

Innovation Award Application 2014



AUTOMATED SECURE ALARM PROTOCOL (ASAP) MESSAGE BROKER SERVICE

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Describe the Program/project/ product/ service innovation:

The Automated Secure Alarm Protocol (ASAP) program (formerly known as the External Alarm Interface Exchange) is an ANSI-standard that conforms to the National Information Exchange Model (NIEM). The ASAP program is designed to remove multiple points of failure and the unreasonable time required during the traditional exchange via telephone of alarm notifications between alarm monitoring central stations and 9-1-1 Public Safety Answering Points (PSAPs). The problems associated with the traditional telephone calls are obvious. All 9-1-1 call-takers are required to answer 9-1-1 calls first. This causes a delay in answering the alarm monitoring central station’s telephone call, which rings in on a seven digit number, when the 9-1-1 center is inundated with 9-1-1 calls. Once the telephone call is answered, the 9-1-1 call-taker can be interrupted by a new 9-1-1 call and may place the alarm operator on hold for several minutes. 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 2-3 minutes or more resulting in an increased response time by first responders. Too 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.Through the use of the ASAP program, the total processing time from the moment that the alarm company operator initiates a “Send to PSAP” command until first responders are dispatched, is less than 15 seconds. The reduction in processing time of 2-3 minutes or more results in a decreased response time by public safety first responders. Measurable goals include: (1) Reduce the number of telephone calls between alarm monitoring central stations and 9-1-1 PSAPs, (2) Reduce miscommunication and mistakes made by eliminating the verbal conversation between alarm monitoring central station operators and 9-1-1 call-takers, (3) Reduce 9-1-1 processing time which equates to an equivalent reduction in response time by emergency responders offering a likelihood in an increase in law enforcement apprehensions made, fires more quickly extinguished with minimal loss, and more lives saved for patients who have experienced a life-threatening medical emergency, all due to a quicker response.

Short description of the importance, internal impact, and community benefits:

The ASAP program frees 9-1-1 call-takers from having to receive alarm notifications from alarm monitoring central station operators via telephone, and provides 9-1-1 call-takers more dedicated time to deal with 9-1-1 callers. In Richmond, not one single mistake or miscommunication between 9-1-1 staff and alarm monitoring central station operators has occurred with any of the 22,000+ alarms received via the ASAP Service. The ASAP program has reduced the volume of telephone calls from alarm monitoring central stations, reduced 9-1-1 processing time and response times. Alarms are received and dispatched within seconds and public safety resources arrive much faster as a result of the reduced 9-1-1 processing time. Cases of law enforcement apprehensions achieved as the result of an expedited response made possible by the ASAP program have been documented. The ASAP program enables an increase in citizen satisfaction through faster responses by public safety.

What makes this a quantum leap of creativity?

The ASAP project provides an automated method for the rapid exchange of data between alarm monitoring central stations and 9-1-1 PSAPs. The project became necessary as a solution to the often problem-prone method of delivering alarm notifications via telephone. The project has provided an environment where telephone calls between participating alarm monitoring central stations and 9-1-1 PSAPs are no longer necessary. The tens of thousands of data exchanges to date have been error free without concerns about transposed street numbers or misspelled street names. Agencies using the ASAP program have experienced a reduction in telephone calls from alarm monitoring central stations and reduced 9-1-1 processing times resulting in reduced response times.The ASAP project is an outstanding public/private partnership between 9-1-1 emergency communications centers and the alarm industry resulting from collaboration between the original pilot agencies. The City of Richmond is known nationally throughout the public safety community and the alarm industry for its success as an original pilot site and on-going leader in full production ASAP activities. The program can be easily adopted by other local governments.

Who benefits?

The ASAP program benefits public safety, the alarm industry, citizens and businesses. Public safety reaps the benefit of having the most accurate and concise information possible when responding to an alarm call-for-service. The alarm industry is able to deliver alarm notification data to the 9-1-1 PSAP within seconds without fear of having to encounter a verbal communications error with the 9-1-1 PSAP’s call-taker. Alarms are dispatched efficiently and effectively to public safety responders by the 9-1-1 communications center staff, to the correct address each and every time. The ASAP program is a one-size-fits-all ANSI-standard solution that is non-vendor specific. CAD providers simply develop an interface solution once based on the ANSI-standard and then market the product to 9-1-1 PSAPs. All alarm industry automation providers have a working solution available for alarm monitoring companies.

How was the program/project/product/service initiated and implemented?

The ASAP program underwent a major enhancement in 2012 with the addition of a Message Broker Service, piloted by the City of Richmond and Vector Security. Nlets (the International Justice & Public Safety Network) is used as the transport layer, connecting all 50 state control points nationwide. Each state control point connects most 9-1-1 PSAPs in each state. Following the connection of the first three alarm companies to Nlets, the Nlets administration quickly realized that it could not support the potential connection of 300-600 alarm companies nor the cost of $3,000 to inspect each alarm company facility. The Nlets administration recommended that the CSAA develop an ASAP Service Message Broker to fulfill the CSAA’s requirements. The Central Station Alarm Association (CSAA) developed a Message Broker that today accommodates all connections to participating Alarm monitoring central stations and passes all ASAP traffic to Nlets for forwarding to the 9-1-1 PSAPs. The first three alarm companies to operate in a production environment with Richmond, Houston, and York County were directly connected to the Nlets message switch. Through the implementation of the CSAA-managed ASAP Service Message Broker, Nlets has been relieved of the responsibility of inspecting each alarm company’s site for physical security, the presence of written security policies and procedures, and relieved of a potential $1,000,000+ financial risk. This responsibility has been shifted to the CSAA. Nlets does require that the security of the ASAP Service Message Broker meet all Nlets and FBI requirements. The City of Richmond was instrumental in overseeing the updating of the ASAP schema and has taken responsibility for certification testing for alarm companies newly connected to the ASAP Message Broker Service. The City of Richmond was the beta test site during the development of the ASAP Message Broker Service and subsequent testing before being the first 9-1-1 PSAP to go live into production with the ASAP Message Broker Service.

