



MOTOTRBO™ System Release Notes Professional Commercial Radios (PCR)

Version: M2023.01.01
August 31, 2023

North America Region

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What's new in the Release

Radio New Features

There are no new features introduced with this release.

The M2023.01.01 release addresses the following issues:

- the users may experience radio hang or reset issue under certain conditions after upgrading their specific radios firmware to M2023.01 release without updating the language pack first.
- XPR 5000e series radio users who configured the system or radio frequency to be more than 500MHz might encounter LMR connectivity issues.
- The most recent setting of MOTOTRBO R7 radio codeplug is not restored after Over The Air Programming via Wi-Fi.

See "Resolved Issues in Product Release" section.

Feature Deprecation Notice

1. Codeplug Password

Starting with the M2021.01 release, the **Codeplug Password** feature is deprecated for the selected radios and repeaters listed on the table below. However, the **Codeplug Password** feature remained active for the archived file Codeplug Password.

You are recommended to use the **TLS-PSK Authentication** feature for these radios and repeaters. The **Codeplug Password** functionality will not be removed to facilitate migration/transition to TLS-PSK but Motorola Solutions will no longer be providing support for the feature. This feature could be removed in a future release. The deprecation affects you if you are using **Codeplug Password** to set a password for the current radio or repeater codeplug.

TLS-PSK Authentication feature was introduced in the R2.10.05 software release and is available on the selected radios and repeaters listed in the following table. This feature ensures an enhanced security communication between radio or repeater and customer programming tools.

For more information, refer to [New Features for MOTOTRBO Release 2.10.5 training service](#).

Region	Radios		Repeaters
NA	XPR 7000/7000e series XPR 7000/7000e IS series XPR 5000/5000e series SL 7000/7000e series XPR 3000/3000e series	SL 3500e XPR 2500 R7 R2	SLR 1000 Series SLR 5700 Series SLR 8000 Series

2. Bluetooth Permanent Discoverable Mode

XPR 7000e and XPR 3000e radios manufactured after March 2022 do not have Bluetooth Permanent Discoverable support.

Product Versions

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

Notes: From M2020.01 onwards, only products (i.e. MOTOTRBO radios, repeaters and CMSS) which are either in warranty or under a service contract are entitled to software updates.

Software Update Management (SUM) was introduced with the R2.10 system release and provides products with built-in intelligence to determine if they are eligible to accept a software update. Products on prior releases must therefore be upgraded to an R2.10 system release and be eligible to accept a software update before they can be upgraded to M2020.01 onwards.

Canceled products that are still under a service contract at time of cancellation will be entitled to the software update in line with the Motorola Solutions Software Support Policy. Following cancellation, only critical bug fixes will be tested for these products.

MOTOTRBO Product	Version Supported in Release
MOTOTRBO 2.0 (excl SL Series) - XPR 7000e Series, XPR 3000e Series, XPR 5000e Series, R7, R2	R02.23.01.3001 (NEW)
MOTOTRBO - XPR 2500, SL 3500e Series, SL 7000e Series	R02.23.01.1002
MOTOTRBO - Commercial Devices - CP100d only	R01.23.01.0000
MOTOTRBO - XPR 4000/6000 Series	Canceled.
Option Board – MOTOTRBO 2.0 (incl SL Series)	Canceled.
Option Board – MOTOTRBO - XPR 4000/6000 series	Canceled.
Repeater - XPR 8380 / XPR 8400	R20.23.01.05
Repeater - MTR 3000	R20.23.01.05
Repeater - SLR 1000, SLR 5000, SLR 8000	R20.23.01.06
XRC 9000 / 9100 Controller	R02.100.05.1036_1695
XRT 9000 / 9100 Gateway	R02.100.05.1036_1695
XRI 9100 Interconnect	R02.100.05.1030
Network Manager (merged with XRC / XRI packages)	R02.100.05.1030
Network Manager Connection Tool	R02.100.05.1030
XRT Configuration Tool	R02.100.05.1030
CPCPS	Canceled.
CPS 2.0	2.138.176.0
Radio Management	2.138.176.0
RadioCentral Client	2.138.176.0
CPS	CPS V16.0 Build 828
Tuner	V23.1 Build 19
RDAC	V23.1 Build 10
AirTracer	V11.0 Build 39
Device Discovery and Mobility Service (DDMS)	R23.01.0003
Multi Channel Device Driver (MCDD)	Canceled

