

CTM200-R2 Firmware Release Notes

Version 2.7.1.5659 11/16/2020

New

- SMS support for the Quectel EP06-A
- Preliminary support for Vistracs ELD system

Changes

- Installer page now checks for communication to CCM, not CTM Manager

Fixes

- Captive portal support
- pobde message number of parameters
- Unable to add p214 to pobdb report message
- Half bridge (modem mode)
- Patch for Bluetooth CCIRC Alert AL17-011

Version 2.7.0.5618 10/23/2019 -LIMITED ENGINEERING RELEASE

New

- Added support for Air Weigh on board scales <https://www.air-weigh.com/>

Version 2.7.0.5616 05/23/2019

New

- Added support for Quectel EP06 cellular module <https://www.quectel.com/product/EP06.htm>
- Added support for obtaining vehicle odometer values for some Ford and GM brands
- Added support for ESRI data payload (message 155)

Version 2.7.0.5612 03/04/2019

Changes

- Added labelling to differentiate STM vs USB CAN configuration
- cmd can prot enhanced to show detected protocols

- Added support for Genesis Telematics controller

Version 2.7.0.5602 03/04/2019

New

- Added support for reading Vehicle Odometer for Ford Transit (2009-2018) and Ford F150/250 (2006-2010)

Fixes

- Corrected formatting of NMEA custom message 139 (\$PLACCEL)

Version 2.7.0.5599

Fixes

- miscellaneous fixes to \$PCYP message payload definition

Version 2.7.0.5596

Fixes

- ID now uppercase for support for PGN65241

Version 2.7.0.5595

New

- Added cmd aux mode 10 for Marwis Road Weather Sensor
- Added support for Marwis Road Weather Sensor
<https://www.lufft.com/products/roadrunway-sensors-292/marwis-umb-mobile-advanced-road-weather-information-sensor2308/>

Fixes

- Fixes to swipe mode 12

Version 2.7.0.5587

New

- Added support for J1939 PGN 65241(0xFED9)
- Added support for swipe mode 12 to enable IButton single wire interface(maximintegrated) and saves \$RFID payload (used for sensing applications)
Note: requires STM v129/820 or higher
- Added support for Cypress IoT client

Fixes

- miscellaneous MODBUS fixes
- fixes to lat/lon and speed heading

Version 2.6.1.5553

New

- added client limitation to wifi access point configuration

Fixes

- Fixes to ULCP message protocol (ACK) sequence number mismatch
- general WiFi Client fixes

Version 2.6.1.5521

New

- Preliminary support for Microsoft Azure
- generalized engine hours aggregation to p214 to bring inline with other p21x aggregated values. p25 now only ECU reported hours for supported vehicles(J1939). This will prevent fluctuations in aggregated engine hour values caused by fluctuations in ECU value. p214 can never decrease unless reset to 0.
- Added new non automotive CAN protocol (gas sensor)
<http://www.mems.ch/memseenglish/index.ph>

Version 2.6.0.5515

New

- Added support for parsing 3rd party/external RFID card reader (swipe mode 5)

Version 2.6.0.5499

New

- Added support for cmd pulse coef (pulse counting) for water flow meters
- Added sysdb keys USR_STR_xx and USR_FLT_xx for custom script applications
- GPS now available in sysdb keys

Changes

- Captive portal now works on both eth0 and wlan0 interfaces with WiFi AP enabled
- eth0 will work on its own if WiFi AP is disabled when captive portal is enabled.
- when Captive Portal is enabled, then eth1 interface is only available for local device access, packet forwarding to internet is disabled on eth1 interface.
- LAN ports cannot be bridged (cmd lan bridge 1) when captive portal is enabled.

Fixes

- Fixes for default route monitoring based on cmd device priority setting (cell/wifi connectivity)
- Fixes converting string to unsigned integer
- cmd radio show fixed

Version 2.5.1.5455 02/01/2017

New

- Added handling authentication for force america 6100 spreaders (new command: cmd aux authkey).
- Added support for cell radio module provisioning (new commands: cmd radio xxx).
- Added LAN interface data parameters to system database.
- Added GPS scalar values GPS_VALID (int), GPS_LAT_DD, GPS_LON_DD, and GPS_ALT to the CTM-200 SNMP handler.
- Added new command 'cmd msg' to generate messages from command line.
- Added local MQTT broker (Mosquitto).
- Allow user-configurable email 'from' address with new command: cmd emailaddr <myaddr@host>. The default, and legacy from value, if not configured continues to be: <modem-id>@<cell ipv4 address>.
- Added named system database VEHDTC for storing DTC SPN, FMI, OC trouble codes.
- Added support to execute third-party scripts in /var/data/opt/thirdparty/scripts following a FW upgrade

Changes

- Default configuration (cmd factory) will now disable vueclient checkin (cmd vue service 0)
- Increase MAX_ODOMETER limit from 1,999,999 km to 4,250,000 km.
- improved logic for calculating fuel used.
- Set default max fuel tank value to 100L.
- OBD data moved to system database named db:VEHICLE.
- Updated SNMP Cypress MIB.
- Pulse count is now 32 bits long and carries over counts from before LPM.
- RFID/card-reader commands now in their own subgroup: cmd swipe xxx.
- Updated ftp server (vsftpd) from version v2.3.5 to v3.0.3 .

