

## AUTOMOBILE SAFETY ENHANCEMENT USING TELEMATICS

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**Abstract:** Telematics is defined as an integrated usage of telecommunication combined with information and communication technology. This technology deals with receiving, transmitting and storing informations of remote objects via communication devices. This technology increase productivity, reduce labour, control fuel cost, increase fleet safety and security and reduce operation expenses.

**Keyword:** Telematics



### INTRODUCTION

Telematics can be defined as an integrated use of telecommunication with information and technology. The technology which deals with receiving, sending and storing information related to remote objects via communication devices. The use of telematics within road vehicles is called vehicle telematics. It involves transmission of measurements from the location of origin to the location of computing and consumption, without affecting the control on remote objects. This technology was first invented by Simon Nora and Alain Minic in 1978.



### HOW DOES TELEMATICS WORK?

Telematics tracks the automobile feeds through GPS system that can access the driving ability of a person. The following may be taken into consideration:-

- Present location
- Time of driving
- How rapid or measured acceleration is
- How harsh or smooth the brake is

Black box should be installed in a vehicle to have telematics. They specify certain hours not to drive due to serious accidents are mostly like to occur at late night or early morning. This doesn't mean that the vehicle is insured during those times, although it may affect the driving score.

### APPS FOR TELEMATICS



### TRACKME

Trackme serves can also be a lifesaver. The devices that are integrated with this app can ensure tracking of almost all vehicles, but also track life.

### INNOVATIVE TRACKING SYSTEM

Trackme component is a GPS tracking system designed to track any type of objects. Various options are provided free of charge and also at nominal rates.

There are primary devices, one for the object being tracked and the one for the person tracking it. They are wirelessly connected to each other, and all that needs to be done is to view them either using a simple PC or a smartphone. The user will receive alerts whenever the object leaves the area.

### SIMPLE TO USE

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## LIVELINK

LiveLink enables to be in constant touch with the machines thus empowering business in many ways. It sends out real time data enabling to stay informed all the time.

### HOW LIVELINK WORKS?

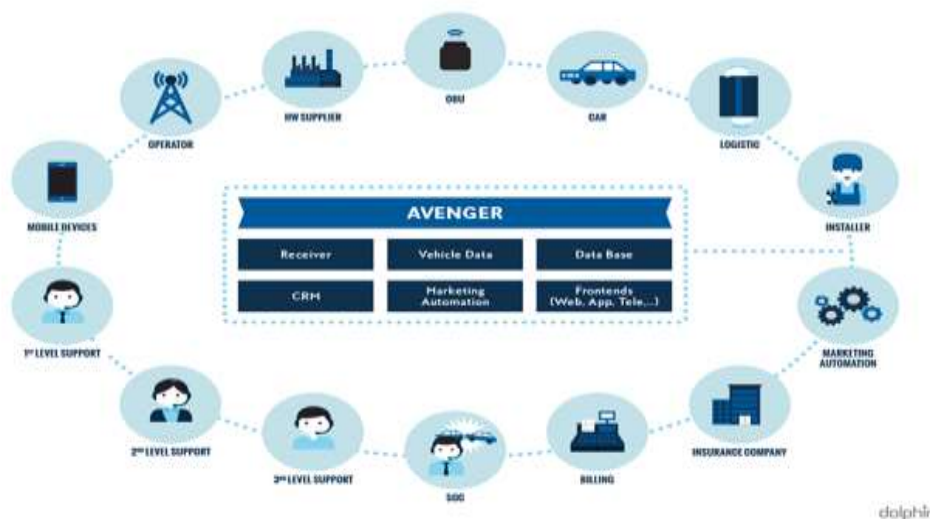
LiveLink collects all necessary important about the automobile like its health condition, location and many more other vital data via sensors. This data is then transmitted to a server and the transmitted to the user. So that the user use this data to make critical decisions about the business or the machine.

### LIVELINK BENEFITS

- Accurate hours monitoring and alerting
- Maintenance history records
- Critical machine alerts

### FLEET TELEMATICS SYSTEM

This system allows the exchange of information between a commercial vehicle and the dispatching office. Typically consist of fleet communication system and mobile vehicle systems. This system includes a database which can store the information of vehicle positions and traces can be checked through digital maps.



### APPLICATIONS OF TELEMATICS

#### VEHICLE TRACKING

Vehicles can be tracked by monitoring the location, movements, status and behaviour of a vehicle or a fleet of vehicles. This is achieved through a combination of a GPS receiver and electronic device installed in each vehicle, communicating with the user and PC based or web based software.

