

Cutting fuel theft, lowering costs, improving safety — for a Kenyan telecom infrastructure company

THE WINNER

IOT PROJECT
OF THE YEAR
2024

This project won the IoT project of the year 2024 award in the Compact Fleets category. Explore the article and [learn more about all the winners](#).

⚠️ Challenge

[Quavatel](#) is a Kenya-based company that specializes in building telecommunications infrastructure. It deploys and maintains optical fiber networks throughout the country. Their work plays a vital role in connecting diverse local enterprises to the global digital world.

The company operates a fleet of corporate vehicles used by engineers for work-related travel. While Quavatel had already been using Wialon for basic vehicle location tracking, their growing operations soon required more [advanced fleet management](#) capabilities.

The first priority was on implementing a reliable fuel theft solution in Kenya to address fuel losses. Improving driver efficiency was also a key objective. Both fuel theft and inefficient driving are widespread across many industries in the region and significantly affect operational costs and overall fleet performance.

In addition, Quavatel aimed to introduce pre-trip inspections via electronic checklists to enhance vehicle safety and reduce maintenance costs. They also required a seamless communication channel between drivers and managers to streamline daily operations and boost coordination.

In summary, the client needed a comprehensive fleet management platform customized to their requirements, and that's exactly what they got. Powered by Wialon, the new solution addresses all their needs — making it a great example of effective fleet management in Kenya. Read on to learn exactly how it works.

🔧 Solution

[iQ-Things](#), a Wialon partner, developed and implemented the solution, named Qudrive.

They started by installing fuel sensors on several vehicles to monitor fuel levels and configuring them to send data to Wialon. This setup functions as a fuel theft prevention system that detects suspicious activity by analyzing sudden drops in fuel level and immediately alerts fleet managers.

Since not all vehicles were initially equipped with sensors, the solution also offered an alternative approach: it estimated [fuel loss based on mileage](#). The system multiplies the distance traveled over a given period by the vehicle's average fuel consumption rate (liters per 100 km) to calculate expected usage and identify discrepancies. Any suspicious activity is now visible in reports.

To improve driver performance, the partner integrated Wialon's [driver behavior monitoring solution](#), which identifies violations and pinpoints areas for improvement and coaching.

With Qudrive, drivers can also easily track their working hours, submit leave requests, and complete pre-trip inspections — all through a web interface or mobile app. Fleet managers use the same system to keep an eye on driver activity, manage petty cash, and respond to requests for fuel, maintenance, and inspections. In short, Qudrive gets drivers and managers on the same page, simplifying day-to-day operations and improving communication across the board.

iQ-Things regularly conducts reviews to optimize Qudrive's performance in line with the client's evolving needs and continuously works on new feature development. This comprehensive service approach ensures a smooth adoption of Qudrive and helps maximize its long-term value for fleet management.

🏆 Results

The implementation of Wialon-powered Qudrive brought tangible improvements across key areas of fleet management, from cost savings to enhanced safety and communication.

✅ Fuel cost reduction

Thanks to continuous fuel consumption monitoring via telematics data and mileage-based calculations, combined with [eco-driving coaching](#), the client achieved a noticeable drop in fuel expenses. With the implementation of effective fuel theft solutions, including real-time monitoring and alerts, incidents of fuel theft have also significantly decreased.

✅ Improved driver behavior

With Wialon's driver behavior monitoring solution in place, the company started tracking violations, identifying risky driving patterns, and coaching drivers toward safer, more efficient habits.

✅ Better fleet safety

Mandatory digital pre-trip inspections helped ensure vehicle readiness and overall fleet safety. Over time, this proactive approach also contributes to lower repair costs.

✅ Time saved on manual tasks

Routine activities for both drivers and managers — including time tracking, leave requests, and inspection reporting — were streamlined and automated within a single platform.

✅ Improved communication

Qudrive established a reliable communication channel between drivers and managers, improving response times and operational coordination.

Company profile

🏆 **IoT project of the year nomination:** Compact fleets

Country: Kenya

Industry: General fleets

Solutions

🔄 Wialon

🌿 Driver behavior monitoring

📁 Fuel monitoring system

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