

Caught red-handed.

Buffalo, NY police force protects citizens with city-wide wireless video surveillance.



Organization:
City of Buffalo

Location:
New York, USA

Industry segment:
City surveillance

Application:
Real-time surveillance of
city streets

Axis partner:
Avrio Group

Mission

When Mayor Byron Brown took office in 2006, he pledged the people of Buffalo to reduce the city's crime rate. A key part of his plan was to deploy a real-time, city-wide video surveillance system to augment the public safety efforts of his police force. The solution he sought needed high-resolution cameras that could read license plates from 200 yards away and provide officers with evidence-grade, real-time streaming video. Since cameras would be mounted outdoors, they also needed to be wind and weather-proof and perform well even in low lighting situations. Another important criterion was the flexibility to add and move cameras at will to monitor changing high-risk areas.

Solution

Avrio Group, a city-wide network video surveillance integrator based in Easton, MD, initially set up a wireless network of more than 50 Rapid Deployment Surveillance Solution (RDSS) PoleCams strategically mounted on utility poles throughout the city.

As the project progressed, the City of Buffalo chose to install additional RDSS PoleCams at numerous locations, bringing the current camera count to 115. The highly visible portable units – complete with blue lights and police branding – house AXIS 233D Network Cameras and Firetide wireless mesh nodes in weatherized enclosures. Operators control the cameras remotely from Police Headquarters, giving police officers an opportunity to assess the situation and make preparations before approaching an area.

Result

Avrio's RDSS helped police make their first five arrests while installation of the video network was still in progress. Suspects were caught on camera burglarizing a convenience store just 10 hours after a law enforcement camera mounted nearby went live. "The response to this system has been positive from day one because citizens have seen an immediate impact from it," said Mayor Brown." He reports that the city has already received more than 50 calls from Buffalo citizens requesting cameras on their street corners.

"You can only do so much undercover work before drug dealers figure out who you are. Our wireless video surveillance system multiplies the eyes of our police officers on the street."

Buffalo Police Captain Mark Makowski.

Fighting crime proactively

While traditional 9-1-1 systems have helped police in responding quickly to emergencies, with Buffalo's new surveillance system, officers have been able to be more proactive in keeping city streets safe. The live streaming video from a scene also gives police patrols advance warning of conditions so they can take protective measures to guard their own safety before entering the location.

Each camera's video is encrypted and encapsulated to ensure a secure transmission to the central monitoring station. Desk duty officers review the high-resolution stream in real-time and make a judgment as to whether the scene requires patrolmen to be dispatched. The addition of video analytics and intelligent audio for gunshot detection provide officers monitoring a scene even more thorough foreknowledge of a suspicious situation.

The Axis network cameras, which provide high-resolution streaming video at 30 frames per second, deliver evidence-grade images to support criminal prosecution. "We chose the AXIS 233D Network Cameras because of their excellent video quality," said Mark Jules, president, business development and strategic planning for Avrio Group. "They have superior zoom capability and very fluid response to pan and tilt commands from remote operators. Plus, we've found them extremely reliable, an essential quality for any tool used in police work."

"The clarity is amazing," said Mayor Brown. He noted that the cameras not only enable officers to identify suspicious behavior such as someone leaving a small package on the street, but allow them to zoom in on faces in a crowd or even identify vehicles that are several blocks from the surveillance camera. The mayor stressed that, "This is a going to be a tremendous deterrent to crime."

Jules explained that the decision to go IP-based, rather than analog was two-fold. An analog solution would require encoding and decoding the information stream, which would degrade the video image. An analog solution would also require extensive cabling, which would be problematic and expensive in an urban setting.

Stimulating economic development

Like many cities, Buffalo contends with drug dealing, shootings, assaults and other felonies within its 42-square-mile borders. But wireless surveillance has greater applicability than solely monitoring high-crime areas. The city has also deployed cameras in its business district to stimulate economic development, as well as at critical infrastructure sites in the interest of Homeland Security, such as schools and border crossings.

The city has also added a mobile surveillance vehicle to its crime prevention arsenal. The portable, solar-powered trailer with a 25-foot extension pole houses a camera that allows officers to keep close watch on crowds during special city events like the Allentown Art Festival and the Taste of Buffalo and New Year's Eve festivities when thousands of people flock to the downtown area.

In the near future, security personnel at two Buffalo hospitals will be given authorized access to footage from video cameras pointed at the entrances and exits to their patient and staff parking lots. Video surveillance control and management tools from OnSSI incorporated in Avrio's RDSS system can restrict hospitals to view video from select cameras while providing the Buffalo Police Department access to cameras city-wide.

"Any police department in the country considering video surveillance should ask themselves: why not go wireless," stated Buffalo Police Captain Mark Makowski. "With a wireless network, we can put cameras where they are most needed, and it's a capability that most cities and police departments can afford."



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