



Motorola Solutions

## **MOTOTRBO® System Release Notes**

### **Professional Commercial Radios (PCR) & Accessories**

Version: M2020.02.01 v01

Date: 22<sup>nd</sup> December 2020

### **System Release M2020.02.01**

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## Scope

These MOTOTRBO System Release Notes cover the following MOTOTRBO products:

- DP540, DP1400, SL1600, DP2000 Series, SL2600, DP3441, DP4000 Series, DP4000Ex Series, DP4000Ex Ma Series and SL4000 Series Portables
- DP2000e Series, DP3000e Series, DP4000e Series and SL4000e Series Portables
- DM1000 Series, DM2600 and DM4000 Series Mobiles
- DM4000e Series Mobiles
- DR 3000, MTR3000, SLR 1000, SLR 5500 and SLR8000 Repeaters
- Radio Management
- CPS
- CPS 2.0
- Air Tracer
- Tuner
- RDAC
- Multi Channel Device Driver (MCDD)
- Device Discovery and Mobility Service (DDMS)
- MOTOTRBO Network Interface Service (MNIS) Data Gateway
- MOTOTRBO Network Interface Service (MNIS) VRC Gateway
- MNIS Status Agent
- Capacity Max Bridge
- Capacity Max ESU
- Capacity Max Trunk Controller
- System Advisor
- System Design Tools
- IMPRES™ Fleet Management Software
- Second generation MOTOTRBO MPT1327 GOB
- MPT1327 GOB CPS
- Second generation MOTOTRBO Connect Plus GOB
- Connect Plus GOB CPS
- Connect Plus Infrastructure (XRC 9000 / 9100 Controller, XRT 9000 / 9100 Gateway, XRI 9100 Interconnect, Network Manager, Network Manager Connection Tool, XRT Configuration Tool)

## Abbreviations

CPS	Customer Programming Software
CFS	Charge for Software
OTAP	Over The Air Programming
RM	Radio Management
OB	Option Board
RDAC	Repeater Diagnostics and Controls

## What's New in System Release M2020.02.01

### Cybersecurity Update

Motorola Solutions, Inc. (MSI) has delivered a PCR MOTOTRBO 2020.02.01 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).

Security updates are a regular part of the PCR MOTOTRBO release cadence. Based upon customer inquiries, we are highlighting that this DR3000 and MTR3000 M2020.02.01 release addresses the Ripple20 vulnerability, a highly publicized set of vulnerabilities in the Treck TCP/IP stack. The M2020.02.01 software update will be available only for DR3000 and MTR3000 repeaters under a current service agreement.

For repeaters that are running versions prior to M2020.01, an update will be available in Q1, 2021.

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](mailto:security@motorolasolutions.com).

### Closed (Resolved) Issues

See "Resolved Issues in Product Release" section.

### New Part Numbers

None.

## What's New in System Release M2020.02

### New General System 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.

### New Capacity Max 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.

#### 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 fleets of radios from Motorola and other manufacturers are 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.

## **New Radio 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.

### **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.

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

Allows the dealer 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.

## **General**

### **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 2020.02 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 2020.02 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
- Configuration updates to optimize hardening
- Ongoing security development process improvements (e.g., Static code analysis)

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](mailto:security@motorolasolutions.com).

## Closed (Resolved) Issues

See “Resolved Issues in Product Release” section.

## New Part Numbers

Part Number	Description	Delivered As	How to Order
GMVN6241D	CPS 2.0 / Radio Management (and Tools)	DVD	Motorola Online
T8765A	MOTOTRBO M2020.02 Capacity Max System Server SW Upgrade	USB	Order Management
T8766A	MOTOTRBO M2020.02 Capacity Max System Server SW Upgrade	Download	MyView Portal



## What's New in System Release M2020.01

### General

#### **MOTOTRBO Release Naming Convention**

Going forward, MOTOTRBO System Release versions will be formatted as M.YYYY.RR (M = MOTOTRBO systems, YYYY = year, RR = sequential release number for that year). So this release which would have been R2.11 under the old system is M2020.01.

#### **Software Update Management (SUM) Enforcement**

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.

When a service package is purchased, a SUM license is issued and pre-registered (in the Motorola Solutions licensing database) to the product serial number. The SUM license is then available for retrieval and activation in the product using Radio Management (RM) or the Customer Programming Software 2.0 (CPS). Once a SUM license has been activated in a product, that product is then eligible to accept software updates for the duration of the MOTOTRBO Service Package.

Note: Selected radio models shipped since 18-Nov-2019 with enhanced warranties are eligible to accept software updates for a period of up-to 5 years.

#### **Windows Motopatch for CMSS**

Microsoft updates for the CMSS underlying Windows OS will be part of the CMSS one-click upgrade for M2020.01 (previously we did not have a mechanism for these to be updated). For customers who want to remain on R2.7-R2.10 there will be a standalone patch available (as an orderable DVD)

#### **Capacity Max Security Information**

Capacity Max Security Information Packages are available to customers under NDA on request. These packages are intended to provide customers with the ability to carry out a complete network and security analysis.

#### **Capacity Max System Server Refresh**

The Capacity Max System Server (CMSS) hardware (i.e. the HPE ProLiant DL380 Gen9 server) is going end-of-life and being refreshed (with the HPE ProLiant DL20 Gen10 server). The forecast "G9 Last Ship" and "G10 Launch" dates are 2H-2020. The G10 server is more compact (i.e. 1U form factor compared to the G9's 2U form factor) while having the same price, performance, features, warranty and service conditions. The G10 server is also compatible with the G9 server, however it only supports M2020.01

firmware onwards so any G9 servers need to be upgraded to M2020.01 if a G10 server is used. The G10 server will be orderable via a new sales model.

### **Juniper Networking Equipment Support for Capacity Max**

The Hewlett-Packard Enterprise (HPE) MSR2003 router and HPE 2300 switch are going end-of-life October 2021. However, the Juniper SRX300 and SRX345 routers and EX2300-24 switches are now supported for Capacity Max. Note: Mixing HPE and Juniper equipment is not currently recommended since mixed configurations have not yet been verified. Additionally, HPE and Juniper equipment are not compatible if customers are using an auto discovery virtual private network (ADVPN) configuration.

