cradlepoint

Solution: NetCloud Service for Mobile ▪ **Industry:** First Responders — Police ▪ **Use Case:** Emergency Services

New Jersey Police Department Improves Officer Safety & Efficiencies

Cradlepoint Enables More Reliable, Software-Defined Network for In-Vehicle Connectivity for Officers

> **"**
>
> It's easier this way. Officers turn their computer on, and the Cradlepoint automatically connects using the authentication that we set up and they can get right into our police network and access the resources and programs they need."
>
> **Robert Green,**
> Director of Technology, Ewing Police Dept.

Summary

As is true of most U.S. law enforcement organizations, in-vehicle networks are mission-critical components of the Ewing Police Department's IT infrastructure. When the department's IT staff began experiencing problems with legacy equipment, it needed to find dependable replacements. Cradlepoint NetCloud Service for mobile provided a technology combination that enables the police department to easily create in-vehicle networks with secure virtual overlay connections. The service includes extensive cloud functionality, a purpose-built mobile router, 24x7 support, and a limited lifetime warranty. Now officers can access the critical police applications from their vehicles leveraging always-on LTE connectivity. As a result, officers stay connected to the information they need to perform their job efficiently and safely and the IT staff significantly reduces its network management and support time.

Organization Profile

The town of Ewing is a growing community in Central New Jersey. The Ewing Police Department serves more than 36,000 residents and is comprised of 80 patrol officers, more than a half dozen support staff, and 30 front-line patrol vehicles. The vehicles are equipped with in-vehicle laptops and tablets, computer-aided dispatch (CAD) devices, access to online police records and applications, integration with an automatic vehicle location (AVL) system, digital cameras, and fingerprinting.

Business Needs

To take advantage of evolving law enforcement technology, the Ewing Police Department equips each police cruiser with secure, reliable in-vehicle LTE network connectivity. The devices the IT department uses must have a small form factor to fit into modern vehicle models, and they must be easy-to-install, endure harsh conditions, create a mobile WiFi hotspot surrounding each vehicle, and support GPS. While the police department's legacy solutions met most of these demands for a short time, they soon experienced major connectivity issues and had to be sent them back to the manufacturer.

The IT staff were also looking for a way to configure, monitor, and manage all of its devices from one central location, because of the time and effort it took to update the firmware, install patches, and conduct bug fixes on its previous in-vehicle network solutions.

Another issue that plagued officers as they traveled throughout the town was the reliability of their VPN connection to key applications for checking vehicle plates and receiving BOLO's (be on the look-out) notices. When officers drove between cell towers, under a bridge or other areas where the cellular signal would be temporarily lost, the VPN connection would drop and communication with online systems would be lost. This would require the officer to exit local applications on their PC and restart the VPN connection — causing a productivity and security issue for officers.

By replacing their legacy VPN with Cradlepoint's cloud-based virtual overlay network, IT provided its patrol officers with a secure and resilient network that keeps them connected even when the LTE signal is temporarily obstructed.

Simply put, the Ewing Police Department needed a better way to connect its officers to the resources they needed while in the field.
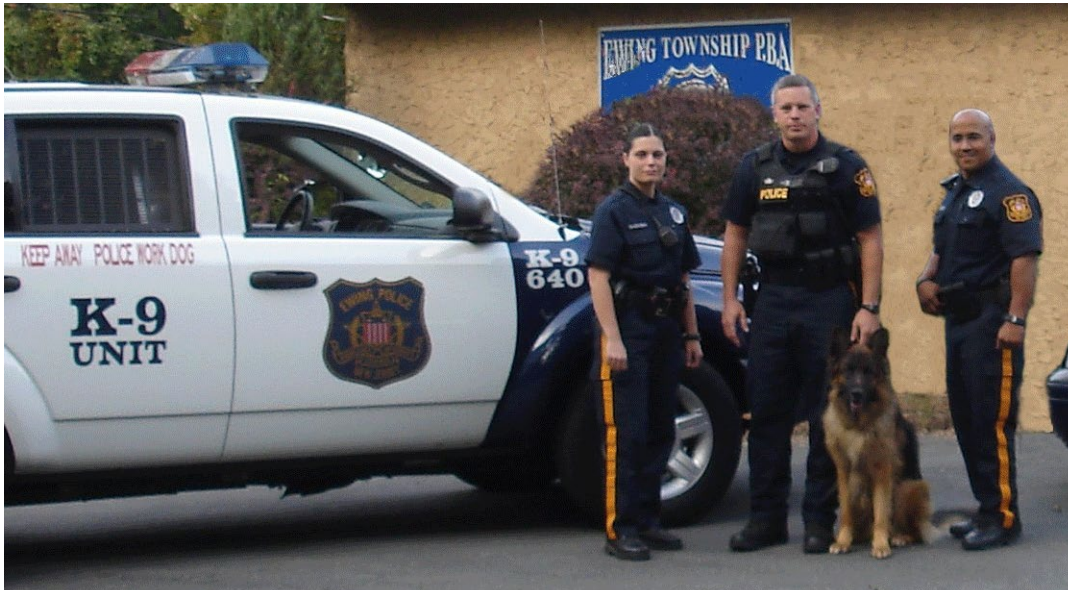
Solution

