

# CCU Parameter List

For r4.11.8-0-g2ac692222

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## 1 OCPP

**AllowOfflineTxForUnknownId** If this key reports a value of true, the station will accept any RFID tag when offline.

Default value: True

Type: boolean

Reset required after change: No

**AuthorizationCacheEnabled** summary

Default value: True

Type: boolean

Reset required after change: Yes

**AuthorizationKey** The HTTP Basic Authentication password for this station.

Default value:

Type: string

Reset required after change: No

Hexadecimal representation of the password that the Charging Station uses to authenticate itself if HTTP Basic authentication is used. Needs to be between 32 and 40 hexadecimal digits (ie password is 16-20 characters).

**AuthorizeRemoteTxRequests** 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.

Default value: False

Type: boolean

Reset required after change: No

**AuthCacheLifeTime** Indicates how long it takes (in s) until a token expires in the authorization cache since it is last used.

Default value: 2592000

Type: integer

Reset required after change: Yes

Defaults to 30 days.

**LocalAuthListEnabled** Enable / disable local authorization list (whitelist).

Default value: True

Type: boolean

Reset required after change: Yes

**ChargeProfileMaxStackLevel** Max StackLevel of a ChargingProfile. The number defined also indicates the max allowed number of installed charging schedules per Charging Profile Purposes.

Default value: 20

Type: integer

Readonly: Yes

**ChargingScheduleAllowedChargingRateUnit** A list of supported quantities for use in a ChargingSchedule. Allowed values: 'Current' and 'Power'.

Default value: Current  
Type: CSL  
Readonly: Yes

**ChargingScheduleMaxPeriods** Maximum number of periods that may be defined per ChargingSchedule.

Default value: 100  
Type: integer  
Readonly: Yes

**ClockAlignedDataInterval** Send metervalues at this time interval in seconds. Non-transaction related.

Default value: 0  
Type: integer  
Reset required after change: No

**ConnectionTimeOut** Timeout between tag detection and cable insertion, or vice versa (seconds).

Also used for PIN code timeout  
Default value: 180  
Type: integer  
Reset required after change: No

**ConnectorPhaseRotation** The phase rotation of the connectors compared to the grid. Calculated from other configuration keys. If you want to change this, please change the stations phase rotation by changing the key

PhaseRotation.  
Default value:  
Type: CSL  
Reset required after change: Yes

**HeartbeatInterval** How often should heartbeat be sent. (seconds).

Default value: 240  
Type: integer  
Reset required after change: No  
Not settable via local configuration tool. Set by backend in BootNotification.

**GetConfigurationMaxKeys** Maximum number of requested configuration keys in a GetConfiguration.req PDU.

Default value: number of parameters  
Type: integer  
Readonly: Yes

**LightIntensity** The intensity of the LED light in percent of maximum

Default value: 100  
Value range: 0-100  
Type: integer  
Reset required after change: No

**LocalAuthListMaxLength** Maximum number of identifications that can be stored in the Local Authorization List.

Default value: 10000

Type: integer

Readonly: Yes

**LocalAuthorizeOffline** Whether the Charge Point, when offline, will start a transaction for locally-authorized identifiers.

Default value: True

Type: boolean

Reset required after change: No

**LocalPreAuthorize** 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

Default value: 1

Type: boolean

Reset required after change: No

**MaxChargingProfilesInstalled** Maximum number of Charging profiles installed at a time.

Default value: 80

Type: integer

Readonly: Yes

**MaxEnergyOnInvalidId** Maximum energy in Wh delivered when an identifier is invalidated by the Central System after start of a transaction.

Default value: 100000

Type: integer

Reset required after change: No

Previously, we allowed an unlimited amount of energy, thus, the default value mimics that behavior by allowing 100 kWh.

**MeterValuesAlignedData** Selection of which metervalues to send. See OCPP specification.

Default value: Energy.Active.Import.Register

Type: CSL

Reset required after change: No

**MeterValuesSampledData** Selection of which metervalues to send. See OCPP specification.

Default value: Energy.Active.Import.Register

Type: CSL

Reset required after change: No

**MeterValueSampleInterval** Meter value sample interval (seconds). Transaction related metering.

Default value: 240

Type: integer

Reset required after change: No

Use 0 to disable.

**MinimumStatusDuration** Delay before sending (most) status notifications.

Default value: 2

Type: integer

Reset required after change: No

Used to avoid lots of notification when quickly moving through states.

**NumberOfConnectors** Number of outlets

Default value: 2

Type: integer

Readonly: Yes

0 is only for special cases (e.g GCU).

**ReserveConnectorZeroSupported** If this configuration key is present and set to true: Charge Point support reservations on connector 0.

Default value: False

Type: boolean

Readonly: Yes

**ResetRetries** Number of times to retry an unsuccessful reset of the Charge Point.

Default value: 0

Type: integer

Reset required after change: Yes

The station does no automatic retries.

**SendLocalListMaxLength** Maximum number of identifications that can be send in a single Send-

LocalList.req.

Default value: 500

Type: integer

Readonly: Yes

**StopTransactionOnEVSideDisconnect** Stop the transaction if the cable is detached from the EV.

Default value: True

Type: boolean

Reset required after change: No

**StopTransactionOnInvalidId** Stop an on-going session if the backend responds that the tag used was not acceptable.

Default value: False

Type: boolean

Reset required after change: No

**StopTxnAlignedData** Clock-aligned periodic measurand(s) to be included in the TransactionData element of StopTransaction.req MeterValues.req PDU for every ClockAlignedDataInterval of the Transaction

Default value:

Type: CSL

Reset required after change: Yes

**StopTxnAlignedDataMaxLength** Maximum number of items in a StopTxAlignedData Configuration Key. StopTxAlignedData is not supported.

Default value: 0

Type: integer

Readonly: Yes

**StopTxnSampledData** Sampled measurands to be included in the TransactionData element of StopTransaction.req PDU, every MeterValueSampleInterval seconds from the start of the charging session.

Default value:

Type: CSL

Reset required after change: Yes

**StopTxnSampledDataMaxLength** Maximum number of items in a StopTxSampledData Configuration Key. StopTxSampledData is not supported.

Default value: 0

Type: integer

Readonly: Yes

**SupportedFeatureProfiles** A list of supported Feature Profiles. Possible profile identifiers: Core, FirmwareManagement, LocalAuthListManagement, Reservation, SmartCharging and RemoteTrigger.

