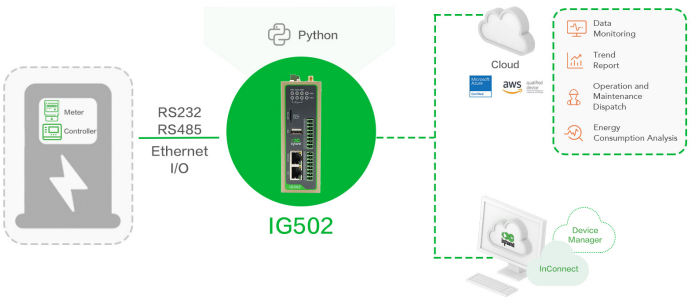
Intelligent Energy Management of EV Charging

The energy crisis is bringing up again the topic of energy saving. Technologies of big data and analytics enable EV charging operators to capture real-time data of power usage, buy and sell electricity based on pricing modeling, so as to better manage energy usage and increase ROI.

Background

Energy is always among our top concerns, especially when the recent energy crisis is bringing up again the topic of energy saving. Thus, it is important to understand the actual use of electricity and increase the efficiency of energy use. This is especially the case for the EV charging sector, which was born to solve the energy issue.Technologies of big data and analytics enable EV charging operators to capture real-time data of power usage, buy and sell electricity based on pricing modeling, so as to better manage energy usage and increase ROI.

Solution

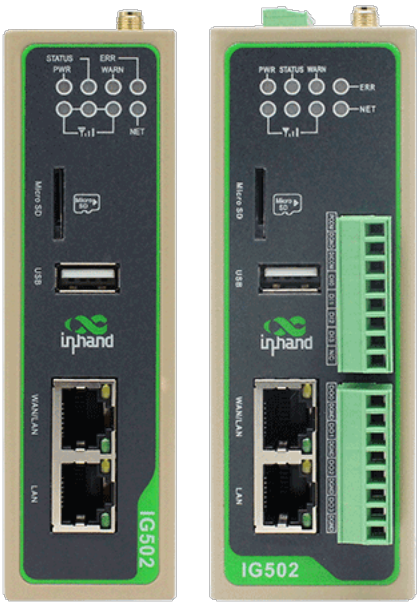


InHand Networks helps serve the need with its IG502 IoT edge gateway.

Controllers and meters inside the EV charger is connected to the IG502 via serial ports or I/O. Real-time data of energy storage and consumption is constantly transmitted to the gateway. The built-in DeviceSupervisor? Agent processes and filters the data locally before sending them to the cloud, which reduces the data flowing to the cloud and relieves the cloud from heavy load. The processed data then undergo further analysis and facilitate decision making for energy management.

Being Python programmable, the IG502 enables customers to write their own script for business-specific functions.

Why InGateway502?



- Secure and reliable 4G Internet access, dual SIM failover
- Built-in DeviceSupervisor? Agent, support for multiple industrial protocols, eases data acquisition configuration
- Powerful edge computing capabilities, intelligent data processing on the IoT edge
- Python programmable, easy-to-use secondary development platform
- Support for standard MQTT protocol, compatible with multiple IoT platforms such as MS Azure, AWS, etc.