How are GPS Tracking and Telematics Systems Different?

GPS tracking and telematics are breakthroughs in the automobile industry, significantly impacting industries like transportation, logistics, and fleet management. Both GPS tracking and telematics systems are interconnected but have different meanings at an individual level.

Let's delve into the key differences between GPS tracking and telematics, inclusive of their respective functionalities, applications, costs, and advantages they serve.

GPS Tracking vs Telematics System - The Key Difference

What is GPS Tracking?

GPS tracking (*Global Positioning System*) is the foundation of location-based services. It helps gather precise geographic coordinates from a moving vehicle, asset, or individual. GPS relies on satellites orbiting Earth.

GPS tracking software offers real-time or periodic location updates, mainly leveraged in smartphone apps, and other commercial applications.

For example — Logistics, delivery, or service businesses use GPS tracking to monitor the progress of shipments or goods in transit. Even parents looking after children's safety use this. While GPS tracking may be excellent at performing location-based tracking, it alone cannot provide deep insights into which telematics can.

What is Telematics?

Telematics offers a very vast and multifaceted approach to monitoring and managing vehicles, assets, or people. GPS tracking is a subset of telematics. GPS provides location data which is further used to explore, draw trends, and insightful reports through telematics.

Telematics software encompasses a wealth of data related to vehicle performance and behavior. It helps gather information around other major aspects like:

- Vehicle speed
- Fuel consumption
- Engine diagnostics
- Driver behavior

The above data is gathered through special sensors and <u>onboard diagnostics (OBD) devices</u> that are integrated into the vehicle's systems.

Benefits of Telematics

Telematics systems transmit the collected data to a centralized server for further processing, analysing, and transformation into actionable insights. These insights help fleet or asset managers look into the ways to:

- Enhance vehicle efficiency.
- Reduce maintenance costs.
- Optimize routes and fuel consumption.
- Ensure driver safety.
- Ensure compliance with regulations.

Besides all these, telematics systems help improve driver behavior by tracking factors like overspeeding, harsh braking, idling, cornering, etc.

All in all, telematics software enables better operational efficiency and decision-making.

Read Blog: What is Telematics? An Introduction to Smart Vehicle Tracking

Telematics & GPS Tracking - 5 Ways How They Differ

1. Data Scope & Insights

GPS tracking helps provide location-based data which includes:

- Latitude
- Longitude
- Speed
- Direction

Useful for identifying any geographic positioning of any device, asset, or equipment of choice. Telematics on the other hand offers a comprehensive range of data which includes locational data from GPS tracking. On a broader level, it also provides:

- Vehicle speed
- Fuel consumption
- Driver behaviour
- Engine diagnostics and more.

Geospatial telematics provides in-depth insights into vehicles and assets to make informed decisions or corrective measures.

2. Purpose and Functionality

GPS tracking solutions' primary function is to monitor or track the real-time geographic location of vehicles or assets.

GPS Tracking Application or use

You will find this mostly leveraged in navigation systems, mobile apps with location-based services, or comprehensive vehicle tracking solutions.

Telematics software on the other hand has a deeper meaning to it and goes beyond locational tracking. Telematics is mostly used in:

- Fleet management
- Vehicle optimization
- Maintenance scheduling
- Driver behavior analysis
- Compliance monitoring.

Telematics System Application or Use

Telematics is a huge inherent part of industries like logistics, transportation, construction, insurance, and more requiring strategic data transfer. It forms a very important catalyst to optimise fleet operations to enhance mobility and safety.

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3. Data Integration

GPS tracking works as a standalone system, whose basic function is to provide locational data. Its integration with other systems or data sources would require the use of fleet or vehicle management software.

Telematics systems are designed to work in collaboration with hardware and software to support easy data integration. These intelligent systems collect data from various vehicle sensors and systems and integrate it with fleet management software to develop insights for analysis.

4. Cost and Complexity

GPS tracking solutions compared to telematics systems are simple and cost-effective.

Whereas, telematics systems comparatively can be complex and costly as they require additional software and hardware for data collection and analysis.

However, investing in telematics is a worthy choice as with a one-time cost, you can save on variable costs going forward.

GPS is a Subset of Telematics!

GPS tracking solutions are a subset of telematics. GPS's primary purpose is to help with location tracking while telematics helps gather, compile, and interpret data for detailed analysis related to vehicle or asset performance and behavior.

Telematics systems offer more detailed and comprehensive insights into the operation and management of vehicles or assets; which is helpful in optimising cost and operational efficiency.

TrackoBit's Fleet Management Software combines the power of <u>GPS tracking</u> and geospatial telematics to help your logistics business unlock operational efficiency while optimising costs. Book a demo now!