Optimized AWS Infrastructure for a Better Online Experience

About the Customer

Stellantis is one of the world's leading automakers and a mobility provider, guided by a clear vision: to offer freedom of movement with distinctive, affordable and reliable mobility solutions.

Stellantis has launched a large-scale commercial offer extended to the entire market of independent repair on the entire global automotive fleet. To achieve this, Stellantis developed a multi-brand Parts Catalogue for all brand vehicles, with a set of documents required for maintenance and repair.

The multi-brand Parts Catalogue system is hosted on AWS and uses various technologies to collect, process, store, and share data with users in various systems. Atos helped the client manage the application, enhance functionality, and improve the AWS infrastructure for better efficiency, flexibility, cost reduction, and time to market. This helps Stellantis provide a convenient online spare part shopping experience to their approved and independent repairers.

Customer Challenge

Atos partnered with Stellantis to modernize their AWS infrastructure. The main objective of the project was:

- To optimize AWS infrastructure costs
- To redesign AWS architecture with best practices
- To automate RUN tasks to reduce the manual efforts
- To automate system monitoring tasks by automatically detecting the issues and raising the alarm

Solution

- Implemented an AWS cleanup and best practices to minimize the cost using AWS Well-Architected Framework
- Implemented automated CloudFormation stack clean-up
- Teamcity pipeline job triggered every day to identify and cleanup unused CloudFormation stacks
- Implemented automated process to Update ECS task when it reaches the maximum inode usage in order to prevent the task failures using cron job along with a notification
- Leveraged AWS ECS deployment strategies to achieve 0 downtime while redeploying AWS ECS services
- Implemented continuous integration to reduce time to market
- Created AWS CloudWatch logging and alerts to improve infrastructure monitoring

Why the customer chose AWS

- Established partnership between Atos & AWS
- History of smooth implementation on AWS
- Scalability
- Cost optimization
- Docker compatibility

Why the customer chose Atos

- Deep expertise in the technical areas – AWS, SeedStack, Angular, Microservices
- Already managing Stellantis applications from different corners of the world
- Already supporting Stellantis in similar technologies in New Dealer Portal, Mefisto - Atos' in-depth business knowledge and PSA process understanding
- Leverage offshoring for scalability
- Capability to deliver in a short timeline
- Docker compatibility

Results and Benefits

Optimized use of Cloud infrastructure with cost reduction

Reduced the manual monitoring and cleanup efforts

Prevented ECS task failure that ensured the application

Reduced the manual monitoring activity

Zero downtime tests