



## Case Study

# Productization of MES System Using AWS Cloud-Native for Global Automotive Supplier

LTIMindtree evaluated existing applications architecture, app structure and MES platform, re-factored application to AWS PaaS, and re-architected all applications to enhance application performance and save over \$750,000 for a leading US-based global Tier-1 automotive supplier.



## Client

The client is a leading US-based global Tier-1 automotive supplier. They design, engineer and manufacture systems and technologies that make the next generation of vehicles smarter, lighter, safer and more efficient.



## Challenges

- ▶ Enhancing features and functionality of the product.
- ▶ Re-architect existing components from IaaS to PaaS, and then to Cloud Native.
- ▶ Faster deployment for new plants rollouts.
- ▶ Reduce CapEx and move to OpEx model.



## LTIMindtree Solution

- ▶ Evaluation of existing applications architecture, app structure and MES platform.
- ▶ Re-factoring of the application to AWS PaaS for a quick win, and then re-architect entire application.
- ▶ Application functionality was organized into microservices using Domain-Driven Design (DDD) approach and hosted in Docker containers hosted in AWS EKS.
- ▶ Application was developed using Angular 6 as client side front-end and ASP.NET Core Web API as APIs on server-side.
- ▶ Application database was SQL Server hosted on AWS RDS.
- ▶ Automation of DevOps pipeline for faster CI/CD.
- ▶ Automation of AWS resource provisioning using CloudFormation.



## Business Benefits

**45%**  
increase in application  
performance.

**\$ 750,000**  
was saved by moving  
on-premise QA Testing  
and Staging Servers to  
AWS Cloud.

**Faster rollout**  
of a new plant using  
automation features of  
AWS.

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