CITY OF CLEVELAND
Mayor Justin M. Bibb

Public Safety Technology Investment

Raising Investment in Safety for Everyone – Ord No 640 - 2024

July 10, 2024

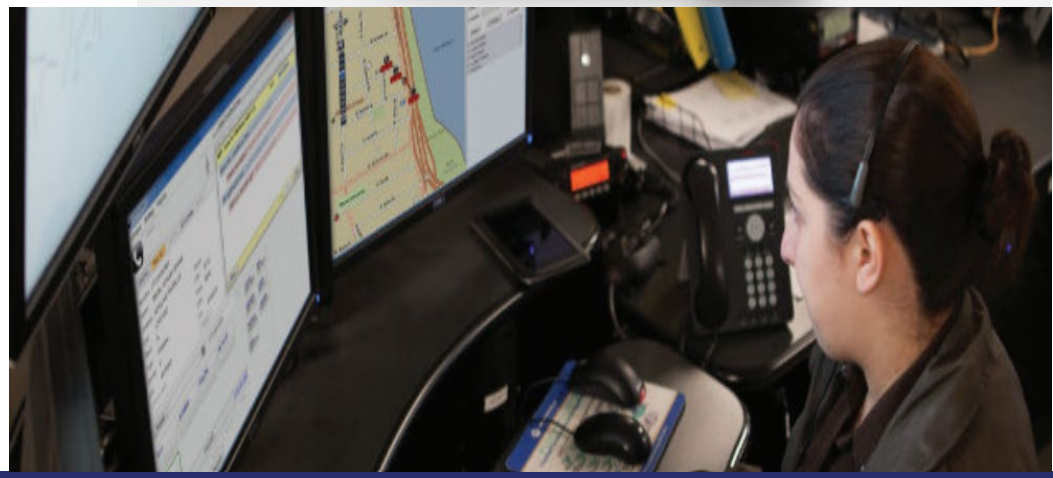
Agenda

- CAD/RMS
- Portable Radios
- Officer Intervention Program
- Budget
- Q & A

Computer Aided Dispatch (CAD) & Records Management System (RMS)

Overview

- CAD systems are used to dispatch, assign, monitor and track progress of incidents from the time a 911 call comes into the Dispatch Center until its closed
- CAD is used by Dispatchers as well as in the field by the respective Divisions
- RMS is used for reporting of CAD incident outcomes and details for reporting purposes
- Combined both systems provide critical intelligence for Fire and Police during and post incident



Computer Aided Dispatch (CAD) & Records Management System (RMS)

Current Status

- Current CAD and RMS applications are end of life and the City's respective vendors have moved onto their next generation platforms
- Current platforms have many operational inefficiencies that reduce Officer Productivity and directly impacts data collection
  - Crime Stats, Crime Analysis and DOJ Consent Decree Compliance
  - Little to no integration – CAD and RMS are isolated systems
    - Officers manually enter the same information on 3-4 platforms
    - CAD number, Person/Victim, Street Address, Incident Data/Description
    - Evidence.com, Field Based Reporting, Brazos DOJ Data Collection Forms

Computer Aided Dispatch (CAD) & Records Management System (RMS)

Evaluation Process

- For over the past two years the Public Safety Division Leads and IT have completed in depth demonstrations by Major City Vendors
  - Motorola Solutions, Axon, Central Square, Hexagon, Tyler Technologies, Mark43

- The City explored a standalone implementation as well as the possibility of participating in a shared regional system
  - Pricing
    - System Startup - $7,000,000 vs $4,000,000
  - Data Sharing – sharing data between all law enforcement agencies on the system
  - Regional Coordination – improved coordination between the City and all agencies during mutual aid and large scale events
  - Direct integration into the 911 Call Taking Software
  - Direct integration into the 800 MHz Radio System

Computer Aided Dispatch (CAD) & Records Management System (RMS)

Recommendation

- Build upon a proven regional model we know that works
  - The City's 800 MHz Radio System is a partnership with the Southwest Council of Governments that supports over 49 agencies for radio communications

- Partner with Chagrin Valley Dispatch for the Regional CAD/RMS with Motorola Solutions
  - Over 35 Police and Fire Agencies on the system
  - Several Bordering Municipalities are on the system which would allow for collaboration and interoperability the City has never experienced with CAD and RMS
  - The City would still maintain its autonomy and control its instance of the system
    - Dispatchers will continue to take Cleveland 911 call and dispatch units
    - City IT Software Admins will continue to administer the system

