

APCO Emerging Technology Forum

Boston's Plans for Implementing New Dispatch and Emergency Response Technologies

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Statistical Data

- Population
 - Evening - ~650,000
 - Daytime - >1,000,000
- ~ 89 Square miles
 - ~48 Square miles of land
 - ~41 Square miles of Water
- 3 Public Safety Communications Centers
 - Fire
 - Police
 - EMS
- Citywide 911 Call volume > 600,000 calls
- Annual Incident volume – Taken from FY13 City Budget
 - BFD - ~74,000 incidents (FY13 Projection)
 - BPD - ~573, 000 Calls for Service (FY13 Projection)
 - EMS - ~83,000 Transports (FY13 Projection)



Where we were

- 1990s Mini Computer based technology
- “Green Screen”
- Legacy Hardware (Alpha)
- Legacy Operating system (OpenVMS)
- Legacy development Language (COBOL)
- Table Driven Data
- Highly Customized
 - Upgrades were cost prohibitive
 - Enhancements to support modern processes were impossible



New CAD Vision

- Improved ability to gather, manage and process information; analyze operational processes; and coordinate emergency activities
- Improved consistency of service
- Faster service response times
- Improved capability to follow-up on emergency service responses
- Improved coordination among emergency and non-emergency agencies
- Cost reduction



Guiding Principle

The decisions we make and the actions we take today will impact how the City delivers services to our constituents for the next 15+ years



Core Objectives

- Efficiency
 - Manage and use information technology in the most cost effective and operationally efficient manner possible
- Quality Service Delivery
 - Increase the level and consistency of service, including improving response times and service follow-up
- Accountability
 - Improve accountability through the use of information technology
- State-of-the-Art Technology
 - Use modern, effective technology to facilitate meeting public safety strategic goals



Priorities

- Increased access to information – anyone, anywhere, anytime
- Enhanced system integration with existing internal and external systems
- Improved response times
- Coordinated emergency department response tactics
- Enable regional information sharing
- Maximize first responder time spent in the field
- Minimize/eliminate redundant data entry
- Deploy user-friendly systems
- Enable improved data analysis and reporting
- Provide flexibility and scalability
- Leverage economies of scale



New Technologies

- Geo-Spatial Awareness
 - Ability to be able to compare 911 caller position with call location in the CAD system
 - Allows dispatchers to visually see other activity in area
 - Leverages City's expansive geographic databases (GIS)
- Global Positioning Systems
 - Allows for closest available and appropriate unit to be dispatched
 - Provides situational awareness for dispatchers and responders
 - Gives incident commanders a “picture” of the incident scene



New Technologies

- Fire Station Alerting
 - Instant dispatch of responding apparatus as soon as the call is entered. No need to wait for a human to dispatch the responders.
 - Integrates into fire station lighting
 - Only alerts responding companies not the entire station
 - Reduces responder stress
 - Provides for Rip-and-Run dispatch



Intelligent Move-ups

- DECCAN Livemum
 - Generates automatic move-ups based upon
 - Incident type
 - Estimated incident duration
 - Alarm/response levels
 - Street network
 - Apparatus type
 - Special equipment
 - Availability



Looking to the Future

- Position the City of Next Generation 9-1-1
- Integration with other City systems
 - Permitting
 - Public Service Request System
 - Financial Reporting
 - Data Warehouse
 - Business Analytics
- Ever changing landscape of 911 Call taking



The future is here

- 911 call information is changing
 - Text
 - Video
 - Pictures
 - Audio
 - Sensors
 - Social Media
 - Crowd Sourcing
 - Big Data



Thanks!



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