

The Future of Law Enforcement Data Sharing: Cooperative Technology

by

Bernie Cunha

Hayward Police Department

May 2009

COMMAND COLLEGE CLASS 44

This Command College Project is a FUTURES study of a particular emerging issue in law enforcement. Its purpose is NOT to predict the future, but rather to project a number of possible scenarios for strategic planning consideration.

Defining the future differs from analyzing the past, because the future has not yet happened. In this project, useful alternatives have been formulated systematically so that the planner can respond to a range of possible future environments.

Managing the future means influencing the future; creating it, constraining it, adapting to it. A futures study points the way.

The view and conclusions expressed in this Command College project are those of the author and are not necessarily those of the Commission on Peace Officer Standards and Training.

(POST)

Copyright © 2009

California Commission on Peace Officer Standards and Training

### The Future of Law Enforcement Data Sharing

During a routine traffic stop in a major city in 2001, a driver was cited for moving violations for which he is to appear in court. As commonly occurs, he failed to appear on his scheduled court date and a bench warrant is issued. Several weeks later in a neighboring county, the same driver is again stopped for a moving violation. Due to the lack of effective regional data sharing, the officer was not made aware of the bench warrant. The driver was again cited and allowed to continue on his way. On the surface, this might appear to be a relatively minor inconvenience for the justice system. In fact, this particular driver was Mohammed Atta, lead pilot of the 9-11 terrorist attacks against the World Trade Center.

Today, some seven years later, law enforcement continues to struggle with information sharing. Almost daily, stories appear in the news recounting yet another example of serious wanted felons moving in and out of the country at will. While there has been considerable improvement at the Federal level, local law enforcement continues to struggle with data sharing technologies. Scenarios such as Atta's occur routinely in our localities on a less sensational level. Because of this, it is critical for us to rekindle interest in local information sharing partnerships.

#### Opportunities

As illustrated by the scenario above, law enforcement had a long history of poor performance in the area of data and information sharing prior to 9/11 (Congressional, 2008). In addition, police use of the Internet for investigative purposes was almost non-existent. A report to the National Executive Institute Associates, the Major Cities Chiefs Association and the FBI Academy published in June of 2000 indicated most chief executives were unfamiliar with the use of the Internet for investigative purposes, although most of their departments had websites for

community policing and recruitment purposes (National Executive, 2000). In 2008, Dr. Marvin Cetron, in a report co-authored for the Proteus Group, noted that technology was the number one trend shaping the future of policing in the next decade and beyond (Cetron & Davies, 2008). Even as changes in the law resulting from 9/11 (such as the 2001 Patriot Act) have prompted significant increases in Federal and State cooperation; however, local policing still struggles with sharing data in a seamless fashion. Fortunately, there are models of cooperation from which we can learn.

As recently as December 2008, new information sharing cooperatives have been supported by US DOJ; such as the National Information Exchange Model (USDOJ, 2009). In March of 2008, the United States Immigration and Customs Enforcement (ICE) branch of the Department of Homeland Security launched a new law enforcement information sharing service in partnership with the community County of San Diego, California (Ice, 2008). San Diego, the largest border community in the country, will now have access to over 23 million records from ICE investigations, enhancing an investigator's ability to conduct inquiries on suspects in drug smuggling, child pornography, fraud and other related investigations. All of these efforts are web based, and are able to communicate with one another through use of the Internet. The next meeting of the Global Advisory Committee is slated for late April of 2009 and indications are that the committee is positioned to support information sharing partnerships already under, as well as those under development (USDOJ, 2009)

At the local level, advances made almost daily in Internet capacity, as well as vast improvements in the delivery systems available such as 3G, WiMAX (4G) and secure local networks provide ample possible solutions for agencies seeking to interact to share sensitive information. We reside in a world that has embraced technology, and the candidate pools from

which we draw our personnel have the expectation of the availability of advanced technology to complete their job functions (Raines, 2002). Dispensing with propriety concerns and undue secrecy of individual agency data may be the first necessary step on the path to data sharing for public safety.

