



APX NEXT™ FAQ

TABLE OF CONTENTS

APX vs. APX NEXT	2
DURABILITY	2
BATTERIES	2
PROGRAMMING	3
DEVICE MANAGEMENT SERVICES (DMS)	4
APPLICATION SERVICES	4
SMARTCONNECT	5
SMARTLOCATE	5
SMARTMESSAGING	7
SMARTMAPPING	8
VOICE CONTROL	9
VIRTUAL PARTNER	10
SMARTTOUCH INTERFACE & DISPLAY	11
AUDIO	12
LTE/BROADBAND	12
GENERAL	13

APX vs. APX NEXT

Will new software and features continue to be developed for the current APX platform?	APX NEXT is the newest addition to the APX platform for agencies who want the unique capabilities enabled by this solution. Motorola is committed to continue updating and enhancing the entire APX platform for the foreseeable future.
Will APX accessories work on APX NEXT?	Select APX accessories will be certified for use with the APX NEXT radio. Batteries and chargers will be different. There is also an APX NEXT pocket available for the existing APX IMPRES 2 Multi Unit Charger. APX NEXT is not compatible with APX Mission Critical Wireless Bluetooth accessories or "blue dot" MPP pairing. For a complete list of accessories please visit motorolasolutions.com/apx-next-story
Will all current APX radio features be supported on APX NEXT?	Upon initial release, some features supported on existing APX radios will not be available on APX NEXT. However, over time, the feature set will be expanded upon.
Does APX NEXT interoperate with APX?	Yes, APX NEXT can operate on the UHF, VHF and 7/800 frequency bands and can interoperate with all other APX radios.
What new software features of APX NEXT will be available on previous models of APX?	SmartConnect is available both on APX NEXT as well as select WiFi-equipped APX models. SmartConnect on APX portables operates via WiFi and on APX mobiles operates via WiFi or tethered to a LTE or satellite modem. In addition, ViQi Virtual Partner will be available over the LMR network on select APX models.
Can APX NEXT and APX antennas be used interchangeably?	No APX antennas are not certified on APX NEXT and APX NEXT antennas are not certified on APX.

DURABILITY

What are the durability specs for APX NEXT?	APX NEXT has the same durability specs as the APX 8000. This is captured in the MIL-STD 810H section of the Spec Sheet.
What are the water and drop test standards ratings for APX NEXT?	APX NEXT has the same specs as the APX 8000. This is captured in the MIL-STD section of the Spec Sheet: Drop per MIL-STD 810H, 516.6 IV, water submersion IP68 (2 metres, 4 hours).

BATTERIES

Does APX NEXT support intrinsically safe rating from FM or UL?	APX NEXT is certified to UL Div 2 with the appropriate batteries. (Listed by UL to non-incendive standards: UL 121201 and CAN/CSA C22.2 No. 213-17 as safe for use in Class I, Division 2, Groups A,B,C,D; Class II, Division 2, Groups F,G; Class III Division 2 Hazardous (Classified) Locations.)
--	--

Given the additional features supported by APX NEXT, will battery life be equivalent to current APX radios?	Customers will be able to see a noticeable difference in battery life longevity on the APX NEXT. APX NEXT standard batteries have over 20% more capacity than the standard battery on other APX radios. APX NEXT batteries have power saving algorithms to extend battery life. We expect users will experience about 12-14 hours of battery life with the standard 4400 mAh battery, and 17 - 19 hours with the high cap 5650 mAh battery. This assumes a typical duty cycle and profile (LMR duty cycle: 5/5/90, touchscreen use: 1 hour, SmartConnect active: 30 mins, LTE Mode: DRX Idle, GPS: Off, Bluetooth: Off, WiFi duty cycle 80/20, NFC: Off, RSM connected.)
---	--

