LinkRay - EVSE Load Balancing Controller

LINKRAY sits between the charge station management system and charge points allowing on-site local control of charge points without interfering with back office control and billing. Available as a 32 connector or a more cost-effective 8 connector version.

LINKRAY will seamlessly relay messages between the charge station management system and connected charge points, acting mostly as a transparent proxy. LINKRAY can monitor and change OCPP charging as required. Since LINKRAY is on-site & local to the chargers, it can be configured to interface and respond to local energy systems adjusting charger outputs quickly and effectively. LINKRAY can also be accessed remotely via a dedicated web-portal.

LINKRAY can also interface to a local site power meter in order to dynamically balance EV charging power based on availability. This function can continue with disconnection of the back office (CSMS), unlike other products on the market.

LINKRAY is simple to install requiring only an OCPP 1.6J connection to chargers and back office. The LINKRAY is configured with the back office (CSMS) connection URL and the chargers are configured to connect to the LINKRAY. Once this is setup, normal operation will be established. Neither the back office nor the charge points need any extra software to work with LINKRAY.

LINKRAY is compatible with most charger manufacturers and can operate in mixed charging environments I.E DC and single/3-phase AC chargers. Load balancing can be enabled on a per charger basis. Chargers can also be easily grouped for control management ease. A built-in web app allows control over how LINKRAY interacts with the chargers, enabling adjustment of charge profiles according to on-site energy demands, proving a means for load balancing the system.

Technical specification

Supply Voltage	8-15V DC
Power Consumption	Nominal 2 Watt
Processor	High processing power, ARM applications processor with Flash storage and DDR memory
Security	Secure Boot TPM
Communication	On board LTE CAT-M1 / GPRS modem 10/100Mbit RJ45 Ethernet connection 802.11b/g/n Wi-Fi 2.4 GHz
Input/Output	2 x RS485 Reset Button LED indication
kWh-meter interface	Modbus RS485 connection to meter (contact Versinetic to see supported meters)
Mechanical Enclosure	DIN rail mounted
Workable temperature	-25 °C till +70 °C, 5% till 95%, non-condensing
Temperature Control	On-board temperature sensor on PCB
Back office connection	OCPP (JSON) 1.6J over Ethernet, Wi-Fi or LTE CAT-M1/GPRS
Updates	Automatic remote firmware updates (signed)

Physical Dimensions