Default value: Core, FirmwareManagement, LocalAuthListManagement, Reservation, SmartCharging, RemoteTrigger

Type: CSL

Readonly: Yes

**SupportedFileTransferProtocols** List of supported file transfer protocols.

Default value: FTP, FTPS, SFTP

Type: CSL

Readonly: Yes

**TransactionMessageAttempts** Number of attempts to send transaction related messages.

Default value: 9999

Type: integer

Reset required after change: No

Not implemented

**TransactionMessageRetryInterval** Delay between attempts to resend transaction related messages.

Default value: 300

Type: integer

Reset required after change: No

**UnlockConnectorOnEVSideDisconnect** Unlock the connector when the cable is detached from the EV.

Default value: 1

Type: boolean

Reset required after change: No

**WebSocketPingInterval** Ping-pong interval in seconds for the websocket

Default value: 30

Type: integer

Reset required after change: Yes

0 to disable. A value of 1-4 will be treated as a 5. Any other value is interpreted as the interval.

## 2 CTEK's own

**UtcOffset** Local time delta in minutes relative to UTC, used for setting a local time on products that have displays.

Default value: 0

Type: integer

Reset required after change: No

**AllowOfflineTxWithoutId** When true, set the Charging Station in open mode, ie not requiring an RFID tag, when the Charging Station is offline.

Default value: False

Type: boolean

Reset required after change: No

**chargeboxidentity** System identity.

Default value: ccu

Type: string

Reset required after change: Yes

Must be matched with backend system.

**endpoint** URL to the backend endpoint.

Default value: wss://www.oamportal.com/Ocpp/websocket

Type: string

Reset required after change: Yes

**CustomizationCtrlEnabled** List of enabled customization

Default value:

Value range: se.chargestorm.extendedauth,com.ctek.ngclientstatus

Type: CSL

Reset required after change: Yes

Activate an OCPP customization by adding to this list.

**CustomizationCtrlSupported** List of supported customization

Default value: se.chargestorm.extendedauth,se.chargestorm.ng.fileops

Type: CSL

Readonly: Yes

Get a list of supported customization by reading the key.

`com.ctek.ngclientstatus` lets the NANOGRID™ controller send updates when clients goes offline/online.

`se.chargestorm.extendedauth` controls the EVSE specific authentication support.

`se.chargestorm.ng.fileops` states that the CS supports installation, removal, and retrieval of the NANOGRID™ configuration file (does not need to be enabled).

`com.ctek.ng.fw` states that the CS (NANOGRID™ controller) supports installation of FW updates on connected clients.

**DelayedChargingRandomRange** Disable charging for a random time after a reset/restart. This key determines the range for the randomized timeout.

Default value: 30

Value range: 0 disables the delay. Otherwise, delay in seconds.

Type: integer

Reset required after change: Yes

**UnavailableOnInvalidTime** Prevent charging when system time is invalid.

Default value: False

Type: boolean

Reset required after change: Yes

**UnavailableWhenTxnStartNotPossible** When set to true, an EVSE will go to state Unavailable when it is detected that no conditions for being able to start a new charging session are met. NOTE: This parameter is overruled by **FaultedWhenTxnStartNotPossible**.

Default value: False

Type: boolean

Reset required after change: Yes

Conflicting parameters: Authmode=0, FaultedWhenTxnStartNotPossible=True, LocalAuthListEnabled=True, AuthorizationCacheEnabled=True, LocalAuthorizeOffline=True, AllowOfflineTxnForUnknownId=True

**FaultedWhenTxnStartNotPossible** When set to true, an EVSE will go to state Faulted when it is detected that no conditions for being able to start a new charging session are met. NOTE: This parameter overrules **UnavailableWhenTxnStartNotPossible**.

Default value: False

Type: boolean

Reset required after change: Yes

Conflicting parameters: Authmode=0, UnavailableWhenTxnStartNotPossible=True, LocalAuthListEnabled=True, AuthorizationCacheEnabled=True, LocalAuthorizeOffline=True, AllowOfflineTxnForUnknownId=True

**KeepGreenPlugLitWhenUnavailable** If this parameter is true, the green plug symbol for a connector is lit when the connector is in state Unavailable. If the parameter is false, all LED symbols for a connector is turned off when it is in state Unavailable.

Default value: False

Type: boolean

Reset required after change: Yes

**fuse** Maximum fuse current rating for the whole system.

Default value: 16

Value range: Typical values 16/20/25

Type: integer

Reset required after change: Yes

**PhaseRotation** Specifies how the station is electrically connected to the grid

Default value: RST

Type: enumeration

Reset required after change: Yes

A combination of one or more of R, S, T. R denotes L1, S L2, and T L3. x denotes a phase that is

not connected.

**localcontroller** Enable NanoGrid; Load Balancing.

Default value: 0

Value range: 0/1/2

Type: integer

Reset required after change: Yes

0=No NanoGrid, 1=Full NanoGrid, 2=Home NanoGrid

**IsLocalController** System is acting as a local controller

Default value: False

Type: boolean

Readonly: Yes

Indicates if the system is a local controller, either as a master unit or a dedicated grid controller (read-only).

**LicenseList** List of licensed options.

Default value:

Type: CSL

Readonly: Yes

Deprecated: licenses are no longer used

**localproxy** Local Proxy. This station will act as a proxy for other stations.

Default value: False

Type: boolean

Reset required after change: Yes

**modemtemperature** Send modem temperature over OCPP.

Default value: False

Type: boolean

Reset required after change: Yes

**adhoc/WebPaymentsEnabled** Enable the QR code.

Default value: False

Type: boolean

Reset required after change: No

**adhoc/WebPaymentsURLTemplate** Template for QR code, can include variables which are expanded during runtime

Default value:

Type: string

Reset required after change: No

Available variables: {chargingstationid}: see parameter WebPaymentsChargingStationId, {roamingevseid}: see parameters WebPaymentsRoamingEvseId(1/2), {totp}: Time-based one-time password, {evse}: unique per outlet, expands to 1/2

**adhoc/WebPaymentsRoamingEvseId1** Roaming EVSE Id to be used when URL is pointing to an external party.

Default value:

Type: string

Reset required after change: No

Used to replace the {roamingevseid} part in the WebPaymentsURLTemplate

**adhoc/WebPaymentsRoamingEvseId2** Roaming EVSE Id to be used when URL is pointing to an external party.

Default value:

Type: string

Reset required after change: No

Used to replace the {roamingevseid} part in the WebPaymentsURLTemplate

**adhoc/WebPaymentsChargingStationId** If absent, ChargeboxId will be used instead.

Default value:

Type: string

Reset required after change: No

Used to replace the {chargingstationid} part in the WebPaymentsURLTemplate

**adhoc/WebPaymentsValidityTime** How often TOTP calculation is performed

Default value: 30

Type: integer

Reset required after change: No

Time in seconds to show QR, e.g. 30

**adhoc/WebPaymentsSharedSecret** Pre-shared key for TOTP calculation

Default value:

Type: string

Reset required after change: No

16-128 bytes long hexadecimal PSK(pre-shared key).

