State of Fleet Software 2024 Report

We interviewed leading companies to gather unique insights into the fleet industry's current landscape. The report delves into key areas, including business operations, software solutions, innovations shaping the field, as well as trends, challenges, and future outlooks.

Market overview

The global fleet management solutions market is projected to grow to approximately $52.36 billion by 2028, reflecting the increasing adoption of electric vehicles (EVs), a surge in e-commerce activity, and the demand for real-time tracking and predictive maintenance.

Internal research via Gartner Digital Market shows that while many organizations already use digital tools, those adopting dedicated fleet management software gain efficiency, tailor-made features, and new business opportunities.

Top 3 reasons for switching to fleet management software

44% — Inefficiency
30% — Limited functionality
9% — New business opportunities
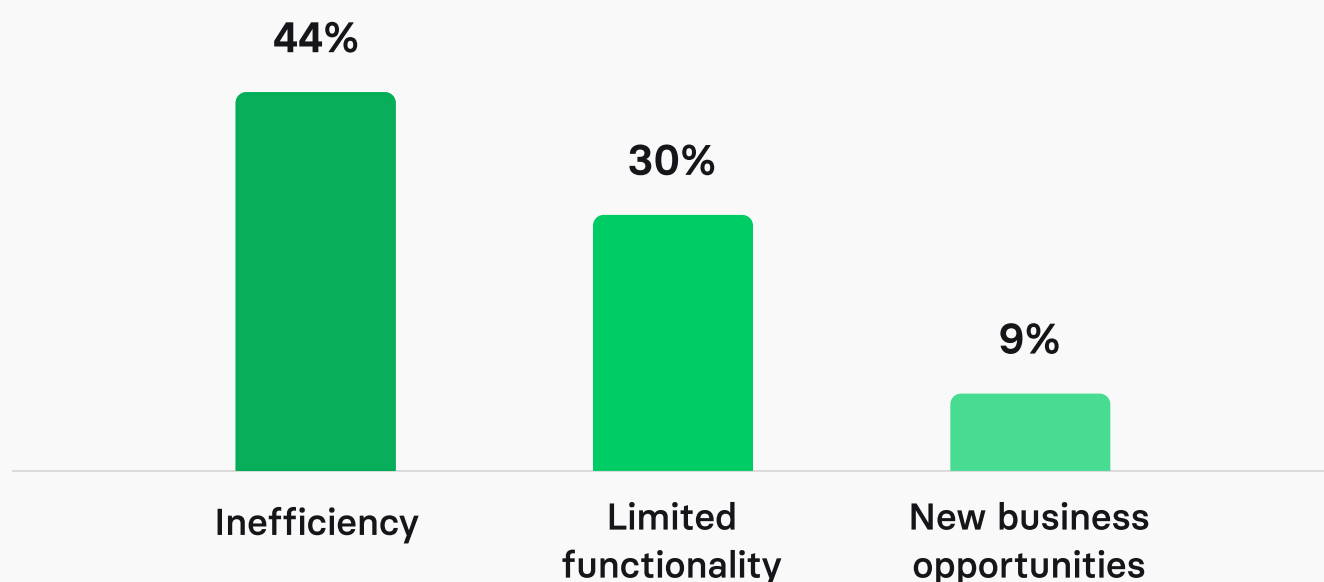
Sources:
Data Bridget Market Research
Gartner Digital Market

Goal of the survey

The goal of the "State of Fleet Software 2024 Report" is to provide a comprehensive analysis of the current state, challenges, and trends in the industry, offering valuable insights for businesses and professionals in the fleet management software sector.