After some research and evaluation, the Ewing Police Department chose Cradlepoint NetCloud Service for mobile. The service includes routing, a WiFi access point, GPS and telematics integration, WiFi-as-WAN, and cloud configuration and troubleshooting, all delivered via an in-vehicle LTE router with 24x7 support and a limited lifetime warranty. The Cradlepoint-powered LTE network enables the cruisers to have instant, resilient, and secure network connectivity while accessing critical online systems no matter where they are.

Each cruiser is equipped with an in-vehicle laptop that serves as a mobile data terminal and has a small, ruggedized Cradlepoint solution in the trunk that provides fast and reliable LTE access. They replaced their legacy VPN client with Cradlepoint and deployed a secure virtual overlay network to connect officer laptops over LTE. The cloud networking solution provides a mobile LAN that keeps officers connect to critical online applications and files from anywhere — just as if they were at headquarters. Cradlepoint's cloud management service, NetCloud Manager, enables IT staff to manage the in-vehicle networks in each cruiser from one central location.

> " We are exceedingly happy with the Cradlepoint technology... It works seamlessly and Cradlepoint showed us that we could manage everything remotely. The officers don't have to do anything to get it to work. It is always there and always on."
>
> **Robert Green,** Director of Technology, Ewing Police Department

Michael Narducci, senior technical specialist for the Ewing Police Department, stated, "Our cruisers operate almost 24/7. I wouldn't be surprised if some of our Cradlepoint routers have been running nonstop for a week. They're exposed to extremes of hot and cold, and to all the items bumping around in the trunk of the cars. These things are tough!"

Benefits

Increased efficiency

With traditional in-vehicle and WAN solutions, setting up a VPN was a headache because it had to be managed at both ends — and the carrier had to be involved to get the network set up appropriately. Sometimes that could take months to schedule. However, Cradlepoint NetCloud Perimeter provides a virtual overlay network with the end-to-end encryption and a private address space that completely isolates it from the public Internet. The combination of Cradlepoint's fast and reliable LTE and secure and resilient network enables the police department to stay connected from anywhere.

"It's easier this way. Officers turn their computer on, and the Cradlepoint automatically connects using the authentication that we set up and they can get right into our police network and access the resources and programs they need," added Green.

Additionally, the remote access and central control capabilities enables the IT department to grant platform access to third parties. In particular, it allows the Ewing Police Department to provide such access to its IT reseller.

"Having that ability to let our vendors go in and check settings eliminates an additional step for us. They don't have to explain to me how to do something since they can just go in and do it themselves," added Narducci.

Time Savings

Officers have reduced the amount of trips into the station because they can do all reporting and correspondence while out in the field.

"There is no real reason for them to come to the police station unless they have to process someone that was arrested. They can write all of their reports and get to all their resources, maps, or whatever else they need on our main server without a trip into the station," Green said.

Additionally, Cradlepoint's software-defined solution significantly reduces the time it takes to update software and equipment in each of the vehicles. Before, the IT staff would have to bring in every cruiser and connect them to a long cable run through the garage to load the latest program updates and each car could be in the garage for up to an hour. With Cradlepoint, it all happens in about three minutes without officers even knowing it.

"It used to take us several days to cycle through all the cruisers. Now, it's immediate and seamless. This efficiency makes everyone very happy – the officers, IT staff and even facility maintenance. Our IT staff can focus their attention on upgrading and renewing computers instead of chasing network updates. Anytime you can keep the IT guys out of the garage, everybody's happy," Narducci added.

Learn more at cradlepoint.com

Future-Proofed Scalability

The Ewing Police Department hopes to eventually leverage the WiFi feature set in the Cradlepoint solutions to allow officers to take laptops out in the field or onto a scene while staying connected to their cruiser in-vehicle network. The officers could sit with a victim inside a residence while remaining connected to the resources they need.

The department also thinks it will leverage the Cradlepoint LTE solutions to connect surveillance cameras throughout the county, and other remote locations where running hard wire is too difficult or costly.

"We are looking at connecting a batting cage in a park and putting a computer in it. There is no connectivity there at all. If we implement a Cradlepoint solution out there, we could remotely log into that computer to easily control door access, cameras, and more. The solutions are helping us envision future applications – and that is a huge plus for us," said Green.