



APX NEW FEATURE BRIEF SR2023.1- BASELINE RELEASE

Updated: June 2023

A - APX STANDARD PORTABLE AND MOBILES	2
B - APX NEXT SERIES PORTABLES	5
C - APX N70 SERIES PORTABLES	9
D - DEVICE MANAGEMENT	12

To learn more about the features within this release, [visit our SR2023.1 subscriber release training course.](#)

A - APX STANDARD PORTABLE AND MOBILES

SUBSCRIBER APX R30.02.00

APX Portable Platforms

APX 8000 APX 8000XE APX 8000H APX 8000HXE	APX 7000 APX 7000L APX 7000XE APX 6000 APX 6000XE APX 6000Li	APX N50 APX 4000 (1&2 knob) APX 4000H APX 3000	APX N30 APX 2000 APX 1000 APX 900 VX-P949 SRX 2200
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APX Mobile Platforms

APX 8500 APX 8500HP	APX 7500 APX 6500 APX 6500Li	APX 4500 APX 4500Li APX 2500 APX 1500	TXM 2000 VHF TXM 3000 v 2.4
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New APX firmware version: R30.02.00

Previous APX firmware version: R29.02.00

APX VR Platforms: DVR-LX/DVR/VRX1000

New Version: R1.76

Previous Version: R1.74

Companion Futurecom Repeater Configuration software, FRC 1.32



A.1

IMPORTANT NOTES

N/A

A.2

NEW/REPLACEMENT PRODUCTS

Abstract: Enhanced XVE500 RSMs with APX

- **System Platforms Affected:** All
- **Special Configurations:** N/A
- **Description:** New RSM model to support UL Div 1 & 2 compliance, TAA compliance And common RSM across APX Standard and new APX high tier radios. APX8000XE, APX8000H, APX8000 HXE, APX8000, APX6000XE AN/BN, APX6000 AN/BN, SRX2200, APX2000 and APX4000.

A.3

NEW FEATURES

Abstract: SmartConnect Device on Foreign P25 System Support

- **System Platforms Affected:** APX customers using non-MSI infrastructure that would like to use SmartConnect for backup PTT.
- **Special Configurations:** SmartConnect capable radios (WiFi Only: APX N50/N30, APX 8000, APX6000BN), SmartConnect GW configuration and provisioning application to configure the foreign system on the SmartConnect GW, also support to allow the foreign radio to establish TLS connection and forward all the calls related to the radio. Access to MSI Zone Core via ISSI. CommandCentral Admin 2.0
- **Description:** Enable the Subscribers to establish Smartconnect with the Foreign Gateway when the LMR radio roamed to foreign system via ISSI.

Abstract: SmartConnect Device on Foreign P25 System with Emergency Cancel Support

- **System Platforms Affected:** APX customers using non-MSI infrastructure that would like to use SmartConnect for backup PTT.
- **Special Configurations:** SmartConnect capable radios (WiFi Only: APX N50/N30, APX 8000, APX6000BN), SmartConnect GW support to allow the foreign radio to establish TLS connection and forward all the calls related to the radio under test. Access to Astro Zone Controller via ISSI (A2022.1 and A2021.1)
- **Description:** This feature allows the ISSI enabled LMR radio to support the Harris Style Foreign emergency cancel while operating with foreign Gateway.



Abstract: Remote Activation of Emergency

- **System Platforms Affected:** ALL
- **Special Configurations:** Emergency Profile Configuration needs to select the Encode and Decode option. The feature is supported on P25 Conventional and P25 Trunking. Not available on Conventional MDC, Conventional QCII, Trunking Type I or II.
- **Description:** Provide a way for any APX radio to remotely activate Emergency on a target radio in both APCO Conventional and/or APCO Trunking.

Abstract: PSU on DVR Busy Channel Lockout

- **System Platforms Affected:** ALL
- **Special Configurations:** Customer who uses a radio as DVRS PSU
- **Description:** Allows a DVRS PSU to politely transmit a Voice Request. When the feature is enabled, the DVRS PSU will only transmit a Voice Request in response to a PTT while the channel is idle. If there is audio activity on the channel, then DVRS PSU will either wait until the channel becomes idle. If the Voice Request retry timer expires before the channel becomes idle, then the PTT is aborted without any transmission attempts.

Abstract: Acoustic Feedback Suppressor for APX N30/N50 and RSMs

- **System Platforms Affected:** ALL
- **Special Configurations:** Supported on APX N30 and APX N50. Supported RSMs: XVP 730/750
- **Description:** Acoustic feedback is generated when a receiver loudspeaker is acoustically coupled to a transmitter microphone, causing a regenerative signal loop to be created that generates an extremely annoying sound (Howling effect). This forces the end user with the receiver to distance himself from the transmit radio or to lower the volume or to cover the speaker to try to eliminate the feedback effect. This feature detects this howling and suppresses it.