Report and survey workgroup

We've conducted interviews with leading Fleet companies. Below is a list of participants who have agreed to be publicly acknowledged:

Yukon Palmer
FOUNDER & PRESIDENT OF FIELDLOGIX

Daniel Krüger
PRODUCT LEAD OF NECTURE

Michael Hegeman
VICE PRESIDENT AT DRIVE GOMO / HAILIFY

James Littlehales
INTERNATIONAL SALES MANAGER AT FROTCOM

Kristoff Van Rattinghe
FOUNDER & CEO SENSOLUS

Andrea Amico
FOUNDER & CEO PRIVACY4CARS

Pandorka Chushkova Mishkova
MARKETING MANAGER BRANSYS

Peter Håkanson
PRODUCT MANAGER WIRELESSCAR

Simon Brooks
HEAD OF PRODUCT MARKETING ANYLINE

Interview results summary

The 2024 interviews brought together perspectives from **C-level executives, sales** and **marketing professionals, and technology leaders**. These experts shared valuable insights into the fleet market, their vision and exclusive data on business operations, software solutions, emerging innovations, and the evolving trends and challenges shaping the industry's future.

These are the results we've got after the interviews:

Tech Stack in Use

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Popular 3rd-party APIs/Services & Hardware

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Challenges with Fleet Software

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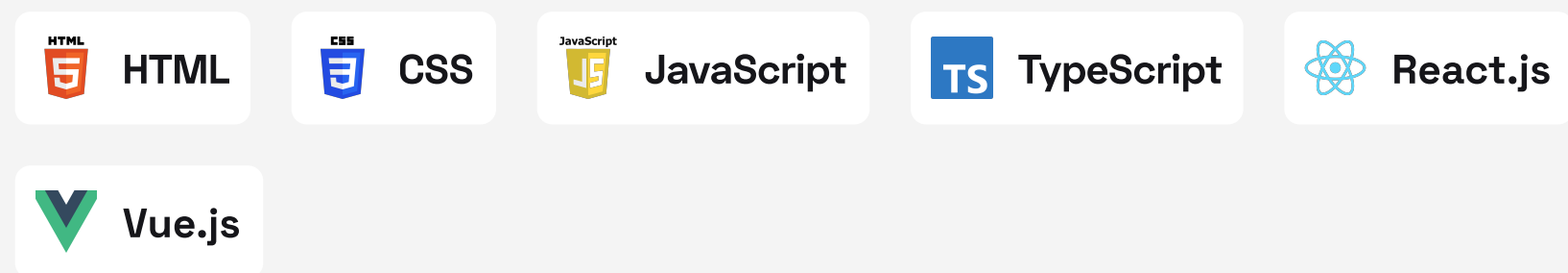**Technical Trends**

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Tech Stack in Use

The landscape of fleet management software is shaped by diverse technologies tailored to meet evolving business needs. Below is an overview of the tools utilized by the companies we surveyed.
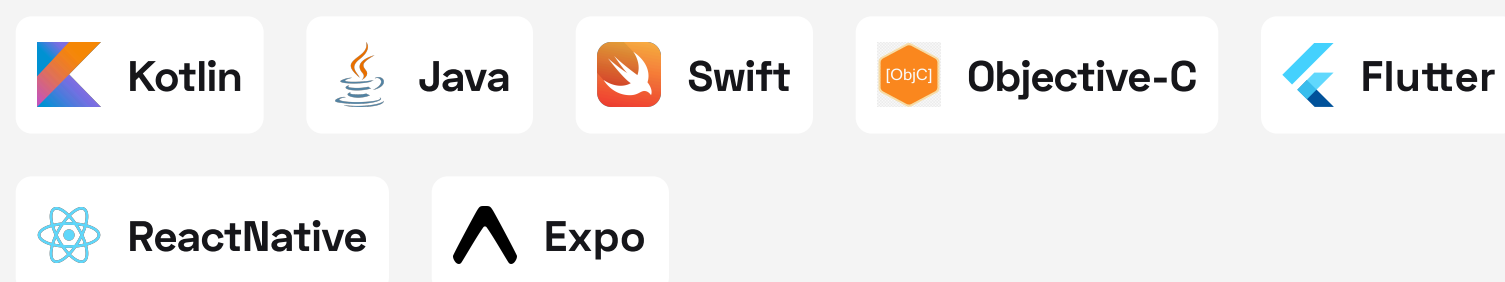
Frontend

