

OCPP IMPLEMENTATION GUIDE

VersiCharge™ AC

Electric vehicle charging station

Version 1.9, February 2025
usa.siemens.com/versicharge



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SECTION 1

Document details

1.1 Document history

Version	Description of Change
1.0	Initial draft
1.2	Internal release for approvals
1.3	Updated sections 1.3 and 2.6
1.4	Changed status to "Approved". Updated item 3 in table 3 (document name was incorrect)
1.5	Updated to VersiCharge's next generation
1.6	Minor edits and amends to section 2.8
1.7	Major updates and edits to entire document, especially regarding punctuation/spelling and amends to tables 4, 5 and 7
1.8	Updates to feature list; added Freevend mode configuration keys; minor edits to feature profiles and grouping of features in OCPP profiles
1.9	Major updates and edits to entire document. New configuration parameters added. Troubleshooting chapter has been updated

Table 1: Document history

1.2 Definitions, acronyms and abbreviations

Definition/Acronym/Abbreviation	Description
EVSE	Electric Vehicle Supply Equipment (VersiCharge)
EVSP	Electric Vehicle Service Provider – Backend Operator
OCPP	Open Charge Point Protocol
QR Code	Quick Response Code
CCID	Charge Circuit Interrupting Device
SSID	Service Set Identifier (Network Name)
JSON	JavaScript Object Notation
OTA Update	Over-The-Air Update
VersiCharge™	Siemens VersiCharge

Table 2: Definitions, acronyms and abbreviations

1.3 References

No.	Document	Version	Remarks
1	OCPP Specification	1.6	https://www.openchargealliance.org/downloads/

Table 3: References

SECTION 2

Overview

2.1 About this document

This document is the OCPP Implementation Guide for the Siemens VersiCharge. It explains communication between the VersiCharge unit and third-party OCPP servers. This document outlines the established architecture and basic use cases for Siemens' OCPP integration with EV networks and grid management companies. Use of this document is to help set up VersiCharge with EV network backends created by EVSP.

2.2 Target audience for this document

The target audience for this document are EVSPs who want to link their backends with Siemens VersiCharge units.

2.3 OCPP

OCPP is an application protocol for communication between EV charging stations and a central management system, also known as a charging station network (similar to cell phones and cell phone networks). The protocol is an initiative of the E-Laad foundation in the Netherlands. Its aim was to create an open application protocol, which allows EV charging stations and central management systems from different vendors to communicate with each other. It is in use by a large number of vendors of EV charging stations and central management systems worldwide. Currently, VersiCharge only supports OCPP 1.6 JSON specification over WebSockets. It is recommended to use WebSocket protocol over HTTPS along with support for TLSv1.2 when establishing connection for OCPP communication.

The OCPP client:

1. Only supports OCPP-J
2. Only supports OCPP v1.6 specification
3. Supports OCPP Security Profiles 1 and 2 per the OCPP Security Whitepaper Second Edition (<https://www.openchargealliance.org/news/enhanced-security-for-ocpp-16/>).

2.4 Prerequisites

Users must know the basic Electric Vehicle Service Equipment (EVSE) state transitions caused due to an EV interface (an example being SAE1772 control pilot states) and command response mechanism of OCPP specifications as defined in the most up-to-date, published specification document from the Open Charge Alliance relevant to OCPP version 1.6.

2.5 How to acquire a VersiCharge sample

To acquire a sample VersiCharge, contact your established Siemens VersiCharge representative or visit <https://www.siemens.com/us/en/products/energy/topics/transportation-electrification.html#ContactUs> to fill out a Purchase Inquiry Form.

The Siemens eMobility Partnership System can be accessed by visiting <https://new.siemens.com/us/en/products/energy/topics/transportation-electrification/emobility-partnering-program.html>.

2.6 Setting up the VersiCharge sample

To setup VersiCharge, get the installation manual and quick start guide at the URLs mentioned below.

