

ALMR INSIDER

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State of Alaska Quantar Replacement in Progress

The State of Alaska (SOA) is currently in the process of replacing the Quantar site radios at 71 of their sites and updating the GTR8000 site radios at four sites. Quantar radios have reached their end of life and will no longer be supported by Motorola Solutions®. Additionally, the ALMR System cannot move beyond the current 7.17.3 software platform while Quantars are still in use.

The project kickoff meeting was held on August 6 and subsequent detailed design reviews (DDRs) took place weekly to ensure any possible issues were identified well ahead of actual installation.

Installation has begun with Cottonwood Creek being the first site to be upgraded.

The project also includes software and licensing for P25 Phase II time division multiple access (TDMA). With the current Quantar technology, each channel at any given site can carry one talkpath. With TDMA, it splits the

channel and enables it to carry two TDMA talkpaths, essentially doubling capacity at the site.

It is important to note that most of the radios in use on ALMR are not TDMA-enabled/capable. Agencies must ensure they purchase only TDMA enabled or TDMA capable (can be flashed at a future date) subscribers going forward.

The System will continue to support frequency division multiple access (FDMA) radios, but their use negates the doubling of channels at the sites they are hitting. There is currently no date when FDMA radios will no longer be authorized on ALMR, but agencies are strongly encouraged to begin transitioning to TDMA capable/enabled radios as soon as possible.

(Article written by Ms. Sherry Shafer, Operations Management Office)

New ALMR Website and Agency Training Opportunities

Under the new Operations Management Office (OMO) contract, which began on July 1, the ALMR website will be redesigned to update and modernize it. The site has been in need of a refresh for several years. Additionally, there was also some funding included in the new contract for user training.

Mr. Chris Letterman, Operations Manager, has been individually contacting agencies one at a time to introduce himself and to find out what agencies would like to see on the new website and to also discuss their immediate training needs.

This process is taking longer than anticipated and all agencies have not yet been contacted. Surveys have been distributed to agencies to obtain some of this information. Chris intends to continue to personally contact agencies, to introduce himself.

As part of the training plan, the OMO will make some of the training available on the website through presentations and/or videos. There is also on-going discussions to make training available through remote video teleconferencing.

No date has been set at this time for the launch of the new website, but the OMO is actively working with the training coordinator to produce the courses.

A notification will be sent to all agencies once the new website is operational and training presentations/videos are available. If remote video teleconference classes materialize, an announcement will be sent out with available dates for specific ALMR areas.

(Article written by Ms. Sherry Shafer, Operations Management Office)

Waiting for a PTT Interoperability Solution

Several committees are working toward solving the Land Mobile Radio (LMR)/LTE Push-To-Talk (PTT) and LTE/LTE PTT interoperability issues. Meanwhile, the 3GPP standards body is crafting 3GPP TS 23.283, Mission-Critical Communication Interworking with LMR Systems, or the Interworking Function (IWF). The IWF will be the interface that will provide solid interoperability between Mission-Critical PTT (MCPTT) and LMR networks. IWF specifications are intended to support a broad range of LMR technologies, effectively allowing MCPTT to interoperate with most of today's LMR systems. IWF is not a reality, but is being developed. Once available, it will have to pass muster to determine whether it meets the needs of the public-safety community.

FirstNet has announced MCPTT and it is becoming available. I consider today's version to be the foundation of what MCPTT can become over time once it can compete

with PTT applications already in the market and when it is capable of interoperating with LMR PTT systems.

PTT is, and will remain, the most important method of communications used by public safety. Data, video, text, and other forms of transmissions enabled by FirstNet add to the total scope of communications, but at the end of the day, PTT over LMR and over FirstNet is the fastest and most important method of communications in the field.

As FirstNet moves forward, it is completely dedicated to the public-safety community as are vendors, various organizations, and most standards bodies that serve public safety. Everyone involved is dedicated to providing public-safety with what it wants and needs in communications.

