



Cargo theft prevention using smart locks

⚠️ Challenge

In Mexico, transport operators often face the problem of cargo frauds and thefts committed on the roads. To avoid them, Transportes Alba, a small family business that is involved in transportation sportswear with a fleet of 4 vehicles, contacted the Wialon partner in Latin America, [Skypatrol](#), and asked for the solution that would allow them to:

- keep cargo safe during the transit;
- prevent employees from stealing the cargo or helping gang members do it.

🔧 Solution

Transportes Alba previously had used a kill switch solution from another company but was unsatisfied with it. Anyone could open the relay. The customer wanted to have a reliable solution that would ensure that only his employees could open the doors of the vehicles. Furthermore, access cards alone, such as NFC or RFID cards, were not enough because drivers could pass their cards to others to open the vehicle and steal the goods. In addition, the customer asked for hidden installation of the entire tracking system so that neither drivers nor gang members could know technical details.

The solution uses [the tracker](#) developed by the partner and an electronic lock embedded into the vehicle's door. The lock is connected to the partner's tracking device, which in its turn is connected to Wialon.

The customer uses Wialon to see the location of their vehicles. The platform is also used to send a command to lock or unlock the door.

The biometric scanning mobile app gets the person's face scanned, and if the face is in the list of allowed ones, the mobile app makes [an API request](#) to Wialon to send a command to unlock the lock. So the solution enables the customer to authorize specific staff to open their vehicles and facilities. The company also receives a photo of the employee's face, the accurate position, date and time when the truck was open.

🛠️ Implementation

It took about four months for Skypatrol to develop and implement the project.

Initially, the customer was concerned about the data safety in the mobile application. But Skypatrol assured him that they do not maintain any biometric or personal information of the user. They deliver a file with the results of transactions to the customer and then delete all user information from their platform. So a biometric scanning option was added to the solution later.

The partner developed dedicated documentation and provided technical support within business hours via Skype or email. Additionally, they arranged training for the customer on Wialon, devices, and biometric apps.

📅 Plans

There are plenty of new options for this solution around the corner: driver ID usage, ignition control, etc. The company also wants to make the solution scalable and offer it to carsharing companies, rental car businesses, and others.

🏆 Results

The implemented solution guarantees cargo theft prevention by both company employees and criminals. The electronic lock plus biometric scanning is one of the best options that the customer could get to control their cargo safety. Moreover, the customer gets evidence, such as photos, that shipments are completed successfully.

✅ Theft prevention

The customer controls the entire operation making sure that only authorized employees are handling the cargo.

✅ Proof of delivery

The company is getting all the information and photos confirming that its clients received the shipments.

✅ Improved security

The combination of the tracker, biometric scanning, remote lock control, lock operation data records, and location control is offering protection from more theft scenarios.

🏢 Company profile

🏆 **IoT project of the year nomination:** Long-haul shipping

Country: Mexico

Industry: Long-haul transportation

🔗 Solutions

 Wialon

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