**adhoc/WebPaymentsLength** Length of the TOTP

Default value: 8

Type: integer

Reset required after change: No

**adhoc/WebPaymentsQRCodeQuality** Quality of QR codes

Default value: High

Type: enumeration

Readonly: Yes

**adhoc/CustomDisplayCostAndPrice** Enables features from the OCPP & California Pricing Requirements whitepaper.

Default value: True

Type: boolean

Reset required after change: Yes

**adhoc/DefaultPrice** A stringified JSON structure. An empty string, or an empty DefaultPrice.priceText will result in no tariff being shown in idle mode.

Default value:

Type: string

Reset required after change: No

**adhoc/Currency** Currency used for tariff and cost information.

Default value:

Type: string

Reset required after change: Yes

CTEK custom configuration, a similar variable is in the TariffCostCtrlr in OCPP 2.0.1.

**signedMeterData/MeterPublicKey1** Configuration key that can be used to retrieve the public key for a meter connected to a specific connector

Default value:

Type: string

Readonly: Yes

**signedMeterData/MeterPublicKey2** Configuration key that can be used to retrieve the public key for a meter connected to a specific connector

Default value:

Type: string

Readonly: Yes

**signedMeterData/PublicKeyWithSignedMeterValue** Controls if/when the public key should be sent together with meter values

Default value: Never

Type: enumeration

Reset required after change: Yes

Never: i.e., would not be sent automatically with signed meter values - would require either manual reading of public key visible physically on EVSE, or requested from the configuration key, OncePerTransaction: sent as part of ending a transaction

**signedMeterData/SampledDataSignReadings** If set to true, the Charging Station SHALL include signed meter values in the StopTransaction.req to the CSMS for those measurands configured in StopTxnSampledData which can be signed by the certified meter, and optionally in additional messages, as configured by the configuration settings SampledDataSignStartedReadings (see 3.3.5) and SampledDataSignUpdatedReadings (see 3.3.6).

Default value: False

Type: boolean

Reset required after change: Yes

**platform/signedMeterData/SignedMeterCapable** Charger support handling signed meter data

Default value: False

Type: boolean

Reset required after change: Yes

**display/CustomMultiLanguageMessages** True when charging station supports multiple languages from the OCPP & California Pricing Requirements whitepaper.

Default value: True

Type: integer

Readonly: Yes

**display/SupportedLanguages** Comma separated list of supported language codes, per RFC5646.

Default value: sv, en, de

Type: CSL

Readonly: Yes

**display/Language** Default language for display

Default value: en

Value range: en/sv/de

Type: enumeration

Reset required after change: Yes

**display/SupportSite** Website for contacting support, shown when outlet is faulted, leave empty to omit

Default value:

Type: string

Reset required after change: No

**display/SupportText** Freeform text shown when outlet is faulted, leave empty to omit

Default value:

Type: string

Reset required after change: No

**display/ScreenSaverSlideDuration** how often to cycle to the next screensaver image in Seconds

Default value: 30

Type: integer

Reset required after change: No

**pin/StationPinCodeEnable** If pin code needs to be provided before authentication of charging

Default value: False

Type: boolean

Reset required after change: No

**pin/StationPinCodeAllowRemoteStart** Allow remoteStart without first authenticating using pin-Code if pinCode is enabled

Default value: True

Type: boolean

Reset required after change: No

**pin/StationPinCode** 4 number Pincode

Default value:

Type: string  
Reset required after change: No

**ConnectedNGCIdentity** Connected NanoGrid controller identity.

Default value: N/A  
Type: string  
Readonly: Yes

**ngcidentity** Charging station identity of the NanoGrid controller.

Default value:  
Type: string  
Reset required after change: Yes  
Leave empty for autodetection. Other values should rarely be used.

**NanoGridControllerSecurity** Setting for NanoGrid security.

Default value: none  
Value range: none/PSK  
Type: CSL  
Reset required after change: Yes  
Use PSK for pre-shared key or none for no security.

**NanoGridClientPresharedKey** Pre-shared key for NanoGrid security.

Default value:  
Type: string  
Reset required after change: Yes  
16-128 bytes long hexadecimal PSK(pre-shared key).

**nghome/meter\_current** Nanogrid Home modbus energy meter current on phases L1, L2 and L3.

Default value: N/A  
Type: string  
Readonly: Yes

**nghome/meter\_serialno** Nanogrid Home modbus energy meter serial

Default value: N/A  
Type: string  
Readonly: Yes  
Serial number of the nanogrid home energy meter

**nghome/meter\_totalenergy** Nanogrid Home modbus energy meter total energy

Default value: N/A  
Type: string  
Readonly: Yes  
Total energy value of the nanogrid home energy meter

**NGHomeMeterType** Type of energy meter used for NANOGRID Home.

Default value: modbus

Type: string  
Reset required after change: Yes  
Modbus energy meter or NANOGRID AIR.

**NtpServerUri** Uri to the selected ntp server.  
Default value: 0.chargestorm.pool.ntp.org  
Type: string  
Reset required after change: Yes

**onlinetimeout** Online Timeout (Minutes). How long to wait before rebooting due to no connectivity.  
Default value: 1440  
Type: integer  
Reset required after change: Yes  
Set to 0 to disable.

**availability** Charging enabled  
Default value: 0.Operative, 1.Operative, 2.Operative  
Type: CSL  
Readonly: Yes  
Should be changed through the ChangeAvailability.req.

