Seeing Farther

Microsoft .NET gives law enforcement a comprehensive view of information.

"We must see farther than our own jurisdictions, see farther than our regions and states, to see all the information available on a particular topic in a secure way."

MIKE BYRNE, Director, Microsoft Justice and Public Safety

Citizens rely on law enforcement agencies for their safety. The power of integrated technology in this effort is only now being realized.

Technology simplifies many daily tasks. Powerful Internet search engines dish up quick information on nearly any topic. Web-enabled cell phones and mobile computers link people to information wherever and whenever they need it.

Yet technology that is ubiquitous to John Q. Public is a pie-in-the-sky fantasy for many law enforcement agencies. Obviously the technology exists to make these tools available to police. But law enforcement organizations face both technological and political barriers to closing the gap.

Around the country, however, law enforcement agencies are using the Microsoft .NET Framework to dramatically improve access to vital information and intelligence. In a growing number of jurisdictions, applications built on Microsoft .NET gather information from multiple sources and locations. These applications give agencies the power to access and share data securely with their peers across regions, states and beyond.

Mike Byrne knows firsthand the crucial role integrated information sharing systems play in everything from major disaster response to simple traffic stops. A former New York City firefighter and Department of Homeland Security executive, Byrne now directs Microsoft's Justice and Public Safety organization.

Byrne believes that law enforcement professionals deserve a technology partner dedicated to their mission and capable of delivering results.

"In the world we live in today, where information for entertainment and business purposes is right at your fingertips, shame on us if we are not able to provide all the necessary information to our public safety officials. They are the tip of the spear for our safety and security; we can and must provide robust information systems for them to be able to do their jobs," said Byrne. "At the same time, we must also ensure that only those who need to access this information do so, and above all that we protect our personal privacy."

Microsoft pledges to help law enforcement agencies get the tools they need to combat crime and terrorism, Byrne said. Microsoft .NET technology delivers a powerful solution for overcoming proprietary data and territorial operations that prevent law enforcement agencies from accessing mission-critical information.

"We absolutely can change that," said Byrne. "We're committed to making sure our law enforcement officials have the information they need, when and where they need it. We must see farther than our own jurisdictions, see farther than our regions and states, to see all the information available on a particular topic in a secure way."

In places such as Alabama, Ohio and Texas, the Microsoft .NET Framework is indeed helping law enforcement agencies see farther than most would have imagined.

Case Study

A "COG" in the Machine

Microsoft delivers Texas-size interoperability.

"We place a server in every police department, which extracts data from the departments' records management systems, transforms that data into Justice XML and then transmits that data into our data cache as frequently as every five to 10 minutes."

ROBERT BATTY, CEO, Forensic Logic

Hurdles that hamper large-scale data sharing projects are more easily overcome in Texas thanks to strong involvement of regional councils of government (COGs) in promoting interoperability.

"In the state of Texas there are 254 counties," said Robert Neff, Manager of Criminal Justice for the North Central Texas Council of Governments (NCTCOG). "Those 254 counties and the cities within those counties belong to 24 councils of government. So we have the right structure here, but in the majority of other states, the government councils deal primarily with transportation or environmental issues and not with criminal justice issues."

In 2003, the NCTCOG began searching for a Web-based system that would allow law enforcement officers across Texas to share data and search the most current information available in real time. Neff joined Randy Hunt, Director of Special Projects at the University of North Texas (UNT), to develop a simple database at first.

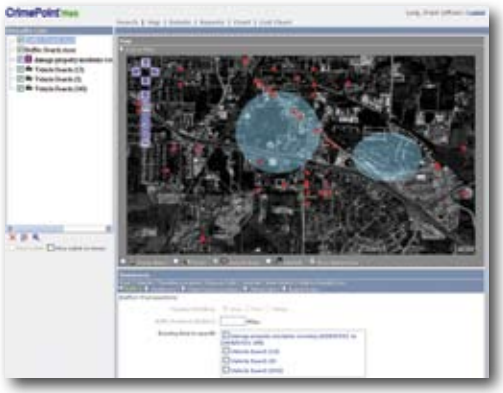
That same year, the NCTCOG and UNT began working with Forensic Logic, a local Microsoft partner, to create what is known as CrimePointWeb™. This powerful tool, built on the Microsoft .NET Framework, allows officers to access and add to a real-time data cache hosted by UNT.

Robert Batty, CEO of Forensic Logic, explained how CrimePointWeb functions.

"We've engaged the 24 COGs in Texas. The COGs will construct memorandums of understanding for information sharing between all the local jurisdictions within their council," he said. "We place a server in every police department, which extracts data from the departments' records management systems, transforms that data into Justice XML and then transmits that data into our data cache as frequently as every five to 10 minutes."

The result is a simple Web portal that officers can access from any Internet-connected device. The interface resembles a common Internet search engine. Criminology algorithms are used to list the most relevant results based on the search criteria entered by a user.

Officers can search for anything related to criminal investigations or even incidents in progress



— helping make emergency response situations less dangerous. Data results can be easily mapped, charted or explored further.

The system addresses data security concerns by housing the information in a data center at a former missile assembly plant in Denton, Texas. Security contractors, whose customers include the Department of Defense, protect the facility.

CrimePointWeb, built on a 100 percent Web-based .NET framework, allows officers to access vast amounts of information on the fly. COGs share operational expenses to defray costs. The system's interface is familiar to anyone who uses Internet search engines.

This innovative tool helps officers do their jobs more effectively and more safely. It provides a comprehensive view of information that extends beyond individual jurisdictions, delivering vision and insight never before achieved.

Case Study

LETS Gets Started

New technology gives Alabama police officers a tactical advantage.

