

Case Study



The World's Largest Courier Company

Transforming Logistics - Real-Time Routing and Tracking - with Neo4j

INDUSTRY

International logistics

CHALLENGE

- Geo routing 24/7/365
- Database at capacity

STRATEGY

Build new data platform with graph database

SOLUTION

Neo4j graph database technology platform for logistics network

RESULT

- 8 months to production
- Real-time routing
- Raised old transaction ceiling
- Increased database capacity
- Reduced cost of operations

An international logistics company needed to build a new data platform for tracking and real-time routing of upwards of five million parcels per day.

The business operates 24/7/365, serving internal as well as B2B and B2C clients. The solution handles peak loads of three thousand routing calculations per second and integrates with a mixed software stack in a message-driven architecture. The project was implemented in 8 months—from design/POC to production—with Neo4j as the database supporting real-time routing, and maintaining the single source of truth for the logistics network. The system went live 2 months before its seasonal peak, scaling smoothly through maximum workloads, and running without a hitch.

Situation

One of world's largest international logistics carriers had reached the capacity of its routing database and turned to a global leader in IT consulting to implement a solution. Dominik Wagenknecht, a technical architect, led the team in the design and planning of a new data platform that would integrate with legacy applications and database systems to increase capacity for real-time routing and tracking. The goal was to find a solution to deliver 24/7/365 service to speed up operations and ensure scalability for business growth.

Case Study



"We brought the entire logistics network to Neo4j to give unparalleled flexibility."

*-Dominik Wagenknecht,
Technology Architect*

Neo4j provides easy scaling and mission critical reliability, as well as a lot of agility for the Java developer a relational database, to try to inject additional relationships would.

Why Neo4j?

"A logistics network is a graph, and doesn't fit the table structure of a relational database well," says Wagenknecht. The team chose Neo4j for its flexibility and scalability. With Neo4j's native graph storage and processing engine, transactions took milliseconds, not minutes, for high-speed, full graph, database traversals.

Benefits

The new data platform scales easily: to deliver reliability, scalability and extreme performance, using substantially less hardware than the other options on the table. The client wanted flexible connections between areas of business that had been restructured.

"Growing companies need to break and reconnect lines, and Neo4j handles this really well," says Wagenknecht. "Being able to receive data from external data sources, and leverage Neo4j for the routing calculation, as well as the master source of route data, has been a big technical and cost benefit."

Business constantly evolves, and Neo4j's flexibility supports its need to change rapidly when it needs to.

Neo Technology is the creator of Neo4j, the world's leading graph database that brings data relationships to life. Neo4j is the leader in graph database technology. As the world's most widely deployed graph database, we help global brands – including [Comcast](#), [NASA](#), [UBS](#), and [Volvo Cars](#) – to reveal and predict how people, processes and systems are interrelated.

Using this relationships-first approach, applications built with Neo4j tackle connected data challenges such as [analytics and artificial intelligence](#), [fraud detection](#), [real-time recommendations](#), and [knowledge graphs](#). Find out more at [neo4j.com](#).

Download Neo4j and see the power of graphs for yourself!

Questions? Contact us:

1-800-555-1212

info@neotechnology.com