

Authentication



APX™ RADIO SOFTWARE CATALOG



ADDING MORE VALUE TO YOUR COMMUNICATIONS

THIS CATALOG PROVIDES AN OVERVIEW OF COMMON SOFTWARE OPTIONS AVAILABLE FOR MOTOROLA SOLUTIONS APX™ P25 TWO-WAY RADIOS.

For full details on software option compatibility by APX radio series or software release, contact your sales representative.





OPERATION MODE

Give your network the right reach and efficiency.

OPERATION MODE

Analog Conventional

Provides analog audio transmission with non-trunked, channel operation. Channels are defined by fixed radio frequencies. The radio user manually selects a channel to transmit on.

DEPENDENCIES

Portables	Q241 & H35
Mobiles	G241, G48 & QA02829
Notes	All APX radios are capable of analog conventional operation

Analog Trunking (SMARTNET/SMARTZONE)

Provides Type II Motorola Analog Trunking in 3600 baud. Designed to address the APCO-16 standard, analog SmartNet/SmartZone trunking enables features like PTT ID, Emergency Calls, and Voice Encryption.

DEPENDENCIES

Portables	Q241 & H38, Q443
Mobiles	G241 & G51, Q443
Notes	-

Digital Conventional (P25)

Provides P25 Talkaround (simplex or direct) and Repeater (half-duplex or indirect) operation that enables interoperable conventional digital coverage. P25 Conventional Operation supports data features like Integrated Voice and Data (IV&D) that enables GPS location services, text messaging, and Programming over P25 (POP25).

DEPENDENCIES

Portables	Q806 & H35, Q811, QA02593, QA04097
Mobiles	G806 & G48, Q811
Notes	-



OPERATION MODE

Digital Trunking (SMARTNET/SMARTZONE)

Provides Phase 1 FDMA digital trunking on narrowband (12.5 kHz) channels with a control channel at 3600 baud, as described in the TIA-102 standard.

DEPENDENCIES

Portables	Q806 & H38
Mobiles	G806 & G51
Notes	-

Digital Trunking (SMARTNET/SMARTZONE P25 Phase I Interoperability)

Provides P25 Phase 1 FDMA digital trunking on narrowband (12.5 kHz) channels with a control channel at 9600 and 3600 baud, as described in the TIA-102 standard. Compliance to Project 25 standards for trunked voice systems enables seamless inter-agency communications and enhanced system capabilities.

DEPENDENCIES

Portables	Q806 & H38 & Q361, QA02812, QA02592
Mobiles	G806 & G51 & G361, QA02812
Notes	-





SECURE

Protect yourself from unauthorized access and malicious disruption.

SECURE: ADVANCED SYSTEM KEY

Hardware Key

Provides the highest security for programming an APX radio onto an ASTRO 25 system by requiring a hardware-based Advanced System Key to be present in the programming tool upon programming. This restricts legacy software keys from being used to program any system on the radio. When the radio is ordered with this option the customer must provide a System ID that will be set in the radio and is known as the Owner System ID. For flexibility purposes, the Owner System ID ASK can be used to disable the hardware restriction, thereby supporting legacy software keys.

Hardware-based Advanced System Keys are more secure since they cannot be electronically shared, they cannot be copied due to unique serial numbers, they can be set to expire, and they can be setup limits and ranges for some system fields like Unit and Talkgroup IDs.

DEPENDENCIES

Portables	QA01648
Mobiles	QA01648
Notes	Radio must be operating in a P25 trunked system. Replaces the standard legacy software key that now ships standard with all APX Radios.



SECURE: ENCRYPTION TYPE

ADP Encryption

Advanced Digital Privacy Encryption (ADP) algorithm is a non-P25 standard, 40 bit RSA encryption solution implemented by Motorola to offer a low cost digital voice encryption on Motorola's digital radios.

DEPENDENCIES

Portables	Q806, Q667
Mobiles	G193, G806
Notes	Requires digital operation. Mutually exclusive with QA05751. ADP is not CAP and SAFECOM compliant.

ADP and AES Encryption

AES was adopted by APCO as the P25 encryption standard in 2002. AES offers 256-bit encryption and is defined in Federal Information Processing Standard 197 (FIPS-197). AES is currently the recommended and most robust type of digital encryption. Also includes ADP.

DEPENDENCIES

Portables	Q629
Mobiles	G843
Notes	Radio must be operating in a digital system. AES 256 is the only approved encryption algorithm by P25 CAP and SAFECOM.



SECURE: ENCRYPTION TYPE

ADP, AES, DES-XL, DES-OFB Encryption

AES was adopted by APCO as the P25 encryption standard in 2002. AES offers 256-bit encryption and is defined in Federal Information Processing Standard 197 (FIPS-197). AES is currently the recommended and most robust type of digital encryption. DES-XL provides 56-bit encryption for analog and digital channels. DES-OFB provides 56-bit encryption for digital-only channels. Also includes ADP.

DEPENDENCIES

Portables	Q15
Mobiles	G851
Notes	Radio must be operating in a digital system. Requires Multikey.

ADP, DES, DES-XL, DES-OFB Encryption

DES provides 56-bit encryption for analog-only channels. DES-XL provides 56-bit encryption for analog and digital channels. DES-OFB provides 56-bit encryption for digital-only channels. Also includes ADP.

DEPENDENCIES

Portables	Q625
Mobiles	G625
Notes	-



SECURE: MULTIKEY TYPE

Multikey

Allows multiple encryption keys and multiple encryption algorithms to be loaded into a radio. These keys could be for different types of encryption algorithms or different keys associated with different talk-groups, personalities, or channels. Using multiple keys increases the security level of the system, making it more difficult to eavesdrop, intercept, or hack communications.

DEPENDENCIES

Portables	H869
Mobiles	W969
Notes	–

P25 OTAR with Multikey

Provides encrypted systems with the ability to quickly deliver new encryption keys to secure radios over-the-air via a radio channel from a centralized key management server using a P25 standards-based interoperable solution. This allows system security administrators to efficiently and securely redistribute encryption keys on systems with highly sensitive voice and data communications, making it more difficult to eavesdrop, intercept, or hack communications. This feature requires a central Key Management Facility (KMF) and a Key Variable Loader (KVL) to deliver encryption keys to the radios. Tactical Rekey is included with the purchase of this feature.