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MNIS Data Gateway	R23.01.0027
MNIS Status Agent	R22.03.01
MOTOTRBO Motopatch	Canceled
Capacity Max ESU Launchpad	DESU_LP-R17.18.10.56-01.rhel.iso
Capacity Max System Server Installer Software Image	CVN7293I.iso
System Design Tools	Version 06.08
Sensor Management Tool	R01.00.01

3rd Party Applications	Version Supported in Release
GW3-TRBO	2.17.3.73
Avtec VP Gate	5.3.0.41
Avtec Scout Console/Scout Manager	5.3.0.54
Avtec VPGate Advanced Radio Support w/Encryption	5.3.0.16
Avtec Data Management Services - Scout Central Distributor	5.3.0.20
SmartPTT PLUS	SmartPTT-PLUS-9.13.0.895.zip
TRBOnet PLUS	TRBOnet.Plus_6.2.0.7263.zip

ETSI DMR Specification	Version Supported in Release
TS 102 361-1: the DMR air interface protocol	v2.5.1
TS 102 361-2: the DMR voice and generic services and facilities	v2.4.1
TS 102 361-3: the DMR data protocol	v1.3.1
TS 102 361-4: the DMR trunking protocol	v1.7.1 ~ 1.11.1

1. The feature sets supported in the release are compliant with the versions of ETSI DMR standard specifications listed above. Though in DMR Tier 3 there have been some things changed to existing features that are not backwards compatible, Capacity Max complies to the newer versions so may not always work with other manufacturer's infrastructure on older versions.
2. The Capacity Max System Advisor (SA) client is not accessible for the System View, Grid View and Alarm Details view if the Java version 8u211 or newer is used on the PC where the SA client resides. Downgrading the Java to any version between and including 8u181 and 8u201 will work fine.
3. USB 3.0 port is not supported for the repeater upgrade. With R2.8.0 and newer repeater releases, the recommendation is to use a USB 2.0 port on the PC or connect the repeater via a USB 2.0 hub when upgrading the repeater via USB.
4. For each CMSS (Capacity Max System Server),
 - a. Order (1) T8911A, MOTOTRBO M2023.01 Capacity Max System Server SW Upgrade on USB flash drive.

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- b. Alternatively, for customers with access to the MSI MyView portal, you can order (1) T8912A, MOTOTRBO M2023.01 Capacity Max System Server SW Upgrade as software iso image where you will receive an e-mail with a unique link to access/download the iso file from the MyView portal. The T8912A will require an e-mail address at the time of order.
 - c. NOTICE: The USB drive (T8911A) can take 2-3 weeks for delivery while the downloadable file via the MyView portal (T8912A) is generally available within a week. Please plan ahead and take the delivery times into consideration before scheduling your upgrade.
5. For the PC used for CMSS upgrade,
 - a. Order (1) T8486A, MOTOTRBO Capacity Max System Server SW Update Launch Pad which contains the ESU LP software files on a DVD. (The M2023.01 upgrade requires this new ESU LP version).
 - b. Alternatively, for customers with access to the MSI MyView portal, you can order (1) T8483B, MOTOTRBO Capacity Max System Server SW Update Launch Pad where you will receive an e-mail with a unique link to access/download the ESU LP application files from the MyView portal. The T8483B will require an e-mail address at time of order.
 - c. Please refer to the section “Capacity Max System Upgrade from M2022.01 or M2022.03 to M2023.01” of Capacity Max System Release Upgrade Guide for additional details. It is available on Learning Experience Portal (LXP) and the Upgrade Guide applies for the patch upgrade as well.
 - d. NOTICE: The DVD (T8486A) can take 2-3 weeks for delivery while the downloadable file via the MyView portal (T8483B) is generally available within a week. Please plan ahead and take the delivery times into consideration before scheduling your upgrade
 - e. The ESU Launchpad About page describes the target CMSS versions that it supports to ensure the appropriate ESU Launchpad version is ordered along with the CMSS upgrade installation files.

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

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

Known Issues in Product Release

Radio Impact

Issue Number:	DEVICES_COMMON-7019
System/Products:	R7
Description:	Radio shows Wi-Fi 1 bar user when user turns off Wi-Fi or brings the radio away from the router in the middle of R7 activation/regionalization. After about 60s, the radio will show "Update Not Available", with continuous "Unprogrammed" tone, and blinking RED LED.
Workaround:	The user needs to power cycle the radio, and it will automatically resume the radio activation/regionalization process.

Resolved Issues in Product Release

Resolved issues are the known product problems that were reported in product releases, but have now been fixed or closed. Following are the issue tracking numbers and issue descriptions that have been resolved in this release.

