



When Seconds Count

Enabling NG911 Dial-Out to Get the Right Help to the Right Location

In any emergency, first responders need accurate, actionable and instantaneous information to deploy appropriate resources. Next-generation 911 (NG911) helps pinpoint callers' exact location and allows them to share images, texts, medical sensor data and other potentially life-saving details that cannot be shared via traditional voice-only 911 calls.

For offices and organizations — including state and local government agencies — that means adopting enterprise-wide NG911 “dial-out” capabilities. By providing comprehensive notification capabilities, zeroing in on a caller's location and using near real-time data to add context, NG911 allows organizations to better protect their employees, visitors and anyone else who might be under their wing when a crisis hits.

While the seeds of NG911 were planted years ago, its implementation is more important now than ever. The following trends and challenges are accelerating the need for enterprise NG911 dial-out capabilities:

Compliance requirements. Recent federal regulatory changes have impacted 911 systems. Kari's Law, which took effect in February 2020, requires that callers in multi-line telephone systems (MLTS), such as in offices or hotels, can dial 911 directly without first entering a prefix. The law also requires a system to alert onsite personnel that a

911 call has been made, helping ensure people are ready when first responders arrive.

But the biggest legislation currently impacting customers is RAY BAUM'S Act, which takes effect January 2022. It requires a “dispatchable location” to be conveyed to 911 call centers regardless of the device used. This means the location must include a valid street address plus additional information such as the building, floor or office number of the caller.¹

Increasing number of mobile devices. Today, with more than 80 percent of 911 calls coming from a mobile phone,² agencies may miss emergency calls if their communications systems don't integrate with these devices.

People on the move. Despite sprawling campuses, hybrid work and field work (such as road crews and social workers), agencies must be able to notify employees about emergencies and identify the location of 911 callers regardless of where they are.

MLTS deployed by function, not location. The IP networks that support MLTS in government agencies are often deployed by function, not physical location, making it even more difficult to track a caller's location as they move from one area to another. In addition, MLTS phones often use a common number that only reports the agency's main street address rather than a caller's specific location.

A SMARTER EMERGENCY RESPONSE

An enterprise NG911 solution prepares organizations to take full advantage of NG911 capabilities by simplifying emergency communications across the enterprise and providing first responders and stakeholders with near real-time contextual information about the location of the incident.

A rapid mass notification system enables an agency's crisis response team to communicate efficiently, securely and swiftly with all stakeholders affected by or involved in emergency response. With the touch of a button, staff can alert the public safety access point (PSAP); lock down building entry points if needed; and transmit pre-recorded or pre-scripted emergency information and instructions to in-building employees and other occupants via voice, IP phone, text or email. Staff can keep remote and onsite stakeholders informed throughout a crisis, and they can collaborate one-on-one or via a conference bridge with crisis management leaders regardless of their location, device or contact channel.

In some emergencies, individuals unaffiliated with crisis management may need to make a 911 call. If 911 callers are using an MLTS, they can reach 911 directly without having to dial a prefix. At the same time, if anyone calls 911 from a cell phone within the campus environment, the enterprise system immediately notifies the agency's crisis management team.

Location discovery capabilities are a critical component of rapid response, especially when communications occur over IP lines that are not associated with a physical address. Accurate location discovery is also required for compliance with RAY BAUM'S Act.

NG911-specific additional data repository (ADR) technology helps pinpoint a caller's location by tracking, collecting, and correlating static and dynamic location information from the user's wired or wireless device. The ADR continually updates the repository as it moves — whether that's within a building, across agency campuses or at a remote work site.

The ADR also provides real-time medical sensor data and other health information about specific users (if they have opted into the system), interactive floor plans, and the location of safety and medical apparatus. If the agency's ADR solution is integrated into the RapidSOS ADR (the predominant ADR in the United States), all of its ADR information is also made available — in near real-time — to practically any PSAP in the United States. For example, if an office worker dials 911 because

a coworker is having a heart attack, the nearest PSAP can access digitized floor plans from the agency's RapidSOS-integrated ADR to quickly locate the nearest external defibrillator device and provide first responders with a visual representation of exactly where to find the patient.

In the case of mass disasters or other large-scale events, up-to-the-second location discovery data also helps determine where employees and other individuals are in relation to the event. This capability has become increasingly valuable as portions of the workforce move to remote or hybrid work scenarios where their location changes day to day.

GETTING STARTED

To get started on an enterprise NG911 initiative, emergency response managers should first identify data that exists digitally or could be digitized to support emergency response. That could include floor plans; the location of fire extinguishers, medical equipment and first-aid supplies; employees who may need special assistance during an evacuation; employee medical information; and employee emergency contact information.

Then, enlist a vendor with expertise in next-generation communications and emergency response to ensure the solution incorporates best practices; integrates seamlessly with existing applications and systems; and meets the highest standards of security, compliance and availability.

When considering investments in crisis management technology, government leaders rightly weigh the probability and impact of various crises. While some risks are greater than others, emergencies are inevitable and the price of being unprepared can be very high. In a National Safety Council report, public sector employees accounted for 28 percent of nonfatal injuries and 21 percent of workplace fatalities.³

With today's advanced enterprise NG911 dialing solutions, agencies can cost-effectively enable rapid, location-sensitive emergency notification for arguably the most important call a person may ever make.

This piece was written and produced by the Center for Digital Government Content Studio, with information and input from Avaya.

Endnotes:

1. Federal Communications Commission. Multi-line Telephone Systems – Kari's Law and RAY BAUM'S Act 911 Direct Dialing, Notification and Dispatchable Location Requirements. Accessed June 2021. <https://www.fcc.gov/mlts-911-requirements>
2. NENA. 911 Statistics. Accessed June 2021. <https://www.nena.org/page/911Statistics>
3. National Safety Council. Injury Facts. Accessed May 2021. https://injuryfacts.nsc.org/all-injuries/overview/?utm_campaign=Injury+

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