OCPP 2.0.1
CORE CERTIFIED

Certificate Holder:	SWTCH Energy
Certificate Number:	OCA.0201.0036.CSMS
Product Type:	Charging Station Management System
Product Designation:	SWTCH OS
OCPP Software Version:	2.0.1
Certification Date:	June 12, 2024

This certificate attests that the above mentioned product successfully completed certification testing in conformance with the reference specification OCPP 2.0.1 (Edition 2 FINAL, 2022-12-15 including Errata 2024-04). The optional OCPP protocol features that are covered by this certificate can be found in the Abstract of the Test Report that is part of this certificate.

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

Applied	Performed by / On	Document Evidence
Conformance testing according to the test specification referenced by the test report	DEKRA Certification, Inc. May 15, 2024	04607RCO.001_OCPP-2.0 .1-PICS-CSMS-v1.3.0

The abstract of test report 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 the Test Report

Test Report OCPP 2.0.1 Certification	
Test laboratory:	**DEKRA Certification, Inc.**
Location:	Sterling
Test Report Reference:	04607RCO.001
Product Designation:	**SWTCH OS**
Vendor name:	SWTCH Energy
Device Under Test:	Charging Station Management System
OCPP Software Version	2.0.1

Test Result Summary for the Certified Functionalities		
Certification Profile	**Test Result**	**Description**
Core	Pass	Basic Charging Station functionality for booting, authorization, configuration, transactions, remote control, including basic security.
Advanced Security	Not Tested	Support for TLS with client authentication.
Local Authorization List Management	Not Tested	Support for local authorization list management and optionally of an authorization cache.
Smart Charging	Not Tested	Support for Smart Charging, to control charging.
Advanced Device Management	Not Tested	Support for the OCPP Device Model and advanced logging and monitoring.
Reservation	Not Tested	Support for reservation of a connector of a Charging Station.
Advanced User Interface	Not Tested	Support for tariff & cost and DisplayMessage functionality.
ISO 15118 Support	Not Tested	Support for ISO 15118 Smart Charging and Plug and Charge authorization.

Optional Features

	Core	
ID	**Core Features**	**Supported / Present**
C-11	Support for unlocking connector for charging station with detachable cable.	No
C-13	Support for Reset per EVSE	No
C-14	Support for retrieving / deleting CustomerInformation - CustomerIdentifier	No
C-15	Support for scheduled firmware updates	No
C-16	Support for checking the TransactionStatus	No
C-17	Support for retrieving the ConfigurationInventory	No
C-29	TriggerMessage	
C-29.1	Trigger message - MeterValues	No
C-29.2	Trigger message - TransactionEvent	No
C-29.3	Trigger message - LogStatusNotification	No
C-29.4	Trigger message - FirmwareStatusNotification	No
C-29.5	Trigger message - StatusNotification	No

ID	**Authorization Options for Local Start**	**Tested During Certification**
C-30	Authorization - using RFID ISO14443	Yes
C-31	Authorization - using RFID ISO15693	Yes
C-32	Authorization - using KeyCode	Yes
C-33	Authorization - using locally generated id	No
C-34	Authorization - MacAddress	No
C-35	Authorization - NoAuthorization	Yes

ID	Authorization Options for Remote Start	Tested During Certification
C-36	Authorization - using RFID ISO14443	Yes
C-37	Authorization - using RFID ISO15693	Yes
C-38	Authorization - using centrally, in the CSMS generated id	Yes
C-39	Authorization - NoAuthorization	Yes

ID	Core Features	Supported / Present
C-44	Support for sending a BootNotification Pending before Accepting	No
C-45	Support for Multiple elements GetVariablesRequest	No
C-46	Support for Multiple elements SetVariablesRequest	No
C-50	GetBaseReport - FullInventory	
C-50.1	GetBaseReport - FullInventory - During onboarding	No
C-50.2	GetBaseReport - FullInventory - Manual trigger	Yes

Additional Questions

ID	Additional Questions for Lab Testing:	Supported / Present
AQ-1	Can your CSMS be configured to first respond to a BootNotificationRequest with status Pending or Rejected?	Yes
AQ-2	Is a FullInventory requested during onboarding / booting test cases?	No
AQ-6	Does the CSMS reject unknown Charging Stations during websocket connection setup?	No

Performance Measurement Result

Name	Max Value	Unit	Description
OCPP response time	2.51	seconds	The response time for when waiting for an OCPP response message after sending an OCPP request message. This entails all OCPP messages, excluding Authorize. Messages to the DUT can be handled within this timeout.
Response time Authorize	0.52	seconds	The response time for the Authorize message.

Name	Min Value	Max Value	Average Value	Unit
OCPP response time	0.11	2.12	0.32	seconds
Response time Authorize	0.11	0.48	0.20	seconds

Communication technology used during performance measurement:	WiFi

Statement of Approval

Vendor

Name	Ugo Umeano	Date: 06-06-2024
Company	SWTCH Energy Inc	Signature:
Department	Engineering	
Position	Product Manager	
Location	Canada	

Test Laboratory

Name	Avinash Koduri	Date: 12-06-2024
Name reviewer	Gonzalo Casado	Signature:
Company	DEKRA Certification, Inc.	
Department	Connectivity & eMobility	
Position	Manager	
Location	Sterling	