**outlet/1/authmode** Authentication Mode for Charging.  
Default value: 0  
Type: integer  
Reset required after change: No  
Defines whether the charging outlet requires authentication. 0=No authentication required, 1=Authentications is required, for example an RFID tag or a remote start via OCPP

**outlet/1/contactor\_cycle\_count** Contactor Cycle Count for the first outlet  
Default value:  
Type: CSL  
Readonly: Yes  
Comma separated list containing two values, the first is the number of contactor cycles (shut->open) that has happened with no load (< 0.2A), the second value is with load.

**outlet/1/connections** Connections, phase connections  
Default value:  
Type: CSL  
Readonly: Yes  
Comma separated list describing the phase connections. 1,0,0 means phase 1 is connected on inlet 1. 1,2,3 means phase 1 is connected on inlet 1 etc. 3,0,0 means phase 3 is connected on inlet 1.  
Deprecated: This parameter is deprecated. Use PhaseRotation to specify how the station is connected to the grid.

**outlet/1/opentag** Open Tag; what tag to report when authmode is open.  
Default value: 0

Type: string  
Reset required after change: Yes

**outlet/1/fallback\_current** In NanoGrid installations, allowed charging current when the connection to the controller is lost.

Default value: 0  
Type: integer

**outlet/1/fallback\_output** In NanoGrid installations, which phase to use when the connection to the controller is lost.

Default value: 1  
Type: integer  
Reset required after change: Yes  
Only valid for phase switching stations. 0 - disabled, 1 - 3 phase, 2 - only L1, 3 - only L2, 4 - only L3.

**outlet/1/session\_energy\_limit** Upper limit for charging session, will stop charging once reached, first outlet

Default value: 0  
Type: integer  
Reset required after change: Yes  
Energy Limit (kWh), set to 0 to disable

**outlet/1/meter\_serialno** First modbus energy meter serial

Default value: N/A  
Type: string  
Readonly: Yes  
Serial number of the first outlet modbus energy meter

**outlet/1/meter\_totalenergy** First outlet modbus energy meter total energy

Default value: N/A  
Type: number  
Readonly: Yes  
Total energy value of the first outlet modbus energy meter

**outlet/1/allow\_charging\_on\_lock\_error** Allow/prohibit charging on lock errors, first outlet, only valid for CC2 chargers

Default value: False  
Type: boolean  
Reset required after change: Yes

**outlet/1/keep\_cable\_locked** Keep the cable locked between sessions.

Default value: False  
Type: boolean  
Reset required after change: Yes  
Only valid for stations without fixed cable.

**outlet/1/UserMinAssignment** Minimum current assignment for outlet 1 set by user

Default value:

Type: string

Reset required after change: Yes

**outlet/1/UserMaxAssignment** Maximum current assignment for outlet 1 set by user

Default value:

Type: string

Reset required after change: Yes

**outlet/2/authmode** Authentication Mode for Charging.

Default value: 0

Type: integer

Reset required after change: No

Defines whether the charging outlet requires authentication. 0=No authentication required, 1=Authentications is required, for example an RFID tag or a remote start via OCPP

**outlet/2/contactor\_cycle\_count** Contactor Cycle Count for the second outlet

Default value:

Type: CSL

Readonly: Yes

Comma separated list containing two values, the first is the number of contactor cycles (shut->open) that has happened with no load (< 0.2A), the second value is with load.

**outlet/2/connections** Connections, phase connections

Default value:

Type: CSL

Readonly: Yes

Comma separated list describing the phase connections. 1,0,0 means phase 1 is connected on inlet 2. 1,2,3 means phase 1 is connected on inlet 1 etc. 3,0,0 means phase 3 is connected on inlet 2.

Deprecated: This parameter is deprecated. Use PhaseRotation to specify how the station is connected to the grid.

**outlet/2/opentag** Open Tag; what tag to report when authmode is open.

Default value: 0

Type: string

Reset required after change: Yes

**outlet/2/fallback\_current** In NanoGrid installations, allowed charging current when the connection to the controller is lost.

Default value: 0

Type: integer

Reset required after change: Yes

**outlet/2/fallback\_output** In NanoGrid installations, which phase to use when the connection to the controller is lost.

Default value: 1

Type: integer

Reset required after change: Yes

Only valid for phase switching stations. 0 - disabled, 1 - 3 phase, 2 - only L1, 3 - only L2, 4 - only L3.

**outlet/2/session\_energy\_limit** Upper limit for charging session, will stop charging once reached, second outlet

Default value: 0

Type: integer

Reset required after change: Yes

Energy Limit (kWh), set to 0 to disable

**outlet/2/meter\_serialno** Second modbus energy meter serial

Default value: N/A

Type: string

Readonly: Yes

Serial number of the second outlet modbus energy meter

**outlet/2/meter\_totalenergy** Second outlet modbus energy meter total energy

Default value: N/A

Type: number

Readonly: Yes

Total energy value of the second outlet modbus energy meter

**outlet/2/allow\_charging\_on\_lock\_error** Allow/prohibit charging on lock errors, second outlet, only valid for CC2 chargers

Default value: False

Type: boolean

Reset required after change: Yes

**outlet/2/keep\_cable\_locked** Keep the cable locked between sessions.

Default value: False

Type: boolean

Reset required after change: Yes

Only valid for stations without fixed cable.

**outlet/2/UserMinAssignment** Minimum current assignment for outlet 2 set by user

Default value:

Type: string

Reset required after change: Yes

**outlet/2/UserMaxAssignment** Maximum current assignment for outlet 2 set by user

Default value:

Type: string

Reset required after change: Yes

**phasesequence** Report phase sequence. (Clockwise L1-L2-L3, counterclockwise L1-L3-L2)

Default value: N/A

Type: CSL

Readonly: Yes

This is only supported with a few energy meters.

**pingreboot/retries** Retries before lost connectivity is signaled.

Default value: 3

Type: integer

Reset required after change: Yes

Primarily of use for modem connected stations.

**pingreboot/server** Ping server. Used to verify connectivity.

Default value: 8.8.8.8

Type: string

Reset required after change: Yes

Primarily of use for modem connected stations.

**pingreboot/timeout** Number of minutes between ping attempts.

Default value: 15

Type: integer

Reset required after change: Yes

Primarily of use for modem connected stations.

