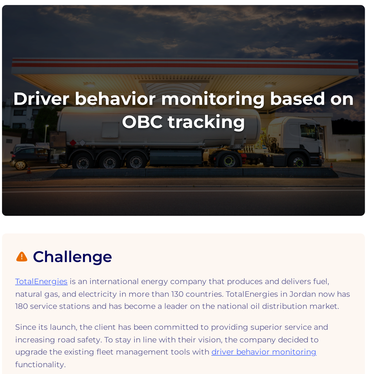

Driver behavior monitoring based on OBC tracking

Challenge

TotalEnergies is an international energy company that produces and delivers fuel, natural gas, and electricity in more than 130 countries. TotalEnergies in Jordan now has 180 service stations and has become a leader on the national oil distribution market.

Since its launch, the client has been committed to providing superior service and increasing road safety. To stay in line with their vision, the company decided to upgrade the existing fleet management tools with driver behavior monitoring functionality.

It would help to **track different aspects of driver behavior and, at the same time, track the quality of services delivered**. Dispatchers would check the following parameters to reduce accidents and predict potentially hazardous situations on the road:

- compliance with driving time and rest period regulations;
- compliance with the state speed limits and specific restrictions in defined areas;
- compliance with night time driving prohibition rules;
- unwelcome driving patterns, like rapid acceleration and hard braking;
- detection of driving on forbidden roads;
- long-term parking in dangerous areas.

Here are the **main challenges** the company was facing:

- **detecting potential risks**: the fleet regularly carries hazardous materials, and their transportation requires strict speed limit compliance;
- **increasing fleet and road safety** by identifying which driver used a vehicle in real time and at a certain moment in the past;
- **improving driver discipline** by ensuring that nothing would distract them from the road or cause an accident.

Solution

TotalEnergies continued working with TrakLink, a telematics service provider in the Middle East and Wialon partner, to build an end-to-end driver behavior monitoring system. It would collect data from onboard computers (OBCs) and make daily checks of the vehicles in the fleet. This would allow the client's managers to analyze driving events during transportation and enforce sanctions in accordance with the preset violation criteria.

Before, TotalEnergies was using Wialon Local for fleet management and already had a number of fleet tracking features in use.

The new project stage involving OBC tracking was launched in 2021. The data is gathered from OBCs and is sent to the fleet management system – Wialon. **A custom-developed app gathers data from numerous reports and features of Wialon**, such as:

- Eco Driving solution to handle harsh driving events;
- geofences to monitor speed limits in certain areas, driving and rest periods, access to forbidden areas and roads;
- notifications sent in case a violation happens;
- 50+ reports on speed, geofences visits, time spent on the road, and so on.

More features

- **Video telematics** helps TotalEnergies detect unwelcome driver behavior such as fatigue, distraction, smoking, and phone call usage, and notify both the drivers and the fleet managers. This information is complementing the data received from OBC tracking.
- The customer wasn't able to get **data on resting, working and driving time daily and weekly**. Usually, such data is gathered from tachographs. However, in Jordan companies don't use digital tachographs. That's why TrakLink created special reports using Wialon functionality that would calculate data like this and archive it.
- Every event during transportation is sent to Wialon for a **review from a fleet manager for driver behavior analysis**. This helps set up better driver coaching practices to reduce risk. Also, drivers get real-time alerts of their dangerous behavior.

Hardware

To create a complete driver monitoring solution, the telematics service provider has used a wide variety of devices:

- Xirgo FMS500 StCAN to get CAN bus speed data;
- RFID tags to identify the drivers, track their working and resting time;
- Streamax MDVR and DSM cameras, empowered with an Rwatch to alert a driver in real time and send events to Wialon Local. Later, the data is reviewed by a fleet manager;
- panic buttons which drivers use in case of an accident or another emergency;
- buzzers.

For a long time, the Jordan legislation didn't permit companies to install in-vehicle cameras. This was caused by a special security regime in certain areas. TrakLink was in touch with public security authorities to describe in detail the solution and equipment installation. The final solution was a compromise: MDVRs receive automated alerts from Wialon once they enter secure areas. After that, cameras get turned off and stop video streaming and recording.

Implementation and support

TrakLink assigned two employees who handle requests and changes within the project in the 24/7 mode. Also, they organized training sessions for the client's employees.

Results

Creating a safe work environment has always been a high priority for Total Jordan. The driver monitoring solution allows them to keep in line with their policy and improve the national oil transportation and distribution market in Jordan. **The solution covers tens of parameters associated with Eco Driving, shows them in one place and lets fleet managers analyze them, improving the fleet performance day by day.**

85% better driving

The number shows a rapid reduction of harsh driving events.

90% less overspeeding

With the driver monitoring solution in place, drivers are less prone to violating speed limits.

95% more compliance with labor law

The solution has drastically improved compliance with driving time and rest period rules.

Savings throughout the fleet

Compliance with the laws and speed limits lets the client avoid fines. Better driving means less accidents, losses of cargo, vehicles and a safer environment for drivers. Uninterrupted services help the company deliver to their customers at a high level of quality.

Company profile

IoT project of the year nomination: Special recognition

Country: Jordan

Industry: Long-haul transportation

Website: trak-link.net

Solutions

Wialon

Driver behavior monitoring

Hardware

Xirgo FMS500 StCAN

Read more case studies

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