Abstract: Radio Notification enhancements and SmartConnect UX Update

- **System Platforms Affected:** ALL
- **Special Configurations:** N/A
- **Description:** Provide feedback to user when:
 - Radio is not usable(searching for control channel) - "Searching Site"
 - Radio is connecting to gateway - "Searching Site"
 - Trunking radio busy receiving voice- Yellow LED

Also, Improved mobility operations:

- Shorter imbalanced coverage holdoff time(30 seconds vs 1-4 minutes.)
- Removing Individual FRHOT.
- Holdoff Ranking Change on Low RAW RSSI Value.



B - APX NEXT SERIES PORTABLES

SUBSCRIBER APX R04.76.00

APX NEXT Portable Platforms R2.0

APX NEXT
APX NEXT XE
APX NEXT XN

New APX firmware version: R04.76.00

Previous APX firmware version: R04.61.00

B.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 into effect during 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.



B.2

NEW/REPLACEMENT PRODUCTS

Abstract: Enhanced XVE500 RSMs with APX

- **System Platforms Affected:** All
- **Special Configurations:** N/A
- **Description:** New RSM model to support UL Div 1 & 2 compliance, TAA compliance And common RSM across APX NEXT radios. APX NEXT XN, APX NEXT XE, APX NEXT & APX NEXT International.

B.3

NEW FEATURES

Abstract: SmartConnect Device on Foreign P25 System Support

- **System Platforms Affected:** APX customers using non-MSI infrastructure that would like to use SmartConnect for backup PTT.
- **Special Configurations:** SmartConnect capable radios (LTE/WiFi: APX NEXT series), SmartConnect GW configuration and provisioning application to configure the foreign system on the SmartConnect GW, also support to allow the foreign radio to establish TLS connection and forward all the calls related to the radio. Access to MSI Zone Core via ISSI. CommandCentral Admin 2.0
- **Description:** Enable the Subscribers to establish Smartconnect with the Foreign Gateway when the LMR radio roamed to foreign system via ISSI.

Abstract: SmartConnect Device on Foreign P25 System with Emergency Cancel Support

- **System Platforms Affected:** APX customers using non-MSI infrastructure that would like to use SmartConnect for backup PTT.
- **Special Configurations:** SmartConnect capable radios (LTE/WiFi: APX NEXT series), SmartConnect GW support to allow the foreign radio to establish TLS connection and forward all the calls related to the radio under test. Access to Astro Zone Controller via ISSI (A2022.1 and A2021.1)
- **Description:** This feature allows the ISSI enabled LMR radio to support the Harris Style Foreign emergency cancel while operating with foreign Gateway.

Abstract: Remote Activation of Emergency

- **System Platforms Affected:** ALL
- **Special Configurations:** Emergency Profile Configuration needs to select the Encode and Decode option. The feature is supported on P25 Conventional and P25 Trunking. Not available on Conventional MDC, Conventional QCII, Trunking Type I or II.
- **Description:** Provide a way for any APX radio to remotely activate Emergency on a target radio in both APCO Conventional and/or APCO Trunking.



Abstract: PSU on DVR Busy Channel Lockout

- **System Platforms Affected:** ALL
- **Special Configurations:** Customer who uses a radio as DVRS PSU.
- **Description:** Allows a DVRS PSU to politely transmit a Voice Request. When the feature is enabled, the DVRS PSU will only transmit a Voice Request in response to a PTT while the channel is idle. If there is audio activity on the channel, then DVRS PSU will either wait until the channel becomes idle. If the Voice Request retry timer expires before the channel becomes idle, then the PTT is aborted without any transmission attempts.

Abstract: Acoustic Feedback Suppressor for APX NEXT and RSMs

- **System Platforms Affected:** ALL
- **Special Configurations:** Supported on APX NEXT, APX NEXTi (international), APX NEXT XE, APX NEXT XN. Supported RSMs: XV, XVP 830/850, XVE500, XVN500.
- **Description:** Acoustic feedback is generated when a receiver loudspeaker is acoustically coupled to a transmitter microphone, causing a regenerative signal loop to be created that generates an extremely annoying sound (Howling effect). This forces the end user with the receiver to either distance himself from the transmit radio, lower the volume, or cover the speaker in attempts at eliminating the feedback effect. This feature detects this howling and suppresses it.

Abstract: Radio Notification enhancements and SmartConnect UX Update

- **System Platforms Affected:** ALL
- **Special Configurations:** N/A
- **Description:** Provide feedback to user when:
 1. Radio is not usable(searching for control channel) – “Searching Site”.
 2. Radio is connecting to gateway – “Searching Site”.
 3. Trunking radio busy receiving voice – Yellow LED.

Also, Improved mobility operations:

1. Shorter imbalanced coverage holdoff time (30 seconds vs 1–4 minutes).
2. Removing Individual FRHOT.
3. Holdoff Ranking Change on Low RAW RSSI Value.



Abstract: SmartMessaging Evolution for 2023.1

- **System Platforms Affected:** APX NEXT family.
- **Special Configurations:** Requires Kodiak CCF and Kodiak Server. Configuration on Radio Central Only for Enablement and Canned Messages.
- **Description:** The enhancements of SmartMessaging on this release are:
 1. PDF viewer.
 2. SmartMapping interactions.
 3. Widget update to show sync in progress.
 4. Warning while backing out of a quick message.
 5. Multimedia UI enhancement.



