



# APX N PORTABLE RADIO FAQ

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## APX vs. APX N

What is APX N?	APX N is a new line of next generation portable radios within the broader APX product family. It includes the APX NEXT series (APX NEXT, APX NEXT XE, APX NEXT XN) all-band radios & APX N70, APX N50, APX N30 single-band radios.
Will new software and features continue to be developed for the current APX platform?	Yes, new software and other upgrades will continue to be released for the APX platform for the foreseeable future.
Will all current APX radio features be supported on APX NEXT series or APX N70?	Upon initial release, some features supported on existing APX radios will not be available on APX NEXT and APX N70. However, over time, the feature set will be expanded upon.
Do APX N interoperate with other APX radios?	Yes, APX NEXT series can operate on the UHF, VHF and 7/800 frequency bands and can interoperate with all other APX radios.  APX N70, APX N50, APX N30 currently is offered on 7/800 frequency bands. UHF & VHF will be available at a later date. They can interoperate with other APX radios on the same frequencies.
What new software features of APX NEXT will be available on previous models of APX?	SmartConnect will be available both on APX NEXT series, APX N70 as well as select WiFi equipped APX models, and APX N50 and APX N30. SmartConnect on APX portables operates via WiFi and on APX mobiles operates via WiFi or tethered to a LTE or satellite modem.

## 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 durability specs for APX N70?	APX N70 has the same durability specs as the APX 6000. This is captured in the MIL-STD 810H section of the Spec Sheet.
What are the durability specs for the APX N50 & APX N30?	This is captured in the MIL-STD 810H section of their respective 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 meters, 4 hours).

## ACCESSORIES

Will previous APX accessories work on APX N line radios?	Select APX accessories will be certified for use with the APX NEXT radio. Batteries and single-unit chargers will be different. APX NEXT
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	<p>batteries require the IMPRES™ 2 Multi-Unit Charger and the APX NEXT pocket. The APX N70 introduced new chargers that can be shared with APX NEXT. However, batteries are unique to this model.</p> <p>The APX N50 &amp; APX N30 have new chargers that support both models.</p>
<p><b>What audio accessories can I use with APX NEXT XN?</b></p>	<p>When in hazard zone mode, RSMs or other audio accessories must meet the requirements of NFPA 1802. There will be an alert on the radio if the accessory is not approved for hazard zone mode. The XVN500 RSM is certified for use in hazard zone mode and NFPA 1802 certified when used with APX NEXT XN.</p> <p>When outside of hazard zone mode, compatible RSMs or devices that serve the function of an RSM, that do not meet the requirements of NFPA 1802, can be configured with APX NEXT XN as long as they can be quickly and easily deconfigured by the user prior to entering the hazard zone. For example, a boom mic headset or earpiece.</p>
<p><b>What carry accessories can I use with APX NEXT XN?</b></p>	<p>A carry solution is not required to be compliant with NFPA 1802. For example, the radio can be worn in a turnout coat pocket.</p> <p>Motorola Solutions offers an optional carry solution that is compatible with APX NEXT XN and approved for use in hazardous/emergency response environments.</p> <p>Aftermarket / 3rd party carry accessories can be used, but should not interfere with the fit, form or function of the device. Also, the carry solution should be made from materials suitable for use in hazardous/emergency response environments as they may impact the performance or void the radio's warranty.</p>
<p><b>What batteries can I use with APX NEXT XN?</b></p>	<p>Motorola Solutions offers a battery unique to APX NEXT XN in order to meet stringent specifications of NFPA 1802. A mechanical lock-out feature prevents other APX NEXT batteries from connecting to the radio.</p> <p>3rd party batteries are not supported as batteries are seen as part of the radio in the NFPA 1802 standard.</p>
<p><b>Can wired audio accessories be used interchangeably on APX N and other APX radios?</b></p>	<p>Select APX accessories will be certified for use with the APX N radios.</p> <p>APX NEXT series and APX have a GCAI audio connector. The APX N70, APX N50, and APX N30 have a separate suite of GCAI</p>

