PROJECT RECAP

- **October 2013:** Project began with a “needs assessment”.
- **November 2013:** Interviews conducted with first responders.
- **December 2013:** Equipment & site surveys completed.
- **February 2014:** Department & employee interviews completed.
- **February 2014:** Preliminary system design.
PROJECT RECAP

- **February 2014:** RFI (request for information) issued to vendors.
- **March / April 2014:** Vendor presentations were held.
- **April – August 2014:** Information reviewed, refined and began strategic plan.
- **September 2014:** Final “needs assessment & strategic plan” report completed.
- **Oct. – Dec. 2014:** Conducted public meetings.

*Note: Time period also includes bi-weekly project status meetings*
PROJECT RECAP

▪ January 13, 2015: Erie County Council passed a resolution to support the “Erie County Next Generation Public Safety Radio System.”

▪ January 29, 2015: MCM Consulting Group placed under contract to begin work on the new “Next Generation Public Safety Radio System.”
PROJECT TO DATE

▪ January 29, 2015: Moved from a “preliminary” system design status to an “in depth” system design that included:

(a) FCC frequency acquisitions.
(b) Search / identify potential tower site locations.
(c) Product update presentations by the Vendors.
(d) Development of RFP (request for proposal).
August 11, 2015: Erie County Council passed the capital improvement bond (26.5 M) for the design, procurement, construction and implementation of the new Next Generation Public Safety Radio System.

The Next Generation Public Safety Radio System is the second largest capital investment in Public Safety for the protection of the emergency first responders, the citizens and visitors of Erie County.
PROJECT TO DATE

- **November 17, 2015:** RFP (request for proposal) was issued.

- **Five vendors responded:**
  - Airbus DS Communications (Cassidian)
  - E.F Johnson (JVC Kenwood)
  - Harris
  - Motorola
  - Tait

- **November 17, 2015 through February 15, 2016:** Mandatory site walks were conducted, vendors submitted questions and in-building field signal level test were conducted by several vendors.

- **February 15, 2016:** Last day for questions. (Quiet period for vendors to compose their formal proposals).
EVALUATION / REVIEW PERIOD

▪ **March 15, 2016:** Proposals were due, opened and tabled for review. Evaluation / review period began (approx. 90 days).

▪ Four vendors responded:
  - Airbus DS Communications/using Tait equipment
  - E.F Johnson (JVC Kenwood)
  - Harris
  - Motorola
EVALUATION / REVIEW PERIOD

An evaluation / selection committee was established consisting of five representatives:

▪ Charles Crane, Director, Department of Purchasing
▪ John Grappy, Director, Department of Public Safety
▪ Michael McGrady, President, MCM Consulting Group
▪ James Rosenbaum, Chair, Public Safety Advisory Committee
▪ Sue Ellen Pasquale, Manager, Finance Department
EVALUATION / REVIEW PERIOD

- **June 15, 2016**: Completion of evaluation period/tentative selection of vendor.
- **July 11 – Aug. 5, 2016**: Contract negotiations.
- **August 16, 2016**: Contract award to EF Johnson Company.

  E.F. Johnson was the only vendor to meet our technical specification as defined by our RFP and took no exceptions.
SYSTEM OVERVIEW

- E.F. Johnson will implement a 21 site (17 physical sites), UHF P25 Phase II Simulcast Trunked System consisting of TWO simulcast cells (A and B), FIVE operational zones, as illustrated in the diagram below.
SYSTEM OVERVIEW

- 6 site, 6 channel P25 Phase 2 trunk Simulcast cell 1.
- 15 site, 6 channel P25 Phase 2 trunk Simulcast cell 2.
- 1 distributed antenna system & 8 BDAs to achieve 95% in building coverage.
- Zetron Acom Novus dispatch center console system.
Erie County and E.F. Johnson have agreed to provide the below interoperability:

- Four (4) ISSI = Ohio MARC, STARNET VHF, STARNET 800MHz, & Chautauqua Co.
- Three (3) VHF Interop’s = Conneaut City Fire, Conneaut City PD, & Monroe Township Fire.
- Warren County Low Band using Zetron ARG
- Med Corry (New E.F. Johnson Analog RPT) & Med Erie (New E.F. Johnson Analog RPT) for out of county EMS agencies.
SYSTEM OVERVIEW

- Key Management Facility for OTAR (Over-the-Air-Reprogramming).
- Spare equipment.
- Staff training to tier 1 level support, including Zetron (dispatch consoles) training.
- Technical & operational equipment allowance for Erie technicians to maintain system & subscribers units.
- 20 year equipment (infrastructure) warranty, software updates, and EFJ tier 2 support.
SYSTEM OVERVIEW

