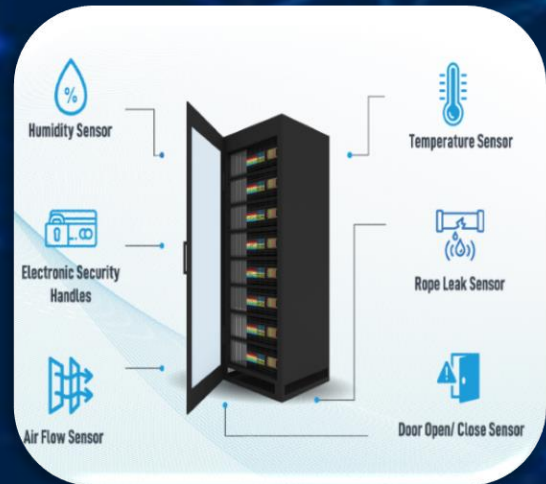# enLOGIC by nVent

Advantage & Secure iPDU

Release Notes

Document Version – 1.0

TABLE OF CONTENTS

1 GENERAL

1.1 SCOPE

The Release Notes for Advantage & Secure firmware version 3.1.3 are contained in this document.

1.2 ABBREVIATIONS AND ACRONYMS

To help better comprehend this document, attached is a list of the key acronyms and abbreviations.

Acronym	Abbreviation
PDU	Power Distribution Unit
GUI	Graphical User Interface
SSH	Secure Shell Protocol
SNMP	Simple Network Management Protocol
SMTP	Simple Mail Transfer Protocol
LDAP	Lightweight Directory Access Protocol
CLI	Command Line Interface
FTPS	File Transfer Protocol Secure
MAC	Media Access Control
IP	Internet Protocol
SKU	Stock Keeping Unit
EMEA	Europe Middle East Asia Pacific
NA	North America

2 RELEASED FILES

2.1 PACKAGED FILE

Firmware	enlogic.fw
Checksum/ SHA256	d62c1a939d96e59e4d57da2f932e13f48dc89b9ca278c154d41c7192939d8e1d

2.2 SOFTWARE VERSION

FIRMWARE VERSION – 3.1.3

3 PRODUCT FAMILY

Product Type	Description
Input Metered PDU (MI)	PDU with metering capability at the input of the PDU.
Monitored Switched (MS)	PDU with metering capability at the input of the PDU plus the ability to control outlets on and off.
Outlet Metered PDUs (MO)	PDU with metering capability per outlet.
Monitored and Switched per Outlet PDUs (MSPO)	PDU with metering capability per outlet plus the ability to control outlets on and off.
Inline Energy Meter (IEM)	Inline meter that provides metering capability at the input of the attached IT equipment.

4 SKUS SUPPORTED

Type	SKU Numbers
Input Metered PDU (MI)	EN1403, EN1805S, EN1902, EN1906, EN1337, EN1315, EN1806, EN1326, EN1811, EN1815, EN1908, EN1907, EN1339, EN1341, EN1927, EN1822, EN1814, EN1823, EN1821, EN1926, EN1343, EN1805, EN1917, EN1915, EN1919, EN1325, EN1939, EN1940, EN1942, EN1826, EN1829, EN1855, EN19JA, EN1351, EN1345, EN1334, EN1350, EN1450, EN1850, EN1851, EN1950, EN1951, EN1952, EN1932, EN1983
Monitored Switched (MS)	EN2316E, EN2804S, EN2808, EN2324, EN2325, EN2810, EN2326, EN2333, EN2329, EN2402, EN2902, EN2804, EN2907, EN2317, EN2812, EN2337, EN2403, EN2823, EN2339, EN2404, EN2350, EN2351, EN2450, EN2850, EN2851, EN2950, EN2951, EN2952, EN2953, EN2380, EN2980, EN2982, EN2852
Outlet Metered PDUs (MO)	EN5808, EN5810, EN5402, EN5329, EN5325, EN5337, EN5850, EN5952, EN5886, EN5380
Monitored and Switched per Outlet PDUs (MSPO)	EN6324, EN6804, EN6333, EN6808, EN6810, EN6902, EN6325, EN6602, EN6329, EN6402, EN6804S, EN6338, EN6326, EN6337, EN6833, EN6829, EN6909, EN6908, EN6834, EN6905, EN6812, EN6911, EN6835, EN6885, EN6341, EN6399, EN6450, EN6350, EN6351, EN6850, EN6851, EN6910, EN6950, EN6951, EN6952, EN6380, EN6881, EN6980, EN6982, EN6956
Inline Energy Meter (IEM)	EZ1732, EZ1632, EZ1616, EZ1430, EZ1663, EZ1560, EZ1550, EZ1716, EZ1763, EZ1530

