CTEK
E-MOBILITY

CCU Release Notes

Revision: 606f8e

CTEK E-Mobility AB

2024-04-04

Contents

1 Notifications

- OCPP 1.5 support was removed in the r3.12 releases; r3.11 was the last version supporting OCPP 1.5.

- r3.11 and above can not be directly downgraded past r3.10.x or r3.9.x.

- r3.13.0 contains all fixes from 3.11.23 and 3.12.7.

2 Version: r3.19.2

Date of release 2024-04-03

What is fixed?

- Welded relay errors are now reported correctly in OCPP StatusNotifications.

3 Version: r3.19.1

Date of release 2024-03-27

What is fixed?

- Removed expired TLS root certificate.

4 Version: r3.19.0

Date of release 2024-02-14

What is fixed?

- NANOGRID™
    - Fixed scheduling of complex sites in EQUAL2 scheduler.

What is changed?

- OCPP 1.6:
    - The same idTag will be used for a new transaction directly after a Hard (reboot) Reset request.

- The NANOGRID™ license is now always available.

5 Version: r3.18.3

Date of release 2023-12-14

What is fixed?

- NANOGRID™
  - Ensure that NANOGRID™ clients do not incorrectly start charging sessions at startup, without interaction from the NANOGRID™ controller.

6 Version: r3.18.2

Date of release 2023-10-02

What is fixed?

- Fixed broken UPS function for CGC100.

- Fixed issue where overcurrent/penalty showed wrong charging state in logs and OCPP statusNotification.

- Fixed issue where a newly received TxDefaultProfile did not execute if start time already had passed.

- Fixed issue in WebUI where configuration fields got wrong edit rules. (introduced in in r3.18.1)

7 Version: r3.18.1

Date of release 2023-07-04

What is changed?

- Changed upstream fuse to an editable field instead of selector to allow higher fuse values.

- Rework of invalid session time to newer discard sessions.

- NANOGRID™ controller overwrites station fuse rating.

What is fixed?

- NANOGRID™
  - CGC500 stability fixes.
  - Fallback was not assigned directly after network loss.

– Equal2 with CGC100 / 500 will not start charging on chargers.

– Looping between SuspendedEVSE and Charging in NANOGRID™ Home.

8 Version: r3.18.0

Date of release 2023-04-24

What is new?

- New parameter "UnavailableWhenTxnStartNotPossible"

- New parameter "FaultedWhenTxnStartNotPossible"

- New parameter "KeepGreenPlugLitWhenUnavailable"

What is changed?

- OCU:
    – Optimization on OCU selftest to handle noncompliant EVs

- Renaming of cgc100 to better identify model.

- OCPP 1.6:
    – Fallback to non empty string for idTag (sets idTag to:Unknown)

9 Version: r3.17.0

Date of release 2023-03-17

What is new?

- New parameter "UnavailableOnInvalidTime": EVSE sets itself as unavailable if system time is not in sync and charger is offline.

- EVSE discards cached sessions with invalid timestamp on system startup.

- Time syncronization of cached sessions with invalid date on receiving correct system time.

What is fixed?

- CBC loop detection added for CC2 chargers.

10 Version: r3.16.0

Date of release 2023-03-03

What is new?

- New OCU release (0.1.14)

What is fixed?

- OCU:
    - Improvement on OCL self test.
    - Improvements to support IT-net.

11 Version: r3.15.0

Date of release 2023-02-10

What is new?

- Added NANOGRID™ scheduler Equal2, with improvements for large sites.

What is fixed?

- Modbus TCP reconnect issue.
- Improvements of how NANOGRID™ detects EV phase draw.

12 Version: r3.14.0

Date of release 2022-12-21

What is new?

- NANOGRID™
    - External Control of NanoGrid limit using ModbusTCP.

What is fixed?

- OCPP 1.6: Respond "not implemented" on GetCompositeSchedule requests.

13 Version: r3.13.0

Date of release 2022-12-01

What is new?

- NANOGRID™
  - Added prioritization support for schedulers EqualShare, SimpleFeedback

What is changed?

- NANOGRID™
  - Improved resource allocation for Schuko variants in SimpleFeedback scheduler.
  - EqualShare optimization for resource allocation for fully charged EVs.

What is fixed?

- NANOGRID™
  - fix for incorrect fallback assignment for offline stations.
  - Fix for CGC500 client update mechanism, causing clients not to be updated automatically.

