Customer Brief

Global Automotive Manufacturer

Introduction

This global automotive manufacturer (GAM) decided to modernize one of their monolithic applications running on a mainframe. It was related to an existing Vehicle Monitor & Control System (VMACS). They agreed the next iteration needed to be developed using proven software architecture design principles (like DDD, CQRS, & Event Sourcing). Successfully implementing these design patterns and leveraging Axon Framework & Axon Server, this vehicle manufacturer captured many benefits previously out of their grasp. They can now enjoy the flexibility of Event-Driven Architecture (EDA) while easily scaling to meet growing demands.

Their new Control Tower application tracks a vehicle's Route Plan, following the vehicle from factory completion to arrival at the dealership. It monitors items throughout the route, such as arrival times, mode of transportation, route segment bottlenecks, delay reasons, etc. This application runs in their on-premise data centers. Both parties are looking at the possibility to run their private cluster deployments on Google Cloud Platform (GCP) and/or leveraging the AxonIQ Custom Cloud SaaS offering as their use cases expand.
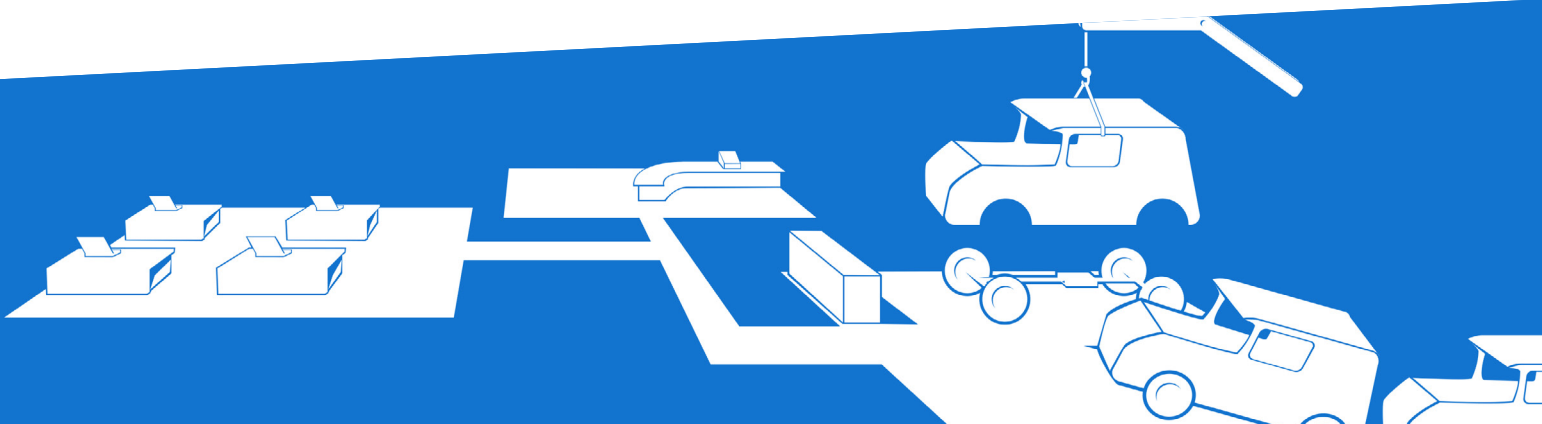
> "
> *The approach & relationship our company invested with AxonIQ, in Control Tower, will be easily used in more areas at [GAM] around the world"*
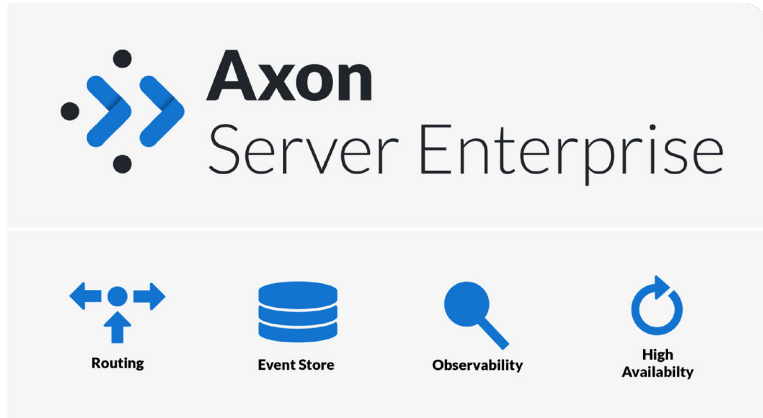> - **Lead Anchor Software Engineer & Solutions Architect**

Challenges

Our client needed to build a state-of-the-art Global Track & Trace logistics application that would monitor vehicles movement from factories to dealerships. The new application needed to meet a critical need for estimated times of product arrival to customers. These ETAs are imperative for multiple Lines of Business to ensure payments are released at the correct time.

Wanting to design the application based on an Event-Driven Architecture (EDA) rather than build and maintain an in-house framework, this group sought out an open source purpose-built solution.

Design Criteria

- Flexible and Scalable
- Enterprise Security
- High Availability
- Fully Auditable
- Cloud Ready

Axon
Server Enterprise

Routing   Event Store   Observability   High Availabilty

Solution

This GAM combined Axon Framework and Axon Server Enterprise Edition (ASEE) with services from AxonIQ to address the company's different requirements around flexibility, scalability, availability, and the need for a full audit trail. The application was deployed across two separate bare metal data centers with a five-node cluster topology. When needed, their AxonIQ-based application will easily transition into AxonIQ Cloud or run in their own Virtual Private Cloud (VPC) on GCP.

Country
United States

Industry
Automobile Manufacturer

Use cases
Logistics, Administration, Breaking the Monolith

Company size
Enterprise (150,000+ employees)

Contact us