**progtags** Programming tag

Default value:

Type: CSL

Reset required after change: Yes

Tag that can be used to put the station in programming mode, in order to add more local tags manually.

**protocol** Backend communication Protocol

Default value: NONE

Value range: NONE, OCPP16J, OCPP16

Type: CSL

Reset required after change: No

OCPP16 is an alias to OCPP16J, but please use OCPP16J.

**relayscheduler** Enable relay scheduler.

Default value: False

Type: boolean

Reset required after change: Yes

Do not enable unless requested.

**relay/1/starttime** Start time for relay 1

Default value: 0

Value range: hh:mm

Type: string  
Reset required after change: Yes  
Not used on most chargers.

**relay/1/stoptime** Stop time for relay 1  
Default value: 0  
Value range: hh:mm  
Type: string  
Reset required after change: Yes  
Not used on most chargers.

**relay/2/starttime** Start time for relay 2  
Default value: 0  
Value range: hh:mm  
Type: string  
Reset required after change: Yes  
Not used on most chargers.

**relay/2/stoptime** Stop time for relay 2  
Default value: 0  
Value range: hh:mm  
Type: string  
Reset required after change: Yes  
Not used on most chargers.

**resetresume** Resume on Reset. When rebooted, allow charging for a short period.  
Default value: True  
Type: boolean  
Reset required after change: Yes  
Ignored if zeready is enabled, will then always be used.

**resetresumetransactiontimeout** Resume transaction on reset timeout (s). When rebooted, start a new transaction with the previous credential, if the last saved update is within this timeout.  
Default value: 360  
Type: integer  
Reset required after change: Yes  
Requires either resetresume or zeready to be enabled.

**RfidEnabled** Should the RFID reader be enabled.  
Default value: True  
Type: boolean  
Reset required after change: No  
false - disable RFID reader, true - enable the reader. If enabled, the reader(s) will anyway be disabled if all EVSE's are in open state.

**Iso15118AutoChargeEnabled** Should autoCharge be enabled.  
Default value: False

Type: boolean

Reset required after change: No

false - disable AutoCharge, true - enable AutoCharge. If enabled, the functionality will anyway be disabled if all EVSE's are in open state.

**sshPort** Port for the SSH service interface.

Default value: 22

Value range: 1 - 65535. 0 disables SSH access.

Type: integer

Reset required after change: Yes

**systemnotifiertimeout** System Notification Timeout (seconds)

Default value: 0

Type: integer

Reset required after change: Yes

**TimeSource** List of selected time sources.

Default value: heartbeat, ntp

Value range: heartbeat, ntp

Type: CSL

Reset required after change: No

Only the first source is used continuously. There are only three supported configurations: 'heartbeat', 'heartbeat, ntp', and 'ntp'.

**TransmitSecurityEvents** Filter what security events are sent to the backend.

Default value: none

Value range: none/important/all

Type: enumeration

Reset required after change: Yes

none: No security events are sent to backend. important: The most critical events are sent to the backend. all: All security events are sent to the backend.

**ups** Do not charge when UPS xxxx

Default value: False

Type: boolean

Reset required after change: Yes

**meter\_connection\_timeout** External energy meter connection timeout.

Default value: 0

Type: integer

Reset required after change: Yes

If an external energy meter has not responded to requests for MeterConnectionTimeout seconds, it is assumed to be faulty. For NANOGRIID(TM) controllers, all outlets downstream of the meter are disabled. Setting this value to 0 disables the function, meaning loss of meter connection is ignored.

**pause\_on\_faulty\_energy\_meter** Disable charging if internal energy meter is faulty

Default value: False

Type: boolean

Readonly: Yes

An energy meter is considered faulty when it has not responded to requests for 20 seconds.

**zeready** Make the station ZE Ready compliant.

Default value: False

Type: boolean

Reset required after change: Yes

Check with ChargeStorm for implications.

**tampering\_enabled** Enable tampering detection.

Default value: False

Type: boolean

Reset required after change: Yes

Tampering events will be stored in the secure log and sent via OCPP SecurityEventNotification.

**max\_display\_brightness** Maximum display brightness. 0 - 7 (0 = off, 7 = max). Only for CC3 with display

Default value: 4

Value range: 0 - 7

Type: integer

Reset required after change: Yes

### 3 Automation

**Automation/MqttEnabled** Enable the automation interface (MQTT).

Default value: False

Type: boolean

Reset required after change: Yes

This will enable the automation interface. Currently, this will send energy meter readings, info, and EVSE status info to the MQTT broker

**Automation/MqttServer** The address / IP address of the MQTT broker.

Default value:

Type: string

Reset required after change: Yes

An empty string will use the internal MQTT broker on the Charging Station itself.

**Automation/MqttPort** The port number that the MQTT broker listens on.

Default value: 1883

Value range: 1 - 65535.

Type: integer

Reset required after change: Yes

Defaults to 1883.

**Automation/MqttLogin** A username / login for the MQTT broker.

Default value:

Type: string

Reset required after change: Yes

Leave empty if no username / login is required.

**Automation/MqttPassword** MQTT broker password

Default value:

Type: string

Reset required after change: Yes

Leave empty if no password is required.

**Automation/MqttBaseTopic** The base topic (prefix) that should be used.

Default value:

Type: string

Reset required after change: Yes

If left empty, CTEK, will be used as the base topic (prefix).

**Automation/ModbusTCPEnable** Enable Modbus TCP, which exposes internal energy meter data via the modbus protocol

Default value: False

Type: boolean

Reset required after change: Yes

Uses port 502. The Unit Identifier in the modbus request is used to select energy meter: 1: EVSE1 2: EVSE2

**Automation/modbus\_tcp\_automation\_api\_version** Set the API version of the ModbusTCP server that exposes internal energy meter data.

Default value: 1

Type: integer

Reset required after change: Yes

API version 1 uses modbus addresses 0x1000 -> 0x1008, 0x1100 -> 0x1108. Version 2 uses 0x2000 -> 0x2008, 0x2100 -> 0x2108. Version 2 can be enabled to not clash addresses with the NANOGRID limit control that also uses Modbus TCP.

**Automation/modbus\_tcp\_nanogrid\_control\_api\_version** Set the API version of the ModbusTCP server that allows external control of NANOGRID limit.