VersiCharge Blue 80A	
Installation Manual	https://support.industry.siemens.com/cs/ww/en/view/109977710
Quick Start Guide	https://assets.new.siemens.com/content/siemens/assets/ui/en/search.html#/asset/sid:bea3fb29-01b5-4660-b269-12f7ba7b19d2

VersiCharge 48A	
Installation Manual	https://support.industry.siemens.com/cs/ww/en/view/109977709
Quick Start Guide	https://assets.new.siemens.com/content/siemens/assets/ui/en/search.html#/asset/sid:34c74ebc-cd95-4f77-9e63-1775ef903d3a

VersiCharge 48A IEC	
Installation Manual	https://support.industry.siemens.com/cs/ww/de/view/109972229/en
Quick Start Guide	https://support.industry.siemens.com/cs/ww/de/view/109822243/en

2.7 Purchase testing for OCPP backends

Visit your local Siemens distributor or email SIInsideSales@siemens.com to purchase US2:OCPPTEST. After purchase, complete this request <https://forms.office.com/r/aaqGsaMBW3> with the connection details for the OCPP server, including the URL to schedule testing. The Siemens test team will reach out you to schedule a 2-hour block to test.

2.8 Technical Support during OCPP Testing

For help or if experiencing difficulty, visit <https://www.emobility.usa.siemens.com>.

Create an account and click on "Submit New Case"

SECTION 3

Supported configuration parameters for change configuration

The following two groups of tables are the list of all supported configuration key parameters for VersiCharge. The OCPP server can send the "ChangeConfiguration.req" to the VersiCharge unit to change the specific configuration using the configuration parameter. Note that in certain cases, the changed value for some of the below parameters (such as ClockAlignedDataInterval, MeterValuesAlignedData, MeterValuesSampledData, StopTxnAlignedData, StopTxnSampledData, and WebSocketPingInterval) will not take effect immediately. In such cases, a soft reset is recommended.

Configuration Parameter

1 AllowOfflineTxForUnknownId	
Default Value	False
Required/Optional	Optional
Accessibility	Read/write
Type	Boolean
Description	If this key exists, the charge point supports UnknownOfflineAuthorization. If the key is any form of TRUE, then UnknownOfflineAuthorization is enabled.

2 StopTransactionOnEVSideDisconnect	
Default Value	TRUE
Required/Optional	Required
Accessibility	Read/write
Type	Boolean
Description	When set to TRUE, the charge point will administratively stop the transaction when the cable is unplugged from the EV.

3 ClockAlignedDataInterval	
Default Value	0
Required/Optional	Required
Accessibility	Read/write
Type	Integer
Description	Size (in seconds) of the clock-aligned data interval. This is the size (in seconds) of the set of evenly spaced aggregation intervals per day, starting at 00:00:00 (midnight). For example, a value of 900 (15 minutes) indicates that every day should be broken into 96 15-minute intervals. When clock aligned data is being transmitted, the interval in question is identified by the start time and (optional) duration interval value, represented according to the ISO8601 standard. All "per-period" data (such as energy readings) should be accumulated (for "flow" type measurands such as energy), or averaged (for other values) across the entire interval (or partial interval, at the beginning or end of a transaction), and transmitted (if so enabled) at the end of each interval, bearing the interval start time timestamp. A value of "0" (numeric zero), by convention, is to be interpreted to mean that no clock-aligned data should be transmitted.

4 ConnectionTimeOut	
Default Value	120
Required/Optional	Required
Accessibility	Read/write
Type	Integer
Description	Interval from beginning of status 'Preparing' until incipient transaction is automatically canceled due to failure of EV driver to (correctly) insert the charging cable connector(s) into the appropriate socket(s). The charge point will go back to the original state, probably: 'Available'.

5 HeartbeatInterval	
Default Value	90
Required/Optional	Required
Accessibility	Read/write
Type	Integer
Description	Interval of inactivity (no OCPP exchanges) with central system after which the charge point should send a Heartbeat.req PDU.

6 MeterValueSampleInterval	
Default Value	60
Required/Optional	Required
Accessibility	Read/write
Type	Integer
Description	Interval between sampling of metering (or other) data, intended to be transmitted by "MeterValues" PDUs. For charging session data (ConnectorId > 0), samples are acquired and transmitted periodically at this interval from the start of the charging transaction. A value of "0" (numeric zero), by convention, is to be interpreted to mean that no sampled data should be transmitted.

