



Wi-Fi Finds a Niche in Public Safety

By Jeff Goldman

Municipal Wi-Fi networks may have been getting a bad rap lately, but citywide wireless networks deployed to support public safety – as opposed to public Internet access – seem to be doing just fine. From Washington, D.C. to Dallas, Texas, cities are using tools like video surveillance both to prevent crime and to investigate incidents after the fact. And according to Michael Dillon, vice president of business development for municipal markets at Firetide, wireless technology is key to allowing cities to place cameras strategically wherever they're most useful.

In Dallas, Texas last month, police arrested a man accused of mugging an 18-year-old ROTC cadet after the incident was captured on the city's wireless video surveillance system, which consists of 32 Firetide mesh nodes and 40 Sony cameras throughout downtown Dallas. Dillon says the quality of the video in that kind of deployment also makes a big difference.

"Dallas is a good indication of how law enforcement is able to use high-quality video to go back and see what happened," he says.

Firetide also allows for direct coordination between physically disparate networks. At SuperBowl XLII in Phoenix, Arizona, Dillon says, "we were able to connect two command centers together over a 3.1-mile shot, and allow them to share data, video, and voice across that network." The same thing, he says, could conceivably be done with any number of police departments in cities across the country (or the world) from each other, allowing public safety personnel to collaborate directly on a crime problem that may have roots in a number of different locations.

Tri-band functionality

Earlier this month, Firetide added tri-band (2.4, 4.9, and 5 GHz) capability to its HotPoint access points and HotClient CPE units. That additional functionality, Dillon says, makes it easier for law enforcement to justify spending the money to deploy a municipal network, because public Wi-Fi access can be made available on the same network when there isn't an emergency—but whenever first responders need to use the network, they can immediately and automatically be given priority.

"If we need to ruthlessly eject people from the network, it's possible with this equipment," he says.

The 100T mesh node from competitor BelAir Networks also supports three bands and gives emergency personnel priority access to bandwidth.

“One of the things you can’t do is predict who’s going to show up for an emergency—you’ll have people who have 4.9, but you might have other agencies who only have 2.4, so you tend to find that both on-ramps are in use in that type of situation,” says company vice president of product marketing Dave Park. “We have QoS features that ensure that you can prioritize emergency personnel over the general population.”

BelAir recently worked with ADT Security Services to deploy video monitoring systems for surveillance and public safety in the City and Port of Richmond, California.

“They’ve deployed in the Port of Richmond 82 cameras monitoring the facilities and the perimeter, and in the city, they’ve got 34 cameras in some of the high crime areas,” Park says— noting that the Richmond deployment goes beyond simple monitoring by adding video analytics to recognize and record specific types of criminal activity.

Adding video analytics

One company providing that kind of analytic technology is ShotSpotter, which offers a gunshot detection and location solution for public safety. Company senior vice president Gregg Rowland says the data from ShotSpotter’s Gunshot Location System is increasingly finding its way into court cases.

“We provide the police with a lot of critical data that helps them create a better investigation, and then we become part of the evidence that is presented in an arraignment or in a trial,” he says.

It’s also been used to help exonerate police officers after a shooting—as ShotSpotter CEO James Beldock notes on his blog, the technology was used to vindicate Washington, D.C. police officers after a shooting last fall in which there was some doubt as to whether or not the suspect, 14-year-old DeOnté Rawlings, actually had a gun.

“ShotSpotter sensors [corroborated] the officers’ report that the first shot fired did not come from the officer’s gun, but from a heavier caliber weapon,” Beldock writes.

The latest step for ShotSpotter, Rowland says, has been the addition of mobile access to Gunshot Location System data.

“We’ve been able to take what we give the people in the dispatch center and we’ve moved that out into a mobile application so that the gunshot information can be delivered to officers, detectives, and investigators in the field as the 911 center gets it,” he says. The idea, Rowland says, is simple—and it’s the same as it was with the initial move to wireless video: an increase in mobility results in increased efficiency for first responders.

For more on Wi-Fi in public safety, read “Public Safety Wireless Plan Sees Red,” “Public Safety Broadband Consortium Launched,” and “Wi-Fi to the Rescue.”

Jeff Goldman is a frequent contributor to Wi-FiPlanet. He is based in Southern California

May 23, 2008

<http://www.wi-fiplanet.com/columns/article.php/3748916>