14 Version: r3.12.0

Date of release 2020-05-15

What is new?

- Support for the new NANOGRID™ controller, CGC500.

- Documentation for error codes has been added to the release package.

- OCPP 1.5 has been removed.

- The upgrade file will only install if the protocol is set to `NONE` or to OCPP 1.6J.

- OCPP 1.6:
  - Working reservation support. A reserved EVSE indicates this by a pulsating green LED.
  - BootNotification.req will include a "v2" in the model name for Chargestorm Connected 2.
  - Added limitations for max stack level and max periods in a charging profile. Violations will result in a `CALLERROR`.
  - Added limitations for the size of the local list, as well as the number of tokens that can be sent in a single `SendLocalList`.
  - Add the key to inform the CSMS of the supported file transfer protocols.

- The timeout that invalidated an EVSE if an EV was connected but never authorized has been removed. See comment under "Fixed" for info on how the stations handles two EV's connected but not authorized.

What is changed?

- OCPP 1.6:
    - The Charging Station will only send Heartbeat.req's if there's been no other OCPP communication for a whole Heartbeat interval. However, there will be at least one Heartbeat.req every 24h.
    - Removed the measurand `Power.Offered`; this wasn't actually supported before.

- Web-configuration interface:
    - The log page has been removed; it wasn't working.
    - The status page will now list the model.

What is fixed?

- OCPP 1.6:
    - When using a modem, ensure that the ICCID and IMSI is read prior to sending a BootNotification.req. This might delay sending the boot notification by a short time.
    - Correctly handle `ChangeAvailability.req` again, including persting the state, handling an authorized EVSE becoming unavailable etc.
    - Correctly document NONE as the case for `protocol` for a non-connected station.

- Correctly report the supported extensions / customizations to OCPP.

- Improved the reliability of the data in the local database (i.e. local list and offline sessions).

- NANOGRID™: when not having contact with the NANOGRID™ controller., a Chargestorm Connected 2 could deliver power without any authentication.

- Correctly return the default value for a few read-only configuration keys.

- Ensure that NANOGRID™ Home stations are respecting an upstream limit in a charging profile with purpose `ChargingStationMaxProfile`.

- *All* Charging Stations will make sure that they're respecting the `fuse` configuration key, as that's intended to describe the fuse for the incoming cable. Thus, this is true for NANOGRID™ stations too.

15 Version: ccu_R3.11

Date of release 2020-04-03

What is new?

- All CTEK E-Mobility branded stations can be used for NANOGRID™ Home without an explicit license.

- All CTEK E-Mobility branded stations have an implicit LocalProxy license.

- Support for Chargestorm Connected 2.

- Add support for CTEK E-Mobility's LTE modem.

- New configuration keys, `xxPhaseRotation` and `CustomizationCtrl*`. These describes how the station is connected to the grid, how the phases are internally connected, and which OCPP extensions can be enabled.

- WebUI:
    - The web configuration interface has a simplified configuration view as the default view.
    - NANOGRID™ Home license is being shown.
    - Support uploading larger license.ini files in the web UI.

- Garo stations is once again supported.

- NANOGRID™ can now limit charging based on the sites power consumption in addition the current usage.

- Add more vendor specific error codes.

- Ensure that stations without the old `outlet/X/connections` configuration being set, can't be downgraded past r3.11. CGC100 is the exception.

What is changed?

- NANOGRID™
    - Schedulers are EqualShare, FIFO, and SimpleFeedback.
    - PhaseRotations is used instead of connections. Old ini files are still supported.
    - After a NANOGRID™ auto-update of the charging station FW, the station should only reboot once all connected EV's has bees disconnected.

- NANOGRID™ Home:
    - Better handling when one EV pauses charging.

- Local tag management has been disabled if the station has a configured backend protocol.

- Only use ZE Ready reset if ZE Ready has been enabled.

- Do not offer the EV any power, while the AC/DC fault sensor isn't ready.

- Allow a transaction to be started after another one has been stopped, without removing and re-inserting the cable.

- Increased the precision when reading the energy value from EM340 energy meters.

- Wait a short time when adjusting PWM before checking if the EV obeys or not.

- Return fail if the CSMS asks the station to unlock a cable locked with the configuration key "keep_cable_locked" set to true.

- Further improved the documentation of the configuration keys.

What is fixed?

