

VALUE	DESCRIPTION
Energy.Reactive.Export.Register	Reactive energy exported by EV (varh or kvarh)
Energy.Reactive.Import.Register	Reactive energy imported by EV (varh or kvarh)
Energy.Active.Export.Interval	Energy exported by EV (Wh or kWh)
Energy.Active.Import.Interval	Energy imported by EV (Wh or kWh)
Energy.Reactive.Export.Interval	Reactive energy exported by EV. (varh or kvarh)
Energy.Reactive.Import.Interval	Reactive energy imported by EV. (varh or kvarh)

New:



Import is energy flow from the Grid to the Charge Point, EV or other load. Export is energy flow from the EV to the Charge Point and/or from the Charge Point to the Grid.

VALUE	DESCRIPTION
Energy.Active.Export.Register	Numerical value read from the "active electrical energy" (Wh or kWh) register of the (most authoritative) electrical meter measuring energy exported (to the grid).
Energy.Active.Import.Register	Numerical value read from the "active electrical energy" (Wh or kWh) register of the (most authoritative) electrical meter measuring energy imported (from the grid supply).
Energy.Reactive.Export.Register	Numerical value read from the "reactive electrical energy" (VARh or kVARh) register of the (most authoritative) electrical meter measuring energy exported (to the grid).
Energy.Reactive.Import.Register	Numerical value read from the "reactive electrical energy" (VARh or kVARh) register of the (most authoritative) electrical meter measuring energy imported (from the grid supply).
Energy.Active.Export.Interval	Absolute amount of "active electrical energy" (Wh or kWh) exported (to the grid) during an associated time "interval", specified by a MeterValues ReadingContext, and applicable interval duration configuration values (in seconds) for "ClockAlignedDataInterval" and "MeterValueSampleInterval".
Energy.Active.Import.Interval	Absolute amount of "active electrical energy" (Wh or kWh) imported (from the grid supply) during an associated time "interval", specified by a MeterValues ReadingContext, and applicable interval duration configuration values (in seconds) for "ClockAlignedDataInterval" and "MeterValueSampleInterval".
Energy.Reactive.Export.Interval	Absolute amount of "reactive electrical energy" (VARh or kVARh) exported (to the grid) during an associated time "interval", specified by a MeterValues ReadingContext, and applicable interval duration configuration values (in seconds) for "ClockAlignedDataInterval" and "MeterValueSampleInterval".

VALUE	DESCRIPTION
Energy.Reactive.Import.Interval	Absolute amount of "reactive electrical energy" (VARh or kVARh) imported (from the grid supply) during an associated time "interval", specified by a MeterValues ReadingContext, and applicable interval duration configuration values (in seconds) for "ClockAlignedDataInterval" and "MeterValueSampleInterval".



All "Register" values relating to a single charging transaction, or a non-transactional consumer (e.g. charge point internal power supply, overall supply) MUST be monotonically increasing in time.

The actual quantity of energy corresponding to a reported ".Register" value is computed as the register value in question minus the register value recorded/reported at the start of the transaction or other relevant starting reference point in time. For improved auditability, ".Register" values SHOULD be reported exactly as they are directly read from a non-volatile register in the electrical metering hardware, and SHOULD NOT be re-based to zero at the start of transactions. This allows any "missing energy" between sequential transactions, due to hardware fault, mis-wiring, fraud, etc. to be identified, by allowing the Central System to confirm that the starting register value of any transaction is identical to the finishing register value of the preceding transaction on the same connector.

3.79. Page 103, section: 7.37: RecurrencyKindType definition is ambiguous.

Added in errata sheet v3.0

The definition of RecurrencyKindType is ambiguous. It is not clear when a Charging Profile should recur.

Changes to the table

VALUE	OLD DESCRIPTION	NEW DESCRIPTION
Daily	The schedule restarts at the beginning of the next day.	The schedule restarts every 24 hours, at the same time as in the startSchedule.
Weekly	The schedule restarts at the beginning of the next week (defined as Monday morning).	The schedule restarts every 7 days, at the same time and day-of-the-week as in the startSchedule.

