MOTOROLA SOLUTIONS

MOTOTRBO™ System Release Notes
Professional Commercial Radios (PCR)

Version: M2025.01
January 27, 2025

Contents

What's new in the Release

RM/CPS new features

CPS 2.0 Codeplug Archive Protection
The User is able to protect codeplug archives with a password.
This new feature replaces the obsolete Codeplug Password feature that was depreciated in release M2021.01.

UI/UX Radio Management and Radio Central menu bar improvement
Users are able to navigate the RM and RC functionalities in a new and simplified way.

Radio new features

Hide/unhide audio settings in radio menu via RM/CPS
Audio settings such as Noise Suppressor, Microphone Gain (Mic Gain), Automatic Gain Control (Mic AGC), Receive Audio Leveling (RAL, RX Audio Leveling) and Trill Enhancement can now be shown or hidden from the radio menu.

Region	Radios
NA	MOTOTRBO R7 Full Keypad display radios, MOTOTRBO R5 Limited Keypad models

Update to Action List in MOTOTRBO R7
Action List is a configurable method for quick access to the most frequently used features.

Region	Radios
NA	MOTOTRBO R7 Full Keypad display radios

Infrastructure/System new features

CMSS log collection enhancement
When troubleshooting a potential issue, Users can now collect all of their CMSS application logs in the same place rather than accessing them individually. The logs can be sent to Motorola Solutions technical support for analysis to find the root cause of the reported issue. For security and confidentiality reasons, such logs do not include any customer sensitive information.

Call monitoring with 20,000 active Users for Capacity Max

For Capacity Max systems with up to 750 sites, call monitoring functions have been expanded from 13,000 Users to 20,000 Users.

HPE Networking Solution for Capacity Max with up to 750 sites

HPE network equipment (with OS versions listed below in these release notes) has been tested for deployment on large systems with up to 750 sites. A system with 750 RF sites will need to be divided into IP network regions with a maximum of 250 RF sites each. The HPE MSR3016 is the dedicated hub site router for each region, with the ability to handle traffic in systems with up to 250 RF sites. The HPE MSR2003 and MSR2003x can be used as spoke site routers for the other sites. Customers can choose between Juniper and HPE equipment, but mixing equipment from different suppliers is not supported for a single region.

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
Subscriber – MOTOTRBO Paradise 2.0, 2.5, SL Series - XPR 7000e Series, XPR 5000e Series, XPR 3000e Series, SL 7000e Series, XPR 2500, SL3500e, MOTOTRBO R7, MOTOTRBO R5, MOTOTRBO R2	R02.25.01.1002 (NEW)
Option Board – MOTOTRBO 2.0 (incl SL Series) - Paradise Option Board – MOTOTRBO - XPR 4000/6000 series	Canceled. Canceled.
Repeater - XPR 8380 / XPR 8400 Repeater - MTR 3000 Repeater - SLR 1000, SLR 5000, SLR 8000	R20.24.01.03 R20.24.01.03 R20.25.01.10 (NEW)*
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.
Paradise MPT1327 GOB CPS (not supported on MOTOTRBO R7 series)	R02.00.05
CPS 2.0	2.153.167.0 (NEW)
Radio Management	2.153.167.0 (NEW)
RadioCentral Client	2.153.167.0 (NEW)
Tuner	V25.1 Build 8 (NEW)
RDAC	V25.1 Build 5 (NEW)
AirTracer	V11.0 Build 39
Device Discovery and Mobility Service (DDMS)	R25.01.0003 (NEW)*
Multi Channel Device Driver (MCDD)	Canceled
MNIS Data Gateway	R25.01.0018 (NEW)*
MNIS Status Agent	R22.03.01
MOTOTRBO Motopatch	Canceled

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MOTOTRBO Product	Version Supported in Release
Capacity Max ESU Launchpad	DESU_LP-R17.18.10.56-02.rhel.iso
Capacity Max System Server Installer Software Image	CMSS-M2025.01.00-release-25.01.03.1735920173-b280dab.iso (NEW)*
MNIS Voice and Radio Command (VRC) Gateway	PCR-MNIS_25.01.00.00-14 (NEW)*
Capacity Max ESU	ESU-PCR_25.01.28.00-66 (NEW)*
Capacity Max Trunk Controller	cmxtc-pcr_20.25.01.00-50 (NEW)*
Capacity Max System Advisor	UEM-PCR_25.01.00.63-00 (NEW)*
System Design Tools	Version 06.08
Sensor Management Tool	R01.00.01

