



# Filling the Gaps

*Technology gains new importance as police departments face budget cuts and resource constraints.*

**W**ant to see the future of law enforcement? You might start by looking at the small town of Linn, Wis.

With about 2,200 residents scattered across 34 square miles, the town may seem an unlikely location for cutting-edge policing. But the Linn Police Department has used drones for the past five years to locate missing persons, track fleeing crime suspects and perform a variety of other law enforcement duties.

The unmanned flying vehicles act as a force multiplier for local police. Within months of purchasing its first drone in 2015, the department used the technology to locate a drowning victim in Lake Geneva, which bisects the town. The mission, which typically would have required hours of effort from multiple officers, was accomplished in about two minutes of flight time, Police Chief James Bushey told *Government Technology*.<sup>1</sup>

By contrast, Bushey pointed to the recent recovery of another Lake Geneva drowning victim which was handled by other agencies that declined to use a drone. That operation took five hours and involved a team of 13 agencies from Wisconsin and Illinois, he says.

The city of Brookhaven, Ga., intends to take the concept a step further. In November, city

leaders approved funding to purchase four drones that will be used to respond to 911 calls and other emergencies.<sup>2</sup> Brookhaven police say the project will give officers more flexibility, availability and information, while limiting in-person contact amid the coronavirus pandemic.

"It's literally a game changer," said Brookhaven Police Lt. Abrem Ayana during a recent city council meeting.

## **Bracing for Bleak Budgets**

For police departments facing growing demands and tightening budgets, using technology to increase the impact of existing staff and resources is a big part of the future.

"This is not a situation that agencies will be able to hire their way out of," says Morgan Wright, a senior fellow with the Center for Digital Government (CDG) who spent 18 years in state and local law enforcement. "The tax base is dropping and everybody's going to take a hit."

In July, *USA Today* reported that the combination of pandemic-induced economic woes and the national movement to "defund the police" could lead to the biggest budget cuts for law enforcement

agencies since the Great Recession of 2008.<sup>3</sup> The newspaper cited a survey of 258 police departments conducted by the non-partisan Police Executive Research Forum, which showed almost half of the responding agencies either expected or had already experienced funding cuts, mostly in the range of five to 10 percent.

Few agencies are being spared, according to the research. Deep reductions have been ordered or proposed in big-city departments in Los Angeles and New York, as well as small towns like Eureka, Calif.

## **Filling Resource Gaps**

Against this backdrop, agencies must find technologies that can help them fill the gaps.

Clearly, autonomous vehicles like drones can augment human workforces, in some cases doing the work of multiple officers. These devices also can improve officer safety. In 2016, Dallas police used a robot armed with explosives to end a standoff with a sniper suspected of killing five police officers.

"We saw no other option but to use our bomb robot and place a device on its extension for it to detonate where the suspect was," Dallas Mayor Mike Rawlings told

reporters after the incident, which is thought to be the first time U.S. police have used a robot in a show of lethal force.<sup>4</sup> “Other options would have exposed our officers to grave danger.”

Autonomous technologies are continuing to evolve. For example, a Colorado-based company recently released a “throwable” robot designed to provide situational awareness to police and other first responders in dangerous situations. The one-pound device — equipped with a high-resolution video camera, microphone and a slew of other sensors — is designed to be tossed into risky environments and then stream conditions back to users’ smartphones.<sup>5</sup>

Better connectivity and lighter, more capable mobile devices are another part of the equation. Officers are gaining more access to real-time video and other timely information in the field that enables them to make better decisions, which ultimately improves effectiveness.

The FirstNet dedicated wireless network for first responders — a national initiative led by the federal government — is helping local law enforcement agencies deliver richer and more relevant information to officers in the field. And today’s officers are more likely to receive this information on lighter, consumer-grade smartphones and tablets instead of bulky ruggedized equipment.

