MOTOROLA

Motorola Solutions

MOTOTRBO® 2.X System Release Notes

Professional Commercial Radios (PCR) & Accessories

Version: 02.04.20v01

Date: 20th July 2015

System Release R02.04.20

(sometimes referred to as R2.4B)

Contents

Scope

These MOTOTRBO 2.X System Release Notes cover the following MOTOTRBO products:

- DP1000 Series, SL1600, DP2000 Series, DP3441, DP4000 Series, DP4000Ex Series and SL4000 Series Portables
- DM1000 Series, DM2000 Series and DM4000 Series Mobiles
- DR 3000, SLR 5500 and MTR3000 Repeaters
- CPS
- Air Tracer
- Tuner
- Device Discovery and Mobility Service (DDMS)
- MOTOTRBO Network Interface Service (MNIS)
- Multi Channel Device Driver (MCDD)
- RDAC Application
- IMPRES^{TM} Fleet Management Software
- Second generation MOTOTRBO MPT1327 GOB
- MPT1327 GOB CPS

Please refer to the latest MOTOTRBO 1.X System Release Notes for details on the following MOTOTRBO products:

- DP 3000 Series Portables
- DM 3000 Series Mobiles
- First generation MOTOTRBO MPT1327 GOB

What's new in System Release R02.04.20

1) **Home Channel Reminder**: Radio alerts user when they have left their primary home channel for a predetermined period of time.
2) **Emergency Search Tone**: Radio sounds a loud tone through the speaker while in Emergency mode.
3) **Emergency Enhancements**:
   - Emergency alert LED continues to flash in the idle state while the radio remains in emergency mode.
   - Addition of a Contact field in the Digital Emergency System to enable the Revert Channel and Contact to be independently configured by the CPS.
   - Ability for user to configure duration of Emergency alert tone.
   - Addition of Emergency "Vibrate" option for SL4000 series portables.
   - Ability for emergency initiator to manually transmit during Emergency hot-mic session.
   - LED flashes red and radio optionally sounds a periodic tone while receiving emergency voice.
4) **Roaming RSSI per site in IPSC and LCP**: Ability to configure the roaming threshold to be on a per site basis.
5) **Hebrew Language Support**: Addition of Hebrew language capability and a number of Hebrew language keypad (DP4800/SL4000 Series) portables.
6) **Adaptive Rest Channel RDAC Alarm**: Repeater generates an RDAC alarm when the "Adaptive Forced Rest Channel Rotation" feature rotates the Rest channel.
7) **SL1600 Power Setting**: Enables the maximum "Digital TX High Power" setting to be tuned for 2.5W or 3W without impacting the other "Digital TX High Power" settings (i.e. 2W and 1W).
8) **Improved RSSI Indication**: Radios provide a more precise signal strength indication for the user.
9) **Switches and Routers Support**:
   - HP A-MSR20-20 Router (JF283A) has been cancelled (orderable through 31/12/2015); recommended replacing with HP MSR2003 AC Router (JG411A).
   - Cisco Catalyst 3560 Switch has been cancelled (orderable through 14/11/2015); recommended replacing with Cisco Catalyst 3650.
10) **SLR 5500 Repeater**: Introduction of a new MOTOTRBO mid-tier repeater.
11) **SL1600 Radio Contact Alias**: Ability for the SL1600 portable to support radio names up to 12 characters in length.
12) **SL1600 Trill Enhancement**: Ability for the SL1000 portable to support the Alveolar Trill (i.e. rolling "r") enhancement option.
13) **SL1600 OTA Battery Management**: Ability for the SL16000 portable to support the OTA Battery Management registration feature.
14) **Closed (Resolved) Issues:** See Resolved Issues in Product Release section.

What's new in System Release R02.04.02

1) **Bluetooth Adaptivity**: Performance optimised per EN300328 V1.8.1.
2) **Closed (Resolved) Issues:** See Resolved Issues in Product Release section.