* This version will become available after February 6, 2025

3rd Party Applications	Version Supported in Release
GW3-TRBO	2.17.3.73
Avtec VP Gate	5.8.0.4
Avtec Scout Console/Scout Manager	5.8.0.4
Avtec VPGate Advanced Radio Support w/Encryption	5.8.0.2
Avtec Data Management Services - Scout Central Distributor	5.8.0.21
SmartPTT PLUS	SmartPTT-PLUS-9.14.100.512 (NEW)*
TRBOnet PLUS	TRBOnet.Plus_6.2.3.7500 (NEW)*
ConSEL PLUS	ConSEL PLUS v7r102 (NEW)*

* This version will become available after February 6, 2025

3rd Party Network Equipment	Version Supported in Release
Juniper JUNOS for EX2300 switches	21.4R3-S3.4
Juniper JUNOS for SRX3xx routers	21.4R3-S3.4
Juniper JUNOS for SRX1500 routers	21.4R3-S4.9
HPE ArubaOS for Aruba-6000 switches	CX.6000.10.13.1000
HPE OS for MSR2003X routers	MSR2000X_9.10.E9141L11
HPE OS for MSR30x6 routers	MSR30X6_7.10.R6728P27

ETSI DMR Specification	Version Supported in Release
TS 102 361-1: the DMR air interface protocol	v2.6.1
TS 102 361-2: the DMR voice and generic services and facilities	v2.5.1
TS 102 361-3: the DMR data protocol	v1.3.1
TS 102 361-4: the DMR trunking protocol	v1.7.1 ~ 1.12.1

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. Starting from M2024.01 fault management of CX6000-24G, ARUBA-2530-24, MSR2003, MSR2003X and MSR3016 was added to the System Advisor. To use it, SNMP shall be enabled in those network equipment configurations. For details please refer to Chapter 8 "Configuration Description for HPE infrastructure" in MOTOTRBO™ CAPACITY MAX Installation and Configuration manual. After enabling SNMP on network equipment, devices should be rediscovered in System Advisor using the context menu on System View or Network Database view. For details please refer to the System Advisor manual. Equipment without SNMP enabled will show up as Gray in System Advisor

4. With R2.8.0 and newer repeater releases, it is recommended to use USB 2.0 or USB 3.0 ports on the PC or connect repeater via USB 2.0 hub when upgrading the repeater via USB.

5. For CMSS (Capacity Max System Server),
   a. Access to the MSI MyView portal to download MOTOTRBO M2025.01 Capacity Max System Server SW Upgrade as software iso image.

6. For the PC used for CMSS upgrade only from M2022.03 to M2025.01 (note: upgrading from M2023.01, M2024.01, M2024.01.01, and M2024.02 to M2025.01 does not require ESU-LP)
   a. If ESU-LP is required, order (1) T8486A, MOTOTRBO Capacity Max System Server SW Update Launch Pad which contains the ESU LP software files on a DVD.
   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 M2022.03, M2023.01, M2024.01, M2024.01.01 or M2024.02 to M2025.01" of Capacity Max System Release Upgrade Guide for additional details. It is available on the Learning Experience Portal (LXP).
   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

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

Device Impact

No known issues in this release.

CPS/RM Impact

Issue Number: **DMPCR-13580 / RFC_PCR-302**
System/Products: Capacity Max
Description: In Radio Management, Capacity Max talk group sites list does not have a scroll feature in "allowed site list". Users cannot scroll down the list. The beginning and the end of the window cannot be seen on the screen.
Workaround: Not Available

Infrastructure Impact

Issue Number: **UEM-7642**
System/Products: CMSS/System Advisor
Description: Calls are displayed with delay on Grid View opened in the System Advisor client.
Workaround: Use a web browser to display Grid View.

Issue Number: **UEM-7788**
System/Products: CMSS/System Advisor

Description: After the first successful network configuration of CMSS from Radio Management, a subsequent network configuration job may fail if attempted shortly afterwards.

Workaround: Wait 20 minutes between CMSS network configuration changes.

Issue Number: **UEM-7801**
System/Products: CMSS/System Advisor
Description: In System Advisor, the Data Gateway (MNIS) and CMSS internal components such as the Trunking Controller (TC), the Capacity Max Bridge (CMB) as well the Voice and Radio Command Gateway (VRC) may display a critical alarm indicating they need discovery or may display with an incorrect Site ID. This is caused by an unwanted interaction between the affected components' IP addressing.

