35-position MAX Call-Taking Streamlines Operations, Cuts Response Times



The Cook County, Illinois, 9-1-1 center's new MAX Call-Taking systems has cut response times and improved operations between the agency's main and backup sites. The system's expandability also allows the agency to serve as a consolidated center if this ever becomes necessary.

Emergency 9-1-1 public safety answering points (PSAPs) must be able to meet a number of bottom- line requirements in order to fulfill their responsibilities to the communities they serve. They must be equipped to answer 9-1-1 calls and send first responders to the scene as quickly as possible. They must be redundant and able to ensure the reliability of their operations at all times. And they must be equipped to keep pace as services expand, technology changes, and budgets tighten.

These are some of the reasons why Cook County, Illinois, recently installed Zetron's MAX Call-Taking system in their newly remodeled PSAP. MAX Call-Taking is IP based, highly redundant, and able to support the agency's main and backup sites as well as remote operations anywhere there's network access. The system's streamlined functionality also cuts precious seconds off the time it takes for operators to answer 9-1-1 calls.

Cook County 9-1-1

With approximately 7,000 sworn employees, the Cook County sheriff's office is the second-largest sheriff's office in the nation. It comprises three departments: courts, corrections, and the police department. The Cook County 9-1-1 Center falls under the jurisdiction of the police department,



which has approximately 500 sworn officers and is the third-largest police department in the state of Illinois.

Cook County 9-1-1 is not a typical PSAP. The sheer size of the agency and the population it serves, and the high number of specialized units it supports make the job of a Cook County telecommunicator particularly demanding.

"Our telecommunicators answer calls from an area that covers over 140 jurisdictions," says Martin Bennett, Executive Director of the Cook County Sheriff's Police Department Emergency Communications/9-1-1 Center. "We handle an average of about 360,000 calls per year. This includes 9-1-1, non-emergency and administrative calls."

Reasons for the upgrade

The recent update and remodel for Cook County was triggered by the need to expand operations and keep up with an increase in their phone and radio traffic.

"It was time for a change because our existing equipment was 20-years old and no longer meeting our needs," says Bennett. "Another factor was Illinois' new requirement for PSAPs serving communities under 25,000 to consolidate. Because we're a large agency, we're a likely candidate to provide services to smaller communities at some point."



Other benefits Cook County 9-1-1 was seeking from the new equipment included improved operations between their main and backup centers, and the ability to accept text, photos, and video over their 9-1-1 system. Although this Next-Generation-i3 functionality is not yet required, it is on the horizon and something PSAPs have to plan for.

Choosing Mercury Systems and MAX Call-Taking

Through a competitive process, Mercury Systems Corporation was chosen to implement Zetron's MAX Call-Taking system for Cook County. Mercury would also provide project management services for the entire center remodel and upgrade.

Mercury Systems Corporation, which is based in Naperville, Illinois, offers a range of communications systems and products, including 9-1-1 telephone systems, communications consoles, logging and video-surveillance recording systems, backup power solutions, and communication-center furniture. "A customer gives us an empty room, and we turn it into a cutting-edge, turnkey communication center," says Howard Gadorus, V.P. of sales and engineering for Mercury Systems Corporation.

When asked why Cook County selected this particular reseller and equipment, Bennett is very positive about both: "We've worked with Mercury in the past and have enjoyed a very productive relationship with them. I know I can always rely on them. We chose MAX Call-Taking because we like the system's flexibility, expandability, and advanced features. Plus, it is IP-based, and supports i3 functionality."

A 35-position solution

The MAX Call-Taking solution for Cook County would include two controllers and a total of 35 stationery and transportable positions:

- One controller and 20 positions at the main communication center in Des Plaines.
- A second controller and six positions at the backup center in Maywood.
- Five supervisory positions installed in a variety of locations throughout the communications center building.
- Four transportable positions that can be deployed instantly from any location that has access to the network.

"We decided to install a controller at each site because it would provide double redundancy," says Bennett. "It would also allow us to use a low-bandwidth connection between the main and backup centers."

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Planning, staging, and implementation

The first step of the project involved comprehensive discussions between the customer and Mercury. The equipment was then ordered, shipped, and staged at Mercury's staging facility. "We always stage, program, and fully test a system before we deliver it to the customer," says Gadorus. "This makes the installation process go very smoothly in the field."

The implementation started with setting up the backup center at Maywood and installing the main controller at Des Plaines. The dispatchers were then able to sit at the consoles in Maywood and log into and use the main controller at Des Plaines. This kept their operations up and running while the remodel and implementation at the main center were underway.

Once the installation at Des Plaines was finalized, the dispatchers were moved back into the main center, and the cutover was completed. The new center made its official debut September 18, 2015. It has been running flawlessly ever since.

Improved features, capacity, and response times

MAX Call-Taking is delivering a host of important benefits to Cook County.

The agency is now prepared to serve as a consolidated center. And the integration of the agency's many phone lines and PBXs into the console has greatly simplified operators' tasks.

Bennett also appreciates the powerful reporting capabilities MAX Call-Taking puts at his fingertips. "We used to be able to log just our 9-1-1 calls, which represent only one-third of our call volume," he says. "Now we can also track admin, regular, and outgoing calls for a much more accurate picture of what we do, which helps our reporting and staffing."

Zetron engineer John Scott, who oversaw the project, says Cook County's MAX Call-Taking system provides "...multiple levels of redundancy that protect against everything from network to hardware failure." Gadorus concurs: "The system's redundancy is unmatched in the industry. No other product can do what MAX Call-Taking does as well as it does it."

Last but not least is the improvement MAX Call-Taking brings to Cook County 9-1-1's most fundamental activity—answering 9-1-1 calls.

"With MAX Call-Taking, we've nearly tripled our capacity," says Bennett. "What's more, with our old system, we answered 90.2 percent of our 9-1-1 calls within 10 seconds. With MAX Call-Taking, we're answering 94.41 percent of our 9-1-1 calls within ten seconds."



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