(Excerpts taken from "Why Are We Waiting for a PTT Interoperability Solution?", Andrew Seybold, Public Safety Advocate e-newsletter, September 10)

State of Alaska Quantar Replacement Update

The State of Alaska is currently in the process of upgrading 71 of their RF sites by replacing the legacy Quantar site radios with GTR8000 site radios, and also upgrading SOA existing GTRs at 4 other sites. Project meetings have been underway for a couple of months and are continuing as the project progresses. As part of this upgrade, sites will transition from Phase 1 frequency-division multiple access (FDMA) to Phase 2 time-division multiple access (TDMA).

Phase 2 TDMA essentially takes the current voice channel capacity at any given site and doubles it. As an example, a current ALMR FDMA three-channel site has one control channel and two voice channels. When upgraded to three GTRs with TDMA, the site will have the capacity of four voice channels with one control channel. This added channel capacity will be a great improvement to the ALMR system, and will allow more talk groups and user agencies to access any given site during an event.

As a reminder, to take advantage of the benefits of the TDMA upgrade, ALMR agencies should plan for reprogramming existing TDMA enabled radios and update their firmware (referred to as "flashing"), program TDMA capable radios to make them TDMA enabled, and the eventual life-cycle replacement of non-TDMA capable radios.

Cottonwood Creek was the first site to be upgraded and was completed on September 30.



(Article and pictures provided by Mr. Scott Stormo, Alaska Public Safety Communications Service Program Manager, and Mr. Travis Conant, ALMR System Manager)

Take the ALMR Outreach Survey

Part of our on-going mission to improve and enhance the Alaska Land Mobile Radio system depends greatly on hearing from you!, the users! Without your feedback and active participation, it is tough for the Operations Management Office to advocate and inform others about the system. To make that easier, we're embarking on a User Outreach Survey. This will be a short 5-10 minute survey inquiring about the ALMR website and training; things I have been speaking to many of you about since taking over as Operations Manager on July 1st. (Article by Mr. Chris Letterman, ALMR Operations Manager)

Link to Survey:

<https://bit.ly/3nHHlcr>

OR

You can point your smartphone camera at the QR Code →



Public-Safety Group Advocates Giving 4.9 GHz Spectrum to FirstNet

A group of public-safety professionals including two former First Responder Network Authority (FirstNet) board members has asked the FCC to give the 4.9 GHz spectrum band to FirstNet.

The FCC is in the process of re-examining the 4.9 GHz band and determining what to do with it because it feels that it is currently underused. While the FCC has not yet made decisions on the band and has communicated an interest in preserving the public-safety purpose of the band, it has discussed potentially sharing the band with non-public-safety users or auctioning it.

“We really feel like it’s not theirs to do that with,” said Sue Swenson, former chair of the FirstNet board. Swenson noted that the FCC was correctly questioning if the band was underused but said there are ways that the band can be effectively used for public safety.

The Public Safety Spectrum Alliance (PSSA), which was formed by the Public Safety Broadband Technology Association (PSBTA) and other organizations, is now engaging the FCC in hopes of ensuring that spectrum remains accessible for public-safety use.

“Public safety does not want to lose that spectrum,” said Jeff Johnson, former vice chair of the FirstNet board. “We would like it to end up in the hands of FirstNet, which is specifically here for public-safety, and they have a track record of using spectrum for public safety.”

FirstNet’s experience in taking the band 14 spectrum and leveraging it into the nationwide public-safety broadband network (NPSBN) that is now the FirstNet network operated by AT&T suits it perfectly to take on the task of determining how to best use the 4.9 GHz band for public safety, Swenson and Johnson said.

Swenson noted how when the Middle Class Job Creation and Tax Relief Act of 2012 created FirstNet, it did not

provide a lot of guidance specifically as to how the FirstNet Authority should set up the network and itself. “They gave us the what, but the how had to be figured out,” she said. That experience of taking the legislation, interpreting it and then developing the FirstNet program out of it gives FirstNet the expertise it needs to develop a plan to optimize the 4.9 GHz spectrum, Swenson said.

The members of the PSSA said they don’t know exactly what a plan for optimizing the spectrum would look like, but their goal right now is to ensure that the spectrum is set aside for public safety instead of other uses. Once that is ensured, public-safety stakeholders can begin looking at plans to optimize the spectrum, they said. “If we don’t lock this up now, it won’t be available for us,” said Kim Zagaris, the former state fire and rescue chief for the California Governor’s Office of Emergency Services (OES).