7 MinimumStatusDuration	
Default Value	0
Required/Optional	Optional
Accessibility	Read/write
Type	Integer
Description	The minimum duration that a charge point or connector status is stable before a StatusNotification.req PDU is sent to the central system.

8 TransactionMessageAttempts	
Default Value	3
Required/Optional	Required
Accessibility	Read/write
Type	Integer
Description	How often the charge point should try to submit a transaction-related message when the central system fails to process it.

9 TransactionMessageRetryInterval	
Default Value	120
Required/Optional	Required
Accessibility	Read/write
Type	Integer
Description	How long the charge point should wait before resubmitting a transaction-related message that the central system failed to process.

10 WebSocketPingInterval	
Default Value	30
Required/Optional	Optional
Accessibility	Read/write
Type	Integer
Description	Only relevant for websocket implementations. 0 disables client side websocket ping/pong. In this case there is either no ping/pong or the server initiates the ping and client responds with pong. Positive values are interpreted as number of seconds between pings. Negative values are not allowed. ChangeConfiguration is expected to return a REJECTED result.

11 MeterValuesAlignedData	
Default Value	Current.Import, Voltage, Power.Active.Import
Required/Optional	Required
Accessibility	Read/write
Type	CSL
Description	Clock-aligned measurand(s) to be included in a MeterValues.req PDU, every ClockAlignedDataInterval seconds.

12 MeterValuesSampledData	
Default Value	Energy.Active.Import.Register, Current.Import, Voltage, Power.Active.Import, Current.Offered, Power.Offered
Required/Optional	Required
Accessibility	Read/write
Type	CSL
Description	Sampled measurands to be included in a MeterValues.req PDU, every MeterValueSampleInterval seconds. Where applicable, the measurand is combined with the optional phase; for instance: Voltage.L1 Default: "Energy.Active.Import.Register"

13 StopTxnAlignedData	
Default Value	Energy.Active.Import.Register
Required/Optional	Required
Accessibility	Read/write
Type	CSL
Description	Clock-aligned periodic measurand(s) to be included in the transaction data element of StopTransaction.req MeterValues.req PDU for every ClockAlignedDataInterval of the transaction.

14 StopTxnSampledData	
Default Value	Energy.Active.Import.Register
Required/Optional	Required
Accessibility	Read/write
Type	CSL
Description	Sampled measurands to be included in the transaction data element of Stop Transaction.req PDU, every MeterValueSampleInterval seconds from the start of the charging session.

15 AuthorizationCacheEnabled	
Default Value	TRUE
Required/Optional	Optional
Accessibility	Read/write
Type	Boolean
Description	If this key exists, the charge point supports an Authorization Cache. If this key reports a value of true, the Authorization Cache is enabled.

16 AuthorizeRemoteTxRequests	
Default Value	FALSE
Required/Optional	Required
Accessibility	Read or Read/Write. The choice is up to the charge point implementation.
Type	Boolean
Description	Whether a remote request to start a transaction in the form of a RemoteStartTransaction.req message should be authorized beforehand like a local action to start a transaction.

17 ConnectorPhaseRotation	
Default Value	0.Unknown,1.Unknown
Required/Optional	Required
Accessibility	Read/Write
Type	CSL
Description	The phase rotation per connector in respect to the connector's electrical meter (or if absent, the grid connection). Possible values per connector are: Not Applicable (for Single phase or DC Charge Points) Unknown (not (yet) known) RST (Standard Reference Phasing) RTS (Reversed Reference Phasing) SRT (Reversed 240 degree rotation) STR (Standard 120 degree rotation) TRS (Standard 240 degree rotation) TSR (Reversed 120 degree rotation) R can be identified as phase 1 (L1), S as phase 2 (L2), T as phase 3 (L3). If known, the Charge Point MAY also report the phase rotation between the grid connection and the main energy meter by using index number Zero (0). Values are reported in CSL, formatted: 0.RST, 1.RST, 2.RTS

18 LocalAuthorizeOffline	
Default Value	TRUE
Required/Optional	Required
Accessibility	Read/Write
Type	Boolean
Description	Whether the charge point will start a transaction for locally authorized identifiers when offline.