C - APX N70 SERIES PORTABLES

SUBSCRIBER APX R01.49.00

APX N70 Portable Platforms R1.0

APX N70

New APX firmware version: R01.49.00

Previous APX firmware version: R01.22.00

C.1

IMPORTANT NOTES

N/A.

C.2

NEW/REPLACEMENT PRODUCTS

N/A

C.3

NEW FEATURES

Abstract: SmartConnect Device on Foreign P25 System Support

- **System Platforms Affected:** APX N70 customers using non-MSI infrastructure that would like to use SmartConnect for backup PTT.
- **Special Configurations:** SmartConnect capable radios (LTE/WiFi: APX N70), SmartConnect GW configuration and provisioning application to configure the foreign system on the SmartConnect GW, also support to allow the foreign radio to establish TLS connection and forward all the calls related to the radio. Access to MSI Zone Core via ISSI. CommandCentral Admin 2.0
- **Description:** Enable the Subscribers to establish Smartconnect with the Foreign Gateway when the LMR radio roamed to foreign system via ISSI.

Abstract: SmartConnect Device on Foreign P25 System with Emergency Cancel Support



- **System Platforms Affected:** APX N70 customers using non-MSI infrastructure that would like to use SmartConnect for backup PTT.
- **Special Configurations:** SmartConnect capable radios (LTE/WiFi: APX N70), SmartConnect GW support to allow the foreign radio to establish TLS connection and forward all the calls related to the radio under test. Access to Astro Zone Controller via ISSI (A2022.1 and A2021.1)
- **Description:** This feature allows the ISSI enabled LMR radio to support the Harris Style Foreign emergency cancel while operating with foreign Gateway.

Abstract: Remote Activation of Emergency

- **System Platforms Affected:** ALL
- **Special Configurations:** Emergency Profile Configuration needs to select the Encode and Decode option. The feature is supported on P25 Conventional and P25 Trunking. Not available on Conventional MDC, Conventional QCII, Trunking Type I or II.
- **Description:** Provide a way for any APX radio to remotely activate Emergency on a target radio in both APCO Conventional and/or APCO Trunking.

Abstract: PSU on DVR Busy Channel Lockout

- **System Platforms Affected:** ALL
- **Special Configurations:** Customer who uses a radio as DVRS PSU.
- **Description:** Allows a DVRS PSU to politely transmit a Voice Request. When the feature is enabled, the DVRS PSU will only transmit a Voice Request in response to a PTT while the channel is idle. If there is audio activity on the channel, then DVRS PSU will either wait until the channel becomes idle. If the Voice Request retry timer expires before the channel becomes idle, then the PTT is aborted without any transmission attempts.

Abstract: Acoustic Feedback Suppressor for APX N70 and RSMs

- **System Platforms Affected:** ALL
- **Special Configurations:** Supported on APX N70. Supported RSMs: XVP 730/750, RM 760/780.
- **Description:** Acoustic feedback is generated when a receiver loudspeaker is acoustically coupled to a transmitter microphone, causing a regenerative signal loop to be created that generates an extremely annoying sound (Howling effect). This forces the end user with the receiver to either distance himself from the transmit radio, lower the volume, or cover the speaker in attempts at eliminating the feedback effect. This feature detects this howling and suppresses it.



Abstract: Radio Notification enhancements and SmartConnect UX Update

- **System Platforms Affected:** ALL
- **Special Configurations:** N/A
- **Description:** Provide feedback to user when:
 1. Radio is not usable(searching for control channel) – “Searching Site”.
 2. Radio is connecting to gateway – “Searching Site”.
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Also, Improved mobility operations:

1. Shorter imbalanced coverage holdoff time (30 seconds vs 1–4 minutes).
2. Removing Individual FRHOT.
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Abstract: SmartMessaging Evolution for 2023.1

- **System Platforms Affected:** APX N70.
- **Special Configurations:** Requires Kodiak CCF and Kodiak Server. Configuration on Radio Central Only for Enablement and Canned Messages.
- **Description:** The enhancements of SmartMessaging on this release are:
 1. PDF viewer.
 2. SmartMapping interactions.
 3. Widget update to show sync in progress.
 4. Warning while backing out of a quick message.
 5. Multimedia UI enhancement.



D - DEVICE MANAGEMENT

New Version: R30.00.00

Previous Version: R29.00.01

D.1

IMPORTANT NOTES

Abstract: ASTRO RM-CPS Operating Systems Support

- **System Platforms Affected:** ALL
- **Special Configurations:** N/A
- **Description:** Starting with version R29.00.00, APX RM/CPS is only supported on 64 bit versions of the following operating systems:
 - Windows 10
 - Windows 11
 - Windows Server 2016

Note:

Please see the APX_CPS_Readme file and the CPS HELP for additional information.