### **Cybersecurity Update**

Motorola Solutions, Inc. (MSI) has delivered a PCR MOTOTRBO 2020.01 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 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 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](mailto:security@motorolasolutions.com).

## **New Capacity Max Features**

### **Seamless Call Handover**

For multi-site MOTOTRBO Capacity Max systems, Seamless Call Handover provides a seamless (as far as possible) handover from one Capacity Max site to an adjacent one for an active call. This feature delivers a solution for both the Transmit and Receive subscribers of an active voice call (Private, Group or

Telephone) to minimize the loss of voice packets, which is especially critical during emergency situations.

### **Single Slot Data Revert**

Single Slots Data Revert allows a customer to provision Data Revert per timeslot as opposed to per repeater for MOTOTRBO Capacity Max systems. Currently, enhanced GPS is provisioned at a repeater level thus reserving both timeslots on that repeater for Data Revert. Single Slot Data Revert provides customers with the flexibility to provision a given repeater with one timeslot for Data Revert and the other as a standard traffic channel, both timeslots as Data Revert, or both timeslots as traffic channels.

### **Permanent Receive Talkgroup**

Permanent Receive Talkgroup allows a customer to permanently set the desired Talkgroup to be uneditable in the Received Talkgroup (Scan) List. Regardless of whether scan is ON or OFF, a radio will then be able to land on the Permanent Talkgroup (voice & data). In other words, Permanent Talkgroups are always treated as 'Scan ON' regardless of whether Scan is ON or OFF. This is important where customers have concerns about radios landing on specific talkgroups due to scan being inadvertently turned OFF.

## **New General Radio Features**

### **Enterprise Wi-Fi Roaming Enhancement**

This feature uses Opportunistic Key Caching (OKC) on WPA Enterprise Wi-Fi Networks to improve roaming performance (i.e. reduce audio holes and authentication failures). Instead of going through the full 802.11x authentication whenever a radio roams to a new Access Point (AP), the radio Caches the Pairwise Master Key (PMK) during the full authentication when it first connects, then uses the Cached PMK for subsequent authentications when it roams to other APs.

## **New DP540 Portable**

The DP540 portable will be released in the June 2020 timeframe into the Sub-Saharan Africa (SSA) region, and comprises an entry level (non-keypad) portable in the VHF / UHF frequency bands that provides customers with a cost effective digital radio solution.

**Features include:** analogue mode, DMR digital mode, dual capacity direct mode, IP Site Connect (optional), Rx audio leveling (optional), voice announcement, Tx interrupt (decode), lone worker, scan (dual priority) and analogue scrambling.

**Inbox items:** non-keypad portable, antenna, battery option, single unit charger option (EU plug), belt clip, quick reference guide option, safety booklet.

**Service options:** 5 year essential services, 5 year essential services with repair, 5 year advanced services, standard (24 month) warranty.

## Closed (Resolved) Issues

See “Resolved Issues in Product Release” section.

## New Part Numbers

Part Number	Description	Delivered As	How to Order
GMVN6241C	CPS 2.0 / Radio Management (and Tools)	DVD	Motorola Online
T8733A*	MOTOTRBO M2020.01 Capacity Max System Server SW Upgrade	USB	Order Management
T8735A*	MOTOTRBO Capacity Max System Server (CMSS) Windows Update	DVD	Order Management

\* Note: T8733A includes the CMSS Windows Motopatch as part of the one-click ISO while T8735A provides a standalone patch for customers who want to remain on R2.7 – R2.10.

## Product Versions

Listed below are all MOTOTRBO Product Versions associated with the different M2020.xx system releases.

MOTOTRBO Product	M2020.01	M2020.02	M2020.02.01
DP540 Portables	R01.20.01.0000 (CP 13.00.39)	R01.20.02.0000 (CP 20.20.52)	R01.20.02.0000 (CP 20.20.52)
DP1400 Portables	R01.20.01.0000 (CP 13.00.39)	R01.20.02.0000 (CP 20.20.52)	R01.20.02.0000 (CP 20.20.52)
SL1600 Portables	R01.20.01.0000 (CP 13.00.39)	R01.20.02.0000 (CP 20.20.52)	R01.20.02.0000 (CP 20.20.52)
DP2000/DP2000e Series Portables	R02.20.01.0002 (CP 16.00.08)	R02.20.02.0002 (CP 20.20.10)	R02.20.02.0002 (CP 20.20.10)
SL2600 Portables	R02.20.01.0002 (CP 16.00.08)	R02.20.02.0002 (CP 20.20.10)	R02.20.02.0002 (CP 20.20.10)
DP3441/DP3000e Series Portables	R02.20.01.0002 (CP 16.00.08)	R02.20.02.0002 (CP 20.20.10)	R02.20.02.0002 (CP 20.20.10)
DP4000/DP4000e Series Portables	R02.20.01.0002 (CP 16.00.08)	R02.20.02.0002 (CP 20.20.10)	R02.20.02.0002 (CP 20.20.10)
DP4000Ex/DP4000E x MA Series Portables	R02.20.01.0002 (CP 16.00.08)	R02.20.02.0002 (CP 20.20.10)	R02.20.02.0002 (CP 20.20.10)
SL4000/SL4000e Series Portables	R02.20.01.0002 (CP 16.00.08)	R02.20.02.0002 (CP 20.20.10)	R02.20.02.0002 (CP 20.20.10)
DM1000 Series Mobiles	R01.01.49.0000 (CP 12.05.40)	R01.20.02.0000 (CP 20.20.52)	R01.20.02.0000 (CP 20.20.52)
DM2600 Mobiles	R02.20.01.0002 (CP 16.00.08)	R02.20.02.0002 (CP 20.20.10)	R02.20.02.0002 (CP 20.20.10)
DM4000/DM4000e Series Mobiles	R02.20.01.0002 (CP 16.00.08)	R02.20.02.0002 (CP 20.20.10)	R02.20.02.0002 (CP 20.20.10)
DR 3000 Repeaters	R20.20.01.06 (CP 21.00.03)	R20.20.02.03 (CP 21.00.04)	R20.20.02.05 (CP 21.00.06)
MTR3000 Repeaters	R20.20.01.06 (CP 21.00.03)	R20.20.02.03 (CP 21.00.04)	R20.20.02.05 (CP 21.00.06)
SLR 1000 Repeaters	R20.20.01.08 (CP 08.00.05)	R20.20.02.03 (CP 08.00.06)	R20.20.02.03 (CP 08.00.06)
SLR 5500 Repeaters	R20.20.01.08 (CP 08.00.05)	R20.20.02.03 (CP 08.00.06)	R20.20.02.03 (CP 08.00.06)
SLR 8000 Repeaters	R20.20.01.08 (CP 08.00.05)	R20.20.02.03 (CP 08.00.06)	R20.20.02.03 (CP 08.00.06)
Radio Management	2.24.200.0	2.26.203.0	2.26.203.0
CPS 2.0	2.24.200.0	2.26.203.0	2.26.203.0
CPS	16.0 (Build 828)	16.0 (Build 828)	16.0 (Build 828)
Air Tracer	11.0 (Build 38)	11.0 (Build 38)	11.0 (Build 38)
Tuner	19.0 (Build 254)	19.5 (Build 256)	19.5 (Build 256)
RDAC	10.0 (Build 109)	10.0 (Build 109)	10.0 (Build 109)
Multi Channel Device Driver (MCDD)	2.1.3	2.1.3	2.1.3