Fixes • Fix for ccm-client uploading a device config file that has not changed since last

upload.

- increase IPsec TCP window size from 4 to 16 for improved interoperability with Cisco ASA.
- added a patch for the DPD Vendor ID / Cisco ASA interoperability issue.
- fix for static routes not working for wwan0 (cellular) interface.
- User-defined dynamic hosts will now be initialized on cell interface for cases where wifi is disabled or wifi is in AP mode.
- Fixed obddata command.
- Fix for cmd gpspos (statically defined location [Lat/Lon?](#)).
- Fix for PAD Server mode not working.
- Fix for correct handling of peer IP addresses with PAD Circuit-switched modes.
- Fix for GarminPND: LINK_UP/DOWN ACK messages will not be forwarded to Garmin device.
- Fixed incorrect ordering of local/remote report types when configuring with 'cmd iorep'.
- Fix invalid GPS validity flag for PEVENT message.
- Fix for port forwarding rules to local LAN.
- Fixed return code parsing for file-based report delivery to CCM (Cypress Cloud Manager).
- Fix for when ENTER_LPM event is logged when entering low power mode (LPM).
- Fix for teppersist option not closing sessions as expected.

Version 2.4.0.5261 07/14/2016

New

- Support for Sierra Wireless MC7354 module on Sprint and Verizon networks.

- Added BeWhere support
- LAN NAT can now be enabled/disabled on the webui LAN configuration form.
- New command 'cmd sysdb get'. This command can be used to query any system database key/value pair.

Changes Fixes

- Fix for QMI-dialer buffer overflow (Verizon MC7750)
- Fix for Wi-fi AP MAC address allow list.
- Fix for event log CELL_ONLINE message missing SQI value.
- Fixed bug with report message types: PFUEL (140) and PFUELR (142).
- Fixed potential resource leak with long running ccm-client process.

Version 2.3.0.5172 04/07/2016

New

- added support for Sierra MC7455 cell module.
- added feature to use last known good GPS position on IGN ON (see cmd gpocache).
- added support to receive SMS messages from Jasper account.
- added device eth0 MAC address to output of 'cmd showstate'.
- added CAN bus error detection and logic to prevent CTM from resuming on the CAN bus when errors are detected (see cmd can errmax).
- device will automatically upload configuration to CCM if changed.
- added support for new generic report message PCYP.

Changes

- merged cmd gpsaccel with cmd accelcond.
- reworked CAN logic to be compatible with more vehicles.

Fixes

- fix for incomplete data in messages reported on or shortly after power-up.
- fix for MC7750 packet encapsulation issue.
- fix for UDP/TCP reporting queues to maintain sequential order for packet delivery.
- fix for SNMP sysObjectID
- fix for configuration of LAN gateway with command 'cmd langw'.
- fixed bug with SMS report forwarding
- fix for 19 digit ICCID string on Huawei modules
- fixed potential buffer overflow when adding to RFID card list.

Version 2.2.1.5018 12/07/2015

New

- New **ccm-client** application which communicates with Cypress Cloud Manager (CCM).
- New command set **cmd ccm-client**, for ccm-client configuration.
- Option to use server ACK for both TCP and UDP reporting.
- Supports reporting to [GpsGate](#) using TCP.
- New command **cmd wlan dhcp** for configuration of Wifi AP DHCP address range/netmask.
- New command **cmd resetdisable**, which can be used to disable the hard-reset

button. Changes

- cmd wifi watchdog** now includes ping test feature similar to network watchdog.

Fixes

- Fix for idle time reset.
- Fix for handling different country code formats in SMS messages.
- Fix for Sierra Wireless MC7354 module registration in CDMA mode.
- Sierra Wireless MC7354 module supports CDMA/EVDO/HDR networks.
- Telit LE910SVG module fix for registration detection.
- Added ICCID detection for Telit LE910SVG.
- Fix for some RFID triggered reports not including Modem ID.
- Prevent trailing DOS <CR><LF> characters on command line input.
- Web interface supports older browsers including IE8.

-

- Fix for Modbus Gateway Self-slave modes.
- Fix for **cmd langw**.
- Fix for DynDNS on non-Sierra Wireless modules.