3.80. Page 103, section: 9.1.23: Configuration key: "StopTransactionOnEVSideDisconnect" should not be required

Added in errata sheet v4.0

OCPP 1.6 FINAL Page 116

The description of the configuration key: `StopTransactionOnEVSideDisconnect` is required. It was added to OCPP to support EVs without lock at the car side. But this is now never the case, it was only the case with the first version of the Mitsubishi Outlander PHEV.

The German eichrect does not allow this configuration key to be implemented.

Old value Required/optional	required
New value Required/optional	optional
Old value Accessibility	RW
New value Accessibility	R or RW. Choice is up to Charge Point implementation.

3.81. Page 104, section: 9.1.30: Unneeded configuration key: "SupportedFeatureProfilesMaxLength"

Added in errata sheet v4.0

The description of the configuration key: SupportedFeatureProfilesMaxLength has no use. SupportedFeatureProfiles is a readonly configuration key. SupportedFeatureProfiles could have been removed from the specification.

Addition al text before table	NOTE: This configuration key does not have to be implemented. It should not have been part of OCPP 1.6, "SupportedFeatureProfiles" is a readonly configuration key.
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3.82. Page 105, section: 7.42: Improved description of Soft/Hard Reset

Added in errata sheet v3.0

The descriptions of Soft/Hard reset can be improved, not very clear what is the difference between the two.

Changes to the table

VALUE	OLD DESCRIPTION	NEW DESCRIPTION
Hard	Full reboot of Charge Point software.	Restart (all) the hardware, the Charge Point is not required to gracefully stop ongoing transaction. If possible the Charge Point sends a StopTransaction.req for previously ongoing transactions after having restarted and having been accepted by the Central System via a BootNotification.conf. This is a last resort solution for a not correctly functioning Charge Point, by sending a "hard" reset, (queued) information might get lost.
Soft	Return to initial status, gracefully terminating any transactions in progress.	Stop ongoing transactions gracefully and sending StopTransaction.req for every ongoing transaction. It should then restart the application software (if possible, otherwise restart the processor/controller).

3.83. Page 105, section: 9.1: Missing standard Configuration Key for Message Timeout

Added in errata sheet v4.0

OCPP does not define what the required message timeout is. As OCPP is used for a lot of different transport layers, from 3G to fiber, timing can be very different. A CPO needs to be able to configure this, based on the network used. But OCPP did not define a standard configuration key for this. So now almost every Charge Point manufacturer defines his own name for the same thing.

New definition:

9.1 Core Profile

9.1.15 MessageTimeout

Required/optional	optional
Accessibility	RW
Type	integer
Description	Defines the OCPP Message timeout in seconds. If the Charge Point has not received a response to a request within this timeout, the Charge Point SHALL consider the request timed out.

3.84. (2025-04) - Page 105 - section: 9.1.33 - Allow UnlockConnectorOnEVSideDisconnect to be implemented as R for non-fixed cable Charge Points

Note: This erratum revises erratum: Page 105, section: 9.1.33: Unclear how to implement UnlockConnectorOnEVSideDisconnect with a Charge Point with a fixed cable

The TWG decided that it should be allowed to implement the configuration key UnlockConnectorOnEVSideDisconnect as ReadOnly for types of implementations other than only Charge Points with a fixed cable. For example, when a Charge Point does not support local authorization and there is no way for the user to unlock the connector. Therefore, the specification will not require this configuration key to be ReadWrite anymore. However, a Charge Point implementer should still make this configuration key ReadWrite in case this is feasible.

Accessibility	R or RW (RW in case of fixed cable)
Description	When set to true, the Charge Point SHALL unlock the cable on Charge Point side when the cable is unplugged at the EV. A Charge Point with a fixed cable SHALL always report this value as false and SHALL not allow this value to be changed. A Charge Point SHOULD implement this configuration key as RW, in case the EV driver is not blocked from unlocking the connector when this value is set to false.