MOTOTRBO Product	M2020.01	M2020.02	M2020.02.01
Device Discovery and Mobility Service (DDMS)	03.100.5001	03.100.5001	03.100.5001
MOTOTRBO Network Interface Service (MNIS) Data Gateway	20.01.0018	20.02.0042	20.02.0042
MOTOTRBO Network Interface Service (MNIS) VRC Gateway	20.20.01.11	20.20.01.11	20.20.01.11
MOTOTRBO Network Interface Service (MNIS) Status Agent	02.90.5000	02.90.5000	02.90.5000
Capacity Max Bridge (CMB)	R20.20.01.1288_1114	R20.20.01.1288_1114	R20.20.01.1288_1114
MOTOTRBO Motopatch	2020.01.D3 (MOTOPATCH_2020.01.D3.iso, KC435V000000060001.iso)	M2020.02 (cmss_upgrade_motopatch_M2020.02.1.iso)	M2020.02 (cmss_upgrade_motopatch_M2020.02.1.iso)
Capacity Max ESU	DESU-PCR-20.01.12.00-46 (KC435L0US000202001.iso)	DESU-PCR-20.02.12.00-64	DESU-PCR-20.02.12.00-64
Capacity Max Trunk Controller	cmxtc-pcr-20.20.01.00-34.iso	cmxtc-pcr-20.20.02.00-60.iso	cmxtc-pcr-20.20.02.00-60.iso
Capacity Max System Advisor	UEM-PCR-20.20.01.12-00.iso	UEM-PCR-20.20.01.12-00.iso	UEM-PCR-20.20.01.12-00.iso
Capacity Max ESU Launchpad	DESU_LP-M2020.01.R17.12.00.55_1.2.3-01.rhel.iso	DESU_LP-07.01.12.00-62-01.rhel.iso	DESU_LP-07.01.12.00-62-01.rhel.iso
Capacity Max System Server One-Click Upgrade	CVN7292B.iso	CVN7293C.iso	CVN7293C.iso
MNIS VRC Gateway	vrcgw-pcr-02.105.0010.iso	vrcgw-pcr-02.105.0010.iso	vrcgw-pcr-02.105.0010.iso
System Design Tools	06.08	06.08	06.08
R2.X MPT1327 GOB	R01.02.06	R01.02.06	R01.02.06
MPT1327 GOB CPS	R02.00.05	R02.00.05	R02.00.05
R2.X Connect Plus GOB	R02.07.38 (CP 1.1.19)	R02.07.38 (CP 1.1.19)	R02.07.38 (CP 1.1.19)
R2.X Connect Plus GOB CPS	R02.07.43	R02.07.43	R02.07.43
XRC 9000 / 9100 Controller	R02.100.05.1036_1695	R02.100.05.1036_1695	R02.100.05.1036_1695
XRT 9000 / 9100 Gateway	R02.100.05.1036_1695	R02.100.05.1036_1695	R02.100.05.1036_1695
XRI 9100 Interconnect	R02.100.05.1030	R02.100.05.1030	R02.100.05.1030
Network Manager (merged with XRC / XRI packages)	R02.100.05.1030	R02.100.05.1030	R02.100.05.1030

MOTOTRBO Product	M2020.01	M2020.02	M2020.02.01
Network Manager Connection Tool	R02.100.05.1030	R02.100.05.1030	R02.100.05.1030
XRT Configuration Tool	R02.100.05.1030	R02.100.05.1030	R02.100.05.1030

3 <sup>rd</sup> Party Application	M2020.01	M2020.02	M2020.02.01
SmartPTT PLUS	9.7.10.0	9.8.0.980	9.8.0.980
TRBOnet PLUS	5.5.0.3101	5.6.0.4077	5.6.0.4077

#### 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.
- From system release R2.9.1 onwards there is no software support for the original DR 3000 repeaters containing 8MB of memory.
- Due to its size, the standalone RM file which is available to download from Motorola Online has been split into a number of parts. To download and install:
  - Download each RM part.
  - Use 7-Zip to unzip each RM part individually to the same folder.
  - Use 7-Zip again to Unzip RM\_x.xx.xxx.x.zip.001.
  - Install in the usual way from the resulting RM\_x.xx.xxx.x folder.
  - Alternatively, the combined CPS 2.0 / RM is available as an orderable DVD (GMVN6241\_).
- Due to its size, the combined CPS / RM (old legacy version) file which is available to download from Motorola Online has been split into 3 parts. To download and install:
  - Download MOTOTRBO Legacy CPS (Parts 1, 2 & 3).
  - Use 7-Zip to unzip each part individually to the same folder.
  - Use 7-Zip again to Unzip cps\_16\_dot0\_build828.zip.001.
  - Install in the usual way from the resulting cps\_16\_dot0\_build828 folder.
  - Alternatively, the combined CPS / RM is available as an orderable DVD (GMVN5141\_).
- The Capacity Max System Advisor (SA) client is not accessible for the System View, Grid View and Alarm Details view if Java version 8u211 is used on the PC where the SA client resides. Downgrading Java to any version between and including 8u181 and 8u201 will work fine.
- USB 3.0 is not supported for repeater upgrades. For 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 in order to upgrade the repeater via USB.

