Dare for more

Commercial opportunities and technical capabilities with ISO 15118 and OCPP 2.0.1

OCTOBER 2022 | GREEN AUTO SUMMIT
Charger reliability and uptime – we must DO BETTER than that

Study in California finds more than a quarter of 657 public DC fast chargers nonfunctional

April 2022

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- Unresponsive or unavailable screens
- Broken connectors
- Payment system failures
- Charging initiation failures
- Network failures

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Reasons for these failures
• Lack of remote monitoring
• Complex systems and patchwork of non-interoperable solutions
• Bad software implementations due to lack of testing and SW expertise
• Proprietary solutions instead of relying on well-defined standards
• Insufficient planning of network connectivity (Ethernet, Wi-Fi, LTE)

The main benefits of ISO 15118

One standard for all EVs
Comm. protocol for the Combined Charging System (CCS) and Megawatt Charging System (MCS). One standard for all EVs: motorbikes, cars, trucks and buses, ships and small aeroplanes.

User-friendly Plug and Charge
Simply plug in the cable into the EV and charger and the EV will automatically identify itself to recharge its battery. Opening an app to scan a QR code or finding that easy-to-lose RFID card is a thing of the past with Plug and Charge.

Strong data security
Banking-grade data security with TLS 1.2 / TLS 1.3, digital signatures and X.509 certificates. This ensures confidentiality, data integrity and authenticity and prevents hacker attacks on our critical infrastructure.

Smart charging & V2H / V2G
Match the EV's energy needs and driver's mobility needs with grid capacity, forecasted availability of renewable energy and energy prices to calculate the best charging strategy. Utilise EV battery for energy self-sufficiency and monetise vehicle battery for V2G applications.
Five reasons why it’s time to adopt OCPP 2.0.1

1. Native support for seamless charging with ISO 15118 Plug and Charge

2. More sophisticated support for Smart Charging (ISO 15118 & EMS)

3. Strong cybersecurity (mutual TLS, secure firmware updates)

4. Advanced diagnostics and maintenance for better charger uptime

5. V2H / V2B / V2G support for ISO 15118-20
The EV charger OS that makes your engineers and your customers happy

- One OS for all AC and DC (CCS) charging stations and wallboxes, providing a fast and low-cost route to market for EV charger OEMs

- First OS to be compliant with ISO 15118 & OCPP 2.0.1, enabling Plug and Charge, load management, V2G & predictive maintenance

- Based on our own open-source software: Josev Community (https://github.com/SwitchEV/josev), a peer-reviewed gold standard
**Dynamic load management**

The dynamic load management plug-in lets you manage the energy demands of your stations. Plan charging sessions in advance or at EV arrival times to reduce peak loads, energy costs and CO2 emissions.

**Predictive maintenance**

The data you gather about your stations over time teaches our AI about your network and its risks. With this plug-in you can even predict where faults will occur and fix them before they appear.

**Native Plug & Charge**

No RFID cards or smartphone apps required, even easier than refuelling gasoline cars. With Plug & Charge based on ISO 15118 and OCPP 2.0.1, you can guarantee the most seamless EV charging experience.

**Virtual power plant**

This Nuvve-powered plug-in aggregates hundreds of EVs into a virtual power plant (V2G service) to provide ancillary services to the grid when needed.

**24/7 support**

We have a partnership with a dedicated team of specialists who are on hand to help fix any issue drivers might come across when they use your network, offering 24/7 customer service support.

**CRM & invoicing**

With Switch, it's easy to integrate with other systems like CRM and invoicing software to monetise your chargers through our open APIs.
Why is Switch unique in the EV charging industry?

Because no-one else can provide such a vertically integrated value chain
(From charge controller HW + SW all the way to service integration with the energy grid)
Switch platform visualises the ‘conversation’ between EV and charger
We have built a world-class, culturally diverse team of 25 FTEs from 12 countries, based in UK (HQ), Germany and France

Dr. Marc Mültin
CEO & Founder

Adam Chilab
Chief Product Officer

André Duarte
Chief Technology Officer

Stewart McKee
Chief Commercial Officer

Sasha Serafimovski
Chief Finance Officer

Christian Rangen
Chairman, Link Capital
Founder, CEO - Strategy Tools
(Board member)

Wulf Schlachter
CEO, DXBe
Strategy advisor, multiple boards
(Board member)

Angela Cearns
Professor - EICOM, Cambridge
Ex-Amazon Prime Head of Product
(Board member)

Joerg Sommer
Venture Partner, BMP Capital
Ex CEO StreetScooter
(Advisor/Angel)