PROGRAMMING

How is APX NEXT programmed/provisioned?	Using LTE or pre-provisioned WiFi, radios are programmed and updated over-the-air, using Motorola's new cloud based RadioCentral provisioning tool. Codeplug and firmware updates get downloaded in the background using LTE or WiFi. Once the download is complete, users receive a notification prompt asking them if they'd like to install the update now or later. Access to RadioCentral is included as part of the Device Management Services.
Can I load encryption keys over the air?	Customers using radio encryption keys can either load them by physically connecting the radio to the KVL or they can load them over the air with Touchless Key Provisioning (TKP) as long as a KMF is present and the radio is also enabled with OTAR (Over the Air Rekeying). Unlike programming and software updates that are done over WiFi or LTE, over the air key loading happens over LMR.
What changes are there from how users program and provision APX compared to APX NEXT?	Earlier models of APX required users to physically plug in every new radio they receive to a CPS computer in order to provision them with the appropriate codeplug. RadioCentral allows radio managers to preconfigure and pre-provision new radios prior to receiving them, so that the radio will automatically download and provision the appropriate configuration upon turning on. New radios can download the associated codeplug via LTE.
How do customers pre-provision a radio to coordinate automatic out-of-the-box programming?	Using the RadioCentral software, users are able to pre-provision their radios prior to receiving them, based on serial number. The radios will appear in the user's RadioCentral instance when they ship from the factory.

DEVICE MANAGEMENT SERVICES (DMS)

What services are included with the radios?	<p>All APX NEXT radios ship standard with 3 years of Device Management Services for total peace-of-mind, including:</p> <ul style="list-style-type: none"> • Telephone Support • Hardware Repair • RadioCentral and MyView Portal access • Software and Firmware Updates • Accidental Damage Cover
Can a customer see the status of their DMS subscription?	Yes - customers can see the status and future expiration date of DMS subscriptions for all devices in their fleet through the MyView Portal.
What is included with Device Management Training optional service?	Device Management training includes access to an online overview course designed for radio technicians. It covers how to use the RadioCentral programming tool, as well as MyView Portal capabilities.

APPLICATION SERVICES

What are Application Services?	APX NEXT mission-critical applications bring new intelligence to the field and Application Services are subscription based services that leverage the radio's broadband capabilities. The Application Services currently available are: SmartConnect, SmartLocate, SmartMapping, and SmartMessaging. ViQi Virtual Partner is due for release during 2021.
What Application Services does a customer get in year 1?	Each APX NEXT radio includes a 12-month trial subscription to SmartMessaging, SmartConnect, SmartLocate and SmartMapping. ViQi Virtual Partner will also be available as a 12-month trial once it has been released. A 12-month trial of CommandCentral Aware Mapping Service is also available at no cost.
Can APX NEXT run apps from the app store?	No. APX NEXT will only be able to operate a select and approved set of applications. The device does not have access to the general app store.
Why can't APX NEXT run apps from the app store?	APX NEXT is first and foremost a mission critical device. Consumer grade and general apps can harbor malicious software that can spread viruses and steal sensitive data. Also, general apps are not designed for use by public safety. They can divert attention away from a situation resulting in a potential hazard for users as well as citizens.

SMARTCONNECT

What is SmartConnect?	SmartConnect on APX NEXT maintains your voice communications when outside of LMR coverage by automatically switching between the P25 LMR and the LTE mobile phone network within seconds. Authentication, status, talkgroups and encryption are all preserved - without interruptions or resets. The feature is also available on some other APX models; however, APX portables operate via pre-provisioned WiFi and APX mobiles operate via pre-provisioned WiFi and tethered LTE or satellite modems.
Does SmartConnect have any system dependencies?	Yes, SmartConnect requires P25 Trunking and ASTRO System Release 7.17 or later. Other system components might be required. Please contact your technical sales specialist for more details.
What PTT/radio features are not available when using SmartConnect?	At this time, location on PTT/LMR, group alias, private call, and site trunking are not available when using SmartConnect.
What determines when APX or APX NEXT switch to a broadband connection?	APX and APX NEXT are constantly monitoring the quality of the LMR connection. If the LMR coverage drops below a designated threshold, which can be pre-configured in the radio, the radio will automatically switch to broadband. When the LMR signal becomes acceptable again, the radio automatically switches back to LMR.
How is SmartConnect different than other broadband push-to-talk offerings like WAVE and Critical Connect?	Although SmartConnect offers interoperability between LMR and LTE networks similar to our other broadband push-to-talk solutions, there are key differentiators between the solutions. First, SmartConnect on APX and APX NEXT automatically switches push-to-talk functionality between LMR and Broadband (LTE or WiFi) when LMR coverage falls below a certain threshold, allowing the user to stay focused on the mission. Additionally, SmartConnect is a true extension of your ASTRO P25 system, not just a simple patch between VoIP and P25. This solution creates an ASTRO system overlay/zone where the P25 voice and data travels via broadband instead of the traditional LMR frequencies resulting in broadband operation which sounds like P25 and retains most P25 system features.

