CLOUD BASED INTELLIGENCE – WHERE HAVE ALL THE COPS GONE?

BY

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February 2013

COMMAND COLLEGE CLASS 52

The Command College Futures Study Project is a FUTURES study of a particular emerging issue of relevance to law enforcement. Its purpose is NOT to predict the future; rather, to project a variety of possible scenarios useful for strategic planning in anticipation of the emerging landscape facing policing organizations.

This journal article was created using the futures forecasting process of Command College and its outcomes. Defining the future differs from analyzing the past, because it has not yet happened. In this article, methodologies have been used to discern useful alternatives to enhance the success of planners and leaders in their response to a range of possible future environments.

Managing the future means influencing it—creating, constraining and adapting to emerging trends and events in a way that optimizes the opportunities and minimizes the threats of relevance to the profession.

The views and conclusions expressed in the Command College Futures Project and journal article are those of the author, and are not necessarily those of the CA Commission on Peace Officer Standards and Training (POST).

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A deputy sheriff walks the dimly light drab hallway of the sheriff's station. The building is nearly 80 years and it holds tight to the stench of thousands of criminals who have passed through its doors over the many years. The deputy is walking to the briefing room but there will be no traditional briefing. He starts, and ends, his patrol shifts alone. His briefing is automatically customized specifically for him; his assigned beat sent to his digital device of choice. Shifts are staggered for each deputy based on the assessed needs of the total patrol area. He rarely sees other deputies at the office, only seeing them occasionally while they're assisting each other on serious calls. The station itself is generally quiet, even during the busiest parts of the day. Supervisors and support staff have been reduced to about twenty percent of what it was in the recent past. Gone are the days of clerks typing reports, captains reading the newspaper and lieutenants checking the stock market to see how their investments are doing.

Eighty years prior, the County had envisioned the station would eventually go away. This meant nearby cities would eventually incorporate all of the Sheriff's area into their cities, thus eliminating the need for the Sheriff's station. That was accurate for many years, but the opposite has recently happened. During the prolonged financial crisis, neighboring cities were forced into a disincorporation of large "unproductive" sections of their towns to save costs and shift the burden back to the County. This has caused the patrol area for the Sheriff's station to more than double and the population to more than triple.

Far fetched? Not really. The City of San Bernardino is currently in bankruptcy (Lovett, 2013) and members of city staff and council members have floated the disincorporation idea. If it came to pass, the County of San Bernardino would inevitably have handed to it a new and

difficult policing burden. Rather than merely assign deputies to the area and seek to open a new substation, emerging technologies could allow the Sheriff to meet the new patrol needs without significantly adding to staff. The answer for this challenge lies in the Cloud. Let's return to our deputy of the near future to learn more…

The Cloud-Based Police Officer

As the deputy departs the station to start his patrol shift, he is immediately dispatched to try to arrest a homicide suspect. His Mobile Digital Device (MDD) gives the suspect's location as a county park about 5 miles away. Cameras in the park that automatically scan all persons using facial recognition have made the identification of the homicide suspect. The computer software tells the deputy sheriff there is a 95% probability this person is the one being sought. It also provides further information like his most recent photo, complete criminal history, vehicles associated with the suspect, associates and a map of known relatives or associates who live nearby. All this information is provided in real time, automatically and accessed and analyzed on the cloud.

This is a typical call that deputy sheriffs now handle. At one point in time, his station had more than one hundred deputies assigned to it. Now it has less than thirty. Technologies have been developed to offset the lack of manpower at the sheriff's stations. Even using better technology, though, many minor calls and crimes that had been handled by deputies in the past go unanswered. Most citizens submit their own crime reports on the department's web site. Deputies generally investigate only serious felonies; spending most of their time making arrests or tracking down leads generated for them via a vast network of interconnected technology. All

of this information is captured automatically, processed and returned in a usable form from the cloud.

Many older citizens in the community ask where have all the cops have gone. The beginning of the demise of the number of law-enforcement personnel started in the late 1980's into the 2000's, when law enforcement unions gained lucrative contracts with cities and counties in pay, benefits and a 3% at 50 retirement plan. These generous contracts also spread to the fire departments and then to other government workers. The wages and benefits seemed fairly reasonable at the time; however, they were shortsighted.

In 2018 the economy in California and in the nation worsened, these pension systems became increasingly stressed. Cities, counties and the state struggled to pay the wages and benefits of law-enforcement and other personnel. Many cities in California went bankrupt as well as some counties. This in turn caused a drastic reduction in the number of government workers. Law enforcement was hit particularly hard due to the high costs associated with their wages and benefits. The total number law-enforcement officers in the state were reduced by 1/3.

When we consider the ramification of this possible future, we should realize we are well on our way there. In California and many other parts of United States, the seeds of these problems planted years ago are now beginning to bear fruit. On a local level it wasn't just the pay and benefits afforded to public safety that caused these financial problems. It was also the overspending on the parts of local governments and the state of California during the latter half of the 20th century. Just the State of California owes over $617 billion in outstanding bonds, unfunded pension commitments and budget deficit spending (Reuters, 2012). State and local government borrowed vast sums of money in the forms of bonds and the state of California also

engaged in heavy deficit spending (Walters, 2010). On the federal level much of the same thing has occurred but on a much larger scale.

Government Financial Breakdown

In California state and local pensions for individuals are regulated by the 1937 County Employees' Retirement Law (CERL) and the California Public Employees' Retirement System (CalPERS). These laws require money to be set aside for each employee and regulate how each system is run. The Federal government system of Social Security and federal worker retirements eventually draw their money not from a pension fund or monies set aside for them but from current taxpayers (Krasting, 2010). In the long term this cannot be sustained. The federal government also promised many social programs they ultimately will not be able to fully fund.

