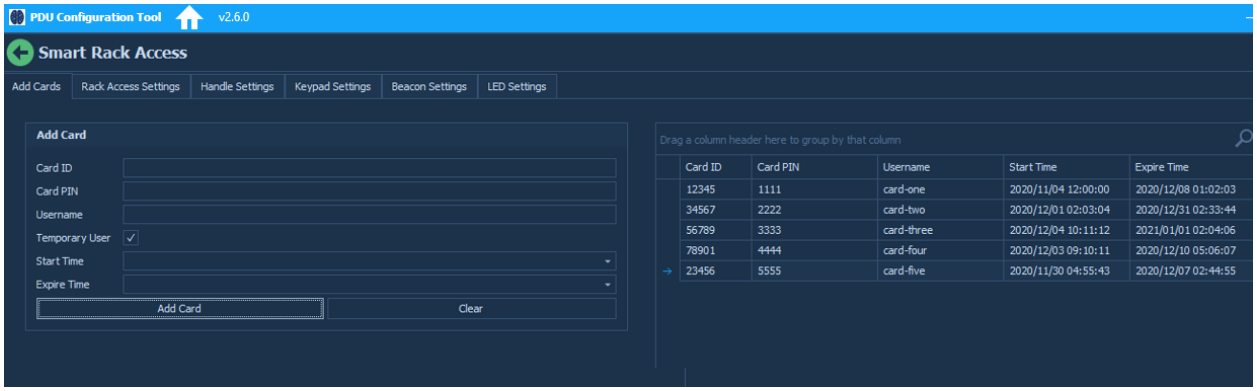


Rack Access Control

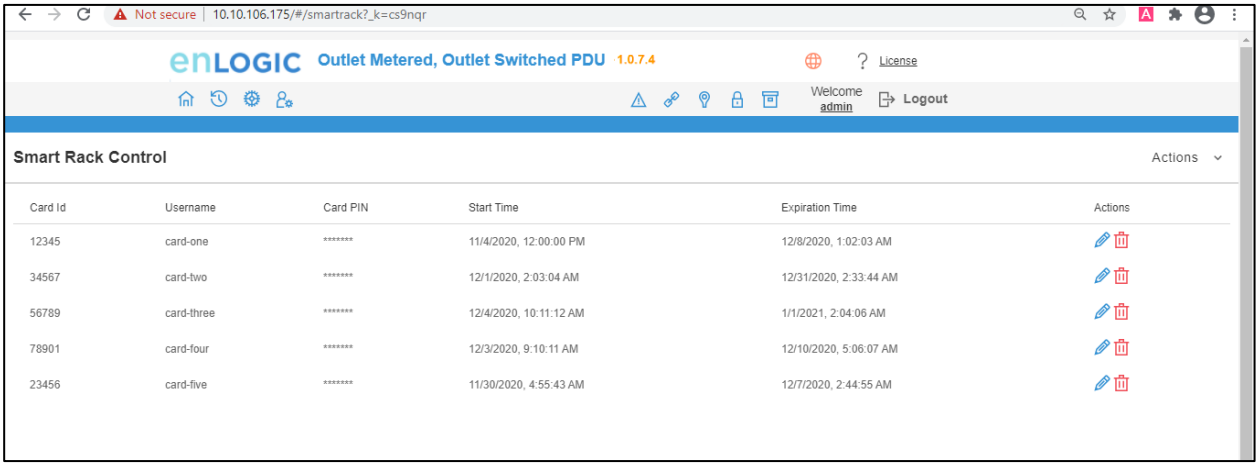


Smart Rack access



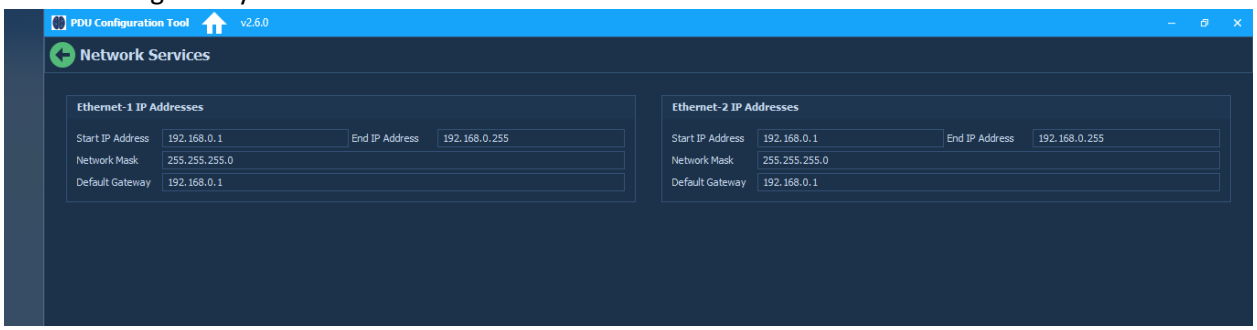


Ehandle card details in GUI after configuration file upload:



Network Services

Enter the start IP and end IP for Ethernet 0 and Ethernet 1 IP addresses with the correct Network mask and Default gateway



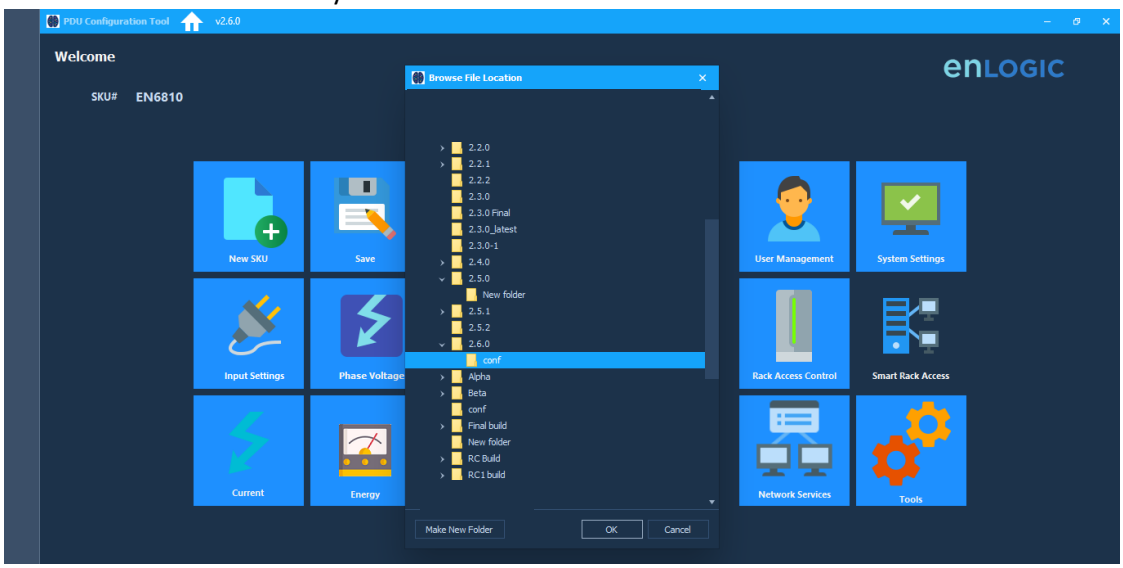
To upload the conf.ini file on multiple PDUs with ipeth0.cfg and ipeth1.cfg follow the below steps:

1. In Network Settings, enter the Eth0 and Eth1 IP addresses with correct Network mask and Default gateway and set it to **Static** mode
2. In **Network Services** page, enter the start IP and end IP for Ethernet 0 and Ethernet 1 IP addresses with the correct Network mask and Default gateway
3. Save the conf.ini file.

4. Four files will be saved:
    - conf.ini
    - econf.ini
    - ipeth0.cfg
    - ipeth1.cfg
5. Copy the three files - conf.ini, ipeth0.cfg and ipeth1.cfg into the USB and **upload the conf file through USB menu**
6. After upload the eth0 and eth1 IP will be assigned to the start IPs of eth0 and eth1.
7. Now, upload to different PDU and the IP of Eth0 and Eth1 should be incremented.

