

LAW ENFORCEMENT TECHNOLOGY

COMMUNICATIONS SPOTLIGHT



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The opportunity exists to deploy a new 911 network that enables the automatic delivery of information to the right officer at the right time.

Next generation 911: A force multiplying technology

It is early afternoon. A 911 call comes in about a barking dog. While not an appropriate call for 911, this is a regularly occurring situation. The jurisdiction's standard response is to dispatch a

code enforcement officer. Maybe it is just a barking dog. Maybe it's something much more.

Public safety communications centers serve the vital function of receiving 911 calls and dispatch-



ing emergency responders based on the information available for each reported event. The common occurrence of a barking dog serves as a perfect example to highlight the opportunity for the public safety communications infrastructure to expand its ability to access and distribute more information directly to officers in the field. Providing law enforcement with more information automatically, at precisely the right time, acts as a force multiplier to improve emergency response and better protect officers in the field.

Current climate

The current enhanced 911 (E911) system allows for a caller to receive the caller's address and phone number as well as high level responsible agency information. Depending upon a jurisdiction's technical sophistication, there may be additional information stored in the communication center's computer aided dispatch (CAD) and associated systems. This information is then used to determine which law enforcement, fire or medical responders to dispatch.

A dispatcher typically relays pertinent information by voice over the radio to the appropriate officer in the field. Depending on a law enforcement agency's technical capabilities, there may be mobile data terminals (MDTs) or laptops in an officer's vehicle that can receive data. But in the cur-



Remnant of a trailer destroyed after a meth lab explosion and fire.

rent operating environment, voice radio is the most prevalent means of getting information to officers in the field.

Expanding capabilities

While the nation's 911 network is the best in the world and the transmission of information by voice radio has proven to be effective, there is an opportunity to leverage the 911 network — a network that often sits idle, waiting at the ready for 911 call traffic — to do much more than solely connect a 911 caller to a 911 caller. As the next generation of 911 evolves, such a network can continue to support the existing emergency public access role, while also facilitating interagency and intra-agency critical database access and the automatic delivery of contextually appropriate information to officers in the field. Such timely information will help keep officers out of harm's way and help resolve an unfolding situation faster, with the use of fewer

resources than previously possible. More officers can be out on the street, armed with the useful and right information they need to better and more safely do their jobs.

The opportunity exists to deploy a new 911 network that enables the automatic delivery of information to the right officer at the right time, while providing responding officers with a readily available and secure means to share information with each other. A secure emergency services delivery platform based on Internet protocol (IP) designed to meet the same public safety class standards of security, reliability, performance and availability as the current 911 network, can make this a reality.

To demonstrate how this is possible, let's return to our barking dog scenario. During the call to 911, the caller provides the address of the barking dog and, in this case, nothing more. The caller tried to get more informa-

tion but the caller was reluctant or unable to provide it.

Armed with the address, the intelligent emergency network technology-based 911 system serves as an information hub. The address reported is scrutinized by the system, which alerts dispatch and other responders based on local policy, to pertinent information about the residence and its occupants. Such information is not automatically provided through the current 911 infrastructure. In this case, the network recognizes and reports back that one of the occupants was picked up moments ago during a routine traffic stop. An outstanding shoplifting warrant led to his arrest, and now he is en route to the county jail.

Information about the unfolding incident at the arrestee's address is automatically transmitted to the arresting officer who proceeds to question the suspect. The suspect confirms that he does live at the address in question and in passing mentions that he may have left something cooking on the stove when he left the residence. No one else was at home and he thought he would only be gone for a few minutes. Noting concern in the suspect's voice, the officer questions him further and is able to determine that what was left cooking was a batch of methamphetamine.

Concurrently, this new information is provided through the

911 network, causing dispatch to cancel the code enforcement officer and dispatch appropriate law enforcement and other emergency responders. Based on the new information, a search warrant is obtained for the property. When

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SWAT arrives, they enter the residence, and confirm it is empty and the existence of an operating meth lab. Officers begin the process of securing the scene and gathering evidence. The suspect in custody is processed on meth lab charges in addition to the shoplifting warrant.

Intelligent system for dynamic situations

The intelligent emergency network-based 911 system was able to help get relevant information in the hands of law enforcement continuously throughout the 911 event. The system supported not only the initial public request for service but also the needs of a dynamic situation. What was originally thought to be a routine barking dog call was really a much more dangerous situation that officers were able to proactively respond to based on

contextually appropriate, automatically provided information.

The expanded capabilities of the 911 infrastructure assured the information provided was not only relevant but, in this case, timely and vital to formulating an effective emergency response. Law enforcement was able to place seemingly unrelated incidents (a barking dog, traffic stop and outstanding warrant) into context, helping connect the dots faster and engendering a more effective response, without inadvertently putting any officers or the public at risk.

Certainly in this scenario, law enforcement might have been able to arrive at the same conclusion working within the informational limitations of the current operating environment. With enhanced technology, the primary difference is the length of time, level of risk and additional overhead associated with effective response. Alternatively, the meth connection may not ever have been made. The suspect may have bonded out from jail not to be seen again, or maybe the code enforcement officer dispatched for the barking dog would have been at the doorstep of the residence as the meth lab exploded.

A fully integrated emergency services delivery platform is not simply a matter of converting traditional wireline 911 and other systems to IP-based systems and then transferring data traffic from

these systems through non-integrated application layers. While the infrastructure upgrade is a key step, what is more critical to making the scenario described here a reality is that the infrastructure, which automatically delivers this new information to law enforcement, must be designed, integrated, operated and maintained to the public safety class standards demanded of any life-safety application.

Nothing makes the point more clear than comparing the consistency with which traditional phone service is available to the

frequency with which Internet or e-mail outages occur. A robust, IP-based, next-generation 911 network must allow for the same 24/7/forever — never offline operational — testing and support criteria realized by the current 911 network.

A public safety class IP-based emergency services delivery platform can be a force multiplier for law enforcement. Leveraging multi-capable 911 infrastructure to serve as an information hub, automatically retrieving and delivering contextually appropriate information directly to

officers in the field and communications center personnel, can help resolve situations more efficiently and more safely than is currently possible with the legacy 911 network. ■

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About Intrado Safety and Security Solutions

For over two decades Intrado has pioneered the delivery of safety and security solutions, with the 9-1-1 network as the most prominent example.

Intrado helps telecommunications carriers and federal, state and municipal public safety organizations increase efficiency and decrease the time and complexity associated with meeting their 9-1-1 obligations.

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