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Fleet tracking and Monitoring System

Introduction

Fleet monitoring is a way to track the activity of a company's mobile assets, normally using a GPS tracking unit fitted to the vehicle or equipment being tracked. The GPS unit regularly transmits the equipment or vehicle location using a built-in cellular or satellite connection. Most vehicle units will transmit in near real time - every two minutes but it can be more frequent, if required.

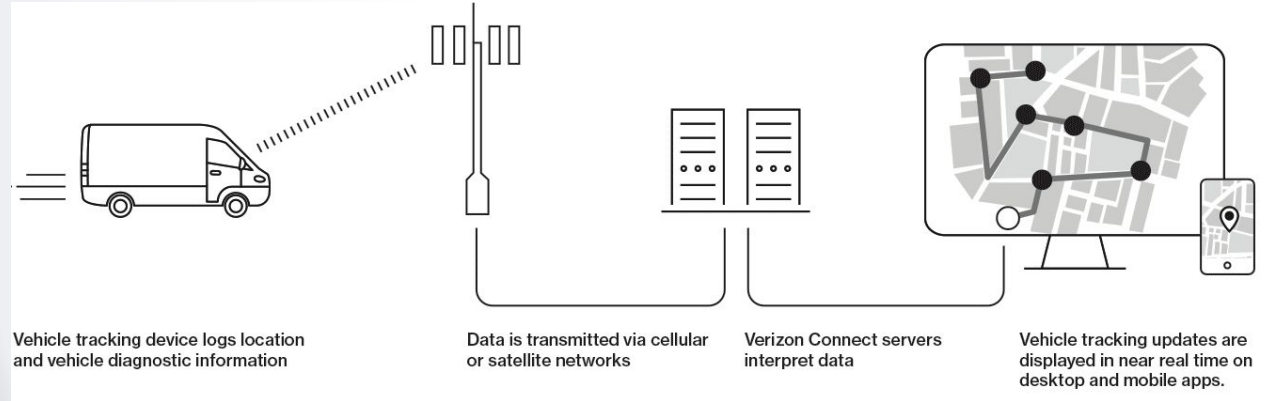
Purpose

Fleet tracking uses satellite and cellular technology to allow fleet managers to locate vehicles and other assets in real-time.

Existing Problem

- ▶ Operations are time consuming.
- ▶ You can't optimise your routing.
- ▶ Your vehicles suffer unsustainable amounts of wear and tear].
- ▶ You are dealing with the reality (or the risk) of vehicle theft.

Block diagram



Advantages

- ▶ It improves productivity by saving delivery time due to use of advance route information, traffic alerts etc.
- ▶ It helps to reduce cost of fuel.
- ▶ It ensures safety of vehicles, drivers and goods.
- ▶ It provides real time location of fleets and serves the customers in better way.
- ▶ It helps in saving of maintenance costs by maintaining fleet effectively.

Disdvantages

- ▶ Active tracking based fleet management requires monthly subscription charges and data usage charges.
- ▶ It is difficult to manage and maintain fleet management system due to use of multiple technologies such as cloud servers, cellular wireless systems, fleet management software etc.
- ▶ It requires skilled resources to maintain such system. This increases maintenance costs.
- ▶ GPS device used in fleet management is power hungry which drains battery faster.
- ▶ GPS signal does not pierce through the walls, solid structures, underwater or dense trees. Hence it is difficult to track the fleet when they are in such regions or behind such locations.

Applications

- ▶ Asset tracking
- ▶ Field Service Management
- ▶ Field Sales
- ▶ Trailer Tracking and Surveillance
- ▶ Cold Storage Monitoring