DEPENDENCIES

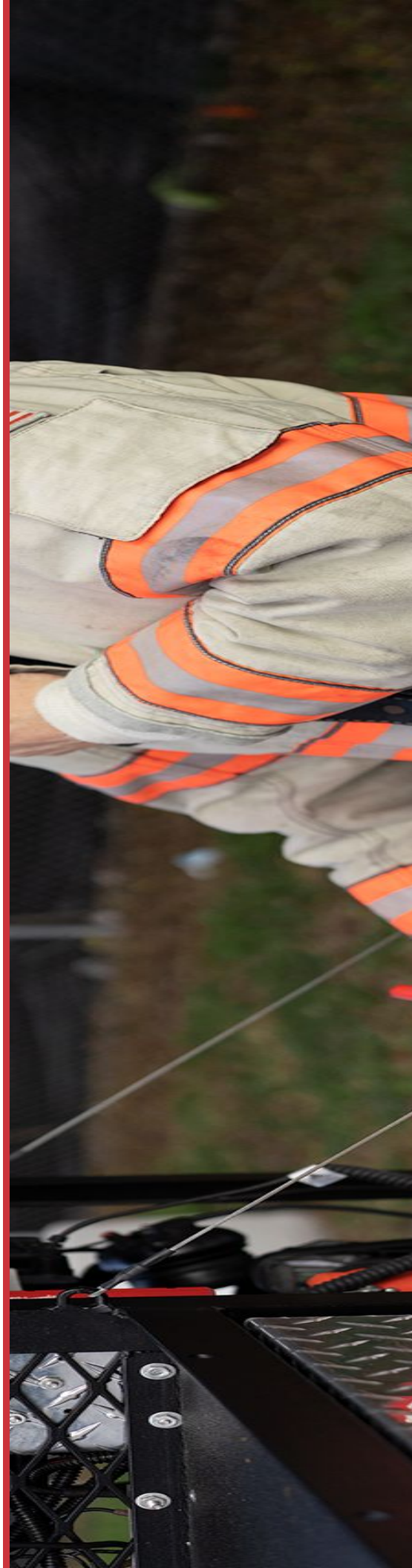
Portables	Q498 & Q629 or Q15 or Q625
Mobiles	G298 & G843 or G851 or G625
Notes	–

Multisystem OTAR Capability

Multi-System Over-the-air Rekeying (OTAR) extends MSI Radio OTAR functionality from a Single Key Management Facility (KMF) server OTAR solution to Multiple KMF Servers (up to 19 KMF Servers). MS-OTAR enables users to avoid costly reprogramming when moving between Multiple Systems and their KMF Servers in order to get the latest unique key encryption keys (UKEK) and Traffic Encryption Keys (TEK) to operate on that system.

DEPENDENCIES

Portables	QA07680
Mobiles	GA01620
Notes	Requires OTAR with Multikey.



SECURE: MULTIKEY TYPE

Tactical Rekey with Multikey

Loads encryption keys into radios over the air on a digital talk-around (simplex) channel using a Key Variable Loader. For smaller fleets, this feature allows administrators to efficiently and securely redistribute encryption keys in order to better protect the integrity of the system. Multikey is included with the purchase of this feature.

DEPENDENCIES

Portables	H04
Mobiles	H04
Notes	Mutually exclusive with QA05751. The key loader must be connected to a gateway radio via an RS232 cable for all APX radios except APX N70, APX N50 & APX N30, which requires a USB cable.

Touchless Key Provisioning

This feature allows APX NEXT radios the option to be provisioned for encryption over-the-air without a Key Variable Loader (KVL) when APX NEXT hardware is shipped from the factory.

DEPENDENCIES

Portables	Q806 & Q498 & Q29 or Q15 or Q625
Mobiles	N/A
Notes	Requires RadioCentral, KMF version R10.00.0510 and later, KMF CryptR, AES-256 algorithm on KMF CryptR, TKP License CA03643.





SYSTEM ENHANCEMENTS

Get the most from your investment.

SYSTEM ENHANCEMENTS

Acoustic Feedback Suppression

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.

DEPENDENCIES

Portables	N/A
Mobiles	N/A
Notes	-

Adaptive Noise Suppression

Based on the ambient noise level, the noise suppression algorithm dynamically adapts to balance maximum noise cancellation with optimum voice clarity.

DEPENDENCIES

Portables	QA09006
Mobiles	N/A
Notes	Included as standard with APX NEXT and APX8000 radios.



SYSTEM ENHANCEMENTS

Data Modem Tethering

This feature allows APX radios to support collaboration with external data modems (i.e. Motorola VML750, Sierra Wireless Airlink GX450, MG90, MP70, RV55, XR80, XR90) through a high speed LTE connection, allowing the radio to leverage the data pipeline provided by these data modems. Users can do radio programming, flashport upgrades, re-keying, text messaging, and use other data applications while simultaneously using the LMR voice channel.

DEPENDENCIES

Portables	N/A
Mobiles	GA09011
Notes	Requires KT000259A01-USB Ethernet HUB Cable Assembly. APX 8500 MP with Sierra Wireless MG90 compatible with ethernet faceplate (GA01787) and remote mount G67. The retrofit kit upgrades with HN001998A01.

Data Modem Tethering Over WiFi

This feature allows APX radios to support collaboration with external data modems (i.e. Motorola VML750, Sierra Wireless Airlink GX450, MG90, MP70, RV55, XR80, XR90) through a WiFi connection, allowing the radio to leverage the data pipeline provided by these data modems. Users can do radio programming, flashport upgrades, re-keying, text messaging and use other data applications while simultaneously using the LMR voice channel.