HTML | CSS | JavaScript | TypeScript | React.js

Vue.js

Backend

Node.js | .Net | C# | Python | Java

Databases

PostgreSQL | MongoDB | MySQL | SQLite

Infrastructure

Microsoft Azure | AWS | Google Cloud Platform

Mobile

Kotlin | Java | Swift | Objective-C | Flutter

ReactNative | Expo
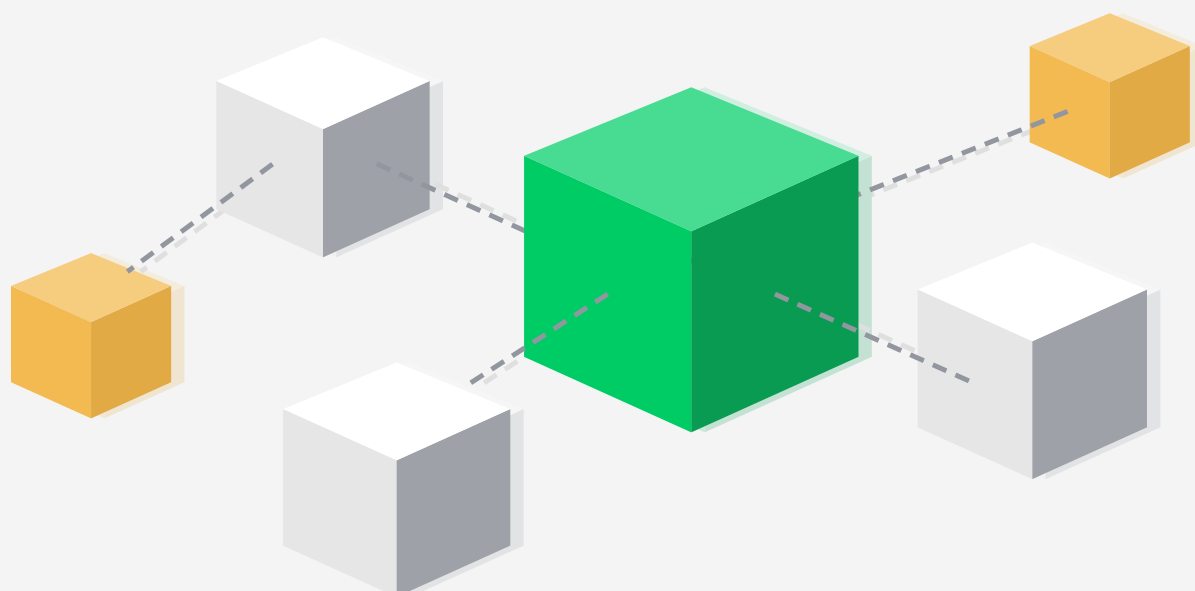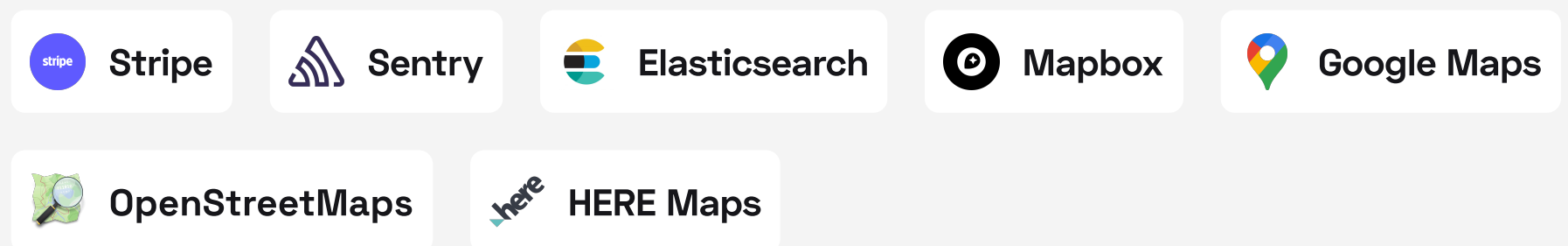
Popular 3rd-party APIs/ Services & Hardware

Hardware and third-party integrations are the backbone of fleet management systems, enabling real-time insights and streamlined workflows. Here's a list of the solutions employed by the companies we engaged:

3d parties

Stripe	Sentry	Elasticsearch	Mapbox	Google Maps
OpenStreetMaps	HERE Maps			

Hardware

- **Dash cameras (usually AI-enabled)** for real-time video recording, driver monitoring, and event detection.