SMARTLOCATE

What is SmartLocate?	SmartLocate sends GPS coordinate updates from APX NEXT to your command centre software over the LTE or WiFi network rather than the P25 radio system. Using broadband to communicate location enables more frequent and customisable measurements, up to once every three seconds if necessary. This lets dispatchers know your location with pinpoint accuracy, enabling them to respond to your movements faster. Utilising broadband for location updates also frees space on your P25 system so it can handle more voice traffic.
-----------------------------	---

Can SmartLocate operate over WiFi?	Yes, SmartLocate can operate using both WiFi and LTE.
What system dependencies are there in order for SmartLocate to operate?	None, SmartLocate does not have any system dependencies and can be used on any ASTRO 25 system including Analogue, Digital, Trunking, or Conventional. However, Dynamic Mode does require IMW and cloud connector on the P25 system to enable fallback to LMR when LTE is not available.
Can APX NEXT utilise location over LMR rather than SmartLocate?	Yes, agencies can choose to use location over LMR on APX NEXT rather than SmartLocate. If the user wants to report location data over LMR to an on-prem CAD system they require IMW. If they want to report location data over LMR to CommandCentral Aware they require IMW and cloud connector.
What applications can users see radio location on over SmartLocate?	Radio location from SmartLocate is visible on other APX NEXT Radios within the SmartMapping application. Radio location from SmartLocate can also be displayed on a map view within the command centre but will require CommandCentral Aware. Note that there are plans to expand into other software applications. Aware also has the capability to integrate with multiple existing 3rd party CADs. Contact the CommandCentral Sales Specialist Team for more details.
Is there an accuracy difference in location over LMR and SmartLocate?	The accuracy of the GPS position is the same between LMR and LTE GPS. However, SmartLocate increases the available location reporting cadence and increases the coverage area within which you can track GPS, as it is no longer limited to radio system coverage.
What is SmartLocate Indoor Positioning?	With this enhancement, APX NEXT triangulates its location, using nearby mobile phone towers and WiFi access points to enhance accuracy. APX NEXT does not need to be connected to the WiFi access points, but rather, will automatically recognise that there are access points present. APX NEXT radios can now be tracked more accurately when they are indoors. Location performance is also improved in marginal conditions, such as deep street canyons or dense forests.
Is Indoor Positioning an additional cost for SmartLocate?	No. There is no extra charge for Indoor Positioning. It is included with SmartLocate, as well as SmartMapping.
What is SmartLocate Dynamic Mode?	SmartLocate Dynamic Mode is a new SmartLocate feature that dynamically switches between P25 and LTE to send location updates, where previously, the user would have to choose one or the other. With Dynamic Mode, if SmartLocate is active, the radio will “prefer” LTE, but it will drop back to P25 if the LTE signal fades. This adds another level of reliability for location-tracking.

SMARTMESSAGING

What is SmartMessaging?	SmartMessaging is an application built directly into the APX NEXT home screen that allows you to share multimedia messages across your extended team via LTE. Share text messages, picture messages, voicenotes and videos with individuals or groups directly from your radio.
Can SmartMessaging operate over WiFi?	Yes, SmartMessaging can operate using both WiFi and LTE.
Are there other required products or infrastructure dependencies in order for SmartMessaging to operate?	There are no infrastructure dependencies for SmartMessaging over LTE between APX NEXT radios, however, CriticalConnect data interop will be needed for messaging interoperability with other APX radio models. To exchange messages, for example a BOLO (be on the lookout) image from dispatch, dispatch will require WAVE Dispatch Application (a separate subscription).
What software is used to communicate over SmartMessaging from a command centre?	WAVE Dispatch Application is used to communicate over SmartMessaging to and from the Command Centre. A separate subscription for this application is required.
What kinds of multimedia can be sent using SmartMessaging?	SmartMessaging allows users to send and receive text messages, image messages, videos and voicenotes although the APX NEXT is not capable of taking photos or recording video or audio directly from the device at this time. These forms of multimedia may be received and forwarded.
Can I start message groups or share messages to more than one individual with SmartMessaging?	Yes, SmartMessaging allows the exchange of messages between both individuals and groups. Groups must be predefined by the system's administrator.
Can you use SmartMessaging to communicate to smartphones and other smart devices?	Yes. APX NEXT can exchange multimedia messages with smartphones and other smart devices, provided the devices have the WAVE PTT mobile application and subscription service. WAVE PTT application is available on both Android and IOS platforms.
Can you communicate over SmartMessaging to other APX radio models?	Yes. APX NEXT can exchange messages with other APX radios models, provided users have a subscription to Critical Connect and have Critical Connect cloud connector. The APX radios receive the message over LMR and the messages are limited to text only.