Version 2.1.2.4795 06/25/2015

New

- Wifi Access Point now supports host MAC address accept/deny lists.
- Remote UDP and TCP reporting now supports a message ACK mechanism.

Changes

- Up to 40 dynamic hostnames (cmd dynhost) can now be configured (instead of 8).

Fixes

- Fix to reported WWAN Data RX count.
- Fix for Web UI displayed IPv4 address and Data [Tx/Tx?](#) values with Sierra MC7354 module.
- Fix to use dynamic hosts when there is no configured wifi client interface.
- Password length can be greater than 8 characters.

Version 2.1.1.4775 06/01/2015

New

- Web UI Dashboard Engine diagnostics will display source of Odometer value.

Changes Fixes

- Fix for error resetting EEPROM if originally uninitialized.
- Fix for binary messages causing pendant communication issues.
- Reduced syslog diagnostic messages related to MC7354 qmi-mux driver.
- Fix to Web UI to display available OBDII data from Dashboard | Engine section.
- Fix to Web UI Network Static Routes page.
- Fix to Web UI System Status page that displays Event Log and Syslog.
- Fix for **modbusidmap**, **modbusadd** and **modbusdel** commands.

Version 2.1.1.4758 04/30/2015

New

- Updated web interface with enhanced support for CTM Gateway status and configuration. The CTM Gateway can now be configured as a Wireless Hotspot with a Captive Portal environment, for routing of Cellular / Wifi Access Point data. Supports integration with Hotspotsystem, Colony Networks, and Wifi-Soft.
- Auto-configuration feature for integration with vehicle diagnostics bus: CAN/OBD/J1939
- Enhanced SNMP support for Network Management, including new Cypress-MIB.
- New dynamic host **dynhost** feature that supports a per-interface DNS host look for userdefined domains. For example, my.server.com resolves to IP address 1.2.3.4 when CTM Gateway is routing over the Cellular network, whereas my.server.com resolves to IP address 10.10.10.1 when CTM Gateway is routing over Wi-fi/Wired network. Refer to **cmd dynhost** for more details.
- includes OpenVPN, a SSL/TLS based user-space VPN.

Changes

- VPNC client can now configure remote server with either IP address or Domain name.
- Added ULCP header support for reporting over local serial port.
- For dual-mode Cell / Wifi Client configuration, with interface priority set to Cell, message reports will now be sent over wifi network if available, when the cellular network is unavailable.
- Custom firewall rules should now be placed in /var/data/firewall.custom - previous location was /var/config/firewall.custom

Fixes

- Fix for MC7354 module initialization issue.
- Fix for setting APN on E397B module on LTE network.
- Fix initialization sequence on Iridium satellite module.
- Fix reported Data Tx / Rx statistics for Huawei E3276 module.
- For dual-mode Cell / Wifi client configuration: fixed bug with restoring default route when device priority is set to cell.
- fixed bug with clearing SMS friends list.
- Fix for configuration of Garmin PND support using **cmd mode 17 / 18 / 19**.
- Fixes for message forwarding with **cmd sms fwdreport**

.

Version 2.0.5.4596 03/19/2015

Fixes

•

Fix for forward migration of CTM Gateway device configuration parameters related to certain GPS and Accelerometer configuration modes.

Version 2.0.5.4503 02/18/2015

New

- Enhance network watchdog **netwd** to support up to 3 ping targets.
- New **cmd can odometer 4**, Odometer calculated based on OBD speed
- New **cmd can odometer 3**, Odometer from OBD2/J1939 if available, otherwise calculated based on OBD speed
- New auxiliary controller configuration commands: **cmd aux lead2**, **leadlen**, **termLen**, **lead2len**.
- New command **aux authtimeout** for configuring auxiliary controller authentication timeout
- Auxiliary controller support: added support for Dickey John Flex4 controller.
- New command **aux checksum** for Dickey John Flex4 support.
- Support for pulse counting, new command **cmd pulse input 1-8**

Changes

- Geo-route condition check: allow for period interval of 1s.

Fixes

- Fix to command **cmd geort update** • Fix for Huawei E3276 APN initialization.
 - Fix \$GPRMC message GPS validity flag.
 - Fix for message reporting where first UDP message after network connection is not delivered.
-

Version 2.0.5.4413 12/15/2014

New

- Added **cmd accel history** command to allow sending 5s of historical GPS data when accel condition is triggered.
- Added **cmd accel sensor 2|3** for more accurate methods of acceleration detection.
- Added **cmd aux authtype 1** for authenticating with Dickey John Flex4 devices.
- Added **p43**, fuel cutoff request status and additional J1939 parameters.