DEPENDENCIES

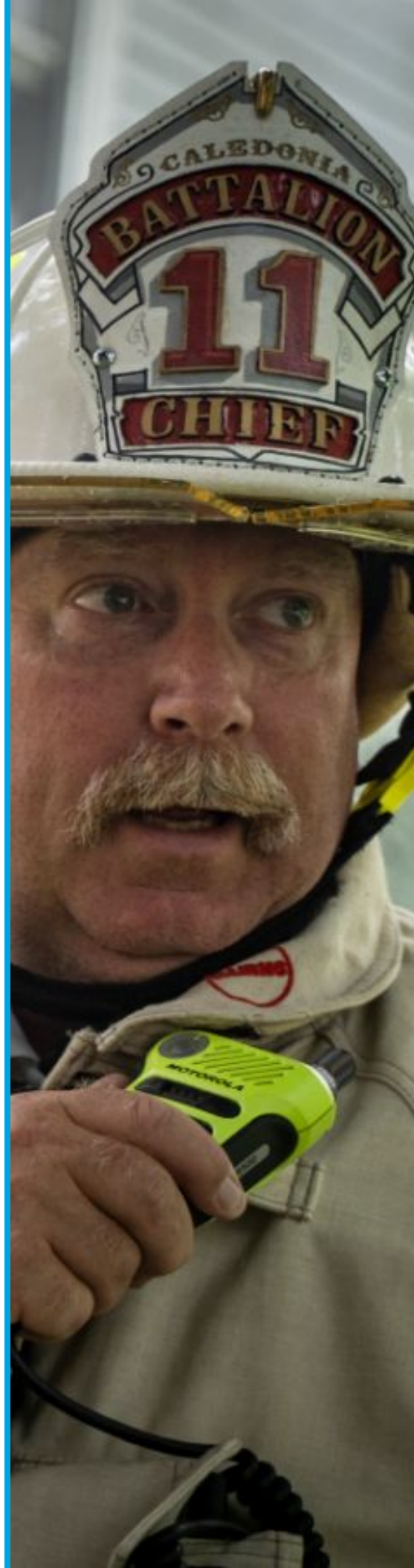
Portables	GA09011
Mobiles	GA01545, GA09011
Notes	Incompatible with DVRS. Requires WiFi GA09001 or QA09001.

LTE Configurability

This feature allows the configuration tools for APX NEXT and APX N70 to enable/disable LTE operation. The user is not able to directly enable/disable LTE operation on the device.

DEPENDENCIES

Portables	QA08887
Notes	



SYSTEM ENHANCEMENTS

Digital Tone Signaling

Reduces response time by alerting entire groups of responders simultaneously. Commonly used in Fire Rescue to alert first responders to an incident by broadcasting a series of distinct, recognizable tones followed by a voice transmission from dispatch. This allows an entire fire department to be simultaneously alerted to an emergency situation, as opposed to unit-to-unit dispatch (Call Alert). Responders can keep their radios in a quiet or silent mode until an alarm is raised. This feature works on P25 conventional or trunked systems, providing digital Quik-Call II operation (identical in operation to the legacy analog version). The feature supports encode from an APX portable or mobile with a DTMF keypad.

DEPENDENCIES

Portables	QA09000
Mobiles	QA09000
Notes	Radio must be operating in a digital system.

DVRS MSU Activation

Allows an APX mobile radio acting as a Mobile Subscriber Unit (MSU) in a Digital Vehicular Repeater System (DVRS) environment to extend the system coverage to surrounding Portable Subscriber Unit (PSU) units. The MSU can be used in Local mode when only portable to portable communications are required, or it can be used in System mode which will enable full DVRS repeat locally and back into the system.

DEPENDENCIES

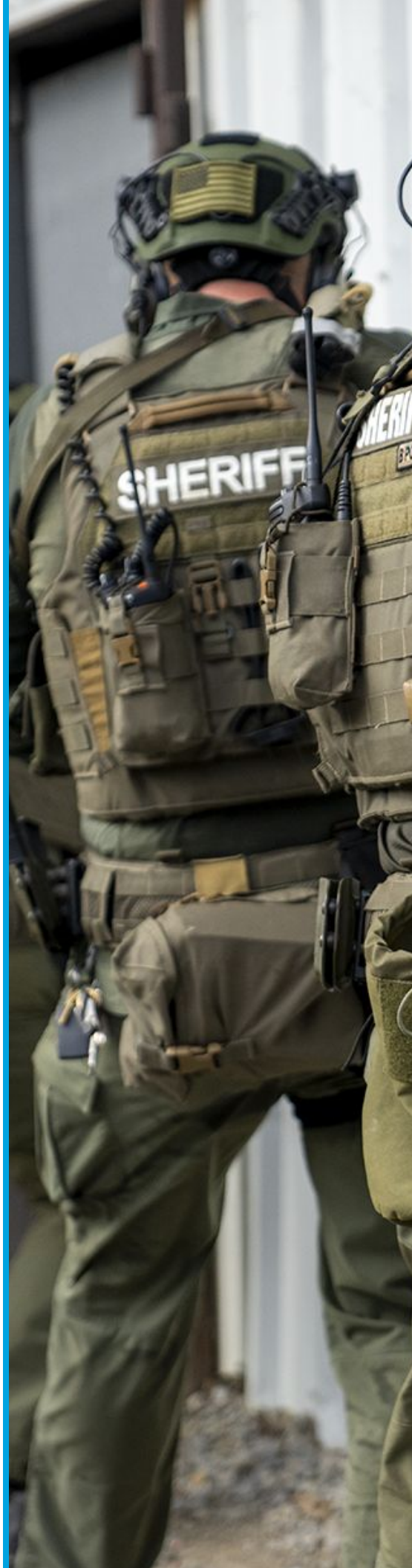
Portables	N/A
Mobiles	GA00631
Notes	Mutually exclusive with QA00631.

DVRS PSU Activation

Allows an APX portable or mobile radio acting as a Portable Subscriber Unit (PSU) in a Digital Vehicular Repeater System (DVRS) environment to be used in areas where only Mobile Subscriber Unit (MSU) coverage is available and PSU coverage is either intermittent or non-existent. The PSU Activation provides access to a suite of system features that would otherwise not be available in DVRS mode. Some examples are PSU Registration and Deregistration, AES/DES Encryption, Private Call, Call Alert / Page, Failsafe / Out of Range / Site Trunking Indicator, Single- Unit OTAR, Phone Interconnect, Dynamic Regrouping, Single-Unit GPS, Remote DVR Activation, and Phase 2 TDMA operation. PSU Data is encrypted while MSU is on a P25 trunked system.