	mini compatible audio accessories. An adaptor is available for those accessories without a GCAI mini equivalent.
<b>Why did the audio connector change between previous APX and APX N70, APX N50, APX N30?</b>	The APX N70, APX N50 and APX N30 picked up the accessory connector to make the model form factor as efficient as possible and to leverage a growing fleet of GCAI mini accessories.
<b>Can bluetooth accessories be used interchangeably on APX N and other APX radios?</b>	APX N radios do not work/are not compatible with APX Mission Critical Wireless Bluetooth accessories or “blue dot” MPP pairing. Commercial off the shelf (COTS) bluetooth accessories will work/are compatible.
<b>Can the XVE 500 or XE 500 RSM be used with APX NEXT XN?</b>	Yes, as long as the APX NEXT XN is not set to Hazard Zone Mode channel/zone. Only XVN 500 is certified to be used in Hazard Zone Mode
<b>Can antennas be used interchangeably on APX N and other APX radios?</b>	Other APX antennas are not certified on APX N radios and APX N antennas are not certified on other APX radios. The connection type is different between APX and APX N radios.
<b>Can APX N and previous APX chargers be used interchangeably?</b>	<p>All APX N radios require different single unit chargers (SUC).</p> <ul style="list-style-type: none"> <li>● APX NEXT series offer APX NEXT only SUC or APX NEXT/APX N70 compatible SUC.</li> <li>● APX N50 and APX N30 share a compatible SUC</li> </ul> <p>APX N radios multi unit chargers (MUC).</p> <ul style="list-style-type: none"> <li>● APX NEXT and APX N70 can use the APX IMPRES™ 2 MUC and the APX NEXT or APX N70 pocket.</li> <li>● APX NEXT series offers its own MUC or a MUC compatible with APX NEXT series &amp; APX N70</li> <li>● APX N50 and APX N30 are compatible with the same MUC</li> </ul>
<b>Can APX N and previous APX batteries be used interchangeably?</b>	<p>All APX N batteries are not compatible with other APX models.</p> <ul style="list-style-type: none"> <li>● APX NEXT and APX NEXT XE batteries are compatible</li> <li>● APX NEXT XN batteries are unique in order to meet stringent specifications. A mechanical lock-out feature prevents other APX NEXT batteries from connecting to the radio.</li> <li>● APX N70 batteries are unique</li> <li>● APX N50 and APX N30 batteries are compatible</li> </ul>
<b>Do APX N radios support intrinsically safe rating from FM or UL?</b>	APX NEXT is certified to UL Div 2 with the appropriate batteries. UL Div 2 batteries are available as an orderable option for APX NEXT and ship as the standard battery for APX NEXT XE* (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

	<p>II, Division 2, Groups F,G; Class III Division 2 Hazardous (Classified Locations.)</p> <p>*See APX NEXT XE section of FAQ for additional details about APX NEXT XE and standard batteries.</p> <p>APX N70, APX N50, APX N30 are certified UL Div 1 with the appropriate orderable battery option.</p>
<p><b>Given the additional features supported by APX NEXT, will battery life be equivalent to other APX radios?</b></p>	<p>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. Effective March, 2020, APX NEXT ships standard with 4400 mAh batteries (instead of the original 3850 mAh units.) 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.)</p>
<p><b>What are self calibration batteries?</b></p>	<p>Batteries with the self calibration feature can be identified through a logo, battery with a charge, on the battery label. These batteries will not require users to go through the traditional hours of IMPRES calibration or recondition process, when charged using the APX NEXT/APX N70 compatible or APX N50/APX N30 compatible IMPRES 2 chargers.</p> <p>A software upgrade is required if used with APX charger NNTN8844, NNTN9115. Refer to the charger user manual to learn how to identify the charger software version and perform charger software upgrade.</p> <p>APX NEXT XN, APX N70, APX N50, APX N30 currently offer self calibration batteries.</p>
<p><b>PROGRAMMING</b></p>	
<p><b>How are APX N radios programmed/provisioned?</b></p>	<p>All APX N radios are compatible with CPS cable programming or Radio Management (RM) with traditional programming/provisioning features.</p> <p>APX NEXT series and APX N70 are also compatible with RadioCentral. Using LTE or pre-provisioned WiFi, radios are programmed and updated over-the-air, using the RadioCentral</p>

	<p>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 to install the update now or later. Programming and provisioning over WiFi comes standard with each APX NEXT series or APX N70 radio, and requires purchasing the programming tool Radio Management or RadioCentral. On top of this, to utilize these functions over LTE, SmartProgramming is required.</p>
<p><b>Can I load encryption keys over the air?</b></p>	<p>Customers using encryption keys can load them by physically connecting the radio to the KVL.</p> <p>With APX NEXT series or APX N70, they can load them over the air with Touchless Key Provisioning (TKP) &amp; RadioCentral 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.</p>
<p><b>How long does it take to program a radio or upgrade the firmware on RadioCentral?</b></p>	<p>Programming a radio takes from 1 minute to 15 minutes depending on the changes needed. With RM or RC, a technician can plan all the updates in advance and automatically send them to radios as they become available. A small codeplug change is much faster than a larger firmware update. Once the new programming is pushed through cable, WiFi or LTE, the user has to accept the change on the radio.</p>
<p><b>What considerations should a customer have for an APX mixed fleet?</b></p>	<p>Customers can manage their mixed fleet in different ways.</p> <ul style="list-style-type: none"> <li>● Using CPS or RM for all APX radios</li> <li>● Using CPS or RM for all APX radios and RadioCentral for APX NEXT series and APX N70 to leverage LTE and enhanced workflows of RadioCentral.</li> </ul> <p>RadioCentral support for all APX radios will come at a later date.</p>
<p><b>What changes are there from how users program and provision other APX radios compared to APX NEXT series or APX N70 on RadioCentral?</b></p>	<p>All APX are programmed with CPS (tethered) or RM (tethered, WiFi, OTAP). APX NEXT &amp; N70 can also be programmed with RC (WiFi, LTE).</p> <p>Initial provisioning is enhanced with RC:</p> <ul style="list-style-type: none"> <li>- The configuration are planned in advanced</li> <li>- The radio will automatically download it from RC upon unboxing (thanks to factory pre-provisioning the radio in RC)</li> </ul> <p>Initial WiFi provisioning on RM is possible under certain circumstances. Please contact the Application Practice Office for</p>