Can messages be logged or securely archived for future reference?	Currently, messages cannot be logged or archived to external platforms for extended periods of time. They can, however, be stored securely on the device indefinitely (until deleted by the user). Do note that SmartMessaging will not be static, and there is full intention to deliver updates and expand capabilities, such as the integrations with our secure digital evidence management platform.
SMARTMAPPING	
What is SmartMapping?	SmartMapping is a modern, intuitive mapping tool built right into APX NEXT, allowing you to view your precise location and track nearby radio users on a modern mapping interface integrated right into your radio. You can also search an address or colleague, drop waypoints, quickly pinpoint officers in distress, and initiate voice calls and alerts, all right through the SmartMapping application.
How can I pinpoint an officer in distress using SmartMapping?	When an officer presses the emergency button on his/her radio, their icon, which is displayed on the SmartMapping map, will visibly change to indicate their emergency button has been pressed. Others viewing the SmartMapping map will be able to quickly identify any emergency icons at a glance from the map view.
Can SmartMapping operate over WiFi?	Yes, SmartMapping can operate using both WiFi and LTE.
What levels of detail can I see about my current location with SmartMapping?	From the APX NEXT home screen, the SmartMapping widget will display the approximate street address (or closest intersection) associated with the device's GPS location. Upon clicking into the map view, users will see their location displayed on a map, with the ability to click through to view further details including street address and GPS coordinates.
Are there ways to locate an officer or point of interest other than navigating the map view?	Yes. SmartMapping allows users to search an individual by name or predefined identifier. A user may also search a specific address. Simply navigate to the search box within the SmartMapping toolbar, enter search information, and SmartMapping will pinpoint the person or place on the map interface. You can also view all nearby officers within a list view menu or search historical waypoints and addresses.
Can SmartMapping provide navigation instructions?	SmartMapping cannot provide specific navigation instructions at this time, but will however display the bearing/direction and distance of a selected radio user or point of interest.
Are there other required products or infrastructure dependencies in order for SmartMapping to operate?	There are no infrastructure dependencies for SmartMapping to operate, although tracked APX radios require IMW and cloud connector.

How does SmartMapping relate to SmartLocate and CommandCentral Aware?	SmartMapping is the application and mobile map interface for APX NEXT that will display the user's current location, as well as the location of other tracked radios, directly on the APX NEXT screen. SmartLocate, a separate application for APX NEXT, is the location routing service that collects and shares location information and updates over LTE and WiFi to other radios/devices as well as to the command centre. CommandCentral Aware is the command centre software with browser-based mapping screen where command centre staff can monitor the location and status of officers in the field.
Can you communicate with other radios through SmartMapping?	Yes. You can initiate a private call or call alert with the radios displayed on the map, provided the radios support receiving private calls or call alerts over the P25 LMR network. This can be done by tapping on the officer's location pop-up from the map view and navigating to the contact details page. From here, simply tap the 'call' icon to initiate a private call, or the 'page' icon to send a call alert. In the future, SmartMapping will support other forms of communication from the map view.
Can SmartMapping show the location of devices other than APX NEXT?	At this time, SmartMapping can show the location of other APX radios, provided IMW is set up with a cloud connector. Contact your technical sales specialist for more information.
What map layers are available on SmartMapping?	With SmartMapping, you can switch between "base layers" of street map, terrain map, or satellite imagery.

