



MOTOROLA SOLUTIONS

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MOTOTRBO® System Release Notes

Professional Commercial Radios (PCR) & Accessories

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MOTOTRBO May 2016 Software Release

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Overview

This section details the known MOTOTRBO product issues which remain outstanding at the time of this release of software to the field.

Known product issues are divided into two categories:

- Known issues contained within the current release
- Resolved Issues that have now been fixed within the current release

Definitions

A known issue is a problem that is currently unresolved (open).

A closed or resolved issue is one that has been repaired and no longer should occur in the product after upgrading to the new product version.

The risk and workaround aspects are included in the release note description (Known Issues) for overall assessment of the problem.

What’s new in the Release

Capacity Max

MOTOTRBO Capacity Max is Motorola’s next-generation DMR trunking solution. It is a Control Channel-based trunking system (infrastructure and subscriber) with both proprietary and standards-based (ETSI DMR Tier III) over the air signaling protocols. The single system Server hardware platform, the Capacity Max System Server (CMSS) is used to host the system-level Trunk Controller, System Advisor server, and the MNIS Voice & Radio Command (VRC) Gateway.

- The Trunk Controller handles system wide Resource Management, Call Control, Registration and Authentication.
- The System Advisor (client/server architecture) provides centralized system and fault management, including call monitoring functionality.
- The MNIS Data and VRC Gateways provide centralized voice and data gateway functionality to external applications, including the wireline control room solutions and the ADP interfaces. Both TRBOnet Plus and SmartPTT Plus applications are supported.

The feature set comparable with Capacity Plus/LCP and Connect Plus system - a summary of system functionality is shown here: (see the Capacity Max System Planner for complete details)

| | | |
|---------------------------------|----------------------------|-----------------|
| Group Call | Text Message (23 Char SMS) | |
| Individual Call w/ and w/o User | Registration | All Call |
| Acknowledgement | Roaming | Emergency Alarm |
| Group Broadcast Call | Queue Call | Emergency Call |

| | | |
|---------------------------|---------------------------------------|-----------------------------------|
| Dispatch Call | Critical Site Assignment | Enhanced Channel Access |
| Telephony Call | Radio and Talkgroup Site Restrictions | PSN-based Authentication |
| Packet Data | Subscriber Access Control | Data Revert |
| Text Message (Standard) | All Start | GNSS Location (w/High Efficiency) |
| Radio Check | CC Repeater Redundancy | Indoor Location |
| Radio Stun/Revive | Call Queue Priority (via SAC) | MOTOTRBO Text Messaging |
| Remote Monitor | | OTA Programming |
| Key-based Authentication | Discreet Listening | OTA Battery Management |
| Voice Interrupt | Remote Repeater Programming | Telemetry |
| Call Pre-emption | Wireline Application Interface | |
| Mass Registration | | Enhanced Registration |
| Late Entry | Talkgroup Scan | Enhanced Roaming |
| Talkgroup Affiliation | Dynamic Site Assignment | |
| Voice and Data Encryption | Site and Channel Extensibility | Adv. Late Entry |
| | Site Trunking | Call Alert |

The following MOTOTRBO repeaters and subscribers support Capacity Max:

NA Region

Repeaters:

- MTR 3000
- SLR 5700
- SLR 8000 (Hardware available Q3)
- XPR 8380
- XPR 8400

Subscribers:

Portables:

- SL 7550
- SL 7580
- SL 7590
- XPR 7350
- XPR 7380
- XPR 7550
- XPR 7550IS
- XPR 7580
- SL 7550e
- SL 7580e
- SL 7590e
- XPR 7350e
- XPR 7380e
- XPR 7550e
- XPR 7580e

Mobiles:

- XPR 5350
- XPR 5380
- XPR 5550
- XPR 5580
- XPR 5350e
- XPR 5380e
- XPR 5550e
- XPR 5580e

Indoor Location Tracking

The Indoor Location Tracking feature scope provides the ability for tracking a radio user inside of a building or indoor conditions. The use case is supported with the Beacon technology and Application Developer Partner tools – which accurately tracks the indoor location data points and applies it to mapping application software.

SLR 8000 Repeater Support (Hardware available Q3)

The SLR 8000 Base Station Repeater will be fully supported in the all system topologies. All features supported on XPR and MTR3000 series Repeaters will also be supported on the SLR 8000. The SLR 8000 will offer additional features, alarming and diagnostic capabilities, and higher specifications compared to the recently announced SLR 5000.