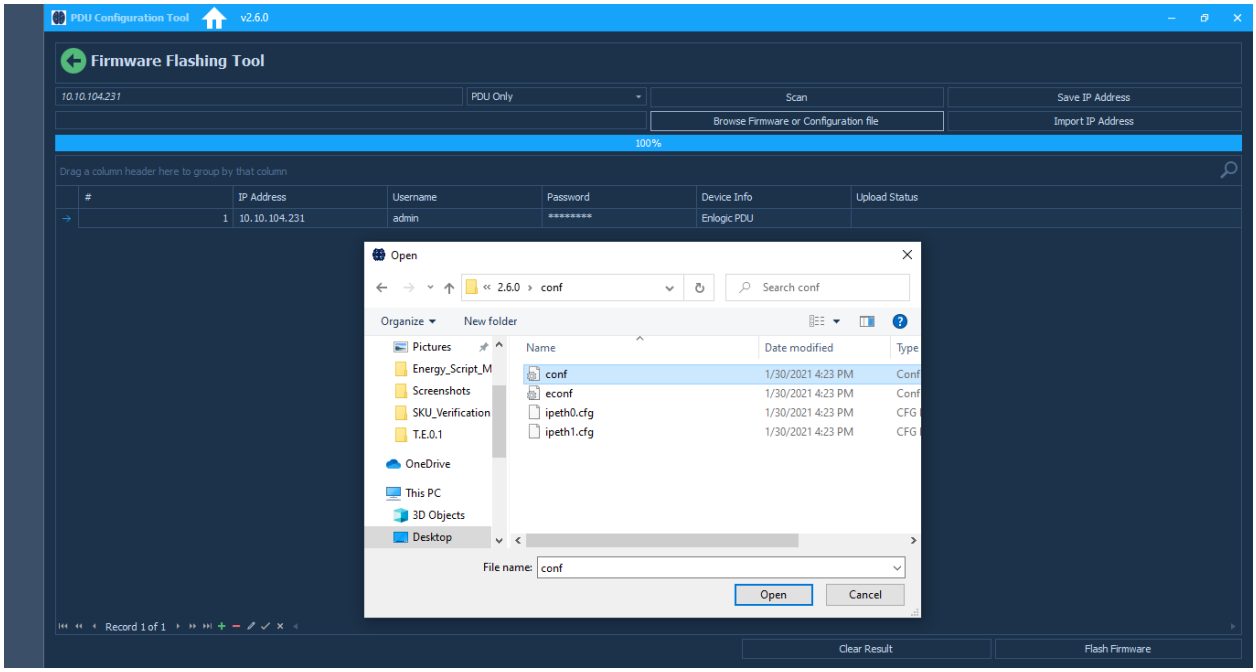
Saving Configuration File

Once all the settings are saved, click on the Save Configuration option
Choose the location where you want to save and click Ok