Globally, there is ongoing realization of the need to adopt high technology applications to fight terrorism (Basu, 2008). The same principles and reasoning applied globally should be applied locally as well. Various articles similar to the document referenced above can be found in reputable publications such as Government Technology Magazine, and websites such as RSR Wireless. Information from experts in the field available from these valuable references should be utilized to support recommendations for funding and staffing of technology efforts locally to promote effective use of the Internet technology available today as well as emerging Internet technology in the future.

Looking to at possibilities for an effective local information sharing effort, the research suggests that an effective working model for the future will be comprised of a large group of cooperative resources in a partnership modeled along the lines of the Federal and State efforts referenced above. With a design model based on information available from USDOJ (Baseline Capabilities, 2008) on suggested capabilities for fusion centers, an effective local effort appears possible. One such successful example is the ARIES (Automated Regional Information Exchange System) undertaken in Contra Costa County.

#### Case Study – ARIES

Contra Costa County, CA, a county of about 1,000,000 in Northern California, began implementation of a regional information database known as ARIES in 2003. ARIES was developed by Hunter Research Incorporated (Dwight Hunter, 2005) of Tracy, California utilizing

web integration technology from Visiphor's Briyante Integration Environment (Visiphor, 2005). Born from a countywide desire for integration of disparate operating systems that could not communicate and championed by the vision of Sheriff Warren Rupf, the ARIES project has grown into an effective information sharing database connecting over 48 agencies and providing real-time data to well over 1,000 users.

One of the best examples of interagency information sharing in California, ARIES has taken the next step toward interoperability by seeking to partner with other bay area counties such as Alameda County, where ARIES is able to extract and provide booking data and a mug shot interface. Key to any successful information sharing partnership, sustainability and expansion efforts are ongoing in the project. ARIES continues to expand partnerships, recently adding Solano County information to the effort. Enhancements such as regional photo line-up capabilities are supported due to ARIES ability to interface with divergent technologies through the effective selection and implementation of modern web technology solutions such as the Briyante Integration tool referenced above. In a recent discussion with Dwight Hunter (Dwight Hunter, personal communication, March 14, 2009), President of Hunter research, he shared the company's latest successful expansion proposal for the ARIES system.

The ARIES system by design does not encompass a crime analysis wheel, preferring to leave that function to the established experts in that field such as i2 Analyst Notebook (i2, 2009), which Hunter cites as the industry standard across the nation for crime analysis. Using their proven combination of integration tools, Hunter Research was able to develop and demonstrate an interface that allowed the user to develop a query from time frame and crime type selections, the agencies or geographical areas desired, and other standard data sets using ARIES. The ARIES platform was able to pull the information together and pass the information via an XML

format to Analyst Notebook which then did the final compilation and link analysis. This is but one example of the dedication of the vendor to utilize emerging technology to continually enhance an already proven platform.

The Bay Area Super Urban Area Security Initiative (SUASI) group consists of law enforcement professionals from twelve bay area counties (Bay Area SUASI, 2009). In late 2008 the SUASI group facilitated a presentation for the local law enforcement partners from vendors such as Hunter Research, with a proven success record in Contra Costa County, and COP LINK (Knowledge Computing Corporation, 2009) with successful installations across the United States. COPLINK has been instrumental in creating regional data sharing partnerships that been active in the capture of dangerous felons in Salem, Oregon, Tucson, Arizona, as well as Anaheim and Huntington Beach, California. In the Salem, Oregon case, COPLINK software was successfully used in link analysis that led to the arrest of a suspect who was responsible for a bank bombing in which two police officers were killed and the chief of police seriously wounded. In the California cases, COPLINK software was again cited as instrumental in identifying and assisting in the safe apprehension of dangerous armed suspects.

One possible outcome of a consortium such as the Bay Area SUASI might be a combined effort involving two entities such as ARIES and COPLINK. While only an envisioned outcome at present, one can readily see that a cooperative effort between a vendor such as COPLINK, with its experience integrating federal and state databases and link analysis capabilities, married with the proven integration experience of a firm such as Hunter Research might be the best opportunity to provide Internet based information sharing from the federal level all the way down to the local community police department. Hunter noted information that supports the appearance that, regardless of vendor partnerships, Hunter research continues to move forward

with cost effective expansions to ARIES, their flagship platform. He also stated their company was able to reference the acquisition of a substantial grant funding acquisition to allow ARIES to add more agencies, create a 911 regional pin map with live capabilities, upload its regional data to the N-DEx system of the FBI, and allow user initiated queries of numerous federal data bases.