Radio Management 2.0

The Radio Management application is used to configure all MOTOTRBO system products including Trunking Controller, Repeaters, Mobiles and Portables. Radio Management can be installed on any computer, which meets the minimum hardware and software requirements, with a direct IP connection to the system. Radio Management consists of a four major components that can be installed on the same or different computers, as follows:

- Radio Management Client : Edits and Manages Configuration Data
- Radio Management Server : Storage of Configurations
- Radio Management Device Programmer : Programs All Managed Devices
- Radio Management Job Processor: Processes Scheduled Jobs

To help familiarize the user to Radio Management, it is strongly encouraged to leverage the following courses available through the Motorola Learning Management System (LMS - <http://learning.motorolasolutions.com>):

- PCT0089 - Selecting a Radio Management Application to Meet Your Business Needs
- PCT1026 - Radio Management 2.0 Template Mode
- PCT1032 - Radio Management 2.0 Configuration Mode

SLR 5000/8000 Real Time Clock and Time Stamp

The SLR 5000 will support configuration and maintain a clock and provide time stamp information for applicable alarms and events. The Real Time Clock will be supported on all MOTOTRBO systems.

SLR 8000 Digital Local Audio (Hardware available Q3)

The SLR 8000 will support the capabilities of allowing a user to playback a voice audio stream on a select channel. Digital Local Audio will be supported on all MOTOTRBO systems for playback and on Conventional mode only for transmit. Software License Required.

Domain Name Service Usage for Master Repeater

The MOTOTRBO Repeater platforms will support the user configuration capabilities using a Domain Name Service. This will be an alternative method to the configuring an IP address.

Wi-Fi Programming and Upgrade

This feature uses the Wi-Fi interface on the latest generation of radios to enhance Over-the-Air Programming. Users can now send large files to your radios – for example new radio firmware, voice announcement files and splash screen images.

Call Alert Enhancement

When receiving a Call Alert, the user can now choose to respond with a private call to the initiator or make a programmed default PTT call.

Per Channel Output

The output levels can now be configured on a per channel basis using MOTOTRBO Customer Programming Software (CPS).

Voice Announcement for General Purpose Input Output (GPIO) Trigger for Channel Steering

Manage voice announcements for mobile radios with channel steering.

Authenticated Radio Disable

This feature allows the radio to challenge the inhibit/uninhibit commands.

Transmit Inhibit

This feature allows the radio to behave similar to a device in “Airplane Mode” – turning off the transmission capabilities.

Incorrect Battery Alert Enhancement (for Intrinsically Safe Radios)

This feature allows the Hazardous Location approved radios to distinguish between FM and multiple UL approved batteries and alert users in case of a mismatch.

Radio Audio Improvements

This feature enhancement allows the following audio improvements:

1. Radio improvements to the audio processing found in the Paradise radio product line. As a result the audio will sound a little brighter and a little clearer to some users with this release.
2. A new language specific setting under the Audio Profile heading in CPS. This option applies specific audio processing for Dutch, Indonesian, Italian and Spanish.

Product Versions

Listed below are all MOTOTRBO Product types with a reference to the released version of software:

| MOTOTRBO Product | Version Supported in Release |
|---|--|
| Subscriber – MOTOTRBO 2.0, 2.5 (Enhanced, including SL Series) Subscriber – MOTOTRBO Light Subscriber – MOTOTRBO – XPR 4000/6000 | R02.60.03 R01.01.30 R01.12.17 |
| Repeater - XPR 8300/XPR8400 Repeater - MTR3000 Repeater - SLR5000, SLR8000 | R02.00.06.07 R02.00.06.07 R02.00.06.07 |
| Radio Management CPS | V2.0.43.0 CPS V13.00 Build 666 |
| Air Tracer | Version 9.0 Build 31 |
| Tuner | V13.0 Build 214 |
| RDAC | V7.0 Build 98 |
| Device Discovery Mobility Service (DDMS) | 3.40.5000 |
| Multi Channel Device Driver (MCDD) | 2.1.3 |
| MNIS Data Gateway | R02.60.5003 |
| MNIS VRC Gateway | R02.60.5003 |
| Capacity Max ESU | PCR-02.05.03.03-05 |
| Capacity Max Trunk Controller | R02.06.04 |
| System Advisor | EUEM-01.00.02.68 |
| <u>Application Development Program Documentation:</u> <ul style="list-style-type: none"> • MOTOTRBO Application Manual - MOTOTRBO Network Interface Service v0201 • MOTOTRBO Data Services Overview v0201 • MOTOTRBO Telemetry ADK Guide v0201 • MOTOTRBO Development Specification -Text Messaging Service v0201 • MOTOTRBO Text Messaging Guide v0201 • MOTOTRBO Location Request and Response Protocol Specification v0107 • MOTOTRBO Location Data ADK Guide v0112 • MOTOTRBO XCMP/XNL Development Guide v0119 • MOTOTRBO XCMP/XNL Development Specification v0222 • MOTOTRBO DEVELOPMENT SPECIFICATION – AIR TRAFFIC INFORMATION ACCESS v0100 • MOTOTRBO APPLICATION SERVICES & TOPOLOGIES OVERVIEW v0300 • MOTOTRBO Application Manual - Device Discovery & Mobility Service v0201 • MOTOTRBO DEVELOPMENT SPECIFICATION – CONTROL SIGNALING SERVICE FOR CAPACITY MAX v0100 • Fault Manager North Bound Interface (NBI) Developer's Guide R01.00.06.00 | |