What's new in System Release R02.04.00

1) **Repeater Diagnostic Enhancements:**
   a. RDS (Repeater Diagnostics System) detects and keeps track of software alarms to provide more troubleshooting information from live systems and reduces the time to fix system malfunction issues.
   b. RDAC (Repeater Diagnostics Alarm and Control) is used to control RDS and retrieve the diagnostic log information from the repeaters.
2) **Over-the-Air (OTA) Battery Management:** IMPRES^{TM} Fleet Management Software and IMPRES^{TM} energy portables expanded to support OTA Battery Management:
   a. IMPRES^{TM} Battery Fleet Management supports automatic collection of battery information over the air while the radios are in use.
   b. This removes the need for <u>wired</u> network connections, Charger Interface Units, and remote clients at charger locations.
   c. Saves the guesswork, complexity and cost of managing a large fleet of batteries.
   d. With IMPRES^{TM} Battery Fleet Management, existing or customizable reports can be utilized to view the most relevant information.
3) **DMR Tier 2 Text Message Compliance:**
   a. **DMR Tier 2 Text Message** format for individual and group messages for radio to radio only (Direct and Repeater mode)
      i. Radios can receive both DMR and Motorola Proprietary text messages and reply in the same format as the received text message.
      ii. New text messages will be sent in the format selected via the CPS on per-channel bases.

      Note: Motorola Proprietary Text Messaging format supports the following (not supported by DMR Standard format):
      - Application layer acknowledgements - confirmation that the text message was received, when the end point is not a radio (consoles, PC app, etc)
      - Message numbering – acknowledgement of multiple text messages from the same source
      - Email gateways
   b. **DMR Tier 2 UDP/IPv4 Header Compression** provides improved retry reliability compared to Motorola's header compression. Whenever possible, DMR Header Compression should be selected for improved reliability. DMR and Motorola header compression are not interoperable.
4) **Text-to-Speech:**
   a. Professional tier MOTOTRBO subscriber products support the <u>voice announcement feature suite</u> to audibly convey information to the radio user.
      i. This feature is helpful when the MOTOTRBO subscriber display or indicators are not easily accessible (e.g. located under protective clothing).
      ii. A second example of when this feature is helpful is when the MOTOTRBO subscriber operator cannot be distracted from their task to look at the display or indicators.

    b.   The voice announcement feature includes a standard feature set (pre-recorded audio file) introduced in a previous software release and a **premium feature set (text-to-speech solution)** introduced in this software release.

         i.   The standard feature set and premium feature set are mutually exclusive (i.e. only one may be enabled).

        ii.   The premium feature set converts text to an audible format for a voice first, hands free user experience for text message and work ticket applications.

5) **Backlight Enhancements:** The display Backlight timer of R2.X MOTOTRBO portable radios can now be customized to allow users to set when the light turns ON and how long it remains active.

6) **Clear to Send Audio Mute in Digital Mode:** Allows two mobiles to coordinate transmissions.

7) **Pre-Configured Telephone Patch:** Phone System enabled MOTOTRBO repeaters can be set up to connect a phone user to a default Private Call, Group Call or All Call.

8) **Event and Distance Driven Location Updates:**

    a.   Event Driven: When the status of a device connected to the rear pins of a MOTOTRBO radio changes, the radio sends a location update with a time stamp and Pin number status update to a 3rd party Location Tracking Application.

    b.   Distance Driven: Location update is triggered when the distance traveled by a radio from the last update exceeds specific values defined in the location server application.

9) **Mobile Handheld Control Head:** Provides DM460X mobile users with the flexibility to install the brick remotely in the vehicle or under the seat while maintaining full control of the radio's functions in a hand held device. Ideally designed for vehicles with limited and/or tight spaces for mobile installations.

10) **Switch Speaker:** Programmable button that allows the user to toggle speaker audio between the radio speaker and the headset. The user can then listen to audio through the radio speaker without detaching the headset.

11) **Multi Button PTT:** Supports as many as 7 additional PTT buttons on a single accessory. Each PTT button may be assigned to key-up a specific channel.
    Notes: MBPTT accessories are not provided by Motorola Solutions.
                 MBPTT accessories must be built by the users or 3rd party vendors.
                 A reference design for a MBPTT accessory is available upon request from Motorola.

12) **ATEX NC RSM:** Hardware support.

13) **5-Tone Enhancement:** Extends the maximum number of tones per telegram transmission from 36 to 60. Also, removes the Selective Call Encode display upon PTT press on 5-Tone channels, so there will be no display change upon PTT presses and throughout the transmission.

14) **Trill Enhancement:** Additional audio processing is applied in the transmitting radio to enhance the sharpness of the rolling "R" sound in Latin languages so speech is clearer and more intelligible.