	details.
<b>How do customers pre-provision a radio to coordinate automatic out-of-the-box programming?</b>	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.
<b>What is Role Based Access?</b>	RadioCentral Role Based Access is a new optional feature that introduces Admin, Technician, and Reader roles assignable to users. The role assignment allows access control to individuals managing the Device configuration in an agency.
<b>DEVICE MANAGED SERVICES (DMS)</b>	
<b>What services are available for APX N radios?</b>	Essential services are designed for customers who want to limit their investment to basic hardware and software support. Features include: <ul style="list-style-type: none"> <li>• Standard Hardware Repair</li> <li>• Access to MyView portal with device service information</li> <li>• Technical Support</li> </ul> <b>Optional DMS Add-Ons include:</b> <ul style="list-style-type: none"> <li>• Device Management Training - hands on training workshop for radio technicians</li> <li>• Accidental Damage</li> <li>• Tailored services for preventive maintenance or on-demand codeplug and firmware updating</li> </ul> Programming Solutions (CPS, RM, RC) are still offered but are not part of a specific DMS package.
<b>Can a customer see the status of their DMS subscription?</b>	Yes - customers can see the status and future expiration date of DMS subscriptions for all devices in their fleet through the MyView Portal.
<b>What is included with Device Management Training optional service?</b>	Device Management training includes access to an online overview course as well as a 2-day instructor lead workshop designed for radio technicians. It covers how to use the RadioCentral programming tool, as well as MyView Portal capabilities.
<b>APPLICATION SERVICES</b>	
<b>What are application services?</b>	APX mission-critical applications bring new intelligence to the field and Application services are subscription based services that leverage the radio's broadband capabilities. APX NEXT series and APX N70 offer SmartProgramming, SmartConnect, SmartLocate, ViQi Virtual Partner, SmartMapping and SmartMessaging

	APX N50 and APX N30 offer SmartConnect
<b>What application services does a customer get in year 1? What happens after year 1?</b>	One year of any 4 application services along with the broadband LTE subscription are included with the purchase of an APX NEXT or APX N70 radio. Additional application services beyond the 4 free ones can be added in year 1 at the bundle discount rate. At the end of the first year, application services subscriptions will auto-renew unless a customer indicates they wish to cancel the service.
<b>Can the start of the one year free trial of the application services be delayed for some time after the radio ships?</b>	The start of the one year free trial can be delayed for up to 4 months after the radio ships. This can be selected as an option when placing the order.
<b>Can APX N radios run apps from the app store?</b>	No. APX N radios will only be able to operate a select and approved set of applications. The device does not have access to the general app store.

**SMARTCONNECT**

<b>What is SmartConnect?</b>	<p>SmartConnect on APX N radios maintains your voice communications when outside of LMR coverage by automatically switching between the P25 LMR and the LTE cellular network or WiFi network within seconds. Authentication, status, talkgroups and encryption are all preserved - without interruptions or resets.</p> <p>APX NEXT series and APX N70 offer this feature over LTE or WiFi.</p> <p>The feature is also available on APX N50, APX N30 and other APX models; however, the APX portables operates via pre-provisioned WiFi and on APX mobiles operates via preprovisioned WiFi and tethered LTE or satellite modems</p>
<b>What PTT/radio features are not available when using SmartConnect?</b>	At this time, GPS/location on PTT/LMR, group alias, private call, and site trunking are not available when using SmartConnect.
<b>What determines when APX radios switch to a broadband connection?</b>	APX radios 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.
<b>How is SmartConnect different</b>	Although SmartConnect offers interoperability between LMR and



<p>than other broadband push-to-talk offerings like WAVE and Critical Connect?</p>	<p>LTE/WiFi networks similar to our other broadband push-to-talk solutions, there are key differentiators between the solutions. First, SmartConnect on APX 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.</p>
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## SMARTLOCATE

