



PROTECTING URBAN AREAS with video surveillance and other security technologies is providing a hotbed of opportunities for agile and able security systems integrators courting the safe cities sector. Citywide security deployments are in demand, as law enforcement and other city agencies seek to secure people and property vulnerable to criminal and/or terrorist activities.

Urban security has definitely been a driving force in the industry in 2016 and will continue to be in coming years, says Geoff Kohl, senior director of marketing for the Security Industry Association (SIA). "It's driven by overall concerns of terrorism and standard concerns of public safety and emergency management," he says. Video surveillance is particularly in demand, he adds, to monitor sites ranging from critical infrastructure to transportation hubs, to schools and public congregation areas. This area is of particular interest to SIA's membership of primarily security products manufacturers (see online version of this story for more).

SSI tapped the expertise of several security integrators working successfully in this space to shed some light on the challenges and upsides associated with the municipal security market. For starters, don't even think about breaking into this niche unless your company is comfortable playing the bidding game and dealing with long sales cycles, is adept at large-scale projects, and has a deep level of technical capabilities and IT certifications. Undeterred? Then read on for trends and insights associated with this huge and complex but potentially richly rewarding sector, and get a leg up with the eight tips offered.

Getting Your Feet Wet

Ray Leblond is IP surveillance practice manager for the Riverside, Calif., regional office of Woodinville, Wash.-headquartered Leverage Information Systems. The IP Surveillance division is 100% focused on municipality surveillance. He reports that the division's year-to-year growth (FY2015 to FY2016) was in excess of 30%, with greater than 50% growth projected for the current fiscal year.

"We see a desire for unification of as-

8 Steps to Safe Cities SECURITY SUCCESS

To combat criminal activities, and particularly the spate of shootings and terrorist acts, cities across the country are looking to partner with technology solutions providers to help safeguard their communities. Learn what's required and how to leverage systems, knowledge and expertise to join in the safe cities movement. **By Erin Harrington**



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PHOTO COURTESY OF LEVERAGE INFORMATION SYSTEMS

According to Leverage Information Systems' Ray Leblond, popular municipality security measures such as perimeter detection protection also necessitate addressing network infrastructure for wireless surveillance camera communication, and audio capabilities; audio intervention in streets, parks and schools effectively reduces nuisance and criminal activity, he adds.

sets citywide for the purpose of eliminating inefficiencies and providing additional capability for public safety agencies to ensure citizen safety," says Leblond. Once a citywide shared asset system is in place, the funding sources of contributing departments can benefit all stakeholders, he adds, noting that this collaborative funding model goes beyond the sharing of surveillance cameras and extends to infrastructure and storage of video.

First responders benefit the most from the proactive response capability made possible when assets are shared across venues such as intersections, parks and schools, Leblond believes. "Security measures that are requested are perimeter intrusion detection with a proactive response that dictate a need for network infrastructure, mainly wireless and surveillance cameras with outbound audio capabilities. Audio intervention in streets, parks and schools has significantly reduced nuisance and criminal activity, and this capability requires near-zero latency to be effective. In my experience, audio intervention is one of the most requested capabilities in municipal surveillance measures."



PHOTO COURTESY OF SIKU

David Antar, president of Bay Shore, N.Y.-based A+ Technology Solutions, agrees that municipalities and government agencies are embracing integrated technology that allows encourages collaboration from the public and private sectors to help keep cities and communities safe. The main objective is improved situational awareness in the event of an emergency, he contends, and proper safe city installations make this happen.

"Video surveillance is still at the cornerstone of efficient security measures, with a focus on the HD quality of IP cameras over traditional analog cameras," says Antar. However, in order to facilitate a safe city initiative, he contends that true integration among core security subsystems is paramount as video, license plate recognition (LPR), facial recognition, gunshot detection, alarm and panic button systems, access control, and emergency communi-

cations are all important in providing true situational awareness. Even more important is how that data is prioritized and presented to responders. "Legitimate safe city initiatives also require a command center platform that can truly integrate the data being taken from disparate security subsystems into a common operating picture, providing operators and responders with real-time situational awareness and the means to respond appropriately."