15) **User Selectable Audio Profile:** Provides radio users with greater flexibility to optimize the audio experience for specific operating environments and to better accommodate personal listening preference. Selections can be made via CPS or the Radio Menu (display radios only) from each category independently. Users are encouraged to select the profile which sounds best to them. Available Choices are:
Audio Ambience - based on work environment:
- **Default** – original radio settings

- **Loud** – enables Noise Suppressor and increases speaker loudness by around 8dB, so the radio is easier to hear over surrounding noise
- **Work Group** – enables AF Suppressor and disables AGC, to minimize feedback loops, when a group of radios are near to each other.

Audio Profiles - based on listening preferences:
- **Default** - original radio settings
- **Level 1**, **Level 2**, **and Level 3** are intended to compensate for noise-induced hearing loss that is typical for adults in their 40's, 50's, and 60's or older.
- **Treble Boost** for a brighter or high pitched sound
- **Mid Boost** for a more nasal sound
- **Bass Boost** for a deeper sound

16) **DM/DP1000 Series IPSC Support:** Make IPSC available via an IPSC CfS license key. This key will enable access to the Messaging Delay Timer and Auto Roaming.

17) **DP1000 Series U2 Band Spin:** Expands the UHF Band offering to UHF B2 450-527MHz.

18) **CPS based GNSS Satellite Selection Support:** For GNSS radios, there are multiple combinations of constellation. The user can now select the desired combination via the CPS.

19) **Repeater Narrow IF Filter:** IF filter is used to reduce the interference from the adjacent channels. Selection of narrow IF filter improves Adjacent Channel Selection (ACS) by 3 – 4 dB and degrades the sensitivity by 0.5 dB. Narrow IF filter is available on DR/MTR3000 repeaters. Selection of narrow vs. wide (existing) IF filter is through a CPS option with the default configuration being wide.

20) **Low Voltage Threshold Reading:** Software change to enable radio SW to read "Page 1 Validity" and "Battery Kit Number" stored in battery memory IC to determine Low Voltage Threshold read location, either from battery memory IC or radio codeplug.

21) **DP4000Ex Series Power Tuning:** Enhancement to enable users to tune ATEX power levels.

22) **Replace HP ProCurve:** HP has introduced a new switch to replace the current HP 2530-24 Switch.

23) **Hide PIN on Home Screen:** Ability to hide the Person Identifier (PIN) and prevent it from displaying on the home screen or anywhere else after it has been entered.

24) **Disable Bluetooth via CPS:** Ability to disable Bluetooth for applications where the signal can cause interference with sensitive equipment.

25) **Replace Unprogrammed for Radio Lock:** When the radio is "locked" during a password attempt (Enhanced Password Protection), the radio display now shows "Radio Lock" instead of "Unprogrammed" (which was previously confused with an unprogrammed channel position or key field within the radio codeplug).

26) **DP/DM2000 Series 5-Tone:** Remove 5-Tone CfS license key and make this a standard feature.

27) **AES Interoperability:** R2.4 will have a single Advanced Encryption Standard (AES) implementation that will support interoperability based on the DMR Association Working Group test vectors.

28) **Rest Channel Time-Out-Timer:** Controls how long a repeater keeps its Rest Channel role in the absence of a new call activity before moving the role to another repeater in a multi-channel Capacity Plus and Linked Capacity Plus System. Ensures that a Rest Channel is available even in the presence of co-channel interference, failure in the receiver line or inter-modulation. See the "Adaptive Rest Channel Rotation (ARCR)" section of the System Planner for more details.

29) **Radio Management:** The 5-Tone ID configuration will now be shown as a column in the Radio View, instead of a configuration while editing the template. The purpose of this change is to make it easier to configure a 5-Tone system within Radio Management.

30) **MPT1327 Navigational Buttons:** The Navigational Up/Down buttons in MPT1327 mode are disabled from scrolling through the contact/talkgroup lists unless the user has already entered the contact/talkgroup list via the MENU. This prevents inadvertent Navigational Up/Down button activations (for example while the radio is on the belt) resulting in the radio to scrolling through the contact/talkgroup lists.
31) **Closed (Resolved) Issues:** See Resolved Issues in Product Release section.

Product Versions

Listed below are all MOTOTRBO Product Versions associated with the different R2.4 system releases.

