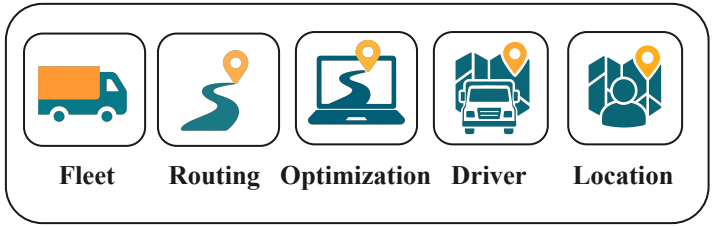
# Optimize Your Fleet with Odoo and JuMP

Benoît Legat

JuMP-dev 2026

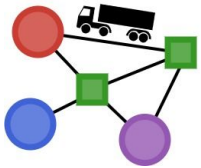
# Our Solution

odoo +




JUMP +

MathOptVRP



hexaly

OR-Tools

JuLS

Vroom
Vehicle Routing Open-source Optimization Machine

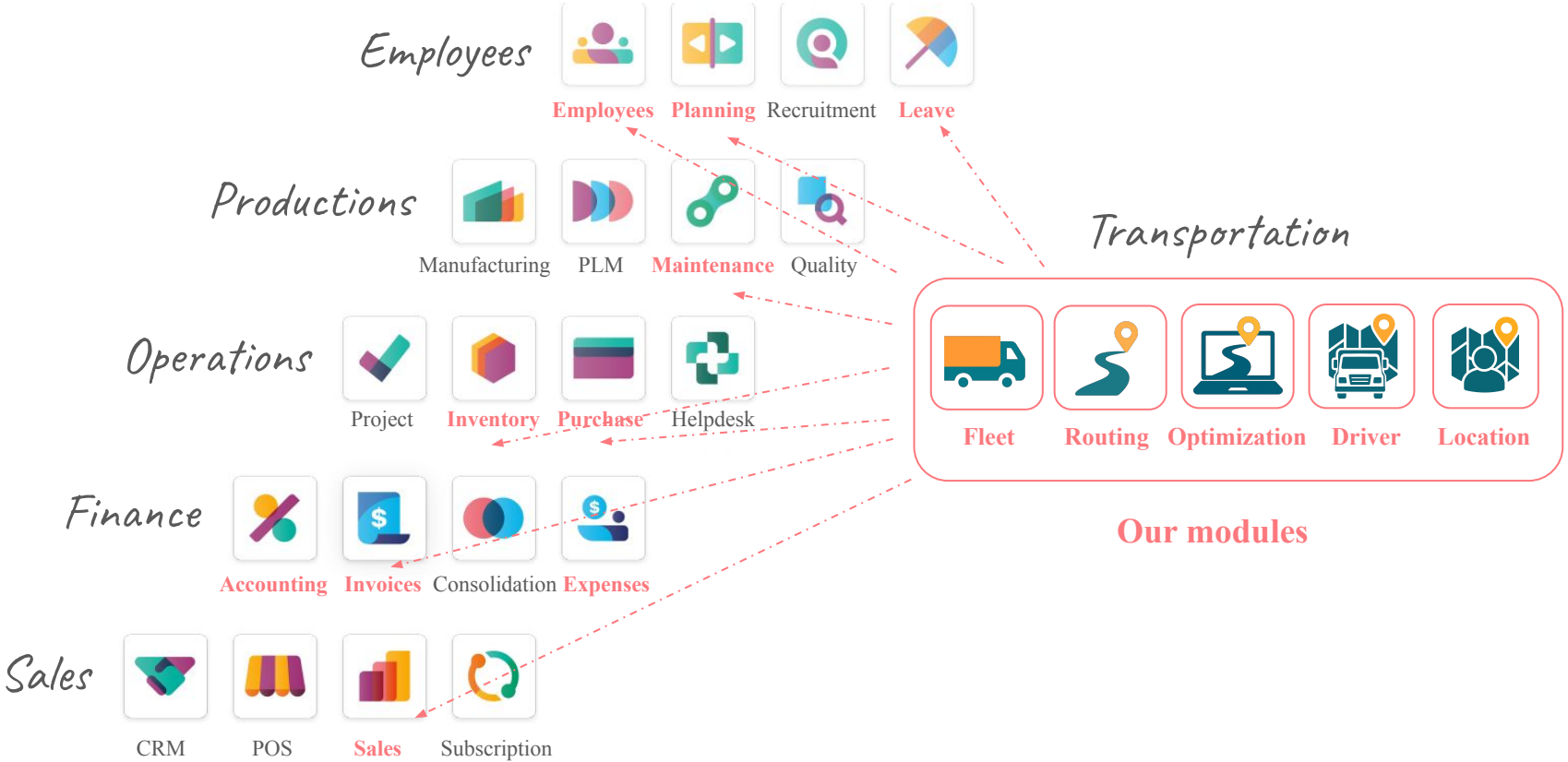
atoptima
OPTIMIZATION INTELLIGENCE

GUROBI
OPTIMIZATION

SoPlex · SCIP · PAPILO
ZIMPL · UG · GCG
THE SCIP OPTIMIZATION SUITE

HiGHS

# odoo extension



# Administrator & Driver applications

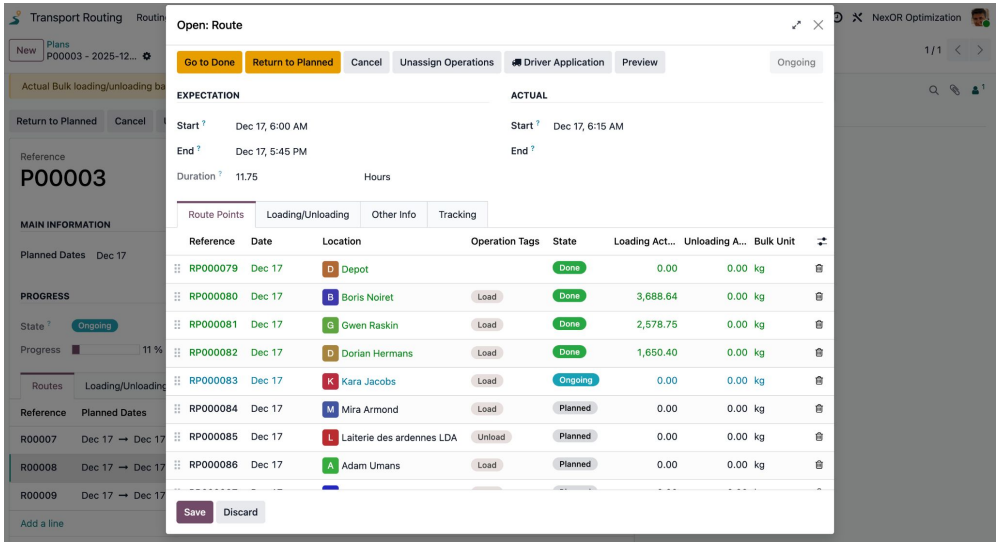
Fleet

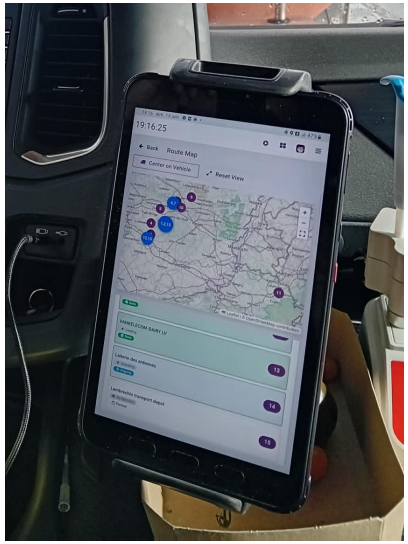
Routing

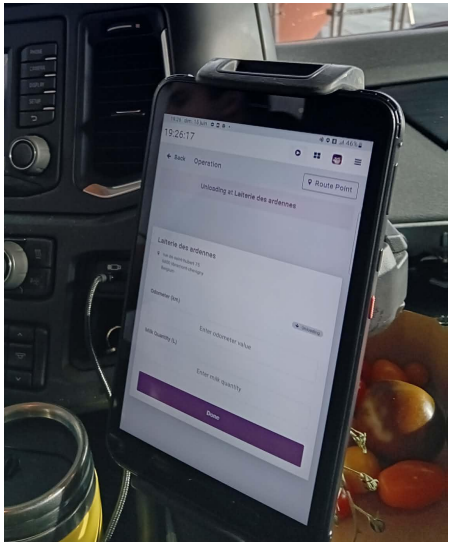
Optimization

Driver

Location





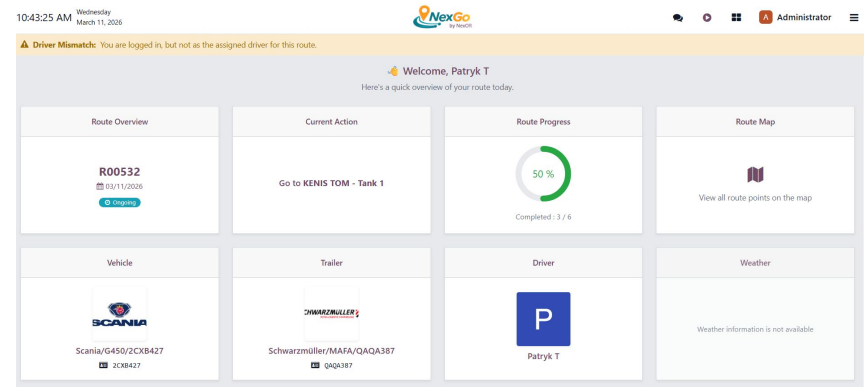
# Driver application

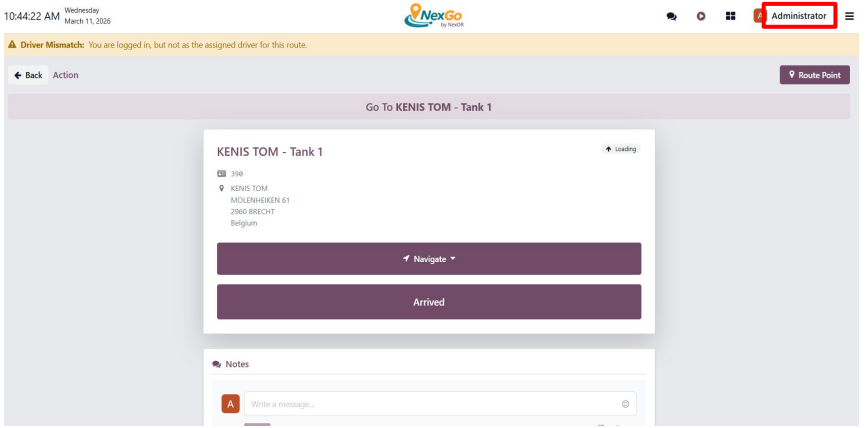
- *Personalized driver accounts*

  *Login, payslips, working hours.*
