White Paper

Video for Public Safety and Justice: Five Strategies to Stretch Government Budgets

What You Will Learn

Elected officials seeking ways to leave a positive legacy with limited budgets are finding an ally in video technology. Communities around the world are repurposing their existing video surveillance cameras and videoconferencing endpoints to:

- Confidently host major events by enabling multiple agencies to share their video surveillance feeds without giving up control of their cameras
- Boost quality of life and attract employers by reducing crime and fear of crime
- Speed up warrant processing by empowering law enforcement officers to connect to judges from their vehicles
- Reduce arraignment costs by bringing the courtroom to the accused
- Enable citizens to appear in court from video kiosks near their home or office

This white paper, intended for public sector officials and IT teams, profiles public sector organizations around the world that are successfully using video technologies to increase urban security without increasing costs.

HIGH COST OF CRIME

- U.S. annual cost of crime: $1.7 trillion[1]
- Annual cost of crime as portion of GDP[2]
  - U.S.: 11.9 percent
  - Wales and England: 6.5 percent
  - South Africa: 7.8 percent
  - Latin America: 5 to 15 percent

Urban Security: Big Impact on Local Economies

The once-popular mantra of “doing more with less” in government has been recast. With reduced or stagnant local tax revenues and less federal assistance, how can communities support vital programs for education, healthcare for an aging population, and quality of life? Today, government leaders are taking a more practical approach by looking for ways to do more with the people and resources they already have.

One way communities worldwide are meeting this challenge is by using video surveillance and high-definition videoconferencing (telepresence) to lower the costs of law enforcement, justice, and crime itself. The savings help public safety agencies maintain service levels despite constrained budgets and heightened demands.

The cost of crime to local economies around the world is well documented (see sidebar). These costs include lost productivity for victims, higher costs of liability and insurance rates, reduced property values leading to lost tax revenues, and hampered ability to attract residents and employers. In addition, higher crime rates force communities to spend scarce funds on warrant processing and arraignments.

This paper presents five ways that public sector leaders around the world are harnessing IP video surveillance and telepresence to lower the cost of crime, creating lasting legacies.

[1] David Anderson, *Journal of Law and Economics*, 1999
[2] Global Consortium for Security Transformation and Inter-American Development Bank

Attract Major Events

Challenge: Communities that host major sporting and cultural events enjoy an economic boost from visitor spending on hotels, dining, and retail. But to confidently host these events, local governments need to make sure public safety personnel have the complete operational picture they need to protect people and property.

Solution: Enable multiple public and private agencies to share feeds from their existing video surveillance cameras without giving up control of their cameras. Commercially available software enables agencies to share existing video surveillance cameras. Using existing investments saves money, and gaining a more complete operational picture accelerates incident response and improves situation management.

Case Studies: To foster economic development, the City of Baltimore, Maryland bid to host the 2011 Grand Prix street race, expected to attract 100,000 people and inject the local economy with an estimated $70 million from hotel stays, dining, tickets, retail purchases, and direct tax revenue. Mayor Stephanie Rawlings-Blake spearheaded a collaborative effort among 20 federal, state, and local agencies and private organizations, including the Hilton Hotel. During the event, all agencies shared their video surveillance camera feeds and first responders' GPS locations, using the VidSys Public Safety Information Management (PSIM) solution. Even before the event, the system helped the city survey damage to stage an effective response to an earthquake and Hurricane Irene.

Shared video surveillance cameras were also behind the success of President Obama's inauguration on January 20, 2009, attended by an estimated 1.8 million people. Multiple Washington D.C. public safety agencies needed a way to monitor crowds and traffic patterns to identify potential problems and respond quickly to prevent harm or disruption. Before inauguration day, the D.C. Department of Transportation, Metro Police Department, and Homeland Security Emergency Management Agency used Cisco Video Surveillance solutions to integrate their separate video surveillance networks. When the day arrived, personnel from the various agencies could view feeds from any of the agencies' 299 cameras from any of several command centers, or on a PC or laptop. At one point, the Cisco Video Surveillance solution gave security personnel early awareness of dangerous crowding in a tunnel. They dispatched someone to open up another tube, mitigating the problem before anyone sustained injury.