DEPENDENCIES

Portables	QA00631
Mobiles	QA00631
Notes	Mutually exclusive with GA00631.



SYSTEM ENHANCEMENTS

DVRS PSU Conventional Scan

This feature allows a scan list to be attached to a PSU that is configured with DVRS as its system type. This enables an Enhanced PSU to support the conventional scan feature.

DEPENDENCIES

Portables	N/A
Mobiles	HA00677
Notes	Mutually exclusive to GA00631. Requires DVRS PSU Activation option QA00631.

Enhanced Data

Enhanced Data offers 12x greater throughput of data by using a more efficient scheduling method. Data such as Supervisory Control and Data Acquisition (SCADA), machine telemetry and personnel biometrics can be sent at a faster rate, providing faster updates of electronic sensors, crash notifications, maintenance needs, vehicle speeds, environmental conditions and weather updates.

DEPENDENCIES

Portables	QA03399
Mobiles	QA03399
Notes	Radio must be operating in a P25 trunked system and have Integrated Voice and Data enabled. Enhanced Data with GPS location requires radio to be enabled with Integrated Voice and Data, Enhanced Data, and GPS activation.

Enhanced Zone Bank

Allows APX Model 1.5 portable radios without a keypad to increase capacity from 96 to 1,200 channels by increasing the number of zone banks from 2 to 75. This feature ensures complete interoperability for chiefs or administrators who need to communicate with more users and agencies from the simplified user interface of a Model 1.5 radio.

DEPENDENCIES

Portables	QA01768
Mobiles	N/A
Notes	For Model 1.5 radios (with no keypad) only.



SYSTEM ENHANCEMENTS

Enhancement Level 1

The Level 1 feature enhances APX N50, APX 4000 and APX 4500 radios from 50 to 75 zones, from 512 to 1000 channels, from 30 to 40 conventional systems, 20 to 35 trunked systems, trunked personalities 100 to 200, from 500 to 1000 voice announcements, and from 48 to 64 encryption keys. This enables the radio to grow as the customer's requirements grow.

DEPENDENCIES

Portables	QA01770
Mobiles	GA01770
Notes	APX 4000 and APX 4500 radios only.

Enhancement Level 2

The Level 2 feature enhances APX N70, APX 6000 and APX 6500 radios from 65 to 200 zones, from 1000 to 3000 channels, 40 to 50 conventional systems and 35 to 70 trunked systems, from 1000 to 2000 voice announcements, and from 64 to 128 encryption keys. This enables the radio to grow as the customer's requirements grow.

DEPENDENCIES

Portables	QA01771
Mobiles	GA01771
Notes	APX 6000 and APX 6500 radios only.

Extended Dispatch

This option enables Extended Dispatch functionality from a Console via a Consolette configured for ACIM control.

Decoded Functionality:

A subscriber unit can send emergency alarm, status, and message updates over-the-air at any time. The consolette will send any received these updates to the console. With the Extended Dispatch option the corresponding ACK from the console is transmitted by the consolette over-the-air to the specified subscriber on conventional channels only.

Encoded Functionality:

Allows the console user to remotely determine a specific subscriber's status, ping a specific subscriber, and put a specific subscriber into transmit mode, also to make a specific subscriber unusable and correspondingly restore a unit to normal operation via the consolette on conventional channels only. The corresponding ACK from the console is transmitted by the consolette over-the-air to the specified subscriber on conventional channels only.

DEPENDENCIES

Portables	N/A
Mobiles	GA00469
Notes	APX Consolette only. Extended Dispatch functions are only supported on conventional channels.



SYSTEM ENHANCEMENTS

Extreme 1-Sided Noise Reduction

Created for extremely loud environments, this feature uses the secondary microphone on the display/belt-clip side of APX portable radios as the primary noise-canceling microphone.

DEPENDENCIES

Portables	QA01833
Mobiles	N/A
Notes	-

Front Panel Programming

Allows users to change radio parameters (channels/zones) using the front panel controls of the radio. Users also have the ability to clone the radio zone and channel information for one or more zones by copying zone and channel information from one radio to another. This feature is ideal for Wildland Fire, or Urban Search and Rescue operations, during large-scale disasters that require disparate agencies to communicate quickly and effectively.

DEPENDENCIES

Portables	Q53
Mobiles	G53
Notes	Requires portable radio with full keypad and 4 digit PIN number is now required by the FCC. Mobiles require O7 or Keypad mic. The keypad can only change radio parameters for mobiles. Radio to radio zone cloning is only supported on portable radios.

Group Services

Group Services delivers data to a whole talkgroup. This is a quick and efficient way to disseminate data to many radios at once. The feature offers Conventional Alias updates, Trunking Alias updates, Trunking Group Messaging and Over the Air Firmware Updates. Unlike voice transmissions, the radio receives broadcast data, but cannot send. Normal voice traffic has priority, so Group Services pauses whenever there is a voice transmission.

DEPENDENCIES

Portables	QA09008
Mobiles	GA09008
Notes	Requires digital operation for conventional capabilities and SmartNet/SmartZone P25 Interoperability for trunking capabilities. Alias Updates are supported on APX NEXT without Group Services.



SYSTEM ENHANCEMENTS

Fall Alert Operation / Impact Detection

Allows APX portable radios to automatically send an Emergency Alarm or Emergency Call when the radio is motionless and horizontal. This feature is ideal for any lone-worker situation such as police officers, fire rescue personnel, corrections officers, petro-chemical industry workers, military personnel, and utility workers. For the safety and security of Fall Alert users, the feature will alert the on-scene supervisor or dispatcher of an emergency event. If a user becomes incapacitated, and is lying down and motionless, an automatic Fall Alert alarm will be sent out on the programmed talk group. Capable of adding flags to differentiate the source of emergencies between a fall alert or emergency button press.

Allows APX Mobile radios to detect the G-force impact or the Orientation changes on the vehicle. Once the detected G-force impact or the changes in the degree of orientation meets or exceeds the predefined threshold, the impact is considered detected. This will trigger or activate the Emergency feature on the APX Mobile radio immediately or after a certain duration (which is programmable). During the emergency state, this feature will also send the location based information if the GPS feature is enabled.