▪ System refresh (hardware replacement) at year 10.
▪ Viking VP600 Model II portables radios.
▪ Viking mobile radios.
▪ Viking control stations.
▪ Unication pagers.
▪ 3 year warranty on subscriber equipment (mobiles, portables & pagers).
SYSTEM OVERVIEW

- Two County-wide, Analog UHF Simulcast Dispatch / Paging Channels
  - Erie County Communications Center
  - East County Communications Center
SYSTEM OVERVIEW

- Fire Departments:
  - Erie City Fire Department
    - 1 repeated trunked simulcast dispatch talk group
    - 2 repeated trunked simulcast operational talk groups
SYSTEM OVERVIEW

▪ Fire Departments: (cont’d)
  ▪ 1 County-wide repeated trunked simulcast operational talk group
  ▪ 4 Zoned repeated trunked simulcast operational talk groups
  ▪ 4 operational talk groups per zone
  ▪ Portable and mobile equipment will have at least 2 low power simplex channels to conduct on the ground operations.

➤ Note: There is no plan to monitor the low power channels at the 911 dispatch center.
Emergency Medical Services:

- 5 County-wide repeated trunked simulcast operational talk groups
- 4 Hospital medical command repeated talk groups
- Portable and mobile equipment will have at least 2 low power simplex channels to conduct on the ground operations.

Note: There is no plan to monitor the low power channels at the 911 dispatch center.
SYSTEM OVERVIEW

- Police Departments:
  - Erie City Police Department
    - 1 repeated trunked simulcast dispatch talk group
    - 5 repeated trunked simulcast operational talk groups
  - Millcreek Police Department
    - 1 repeated trunked simulcast dispatch talk group
    - 2 repeated trunked simulcast operational talk groups
Police Departments: (cont’d)
- County-wide repeated trunked simulcast operational talk group
- 3 Zoned repeated trunked simulcast dispatch talk groups
- 3 Police zones with 2 operational talk groups per zone
- Portable and mobile equipment will have at least 2 low power simplex encrypted channels to conduct on the ground operations.

➢ Note: There is no plan to monitor the lower power channels at the 911 dispatch center.
SYSTEM OVERVIEW

- Police Departments: (cont’d)
  - Erie County Sheriff’s
    - 1 repeated trunked simulcast dispatch talk group
    - 1 repeated trunked simulcast operational talk groups
  - University Police Departments
    - 4 repeated trunked simulcast operational talk groups
SYSTEM OVERVIEW

- Emergency Management Agencies(s)
  - 2 County-wide repeated trunked simulcast talk groups
  - Portable and mobile equipment will have at least 1 low power simplex encrypted channels to conduct on the ground operations.
    - Note: There is no plan to monitor the low power channels at the 911 dispatch center.
SYSTEM OVERVIEW

▪ Hazardous Materials Response Team
  ▪ 2 County-wide repeated trunked simulcast talk groups
  ▪ Portable and mobile equipment will have at least 1 low power simplex encrypted channels to conduct on the ground operations.
    ➢ Note: There is no plan to monitor the low power channels at the 911 dispatch center.
COMMUNICATIONS SUBCOMMITTEE:

- The communications subcommittee has been established, comprised of representatives from every discipline to include law enforcement, fire, medical and emergency management officials.

- The communications subcommittee has been assigned various tasks, related to the Next Generation Public Safety Radio System Project.
PUBLIC SAFETY ADVISORY COMMITTEE:

▪ Communications Subcommittee – Cont’d

▪ Assist in the development of:
  ▪ Operational policy and procedures
  ▪ Operational “talk groups”
  ▪ Defining Fleet Map
    ▪ System ID, Talk Group IDs, Unit IDs, Aliases’, etc.
  ▪ An alert / tone plan for activation of pagers & sirens
  ▪ “Push-to-talk” (PTT) identifiers for all users (mobiles / portables)
PROJECT IMPLEMENTATION PROCESS

September 1, 2016 – June 1, 2017: (Project implementation period)

1. An initial order of equipment (radio infrastructure) was placed with E.F. Johnson.

2. An initial order of equipment (dispatch console system) was placed with E.F. Johnson.
   a) As part of the project, the new dispatch console system was ordered and placed into service on February 14, 2017, prior to the implementation of the new public safety radio system.

3. An initial order of equipment (subscriber units) was placed with E.F. Johnson.
   a) Agencies will be able to place orders for additional subscriber equipment at the “discounted bid rate” until December 31, 2019
4. Finalized the “Critical Design Review;” system design prior to the complete order of equipment and installation of the new public safety radio system.