Default value: 1

Type: integer

Reset required after change: Yes

API version 1 uses modbus addresses 0x1000 -> 0x1003. Version 2 uses 0x3000 -> 0x3000. Version 2 can be enabled to not clash addresses with the 'Automation' ModbusTCP server.

**Automation/UpdateInterval** The update interval, in seconds, currently only used with MQTT.

Default value: 10

Type: integer

Reset required after change: Yes

Depending on the type of energy meter, you might either get identical meter data or the update frequency might be lower.

## 4 Network

### **gateway** Gateway

Default value:

Type: string

Reset required after change: Yes

### **nameserver** Nameserver 1

Default value: 8.8.8.8

Type: string

Reset required after change: Yes

### **nameserver2** Nameserver 2

Default value: 8.8.4.4

Type: string

Reset required after change: Yes

### **wan** Upstream network interface.

Default value: eth0

Value range: eth0/wlan0/modem

Type: enumeration

Reset required after change: Yes

Note: wwan0 is only supported from r2.7.7.6. Note2: ppp0 and wwan0 were replaced with modem starting from r4.5.0

### **interface/config/firewall/ssh** Enable ssh on configuration interface

Default value: False

Type: boolean

Reset required after change: Yes

### **interface/eth/firewall/ssh** Enable ssh on ethernet interface(s)

Default value: False

Type: boolean

Reset required after change: Yes

Only available for CC2 and CGC

### **interface/eth/firewall/webui** Enable web UI on ethernet interface(s)

Default value: False

Type: boolean

Reset required after change: Yes

### **interface/eth0/autoneg** Autonegotiation

Default value: True

Type: boolean

Reset required after change: Yes

Leave disabled unless requested.

**interface/eth0/duplex** Force duplex.

Default value: full

Type: enumeration

Reset required after change: Yes

Ignored if autoneg is enabled.

**interface/eth0/ip** Static IP Address used if DHCP is disabled

Default value:

Type: string

Reset required after change: Yes

**interface/eth0/method** eth0

Default value: dhcp

Value range: none/dhcp/manual

Type: enumeration

Reset required after change: Yes

**interface/eth0/netmask** Netmask

Default value:

Type: string

Reset required after change: Yes

**interface/eth0/speed** Force speed.

Default value: 100

Value range: 10/100

Type: integer

Reset required after change: Yes

Ignored if autoneg is enabled.

**interface/eth0/dhcpServer** Enable DHCP server on eth0.

Default value: False

Type: boolean

Reset required after change: Yes

The DHCP server will only be enabled if localproxy is enabled, WAN is set to modem, and eth0 has a static IP configuration.

**interface/eth0/dhcpServerRangeBegin** Start of the DHCP IP address range.

Default value:

Type: string

Reset required after change: Yes

The DHCP server will only be enabled if localproxy is enabled, WAN is set to modem, and eth0 has a static IP configuration.

**interface/eth0/dhcpServerRangeEnd** End of the DHCP IP address range.

Default value:

Type: string

Reset required after change: Yes

The DHCP server will only be enabled if localproxy is enabled, WAN is set to modem, and eth0 has a static IP configuration.

**HostName** This parameter allows the user to assign a custom name to their unit for easier identification and management.

Default value:

Type: string

Reset required after change: Yes

**interface/eth1/autoneg** Autonegotiation

Default value: True

Type: boolean

Reset required after change: Yes

Leave disabled unless requested.

**interface/eth1/duplex** Force duplex.

Default value: full

Value range: half/full

Type: enumeration

Reset required after change: Yes

Ignored if autoneg is enabled.

**interface/eth1/ip** Static IP Address used if DHCP is disabled

Default value:

Type: string

Reset required after change: Yes

**interface/eth1/method** Configuration method

Default value: dhcp

Value range: none/dhcp/manual

Type: enumeration

Reset required after change: Yes

**interface/eth1/netmask** Netmask

Default value:

Type: string

Reset required after change: Yes

**interface/eth1/speed** Force speed.

Default value: 100

Value range: 10/100

Type: integer

Reset required after change: Yes

Ignored if autoneg is enabled.

**interface/ppp0/firewall/ssh** Enable ssh on PPP interface

Default value: False

Type: boolean  
Reset required after change: Yes  
Only available for CC2 and CGC  
Deprecated: Replaced by interface/modem/firewall/ssh

**interface/ppp0/pin** PIN for the modem SIM card.

Default value:  
Type: string  
Reset required after change: Yes  
Deprecated: Replaced by interface/modem/pin

**interface/ppp0/apn** APN for the modem, primary for use with PPP.

Default value:  
Type: string  
Reset required after change: Yes  
Deprecated: Replaced by interface/modem/apn

**interface/ppp0/ip** IP Address

Default value:  
Type: string  
Reset required after change: Yes  
Usually empty.  
Deprecated: This parameter is no longer in use

**interface/ppp0/method** Use DHCP or not for the PPP link.

Default value: dhcp  
Value range: dhcp, manual  
Type: enumeration  
Reset required after change: Yes  
Do not modify unless instructed to do so.  
Deprecated: This parameter is no longer in use

**interface/ppp0/netmask** Netmask

Default value:  
Type: string  
Reset required after change: Yes  
Usually empty.  
Deprecated: This parameter is no longer in use

**interface/ppp0/password** Password

Default value:  
Type: string  
Reset required after change: Yes  
Usually empty.  
Deprecated: Replaced by interface/modem/apn/password

**interface/ppp0/rat** Selection for radio technology; force 2G / 4G / auto.

Default value: 3G

Value range: auto/2G/4G  
Type: enumeration  
Reset required after change: Yes  
Intended to be used with our LTE/4G modems.  
Should not be changed from 3G for the 3G modems!  
Deprecated: Replaced by interface/modem/apn/rat

**interface/ppp0/username** Username

Default value:  
Type: string  
Reset required after change: Yes  
Deprecated: Replaced by interface/modem/apn/username

**interface/modem/firewall/ssh** Enable ssh on modem interface

Default value: False  
Type: boolean  
Reset required after change: Yes  
Only available for CC2 and CGC

**interface/modem/firewall/webui** Enable web UI on modem interface

Default value: False  
Type: boolean  
Reset required after change: Yes

**interface/modem/pin** PIN for the modem SIM card.

Default value:  
Type: string  
Reset required after change: Yes

**interface/modem/apn** APN for the modem.

Default value:  
Type: string  
Reset required after change: Yes

**interface/modem/apn/username** Username

Default value:  
Type: string  
Reset required after change: Yes  
Usually empty.

