

How cellular networks improve emergency response

Public safety responders experience success using advanced 5G and LTE routers in vehicles, buildings, and IoT



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Table of contents

How today's first responders depend on cellular connectivity
Networking requirements 3

Advanced in-vehicle video streaming from the field
Seattle Police Department..... 4

Support for ongoing tech innovation in vehicles
Wisconsin State Patrol 5

Reliable failover in unpredictable environments
County of Los Angeles Fire Department 6

Cellular solutions to bolster connectivity at stations
Avon Fire and Rescue Service..... 7

Secure connectivity to transmit critical data
Indianapolis Emergency Medical Services..... 8

Immediate network access for emergency response operations
City of Roswell 911 Dispatch Center 9

“The level of interoperability we have with the Annapolis City Fire Department would have been very problematic, if not impossible, without Ericsson Cradlepoint’s cloud-managed solutions”

Emily Meadows, public safety portfolio manager, Anne Arundel County Fire Department

First responders need a network as strong as they are

Agencies rely on the power of 5G and LTE — including nationwide public safety networks — to deliver mission-critical connectivity in the toughest conditions, day to day, and when lives depend on it. Ericsson Enterprise Wireless Solutions offers cellular solutions designed to provide simple, scalable, and secure mobile connectivity by harnessing the power of cellular networks, no matter the location or circumstance.

What to look for in a wireless solution for agencies



Use purpose-built mobile routers

Emergencies can get messy. That's why emergency response teams depend on purpose-built, ruggedized hardware that can withstand the extreme environments they face daily without compromising the integrity of their network connectivity.



Protect critical information

As the number of in-vehicle and on-body connected devices increases, so do security vulnerabilities. First responders need mobile solutions with security built into all levels, ensuring their network and sensitive data remain safe from bad actors and data leaks.

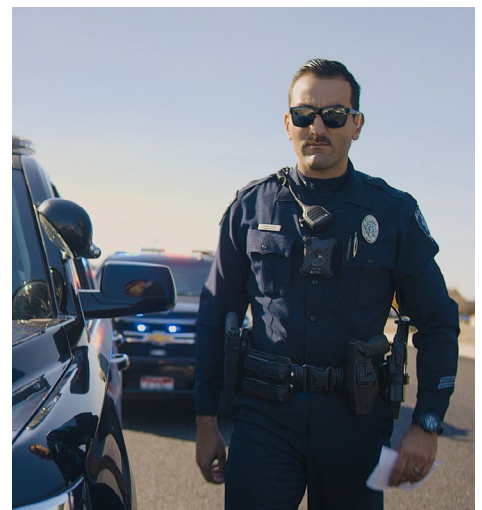


Centrally manage the network

Through a cloud-based platform, public safety IT departments can save valuable hours and costs by remotely deploying, monitoring, and controlling their vehicle, site, and IoT routers. This reduces downtime and keeps first responders focused on their jobs.

Putting advanced technologies to work

Innovative devices, applications, and connectivity solutions help first responders respond faster, stay safer, collaborate better, and save lives. The following are real-world examples of public safety agencies that overcome challenges using the latest technologies.



Advanced in-vehicle video streaming from the field

Wireless edge solutions help the Seattle Police Department securely transmit data and future-proof their mobile technology investments

Challenge

The Seattle Police Department planned to install new evidence and video capture platforms and onboard essential applications such as mobile data terminals (MDTs) — tools meant to decrease operational inefficiencies, reduce officer overhead, and boost overall safety. The IT team needed to upgrade its old vehicle connectivity system, which lacked key capabilities and was about to be discontinued.

Solution

Seattle Police deployed Ericsson Cradlepoint ruggedized in-vehicle wireless edge routers featuring built-in cellular, GPS, robust Wi-Fi, and support for nationwide public safety networks.

Benefits

A comprehensive solution of technologies connected through cellular-enabled routers ensures critical video footage and other data can be securely connected to the internet, transmitted, and reviewed 24/7. With this highly reliable networking solution, the department can support existing, planned, and future upgrades to cruisers and connected devices.

[Read full success story →](#)



“It’s really nice to have a piece of technology that makes wireless connectivity possible, easy, and efficient because if you lose that connectivity in the field, it can become a real safety issue for officers.”

Nick Zajchowski, strategic advisor, Seattle Police Department

Image courtesy of Seattle Police Department

Support for ongoing tech innovation in vehicles

Reliable network solutions and centralized management ensure Wisconsin State Patrol troopers always have access to mission-critical technology tools

Challenge

Wisconsin State Patrol (WSP) has seen technology dramatically change its day-to-day operations to support in-vehicle devices, CAD, cameras, and live-streaming during emergencies. Consumer-grade network solutions have reliability and signal strength limitations, making it difficult to trust that everything will work smoothly at critical times.

Solution

WSP uses ruggedized Ericsson Cradlepoint routers alongside Axon Fleet 3 camera systems in its vehicles. Using dual SIMs, the agency can remotely change the network based on trooper location. Through Ericsson NetCloud Manager, WSP remotely pushes out software updates and configuration adjustments and monitors the performance of hundreds of cellular connections via a heatmap tool to make important location-based network decisions.

Benefits

With Ericsson Cradlepoint routers installed throughout its fleet and NetCloud making management and troubleshooting easier, WSP keeps its mission-critical technology tools operational and effective 24/7. This system also gives WSP's tech experts enough network reliability and management simplicity to confidently add new tools, such as automatic license plate readers, whenever innovation opportunities emerge.