- **Movement sensors (accelerometers and gyroscopes)** to monitor vehicle movements, detect harsh braking, and analyze driving patterns.

- **Boxes for data acquisition (OBD-II and ELDs)** for retrieving critical vehicle data, including engine diagnostics and compliance metrics.

- **Rechargeable tracking units (portable and wireless devices)** for tracking trailers, containers, or other non-powered assets.

- **Tire Pressure Monitoring Systems (TPMS)** for real-time monitoring of tire pressure and temperature, ensuring safety and fuel efficiency.

- **Fuel level sensors** for tracking fuel usage and detecting potential fuel theft.

- **Driver ID systems** (key fobs, RFID cards, or biometric systems) for identifying drivers and tracking their shifts.

Some hardware suppliers which were mentioned:

Queclink   **Teltonika**   **Lytx**   **Motive**   **Samsara**

Verizon Connect   **Geotab**
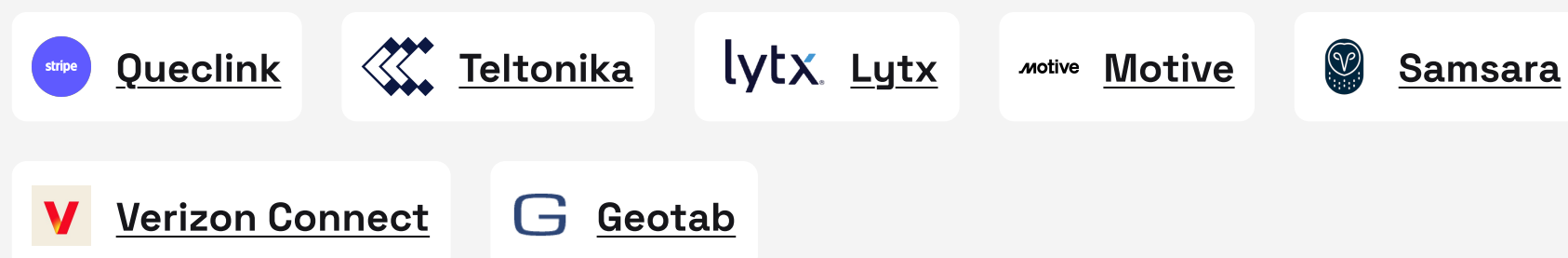
Artificial Intelligence

