MOTOROLA *SOLUTIONS*

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

Version: M2020.02
Date: September 22, 2020

North America region

Contents

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

Voice Interrupt by Emergency Alarm

In an emergency call scenario, some radios were not able to receive emergency alerts when they were in an ongoing call and another radio in this group call sends an Emergency Alert or Emergency Alert with Call. In M2020.02, an in-progress outgoing call is interrupted to ensure all radio users receive the Emergency Alarm.

Cancel Emergency Alarm

A radio originating an emergency alert can now manually clear the emergency state and automatically inform other users that the alert has been terminated. This feature will also allow a dispatcher using a console to cancel an alarm initiated by any user.

Improved ATIA Message for Genesis GW3 Application

In previous MOTOTRBO releases, the Genesis GW3 application had the ability to flag a repeater as a voice or data revert repeater, however it cannot determine if the repeater was a single-slot data revert repeater. This feature will allow Genesis GW3 to identify the complete configuration of a repeater based on the first activity it receives from it. A repeater will send the repeater role of both slots in every ATIA Repeater State and Call Status message.

Single Slot Data Revert Open Mode

Single Slot Data Revert allows data revert to be provisioned per time-slot as opposed to per repeater on MOTOTRBO Capacity Max systems. Currently, enhanced GPS is provisioned at a repeater level thus reserving both time-slots on that repeater for data revert. This feature was introduced in M2020.01 for

Advanced Mode. Now, it is also available for infrastructure operating in Open Mode. Mixed fleet of radios from Motorola and other manufacturers is permitted; however, only Motorola radios would benefit from the Data Revert channel in said configuration.

Auto Discovery VPN Hub-to-Spoke Functionality for Juniper

The Auto Discovery Virtual Private Network (ADVPN) hub-to-spoke network configuration has been developed and is now available for the Juniper SRX300/SRX345 router. ADVPN is a technology that allows the hub site router to dynamically inform the spoke site routers about a better path for traffic between two spoke site routers.

Infrastructure New Features

Caller Alias

Caller Alias allows users to configure an alias name which would be sent during voice call transmission and be displayed on all receiving radios or consoles. Receiving radios are able to store up to 500 caller alias records. Radios clear their caller alias records after a power cycle. MOTOTRBO radios can be enabled and configured for Caller Alias by using Radio Management or CPS. Caller Alias supports the following call types: Individual Call, Talkgroup Call, Broadcast Call, All Call, Emergency Call, and Telephone Call.

Dynamic Caller Alias

Dynamic Caller Alias allows users to enter an alias name from the front panel of a radio. This alias would then associate to said radio and be displayed on other receiving radios and consoles when the user is transmitting. MOTOTRBO radios can be enabled and configured for Dynamic Caller Alias by using Radio Management or CPS.

Caller Location

Caller Location allows for a transmit radio to send a location update during a voice call. The console is able to receive and display the updated location from the caller while in a call. Two options are available for the configuration of start/stop triggers with this feature: "All Voice Calls" and "Emergency Voice Call Only". Caller Location supports the following call types: Individual Call, Talkgroup Call, Broadcast Call, All Call, Emergency Call, and Telephone Call. Note that Indoor Location is not supported with this feature.

Radio New Features

Fast Noise Suppressor

Allows the transmit radio to learn the ambient noise and allows clean speech to be transmitted immediately after a PTT button press, so the receiver can hear a clear speech from the very beginning. Available in XPR 3000/3000e series, XPR 7000/7000e series, XPR 5000/5000e series, XPR 2500, SL 3500e, XPR 7550 IS, XPR 7580e IS, and SL 7000/7000e series.

Configurable Radio Display Language

Allows the user to configure a desired radio display language in Radio Management / CPS 2.0 for the display radios and preserve after radio programming. Prior to this release, users are only allowed to set the language from the radio menu, but Radio Management / CPS 2.0 will reset the default language upon programming. Available in Display models XPR 3500/3500e, XPR 7550/7550e, XPR 7580/7580e, XPR 5550/5550e, XPR 5580/5580e, XPR 2500, CM300d, XPR 7550 IS, XPR 7580e IS, SL 3500e, and SL 7000/7000e series.