DEPENDENCIES

Portables	QA01843
Mobiles	QA01843
Notes	-

Mission-Critical Geofencing

This feature instructs the radio to take an action whenever it senses that it has crossed a geographical boundary. For example the radio could be programmed to roam to the Mutual Aid channel whenever it leaves the county, change the display backlight color whenever the radio is outside the jurisdictional area, or join a new talkgroup whenever it is close to a major incident. The parameters (including boundary coordinates of all geo-fenced areas) are programmed into the radio codeplug using radio programming software.

DEPENDENCIES

Portables	QA09012
Mobiles	GA09012
Notes	Requires GPS Activation and Integrated Voice and Data.



SYSTEM ENHANCEMENTS

Multicast Vote Scan

Allows radios to scan up to 10 frequencies from multiple transmission towers and select the strongest received signal using a voting process. The feature is designed to provide wide area connectivity in areas where spectrum is abundant, giving seamless coverage and enhanced access to critical communications.

DEPENDENCIES

Portables	Q387
Mobiles	G387
Notes	-

Multi-Codeplug Programming

Allows the radio to be programmed with a maximum of 1 primary and 9 secondary codeplugs. The user can select a new codeplug via radio menu / settings which will cause the radio to reset and power up on the selected codeplug. Each individual codeplug will maintain the same codeplug limits defined by the model and additional options that impact codeplug limits.

DEPENDENCIES

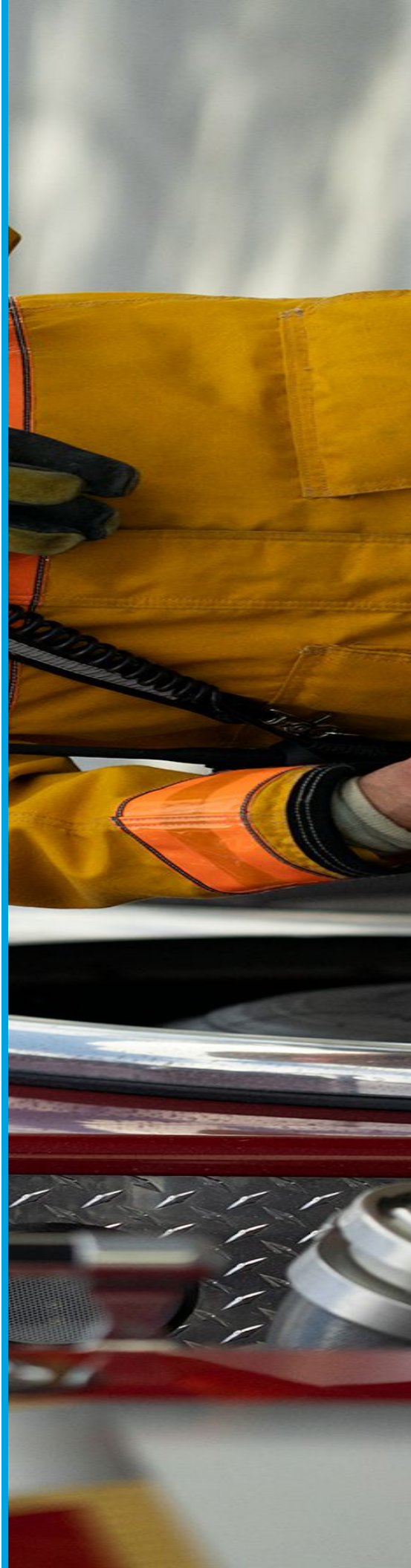
Portables	QA09772
Mobiles	QA09772
Notes	If applicable to the radio model, Enhancement Level 1 or Enhancement Level 2 must also be ordered when ordering Multi-Codeplug Programming.

Noise Sensing Volume Control

The speaker loudness will automatically adjust based on the environmental noise level without user intervention.

DEPENDENCIES

Portables	QA08676
Mobiles	N/A
Notes	-



SYSTEM ENHANCEMENTS

One Touch / Status Message

Allows the user to immediately transmit a pre-programmed status, message, radio ID, Enhanced Private Conversation™, or telephone interconnect message on the selected channel with the touch of one button. This reduces the time it takes to complete these radio functions so that the user can focus on the task at hand.

DEPENDENCIES

Portables	H46
Mobiles	G683
Notes	-

Out-of-the-box WiFi Provisioning

This option will pre-provision your APX radio with WiFi access information like SSIDs and passwords, making it quicker and easier for you to get up and running. Additional information is supplied in a manual.

DEPENDENCIES

Portables	QA09007
Mobiles	GA09007
Notes	Radio must have WiFi Capability enabled.



SYSTEM ENHANCEMENTS

P25 Radio Authentication (Link Layer)

Provides an extra level of verification every time a radio registers on the system. This enhances protection from cloned radios by requiring authentication before a radio can utilize the system. Radios must be pre-provisioned with an authentication key via the Key Variable Loader. This feature offers peace-of-mind to system administrators and maximum grade-of-service to end users.

DEPENDENCIES

Portables	QA01767
Mobiles	GA01767
Notes	Radio must be operating in a P25 trunked system on ASTRO 25 release 7.9 or later.

Personnel Accountability

Provides visibility of status of on-scene personnel to the Incident Commander. This NIMS-compliant application provides automatic user/ company registration with PTT ID and alias, emergency alarm indication, channel-left indication, low battery indication, power down indication, roll call, evacuation tones, manual and automatic polling.

Additional enhancements to APX Personnel Accountability Added support of signaling combo (ASTRO PDU + MDC) encode/decode and display for PTT ID of dispatch and emergency call. Supports emergency alarm combo with TSBK and MDC format. Also, enables coexistence of PA + Conventional Scan and PA + Vote Scan.

DEPENDENCIES

Portables	Q445
Mobiles	G445
Notes	For additional requirements to view on the MDT, contact your sales representative.