AI adoption in the Fleet Management sector is rapidly increasing, with **all surveyed companies (100%)** using AI in some form. Usage ranges from traditional methods to advanced models like large language models. **66.6%** plan to expand AI features or capabilities, while **44.4%** have concerns, mainly about:
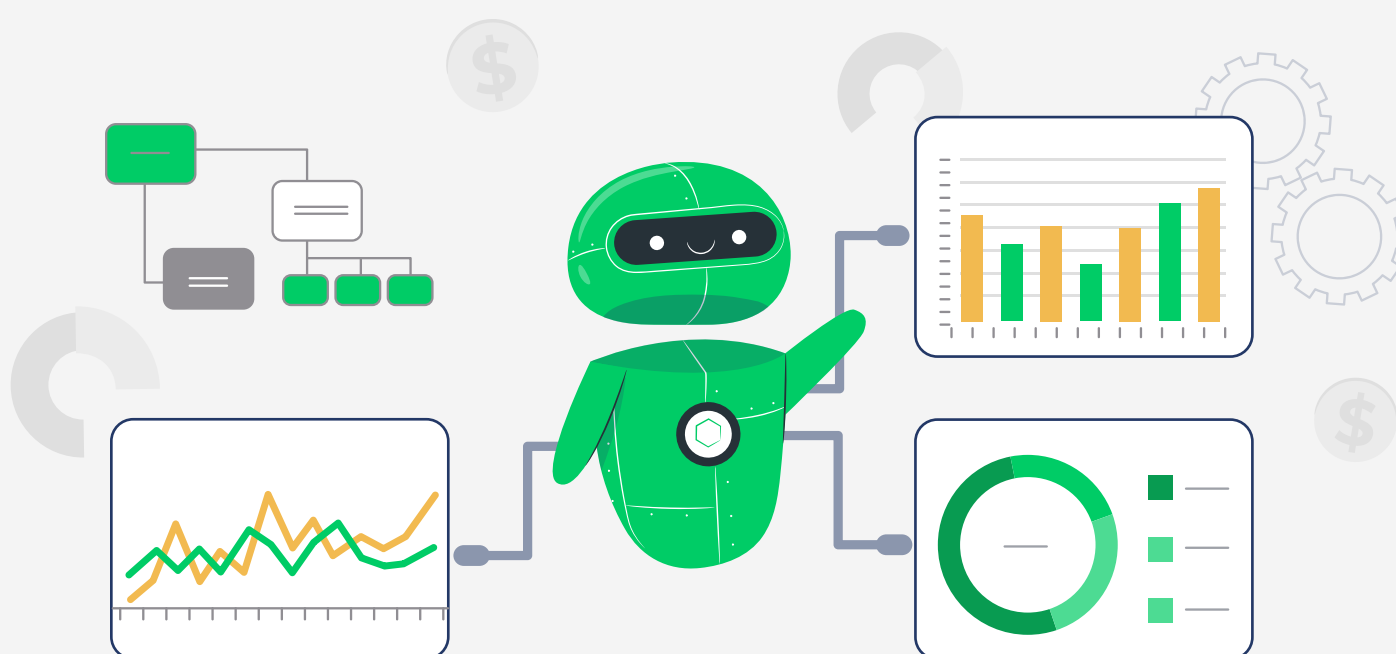
- Data misuse risks
  (e.g., profiling or misuse against user interests)

- Educating customers on AI's value VS implementation costs concern

- Challenges in hiring skilled AI engineers

Most popular usages of artificial intelligence:

01   Driver Behavior Analysis: AI-based dash cameras detecting distractions like cell phone use, eating, or drinking.

02   Predictive Analytics: Used for predicting demand, user patterns, or fleet performance.

03   Data Analysis: Insights into customer behavior, fleet performance, and risk reduction.

04   Accident Prevention: Proactive alerts through AI-enhanced cameras.

05   Chatbots and Live Assistance: AI-powered chatbots for customer interactions.

How AI Impacted the Business

Positive Impacts:

- Enhanced efficiency and optimization

- Improved customer service through live assistance and proactive communication

- Reduced risk through accident prevention and live data analysis

Negative/Neutral Impacts:

- Concerns over privacy and potential misuse of AI-collected data

- Challenges in performance and accuracy due to limitations in AI models

Sustainability

Fewer than 15% of respondents reported that sustainability trends had **no impact** on their business operations.
A **key challenge** is adapting to **diverse regulations**, which vary across countries (Europe) and states (US).

Top 3 sustainability practices:

01 Adoption of electric vehicles (EVs).

02 Use of state-of-the-art software and hardware with effective e-waste management during fleet remarketing.

03 Promotion of sustainable driving behaviors through AI-driven monitoring & harsh events analysis.

Challenges with Fleet Software

01   Collecting and adapting data from various software and hardware.

02   Managing varying customer needs and system compatibility issues in fleet management system integration.

03   Navigating diverse data regulations across regions and solving privacy concerns.

Technical Trends

Tech trends for the next 1-3 years:

01 Growing **use of AI** for predictive analytics, driver behavior monitoring, and process automation.

02 Use of **Edge AI** that enables localized data processing to save energy.

03 Real-time data collection via **IoT devices** using **narrow-band** and **low-power LTE-M protocols** for better connectivity and battery life.