- *Real-time scheduling & notifications*
- *Flexible route management*

  *Drag-and-drop rerouting.*
- *Simple, intuitive interface*
- *Multilingual support*
- *Offline Resilience:*

  *Keeps working without network.*
- *Live GPS tracking*




# Location application

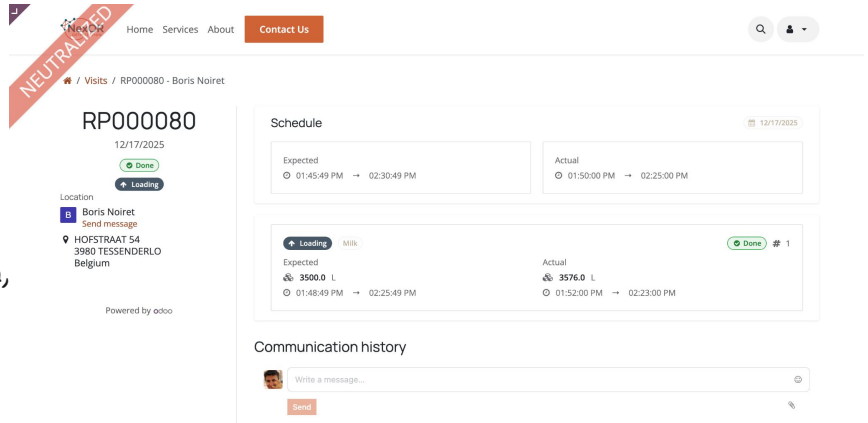
- **Visit history overview**

  See past visits with dates, times, services.
- **Automatic notifications & Next visit visibility:**

  Alerts when the truck is approaching, delayed.
- **Self-service updates:**

  Locations can update basic information (GPS position, contact details, access instructions), opening hours.
- **Quality or anomaly reporting from Locations**
- **Document sharing:**

  Certificates, location documents, ...



# JuMP extension : CVRP example

```julia
using JuMP
import MathOptVRP, Hexaly
model = Model(Hexaly.Optimizer)
@variable(
    model,
    nodes[1:n_customers, 1:n_trucks] in
    MathOptVRP.Partition(n_customers, n_trucks),
)
@constraint(
    model,
    [i in 1:n_trucks],
    nodes[:, i] in MathOptVRP.Capacity(nodes_Δ, trucks_capacity[i]),
)
@objective(
    model,
    Min,
    sum(
        MathOptVRP.op_sum_distances(
            D,
            vcat(depot, nodes[:, i], depot)
        ) for i in 1:n_trucks
    ),
)
```

Zero-padding as route `length < n_customers`

Bridged differently depending on solver

JuMP.NonlinearOperator

Needs JuMP PR#3451

# Any question ?

- Companies **developing solvers** wanting to integrate with a Fleet management & optimization software integrated in an ERP
- Companies looking for **help to manage their fleet** with a solution that **do not tie them** to a particular solver
- More info at https://www.nexoropt.com/
- Contact us at contact@nexoropt.com