

Louisville Metro Area Achieves Regional Public Safety Interoperability



INTERGRAPH'S COMPUTER-AIDED DISPATCH SYSTEM IMPROVES AGENCY COORDINATION IN THE LOUISVILLE METRO AREA

THE CHALLENGE:

In 2003, the City of Louisville, Kentucky, and Jefferson County were merged into one, becoming Louisville Jefferson County Metro, one of the largest cities in America by population. Given the urgent immediate homeland security and daily operational need to develop interoperability for the Metro's first responders, Mayor Jerry Abramson formally introduced an initiative to create "MetroSafe," a unified communications system for all emergency response agencies in the community, including police, fire, EMS, the Health Department, local hospitals, and others.

When Louisville Jefferson County Metro merged governments, they had nine separate dispatch centers covering the community, each with its own different radio frequencies. After merging four of the dispatch centers in 2005, MetroSafe opened a state-of-the-art consolidated communications center to handle dispatch for Louisville Metro Police, Louisville Fire & Rescue, and Metro EMS. The need for a single dispatch system soon became apparent, as there was no compatibility between the three agencies' computer-aided dispatch (CAD) systems. This prevented the agencies from talking to each other, even when they responded to the same scenes.

The new system needed to support a large number of agencies while allowing each to maintain its own unique emergency response procedures. It also had to offer the flexibility to integrate communications with other organizations outside of MetroSafe. In addition, the new CAD had to be GIS-based and provide compatibility with in-vehicle mobile solutions and records management functionality.

THE PROJECT OBJECTIVES:

- Implement an interoperable CAD system that would serve as a unified communications system for all emergency response agencies in the community
- Enhance coordination of joint responses within the Metro area
- Maintain each agency's unique emergency response procedures

THE SOLUTION:

After interviewing CAD users representing several large public safety operations, MetroSafe

PROFILE:

Name – Louisville Jefferson County Metro

Web site – www.louisvilleky.gov

The Louisville Jefferson County Metro is the 16th largest city in America – a community at the crossroads of three major interstates and a city with major shipping and logistics centers for the nation. As an organization, MetroSafe is a joint operation to consolidate communications for 911, the Louisville Metro Police Department, Louisville Fire and Rescue, 18 suburban fire districts, Local Government Radio, and Louisville Metro Emergency Medical Services. MetroSafe offers interoperability for all remaining 911 PSAPS, Jefferson County Sheriff's Office, suburban city agencies within Louisville Metro, as well as the 13 surrounding counties in Kentucky and Indiana.

KEY BENEFITS:

- Interoperability and improved coordination among the major public safety agencies of the Louisville Metro area
- Enhanced speed and efficiency with which emergency calls are now routed to the appropriate responders
- Customizable CAD system programmable to the response procedures for each individual agency
- GIS-based 'map-centric' CAD interface, helping responders clearly visualize and locate incident scenes

PRODUCTS USED:

- I/CAD
- I/Mobile
- I/LEADS

selected Intergraph's I/CAD system based on its capabilities and Intergraph's excellent track record with large CAD implementations. Currently, I/CAD is successfully handling all 911 calls for Louisville Metro Police, Louisville Metro Emergency Medical Services, Louisville Metro Fire Department, and 18 suburban fire districts.

Less than six months after implementation of the new unified I/CAD system, MetroSafe was experiencing interoperability and improved coordination among the major public safety agencies responsible for the greater Louisville Metro area. For the first time, all Louisville Metro 911 call takers and emergency dispatchers work on a unified computer system that allows each to "see" the responding and available police, fire, and EMS units simultaneously and manage the emergency response accordingly. The most significant enhancements in operations relate to the speed and efficiency with which emergency calls are now routed to the appropriate responders.

Another vital capability of I/CAD is it has been programmed with the response procedures for each individual agency. For instance, one fire and rescue department may send an ambulance and a truck to every injury call, while another may dispatch only the ambulance. This enables the CAD to make a response recommendation to the appropriate dispatcher based on protocol. Ultimately, the dispatcher decides which resources to send to the scene.

Call takers, dispatchers, and personnel in the field agree that the GIS-based 'map-centric' nature of the new system has been a huge leap forward in efficiency compared with the older text-based CADs. Dispatchers no longer have to know every street and alley in the city. The map shows them the incident location. In addition, the map helps the dispatchers visualize where their crews are at any given time.

Out on the streets, Louisville police officers, fire crews, and emergency medical technicians have seen a positive impact from the new CAD system as well. Specifically, they have more information at their fingertips. Intergraph has equipped 600 emergency vehicles with its I/Mobile application that runs on mobile data terminals (MDTs) right in the cab. The I/Mobile package interfaces directly with I/CAD to display the CAD map, incident location, and call details onscreen for the crews to review en route. This minimizes

radio chatter by showing the driver the best route to the scene and providing a textual synopsis of all details recorded by the call taker.

Plans are being made to equip another 800-1200 emergency vehicles with the MDTs, already equipped with built-in GPS for automatic vehicle tracking (AVL). Local fire and EMS agencies are now making plans to activate the AVL functionality in the near future, which will send vehicle status and location information wirelessly to the CAD.

"With this investment, we're putting the 'one' in 911," Louisville Mayor Jerry Abramson said. "For the first time, your emergency call comes into one place, you deal with one call taker and your information is relayed through one computer system that all our emergency dispatchers can use to help you. It's a streamlined, team-oriented approach to emergency communications that will speed our response and save more lives."

THE FUTURE

On a pilot basis, MetroSafe has implemented Intergraph's I/LEADS records management system with a Citrix server to extend reporting and data capture capabilities to officers in the field. In the interest of enhanced efficiency, MetroSafe has asked Intergraph to integrate a resource management module from Deccan International into the CAD, enabling them to continuously monitor the allocation of available emergency vehicles and personnel across Louisville. Additionally, I/CAD has become the centerpiece of a pilot project occurring in the Louisville Emergency Operations Center. MetroSafe can establish emergency response plans and contingency strategies in advance and assign responsibilities to participating agencies, even those only temporarily on scene.

With interoperability among participating Louisville Metro agencies achieved, the next step is to take advantage of the new CAD's flexibility to extend access to other organizations outside of MetroSafe, including public safety access points (PSAPs) in surrounding counties. Talks are under way to integrate some aspects of their communications and dispatching operations into the central CAD so their emergency activities can be monitored in Louisville as needed, especially in the case of a regional event.

ABOUT INTERGRAPH

Intergraph Corporation is the leading global provider of spatial information management (SIM) software. Security organizations, businesses, and governments in more than 60 countries rely on the company's spatial technology and services to make better and faster operational decisions. Intergraph's customers organize vast amounts of complex data into understandable visual representations, creating intelligent maps, managing assets, building and operating better

plants and ships, and protecting critical infrastructure and millions of people around the world.

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