



Emergency Telephone System Board Of DuPage County Memorandum

TO: Chairman Schwarze and ETS Board members
FROM: Linda Zerwin, Executive Director
DATE: August 1, 2024
SUBJECT: DEDIR System Radio Replacement Project 2024 Update

Background:

In 2022 the ETS Board entered into a contract with Motorola to replace the APX7000 series radios that are end of life/end of support in the DEDIR System. This contract included portables and mobile radios.

APXNext Portable Radio and APXNext 4000: To date, the police and community service radios have been deployed to police agencies, probation, jail, OHSEM and county security. These radios do not have encryption enabled and had an immediate deployment because of a critical lack of batteries during COVID. They were deployed without encryption because the plan had not been finalized by the Police Focus Group.

Encryption: To date, the plan is in its final stages and ETSB staff has begun working with Motorola and the Radio Service Manager to design a deployment plan for encryption. ETSB has asked Motorola for a proposal for a deployment plan based on the complexity of the project and the goals of the police agencies for encryption. The project management and deployment would be an unbudgeted expense.

APXNext XN Portable Radio: This radio is a new NFPA compliant product that when shipped and programmed had certain operational issues that the Fire Focus Group reported and worked with the Motorola product team and the NFPA Committee to change. As reported to the ETS Board, these changes met with the approval for deployment of the Fire Focus Group. As of this report, the NFPA Committee has met and voted to approve all the changes recommended by the DuPage Fire Focus Group!

APX8500 Mobile: This mobile has been on the market since 2018. However, while waiting for the encryption plan to finalize, ETSB released approximately 44 mobiles of the 508 mobiles to be replaced. Some agencies reported interference in audio between VHF and STARCOM. Motorola collected data and provided a response that was less than adequate as a solution.

MCC7500 Radio Console Replacement: The AXS Console required an upgrade in order to have all of the attributes the MCC7500 currently has so that Telecommunicators did not lose any functionality. This upgrade has been accomplished and the consoles have been ordered with a lead time of 30 weeks for an install plan in November.

Update Summary:

Fire Portables: As of this memorandum, all fire agencies have had the opportunity to test both an APXNextXE (one model series lower than the XN) and an APXNextXN with both an NFPA hazard zone configuration and an XN with a current DEDIR System configuration. All agencies have returned their model selection confirmation forms and have chosen the XN.

APX8500 Mobile: The Executive Director has negotiated AES encryption, TDMA and Multi-key for the existing APX7500 mobiles in the DEDIR System Fleet at no charge. This will allow the



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encryption plan and AXS Console install to proceed while the Fire Focus Group investigate the following with respect to the mobile radio replacement phase:

1. Motorola has provided a reference for a large agency using the APX8500. The Fire Focus Group has not had the opportunity to talk with this agency to date. It is unknown if this agency will be able to provide a deployment solution suitable for DuPage.
2. Motorola has a second recommendation. They will replace the APX8500 with an APX Dual Radio solution that uses the APX6500. This will be an even exchange even though the APX Dual Radio Solution is a more costly model.
3. If the Motorola APX Dual Radio Solution recommendation is not acceptable, the Fire Focus Group will then be tasked with developing a scope of work for an RFP for a replacement mobile radio to include a service contract since it will likely be a vendor other than Motorola. Fire agencies will participate in this process in the same manner as the fire station alerting RFP.

With either option 2 or 3, the lead time for equipment will be at least 16 weeks or greater from the time of execution of a contract or change order. Once the equipment is received, it will still have to be programmed, provided to the agency and then installed by the agency's vendor. This process could take a year. While the APX7500 is end of life/end of support, this model is still serviceable and does not need to be replaced immediately. These upgrades make these units better for the STARCOMM system for resale.

ETSB will have to work with the Fire Focus Group and individual agencies to determine solutions for new fire vehicles during the transition period from the APX7500 to the APX6500 solution or other selected solution.

APX7500 and APX7000XE. Some agencies have inquired about keeping these radios to use for training purposes. The APX7500 and APX7000XE, will also be sold after market when the final solution done. There is a two-year waiting list for these units. The plan has been to sell these ends of life/end of support units. When asked at the outset, there were no requests for these units. It would be unfair to agencies that have been waiting for these units to renege now. ETSB will have APX8000XE radios in the cache that were provided by Motorola during COVID and in the interim to offset the APX7000XE radios that could no longer be repaired that can be used for training by DEDIR System agencies.

Budget Impact:

December Contract Payment: Because the fire agencies are selecting XN radios, the ETSB can comfortably make the next \$6.5M payment to Motorola.

Changer Order: The ability to upgrade the existing AXP7500 mobiles without additional cost provides a twelve-month window to determine a solution for mobile radios. Once that solution is determined a change order can be completed to rework the remaining \$6.5M in the Motorola contract. To date, this change order will consist of a substantial number of fire agencies preferring the now available channel selector mic and the exchange of the APX8500 mobiles that have not been put into service.

Surplus Radios APX7000: The balance of the APX7000 radios will be sold. To date, 620 radios have been sold for \$310,000.



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Surplus Radios APX7500 and APX7000XE: The APX7500 and APX7000XE will also be sold after market when the final solution done. There is a waiting list for these units. ETSB has already calculated these funds into the budget.

Net gain approximately for all APX7000 series radios is estimated at \$1M.

Recommendation:

1. The Executive Director recommends moving forward with the APX7500 upgrade when available.
2. The Executive Director recommends continuing to work through steps 1, 2 and 3 in the mobile phase, with the Fire Focus Group since the issues don't always demonstrate themselves immediately.
3. The Executive Director recommends continuing to surplus and sell the APX7000 series equipment to replenish the budget.

Future Impact:

1. Depending on the outcome of the mobile selection, the goal will be to bring a change order to the ETS Board for the September agenda.
2. Depending on the outcome of the mobile selection, a contract for different mobiles may have to be executed.