

## Improving Video Surveillance to Solve Crime

**W**hen a crime is committed at a business, video surveillance systems on the premises can provide detectives with vital clues and quickly lead to an arrest. But too often the resulting images are of low quality and therefore of limited use to investigators.

The Montgomery County Police Department in Maryland has an education program to help business owners improve the quality of their video surveillance by upgrading their systems and paying attention to placement of cameras.

“We knew that commercial video surveillance was available to detectives, but often when we obtained the images they were flawed in many ways,” says Capt. Mitch Cunningham, director of the department’s Information Support and Analysis Division. “We developed a public outreach prevention campaign and worked closely with individual businesses, including corporations, to get the message out about how critical video surveillance is to reducing crime.”

When a person is arrested and booked, his picture and fingerprints are entered and stored in a regional database system shared by Montgomery County, Prince George’s County, District of Columbia and Northern Virginia law enforcement agencies. The Montgomery County Police Department has connected facial recognition software to the system. When an investigator obtains an image of an unknown subject, he can compare the unknown image against the mug shot records. An average quality digital image is needed for the recognition software to work well.

“From my perspective, leveraging facial recognition with a known offender database is a vastly untapped resource,” Cunningham says. “Businesses need to work to improve the quality of surveillance camera images for the facial recognition software to be helpful.”

Simple steps businesses can take to improve the quality and accessibility of their surveillance systems are listed on the county website:

- Change the camera position from the ceiling to head-and-shoulder height.

- Train all staff in the business on how to operate the camera in case a crime occurs and police arrive and want to see the surveillance shots.
- Leave the lights on at night and adjust lights.
- Make the move from analog to digital audio/video recording.
- Place cameras on the outside of the building to catch images of accomplices/offenders who put on masks before coming in, as well as car license plates.
- Don’t use “proprietary” systems that require police to buy software to decode the surveillance pictures.
- Consider networking with law enforcement; some jurisdictions provide tax breaks to business owners who enhance their security.

“They are very simple techniques, but are techniques that video surveillance companies don’t necessarily address when they are teaching their clients how to use the products,” Cunningham says. “They really help business owners and corporations that have video surveillance technology learn how to deploy it better and take measures that will greatly improve the quality of the video surveillance when a detective uses it.”

The program has been in place for several years. Cunningham is working with the National Retail Federation (NRF) in Washington, D.C. to possibly design a program to release nationally.

Joseph LaRocca, NRF senior adviser, asset protection, says the organization is reviewing the information from Montgomery County and will share it with key organization members before proceeding.

“So far there is universal agreement that these tips from law enforcement agencies are important and will provide the law enforcement and retail community with information that could help solve crimes quicker by leveraging available technologies,” LaRocca says.

LaRocca noted that the retail industry is diverse and many retailers use camera technology. Each company

has unique requirements that need to be considered by management.

“Our goal is to validate the information and see if there is anything from other communities that could complement the Montgomery program, and then release it to our key or core members for feedback or opinion,” he says. “We would let 10 to 15 large retailers view the program before we do anything. Capt. Cunningham’s program is fairly straightforward, and it really addresses every one of us. We have all seen those grainy images that are sometimes given to law enforcement.”

Training of all staff in a business on how to use the surveillance system is as important as having the right technology, Cunningham says. Often, when an investigator responds, staff onsite do not know how to remove the images and give them to the investigator, resulting in critical time lost. Many departments have the ability to take images from a crime scene and deploy them to officers who have mobile data technology.

“We ask people to no longer use VHS technology; it’s surprising how many still use it,” Cunningham says. “Digital technology is critical to having images at much higher resolution.”

Also part of the effort is to encourage law enforcement departments to invest in facial recognition software, funding for which can be obtained through federal grants. Montgomery County used U.S. Department of Homeland Security Federal Urban Area Security Initiative Grants for the facial recognition software and the regional fingerprint and mug shot system.

Education on improving surveillance is an ongoing process in Montgomery County. The program can be instituted into regular community outreach programs or community service officers will make contact with business owners following a crime and discuss how to improve security.

***For more information on the Montgomery County Police Department’s video surveillance program, contact Capt. Mitch Cunningham at (240) 773-5321 or e-mail [john.cunningham@montgomerycountymd.gov](mailto:john.cunningham@montgomerycountymd.gov). For information on the National Institute of Justice’s Biometrics Program, contact Steven Schuetz at (202) 514-7663 or e-mail [steven.schuetz@usdoj.gov](mailto:steven.schuetz@usdoj.gov).***

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This article was reprinted from the Summer 2010 edition of *TechBeat*, the award-winning quarterly newsmagazine of the National Law Enforcement and Corrections Technology Center System, a program of the National Institute of Justice under Cooperative Agreement #2009-MU-MU-K261, awarded by the U.S. Department of Justice.

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