The ARIES case study and information is detailed in this article as a prime example of the integration cooperation model that fueled the vision for this research. Regardless of vendor selection, financial cooperation of local and regional agencies to fund an effort such as indicated here might possibly provide the most cost effective method for utilization of pooled grant money and homeland security funding as a buffer in these difficult budgetary times.

### Challenges

Several recurring themes are emerging in relation to challenges to the successful law enforcement use of the Internet for law enforcement data sharing. In May of 2008, a group of experts was empanelled to study the issue of the future of law enforcement data sharing. This panel consisted of a number of industry experts from the law enforcement, technology and legal fields. The group felt that use of the Internet to share proprietary information will initially face negative reaction from the general public. The group also discussed the inevitable challenges from organizations like the American Civil Liberties Union. In 2004 the ACLU challenged the validity of the FBI's use of the Patriot Act to gain information from Internet service providers. As detailed in a CBS News report (Grace, 2004) the ACLU continues to actively oppose government and law enforcement efforts to utilize nontraditional avenues of investigation in order to actively seek out those who would engage in terrorism or other criminal behavior. An expert panel studied the implications of privacy protection and came to the conclusion that, although initial opposition would be raised to any data sharing via the Internet, proper education

in conjunction with greater public safety through successful criminal apprehension would lead to eventual understanding and acceptance.

An additional challenge to the use of emerging Internet technology for law enforcement data sharing will be the financial concerns. Unfortunately, at a time when local law enforcement appears ready to embrace cooperative efforts and dispense with some of the traditional proprietary thinking common for so many years, we are all painfully aware that we are dealing with a very uncertain economy. While the need to be more fiscally responsible than ever during these trying times, the successful law enforcement manager will take a hard look at partnering with neighboring agencies as well as state and federal efforts such as those described earlier in this article as a means to maximize the effectiveness of our agencies without large expenditures or staffing commitments.

#### Conclusion

The need for better, faster, more detailed information sharing in the law enforcement community continues to be demonstrated daily in any news forum you care to consult. With all of the advances in Internet security, technology and network applications, the Internet is the logical choice for cost effective transmission of data. Given the terrorism events, both abroad, as well as the events of 9/11 here in our own country, we are provided with daily reminders of the threats to our citizens. Couple those concerns with the poor economic state we currently find ourselves engulfed in and the already high serious crime rates in many areas can only continue to grow. As law enforcement managers are faced with increasingly sophisticated criminal activities and public outcry for intervention, it is imperative that we look to technology for assistance. This is especially true as we seek to effectively share the data we need to protect our citizenry. —

In the course of the article, we have discussed the information sharing models that have evolved from federal and state efforts and their effectiveness as appropriate models for local consideration. The case study of the ARIES project provides an effective, working and continually successful model of integration that retains the ability to make judicious use of emerging technology. COPLINK and its nationwide sharing model is another platform that directly addresses many of the concerns outlined by the panel of experts as being critical to law enforcement success in the future.

These are but two systems that provide information on successful application of technology and Internet based sharing portals. Many others exist in various forms throughout the United States. Careful consideration of partnerships such as those suggested in this article should be part of any modern department's strategic plan. Through review and possible participation in such efforts may provide the cost effective, technologically sound answers that will catapult local law enforcement into the next century may be realized. It is the hope that this article will provoke just such action.