Workaround: For MNIS, change the IP address for the PC which is hosting the MNIS application. For other CMSS components, please contact Motorola Solutions technical support to troubleshoot towards identifying the affected components and their addresses.

Issue Number: **ENG_INFRA_PCR-22344**
System/Products: SLR1000, SLR5000, SLR8000 repeaters
Description: When the repeater reboots an additional reset may be enforced which may slightly extend the reboot time.

Workaround: No workaround is required. This is a very rare issue and the repeater automatically recovers within 20 seconds.

Issue Number: **MTN-0177-24**
System/Products: SLR1000, SLR5000, SLR8000, XPR 8380, XPR 8400, MTR 3000 repeaters
Description: When a disabled repeater is written by RM or CPS2.0 with a modified configuration or after a firmware upgrade, it becomes enabled again.

Workaround: Disable the affected repeater again after firmware upgrade or after it has been configured by RM or CPS2.0 using RDAC or System Advisor. For further details please refer to [MTN-0177-24](MTN-0177-24)

Issue Number: **ENG_INFRA_PCR-22295**
System/Products: SLR1000, SLR5000, SLR8000 repeaters/Capacity Plus (single- or multi-site)
Description: When the repeater boots up and the DHCP server is unreachable for 12 minutes (or longer) such repeater will not be connected to the system.

Workaround: Reset repeater to re-initiate obtaining an IP address.

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-47771 / INC0000197013 / INC0000208119**
System/Product:	All MOTOTRBO R7 series radios
Description:	MOTOTRBO R7 radios configured to the Capacity Max system intermittently stuck in the "Registering" screen until the device is power cycled.

Issue Number:	**PCR_SUB-48195**
System/Product:	XPR 2500, XPR 5000e series, XPR 3000e series, XPR 7000e series, XPR 7000e IS series and SL 3500e with M2024.01 release or above.
Description:	Radio speaker volume will be approximately 20% (2dB) quieter if Intelligent Audio is Disabled. For further details please refer to MTN-0162-24

Infrastructure Impact

Issue Number:	**MTN-0143-24**
System/Products:	CMSS/ESU
Description:	ESU web portal reports an error for the CMSS KVM Hypervisor being in inactive state and the validation result is failed with "CMSS01 node is not discovered." For further details please refer to MTN-0143-24

Issue Number:	**MTN-0164A-24**
System/Products:	CMSS/SA
Description:	System Advisor fails to start after an upgrade if the system time is incorrect. For further details please refer to MTN-0164A-24

CPS/RM Impact

Issue Number:	**RFC_PCR-279 / PRB0000047328**
System/Product:	XPR 5000e series, CP200d, XPR 3000e series, XPR 2500, CM200d, CM300d, XPR 7000e series, XPR 7000e IS series, CP100 / CP100d, SL 3500/3500e, MOTOTRBO R7, MOTOTRBO R2
Description:	Radios read and written with the RM/CPS 2.0 version 2.151.292.0 cannot communicate with each other when the basic privacy key is set to default value ("0 - (blank)"). RM/CPS 2.0 does not mark the default value as invalid. For further details please refer to MTN-0136A-24.

Cybersecurity

Motorola Solutions, Inc. (MSI) has delivered a PCR MOTOTRBO 2025.01 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 2025.01 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 Notes

1. MOTOTRBO M2025.01 New Features Training ([PCT0193](#))

Adding CMSS to Radio Management

Please refer to the Capacity Max Installation and Configuration Manual for adding a new CMSS server to the Radio Management (section 5.5.7).