7. 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 T8766A 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.
8. 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.



The feature sets supported by these releases are compliant to the versions of ETSI DMR standard listed below. Since changes to the ETSI DMR Tier 3 standard are not always backwards compatible with previous versions of the standard, then Capacity Max devices may not always work with other manufacturers' infrastructure where it is compliant to a previous version of the ETSI DMR 3 standard.

ETSI DMR Standard	M2020.01	M2020.02	M2020.02.01
TS 102 361-1: Air Interface Protocol	v2.5.1	v2.5.1	v2.5.1
TS 102 361-2: Voice and Generic Services and Facilities	v2.4.1	v2.4.1	v2.4.1
TS 102 361-3: Data Protocol	v1.3.1	v1.3.1	v1.3.1
TS 102 361-4: Trunking Protocol	v1.7.1 ~ 1.9.2	v1.7.1 ~ 1.9.2	v1.7.1 ~ 1.9.2

## Product Availability

The following table indicates which MOTOTRBO products covered by this document are setup as orderable parts (to order via Motorola Online / Order Management) and which are available to download from the MOTOTRBO Resource Centre at Motorola Online.

MOTOTRBO Product	Orderable Part Number	MOTOTRBO Resource Centre Location
Upgrade Package for DP540, DP1400 and SL1600 Portables	N/A	System Releases / <Release> / Upgrade Packages
Upgrade Package for DP2000/DP2000e Series, SL2600, DP3441, DP3000e Series, DP4000/DP4000e Series, DP4000Ex Series and DP4000Ex Ma Series Portables	N/A	System Releases / <Release> / Upgrade Packages
Upgrade Package for SL4000/SL4000e Series Portables	N/A	System Releases / <Release> / Upgrade Packages
Upgrade Package for DM1000 Series Mobiles	N/A	System Releases / <Release> / Upgrade Packages
Upgrade Package for DM2600 Mobiles	N/A	System Releases / <Release> / Upgrade Packages
Upgrade Package for DM4000/DM4000e Series Mobiles	N/A	System Releases / <Release> / Upgrade Packages
Upgrade Package for DR 3000 and MTR3000 Repeaters	N/A	System Releases / <Release> / Upgrade Packages
Upgrade Package for SLR 1000, SLR 5500 and SLR 8000 Repeaters	N/A	System Releases / <Release> / Upgrade Packages
RDAC	GMVN5520_ (DVD)	N/A
Legacy CPS	GMVN5141_ (DVD)	System Releases / R2.9.x / Software Tools
CPS 2.0	GMVN6241_ (DVD)	System Releases / <Release> / Software Tools
Radio Management	GMVN6241_ (DVD)	System Releases / <Release> / Software Tools
Air Tracer	GMVN6241_ (DVD)	System Releases /General / Software Tools
Tuner	GMVN6241_ (DVD)	System Releases /General / Software Tools
Multi Channel Device Driver (MCDD)	GMVN6241_ (DVD)	System Releases /General / Software Tools
Device Discovery Mobility Service (DDMS)	GMVN6241_ (DVD)	System Releases /General / Software Tools
MOTOTRBO Network Interface Service (MNIS) Data Gateway	GMVN6241_ (DVD)	System Releases /General / Software Tools
MOTOTRBO Network Interface Service (MNIS) Status Agent	GMVN6241_ (DVD)	System Releases /General / Software Tools
MOTOTRBO Capacity Max System Server SW Update Launch Pad	T8486A* (DVD)	N/A

MOTOTRBO Product	Orderable Part Number	MOTOTRBO Resource Centre Location
MOTOTRBO Capacity Max System Server SW Update Launch Pad	T8483A (MyView Portal)	N/A
2.10.5 Capacity Max System Server SW Upgrade	T8699A* (USB)	N/A
MOTOTRBO M2020.01 Capacity Max System Server SW Upgrade	T8733A* (USB)	N/A
MOTOTRBO M2020.02 Capacity Max System Server SW Upgrade	T8765A* (USB)	N/A
MOTOTRBO M2020.02 Capacity Max System Server SW Upgrade	T8766A (MyView Portal)	N/A
MOTOTRBO Capacity Max System Server (CMSS) Windows Update	T8735A* (DVD)	N/A
R2.X MPT1327 GOB Upgrade Kit	N/A	System Releases /General / Upgrade Packages
MPT1327 GOB CPS	N/A	System Releases /General / Software Tools

\* The Capacity Max System Software can only be ordered via Order Management.

## Documentation

The MOTOTRBO System Release Notes and a number of other software documents / Readmes are available on Motorola Online at the following MOTOTRBO Resource Centre Locations:  
MOTOTRBO / System Releases / <Release> / Documents

The latest MOTOTRBO User Guides, Quick Reference Guides, Basic Service Manuals, Installation Manuals, Accessory Leaflets, EME Safety Booklets, RED Leaflets, UL/TIA Manuals, ATEX Safety and Approved Accessory leaflets and System Planner (68007024085\_) are available on the Learning Experience Portal (LXP) at:

<https://learning.motorolasolutions.com>

The latest MOTOTRBO Declaration of Conformity (DoC) documents with attached ATEX DEKRA certificates (where applicable) are available on the EMEA "Documents of Compliance" Website at:

[https://www.motorolasolutions.com/en\\_xu/support/emea-compliance.html](https://www.motorolasolutions.com/en_xu/support/emea-compliance.html)

## Training Material

The following courses are available on the Learning Experience Portal (LXP) and open for enrolment to Partners and Customers.

### New Courses

PCT1071 - New Features for M2020.02

PCT0124 - New Features for M2020.01

### Registration

Registration for these classes is open and available through the LXP at:

<https://learning.motorolasolutions.com>

## Important Notes

### Upgrades to M2020.01 Onwards

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.

When a service package is purchased, a SUM license is issued and pre-registered (in the Motorola Solutions licensing database) to the product serial number. The SUM license is then available for retrieval and activation in the product using Radio Management (RM) or the Customer Programming Software 2.0 (CPS). Once a SUM license has been activated in a product, that product is then eligible to accept software updates for the duration of the MOTOTRBO Service Package.

Note: Selected radio models shipped since 18-Nov-2019 with enhanced warranties are eligible to accept software updates for a period of up-to 5 years.

