Risk navigator

Fleet telematics

Environmental

Table of contents

MARKEL®

About Markel's Risk Solution Services team

Risk Solution Services provides technical insight related to existing and potential insured risk at Markel. The team partners with our customers, claims, and underwriters to educate on both current and future risk trends and supports our clients with a comprehensive offering of risk management solutions.

We do this by engaging with clients, underwriting, and claims teams.

E-mail our team at risksolutions@markel.com.

Table of contents

What is a telematic?

A telematic (aka telemetic) or connected fleet is one which utilizes the science and technology of automatic measurement and transmission of data by wire, radio, or other means from remote sources such as vehicles to receiving stations for recording and analysis in "real time." It is a term coined by the combination of the terms telecommunications and informatics. The global "commercial" telematics market is expected to reach $49.12b by 2020 at an estimated CAGR of 18.4% while the total global telematics market is expected to reach $140b by 2022 for all and multiple use growing at a CAGR of 28.5%. The advantages of telematics in vehicles to the insurance sector is it allows estimation of accident damages more accurately, reduce fraud claims, attract low-risk drivers, and reduces cost of claims.

Telematics has the following general operational constituents:

- GPS satellite
- Connected vehicle
- Cellular network
- Telematics service provider (TSP)
- Customer/insured/fleet

Table of contents

How telematics work

- The GPS satellite obtains the location information.
- The connected vehicle transmits time, location and vehicle information using cellular technology.
- The cellular network connects the connected vehicle to the telematics service provider.
- The telematics service provider gathers and stores the vehicle information to create telematics-based services.
- The customer/insured/fleet utilizes software (usually in a regional or central operations center) to manage the fleet for productivity, savings, and safety gains.

The internet has made connectivity applicable to any vehicle. Various technology platforms may be utilized for telematics and can include smart phone apps, apps tethered to on-board diagnostics, self-installed on-board diagnostics devices, aftermarket hardwired professionally-installed devices and currently more often original equipment manufacturer (OEM) built-in solutions. Basically, however, telematics is segmented into OEMs and aftermarket. Aftermarket presently controls the majority of the market but is expected to be overtaken in 2019 or 2020 by OEMs. The types of commercial telematics by market for OEMs are embedded and hybrid; for aftermarket embedded and portable. Leading end-users are still transportation and logistics operations. Key telematics organizations include: Verizon, Harman, TomTom, AT&T, Vodafone Group, Ford, BMW, Telefonica, MiX Telematics, and Trimble Navigation Ltd.

March 2020

Table of contents

MARKEL®

Mobility management

Most industries have adopted or are currently adopting telematics to some extent including delivery, construction, government, utilities, and service. However, for the most part the larger the fleet the more receptive management is to adoption of telematics. With respect to fleet, transportation and service; companies are looking at "connected fleet" strategies that utilize multiple mobility types. Data is pulled from vehicles, from people (drivers and support staff), as well as other technical assets and software. Using sophisticated analytical software, better control, planning, and efficiency are starting to define new business models, scheduling, routing, and safer operations.

Management of fleets or "mobility management" then becomes a means of assessing the use of a fleet of vehicles in a safe, efficient way to maximize quality, efficiency, and profitability while reducing the potential for losses and injuries. Oftentimes with proper mobility management, transportation and logistics entities have found greater efficiency and areas of expansion to generate additional business opportunities.

Table of contents

MARKEL®

Benefits of mobility management

While mobility management can greatly assist in fleet efficiencies and loss prevention, it also serves to help educate operations and support staffs on what options are available and strategize on what are the best business and operational approaches for their respective fleets. Typically, a customer places a high degree of importance on materials arriving on time especially in just in time (JIT)-type scenarios as planning and knowing where materials are during the transportation phase directly affect operations, productivity, and profits. A fleet operation being able to effectively plan for shipments based on mobility management can accurately schedule fleet operations, and in doing so, drivers and operations feel less stressed, less fatigued, and are able to provide quality service with a high level of safety and associated reduction in losses.

Mobility management uses real time tools to effectively analyze ahead of time efficient transportation scheduling for location, typical traffic at different times of the day (school buses on a school day, etc.) to facilitate on-time delivery of goods and services without the need to "push" drivers beyond safe operating parameters.

Table of contents

Telematics data

Utilization of telematics generally falls into the following categories. All or some portions may be found in most telematics systems.

- Fleet management
- Driver performance
- Fuel utilization
- Location of vehicles
- Security of vehicles
- Aggressive events

Telematics data helps mobility management develop into the "connected fleet." To be successful, there are requirements to make mobility management (transportation exposure) a success:

- All employees regardless of department need to be trained on how to use the various telematic tools.
- Telematics training needs to include how these tools benefit the organization and its employees.
- All employees and management who will use the data must understand the appropriate manipulation of the data into "information" and be appropriately trained to this end.
- The concepts and ideas behind telematics are what has led to advancements in creating the "connected fleet." It is not atypical for management to meet a driver face-to-face every day. Long haul drivers may not be seen for weeks if at all. However, now with the connected fleet, management can use sophisticated management software to effectively ride with a driver and monitor performance.

Table of contents

Regulation

- To enhance and ensure vehicle safety, governments internationally, especially in North America and Europe, are promoting the use of vehicle telematics. The federal government's Executive Order 13693 calls for improving agency fleet and vehicle efficiency and reducing greenhouse gas emissions through deployment of vehicle telematics.
- In December 2015 the Federal Motor Carrier Safety Regulation passed a rule which requires installing electronic logging devices (ELD) (to be installed by December 2017) to enhance convenience, tracing, management, and sharing of records, thereby improving compliance with the HOS rules.
- In the European Union, an initiative--eCall--to bring rapid assistance in case of a collision, was proposed and approved by the European Parliament in 2013.
- In 2015, an EU regulation was voted in favor of all new cars to be equipped with eCall technology from April 2018.
- In the UK, the government is promoting the use of telematics technology to help organizations manage their fleets more effectively, thereby improving safety and efficiency. It was estimated that the benefits offered by telematics technology would be able to save on a ratio of 3 to 1 for anything spent on telematics.

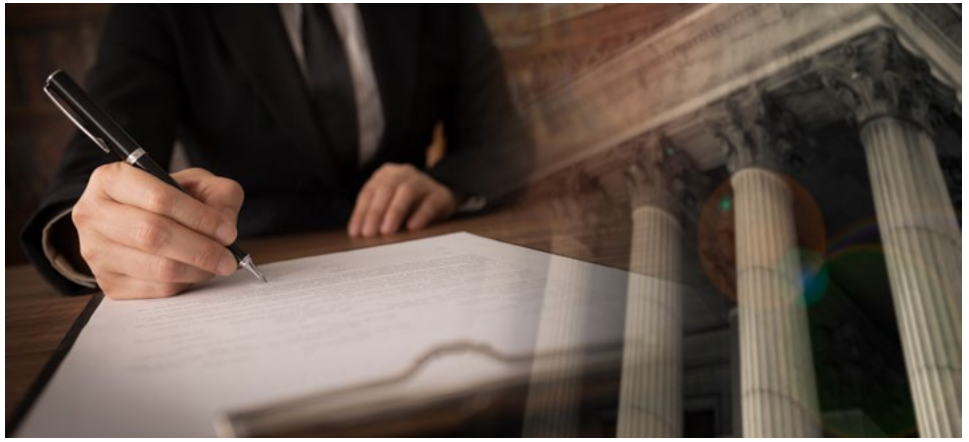

Table of contents