| 3rd Party Applications | Version Supported in Release |
|--|------------------------------|
| GW3-TRBO | 3.2.12.27.0 |
| VP Gate | 4.1.8.2 |
| Avtec Scout | 4.1.7.14 |
| VPGate Advanced Radio Support w/Encryption | 4.1.7.5 |
| Smart PTT Plus | 9.0.0.23016 |
| TRBOnet Plus | 5.0.0.1018 |

1. ***If you are currently using Radio Management version 1.3 or earlier (the one released with CPS version 9.0), please make sure to uninstall RM Server before upgrading to this new version. Please note that the database will be upgraded automatically by this new version.

- **Important Note:** If you would like to use radios with firmware version R02.50.00 or later in Radio Management, you must also upgrade RM Device Programmer to the latest version 1.8 (included with CPS version 12.0).

Known Issues in Product Release

Radio Impact

Issue Number: CCMPD02058968

System/Product: Capacity Max/All Radio Models

Description: If two radios try to talk back to the same talkgroup call at the same time, the one radio will only get the Tx denied tone after 4 seconds instead of normal 1second.

Workarounds: None.

Issue Number: CCMPD02060763

System/Product: Capacity Max/All Radio Models

Description: The Radio can't show full alias when the radio fails in affiliation when the alias is too long for a single screen (scrolling does not occur).

Workarounds: None.

Issue Number: CCMPD02058713

System/Product: Capacity Max/All Radio Models

Description: Subscriber will sound Site Trunking Tone and screen will refresh from 'Site Trunking' screen to 'Registering' screen and then 'Site Trunking' screen every 30 seconds.

Workarounds: Recovery: The Site Trunking tone can be disabled by setting the codeplug field <CP: Site Trunking Tone Interval> to 0.

Issue Number: CCMPD02072873

System/Product: Conventional Digital, Capacity Max, IP Site Connect and Capacity Plus/All Radio Models

Description: Persistent LRRP Requests message data (use for Location Update) will be cleared when upgrading to release 2.6.0. The LRRP Location application must resend the LRRP Request message to the Radio to restore Persistent LRRP update service. Since, the LRRP application relies on Radio registration and subsequent LRRP update to determine whether it needs to resend the LRRP Request message to the Radio, the Radio LRRP update service may be delayed, worse case could be up to the max CPS configurable ARS Initialization Delay (i.e. 240 minutes). By default Persistent LRRP Requests is not enabled on the radio.

Workarounds: After upgrade to 2.6.0, resend location request from Location application to upgraded radios.

Issue Number: CCMPD02060763
System/Product: Capacity Max/All Radio Models
Description: If talkgroup affiliation fails, the screen may not display the entire message. A long Unified Key Pad (UKP) alias will scroll once and then get stuck. The expected behavior would be continuous autoscroll for long UKP alias.
Workarounds: None. Once successful registration occurs, which will bring the radio out from the talkgroup affiliation fail state, the screen scrolls normally.

Infrastructure Impact

Issue Number: CCMPD02056000
System/Product: Capacity Max/System Advisor
Description: When using multiple Custom Views in the Network Database, Properties may disappear from the wizard window that is used to create or modify custom view. Issue may be observed during the process of creation of multiple Custom Views in the Network Database or modification of existing Custom view.
Workarounds: The Properties are not shown in the wizard window until System Advisor Client is restarted.