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5 PRODUCT DESCRIPTION

FEATURES	Input Metered (MI)	Outlet Switched (MS)	Outlet Metered (MO)	Metered and Switched per Outlet (MSPO)
DESIGN ▪ *Low profile, space saving design.* ▪ *Ultra-low-profile circuit breakers on most models* ▪ *Adjustable tool-less mounting system*	YES	YES	YES	YES
PDU POWER MONITORING ▪ *PDU level watt hour power metering (kWh)* ▪ *PDU level power measurements (W)* ▪ *Input phase level power measurements (V, A, VA, kWh, pf)* ▪ *Circuit Breaker level current measurements* ▪ *High accuracy, metering capabilities* ▪ *Persistent Data Log to record/view/report historical data.* ▪ *User customizable alarm thresholds & notifications*	YES	YES	YES	YES
OUTLET LEVEL SWITCHING ▪ *Remote ON/OFF Power control by individual outlet* ▪ *User defined power-on time delay to sequence IT equipment* ▪ *Automatic sequencing to avoid inrush current overload.* ▪ *Controlled with assignable roles and user access*		YES		YES
OUTLET LEVEL POWER MONITORING ▪ *Outlet level watt-hour energy metering(kWh)* ▪ *Outlet level power measurements (V, A, VA, W, pf)*			YES	YES
ENVIRONMENTAL MANAGMENT ▪ *Optional Plug and Play environmental sensors including temperature, humidity, and water leak.*	YES	YES	YES	YES

PHYSICAL SECURITY MANAGEMENT ▪ *Rack access monitoring with door contact switch* ▪ *Customizable alarm thresholds and notifications*	YES	YES	YES	YES
NETWORK MANAGEMENT AND LOCAL DISPLAY INTERFACE ▪ *Active LED display for power measurements* ▪ *OLED display with high contrast ratio, easy to navigate menu and visual graphic bars for phase load balancing.* ▪ *Full featured network management and alerting capabilities supporting HTTP, HTTPS, SSH, SNMP, FTP and SMTP.* ▪ *Strong encryption, passwords and advanced authorization options including local permissions, LDAP, and Active Directory.* ▪ *Daisy Chain up to 64 Rack PDUs, each up to ten sensors.*	YES	YES	YES	YES
BRANCH CIRCUIT LOAD MONITORING	YES	YES	YES	YES
CIRCUIT BREAKER STATUS		YES	YES	YES

6 UPDATED FEATURES

6.1 FIRMWARE UPGRADE SCENARIOS

1. As opposed to previous firmware releases that used compressed or zipped files [.tar/.zip], firmware version 3.1.3 and later versions will use the **enlogic.fw** format.