MOTOTRBO Product	Release R02.04.00	Release R02.04.02	Release R02.04.20
DP1400 Portables	R01.01.01	R01.01.01	R01.01.20
SL1600 Portables	R01.00.27	R01.00.27	R01.01.20
DP2000 Series Portables	R02.40.00	R02.40.02	R02.40.20
DP3441 Portables	R02.40.00	R02.40.02	R02.40.20
DP4000 Series Portables	R02.40.00	R02.40.02	R02.40.20
DP4000Ex Series Portables	R02.40.00	R02.40.02	R02.40.20
SL4000 Series Portables	R02.40.00	R02.40.02	R02.40.20
DM1000 Series Mobiles	R01.01.01	R01.01.01	R01.01.20
DM2000 Series Mobiles	R02.40.00	R02.40.02	R02.40.20
DM4000 Series Mobiles	R02.40.00	R02.40.02	R02.40.20
DR 3000 Repeaters	R02.40.01	R02.40.01	R02.40.12
SLR 5500 Repeaters	-	-	R01.01.03
MTR3000 Repeaters	R02.40.01	R02.40.01	R02.40.12
CPS	R11.0 (Build 596)	R11.0 (Build 596)	R11.5 (Build 621)
Air Tracer	R8.0 (Build 28)	R8.0 (Build 28)	R8.0 (Build 28)
Tuner	R11.0 (Build 187)	R11.0 (Build 187)	R11.5 (Build 196)
Device Discovery and Mobility Service (DDMS)	R03.40.5000	R03.40.5000	R03.40.5000
MOTOTRBO Network Interface Service (MNIS)	R02.40.5000	R02.40.5000	R02.41.5000
Multi Channel Device Driver (MCDD)	R2.1.3	R2.1.3	R2.1.3
RDAC	R6.0 (Build 87)	R6.0 (Build 87)	R6.5 (Build 92)
IMPRES^{TM} Fleet Management Software	R2.0.9	R2.0.9	R2.0.9
R2.X MPT1327 GOB	R01.02.03	R01.02.03	R01.02.03
MPT1327 GOB CPS	R02.00.03	R02.00.03	R02.00.03

Product Availability

The MOTOTRBO products covered by this document are available either as an orderable DVD or a file which can be downloaded from the MOTOTRBO Resource Centre at Motorola Online.

MOTOTRBO Product	Orderable DVD Part Number	MOTOTRBO Resource Centre Location
Upgrade Package for DP1400 and SL1600 Portables	N/A	R2.X Device Firmware
Upgrade Package for DP2000 Series, DP3441, DP4000 Series and DP4000Ex Series Portables	N/A	R2.X Device Firmware
Upgrade Package for SL4000 Series Portables	N/A	R2.X Device Firmware
Upgrade Package for DM1000 Series Mobiles	N/A	R2.X Device Firmware
Upgrade Package for DM2000 Series Mobiles	N/A	R2.X Device Firmware
Upgrade Package for DM4000 Series Mobiles	N/A	R2.X Device Firmware
Upgrade Package for DR 3000 and MTR3000 Repeaters	N/A	R2.X Device Firmware
Upgrade Package for SLR 5500 Repeater	N/A	R2.X Device Firmware
CPS	GMVN5141_	Programming Software (CPS, Tune, Air, Tracer)
Air Tracer	GMVN5141_	Programming Software (CPS, Tune, Air, Tracer)
Tuner	GMVN5141_	Programming Software (CPS, Tune, Air, Tracer)
Combined installer for MOTOTRBO Network Interface Service (MNIS) and Device Discovery Mobility Service (DDMS).	GMVN5141_	Programming Software (CPS, Tune, Air, Tracer)
Multi Channel Device Driver (MCDD)	GMVN5141_	Programming Software (CPS, Tune, Air, Tracer)
IMPRES^{TM} Fleet Management Software	N/A	Accessories / Software Update / Energy
RDAC	GMVN5520_	N/A
Upgrade Package for the R2.X MPT1327 GOB	N/A	R2.X Device Firmware
MPT1327 GOB CPS	N/A	Programming Software (CPS, Tune, Air, Tracer)

Important Notes

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.

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)

Repeater Diagnostic and Control Version

RDAC version 1.0 is NOT forwards compatible with DR 3000 repeaters containing firmware version R01.06.11 onwards and MTR3000 repeaters. To ensure compatibility, the minimum requirement is for RDAC version 2.5 to be installed.

