**INCH CHARGER CENTRAL SYSTEM INTEGRATION**

**PART 1**

**OCPP PROTOCOL**

Document version: 0.1.1

Confidential – intended only for recipient

# COMPATIBILITY WITH BACKEND

In order to connect your charger with the backend system to enable you to manage and control it, charger specification must be integrated with the system.



# Integration of new charge point MODEL

## general model information

VENDOR NAME: ETREL

MODEL NAME: INCH

LAST/CURRENT FIRMWARE VERSION: 1.12
(Specify current firmware version and issue date)

CHARGE POINT MODEL CONFIGURATION:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Connector 1 | Connector 2 | Connector 3 | Connector 4 |
| EVSE code (as used in OCPP messages) | 1 | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Charging type (AC, DC , wireless) | AC | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Connector code (as used in OCPP messages) | 1 | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Connector type (example: Type 2, CCS, CHAdeMO) | Type 2 | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Max. connector power [kW] | 22 | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Number of phases (do not enter in the case of DC charging) | 3 | Click here to enter text. | Click here to enter text. | Click here to enter text. |

## ocpp versionS and messages supported

|  |  |  |
| --- | --- | --- |
|  | OCPP 1.5 | OCPP 1.6 |
|  | SOAP | SOAP | JSON |
| Authorize |[ ] [x] [x]
| BootNotification |[ ] [x] [x]
| DataTransfer (contact vendor for custom messages specification) |[ ] [x] [x]
| DiagnosticsStatusNotification |[ ] [x] [x]
| FirmwareStatusNotification |[ ] [x] [x]
| Heartbeat |[ ] [x] [x]
| MeterValues |[ ] [x] [x]
| StartTransaction |[ ] [x] [x]
| StatusNotification |[ ] [x] [x]
| StopTransaction |[ ] [x] [x]
| CancelReservation |[ ] [x] [x]
| ChangeAvailability |[ ] [x] [x]
| ChangeConfiguration |[ ] [x] [x]
| ClearCache |[ ] [x] [x]
| ClearChargingProfile |  |[x] [x]
| GetConfiguration |[ ] [x] [x]
| GetDiagnostics |[ ] [x] [x]
| GetLocalListVersion |[ ] [ ] [ ]
| RemoteStartTransaction |[ ] [x] [x]
| RemoteStopTransaction |[ ] [x] [x]
| ReserveNow |[ ] [x] [x]
| Reset |[ ] [x] [x]
| SendLocalList |[ ] [x] [x]
| SetChargingProfile |  |[x] [x]
| TriggerMessage |  |[x] [x]
| UnlockConnector |[ ] [x] [x]
| UpdateFirmware |[ ] [x] [x]
|  |  |  |  |

## message-related detailed questions

AUTHORIZE - RFID CODE REPRESENTATION

Little-Endian as default. IdTag example: FA2AFD77

*What kind of RFID code format is sent to the back-end: big-endian, little-endian, are delimiters used? Give us an example, like: AABBCCDD*

DATA TRANSFER - CUSTOM MESSAGES

 Contact Etrel to get a list of custom messages

*What kind of RFID code format is sent to the back-end: big-endian, little-endian, are delimiters used? Give us an example, like: AABBCCDD*

*Please list and desribe all custom messages suported by DataTransfer method*

GET DIAGNOSTICS-FILE FORMAT:

 Zip file, contains ASCII files

*Describe file format when requesting for detailed dignostics: Example: ascii, csv, xml,… You can also send us a sample file*

GET DIAGNOSTICS-FILE UPLOAD PROTOCOL:

 ftp, http

*List supported protocols when uploading diagnostic file: Example: http, https, ftp, ftps …. If ftp, does it support authentication with username and password. Give us example how location string should look like when requiring diagnostic file upload with authentication.*

UPDATE FIRMWARE-FILE FORMAT:

 zip

*Describe file format and extension of firmware update. Example: zip, rar, …*

METER VALUES-MEASUREMENTS

*List all messages supported by charge point. Define for each measurement on which level messages are supported: charge point, EVSE or connector. Define also intervals in which measurements are sent during charging and during standby. Provide unit information for each measurement. For measurement name use OCPP enumeration.*

*Beside active energy we highly recommend that charger also measures and sends active power measurements during charging. Power measurement is shown to the customer on front-end during charging.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Measurements** | **Level** | **Interval during charging/during standby** | **Unit** |
| Energy.Active.Import.Register | Connector | As defined by meter value interval.During charging | kWh |
| Current.Import (for all three phases) | Connector | As defined by meter value interval.During charging | A |
| Power.Active.Import | Connector | As defined by meter value interval.During charging | kW |
| Voltage (for all three phases) | Connector | As defined by meter value interval.During charging | V |
| Frequency  | Connector | As defined by meter value interval.During charging | Hz |
| Power factor  | Connector | As defined by meter value interval.During charging |  |
| Other OCPP non standard messages are also supported (related with building consumption or cluster consumption) |  |  |  |

SEND LOCAL LIST-NUMBER OF RFID CARDS STORED

 >100000

STATUS NOTIFICATION-VENDOR ERROR CODES

*Enter maximum number of RFID cards in the local white list*

*List all vendor specific error codes. In the table below specify the combinations of parameters when receiving vendor specific error code*

See document attached:

## Other communication specific questions

CHARGE POINT OCPP SERVICE ENDPOINT

 Not used in OCPP1.6J, but TCP 80 with OCPP 1.6S

*Specify port and last part of the address of interface where OCPP interface is running. If different for different versions, specify for each version. Example: http://CHARGEPOINTIP:8080/ocpp15*

OCPP CHARGE POINT SERVICE SECURITY

 ws and wss for OCPP 1.6J, http and https for OCPP 1.6S

*Specify if OCPP charge point interface is available through http or through https. If https is used, does back end need to use special certificate when communicating with the charge point? Example: only http supported.*

OCPP BACK-END SECURITY

 ws, wss or http,https

*Specify if charge point can communicate with back-end server through http or through https. If https is used, can charge point use provided certificate when communicating with the back-end? Example: only http supported*

OTHER INTERFACES

Web configuration: <http://chargepointIP:80>

*Define other charge point interfaces: services running on the charge point. Specify also purpose of the interface. Example: Web configuration: http://CHARGEPOINTIP:80; Direct access over SSH: CHARGEPOINTIP:22*

## TECHNICAL contaCt to validate integration

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## OTHER

CHARGE POINT MODEL DOCUMENTATION:

Check section INCH at <https://etrelchargingsolutions.atlassian.net/wiki/spaces/Home/overview?mode=global>

For additional questions please contact us at:

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