

# Automating the taxi fleet operation using telematics

## Challenge

The client is Korolevskiy dom LLC, the car fleet that leases vehicles for taxi drivers. Management processes for a fleet comprising more than 100 vehicles were decentralized and performed manually. This entailed a number of problems:

- If the driver didn't pay the fine, the owner of the fleet had to cover it.
- Vehicles were frequently misused, drivers often left the authorized area.
- It was challenging to track and analyze payments for the car rental. Drivers with overdue rentals could continue using the car freely.

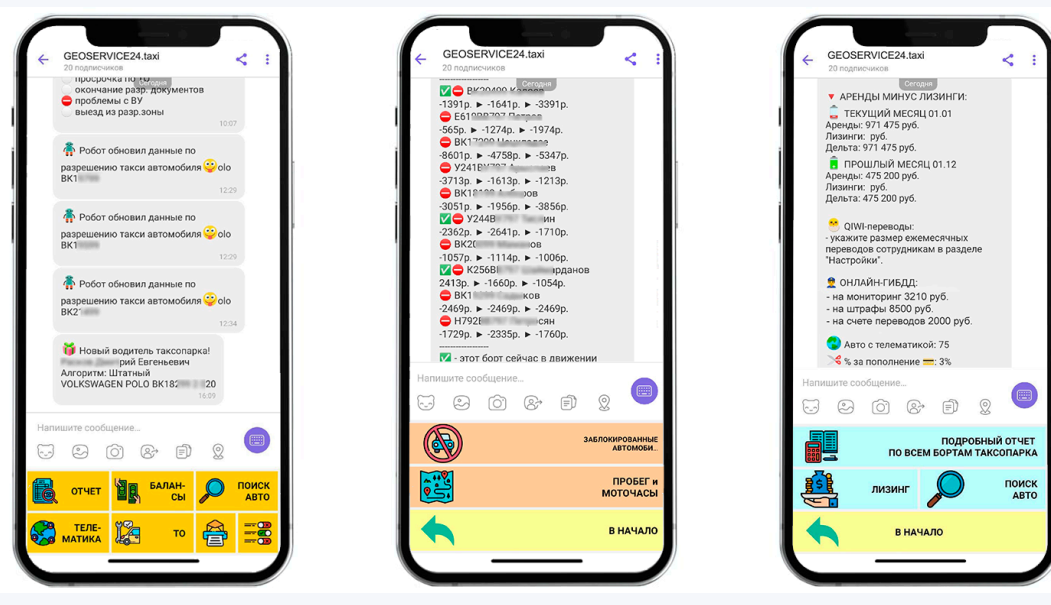
## Solution

Our partner [Geoservice](#) offered the client a comprehensive solution to these issues. It consists of several elements:

- GPS trackers [Navtecom SMART S-2433](#) that collect telematics data and send it to the [Wialon monitoring platform](#) were installed in the fleet vehicles. An electromechanical relay was also installed in vehicles to block the engine.
- Wialon, in turn, was integrated with an essential solution component – the Viber-based RoboBot.Taxi chatbot. Wialon provides data on the vehicle's location and speed and is responsible for assigning drivers; it also generates notifications about leaving geofences and exceeding the speed. Commands to block the engine are also sent through it.

*Previously, Geoservice has already presented to the telematics community its other [chatbot-based project](#). At that time, the virtual assistant helped in fighting against car theft in certain urban areas. The operation principle of a new solution is similar to the previous project.*

- The **1C** accounting system, **Parkomatika** and **Yandex.Taximeter** services are also integrated with the chatbot.



The RoboBot.Taxi interface in Viber

As a result, the solution allows drivers, mechanics, and fleet managers to perform a range of actions from a single interface:

- Using the chatbot, you can **control the parking payment**. In a paid parking lot, the parking session starts automatically with the help of the Parkomatika service. The smart assistant **finds fines in the traffic police database** and pays them from the driver's card.
- The Viber bot also **collects rental payments from drivers**. This happens automatically. Suppose the driver accumulates debt in Yandex.Taximeter, the virtual assistant safely blocks the car. The block is removed immediately after the account replenishment. The fleet owner can easily **track car rental debts** and charge drivers with fines.
- **The information** about profits, expenses, deposits and their returns to drivers, the number of orders completed and payments received from drivers, income including leases, and income from orders **is always at hand**.
- The bot also uses Yandex.Taximeter **to block the car engine** in case of leaving the authorized area.
- RoboBot.Taxi will **notify about incidents with the car**, for example, if the driver has exceeded the speed, or the vehicle is moving without an assigned driver. It will also warn about unauthorized interference with the telematics devices.
- The virtual assistant will also not miss **the insurance and diagnostic cards expiration**, inform in advance about the need to undergo a tech inspection, control the mileage and block the engine in case of an overrun.
- Among the solution's other capabilities is **a voice assistant for filling out the waybills** of taxi drivers. Drivers can also **withdraw the earned money** from Yandex.Taximeter to the card at any moment or recharge their balance.

## Results

Geoservice has developed a solution that not only solved the client's urgent problems but also automated many processes in the taxi fleet operation. Now employees of Korolevskiy dom LLC don't need to control each vehicle and perform operations manually in a large fleet. Payment collection, fine payment, withdrawal of driver salaries, and even automatic safe engine blocking in case of unpaid rent – all these became possible due to [Wialon and the solution by Geoservice](#).

### ✓ Fewer fines

Shortly after the solution implementation, the client noticed a significant reduction in parking fines. The car downtime has also decreased.

### ✓ Process automation

Numerous fleet control and management operations are performed automatically or with minimal staff involvement.

### ✓ Multiple platforms in one solution

Data and functionality of Wialon, 1C, Yandex.Taximeter, Parkomatika are available in one interface.

### ✓ Data is always at hand

The client can obtain information on income, expenses, and other essential data on the taxi company operation via a messenger on a mobile device.

## Company profile

**IoT project of the year nomination:** Public transport

**Industry:** Rental

## Solutions

Wialon

## Hardware

Navtecom SMART S-24xx

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