3.85. Page 105, section: 9.1.33: Unclear how to implement UnlockConnectorOnEVSideDisconnect with a Charge Point with a fixed cable

Added in errata sheet v4.0

Note: This erratum is revised by erratum: (2025-04) - Page 105 - section: 9.1.33 - Allow

UnlockConnectorOnEVSideDisconnect to be implemented as R for non-fixed cable Charge Points

In the table describing the variable UnlockConnectorOnEVSideDisconnect change the text of the following rows:

Accessibility	RW (RO in case of fixed cable)
Description	When set to true, the Charge Point SHALL unlock the cable on Charge Point side when the cable is unplugged at the EV. A Charge Point with a fixed cable SHALL always report this value as false and SHALL not allow this value to be changed.

3.86. Page 106, section: 7.45: No UnitOfMeasure for Measurand Frequency.

There is no UnitOfMeasure for Measurand: Frequency.

Add to the description for Frequency on page 100, section: 7.31:	OCPP 1.6 does not have a UnitOfMeasure for frequency, the UnitOfMeasure for any SampledValue with measurand: Frequency is Hertz.
--	--

3.87. Page 107, section: 7.42: UnlockConnector with unknown ConnectorId

Added in errata sheet v3.0

It has not been specified how a Charge Point should respond when a Central System request an Unlock Connector for an unknown ConnectorId.

Preferably the response would have been: "Rejected", so that will be added to OCPP 2.0. For OCPP 1.6 we cannot add extra states, so we have to use "NotSupported". "UnlockFailed" should not be used for this, "UnlockFailed" is really for when the locking mechanism detects a failed unlock attempt.

Changes to the table

VALUE	OLD DESCRIPTION	NEW DESCRIPTION
UnlockFailed	Failed to unlock the connector.	Failed to unlock the connector: The Charge Point has tried to unlock the connector and has detected that the connector is still locked or the unlock mechanism failed.
NotSupported	Charge Point has no connector lock	Charge Point has no connector lock, or ConnectorId is unknown.

3.88. Page 107, section: 9.4.2: Configuration key: "ChargingScheduleAllowedChargingRateUnit" values confusing

Added in errata sheet v4.0

The configuration key: ChargingScheduleAllowedChargingRateUnit has two allowed values: 'Current' and 'Power'. While ChargingRateUnitType (page 80, section: 7.12) has the possible values: 'A' and 'W'. This is confusing.

It would have been better if the allowed values for ChargingScheduleAllowedChargingRateUnit would also

have been: 'A' and 'W'. That will be the solution for OCPP 2.0.

For OCPP 1.6 an extra explanation is added.

Addition al description	'Current' means only ChargingSchedules with ChargingRateUnit: 'A' allowed 'Power' means only ChargingSchedules with ChargingRateUnit: 'W' allowed
-------------------------	--

3.89. Page 112, section: 9.1.6: Improved description configuration key: "ConnectionTimeOut"

The description of the configuration key: "ConnectionTimeOut" can be improved

Old text	Interval (from successful authorization) until incipient charging session is automatically canceled due to failure of EV user to (correctly) insert the charging cable connector(s) into the appropriate connector(s).
New text	Interval from beginning of status: 'Preparing' until incipient session 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 SHALL go back to the original state, probably: 'Available'

3.90. Page 121, section: 9: Missing definition for SupportedFileTransferProtocols

Added in errata sheet v4.0

In chapter 8, page 96 (OCPP 1.6 FINAL: page 109), there is a reference to a configuration key: SupportedFileTransferProtocols. This configuration key is not defined in chapter 9.

New definition:

9.5 Firmware Management

9.5.1 SupportedFileTransferProtocols

Required/optional	optional
Accessibility	R
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'.

3.91. Page 121, section: 9.1: Central System needs to know maximum amount of meter values in StopTransaction

Added in errata sheet v4.0

When a Charge Point is configured to provide meter values in the StopTransaction via: StopTxnSampledData and/or StopTxnAlignedData, and the Transaction takes really long (think: EV parked for days at an airport) or the interval is configured to a low value in: ClockAlignedDataInterval or MeterValueSampleInterval, the Charge Point might collect more meter values than it can store or send in a StopTransaction. In this case the Charge Point needs to drop intermediate values to prevent crashes etc. But the Central System needs to know at what point this happens.