Educational institutions are also putting their video surveillance systems into service to help win bids to host major events. England's Loughborough University initially implemented a Cisco Video Surveillance solution to cost-effectively monitor computer labs, residence halls, and the library, inspired by a police officer's comment that the department investigates incidents more vigorously when there is evidence to prosecute. Later the University added VidSys PSIM software to help personnel quickly sort through information and manage situations according to university policies. This, plus the flexibility to quickly add cameras anywhere, helped Loughborough qualify to host an Olympics team in 2012 in the weeks before the games. University leaders expect the move to bolster Loughborough's already strong reputation as a leading sports university and potentially attract more student-athletes and funding.

Boost Quality of Life and Attract Employers by Reducing Crime and Fear of Crime

Challenge: Facing flat staffing levels for sworn officers, communities need innovative new ways to protect community safety while taking on new responsibilities for homeland security. Accelerating awareness of crimes enables first responders to plan an effective response and to intervene sooner, minimizing harm. But simply deploying more "feet on the street" is not practical in today's economic climate, where insufficient staffing and minimum shifts have become the norm.

Solution: Use video surveillance as a force multiplier. Centrally monitored video surveillance cameras increase the number of eyes in the street. It also increases situational awareness, helping public safety agencies marshal an appropriate response. For example, dispatching several fire trucks for a small fire contained in a trashcan create unnecessarily high costs. Worse, not dispatching enough force can result in high costs to lives and property. With Cisco Video Surveillance software, agency personnel in any location can view feeds from municipal cameras.

Case Studies: The City of Istanbul, Turkey regards public safety as an essential ingredient for economic growth. After deploying a Cisco network connecting hundreds of neighborhood authority offices and more than 100 police stations, the city installed 700 highly visible video surveillance cameras that transmit video for central monitoring and license-plate recognition. Crimes such as purse snatching have decreased significantly. Furthermore, some residents and visitors report they are more likely to dine and shop in the city because parking near a camera gives them the confidence their car will not be vandalized or stolen. And when citizens call the police department to report an incident, dispatchers and police officers can view live video images from the scene, increasing their situational awareness.

Other examples of cities using video to reduce crime or the cost of crime prevention include:

- The City of Mountain View, California increased situational awareness by monitoring video from local retailers' and restaurants' own video surveillance cameras.
- The City of Joliet, Illinois deployed outdoor cameras after receiving a four-to-one matching grant from the federal government to secure the area along the Port of Chicago. Just a few days after the outdoor cameras were deployed, a watch commander at the station happened to be monitoring a live video feed when he noticed suspicious persons. Using Cisco Video Surveillance Manager, he zoomed in the camera and witnessed a drug transfer. He called an officer, who arrived quickly enough to charge the suspect with criminal trespassing.
- When a bridge collapsed in Minneapolis, Minnesota in 2007, the police department initially deployed officers on the scene 24 hours a day. Monitoring the site with video surveillance saved the city an estimated $500,000.
- Oakland Unified School District in California is committed to creating the safe environment needed for learning. The district has become a model for effective and efficient monitoring after deploying 750 video surveillance cameras at schools throughout the district. Campus safety officers can control all cameras remotely, including older analog cameras, choosing the area to monitor from Google Earth interface. Early detection of brewing incidents enabled prevention of three fights in the first week alone.

Accelerate Warrants Process Without Added Costs

Challenge: By the time police officers obtain a warrant, the suspect or evidence may have disappeared. Time spent driving to the judge's offices to request a warrant also keeps officers off the streets.

Solution: Provide video endpoints in squad cars and the judge's chambers so that law enforcement officers can request warrants at the moment of opportunity.

Case Studies: The City of San Antonio, Texas uses video as the basis of an e-warrant application that is helping create a safer community. Previously, a detective who wanted to execute a search warrant within a building on a Saturday night typically had to wait 12 hours to get face time with a judge, losing a window of opportunity to execute the warrant. Now, using Cisco Video Surveillance software on a laptop in the squad car, detectives can interact with the judge from the vehicle. The judge rules on the warrant within minutes, and then the officer prints the warrant on a printer in the vehicle. A digital copy is archived.

The City of San Antonio's e-warrant application is improving public safety even while reducing costs, by:

- Accelerating the warrant-approval process
- Reducing administrative overhead
- Helping police catch suspects sooner
- Making outstanding warrants easy to locate

The North Wales Police in the United Kingdom also lowered costs with a telepresence system, by connecting police officers to legal counsel up to several hours away. The first district to adopt the system eliminated 30 hours weekly in travel time, saving $68,000 in the first six months, reducing greenhouse gas emissions by 2.8 tons, and freeing officers to spend more time on patrol.

