Public Safety Enterprise
GIS Solutions for Community Protection and Response
Applying GIS Technology to Public Safety
The Geographic Advantage for an Informed Emergency Response

Whether you are an incident commander or first responder, you have a few short moments to make decisions that can impact the lives of victims and fellow responders in an emergency.

Geographic information system (GIS) technology provides you with the geographic advantage to leverage information and make informed decisions.

More than a map display, GIS is the foundation for presenting and analyzing data for a more effective emergency response.

Including GIS in an enterprise solution provides public safety professionals with access to critical information throughout the organization and to multiple agencies in local, state, and federal government. Virtually every public safety task has a geographic component and benefits from GIS technology. An enterprise solution integrates information such as:

- Property/Parcel ownership
- Streets and highways
- Imagery
- Hazardous material locations
- Fire preplans
- Crime hazards
- Zoning information
- School district boundaries
- Critical infrastructure

The aggregation of this data in an enterprise architecture enables public safety personnel at all levels to plan and respond more effectively. Enterprise GIS facilitates enhanced safety for first responders as well as the community. It enables an agency to leverage GIS data to provide improved analysis; better-informed decision making; and safer, more effective emergency response.
Enterprise GIS supports the consolidation of information systems and business processes across a public safety organization, among multiple agency jurisdictions, and with the private sector. Integrating GIS with other public safety systems dramatically improves the effectiveness and efficiency of daily operations. It also enhances response to major incidents such as natural disasters and man-made catastrophes.

**CAD and E-911 Systems Integration**
GIS provides improved capability to identify the location of an emergency call to deploy the closest available units and to enhance situational awareness.

**Records Management Systems Integration**
GIS technology enables records management system (RMS) data to be geocoded and mapped for more effective incident analysis and trend evaluation.

**Emergency Management Systems Integration**
GIS data and imagery can be enhanced with dynamic data feeds including real-time weather, traffic cameras, resource tracking, hospital status, and active incidents. This capability provides a common operating picture with accurate situational awareness for emergency management personnel.

**Data Fusion Center Systems Integration**
GIS provides a fusion platform for connecting disparate data to a common geographic view. Powerful analysis capabilities are then available to transform data into more actionable information.

**GIS in the Mobile Environment**
ArcGIS® Mobile provides situational awareness through a variety of mobile devices. As new events or emergencies occur, it can also be used in the field to add information that can update the shared view of situational awareness.
Providing You with the Geographic Advantage

Geographic information provides an intuitive and comprehensive view of data for all public safety organizations including law enforcement, emergency medical services, computer-aided dispatch, homeland security, emergency management, and structure and wildland fire. GIS helps public safety personnel make informed decisions that support all aspects of their missions.

Enterprise GIS eliminates data silos that have long plagued emergency response, particularly in large-scale operations. It also improves both the effectiveness and efficiency of daily responsibilities as well as response to large-scale disasters.

GIS benefits the public safety enterprise by providing

- Easy integration with existing systems and technology
- Instant access to spatial and tabular data when needed most
- Improved collaboration and communication across command, control, and response teams
- Increased ability to analyze and respond to events as they unfold by using a single, common view of operations
- Improved situational awareness for incident commanders and first responders in the field
- Greater preparedness for faster, safer, more informed response
GIS Scalability for Public Safety Personnel

Emergency response requires powerful technology to support the agency mission. Including GIS in a public safety enterprise architecture provides a geographic advantage to local, state, and federal government agency information needs.

GIS technology supplies powerful analytic capabilities, data replication, and distributed functionality for all public safety personnel levels:

**First Responders**
GIS aids the first responder by improving situational awareness, performance, and safety. It allows rapid access to critical data while deploying to and during an incident.

**Chief Officers**
GIS enables chief officers to track resources, assess exposures, establish hot zone boundaries, and perform other command and control responsibilities.

**Executive Staff**
GIS provides the executive staff with the ability to measure departmental performance, visualize developing challenges, and identify business trends and issues.

**Technology Specialists**
GIS is an open, standards-based technology platform that is interoperable with existing information systems, providing the capability to integrate, visualize, and disseminate information quickly and easily.

An in-vehicle application gives first responders access to critical information prior to arriving on the scene.

GIS provides the chief officer with overall situational awareness for effective management of an incident.

An in-vehicle application gives first responders access to critical information prior to arriving on the scene.

Executive staff utilizes GIS to analyze trends, performance, and historical comparisons.
ArcGIS: The Complete Enterprise GIS

Whether you need to perform spatial analysis, manage large amounts of spatial data, or produce cartographically appealing maps to aid in decision making, ArcGIS allows you to use one common platform to meet all your GIS needs. And because ArcGIS is built using technology standards, it will integrate well with your existing systems.

ArcGIS is a complete system for authoring, serving, and using geographic information. It is an integrated collection of GIS software products for building and deploying a complete GIS wherever it is needed—on desktops or servers or in custom applications; over the Web; or in the field.

Learn more about GIS for public safety at www.esri.com/publicsafety.