What risks were taken?

Buy-in by the alarm industry and 9-1-1 PSAPs alike was an initial concern. However, because of the success of the pilot project between the City of Richmond and Vector Security, coupled with the project achieving American National Standard status, additional 9-1-1 PSAPs and alarm monitoring central stations alike have joined the program. The program continues to expand in a positive direction.

What, if any were the costs and/or savings?

The costs to the City of Richmond were minimal. An initial investment of less than $20,000 in information technology labor costs was made whereas the project has facilitated approximately a $25,000 annually in soft cost savings for the City of Richmond. Following the City of Richmond’s lead, the City of Houston also implemented the ASAP program and been able to reassign staff that have been dedicated to answering non-911 telephone calls, resulting in a potential hard savings of approximately $1 million. Even more important, but difficult to measure monetarily, is the life and property savings generated as a result of a faster response by public safety.

What are the lessons learned that other local governments can learn from?

1. The ASAP program will work for most local government public safety communications centers that utilize a Computer-Aided Dispatch (CAD) System provided that the CAD vendor has either developed an ASAP interface solution or is willing to develop the interface. (2) Some CAD providers may favor their newer generation CAD system as ASAP program candidates but may not invest in an ASAP interface for the older legacy CAD systems. PSAP representatives should contact their CAD provider to determine the availability of an ASAP interface for the CAD system in use at the PSAP. (3) Not all state control points have modified the state message switch to allow ASAP traffic to pass. Each state control point is managed typically by the state’s law enforcement criminal justice authority such as the state police or highway patrol. Whereas an increasing number of states have configured their message switches to pass the ASAP traffic, a smaller number have not. PSAPs having an interest in the ASAP program may email support@csaa-asap.org to determine the current status of their state control point. (4) PSAPs will need to assign a liaison to work with the alarm monitoring companies for coordination purposes to ensure that alarm location addresses have been verified properly and agreement between the alarm monitoring central station and the 9-1-1 PSAP concerning the use of event types. (5) With the proper planning and execution, the ASAP program will work well for the PSAP.

What department and/or individual(s) championed the innovation? If a contractor was used, please list the name and their contact information.

The ASAP Message Broker Service was co-championed by the City of Richmond, Department of Information Technology, Public Safety Team, and the Central Station Alarm Association. The City of Richmond led the development of the ASAP program to accommodate the Message Broker Service, testing of all alarm monitoring companies joining the program, as well as assisting 9-1-1 PSAPs and Computer-Aided Dispatch providers with technical information. Bill Hobgood leads the Richmond Team and can be reached at (804) 646-5140, email address bill.hobgood@richmondgov.com. The CSAA led the development of the Message Broker which is managed by the CSAA. The CSAA’s contacts are Pam Petrow, President & CEO for Vector Security, telephone number (724) 741-2201, email address pjpetrow@vectorsecurity.com and Ed Bonifas, Vice-President for Alarm Detection System Inc, telephone number (630) 844-5310, email ebonifas@adsalarm.com.

Any additional information you would like to share?

In addition to the City of Richmond, the City of Houston TX, Washington DC, James City County VA, and Tempe AZ are participating in the ASAP program. Additional PSAPs in North Carolina, Florida, California, and Alabama have contracted with their CAD providers to implement the ASAP program. Participating alarm companies include Vector Security, United Central Control, Monitronics, SafeGuard, Rapid Response Monitoring, RFI, National Monitoring Center and Affiliated Monitoring. Other alarm companies currently testing include ADT and Protection One. Thirty alarm companies recently signed contracts with the CSAA to participate in the ASAP program. Current ASAP-related traffic volume counts: (1) The City of Richmond has received over 22,000 ASAP notifications. Of all alarms received, 78% are burglar alarms, 15% are fire alarms, 6% are hold-up/panic alarms, and medical alarms account for less than 1%. There are at least four documented cases when the police arrived on the scene of a burglar alarm that was delivered to Richmond’s 9-1-1 center via the ASAP program where the perpetrator was still on the premises and apprehended. Richmond is generating a $25,000 annual savings in soft costs through the use of the ASAP program. (2) The City of Houston has received over 18,000 events and has processed over 80,000 address verifications based on transmissions received via the ASAP program. Of all alarm notifications, 95% are burglar alarms. Houston has experienced a 15% drop in the telephone call volumes to Houston’s 7-digit non-emergency lines and a 13% drop in the number of alarm notifications that are handled 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. As a result of ASAP and as the program expands, Houston has been able to reassign staff that have been dedicated to answering non-911 telephone calls, resulting in a potential hard savings of approximately $1 million. (3) Washington DC’s Office of Unified Communications has received 10,000 ASAP transmissions since going live on October 26, 2012. 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/>