

Dairy management system for a Mexican products company

Challenge

Grupo Alpura, Mexico, produces dairy products. Their fleet consists of 200 milk trucks. The company searched for a dairy management system to solve product accounting and transportation issues.

- Grupo Alpura wanted to track their transport with goods in real-time.
- The company also searched for ways to ensure the effective work of the vehicles and prevent excessive fuel consumption caused by idling.
- Fleet fuel tracking was required as fuel theft was also a problem.
- The client wanted to be aware of authorized and unauthorized stops in collection centers.
- As milk is temperature-sensitive, Grupo Alpura required a cold chain temperature monitoring solution to ensure the quality of its products. The client also wanted to measure the density of the milk transported in tankers to detect impurities.
- The dairy company needed to control the volume of milk coming out of the conveyor pipes.

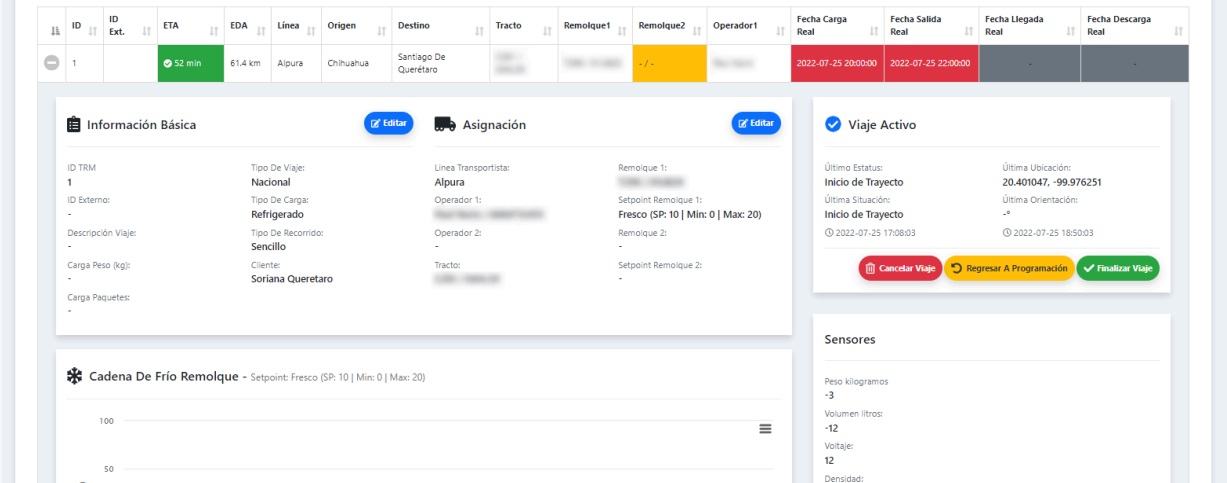
Solution

The Wialon partner, [CTTMX](#), Mexico, created a fleet management solution that allowed Grupo Alpura to take the milk transportation under control. The project contains the elements of the dairy management system to meet the client's requirements.