SYSTEM ENHANCEMENTS

Programming Over P25 (OTAP / POP25)

Provides radio configuration over-the-air using a P25 Integrated Voice and Data channel. This enables system administrators to update the radio remotely, avoiding the downtime associated with pulling radios from the field.

With one product from the device management portfolio, radios can be programmed over the air and enable the programming of more than one radio over the air at a time. Updates can be batched for multiple radios, and partial codeplugs if a complete update is not required.

DEPENDENCIES

Portables	G996
Mobiles	G996, GA00631
Notes	Requires SmartZone, APCO Packet Data, IMBE digital operations, and IMW version 5.2 or higher. OTAP for DVRS and its MSU for user transition from Smartzone and able to perform Firmware Download over LMR on DVRS channel. Radio must be operating on a P25 conventional or trunked system, Integrated Voice and Data, and Group Services.

Radio Trace

Instructs a radio to automatically key-up on a time-interval, making it easier to find a lost or stolen radio. Remote Monitor allows the dispatcher to remotely activate a radio's microphone, letting the dispatcher hear any audio the microphone picks up. This feature can help a dispatcher discreetly monitor and support a potentially dangerous situation after an officer has initiated a silent emergency alarm.

DEPENDENCIES

Portables	H43
Mobiles	G170
Notes	Requires digital operation on Motorola Type II 4.1 system or ASTRO 25, release 7.4 or later.

Remote Activation of Emergency

Provides a way for APX portable or mobile radios to remotely activate Emergency on a target radio in both APCO Conventional and/or APCO Trunking.

DEPENDENCIES

Portables	N/A
Mobiles	N/A
Notes	-



SYSTEM ENHANCEMENTS

Responder Alert

Protect a responder during a quickly escalating event. A series of sensors are connected to your portable radio via bluetooth and can report on events such as vest piercing, weapon drawn, Glock weapon fire, Si500 activation, vehicle impact, and fall alert alert. Weapon fire applies to Gen 4 Glocks 17, 22, 34 and 35 and Radios with Bluetooth LE.

DEPENDENCIES

Portables	–
Mobiles	N/A
Notes	Requires Aware Standard Package solution.

Site Selectable Alert for P25 Trunking

Enhances the safety of responders on scene by instantly alerting them of critical situations. Alert all APX radio users at a site, notifying the users when there is a special or hazardous situation such as an evacuation from a burning building that's about to collapse or mine that is about to be blasted.

DEPENDENCIES

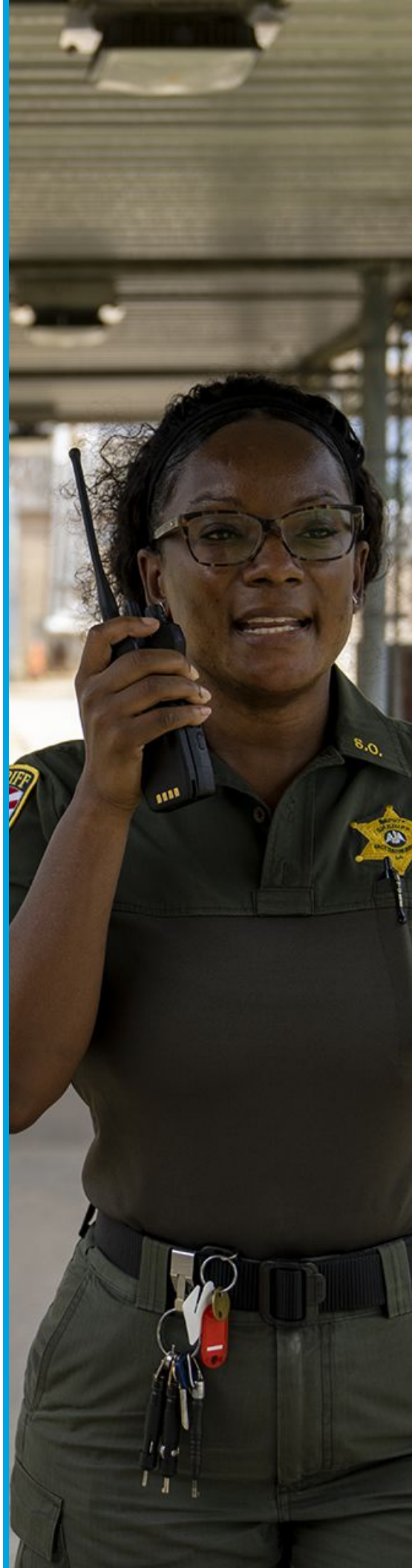
Portables	QA00982
Mobiles	QA00982
Notes	Radio must be operating in a P25 trunking system.

Tactical Stun / Kill

Allows a radio administrator to remotely disable a potentially compromised radio via a talkaround (simplex) channel. This provides a reactive security tactic against cloned or stolen radios attempting to eavesdrop or interrupt critical communications.

DEPENDENCIES

Portables	H02
Mobiles	H02
Notes	Recommend ordering encryption (non-ADP) to avoid susceptibility to remote STUN/KILL from adversaries. Not compatible with DVRS MSU GA00631.



SYSTEM ENHANCEMENTS

TDMA Operation (P25 Phase II)

Provides P25 TDMA (2-slot on 12.5 kHz channel) digital voice trunking. With P25 TDMA, agencies can double their voice capacity within their fixed allocation of frequencies. Additional channel capacity can be used for improved voice service or for integrating data applications such as GPS, OTAP, and text messaging. P25 TDMA operation will meet the 2017 FCC regulatory requirement for 6.25e operation.

DEPENDENCIES

Portables	QA00580
Mobiles	GA00580
Notes	Radio must be operating in a P25 trunked system with Interoperability on ASTRO 25, release 7.11 or later.

V300 Emergency Mode Video Recording

V300 Body camera is triggered to start recording automatically whenever the APX radio enters Emergency mode.