<p>What is SmartLocate?</p>	<p>SmartLocate sends GPS coordinate updates from APX NEXT series/APX N70 to your command center software, SmartMapping and/or P1 CAD over the LTE or WiFi network rather than the P25 radio system. Using broadband to communicate location enables more frequent and customizable 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. Utilizing broadband for location updates also frees space on your P25 system so it can handle more voice traffic.</p>
<p>Can SmartLocate operate over WiFi?</p>	<p>Yes, SmartLocate can operate using both WiFi and LTE.</p>
<p>What system dependencies are there in order for SmartLocate to operate?</p>	<p>SmartLocate does not have any system dependencies and can be used on any ASTRO 25 system including Analog, Digital, Trunking, or Conventional. However, Dynamic Mode does require IMW and cloud connector on the P25 system.</p>
<p>Can APX NEXT series/APX N70 utilize location over LMR rather than SmartLocate?</p>	<p>Yes, agencies can choose to use location over LMR on APX NEXT series/APX N70 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 and/or SmartMapping they require IMW and CloudConnect.</p>
<p>What applications can users see radio location on over SmartLocate?</p>	<p>Radio location from SmartLocate is visible on other APX NEXT series/APX N70 radios within the SmartMapping application. Radio location from SmartLocate can also be displayed on a map view within the command center but will require CommandCentral Aware. Note that there are plans to expand into other software applications. Aware also has the capability to integrate with</p>

	multiple existing 3rd party CADs. Contact the CommandCentral Sales Specialist Team for more details.
<b>Is there an accuracy difference in location over LMR and SmartLocate?</b>	The accuracy of the GPS (feet displacement) 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 .
<b>What is SmartLocate Indoor Positioning?</b>	Indoor Positioning is an enhancement for SmartLocate available with the 2020.1 release (May 2020) of APX NEXT and at the time of shipment with APX N70. With this enhancement, APX NEXT series/APX N70 triangulates its location, using nearby cell-tower and WiFi access points to enhance accuracy. The radios do not need to be connected to the WiFi access points, but rather, will automatically recognize that there are access points present. 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.
<b>Is Indoor Positioning an additional cost for SmartLocate?</b>	No. There is no extra charge for Indoor Positioning. It is included with SmartLocate, as well as SmartMapping.
<b>What is SmartLocate Dynamic Mode?</b>	SmartLocate Dynamic mode is a new SmartLocate feature standard with the APX NEXT software release (June 2020) 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.
<b>SMARTMESSAGING</b>	
<b>What is SmartMessaging?</b>	SmartMessaging is an application built directly into the APX NEXT series/APX N70 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.
<b>Can SmartMessaging operate over WiFi?</b>	Yes, SmartMessaging can operate using both WiFi and LTE.
<b>Are there other required products or infrastructure dependencies in order for SmartMessaging to operate?</b>	There are no infrastructure dependencies for SmartMessaging over LTE between APX NEXT series/APX N70 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 Client (a separate subscription).
<b>What software is used to communicate over SmartMessaging from a command center?</b>	WAVE Dispatch Application is used to communicate over SmartMessaging to the Command Center. A separate subscription for this application is required.
<b>What kinds of multimedia can be sent using SmartMessaging?</b>	As of June 2020), SmartMessaging will allow users to send and receive text messages, image messages, videos and voicenotes although the APX NEXT series or APX N70 will not be 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.
<b>Can I start message groups or share messages to more than one individual with SmartMessaging?</b>	Yes, SmartMessaging allows the exchange of messages between both individuals and groups. Groups must be predefined by the system's administrator.
<b>Can you use SmartMessaging to communicate to smartphones and other smart devices?</b>	Yes. APX NEXT series/APX N70 will be able to 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.
<b>Can you communicate over SmartMessaging to other APX radio models?</b>	Yes. APX NEXT series/APX N70 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.
<b>Can messages be logged or securely archived for future reference?</b>	Currently, SmartMessaging server sync has the ability to delete messages after being stored for 30 days. This was introduced in the ASTRO 2022.1 SW Release. 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**

<b>What is SmartMapping?</b>	SmartMapping is a modern, intuitive mapping tool built right into APX NEXT series/APX N70, allowing you to view your precise location and track nearby officers on a modern mapping interface integrated right into your radio. You can also search an address or
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	colleague, drop waypoints, quickly pinpoint officers in distress, and initiate voice calls and alerts, all right through the SmartMapping application.
<b>How can I pinpoint an officer in distress using SmartMapping?</b>	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 mapview.
<b>Can SmartMapping operate over WiFi?</b>	Yes, SmartMapping can operate using both WiFi and LTE.
<b>What levels of detail can I see about my current location with SmartMapping?</b>	From the APX NEXT series/APX N70 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 mapview, 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.
<b>Are there ways to locate an officer or point of interest other than navigating the mapview?</b>	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.
<b>Can SmartMapping provide navigation instructions?</b>	SmartMapping cannot provide specific navigation instructions at this time, but will however display the bearing/direction and distance of a selected officer or point of interest.
<b>Are there other required products or infrastructure dependencies in order for SmartMapping to operate?</b>	There are no infrastructure dependencies for SmartMapping to operate, although tracked APX radios require SmartLocate or IMW and Cloud Connector (tracked APX NEXT series/APX N70 radios require Smartlocate; tracked APX radios require IMW and cloud connector)
<b>How does SmartMapping relate to SmartLocate and CommandCentral Aware?</b>	SmartMapping is the application and mobile map interface for APX NEXT series/APX N70 that will display the user's current location, as well as the location of other tracked radios directly on the screen. SmartLocate, a separate application for APX NEXT series/APX N70, 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 center. CommandCentral Aware is the command center software with browser-based