VOICE CONTROL

What is Voice Control?	Voice Control enables users to interface with their APX NEXT in an entirely new way - using their voice. There are a series of voice commands that can be leveraged each with multiple wording variations, from changing zone, channel and volume, to getting battery status. This lets you use your radio with eyes-up awareness.
Can you use Voice Control from an accessory?	The XV RSM is the only accessory certified for use with Voice Control. It is also the only accessory with a dedicated ViQi button on the front grille.

What can you control on the radio using Voice Control?	<p>Currently, there are 11 actions available:</p> <ul style="list-style-type: none"> • Zone/Channel change and query • Channel change and query • Zone change and query • Volume control and query • Radio profile changes • Battery query • Home (go to home zone and channel) • Scan on/off • Cancel • Time • Virtual Partner access
What happens if you are using Voice Control when a radio transmission is received?	<p>If Voice Control is set to high priority mode in RadioCentral and the button has been pressed and held to initiate Voice Control, the Voice Control operation continues to execute and the receive audio will be muted. The Voice Control confirmation feedback audio is mixed with any incoming radio transmission. If Voice Control is set to low priority mode and there is received radio transmission upon pressing and holding the button, Voice Control will not be initiated.</p>
How does Voice Control relate to Virtual Partner?	<p>Voice Control uses a set of commands to control radio features. The same ViQi button can be used for both Voice Control and Virtual Partner. When Voice Control and Virtual Partner are accessed by the same button, a user will say specific Voice Control commands to initiate a Virtual Partner session.</p>
VIRTUAL PARTNER[*] coming in a future release during 2021	
What is Virtual Partner?	<p>Users can now do search lookups with agency databases (any state and federal) directly in the field using Virtual Partner powered by ViQi on their APX NEXT and APX radios. Users can initiate a search request with the press of a button and using natural language. When search results become available, ViQi Virtual Partner alerts the user with an audible and textual indication.</p>
What can you query with ViQi Virtual Partner?	<p>At this time, Virtual Partner can query number plates, driver's licence numbers and Vehicle Identification Numbers (VINs), as well as query their own location and the location of other radio users.</p> <p>Because Virtual Partner is a cloud-based service, it enables new capabilities to be added seamlessly.</p>
Can ViQi Virtual Partner query results be relayed via text instead of voice?	<p>Currently, query results can only be relayed audibly. Displaying query results via text is being evaluated for a future release.</p>

Can you use Virtual Partner from an accessory?	The XV RSM is the only accessory with which Virtual Partner is accessible using the dedicated ViQi button on the front grille. However, Virtual Partner can be configured in other accessories with programmable buttons
If using Virtual Partner, are there any ASTRO system requirements?	Virtual Partner can be configured to work over LTE or LMR. Virtual Partner over LTE does not have any ASTRO system requirements. Virtual Partner over LTE is system agnostic. However, Virtual Partner over LMR does have system dependencies including ASTRO System Release 2019.2 or greater. Please contact your technical sales specialist for more details.
What happens if you are using Virtual Partner and a radio transmission comes through?	<p>When using VP on LMR, the radio changes the TG/channel temporarily to a dynamic TG for the duration of the VP session. During that time any radio transmissions on the previous TG are not heard.</p> <p>When using VP on BB/LTE the radio stays on the same LMR TG and the VP transmissions are sent and received via LTE. When the user presses the ViQi button the LMR audio is muted. When VP has audio responses, they can be mixed with the LMR audio. The agency can set the mixed audio levels in CPS. There are four mix levels:</p> <p>ViQi VP Audio Only - VP plays only; LMR is muted</p> <p>ViQi VP High Audio Mixed (Default mode) - VP audio plays at the current radio volume level and LMR audio is mixed at ~10 db lower volume</p> <p>ViQi VP Equal Audio Mixed - LMR and VP are mixed equally at the current radio volume level.</p> <p>ViQi VP Low Audio Mixed - LMR audio plays at the current radio volume level with VP audio mixed at ~10 db lower volume.</p>

SMARTTOUCH INTERFACE & DISPLAY

How many characters can the new larger top display show at once?	14 characters per line, across two lines.
Can users wear gloves when operating the touch screen?	Yes. The SmartTouch display allows users to use the touch screen interface while wearing a wide assortment of gloves including medical gloves and protective work gloves (up to 3mm thick). Additionally, the touch screen is operational in wet conditions without risk of false actuation.
Can you turn off the bright touch screen?	Covert mode is available to fully turn off the screen as well as to dim the larger screen. Night Mode provides the option to display a less-bright colour scheme on the screen.