If RDAC is used with a Linked Capacity Plus system configuration, then RDAC version 4.0 or later must be used.

Repeater Knockdown

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

Legacy PL Falsing

Certain legacy analogue subscribers configured for PL XZ (67 Hz), 183.5 Hz or 199.5 Hz sound "squelch tail" like bursts while DMR digital activity is present on the channel. It is recommended therefore that

these tones be avoided if legacy analogue subscribers are required to operate on channels where DMR digital activity is present.

Repeater Hardware Compatibility

DR 3000 repeaters containing 32MB of memory and MTR3000 repeaters support all 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.

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 Software Upgrade

DR 3000 repeaters containing firmware versions earlier than R01.02.xx must be upgraded to a firmware version between R01.02.xx and R01.06.xx prior to being upgraded to firmware version R01.07.xx or later.

Enhanced GPS Configuration

It is strongly encouraged to review section 2.4.3.6 of the MOTOTRBO System Planner for configuration guidelines.

Control Station GPS Revert Option

For single site and IP Site Connect configurations, the "GPS Revert" option must be set to "Selected" in the control station radio.

Programming Cables

There is a new programming cable (PMKN4012B) for the DP4000 series radios. Note: PMKN4012B is backwards compatible with the DP 3000 series radios, however PMKN4012A is NOT forwards compatible with the DP4000 series radios.

PMKN4013C is the test & alignment / programming cable for both the DP 3000 series and the DP4000 series radios. Note: PMKN4013A and PMKN4013B are NOT forwards compatible with the DP4000 series radios.

There is also a new "USB-A to USB-B" programming cable (30009477001) and a DB25 test cable (PMKN4166A) for the SLR 5500 repeaters.

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 (GMVN5141_) 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.

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.

Radio Boot Up, Squelch and Display Operation

Customers are encouraged to upgrade their R2.X radio firmware to at least R02.06.04 in order to improve the reliability of the radio boot up, analogue squelch and display operation.

R02.06.03 Firmware Upgrade Packages

Do NOT use the R02.06.03 firmware upgrade packages to upgrade radios in the field to firmware version R02.06.03. If you have already done so, read the Important Readme document available on MOL with R02.06.04 firmware upgrade packages.

R02.06.04 Firmware Upgrade Packages

Do NOT use the R02.06.04 firmware upgrade packages until you have read the Important Readme document available on MOL with these packages.

Linked Capacity Plus Systems

When at least one repeater in a Linked Capacity Plus system contains firmware R02.20.12 (or later), then all repeaters in that system must be at least R02.20.12. This means that before a repeater containing firmware R02.20.12 (or later) can be added to a Linked Capacity Plus system, any existing repeaters in that system containing pre-R02.20.12 firmware must be upgraded to at least R02.20.12.

Upgrade procedure: Upgrade the Master repeater first then all Peer repeaters at the Master site and finally all Peer repeaters at the other sites.

Capacity Plus Systems

For system release R02.02.20 (repeater FW: R02.20.12 / radio FW: R02.06.12), the CPS allows Capacity Plus Channel IDs 1-16 to be defined. However, since the maximum number of Trunking repeaters per Capacity Plus system for this release is still 6 then Channel IDs 13/14 and 15/16 should not be configured.

For repeater firmware R02.30.01 (or later) the Rest/Site IP address must be configured for Capacity Plus systems. Ensure a common Rest/Site IP address is configured for all repeaters in the system.

When at least one repeater in a Capacity Plus system contains firmware R02.30.01 (or later), then all repeaters in that system must be at least R02.30.01. This means that before a repeater containing firmware R02.30.01 (or later) can be added to a Capacity Plus system, any existing repeaters in that system containing pre-R02.30.01 firmware must be upgraded to at least R02.30.01.

Upgrade procedure: Upgrade the Master repeater first then all Peer repeaters. During the upgrade radios will remain on the non-upgraded repeaters until the last Peer repeater is upgraded whereupon the radios will then switch to the upgraded repeaters.

Battery Indicator

Any DP2000 Series, DP4000 Series or DP4000Ex Series Portables that were upgraded in the field to release R02.06.20 should be upgraded to at least R02.06.21 in order to resolve an issue whereby the radio battery gauge shows a very low reading (or empty) when a fully charged IMPRES battery is attached.