	mapping screen where command center staff can monitor the location and status of officers in the field.
<b>Can you communicate with other radios through SmartMapping?</b>	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 mapview 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.
<b>Can SmartMapping show the location of devices other than APX NEXT or APX N70?</b>	At this time, SmartMapping can show the location of other APX radios, provided IMW is set up with a cloud connector. Talk with your technical sales specialist for more information.
<b>What map layers are available on SmartMapping?</b>	With SmartMapping, you can switch between "base layers" of street map, terrain map, or satellite imagery.

## VOICE CONTROL

<b>What is voice control?</b>	Voice control enables users to interface with their APX N radios 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.
<b>Can you use Voice Control from an accessory?</b>	The XV/XVP/XVE/XVN RSM is the only accessory with which Virtual Partner is accessible using the dedicated ViQi button on the front grill. The 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 grill.
<b>What can you control on the radio using voice control?</b>	Actions available on APX NEXT series & APX N70 using intuitive voice commands: <ul style="list-style-type: none"> <li>- Zone/Channel change and query</li> <li>- Channel change and query</li> <li>- Zone change and query</li> <li>- Volume control and query</li> <li>- Radio profile changes</li> <li>- Battery query</li> <li>- Home (go to home zone and channel)</li> <li>- Scan on/off</li> <li>- Cancel</li> </ul>

	<ul style="list-style-type: none"> <li>- Time</li> <li>- Virtual Partner access</li> <li>-Command help</li> </ul> <p>Actions available on APX N50 &amp; APX N30 using specific voice commands:</p> <ul style="list-style-type: none"> <li>-Channel change and query</li> <li>-Zone change and query</li> <li>-Battery query</li> <li>-Volume change</li> <li>-Scan on/off</li> <li>-Preset change</li> <li>-Profile change</li> <li>-Command help</li> </ul>
<b>What happens if you are using voice control when a radio transmission is received?</b>	If voice control is programmed to high priority mode, and the button has been pressed and held to initiate voice control, the voice control operation continues to execute and the received 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.
<b>How does voice control relate to virtual partner?</b>	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.
<b>VIRTUAL PARTNER</b>	
<b>What is virtual partner?</b>	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 series and APX N70 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 that depicts the severity and nature of information found. The alert can be programmed to be discreet and non-intrusive to in-progress user operations. Users can stay in control of the situation with intelligence at every step.
<b>Is virtual partner available in my State or Province?</b>	ViQi Virtual Partner is only available in the United States at this time. ViQi Virtual Partner requires a connection to the State Message Switch in order to request information from State and

	<p>Federal databases for Vehicle and Person search. State policies regarding authentication, query parameters, and voice access vary and not all states are supported at launch. ViQi Virtual Partner is currently not available in the following States: Alabama, Arkansas, Colorado, Delaware, Kansas, Louisiana, Maryland, Michigan, Mississippi, Montana, North Carolina, New Hampshire, Nevada, Ohio, Oklahoma, Utah, and Vermont. In addition, in Arizona Vehicle search is not supported but Driver's License is supported. VIN is not supported for Idaho or New Mexico. Additional States will be added via future enhancements to Virtual Partner or State policy updates. **Canada will be available in the future after ViQi Virtual Partner integration with Canadian data.</p>
<p><b>What can you query with ViQi Virtual Partner?</b></p>	<p>Virtual Partner can query license plates, driver's license numbers and Vehicle Identification Numbers (VINs). As of Software Release 2020.4, users who have a ViQi Virtual Partner Subscription and their device location in the cloud (via SmartLocate or IMW Cloud Connector) can ask ViQi for their location or the location of other units. In this same release, officers who run a ViQi Virtual Partner query that generates a hot hit can automatically send their dynamic location to an intelligence operator monitoring the incident over an Aware map thereby increasing officer safety. Because virtual partner is a cloud-based service, it enables new capabilities to be added seamlessly.</p>
<p><b>When do you have to say "Hey ViQi?"</b></p>	<p>"Hey ViQi" is a voice command that is used to enter a Virtual Partner session when the radio is enabled with Voice Control. Voice Control is the default feature when you press and hold the ViQi button. Once you are in a Virtual Partner session, you don't need to say it again. "Look up information" is an alternate voice control command to initiate a session. At any time you want to re-enter a virtual partner session, you must say "hey ViQi" again.  <i>*If you have voice control and virtual partner programmed on separate buttons, you never need to say "Hey ViQi".</i></p>
<p><b>Can ViQi Virtual Partner query results be relayed via text instead of voice?</b></p>	<p>Currently, query results can only be relayed audibly. Displaying query results via text is being evaluated for a future release.</p>
<p><b>Can you use Virtual Partner from an accessory?</b></p>	<p>The XVP RSM and XVE500/XVN 500 RSM are the only accessories with which Virtual Partner is accessible using the dedicated ViQi button on the front grill. However, Virtual Partner can be configured in other accessories with programmable buttons.</p>
<p><b>If using Virtual Partner, are</b></p>	<p>Virtual Partner can be configured to work over LTE. Virtual Partner</p>