The Law Enforcement Tactical System (LETS) in Alabama is aptly named. Built entirely on the Microsoft .NET Framework, LETS delivers cross-jurisdictional data that law enforcement officers simply couldn't access before. The project began three years ago, and it provides another example of how .NET technology brings together disparate criminal justice data and transforms it into a usable, crime-fighting tool.

Maury Mitchell is Director of the Alabama Criminal Justice Information Center. The Center's purpose is to facilitate information sharing within the criminal justice community.

"The Center is uniquely situated to serve the entire umbrella of users in the criminal justice community," said Mitchell. "We're able to do some really neat things. Our mission is to provide information which officers or officials need to do their jobs. If it's public safety, homeland security or criminal justice, we're going to be there to provide that information."

In 2002, Alabama law enforcement leaders began exploring how to use Web portal technology to give officers access to millions of public records collected by government agencies and departments throughout the state.

"Several key leaders got together to decide why we were not sharing information using modern standards and the Internet," recalled Mitchell. "We were still using mainframe technology and a slow dedicated frame relay network to get most of the criminal data out, which made it very cumbersome for an officer to get information. So I said, 'Let's create something easy to use.' This was January 2002."

Initial development of LETS was performed by the University of Alabama and the Alabama Administrative Office of Courts in early 2002 using the Microsoft .NET Framework. The organizations used .NET and Microsoft SQL Server technology to create a portal that offered a powerful, affordable alternative to traditional data warehousing.

"We had the first installation of it up and running by June 2002," said Mitchell. "That's what's amazing. It was all because we used Microsoft products. We were able to roll something out very quickly and within weeks after we made just a few announcements, we had 3,000 users."

The Web-based LETS portal can pull millions of records, titles, registrations and even photos together to assist law enforcement officers. Data sources are transformed into Web services and are searchable by any officer accessing the secure portal via any Internet-connected device.

Data from each jurisdiction is cached, not warehoused, so security is maintained and ownership remains with the agency originating the information. Plus, the cached data is always current, so officers investigating multi-jurisdictional crimes have the latest suspect data available to them.

"The technology works perfectly and it integrates in amazing ways — it's just fascinating," said Mitchell. "We're adding bunches of new features. And because we're using Microsoft technology, the turnaround time for adding features is just tremendous. We can have updates and enhancements deployed within weeks for relatively little cost. Because it is a Web-based application, everything is on a server, and we do not have to go all over the state installing and updating software."

LETS is a hit with law enforcement in Alabama because it gives officers tools to see beyond the boundaries of their jurisdictions. Because of the system's success, Mitchell is planning more projects that harness the power of Microsoft .NET technology.

Within the next few months, the third generation of LETS will debut, adding many new features, a new interface and full compatibility with Global Justice XML (GJXDM) as the data transport model. Additionally, a new statewide law enforcement Web portal based on Microsoft SharePoint portal technology will be rolled out in January.

"As of today, we've got 10,000 users using LETS almost daily," Mitchell said. "We've only got 14,000 sworn officers in the state. LETS is proving to be wildly successful. Because of that we are investing a lot more money now. It's going to keep growing and getting better."

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MAURY MITCHELL, Director, Alabama Criminal Justice Information Center

Case Study

Optimizing Ohio

State implements cutting-edge investigative tools.

"There is no cost whatsoever to local law enforcement to access OHLEG, other than the fact they need to have Internet access. This should be huge in the state of Ohio — to the cops on the street, as well as investigators."

MARY COOL,
CIO, Ohio Attorney General's Office

In January 2003, Jim Petro began his term as Ohio Attorney General. One of Petro's priorities was creating a tool to help police agencies share and use each other's data. This led to development of the Ohio Law Enforcement Gateway (OHLEG-SE) and subsequently, the Ohio Local Law Enforcement Information Sharing Network (OLLEISN). These Web-based solutions deliver state-of-the-art data-sharing and investigative tools.

"What Attorney General Jim Petro did when he came into office was to pull together all the law enforcement-related parties in the state to foster cooperation and sharing of information," said Mary Cool, CIO for the Ohio Attorney General's Office. "Everybody took a chunk of the puzzle and their piece to solve."

At the heart of OHLEG-SE and OLLEISN is the Microsoft .NET Framework, which provides powerful search and records-management capabilities. Petro and the Ohio Association of Chiefs of Police (OACP) partnered with Optimum Technology, a Columbus-based Microsoft partner, to aid in the design and development of the OHLEG-SE and OLLEISN utilizing Microsoft .NET tools.

"What we initially did was develop the OHLEG-SE search engine," said Ron Hatfield, Director of Business Development for Optimum Technology. "The OHLEG-SE Web site will authenticate authorized users and present them with a query page. You can now query names and vehicles, with the next phase to include address-based queries. The system will search all of these disparate repositories of information and bring the information back to the investigator. Then the officer has the capability of drilling down into the details on any particular search response."

The OHLEG-SE application pulls data not only from the state Bureau of Motor Vehicles and other such organizations, but with OLLEISN, envisions including data from each police department in Ohio as well. OLLEISN uses GJXDM extracts which are then made available to search. OHLEG-SE and OLLEISN were designed to function together and require only an Internet connection to access, thus making the tools available to even the smallest, most rural departments in the state.

The Ohio Attorney General launched OHLEG-SE in late September 2005 at a statewide law-enforcement conference and then began to make the technology available to individual law-enforcement agencies across Ohio.

"There is no cost whatsoever to local law enforcement to access OHLEG-SE, other than the fact they need to have Internet access," said Cool. "This should be huge in the state of Ohio — to the cops on the street, as well as investigators. Nobody has any idea how big this is going to be once everybody is aware and contributes their piece. It can just be massive."