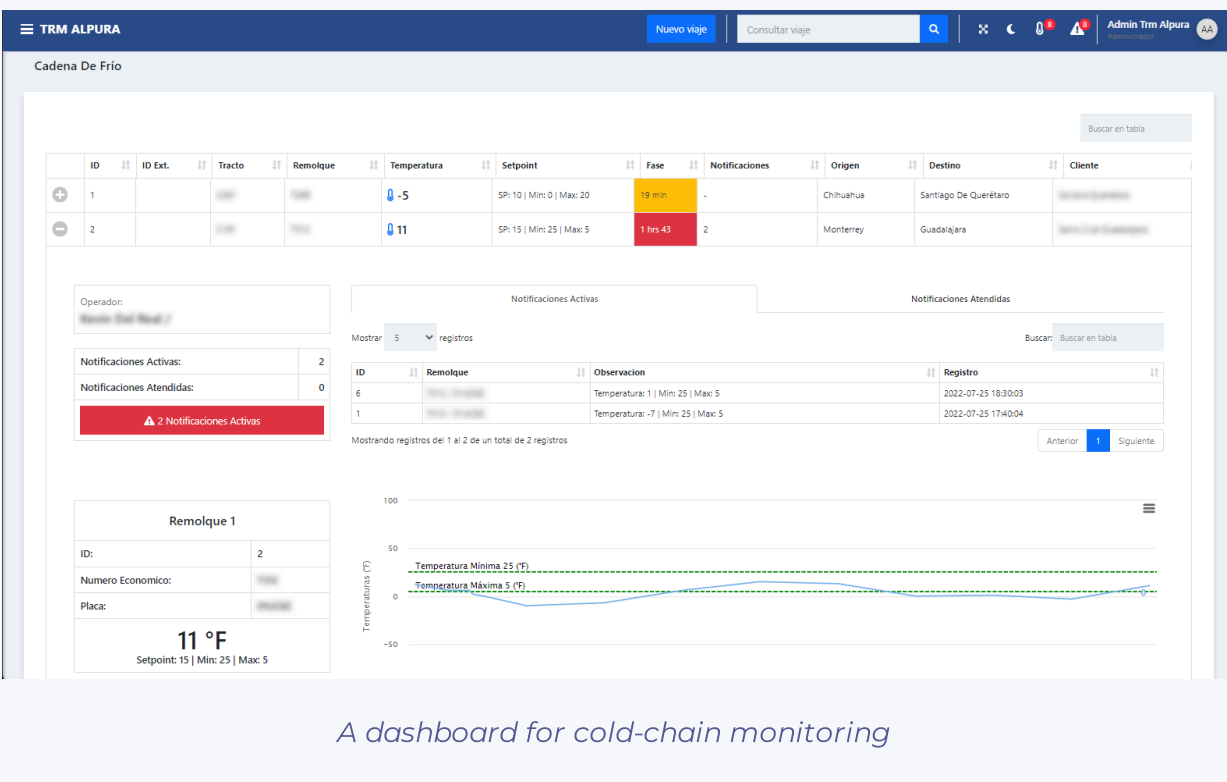
At the client's facility

- CTTMX equipped the client's milk trucks with the [CalAmp LMU-2630MB](#) GPS tracking devices and several sensor models: [Technoton GNOM Axle Load Sensor](#) for weight measurement and Dogo IBB to ensure cold chain temperature monitoring. [Escort TD600](#) fuel level sensor is responsible for fleet fuel tracking.
- The Wialon partner also mounted the Howen HW-UFS06 analog ultrasonic sensors for volume measurement on the conveyor pipes so that the client could account for the milk coming out as if having a full-fledged dairy management system.
- [Wialon](#) collects the data from sensors and GPS trackers and sends the data to the previously developed TRM IoT fleet management solution using Wialon API.
- CTTMX customized TRM to provide the client with advanced reports containing information on stops, idling, and other fleet parameters, as well as the data on milk temperature and density via the personalized dashboards.



Trip details

- The TRM platform was also integrated with Grupo Alpura's legacy system incorporating a series of dashboards and indicators.



A dashboard for cold-chain monitoring

To choose hardware for the project, CTTMX tested several device models in the laboratory to identify the ones with the best performance.

The Wialon partner provides online employee training on the client's demand and supports the solution 24/7.

Results

The project implemented by CTTMX incorporates an IoT fleet management solution and the elements of the dairy management system. Now, Grupo Alpura can control their trucks and the volume of milk coming out of the conveyor pipes.

Product quality under control

The client can follow the density of milk and ensure cold chain temperature monitoring in real-time and take measures immediately to save the product.

Fuel consumption reduced by 40%

Thanks to the idling detection and fuel level sensors installed.

Fuel and product theft prevented

The client can detect unauthorized stops in milk collection centers, track how much milk is coming out of the conveyor pipes, and keep an eye on the fuel level in real-time, thanks to fleet fuel tracking.

Better driver behavior

The client can detect employees who drive uncarefully and train them. Careful driving doesn't only secure the transported goods but also contributes to lesser fuel consumption.

Improved customer service

The implementation of the tracking solution allowed the milk company to optimize the routes and deliver its products quicker.

Company profile

IoT project of the year nomination: Local deliveries

Country: Mexico

Industry: Local deliveries

Solutions

Wialon

Hardware

LMU-2600 Series

Escort TD online

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