



MOTOROLA SOLUTIONS

MOTOTRBO® System Release Notes

Professional Commercial Radios (PCR) & Accessories

Version: M2021.01

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North America Region

Contents

Overview

Definitions

What's new in the Release

Product Versions

Known Issues in Product Release

Resolved issues in product release

Additional info

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 New Features

Improved IP Address Efficiency for Capacity Max

This enhancement reduces the number of IP addresses to be reserved for a site. Currently, a small site with e.g. 3 repeaters must use IP space with 64 IP address space. Following this improvement, up to 5 repeaters can fit into a 32 IP address space. The remaining addresses can be used by the customer for connecting other application or network devices.

Infrastructure New Features

Honeywell & Motorola Connected Safety Solution

Connectivity of Honeywell Gas Detectors to MOTOTRBO portables (via BT 4.0) for sending alerts to the Honeywell Safety Suite terminal via the MOTOTRBO two-way radio system.. The alerts can be abnormal levels of gases, man down, panic button and location information. The first release supports up to 4 gas sensor alerts of a single Honeywell Gas Detector device.

Radio New Features

Virtual Channel Stop

Virtual Channel Stop enables the radios with continuous rotary knob channel select to stop at the last program channel or first program channel, in order to provide a similar user experience to customers who are accustomed to the physical channel stop in legacy radios.

3.5 kHz Analog Scrambling

Adding a new scrambling frequency 3.50 kHz into analog scrambling feature. 3.5 kHz, 3.29 kHz and 3.39 kHz scrambling frequencies are now supported.

Configurable Option to Enable/Disable Rear Emergency Pin prior to Power Up

This is a minor enhancement to provide a CPS/RM option (checkbox) “Rear Emergency Pin prior to Power Up” for customers to Enable/Disable mobile radio’s rear emergency pin prior to power. The CPS/RM option default is Enabled (checked).

Cybersecurity Update

Motorola Solutions, Inc. (MSI) has delivered a PCR MOTOTRBO 2021.01 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 2021.01 system release includes enhancements to security based on the National Vulnerability Database and industry standards:

- Lifecycle management: third-party software was updated; for example Microsoft Windows, ESXi
- Configuration updates to optimize hardening
- Ongoing security development process improvements (e.g., OSS scanning improvements)

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.

Feature Deprecation Notice

Codeplug Password

Starting M2021.01 release, **Codeplug Password** feature is deprecated for the radio and repeater Codeplug Password for the selected radios and repeaters listed on table below. However, **Codeplug Password** feature is 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 is introduced in 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 tool.

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	SLR 1000 Series SLR 5700 Series SLR 8000 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 covered by a service package will accept 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.

MOTOTRBO Product	Version Supported in Release
Subscriber – MOTOTRBO2.0/ 2.5 (incl SL Series) XPR 7000/5000/3000 series, XPR 7000e/5000e/3000e series, SL 7000/ 7000e series, XPR 2500, SL3500e	<i>R02.21.01.0000</i>
Subscriber – MOTOTRBO - Commercial - CP100d, CP200d, CM200d, CM300d, SL300	<i>R01.21.01.0000</i>
Subscriber – MOTOTRBO - XPR 4000/6000 series	R01.12.17
Option Board – MOTOTRBO 2.0 (incl SL Series) - XPR 7000/7000e, XPR 5000/5000e, SL 7000/7000e	<i>R02.07.44 (CP 1.1.19)</i>
Option Board – MOTOTRBO - XPR 4000/XPR 6000 series	R01.07.45 (CP 1.0.16)
Repeater - XPR8400, XPR8380 Repeater - MTR 3000 Repeater - SLR 1000, SLR 5000, SLR 8000	<i>R20.21.01.03</i> <i>R20.21.01.03</i> <i>R20.21.01.04</i>
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)	R20.20.01.1288_1114
CPCPS	R02.07.43
Paradise MPT1327 GOB CPS	R02.00.05
Radio Management / CPS 2.0	<i>2.110.120.0</i>
CPS	CPS V16.0 Build 828
Tuner	<i>V19.5 Build 260</i>
RDAC	V10.0 Build 109
AirTracer	<i>V11.0 Build 39</i>
Device Discovery Mobility Service (DDMS)	R03.100.5001
Multi Channel Device Driver (MCDD)	R2.1.3
MNIS Data Gateway	<i>R21.01.0059</i>