New definition:

9.1 Core Profile

9.1.23 StopTransactionMaxMeterValues

Required/optional	optional
Accessibility	R
Type	integer
Description	<p>The maximum amount of meter values that this Charge Point can report in the transactionData field of a StopTransaction.req. When the amount of meter values collected for a transaction exceeds: StopTransactionMaxMeterValues, the Charge Point MAY drop intermediate meter values, to prevent running out of memory, or being unable to send the StopTransaction.req (overrunning the transmit buffer size). The Start and Stop meter values SHALL never be dropped.</p> <p>When the Charge Point needs to store more intermediate values than: StopTransactionMaxMeterValues, it is RECOMMENDED not to start dropping messages from the start, or stop storing new values. It is better to drop intermediate messages first (1st message, 3th message, 5th message etc.), or uses a smart algorithm, for example remove duplicate values first. etc.</p>

4. Typos

Typos, fixes to incorrect links/reference, improve terms used etc. that have no impact on the description of the way the protocol works.

4.1. Generic: Typo Field Type: DateTime should be dateTime

dateTime field type is misspelled a couple of times as: DateTime (with upper-case **D**)

PAGE	SECTION	MESSAGE/CLASS	FIELD NAME
24	3.12.2	NOTE add the bottom	validFrom
70	6.22	GetCompositeSchedule.conf	scheduleStart
90	7.8	ChargingProfile	validFrom
91	7.8	ChargingProfile	validTo

PAGE	SECTION	MESSAGE/CLASS	FIELD NAME
93	7.13	ChargingProfile	startSchedule

4.2. Generic: Use of Energy Meter vs Power Meter

The terms Energy Meter and Power Meter are use throughout the specification, but they are not used consistently and the term: Electrical Meter seems to fit most cases even better.

List of all textual improvements for this:

PAGE	SECTION	OLD TEXT	NEW TEXT
8	2.2	Defines the wiring order of the phases between the energy meter (or if absent, the grid connection), and the Charge Point connector.	Defines the wiring order of the phases between the electrical meter (or if absent, the grid connection), and the Charge Point connector.
38	4.7	A Charge Point MAY sample the energy meter or other sensor/transducer hardware to provide extra information about its meter values.	A Charge Point MAY sample the electrical meter or other sensor/transducer hardware to provide extra information about its meter values.
38	4.7	The Charging Point SHALL report all phase number dependent values from the power meter (or grid connection when absent) point of view.	The Charging Point SHALL report all phase number dependent values from the electrical meter (or grid connection when absent) point of view.
63	6.3	This contains the serial number of the main power meter of the Charge Point.	This contains the serial number of the main electrical meter of the Charge Point.
63	6.3	This contains the type of the main power meter of the Charge Point.	This contains the type of the main electrical meter of the Charge Point.
87	7.6	Failure to read power meter.	Failure to read electrical/energy/ power meter.
116	9.1.21	The phase rotation per connector in respect to the connector's energy meter (or if absent, the grid connection).	The phase rotation per connector in respect to the connector's electrical meter (or if absent, the grid connection).

4.3. Page 13, section: 3.2: Typo in text about SupportedFeatureProfiles

Below the table with the mapping of messages to feature profiles, there is a typo: "charging profiles" instead of "feature profiles".

Old text	The support for the specific charging profiles is reported by the SupportedFeatureProfiles configuration key.
New text	The support for the specific feature profiles is reported by the SupportedFeatureProfiles configuration key.

4.4. Page 18, section: 3.4.4: Typo in Unknown Offline Authorization

There is a typo in the text about Unknown Offline Authorization.