**interface/modem/apn/password** Password

Default value:  
Type: string  
Reset required after change: Yes  
Usually empty.

**interface/modem/apn/rat** Selection for radio technology; force 2G / 3G / 4G.

Default value: auto

Value range: auto/2G/3G/4G

Type: enumeration

Reset required after change: Yes

**interface/wlan0/firewall/ssh** Enable ssh on WLAN interface

Default value: False

Type: boolean

Reset required after change: Yes

Only available for CC2 and CGC

**interface/wlan0/firewall/webui** Enable web UI on WLAN interface

Default value: False

Type: boolean

Reset required after change: Yes

**interface/wlan0/enable** Enable/Disable Wi-Fi interface.

Default value: false

Type: boolean

Reset required after change: Yes

**interface/wlan0/channel** Channel

Default value:

Type: integer

Reset required after change: Yes

**interface/wlan0/ip** Static IP Address used if DHCP is disabled

Default value:

Type: string

Reset required after change: Yes

**interface/wlan0/method** Configuration method

Default value: dhcp

Value range: none/dhcp/manual

Type: enumeration

Reset required after change: Yes

**interface/wlan0/mode** Mode

Default value: client

Value range: none/client/ap

Type: enumeration

Reset required after change: Yes

**interface/wlan0/netmask** Netmask

Default value:

Type: string  
Reset required after change: Yes

**interface/wlan0/passphrase** Passphrase

Default value:  
Type: string  
Reset required after change: Yes

**interface/wlan0/ssid** SSID

Default value:  
Type: string  
Reset required after change: Yes

**interface/wlan0/security** Wifi security

Default value:  
Type: string  
Reset required after change: Yes

**interface/wwan0/firewall/ssh** Enable ssh on WWAN interface

Default value: False  
Type: boolean  
Reset required after change: Yes  
Only available for CC2 and CGC  
Deprecated: Replaced by interface/modem/firewall/ssh

**interface/wwan0/apn** APN for wwan-mode

Default value:  
Type: string  
Reset required after change: Yes  
Has interface/ppp0/apn as fallback.  
Deprecated: Replaced by interface/modem/apn

**ModemFirmware** Currently running modem firmware.

Default value: N/A  
Type: string  
Readonly: Yes  
Currently running modem firmware (read-only).

## 5 Internal development and debugging

**persistentlogging** Enable system logging to flash.

Default value: False

Type: boolean

Reset required after change: Yes

Leave disabled unless requested.

**LogLevel** Log level of system log.

Default value: info

Value range: emerg/alert/crit/err/warning/notice/info/debug

Type: enumeration

Reset required after change: No

**demo** Demo mode activation

Default value: False

Type: boolean

Reset required after change: Yes

false=Regular operation, true=Demo mode. In demo mode a virtual board will be used that emits random mode changes and fuse states. Note that the regular configuration will still apply. E.g a disabled fuse check will remove the fuse trips and required authentication will prevent the station from entering any session state.

**development/delayed\_modbus** ???

Default value: False

Type: boolean

Reset required after change: Yes

Do not enable unless instructed.

## 6 HW

**platform/hwfeatures/EichrechtCertified** Charger is a certified eichrecht charger

Default value: False

Type: boolean

Reset required after change: Yes

**platform/hwfeatures/HasDisplay** Hardware is equipped with a display

Default value: False

Type: boolean

Reset required after change: Yes

**ChargingStationModel** Charging station model

Default value: N/A

Type: string

Readonly: Yes

The model name of the charging station

**ChargingStationModelVersion** Charging station model version

Default value: N/A

Type: string

Readonly: Yes

The model version of the charging station

**ChargingStationVendor** Charging station vendor

Default value: N/A

Type: string

Readonly: Yes

The vendor of the charging station

**FirmwareVersion** Firmware version

Default value: N/A

Type: string

Readonly: Yes

The current version of the firmware installed on the CCU

**hw\_rev** Hardware revision

Default value: N/A

Type: string

Readonly: Yes

The hardware revision of the CCU

**platform/hwfeatures/lcd** LCD presence

Default value: False

Type: boolean

Readonly: Yes

false=No LCD present, true=LCD present

**platform/hwfeatures/tampering** Tampering sensor presence

Default value: False

Type: boolean

Readonly: Yes

false=Tampering sensor not present, true=Tampering sensor present

**platform/hwfeatures/wifi** Wi-Fi capabilities present on device.

Default value: False

Type: boolean

Readonly: Yes

false=Device does not have Wi-Fi capabilities, true=Device has Wi-Fi capabilities.

**platform/hwfeatures/NetworkBridge** Capability to act as a wired network bridge

Default value: False

Type: boolean

Readonly: Yes

Two or more ports are required to utilize this functionality

**platform/hwfeatures/mcu\_version** Installed MCU Firmware Version

Default value: 2

Type: integer

Readonly: Yes

**platform/hwfeatures/rfid\_devices** Number of RFID devices

Default value: 0

Value range: 0/1/2

Type: integer

Readonly: Yes

**platform/hwfeatures/rfid\_type** RFID reader hardware

Default value: 0

Value range: 0/1/2

Type: integer

Readonly: Yes

0=RS485, 1=I2C based, 2 = Chargestorm Connected

**mfgdate** Manufacture date

Default value: N/A

Type: string

Readonly: Yes

String containing the year and date the CCU was manufactured

**platform/outlet/1/connector** First connector type

Default value: 2

Type: integer

Readonly: Yes  
0=Schuko, 1=Type 1, 2=Type 2 Cable, 3=Type 2 Outlet

**platform/outlet/1/contactor\_check** Check Contactor

Default value: False  
Type: boolean  
Readonly: Yes  
Check if the contactor is in the proper state (requires appropriate hardware)

**platform/outlet/1/ConnectorPhaseRotation** Specifies how the EVSE connector is electrically connected internally in the station. Relates to outlet/1/EvsePhaseRotation.

Default value: RST  
Type: enumeration  
Readonly: Yes  
A combination of one or more of R, S, T. R denotes L1, S L2, and T L3. x denotes a phase that is not connected.