While the members of the alliance don’t know exactly what a plan for the band would look like, Zagaris said he envisions it helping meet public safety’s ever-increasing demand for data capacity, as well as support future public-safety 5G capabilities. “It’s logical to think that public safety is going to need some 5G spectrum,” Zagaris said. “We’d have some engineering work to do here, but it at least gives public safety a space to move to.” Zagaris noted that more and more agencies are beginning to adopt and use broadband services in addition to their LMR systems, and as that demand increases, public safety will likely need more spectrum to meet it.

So far, the PSSA has met with the FCC to start the conversation about the band and help inform the commission about public safety’s spectrum needs, Johnson said. A spokesperson for FirstNet said that it had learned of the proposal Aug. 5 and was in the process of reviewing it.

(Excerpts taken from article by Mr. Danny Ramey, Editor, August 5)

IWCE Wrap-up and Impressions

I had the opportunity to attend the virtual IWCE conference in August. There was a lot of anticipation how a virtual conference would actually work, but I can testify it was a well conceived event with more than 600 participants from all over the world. I took an ala carte approach to conference with input and guidance from APSC Manager Mr. Scott Stormo. Here are some of the topics:

Mission Critical Push to Talk (MCPTT) was a top conversation throughout the conference. FirstNet and the FirstNet Authority were front and center in many state-centric presentations with both Florida and Indiana sharing their experiences. They also touched on focus areas for the coming years to include 5G LTE integration and the continued push by AT&T to build out the network.

High Power User Equipment (HPUE) was another fixture during vendor conversations on how to extend First-

Net or other LTE beyond their working tolerance ranges, which was especially interesting.

Satellite connectivity to support anywhere backhaul and PTT traffic hand off was also demonstrated. With small terminals that could be backpacked to a site, these types of solutions could easily be applied in our Last Frontier.

Over-the-top technology vendors were part of many panel discussions and technology demonstrations. These solutions bring a whole new meaning to interoperability by allowing organizations to share capabilities in a true interoperable and joint mission support fashion.

I learned a great deal and made many contacts with other State Interoperations LMR agencies. If you have questions about the conference or anything I mentioned, drop me a line at Chris.Letterman@wostmann.com.

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Agency Talkgroups

Talkgroups are initially developed when an agency completes a Membership Agreement for participation in ALMR. Once the Membership Agreement is approved, the System Management Office (SMO) contacts the agency to get the appropriate radio information and assign talkgroups to the agency. The number of talkgroups requested should be kept to the minimum required to perform the agency's mission.

There are often special circumstances where agencies need to communicate with other agencies on a frequent (daily/weekly) basis. Agencies 'own' their talkgroups and, therefore, must authorize their talkgroups to be programmed into another agency's radios. Agencies who wish to share their talkgroups must complete a Talkgroup Sharing Agreement and submit it to the SMO. Only after the SMO provides the approved Talkgroup Sharing Agreement, should agencies reprogram their radios.

As the number of talkgroups on the System increases, it can have an adverse effect on the number of busies during incidents. Therefore, it is advantageous to keep the number of talkgroups to a minimum. Therefore, every effort should be made to minimize the number of interagency talkgroups programmed into radios and to utilizing the Interoperability Zones for incident response.

Additionally, agencies should never monitor both their home talkgroups and assigned Interoperability talkgroups during incidents/ contingencies. This results in the use of two channels resources at the same time at the surrounding utilized site(s) and could lead to increased busies or denial of service to other responding agencies, especially at three-channel sites.

(Article written by Ms. Sherry Shafer with excerpts from the Talkgroup Development Procedure 400-14)

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ALMR Logo Contest

ALMR is updating their current website and part of the update will be a new logo. The new logo must represent the federal, state and local government partnership and Public Safety. ALMR agencies/agency individuals are encouraged to submit their idea no later than November 13. Email your graphic submission in jpg or png format to the Operations Management Office (sherry@wostmann.com).