

Cellular Connectivity for In-Vehicle IoT Devices and Applications

Using LTE and 5G solutions for reliable and secure transport of key data from vehicles to the cloud

Organizations that operate a set of vehicles such as delivery and service trucks, police cars, ambulances, and beyond use IoT technology to constantly improve fleet management, rider experience, and operations. These technologies and applications include sensors for vehicle data, traffic signal priority, video cameras, digital signage, and more. Reliable and secure mobile connectivity is an essential aspect of enabling the influx of IoT aboard fleet vehicles.



Networking challenges

Managing many IoT devices

Most IoT devices and applications require connectivity in order to improve in-vehicle operations. As the number of connected on-board technologies continues to rise, it has become unreasonable to expect IT teams to manage every wireless router across an entire fleet without a cloud-based platform.

At-risk IoT information

The transfer of in-vehicle information from any sensor, camera, or device can be a security risk in the absence of a secure mobile network solution. In particular, valuable information such as credit card info and corporate details must be protected from security breaches.

Need to enable edge computing

Sending volumes of IoT data into the cloud for processing, analysis and storage is impractical and does not provide sufficient real-time responses and low latency needed for the growing number of IoT devices in vehicles. Edge computing performs by processing data close to where it originates and allows IT teams to add custom functionality to their routers.



We need to send the closest, most appropriate vehicle to each emergency. Reliable Internet connectivity makes sure our vehicles' GPS data is always up to date, which truly helps saves lives."

Ben Baker,
Director of Communications and
Information Technology, Care
Ambulance Service

Benefits of LTE and 5G for IoT devices in vehicles

Reliable connectivity through cloud-controlled routers

Cradlepoint's NetCloud Service for Mobile and wireless in-vehicle routers — delivered with built-in Cellular Intelligence — enable reliable connectivity and centralized management for IoT devices, which saves the IT team time and money.

Comprehensive in-vehicle security for IoT

Whether information is sent to the cloud or a datacenter, Cradlepoint's wireless in-vehicle routers provide secure connectivity, with a built-in firewall and support for easy creation of VPN tunnels. It makes the transfer of sensitive personal information safer and more secure.

Real-time response at the edge

Cradlepoint's in-vehicle routers provide edge computing functionality that can run dynamic applications that save time, conserve bandwidth, and reduce latency. Edge computing is well suited for IoT situations which require the immediate feedback provided by fast local decisions.

Learn more at cradlepoint.com/mobile

*Cradlepoint's NetCloud Service for Mobile
with wireless LTE and 5G routers*