Radio Impact

Issue Number:	PCR_SUB-41154 / INC000007221083
System/Product:	XPR 7000e Series & R7
Description:	Upon power-up, the radio does not receive any TMS (text message service) from the data application. Randomly, the radio does not respond with "Acknowledgement" to the Data Application (console application).
Issue Number:	PCR_SUB-43050 / PBI000000035215
System/Product:	XPR 5000e Series
Description:	Users who configured the system or radio frequency to be more than 500MHz might encounter LMR connectivity issues.
Issue Number:	PCR_SUB-43054
System/Product:	R7, XPR 7000e Series, XPR 3000e Series, XPR 5000e Series & R2
Description:	Users who upgraded their radio's firmware to M2023.01 version without updating the language pack will encounter a continuous reset issue. Refer to MTN-104-23 MOTOTRBO Radio Hang/Reset After Upgrade to M2023.01 .
Issue Number:	PCR_SUB-41962
System/Product:	R7
Description:	The most recent setting of the radio codeplug is not restored after Over The Air Programming via Wi-Fi.

Issue Number: DEVICES_COMMON-5955
System/Product: R7, XPR 7000e Series & XPR 300e Series
Description: Switching connection between radio and other Bluetooth PAN devices several times on a PC may cause the radio to not be able to connect back to the PC. An easy workaround on this: "Unpair and pair the radio with the PC for reconnection".

Issue Number: PCR_SUB-36742
System/Product: R7, XPR 7000e Series & XPR 300e Series
Description: In-door location feature has been turned on on the radio. If the user simultaneously Bluetooth PTT and performs actions such as BT connection, BT "Find Me" or BT "Find Device", the user would see that the suspended indoor location icon continues to display although the radio has resumed scanning the iBeacon.

Issue Number: DEVICES_COMMON-39351 / PCR_SUB-39351
System/Products: All MOTOTRBO Portables (Non-Display)
Description: The non-display radio is not able to make a group call after receiving Call Alert on "Private Call" disabled channel.

Cybersecurity

Motorola Solutions, Inc. (MSI) has delivered a PCR MOTOTRBO 2023.01 release. Motorola Solutions development and operations teams continually make security updates as needed based on evaluated threats, determine protective measures, create response capabilities, and promote compliance. Motorola Solutions interacts with and participates in several US and international security organizations, such as the U.S. Department of Homeland Security's National Cybersecurity & Communications Integration Center (NCCIC), National Institute of Standards and Technology (NIST), the 3rd Generation Partnership Project (3GPP), Telecommunications Industry Association (TIA), European Telecommunications Standards Institute (ETSI), Digital Mobile Radio (DMR) Security standardization and others. Standards from the aforementioned organizations can map to security controls in international standards such as Information System Standards (ISO / IEC 27001).

The PCR MOTOTRBO 2023.01 system release includes enhancements to security based on the National Vulnerability Database and industry standards:

- Ongoing vulnerability management remediation based on network scanning security tools
- Ongoing Software Lifecycle Management improvements (3rd party software)

In addition to ongoing releases for security updates, Motorola Solutions has a Bug Submission Program for external entities to disclose to Motorola Solutions possible security vulnerabilities or issues. Motorola Solutions encourages researchers to use the PGP key when sending sensitive information via email. Please send all security vulnerability reports to security@motorolasolutions.com.