MNIS Voice and Radio Command (VRC) Gateway	<i>vrcgw-pcr-20.21.01.00.06.iso</i>
MNIS Status Agent	R02.90.5000
MOTOTRBO Motopatch	<i>M2021.01 (cmss_upgrade_motopatch_M2021.01.1.iso)</i>
Capacity Max ESU	<i>DESU-PCR-21.01.12.00-74.iso</i>
Capacity Max Trunk Controller	<i>cmxtc-pcr-20.21.01.00-52.iso</i>
Capacity Max System Advisor	<i>UEM-PCR-20.21.01.19-00.iso</i>
Capacity Max ESU Launchpad	<i>DESU_LP-M2021.01.R17.12.00.74-01.rhel</i>
Capacity Max System Server One-Click Upgrade	<i>CVN7293D.iso</i>
MNIS VRC Gateway	vrcgw-pcr-02.105.0010.iso
System Design Tools	Version 06.08
Sensor Management Tool	<i>R01.00.01</i>

3rd Party Applications	Version Supported in Release
GW3-TRBO	<i>2.17.3.73</i>
Avtec VP Gate	<i>4.13.0.104</i>
Avtec Scout Console/Scout Manager	<i>4.13.0.82</i>
Avtec VPGate Advanced Radio Support w/Encryption	<i>4.13.0.14</i>
Avtec Data Management Services - Scout Central Distributor	<i>4.13.0.60</i>
HP Firmware Install Media	<i>KC435V0HF000202002.iso</i>
SmartPTT PLUS	<i>9.8.1.20</i>
TRBOnet PLUS	<i>5.7.0.5115</i>
VMware vSphere 6.x Configuration Media	<i>mot-csr-vsphere-cfg-20.01.23.10-27.iso</i>
VMware vSphere Install Media	<i>VMware-ESXi-6.7.0-Update3-17499825-MOT-670.U3.10.6.3.8-Jan2021-01.iso</i>

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 ~ 1.9.2

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) T8785A, MOTOTRBO M2021.01 Capacity Max System Server SW Upgrade which contains the CVN7293D.zip file loaded on a USB drive.
 - b. Alternatively, for customers with access to the MSI MyView portal, you can order (1) T8786A, MOTOTRBO M2021.01 Capacity Max System Server SW Upgrade where you will receive an e-mail with a unique link to access/download the CVN7293D.zip file from the MyView portal. The T8786A will require an e-mail address at the time of order.
 - c. NOTICE: The USB drive (T8785A) can take 2-3 weeks for delivery while the downloadable file via the MyView portal (T8786A) 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 M2021.01 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 “Upgrading Capacity Max Server from M2020.02 to M2021.01” of Capacity Max System Release Upgrade Guide for additional details. It is available on MOL 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.