04 Shift from data collection to providing **insights** on vehicle motion, shock absorption, and mechanical health t**hrough telematics devices.**

Industry Trends

Top 5 **industry trends**:

01   Adoption of **compliance-ready solutions** like tachograph management and real-time reporting.

02   Focus on **driver safety** using AI monitoring, fatigue detection, and behavior analytics.

03   **Customizing fleet management solutions** for sectors like heavy machinery, rentals, and logistics to meet unique needs.

04   Growing interest in **sustainability concepts** like EVs and alternative fuels (e.g., hydrogen) to tackle scalability and infrastructure issues.

05   **Resources optimization** for higher profitability and better customer service.

Outsourcing Practices

We inquired about companies' team structures and found that 44% prefer in-house teams, and 56% opt for a hybrid approach.

Interviewees highlight the Top 5 Benefits of Outsourcing:

- **Focus on Core Business:** Offload full-cycle development, including project management.

- **Flexibility:** Easy scalability of resources based on project needs without long-term commitments.

- **Cost efficiency:** Reduced overheads by avoiding full-time staffing costs, especially for post-deployment maintenance and updates.

- **Access to expertise** that is not available in-house, like UI/UX design or   fleet industry-specific developers, reducing development risks.

- **Faster ramp-up:** Quicker start of projects compared to hiring and onboarding in-house teams.

About Volpis

Volpis is a company of ambitious professionals providing web & mobile app design and development services for **more than 7 years**. Being a full-service company, we provide expertise in all phases of the software development life cycle. We've successfully covered more than 100 products all over the world.

4.9 Clutch Customer satisfaction rate

7/10 Projects from referrals

50+
Completed projects
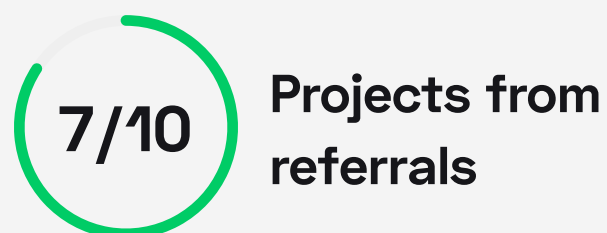
35+
In-house talents

6 Years
Experience in the fleet management industry

2016
Operating since

Our services

Services we provide for **fleet management industry:**

Mobile app development

Our experts develop secure and high-performing mobile applications for iOS and android devices, utilizing native tech stack to ensure seamless functionality and scalability across phones, tablets and smartwatches.

Web development

We provide comprehensive web app development services, encompassing frontend expertise for seamless user experiences and backend proficiency for secure, scalable solutions.

Business analysis

Our business analysis service entails in-depth audience analysis, strategic feature prioritization, and comprehensive requirement gathering to ensure the development of a highly tailored and effective software solution.
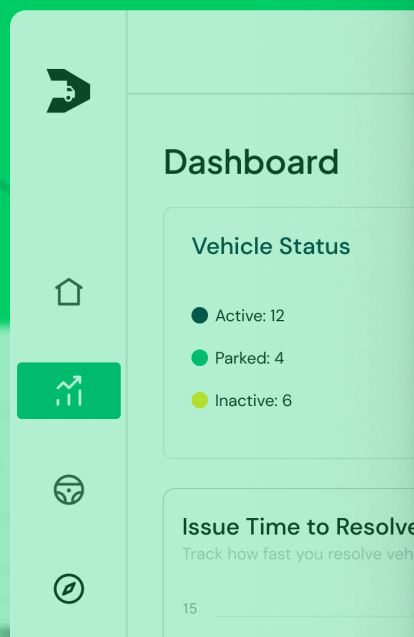
UI/UX design

UX/UI design service crafts user-centric and visually captivating digital experiences through research, strategic concept development, meticulous prototyping, elegant visual design, and rigorous usability analysis.

Ready to discuss your project?

