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SUMMARY

Customer
City of Troy, NY Police Department

Industry
Public Safety / Government

Challenge
Replace 'bolted-down' mobile data terminals with portable patrol-car devices, give officers immediate visibility of police calls in progress and improve overall work efficiency.

Solution
• Zebra® XSLATE R12 Rugged Tablet PC

Results
• More empowerment to prioritize police calls independently
• Less reliance on dispatch and two-way radios
• More efficient report writing
• Potential for more mobile future work processes

Troy, NY Police Department boosts emergency responsiveness with XSLATE R12 Rugged Tablet PC

Department upgrades patrol-car technology with rugged tablets and empowers officers to prioritize police calls and work more efficiently on the front lines of law enforcement.

Challenge

Having planned to upgrade its two-way radio system in 2015, the Troy PD leadership expanded the initiative to cover patrol car technology overall. The department had installed mobile data terminals in some of its cars starting in the 1980s, but they took up a lot of space, lacked portability and ultimately were underutilized due to a lack of support budget. To enable its officers to reduce their reliance on the two-way radio and proactively respond to dispatch calls, the department needed a ruggedized mobile device that would accommodate the evolving technological nature of police work in the future.

Solution

Community Police Sgt. Sam Carello and the department leadership saw the Xplore® (later acquired by Zebra) XSLATE R12 Rugged Tablet PC on display at the 2015 International Wireless Communications Expo and were impressed with its compact size and fast processing speed.

Results

The XSLATE R12 immediately transformed the way officers work. It displays police call-in-progress data on the screen, enabling them to discern the urgency of calls and prioritize them more efficiently than verbally communicating with dispatchers via their two-way radios or cell phones. Also, the XSLATE R12 has eliminated the need for officers to write crash reports and traffic citations by hand, saving more time. The XSLATE R12's operating reliability versus the MDTs, portability and long-lasting battery gave the Troy PD the potential to further transform police work in the future. An officer can detach it from its docking station inside the car and digitize previous handwriting-oriented processes such as taking crime scene witness testimony and issuing traffic tickets.

Modern mobile technology digitizes and transforms police work

When the City of Troy, NY Police Department planned to upgrade its two-way radio system in 2015, Community Police Sgt. Sam Carello and the department leadership figured it was a good time to evaluate all the department's patrol-car technology. They surmised that new enterprise technology would offer greater workflow efficiency than the mobile data terminals (MDTs) the Troy PD had installed in its cars starting in the 1980s.

As it turned out, the Troy PD used the MDTs only for the purpose of accessing license plate and driver's license data through the New York State TraCS ticketing system during traffic stops. To determine the urgency of police dispatch calls, officers had to use their two-way radios and personal cell phones. "From day one, not every car had one, they didn't always work correctly and they took up a lot of room— you really couldn't have two-person units in the cars that had them," Carello said of the MDTs, which were permanently mounted, and only in the cars designated for traffic law enforcement at that.

By 2015, the Troy PD sought to equip officers to access real-time in-progress call data without exclusively relying on their radios. To do that, it needed to integrate its patrol-car technology with Rensselaer County's public safety call dispatching system. Carello knew that adopting more compact and portable new devices also would give the Troy PD the potential for a more mobile future police force.

Small size and fast data processing

The answer emerged when Carello and the leadership visited the 2015 International Wireless Communications Expo: the Xplore® XSLATE R12 Rugged Tablet PC, one of the fastest rugged tablets available. Zebra acquired Xplore Technologies® in 2018 and continues to offer the XSLATE R12. "We were astounded by how small they were and their capability," he says of the devices, which measure 12.93 inches by 8.17 inches and 0.75 inch thick. The tablet's hot-swappable, long-life battery allows for extended portable use and a 12.5-inch, 1000 Nit View Anywhere™ Corning® Gorilla Glass® display gives it best-in-class outdoor viewability, keeping the officers productive throughout a day or night shift. A magnetically attached companion keyboard gives the XSLATE R12 two-in-one capability.