- OCCP:
    - Fix potential issues with the start time for relative charging profiles, especially when set through the web interface.
    - Accept identical ChargingProfile purpose and stacklevel for different connectors.
    - Corrected an issue with the validation so measurands in meter values.
    - Fix the type and description for the "localcontroller" configuration key.
    - Report the whole FW version string in BootNotification.req.
    - Added DataTransfer.req to remove NanoGdrid configuration file.
    - Do not send keys that are marked as deprecated.
    - Add more missing configuration keys.
    - Detection and handlning of backend connectivity issues has been improved.
    - Correctly add IMSI and CCID to the BootNotification.req.
    - Send unavailable for the whole station when acting upon a Reset.req.
    - Further validation of configuration keys.

- A PPP connection shall now correctly set the nameservers coming from the PPP server.

- Try to ensure that all charging sessions should start with a correct energy meter reading as the meter start.

- Improved session start time for trafo- and pulse meters.

- Correctly show enabled/disabled features in the web UI.

- Correctly clear a high temperature alarm.

- A RemoteStart.req should only affect the EVSE that is specified in the request. The other EVSE could be authorized in certain circumstances.

- The stop time for two ongoing sessions should be more closely related after a power outage.

- When the EV user wants to stop a charging session, do not rely on the cache, but check ongoing sessions first, before asking the CSMS.

- Do not automatically start charging after power up, if `resetresume=0` and `AllowOfflineTxForUnknownId`

- Two EV's in state SuspendedEV will both get their full power allocation.

- NANOGRID™ Home should immediately pause if the house overloads the fuses with 20% or more.

16 Version: ccu_R3.10

Date of release 2019-12-10

What is new?

- CTEK branding in the web interface.

- Added CTEK E-Mobility as a vendor.

- NANOGRID™:

  - Identify 1-phase EV's on 3-phase EVSE's.

- Improve the generated parameter documentation. E.g. better type description and value ranges.

- Accept higher internal temperature before lowering the max allowed charging current.

- FW upgrades from OCPP (or NANOGRID™auto-update) will reboot the station if needed. The reboot is delayed until the station is idle.

- The auto change of protocol and endpoint for Charging stations connected *.oamportal.com is now written to the config file.

- NANOGRID™Home: accept overcurrent on the upstream meter for a short time. Should reduce the need to pause charging.

- Send alarm if no PP can be detected when charging.

- Added a setting for demo mode.

What is changed?

- Changed the limit to 200 offline sessions.

- Improved backend handling and connection handling.

- Migration from our old profile/default/* configuratino keys has been removed. Use ChargingProfiles to add current limits or time limits.

- Move from our custom OfflineAuthorizationBehavior to standard OCPP configuration keys for control of the (on/offline) authentication behaviour.

What is fixed?

- Reliability of Modbus meter communication has been increased.

- Rewrite start time for ongoing sessions when going online. This ensures a correct start time.

- Accept SAN's with wildcard sub-domains when validating certs.

- OCPP:
    - Fixed misspelling of MeterValueSampleInterval. This is handled upon FW upgrade.
    - Add support for AuthorizeRemoteTxRequests.
    - Correctly remove ChargingProfiles when requested.
    - Add working support for Current.Offered in measurands.
    - Fix for MeterValues.req sent without transactionId's.
    - Try to ensure valid meter reading in Start- and StopTransaction.req's.
    - Send chargePointSerialNumber as well as chargeBoxSerialNumber in BootNotification.req.
    - Validate measurands in meter values configuration.
    - Make more configuration keys accept changes without a reboot.
    - Don't update auth.cache if StopTransaction.conf lacks idTagInfo.
    - Websocket TCP timeout has been increased to 15s.
    - Fix bug with misspelled "recurrencyKind" in charging profiles.
    - Diagnostics packages now includes hours and minutes in the file name.
    - Use the 2nd tag in StopTransaction, when parentId is used to stop the transaction.
    - Make more configuration keys accept changes without a reboot.
    - Correctly send true/false instead of 1/0 for boolean configuration keys. Both values are accepted when receiving a ChangeConfiguration.req.

- – Correctly handle reject and pending in BootNotification.conf.
- – Ensure ordering af Authorize.req after a RemoteStarteTransaction.req.

- NANOGRID™:
  - – Don't count EV's not charging towards the limet (for certian schedulers).
  - – Fix autoupdate of the clients, if their FW version differs from the controller.

- CCU HW r3.x should work with NANOGRID™ again.