To The Point
Fleet Telematics

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What is Telematics?

Telematics technology in fleet vehicles can positively impact a driver's at-risk driving behaviors resulting in reduced crash frequency and severity. Telematics pairs telecommunication technology with a computer running fleet management software to collect and wirelessly transmit data about the vehicle and how it is driven.

Various devices are used in telematics solutions. These devices blend technology and innovation to capture real-time data. This data is beneficial in changing driver at-risk behavior and improving vehicle efficiency and business productivity. Implementing telematics technology in fleet vehicles can also reduce fuel consumption and operational expenses.

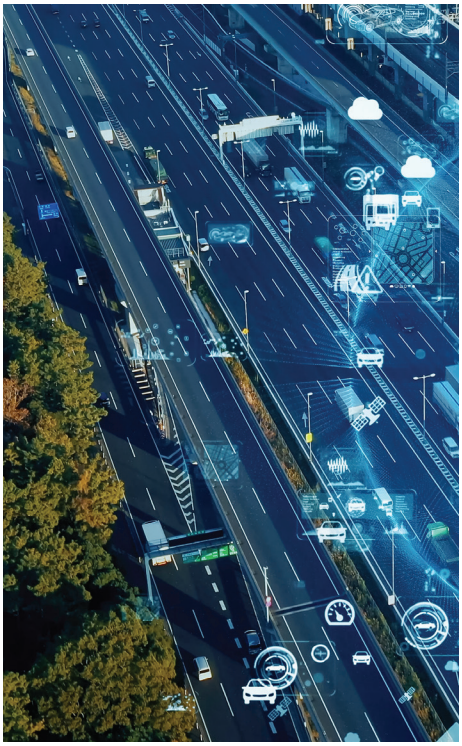
Telematics systems provide a broad array of remotely monitored metrics and offer a variety of services depending on the vendor. Typical metrics tracked include speed, rapid acceleration, harsh braking, and hard cornering. Standard navigation features include geolocating and geofencing using GPS, asset tracking, route optimization, trip miles traveled, and traffic condition notifications. Vehicle efficiencies tracked include fuel use, engine diagnostics, tire pressure, CO_2 emissions, electric vehicle usage and charging status, vehicle emergency systems, and more.

To make the most of the data, telematics service providers offer dashboards, standard driver and vehicle reports, fleet and driver scorecards, predictive analytics, and even artificial intelligence capable of detecting driver fatigue. Fleet managers can determine which data is most important to monitor and how it's used to positively coach and train drivers to impact at-risk driving behaviors. The result is often reduced crash frequency and severity.

Fleet Management

Telematics devices can also simplify regulatory compliance requirements, such as using Electronic Logging Devices (ELDs) to record Record-of-Duty Status (RODS) and Hours-of-Service (HOS), Driver Vehicle Inspection Reports (DVIRs), and International Fuel Tax Agreement (IFTA) tracking. This provides drivers with readily available, consistent regulatory reporting data for roadside inspections. Fleet managers can utilize these tools to make their day-to-day fleet responsibilities easier while improving the bottom line.

Telematics systems can deliver real-time, in-vehicle driver alerts when established parameters are exceeded, like speed,



following distance, or space management. Driver behavior trending allows management to pinpoint training topics to individual drivers that, depending on the telematics vendor, can be delivered from a library of videos, coaching sessions, training modules, or reminders directly to the driver's mobile device. Targeted, behavior-based safety training topics can reinforce good driving habits and draw attention to poor driving habits that lead to collisions.

Encouraging excellence among drivers can be achieved through gamification, and companies can create measurable goals and incentives for their drivers. Gamification uses driver/vehicle scorecards to rank the safest drivers by location, division, company, etc. Offering incentives, rewards, or bonuses for safe driving habits, productivity, or efficiency gains is easier when objective measures to determine safe driving performance are available.

On the other hand, objective data used to support disciplinary action when a driver is guilty of conduct in violation of a company policy helps justify disciplinary decisions.