Issue Number: CCMPD02071967
System/Product: Capacity Max/System Advisor
Description: Licensing failure after restoring System Advisor database.
Workarounds: Reference the following steps to restore:

1. *Download backup from ESU to local storage (ensure software that supports tar.gz compressor is available on the computer)*
2. *Open the backup file "backup_<hostname>_<date>" (the backup file is in the .tar.gz format, even if the name has not .tar.gz extension)*
3. *Navigate to: ./Backup_4.1.X_<date>.tar.gz/conf/ts ; and remove content of ts directory, i.e.: anchoring-0, storage-0, licenses*
4. *Save modified backup archive (ensure the name is the same as downloaded from ESU)*
5. *Upload the modified backup archive to ESU and perform restore.*

Issue Number: TFS00084456
System/Product: All/Radio Management
Description: Manual Site Roam and Site lock Voice Announcements are not supported in Capacity Max.
Workarounds: None.

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|----------------------|---|
| Issue Number: | TFSPD00077656 |
| System/Product: | All/Radio Management |
| Description: | When connecting a Job Processor to the RM server for the 1st time, the one-time password field is not always refreshed after connecting successfully. Sometimes, usually after several failed attempts at connecting with the one-time password, the Password field will not show "REGISTERED" after a successful connection. |
| Workarounds: | Exit the Job Processor and re-launch the Radio Management Server utility to refresh of password field. |
| Issue Number: | TFS00080301 |
| System/Product: | Capacity Max/Radio Management |
| Description: | An "Analyze" error occur when a Capacity Max Site Selection set is added before the Capacity Max System Set is created |
| Workarounds: | Remove the Site Selection set and add it back in after the Capacity Max System Set is added or simply create the Capacity Max System Set first. |
| Issue Number: | TFS00081977 |
| System/Product: | Capacity Max/Radio Management |
| Description: | Radio Management does not show the new version of Bootloader in the Radio View after a device upgrade that includes a Bootloader upgrade. |
| Workarounds: | None. |
| Issue Number: | TFS00080208 |
| System/Product: | Capacity Max/Radio Management |
| Description: | Radio Management allows the user to save a configuration with no channels defined or all channels removed. If the user tries to write this configuration to a radio, an analyze error will occur. |
| Workarounds: | Include at least one channel in the system. |
| Issue Number: | TFSPD00081483 |
| System/Product: | Capacity Max/Radio Management |
| Description: | When upgrading from a previous version of the Radio Management Server, the Radio Management licenses are not transferred. |
| Workarounds: | Recover the Application Licenses. (Use the Action Button to open the "Settings" window. Click the "Licenses" tab and then click "Recover" the "Application Licenses".) |

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|----------------------|--|
| Issue Number: | TFS00079935 |
| System/Product: | All (except Capacity Max)/CPS |
| Description: | In the standalone CPS, error #1089 occurs when attempting to program the new archive w/ DNS address configured to SLR5000 Series repeaters from the previous customer release. |
| Workarounds: | To recover, set the Master DNS Address and NTP DNS Address to “None” before programming the archive to SLR5000 repeaters from the previous customer release. |
| Issue Number: | TFS00080250 |
| System/Product: | All/Radio Management |
| Description: | Cannot delete all Voice Announcements and /or language packs via Wi-Fi Write Job. (no error prompts) |
| Workarounds: | To workaround, delete all the voice announcements and / or language packs via USB Write Job. |
| Issue Number: | TFS00080250 |
| System/Product: | All/Radio Management |
| Description: | When upgrading Belize CSA radio from R02.50.05, the value for "Digital Mic Gain" does not get reset to the default value. The value stays the same as it was before the upgrade. |
| Workarounds: | After the upgrade, reset the "Digital Mic Gain" to the new default value (3) or to the desired value. |

Resolved issues in product release

Resolved issues are the known product problems that were reported in products releases, but have now been fixed or closed.