Computer Aided Dispatch (CAD) & Records Management System (RMS)

Operational Benefits of a Shared CAD & RMS

- Officer Safety/Situational Awareness
  - Ability to see incidents and calls for service, persons and vehicle information across jurisdictional boundaries
  - Dispatchers can see units across agencies
  - Radio system integration
- Interoperability
  - Increased collaboration among agencies
  - Data sharing and implement best practices from peers who are using the same system
- Reduced Implementation Time
  - The system exist and is in operational use
  - Many interfaces needed for the City are already up and running today – reduced setup
- Infrastructure Savings
  - Server Infrastructure – Primary and Disaster Recovery already in place
- Shared Configuration
  - The Divisions will be able to choose what data is shared
  - The Divisions will be able to use existing templates from all Premier One customers
- Control
  - The City will still maintain control of its configuration
  - The City will have its own dedicated IT system Administrators
    - Will provision features functionality and system permissions

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800 MHz Portable Radios

Overview

- Utilized by Divisions for critical communication to respond to 911 calls
- Vital for day-to-day operations & for ensuring the safety of first responders in hazardous environments
- Radios are a lifeline, and the most used tool by the Public Safety Divisions
- Purpose built devices – rated for rugged ability, heat, cold, shock

800 MHz Portable Radios

Current Status

- 800 MHz Portable Radios for the Public Safety Divisions were deployed in 2012 and have exceed their lifecycle
  - As the radios age, they become less reliable with wear and tear
  - Radios are now end of support by their manufacturer
    - Radios can no longer be fixed or upgraded
    - Intrinsically Safe battery replacements for Fire and Bomb Squad are no longer available
    - Without an Intrinsically Safe battery, radios are not rated to be safe for combustible or explosive environments

- Radios have older technology (2012 Platform) and have not kept up with advancements that can improve efficiencies and safety

800 MHz Portable Radios

Recommendation

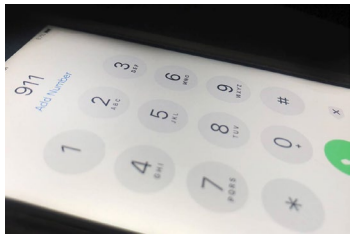
- Replacement of Police, Fire, EMS and Animal Care and Control Portable Radios and associated accessories/services
  - 259 Suppression Fire Radios
  - 70 Command Fire Radios
  - 1350 Police Radios
  - 10 Police Bomb Squad Radios
  - 125 EMS Radios
  - 26 Animal Care and Control
  - Radios are now end of support by their manufacturer
- Additional Services included in the Radio Refresh
  - Training and deployment
  - 5 years of warranty coverage

800 MHz Portable Radios

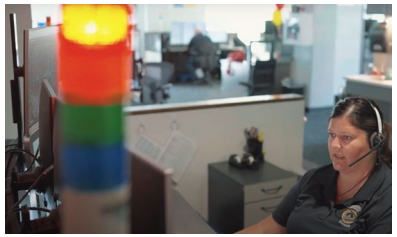
Operational Benefits

- Smart Programming
  - Allows the Office of Radio Communications to send programming updates via LTE to the radios in seconds
    - Today, reprogramming a radio is a manual process in which radios are brought into the shop and physically touched to upgrade them
- Smart Locate
  - Allows for Dispatch and Command to see the exact GPS location of the portable radios on the CAD map and Fusus Applications
- Smart Mapping
  - Allows First Responders in the field to know the location of their closest units and backup
- PremierOne CAD/RMS Integration
  - The ability to receive CAD information as well as RMS query returns on the Portable radio
- Enhanced Smart Radios
  - Provides First Responders with a modern mission critical radios that can support future smart applications
  - Radios can be provisioned and updated in the cloud
  - Radios can utilize LTE Broadband if Radio coverage is unavailable
  - Radios have a lifecycle of 10 years

CAD/RMS and 800 MHz Ecosystem

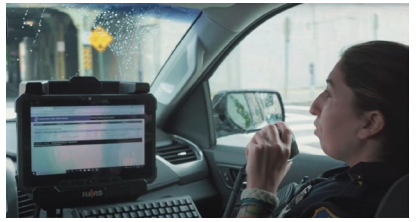


Citizen requests assistance from 911

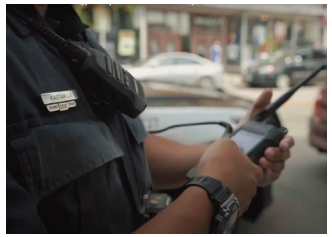


Cleveland Dispatcher answers the call. Enters information into **CAD**. Radios out to units to respond.