19 LocalPreAuthorize	
Default Value	TRUE
Required/Optional	Required
Accessibility	Read/Write
Type	Boolean
Description	Whether the charge point, when online, will start a transaction for locally-authorized identifiers without waiting for or requesting an Authorize.conf from the central system.

20 ResetRetries	
Default Value	3
Required/Optional	Required
Accessibility	Read/Write
Type	Integer
Unit	Times
Description	The number of times to retry an unsuccessful reset of the charge point.

21 StopTransactionOnInvalidId	
Default Value	TRUE
Required/Optional	Required
Accessibility	Read/Write
Type	Boolean
Description	Whether the charge point will stop an ongoing transaction when it receives a non-accepted authorization status in a StartTransaction.conf for this transaction.

22 UnlockConnectorOnEVSideDisconnect	
Default Value	TRUE
Required/Optional	Required
Accessibility	Read/Write
Type	Boolean
Description	When set to true, the charge point shall unlock the cable on the charge point side when the cable is unplugged at the EV.

23 LocalAuthListEnabled	
Default Value	TRUE
Required/Optional	Required
Accessibility	Read/Write
Type	Boolean
Description	whether the Local Authorization List is enabled

24 MaxEnergyOnInvalidId	
Preset Value	50
Required/Optional	Optional
Accessibility	Read/Write
Type	Integer
Description	Maximum energy in Wh delivered when an identifier is invalidated by the Central System after start of a transaction.

25 NominalVoltage	
Preset Value	240.0
Required/Optional	Optional
Accessibility	Read/Write
Type	Integer
Description	Installation Nominal voltage

Freevend mode configuration keys

1 AuthorizationRequired	
Default Value	TRUE
Required/Optional	Optional
Accessibility	Read/Write
Type	Boolean
Description	If this parameter is set to TRUE, a “normal” authentication process must be done. This means the Freevend mode is turned OFF in this case. If this parameter is set to FALSE, Freevend mode is turned ON, in this case a specific IdTag as set in the NonAuthorizedTag configuration parameter will be used as an “AuthorizedToken” and sent in the StartTransaction request message.

2 NonAuthorizedTag	
Default Value	No Tag
Required/Optional	Optional
Accessibility	Read/Write
Type	String
Description	In case of Freevend mode this value will be used as a specific IdTag and sent in the StartTransaction request message.

Read-only configuration parameters

1 GetConfigurationMaxKeys	
Preset Value	50
Required/Optional	Required
Accessibility	Read
Type	Integer
Description	Maximum number of requested configuration keys in a GetConfiguration.req PDU.

2 MeterValuesAlignedDataMaxLength	
Preset Value	100
Required/Optional	Optional
Accessibility	Read
Type	Integer
Description	Maximum number of items in a MeterValuesAlignedData configuration key.

3 MeterValuesSampledDataMaxLength	
Preset Value	100
Required/Optional	Optional
Accessibility	Read
Type	Integer
Description	Maximum number of items in a MeterValuesSampledData configuration key.

4 NumberOfConnectors	
Preset Value	1
Required/Optional	Required
Accessibility	Read
Type	Integer
Description	The number of physical charging connectors of this charge point.

5 StopTxnAlignedDataMaxLength	
Preset Value	100
Required/Optional	Optional
Accessibility	Read
Type	Integer
Description	Maximum number of items in a StopTxnAlignedData configuration key.

6 StopTxnSampledDataMaxLength	
Preset Value	100
Required/Optional	Optional
Accessibility	Read
Type	Integer
Description	Maximum number of items in a StopTxnSampledData configuration key.

7 SupportedFeatureProfiles	
Preset Value	Core,LocalAuthListManagement,Reservation,SmartCharging,RemoteTrigger
Required/Optional	Required
Accessibility	Read
Type	CSL
Description	A list of supported feature profiles. Possible profile identifiers: Core, Firmware Management, LocalAuthListManagement, Reservation, SmartCharging and RemoteTrigger.

8 SupportedFeatureProfilesMaxLength	
Preset Value	10
Required/Optional	Optional
Accessibility	Read
Type	Integer
Description	Maximum number of items in a SupportedFeatureProfiles configuration key.