| Defect ID | Release Introduced | Product | Headline |
|--------------------------------|--------------------|---------------|---|
| CCMPD02064189 | R2.2A | Repeater | Audio playback on receiving radio choppy (C3: 24490363) |
| CCMPD02057221 CCMPD02044291 | R2.3 | Repeater | Voting boundary condition failure and examination (C3: 24401862, C3: 24640887) |
| CCMPD02047482 | R2.5 | Subscriber | Received invalid returned values when retrieving modulation balance composite |
| CCMPD02047235 | R2.3 | Repeater | [Douglas County] Voting call setup failure |
| CCMPD02044248 | R2.5A | Documentation | MOTOTRBO CPS_ARS Monitoring ID_Help File Misleading and Incorrect |
| CCMPD02038261 | R2.4A | Subscriber | Connect Plus - Microphone stays muted when quick keyed in first 3 seconds of transmission |
| CCMPD02030319 | R1.6 | Subscriber | TI Channel Busy Indication |
| CCMPD02006923 | R2.4 | Repeater | Reading incorrect signal strength RSSI |
| CCMPD02006185 | R2.4A | Repeater | MTR3000 Voter Always Shows Poor SQE |
| CCMPD02057897 CCMPD02056003 | R2.2 | Repeater | LCP radios roam excessively/unusually when the user changes talkgroup (C3: 24690571) |
| CCMPD02056884 | R2.4A | Subscriber | MOTOTRBO SL4000 - Quick Text String Translation error. |
| CCMPD02056403 | R2.0 | Subscriber | Audio problems clarity |
| CCMPD02053105 | R2.5A | Subscriber | Radios have trouble accessing Capacity Plus system after upgrade |
| CCMPD02040124 CCMPD02037109 | R2.3 | Repeater | PCR_SLR5500 LCP site call drop (C3: 24576229) |
| CCMPD02039919 | R2.4A | Subscriber | Burst noise after dekey in Digital Channel on XPR 7000 |
| CCMPD02041627 | R2.1 | Subscriber | Radio shall not discard the BT SSP data if the length exceeds 200 bytes |
| CCMPD02037954 | R2.3 | Repeater | Repeater sent a wrong CSBK rsp to console application |
| CCMPD01942860 | R2.4 | Subscriber | SAT below spec for 4 scenarios |
| CCMPD02039089 | R2.4 | CPS | SL300 Cant encode MDC Call alert/Sel |
| CCMPD02034959 | R2.2B | Subscriber | LCP WA Confirmed Private Call Bonks After Keying Up Another WA Group Ca |
| CCMPD02009107 | SLR 5000 R1.0 | Repeater | Telnet Login Time Taking Longer on SLR 5000 Than all other MOTOTRBO Devices |
| CCMPD02000506 | R2.2A | Repeater | Repeater reset unexpectedly. |
| CCMPD01993885 | R2.4A | Subscriber | Emergency call is not interrupted by unconfirmed text message |
| CCMPD02038397 | R2.4B | Repeater | Repeater sending additional signaling message on downlink |
| CCMPD02048356 | R2.5 | CPS | CPS warning msg pop up when read SL 8000- LA region |
| CCMPD02045911 | R2.5 | CPS | CPS configuration related to Vibrating Belt Clip is visible for XPR 7000 ATEX & CSA |

| | | | |
|---------------|-------------------|------------|---|
| CCMPD02042894 | R2.0.5 | Subscriber | Intermittent no receive telegram in 5T signaling system User Define1 and User Define2 |
| CCMPD02042038 | R2.5 | Subscriber | WiFi Update file transfer is failing on radio power up |
| CCMPD02042116 | R2.5 | Subscriber | Accelerometer formula for test mode is wrong |
| CCMPD02042109 | R2.5 | Subscriber | SSP DSP measurement out of spec |
| CCMPD02042107 | R2.5 | Subscriber | XPR 2500 9.4-9.8s power up time |
| CCMPD02042114 | Connect Plus R1.6 | Subscriber | During roam or channel change initiating Emergency does not send audio |
| CCMPD02042108 | R2.5 | Subscriber | Radio screen stuck in "Connecting...Ap_Name" when AP shut down |
| CCMPD02041885 | R2.5 | Subscriber | BT audio has minor audio hole |
| CCMPD02041391 | R2.5 | Subscriber | XPR 2500 unable to auto reset after upgrade to TRBO2.5_FW_R02.50.01 |
| CCMPD02041134 | R2.5 | Subscriber | After port scan the radio is not able to establish connection with radio |
| CCMPD02035268 | R2.5 | Subscriber | WiFi BT co-existence: BT POD call drop during PTT/release PTT delay |
| CCMPD02035267 | R2.5 | Subscriber | WiFi BT co-existence: WiFi file transfer failure with iperf |
| CCMPD02034955 | R2.4 | Subscriber | Radio shows distorted screen intermittently when user press PB to access menu level |
| CCMPD02042896 | R2.4A | Subscriber | Voice call muted occasionally |
| CCMPD02030082 | R2.4A | Subscriber | Rekey on transmitting radio during emergency hot mic will not un-mute remote radio |
| CCMPD02029856 | R2.5 | Subscriber | SL Series Charging icon drop to red level when perform USB charging using 50% battery capacity |
| CCMPD02026513 | R2.2A | Subscriber | Radio does not display lowest possible Tx freq |