DEPENDENCIES

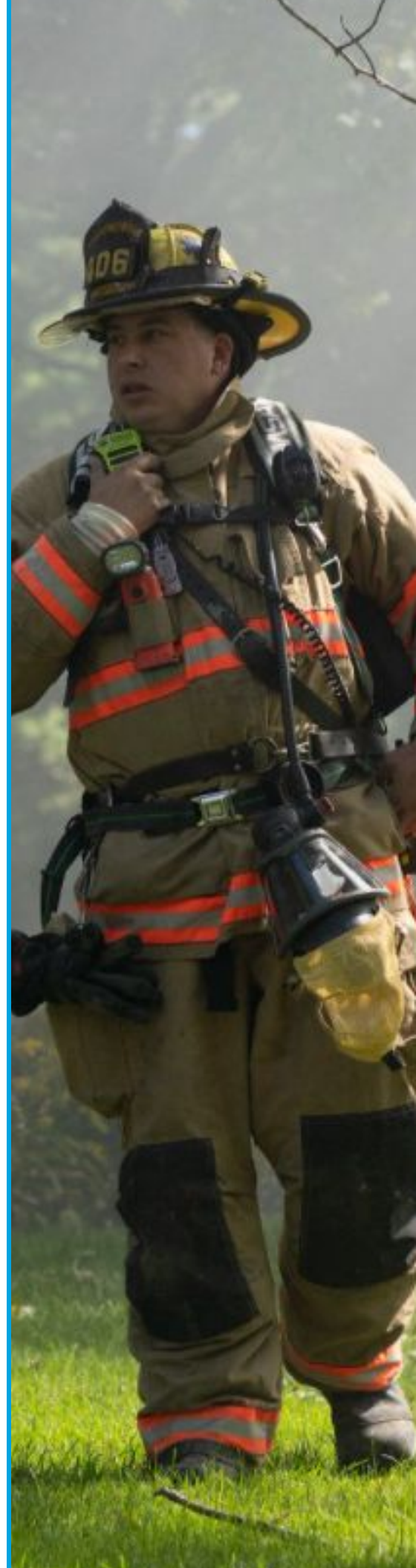
Portables	QA00583, QA01843 optional
Mobiles	N/A
Notes	Hazloc models not supported. Requires radio model 2.5 or 3.5 and V300 FW version 2.0.4.38 (APX radio firmware R24.00.00), V300 FW version 3.0.0 (APX NEXT series firmware R26.00.00), V300 FW version 3.0.0 (APX N70, APX N50, APX N30 series firmware R28.00.03). Feature flag must be enabled through Evidence Library.

ViQi Basic Voice Control for APX N50 & APX N30

Maintain situational awareness while using specific voice commands to operate your radio (i.e. channel changes, volume changes, etc.) in English

DEPENDENCIES

Portables	QA08715
Mobiles	N/A
Notes	Available for APX N50 & APX N30 only.



SYSTEM ENHANCEMENTS

ViQi Voice Control for APX NEXT & APX N70

Maintain situational awareness while using simple voice commands to operate your radio (i.e. channel changes, volume changes, etc.) in English or French Canadian.

DEPENDENCIES

Portables	QA09028
Mobiles	N/A
Notes	Available for APX NEXT & APX N70 only.

Voice Announcements Adjustment

Adjust voice announcement actions such as record, replay or program tones to interrupt or not interrupt voice announcements

DEPENDENCIES

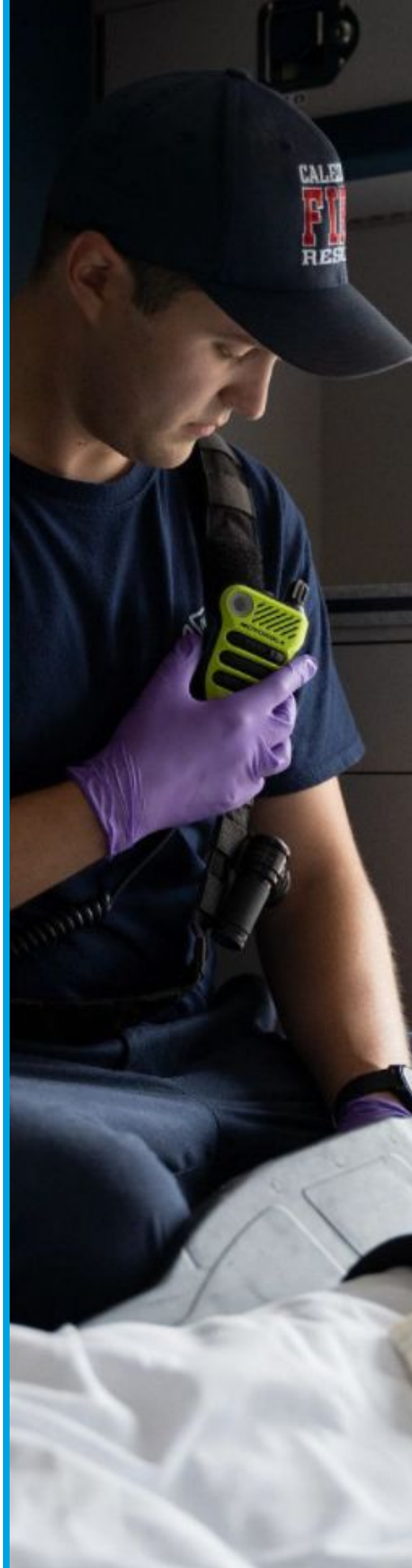
Portables	N/A
Mobiles	N/A
Notes	-

WiFi Capability

This feature enables the WiFi capability on your radio that allows you to update radios more efficiently by eliminating the downtime associated with workshop reprogramming. Quickly update codeplug, firmware and FLASHport features using WiFi 802.11n with WEP, WPA and WPA-2 security. Use APX Radio Management to automatically download update to a radio as soon as it connects to a pre-provisioned WiFi access point or mobile hotspot. All radio communications are maintained while the update is downloaded. Wifi can be enabled radio wide or per channel.

DEPENDENCIES

Portables	QA09001
Mobiles	GA09001
Notes	-





SMART APPLICATIONS

Bring new intelligence into the field.

SMART APPLICATIONS

SMARTCONNECT for APX

When P25 is unavailable, SmartConnect automatically switches your voice channel to available broadband networks and then back again as soon as you return to P25 coverage. P25 voice information is sent over broadband unchanged, so radio functionality and voice quality are maintained. APX radios and all-band consolettes can use SmartConnect when connected directly to Wi-Fi hotspots or through an in-vehicle modem LTE, satellite connection, or with a Foreign Gateway when the LMR radio roams to foreign system via ISSI.

