# Solution
## - EV Charging Station

## At a Glance

As the demand for electronic vehicles (EVs) increases rapidly, many charging stations have been rolled out and more EV charging sites are also developing to meet the huge demands. In a nutshell, to build up an EV charging station, not only hardware infrastructure is needed, but also software supports such as network traffic management are crucial to establish EV charging sites. Therefore, they are built up in an easy-to-use, easy-to-manage and easy-to-maintain manner with facilitating of stable and reliable Ethernet network transmissions in accessible and affordable way. By doing so, EV car drivers can experience better charging services in fully controlled environments.

For maintainers of EV charging sites, factors such as safety of EV charging sites, real-time access to centrally controlled web management and usage data are important to be taken into account especially when in preparation for the roll-out of EV charging sites. However, for users or EV drivers, they care about the friendliness of using EV charging point and timely supports in unstaffed charging environments. To satisfy needs of both maintainers and users alike, CTC Union provides a complete Ethernet network transmission solution to address concerns or challenges expressed. The challenges include the following:

## *Challenges*

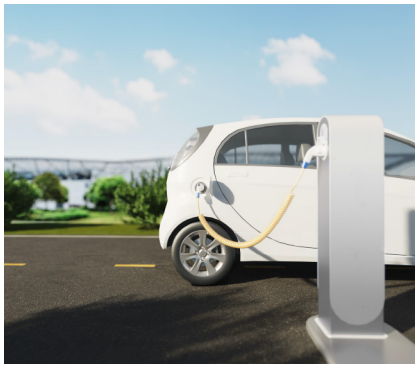
- EV charging sites may be located in extreme environments where weather conditions change rapidly.
- EV charging sites need uninterrupted power supply.
- EV charging sites need stable and smart PoE services.
- EV charging sites need redundant power supply supports and redundant protection supports.

## *CTC Union's Solution*

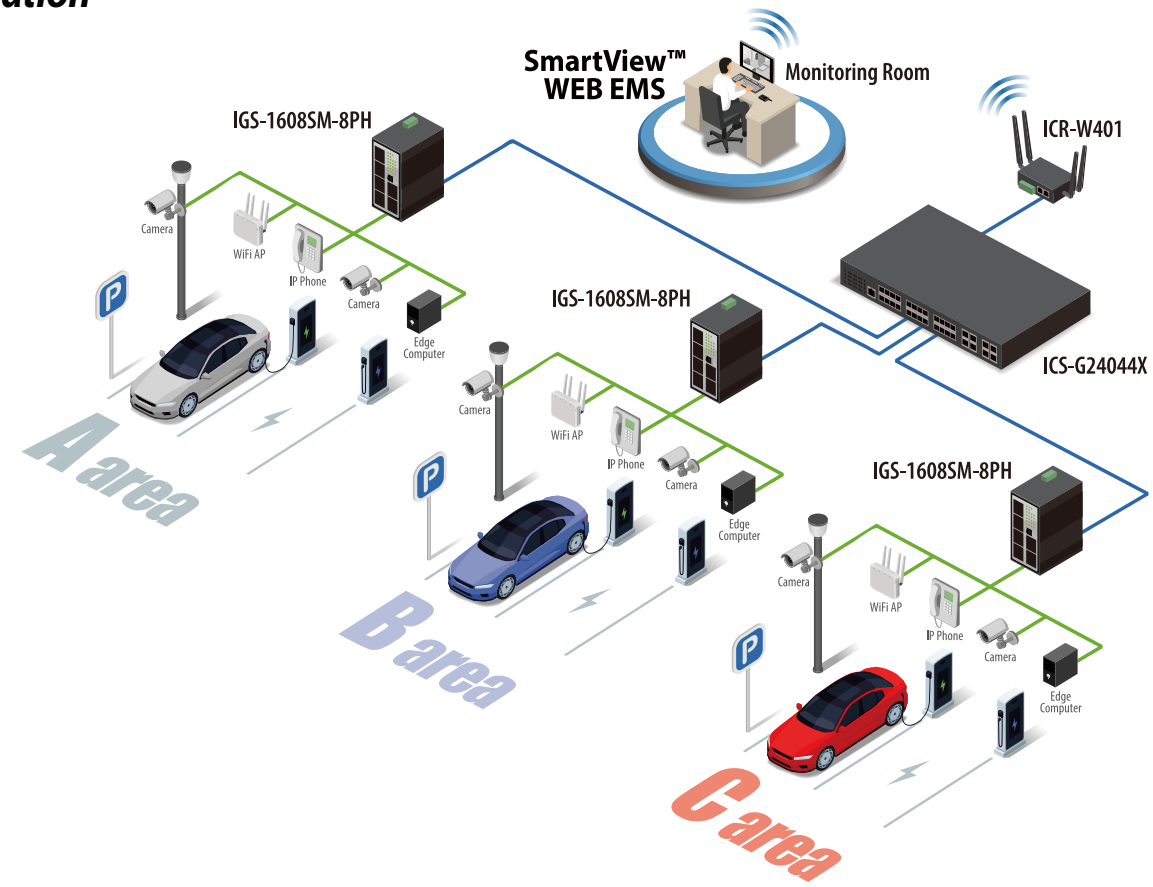
To enhance users' experiences, the use of power sourcing equipment (PSE) such as IGS-1608SM-8PH, IGS-804SM-8PH, can be adopted in EV charging sites to provide power over Ethernet services to powered devices (PD) such as IP cameras, WiFi AP, IP Phone. These CTCU powered devices are cost-effective, fanless, wall-mounted or DIN-Rail enabled switch that can withstand wide range of temperature changes from -40°C to 75°C. Therefore, they are perfect devices especially for outdoor applications that may undergo extreme weather conditions.

For maintainers of EV charging points, CTCU Web-Based SmartView EMS can provide real-time and comprehensive view of connected Ethernet devices. If connected end devices placed in the remote site go wrong, network administrators in the centrally controlled site can take actions immediately, including making an immediate warm reboot of the mal-functioning powered device. Moreover, charging usage data can also be transmitted to the centrally controlled system. By doing so, maintainers can use these first-hand usage data for future analysis so that tailored services can be provided in the future.

**EN62368-1** **EN50121-4** **EN61000-2 EN61000-4** **u-Ring** **IEEE 1588v2** **Wide Temperature** **SmartView** **Power Redundant**



## Application




## Conclusion

CTC Union provides various options to create your own and even customized Ethernet network solution for EV charging point or station. The available products range from industrial grade switches with PoE functionality, 4G routers, core switches to the centrally controlled SmartView Web EMS platform. This solution not only provides stable and reliable transmission but also enhances security of EV charging sites and provides comprehensive view of all deployed devices in EV charging sites. Moreover, usage data collected via the Web EMS are precious which can be systematically analyzed for future uses.

## Related Products

**Industrial Managed GbE PoE Switches**
IGS-1608SM-8PH

**Industrial Managed FE PoE Switches**
IGS-804SM-8PH

**Industrial 10G PoE Switch**
ICS-G24044X-24PH

**4G & WiFi Router**
ICR-W401

**SmartView™ WEB EMS**
Element Management System



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