Known Issues in Product Release

Infrastructure Impact

Issue Number:	ENG_INFRA_PCR-8636
System/Product:	SLR Series Repeaters
Description:	The SLR Series repeater might reset when cleaning full Remote Diagnostics Solution (RDS) logs. RDS log gathering can be enabled by webpage (this is disabled by default). The purpose of this functionality is to clear old, unrelated data before issuing a reproduction in order to speed up the investigation process.
Workarounds:	(1) This functionality is not suggested to end users as it is primarily used by engineers to remove unrelated historical data from logs before reproducing an issue. (2) Avoid triggering. Generally, the Maintenance of the Line (MOL) team asks users for RDS logs including historical ones as there might be a problem originally located. (3) Self recovery after an unintended reset. As a result, not all logs might be removed before the reset.
Issue Number:	ENG_INFRA_PCR-8852
System/Product:	Capacity Max, MTR3000
Description:	The Capacity Max site becomes unavailable after interference for the duration of Continuous Wave Identification (CWID). The duration of lost service is proportionate to the duration of the CWID broadcast. The longest transmission can last 75 seconds (worst case scenario is 44 zeroes at 15 WPM). The subscriber can still roam and register to another site. This issue is only present on the MTR3000 platform.
Workarounds:	(1) Set the same ControlChannel priority on all ControlChannel capable channels. (2) Use an SLR Series repeater as ControlChannel Self-recovery. The site will become available after the CWID transmission is over.
Issue Number:	ENG_INFRA_PCR-7094
System/Product:	System Advisor
Description:	System Advisor displays an informational event that some storage sensors cannot report their state. Users can observe the following false positive strings: "Cannot report on the current status of physical element" that come at the end of storage events or alarm messages.
Workarounds:	None.
Issue Number:	ENG_INFRA_PCR-9363
System/Product:	Capacity Max

Description: A user may see an incorrect received signal strength indicator (RSSI) value reported in the air traffic information access (ATIA) logs. The problem refers to wide area group voice calls. The initiating call has the correct RSSI value, however the first and consecutive talkback calls taken during the hangtime period will have incorrect (noise level) RSSI values. The RSSI values visible in the repeater webpage are accurate. The issue is always visible for wide area calls involving at least 2 sites, or 1 site and a console. The issue is not present in local site calls.

Workarounds: None.

Issue Number: **ENG_INFRA_PCR-9336**
System/Product: Capacity Max System Server
Description: When changing to "Enhanced Security Mode" and adding a key alias that is less than 4 characters, the Radio Management write to the Capacity Max System Server (CMSS) fails, displaying the following error code: "Reason1551 Application has encountered an error." Configurations to the CMSS will fail until the key alias is updated to be at least 4 characters.
Workarounds: Configure the key alias to be at least 4 characters.

Issue Number: **PCR_SMARTPTT-19**
System/Product: SmartPTT
Description: After the SmartPTT upgrade, the end user is not enforced to change the password as it should be for security reasons.
Workarounds: End users must use user documentation suggestions to change the password on their own in an upgrade case versus the application enforcing a rule to change the password on the first login attempt.

Issue Number: **UEM-6288**
System/Product: Capacity Max
Description: After upgrading the Capacity Max System, due to a new password policy, a password change is required. A few minutes after changing the password, however, the end user (in few minutes) will see "data provider service error" in System View. This is because the System Advisor client needs to be restarted, but the user is not notified of this. Once the user restarts the System Advisor client - everything works fine and such error will not occur again until the next password change.
Workarounds: Restart the System Advisor client.

Issue Number: **UEM-6295**
System/Product: System Advisor
Description: After disabling and enabling VRC in Radio Manager, VRC is seen as black (unconfigured) in System Advisor.
Workarounds: Restart the System Advisor server, which can be done from System Advisor client menu (Administration -> Restart System Advisor Server).

CPS/RM Impact

Issue Number: ENG_INFRA_PCR-9480
System/Product: Radio Management
Description: After Radio Management installation, repeated pop-up errors may show up on the screen preventing the user from using the PC for normal operation. The error starts with: "C: \ ProgramFiles \ WindowsApps \ ...". This is due to SQL Server 2014 component that is part of Radio Management Server software installation conflicts with Windows Services.
Workarounds: Download the Microsoft SQL SP3 package and install it on the PC. Refer to MTN-0055-21-NA for more details.

Radio Impact

None.

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.