2. For the existing customer the firmware upgrades should be performed in the following order for Advantage Series NMCs:
   a. Verify if the existing firmware versions are 2.0.6.7/ 2.0.7.6 or below these versions.
   b. Upgrade to the Firmware version is 2.0.6.7/ 2.0.7.6 , use the following process and upgrade to the latest firmware version 3.1.3 .
   c. Upgrade Bridge firmware 3.0.0.2 using the update folder in the USB, or **enlogic.tar** using the WEBUI & FTPS.
   d. From, 3.0.0.2 [bridge firmware] to flash new firmware [3.1.3] use **enlogic.fw** using USB, WEBUI & FTPS.
   e. USB firmware upgrade is recommended.
   f. USB should be in FAT32 file system, no other files to be present during firmware upgrade.
   g. It is recommended to upgrade the firmware always on standalone PDU.
   h. If PDUs are daisy chained detach the daisy chain cable and then upgrade the firmware.

3. The firmware upgrades should be performed in the following order for Advantage Secure NMCs:
   a. Firmware version 3.0.4.
   b. From, 3.0.4 to flash new firmware [3.1.3] use **enlogic.fw** using USB, WEBUI & FTPS.
   c. USB firmware upgrade is recommended.
   d. USB should be in FAT32 file system, no other files to be present during firmware upgrade.
   e. It is recommended to upgrade the firmware always on standalone PDU.
   f. If PDUs are daisy chained detach the daisy chain cable and then upgrade the firmware.

4. Improved ability for Advantage Series NMCs to work with Advantage Secure NMCs. This includes a change to the firmware upgrade file format which is now a '.fw' file rather than a '.tar' file.

5. Note that there will be two restarts during the upgrade procedure as opposed to the typical one when the bridge firmware is updated to the new version 3.1.3 .

6. Previously stored configuration files cannot be used after updating to the new version 3.1.3 .

7. Due to underlying file system improvements made in new firmware version 3.1.3, downgrades to a previous firmware version are not supported.
8. For new firmware 3.1.3 upgrade activity via USB, ensure that the USB does not contain the **update** folder.
9. If updating PDUs in a daisy chain configuration and one or more Node PDUs do not upgrade successfully, those Node PDUs will need to be individually updated. This can be done using the USB method.
10. PDUs cannot be Daisy chained from an NMC with an older firmware version to a newer firmware version 3.1.3 .
11. From the 3.1.3 firmware version, hot swapping of NMCs is allowed only if both the PDUs are upgraded with the latest firmware version.

6.2   FIRWARE ENHANCEMENTS

1. New logic to support IPv6.
2. Introduced ability to add new PDU SKU support without the need for a new firmware version.
   a. Individual SKU.Bin support enabled.

6.3   OPTIMIZATION IN ENERGY ACCUMULATION

1. Refurbishment of energy accumulation coding. It is recommended that users execute the command, **"dbg energyclr"**. Enlogic customer service can assist by providing a script that can accommodate a list of PDU addresses.
2. With this firmware 3.1.3, support is provided for energy values in the Serial and SSH CLI **'pwr'** command.

6.4   ENHANCEMENTS TO THE NETWORK CONFIGURATION & WEB UI RESPONSE OPTIMIZATION

1. MIB changes made to support IPv6 addresses.
2. Web pages now have a queue system in place, with the updated firmware 3.1.3, improves responsiveness of web pages.
3. From the new firmware 3.1.3 onward, the MAC address appended to the DNS hostname was removed.
4. Added support for Fully Qualified Domain Names (FQDN).
5. DNS functionality enable/disable command included in CLI/SSH interfaces.

7 Resolved Issues

This section lists the issues that have been rectified in the firmware version 3.1.3.

This new version supports…

1. Synchronization of critical alarm beacon colors after a firmware upgrade.
2. Resolving an issue where energy-related items could show incorrect values. Also, introduced **'dbg energyclr all'** command to clear the total energy accumulated for the entire system (all PDUs connected in daisy chain network including master PDU).
3. Resolving the inconsistency in configuring Reboot delay, On delay, and Off delay outlet control URLs.
4. Resolving an issue in command line SNMP tools where some set commands were not working properly.
5. Resolving an issue that caused some firmware upgrades to daisy-chain node PDUs to fail.