Tx Inhibit & Mute Mode menu setting in Radio Management / CPS 2.0

Allows the radio manager to disable Transmit Inhibit and Mute Mode features for customers who do not want these features. The setting available is Radio Management / CPS 2.0, disabling this feature will remove Transmit Inhibit and Mute Mode from radio's user interface.

Transmit Inhibit available in TX Inhibit: XPR 7550/7550e, XPR 7580/7580e, XPR 5550/5550e, XPR 5580/5580e, SL 7000/7000e series, XPR 7550 IS, XPR 7580e IS

Mute Mode available in Mute Mode: XPR 3500e, XPR 7550/550e, XPR 7580/7580e, XPR 5550/5550e, XPR 5580/5580e, XPR 2500, XPR 7550 IS, XPR 7580e IS,and SL 3500e.

Tool Speed Performance Improvement

Radio Management & CPS 2.0 for the following operations:

1. Copy & Paste (up to 95% improvement)
2. Navigation to Scan and Capacity Max Site Selection (up to 98% improvement)
3. Modification of Zone/Channel Data Grid (up to 87%)

Cybersecurity Update

Motorola Solutions, Inc. (MSI) has delivered a PCR MOTOTRBO 2020.01 release (June 2020). 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 2020.01 system release includes enhancements to security based on the National Vulnerability Database and industry standards:
- Lifecycle management: third-party software was updated; for example RHEL, Microsoft Windows, Oracle Java SE
- Hardening: configuration updates
- Security enhancements based upon evaluations using newer toolsets and best practices
- Security enhancements for Web Interface

In addition to ongoing releases for security updates, MSI has a <u>Bug Submission Program</u> 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.

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 (incl SL Series) -XPR 7000/7000e series, XPR 5000/5000e series, XPR 3000/3000e series, XPR 2500, SL7000/7000e SERIES, SL3500e.	*R02.20.02.0002*
Subscriber – MOTOTRBO - SL300, CP100d, CP200d, CM200d, CM300d	*R01.20.02.0000*
Subscriber – MOTOTRBO - XPR 4000/XPR 6000 series	R01.12.17
Option Board – MOTOTRBO 2.0 (incl SL Series) - XPR 7000/7000e, XPR 5000/5000e, SL 7000/7000e	R02.07.38 (CP 1.1.19)
Option Board – MOTOTRBO - XPR 4000/XPR 6000 series	R01.07.45 (CP 1.0.16)
Repeater - Cypher (XPR 8300/xpr 8400 Repeater - MTR 3000 Repeater -SLR 1000, SLR 5000, SLR 8000	*R20.20.02.03* *R20.20.02.03* *R20.20.02.03*
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	*2.26.203.0*
CPS	CPS V16.0 Build 828
Tuner	*V19.5 Build 256*
RDAC	V10.0 Build 109
AirTracer	V11.0 Build 38
Device Discovery Mobility Service (DDMS)	R03.100.5001
Multi Channel Device Driver (MCDD)	R2.1.3
MNIS Data Gateway	*R20.02.0042*
MNIS Voice and Radio Command (VRC) Gateway	*20.20.01.11*
MNIS Status Agent	R02.90.5000
MOTOTRBO Motopatch	*M2020.02* *(cmss_upgrade_motopatch_M2020.02.1.iso)*
Capacity Max ESU	*DESU-PCR-20.02.12.00-64*
Capacity Max Trunk Controller	*cmxtc-pcr-20.20.02.00-60.iso*

Capacity Max System Advisor	*UEM-PCR-20.20.01.12-00.iso*
Capacity Max ESU Launchpad	***DESU_LP-07.01.12.00-62-01.rhel.iso***
Capacity Max System Server One-Click Upgrade	***CVN7293C.iso***
MNIS VRC Gateway	vrcgw-pcr-02.105.0010.iso
System Design Tools	Version 06.08

