

EnRoute



What is Telematics?

Telematics refers to the use of both wired and wireless devices to collect and transmit data, in real time, to and from mobile and remote assets within an organization or business. Today, nearly 30% of all commercial vehicles (light, medium, heavy and extra-heavy duty trucks, passenger cars and specialty vehicles) in the United States have installed telematics devices (climbing to 75% by 2026), and a greater number are connected in some way via smartphones, tablets and other portable devices.

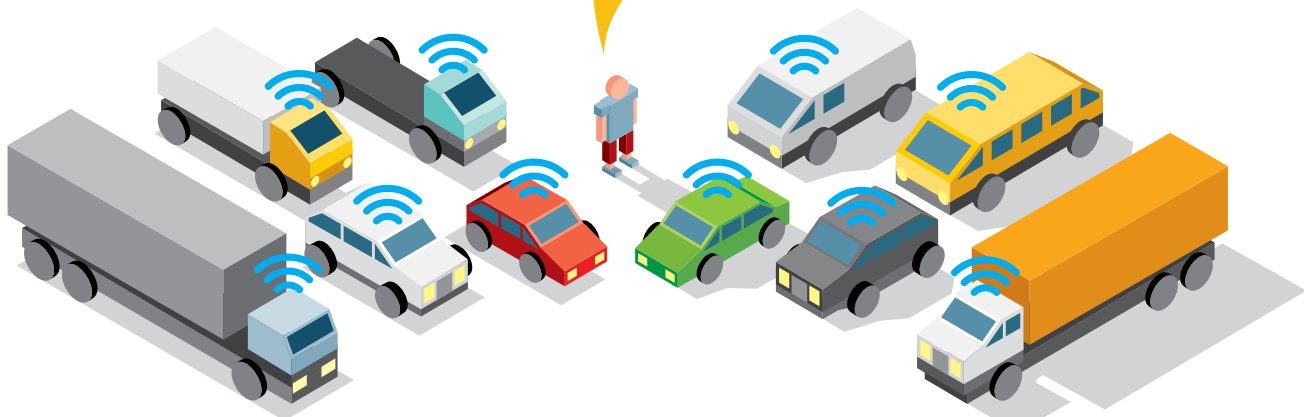
An unprecedented view of vehicle operations

Telematics connectivity affords operators the ability to know where, when and how a vehicle is driven. Once installed, a telematics device turns an auto or truck into a “connected vehicle”, and a data collection and transmission node. Vehicles and fleets today connect in four different ways (some using more than one approach depending on operational requirements):

- OEM: a factory equipped two-way vehicle connectivity device such as employed by General Motors’ OnStar or Ford’s Sync, or a vehicle with connected head-unit such as Harman’s AHA or Volvo’s Remote Diagnostics.
- Aftermarket Telematics: an onboard diagnostic (OBD) device or a black-box (with or without video capability) fitted with two-way communications and optional driver terminal.
- Hybrid: the hybrid model uses an aftermarket-installed OBD device or the vehicle infotainment head-unit to communicate with the vehicle and a tablet or smartphone.
- Standalone: a smartphone application capable of amalgamating and transmitting the time and date, and vehicle dynamics obtained from GPS, sensors and network nodes.



AH-HAH!



Improving operations, enhancing safety, saving lives.

These devices are recording volumes of data for the purposes of fleet management, job tracking, drivers' logs, road use taxation and much more. In 2014 alone over 200 billion miles of data was collected. The captured data runs the gamut from GPS-derived time-and-date-stamped location and engine performance, to actual driving maneuvers (including video) such as speed, braking and cornering. The resulting analytics have proven powerful for understanding driving risk, and are propelling the evolution of Usage Based Insurance (UBI).

From a fleet management perspective, telematics devices aid in increasing fleet and vehicle efficiency and improving overall productivity by recording when, where, how and by whom vehicles are driven. Fleets use telematics for routing and dispatching, generating job tickets, verifying and billing deliveries, meeting Hours of Operation requirements, documenting compliance with emissions standards, mileage reports, fuel management, controlling unauthorized use of vehicles (both time and territory), reducing overtime, and much more, including:

- **GPS & VIDEO:** Location, in-cab navigation, state-by-state records of miles and routes traveled. Real-time crash and event data.
- **ELD/EOBR:** Electronic logging and hours of service management.
- **DRIVER PERFORMANCE:** G-force calculations, collision detection, speed, braking, fuel economy, hard cornering, sudden lane changes, diversions from trips and video logs, trip histories.
- **VEHICLE PERFORMANCE:** Maintenance prognostics and diagnostics, engine malfunctions, remote tire pressure, Vehicle Inspection Reports (VIR), and vehicle maintenance reports.
- **COMMUNICATIONS:** Trip management (real-time dispatch of nearest available vehicle, trip re-routing, etc.), in-cab document scanning, and messaging. Control use of cell phones/communication devices while driving.
- **LOAD PERFORMANCE:** Load temperature and weight information by zone, load balance and ride characteristic. Pre-trip and roadside inspection results.

SAFETY!
Efficiency
Asset Protection
Compliance
PRODUCTIVITY

In addition to the factory or aftermarket hardware, OBD plug-in or smart device mobile app, a typical telematics fleet management system or service will include a web portal which allows the fleet operator to monitor and manage vehicles, generate reports and track various metrics from individual driver score cards to fuel usage.

The selection of a telematics device or system depends on a variety of factors, including type and class of vehicle, fleet size, type of business and the company's mission, feature set needed and more. Regardless of what type of telematics a fleet operator chooses, the potential payback in improved performance, greater productivity, better safety, reduced driving risk, increased fuel efficiency, fewer collisions and other benefits may well offset the cost of the investment.

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**For more information on the use of telematics in insurance, and its role in business risk reduction and loss prevention,
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