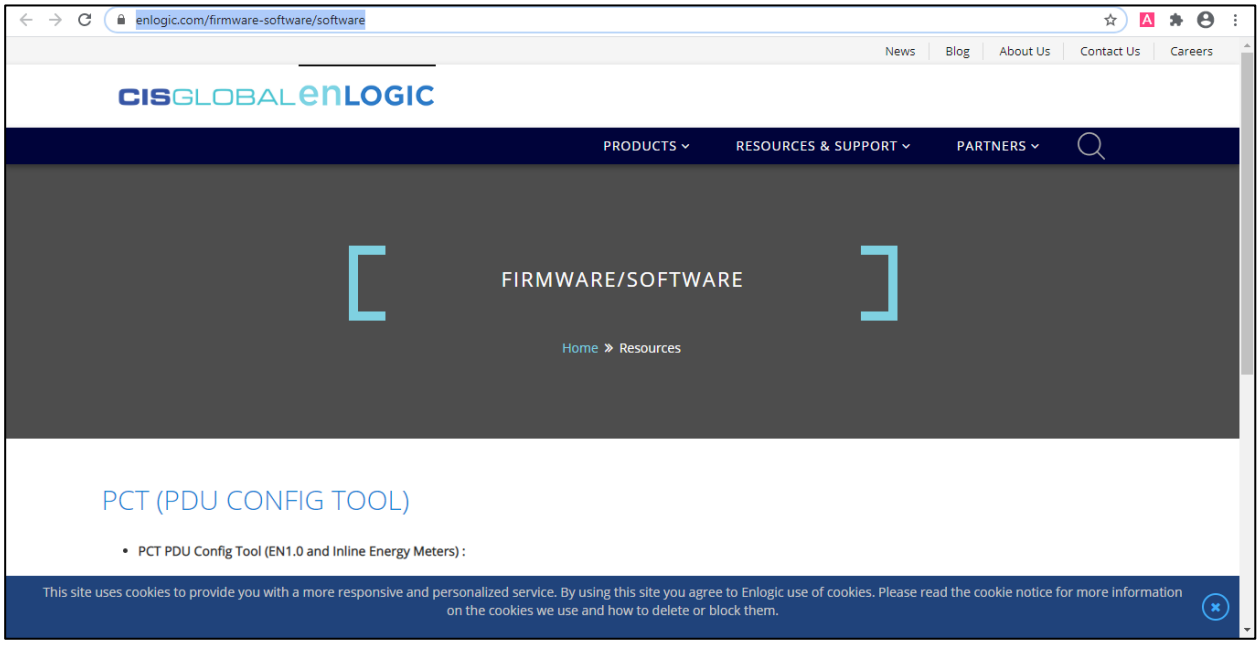


Uploading Configuration File Through PTC

Go to Tools page. Enter or Scan the IP address
Browse the **conf.ini** file
Edit the username and password before uploading the conf.ini file
Click on **Upload Configuration** to upload the file


PDU Configuration Tool
v2.6.0
Firmware Flashing Tool
10.10.104.231
PDU Only
Scan
Save IP Address
Browse Firmware or Configuration file
Import IP Address
100%
Drag a column header here to group by that column
IP Address Username Password Device Info Upload Status
1 10.10.104.231 admin ******** Enlogic PDU
Open
2.6.0 › conf
Search conf
Organize
New folder
Pictures
Energy_Script_M
Screenshots
SKU_Verification
T.E.0.1
OneDrive
This PC
3D Objects
Desktop
Name
Date modified
Type
conf 1/30/2021 4:23 PM
econf 1/30/2021 4:23 PM
ipeth0.cfg 1/30/2021 4:23 PM
ipeth1.cfg 1/30/2021 4:23 PM
File name: conf
Open
Cancel
Record 1 of 1
Clear Result
Flash Firmware

Help Option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PCT (PDU CONFIG TOOL)
PCT PDU Config Tool (EN1.0 and Inline Energy Meters) :
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Additional Notes:

Prerequisites:

- The SSH access should be enabled with the default port 22
- The FTPS access should be enabled with the default port 21
- The SNMP with IP 0.0.0.0 or system IP should be enabled for Enlogic PDU Discovery. Go to SNMP Manager page to enable it or putting the PDU to default settings will also enable the SNMP IP 0.0.0.0

Current Workflow:

- The PCT tool can scan all the IPs in the network and only the Enlogic PDUs based on the Scan IP selected and the PDUs with SNMP IP 0.0.0.0 enabled
- After IP scan the PCT tool will list out the IPs in the network with the default username and password. So, the user must edit the username and password accordingly
- The PDU password will be set back to the Current password (i.e., 12345678) for default PDUs after Firmware Upload. And, when the user logs in to the WebUI, it will not ask for Password Change and should be logged in with '12345678' password
- The PCT tool will upload on all the scanned IPs even when selecting on the specific IP. So, the user must enter only the IP you want to upload on or delete all the other IPs from the scanned list
- PCT tool will upload the Firmware only on the master PDU
- PCT tool will upload the configuration file on the master and all the slave PDUS connected
- After the settings added in the page click on the back button. This will auto save the settings made
- When New SKU is selected, all the previously added settings should go to default. But only threshold settings go to default. Other settings like Network Settings, System Settings, SNMP and User Settings shows the previous values
- For Static IP Incrementation, the Boot mode should be set to **Static** for both Ethernet 0 and Ethernet1 in Network Settings page of PCT Tool