Scott Roberts, sales manager of Setronics, a Billerica, Mass.-based provider of custom integrated security solutions, says that for safe cities the camera is king. "Usually our first task is to get visibility where they need it. Second is access control that's integrated with the CCTV system. Third is intrusion protection, specifically around the perimeters and areas of interest — also integrated into the CCTV and access control. Lighting also plays a critical role

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in deterring unwanted behavior,” he says. Critical though, he cautions, is communications among all systems and agencies. “The police department becomes the nucleus — having dashboard access in the dispatch center to quickly and accurately respond to an event as it is happening. We

take it to another level as well. Through interactive video monitoring and technology we’re able to use the integrated systems to remotely react, respond or investigate unwanted activity, and determine the type of action it requires.”

An important takeaway Roberts points

to is that unless the municipality has staff to monitor security systems, it spends thousands of dollars to put in a system that no one looks at until after the incident happened. “We work with our clients to promote the benefits of a CCTV system that, if properly monitored, could alleviate a multitude of unwanted behavior by simply responding to it as it happens.”

Leblond brings up an important issue pertaining to deploying wireless networks in a municipal environment. He says several years ago an unlicensed 5GHz wireless bridge would have been sufficient for network connectivity. However, FCC restrictions and the pervasive use of this technology by cellular providers have impeded the opportunity to implement a reliable, unlicensed 5GHz wireless bridge.

“We’ve migrated much of our wireless bridging to higher frequencies, both licensed and unlicensed,” he says. “Since the technology barriers have been addressed, the primary challenge is the reluctance of a municipality to make an investment in technology if it has not already been deployed and proven. Once the benefit of a proven deployment is established, the next challenge is the development of a shared scalable network. Collaboration between various IT groups is required, which must take into consideration the requirements of their clients.”

Following are eight tips for safe cities market success.

1 Concentrate on Collaboration Some of the most common safe cities installation challenges include cooperation between the public and private sectors and the sharing of security data, Antar states. “The more collaborative a safe city initiative gets between the public and private sector, the better an integrated solution can be designed and implemented.”

Roberts echoes that systems integrations across multiple departments and decision makers are their most challenging issues, because each department has its own needs and expectations of system performance. “Unfortunately, it’s typical that all departments do not

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communicate between each other. We usually become the middleman for all to ensure everyone is on the same page and has the same expectations of system performance — from the facility manager of the school district to the chief of police to the IT personnel who are critical in integrating the multiple systems. We've learned that if we include the department heads and IT early on, and keep them in the loop throughout the project the results are more favorable and efficient."

2 Be Competent in Face of Complexity

According to Leblond, the simplest safe city undertakings are typically pilot projects. He recalls one that Leverage began in 2012 with a deployment of 12 pan/tilt/zoom cameras covering the perimeter of a shopping district. Within the past year the project has expanded to cover public transportation, city facilities, and soon parks and schools, with much more in the planning stages.

Noting that not many clients start city-wide from the outset, the integrator did, however, recently complete a project where the city spent approximately 18 months of research prior to developing an RFP. It was to unify cameras deployed by many of the city departments (approximately 450 existing cameras) and included bringing the existing cameras into a shared citywide system, then provisioning the cameras to the departments based upon their needs. That city is now expanding the system to include more parks, DWP facilities, traffic intersections and more.

3 Organize Your Team

The Leverage team, Leblond says, consists of account managers and network engineers that work interactively with the client to develop solutions to meet the city's need. Project managers work with their client and installation teams, including technicians and post-sales engineers, to deploy solutions generated by the presales team.

In terms of manufacturer support, Roberts notes that Setronics relies on support from its manufacturers, but on a

limited basis. "In large-scale systems — such as thousands of cameras and doors integrating into a single software GUI — we will hire the manufacturer's software engineers to help configure their software. The software capabilities of a system that large are so vast and complex

that the typical installer doesn't possess the skill level required to expertly configure and program the software."