9 ChargeProfileMaxStackLevel	
Preset Value	10
Required/Optional	Required
Accessibility	Read
Type	Integer
Description	Max stack level of a charging profile. The number defined also indicates the maximum allowed number of installed charging schedules per charging profile purposes.

10 ChargingScheduleAllowedChargingRateUnit	
Preset Value	Current, Power
Required/Optional	Required
Accessibility	Read
Type	CSL
Description	A list of supported quantities for use in a charging schedule. Allowed values: 'Current' and 'Power'.

11 ChargingScheduleMaxPeriods	
Preset Value	100
Required/Optional	Required
Accessibility	Read
Type	Integer
Description	Maximum number of periods that may be defined per charging schedule.

12 ConnectorSwitch3to1PhaseSupported	
Preset Value	FALSE
Required/Optional	Optional
Accessibility	Read
Type	Boolean
Description	If defined and true, this charge point support switching from 3 to 1 phase during a transaction.

13 MaxChargingProfilesInstalled	
Preset Value	100
Required/Optional	Required
Accessibility	Read
Type	Integer
Description	Maximum number of charging profiles installed at a time.

14 ConnectorPhaseRotationMaxLength	
Preset Value	100
Required/Optional	Optional
Accessibility	Read
Type	Integer
Description	Maximum number of items in a connector phase rotation configuration key.

15 LocalAuthListMaxLength	
Default Value	10000
Required/Optional	Required
Accessibility	Read
Type	integer
Description	Maximum number of identifications that can be stored in the Local Authorization List

16 SecurityProfile	
Preset Value	2
Required/Optional	Optional
Accessibility	Read
Type	Integer
Description	This configuration key is used to read the security profile used by the Charge Point.

17 StopTransactionMaxMeterValues	
Preset Value	0
Required/Optional	Optional
Accessibility	Read
Type	Integer
Description	The StopTransactionMaxMeterValues key in OCPP 1.6 is used to specify the maximum number of meter values that can be sent in a StopTransaction message. This key helps manage the amount of data transmitted when a transaction ends, ensuring that the message size remains manageable and within the limits of the communication protocol.

18 SupportedFileTransferProtocols	
Preset Value	FTP,FTPS,HTTP,HTTPS
Required/Optional	Optional
Accessibility	Read
Type	CSL
Description	This configuration key tells the Central System which file transfer protocols are supported by the Charge Point. Allowed values: 'FTP', 'FTPS', 'HTTP' and 'HTTPS'.

19 ReserveConnectorZeroSupported	
Preset Value	TURE
Required/Optional	Optional
Accessibility	Read
Type	Boolean
Description	If this configuration key is present and set to <i>true</i> : Charge Point support reservations on connector 0.

20 SendLocalListMaxLength	
Preset Value	250
Required/Optional	Required
Accessibility	Read
Type	Integer
Description	Maximum number of identifications that can be send in a single SendLocalList.req

SECTION 4

OCPP Feature Profiles

In OCPP, features and associated messages are grouped in the profiles. The following is the list of all profiles supported by the OCPP server. OCPP features and associated messages are grouped in one or more of the following profiles (FirmwareManagement is not supported in VersiCharge):

OCPP profile list

Profile Name	Description
Core	Basic charge point functionality, without support for firmware updates, local authorization list management and reservations.
FirmwareManagement	Support for firmware update management for Siemens support, will be made available for external customer soon.
Reservation	Support for reservation of a charge point.
LocalAuthListManagement	List of identifiers that can be linked with the Central System.
SmartCharging	Support for basic smart charging, for instance, using control pilot.
RemoteTrigger	Support for remote triggering of charge point initiated messages.
NOTE: Features highlighted in gray are not currently supported by VersiCharge.	

Table 4: OCPP profile list

The grouping of all features in their profiles according to the OCPP implementation can be found in the list table below.