Old text	When connection the the Central Server is restored
New text	When connection to the Central Server is restored

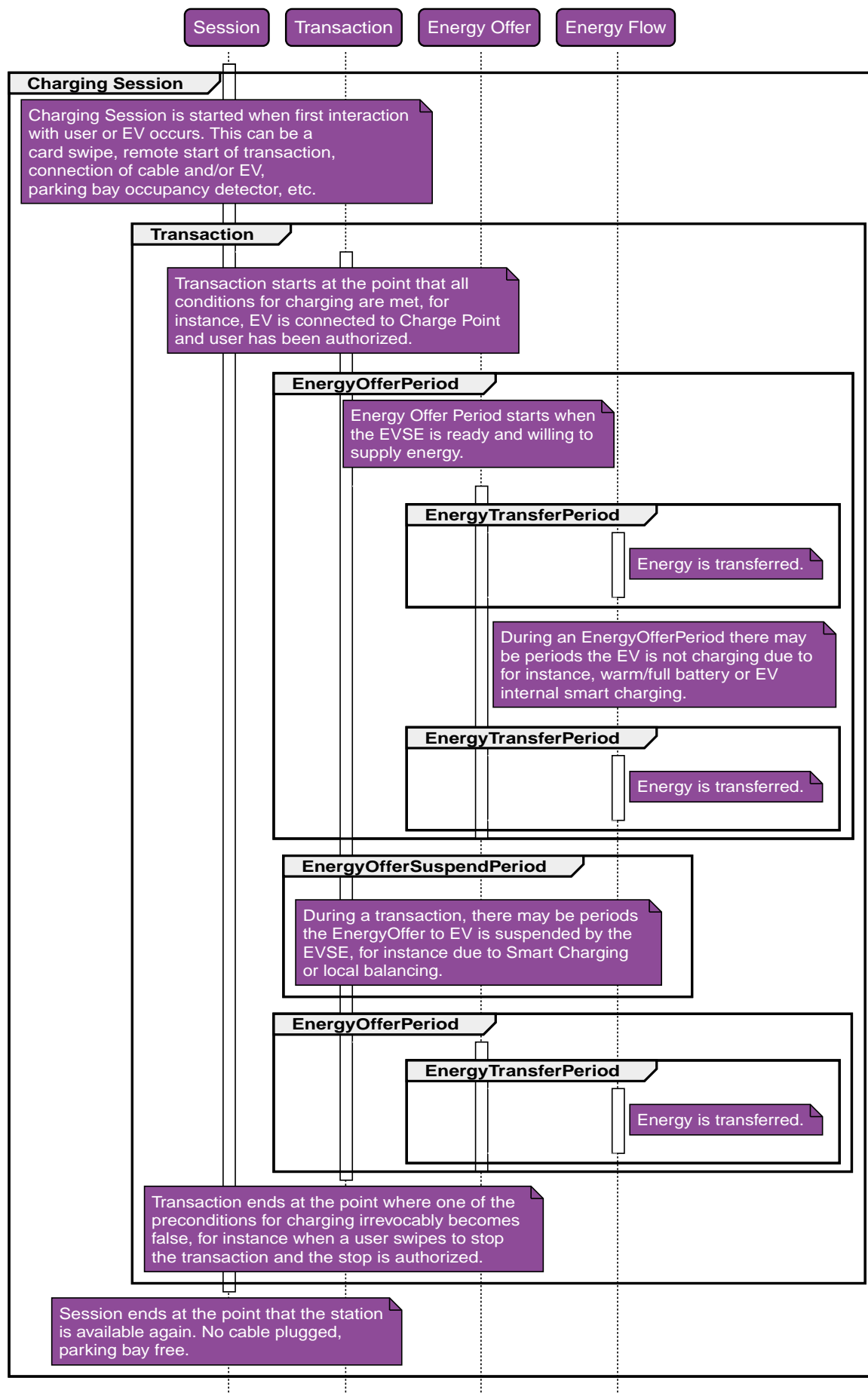
4.5. Page 19, section: 3.5: Definition of OCPP Transaction, Session, EnergyOfferPeriod etc missing.

In the table on page 19, there are some terms used that are never described in the specification.

Changes to the diagram on page 19:

OLD TEXT	NEW TEXT
Session	Charging Session
OCPP Transaction	Transaction

Update diagram for section: 3.5 on page 19:



Changes to the table of definitions in section:. 2.2 on page 7

TERM	OLD DESCRIPTION	NEW DESCRIPTION
Charging Session	Part of a transaction during which the EV is allowed to request energy	a Charging Session is started when first interaction with user or EV occurs. This can be a card swipe, remote start of transaction, connection of cable and/or EV, parking bay occupancy detector, etc.