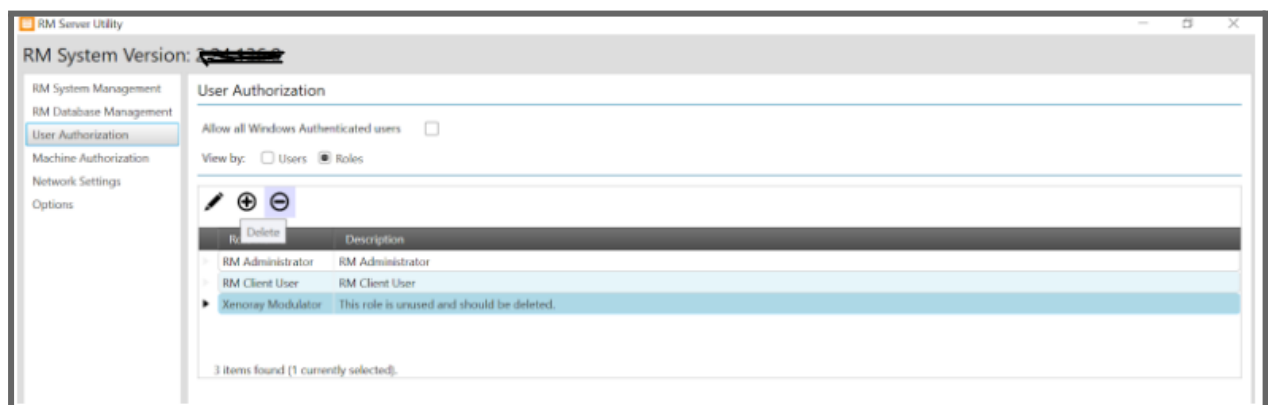## RM Access Control Feature Note

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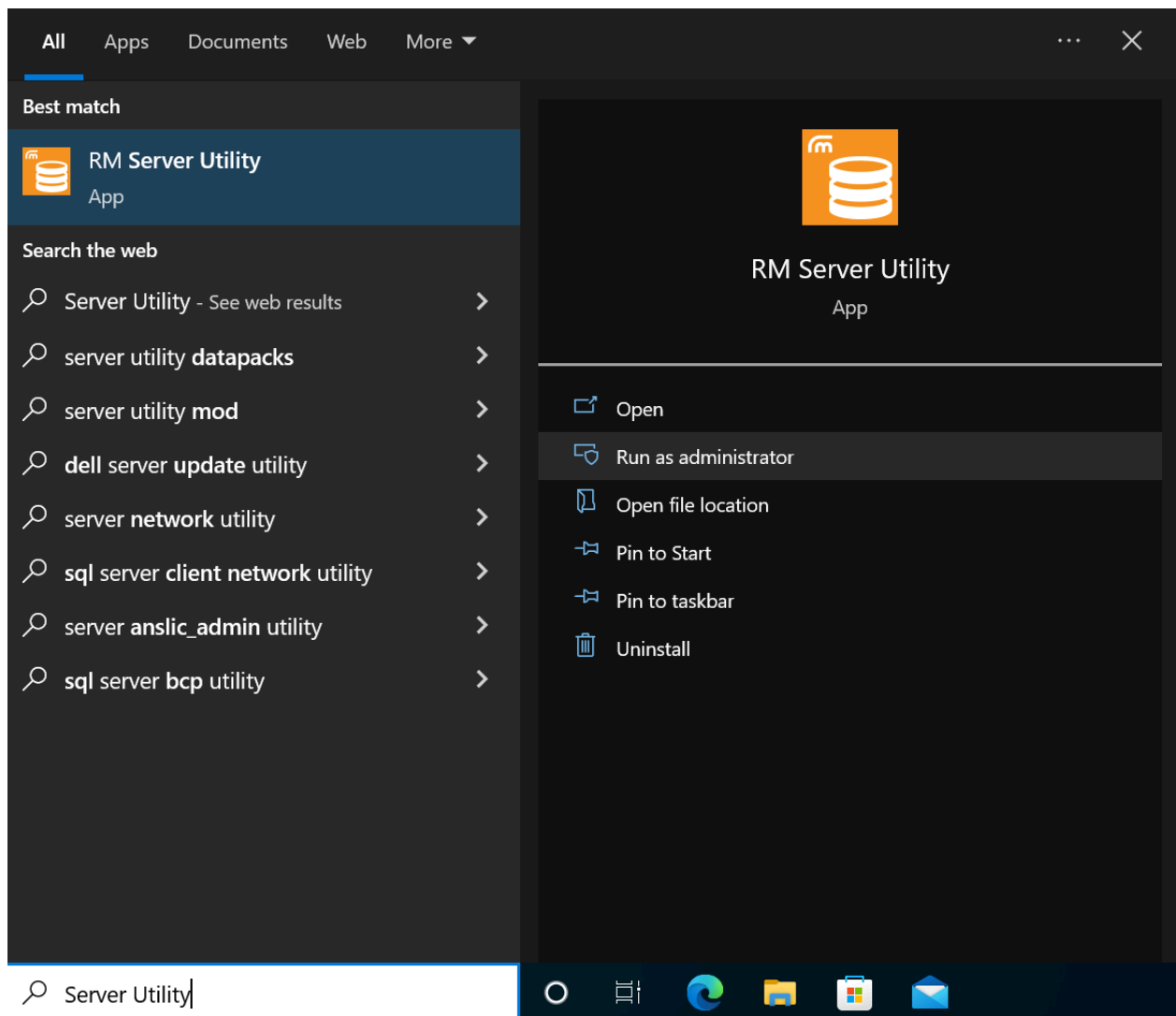
2. From the User Authorization tab, with the Roles radio button selected, delete any unnecessary roles that may have been created prior to the upgrade, leaving only the RM Administrator and RM Client User roles.