Finally, sophisticated photo and video surveillance and analytics are other important force multipliers. These initiatives take various forms, but all of them extend the reach of human officers.

For example, the Wichita, Kan., Police Department recently began deploying license plate readers on traffic signals and other city infrastructure to reduce drive-by shootings and other violent crime in the city. The solar-powered devices can be easily moved from one part of the city to another as crime patterns change. The city had installed readers in about 35 locations as of early November.

“[The technology is] able to be in various areas that we just don’t have the resources and time to be able to be in all the time,” Wichita Police Lt. Casey Slaughter told *Government Technology*.<sup>6</sup> “We can’t have an officer standing next to an intersection looking at and writing down tags as they go by. This will do it in an automated and very efficient fashion.”

Advances in analytics are helping departments examine data they collect from cameras and other information sources to anticipate crime or disruptive events and proactively address them. Thirty percent of respondents in CDG’s 2020 Digital Cities Survey said they are already using predictive analytics in public safety.

### The Power of Transparency

As police departments enter a future marked by funding and resource constraints, technologies like these will be increasingly important to their success. However, growing use of advanced technologies must be accompanied by responsible use policies and

transparency — particularly as agencies expand camera networks and leverage new tools like facial recognition.

Already, a handful of cities have limited or banned government use of facial recognition technologies due to privacy concerns. CDG’s Wright says the antidote to these objections is community engagement.

“Departments need to get their communities involved in the drafting of policies around these technologies,” he says. “They need to be transparent about the information they will collect, how it will be collected, how it will be used and how long it will be retained — and then they need to follow through on that.”

In some cases, Wright adds, technology itself may help departments strengthen their bonds with citizens.

“I think that’s where we need more real-time analysis of crime trends, so departments can do a better job of preempting that activity and collaborating with the public to make them aware of it,” he says. “They should be engaging with citizens around the trends they’re seeing and how they can protect themselves.”

## Force Multipliers for Local Public Safety in Use Now

### Predictive Analytics



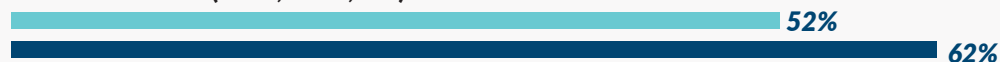
### Biometrics (including facial recognition)



### FirstNet



### Fixed Surveillance (video, audio, etc.)



### Mobile Surveillance (drones, body cams)



Source: 2020 Digital Cities and Counties surveys

<sup>1</sup> Drones Have Earned Their Place in Small-Town Wisconsin. *Government Technology*. <https://www.govtech.com/products/Drones-Have-Earned-Their-Place-in-Small-Town-Wisconsin.html>

<sup>2</sup> Unmanned Drones to Respond to 911 Calls in Georgia Town. *Government Technology*. <https://www.govtech.com/public-safety/Unmanned-Drones-to-Respond-to-911-Calls-in-Georgia-Town.html>

<sup>3</sup> Perfect storm: Defund the police, COVID-19 lead to biggest police budget cuts in decade. *USA Today*. <https://www.usatoday.com/story/news/politics/2020/07/31/defund-police-covid-19-force-deepest-cop-budget-cuts-decade/5538397002/>

<sup>4</sup> Dallas Police Used Robot With Bomb to Kill Ambush Suspect: Mayor. *NBC News*. <https://www.nbcnews.com/storyline/dallas-police-ambush/dallas-police-used-robot-bomb-kill-ambush-suspect-mayor-n605896>

<sup>5</sup> Company Six Unveils ‘Throwable’ Robot for First Responders. *Government Technology*. <https://www.govtech.com/biz/Company-Six-Unveils-Throwable-Robot-for-First-Responders.html>

<sup>6</sup> Wichita, Kan., Police Adopt Stationary License Plate Readers. *Government Technology*. <https://www.govtech.com/public-safety/Wichita-Kan-Police-Adopt-Stationary-License-Plate-Readers.html>