IACP 2012

Law Enforcement in the Age of Cloud Computing

How the Cloud is Revolutionizing the Way Agencies Manage their Digital Evidence

This Whitepaper is a Summary of a Larger Discussion from IACP 2012

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An IACP panel presentation focused on cloud computing and how it relates to law enforcement. This paper depicts leaders who have come to the same conclusion on using the cloud: it is good for law enforcement.

Introduction: Problem and Solution

During IACP 2012, eight leading visionaries in law enforcement discussed the cloud, how they've used it, and their insights about the technology revolution that is on your door step. This white paper focuses on their experiences in IT, and why they think you should consider the cloud.

Speakers

Richard Beary	Robert Davis	Jeffrey Halstead	Frank Milstead
Hadi Partovi	Rick Smith	Tom Streicher	Keith Trippie

IACP 2012 exposed a trending change in law enforcement technology: Using "the cloud." IACP 2012 brought together thought leaders across all areas of law enforcement. This year the event showcased 783 exhibiting companies. Over 14,000 people attended the 5 day conference. A panel of six law enforcement leaders and two cloud technology leaders examined exactly how the cloud revolutionizes the way agencies manage their digital evidence.

Major city Chiefs told story after story about trying to advance their departments' technology. Their results were all frustratingly similar. Their agencies spent millions of dollars and years of resources on the development of tailor-made systems. Most of the time, these systems never even went live. In an age of constrained city budgets and forced labor freezes in many agencies, throwing away millions of dollars on a tech system is more than most can stomach.

Officers are not hired to develop IT systems. They're hired to serve and protect their communities. Let cops get back to the job they love! As Mr. Robert Davis put it, "We were hired to be cops, not IT techs." Farm the IT systems to a company whose sole mission is to provide IT services. Let that company worry about it. Chief Jeff Halstead serves as Chief of Police for the Fort Worth Police Department. His answer to frustrating IT matters was simple:

"How many of you build your own cars? Your own guns? Your own uniforms? We do none of that, and the reason we don't do any of that is because there are experts that can do it."

So why are agencies still trying to build their own IT systems? These Law Enforcement leaders point to the same answer. Agencies need to focus on their priorities: protecting the innocent and catching the bad guys. IT should be the last thing agencies worry about. Their solution? The cloud.
What is the cloud?

What is the cloud? It's sharing pictures online with family and friends. It's your email client and the forum you turn to when your car breaks down. It's tracking your fantasy football league online and your online music library. Most

of us use the cloud every day without thinking twice. Now, visionaries and thought leaders in law enforcement see the benefits of using the cloud for storing digital evidence, too.

Leaders Who've Been Down this Road Before

During IACP 2012, eight leading visionaries in law enforcement discussed the cloud, how they've used it, and their insights about the technology revolution that is on your door step. This white paper focuses on their experiences in IT, and why they think you should consider the cloud.

Mr. Robert Davis, the Senior Vice-President and Managing Director of West Coast Operations and Senior Leadership Council, Hillard Heintze of Chicago, shared a story of an IT disaster that lasted decades. His agency was trying to automate their pen and paper police reports. Mr. Davis recalled, "Let me take you back to the '80's and '90's, as we really began ramping up our use of technology. Our department made a decision to customize a report running software program." Mr. Davis inherited this project and wanted desperately to complete it. In '98 he began working on it with new vendors. He said, "It took a lot of effort when we had that thing back on track but I learned one thing from that process: never ever customize my software again. And we never did as I was Chief at the PD."

Sound familiar? This problem is a major source of pain and frustration at agencies all across the US. Mr. Davis knows you're not alone, but he also knows you now have options when it comes to using IT systems. Mr. Davis touts using the Cloud because "there are lower start-up costs. You're running almost immediately." His experience now lets him see clearly that his time is better spent running an agency than running an IT project.

Chief Milstead, Chief of the Mesa Police Department, endorses using the cloud because his agency's budget simply couldn't handle the million dollar start-up cost of creating an IT system. He said, "We can't do the things we need to do at Mesa PD without leveraging cloud capabilities. We don't have the money. [The Cloud] is a pay as you go system." Chief Milstead cites his officers' newly deployed body-worn camera system as a major advancement for Mesa PD. "There's no way we could have… put the body-borne devices on our officers without leveraging the cloud," he said.

Chief Halstead is the 24th Chief of Police for the Fort Worth PD. His experience led him to share a cautionary tale about using City IT department to create law enforcement systems. His immediate roadblocks included an external IT department, project waiting lists, shrinking IT budgets, and a lack of talented IT software developers. He said, "I'm telling you, the product they deliver will be crap, and I'm just going to be very honest with you." He's a straight-forward man. He lists a myriad of reasons why the product won't be good enough to protect the community you serve, but they all boil down to the security of the evidence database. This is where the cloud really shines. TASER's EVIDENCE.com uses cloud technology to manage all of your digital evidence, and it is 99.999% secure. How many City IT departments can boast 99.999% security?