If the touch display is rendered unusable, can you still access and control mission critical radio features?	Yes. Due to segregated operating systems - one for radio and one for applications - any breakage or malfunction of the touch screen or apps processor does not inhibit the usage of the mission critical radio features and functionalities controlled using the hardware knobs and buttons.
AUDIO	
How many mics does the new XV RSM have vs. the previous APX RSM?	XV RSM has four high dynamic range mics and the adaptive audio noise reduction technology to provide the clearest transmission in high noise. The APX XP RSM and Windported RSMs have two mics or less.
What is the difference between the microphones used in APX NEXT compared to those used in current APX radios?	APX NEXT incorporates high dynamic range microphone technology. High dynamic range mics allow for more intelligible audio the higher a person speaks or even shouts into the radio. That means in mission critical situations, you will be heard and understood.
What is receiver automatic gain control?	Automatic gain control is technology that normalises the audio levels in a radio. This means low audio levels can be automatically increased and vice versa, high audio levels can be automatically lowered. Receiver automatic gain control directly addresses the common public safety user complaint of "constantly adjusting their radio volume throughout their shift". This new technology will significantly reduce the number of necessary radio volume adjustments, creating a better user experience.
What are the differences between the new XV RSM and the previous APX RSMs?	The XV RSM includes the follow: <ul style="list-style-type: none"> • A larger, more clear speaker • Four high dynamic range microphones • Enhanced windporting design • Better ergonomics reducing muffled audio • New adaptive noise suppression • Dedicated ViQi button
LTE/BROADBAND	
What LTE carriers are available to use for Application Services?	APX NEXT can be used on all Australian carriers, and should work straight away when a standard carrier nano SIM is inserted into the radio. If a customer uses a Private APN with their SIM cards, this can be configured in the Settings app on the radio. Note that the radio will need access to the Internet to make use of the cloud-based Application Services.
Does the radio come with a SIM card pre-installed?	No, customers will need to provide their own data SIMs for use with the radios if they wish to make use of any of the Application Services.

Can I have two SIM cards in my APX NEXT radio for use on two different LTE networks?	No, APX NEXT has a single removable SIM slot.
How do customers change the LTE chipset if necessary during the product's lifetime?	<p>APX NEXT has the latest embedded LTE chipset that's augmented with a powerful applications processor and undergone rigorous system and interference testing to ensure optimal performance and ruggedness. As the dynamic evolution of the commercial carriers chipsets continues, Motorola expert technicians can help manage the chipset replacement process while guaranteeing that the replacement process does not compromise the devices' performance or durability.</p> <p>Devices with field-swappable chipsets are prone to the integrity of the housing being compromised allowing the radio to become susceptible to the introduction of dust, water, etc. into the device leading to a limited life cycle. Field-swappable chipsets are not as rugged in design in order to accommodate ease of installation and still require the installer to have the appropriate certifications and equipment on site to perform the replacement procedure in order to maintain IP68 protection, intrinsically safe approvals, and to ensure the radio is not damaged in the process. Motorola technicians can guarantee that performance and device integrity is maintained through the chipset replacement process.</p>
GENERAL	
What frequency bands and frequency band configurations can APX NEXT be ordered in?	APX NEXT is an all-band radio that supports VHF, UHF and 7/800MHz frequency bands as standard. See the Product Data Sheet for the specific frequency ranges supported.
Can APX NEXT be ordered in single band configuration?	No, in Australia, the APX NEXT is sold as an all-band radio only.
How long does it take for APX NEXT to turn on?	APX NEXT functions on a segregated processor - one for radio and one for applications. No matter what, the radio processor turns on and is functionable in under 4 seconds. Users have the option to keep their radio in cold or warm start mode. In cold start mode, the apps processor takes about 25 seconds and from warm start mode, the apps processor takes about 5 seconds to power on. Regardless of whether the apps processor is in the process of turning on or has become unresponsive, the radio functionality is never compromised.