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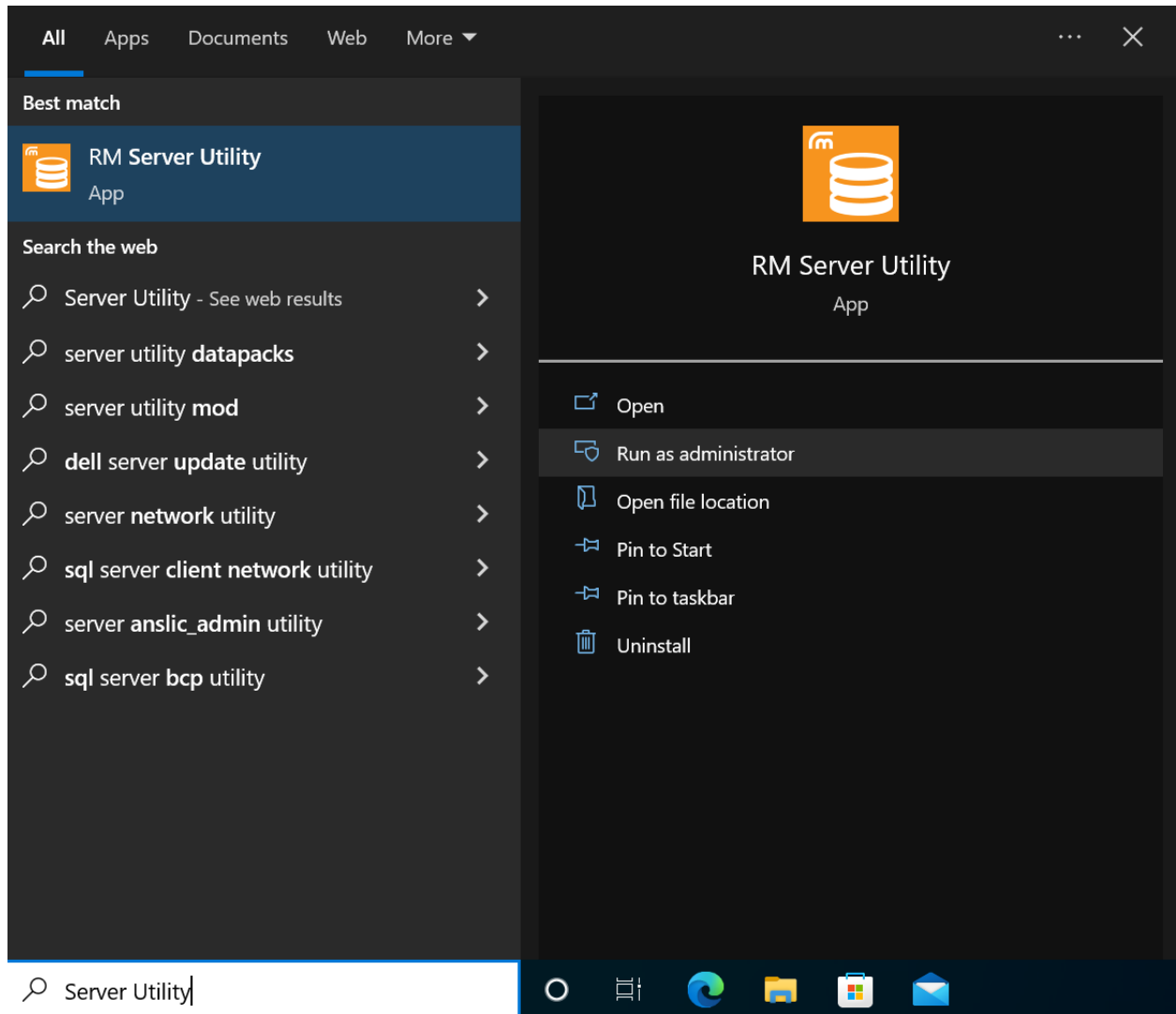
Important Note

RM Access Control Feature Note

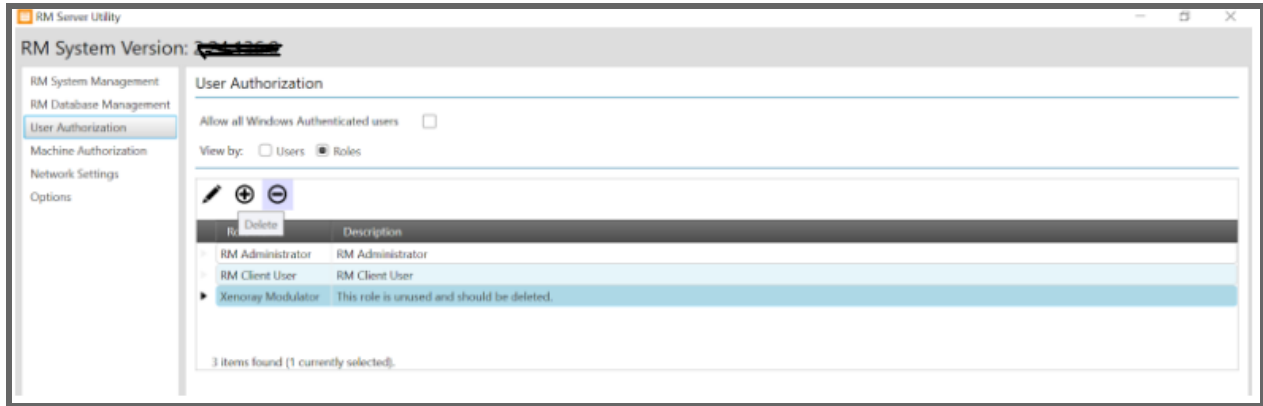
Important note for the customers who DO NOT need to use RM Access Control:

After upgrading an existing RM deployment to version 2.134.77.0 or later, there are some necessary steps to take to ensure normal operation, otherwise, users may not have access to the security keys and Radio View operations that they had prior to the upgrade.

