Today’s law enforcement agencies are faced with numerous challenges to protect life and property and provide community safety. Police professionals must contend with ever-increasing demands including growing communities, tighter budgets, and finite resources. The rapidly changing social, economic, and political environments, both domestically and internationally, further complicate these problems. To successfully provide the most effective service possible, law enforcement agencies are utilizing the best technology and systems to deliver mission-critical services.

Geographic information system (GIS) technology is a powerful tool used by more agencies than ever for daily operations and to optimize both strategic and tactical planning. Law enforcement agencies use GIS for crime analysis, criminal intelligence, community policing, vehicle/personnel tracking, traffic safety, community corrections, and many other areas. In emergency management and homeland security, GIS is used in planning, preparedness, mitigation, response, and incident management and is a vital component for data fusion and data sharing. GIS extends the capability of a simple map by making the map intelligent, interactive, and easily available. More important, GIS provides the required information when, where, and how it is needed.

All emergencies begin locally and elevate to county, regional, state, or national levels depending on the severity, complexity, size, and nature of the event. Law enforcement managers need the right information at the right time to deploy resources, implement plans, establish medical and other assistance, and manage incidents as they unfold.

ESRI has collaborated with leading agencies throughout the United States and around the world to develop technology that vastly improves the efficiency of law enforcement. ESRI® GIS integrates and visualizes data to help provide a comprehensive understanding in all types of emergencies.

ESRI: Committed to Law Enforcement

ESRI is the first choice for GIS in the law enforcement community at all levels. ESRI is committed to supporting law enforcement by providing GIS tools that enable agencies to meet their varied missions and objectives. These tools provide law enforcement agencies with the ability to visualize, analyze, and even forecast problems as well as manage data to provide a more effective and proactive response.

Hartford, Connecticut, Police Department shows the relationship between stolen vehicles, recovery locations, and hot spots using ArcGIS.
ESRI and its business partners provide GIS solutions that are used in hundreds of applications by thousands of law enforcement agencies around the world. The technology has expanded from a project- or department-oriented solution used by crime analysts and other specialists to an enterprise technology platform that can leverage the data from the entire department and city and have it used throughout the organization.

Throughout the world, law enforcement agencies use GIS to understand crime, traffic, and community issues. Many agencies are employing geographic profiling to forecast an offender’s residence or next crime target based on history and patterns. They are also successfully using GIS to determine the exact location of gunshots in an urban setting within seconds. When a call is received, patrol officers can see the location of the assigned call for service, crime hazards, or potentially dangerous subjects within the area of the call. They can also receive accurate routing within seconds of dispatch from the mobile data computer in their vehicle. The result is a safer and more informed first responder and better service to the community.

Additionally, law enforcement agencies can enhance the safety of their personnel not only through the real-time tracking of the responding vehicle but also by real-time tracking of the individual officer in a foot pursuit. GIS provides command staff, including watch and incident commanders, with the ability to visualize and share a common operational picture or situational awareness in the event of a large-scale disaster or when a major crime occurs. GIS can be used to provide automated emergency notification for evacuation, missing persons, or any other incident simply by creating a message and selecting the appropriate geography. In short, virtually all the problems that law enforcement agencies confront have a geographic component, and GIS provides the visual, analytical, and data management capabilities to more effectively manage resources and to provide better service.

To learn more about using GIS for law enforcement, visit us on our Web sites at www.esri.com/lawenforce or www.esri.com/homelandsecurity.