Responding units answer call on **portable radios.** Incident details sent to mobile data terminals (MDT).

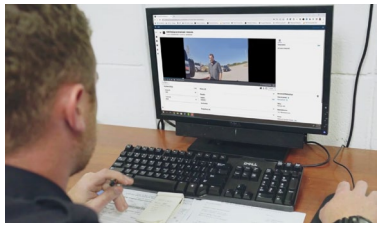


Upon arriving on scene, responders get more incident information from **CAD** on mobile data terminals (MDT).



Responders use **portable radios** to communicate critical updates and request additional assistance.

Dispatch uses **CAD** to assign additional units to the call. Units use MDT to access additional information



Officers use **CAD** after incident to create RMS reports and run analysis on incident.

CAD/RMS incident information is shared with judicial partners for processing case.

CAD/RMS Data Collection

Current State

- CAD
  - CAD Calls for Service 2023
    - Cleveland Division of Police – 288,008
    - Cleveland Division of Fire – 72,168
    - Cleveland Division of EMS – 102,427
- RMS
  - Mobile Field Based Reporting
    - Cleveland Division of Police – 91,605
- Consent Decree Data Collection
  - Brazos Data Collection Forms
    - CIT – 5,019
    - Community Engagement – 6,361
    - CPOP - 647
    - Stop – 16,766

Future State

- New CAD/RMS will allow for collecting and reporting the right information and the data that the Consent Decree requires
- New system has the capability of evolving to allow for additional data collection
  - Allow for the ability to make changes and add fields as required
  - Timely and accurate reporting simplified due to data residing in a single data repository
- Unified GIS based mapping
- New system will have the capability of producing in-house custom reports as well as exporting data to the Public Safety Datawarehouse

Data Collection – Officer Intervention Program

Consent Decree

- The new CAD/RMS system's data collection capabilities will allow for the creation of an Officer Intervention Program
  - Officer Intervention Program will monitor, evaluate, and support Police Officers to ensure their conduct aligns with constitutional policing standards and community expectations
  - The Police Accountability Team completed their assessment as well as various discussions with their industry peers to identify a software product which would address this current deficiency

- Benchmark Analytics was chosen due to the fact it aligns with the requirements of the Consent Decree by providing a sophisticated, research-driven approach to early intervention and officer support
  - It not only helps to identify and address problematic behavior but also promotes overall Officer wellness and accountability

Data Collection – Officer Intervention Program

Benchmark Analytics

Addresses 11 Consent Decree Non-Compliance Paragraphs

- Enhancing the Effectiveness of OIP
  - Centralized data management system to provide a holistic view of the Officer's performance and behavior for early identification of at-risk behaviors
- Supervisory Use and Training
  - Assist Supervisors in making informed, fair, and consistent decisions regarding Officer behavior
- Computerized Relational Database
  - Comprehensive data management
- Threshold Levels for Review
  - First Sign Early Intervention system
- Rolling Threshold for Reviews
  - Ensures Officers receive detailed, actionable support plans
- Quarterly Analysis of OIP Information
- Identifying Information
  - Appropriate information for each involved employee and civilian, ensuring all data is captured and integrated
- Comprehensive Protocol Development
  - Implementing protocols for using OIP information
- Monthly Data Review
- Timely Interventions
- Timely and Accurate Data Entry

Budget

- Records Management and Computer Aided Dispatch System
  - Mobile CAD, Field Based Reporting, DOJ Data Collection, Digital Tickets, Smartphone integration, Interfaces, Implementation, Training and Data Conversion, Mobile Data Computers, Cradlepoint modems, Software enhancements
    - Proposed Cost – $4,250,000

- 800 MHz Portable Radio Refresh/Replacement for Police, Fire, EMS and Animal Care and Control
  - Refresh of 1,840 Portable Radios for Public Safety Forces
    - Proposed Cost - $13,000,000

Budget

- Officer Intervention Program
  - Benchmark Analytics software implementation will address 11 of the Consent Decree Paragraphs that are currently out of Compliance
    - Proposed Cost – $300,000

- Professional Services
  - Project Manager/Project Management Firm representing the City to assist with Project Implementation
    - Proposed Cost - $450,000