



**MOTOROLA SOLUTIONS**

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## **MOTOTRBO® System Release Notes**

### **Professional Commercial Radios (PCR) & Accessories**

Version: R2.6.3

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## **MOTOTRBO July 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 MOTOTRBO 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	R02.60.05 R01.01.30 R01.12.17
Repeater - XPR 8300/XPR8400 Repeater – MTR 3000 Repeater – SLR 5700	R02.06.00.07 R02.06.00.08 R02.06.00.08, Code-plug R03.00.24
Repeater – SLR 8000	R02.06.00.53
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"> <li>• MOTOTRBO Application Manual - MOTOTRBO Network Interface Service v0201</li> <li>• MOTOTRBO Data Services Overview v0201</li> <li>• MOTOTRBO Telemetry ADK Guide v0201</li> <li>• MOTOTRBO Development Specification -Text Messaging Service v0201</li> <li>• MOTOTRBO Text Messaging Guide v0201</li> <li>• MOTOTRBO Location Request and Response Protocol Specification v0107</li> <li>• MOTOTRBO Location Data ADK Guide v0112</li> <li>• MOTOTRBO XCMP/XNL Development Guide v0119</li> <li>• MOTOTRBO XCMP/XNL Development Specification v0222</li> <li>• MOTOTRBO DEVELOPMENT SPECIFICATION – AIR TRAFFIC INFORMATION ACCESS v0100</li> <li>• MOTOTRBO APPLICATION SERVICES &amp; TOPOLOGIES OVERVIEW v0300</li> <li>• MOTOTRBO Application Manual - Device Discovery &amp; Mobility Service v0201</li> <li>• MOTOTRBO DEVELOPMENT SPECIFICATION – CONTROL SIGNALING SERVICE FOR CAPACITY MAX v0100</li> <li>• Fault Manager North Bound Interface (NBI) Developer's Guide R01.00.06.00</li> </ul>	

**HIGHLIGHTED LINES INDICATE NEW SOFTWARE OR PRODUCT**

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.

**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.
<b>Issue Number:</b>	<b>TFS00080301</b>
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.
<b>Issue Number:</b>	<b>TFS00081977</b>
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.
<b>Issue Number:</b>	<b>TFS00080208</b>
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.
<b>Issue Number:</b>	<b>TFSPD00081483</b>
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". )

<b>Issue Number:</b>	<b>TFS00079935</b>
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.
<b>Issue Number:</b>	<b>TFS00080250</b>
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.
<b>Issue Number:</b>	<b>TFS00080250</b>
System/Product:	All/Radio Management
Description:	When upgrading XPR7500 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 XPR7500
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 XPR7500 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	Tahiti plus 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
CCMPD02077894	R2.6	Subscriber	MOTOTRBO™ 2.x Subscriber Units with R02.5 OR R02.6 Firmware May be assigned duplicate IP addresses while using Radio Management 2.0 (V2.0.43.0) via Wi-Fi.
CCMPD02079318	R2.6	Subscriber	Wifi IP address 0.0.0.0 at poor signal/boundary area
CCMPD02079991	R2.6	Subscriber	Tuning partition codeplug is not upgraded from R2.5 to R2.6 during device upgrade via Wi-Fi using Radio Management 2.0 (V2.0.43.0).
CCMPD02082765	R2.6	Repeater	C3: 24883539 SLR 5700 Repeater with 12 VDC battery is disabled after upgrade to R2.6.
CCMPD02082653	R2.6	Repeater	MTR3000 Factory test validation fix for antenna relay. No customer impact.
CCMPD02083811	R2.6	Repeater	C3: 24927913 When upgrading a SLR 5700 Repeater to R02.06.00.07, the RAS feature becomes disabled once the repeater is power cycled.
CCMPD02085825	R2.6	Repeater	C3: 24933870/24915511 When upgrading a SLR 5000 Repeater to R02.06.00.07, the battery charging functionality becomes disabled.

**Note:** This release resolved FSB 11077, FSB 11078 and FSB 11079. FSB's pending for SLR 5700 issues highlighted in yellow above.