3rd Party Applications	Version Supported in Release
GW3-TRBO	***2.16.18.29***
Avtec VP Gate	4.8.2
Avtec Scout Console/Scout Manager	***4.12.0.89***
Avtec VPGate Advanced Radio Support w/Encryption	4.8.2
Avtec Data Management Services - Scout Central Distributor	4.8.2
HP Firmware Install Media	***KC435V0HF000202001.iso***
SmartPTT PLUS	***9.7.200.13***
TRBOnet PLUS	***5.6.0.4077***
VMware vSphere 6.x Configuration Media	*mot-csr-vsphere-cfg-20.01.23.10-27.iso*
VMware vSphere Install Media	*VMware-ESXi-6.7.0-Update3-15160138-MOT-670.U3.10.5.0.48-Dec2019-01.iso*

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) T8765A, MOTOTRBO M2020.02 Capacity Max System Server SW Upgrade which contains the CVN7293C.zip file loaded on a USB drive.
b. Alternatively, for customers with access to the MSI MyView portal, you can order (1) T8766A, MOTOTRBO M2020.02 Capacity Max System Server SW Upgrade where you will receive an e-mail with a unique link to access/download the CVN7293C.zip file from the MyView portal. The T8734A will require an e-mail address at the time of order.
c. NOTICE: The USB drive (T8765A) can take 2-3 weeks for delivery while the downloadable file via the MyView portal (T8766A) 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 M2020.02 upgrade requires this new ESU LP version).
   b. Alternatively, for customers with access to the MSI MyView portal, you can order (1) T8483A, 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 T8483A will require an e-mail address at time of order.
   c. Please refer to the section "Upgrading a *Capacity Max System from R2.10.0 to M2020.01*" 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 (T8483A) 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: **PCR_GENESIS-4**
System/Product: Genesis GW3-TRBO
Description: After a repeater is reconfigured from a data revert repeater to a voice repeater, the user must manually uncheck the Data Revert Checkbox. Until the user unchecks it, the Data Revert Checkbox will be checked even though the repeater is no longer configured as data revert. Because the Data Revert Checkbox is checked, the Channel Data Revert Indicator

	will be displayed.
Workarounds:	Uncheck the Data Revert Checkbox after reprogramming the repeater.

Issue Number: **ENG_INFRA_PCR-7048**
System/Product: Capacity Max
Description: A user will not be able to end hangtime after a Voice Interrupt Emergency Alarm Request on demand and will have to wait until it ends per the default timeout set in the system configuration.
Workarounds: The user needs to wait until the hangtime ends normally or can do a short Push-to-Talk, then hangtime will be cancelled.

Issue Number: **ENG_INFRA_PCR-6536**
System/Product: IP Site Connect
Description: A user is, in some circumstances, unable to immediately terminate a call initiated from the subscriber unit to the landline phone.
Workarounds: None.

Issue Number: **ENG_INFRA_PCR-4660**
System/Product: VMware
Description: Due to a VmWare issue, System Advisor displays an informational event that some storage sensors cannot report their state. User can observe false positive strings "Cannot report on the current status of physical element" that come at the end of storage events or alarms messages.
Workarounds: None.

Issue Number: **ENG_INFRA_PCR-7351**
System/Product: SLR5500
Description: When the SLR5500 is first turned on, all LEDs light up except the TX-A/REF light. This light, however, will light up during normal operation.
Workarounds: None.

Radio Impact

None.