<p>there any ASTRO system requirements?</p>	<p>over LTE does not have any ASTRO system requirements. Virtual Partner over LTE is system agnostic. Please contact your technical sales specialist for more details.</p>
<p>What happens if you are using virtual partner and a radio transmission comes through?</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  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  ViQi VP Equal Audio Mixed - LMR and VP are mixed equally at the current radio volume level.  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

<p>How many characters can the new larger top display show at once?</p>	<p>14 characters</p>
<p>Can users wear gloves when operating the touch screen?</p>	<p>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.</p>
<p>Can you turn off the bright touch screen?</p>	<p>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 color scheme on the screen.</p>
<p>If the touch display is rendered unusable, can you still access and control mission critical radio features?</p>	<p>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.</p>
<p>Which APX N radios have a keyboard within the touchscreen?</p>	<p>APX NEXT series and APX N70 offer a keyboard.</p> <p>APX NEXT series radios can be used for search function, logging in and typing freeform text messages via SmartMessaging.</p>



	The keyboard on APX N70 has been tailored to administrative functions like logging in to CommandCentral Admin. It is not available in search or freeform messaging due to the size of the display which has grown smaller to allow for the addition of P1-P6 buttons.
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## AUDIO

<b>How many mics does the new XVP/XVE 500/XVN 500 RSM have vs. the previous APX RSMs?</b>	The new RSMs have 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.
<b>What is the difference between the microphones used in APX N compared to those used in other APX radios?</b>	APX N 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.
<b>What is receiver automatic gain control?</b>	Automatic gain control is technology that normalizes 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.
<b>What are the differences between the new XVP / XVE 500/XVN500 RSM and the previous APX RSMs?</b>	The new RSMs include the following: <ul style="list-style-type: none"> <li>• A larger, more clear speaker</li> <li>• Four digital microphones</li> <li>• Enhanced windporting design</li> <li>• Better ergonomics reducing muffled audio</li> <li>• New adaptive noise suppression</li> <li>• Dedicated ViQi button</li> </ul>

## LTE/BROADBAND

<b>What LTE carriers are available to use for Application Services?</b>	APX NEXT series and APX N70 are certified for use on the AT&T/FirstNet and Verizon networks in the US and the Bell Mobility network in Canada. Motorola Application Services are complete solutions, which includes LTE data service, so customers do not need to acquire broadband data subscription independently.
<b>Will customers need to purchase a subscription from</b>	LTE is included in all application service subscriptions (SmartConnect, SmartProgramming, SmartLocate, SmartMapping,

<p><b>the cellular carriers to enable LTE ?</b></p>	<p>SmartMessaging, ViQi VP) when SIM cards are pre-installed at the Motorola Solutions factory.</p>
<p><b>Can customers provide their own SIMs to use in this device?</b></p>	<p>Starting in October 2022, customers can choose to purchase APX NEXT &amp; APX N70 radios without Motorola managed LTE service otherwise known as BYOS (Bring Your Own SIM). However, these radios are only certified for the AT&amp;T FirstNet (USA), Verizon (USA), and Bell Mobility (Canada) wireless carriers. Customers who use any other wireless carrier will not receive any Motorola customer support to resolve any LTE issues. Although BYOS customers will receive a 33% price discount on app service subscriptions (up to 3 services), customers will have to take on many more responsibilities in managing their own LTE service. Please reach out to your account manager to get the full list of responsibilities that Motorola would normally manage for you.</p>
<p><b>Can customers have two SIM cards in an APX NEXT series or APX N70 radio for use on two different LTE networks?</b></p>	<p>No, APX NEXT series and APX N70 have a single removable SIM slot.</p>
<p><b>Can customers remove the SIM card for the APX NEXT series or APX N70 and use it in another LTE device?</b></p>	<p>The SIM is locked to the device with which it ships from Motorola Solutions. Although the SIM is accessible and can be physically removed, it will not work in any other device but the one that it was locked to, when the radio was built by Motorola Solutions.</p>
<p><b>How do customers change the LTE chipset if necessary during the product's lifetime?</b></p>	<p>The APX NEXT series and APX N70 have 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 Solutions technicians can guarantee that performance and device integrity is</p>