Grouping of features in OCPP profiles

Feature Name	Profile Name						Applicable to chargers on FW version 2.136 or higher
	Core	Firmware Management	Local Auth List Management	Reservation	Smart Charging	Remote Trigger	
Authorize	X						X
BootNotification	X						X
ChangeAvailability	X						X
ChangeConfiguration	X						X
ClearCache	X						X
DataTransfer	X						X
GetConfiguration	X						X
Heartbeat	X						X
MeterValues	X						X
RemoteStartTransaction	X						X
RemoteStopTransaction	X						X
Reset	X						X
StartTransaction	X						X
StatusNotification	X						X
StopTransaction	X						X
UnlockConnector							Not supported
GetDiagnostics		X					X
DiagnosticsStatusNotification		X					X
FirmwareStatusNotification							Not supported
UpdateFirmware							Not supported
GetLocalListVersion			X				X
SendLocalList			X				X
CancelReservation				X			X
ReserveNow				X			X
ClearChargingProfile					X		X
GetCompositeSchedule					X		X
SetChargingProfile					X		X
TriggerMessage						X	X
Security Profiles 1, 2							X

Table 5: OCPP features grouping in the profiles

Note: Data Transfer is used to implement commands that aren't covered by OCPP. Any custom message can be added based on the EVSP's request as custom code. Features highlighted in gray are not currently supported by VersiCharge.

Note: VersiCharge AC series supports security profile 1 & 2 as per OCPP 1.6 spec. The use of security profile 1 is **NOT** recommended and poses security vulnerabilities for the customer.

SECTION 5

Troubleshooting

5.1 General Troubleshooting Guide

The vehicle is connected

1. Pull the charging cable out of the vehicle.
2. Wait for 10 to 15 seconds.
3. Connect the charger to your vehicle.
4. If the charger continues to light up red, pull the charging cable out of the vehicle and follow the instructions in the paragraph below.

The vehicle is not connected

1. For 48A versions, press the touch button once and then check that no more red LEDs are lighting up on the charger. Then try to start charging again.
2. Wait for up to 15 minutes and check whether the red status LEDs have extinguished.
3. Start a charging process. If this is successful, no further troubleshooting is required.
4. If the red LEDs remain lit, try the above troubleshooting steps two more times.
5. If the problem is not resolved, open a service ticket on the Internet (<https://emobility.usa.siemens.com/s/eMobilityCloud>) or via the support hotline (855-950- 6339, option 9).

The charger is offline

The charger has no internet connection or connection to the VersiCloud

1. Switch off the circuit breaker for the charger. Wait 1 to 2 minutes before turning the power back on.
2. Wait for up to 15 minutes and check whether the charger is found in the software.

The charging cable is damaged.

1. Switch off the charger.
2. Open a service ticket on the Internet (<https://emobility.usa.siemens.com/s/eMobilityCloud>)

More details for each internal error code can be found in the respective installation and operations manuals.

In case of questions (or earlier firmware version), create a case and contact customer support (<https://emobility.usa.siemens.com/s/eMobilityCloud>).

5.2 Error codes

The following table contains the error codes and their description. These error codes are reported in the status notification request from the VersiCharge unit to the OCPP server.

Error codes in status notification

OCPP errorCode	Fault Codes from FW 2.135	OCPP vendorErrorCode	Cause
EVCommunicationError	"BAD_PILOT_VOLTAGE"	/1.1/CPWWMController/Problem	Signal levels on control pilot deviate from expected standard performance.
GroundFailure	"CCID_FAULT" "CCID_SELFTEST_FAULT" "CCID_CLOSE_ON" "GND_MON_FAULT"	/1/GroundIsolationProtection/Problem	Ground leakage is observed by the EVSE, critical close on fault will cause hard fault, other faults can self-recover after fault condition is removed.
HighTemperature	"ONBOARD_TEMP_FAULT"	/0/TemperatureSensor/Problem	The terminal has become too hot due to constant high current taken by the load.
InternalError	"BAD_AMP_SWITCH_POSITION" "ADC_FAULT" "STATIC_MEMORY_FAULT" "FRAM_RW_FAULT" "METERCHIP_RW_FAULT" "WELDED_CONTACT_PHASEA" "DIODE_FAULT"	/0/ChargingStation/Problem	Fault in current derating setup, faulty voltage detection, component failure or communication failure between processors.
OverVoltage	"LINE_PHASE_A_OVER_V"	/0/OverVoltageDetection/Problem	The line/load side voltage measurement exceeds the maximum voltage threshold of the unit.
UnderVoltage	"LOAD_PHASE_A_ZERO_V"	/0/OverVoltageDetection/Problem	The line side voltage is less than the configured threshold value.