The Troy PD gradually equipped its patrol cars with the XSLATE R12s for the first couple years. By 2019, the department was in a position to increase the number of cars with tablets to 29. On every shift, the Troy PD schedules at least one desk sergeant, one road sergeant and eight patrol officers, the latter group in XSLATE R12-equipped cars.
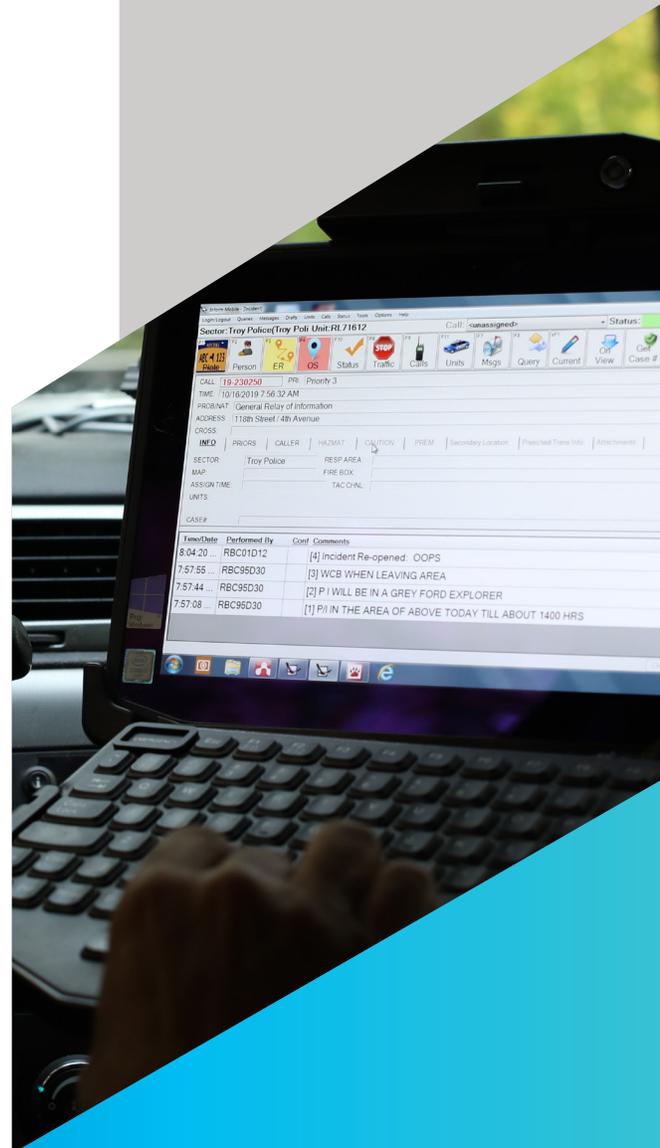
Instant call-in-progress information visibility

Looking back at a career that began in 1979, Carello has perspective on how devices built for the demands of police work can enable digitization—transforming officers' workflows that previously centered around the two-way radio.

Digitization arguably transforms the work of a road sergeant on duty in a given shift more than that of any other officer. When Carello started his career, the sole communication tool available was the portable radio. Back then, the dispatcher, not the road sergeant, essentially prioritized the calls and held them when not enough information was immediately available to determine if some calls were emergencies or not, or if they involved police-related issues at all.

Since 2015, XSLATE R12s, running TriTech/CentralSquare's Computer Aided Dispatch software program, have given the road sergeant more immediate visibility of call information for purposes of prioritizing and assigning units accordingly. A Troy PD officer now makes these law enforcement decisions. "Now, what happens is, the road sergeant can look at his screen and see what calls are being held and he can make decisions that the dispatchers can't—that's the biggest thing," Carello says. When four or five officers are at a scene, the road sergeant can hold routine calls such as parking violations and refer to the call list on the XSlate R12's screen to start prioritizing calls in progress and reallocate manpower across the city, he adds.

Empowering officers, keeping airways open

In some cases, the Troy PD can empower patrol officers to self-assign routine calls as part of its new XSLATE R12-enabled workflows. When an emergency call warrants it, the Troy PD puts into effect a 'priority air' protocol in which radio traffic is reserved for only those officers assigned to the call. Patrol officers who aren't assigned to the emergency call can self-assign more routine calls. "They can arrive on a scene, handle the call and give a disposition—all through the tablet without going over the radio at all. That's really a godsend for us," Carello says.