### R2.10.10 Upgrade Packages

The R2.10.10 radio upgrade packages are only able to upgrade radios already containing R2.10 system release firmware. For radios containing pre-R2.10 system release firmware they first need to be upgraded to a previous R2.10 system release before they can be upgraded to R2.10.10. This restriction does NOT apply to the R2.10.10 repeater upgrade packages.

### MOTOTRBO™ CPS 2.0

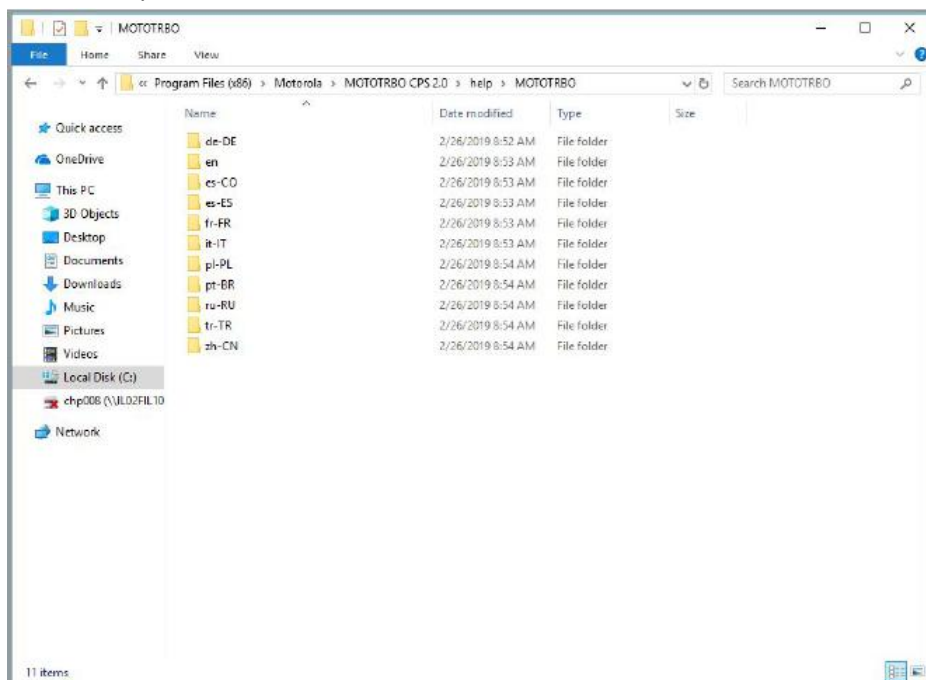
The old MOTOTRBO Legacy CPS which supports up to MOTOTRBO system release R2.9 (including minor releases) has now been retired, however it remains available to download from MOL and order as a DVD so that customers can continue to configure and upgrade devices containing old MOTOTRBO system releases.

The old MOTOTRBO Legacy CPS has been replaced by the new MOTOTRBO CPS 2.0 introduced with MOTOTRBO system release R2.10. The MOTOTRBO CPS 2.0 provisioning and license management functionality is tested for up to three previous releases while the MOTOTRBO CPS 2.0 software update support is tested for up to five previous releases.

## MOTOTRBO™ CPS 2.0 Version 2.18.95.0 Online Help

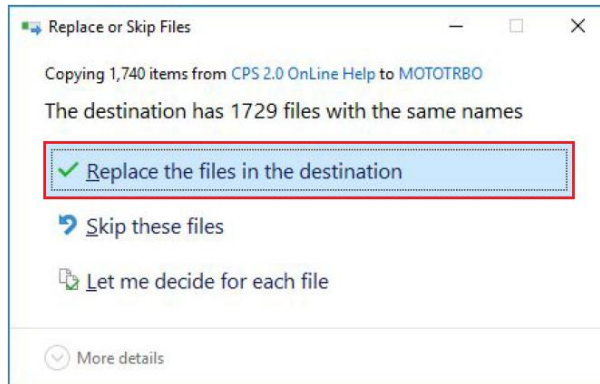
MOTOTRBO CPS 2.0 version 2.18.95.0 provides only partial international language support for OnLine Help. Users requiring full international language support for OnLine Help shall be required to download and install the latest MOTOTRBO CPS 2.0 OnLine Help file from MOL as follows:

1. Ensure the MOTOTRBO CPS 2.0 application is not running.
2. Download the latest MOTOTRBO CPS 2.0 OnLine Help file (CPS\_2.0\_Online\_Help.zip) from the “System Releases / R2.10.x / Software Tools” MOTOTRBO Resource Centre Location on MOL.
3. Extract the content of the zipped file and a new File Explorer window should open containing a number of extracted Folders.
4. Open another File Explorer window and go to “C:\Program Files (x86)\Motorola\MOTOTRBO CPS 2.0\help\MOTOTRBO”.

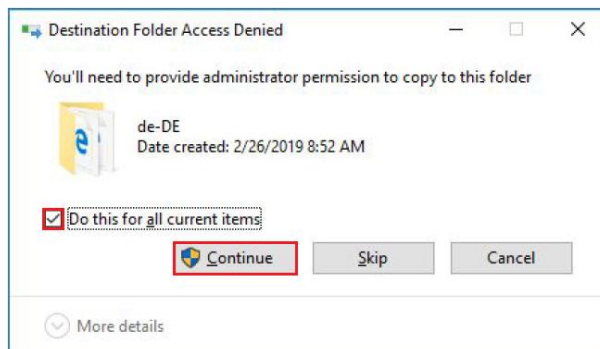


5. Copy all the Folders extracted from the zipped file and Paste (Overwrite) all the folders of the same name at “C:\Program Files (x86)\Motorola\MOTOTRBO CPS 2.0\help\MOTOTRBO”.
6. While the above folders are being overwritten:

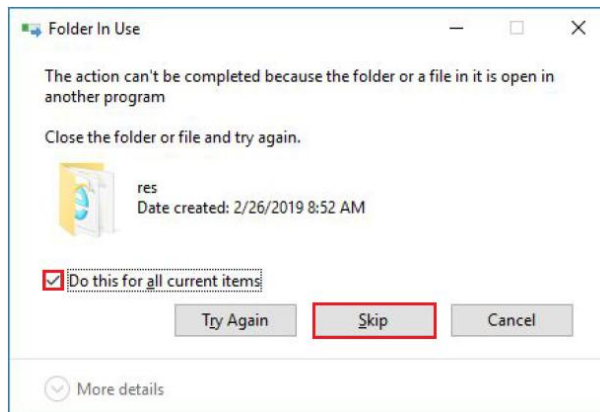
If the following pop-up window appears then select “**Replace the files in the destination**”



If the following pop-up window appears then ensure ***“Do this for all current items”*** is selected and then select ***“Continue”***



If the following pop-up window appears then ensure ***“Do this for all current items”*** is selected and then select ***“Skip”***



7. Launch the MOTOTRBO TM CPS 2.0 application.
8. To start using the Online Help, select the Menu option ***“Help”*** and then click ***“Contents and Index”*** (note: the Online Help language is determined by the Language selected in the CPS 2.0 Settings Menu).

