

# Unlocking police data

*HST* looks at how police departments are approaching information sharing and data management.

It has become widely accepted that information sharing is essential for effective law enforcement and the war on terror. What information, and who to share it with, is more difficult to agree on.

In the US we have numerous small, medium and large local governments that are not controlled by the state governments or the federal government. For the most part each local and state police agency purchases its own hardware and software for data management. Although there is a growing trend to cooperatively regionalize systems, this means that there are approximately 17,000 different police administrators making decisions on how they will manage their data.

Sharing across borders has also become simultaneously more necessary and more difficult. In order to prevent another September 11, terrorists must be stopped, not inside our borders, but in their homelands.

## Counting the cost

But effective data and information management is not only difficult to achieve, it is costly. Harlin McEwen, Chairman of the IACP Communications and Technology Committee, points out: “Staff training and ongoing maintenance of hardware and software are very expensive. Many agencies do not have adequate budgets to

support these.” After 45 years in the field of law enforcement, including as a Deputy Assistant Director of the FBI, he should know.

Robert Griffin, President of Knowledge Computing Corporation which has developed the COPLINK system concedes that cost was one of the key concerns when developing the system.

“Law enforcement agencies have already invested a tremendous amount in technology – especially records management systems. COPLINK protects that investment because it is not designed to replace legacy systems, but sits on top of them. Agencies have a real need to protect and enhance the investments they’ve already made – especially because of funding limitations and the competitiveness of securing government grants,” says Griffin.

## New developments

“Data management has not drastically changed in the US since 9/11, but there are indications that some improvements in data management have been driven by the events of 9/11. Efforts to improve the flow of information between local, state and federal agencies were under way long before 9/11 and there are numerous examples of ongoing significant improvement,” says McEwen.

National systems such as the National Crime Information Computer (NCIC) and the Integrated Automated Fingerprint Identification System (IAFIS)



## Q&A

**Q. How did the idea of COPLINK come about?**

**A.** The prototype for COPLINK was developed at the University of Arizona's Artificial Intelligence Lab through a grant from the National Institute of Justice. The initial idea came from a student in the program who was also a police officer and is now one of our staff members. He was frustrated by the amount of time it took to investigate crimes using existing law enforcement records.

The initial prototype for COPLINK proved that an information-sharing environment could be created to allow investigators to query multiple databases at the same time. When Knowledge Computing Corporation was brought in to commercialize the technology, we built on the information-sharing capabilities and created a far more powerful solution.

The system was then catapulted into the national spotlight following the Montgomery County, Maryland, sniper investigation. Once we had the go ahead from Montgomery County, Knowledge Computing Corporation deployed a full team on the ground and had COPLINK up and running within five days. Unfortunately, it wasn't soon enough – the snipers were apprehended the day before. Montgomery County decided to test COPLINK anyway and found that if it had been in place when the shootings began, it would have generated irrefutable evidence linking the car, John Allen Mohamed and Lee

Malvo to the crimes by the second and third shootings – it would have potentially saved multiple lives.

**Q. What are the key benefits of COPLINK?**

**A.** When COPLINK is used to create regional, multi-state or interagency networks, each participating agency has real-time control over what data is shared, with whom and



**Robert Griffin**

when. In addition, data continues to reside and be updated at its existing source. These safeguards help protect the integrity of the data and sensitive information while allowing for the creation of ad hoc regional task forces to address specific criminal or potential terrorist activity.

COPLINK also creates a detailed audit trail for every search conducted. This serves two purposes. Officers seeking to question or obtain a warrant on suspects identified through COPLINK are able to clearly demonstrate with hard facts how that person fits the criminal profile and how others were excluded. Each participating agency's systems administrator is also able to monitor use for audit purposes to identify any abuse that would result in suspension of a user's access privileges under the privacy and use protocols established by each agency in accordance with local, state and federal laws.

**Q. How are you hoping to develop COPLINK in the future and why?**

**A.** Enhancements to COPLINK are developed with the help of current and former law enforcement officers and feedback from our end-user clients. We're constantly asking them what they want to do, but can't, what they want to do better and what they need to be able to do faster. Every enhancement to COPLINK reflects that we take the time to listen and respond to our clients needs.

For example, we will continue to enhance our popular visualizer and GIS interactive mapping tools. We are moving to a new underlying architecture to take advantage of xul and give the client a true browser independent solution and on-demand customization. We are looking at adding a more in-depth case management capability and some workflow enhancements as well.

managed by the FBI have long been the most crucial and widely accessed law enforcement systems. There are also Regional Information Sharing Systems (RISS) that have long shared investigative and intelligence information among member agencies. Sharing across agencies is crucial, but as McEwen explains: "There are numerous vendors who offer competing products for data management. Decisions are generally made at the local level which, of course, causes difficulties in sharing information between disparate systems."