Defect ID	Release Introduced	Product	Headline
ENG_INFRA_PCR-3544	MOTOTRBO2.6.0	MTR3000	Repeater disconnects from Trunking Controller for no apparent reason; intermittent issue RFC#: RFC_PCR-17
ENG_INFRA_PCR-6612	MOTOTRBO2.8.0	SLR 8000	Repeater does not follow the energy programming for DC, it will reset and go back to AC parameters RFC#: RFC_PCR-13
ENG_INFRA_PCR-7551	MOTOTRBO2.6.0	SLR 8000	The Rest Channel IP is dropping as the repeaters stop trunking and do not respond to pings on NAI requests from SmartPTT RFC#: RFC_PCR-21
ENG_INFRA_PCR-7850	MOTOTRBO2.8.0	SLR 8000	Repeater transmitting lower wattage than what is programmed
ENG_INFRA_PCR-8053	MOTOTRBO2.7.0	Capacity Max	Trunking Controller logs contain extra messages "CTRL_CHNL_CHANGED" - Control Channel rollover every 10 seconds RFC#: RFC_PCR-9
ENG_INFRA_PCR-8472	MOTOTRBO2.10.5	MOTOTRBO MNIS	MNIS service will not start, MNIS Error# 4102 RFC#: RFC_PCR-32
ENG_INFRA_PCR-8613	M2020.02	SLR 8000	Control Channel stops being a Control Channel at some sites RFC#: RFC_PCR-39

<i>PCR_SUB-24977</i>	<i>M2020.01</i>	<i>XPR 5580e</i>	<i>ENG_Con+ OB firmware changes how LEDs on the radio display work (Channel number shift)</i>
<i>PCR_SUB-24509</i>	<i>MOTOTRBO</i>	<i>XPR 5550e</i>	<i>ENG_ Radios stop sending GPS data</i>
<i>PCR_SUB-18063</i>	<i>MOTOTRBO2.10.0</i>	<i>XPR 7550e</i>	<i>CapMax - Radios continue to send Text to old TMS ID when programmed with new TMS ID via Wifi.</i>
<i>PCR_SUB-28270</i>	<i>M2020.02</i>	<i>XPR 7550e</i>	<i>XPR7550E - Talker alias characters length</i>
<i>PCR_SUB-23895</i>	<i>MOTOTRBO2.10.0</i>	<i>XPR 5550e</i>	<i>Linked Capacity Plus - Certain radios not sending GPS data</i>
<i>PCR_SUB-24820</i>	<i>M2020.01</i>	<i>XPR 5580e</i>	<i>Connect Plus - OB firmware changes how LEDs on the radio display work (CH numbers are shifted)</i>
<i>PCR_SUB-26260</i>	<i>MOTOTRBO2.10.09</i>	<i>XPR 7580e</i>	<i>Connect Plus - When selecting the same zone where the radio is, the voice announcements order gets shifted in relation to current selected channel</i>
<i>PCR_SUB-28025</i>	<i>M2020.02</i>	<i>XPR 7550e</i>	<i>When receiving a voice call from a radio with an alias longer than 16 characters, the display might blank out until reboot</i>
<i>DMCI-905</i>	<i>MOTOTRBO2.10.0</i>	<i>MOTOTRBO RM</i>	<i>RM does not display the latest SUM date after the multiple registrations of SUM licenses on CMSS.</i>
<i>DMCI-945</i>	<i>Legacy</i>	<i>MOTOTRBO RM & CPS</i>	<i>VOX checkbox setting was not editable on Analog channels for Paradise Light subscribers in RM & CPS 2.0.</i>
<i>DMCI-957</i>	<i>Legacy</i>	<i>MOTOTRBO RM & CPS</i>	<i>Radio Alias is not updated in bluetooth menu after first writing with CPS 2.0</i>
<i>DMGMT-29328</i>	<i>Legacy</i>	<i>MOTOTRBO Tuner</i>	<i>MOTOTRBO Tuner has difficulty closing when archive is open</i>

Additional Info

External Training: PCT0138 MOTOTRBO M2021.1 New Features Training