Additions to the table of definitions in section:. 2.2 on page 7

TERM	DESCRIPTION
Energy Offer Period	Energy Offer Period starts when the EVSE is ready and willing to supply energy.
Energy Offer SuspendPeriod	During a transaction, there may be periods the EnergyOffer to EV is suspended by the EVSE, for instance due to Smart Charging or local balancing.

Changes throughout the entire specification, correcting incorrect term use.

PAGE	PAR.	OLD TEXT	NEW TEXT
42	4.9	C6: Charging session is stopped by user or a Remote Stop Transaction message and further user action is required (e.g. remove cable, leave parking bay)	C6: Transaction is stopped by user or a Remote Stop Transaction message and further user action is required (e.g. remove cable, leave parking bay)
42	4.9	D6: Charging session is stopped and further user action is required	D6: Transaction is stopped and further user action is required
43	4.9	E6: Charging session is stopped and further user action is required	E6: Transaction is stopped and further user action is required
43	4.9	F2: User restart charging session (e.g. reconnects cable, presents idTag again)	F2: User restart charging session (e.g. reconnects cable, presents idTag again), thereby creating a new Transaction
88	7.7	Preparing: When a Connector becomes no longer available for a new user but no charging session is active . Typically a Connector is occupied when a user presents a tag, inserts a cable or a vehicle occupies the parking bay	Preparing: When a Connector becomes no longer available for a new user but there is no ongoing Transaction (yet) . Typically a Connector is in preparing state when a user presents a tag, inserts a cable or a vehicle occupies the parking bay
88	7.7	Finishing: When a charging session has stopped at a Connector, but the Connector is not yet available for a new user, e.g. the cable has not been removed or the vehicle has not left the parking bay	Finishing: When a Transaction has stopped at a Connector, but the Connector is not yet available for a new user, e.g. the cable has not been removed or the vehicle has not left the parking bay.
91	7.9	such as the start of a session	such as the start of a Transaction

PAGE	PAR.	OLD TEXT	NEW TEXT
111	9.1.5	or partial interval, at the beginning or end of a charging session	or partial interval, at the beginning or end of a Transaction
112	9.1.6	Interval (from successful authorization) until incipient charging session is automatically canceled due to failure of EV user to (correctly) insert the charging cable connector(s) into the appropriate connector(s).	Interval (from successful authorization) until incipient Transaction is automatically canceled due to failure of EV user to (correctly) insert the charging cable connector(s) into the appropriate connector(s).
117	9.1.25	Clock-aligned periodic measurand(s) to be included in the TransactionData element of StopTransaction.req MeterValues.req PDU for every ClockAlignedDataInterval of the charging session	Clock-aligned periodic measurand(s) to be included in the TransactionData element of StopTransaction.req MeterValues.req PDU for every ClockAlignedDataInterval of the Transaction
117	9.1.27	Sampled measurands to be included in the TransactionData element of StopTransaction.req PDU, every MeterValueSampleInterval seconds from the start of the charging session	Sampled measurands to be included in the TransactionData element of StopTransaction.req PDU, every MeterValueSampleInterval seconds from the start of the Transaction
121	9.4.4	If defined and true, this Charge Point support switching from 3 to 1 phase during a charging session .	If defined and true, this Charge Point support switching from 3 to 1 phase during a Transaction .

4.6. Page 34, section: 4.2: Boot Notification diagram: Interval

Figure 13: "Sequence Diagram: Boot Notification" contains a typo.

Old text	BootNotification.conf(currentTime, heartbeatInterval , status)
New text	BootNotification.conf(currentTime, interval , status)

4.7. Page 35, section: 4.21: Typo in description

Added in errata sheet v4.0

This errata does not effect OCPP 1.6 Final (first edition)

The text in contains: "this such" which is just wrong.

Old text	Parties who want to implement this such behaviour must realize that it is uncertain if those transactions can ever be delivered to the Central System.
New text	Parties who want to implement this behaviour must realize that it is uncertain if those transactions can ever be delivered to the Central System.

