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CASE STUDY | PUBLIC SAFETY TECHNOLOGY



It Works, 15 Years Later

How a Northeast Ohio housing authority police department restored mobile data access across ten patrol vehicles, with a support model built to last.

CASE STUDY

October 2026

The agency is not identified in this public case study.

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THE SITUATION

A Program They Couldn't Sustain

More than fifteen years ago, a Northeast Ohio housing authority police department had mobile data terminals (MDTs) in its patrol vehicles.

The program was eventually discontinued because the agency did not have the internal IT personnel to maintain the devices and supporting infrastructure. Officers returned to a workflow built around radio dispatch, station workstations, and manual reporting.

Dispatchers relayed routine database information over the radio, including details an officer might need before making contact during a traffic stop or responding to an unfamiliar address. Officers frequently waited for information or returned to the station to complete work that could have been handled in the field. The approach was familiar, but it placed additional demands on dispatch and delayed access to information.

Leadership wanted to restore secure, real-time access to computer-aided dispatch (CAD), records-management tools, and law-enforcement databases. The obvious question was whether a new system would last any longer than the first one. Purchasing the equipment was only part of the challenge; the department also needed an accountable technology partner after deployment.

The Assignment

Avrem was engaged to design and deploy MDTs in ten patrol vehicles, integrate the devices with the department's existing applications, meet applicable security requirements, and provide ongoing management. The work had to accommodate active patrol operations, a separate emergency-vehicle upfitting vendor, and software dependencies that were not fully known at the outset.

The deployment ran from approximately August or September through early December 2025. The agency is not identified in this public case study.

AT A GLANCE

10
Patrol Vehicles

15 years
Without MDT Access

<60 sec
Routine Queries Reported

CASE STUDY

The Work And The Results

The design combined field hardware, secure connectivity, and application integration with a managed-services arrangement. Each element had to support an agency without a dedicated internal IT department.

THE SOLUTION

Four Parts

1. SECURE CONNECTIVITY FROM THE FIELD

Ten laptops with cellular modems and a certificate-based Always-On VPN to headquarters, built to meet state security requirements without a recurring subscription.

2. INTEGRATE DISPATCH AND RECORDS SYSTEMS

Tyler Technologies CAD and records management, LEADS/NCIC queries, and license-plate information, through a vendor-required upgrade.

3. DEPLOY AROUND PATROL OPERATIONS

A limited rollout that added vehicles as the upfitter finished them, with all ten equipped by early December 2025.

4. MANAGE THE SYSTEM AFTER GO-LIVE

Monitoring, updates, technical support, and vendor coordination, so the program has an identifiable team behind it.

THE WORK

1. Secure Connectivity From The Field

Avrem configured ten laptops with Cradlepoint cellular modems so officers could connect to agency systems while on patrol. State security requirements meant the originally planned modem-based connection was not sufficient on its own for protected law-enforcement data. The team evaluated a recurring subscription-based zero-trust network access option and instead engineered a certificate-based Always-On VPN connection to headquarters.

That architecture required additional infrastructure, including a certificate authority, RADIUS authentication, and Routing and Remote Access Service (RRAS). It involved more initial engineering but avoided a continuing third-party subscription cost, which was important to the department's long-term sustainability goals.

THE WORK

2. Integrate Dispatch And Records Systems

The MDTs were integrated with the department's Tyler Technologies CAD and records-management environment, including access to LEADS/NCIC queries and license-plate information. During the project, the software vendor required an upgrade from its 2023.2 release to 2025.1. That change added a GIS server and an extensive testing phase before the full system could go live.

Avrem coordinated infrastructure and connectivity work with Tyler Technologies, which provided software configuration assistance and training. This vendor coordination became an important part of keeping the project moving as the technical scope expanded.

THE WORK

3. Deploy Around Patrol Operations

Vehicle installation depended on a separate emergency-vehicle upfitter. Because not every car was ready for the original go-live, the department began with a limited rollout and added vehicles as they became available. All ten were equipped by early December 2025.

THE WORK

4. Manage The System After Go-Live

Avrem's ongoing role includes monitoring, updates, technical support, and coordination with technology vendors. Early support identified issues involving Wi-Fi and cellular connectivity behavior, reinforcing why active maintenance was necessary rather than optional.

That support has required continued attention to the way devices behave when a patrol vehicle returns to the station. The project team observed that a laptop connected to the building Wi-Fi while also connected to the vehicle modem could interrupt the VPN tunnel. Cellular coverage also affected some connection speeds in the field. These were not reasons to abandon the program; they were the kinds of operational issues the managed-services model was intended to address.

OUTCOMES

Information At The Point Of Need

Officers now receive CAD updates, review call information, perform LEADS/NCIC and license-plate queries, and use records-management functions directly from their vehicles. The department reports that routine inquiries can return results in less than a minute, reducing reliance on dispatchers for radio-relayed information.

The change can be especially useful before an officer approaches a vehicle or responds to an unfamiliar location. Sensitive details can be retrieved through the secured connection instead of being routinely read aloud over the radio. Officers can also complete more reporting while in the field, limiting the buildup of end-of-shift work at station computers.

Department leadership says the availability of modern equipment has been a positive point in recruiting conversations. That benefit is qualitative rather than a measured change in hiring outcomes. The most consequential result remains the return of an MDT program with an identifiable team responsible for its continuing operation.

> *"Avrem approached this project as a partnership rather than a one-time transaction."*
> **DEPARTMENT LEADERSHIP**

IN THEIR WORDS

The Department's Perspective

The department's feedback focused less on the laptops themselves than on the confidence that someone would remain responsible for them. Leadership highlighted Avrem's communication during the rollout and its availability after go-live, including coordination with the department's software vendors. The department also advised other agencies to make decisions about maintenance and replacement before committing to an MDT purchase, especially when there is no internal IT team to absorb that work.

> *"Our biggest concern going into the project was long-term sustainability. We previously had MDTs but discontinued their use because we did not have the internal IT resources needed to maintain the equipment and supporting infrastructure. Avrem addressed this concern by providing a fully managed solution that includes system monitoring, updates, technical support, coordination with our other technology vendors, and ongoing maintenance. This gave us confidence that the MDT program would remain reliable and sustainable."*
> **DEPARTMENT LEADERSHIP**

WHAT OTHER AGENCIES CAN TAKE FROM THIS

A Support Plan As Much As An Installation Plan

Mobile technology needs a support plan as much as it needs an installation plan. For this department, defining who would maintain the security, connectivity, and software integrations was the difference between buying ten laptops and restoring an operational capability intended to last.

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NEXT STEPS

Planning A Public-Safety Technology Deployment?

Visit https://www.avrem.com to discuss the technical requirements and long-term support model.

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