Lower Arraignment Costs

Challenge: The court system is straining under increasing caseloads, larger prison populations, limited staff to accompany inmates to court, and budget cuts. As a result, courts are finding it increasingly difficult to meet constitutional obligations for timely trials.

Solution: Use telepresence systems for pleas, arraignments, and expert witness testimony. Typically, one system is provided in the courtroom and others in detention facilities, reducing the need to transport offenders between jail and the courthouse.

Case Studies: In Collin County, Texas, for example, inmates are escorted to a video arraignment room in the jail. The inmate appears before the judge, accompanied by an attorney if appropriate. The judge, who can work from any county office or home, views pertinent documents on one screen and the inmate on another.

The city is saving money on vehicles and personnel to escort inmates, and reducing the risk of escape or violence.

Georgetown County, South Carolina is saving money with a similar process. Previously, two deputies were required to escort prisoners from the detention center to the judicial building. Magistrates and their administrative staff had to drive to the detention center twice a day for bonds and arraignments. Round trips of up to 40 miles were costly in terms of staff time, fuel, and carbon emissions. Now, with Cisco TelePresence® systems in the detention center and judicial building, prisoners can be arraigned without leaving the detention center.

Increase Citizen Satisfaction by Allowing Video Court Appearances

Challenge: Taking time off from work or caring for children to travel to court is difficult and expensive for citizens. The current system is also inefficient: When judges and arbiters in one location are fully booked, forcing citizens to wait for appointments, personnel in other locations have time available.

Solution: Offer defendants the option to appear for motions or testimony from a video kiosk near their home or workplace.

When issuing a traffic citation, the officer instructs the citizen to register at a community video kiosk and wait to speak to the next available judge. Using video in this way can lower government costs by reducing case backlog and using scarce resources and expertise more effectively. It also increases citizen satisfaction by reducing travel requirements for hearings and, in some cases, eliminating the need for an appointment.

Positive Legacy: Return on Investment Multiplies Over Time

Many communities already have the technology in place to replicate these success stories. It all starts with building a medianet—an end-to-end IP architecture for video solutions. Components include a high-performing, reliable, secure network. Simple upgrades transform existing public sector networks to deliver a consistent and predictable high-quality video experience:

- Video endpoints, which can include the agency's or school's existing standards-based videoconferencing systems and video surveillance cameras. In a medianet, endpoints can share information with the network, allowing automated endpoint provisioning that saves time for IT teams.
- Software that provides a complete operational picture from different agencies' video surveillance cameras and other sensors. An example is VidSys software, which enables multiple agencies to share video surveillance camera feeds without giving up control of their own cameras. With this technology, an agency that owns 10 cameras might gain access to several hundred cameras owned and managed by other public and private sector organizations.

A medianet also provides management tools that minimize overhead for IT teams, such as automated provisioning, performance monitoring, and simplified troubleshooting.

Once the medianet is in place, government leaders can continually add more use cases, successively increasing the return on investment. For example, the City of Santa Clara, California initially invested in IP video surveillance cameras at intersections to catch traffic offenders. With no additional capital expense, the city later began using the same cameras to count vehicles. This enabled better coordination of traffic signals to improve commute times, helping to improve quality of life and attract employers.

Similarly, Georgetown County, South Carolina began saving money using desktop Cisco TelePresence systems for video arraignment and interdepartmental collaboration. Later, the county added video surveillance cameras, first to a new judicial building, then the detention center, and later the landfill and recycling centers, courthouse, marina, and county park. These video technologies are helping to create a safer community without higher expense. Authorized county personnel can view live video surveillance camera feeds from any web browser, on a wired or wireless device. If an incident occurs at night, the sheriff can access the feeds from home. The same investment is also improving quality of life. Before planning an outing to the marina or a county park, residents and visitors can visit the county web portal to view real-time video showing crowds and parking availability. Future plans include using Cisco TelePresence for county health services, such as remote medical and psychiatric evaluations.

For More Information

To discuss how your government can make its public safety and justice budgets go further with video, contact your local Cisco account manager.

To learn more about Cisco Video Surveillance solutions, visit: http://www.cisco.com/go/physec.

To learn more about Cisco Smart+Connected Communities, visit: http://www.cisco.com/web/about/ac78/scc.html.

To learn more about Cisco Connected Justice solutions, visit: http://www.cisco.com/go/connectedjustice.

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