-
- Added message 135, \$PACC.
Added J1939 based accelerometer.

Changes

- Accelerometer related commands have been moved to **cmd accel** subset of commands.
- iButton's LED should no longer be on when in low power mode.
- Modified 2nd parameter in **cmd aux polltim** to also configure timeouts for cmd mode 24

Fixes

Version 2.0.5.4382 11/27/2014

New Changes Fixes

- Fix for file-based report delivery script for detecting / handling delivery failures.
 - Fix for \$PCTM message contents
 - Fix for TCP reporting managing persistent TCP connections through WWAN network up - > down transition.
 - Fix for cellular PCTM RAT value (PNETD message was also affected) - applies to all radios.
 - Fix for web interface wifi AP configuration form.
 - Fix for SMS decoding: now accepts 8-bit data.
-

Version 2.0.5.4338 11/07/2014

New Changes Fixes

- Fix for failure to detect wifi client disconnect
-

Version 2.0.5.4332 11/04/2014

New

- CAN/OBD: Added support for parameters p500 to p508
- Auxiliary controllers: added support for Dickey John controller.

Changes

- Custom ULCP messages (i.e. starts with 0xFF in ULCP header) now uses the byte following the length byte as the MSB of length.
- Low-res odometer parameter (p23) used for Dodge vehicles if high-res not available.

Fixes

- Fixes for 'cmd smsfwdreport' and 'cmd msgredirect' (messages forwarded from LAN->WWAN).
-

Version 2.0.5.4278 10/02/2014

New Changes Fixes

- patch **bash** for CVE-2014-6271 (and CVE-2014-7169) vulnerability, also called as Shellshock.
 - Fix for rfswitch
-

Version 2.0.5.4196 08/27/2014

New

- Added **cmd vin** command set for support of VIN-based lookup services.
- Added **cmd access** command set for enhanced remote access configuration on a perinterface basis. Replaces commands: cmd sshport, cmd telnetport, cmd rmtssh, cmd rmttelnet, cmd rmtweb, cmd ftp remote
- Added **cmd net** command set, including new DNS configuration commands: cmd net dnsssource and cmd net staticdns. Replaces cmd usepeerdns.
- Support for second serial port: RS232 / RS485
- Added message 19, \$POUTD to report digital output states
new utility wifi command **cmd wifi client scan**
- File-based reporting now supports three file delivery mechanisms: SSH/SCP (the original), FTP, Web Services (CTM Manager)

Changes

- OBD/CAN: p15 will override any p48 values if p15 exist
- OBD/CAN: Use lower resolution odometer code on Dodge vehicles for broader support.

-
- Modified message 111's accel event flag and accel value to use triggering value if triggered by accelcond
- Web interface dashboard includes GPIO status, updated remote access configuration form.
- IPsec pre-shared key is now hidden on **cmd ipsec psk** query.
- **cmd showconfig** now displays configuration values organized by command category, use **cmd showconfig -alpha** for alphabetical display.
- cmd sshport, cmd telnet port, cmd rmt ssh, cmd rmttelnet, cmd rmtweb, cmd ftp remote replaced by **cmd access**
- cmd userpeerdns replaced by **cmd net**

Fixes

- Network watchdog now resets internal power cycle counter on successful ping test
- Made pingtest script flag all non 0 return codes as fail
- Fix for TCP streaming packet fragmentation issue across LAN interfaces
- Fix for setting **cmd can engparam**
- Fixed **cmd gpsinput** returning ERROR when being queried
- Fix to configuration of wifi Access Point for client authentication with external Radius server.
- Fix for **cmd pupreport** to support any general report number.
- Security fix for SSH Insecure HMAC algorithms: SSH server no longer allows MD5based HMAC algorithms, or any 96-bit HMAC algorithms.
- Security fixes for lighttpd web server potential vulnerabilities: CVE-2014-2323, CVE2014-2324, CVE-2013-4508, CVE-2013-4559, CVE-2013-4560, CVE-2012-553

Version 2.0.5.4088 05/07/2014

New

- added command **cmd autologin** to disable / enable user login on serial console
-
- added new ULCP message 111
- added support for LAN Broadcasting with netmasks other than 255.255.255.0 • added xmodem download support
- added support for legacy CTM200-R1 commands 'cmd rssilabel1, cmd rssilabel2'.
- new OBD reporting configuration command **cmd pobdx**

Changes

- Web interface now has automated browser session reconnect mechanism after a configuration Save.
- **cmd emailsrv** now supports either IP address or hostname.

Fixes

- fix for SNMP support
- fix false triggers for accelerometer
- fix for default baud rate configuration for CAN
- fix for Modbus sometimes becoming unresponsive
- fix for obdcond AND condition when checking unavailable parameters