MOTOTRBO CPS 2.0 versions 2.21.61.0 onwards provide full international language support for Online Help, so no OnLine Help file downloads are required for these releases.

## MOTOTRBO™ CPS Version 16.0 (Build 827) Error 1646 (for Italian Language)

There's a format issue caused by the Italian language online help file included with the Legacy CPS Version 16.0 (Build 827) supplied with DVD GMVN5141AV that results in Error 1646 when the Italian language is selected.

There are 2 alternative corrective options as follows:

### Repair Existing Installation

Replace help-text file (help\_it-it.xml) which is located at C:\Program Files (x86)\Motorola\MOTOTRBO CPS\it-it\help\_it-it.xml with a revised version available from Motorola Online ("MOTOTRBO Programming Software" folder).

Note: help\_it-it.xml needs to be extracted from help\_it-it.zip.

### Fresh Install

1. Uninstall the current CPS installation.
2. Download the combined CPS / RM CPS Version 16.0 (Build 828) from Motorola Online (note: it's important to download the combined CPS / RM version rather than the standalone CPS version).
3. Reinstall the CPS.

## Use of Old Archive Codeplugs

It is generally good practice to use codeplugs generated from the default codeplug associated with the latest firmware release rather than reuse very old archived codeplugs which is not recommended.

In order to obtain the improvements in audio clarity introduced as part of the R2.6 system release it is especially important to use codeplugs generated from firmware release R2.6 or later.

## Upgrade of Early Firmware

When an upgrade spanning multiple releases is to be performed it is strongly recommended that the upgrade be performed in multiple steps spanning no more than 3 major releases.

## Upgrading Radio Systems Running Applications

To avoid unforeseen issues resulting from upgrading deployed radio systems running Applications, we recommend that you check first with your Application provider to ensure that the version of Application you are running is fully compatible with the new version of radio system.



## Repeater Update Duration

When updating MOTOTRBO repeaters, it's important to ensure that the update process is not interrupted until the "Device Update Successful" message appears on the CPS screen.

## Repeater Knockdown

It is recommended that the Repeater is not in the Repeater Knockdown state while performing a CPS Read or Write operation.

## PN, DDMS, MNIS and MCDD Applications

The Device Discovery and Mobility Service (DDMS) application replaces the legacy Presence Notifier (PN) application. Additionally, the DDMS is backwards compatible with the PN such that existing applications that interface with the PN do not require any changes to receive presence notifications from the DDMS.

The Device Discovery and Mobility Service (DDMS), MOTOTRBO Network Interface Service (MNIS) and Multi-Channel Device Driver (MCDD) applications are included on the CPS DVD and are also available to download from Motorola Online.

The DDMS, MNIS and MCDD applications are not installed automatically from the CPS DVD, instead they need to be manually copied over from the top level DVD folder.

## SMA / MX Connector Antennas

Even though the SMA antennas are non-GPS, the SMA portable models still support GPS / GNSS since all DP4x01e series portables contain internal GPS / GNSS antennas.

Only SMA antennas should be attached to SMA portable models. Attaching a standard (MX) antenna to an SMA portable will damage the SMA connector centre pin on the portable.

Conversely, only standard (MX) antennas should be attached to standard (MX) portables. Attaching an SMA antenna to a standard (MX) portable will degrade performance.

## Control Head Cable Flex

The cable flex (part 30012045001) supplied with older (Numeric / Colour Display) Control Head, Remote Mount Control Head and Handheld Control Heads kits is not compatible with the new DM4000e series mobiles.

To determine if a given Numeric Display Model Control Head kit is compatible with the new DM4000e series mobile radios, refer to its part number. If the part number is PMLN5677\_, then the cable flex (part 30012045001) needs to be replaced with a newer cable flex (part 30012045002) before the Numeric

Display Control Head kit can be used with the DM4000e series mobile radios. If the part number is PMLN7500\_, then the Numeric Display Control Head kit is already compatible with the DM400e series mobiles.

To determine if a given Colour Display Model Control Head kit is compatible with the new DM4000e series mobile radios, refer to its part number. If the part number is PMLN5678\_, then the cable flex (part 30012045001) needs to be replaced with a newer cable flex (part 30012045002) before the Colour Display Control Head kit can be used with the DM4000e series mobile radios. If the part number is PMLN7501\_, then the Colour Display Control Head kit is already compatible with the DM400e series mobiles.

To determine if a given Remote Mount Control Head kit (PMLN6404\_) is compatible with the new DM4000e series mobile radios, refer to the part number on the Remote Transceiver Interface. If the part number is PMLN6402\_, then the cable flex (part 30012045001) needs to be replaced with a newer cable flex (part 30012045002) before the Remote Mount Control Head kit can be used with the DM4000e series mobile radios. If the part number is PMLN7504\_, then the Remote Mount Control Head kit is already compatible with the DM400e series mobiles.

To determine if a given Handheld Control Head kit (PMLN7131\_) is compatible with the new DM4000e series mobile radios, refer to the part number on the Handheld Control Head Transceiver Adapter. If the part number is PMLN7033\_, then the cable flex (part 30012045001) needs to be replaced with a newer cable flex (part 30012045002) before the Handheld Control Head kit can be used with the DM4000e series mobile radios. If the part number is PMLN7502\_, then the Handheld Control Head kit is already compatible with the DM400e series mobiles.

## **RSSI Display Value**

To make a MOTOTRBO subscriber display its current RSSI value, press the left arrow three times and immediately press the right arrow three times, all within 5 seconds of power up.