	maintained through the chipset replacement process.
<b>GENERAL</b>	
<b>What frequency bands and frequency band configurations can APX N radios be ordered in?</b>	<p>APX NEXT is available for operation on UHF, VHF, and 7/800 MHz frequency bands. Customers can order APX NEXT out of the factory in single, dual, or all-band configuration. When ordering in single or dual-band configurations, additional bands can later be enabled via flashport upgrade.</p> <p>APX N70, APX N50 and APX N30 are available in 7/800 MHz with UHF and VHF bands to follow.</p>
<b>What antenna comes with APX NEXT?</b>	<p>APX NEXT ships standard with an all-band whip antenna, supporting operation on 7/800, VHF, and UHF frequencies. A single-band 700/800MHz stubby antenna can also be selected for any configuration that includes 700/800MHz. In 2021, additional single-band only antennas will be made available, to support operation on just one of the above frequency bands.</p>
<b>How long does it take for APX NEXT to turn on?</b>	<p>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.</p>
<b>What happens if the app processor malfunctions, is radio functionality compromised?</b>	<p>APX NEXT functions on a segregated processor meaning that the radio and apps functionality are separate and independent. If the apps processor goes down, radio functionality is maintained.</p>
<b>Do APX N radios support Man Down/Fall Alert?</b>	<p>Yes. Man Down/Fall Alert is available as an additional standalone option.</p>
<b>Does APX N support Personnel Accountability?</b>	<p>APX Personnel Accountability will be supported on APX N radios, giving users the ability to press the PTT button or other button to acknowledge roll calls, PAR checks and evacuation notifications sent by Incident command via MDT/laptop running APX Personnel Accountability Application. Note, that as with other APX radios, the APX N radios will only be able to receive and acknowledge the above notifications at this time. An MDT/laptop/tablet with LTE connection will be needed to initiate them.</p>

<p><b>Is DVRS PSU functionality supported on APX NEXT and APX N70?</b></p>	<p>Yes. DVRS PSU functionality is supported on APX NEXT and APX N70 as an added option which may be selected during ordering.</p>
<p><b>Is APX NEXT shipping in Canada?</b></p>	<p>Upon the 2020.1 (May 2020) release, APX NEXT is available in Canada as well as the US. APX NEXT is certified to operate on the Bell Mobility LTE network.</p>
<p><b>What special considerations are there for APX NEXT in Canada?</b></p>	<p>APX NEXT in Canada has embedded Bell LTE data service. SmartProgramming, SmartConnect, SmartMapping, SmartMessaging, and SmartLocate are currently the available application services, which are hosted in the Canada Commercial Cloud. ViQi Virtual Partner is not currently available in Canada.</p>
<p><b>Will the APX N50 and APX N30 offer more than a limited keypad?</b></p>	<p>Our customer research indicates users are not often typing text, rather using the keypad for shortcuts. At this time we are only offering model 2.</p>
<p><b>APX NEXT XE</b></p>	
<p><b>What is APX NEXT XE, and what does 'XE' indicate?</b></p>	<p>'XE' is indicative of the Extreme Series of APX radios, designed with exaggerated ergonomics and extreme features for operation in more rigorous environments. Similarly, APX NEXT XE is the Extreme Series to the APX NEXT platform, bringing XE features to the advanced APX NEXT P25 Smart Radio.</p>
<p><b>Who is the ideal customer for APX NEXT XE?</b></p>	<p>APX NEXT XE is an ideal solution for fire/EMS, or other public safety customers interested in the advanced features and capabilities of APX NEXT but prefer XE ergonomics for use in more extreme environments.</p>
<p><b>What enhancements and differences are included with APX NEXT XE that are not included on standard APX NEXT?</b></p>	<p>APX NEXT XE includes an exaggerated t-grip shape, enlarged buttons and controls, higher-torque knobs, and XE crash bar for added screen protection and easier use with gloves and in harsh environments. Additionally, APX NEXT XE ships standard with a hazloc certified UL Div 2 battery, and is orderable in a high visibility colored housing. APX NEXT XE has a slightly larger physical form factor than that of the standard APX NEXT. Refer to data sheets for additional details on APX NEXT and APX NEXT XE dimensions and other design specs.</p>
<p><b>How does the performance and durability of APX NEXT XE compare to other APX XE models?</b></p>	<p>APX NEXT XE meets the same extreme durability specifications of the APX8000XE and other XE models, including delta-T testing, IP68 dust resistance and submersion (2 meters, 4 hours) and operating temperature of -22F to +140F. See MIL-STD section of data sheet for full list of environmental specs. Additionally, APX</p>