Medicare and Medi-Cal are heading on a path for insolvency in 2017 as more and more Baby Boomers retire (Farnam, 2009). The new National healthcare program administered by the Federal Government may only quicken the financial problems for Medicare and Medi-Cal (Roy, 2012). The start up and operational costs of these programs were made possible by federal deficit spending (Journal, 2009). Recently foreign investors have greatly reduced their purchases of our debt in the form of Treasury Bills, so the Federal Reserve began purchasing them with money that it created out of "thin air" (Crawshaw, 2012). This scheme is effectively one branch of government purchasing the debt of another branch of government through quantitative easing, the printing of unsecuritized money.

For law enforcement, these fiscal problems will eventually cause a drastic change in the way it operates on a day-to-day basis. It is easy to conceive of a time where the ratio of citizens to officers will necessarily increase dramatically. With all these downward pressures on budgets, law-enforcement will change. Many economists believe we will have a monetary crisis

in the future (McCann, 2011). It could come in many forms, but perhaps the two most likely will be hyperinflation or a worldwide exit from the U.S. dollar. Either scenario will be a devastating blow to government and personal finances. State, county and local governments in California are in no condition to cope with an event of this type.

The Future of Policing-Use Modern Technology Efficiently

The likelihood is that, in the future, law enforcement will have to do more with far fewer personnel. The question for law enforcement will be how to accomplish its core mission with less money, less people and less options. Successful American businesses can be an example for law-enforcement. The private sector has become increasingly more productive through the use of technology in all its forms (Economist, 2011). Law-enforcement in general has always been slow to adapt timesaving and productivity enhancing techniques. Most of the time spent by the average cop during his day is spent in data entry, data retrieval or searching for suspects.

Law-enforcement already possesses much of the technology needed to make their jobs far more productive. The technology, though, is not made into a useful form automatically or leveraged to its fullest ability. An example of this would be the Automated License Plate Reader. ALPRs have become very popular throughout the law-enforcement community; however, they are only used to a small extent of their capability. ALPRs only run license plates against a computer database to show if the vehicle is stolen or has some other stop associated with that vehicle. By simply combining local, state and national records, ALPRs could easily scan license plates, run the registered owner for criminal history and warrants as well as accessing local the databases to see if that vehicle has been stopped anywhere else and who the occupants of the vehicle were at the time of that stop. The occupants of the vehicle at the time of

that stop could also be run for warrants. All this information could be fed back to the cop almost instantaneously through the use of the cloud for computing and storage. The information could be fed back to almost any digital device desired such as a lap top computer, a tablet or a smart phone.

In the past, it has been fairly difficult to blend computer systems together. Individual databases kept by a multitude of agencies often could not speak to one another. This has been slowly changing in recent years and should only accelerate in the future. In order to combine computer programs or databases into one system, computer programmers must spend a great deal of time and effort in order to program an interface that connects the two systems. This is already being done now with systems such as COPLINK and LINX which combine many local law-enforcement databases. In the future, this process has the potential of becoming much easier and faster. This will be made possible when computers will be able to automatically build an interface allowing each program or device to share information (Spector, 2006).

Advances have brought us to the point that all sorts of technology can be blended into a large database and intelligence gathering system. On the cloud, this automated system could potentially provide law-enforcement with vast sums of information that have all been gathered legally. The system could automatically collect, analyze and disseminate relative information instantaneously. By the use of the cloud for collection, storage, mining and analyzing of information, this will eliminate countless hours of wasted time of data entry and extraction. Additionally this will lessen the need for support personnel such as clerks and crime analysts. An operational system such as this could fundamentally change the way law-enforcement works and make it far more productive.

Conclusion

In the global economy, the private sector in the United States was forced to become more productive at each and every level if they were to stay in business. Companies have leveraged technologies of all types to boost productivity (Economist, 2011). Law enforcement is not involved in a global competition for products and services like many businesses. But law-enforcement can benefit from businesses that have increased productivity. Law-enforcement will be forced to become more productive because it is faced with future financial constraints. Many agencies are already feeling the effects of budgetary shortfalls. It is not uncommon in larger agencies for officers not to respond to misdemeanor calls for service or to respond to alarm calls that have not been verified by the alarm company first. This is just the beginning of some of the potential limitations that would be caused by a reduction in law-enforcement personnel.

So what should current law-enforcement leadership do now to prepare for a more automated future? First if your agency has not digitized you need to start. It is very important to have virtually all documents stored digitally in a paperless system. Once a system is digitized it will become far easier in the future to combine a digital system with many or any others. Second begin the process of combining your local database with other surrounding or regional agencies. This is already being done around the country with systems such as COPLINK and LINX. Any agency that has accomplished these two steps will have built a good foundation that will make it far easier to move to automation and the cloud.

After this foundation is built it will be best to take small steps at automation making goals for your agency each year. An example of this could be to combine voice activation and dictation to your digital reports. Another example is to combing ALPR's to access your

combined local systems automatically. Starting with small steps and goals for each year will allow automation technology to progress to the point each step or new goal can become easier and cheaper.

Ultimately when these systems are completely in place an agency could expect to see gins of at least 25% in productivity. This could truly change an agency for the better. For example an agency having 100 sworn personnel with a 25% increase in productivity is like having 125 officers. Or if the number of personnel had to be reduced 75 could do the job that took 100 in the past. If this process starts now, great productivity increases could be realized in the near future within the law-enforcement community. These productivity increases could make up for the lack of funding and make the cops on patrol far more effective.

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