Way.Pro auto

This is the optimization of automobile routes

Automatic route generation system

- reduces logistics costs
- considers the nuances of your business
- optimizes operational performance

About the company

We create intelligent solutions that cover all supply chains:

from product planning and distribution to route optimization and management of last-mile logistics

Smart Machines LLC

developer of integrated logistics optimization

Our technologies allow businesses to

- reduce costs
- make logistics efficient
- increase customer satisfaction

We ensure efficient movement of all types of cargo

from small parcels to oversized goods, ensuring minimum costs and maximum speed of delivery

The importance of efficient routing

Cost reduction

Save fuel and reduce maintenance costs

Increased reliability

Minimizing delays and improving service levels

Increasing resilience to change

Flexibility in management and adaptation to new conditions

Increased delivery speed

Fast delivery and improved inventory management

Decision-making Center

Decision analysis and transparency of processes

Analytical block - reports and metrics with assessment of changes

Delivery

Analysis of delivery time and downtime

Efficiency

Empty mileage ratio

Analysis of changes

'Was-became' assessment, consideration of scenarios

Route density

Number of delivery points, average distance, departure frequency

Cost of transportation

The cost of transportation per route, vehicle, kilometer, unit of goods, type of cargo.

Expenses

Transportation costs and separate routes

Main advantages

Optimization of the entire contour transport logistics

- first mile
- trunk line
- last mile
- courier delivery
- clustering and zoning

Powerful mathematical apparatus

Mathematical apparatus with optimal solution for a specific task

A strong Math and Data-Science team

A team with experts with many years of experience in mathematics and DS in logistics

Scaling

Maximum number of logistics facilities and calculation parameters

Working with BigData

Working with millions of data matrices with amazing calculation speed

Cartography

Integration with cartographic services and visualization of solutions

Considered parameters

Type of transport

Type of transport and its capacity

Frequency

The frequency of accumulation of goods and departure

Points

Number of points in the route

Zonality

Formation of transport operation zones and accounting for the density of delivery points

Traffic

Taking into account the situation on the roads and traffic

Time windows

Accounting for time windows and work schedules of facilities

Restriction

Restrictions on distance and working hours

Technological Features

Algorithms

Optimized, reliable algorithms tested on real-world tasks

Architecture

Flexible micro-service architecture designed for load any product issue

API

A simple and consistent API with clear parameters

Changes

Quick changes and CI/CD without interrupting the system operation

Mathematical features

Working through a variety of mathematical algorithms and choosing the optimal solution for each type of problem

A multi-step solution

Optimization of calculation using several solution methods

Using heuristic algorithms

Large Neighborhood Search (LNS) method and simulated annealing

Using precise methods

Using integer linear programming

Accounting for a subset of graph edges

The Minimum Connected Tree (MST) method

The efficiency of solutions

The DataSet of the largest logistics companies was used

more than 1000
own warehouses of the Russian Federation and the CIS

Positive feedback from experts and logisticians

- approval of implemented solutions from logistics specialists has been received
- the result surpasses manual labor and previous solutions

The tasks of the main stages of logistics have been solved

more than 500 thous.
last mile routes per month

more than 200 thous.
trunk lines per month

More than 1 millions
courier routes per month

Main usage results »»

