Fuel consumption monitoring and fleet management tracking system for a wood industry company

Challenge

The client is a national leader in the timber industry. For decades, they have been producing lumber and high-margin wood products: multilayer bags, industrial paper packaging, kraft paper, plywood, and so on. The company focuses on sustainable technologies to achieve deep wood processing and maximize waste-free use of raw materials.

The company possesses a huge fleet of more than two thousand vehicles that haul timber, transport wood out of the forest and so on. They were searching for an efficient fuel consumption monitoring system to reduce their costs.

Before the current project was implemented, the company had tried to build a fleet management tracking system that would keep a check on costs. However, their attempts had failed for multiple reasons:

- the company's fleet was too diverse and consisted of different models of vehicles;
- vehicles worked in remote areas, with no major roads and cellular GSM communication, that made it hard to transmit telemetry data;
- the client used large refueling tanks that needed to be pre-calibrated;
- sabotage from the staff who benefited from the lack of fuel consumption monitoring.

Finally, the client approached Geoservice, a Wialon's partner in Central Asia, to connect 930 vehicles and quickly scale up to support their increased number, if the project turned out to be a success.

Solution

The primary goal was to optimize fuel costs. However, as the project was unfolding, the number of tasks was increasing exponentially. In the end, Geoservice found themselves facing the following challenges:

- fuel consumption monitoring;
- implementation of the end-to-end fuel accounting solution throughout the enterprise;
- providing high-level tools for interaction with technical support.

Hardware

As the client's fleet world in remote areas with no GSM coverage, it was essential to find trackers that would store data until it could be transmitted to a server. Geoservice tested several models and opted for Galileosky 7x Wi-Fi Hub trackers. This model works both with GSM and Wi-Fi networks. It also supports the in-built Easy Logic technology: Geoservice used it to set up automatic switching between different networks depending on a current situation.

Besides fuel consumption data, the solution also receives data about mileage, engine hours, and other parameters. This information is transmitted to the fuel flowmeter Eurosens Direct and fuel flowmeter Eurosens Delta devices for more precise tracking and reports. Geoservice has developed and implemented their own data transfer protocol. It enables telemetry data transfer from the CAN-bus of any vehicle, regardless of its manufacturer or proprietary firmware.

Software

The heart of the fleet management tracking system is the server-based Wialon GPS tracking system. The platform named Wialon Local is deployed in the client's servers. It ensures total data security, zero tolerance for cyber attacks, and the system's ability to scale up to 20 thousand connected vehicles.

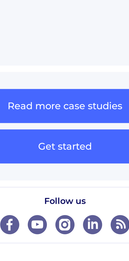
The custom solution allows the client to get a clear picture of how different types of drivers perform and how much fuel they consume in reality. The dashboards are showing real-time status of all the tracked equipment. The solution is integrated with fuel dispensing systems and fuel suppliers, collecting info about each and every filling and transaction, thus offering full transparency over the fuel balance of the whole fleet.

Wialon-based fleet management tracking system

Customer service

The client set high criteria for the level of technical support services provided by the telematics service provider. Geoservice has organized a full-fledged 24/7 customer service and assigned dedicated specialists, who conduct regular maintenance visits and ensure timely repairs.

In order to interact qualitatively on these issues, Geoservice integrated CRM, the fleet management solution, and the accounting system in a single information space. Now, maintenance and technical support procedures take place in the dedicated system's interface.



Technical support for the fleet management tracking system

As the service department teams often work in the woods and with no connectivity, they got their own mobile app with access to support requests on the go and offline.

Dispatchers receive monthly trainings from Geoservice through the Zoom app.

Results

The fleet management and fuel consumption monitoring solution helped increase the company's profits and has positively impacted workers' discipline.

30-50% fuel savings

Before the truck fuel theft prevention solution was implemented, drivers could overestimate fuel consumption figures by half. On the day when the solution was implemented, Geoservice detected a 50% discrepancy between real and declared fuel consumption numbers.

Reduced workload

Daily process automation allows the client's workers to spend time on more complicated tasks.

Improved staff discipline

The fleet management tracking system helps avoid the cases of sabotage that used to happen regularly before.

Company profile

IoT project of the year nomination: Fuel transportation and storage

Industry: Long-haul transportation

Solutions

Wialon

Fuel monitoring system

Hardware

Galileosky 7x

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