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Executive Summary

In a small corner of Ohio, Guernsey County is leading the nation by example. Home to a technologically advanced 9-1-1 call center, the county has taken the pioneering step to move its emergency call handling into the cloud. With a powerful blend of cloud-native solutions, it has positioned itself as an innovator in emergency response, breaking away from limitations and embracing a future that is faster, more efficient, and safer for its citizens.

From analog to digital: The transformation story

Until recently, the county's 9-1-1 system was anchored in pre-internet analog technology, restricting emergency calls to mere two-way voice conversations. The dated system left the community yearning for a solution that could bring them into the 21st century. The county opted for both cloud-native computer aided dispatch (CAD) and call-handling solutions to modernize its center. The state of Ohio did not yet have ESInet deployed, so Guernsey County needed to get creative. It selected Amazon Web Services (AWS) Public Sector Partner Carbyne's APEX i3 Cloud Native Call-Taking Platform (APEX), which transitioned the call center from analog to a digital interface that was not only smartphone-friendly but allowed call takers to communicate with callers via live video, providing accurate location information and rich data within the call handling platform itself.

Jeffrey Hannon, dispatch supervisor for the Guernsey County Sheriff's Office, in a recent interview with Fox News Digital, said that anyone who calls 911 in the county is automatically sent a link to a phone via text that allows dispatchers to view and assess the scene. "When you click on that link, which we instruct callers to do … they have to allow access to your camera and location," Hannon explained. "Once they hit 'allow,' then we can see their camera, and we can get a better location on their GPS."

The impact of this new technology was felt immediately, and within two hours of going live, the system assisted in a potentially life-threatening situation, enabling communication via live smartphone video feed and leading to a positive outcome. The center received a call from the mother of a man experiencing a seizure. Because the call taker could see the patient, he could immediately identify the severity of the situation. Without video, he would have to ask the caller many questions– and take a lot more time– to reach the same assessment. The call-taker was able to quickly advise the caller on how to care for her son until the ambulance arrived. The speed and accuracy of the emergency response provided life-saving care for this patient.

About Carbyne

Carbyne is an Amazon Web Services (AWS) justice and public safety customer and partner, provides 911 call handling systems, offering a cloud-native software as a service (SaaS) platform with two main product offerings for public safety clients: Carbyne Universe and Carbyne APEX.

Guernsey County has used the video capabilities to instantly triage and respond to accidents with accuracy and care. There is a major interstate running through the county, and this technology can assist with response to fatal accidents, as well as helping crime scene investigators benefit from seeing the footage at the moment of the accident, reducing time spent reconstructing of the scene. The video and photo-sharing feature of the system is compatible with both SMS and WhatsApp and requires no application to be installed on a person's cell phone. This video can provide further insight into the Guernsey APEX deployment.

A cost-effective and secure step forward
Beyond just technological advancement, the county has experienced significant cost advantages. By migrating to the APEX cloud platform, Guernsey County managed to eliminate hardware costs and consolidate various operating expenses. The implementation also guarantees over 99.999% availability for voice calls, end-to-end security, and data storage in a secure cloud, enabling easy relocation of the team if needed.

Carbyne's APEX is a product designed to offer cloud-native mission-critical call management. It unifies various communication mediums like audio, video, instant messages, third-party applications, and internet of things (IoT) devices and provides real-time information for informed decisions. Customization capabilities include live closed-captioning, automatic live language translation and transcription, predefined messages, agent help requests, recorded announcements, and more. Carbyne's APEX Multimedia NG911 Suite further enhances emergency call handling, addressing challenges like staffing shortages, the mental health of call-takers, emergency response time improvement, and supporting callers of all abilities. The county is beginning to utilize the artificial intelligence (AI) feature, which will assist in reducing the number of redundant calls and help understaffed call centers move more efficiently through their queues.

Guernsey County, Ohio, has shown that with the right technology partner and a forward-thinking approach, even small emergency call centers can innovate and lead the way. The county's cloud-native approach to emergency response has revolutionized how it serves its community and is a testament to what is achievable when courage meets innovation. The success in Guernsey County serves as a beacon for others, demonstrating that barriers can be overcome and that adopting next-generation solutions is not only feasible but essential for enhancing public safety in the modern age.

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