



Case Study

Cloud-Agnostic Connected Car Implementation for Leading Japanese Automobile Company

Executive Summary

LTIMindtree is engaged with a leading automobile company for a connected car implementation on AWS. We have implemented a real-time integrated solution, where a device is installed in a smart car, with a developed mobile app that allows to control ignition and air condition start/stop of the car with a smartphone.

Client

The client is a Japanese public multinational conglomerate corporation primarily known as a manufacturer of motorcycles and power equipment.

Challenges

- The client is using a connected car platform which captures the sensor data to give insights about the car's health, position, and enables the driver to operate the car from a mobile device.
 - With the number of connected car users increasing rapidly, there is a need to modernize the connected car platform to a cloud-native solution for limitless scalability, reliability, best performance, and reduced TCO.
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Business Need

- Need for a connected car solution to perform basic operation of a car using a mobile device and perform automated deployment on the hybrid cloud.
- Leverage multiple technologies catering to Microservices Architecture and Mobile Apps, with flexibility to change Cloud Service Providers.

- Execute multiple pilots around API Management on AWS and evaluate various tools and applications for the same.
- Architect API Management solutions using various applications and tools on AWS Cloud and On-premise (Hybrid Cloud model) and benchmark performance and features.

LTIMindtree Solution

The goal was to implement a connected car element for a reliable Internet of Things (IoT) solution. The solution is designed to implement connected car solutions using modern, cloud-native technologies to ensure high scalability, reliability, and best performance. Moreover, infrastructure automation and application deployments are performed using DevOps and Kubernetes platform. Additionally, LTIMindtree also helped with evaluating various tools for API Management for features and performance, IBM API Connect 2019, and IBM DataPower on AWS Cloud and on-premise in a Kubernetes-based containerized deployment.

Business Benefits

- **Helped in improving** Sprint Velocity
- Reduced **80% reduction** tickets
- Reduction in lead time by **up to 50%**
- Reduction in MTTR by **up to 70%**

Why AWS

The client chose AWS to host its microservice-based architecture on AWS virtual machine using the containerization technology. AWS met our needs by quickly providing the required infrastructure and services to develop and deploy a connected car solution. The connected car solution uses an Amazon Elastic Compute Cloud (Amazon EC2) instance on a Linux machine and managed services like API Gateway and IoT. CloudFormation template, Jenkins, is used to perform automated deployment on microservices. The client is a Japanese public multinational conglomerate corporation primarily known for manufacturing motorcycles and power equipment.

Why LTIMindtree

LTIMindtree and Amazon Web Services (AWS) help enterprises to migrate seamlessly and confidently to the cloud—with proven solutions that are scalable, secure, reliable, and cost-effective. LTIMindtree provides proven methodologies, in-house tools, and solution accelerators for cost-effective, seamless cloud migrations, and governance.

LTIMindtree is a global technology consulting and digital solutions company that enables enterprises across industries to reimagine business models, accelerate innovation, and maximize growth by harnessing digital technologies. As a digital transformation partner to more than 700 clients, LTIMindtree brings extensive domain and technology expertise to help drive superior competitive differentiation, customer experiences, and business outcomes in a converging world. Powered by 84,000+ talented and entrepreneurial professionals across more than 30 countries, LTIMindtree — a Larsen & Toubro Group company — combines the industry-acclaimed strengths of erstwhile Larsen and Toubro Infotech and Mindtree in solving the most complex business challenges and delivering transformation at scale. For more information, please visit <https://www.ltimindtree.com/>