



APX NEXT™ Subscriber

Two-Way Radio

APX NEXT Release Notes

SR2022.2

NOVEMBER 2022

© 2022 Motorola Solutions, Inc. All rights reserved



MN007233A10

Chapter 1

Radio Release Notes – Subscriber APX NEXT R04.51.00 – November 2022

APX NEXT Platforms:

APX NEXT R2.0

New APX Firmware Version: R04.51.00

Previous APX Firmware Version: R04.42.50

1.1

Important Notes

APX NEXT radio upgrade to avoid service interruption.

- Due to the rollout of a 3rd party cloud provider's security updates, new SSL/TLS certificates will go in effect starting **March 2023**. In order to avoid the possibility of service disruption due to the new certificates, an APX NEXT radio firmware update is required.
- All APX NEXT radios are required to upgrade to version R04.51.00 (SR2022.2) or greater prior to **28-February, 2023**.

Please refer to **MTN-0168-22-NA** via <https://learning.motorolasolutions.com>

Abstract: After a firmware update, a momentary message may pop-up stating "SIM Card Locked"

System Platforms Affected: ALL

Special Configurations: APX NEXT firmware update

Description: After a firmware update, a message may pop up, momentarily, stating "SIM Card Locked. Contact your IT Administrator.". The message will not appear upon subsequent power cycles. The SIM is not locked in these instances. There is no need to contact an administrator, unless this message is persistent.

Abstract: APX NEXT programming via CPS and Radio Management utilize zip file format

System Platforms Affected: ALL

Special Configurations: APX NEXT firmware update via CPS and Radio Management

Description: The upgrade package for APX NEXT firmware updates via CPS and Radio Management is utilized in .zip format. Please DO NOT unzip the firmware package file after you download it from MyView. Use the APX NEXT .zip file in CPS and for importing into the Radio Management database.

1.2

New/ Replacement Products

Abstract: APX NEXT Vehicle Charger PMPN4639A

System Platforms Affected: N/A

Special Configurations: N/A

Description: In-vehicle charging solution allowing users to charge APX NEXT battery/device on-the-go. Fast charging up to 3A.

1.3

New Features

Abstract: APX NEXT - SmartConnect WiFi Support

System Platforms Affected: ALL

Special Configurations: WiFi, P25 9600 Trunking, SmartConnect options

SmartConnect Subscription

Description: Provides the capability to also route SmartConnect over WiFi on APX NEXT. WiFi will have higher priority than LTE, if enabled.

Abstract: SmartConnect Adjustable Keep Alive

System Platforms Affected: ALL

Special Configurations: CC Admin 2.0 and the New SmartConnect Gateway and Provisioning interface needs to be enabled to configure this feature in the Gateway.

Description: Configurable SmartConnect Keep Alive intervals for both “fast” and “slow” links on the SmartConnect Gateway, allowing 20 second Min time versus the current fixed 60 seconds. This will improve situations when the radio user sees the active SmartConnect banner but the data cannot be passed to the SmartConnect Gateway.

Abstract: SmartMessaging Native App Evolution

System Platforms Affected: ALL

Special Configurations: SmartMessaging enabled

Description: Smartmessaging allows receiving and sharing of video, image and audio files. On this release the application also allows:

- 1 Text of attachments preview
- 2 Copy/paste text from attachments
- 3 Widget activation/provisioning errors feedback

Abstract: Replay Voice Announcements

System Platforms Affected: All APX Portable & Mobile radios

Special Configurations: N/A

Description: Today, in all APX products the Voice Announcement (VA) is terminated if interrupted by a tone. To improve the customer experience, an enhancement was added in a previous release to replay the VA if interrupted by a momentary tone.

Abstract: SmartConnect User Experience Update

System Platforms Affected: SmartConnect Radios

Special Configurations: SmartConnect Infrastructure and Subscription

Description: Users of SmartConnect enabled APX Mobiles connected to an MG90 with multiple WAN bearers, including Satellite, will have additional notifications regarding the radio's SmartConnect connection and ability for PTT. Radio will have an indication to show when operating on Broadband (LTE/WiFi) vs Satellite.

Abstract: Encode/Decode QCII and Encode/Decode MDC Voice On the Same Channel

System Platforms Affected: APX and APX NEXT (Does not include APX N30/N50)

Special Configurations: This feature can't be enabled with Instant Recall.

Description: This feature provides the ability to decode and encode QCII as well as encode/decode MDC all on the same channel. It also allows the access to select from all of the different feedback alert tones available in Digital Tone Signaling in Analog.

Abstract: Adjustable Jitter Buffer for SmartConnect Operation on SAT Links

System Platforms Affected: APX Mobiles that support SmartConnect, and APX Standard, APX NEXT and APX N/30/50/70 that support Data Modem Tethering over WiFi.

Special Configurations: Required LMP update - LMP version LMP-02.21.00.40-01.

Supported on ASTRO 25 7.17.3, ASTRO 25 7.18, ASTRO 25 A2019.2, ASTRO 25 A2020.1, ASTRO 25 A2021.1. CC Admin 2.0 and the New SmartConnect Gateway and Provisioning interface need to be enabled to configure this feature in the Gateway.

Description: Smartconnect customers may experience audio drops and choppy audio on both the subscriber and the console when the subscriber is operating on Satellite links. Adjustable Jitter buffer allows for the system admin to improve audio quality.