4.8. Page 35, section: 4.5. Wrong message name for UpdateFirmware

Added in errata sheet v4.0

This errata does not effect OCPP 1.6 Final (first edition)

Last sentence of this section contains a reference to UpdateFirmware.req, but is has an incorrect name

Old text	started by the Central System with a FirmwareUpdate.req PDU
New text	started by the Central System with a UpdateFirmware.req PDU

4.9. Page 39, section: 4.9. Typo in table: Preparing

Added in errata sheet v4.0

This errata does not effect OCPP 1.6 Final (first edition)

The title of column 2 contains a typo

Old text	Prepairing
New text	Preparing

4.10. Page 47, section: 4.10: Typo description in stop transaction

There is a typo in the description of StopTransactionOnEVSideDisconnect set to true.

Old text	Setting StopTransactionOnEVSideDisconnect to true will prevent sabotage acts top stop the energy flow by unplugging not locked cables on EV side.
New text	Setting StopTransactionOnEVSideDisconnect to true will prevent sabotage acts to stop the energy flow by unplugging not locked cables on EV side.

4.11. Page 50, section: 5.5: Clear Charging Profile sequence diagram: incorrect .conf message

The sequence diagram on page 50 for Clear Charging Profile contains a typo. It contains the incorrect response: "ClearCache.conf" instead of "ClearChargingProfile.conf"

Update diagram for section: 5.5 on page 50:

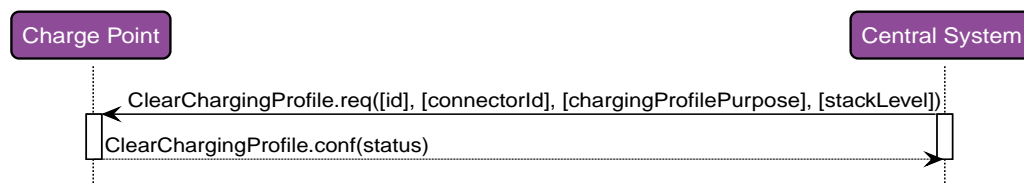


Figure 3. Updated Sequence Diagram: Clear Charging Profile

4.12. Page 55, section: 5.13: Missing MAY in description Reservation Parent idTag

The text MAY is missing in the description of getting the parent-id for a reservation via Authorize.req.

Old text	The Authorize.conf response contains the parent-id.
New text	The Authorize.conf response MAY contain the parent-id

4.13. Page 55, section: 5.16.4: Typo in note about first chargingSchedulePeriod

Added in errata sheet v4.0

This errata does not effect OCPP 1.6 Final (first edition)

There is a typo in the note about the first chargingSchedulePeriod

Old text	The StartSchedule of the first chargingSchedulePeriod in a chargingSchedule SHALL always be 0.
New text	The startPeriod of the first chargingSchedulePeriod in a chargingSchedule SHALL always be 0.

4.14. Page 56, section: 5.14: Typo in reset description

Added in errata sheet v3.0

There is a typo in the description of Reset response.

Old text	The response PDU SHALL include whether the Charge Point is will attempt to reset itself.
New text	The response PDU SHALL include whether the Charge Point will attempt to reset itself.

4.15. Page 60, section: 5.18: Central System sends Unlock Connector

In the paragraph about Unlock Connector, "Charge Point" and "Central Server" are mixed up.

Old text	To do so, The Charge Point SHALL send
New text	To do so, The Central System SHALL send

4.16. Page 71, section: 6.23: Typo in GetConfiguration.req

There is a typo in the text about GetConfiguration.req.

Old text	This contains the field definition of the GetConfiguration.req PDU sent by the the Central System to the Charge Point
New text	This contains the field definition of the GetConfiguration.req PDU sent by the Central System to the Charge Point

4.17. Page 81, section: 7.13: Typo in ChargingSchedule chargingSchedulePeriod description

Added in errata sheet v4.0

There is a typo in the description of chargingSchedulePeriod

Old text	The startSchedule of the first ChargingSchedulePeriod SHALL always be 0.
New text	The startPeriod of the first ChargingSchedulePeriod SHALL always be 0.