Transmit / Receive Below 422MHz

Any DP2000 Series, DP3441 Series or DP4000 Series UHF portable radios that were upgraded in the field to R02.06.20 or R02.06.21 should be upgraded to at least R02.06.33 in order to resolve an issue whereby the radio may not transmit or receive consistently if operating below 422MHz.

Operation with Bluetooth Accessories

Any SL4000 Series radios that were upgraded in the field to R02.06.20 should be upgraded to at least R02.06.33 in order to resolve an issue whereby they may fail to operate consistently when used in conjunction with Bluetooth accessories.
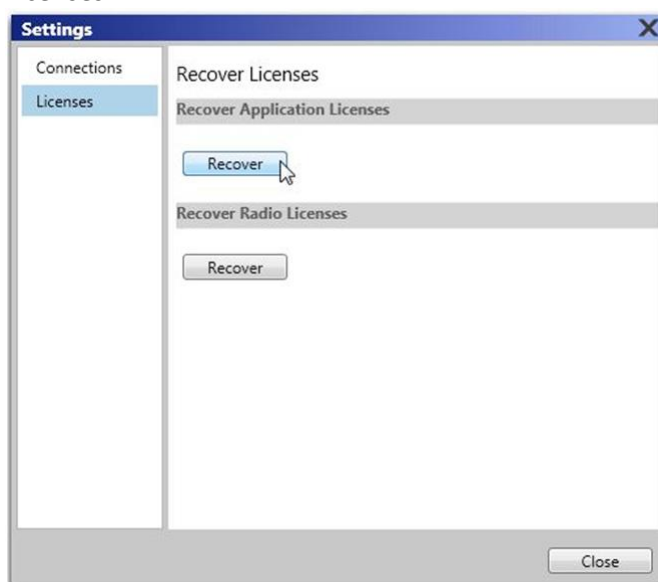
Radio Management R1.2

After upgrading the RM Server to R1.2 the existing RM licenses need to be recovered as follows:

1. Click on Actions > Settings
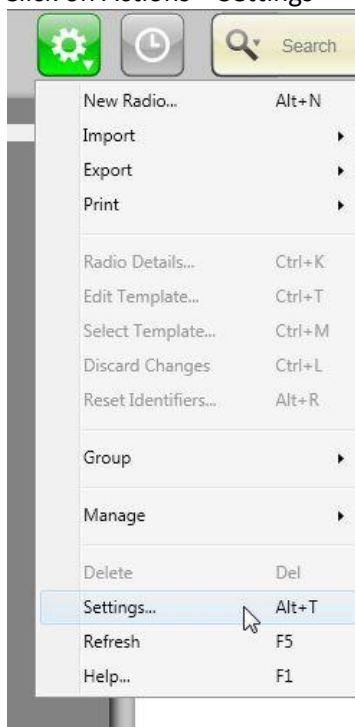
2. Click on the Licenses tab and click on Recover Application Licenses

CfS Database Migration

The Motorola CfS database migrated to a new server during December 2013 and so any CfS licenses purchased since this date will require CPS version R10.0 (Build 510) or later to be installed for feature registration and activation.

CSBK Data

For system release R2.3 (repeater FW: R02.30.02 / radio FW: R02.30.01), CSBK Data is NOT supported if the system contains a Single Site / IP Site Connect repeater configured with the Enhanced GPS option enabled on one slot and disabled on the other slot. This is due to a known issue (see CCMPD01838363 below) which is targeted to be resolved in the next system release.

Digital Voting Systems

Satellite Receivers in Digital Voting systems employing NAI (Network Application Interface) voice and data applications do NOT require NAI Licenses.

Satellite Receivers in Digital Voting Systems employing DTP (Digital Telephone Patch) do NOT require DTP licenses (note: DTP licenses are required only by Gateway repeaters which connect to a Phone Gateway device).

For repeater firmware R02.30.12 (or later), Satellite Receivers in Capacity Plus / Linked Capacity Plus systems employing Digital Voting do NOT require Capacity Plus / Linked Capacity Plus licenses.

Enhanced Codeplug Password Protection

Firmware R01.00.10 / R02.30.10 (System Release R02.03.10) introduces a "Read/Write" codeplug password protection option which is unintended for our region. It is highly recommended therefore that this option is NOT selected for the following reasons:

(a)   If this option is selected and the password is subsequently lost then the radio shall have to be returned to the Motorola repair centre for recovery.