CPS/RM 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-4119	MOTOTRBO2.9.0	All MTR and SLR repeaters	When a subscriber is keyed up near the end of hangtime, the call is dropped on the system (real time display) but the subscriber is still keyed C3: 27037598
ENG_INFRA_PCR-4772	MOTOTRBO2.10.0	SLR5300	Issues on SFR when different frequencies are used for RX and TX C3: 27240152
ENG_INFRA_PCR-5296	MOTOTRBO2.9.0	Capacity Max	VRC1 appears inactive with TC1 (Capacity Max System Server licensing issue) C3: 27343814
CONNECTPLUSINFRA-306	MOTOTRBO2.9.0	Capacity Max	Radio Management unable to write to Capacity Max System Server due to Error 1562 - Capacity Max Bridge configuration update failed C3: 27371042
ENG_INFRA_PCR-6212	MOTOTRBO2.8.5	SLR8000	SLR8000 stops propagating data transmissions to wireline C3: 27263981
ENG_INFRA_PCR-6387	M2020.01	SLR5700	SLR5700 on firmware version M2020.01 is able to be updated again to M2020.01 firmware. This results in a Software Update Management alarm and the repeater state becomes locked C3: 27410948
ENG_INFRA_PCR-6484	M2020.01	System Advisor	While logged into System Advisor as root, user is unable to get Raw Data page C3: 27410946
ENG_INFRA_PCR-6842	MOTOTRBO2.6.0	SLR5700	SLR5700 cannot connect to network via DNS name C3: 27448463
ENG_INFRA_PCR-6211	MOTOTRBO2.6.0	SLR8000	Under certain conditions, repeater's slot may lock preventing any further data calls from propagating to the wireline C3: 27241466 RFC: 27398744

ENG_INFRA_PCR-3142	*MOTOTRBO2.6.0*	*MTR3000*	*SU registration failure* *C3:26982046* *RFC: 27175276*
ENG_INFRA_PCR-5688	*MOTOTRBO2.6.0*	*SLR8000*	*Subscriber to wireline console data call always fails* *C3: 27284667*
ENG_INFRA_PCR-5826	*MOTOTRBO2.9.0*	*Capacity Max*	*Preemption caused by control channel movement does not display clear ongoing call information in System Advisor*
ENG_INFRA_PCR-5249	*M2020.01*	*Juniper SRX series router*	*Dynamic Host Configuration Protocol (DHCP) client on SRX interface does not send DHCP discovery when a server does not answer DHCP request*
ENG_INFRA_PCR-5068	*M2020.01*	*Juniper SRX series router*	*As a result of a Juniper bug, the auto dynamic virtual private network (ADVPN) configuration is not possible in M2020.01 release*
ENG_INFRA_PCR-7495	*M2020.01*	*Capacity Max System Server (HPE DL20 G10)*	*Users will see a Major alarm in the ESXi stating "The Sensor Is Operating On A Condition That Is Not Critical". This alarm can be acknowledged by the user. There is no impact to the normal Capacity Max System operation.* *Incident Number: INC000003685419*
UEM-6151	*MOTOTRBO2.9.0*	*System Advisor*	*Raw View cannot be accessed on first attempt after login* *Incident Number: INC000003285819*
DMCI-813	*M2020.01*	*MOTOTRBO RM*	*ENG RM Not able to Upgrade 2.0 repeaters and subscribers to M2020.1 unless read into RM via USB first.* *RFC: 27410862*
DMCI-820	*M2020.01*	*MOTOTRBO CPS2.0*	*ENG MOTOTRBO CPS 2.0 UTAH COMMUNICATIONS - Option Board Option Checkbox Missing (inherited)* *RFC: 27431633*
DMGMT-22613	*Pre-R2.8.0*	*MOTOTRBO RM*	*Auto update is not working from pre-R2.8.0 versions. Has R2.7.5 (RM2.4.11) or older version installed, then installs R2.10 (RM2.18.95.0, first version introduces SHA256) or newer version of RM Server w/ auto update checked. Try to auto update the rest of RM components, RMC/DP/JP cannot connect to the server. As a result, auto updates cannot be triggered automatically.*
PCR_SUB-21804/ PCR_SUB-21878	*M2020.01*	*MOTOTRBO XPR Series Cap Max Capable*	*Radio with M2020.01 firmware version may experience connection issues if the user is using Capacity Max Open Radio as their system type and Capacity Max Site ID is Zero (0).* *INC#: INC000003130181*

PCR_SUB-20302	MOTOTRBO2.10.0	XPR7580e	*XPR7580e - Battery Status shown in Error condition at FW 2.10. (propagated - M2020.02). C3: 27366418*

Additional Info

External Training: PCT1071