	<p>NEXT XE brings advanced features and capabilities to and XE radio including high dynamic range microphone technology for clearer audio, longer lasting UL battery, larger color top display, large ultra-durable front touch screen display and LTE capabilities, among all other advanced features APX NEXT has to offer.</p>
<p><b>How durable is the APX NEXT XE touch screen?</b></p>	<p>The APX NEXT XE touch screen is built ultra durable, designed for all weather use and extreme environments. The touch screen is built with toughened glass, reinforced with a rigid steel plate underneath and a protective exterior crash bar to withstand various drops and impacts. The device is tested to withstand a 4ft drop to concrete on all faces, edges, and corners, and a 4.6oz steel ball drop from 20in directly onto the display. Additionally, the screen is resistant to false actuation by water, snow, ice, or debris, and can be operated with gloves up to 4mm thick.</p>
<p><b>What battery ships standard with APX NEXT XE?</b></p>	<p>APX NEXT XE ships standard with a 4400 mAh UL Div 2 battery while the standard battery for APX NEXT (non-XE) is 4400 mAh (non-UL). The standard battery for APX NEXT XE meets a higher hazardous location certification (HazLoc) rating, certified intrinsically safe for use in Class 1, Division 2 environments. A 5650mAh UL DIV 2 battery is also available as a high capacity battery option.</p>
<p><b>What colors are available for the APX NEXT XE housing?</b></p>	<p>APX NEXT XE is available in Impact Green as well as black. Impact Green is a high visibility color option often preferred by fire agencies as it is the most visible color in smoke.</p>
<p><b>Are APX NEXT accessories compatible with APX NEXT XE?</b></p>	<p>Many APX NEXT Accessories, including batteries, antennas, RSMs and audio accessories (including the XE500 RSM, originally released for APX) are compatible with APX NEXT XE, but there are preferred accessories for use in extreme environments (see question below). Be sure to check accessory specifications and consult your Motorola Solutions representative if considering standalone or alternative accessory options for APX NEXT XE or for use in extreme environments. Due to the larger design and exaggerated controls of APX NEXT XE, specific carry solutions have been designed for APX NEXT XE. Standard APX NEXT carry solutions are not compatible.</p>
<p><b>What accessories are designed specifically for APX NEXT XE?</b></p>	<p>The XVE500 RSM is the preferred remote speaker microphone for APX NEXT XE, designed for use in extreme environments, supporting the same functions of the XV RSM (including ViQi) and advanced environmental specs of the XE500 RSM. The XE500 RSM is also compatible with APX NEXT XE but does not support ViQi. The XVE500 is available as a standalone accessory. APX NEXT XE</p>

	ships standard with a redesigned holster that includes a belt clip and integrated D-ring for use with a Boston Leather Strap. (2.5" and 3" belt clip options available) A Boston Leather carry case is also available for APX NEXT XE as a standalone option.
<b>Are there any features or capabilities supported by APX NEXT that are not available for APX NEXT XE?</b>	No, APX NEXT XE supports the same features and capabilities that are available with non-XE APX NEXT models. This includes Smart Application Services, frequency bands and band configurations (including single, multi, and all-band configurations), LTE networks, antennas, and all other orderable device options available for APX NEXT (not including select accessories). Rather, APX NEXT XE offers several enhancements as noted in the previous question/answers that are not available in standard APX NEXT Models.
<b>Is APX NEXT XE available in Canada?</b>	Yes, APX NEXT XE is available in Canada as well as the US.

## APX NEXT XN

<b>How does the performance and durability of APX NEXT XN compare to other APX NEXT / APX XE models?</b>	<p>APX NEXT XN meets the same extreme durability specifications of the APX NEXT XE, APX8000XE and other XE models. See MIL-STD section of data sheet for full list of environmental specs. It also goes beyond those durability specifications to be certified to the stringent NFPA 1802 requirements for ruggedness and software safety features. See Hazard Zone section of the data sheet for full list of specs.</p> <p>Similar to APX NEXT XE, APX NEXT XN brings the same advanced features and capabilities to the radio including high dynamic range microphone technology for clearer audio, IMPRES2 UL battery, larger color top display, large ultra-durable front touch screen display and LTE capabilities, among all other advanced features APX NEXT has to offer.</p>
<b>Is APX NEXT XN orderable and shipping today?</b>	The APX NEXT XN and XVN500 RSM can be quoted, ordered and is shipping today.
<b>Accessory questions?</b>	Refer to Accessories section for details on APX NEXT XN batteries, RSMs, antennas.