DEPENDENCIES

Portables	QA07682
Mobiles	GA01630
Notes	Application Service number SSV01S01663A. For additional requirements on your radio or infrastructure, contact your sales representative.

SMARTCONNECT for APX NEXT & APX N70

Stay connected to your P25 radio system even when outside of P25 coverage. SmartConnect maintains your P25 voice and data communications by automatically switching between P25 and broadband. The feature automatically switches your voice channel to an LTE or WiFi broadband network or satellite whenever LMR is unavailable or falls below RSSI, then back again when you return coverage on your APX NEXT series or APX N70 radios. This feature is also available when the LMR radio roams to foreign system via ISSI.

DEPENDENCIES

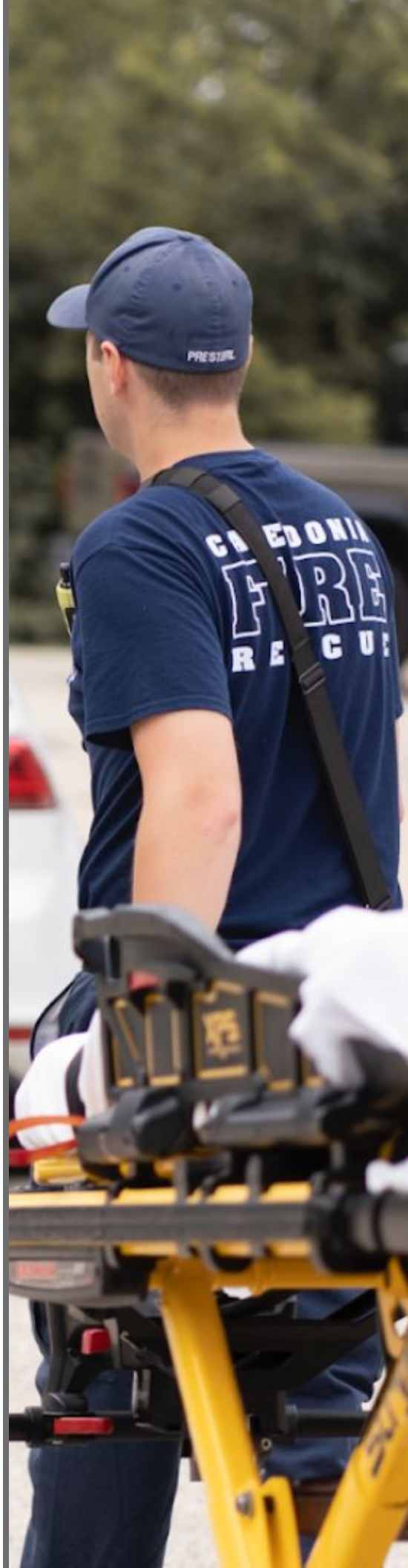
Portables	QA07682
Mobiles	N/A
Notes	Application Service number SSV01S01406A. For additional requirements on your radio or infrastructure, contact your sales representative.

SMARTCONNECT IN-VEHICLE RANGE EXTENSION

Stay connected to your P25 radio system even when outside of P25 coverage. Enables the use of SmartConnect and the Digital Vehicular Repeater System (DVRS) at the same time. A portable radio will communicate through an in-vehicle mobile that is providing a LTE/SAT/Wi-Fi connection.

DEPENDENCIES

Portables	QA07682
Mobiles	GA01630
Notes	GA01779- New Range Extension Y cable (CB000409A04), DVR FW 1.64 or later, DVR Feature License: SmartConnect In-Vehicle Range Extension. For additional requirements contact your sales representative.



SMART APPLICATIONS

SMARTLOCATE for APX NEXT & APX N70

SmartLocate delivers high-speed location-tracking over public safety LTE, for fast, accurate resource deployment. Carefully integrated into CommandCentral Aware, SmartLocate ensures you always have a complete, up-to-date picture of the situation. WiFi/Cell ID-triangulates its location to enhance accuracy, particularly when the radio is unable to access GPS.

When the user radio is configured to report location over "Broadband Preferred", the radio can fallback from Broadband to data-capable LMR channel or viceversa for reporting location, when either of the location reporting technology roams out of coverage.

DEPENDENCIES

Portables	–
Mobiles	N/A
Notes	Application Service number SSV01S01476A. For additional requirements contact your sales representative.

SMARTMAPPING for APX NEXT & APX N70

SmartMapping provides enhanced situational awareness by showing a user a map of their surroundings, the location of other first responders, and by providing a means to initiate communication with those first responders.

DEPENDENCIES

Portables	–
Mobiles	N/A
Notes	Application Service number SSV01S01907A. For additional requirements contact your sales representative.

SMARTMESSAGING for APX NEXT & APX N70

Allows for broadband enabled messaging. Share texts, voicenotes, photos, and videos with other APX NEXT series or APX N70 radios. Receive multimedia messages from dispatch broadcasts.

DEPENDENCIES

Portables	–
Mobiles	N/A
Notes	Application Service number SSV01S01906A. WAVE dispatch console client or WAVE smartphone app are also available for sharing multimedia with APX NEXT. For additional requirements contact your sales representative.



SMART APPLICATIONS

SMARTPROGRAMMING for APX NEXT & APX N70

Coupled with RadioCentral, SmartProgramming allows initial programming, software and security updates to be sent over LTE. Radio updates can be accepted anytime, anywhere utilizing the higher speed bandwidth and extended coverage of the LTE network.

DEPENDENCIES

Portables	–
Mobiles	N/A
Notes	Application Service number SSV01S01407A. For additional requirements contact your sales representative.

ViQi Virtual Partner for APX NEXT & APX N70

Communicate with a cloud based virtual assistant to query information from back-end databases (i.e. license plates, driver's licenses, unit locations, etc.) over a broadband connection by pressing the dedicated ViQi button on your APX NEXT radio.

DEPENDENCIES

Portables	–
Mobiles	–
Notes	Application Subscription number SSV01S01408B. For additional requirements contact your sales representative.





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