MOTOROLA SOLUTIONS

MOTOTRBO® System Release Notes
Professional Commercial Radios (PCR) & Accessories

Version: M2022.03.01
February 8, 2023

North America Region

Contents

What's new in the Release

RM/CPS New Features

n/a

Radio New Features

n/a

Infrastructure/System New Features

Remote Repeater Programming Protection
Repeaters: **XPR 8380, XPR 8400 and MTR 3000**
Repeater configuration using Remote Repeater Programming (IP Programming) can be protected with TLS-PSK protocol based on customer password. The same functionality has already been available on SLR series of repeaters. This feature should be used to protect repeater configuration from unauthorized access.

SLR 5000 and SLR 8000 series repeaters
M2022.03.01 is a "Motorola Factory Only" Release for SLR 5700 and SLR 8000 repeaters. There are no new features introduced with this release. The firmware package is available for the recovery process if required.

Feature Deprecation Notice

Codeplug Password
Starting with the M2021.01 release, **Codeplug Password** feature is deprecated for the radio and repeater Codeplug Password for the selected radios and repeaters listed on the table below. However, **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 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 on 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 SL3500e XPR 2500 R7	SLR 1000 Series SLR 5700 Series SLR 8000 Series XPR 8380 Series XPR 8400 Series MTR 3000 Series

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 update.

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, 2.5 (incl SL Series) - XPR 7000/5000/3000 Series, XPR 7000e/5000e/3000e Series, SL 7000/7000e Series, XPR 2500, SL3500e	R02.22.03.1001
MOTOTRBO R7	R02.22.03.5000
MOTOTRBO - CP100d, CP200d, CM200d, CM300d, SL300	**R01.22.03.0000(NEW)**
MOTOTRBO- XPR 4000/6000 Series	Canceled
Repeater - XPR 8400 Repeater - MTR 3000 Repeater SLR 5000, SLR 8000 Repeater SLR 1000	**R20.22.03.06 (NEW)** **R20.22.03.06 (NEW)** **R20.22.03.07 (NEW)** R20.22.03.06
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

Capacity Max Bridge (CMB)	R20.22.03.04
CPCPS	Canceled.
CPS 2.0	2.134.76.0
Radio Management	2.134.77.0
RadioCentral Client	2.134.76.0
Tuner	V22.3 Build 17
RDAC	V22.3 Build 7
AirTracer	V11.0 Build 39
Device Discovery and Mobility Service (DDMS)	R22.03.0002
Multi Channel Device Driver (MCDD)	Canceled
MNIS Data Gateway	R22.03.0021
MNIS Status Agent	R22.03.01
MOTOTRBO Motopatch	Canceled
Capacity Max ESU Launchpad	DESU_LP-DESU-R17.18.10.20-03.rhel.is
Capacity Max System Server Installer Software Image	CVN7293H.img
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_9.12.0.1365.zip
TRBOnet PLUS	TRBOnet.Plus_6.1.0.5921.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**

SA client resides in. 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 release, the recommendation is to use USB 2.0 port on the PC or connect repeater via USB 2.0 hub when upgrading the repeater via USB.

4. For each CMSS (Capacity Max System Server),
    a. Order (1) T8878A, MOTOTRBO M2022.03 Capacity Max System Server SW Upgrade on USB flash drive.
    b. Alternatively, for customers with access to the MSI MyView portal, you can order (1) T8879A, MOTOTRBO M2022.03 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 T8879A will require an e-mail address at the time of order.
    c. NOTICE: The USB drive (T8878A) can take 2-3 weeks for delivery while the downloadable file via the MyView portal (T8879A) 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 M2022.03 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 to M2022.03" 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.
    f. NOTICE: Capacity Max Bridge, used as a connector between Capacity Max and Connect Plus, has been moved out from Cap Max Server unit to standalone PC. The upgrade package can be downloaded from the MyView and installed on the ESU Launchpad PC or dedicated PC.

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 description (Known Issues) for overall assessment of the problem.

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.

Known Issues in Product Release

Infrastructure Impact

n/a

Device Impact

Issue Number:	**DEVICES_COMMON-5955**
System/Product:	**MOTOTRBO R7, XPR 7000e and XPR 3000e**
Description:	Switching connection between radio and other Bluetooth PAN devices several times on a PC may cause the radio not able to connect to the PC back.
Workarounds:	Unpair and pair R7 with the PC for reconnection.

Issue Number:	**PCR_SUB-36742**
System/Product:	**MOTOTRBO R7, XPR 7000e and XPR 3000e**
Description:	In-door location feature has been turned on on the radio. If the user simultaneously Bluetooth PTT and performs one the following such as BT connection, or 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.
Workarounds:	To remove the incorrectly suspended indoor location icon; the user can either press PTT, or perform any of the following BT operations such as BT device connection, BT "Find Me", or BT "Find Device".

Issue Number:	**DEVICES_COMMON-7019**
System/Products:	**MOTOTRBO R7**
Description:	Radio shows Wi-Fi 1 bar user when user turns off Wi-Fi or brings away the radio 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 radio, and the radio will automatically resume the radio activation/regionalization process.

Issue Number:	**PCR_SUB-39351**
System/Products:	All MOTOTRBO radio(non-display only)
Description:	The non-display radio is not able to make group call after receiving Call Alert on radio channel that has been programmed as "Private Call Disabled".
Workaround:	The user needs to make sure that the call alert is disabled on a channel that has been programmed as "Privacy Call disabled".

CPS/RM Impact

n/a

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 number and issue descriptions that have been resolved in this release.

Device Impact

Issue Number:	**PCR_SUB-39209**
System/Products:	MOTOTRBO CP100d, CP200d, CM200d, CM300d, SL300
Description:	Radio that was configured with Impolite Tx capability was unable to initiate the voice call whenever the channel was busy or idle after a SFR repeater was added to the system.

Issue Number:	**PCR_SUB-37630**
System/Products:	MOTOTRBO CP100d, CP200d, CM200d, CM300d, SL300
Description:	The XCMP Versioning Info command to read "Host Software" was not working on the radio, and received an error code on reply "0x06 Security Locked".

Infrastructure Impact

n/a

CPS/RM Impact

n/a

Cybersecurity

Motorola Solutions, Inc. (MSI) has delivered a PCR MOTOTRBO 2022.03.01 release. MSI development and operations teams continually make security updates as needed based on evaluated threats, determine protective measures, create response capabilities, and promote compliance. MSI interacts with and participates in several US and international security organizations, such as 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 2022.03.01 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, MSI has a Bug Submission Program for external entities to disclose to MSI 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

New Upgrade Package Zip Format

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

1. Create a new folder "Packages" in the C:\ drive
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