(b)   Support for this option shall be removed in a future system release.

Use of the "Read Only" codeplug password protection option remains unaffected and still allows radios to be recovered to a default state using the "device recover" function within the CPS.

Upgrading Radios 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.

AES Interoperability

The Advanced Encryption Standard (AES) implementation introduced as part of system release R2.4 does NOT interoperate with the pre-R2.4 MOTOTRBO AES implementation. As such, all radios in an existing fleet with the pre-R2.4 AES implementation enabled must be upgraded to at least system release R2.4 before deploying any radios into that fleet with the new R2.4 AES implementation enabled.

CPS DVD Tuner Installer

Revision AH of the CPS DVD (Part Number: GMVN5141AH) contains an issue with the Tuner installer whereby the user may be requested to download and install ".net framework 4.5.1" separately. This only happens if the Tuner is installed from the CPS DVD and there is no CPS installed on the PC prior to the Tuner installation. To avoid this problem either install the CPS on the PC prior to installing the Tuner or download and install the Tuner which is available from the Motorola Online Resource Centre.

MPT1327 GOB Upgrade Package

The upgrade packages for the R1.X and R2.X MPT1327 GOBs cannot be installed together on the same computer. So if the upgrade package for the R1.X MPT1327 GOB is already installed then this will have to be un-installed before the upgrade package for the R2.X MPT1327 GOB can be installed.

Also, when running the upgrade package for the R2.X MPT1327 GOB on a Windows 7 computer, the upgrade package must be "Run as administrator".

MPT1327 / Connect Plus Options

The radio models listed below can be ordered with factory fitted MPT1327 / Connect Plus option boards.

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

Description	Model Number	MPT1327 Option	Connect Plus Option
DP4801 VHF	MDH56JDN9KA1AN	QA04310AA	QA04204AA
DP4800 VHF	MDH56JDN9JA1AN	-	QA04205AA
DP4801 UHF	MDH56RDN9KA1AN	QA04312AA	QA04206AA
DP4800 UHF	MDH56RDN9JA1AN	-	QA04207AA
DP4401 VHF	MDH56JDC9KA1AN	QA04314AA	QA04291AA
DP4400 VHF	MDH56JDC9JA1AN	-	QA04293AA
DP4401 UHF	MDH56RDC9KA1AN	QA04315AA	QA04295AA
DP4400 UHF	MDH56RDC9JA1AN	-	QA04297AA
DP4801 Ex UHF	MDH56QCN9PA3AN	QA04316AA	QA04261AA
DP4801 Ex VHF	MDH56JCN9PA3AN	QA04317AA	QA04263AA
DM4400 UHF LP	MDM28QNC9JA2AN	-	GA01131AA
DM4401 UHF LP	MDM28QNC9KA2AN	-	GA01133AA
DM4600 UHF LP	MDM28QNN9JA2AN	-	GA01135AA
DM4601 UHF LP	MDM28QNN9KA2AN	-	GA01137AA
DM4400 UHF HP	MDM28QPC9JA2AN	-	GA01139AA
DM4401 UHF HP	MDM28QPC9KA2AN	-	GA01141AA
DM4600 UHF HP	MDM28QPN9JA2AN	-	GA01143AA
DM4601 UHF HP	MDM28QPN9KA2AN	-	GA01145AA
DM4400 VHF LP	MDM28JNC9JA2AN	-	GA01155AA
DM4401 VHF LP	MDM28JNC9KA2AN	-	GA01157AA
DM4600 VHF LP	MDM28JNN9JA2AN	-	GA01159AA
DM4601 VHF LP	MDM28JNN9KA2AN	-	GA01160AA
DM4400 VHF HP	MDM28JQC9JA2AN	-	GA01162AA
DM4401 VHF HP	MDM28JQC9KA2AN	-	GA01164AA
DM4600 VHF HP	MDM28JQN9JA2AN	-	GA01166AA
DM4601 VHF HP	MDM28JQN9KA2AN	-	GA01168AA

MPT1327 / Connect Plus GOB Firmware Compatibility

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

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

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. The risk and workaround aspects are included in the release note description for overall assessment of a problem.