[Read full success story →](#)

"Upgrading to Ericsson Cradlepoint routers provided our vehicles and troopers with much better connectivity, as well as a more robust platform that helps us leverage the newest technologies as they emerge."

Trooper Brandon Ferrell, enforcement technology specialist, Wisconsin State Patrol



Image courtesy of Wisconsin State Police

Reliable failover in unpredictable environments

Dual-modem functionality ensures the County of Los Angeles Fire Department never competes for bandwidth during an emergency

Challenge

The County of Los Angeles Fire Department (LACoFD) had an aging and decentralized in-vehicle network that used a privately built cellular network and a commercial cellular service, which was congested by millions of LA-area residents. This left public safety agencies competing for access and bandwidth, which is especially problematic during emergencies.

Solution

LACoFD deployed Ericsson Cradlepoint multi-modem cellular routers in hundreds of fire apparatuses and support vehicles. This solution included Wi-Fi, GPS with telematics integration, and cloud configuration controls and analytics.

Benefits

With dual-modem functionality for multi-carrier failover, support for nationwide public safety networks, and a slew of management features, LACoFD has a more reliable, comprehensive, and manageable network for its widespread vehicles.

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“Our Ericsson Cradlepoint routers are working so seamlessly the firefighters don’t even think about it. They can focus on their critical work instead of on technology.”

Scott England, telecommunications systems consulting engineer, County of Los Angeles Fire Department

Cellular solutions to bolster connectivity at stations

Ruggedized routers provide uninterrupted connectivity to maintain mission-critical communications for Avon Fire and Rescue Service

Challenge

Communication between firefighters and staff is crucial to Avon Fire and Rescue Service (Avon FRS), which provides prevention, protection, and emergency services to the Avon region of southwestern England. When Avon FRS learned its secondary network connectivity bearer would be withdrawn, the agency quickly sought a fast, ultra-resilient router that would not rely on soon-to-be-decommissioned legacy technologies.

Solution

Avon FRS deployed Ericsson Cradlepoint cellular-enabled routers in stations and adapters throughout local facilities for failover, Out-of-Band Management, and bandwidth augmentation — all managed from one portal: Ericsson NetCloud Manager.

Benefits

Avon FRS now has assured access to continuous communications, enabling more than 600 firefighters to effectively perform their duties without the risk of losing contact with their home station or experiencing a lapse in connectivity to on-site equipment. NetCloud provides real-time data monitoring and allows offsite issue resolution while proactively flagging connectivity failures, significantly reducing network downtime and eliminating site visits.

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“We cover an incredibly high-risk and expansive environment. Failures in communication can put the lives of our teams and the public at risk. Ericsson Cradlepoint routers have helped us significantly reduce that threat.”

John Craig, station manager, Avon Fire and Rescue Service



Image courtesy of Avon Fire and Rescue Service

Secure connectivity to transmit critical data

Indianapolis Emergency Medical Services uses wireless edge solutions to communicate patient care information from anywhere

Challenge

When traveling in and out of good cellular coverage areas, Indianapolis Emergency Medical Services (IEMS) would lose connectivity or experience downtime during critical moments while waiting to connect to the nearest network. IEMS needed an advanced, reliable cellular connectivity solution to effectively use its in-vehicle MDTs, mobile devices, and electronic patient care reporting (ePCR) system.

Solution

To maintain always-on connectivity, IEMS invested in mobile routers for its fleet of more than 60 vehicles and leveraged Ericsson NetCloud Manager for full visibility and remote management of all their connected devices, regardless of where the vehicles were located.

Benefits

With the ability to achieve instant wireless-to-wireless failover, paramedics can enter, send, and receive patient data en route without fear of losing connectivity. Furthermore, IT administrators can troubleshoot the connection remotely if in-vehicle equipment falls offline, allowing the paramedics to focus fully on the emergency at hand.

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Image courtesy of Indianapolis Emergency Medical Service

“A huge driving force for us with the Ericsson Cradlepoint routers is reliable connectivity so those software applications on the MDT and ePCR work consistently.”

Kevin Gona, chief of logistics, IEMS

Immediate network access for emergency response operations

The City of Roswell 911 Dispatch Center sets up temporary sites at a moment's notice with wireless edge solutions

Challenge

When a natural or man-made emergency overwhelms the City of Roswell's (Georgia) 911 Emergency Communications Center, they are sometimes forced to move operations to a temporary location to continue fielding calls and helping community members. The city needed to develop a continuity plan to ensure the rapid resumption of essential functions — including network connectivity.

Solution

As part of its emergency relocation plan, Roswell 911 uses Ericsson Cradlepoint routers, which support wired, cellular, and Wi-Fi connectivity that the IT team can manage from anywhere.

Benefits

With Cradlepoint's cloud-controlled routers, Roswell 911 can establish a pop-up network and stage a new call center within moments if the primary center needs to be evacuated. This backup solution enables the agency to continue answering calls, directing first responders to emergencies, and saving lives.

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"In the worst-case scenario, if there is an emergency, we still need to answer 911. Ericsson Cradlepoint routers have enabled us to do that and given us piece of mind"

John Potrzebowski, 911 deputy communications director, City of Roswell Police Department



Image courtesy of City of Roswell Dispatch Center

Harnessing the power of cellular networks to protect and serve communities

In the face of an emergency, every second counts. Under immense pressure in the field, police, fire, and paramedic professionals must be able to focus on their jobs without troubleshooting network connectivity. Ericsson Cradlepoint routers and adapters provide the unmatched agility and reach of advanced cellular connectivity in the background while first responders save lives.

Learn more at cradlepoint.com



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