Fleet Tracking Systems

Developing a concise, documented policy is a necessary first step in a successful telematics program. The policy should include, but not be limited to:

- Specific driver metrics to monitor (speed, harsh braking, hard cornering, rapid acceleration, mobile device use, seat belt use, driver fatigue, regulatory compliance, etc.)
- Specific vehicle metrics to monitor (idle time, engine diagnostics, vehicle maintenance intervals, tire pressure, fuel usage, fuel economy, etc.)
- Daily review and monitoring of data
- Driver coaching and training intervals
- Individual responsibility and accountability
- Rules for infractions and corrective actions to take
- Incentives and rewards for following the policy
- Oversight and audit timeframes to determine the effectiveness of the program

A common pushback to implementing a fleet tracking system is resistance from the drivers. Discussing the technology's benefits and addressing privacy concerns are crucial to implementing a successful program. When informed about the advantages of a fleet telematics system, drivers are less likely to feel watched over, subjected to scrutiny, etc. Assigning responsibility and providing training for the individual responsible for implementing the program to drivers is also key. This person must be familiar with all aspects of the technology and company policy, be a skilled communicator who is a good trainer, and understand the many positive benefits of telematics. Most drivers find after using telematics for some time that they prefer a vehicle with telematics more than one without it.

Document Retention Policy

Using telematics data in civil proceedings can have significant benefits when a driver is not liable in a collision. However, when a driver is at fault in a crash, data that is ignored and never used by management to alter at-risk driving behaviors might have a negative impact in court.

It's imperative to seek legal counsel to determine which data should be saved and discarded, a timetable for the deletion of data, where data and documents should be stored, etc. Data can be used to support or refute a particular claim or defense. Therefore, a written data/document retention policy that is closely followed is an essential part of a telematics program.

Telematic Solutions

Current telematics solutions include built-in systems from original equipment manufacturers (OEMs), smartphone applications, Bluetooth-powered devices, on-board diagnostic (OBD-II port) plug-ins, and professionally installed black box systems. Features and capabilities vary among the different vendors.

Many telematics systems providers offer:

- **Cameras:** forward-facing, driver-facing, and side-view cameras to assist with parking, observe road conditions, dashboard camera-observe driver/passenger area, and act as safety devices for incident prevention. Cameras are a great tool in claims defense and determining liability/negligence.

- **Compliance:** temperature monitoring, IFTA fuel tracking, ELDs, CO_2 emissions, and DVIR.
- **Global Positioning Systems (GPS):** vehicle tracking that includes location, speed, time/duration, distance, etc. Geofence technology allows a pre-programmed action to trigger once a device/tag enters or exits a virtual boundary.
- **Hands-free communication:** technology that allows drivers to keep in touch with dispatch or customers in a safe manner.
- **Interactivity features:** promote interconnectivity to social media networks, including sharing location and activities.
- **Maintenance/Fleet Optimization:** vehicle performance and remote diagnostics, engine monitoring/faults, total engine hours, tire pressure monitoring, idling trends, fuel consumption, route optimization, miles traveled, hybrid and electric vehicle (EV) status, predictive maintenance, trip logs, maintenance alerts, trip routing and mapping, EV usage and charging status, eco-driving alerts, and maintenance scheduling.
- **Productivity:** dispatch nearest driver, trip history, gamification, roadside assistance, asset tracking, spoilage alerts, and stolen vehicle recovery support.
- **Safety:** in-vehicle feedback for speeding, harsh braking, cornering, acceleration rates, lane tracking, traffic, weather, hazard alerts, fatigue and distraction monitoring, advanced collision prevention, training/coaching, etc.
- **Technology/Expandability:** software development kit (SDK), mobile apps, big data, data integration, artificial intelligence, open application programming interfaces (APIs), and predictive analytics.

The world of telematics and the extent of data available is expanding daily. As the technology evolves, businesses should be agile in taking advantage of its many benefits. When implemented and utilized effectively, telematics systems can help a fleet risk management program develop safer drivers, with the added benefit of improving efficiency and productivity for the business.

Resources

A Comprehensive Guide to Fleet Tracking Systems, www.telematics.com/a-comprehensive-guide-to-fleet-tracking-systems/

Commercial Carrier Journal: Caught on Camera, www.ccjdigital.com/caught-on-camera/

GEOTAB: Fleet Tracking and Management, www.geotab.com/

GPS Fleet Mgt Solutions: Benefits, www.gpsfms.com/benefits

National Surface Transportation Safety Center of Excellence: "Market Guide to Fleet Telematics Services," vtechworks.lib.vt.edu/handle/10919/23319

Smart Data Collective, www.smartdatacollective.com

Using Fleet Telematics to Improve Driver Safety, www.claimsjournal.com/news/national/2014/11/04/257218.htm

Transport Topics: Cameras Keep an Eye on Drivers, https://www.ttnews.com/articles/itech-cameras-keep-eye-drivers

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For more information about protecting a company's fleet, contact your local Chubb Risk Engineer, email us at RiskEngineeringServices@chubb.com, or visit us at www.chubb.com/engineering.

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