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Final Copy of Case Study

Status:
Laureate

Year:
2013

Organization Name:
City of Richmond (VA), Department of Information Technology

Organization URL:
www.richmondgov.com

Project Name:
Automated Secure Alarm Protocol (ASAP)

Please select the category in which you are submitting your entry:
Safety & Security

Please provide an overview of the nominated project. Describe the problem it was intended to solve, the technology or approach used, how it was innovative and any technical or other challenges that had to be overcome for successful implementation and adoption. (In 300 words or less.)

The problem solved was the unreasonable time required to process a new alarm event during the handoff process from the alarm monitoring company operator and the 911 call-taker. All 911 PSAPs require their 911 call-takers to answer 911 telephone calls first. This causes a delay in the alarm company's telephone call, which rings on a 7-digit number, from being answered in a timely manner when the 911 center is inundated with calls from the public. Once the telephone call is answered, the 911 call-taker can be interrupted with a new 911 call and will place the alarm operator on hold for several minutes. Once the call is finally answered by the 911 call-taker, differences in cultural accents often create confusion in the understanding of the correct street name, the address number, and the nature of the alarm event. The verbal exchange of new alarm event information between

humans can easily consume two to three minutes or more resulting in an increased response time by first responders. Often, these misunderstandings evolve into mistaken dispatches to the wrong address and sometimes the wrong emergency first responders are dispatched with tragic consequences including loss of life. The Automated Secure Alarm Protocol (ASAP) project, an American National Standard that conforms to XML and National Information Exchange Model standards, removes these points of failure. Total processing time from the moment that the alarm company operator initiates a "Send to PSAP" command, is less than fifteen seconds before first responders are dispatched. Furthermore, high priority alarm events, such as hold-up and panic alarms are instantly forwarded to Mobile Data Computers (MDCs) in the police vehicles. The reduction in processing time of two to three minutes or more results in a decreased response time by public safety first responders.

When was this project implemented or last updated? (Please specify month and year.) Has it incorporated new technologies and/or other innovations since its initial deployment? (In 300 words or less.)

The project was last updated in April 2012. A new Message Broker server managed by the Central Station Alarm Association (CSAA) became operational in the production environment. Following required modifications to Richmond's CAD system, the City of Richmond Police Department's Division of Emergency Communications and Vector Security, two of the three original ASAP pilot participants, migrated to the CSAA Message Broker officially at 1:00 p.m. eastern time on Monday, April 16, 2012 becoming the first 9-1-1 communications center and alarm company respectively to implement the exchange of ASAP data via the Message Broker. Dozens of law enforcement, fire and emergency medical alarm notifications and subsequent update messages were initiated between the two entities seamlessly and without incident. These two agencies were also used to test the development of the Message Broker application. The Message Broker is a combination of hardware and software intended to perform a middleware function between Nlets (The International Justice & Public Safety Network) and the alarm monitoring companies that want to take advantage of the Automated Secure Alarm Protocol (ASAP). The Message Broker performs error checking and ensures that the transmissions from the alarm monitoring companies are properly formatted before sending the message to Nlets for subsequent forwarding to the appropriate state control point and ASAP-participating 9-1-1 communications centers, also-known-as Public Safety Answering Points (PSAPs).

Is implementation of the project complete? If no, please describe the project's phases and which phase the project is now in. (In 300 words or less.)

The first phase of the project is complete and has expanded to additional alarm companies and 9-1-1 communications centers. Following the City of Richmond's lead is the City of Houston, Texas, Washington DC, the City of Tempe, Arizona, and James City County, Virginia. The project on the 9-1-1 PSAP side is entering and has been prepared for phase 2 but the alarm industry has not finished engineering phase 2 for alarm monitoring companies. Phase 2 will enable alarm monitoring companies to send a URL to the 9-1-1 communications center containing the hyperlink to a video server. The hyperlink will navigate to the same video surveillance for the 9-1-1 dispatchers that the alarm monitoring company can see when an actual crime is in progress.

Please provide at least one example of how the technology project has benefited a specific individual or organization. Feel free to include personal quotes from individuals who have directly benefited from the work. (In 300 words or less.)