**platform/outlet/1/EvsePhaseRotation** Specifies how the EVSE is electrically connected internally in the station. Relates to StationPhaseRotation.

Default value: RST  
Type: enumeration  
Readonly: Yes  
A combination of one or more of R, S, T. R denotes L1, S L2, and T L3. x denotes a phase that is not connected.

**platform/outlet/1/ACPhaseSwitchingSupported** Specifies whether the EVSE is capable of selecting which phase to connect to the EV for 1 phase charging.

Default value: False  
Type: boolean  
Readonly: Yes

**platform/outlet/1/energymeter** First energy meter type

Default value: -1  
Type: integer  
Readonly: Yes  
-1=None, 0=Trafo Meter, 1=Pulse Meter, 2=Modbus Meter

**platform/outlet/1/fuse** Fuse Rating

Default value: 16  
Type: integer  
Readonly: Yes  
Rating of the outlet fuse

**platform/outlet/1/fuse\_check** Check for fuse trip

Default value: True  
Type: boolean  
Readonly: Yes

Should the system detect if the fuse has been tripped? false=Disabled, true=Enabled

**platform/outlet/1/phases** Number of phases

Default value: 1  
Value range: 1/3  
Type: integer  
Readonly: Yes

**platform/outlet/1/plug\_lock\_engine** Lock engine type

Default value: 1  
Type: integer  
Readonly: Yes  
0=None, 1=Motor w/o feedback, 2=Motor with feedback, 3=Solenoid. NOTE: only applicable for type 2 outlets

**platform/outlet/1/energy\_div** Energy divider

Default value: 1000  
Type: integer  
Readonly: Yes  
Number of pulses to 1 kWh when using a pulse meter

**platform/outlet/1/plc\_capable** Is outlet capable of having a PLC modem

Default value: False  
Type: boolean  
Readonly: Yes

**platform/outlet/2/plc\_capable** Is outlet capable of having a PLC modem

Default value: False  
Type: boolean  
Readonly: Yes

**outlet/1/plc\_modem** Plc Modem is present on outlet

Default value: none  
Value range: none/insys/lumisil  
Type: enumeration  
Reset required after change: Yes  
none= no modem present, insys= insys modem present, lumisil= lumisil modem present

**outlet/2/plc\_modem** Plc Modem is present on outlet

Default value: none  
Value range: none/insys/lumisil  
Type: enumeration  
Reset required after change: Yes  
none= no modem present, insys= insys modem present, lumisil= lumisil modem present

**outlet/1/evse\_id** EVSEID as defined by ISO15118-2

Default value: ZZ000E1

Type: string

Reset required after change: Yes

EVSEID as defined by the ISO15118-2 standard, should only be changed if EVSE Operator has been issued a unique EVSE operator ID by the eMI3 group.

**outlet/2/evse\_id** EVSEID as defined by ISO15118-2

Default value: ZZ000E2

Type: string

Reset required after change: Yes

EVSEID as defined by the ISO15118-2 standard, should only be changed if EVSE Operator has been issued a unique EVSE operator ID by the eMI3 group.

**outlet/1/charge\_mode\_priority** The charge mode priority sets the order when trying to set up a charging session

Default value: only\_basic

Type: enumeration

Reset required after change: Yes

iso15118: try to set up ISO15118, fallback to basic charging. only\_basic: only use basic charging.

**outlet/2/charge\_mode\_priority** The charge mode priority sets the order when trying to set up a charging session

Default value: only\_basic

Type: enumeration

Reset required after change: Yes

iso15118: try to set up ISO15118, fallback to basic charging. only\_basic: only use basic charging.

**platform/outlet/2/connector** Second connector type

Default value: 2

Type: integer

Readonly: Yes

0=Schuko, 1=Type 1, 2=Type 2 Cable, 3=Type 2 Outlet

**platform/outlet/2/contactor\_check** Check Contactor

Default value: False

Type: boolean

Readonly: Yes

Check if the contactor is in the proper state (requires appropriate hardware)

**platform/outlet/2/ConnectorPhaseRotation** Specifies how the EVSE connector is electrically connected internally in the station. Relates to outlet/2/EvsePhaseRotation.

Default value: RST

Type: enumeration

Readonly: Yes

A combination of one or more of R, S, T. R denotes L1, S L2, and T L3. x denotes a phase that is not connected.

**platform/outlet/2/EvsePhaseRotation** Specifies how the EVSE Energy Meter is electrically connected internally in the station. Relates to StationPhaseRotation.

Default value: RST

Type: enumeration

Readonly: Yes

A combination of one or more of R, S, T. R denotes L1, S L2, and T L3. x denotes a phase that is not conn

**platform/outlet/2/ACPhaseSwitchingSupported** Specifies whether the EVSE is capable of selecting which phase to connect to the EV for 1 phase charging.

Default value: False

Type: boolean

Readonly: Yes

**platform/outlet/2/energymeter** Second energy meter type

Default value: -1

Type: integer

Readonly: Yes

-1=None, 0=Trafo Meter, 1=Pulse Meter, 2=Modbus Meter

**platform/outlet/2/fuse** Fuse Rating

Default value: 16

Type: integer

Readonly: Yes

Rating of the outlet fuse

**platform/outlet/2/fuse\_check** Check for fuse trip

Default value: True

Type: boolean

Readonly: Yes

Should the system detect if the fuse has been tripped? false=Disabled, true=Enabled

**platform/outlet/2/phases** Number of phases

Default value: 1

Value range: 1/3

Type: integer

Readonly: Yes

**platform/outlet/2/plug\_lock\_engine** Lock engine type

Default value: 1

Type: integer

Readonly: Yes

0=None, 1=Motor w/o feedback, 2=Motor with feedback, 3=Solenoid. NOTE: only applicable for type 2 outlets

**platform/outlet/2/energy\_div** Energy divider

Default value: 1000

Type: integer  
Readonly: Yes  
Number of pulses to 1 kWh when using a pulse meter

**platform/system/rfid\_format** RFID Format  
Default value: true  
Type: boolean  
Readonly: Yes  
true=Little Endian, false= Big Endian CONFIRM

**serialno** Serial number  
Default value: N/A  
Type: string  
Readonly: Yes  
Serial number of the CCU

**platform/system/ProductSerial** Product Serial number  
Default value:  
Type: string  
Readonly: Yes  
Serial number of the EVSE