Note: If the steps outlined in the section General Troubleshooting Guide don't resolve the issue, or if you're using an older firmware version, please contact customer support (<https://emobility.usa.siemens.com/seMobilityCloud>) for further assistance.

SECTION 6

List of FAQs

Q: What are the internal functional blocks of VersiCharge?

A: VersiCharge has four internal functional blocks:

1. The control module handles control pilot communication to the electric vehicle, enables/disables charging and handles the unit's safety functions.
2. The Wi-Fi module provides network connectivity and transmits the system status to and executes messages from the OCPP server or VersiCharge cloud server.
3. The metering module measures parameters, including the current, voltage, power, power factor and energy.
4. The communication module handles internal communication and interfaces between the control module and Wi-Fi module.

Q: What are typical communication failure modes and recovery scenarios?

A: The following chart covers common communication failure modes as well as their recovery scenarios.

Communication failure and recovery scenarios

Failure Mode	Possible Root Cause	Recovery
No charging control, no status updates, missing traceability number and no meter records while unit is connected to the network	Wi-Fi module communication error	Self-recovery; reset Wi-Fi and control processor (one time, 10 minute timeout)
No or missing meter records	Metering IC failure	Self-recovery; the charging unit will automatically reset the metering chip (15 second timeout)
Missing traceability number and no charging control and no status updates	J1772 controller communication error	Self-recovery; the charging unit will automatically reset the Wi-Fi and control processor (one time, 15 minute timeout)
No charging control and no status updates, missing traceability number and no meter records	Communication processor failure	OCPP/cloud hard reset or power cycle

Table 6: Communication failure and recovery scenarios

Q: What is the process for an OTA update? What are typical planned update times and expected action from EVSP after the OTA update?

A: Software package updates are associated with a group. A VersiCharge is assigned to the group maintained on the Siemens backend associated with the user during commissioning but able to be changed to a different group as requested. The OTA updates would happen every 12 hrs. or upon restart if there is a new release available which is still managed by the Siemens operations team. An EVSP is expected to verify that the configuration parameters are maintained; if they are not, they must be reset to their respective use case.

Q: What happens if VersiCharge loses power in the middle of a session? Does the session end? Is the data stored?

A: Loss of power does not end a session. Session information and meter data is stored in VersiCharge.

Q: There are user account categories on the Siemens cloud app for maintenance purposes. What is the process to move between categories?

A: Each user account is assigned to a general default group. An EVSP will need to request “create a specific group” for them to receive targeted firmware upgrades and change any default configuration parameters. Contact your Siemens representative at emobilitypartnering.us@siemens.com to request a new group assignment.

Q: What are the configuration parameters available for EVSPs to choose from as part of their assigned group for lower data usage rates?

A: Once a user account is assigned to a specific EVSP group for utility, an EVSE will default to low data usage. In this option, minimal logging and low meter data reporting rate are turned on (in 15-minute intervals).

Q: Is there a way to recover a fault? What are the steps for session recovery after fault is cleared?

A: If the fault does not recover on its own, press the Touch Sensitive button once. It will clear the fault. For all other faults, power cycle the charger; if a fault persists, call customer support. When a fault occurs, the existing session ends and a new session must be initiated.

Q: What is the delay time needed after a boot notification when a change configuration can be sent?

A: The delay time is 1 minute.

Q: What are the guidelines to create an alias for Siemens Cloud registration?

A: As a professional electrician, you can use the Sifinity Setup App for the commissioning of larger quantities of chargers. You can find more detailed information about the Sifinity Setup App in the installation and operations manual, in the chapter Commissioning with PC or mobile device (<https://support.industry.siemens.com/cs/ww/en/view/109982864>)

Q: What if the EVSP fails to receive an OCPP boot notification request after requesting the same via a trigger message?

A: Send a hard reset command to the VersiCharge unit.

Q: What if the VersiCharge unit fails to communicate after sending a Set Charging Profile request?

A: Send a hard reset command to the VersiCharge unit.

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