



Comprehensive fleet management and security solution for petroleum distribution in Iraq



This project won the Grand Prix at the IoT project of the year 2024 contest. Explore the article and [learn more about all the winners](#).

⚠️ Challenge

The client is one of the largest oil products distribution companies working in Iraq. It oversees a fleet of over 25,000 trucks that make 12,000 to 20,000 trips daily. Managing such a large-scale operation came with significant challenges, especially in ensuring the safe and efficient distribution of petroleum products.

The transportation process faced risks such as smuggling, theft, and the potential for product tampering or replacement during transit. The client required a solution offering end-to-end control, including precise tracking of tanker departures and arrivals. Additionally, in cases of violations, the client needed detailed reports outlining the reasons, context, and driver's contact information to enable effective responses and thorough investigations.

Read on to discover the solution that helped the client to enhance its control and achieve zero thefts.

🔗 Solution

[Integrated Solutions](#), a partner of Wialon, implemented a comprehensive oil tanker fleet management solution, after studying all work patterns.

Hardware

The service provider installed [Galileosky 10](#) and [Teltonika FMC650](#) trackers on the vehicles to monitor their location and condition. Trailer Identification sensors made it possible to track which trailer was connected to each tanker.

To meet the project's specific requirements, the hardware was customized with features like water and dust resistance, and tamper alerts. For secure driver and tanker authentication on the roads, the solution included RFID UHF readers and Driver ID card readers.

Software

The platform for oil tanker fleet management designed by Integrated Solutions provided full transparency into transportation processes and enabled efficient control. To achieve this, the service provider integrated the client's internal system, which stores trip data, with Wialon's features using API and SDK functionalities.

The developed solution offers comprehensive route management and monitoring. Unique route codes and geofences were set up for all loading and unloading stations, and now daily routes are automatically generated for trips between predefined locations. Notifications keep the client informed about every step of the trip in real-time.

The platform tracks violations such as unauthorized stops, route deviations, and improper or partial unloading. Live alerts and detailed violation reports allow the client to identify problematic trips, review incidents, and take corrective actions as needed. Any deviations from the route are also displayed on a map with color-coded indicators for better visualization.

🏆 Results

This solution for fleet management in the oil and gas industry gave the client complete control over its vehicles and drivers, ensuring secure and efficient operations.

✔️ Zero product theft

Since the solution's implementation, the client has experienced zero fuel thefts.

✔️ Transparency

Digitalizing every aspect of the operation has enabled the client to monitor and manage thousands of daily trips with greater transparency and control.

✔️ Unified single platform

The oil fleet management platform developed by Integrated Solutions streamlined operations by consolidating all vehicle, driver, and trip information into a single, convenient system, making management simpler and more efficient.

✔️ Less time on investigation and evidence

When incidents occur, security authorities now receive immediate alerts and can respond without delay. They also have quick access to a complete record of all past trips, making it easy to retrieve relevant information.

✔️ Improved service quality

The solution has improved service quality by ensuring drivers adhere to designated routes, follow trip time limits, and avoid unauthorized stops. This has resulted in faster delivery times and better compliance with operational standards.

Company profile

🏆 **IoT project of the year nomination:** Corporate or large government fleets

Country: Iraq

Industry: Long-haul transportation

Solutions



Hardware



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