Data integrity is also a big issue. With COPLINK, data continues to reside and be updated at its existing source. No data is ever entered into the system directly. Automatic trigger refresh mechanisms ensure that if new data is added or old data is deleted from the existing source, it is automatically reflected in COPLINK. This makes the data more trust worthy.

Meanwhile the NCIC and IAFIS databases are kept up to date under a shared management arrangement between the FBI and the FBI Advisory Policy Board (APB) explains McEwan. "The APB membership is made up of representatives of local, state and federal agencies. In the sharing of investigative information, civil rights and privacy concerns have been an impediment to sharing among agencies. There is also an

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increasing discussion about information overload for individual police officers.”

Griffin adds: "There are many technologies that are available capable of providing rudimentary information sharing through simple query broker technology, but at this point, it's a parlor trick that is already obsolete – especially when multiple agencies or states want to work together. The increase in the amount of information that has to be processed in an infor-

**COPLINK is currently in use in over 100 jurisdictions nationwide including:**

- Statewide deployments like the one across all of Alaska.
- Multi-state information sharing networks like the one between California’s ARJIS (Automated Regional Justice Information System – a criminal enterprise network of more than 50 local, state and federal law enforcement agencies) and Arizona’s Tucson and Phoenix Police Departments.
- Regional deployments like TUACAN – the Tampa Urban Area COPLINK Analytic Network – linking Clearwater, Hillsborough County, Pinellas County, St Petersburg and Tampa.
- Large metropolitan area deployments like the one in Boston that supports more than 3000 police officers in fighting crime and improving community safety.

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mation rich environment is such that without analytics and visualization, there is no value.”

“Police departments traditionally have several types of ‘stovepipe’ databases that don’t ‘talk to each other’ – arrest records, traffic citations, mug shots, sex offender lists, etc. that run on various platforms. The same suspect can be in multiple databases. Prior to COPLINK, an officer would have to sit down at several different computer terminals to query each of these databases separately to find information relevant to his or her investigation. It’s a time-consuming process that can potentially have life and death consequences in situations like child abductions where every second counts,” Griffin continues.

“There is an ‘80/20 rule’ in law enforcement – 80 percent of all crimes are committed by 20 percent of the criminal population. In other words, they are already in the records system somewhere – it’s just a matter of finding them.”

COPLINK works by allowing vast quantities of structured and seemingly unrelated data, currently housed in various incompatible databases and record management systems, to be organized, consolidated and rapidly



**Harlin McEwen**, Chairman of the International Association of Chiefs of Police Communications and Technology Committee, has been in the field of law enforcement for over 45 years. He started his career as a Patrol Officer in 1957 in his hometown of Waverly, NY. In 1967 he was promoted to Sergeant at Cayuga Heights, NY, Police Dept. In 1972, he was promoted to Chief of Police, a position he held for 13 years. From 1985 until 1988, he served as Deputy Commissioner of the New York State Division of Criminal Justice Services and Director of the Bureau for Municipal Police where he was responsible for overseeing the training and registration of all police officers and peace officers in New York State, as well as for the development and implementation of the New York State Law Enforcement Agency Accreditation Program.

From October 1988 through February 1996 he served as Chief of Police for the City of Ithaca, NY, where he was instrumental in implementing modern technology and computerization and advancing training and professionalism of the force. In February 1996, Chief McEwen was sworn in by FBI Director Louis J Freeh as a Deputy Assistant Director of the FBI. In April 2000, he retired from the FBI and active law enforcement service and was presented the prestigious FBI Medal of Meritorious Achievement. On November 14, 2000, the International Association of Chiefs of Police honored Chief McEwen by presenting him with the first IACP Lone Star Distinguished Award in recognition of his exemplary service to the IACP for over 22 years as Chairman of the IACP Communications & Technology Committee.

analyzed over a secure intranet-based platform. One search using known or partial facts from an ongoing investigation can produce qualified leads in seconds – a process that used to take days.

The flexible architecture allows agencies to choose from data warehousing, distributed techniques or a combination of both while scaling the solution to respect the preferences of each agency.

With COPLINK, law enforcement and intelligence agencies can tailor their information sharing and crime analysis initiatives using existing components from technologies they already use. This allows participating agencies to create a seamlessly integrated solution without incurring the disproportionately high cost of untested, custom solutions. ■