## **R2.X MPT1327 GOB Upgrade Kit**

The R2.X MPT1327 GOB Upgrade Kit supports Windows 7.

When installing and launching the R2.X MPT1327 GOB Upgrade Kit on a Windows 7 computer, select "Run as administrator".

The R1.X and R2.X MPT1327 GOB Upgrade Kits cannot be installed together on the same computer. So if the R1.X MPT1327 GOB Upgrade Kit is already installed then this will have to be un-installed before the R2.X MPT1327 GOB Upgrade Kit can be installed.

The R2.X MPT1327 GOB Upgrade Kit does NOT preserve the R2.X MPT1327 GOB configuration, so before upgrading the R2.X MPT1327 GOB firmware read the R2.X MPT1327 GOB configuration using the

MPT1327 GOB CPS and save it to a \*.rad file. After upgrading the R2.X MPT1327 GOB firmware, the saved \*.rad file can be written back to the R2.X MPT1327 GOB using the MPT1327 GOB CPS.

## **MPT1327 GOB CPS**

The MPT1327 GOB CPS supports Windows 7.

When installing and launching the MPT1327 GOB CPS on a Windows 7 computer, select “Run as administrator”.

## **MPT1327 / Connect Plus Options**

Certain radio models can be ordered with factory fitted MPT1327 / Connect Plus option boards.

(NOTE: the generic option board can NOT be field upgraded to support MPT1327)

## **MPT1327 / Connect Plus GOB Firmware Compatibility**

Where a radio contains an MPT1327 / Connect Plus option board it's important to adhere to the following simple rules in order to ensure full compatibility between the option board firmware and the radio firmware:

1. On installing an MPT1327 / Connect Plus option board, ensure that both the option board and the radio contain the latest available firmware versions.
2. On upgrading a radio to the latest available firmware version, ensure that the option board also contains the latest available firmware version.
3. On upgrading an option board to the latest available firmware version, ensure that the radio also contains the latest available firmware version.

Options boards for DP4000/DM4000 series radios are NOT forward compatible with DP3000e/DP4000e/DM4000e series radios and option boards for DP3000e/DP4000e/DM4000e series radios not backwards compatible with DP4000/DM4000 series radios.

## **Repeater Hardware Compatibility**

DR 3000 repeaters containing 32MB of memory and MTR3000 repeaters support the R1.X and R2.X features.

DR 3000 repeaters containing 8MB of memory support most R1.X features. However such repeaters do not support the IP Repeater Programming R1.X feature, Linked Capacity Plus or any of the R2.X features.

From system release R2.9.1 onwards there is no software support for DR 3000 repeaters containing 8MB of memory (note: DR 3000 repeaters containing 32MB of memory continue to be supported beyond R2.9.1).

Note: Any DR 3000 repeater ordered since the launch of R1.7 contains 32MB of memory.

To determine if a given DR 3000 repeater contains 8MB of memory then check the S/Tanapa label. DR 3000 repeaters containing one of the following S/Tanapa numbers contain 8MB of memory (all other DR 3000 repeaters contain 32MB):

- PMUE2390AAEAA DR 3000 UHF1 (25-40W)
- PMUE2390AAE DR 3000 UHF1 (25-40W)
- PMUE2390BAEAA DR 3000 UHF1 (25-40W)
- PMUD2091AAEAA DR 3000 VHF (25-45W)
- PMUD2091AAE DR 3000 VHF (25-45W)
- PMUD2091BAEAA DR 3000 VHF (25-45W)
- PMUD2092AAEAA DR 3000 VHF (1-25W)
- PMUD2092BAEAA DR 3000 VHF (1-25W)
- PMUE3017AAEAA DR 3000 UHF1 (1-25W)
- PMUE3017BAEAA DR 3000 UHF1 (1-25W)
- PMUE3084AAEAA DR 3000 UHF2 (1-40W)

### DR 3000 Repeater Hardware Upgrades

A MOTOTRBO RDAC Indicator Repeater Board Service Kit (PMLN5269) is available to upgrade pre-R1.4 VHF / UHF1 DR 3000 repeaters to support the power / fan failure diagnostic alarms.

Note: Any DR 3000 repeater ordered since the launch of R1.4 does NOT require this hardware upgrade.

To determine if a given DR 3000 repeater requires the hardware upgrade then check the S/Tanapa label. DR 3000 repeaters containing one of the following S/Tanapa numbers will require the hardware upgrade (all other DR 3000 repeaters will not):

- PMUE2390AAEAA DR 3000 UHF1 (25-40W)
- PMUE2390AAE DR 3000 UHF1 (25-40W)
- PMUD2091AAEAA DR 3000 VHF (25-45W)
- PMUD2091AAE DR 3000 VHF (25-45W)
- PMUD2092AAEAA DR 3000 VHF (1-25W)
- PMUE3017AAEAA DR 3000 UHF1 (1-25W)

## Open (Unresolved) Issues

Open (Unresolved) issues are all known or reported issues that still exist in this current software release and may occur under certain circumstances.

### **Infrastructure Impact**

**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.

### **CPS-RM / RDAC Impact**

None.

### **Radio Impact**

None.

## Resolved Issues in M2020.xx System Releases

Resolved issues are the known product problems that were reported in products releases, but have now been fixed or closed.

### Resolved in M2020.02.01:

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-3142	MOTOTRBO2.6.0	MTR3000	SU registration failure C3:26982046 RFC: 27175276
DMGMT-27806	MOTOTRBO2.7.5	MTR3000	When downgrading an MTR3000 repeater with a valid Software Update Management license from D20.20.02.15 to R2020.02, the repeater experiences a software license validation failure.
ENG_INFRA_PCR-8296	M2020.02.01	DR3000, MTR3000	Repeater resets every six minutes.