Abstract: Modification of the PTT Warning Tone

System Platforms Affected: SmartConnect enabled Radios

Special Configurations: N/A

Description: This feature provides new tone selection for PTT warning tone. Standard APX PTT warning tone is a talk prohibit tone which is the same tone as PTT killed, Tx Inhibit, and so on. Users can now differentiate whether radio PTT is killed or in PTT retry state.

Abstract: Disable Fallback to Legacy Bluetooth Pairing

System Platforms Affected: APX Standard and APX NEXT

Special Configurations: N/A

Description: This option is designed to block usage of Bluetooth enabled accessory that uses Bluetooth Core Specification 2.0 and earlier which is classified as vulnerable in security.

Offering radio protection against usage of vulnerable accessories. Vulnerable accessories will be rejected with an error message on the menu.

Abstract: Alternative feedback tone after press of RSM volume button/ rocker

System Platforms Affected: N/A

Special Configurations: APX Portable radios using RSMs

Description: The functionality is controlled by a new CPS field, see Radio Wide -> RSM Volume Set Tone. Volume Set Tone 1 corresponds to the existing feedback tone used by newer RSMs. Volume Set Tone 2 selects a lower pitch tone matching the feedback tone used by mobiles and older RSMs, making it more distinguishable from MDC Sidetone. The enhancement will allow newer model RSMs play the older feedback tone.

Abstract: Filtering of received MDC Emergency Alarms by PL/DPL

System Platforms Affected: Conventional Analog MDC systems

Special Configurations: N/A

Description: This enhancement for APX radios is controlled by a new CPS field, see Conventional System -> System Type MDC -> Qualify Alarm Rx Indicator. When enabled, the receipt of incoming MDC Emergency Alarms will depend on matching PL/DPL (Private Line / Digital Private Line). The PL/DPL qualification will be applied in the same manner to both the Emergency Alarms and the Emergency PTT voice calls.



NOTE:

If you enable this feature, the radio will no longer receive Emergency Alarms with non-matching PL/DPL.

1.4

Updates

Abstract: APX NEXT radios may experience a loss of GPS location while operating indoors.

System Platforms Affected: APX NEXT

Special Configurations: Indoor Location

Description: Prior to this release, APX NEXT radios may inconsistently lock to a GPS location while operating indoors with Indoor Location enabled.

Abstract: APX NEXT radios may reset while operating indoors with GPS location enabled.

System Platforms Affected: APX NEXT

Special Configurations: Indoor Location

Description: Prior to this release, APX NEXT radios may reset while operating indoors with GPS location enabled after being powered on for multiple days (in charger).

Abstract: Unexpected “HW MCFG Activation” notification

System Platforms Affected: APX NEXT

Special Configurations: LTE Communication

Description: Prior to this release, APX NEXT radios may occasionally display “HW MCFG Activation” message after an initial upgrade.



NOTE: Please refer to **MTN-0160-22-NA** via <https://learning.motorolasolutions.com>

Abstract: APX NEXT radios may display LTE Out Of Range after a SmartConnect Link Failover.

System Platforms Affected: SmartConnect capable systems

Special Configurations: LTE Connectivity

Description: Prior to this release, APX NEXT radios may display LTE Out of Range and take 60 seconds to switch back to an available LMR site after a SmartConnect Link Failover. The radio may display SmartConnect Fail and generate the corresponding failure tone.



NOTE: Please refer to **MTN-0174-22-NA** via <https://learning.motorolasolutions.com>

Abstract: Radio to Radio data configuration prevents OTAR functionality

System Platforms Affected: P25 Conventional

Special Configurations: Non-FNE Packet Data Mode

Description: From release R25.01.00 until now, conventional OTAR registration failed when the Data Profile Packet Data Mode was set to a value other than FNE.

Abstract: IF filter selection applies also on narrowband mixed mode channels

System Platforms Affected: Conventional

Special Configurations: Rx Voice / Signal Type is set to Mixed Mode

Description: Prior to this release, the CPS value selected for the Radio Wide -> Ultra Narrow Intermediate Freq Filter field was not used when configured for conventional 12.5 KHz mixed mode channels(the radio defaulted to 5.76 KHz).

Abstract: APX NEXT radio in VMUTE may miss voice after tone page from dispatch

System Platforms Affected: P25 trunking

Special Configurations: P25 Digital Tones Signaling, Voice Mute

Description: Prior to this release, when the console/dispatch operator launches a page stack that transmits tone pages on multiple talkgroups, a radio that detects one of those pages while it has Voice Mute (VMUTE) active may return to the muted state earlier than expected per CPS timer programming, which can cause the dispatch talkgroup call that follows to not be heard.

Abstract: APX NEXT radio may reset upon detection of an interfering channel with encrypted voice.

System Platforms Affected: P25 Conventional Vote Scan

Special Configurations: Vote Scan, Secure

Description: Prior to this release, the vote scanning subscriber may reset when selecting an interfering secure voice channel as the voted channel. This may be more likely to occur when the radio is elevated (for example in a helicopter) where more sites with different Network IDs may be visible to the voting subscriber.

Abstract: APX NEXT radio may play a degraded Power-up Self Test Alert tone upon power up.

System Platforms Affected: NA

Special Configurations: NA

Description: From the R04.42.50 release until now, the APX NEXT radio may play a degraded Power-up Self Test Alert tone upon power up. The degraded tone is lower in volume and slightly distorted.