## References

- i2, Inc. (2009). *What We Do* (i2 website, p. front). McLean, VA: i2, Inc. Retrieved March 13, 2009, from i2, Inc Web site: <http://www.i2inc.com/>
- Bay Area SUASI. (2009). *Information Sharing (NICRIC) and Infrastructure Protection*. Web Site: Author. Retrieved February 12, 2009, from Bay Area SUASI Web site: <http://www.bayareasuasi.org/infosharing.asp>
- Dwight Hunter. (2005). *Hunter Research, Inc* [Brochure]. Author. Retrieved March 13, 2009, from Hunter Research, Inc Web site: <http://www.hunterdk.com/aboutus.htm>
- Baseline Capabilities for State and Major Urban Area Fusion Centers*. (2008). Retrieved March 13, 2009, from Office of Justice Programs Web site: <http://www.it.ojp.gov/documents/baselinecapabilitesa.pdf>
- USDOJ. (2009). National Information Exchange Model [Abstract]. *Justice Information Sharing Website, Feb 2009*, 1. Abstract retrieved February 15, 2009, from US DOJ Office of Justice Programs Website Web site: <http://it.ojp.gov/default.aspx?area=globaljustice&page=1167>
- Grace, Francie. (2004). In CBS News (Ed.), *ACLU Sues Over Internet Privacy*. Retrieved December 10, 2008, from CBS News.com Web site: <http://www.cbsnews.com/stories/2004/04/29/terror/main614638.shtml>
- Knowledge Computing Corporation. (2009). COPLINK [Computer software]. Retrieved from <http://www.coplink.net/overview/.htm>
- Bay Area SUASI. (2009). *Information Sharing (NICRIC) and Infrastructure Protection*. Web Site: Author. Retrieved February 12, 2009, from Bay Area SUASI Web site: <http://www.bayareasuasi.org/infosharing.asp>

- Visiphor. (2005). *Collaborating in Contra Costa County* (A Visiphor Case Study). Vancouver, BC: Author. Retrieved March 06, 2009, from Visiphor.com Web site: [http://www.visiphor.com/assets/baps/casestudies/2005-07-Contra Costa.pdf](http://www.visiphor.com/assets/baps/casestudies/2005-07-Contra%20Costa.pdf)
- Basu, Indrajit. (2008, July 30). Tech Savvy Terrorists Force India to Adopt Hi-Technology. *Government Technology, Online*, 1. Retrieved February 15, 2009, from Digital Communities Web site: [http://govtech.com/dc/articles/382436?utm\\_source=newsletter&utm\\_medium=email/](http://govtech.com/dc/articles/382436?utm_source=newsletter&utm_medium=email/)
- Raines, Claire. (2002). Managing Millenials. In *Connecting Generations: The Sourcebook* (Website ed., Vol. online, p. 1). Author. (Original work published 2002) Retrieved March 08, 2009, from Generations at Work.com Web site: <http://www.generationsatwork/articles/millenials.htm>
- Intel Corp. (2009). *Delivering Broadband On the Go* (website ed.) [Brochure]. Author. Retrieved March 05, 2009, from Intel.com Web site: <http://www.intel.com/technology/wimax>
- Cetron, & Davies, Owen. (2008). 55 Trends Now Shaping the Future of Policing. In Cetron (Ed.), *Proteus Trends Series* (55-policing, pp. 8-11, 117-122). Washington, DC: U.S. Government. Retrieved December 15, 2008, from Proteus USA Web site: <http://www.carlisle.army.mil/proteus/docs/55-policing.pdf>
- ICE. (2008, December 16). ICE Launches New Law Enforcement Information Sharing Service. Message posted to ICE Web Site electronic mailing list, archived at <http://www.ice.gov/pi/newsreleases/articles/080317/sandiego.htm>
- USDOJ. (2009). National Information Exchange Model [Abstract]. *Justice Information Sharing Website, Feb 2009*, 1. Abstract retrieved February 15, 2009, from US DOJ Office of

Justice Programs Website Web site: <http://it.ojp.gov/default.aspx?area=nationalinitiatives&page=1012>

United States Department of Justice. (2008). *The USA PATRIOT Act: Preserving Life and Liberty*. Retrieved March 05, 2009, from United States Department of Justice Website Web site: <http://www.lifeandliberty.gov/highlights.htm>

National Executive Institute Associates. (2000, June). *The Present and Future Use of the Internet by Law Enforcement* (Part One). Salt Lake City, UT: Edward J. Tully and Susan McKee. Retrieved March 06, 2009, from [neiassociates.org](http://www.neiassociates.org) Web site: <http://www.neiassociates.org/pt1internet.htm>

Congressional Reporting Service. (2008). CRS Report for Congress. In Robert A. Best Jr (Ed.), *Sharing Law Enforcement & Intelligence Information: The Congressional Role* (RL33873). Washington, DC: U.S. Government Printing Office. Retrieved March 06, 2009, from <http://www.fas.org/sgp/crs/intel/RL33873.pdf>