

Case study

# Wyoming Highway Patrol uses cellular and satellite to keep people safe across rugged state



**ERICSSON**

# Ericsson Cradlepoint routers with cellular-optimized SD-WAN provide critical reliability for patrol vehicles and mobile command center

**Customer:**  
Wyoming Highway Patrol

**Industry:**  
Law enforcement

**Use case:**  
Hybrid satellite and cellular connectivity in vehicles

## Success story highlights

**Challenge** — From rural areas and national parks bigger cities, Wyoming Highway Patrol's troopers depend on digital tools to keep citizens and themselves safe. However, it's difficult to guarantee never-failing wireless connectivity in the agency's vehicles — and just as challenging for the IT team to control network security and performance when the fleet is in the field.

**Solution** — Wyoming Highway Patrol (WHP) deployed Ericsson Cradlepoint dual-modem cellular routers and SD-WAN features throughout its fleet of patrol vehicles, enabling automatic, on-the-move failover between multiple cellular providers.

The agency also set up a unique mobile command center with a router that supports failover between cellular and Starlink satellite.

During emergencies, employees from multiple state and federal agencies can use this vehicle to securely connect to their laptops, even in remote spaces such as Yellowstone National Park.

**Benefits** — Whether it's a statewide emergency or an average Tuesday, WHP's use of cellular-optimized vehicles and cloud-based network management establishes a foundation of reliable connectivity that troopers trust during emergencies and that the IT team relies on for efficiency that saves time and money of field staff hours. Centralized visibility through Ericsson NetCloud Manager allows simplified access to network insights and usage.

“Since we began using Ericsson Cradlepoint routers, we no longer get calls about the lack of connectivity, which is impressive, as poor connectivity can have a drastic effect on our troopers. Our top priority is safety, and reliable connectivity plays a big factor in that.”

A.J. Meyers, applications support program manager, Wyoming Highway Patrol

## Background and challenges

Wyoming Highway Patrol (WHP) fleet vehicles rely on technology more than ever, just like most law enforcement agencies throughout the U.S. The difference? Not every agency is located in the rugged Northwest. Getting seamless coverage is challenging enough in the major cities, but imagine how difficult it becomes in remote spaces such as Yellowstone National Park.

Like most technology stories, WHP's started with a single need but evolved as other factors emerged. The agency first tried aircards to connect devices in its vehicles. As its digital needs grew, WHP upgraded to enterprise-grade routers with a built-in cellular modem. However, with its bandwidth needs steadily growing, WHP realized it would need a future-proof

solution with ample scalability. But even with such routers in place, how would the IT team be able to manage configurations and software updates and diagnose downtime with the fleet constantly driving all over the state?

Beyond its trooper fleet, WHP also developed a mobile command center to use during emergencies. The goal was to support the technology and communication needs — including video teleconferencing — of personnel from various national, state, and local agencies in a central hub. But finding consistent connectivity in some of Wyoming's most remote locations is highly difficult.

“In Yellowstone National Park, cellular coverage is virtually nonexistent,” said Lt. Jason Sawdon, Wyoming Highway Patrol.



Image courtesy of Getty Images

## Solution

### Multi-carrier cellular with SD-WAN in patrol vehicles

Wyoming Highway Patrol installed dual-modem Ericsson Cradlepoint cellular routers in hundreds of patrol vehicles. With automatic failover between Verizon and AT&T FirstNet, troopers have access to their mission-critical digital tools and data everywhere they serve.

The solution includes Ericsson NetCloud Manager, which enables the technology team to easily manage router firmware updates, configuration changes, and troubleshooting remotely, without having to visit each park.

The team also uses SD-WAN settings to optimize the flow of data across two cellular links based on real-time measurements of latency, signal strength, jitter, and other variables.

### Cellular-to-satellite failover in mobile command vehicle

WHP installed a dual-modem router in its mobile command center, but with an added twist: integration with a Starlink router for ultra-smooth failover between cellular and satellite connectivity in remote areas.

“Because we did do quite a bit of testing at different solutions here in the state, we were able to determine which one was going to give us the best back-end configurability and control along with the front-end performance that we needed in our mobile work environments,” said A.J. Meyers, applications support program manager for Wyoming Highway Patrol.

“And then once the 5G is stable enough in the state of Wyoming and more available, we have the ability to upgrade without having to change all of our hardware,” Sawdon said.

## Benefits

### Reliable, optimized connectivity for widespread patrol vehicles

Using automatic failover between multiple cellular providers, along with SD-WAN features, ensures WHP’s patrol vehicles have the best possible performance in every area of Wyoming. Officers have the confidence to rely on their many digital tools — including mobile data terminals (MDTs) and computer-aided dispatch (CAD) — to help them serve quickly and efficiently.

Ericsson Cradlepoint solutions have the bandwidth to support WHP’s extensive use

of in-vehicle video cameras systems, which include 5 cameras that are always recording and pushing footage to the cloud throughout the day.

“Since we began using Ericsson Cradlepoint routers, we no longer get calls about the lack of connectivity, which is impressive, as poor connectivity can have a drastic effect on our troopers. Our top priority is safety, and reliable connectivity plays a big factor in that,” Myers said.

### Cohesive satellite and cellular

With hybrid cellular and satellite connectivity in remote areas, WHP can keep at least 10 people from different government agencies fully connected and able to leverage their laptops for teleconferencing, as well as in-vehicle wireless printers and other technologies.

Leveraging firewall rules and two separate Wi-Fi networks allows the IT team to keep traffic segmented and secure, which is crucial when providing connectivity for multiple entities

### Grouped configurations for fast, centralized updates across the fleet

Configuring, updating, and monitoring routers in hundreds of vehicles throughout a large state is much easier and faster through a cloud-based management platform.

“We control everything through NetCloud, because it’s 100 times easier to make one configuration change across the fleet rather than trying to touch everything. One change affects every vehicle, instantly,” Meyers said.

Learn more at [cradlepoint.com](https://www.cradlepoint.com)



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