FMS ECO DRIVING FOR TELTONIKA PROFESSIONAL TRACKERS

INTRO

Reducing fuel consumption is one of the biggest challenges in today's world. Many transport companies fail to manage their resources efficiently due to irresponsible and incorrect driver behaviour. Fortunately, Teltonika Telematics offers new report-based functionality for a range of professional devices to help fleet managers monitor drivers and determine how they are using vehicle capabilities.

CHALLENGE

Fuel costs account for a significant proportion of fleet operating costs. Optimising fuel efficiency is therefore one of the most common challenges facing fleet operators today. By optimising fuel efficiency, fleet owners can reduce fuel consumption and improve company profitability. To achieve this, it's important to adopt eco-driving practices.

A major eco-driving project experiment in Madrid public transport company showed that implementing eco-driving practices resulted in a 15% reduction in fuel consumption. This may not sound like much, but saving just a few per cent of fuel consumption in this company's fleet means saving millions of litres of fuel per year! Furthermore, a consistent focus on fuel economy brings economic, environmental, and safety benefits.

Speaking of the environment, CO2 pollution from vehicles and transport overall is a major challenge in the fight against climate change. As the number of vehicles on the road continues to grow, the combustion of fossil fuels in cars, vans, and trucks is a major contributor to CO2 emissions and global warming.

Implementing effective eco-driving practices can help reduce fuel consumption and CO2 emissions, protect the environment and create a healthier and more sustainable world for future generations. Let's find out how this can be improved with new features from Teltonika.

SOLUTION

We are meeting this challenge with the FMS Eco Driving feature. It monitors driver behaviour by reading FMS CAN data from trucks and lorries and sending a report to the server, showing fleet managers the driving style of their drivers. Although this functionality applies to all Teltonika PROFESSIONAL category GPS trackers, we will use the FMC650 as an example here. Let's take a closer look at how the solution works.

Reports - FMS Eco Driving is a report-based functionality. The functionality generates a report on a driver's behaviour after the trip has taken place. It allows fleet managers to stay aware of driver behaviour and fleet operations. There are a number of hard-coded report triggers, such as Startup, Power Down, Driver ID, and End of Day. It's also possible to select additional configurable triggers for each element - Trip/Periodic: Trip Start, Trip End, and Periodic.

The reporting functionality eliminates the need to monitor real live FMS data during the trip, reducing data storage costs and fleet manager time.

Units - driver behaviour can be monitored through different accumulators, such as distance travelled and/or fuel consumed and/or time spent in the specific state and/or accumulator count for specific elements, such as Cruise Control, Coasting, ECO Roll, Retarder, Power Take Off system (PTO). The customer can select the required accumulator and activate it in the configurator (all activated elements have their specific AVL IDs).

For example, in the Braking Accumulators report, the number of brakes is 10, while the distance travelled with the brake pedal depressed is 2 km. This means that the driver is using the brake to slow the truck down instead of using the engine brake (retarder). Such a driving style requires the use of brake pads, which means that they have to be changed more often and fuel consumption is higher because the truck has to accelerate again and again. The Braking Accumulators report, therefore, helps fleet managers to identify and address poor driving habits.