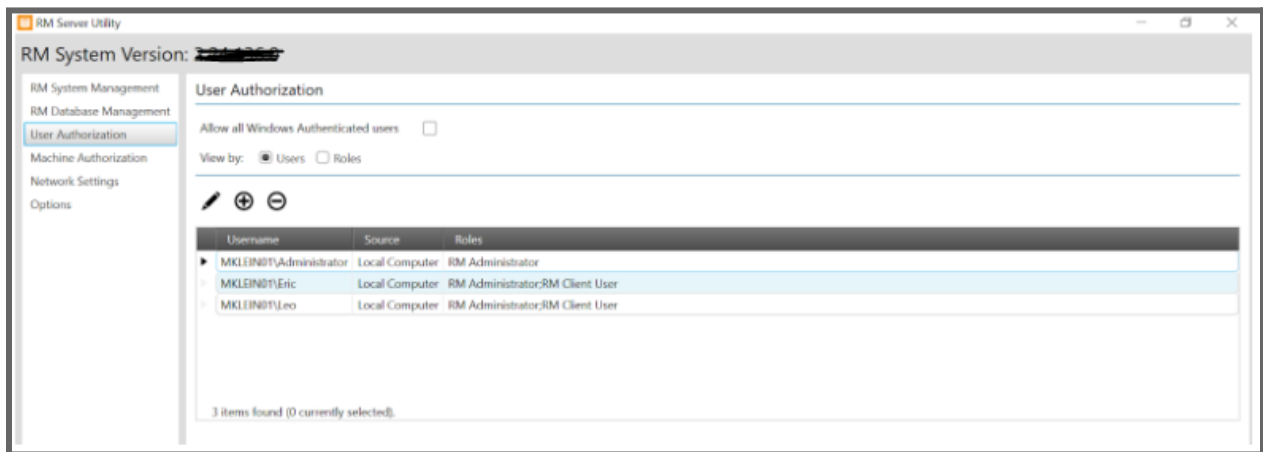
- 1) After performing the upgrade the user should open the RM Server Utility App on the machine that hosts the RM Server.



- 2) From the User Authorization tab, with the Roles radio button selected, delete any unnecessary roles that may have been created prior to the upgrade, leaving only the RM Administrator and RM Client User roles.



- 3) For users that do not wish to use the Access Control features at this time, select the Users radio button and ensure that each user that will be accessing RM remotely has both RM Administrator and RM Client User roles assigned to them.



- 4) This completes the necessary steps for users that do not wish to use the Access Control features. The RM Server Utility can be closed at this point. Users should be able to use the RM Configuration Client to connect to the RM Server and perform normal operations.

New Upgrade Package Zip Format

Starting from M2022.03, MSI will start to release the MOTOTRBO firmware upgrade package in zip format. Below are the instructions on how to install the firmware upgrade package.

1. Create a new folder of your choice in the C:\drive. We will use "Packages" as an example.
2. Download zip file to C:\Packages
3. Extract All

Name	Date modified	Type
 MOTOTRBO_2.0_R0222021000_222213_Portable_NA.zip	8/30/2022 11:09 AM	Compressed (zipp...
Open Open in new window Extract All... Select Left Folder for Compare		

4. Open Folder

Name	Date modified	Type	Size
 MOTOTRBO_2.0_R0222021000_222213_Portable_NA.zip	8/30/2022 11:09 AM	Compressed (zipp...	58,252 KB
 MOTOTRBO_2.0_R0222021000_222213_Portable_NA	10/11/2022 1:45 PM	File folder	

5. Run the Exe

 program files	10/11/2022 1:45 PM	File folder	
 0x0409.ini	10/1/2014 11:41 AM	Configuration sett...	22 KB
 MOTOTRBO 2.0 R0222021000_222213 Portable Update Packages.msi	8/30/2022 11:09 AM	Windows Installer ...	663 KB
 MOTOTRBO_2.0_R0222021000_222213_Portable_NA.exe	8/30/2022 11:09 AM	Application	1,269 KB
 Setup.ini	8/30/2022 11:09 AM	Configuration sett...	6 KB

6. To save space, the folder can be deleted after successful installation