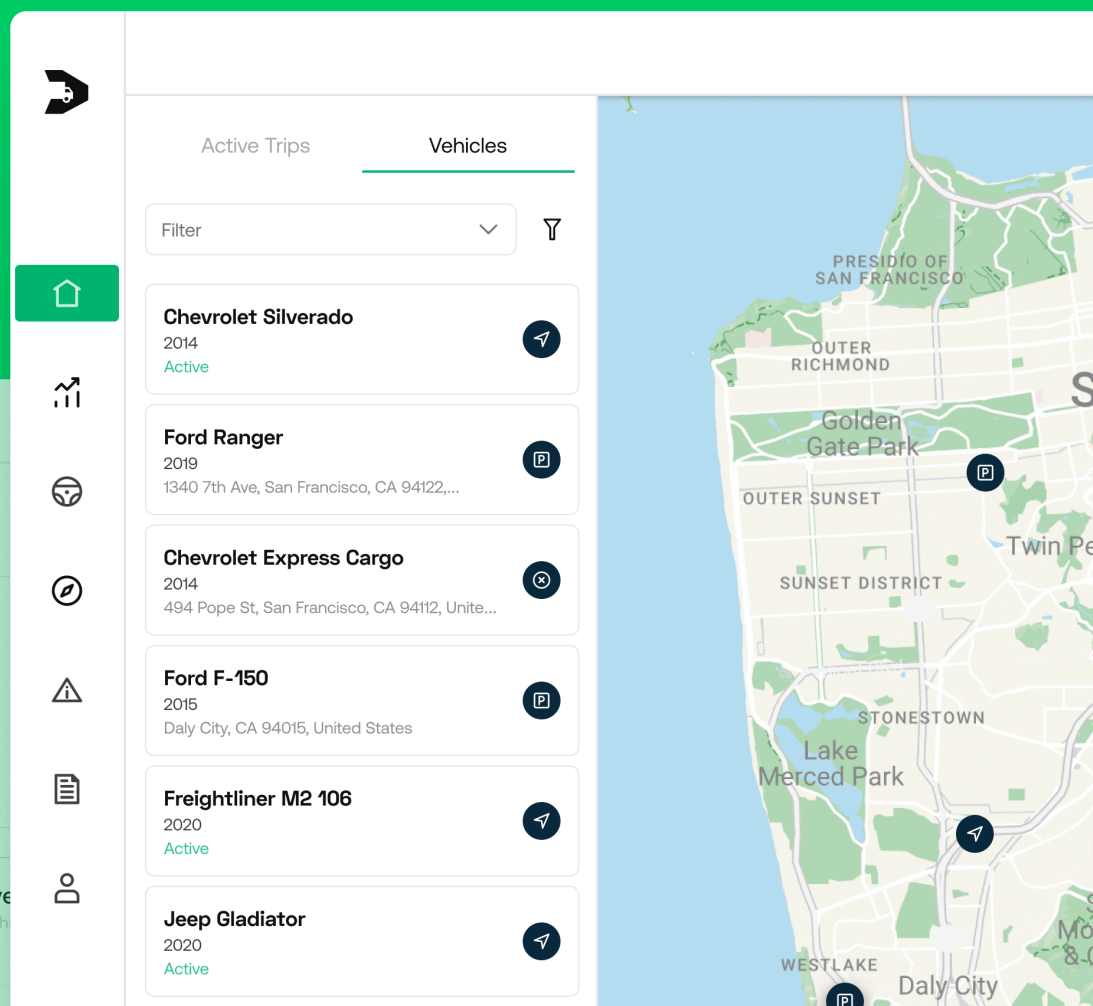Let's schedule a call

Schedule a free consultation →

Volpis

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22 miles

Dashboard

Vehicle Status

● Active: 12
● Parked: 4
● Inactive: 6

Issue Time to Resolve
Track how fast you resolve veh...

15

Active Trips   **Vehicles**

Filter

Chevrolet Silverado
2014
Active

Ford Ranger
2019
1340 7th Ave, San Francisco, CA 94122,...

Chevrolet Express Cargo
2014
494 Pope St, San Francisco, CA 94112, Unite...

Ford F-150
2015
Daly City, CA 94015, United States

Freightliner M2 106
2020
Active

Jeep Gladiator
2020
Active