Transcript: APX Next and Advanced Feature Awareness

Welcome to this Alaska Land mobile radio training presentation, Motorola APX Next radios and advanced features awareness.

The ALMR system serves agencies throughout its service area at all levels of government. This includes not only local and state agencies, but federal and Department of Defense installations. Because of the diverse set of users as well as geographic challenges within the state, the ALMR system was designed from the beginning to be reliable, redundant and scalable. Part of the emphasis of the ALMR system design with security. The system, because it hosts Department of Defense users, follows a strict DoD Compliance security protocol. These policies and procedures, which are compliant with that protocol, ensure that the system remains secure for all users.

As technology has evolved, new features are becoming available as they have gone through the federal authorization process. This training will discuss a few of the features that may become available that users may look to take advantage of now or in the future.

Cloud services, by definition, are computer services that are hosted online on the Internet. This is different than on premise computing, where generally servers that run computer programs hold databases and store organizations files were hosted on site.

Over the recent years, many services that we're familiar with have moved to a cloud based model, and while these services can provide many advantages for both users and for developer, They necessarily expose all services to the greater Internet. This can create a large amount of security concerns and potential areas where exploits can take place. Fed ramp stands for the federal risk and authorization management program.

This set of standards allows federal agencies to adopt cloud services, and this program ensures the security and assessment of those services to be compliant with DoD and other security regulations.

There are certain features that have been requested by ALMR users over the years that require connection to cloud services. Historically, the ALMR system has never been connected outside of the core system itself, with recent authorization from Fedramp, some services, mainly the APX next suite of services, is now potentially available to our subscribers in the system. These services provide several different functions that require cloud computing that can also enhance the usability of radios. Let's review a few of these features.

Push to talk over LTE or push to talk over Wi-Fi is technology that allows for an Internet connection to carry radio traffic back to the Alomar system. We're going to discuss mainly push

to talk over LTE as that would be the most common and scalable deployment of this type of technology.

By using push to talk over LTE the APX Radio will choose the correct path if it's able to contact the system and has good reception, it will use the normal ALMR system to transmit and receive over the air like we're using today.

However, there are some use cases where potentially the LTE or cellular signal could be used to transmit and receive radio traffic as if you were in range of an ALMR site. The most common examples where this can be helpful is buildings that may have construction characteristics that don't allow proper radio coverage or to be able to use radios in communities that do not have all of our sites that are served by commercial cellular providers.

This technology may have drawbacks and is still being tested as we roll out potential changes to the system that will support this type of technology. The APX next series of radios supports push to talk over LTE in the N70 series. The Wi-Fi version is supported in the N50 series.

Location services is another common request.

By providing location, radios can report back their location data or GPS data to a centralized system. Motorola, as well as other radio manufacturers have these products that allow authorized users in an agency to view the location of radios, some in real time and some upon transmit.

The Motorola version of this system is called Command Central aware. This is a hosted version, which means that an Internet connection is required, but with the proper credentials, agencies can look at radios that are assigned to them and their GPS locations. The Motorola ecosystem also provides connectivity to other types of components as well, such as body worn cameras.

There are two types of location services that radios today can provide. Continuous location services generally requires a different type of connection, usually LTE cellular. These radios, such as the APX next in 70 series, can use the cellular network and the GPS functions of the radio to continuously report location of radio just as if you would a mobile phone. This will allow not only location tracking, but also can identify and catalog where radio has been, what route a radio has taken, and many other functions related to location. The second type of location is location on push to talk. This is common if enabled for radios such as the APX 6000 and other APX series radios that have this capability. The location is not continuous in this model, but only appears when the radio keys up to talk on the ALMR system.

In that case, instead of a moving continuous target, a dispatch or other person viewing location would see a point feature where that radio was when the transmitter keyed up, it would update only the next time the radio keyed up to transmit.

As we have discussed throughout this training and awareness video, we have used the Motorola Radio Series as examples. Remember the ALMR system supports many other types of radios that are P25 compliant and have gone through the almr acceptance testing process.

The Fed ramp approval process we discussed has b een extended to the Motorola APX series. However, at this time we do not have information as to the approval of other radio manufacturers. Other manufacturers have similar services to the main central where they may or may not be approved as of yet to be operating on DoD systems such as ALMR.

There are several prerequisites that must be considered before rolling out this type of technology. All radios are required to have certain code plug options and parameters set, which would require even current radios such as the apex series to have to be manually reprogrammed to associate location services and other data as needed for this system.

In addition, certain radios will require certain hardware and feature sets or to work properly. Contact your radio vendor for information as to the specific features and software that must be enabled for each radio.

The radio manufacturer, the system manufacturer provider, has licensing for items such as the command Central aware. Typically this requires additional licenses, either for the radios for the users that can monitor the radios, or both. Again, your radio dealer can provide information as to the licensing required.

Connections to the ALMR system and other technical aspects that are connected to the ALMR system must be vetted through the system management office. We encourage everyone when purchasing any type of new hardware, considering any type of hardware or software purchase related to radios to contact the system management office or help desk before entering into any type of contract or purchase agreement. This will allow the technical staff to review and ensure that the product is compatible with the ALMR system and also provide any information that may be needed by your radio vendor.

At this time, the features that have been discussed in this video are being tested by the all of our system management office and a small subset of users. If you are considering purchasing these types of services, we expect additional training and information to be able to be rolled out in the last half of 2025. In the meantime, please contact the system Management Office, help desk or operations management office for any questions you may have in the interim.

The contact information for the help desk and Operations Management Office is listed on the screen. Thank you for watching this ALMR awareness training video.