Streamlining Remote Connectivity

Remote Maintenance for EV Charging Systems

Why Moxa

- Data segregation for charging service operations and EVSE maintenance
- Cloud-based MRC Quick Link for secure remote management and service scalability
- Easy for non-IT CPO staff to set up and leverage on-demand remote access to devices via the MRC Quick Link service

Product Showcase

OnCell G4302-LTE4 Series

Industrial LTE Cat. 4 Cellular Routers

- Supports global LTE 4 connectivity including EU, US, and AU bands
- Supports global radio and operators, including Verizon, AT&T, PTCRB, ICID, RCM, TELEC and KC
- Supports MRC services for data encryption and remote access control
- Supports LTE/Ethernet-to-WAN failover
- -30 to 70°C operating temperature

A charging point operator (CPO) deployed a chain of unmanned electric vehicle (EV) charging stations. By integrating Moxa's OnCell G4302-LTE4 cellular routers and MRC Quick Link service into each charging station, the CPO was able to manage and monitor all systems with ease. This solution also minimized on-site troubleshooting when a system goes offline.

System Requirements

- Reliable data acquisition to sustain EV charging operations
- Simple and secure online management for monitoring and maintaining multiple systems at once
- Easy-to-use tools for diagnosing and troubleshooting EV charging systems

Moxa Solutions

Setting up reliable and secure remote connectivity to monitor and maintain EV charging infrastructure is key to enabling non-stop operations. To ensure 24/7 charging services, the OnCell G4302-LTE4 routers provide stable data transfer from each charging system to the CPO cloud. The dual SIM, LTE/Ethernet-to-WAN redundancy, and GuaranLink cellular auto-recovery features further enhance operational reliability.

For EV supply equipment (EVSE) maintenance, the OnCell G4302-LTE4 acts as an MRC gateway, allowing the CPO to remotely monitor all connected systems through the MRC cloud and keep track of the charging infrastructure status.

- The MRC server allows customizable access control for the CPO and EVSE provider to access MRC gateways for EVSE diagnostics and troubleshooting
- MRC access control is managed by the CPO via dedicated access accounts and time slots for remote access
- EVSE engineers can use the MRC Client software to remotely access EVSE for troubleshooting from anywhere