- Distance
- Delivery time

↓ 10%

- Waiting for the goods

↓ 12%

- Costs of transportation

↓ 11%

- Transport usage rate

↑ 14%

↓ reduction of transportation costs for all types of logistics

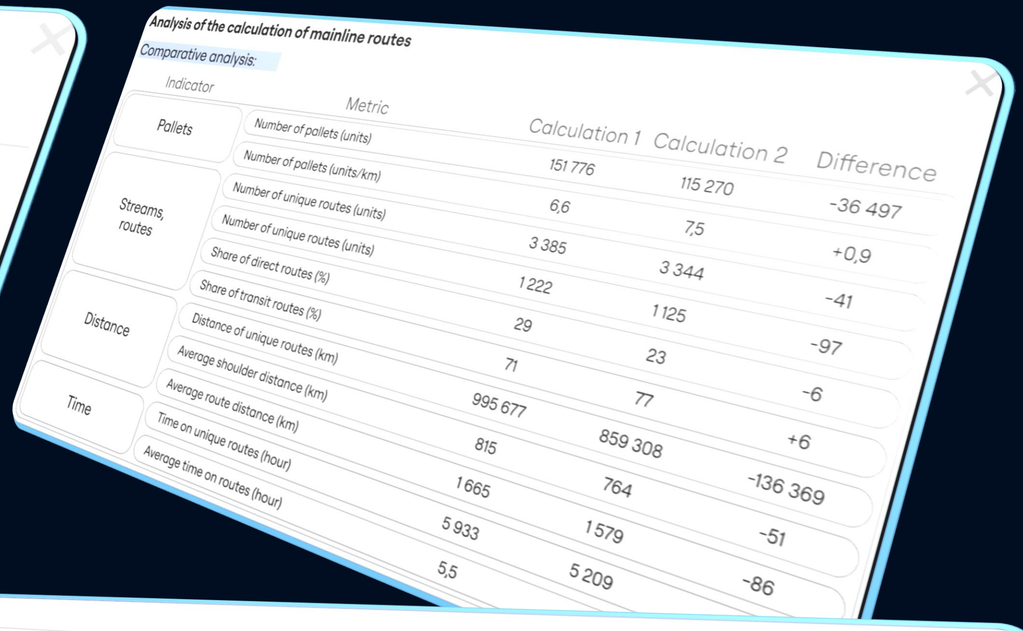
↓ reduction of the total distance and delivery time at all logistics facilities

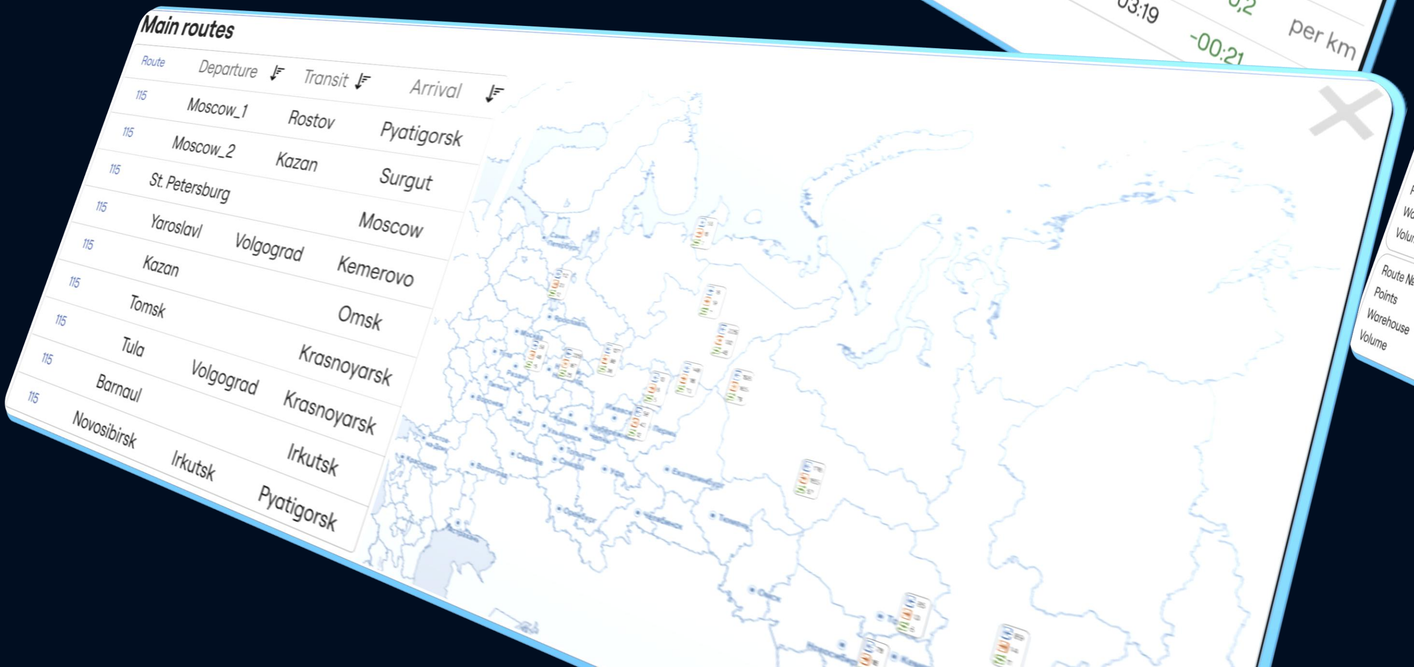
↓ reducing the waiting time for goods in stores and pick-up points

↑ significant increase in the transport utilization rate

UI Example*

*custom implementation for the client





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