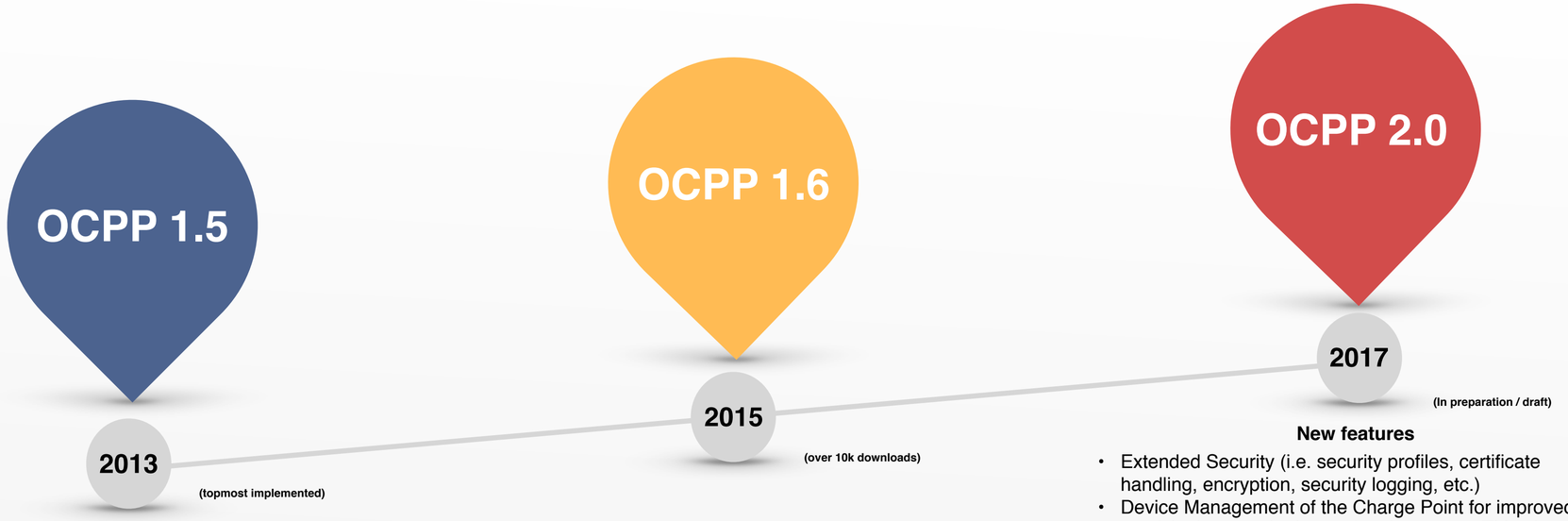
The **Open Charge Alliance** is a global consortium of public and private electric vehicle companies formed to continue and extend the work of the OCPP Forum, adding an international dimension, stronger organizational structure, and capabilities for protocol compliancy and formal certification. We provide powerful, open and interoperable communication protocols for the EV charging infrastructure.



OCPP 1.5 is a SOAP over HTTP based protocol for operating a Charge Point from a Central System, which supports the following functionalities:

- Locally and remotely started transactions including metering for billing purposes
- Metering values not related to transactions
- Authorizing charging sessions
- Caching authorization IDs and local authorization list management for faster and offline authorizations.
- Intermediate (non- transactional)
- Status Reporting, including periodic heartbeats
- Reservations (Immediate)
- Firmware management
- Provisioning a Charge Point
- Reporting diagnostics information
- Setting Charge Point availability (operative / inoperative)
- Remote unlocking of connectors
- Remote Reset

- **OCPP 1.5 functionalities**
- Support for JSON over websockets to reduce data traffic (JSON, JavaScript Object Notation, is a lightweight data-interchange format) and allow operation over networks not supporting charge point packet routing (e.g. public internet).
- Smart Charging: load balancing, central smart charging and local smart charging.
- Possibility to ask a Charge Point to resend a Charge Point initiated message (with current information), for example the last metering value or status of the Charge Point.
- Extended configuration options for offline operation & authorization.

New features

- Extended Security (i.e. security profiles, certificate handling, encryption, security logging, etc.)
- Device Management of the Charge Point for improved provisioning, monitoring and maintenance. This also allows a Charge Point Operator to monitor, configure alarms etc. on a lot of parameters in a Charge Point.
- Improved Smart Charging support, including
  - Vehicle to grid
  - External local smart charging signals (HEMS)
  - Support for ISO/IEC 15118 including Plug-and-Charge
- Support for displaying tariffs & costs.

Enhancements

- EV driver preferred languages to adjust the language displayed on the terminal to the specific EV driver.
- Extended authorization options (e.g. Bluetooth, plug and Charge, local mechanical key, etc.) in addition to RFID.
- Improved support for displaying messages on a Charge Point.
- Support for starting transactions using payment terminals.
- Standardised automated mechanisms for accurate Charge Point date/time maintenance, including automated daylight saving time adjustment.
- Extended support for group transaction-related messages to help Central Systems with the processing of transaction related message.
- Mark offline transactions to inform the Central System which transactions occurred while the Charge Point was offline.
- Support locally generated transaction unique IDs.
- Numbered use cases, requirements and sequence diagrams in the specification.
- Proposal for digital signing of metering data.

Additional transport protocol

- Improved data reduction.