### Resolved in M2020.02:

Defect ID	Release Introduced	Product	Headline
ENG_INFRA_PCR-4119	R2.9.0	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	R2.10.0	SLR5300	Issues on SFR when different frequencies are used for RX and TX C3: 27240152
ENG_INFRA_PCR-5296	R2.9.0	Capacity Max	VRC1 appears inactive with TC1 (Capacity Max System Server licensing issue) C3: 27343814
CONNECTPLUSINFRA-306	R2.9.0	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	R2.8.5	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	R2.6.0	SLR5700	SLR5700 cannot connect to network via DNS name C3: 27448463
ENG_INFRA_PCR-6211	R2.6.0	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	R2.6.0	MTR3000	SU registration failure C3:26982046 RFC: 27175276
ENG_INFRA_PCR-5688	R2.6.0	SLR8000	Subscriber to wireline console data call always fails C3: 27284667
ENG_INFRA_PCR-5826	R2.9.0	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	R2.9.0	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-22894	M2020.01	Radio	ENG WRSB / DP4601E Talk Permit Issue 200320 (inherited) (propagated - M2020.02) INC#: INC000003285138
PCR_SUB-21804/ PCR_SUB-21878	M2020.01	Radio	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	R2.10.0	Radio	DP4801e - FirstWireless Inc. - Battery Status shown in Error condition at FW 2.10. (propagated - M2020.02). C3: 27366418
PCR_SUB-18067	R2.0	Radio	DP4801 - Scan + Auto Acknowledge doesn't work with 5-tone signalling (propagated - M2020.02). C3: 26751919

#### Resolved in M2020.01:

Defect ID	Release Introduced	Product	Headline
ENG_INFRA_PCR-3048	R2.6.0	SLR8000	Capacity Plus Issue with subscribers intermittently unable to access system C3: 26752208
PCR_SUB-14207	R2.6.0	Capacity Max	Radio unable to roam to another stronger site even though radio's location is beside said site C3: 26697210
ENG_INFRA_PCR-3801	R2.9.0	MTR3000	RDAC Only displays Voting Details at the time of connection and does not update from that point forward after upgrade from R2.4 to R2.10.5 C3: 27047516
ENG_INFRA_PCR-4115	R2.6.0	SLR5000 (UHF 350-400)	SLR5100 (UHF 350-400) Repeaters will not enable when disabled by System Advisor C3: 27148486
UEM-6124	R2.10.0	Capacity Max	Capacity Max, No call information showing in System Advisor when redundant repeaters are used C3: 27287728



INMOL-890	R2.9.0	SLR8000	Aux Connector pin 20 Fused B+ voltage does not match what is documented in BSIM C3: 27318101
ENG_INFRA_PCR-1741	R2.6	SLR8000	Aux connector no audio after PTT C3: 26670265
ENG_INFRA_PCR-2252	R.2.6	SLR5700	COR Stuck active with Digital Phone Patch C3: 26804940
ENG_INFRA_PCR-2358	R2.6.0	Capacity Max	System Advisor Time Sync Issue with HP router C3: 26818703
ENG_INFRA_PCR-2577	R2.6.0	SLR5000	Major Alarm: PA program fails after downgrade C3: 26857752
UEM-6096	R2.9	Capacity Max	Users getting intermittent "Busy" although repeaters are not busy with traffic C3: 26861985
ENG_INFRA_PCR-2596	R2.9	Capacity Max	Users getting intermittent "Busy" although repeaters are not busy with traffic C3: 27081618
UEM-6012	R2.5A	Capacity Max	If Java version 8u211 is used, the user will not be able to access the System View, Grid View and Alarm Details view although there is no data loss and the GridView will still be available from the web browser
ENG_INFRA_PCR-6540	M2020.01	Capacity Max	Radio management cannot change IP address on Linux virtual machines (Trunk Controller/ESU and System Advisor)
ENG_INFRA_PCR-6532	M2020.01	All SLR Series repeaters	SLR Repeater shipped from the factory with M2020.01 version of firmware will show red Alarm LED followed by repeater getting disabled 5-7minutes after Power ON. Alarm is for "SMA Validation Failure" and can be read using RDAC.
DMGMT-1454	R2.6.0	MOTOTRBO RM	When attempting to edit the Cap Max Site Selection List set, RM freezes. It takes minutes to display and edit Cap Max Site Selection List from the set view.
DMCI-725	R2.10.0	MOTOTRBO RM	RM R2.21.61.0 Will not update language packs newer than R2.9 version C3: 27146332
DMCI-717	R2.6.0	MOTOTRBO RM	Device Programmer cannot connect the assigned group C3: 27065486
DMCI-671	R2.10.0	MOTOTRBO RM	RM V2.18.95.0 Cannot read-write ( Privacy alias error) C3: 26941306

DMCI-735	R2.10.0	MOTOTRBO CPS 2.0	CPS2.0 allows licenses to be registered against SN in lower case C3: 27182603
DMCI-732	R2.10.0	MOTOTRBO CPS 2.0	When the language in CPS is turned to Spanish Setting "Repeater/Time Slot" under Channel settings is fixed to "1024" value, preventing it from setting Time Slot 1 or 2. C3: 27150649
DMCI-719	R2.6.0	MOTOTRBO CPS 2.0	DP2600 - R2.10, cannot enable Site Lock feature without IPSC license C3: 27127141
DMCI-678	R2.10.0	MOTOTRBO CPS 2.0	TPL code in the codeplug resets to XZ with every read of Timor and Tahiti on CPS 2.0 C3: 26980256
PCR_SUB-18064	R2.10.5	Radio	DP4801 - Scan + Auto Acknowledge doesn't work with 5-tone signalling C3: 26751919
PCR_SUB-17677	R2.0	Radio	RSSI is reduced a lot once the radio is closed to the Tx radio on DP4000e radios C3: 27147174
PCR_SUB-15587	R2.6.0	Radio	P8808R [DP4000 3B] landed to wrong channel during scan in EOT mode C3: 27112762
PCR_SUB-14181	R2.10.0	Radio	DP4800e Radios cannot enter programming mode following Wifi configuration update C3: 26942393
PCR_SUB-12535	R2.0	Radio	DP4801e DTMF modulation drops to an unusable level in analog when Bluetooth is paired C3: 26838892
PCR_SUB-10452	R2.10.5	Radio	Analogue mode DM4400 with R2.8.5 locks up or produces no modulation when used with 3rd party telemetry system - but DM4400 with R2.7.0 works fine C3: 26713714
PCR_SUB-8524	R2.0	Radio	DP1400 McIntoshComm_VoiceModulation C3: 26623500
PCR_SUB-10451	R1.30	Radio	DP480e CTM_InvalidAccessory C3: 26656909