4.18. Page 91, section: 7.9: ChargingProfileKindType misses description and 'where used'

There is no 'where used' in the definition of ChargingProfileKindType

Additional text	Kind of charging profile, as used in: ChargingProfile
-----------------	---

4.19. Page 91, section: 7.10: Description of ChargePointMaxProfile in ChargingProfilePurposeType contains unused words

The description ChargePointMaxProfile in ChargingProfilePurposeType contains words that should not have been here.

Old text	Configuration for the maximum power or current available for an entire Charge Point. SetChargingProfile.req message.
New text	Configuration for the maximum power or current available for an entire Charge Point.

4.20. Page 91, section: 7.10: ChargingProfilePurposeType misses description and 'where used'

There is no 'where used' in the definition of ChargingProfilePurposeType

Additional text	Purpose of the charging profile, as used in: ChargingProfile
-----------------	--

4.21. Page 92, section: 7.13: ChargingSchedule misses description and 'where used'

There is no 'where used' in the definition of ChargingSchedule.

Additional text	Charging schedule structure defines a list of charging periods, as used in: GetCompositeSchedule.conf and ChargingProfile
-----------------	---

4.22. Page 93, section: 7.14: ChargingSchedulePeriod misses description and 'where used'

There is no 'where used' in the definition of ChargingSchedulePeriod.

Additional text	Charging schedule period structure defines a time period in a charging schedule, as used in: ChargingSchedule
-----------------	---

4.23. Page 96, section: 7.22. Typo in descriptions ConfigurationStatus

Word 'is' is missing in descriptions of ConfigurationStatus

OLD TEXT	NEW TEXT
Configuration key supported and setting has been changed.	Configuration key is supported and setting has been changed.
Configuration key supported, but setting could not be changed.	Configuration key is supported, but setting could not be changed.
Configuration key supported and setting has been changed,	Configuration key is supported and setting has been changed,

4.24. Page 101, section: 7.33: MeterValue misses used by StopTransaction.req

In the description of MeterValue there is a link to the usage of MeterValue: MeterValue.req, MeterValue it is also used in StopTransaction.req.

Old text	Collection of one or more sampled values in MeterValues.req.
New text	Collection of one or more sampled values in MeterValues.req and StopTransaction.req.

4.25. Page 102, section: 7.35: Descriptions Transaction.Begin, Transaction.End swapped

The descriptions of Transaction.Begin and Transaction.End are swapped.

Old:

VALUE	DESCRIPTION
Transaction.Begin	Value taken at end of transaction.
Transaction.End	Value taken at start of transaction.

New:

VALUE	DESCRIPTION
Transaction.Begin	Value taken at start of transaction.
Transaction.End	Value taken at end of transaction.

4.26. Page 106, section: 7.45: UnitOfMeasure links to incorrect usage

In the description of UnitOfMeasure there are links to the usage of UnitOfMeasure. There incorrectly say: MeterValues.req and StopTransaction.req, should be: SampledValue

Old text	Allowable values of the optional "unit" field of a Value element, as used in MeterValues.req and StopTransaction.req messages.
New text	Allowable values of the optional "unit" field of a Value element, as used in SampledValue .

4.27. Page 110, section: 9: Typo in Standard Configuration Key Names & Values

There is a typo in the text about Standard Configuration Key Names & Values.

Old text	In case the the accessibility is read-write, the Central System can also write the value for the key using ChangeConfiguration
New text	In case the accessibility is read-write, the Central System can also write the value for the key using ChangeConfiguration.

4.28. Page 121, section: 9.4.4: ConnectorSwitch3to1PhaseSupported: Type should be boolean

There is a typo in the type definition of the configuration key: ConnectorSwitch3to1PhaseSupported: Type should be boolean, is now bool.

Old type	bool
New type	boolean

4.29. Page 123, section: A.1: Power.Factor is missing in the list of new enum values

In the list of new values for the enum: Measurand, the value: Power.Factor is missing, should be added.

Old text	Added enum Current.Offered, Frequency, Power.Offered, RPM and SoC
New text	Added enum Current.Offered, Frequency, Power.Factor , Power.Offered, RPM and SoC

5. Known issues that will not be fixed

None known