When the road sergeant has been outside of the car for some time and the dispatcher informs him of a call in progress, he can get details more quickly than before. "The information is right there in front of you and you can make those decisions instantaneously," he says.
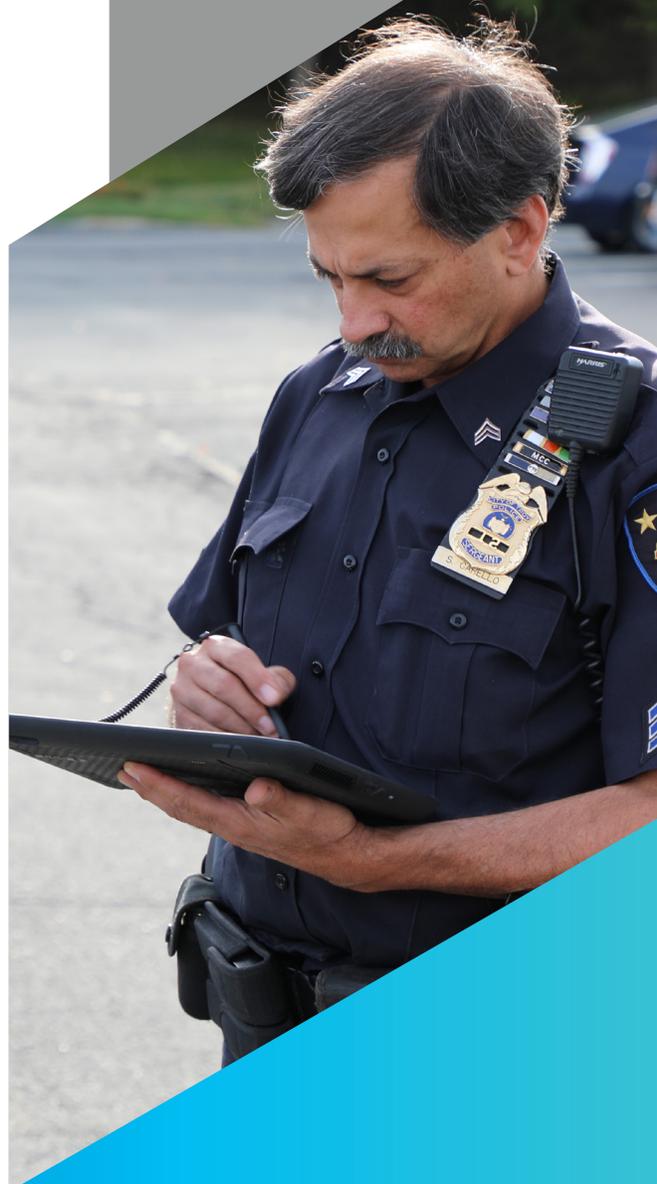
Rugged enough for police work

Mobile patrol-car technology needs to be rugged enough to withstand the rigors of police work and the XSLATE R12 has shown Carello it's up to the task. "I've been in the car during some high-speed chases and the tablet gets bounced around," he says. "It hasn't failed me yet." On those occasions when a patrol car gets in an accident and is totaled, switching the tablet to another car is easier than attempting the same with the old MDTs, he adds.

Easier information verification

As in any other kind of work, in police work the written word is a much more reliable form of communication for purposes of information verification than verbal interactions are. In instances of car chases that begin in a neighboring police jurisdiction and continue into the Troy PD's jurisdiction, it's more likely for inaccurate transcription of a license plate number to occur over the two-way radio than via the tablets, Carello points out. "Especially if a call had to go through a couple agencies, something was always lost in translation," he says. "I don't think that's happening as much as it used to."

More efficient report writing

The XSLATE R12s are part of a fairly common, yet valuable, paper-to-pixels transformation not unique to police work: the elimination of handwritten reports. Officers can write their crash reports and traffic citations on the XSLATE R12s and can print them at the headquarters or on the spot. Soon after scaling its implementation of the tablets in 2019, the Troy PD planned to use Tritech/CentralSquare's Computer Aided Dispatch report and records management solution for computerized police report writing.

"Not only can they knock out a report, they can have an accident description and a diagram already drawn in and issue tickets in about 15 minutes," Carello says of 'crash report' writing. "In the old days, where you did everything by hand, it probably took you 20 minutes just to do the crash report alone, then you had to hand-draw a diagram to match the accident and then you had to hand-write the tickets. With the tablet, the way we have it all set up to integrate with the New York State TraCS ticketing system, we can print them out in just a few minutes—it's so much quicker and easier," he says.

A mobility-powered law enforcement future

After the Troy PD's 2019 XSLATE R12 purchase, Carello looked toward some new uses that take greater advantage of its mobile capabilities. Officers can detach the rugged tablets and utilize them on the front lines of police work, such as taking witness testimony or photos at crime scenes for report dispositions.

> "That tablet can come out and run off the battery and you can run a license or registration check right away—it's instantaneous."
>
> **— Troy, NY Community Police Sgt. Sam Carello**

Additionally, "Say we've got a traffic safety checkpoint. That tablet can come out and run off the battery and you can run a license or registration check right away—it's instantaneous," he says. "You're so much more efficient even when you're writing a ticket. You're not detaining that person for a long time. In the old days, when you stopped somebody, you had to call it in on the radio and run the license number on the teletype system and wait for the reply. Then dispatch had to get back to you on the radio and you had to scribble down the license information on a piece of scrap paper or write it on a ticket. Now, you can just scan everything in, run the plate yourself and the information shows up on the screen."

"We've come from a place where there was very little technology here to this point and it's astounding how far we've come," Carello says. "The tablets give us an opportunity to be more proactive than we've been. The ability to get information out to all the cars all at once is just phenomenal."

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