

# Ensuring medication safety with a cold chain monitoring solution in Georgia

Telematics service provider **GeoGPS**

Wialon partner since 2012

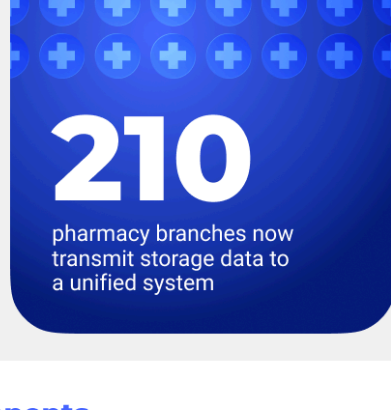
Client **PSP Pharmacy**

200+ pharmacies nationwide 



## Cold chain monitoring solution

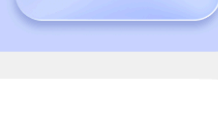
ensuring medication safety



**210** pharmacy branches now transmit storage data to a unified system

**372 BLE sensors**

monitor refrigerator conditions in real time



### Key features and components

- Centralized storage monitoring: Temperature, humidity, and voltage control across the network
- Easy access for all teams: Shared visibility for central and branch staff
- User-friendly monitoring interface: Simple daily use, no technical expertise required
- Compliance-ready reporting: Reports ready for audits and inspections
- Visual cold chain monitoring: Graphs showing condition history and deviations
- Automated exception alerts: Instant alerts when safe limits are exceeded

### Solution architecture

#### Software

- Wialon
- Custom-built interface

#### Hardware

- BLE temperature sensors
- GPS trackers by Teltonika

Case study breakdown, visualized

## Challenge

For pharmacies and pharmacy chains, maintaining proper storage conditions is one of the most crucial regulatory requirements. Many medications must be stored within strict temperature ranges to remain effective and safe for patients.

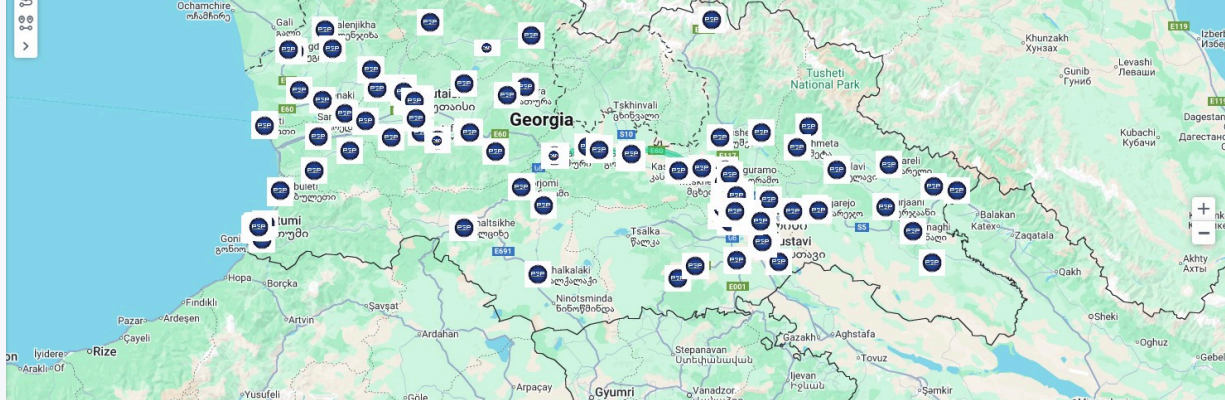
This was the primary business challenge for **PSP** — one of the largest pharmacy networks in Georgia, operating hundreds of branches nationwide. Without real-time visibility into refrigerator temperatures at the branch level and with limited historical data, it was difficult for the company to assess storage conditions across multiple locations and ensure compliance with storage regulations. This also led to delayed responses to temperature deviations, increasing the risk of medication spoilage.

To address these challenges, the pharmacy network turned to **GeoGPS**, a long-standing Wialon partner in Georgia, to implement a cold chain temperature monitoring system.

