Law enforcement agencies are finding sophisticated uses for smartphones, those ubiquitous handheld devices that combine voice services with advanced computing ability.

The Baltimore Police Department, with 4,000 civilian and sworn personnel, is the eighth largest municipal police force in the United States. In 2010, following a pilot study, the department began distributing Blackberry® Curves™ equipped with the PocketCop application to about 2,080 sworn officers, who use them to access criminal justice databases, take photos at a crime scene, and increase efficiency and information sharing, according to Gayle Guilford, director of MIS for the department.

PocketCop provides secure access for queries to the National Crime Information Center (NCIC), motor vehicle and warrant information and other databases. It has alarm capability and wireless messaging. If an officer makes a traffic stop and through database queries discovers the individual is a wanted criminal, an alert is issued to other officers and the communications center without the suspect knowing. The officer has the information at his fingertips rather than having to wait for communications dispatchers to provide it or having to go back to the patrol car to search using its computer equipment.

“The majority of the officers like having the access and the ease of use and having information at hand and not relying and waiting for the dispatchers for descriptions and other information,” Guilford says.

The device also contains an in-house Baltimore Police Department application called Priority Warrants, which allows officers to know daily the most wanted individuals in their sector of the city.

The impetus behind equipping officers with smartphones came from Police Commissioner Frederick Bealefeld III, who wanted to untether officers from their patrol cars.

“He wanted to get the officers out of the police car and back in the community and still provide them with the tools needed to do their jobs, provide some safety, and allow them to be involved in the community,” Guilford says. “The car can be a barrier to interfacing with citizens.”

The devices also contain Global Positioning System (GPS) capability that allows commanders to track the location of officers at all times. Guilford says this feature is an invaluable tool for crowd control and for deploying manpower in an emergency. Also, the historical data provides command staff information to review and determine future deployment strategies.

The department conducted a 90-day pilot study in 2009 with 80 smartphones. “That pilot was very useful because it clearly identified major issues we had to address before roll out to 2,000 officers,” Guilford says.

The University of Maryland is testing a smartphone application that allows police to view whatever citizens are seeing when they report an emergency situation.

A team in the university’s computer science department has developed a proprietary way of streaming video and audio from a smartphone directly to campus police dispatchers, according to Major Jay Gruber.

“When it streams and the dispatcher acknowledges the signal, it geolocates where the video is streaming from within 10 feet,” Gruber explains. “So if a person sees a crime in progress or a traffic crash that requires a police response, they just press on the app and point their smartphone at the incident, which streams back to the dispatcher what they are seeing and hearing. Video pops up on the screen and populates a map to show where the person is streaming the video from.”

The application has two-way audio so the person reporting the incident can speak to the dispatcher.

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Guilford highlighted several considerations departments need to be aware of before deciding to purchase smartphones for their officers:

- An agency will need to obtain certification for the project from the state NCIC agency so that it follows the security guidelines under FBI Criminal Justice Information Services oversight.

- Battery life will probably need to be enhanced. The Blackberry Curve battery has limited life that won’t last thorough an officer’s entire shift if he is performing all the applications, so purchase of an extended battery may be necessary. “We chose one that gives 140 percent more time than the battery that comes with the device. The extended battery is fatter so you have to replace the backing, and then the ruggedized covering and holster will need to be bigger as well,” Guilford explains. After scouring the Internet, Guilford’s department found what it needed on a hunting site.

- Memory will probably need to be enhanced to enable officers to take photos and videos during an investigation. “We added 8 gigabytes of additional memory so offices can take photos relevant to an investigation versus waiting for someone to show up at a scene with a camera,” Guilford says.

- Involve the police union early in the process to ensure officers understand the purpose of the GPS application. Officers might be concerned about being tracked throughout their shift and need to understand that the purpose of the GPS function is not a “Big Brother” effort.

- Test the geography to identify dead zones. “They need to clearly identify their dead zones and it’s important to know how large they are. All devices have dead zones but it helps to clearly identify them so you can set the proper expectations,” Guilford says.

- Identify which police units need the devices and which ones don’t. All assignments don’t necessarily need mobile access.

- Ensure the department has enough technical staff to manage the need to service the devices, and replace them and remotely wipe the devices clean of all data if they are lost or stolen. “You have to have staff on the IT side to help manage the devices and provide maintenance,” she says.

- Rewrite police department general orders to include guidelines on the use of the devices.

- Draft a user agreement so officers clearly understand their responsibilities. “They should view the side partner device just like they view their gun — as a necessary equipment to do their job,” Guilford says.

Guilford says use of the devices has definitely improved efficiency. “Officers say they get a full half-hour back during the day because they are not waiting for descriptions and other information from the dispatchers.”

Without getting specific, Guilford says the department is eager to determine future uses of the technology. “We are looking at enhancements as far as processing capabilities of the Blackberry because each iteration has more processing capability than before.”

For more information, contact Gayle Guilford of the Baltimore Police Department at gayle.guilford@baltimorepolice.org or (410) 637-8959. For information in general about law enforcement use of smartphones, see the June 2010 fact sheet, Considerations, Uses and Limitations of PDAs and Smartphones for Law Enforcement Operations, published by the National Law Enforcement and Corrections Technology Center System, a program of the National Institute of Justice, at http://www.prod.justnet.org/Pages/RecordView.aspx?itemid=2489.
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