Smart Logistics & Supply Chain 4.0: Real-Time IoT & Asset Tracking

Geodis provides customers with global asset tracking of their connected container shipments: geo-tracking, speed, estimated time of arrival, temperature, humidity, shock detection all along its transport journey by airplane, boat, truck.

The challenge : use the IoT to monitor in real-time the Supply Chain

IoT devices in Supply Chain allow tracking of vehicles, containers and even small packages. Geodis wanted to provide its customers with the ability to track in real-time their shipment during its multi-modal transport on:

- airplanes
- ships
- trucks

from a simple vehicle geo-tracking to an individual package tracking all along its transport journey.

Each of the transport legs can provide several pieces of information, like **geo-location, speed and estimated time of arrival.**

This data is transferred to:

- a **tracking provider** which may be global (such as airplanes or ships)
- but can be also **specific to a transport supplier** (such as truck fleets)

Parcel IoT may provide detailed information about its state during full journey and may contain information such as **geo-location, temperature, humidity or shock detection.**

A Minimum Viable Product deployed in a few months with Kuzzle IoT

The MVP version of the Smart Asset Tracking application confirms minimum viable application features and the following project future proofs:

- Tracking of at least three sensors data attributes (position, temperature, battery level)
- On Asset IoT sensors for flight data
- Alerts on data attributes statuses and changes
- Use cases for the following users: Customer, IoT Data Provider, TMS System
- Geofencing functionality
- MQTT communication with IoT devices
- Authentication mechanism (OAuth2) to fits with GEODIS security standards
- Solution's scalability to handle big loads of data
- Solution high availability by shutting down multiple nodes randomly

Kuzzle IoT is an open-source on-premise multi-cloud backend platform for innovative Internet of Things and mobile Apps. Our next-generation backend integrates advanced functionalities such as security and authentication, real-time API and data management, geolocation and geo-fencing.
Kuzzle IoT is deployed in France, United Kingdom, United States with Biogen Inc. pharmaceuticals, William Reed UK, Sky UK, Bouygues Construction, EKO mobile bank by Credit Agricole, French Institute of public health, Qwant search engine and SNCF French national railway.
More information: kuzzle.io

GEODIS, a worldwide Transport and Logistics leader, supports its clients with customized solutions spanning a large range of services: Overland Transport, Freight Forwarding, Supply Chain Optimization, Contract Logistics and Express & Parcel Deliveries.
The passion that drives our teams, their expertise and their knowledge of your markets guarantee a constant commitment.

More information: geodis.com