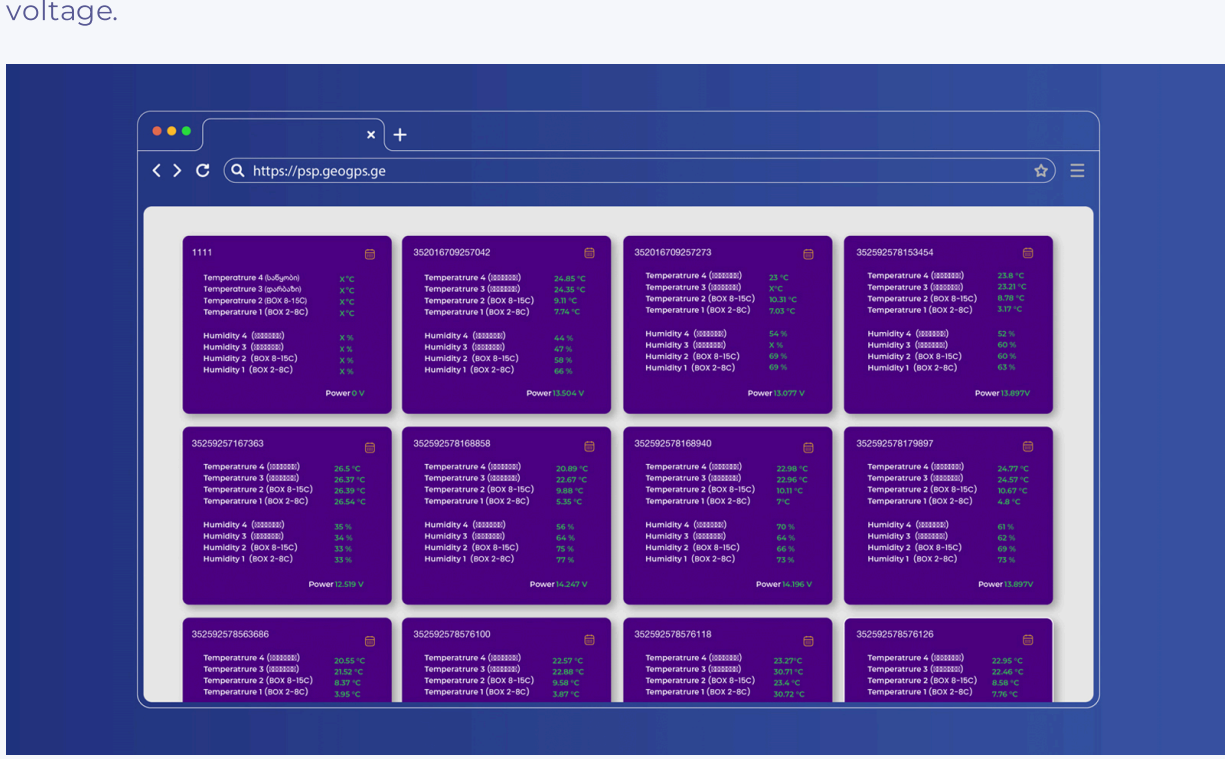
## Solution

GeoGPS implemented a specialized solution with **Wialon** at its core, complemented by a custom-built interface for simple and efficient on-site data monitoring.

BLE temperature sensors were installed inside temperature-controlled storage units at over 200 pharmacy branches, transmitting data to Wialon via **Teltonika** GPS trackers. Wialon then processes all collected data and synchronizes it with GeoGPS's custom-built monitoring interface via API, ensuring real-time visibility into medication storage conditions.



The custom interface was designed to be straightforward and easy to grasp, displaying only the essential cold chain monitoring data such as temperature, humidity, and voltage.



### Key features include:

- Real-time temperature, humidity, and voltage monitoring for each storage unit
- Full historical data for up to 1 year
- Downloadable reports
- Visual graphs
- Automated alerts triggered when set thresholds are exceeded

The project relied on Wialon for its adaptable SDK and API, consistent handling of GPS and BLE sensor data, and a stable environment supporting quick implementation.

## Results

The implementation of a custom pharmaceutical cold chain monitoring system allowed the client to gain full visibility into the storage conditions across the pharmacy network. The system can be accessible both by central warehouse employees and the branch pharmacy operators. The custom-built monitoring interface ensures straightforward day-to-day operations, even for less tech-savvy employees.

### 210 pharmacy branches connected

372 BLE temperature sensors were installed and all essential data is now monitored in real time.

### All storage data in one place

The custom-built monitoring interface receives data from Wialon and presents it in a simplified view highlighting only the relevant parameters. Employees can use the search function to quickly find a specific branch and review its data within seconds.

### Increased medication safety

Real-time visibility into storage conditions significantly lowers the risk of spoilage.

### Rapid response to critical events

Automated Wialon features, such as notifications, allow for quick reaction when a storage unit falls outside the required temperature range or encounters technical issues.

### Access to historical data

When medications are returned from branch pharmacies, central warehouse staff can easily review historical data to verify that they were stored under proper conditions at the branch.

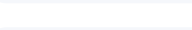
## Company profile

Country: Georgia

Industry: Cold chain monitoring

Website: [geogps.ge/en](https://geogps.ge/en)

## Solutions



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