Issue Number	CCMPD01991468
Product / Version	All Subscriber bands and models supporting Data Over Voice Interrupt (DOVI); using single site mode of operation.
User Impact Description	Customer which use DOVI will experience a call is not interrupted by unconfirmed text message on single system
Frequency of Occurrence	2 out of 120 iterations (~2%).
Trigger	The following are steps to reproduce the use case failure (assuming two radios in a system): 1. Radio 1 & 2 are different talk group. 2. Radio1 send a voice call. 3. Radio 2 send DOVI unconfirmed message target to Radio1's group. 4. DOVI unconfirmed message is intermittently failed.
Special Configurations	DOVI in single site mode of operation
Recovery Method	N/A
Recovery Time	N/A
Workaround	None.

Issue Number	CCMPD01987346
Product / Version	All Subscriber bands and models configured in Linked Capacity Plus (LCP) system mode of operation; using SLR Repeater.
User Impact Description	LCP Wide Area (WA) Confirmed Private Call bonks and shows 'Party Not Available' when user keys up sequentially (almost immediately) after another radio keyed up (not partied) LCP WA group call.
Frequency of Occurrence	2 out of 50 iterations (4%).
Trigger	The following are steps to reproduce the use case failure (assuming two radios in a system): 1. Radio0 & Radio1 on the same rest channel. 2. Radio0 keys up WA Group Call. 3. Almost immediately (~0.4 sec) after that, Radio1 keys up WA Confirmed Private Call. 4. WA Confirmed Private Call transmission intermittently failed, under this condition.
Special Configurations	Linked Capacity Plus system mode of operation
Recovery Method	N/A
Recovery Time	N/A
Workaround	None.

Resolved Issues in Product Release

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

SR#	Version Found	Description
CCMPD02003494	R2.4	Capacity Plus intermittent call issue for radios (C3: 24374413).
CCMPD01994265	R2.4	DP1400 observed minor Howling and Audio Level anomalies (C3: 24311495).
CCMPD01999955	R2.4	Option Board support for rapidly change zone (C3: 24338458).
CCMPD01992611	R2.4	Intermittent radio Bluetooth connection issue (C3: 24341736).
CCMPD02005414	R2.4	SL1600 intermittent battery charging issue (C3: 24410654).
CCMPD01936952	R2.3	DR 3000 UHF2 RX Sensitivity issue (C3: 24098924).
CCMPD01936950	R2.3	DR 3000 RSSI issue (C3: 24091425).
CCMPD01960196	R2.3	DR 3000 key up issue (C3: 24182321).
CCMPD01966112	R2.3	DR 3000 intermittent call issue (C3:24175118).
CCMPD01970412	R2.3	DR 3000/MTR3000 Capacity Plus GPS location issue (C3: 24213744).
CCMPD01975129	R2.3	MTR3000 IPSC satellite repeater lose synch with the voter repeater (C3: 24256105).
CCMPD01942746	R2.3	DM4000 Series radio assigned an IP of 13.0.0.1 results in CPS communication issue.
CCMPD01945499	R2.3	DP4000 Series emergency ergo related issue.
CCMPD01949107	R2.3	SL1600 unexpected end of call tones.

CCMPD01963110	R2.3	DM4000 Series Control Station occasionally locks up over a long duration.
CCMPD01966651	R2.3	DP2000 Series intermittent power cycles after 60 minutes in Scan mode.
CCMPD01974252	R2.3	Capacity Plus intermittent incoming call issue.
CCMPD01974729	R2.3	SL1600 transmit issue following on from receiving an incoming Private Call
CCMPD01975001	R2.3	DP4000 intermittent call issue on Capacity Plus.
CCMPD01975966	R2.3	DP480x doesn't move the job ticket to the job completed folder in the radio after the user update.
CCMPD01979424	R2.3	XE RSM w/DP4000 does not recover from XNL watchdog reset.
CCMPD01982369	R2.3	Non-IP Peripheral Issue with NeoTerra.
CCMPD01982435	R2.3	Duplicate Job ticket checking lead msg lost.
CCMPD01986266	R2.3	Deviation going bad after a (very) long TX.
CCMPD01987314	R2.3	MTR EEPROM error when reading with Tuner program.
CCMPD01989428	R2.3	Clicking sound whenever radio is de-keyed.
CCMPD01993844	R2.3	Error #1214 when attempting to clone an archive with different firmware.
CCMPD01924203	R2.3	Excessive GPS failures and retries.