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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.
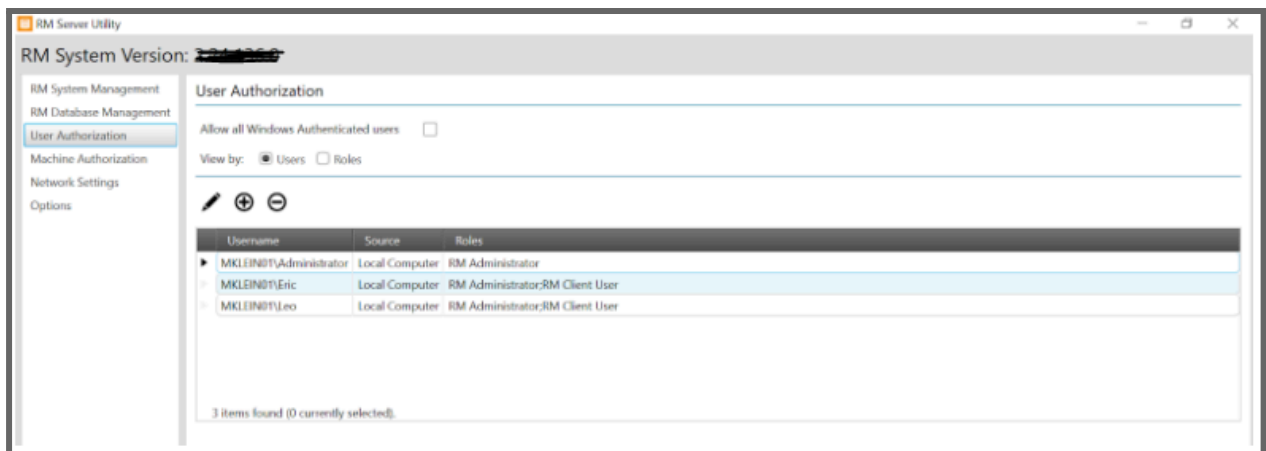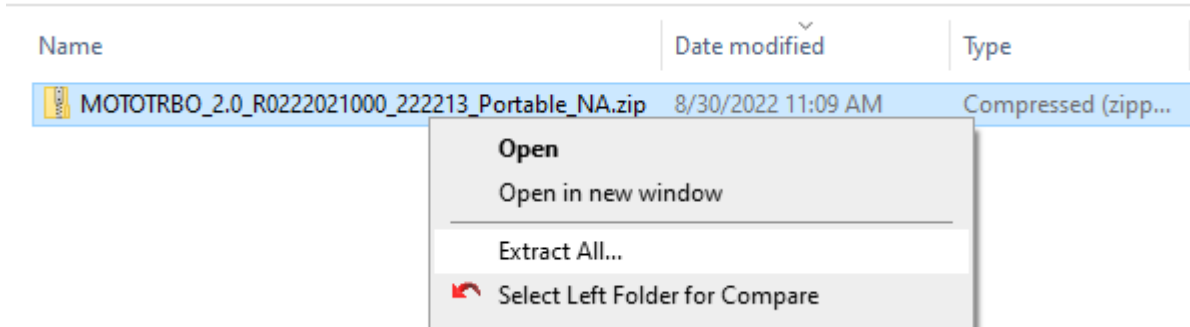

4. This completes the necessary steps for users that do not wish to use the Access Control features. The RM Server Utility can be closed at this point. Users should be able to use the RM Configuration Client to connect to the RM Server and perform normal operations.

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 file

Name	Date modified	Type	Size
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

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