Law Enforcement
GIS Solutions for Proactive Policing and Informed Response
Law enforcement means problem solving. As a commander, an officer responding to a scene, or an analyst piecing together elements of a crime pattern or trend, you make critical decisions every day. These decisions have a direct impact on citizens and on fellow law enforcement personnel.

Geographic information system (GIS) technology can provide the geographic advantage for law enforcement enterprise information systems by turning data into actionable knowledge. A GIS combines layers of data about a location to give you a better understanding of that location and what is occurring around it. The data and information you combine depends on your purpose, whether realigning response zones for better resource allocation, analyzing crimes to detect emerging patterns, examining the best locations to conduct surveillance for a recent crime series, or establishing a perimeter for a crime scene or natural disaster. GIS technology dynamically combines many layers in a relevant display, getting the right data and information into the hands of those who need it.
GIS for Intelligence-Led Policing
Prevent and Respond Safely and Effectively

A new trend is emerging among forward-thinking agencies, with the power of GIS transforming the way police protect and serve your communities.

GIS provides an information-based method supporting all roles and aspects of law enforcement.

Field Personnel
Field personnel can access intelligent information from their mobile devices to identify suspicious activity, enhance field investigations, access suspect information, and easily perform crime analysis.

Crime and Intelligence Analysts
A crime or intelligence analyst can use sophisticated tools to support better operational decisions and to address short-term tactical and long-term strategic issues.

Chief of Police or Sheriff
GIS can provide a chief or sheriff with a comprehensive view for long-term decision making. They can also look at predictive crime models for developing comprehensive strategic plans to support personnel.

Law enforcement can use GIS solutions to
• Determine optimal locations for deploying resources.
• Analyze the dynamics of an incident in progress to make informed decisions and operational adjustments.
• Identify and examine suspicious activity and threats.
• Enhance officer safety and effectiveness by providing information and awareness of repeat incidents.
• Target repeat 911 call locations.
• Perform resource analysis and allocation.
• Develop a crime scene log to ensure the integrity of an investigation.
• Exchange information with a neighboring jurisdiction or a jurisdiction half a world away.

ArcGIS is used to determine the risk level of sex offender activity in Riverside County, California.

The Arizona Counter Terrorism Information Center applies GIS for critical infrastructure assessment and protection.

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Twenty-four-hour crime density for a three-month period; total number of crimes = 375. By the South Georgia Regional Development Center.
Enterprise GIS supports the law enforcement mission by providing the foundation to address four key needs:

- **Operational Awareness**—Supporting a comprehensive, relevant view into your agency’s activities
- **Information Integration and Analysis**—Managing data effectively and reducing information overload
- **Strategic and Tactical Planning**—Creating more opportunities for proactive policing through analytic tools
- **Field Mobility**—Providing a platform for data and information exchange into and out of the field

At the core of an enterprise GIS platform is the ability to use a geographic approach throughout the organization to work more efficiently and effectively in meeting the challenges you face. Better data management leads to better resource management. Knowing more about crimes and hazards or threats creates more opportunities for proactive policing and crime prevention. New methods to target crime can identify new operational needs. From the desktop to the field, you can benefit by applying the geographic advantage to the law enforcement enterprise.

The Redlands, California, Police Department uses ArcGIS to display a density hot spot analysis of auto thefts.
The Enterprise Geographic Advantage

Turning Data into Actionable Intelligence

ESRI® software and technology is used by law enforcement agencies in hundreds of applications throughout the world, with ESRI and ESRI business partners providing GIS solutions for every need.

Financial and Electronic Crimes

• Monitor and highlight clusters of suspicious transactions involving potential credit card fraud and food stamp fraud.
• Model flows of financial activity between individuals to spot potential criminal dealings or terrorist activity.
• Develop intelligent tools to spot sudden changes in a suspect’s financial picture.

Criminal Intelligence and Analysis

• Analyze crime patterns and provide geographic profiling.
• Map crime and law enforcement timelines and activity flows.
• Perform strategic analysis by mapping threat assessment and flagging areas of concern.

Public Information

• Share information with the general public about emerging problems or threats.
• Enlist the support and feedback of community watch and citizen advisory councils.
• Advise the public of convicted sex offenders residing in their communities.

Corrections, Probation, and Parole

• Map crime patterns and trends among the inmate population.
• Visualize networks and associations among inmates that foster crime problems.
• Identify resource gaps and support effective reallocation processes.

Crime and Investigative Analysis

• Leverage and fuse spatial data to a wide variety of traditional law enforcement data sources.
• Provide contextual information for a more informed response.
• Identify and link related or seemingly unrelated crime patterns and trends.

CompStat and Accountability Methods

• Implement plans to reduce crime and improve quality of life.
• Support collaboration through informed problem solving for all levels of law enforcement.
• Ensure coordination and eliminate duplicative efforts.

Community Policing

• Integrate demographic, housing, business, and other data for understanding neighborhoods.
• Site community policing outreach offices in proximity to populations at risk.
• Perform a multitude of tasks and analyses using historical socioeconomic data.

E-911/Communications

• Quickly locate and map emergency call locations.
• Display the current locations of public safety vehicles for efficient dispatch.
• Display public safety resource locations for incident management and command and control.
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.

ESRI Regional Offices

For More Information

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Locate an ESRI value-added reseller near you at www.esri.com/resellers

Outside the United States, contact your local ESRI distributor. For the number of your distributor, call ESRI at 909-793-2853, ext. 1-1235, or visit our Web site at www.esri.com/distributors