Fighting Crime along the Ohio River: Firetide in Cincinnati
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In 2008, the police department of Cincinnati, Ohio, needed a new way to conduct surveillance in the city in order to ensure safety of its citizens. Around that time, the department implemented new license plate reader technology, but it wanted to expand its operations so that all of the new technologies could be utilized to their fullest potentials. In order to get the most out of their technologies and keep an eye in the sky, the department needed a solution that would provide police officers with the strongest network possible while funneling real-time video through to a main hub. Firetide was the answer.

A strong network they can count on

The Cincinnati Police Department needed a surveillance solution that would give them wireless line of sight. Department IT specialist Barry Whitton visited the city of Newark, New Jersey, to get a sense of how the law enforcement officials there utilized video cameras in their day-to-day operations. It was important for the Cincinnati PD to incorporate their findings into the strategy they would use to deploy and manage their video surveillance network.

That visit paid off, because Whitton was able to see how the police department from Newark implemented their video strategy and bring back ideas to Cincinnati. In 2008, with funding from Target’s Safe Cities program, the department installed eight cameras strung out from one aggregation point – four cameras in two different directions – along a corridor near a Target store. They achieved this with the Firetide 6000 series network augmentation product, hooking into the city’s existing fiber network where possible.

“It was a success,” Whitton said. “We were able to bring back video, and from there we moved on into other neighborhoods, kind of branching out, finding different locations where we could aggregate and hop on the city’s fiber.”
They continued augmenting the network by utilizing the Firetide technology to connect the cameras with the city’s fiber. As the Cincinnati PD rolled out the video surveillance system, the department received grants to help pay for the new video surveillance system and to fund any maintenance it might require. Soon, however, the department will also be receiving capital from the city itself, because lawmakers have realized the value of these cameras and want to maintain the system.

In addition, the resilience of Firetide’s nodes will save Cincinnati money in the long run. As of August 2015, even though some of the cameras themselves were beginning to need repair or replacement, only one node had failed mechanically out of a total of 180 around the city. This gives the city a good, cost-effective strategy for fighting crime and making detective work easier.

Celebrations, sports and school: All watched by Firetide

Cincinnati sits on the banks of the Ohio River, and hundreds of thousands of people come out each year to celebrate holidays and participate in events like the Labor Day Fireworks, which normally sees over 500,000 attendees. In addition, annually, millions of people come out to watch their favorite Cincinnati sports teams – the Bengals for football and the Reds for baseball – play. The Cincinnati PD wanted to make sure the city’s visitors and citizens have the support of law enforcement, and Firetide’s network technology provided the resilience and capabilities required.

To ensure the safety of revelers and sports fans, as part of a separate banks project, Cincinnati PD installed a heavy concentration of cameras along the Ohio River near Great American Ball Park and Paul Brown Stadium. The department also implemented Firetide’s MIMO technology around the University of Cincinnati, because there were quite a few cameras already in that area. Through a partnership with the university, Cincinnati PD installed those cameras some time ago – but they had a desire to connect that system with the main Firetide network throughout the city. The MIMO solution (which stands for multiple input, multiple output) allows for more cameras and higher bandwidth to travel through the network.

In addition, these cameras have been used by fire departments and emergency response teams during spills or building fires, and during the winter they’re used to give information on which streets are impassable due to snow. All of these different capabilities contribute to making the city safer.

Still resilient today

Now, in 2015, utilizing the video surveillance system provided by Firetide, the police department is able to relay video to that central command point from many different places throughout the city’s 77 square miles. So far,
there have been nothing but good responses in regards to the camera system. This is especially important because as the department was able to invest in better cameras, the Firetide radio network has still been able to quickly and easily deliver real-time video without sacrificing quality. "They're capable of some very high-def video, and when we crank them up to their fullest resolution, you're pushing a lot of data through that pipe," Whitton said about the department's newer high-definition 720 and 1080 cameras that are connected via the Firetide network. "But the responsiveness has been great. We get a lot of compliments from people that come in and look at our system. There's no latency. Everything moves very quickly."

The Cincinnati Police Department can now view footage from over 300 cameras placed around the city and along the river, allowing the real-time crime watch division to keep tabs on what's going on over nearly every inch of the metropolis. Firetide's technology makes up approximately 70 percent of the network that Cincinnati deployed around the city, with fiber optics and microwave powering the rest and linking the nodes together, and has been essential in crime-fighting strategies from the start.

The department has since upgraded to the Firetide 7000 series of network products – but the capabilities haven't changed. These nodes still allow the transmission great amounts of high-quality video footage and distribute it to the enforcement officers who can utilize the information. In 2015, it's more important than ever to use the technology tools available to keep citizens safe and reduce crime – and Firetide's products have been essential in helping Cincinnati move toward that goal.

"The technology has been rock-solid," Whitton said. "The advantage of having the ability to pull it all back to one place, in real time, and then to redistribute to people who can use it has been a great plus."