Chief Tom Streicher was Police Chief of the Cincinnati PD for over ten years. In 1997, over 45 police agencies in the Cincinnati area began working on an integrated IT system for real-time reporting. The agencies wanted transparency and quick communication between departments. Streicher said, "In 2008, 11 years later, we still did not have the product we were looking for." Streicher explained, "We had spent in excess of $15 million trying to build this system. " The project was eventually scrapped. Streicher made the painful realization that even if the system went live, it would be more than ten years obsolete. Cloud based systems like EVIDENCE.com are constantly evolving and being upgraded. When TASER rolls out an upgrade, it automatically appears the next time you log on to EVIDENCE.com. There is no 10 year waiting period for systems to go live. You purchase a monthly subscription, and you're up and running the next day.

Mr. Rick Smith is CEO and Founder of TASER International, Inc. TASER has become a trusted vendor for IT services to police agencies across the USA. TASER's EVIDENCE.com platform allows law enforcement to amass repositories of digital evidence without worrying about the servers "going down." TASER anticipated the incoming wave of digital evidence. Think about how many cameras PDs have now. All of that digital evidence has to go somewhere. EVIDENCE.com provides the storage without millions of dollars in start-up costs. It is a Software-as-a-Service (SaaS) model that means your PD purchases a subscription, and as Chief Tom Streicher put it, "you're up and running the next day." Rick Smith said, "The way I would encourage you, as a Chief, to think about this cloud: it's not as a technology. It's just a different business model." Buying digital evidence space in the cloud is the same as how you currently purchase police radios. You do not build a custom radio and install it in your police cruiser yourself. You contract a company to provide a fully functional radio. Often you negotiate installation into the purchase price. With the cloud, you can now apply that business model to any IT system you may need.

Mr. Rick Smith shared an anecdote about an agency's IT woes. This agency had

134 different major systems. Rick asked them, "How often do you guys update your technology?" Any guesses how often they update their technology? Every five years.

Now think about how fast technology is moving. With cloud, there is no massive technology update that you execute yourselves. Updates automatically load the next time you log on. You may notice a small change to the software, but you will not experience weeks of downtime because of a city-wide update effort. With cloud, you don't build it and run it onsite. That responsibility sits with the vendor. You're not even responsible for discs and manuals. The vendor is responsible for delivering a functional service. The same people that are building that technology are responsible for running it, maintaining it, and delivering it to the agencies.

Richard Beary was Chief of police for the City of Lake Mary, Florida. He cites the energy savings after his agency migrated to the cloud. Energy savings translated into dollar savings for his agency. He said, "You know those big computer rooms you have to build to hold all those servers because everyone had to have a server for their own app? Those are gone. The electricity we're saving alone was worth the investment of pushing some of those servers to the cloud." Some IT advisors say the energy needed to cool a server is equal to the energy needed to power it. Depending on the size of your server room, the electrical cost could be the same as a subscription to cloud software. Forget calculating the cost of the servers! Add insurance? That's thousands of dollars more.

Richard Beary talked about his PD's radio rebanding initiative. He said they've pushed their upgrades to the cloud. The old way to reband agency radios: collect all radios and manually update each one. Police officers are left without radios for the duration of the update. Richard Beary's way: "If there's an upgrade that comes out… when that officer turns the radio back on what happens? Boom, total upload of all that software. We're not transporting radios all over town. We don't have cops out there without the radios."

Mr. Hadi Partovi is an entrepreneur and angel investor. He watched the technological evolution closely. Mr. Partovi said, "We started with Microsoft's vision of computers on every desktop, which back then seemed crazy." Now we take it for granted. "Now," he said, "more than half of all phones being purchased are smart phones, which means within ten years everybody is going to take it for granted that a phone is a very powerful computer." Mr. Partovi sees the most recent technological migration to the cloud. He talks about how simple the software is for an end user: "Every single week they're pushing out a new version. You don't need to worry about it, and you just see a new feature. The simplicity of that for the user, in the ease of managing it, the ease of updating it, and even the ease of learning how to use it, are what makes the internet easier than desktop applications."

Security in Clouds

Mr. Rick Smith tackled the first question on everyone's mind when it comes to the cloud: But what about security? Rick Smith said, "It's pretty rare that somebody hacks through a firewall on some technical patch. The risk is your people. That's where you're breached. Hackers will get somebody's user name and password and find some way to hack your 'people systems.' It's the same thing from your legal perspective. For example, look at the OJ trial. Did the defense go after DNA technology to convince the jury they couldn't rely on the technology? No. They went after the people. They said we don't know that the officers didn't tamper with the blood samples in some way."

Mr. Rob Davis gets to the core of the issue, explaining that with the cloud, your information is actually more secure. He said, "Depending upon your setup, there could be a lot of people in your agency that just waltz into the area where those file cabinets are held and work their way through that file. They can take a look. Take pictures of things, etc. It's a whole lot better, it's more secure, to have a system recording digital fingerprints for the people who touch that file."

Conclusion

The thought-leaders and authority figures who discussed cloud computing during the panel presentation at IACP 2012 all came to the same conclusion. The cloud is good for law enforcement. These men know from experience that their agency is much better at policing than at developing IT systems. Keep focusing on protecting your community. Let IT vendors provide systems for you. Don't become a digital storage office. Become a cloud office. You'll be up-and-running faster, your costs will be fixed, and your officers can stay out on patrol, doing what they were trained to do.

If nothing else, take a lesson from Tom Streicher. His agency invested $15M and over a decade of time into a system that never went live. That is a horror story worthy of being told around a campfire. Don't build it yourself! Leverage those who have the experience to make secure servers, and stay within your budget.