5. Based on the system design, land / property agreements to formally secure the locations (properties) to begin the construction process of eight new communications towers are in process of being finalized.
   a) Nine existing sites (i.e. Flower Rd, Hilltop Rd, Sharp Rd) will be utilized as part of the new system infrastructure.

6. Bid awarded for the Engineering and Surveying Services for the tower site design including permits, core borings, etc. (KCI Technologies)
PROPOSED TOWER SITES
PROJECT IMPLEMENTATION PROCESS

September 1, 2016 – June 1, 2017: (Project implementation period – cont’d)

7. Pending release of RFPs for the tower steel, tower construction and equipment shelters.

8. Based on the system design, the MPLS Microwave System is in process of being finalized to provide connectivity between all tower site locations with redundancy (self-healing network).

9. Additional frequency licensing submitted to the F.C.C.
   a) Fourteen frequency pairs (28 pairs under a Phase II plan) have been identified for the core of the “digital trunked radio system.”
   b) The “initial” FCC application for six perimeter sites around have been submitted to the FCC for United States and Canadian approval.
P25 SYSTEM IMPLEMENTATION:

- EFJohnson uses a proven 4 phase project process.
- Completed deliverables that allow each phase to be gated.
- Where are we?

Currently in Phase 2
SUBSCRIBER TRAINING:

Mobile Installer  L2 Portable/Mobile Technician Level 2
Radio User       L3 Portable/Mobile Technician Level 3
SUBSCRIBER INSTALLATION:

▪ Erie County, MCM, & EFJohnson are working toward a plan that will allow for early subscriber implementation for users who operate on UHF conventional today.

▪ Items critical to installation of Mobile radios:
  ▪ EFJohnson Technical Service Team inspect & upgrade software to latest release (~July-August).
  ▪ Subscriber profile consulting; user configuration preferences, OTAP etc. (~September).
  ▪ EFJohnson Technical Service Team conduct training for Mobile Installs (~September).

▪ Items critical to issuance of Portable radios:
  ▪ EFJohnson Technical Service Team inspect & upgrade software to latest release (~July-August).
  ▪ Subscriber profile consulting; user configuration preferences, OTAP etc. (~September).
  ▪ EFJohnson Technical Service Team conduct training for Mobile Installs (~September).
The cutover plan will allow users to smoothly transition to the new system without major disruptions. The plan will be divided into three phases:

- **Phase I - Pre-Cutover Preparation.** Consists of careful planning that results in a comprehensive Cutover Plan with a timeline of events leading up to and following the transition to the new P25 system.
- **Phase II - Cutover Execution.** The goal is to execute Phase I planning activities while maintaining current system operations. Site testing will occur and non-Public Safety users will migrate first to test the functionality of the full system.
- **Phase III - Post-Cutover.** This final phase is focused on removing obsolete components that are no longer needed for new systems operations (i.e., legacy RF infrastructure, consoles, etc.).
FINAL ACCEPTANCE:

- Phase 4 of the Implementation
  - All site equipment installed, tested (SAT), & checked by consultant / customer.
  - System wide Acceptance Test Plan (ATP) conducted.
  - Burn In Period
  - Coverage Testing
  - Cutover Begins
  - Training Begins
  - Punch List Resolution
  - Final Acceptance (FA)
  - Warranty Begins
  - Documentation Delivered
PROJECT COMPLETION:

▪ Factory Acceptance Testing will be conducted in December 2017.
▪ The Radio System (Infrastructure) will be installed by April 2018.
▪ Emergency Service Providers will be migrated from their current system(s) to the new public safety radio system beginning in July 2018.
▪ Final Acceptance testing will be completed by September 2018.
▪ Final project completion is December 2018.
GRANT FUNDING:

Assistance to Firefighters Grant (AFG) Program

▪ On Friday, November 18, 2016, four regional grant applications were submitted through the Federal (FEMA) Assistance to Firefighters Grant (AFG) Program.
  ▪ The primary goal of the Assistance to Firefighters Grants (AFG) is to meet the firefighting and emergency response needs of fire departments and nonaffiliated emergency medical service organizations.

▪ Four Fire Departments sponsored the regional grant applications:
  ▪ Fairview Fire Department
  ▪ Harborcreek Fire Department
  ▪ Lake City Hose Company
  ▪ Lake Shore Fire Department
GRANT FUNDING:

▪ Assistance to Firefighters Grant (AFG) Program – Cont’d

▪ Funds totaling $2,650,668 were requested to offset the capital cost of the next generation public safety radio system's subscriber equipment (mobiles, portables and pagers).

▪ Our efforts are to reduce the overall costs by applying for grant opportunities that may reduce the capital costs of this project to the taxpayers while providing every county public safety user a pre-determined quantity of subscriber units.
Questions?
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THANK YOU!