4 Find the Funding

Roberts explains that safe city initiatives usually entail a high

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dollar investment and so there's typically a bidding process that's publicly posted on a city's website or on a third-party bid search website. "We've done projects where DHS grants were used to pay for a portion of the project while others have raised the funds on their own. When we get the bid specification sheet, some mu-

nicipalities have already identified the manufacturers and technologies they want to use so that all bidders are quoting an apples-to-apples solution." In the case where the manufacturer and technologies haven't been identified, he says Setronics does its best to quote the systems its personnel know best.

Leblond goes on to say competitive bids are part of the RFP process and can involve contracting vehicles such as the General Services Administration (GSA), NASPO/Valuepoint or state-based agencies such as California Multiple Award Schedules (CMAS). "Successful integrators must meet the requirements of the RFP and have a track record of successful safe city projects." Funding for these projects is a combination of federal grants, usually for the initial project, he says. Once a citywide IP video surveillance system is in place, the funding sources come from city departments' capital expenditures, additional federal grants or expansion from the merging/sharing of assets from other entities, such as school districts.

Antar adds that each safe city project A+ works on is unique, with some incorporating a bidding process and others that solely look to integrators to design a new solution. "The budgets are often a work in progress, and a phased approach is often what makes a safe city initiative possible."

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5 Know Your Networking

A safe city initiative usually starts at the executive level within a municipality when a city manager, city council or mayor desires to improve citizen safety and/or quality of life, Leblond says. Generally that is passed along to the police department. "The initial point of contact could be either the police department or city IT. A key step is the collaboration of police department and IT stakeholders throughout the municipality to assess requirements and current assets. This collaborative group will engage with a technology firm to develop an implementation plan."

For Roberts, the town or city hall is the nucleus. Main points of contact can vary, he says, and the director of IT, director of facilities, mayor and procurement personnel are a few examples of the types of contacts with which Setronics works.

6 Navigate Transmission Mission

Most of Setronics' clients have already invested in fiber backbones, so the integrator will hardwire devices to local servers within a building and then connect the local servers through the

city's fiber backbone to a centrally managed server at city hall. The company will then use wireless options only when a hardwired option is not available.

Conversely, in Leblond's experience, Leverage sees very few cities with much fiber connectivity, so his firm encourages the concept of an "IT collaboration team" to address network connectivity early on. "One of our clients has a significant fiber infrastructure; however, the last mile of connectivity usually requires wireless networks. We have one client with over 150 cameras that all transverse a wireless network at one point or another."

7 Deliver Superior Support

According to Leblond, municipalities have unique requirements for asset sharing, proactive response and video management system (VMS) features. A multidepartment citywide IP surveillance system requires a high level of network experience and knowledge. Advanced datacenter, switching and routing certification is necessary, he says, to set up a network of this complexity. His company's Cisco certifications assure city clients the integrator possesses the knowledge and experience to meet the challenge.

A typical Leverage project starts with budgetary designs all the way through deployment and full lifecycle support. Many of its clients continue to expand their citywide systems after the initial deployment, so system administrator training is more complex and usually involves a few sessions. Client feedback and technology advances provide a continuous flow of potential enhancements, he notes, and those enhancements result in ongoing training.

Roberts concurs that there is a large learning curve as some of these citywide systems can be overwhelming to the average person, so Setronics conducts ongoing support and training to clients to ensure they're receiving the best experience possible.

8 Be Cities' Model Citizen

A certain skillset is needed to succeed in the safe city sector. Roberts points out that an integrator

must be skilled at dealing with different department heads who have different agendas in a political atmosphere. "If you can't do that, don't try to land a safe city opportunity. The politics and egos are enough to drive the project into negative and unprofitable areas," he says.

Antar advises that an integrator

needs to be able to create a solution that brings disparate information from security subsystems together in a common operating picture, as this total integration is what makes a safe city project successful. **SSI**

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