## TRAILER TRACKING

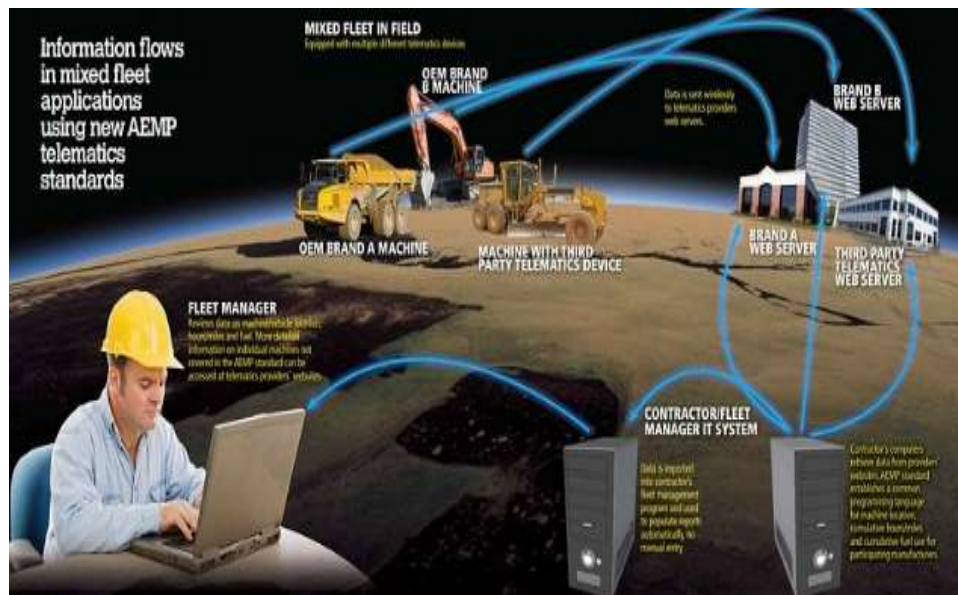
It is done by tracking the movements and positions of an vehicles trailer and a method of returning the position data via mobile communication network.

## CONTAINER TRACKING

Container can be tracked by GPS using similar approach to that used for trailer tracking. A battery powered GPS device communicating its position via mobile phone or satellite communications. Benefits of these include increased security and possibility to reschedule the container transport movements based on accurate information about its location.

## FLEET MANAGEMENT

The management of a company's feet is known as fleet management. It includes a vast range of functions like vehicle sourcing, maintenance, telematics, driver management, fuel management, safety and health management, and dynamic vehicle scheduling.



## SATELLITE NAVIGATION

The technology of using a GPS and electronic mapping tool to enable the driver to locate the position of the automobile, to route and draft the journey.

## MOBILE DATA

Wireless data communications using radio waves to send and receive real time data to, from and between equipment used by field based personnel

## WIRELESS VEHICLE SAFETY COMMUNICATIONS

An electronic sub-system in a vehicle to for the purpose of exchanging safety information such as road hazards and speed of vehicles. Wireless devices are installed in fixed destinations such as traffic signals and emergency call units along the road. The main purpose of wireless vehicle safety communications is to ensure road safety and vehicle safety.

### EMERGENCY WARNING SYSTEM FOR VEHICLE

This technology is developed particularly for international harmonisation and standardisation of vehicle to vehicle, and vehicle to infrastructure to vehicle. It is developed for applications in the development of intelligent vehicles, with the intent to blend warning information with surrounding vehicles.

### INTELLIGENT VEHICLE TECHNOLOGIES

These are automobile safety systems and autonomous electromechanical sensors that are generating warning which can be transmitted within the area of interest. Intelligent vehicle technologies are used for safety and commercial communications between a automobile and a sensor along the road.

### CARSHARING

Carsharing services has emerged due to development in telematics technology such as Zipcar, Car2Go in UK. It enabled computer to allow organizers to track member's usage and bill them on pay as you drive basis.



### AUTO INSURANCE

The main idea of auto insurance in telematics is to monitor driver's behaviour while the person is driving, and this data is transmitted to insurance company. Insurance company accesses the risk of the driver having an accident and charges insurance premiums accordingly by charging more premium from driver who is less responsible.

### REFERENCES

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- 2) <http://en.m.wikipedia.org>
- 3) [www.insurethebox.com](http://www.insurethebox.com)