OCPP 1.6
Full Certificate

OCPP 1.6
Fully Certified

Certificate holder:	EV-Box B.V.
Certificate number:	OCA.0016.0005.CS
Product type:	Charging Station
Product designation:	ELVI Socket, OCPP Software version: G4P0421BE421v0 (Release version), P0417BE417v11 (Test version)
Certification date:	December 19, 2019

This certificate attests that the above mentioned product successfully completed certification testing in conformance with the reference specification OCPP 1.6 – Edition 2 with OCPP 1.6 Errata sheet (v4.0 Release, 2019-10-23). The optional features of the protocol are also covered by this certification.

Test cases have been performed as described in the test report referred to below. The results and remarks can be found in the complete test report.

Applied tests	Performed by / on	Document evidence
Conformance testing according to the test specification referenced by the test report	*DNV GL Lab Arnhem, NL, December 19, 2019*	*DNVGL_20191219_Test Report_EV-Box_V104*

The abstract of test report in the Annex is an integral part of this certificate. This certificate is valid from the Certification Date specified above. This certificate is only applicable to the product designation described above and permits the use of the OCPP logo as laid down in the OCA certification logo license agreement on this product only.

This certificate shall neither be tendered nor accepted by any party as a guarantee covering quality of a product which includes OCPP. The Open Charge Alliance, and/or its agents, including, inter-alia, test laboratories, disclaim liability for any damages or losses incurred by the certified company or by any other party resulting from reliance on the results of OCPP certification testing.

For the Open Charge Alliance:

ONOPH CARON
Chairman

Abstract of test report

Test Result Summary

Test Report OCPP 1.6 Certification	
Test laboratory:	**DNV GL Netherlands B.V.**
Location:	Arnhem, Netherlands
Test Report Reference:	DNVGL_20191219_Test Report_EV-Box_V104
Vendor name:	**EV-Box B.V.**
Device Under Test:	Charging Station
Communication:	JSON
OCPP Software version:	P0417BE417v11

Test Result Summary for the certified functionalities

Functionalities	OCPP 1.6 Certification Test Results	Description
Core	Pass	Basic Charging Station functionality for booting, authorization (incl. cache if available), configuration, transactions, remote control.
Optional functionalities		
Firmware Management	Pass	Support for (remote) firmware update management and diagnostic log file download.
Smart Charging	Pass	Support for Smart Charging (all profile types, including stacking), to control charging.
Reservation	Pass	Support for reservation of a connector of a Charging Station.
Local Authorization List Management	Pass	Features to manage a local list in the charging station containing authorization data for whitelisting users.
Remote Trigger	Pass	Support for remotely triggering messages that originate from a Charging Station. This can be used for resending messages or for getting the latest information from the Charging Station.

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Performance Measurement Results

Performance Measurement Results			
Name	**PICS value**	**Measured value**	**Description**
OCPP triggered function timeout:	60 seconds	43 seconds	The response time for when waiting for an OCPP function with its corresponding request message. (Firmware update, Diagnostics and Reboot are excluded from this measurement.)
OCPP response timeout:	10 seconds	8 seconds	The response time for when waiting for an OCPP response message.
Response time RemoteStartTransaction:	10 seconds	3 seconds	The response time for the RemoteStartTransaction message.

Test Configuration

Test Configuration	
Vendor	EV Box B.V.
DUT / SUT	Charging Station
Communication	JSON
Type	ELVI Socket
OCPP Software version	P0417BE417v11
OCTT version	OCTT 1.6 v1.3

Hardware feature set	
Feature	**Configuration**
Socket(s) / connector(s)	Single
Fixed cable	No
Communication technology	WiFi / Mobile network
RFID readers	Single

Non-OCPP Charge Point Configuration	
Configuration key	**Value**
evb_ServerURL	ws://194.53.239.94:2404/ocpp/

All other relevant limits and non-OCPP settings that are relevant for the test laboratory and for the correct functioning of the CSMS:	
Limit / setting	**Value**
Device supports sending milliseconds in timestamps.	No

OCPP Charging Station Configuration

Configuration key	Value
AllowOfflineTxForUnknownId	\<configurable\>
AuthorizationCacheEnabled	\<configurable\>
AuthorizeRemoteTxRequests	\<configurable\>
BlinkRepeat	not implemented
ClockAlignedDataInterval	\<configurable\>
ConnectionTimeOut	\<configurable\>
ConnectorPhaseRotation	\<configurable\> (default "0.Unknown,1.RST")
ConnectorPhaseRotationMaxLength	21
GetConfigurationMaxKeys	1
HeartbeatInterval	\<configurable\>
LightIntensity	\<configurable\>
LocalAuthorizeOffline	\<configurable\>
LocalPreAuthorize	\<configurable\>
MaxEnergyOnInvalidId	not implemented
MessageTimeout	\<configurable\>
MeterValuesAlignedData	\<configurable\>
MeterValuesAlignedDataMaxLength	11
MeterValuesSampledData	\<configurable\>
MeterValuesSampledDataMaxLength	11
MeterValueSampleInterval	\<configurable\>
MinimumStatusDuration	not implemented
NumberOfConnectors	1
ResetRetries	\<configurable\>
StopTransactionMaxMeterValues	not implemented
StopTransactionOnEVSideDisconnect	\<configurable\>
StopTransactionOnInvalidId	\<configurable\>
StopTxnAlignedData	\<configurable\>
StopTxnAlignedDataMaxLength	not implemented
StopTxnSampledData	\<configurable\>
StopTxnSampledDataMaxLength	not implemented
SupportedFeatureProfiles	"Core, FirmwareManagement, LocalAuthListManagement, SmartCharging,RemoteTrigger, Reservation"
SupportedFeatureProfilesMaxLength	6
TransactionMessageAttempts	\<configurable\>
TransactionMessageRetryInterval	\<configurable\>
UnlockConnectorOnEVSideDisconnect	\<configurable\>
WebSocketPingInterval	\<configurable\>
LocalAuthListEnabled	\<configurable\>
LocalAuthListMaxLength	250
SendLocalListMaxLength	25
ReserveConnectorZeroSupported	true
ChargeProfileMaxStackLevel	2
ChargingScheduleAllowedChargingRateUnit	"Current, Power"
ChargingScheduleMaxPeriods	25
ConnectorSwitch3to1PhaseSupported	false
MaxChargingProfilesInstalled	60
SupportedFileTransferProtocols	FTP

Statement of Approval

Vendor		Date: 19-12-2019
Name	Vinoth Dayalan	Signature
Company	EVBox	
Department	Hardware	
Position	Platform Integration Test Engineer	
Location	Amsterdam	

Test laboratory		Date: 19-12-2019
Name	Ovidiu-Cristian Serban	Signature
Company	DNV GL Netherlands B.V.	
Department	Intelligent Networks & Communication	
Position	Senior Consultant	
Location	Arnhem	

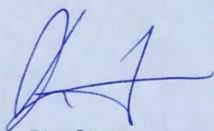**EVBOX**

To whom it may concern,

We hereby confirm that the following EVBox Elvi (both the cable and the socket version) firmware releases:

G4 P0417 BE417 v11 and **G4 P0421 BE421 v0**

are identical in every aspect (except the reported firmware version value).

The difference in naming is a consequence of internal firmware naming policy, whereby versions with vX suffix (with X being non-zero) are intended for internal development and testing, and versions with v0 suffix are publicly released versions. Therefore, we request to include the latter on the OCPP1.6 certificate.

Kind regards,

Dino Sepac

Product owner

Arjan van Rooijen

CTO