

Technical Bulletin

Release of Open Charge Point Protocol 2.0.1

OCPP2.0 released in April 2018 is the latest version of Open Charge Point Protocol, that can enable communication between Charge points (EVSE) and Charging Station Management System (CSMS).

OCPP1.6 can be upgraded to OCPP2.0.1 through a firmware patch to each of your chargers.



The Open Charging Alliance (OCA) has released an update to 2.0 with a maintenance release OCPP 2.0.1. This new OCPP2.0.1 release integrates enhancements that were found in the first implementations of OCPP2.0 in the field.

Functionality Improvements: OCPP2.0 Vs OCPP2.0.1

Improvements have been mostly made in the area of ISO 15118 for both smart charging and security, as well as general security improvements. These include:

1) Device Management

Features to get and set configurations and to monitor a Charging Station. This is a long-awaited feature, especially welcomed by Charging Station Operators who manage complex multi-vendor (DC fast) charging stations.

2) Improved Transaction handling

Especially welcomed by Charging Station Operators who manage large numbers of charging stations and transactions.

3) Enhanced Security

Chargers are venerable to cyber attack or physical interference and need protection.

The enhancement includes secure firmware updates, security logging and event notification and security profiles for authentication (key management for client-side certificates) and secure communication (TLS).

4) Added Smart Charging Functionality

For topologies with an Energy Management System (EMS), there is now a local controller. This provides integrated smart charging of the EV, and a Charging Station Management System.

5) Compliance with ISO 15118

Related to plug-and-charge and smart charging requirements from the EV.

6) Display and messaging support

This enables you to provide the EV driver with information on the display, such as rates and tariffs. You no longer need to use stickers, or rely on emails or phone apps.

Summary of features for each version of OCPP

OCPP 1.5 OPEN CHARGE POINT PROTOCOL	OCPP 1.6 OPEN CHARGE POINT PROTOCOL	OCPP 2.0 OPEN CHARGE POINT PROTOCOL	OSCP 1.0 OPEN SMART CHARGING PROTOCOL
SOAP 10 Charge Point operations 15 Central System operations Extensible Markup Language (XML) Easy to learn Used in more than 30 countries	OCPP 1.5 SOAP and JSON Smart Charging support for load balancing and use of charge profiles (Local) list management support Additional status Message sending requests such as CP time or status at the CP	OCPP 1.6 plus added functionalities Device Management Improved Transaction handling Added Security Added Smart Charging functionalities Support for 15118 Display and messaging support additional improvements requested by the EV charging community	Communicate 24 hour prediction local available capacity Fitting charging profiles to grid capacity Acts between charge point and energy management system Applicable for site owners and DSO's

The official release of OCPP2.0.1 specifications is available from the Open Charge Alliance download section (link here).

January 2020