The City of Richmond's CAD system has received more than 17,000 alarm notifications from alarm monitoring companies. One purpose of the new standard pioneered by Richmond is to eliminate the telephone calls from the alarm companies and allow the 911 call-takers to allocate more time to citizens calling 911. There is a de facto standard, whereby all 911 centers are expected to answer at least 90% of incoming 911 calls within ten seconds. Many PSAPs across the United States are not able to meet the de facto standard because of shortages in staffing and an increasing volume of 911 calls. The alarm interface reduces the call volume to PSAPs from alarm companies and thus allows the PSAPs an increased opportunity to meet the de facto standard. The ANSI standard and the Richmond model may be helpful for those localities that have been mandated to reduce staff. All electronic exchanges delivered to Richmond have been free of errors. There have been no mistaken dispatches for any alarm event received via the data exchange. There are at least two documented cases when the police arrived on the scene of a burglar alarm that was delivered to Richmond's 911 center via the data exchange only to find the perpetrator still on the premises. An apprehension was made in both incidents. Another success story comes from the Houston Emergency Center (HEC) in Houston, TX. David Cutler, HEC Director, reports a reduction in the HEC's telephone call volume by roughly 13% and 10% fewer alarm notifications that must be processed by a call-taker. Like Richmond, Houston has benefited from the apprehension of burglary suspects because of a quicker response made possible by the ASAP project.

Would this project be considered an innovation, a best practice or other notable advancement that could be adopted by or tailored for other organizations and uses? If yes, please describe that here. (In 300 words or less.)

The innovative project includes not only best practices, but centers around an American National Standard that was pioneered by the City of Richmond, VA, York County VA, and Vector Security. The project has expanded to at least two other alarm monitoring companies including San Antonio-based United Central Control and Dallas-based Monitronics. At least 75 additional alarm companies have signed up to participate over the next year. Five of those alarm companies are actively developing their interface products. On the public safety side, following the City of Richmond's lead is the City of Houston, Texas (4th largest PSAP in the United States), Washington DC, the City of Tempe, Arizona, and James City County, Virginia. The ANSI-standard will work for any 9-1-1 PSAP, no matter how small or large. It will work for a 9-1-1 PSAP that is staffed with a single staff member and it will work for very large PSAPs including New York City and Chicago. The ASAP project is a one size fits all. The ASAP standard is available to over 6,500 PSAPs in the United States and alarm monitoring companies, and the software providers who provide Computer-Aided Dispatch (CAD) software and alarm monitoring company applications. Software providers no longer need to write customer interfaces to achieve the end result that this standard provides, and their customers (PSAPs and Alarm Monitoring Companies) no longer need to pay for custom interfaces. The software providers only need to write a software interface one time, which can be reused across all customers.

If there are any other details that the judges should know about this project, please note them here. (In 300 words or less.)

Additional quotations based on the Washington DC implementation of the ASAP Project on October 26, 2012: "ASAP is another tool, coupled with other programs implemented by the OUC, in our continuing efforts to provide quality public safety communications services for the citizens of the District of Columbia," said the OUC's Director, Jennifer Greene. Stephen Williams, the OUC's Chief Operations Officer, states that calls generated via ASAP are managed more accurately due to the reduction of miscommunication. "It will help reduce the workload of the 9-1-1 call takers, allowing them to focus more on handling emergency 9-1-1 calls from our citizens," continued Williams. Hyperlinks to articles written about this project: http://psc.apcointl.org/2012/12/21/district-of-columbia-implements-new-asap-alarm-response-program/
http://psc.apcointl.org/?s=HOUSTON%E2%80%99S+NEW+ALARM+RESPONSE+PROGRAM+PROJECTS+ANNUAL+SAVINGS+OF+%241-2+MILLION
http://www.govtech.com/public-safety/Houston-Streamlines-Security-Alarm-

Notifications-911.html http://www.securitysystemsnews.com/article/ul-intertek-announce-support-asap http://psc.apcointl.org/2011/08/02/automated-secure-alarm-protocol-reduces-9-1-1-processing-responses-times/ http://psc.apcointl.org/2011/12/13/asap-makes-a-difference-in-houston-burglary/ http://psc.apcointl.org/2012/01/26/asap-to-psap-a-preview-of-phase-ii/ http://psc.apcointl.org/2012/02/28/asap-to-psap-alarm-monitoring-companies-lining-up/