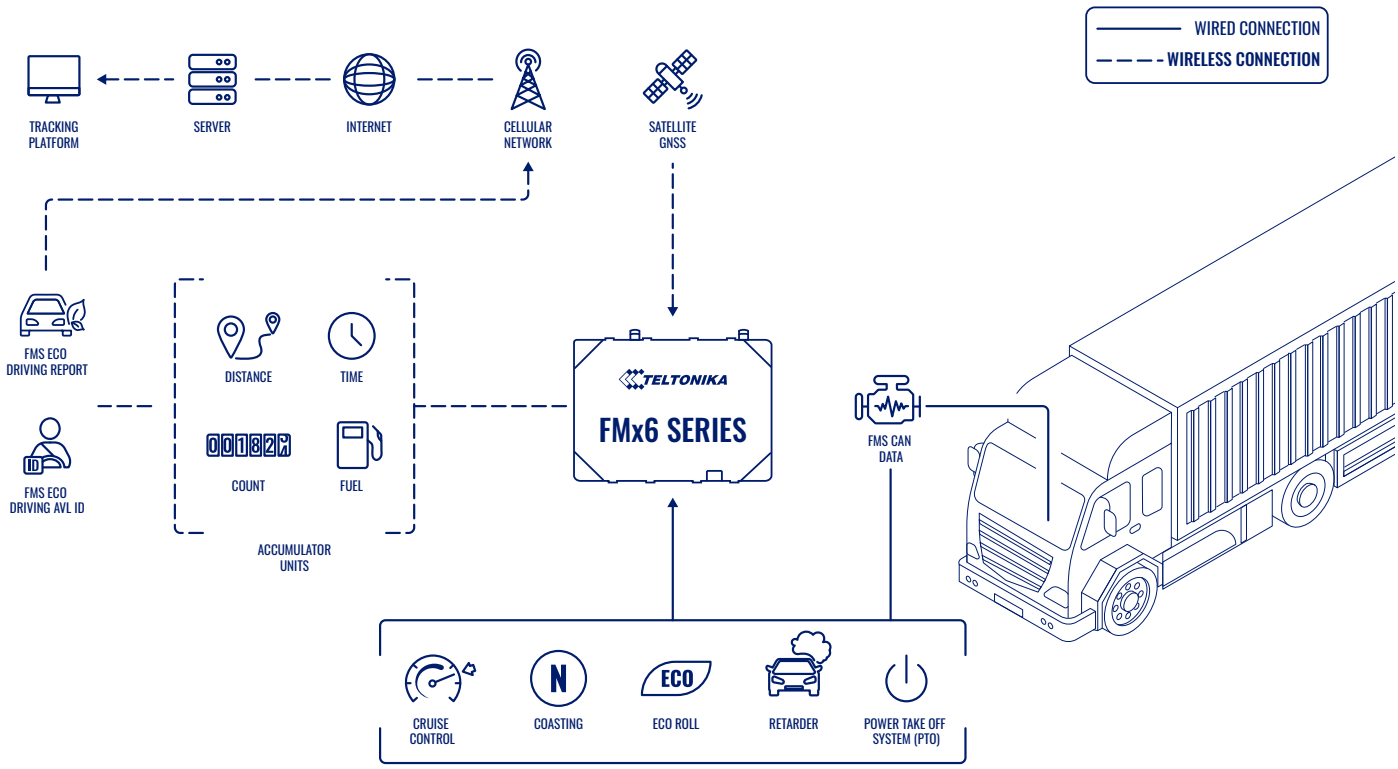
What is the meaning of bad driving style? It means that the driver doesn't use the full range of a truck or lorry capabilities, such as engine braking (retarder), coasting, cruise control, doesn't anticipate road/traffic conditions, i.e., doesn't use the vehicle momentum when needed, overuses the brakes, etc.

Range Accumulators - FMS Eco Driving can generate a table of distance, time, and fuel used in different ranges for specific elements and up to 10 configurable ranges. Fleet managers can configure the table according to their needs, let's say, three ranges - 50, 70, and 90 km/h for city driving and motorway driving respectively.

For instance, speed range: the server receives distance elements from the trip end - how many metres were travelled when the speed was from 0 to 10, from 11 to 20, from 21 to 30 km/h and so on. This data from the table can help fleet managers understand why a driver was driving at a low speed, or why the RPM was high, and for how long. If there was no reason for the low speed/high RPM, the driving style could be corrected to reduce fuel consumption. If there was a valid reason, such as a traffic jam, fleet managers can use this information for better routing in the future.

In summary, the FMC650 FMS Eco Driving feature is a sophisticated tool designed to optimise fleet management by monitoring driver behaviour. It does this by reading FMS CAN data from a truck or lorry and sending a report to the server, enabling fleet managers to assess the driving style of individual drivers.

TOPOLOGY



BENEFITS

- **Optimised fuel consumption -** encourage efficient driving, significantly reduce fuel consumption, and improve profitability.
- **Reduced data traffic and costs -** accumulate data in the device and send a report only on specified triggers or periods, rather than monitoring live FMS data.
- **Optimised maintenance -** extend the life of the fleet, reduce maintenance costs and minimise downtime due to repairs by promoting a smoother driving style.
- **Reduced emissions -** encourage fuel-efficient driving, minimise environmental impact and contribute to sustainability efforts.
- **Promotes safer driving -** conforms to common safe driving practices and improves overall road safety.

WHY TELTONIKA?

Teltonika Telematics has a reputation for designing and manufacturing a wide range of reliable and durable GPS trackers and accessories. The vehicle and asset trackers are built to last, making them suitable for a wide range of applications and environments. Our products are equipped with advanced features and scenarios for any IoT project, providing comprehensive tracking capabilities to enhance fleet monitoring and management options.

Teltonika Telematics works as a cohesive community where everyone is focused on the same goal. The approach to customers and business partners is based on long-term experience and innovation, which is essential for effective business development. The growth of our company is based on customer satisfaction and trust, leading to mutual success.

FEATURED PRODUCT

FMC650

RELATED PRODUCTS

FMB641, FMM650