

Location: Butler County, IA

Product: MAX Call-Taking

Zetron's MAX Call-Taking Integrates 9-1-1 Text and Voice on One Console

The updated MAX Call-Taking system at the Butler County, Iowa, 9-1-1 center not only accepts Text-to-9-1-1 messages, but allows dispatchers to take both text and voice calls on the same console.

In early 2016, a news report [1] highlighted the value of Text-to-9-1-1. A deaf woman in Georgia had come upon two children—about two and five years of age—alone and locked in a car in a mall parking lot. The woman was unable to make a 9-1-1 voice call, so she tried texting her local 9-1-1 center. Thanks to the fact that agency is an early adopter of Text-to-9-1-1 functionality, an operator was able to take the call and immediately dispatched help to the scene. As a result, the children, who'd been in the car for nearly an hour, were rescued, unharmed.

All was well that ended well. But this incident illustrates why the push is on for public safety answering points (PSAPs) to equip themselves with the Next-Generation 9-1-1 technologies necessary to accept text messages over their emergency 9-1-1 call-taking systems. Texting is an important option not only because it has become an increasingly popular means of communication, but it might be the only viable solution when a caller is hearing or speech impaired or in a situation where it's unsafe to make a voice call.

Next-Generation 9-1-1 technologies are the path to a future that will support both text and voice messages, and eventually, images, video, and other data as well. That future is rapidly approaching, and Zetron and its reseller, RACOM, are already a part of it. Together, they recently updated the Butler County, Iowa, 9-1-1 center's existing MAX Call-Taking to an integrated solution that not only accepts Text-to-9-1-1 calls, but supports Text-to-9-1-1 over the region's new Emergency Services IP Network (ESInet).

A critical feature of MAX Call-Taking is that, unlike other systems that rely on web-based technology to deliver text messages over a separate console, MAX Call-Taking accepts Text-to-9-1-1 messages on the same console as a voice call. This saves space and greatly simplifies call-takers' ability to handle both emergency voice and text calls.

Finding a site

The project began when RACOM decided that, given the current trends in public safety, it would behoove them to implement updated Text-to-9-1-1 functionality on one of their key products, Zetron's i3 NG9-1-1 MAX Call-Taking system.



They began looking for a PSAP that was already using MAX Call-Taking on an i3 network, had a next-generation recorder able to record screen shots during a text session, and was SIP-enabled so users would be able to take calls over a computer microphone and speakers or headset. They also sought a relatively small PSAP that did not have heavy call volumes. This would help ensure that if it became necessary to reroute calls to another center, doing so would not overburden the center accepting those calls. Last but not least, the PSAP would have to be willing and able to participate with RACOM and Zetron in the effort. The 9-1-1 center in Butler County, Iowa, met these criteria, point for point. It was chosen for the project.

Project prep

RACOM service manager Clint Schlabaugh explains how they prepared Butler County's existing MAX Call-Taking solution for the project's required updates and testing. "We added a single, standalone server to cover the text functionality," he says. "We used a single-space rack server that houses multiple server modules in a single chassis. They're often used to save space and improve system management. We also upgraded the software of their MAX Call-Taking system."

The server was shipped to RACOM and installed at the Butler County 9-1-1 facility the following day. Thanks to the single-rack server's efficient size, finding a space for it was not difficult. In addition, because the equipment could be integrated simply through a set of standard Ethernet cables, RACOM was able to complete the installation quickly. The existing MAX Call-Taking system was subsequently updated with another software revision, and the new text server was implemented. Testing then got underway.

“Text-to-9-1-1 is fully integrated into and comes as a package with the MAX Call-Taking system we’re already using..[T]his capability puts us in a position to handle other kinds of message formats as 9-1-1 capabilities continue to evolve.”

Jason Johnson
Sheriff, Butler County, IA

Verifying calls

First on their list for testing was the verification of i3 voice calls. They then went on to test the new integrated text functionality.

“When you take a system that’s on an i3 network and start running it through its paces in a live situation, you can’t be absolutely sure what’s going to happen,” says Schlabaugh. “We tested the solution with five or six major carriers. This included checking a range of functions, such as whether multiple calls could be handled simultaneously, and whether a user on a text session is also able to place a voice call.”

Issues that surfaced during testing had to do with smoothing out how all of the equipment worked together. But these were minor and resolved with ease. “Having Zetron engineers working in tandem at the site and in house, we were able to work efficiently throughout the testing process,” explains Zetron technical support engineer, Cory Coffin. “This, combined with our ability to coordinate directly with the text vendor’s technical staff, allowed for the rapid deployment of the refinements required to ensure that all aspects of text delivery were successful.”

Meeting the needs of dispatchers

Zetron MAX Call-Taking product manager, Alice Johnson, was on hand at Butler County during the implementation process to help facilitate the center’s transition to the new technology.

“Because I’ve worked as both a dispatcher and an assistant 9-1-1 director,” she says, “I understand the impact change can have on 9-1-1 center staff. I made it a point to be a voice for the dispatchers and help make sure that their preferences and needs were being communicated and addressed.”

“Alice was great,” says Butler County Sheriff, Jason Johnson. “She helped dispatchers learn how to handle the text-to-9-1-1 functionality and also served as a liaison between the engineers and dispatchers so we could be sure that the system was set up to be as efficient and effective for them as possible.”

Fully integrated Text-to-9-1-1

Thanks to the efforts of Zetron and RACOM, Butler County 9-1-1 is now fully equipped for text messaging. What’s more, their MAX Call-Taking system provides a more streamlined and easy-to-use method for delivering and handling Text to-9-1-1 messages compared to systems that are not ESInet compatible.

“It was very important to us that our Text-to-9-1-1 functionality would be fully integrated and come as a package with the MAX Call-Taking system we’re already using,” says Sheriff Johnson. “We’re very pleased with the new avenue of communication it opens up between the public and our dispatchers; this offers important benefits to the community. It’s also much easier to use than the technologies those with disabilities have traditionally used to communicate with us. Last but not least, we are in a perfect position to respond proactively as the needs of our community expand and 9-1-1 capabilities continue to evolve.”

[1] Gaither, Tanita. (2016, Jan 7). Deaf GA woman uses text-to-911, saves 2 kids left in car. Retrieved 2016, Dec. 12 from KCTV5 website: <http://www.kctv5.com/story/30907578/deaf-ga-woman-uses-text-to-911-saves-2-kids-left-in-car>.

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